

State of Colorado
Oil and Gas Conservation Commission

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Document Number:
402782552
Receive Date:
08/17/2021

Report taken by:
Jason Kosola

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.

Closure request is not available for an Initial Site Investigation and Remediation Workplan.

OPERATOR INFORMATION

Name of Operator: <u>EVERGREEN NATURAL RESOURCES LLC</u>	Operator No: <u>10705</u>	Phone Numbers
Address: <u>1875 LAWRENCE ST STE 1150</u>		Phone: <u>(719) 845-4619</u>
City: <u>DENVER</u>	State: <u>CO</u>	Zip: <u>80202</u>
Contact Person: <u>Stacey Wiseman</u>	Email: <u>Stacey.Wiseman@enrllc.com</u>	Mobile: <u>(719) 680-1807</u>

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 19662 Initial Form 27 Document #: 402782552

PURPOSE INFORMATION

- Rule 913.c.(1): Pit or Cuttings Trench closure.
- Rule 913.c.(2): Buried or partially buried vessel closure, which will be by removal.
- Rule 913.c.(3): Remediation of Spill and Releases pursuant to Rule 912.
- Rule 913.c.(4): Land treatment of Oily Waste pursuant to Rule 905.e.
- Rule 913.c.(5): Closure of Centralized E&P Waste Management Facilities pursuant to Rule 907.h.
- Rule 913.c.(6): Remediation of impacted Groundwater pursuant to Rule 915.e.(3).D, and the contaminant concentrations in Table 915-1.
- Rule 913.c.(7): Investigation and remediation of natural gas in soil or Groundwater.
- Rule 913.c.(8): When requested by the Director due to any potential risk to soil, Groundwater, or surface water.
- Rule 913.c.(9): Decommissioning of Oil and Gas Facilities.
- Rule 913.g: Changes of Operator.
- Rule 915.b: Request to leave elevated inorganics in situ.
- Other: _____

SITE INFORMATION

No Multiple Facilities

Facility Type: <u>PIT</u>	Facility ID: <u>112908</u>	API #: _____	County Name: <u>LAS ANIMAS</u>
Facility Name: <u>RED DOG 21-32</u>	Latitude: <u>37.221312</u>	Longitude: <u>-104.695807</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NENW</u>	Sec: <u>32</u>	Twp: <u>32S</u>	Range: <u>65W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications CH Most Sensitive Adjacent Land Use Non-Crop Land
 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? Yes

Other Potential Receptors within 1/4 mile

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- E&P Waste Other E&P Waste Non-E&P Waste
- Produced Water Workover Fluids
- Oil Tank Bottoms
- Condensate Pigging Waste
- Drilling Fluids Rig Wash
- Drill Cuttings Spent Filters
- Pit Bottoms
- Other (as described by EPA)

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
Yes	SOILS	6 inches of impact to bottom of pit	Soil Samples

INITIAL ACTION SUMMARY

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

All CBM water was removed from the pit and transported to the gunbarrel system at Burro Compressor Station by an ENR employee in an ENR owner water truck.

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 and attached hereto as the background for this remediation plan. Quarterly samples will be collected two more times after remediation to ensure impacts have been removed.

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

NA / ND

Number of soil samples collected 3

-- Highest concentration of TPH (mg/kg) 1200

Number of soil samples exceeding 915-1 1

-- Highest concentration of SAR 42

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

BTEX > 915-1 No

Approximate areal extent (square feet) 1404

Vertical Extent > 915-1 (in feet) 1

Groundwater

Number of groundwater samples collected 0

Highest concentration of Benzene (µg/l) _____

Was extent of groundwater contaminated delineated? No

Highest concentration of Toluene (µg/l) _____

Depth to groundwater (below ground surface, in feet) _____

Highest concentration of Ethylbenzene (µg/l) _____

Number of groundwater monitoring wells installed 0

Highest concentration of Xylene (µg/l) _____

Number of groundwater samples exceeding 915-1 _____

Highest concentration of Methane (mg/l) _____

Surface Water

0 Number of surface water samples collected

 Number of surface water samples exceeding 915-1

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

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

Impacted soil will be treated with Oil Gator bioremediation. SDS and product application description are attached hereto. Samples will be collected again in 3 months and 6 months to show improved soil condition and compliance with 915-1 Table.

