

State of Colorado
Oil and Gas Conservation Commission

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401396923
Receive Date:
09/12/2017

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: <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 #: 10352 Initial Form 27 Document #: 401361769

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 Facilites (in accordance with Rule 909.c.)

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>451316</u>	API #: _____	County Name: <u>RIO BLANCO</u>
Facility Name: <u>Around Tank Containment</u>	Latitude: <u>39.856130</u>	Longitude: <u>-108.338640</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SWSE</u>	Sec: <u>24</u>	Twp: <u>2S</u>	Range: <u>98W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications SC 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

Black Sulphur Creek lies approxmiately 100ft to the north

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 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	20ft in depth & ~15ft horizontally	Visual, 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.

Initial investigation activities consisted of confirming the vertical and horizontal impacts around the production tank containment to a depth of approximately 20ft below ground surface (bgs) where a solid hard pan layer was encountered.. The tank secondary containment structure was removed on the western side and the liner pulled back to the closest tank. The impacted soils under the containment were excavated in sections, removing the impacted soils to the total vertical depth of impacts or until the hard pan layer is encountered. Confirmation samples for hydrocarbons (TPH) and BTEX were collected from each section prior to backfilling with clean native soil from the surrounding pad.

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 were collected from each section of the area excavated along the western side of the tank containment. As these impacts are believed to be from production water and possibly condensate, Urso sampled for a reduced analyte list to consist of total petroleum hydrocarbons (TPH) and BTEX.

Proposed Groundwater Sampling

Will groundwater samples be collected as part of this investigation? (Number, analyses, and locations of samples):

No

Proposed Surface Water Sampling

Will surface water samples be collected as part of this investigation? (Number, analyses, and locations of samples):

As a BMP, Urso collected one (1) upgradient and one (1) downgradient surface water sample from Black Sulphur Creek for constituents outlined in the COGCC 317B analyte list.

Additional Investigative Actions

Additional alternative investigative actions described in attached Site Investigation Plan (summary):

No

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 10

Number of soil samples exceeding 910-1 2

Was the areal and vertical extent of soil contamination delineated? Yes

Approximate areal extent (square feet) 800

NA / ND

-- Highest concentration of TPH (mg/kg) 4560

-- Highest concentration of SAR 12.7

BTEX > 910-1 Yes

Vertical Extent > 910-1 (in feet) 15

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 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

2 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?

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.

Excavation via trackhoe and hand equipment when operating around lines & valves.

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.

Excavation of the impacted soils was completed in sections to ensure tank containment integrity. One section of the impacts area was excavated, field screened, sampled for confirmation, then backfilled and compacted.

As impacts were excavated to the hardpan layer (~19-20 bgs), any trace amount or de-minimis impacts remaining were treated in-situ via bioremediation product. It is not anticipated that impacts remain or are present, the bioremediation product was added as a best management practice (BMP) to ensure all impacted media is properly managed.

Soil Remediation Summary

In Situ

Yes Bioremediation (or enhanced bioremediation)

No Chemical oxidation

No Air sparge / Soil vapor extraction

No Natural Attenuation

No Other _____

Ex Situ

Yes Excavate and offsite disposal

If Yes: Estimated Volume (Cubic Yards) 400

Name of Licensed Disposal Facility or COGCC Facility ID # _____

No Excavate and onsite remediation

_____ 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.

N/A - It is not suspected that groundwater has been impacted as total vertical depth of impacts has been delineated and no groundwater was encountered

REMEDIATION PROGRESS UPDATE

PERIODIC REPORTING

Frequency: Quarterly Semi-Annually Annually Other Notice of Completion (NOC)

Report Type: Groundwater Monitoring Land Treatment Progress Report O&M Report
 Other Closure

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:

Impacted soils excavated were profiled and approved for disposal to Oilfield Water Logistics (OWL) located in Rio Blanco County. No beneficial reuse of waste is needed

Volume of E&P Waste (solid) in cubic yards 400

E&P waste (solid) description hydrocarbon impacted soils

COGCC Disposal Facility ID #, if applicable: _____

Non-COGCC Disposal Facility: Oilfield Water Logistics (OWL)

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

E&P waste (liquid) description n/a

COGCC Disposal Facility ID #, if applicable: _____

Non-COGCC Disposal Facility: n/a

REMEDIATION COMPLETION REPORT

REMEDIATION COMPLETION SUMMARY

Is this a Final Closure Request for this Remediation Project? Yes

Do all soils meet Table 910-1 standards? Yes

Does the previous reply indicate consideration of background concentrations? Yes

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? Yes

Is additional groundwater monitoring to be conducted? No

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.

Excavation of the impacted soils has been completed and backfilled with clean native soils from the surrounding pad. As this release was discovered in the active portions of the pad and operations are expected to continue on site, no final or interim reclamation is warranted at this time.

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? 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). 06/26/2017

Date of commencement of Site Investigation. 07/06/2017

Date of completion of Site Investigation. 08/16/2017

REMEDIAL ACTION DATES

Date of commencement of Remediation. 08/08/2017

Date of completion of Remediation. 08/16/2017

SITE RECLAMATION DATES

Date of commencement of Reclamation. 08/18/2017

Date of completion of Reclamation. 08/25/2017

OPERATOR COMMENT

Stan - attached is the remediation summary for the C-24O historical impacts discovered on the western side of the production tank containment. All impacted material has been excavated and disposed and confirmation data indicates soils satisfy COGCC Table 910-1. Ursa is requesting the release & REM# 10352 be closed out with no further action.

(please forward onto Stan Spencer for review)

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: ` 09/12/2017 _____

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: Stan Spencer _____

Date: 09/14/2017 _____

Remediation Project Number: 10352 _____

COA Type**Description**

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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**

401396923	FORM 27-SUPPLEMENTAL-SUBMITTED
401396966	ANALYTICAL RESULTS
401396968	ANALYTICAL RESULTS
401396973	ANALYTICAL RESULTS
401396974	ANALYTICAL RESULTS
401401187	ANALYTICAL RESULTS
401401191	MAP

Total Attach: 7 Files

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

Environmental	Based on the information presented, it appears that no further action is necessary at this time and the COGCC approves the closure request. However, should future conditions at the site indicate contaminant concentrations in soils exceeding COGCC standards or if ground water is found to be impacted, then further investigation and/or remediation activities may be required. In addition, the surface area disturbed by the remediation activity shall be reclaimed in accordance with the 1000 Series Reclamation Rules.	09/14/2017
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Total: 1 comment(s)