

State of Colorado
Oil and Gas Conservation Commission

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Document Number:
402840072
Receive Date:
10/14/2021
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.

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

OPERATOR INFORMATION

| | | |
|---------------------------------------|-------------------------------------|------------------------|
| Name of Operator: CAERUS PICEANCE LLC | Operator No: 10456 | Phone Numbers |
| Address: 1001 17TH STREET #1600 | | Phone: (970) 285-2720 |
| City: DENVER State: CO Zip: 80202 | | Mobile: (970) 778-2314 |
| Contact Person: Jake Janicek | Email: JJanicek@caerusoilandgas.com | |

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 20578 Initial Form 27 Document #: 402840072

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: LOCATION | Facility ID: 334062 | API #: _____ | County Name: GARFIELD |
| Facility Name: WALLING-68S96W 1NWSE | Latitude: 39.378789 | Longitude: -108.056450 | |
| | ** correct Lat/Long if needed: Latitude: 39.378429 | Longitude: -108.056938 | |
| QtrQtr: NWSE | Sec: 1 | Twp: 8S | Range: 96W Meridian: 6 Sensitive Area? Yes |

SITE CONDITIONS

General soil type - USCS Classifications GC Most Sensitive Adjacent Land Use Agriculture
Is domestic water well within 1/4 mile? No Is surface water within 1/4 mile? No
Is groundwater less than 20 feet below ground surface? No

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 | 20 x 20 within tank berm. | Visual inspection, excavation, and PID 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.

According to the approved Form 19 (see attached) an immediate spill response was performed and additional excavation of impacted soil and confirmation soil sampling activities were planned.

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):

A minimum of four soil samples will be collected from 12-24" deep below ground surface within the historic release area (remediation ID 4811). Additionally, four background samples will be collected from north, east, south, and west of the pad. See attached figure for sample locations. This release occurred on 12/14/2007 and has an open Form 19 and Form 27 prior to January 15, 2021. Therefore, as per Rule 915.f, we request remediation closure criteria be based on Table 910-1 concentration levels. Please confirm if this is acceptable.

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 0
Number of soil samples exceeding 915-1 _____
Was the areal and vertical extent of soil contamination delineated? _____
Approximate areal extent (square feet) _____

NA / ND

Highest concentration of TPH (mg/kg) _____
Highest concentration of SAR _____
BTEX > 915-1 _____
Vertical Extent > 915-1 (in feet) _____

Groundwater

Number of groundwater samples collected 0
Was extent of groundwater contaminated delineated? No
Depth to groundwater (below ground surface, in feet) _____
Number of groundwater monitoring wells installed _____
Number of groundwater samples exceeding 915-1 _____

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
_____ 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?

Further site investigation is required to confirm if historical remediation efforts were sufficient to meet COGCC remediation closure criteria or if additional remediation activities need to be performed. A minimum of four soil samples will be collected from 12-24" deep below ground surface within the historic release area. Additionally, four background samples will be collected from north, east, south, and west of the pad. See attached figure for sample locations.

REMEDIAL ACTION PLAN

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

The source of the release was a crude oil tank overflow, which has since been removed from the facility.

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.

After the impacts of the release are delineated, a remediation plan will written be submitted.

Soil Remediation Summary

In Situ

Ex Situ

_____ 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 # _____

_____ Natural Attenuation

_____ Excavate and onsite remediation

_____ Other _____

_____ 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.

REMEDATION PROGRESS UPDATE

PERIODIC REPORTING

Approved Reporting Schedule:

Quarterly Semi-Annually Annually Other _____

Request Alternative Reporting Schedule:

Semi-Annually Annually Other _____

Rule 913.e:

After initial approval of a Form 27, the Operator will provide quarterly update reports in a Supplemental Form 27 to document progress of site investigation and remediation, unless an alternative reporting schedule has been requested by the Operator and approved by the Director. The Director may request a more frequent reporting schedule based on site-specific conditions.

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.

Reclamation plan will be provided once investigation and remediation activities are complete

Is the described reclamation complete? _____

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? _____

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

Did the local soil conservation district provide the seed mix? _____

SITE RECLAMATION DATES

Proposed date of commencement of Reclamation. 10/25/2021

Proposed date of completion of Reclamation. _____

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. 12/14/2007

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 12/14/2007

Proposed site investigation commencement. _____

Proposed completion of site investigation. _____

REMEDIAL ACTION DATES

Proposed start date of Remediation. _____

Proposed date of completion of Remediation. _____

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

| |
|--|
| |
|--|

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

Signed: Bill Bergeron _____

Title: Environmental Scientist _____

Submit Date: 10/14/2021 _____

Email: bbergeron@kleinfelder.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: 10/28/2021 _____

Remediation Project Number: 20578 _____

Condition of Approval

| <u>COA Type</u> | <u>Description</u> |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Operator shall collect sample(s) from comparable, nearby non-impacted native soil for purposes of establishing background soil conditions including pH, electrical conductivity (EC) and sodium adsorption ratio (SAR), per Rule 915.e.(2).D. |
| | Operator shall comply with Rule 915.e.(2).B by collecting samples from areas most likely to have been impacted and by collecting an appropriate number of representative soil samples to delineate the horizontal and vertical extents of contamination. |
| | Per Rule 913.b.(2), the Operator will conduct sampling and analysis of soil, and groundwater--if encountered, to determine the horizontal and vertical extent of any contamination in excess of the cleanup concentrations in Table 910-1 for soil and groundwater. The Operator shall analyze samples for the complete Table 910-1 list. If groundwater is encountered during remediation activities, the Operator shall comply with Table 915-1 using the Protection of Groundwater Soil Screening Level Concentrations. |
| | Under Proposed Soil Sampling, Operator references historical Remediation Project #4811. This Remediation Project references land farming on site. Operator shall submit a Supplemental Form 27 to document whether or not land farming had been conducted under Remediation Project #4811. Operator's Form 27 update to this project may include a request to close historical Remediation Project #4811 with remediation efforts to proceed under this project. |
| | Based on the information provided, the Operator's request to proceed under Table 910-1 is conditionally approved pursuant to Rule 915.f. Per Rule 915.f, if the remediation is not completed by January 15, 2022, then the Operator will comply with the current version of Table 915-1. |
| 5 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.

| <u>Att Doc Num</u> | <u>Name</u> |
|--------------------|---------------------------|
| 402840072 | FORM 27-INITIAL-SUBMITTED |
| 402840163 | OTHER |
| 402840168 | SOIL SAMPLE LOCATION MAP |

Total Attach: 3 Files

General Comments

| <u>User Group</u> | <u>Comment</u> | <u>Comment Date</u> |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| Environmental | Updated Correct lat/long based on attached proposed soil sampling diagram (doc #402840168). Note to Operator: for future submittals, ensure that the Correct Lat/Long for the Remediation Project corresponds specifically to the project area. | 10/28/2021 |

Total: 1 comment(s)