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.

Bioremediation product will be applied per specification to the impacted soil and monitored at 3 months and 6 months with follow up soil sample collection to ensure compliance and remediation of pit soil. If the Red Dog 21-32 well is not able to produce, fresh water will be hauled to location for use with the bioremediation product. Existing top soil from the pit pile will then be used to backfill the pit which will be seeded and mulched per reclamation rules.

Soil Remediation Summary

In Situ

Ex Situ

 Yes Bioremediation (or enhanced bioremediation)

 Excavate and offsite disposal

 Chemical oxidation

If Yes: Estimated Volume (Cubic Yards) _____

 Air sparge / Soil vapor extraction

Name of Licensed Disposal Facility or COGCC Facility ID # _____

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.

Existing pit pile will be used to backfill pit. Should additional material be needed, clean fill will be hauled in. Area will be reclaimed to match existing countour, seeded and mulched.

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 provide the seed mix? No

If YES, does the seed mix comply with local soil conservation district recommendations? _____

Did the local soil conservation district provide the seed mix? No

SITE RECLAMATION DATES

Proposed date of commencement of Reclamation. 08/30/2021

Proposed date of completion of Reclamation. 04/29/2022

IMPLEMENTATION SCHEDULE

Per Rule 913.d.(2): Any change from the approved implementation schedule will be requested at least 14 days in advance, and the Operator may not make the change without the Director's approval.

PRIOR DATES

Date of Surface Owner notification/consultation, if required. _____

Actual Spill or Release date, or date of discovery. 06/17/2021

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). _____

Proposed site investigation commencement. _____

Proposed completion of site investigation. _____

REMEDIAL ACTION DATES

Proposed start date of Remediation. 08/23/2021

Proposed date of completion of Remediation. 04/22/2022

Per Rule 913.d.(2): Any change from the approved implementation schedule will be requested at least 14 days in advance, and the Operator may not make the change without the Director's approval.

Change from approved implementation schedule per Rule 913.d.(2).

Basis for change in implementation schedule:

OPERATOR COMMENT

Bioremediation product will be applied per specification to the impacted soil and monitored at 3 months and 6 months with follow up soil sample collection to ensure compliance and remediation of pit soil. Background samples are attached to this form. If the Red Dog 21-32 well is not able to produce, fresh water will be hauled to location for use with the bioremediation product. Existing top soil from the pit pile will then be used to backfill the pit which will be seeded and mulched per reclamation rules.

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

Signed: Stacey Wiseman

Title: Environmental Technician

Submit Date: 08/17/2021

Email: Stacey.Wiseman@enrllc.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: Jason Kosola

Date: 08/19/2021

Remediation Project Number: 19662

Condition of Approval**COA Type****Description**

	<p>SCHEDULE Per Rule 913.d.(2) Operator shall submit a Supplemental Form 27 with an updated Implementation Schedule at least 14 days in advance of any schedule changes.</p> <p>Per Rule 913.e Operator is required to submit quarterly reports to update remediation status.</p>
	<p>FACILITY CLOSURE SUPPLEMENTAL REPORT TIMING A supplemental Form 27 must be submitted within 90 days of the completion of this environmental investigation</p>
2 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.

Att Doc Num**Name**

402782552	FORM 27-INITIAL-SUBMITTED
402782666	ANALYTICAL RESULTS
402783378	ANALYTICAL RESULTS
402783379	ANALYTICAL RESULTS
402783382	SAFETY DATA SHEETS

Total Attach: 5 Files

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

Environmental	If operator decides to close this produced water pit a Form 27 Subsequent should be submitted to document change to approved remediation 14 days prior to pit closure. Samples of pit bottom documenting 915-1 compliance will be required for pit closure.	08/19/2021
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Total: 1 comment(s)