

State of Colorado
Oil and Gas Conservation Commission

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Document Number:
401855724

Receive Date:
12/04/2018

Report taken by:
Steven Arauza

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 INFORMATON

Name of Operator: <u>URSA OPERATING COMPANY LLC</u>	Operator No: <u>10447</u>	Phone Numbers
Address: <u>792 BUCKHORN DR</u>		Phone: <u>(970) 329-4367</u>
City: <u>RIFLE</u> State: <u>CO</u> Zip: <u>81650</u>		Mobile: <u>()</u>
Contact Person: <u>Dwayne Knudson</u>	Email: <u>dknudson@ursaresources.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION	
Remediation Project #: <u>12168</u>	Initial Form 27 Document #: <u>401855724</u>
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 <u> </u> Multiple Facilites (in accordance with Rule 909.c.)	
Facility Type: <u>TANK BATTERY</u> Facility ID: <u>335054</u> API #: _____ County Name: <u>GARFIELD</u>	
Facility Name: <u>CSF-67S91W 8SESW</u> Latitude: <u>39.454919</u> Longitude: <u>-107.578976</u>	
** correct Lat/Long if needed: Latitude: <u>39.454503</u> Longitude: <u>-107.578658</u>	
QtrQtr: <u>SESW</u> Sec: <u>8</u> Twp: <u>7S</u> Range: <u>91W</u> Meridian: <u>6</u> Sensitive Area? <u>No</u>	
SITE CONDITIONS	
General soil type - USCS Classifications <u>CL</u>	Most Sensitive Adjacent Land Use <u>Rangeland</u>
Is domestic water well within 1/4 mile? <u>No</u>	Is surface water within 1/4 mile? <u>No</u>
Is groundwater less than 20 feet below ground surface? <u>No</u>	
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 checked="" type="checkbox"/> Produced Water | <input type="checkbox"/> Workover Fluids | _____ |
| <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
Yes	SOILS	TBD	site investigation sampling

INITIAL ACTION SUMMARY

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

Upon discovery of the release, flow to the W1 tank was stopped and vac trucks dispatched to the location to begin recovering loss fluids within the containment, as well as remove fluids within the tank to prevent additional fluids from leaking out. The tank was taken off line and out of service. Once the tank was removed, initial sampling of the soils directly below the tank indicated impacts were present up to 1ft based off of field screening and visual observations.

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):

Initial sampling from below the tank has been submitted to the lab for analysis. Additional samples were collected from different depths and locations around the containment to determine vertical and horizontal extent of impacts. Refer to attached sample location map (also submitted with the Form 19s). Results from SP 1 indicate that the soils exceed COGCC Table 910-1 standards for TPH and BTEX. The additional samples (SP 2-8) and confirmation samples will be analyzed for TPH (DRO & GRO) and BTEX as those are the only constituents exceeding COGCC Table 910-1.

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 site investigation activities may be required depending on the results from SP 1-8. Field screening instruments indicate that impacts may be present within 1ft below the ground surface. Confirmation samples have be collected at 1ft. If the analysis at 1ft exceed COGCC Table 910-1, then additional site investigation activities may be necessary to determine actual depth of impacts.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 8
Number of soil samples exceeding 910-1 1
Was the areal and vertical extent of soil contamination delineated? Yes
Approximate areal extent (square feet) 1350

NA / ND

-- Highest concentration of TPH (mg/kg) 3242
-- Highest concentration of SAR 0.646
 BTEX > 910-1 Yes
 Vertical Extent > 910-1 (in feet) 1

Groundwater

Number of groundwater samples collected 0
Was extent of groundwater contaminated delineated? No
Depth to groundwater (below ground surface, in feet) 400'
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?

three (3) background samples collected from an undisturbed location adjacent to the pad

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?

TBD - pending analytical data results.

REMEDIAL ACTION PLAN

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

Analytical results indicate that the soils on the surface exceed COGCC Table thresholds for TPH and BTEX. Follow-up samples will be analyzed for the same constituents to determine vertical and horizontal extent of impacts. Upon confirmation of the vertical and horizontal extent, soils will be excavated via backhoe/trackhoe.

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.

Soils impacted by the released produced water will be excavated and hauled off site for disposal to Greenleaf Environmental. Upon removing the impacted soils, the excavation will be backfilled with clean native material (or imported fill material if needed) and capped with fill material necessary to support upright tank placement.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

Yes _____ Excavate and offsite disposal

_____ Chemical oxidation

_____ If Yes: Estimated Volume (Cubic Yards) _____ 100

_____ Air sparge / Soil vapor extraction

_____ Name of Licensed Disposal Facility or COGCC Facility ID # _____ 0

_____ Natural Attenuation

No _____ Excavate and onsite remediation

_____ Other _____

_____ Land Treatment

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Other _____

Groundwater Remediation Summary

No _____ Bioremediation (or enhanced bioremediation)

No _____ Chemical oxidation

No _____ Air sparge / Soil vapor extraction

No _____ Natural Attenuation

No _____ 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 is estimated to be between 400-500 feet based on nearest groundwater well located ~ 1 mile to the west/southwest and elevation.

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: _____

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 area excavated will be backfilled with clean native material (or imported fill if needed) and capped with material sufficient to support production tank operations. Impacts are no anticipated to extent off well pad.

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. _____

Actual Spill or Release date, if known. _____

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 11/20/2018

Date of commencement of Site Investigation. _____

Date of completion of Site Investigation. _____

REMEDIAL ACTION DATES

Date of commencement of Remediation. _____

Date of completion of Remediation. _____

SITE RECLAMATION DATES

Date of commencement of Reclamation. _____

Date of completion of Reclamation. _____

OPERATOR COMMENT

An updated remediation plan will be provided upon the completion of the samples SP 2-8 as well as an updated schedule for remediation pending disposal approval and confirmation on vertical extent of impacts.

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

Signed: Kris Rowe

Title: Env. Consultant

Submit Date: 12/04/2018

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: 12/07/2018

Remediation Project Number: 12168

COA Type**Description**

	<p>Submit sample depths, analytical results summary, and laboratory reports for samples SP 1 - SP 8 via eForm 27 Supplemental Report.</p> <p>Supplemental eForm 27 shall also include an updated plan for horizontal and vertical delineation/remediation of impacts and remediation schedule, as indicated in Operator Comment section of this report.</p>
	<p>Submit an eForm 19 Supplemental Spill/Release Report to request closure for Spill/Release ID #459154. Closure request shall indicate that work is proceeding under an approved Remediation Project and shall reference the Remediation Project number.</p>

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**

401855724	FORM 27-INITIAL-SUBMITTED
401855757	SOIL SAMPLE LOCATION MAP

Total Attach: 2 Files

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

Environmental	COGCC GIS Online topographic map indicates the presence of mapped, unnamed ephemeral drainage features located within 1/4-mile of Spill/Release location. Unnamed drainage features lead to Gibson Gulch, which is located ~0.64 miles NE of Spill/Release location.	12/07/2018
Environmental	Provided "correct lat./long." based on location of Spill/Release ID #459154. Spill/Release ID #459154 documents release of an estimated 46 bbls of produced water and that only 8 bbls were recovered.	12/07/2018

Total: 2 comment(s)