

State of Colorado
Energy & Carbon Management Commission1120 Lincoln Street, Suite 801, Denver, Colorado 80203
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Document Number:

404143559

Receive Date:

04/11/2025

Report taken by:

John Heil

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 ECMC 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) 902-3598
City: DENVER	State: CO	Zip: 80202
Contact Person: Andrew Verbonitz	Email: averbonitz@qb-energy.com	Mobile: (970) 902-3598

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 40573 Initial Form 27 Document #: 404143559

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: SPILL OR RELEASE	Facility ID: 488977	API #: _____	County Name: GARFIELD
Facility Name: P27 595 1A-34 Flowline	Latitude: 39.579375	Longitude: -108.033087	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SESE	Sec: 27	Twp: 5S	Range: 95W
Meridian: 6	Sensitive Area? Yes		

SITE CONDITIONS

General soil type - USCS Classifications GP Most Sensitive Adjacent Land Use Non-cropland 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

East Fork Parachute Creek is located approximately 335 feet west of the Location.

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	To be determined	Soil Sampling 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.

On January 7, 2025, QB identified a leak in the flowline associated with the N. Parachute #EF01A-34 P27595 (P27 1A-34) wellhead (API: 05-045-20298). An unknown amount of comingled fluid was released from the flowline. The release was reported via Energy & Carbon Management Commission (ECMC) Form 19 Document 404054385 to open Spill/Release Point ID 488977.

On January 16, 2025, initial site investigation activities to characterize potential soil impacts associated with the release were completed. Prior to investigation activities, the flowline was trenched, and the point of release (POR) was exposed. Five soil samples were collected from the excavation: one from the base of the excavation directly beneath the POR at 5 feet below ground surface (bgs) and four from the excavation sidewalls at 3 feet bgs. Additionally, one composite soil sample was collected from approximately 142 cubic yards of stockpiled excavated material. Analytical results of excavation soil samples indicated values of organic and inorganic constituents elevated above allowable limits. Analytical results of the stockpile composite sample indicated a pH and arsenic value elevated above allowable limits. The stockpiled material was later used as clean backfill to fill in the excavation.

On January 27, 2025, Form 19 Document 404069425 was submitted to report results of the initial site investigation, requested comparison of analytical results to ECMC Table 915-1 Residential Soil Screening Levels (RSSLs), and request a reduced analyte suite of total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, xylenes (BTEX), 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, naphthalene, electrical conductivity (EC), sodium adsorption ratio (SAR), and boron based on analytical results of initial site investigation as well as source characterization and background data. The ECMC approved the form and associated requests on January 28, 2025.

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):

Additional soil samples will be collected as needed to delineate the extent of impacts identified during site investigations. Soil samples will be submitted for the approved reduced analyte suite of TPH, BTEX, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, naphthalene, EC, SAR, and boron. See the attached Report of Work Completed (ROWC) for details.

Proposed Groundwater Sampling

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

Groundwater is not anticipated to be encountered. If groundwater is encountered, QB will attempt to collect a representative groundwater sample for laboratory analysis.

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 7

Number of soil samples exceeding 915-1 7

Was the areal and vertical extent of soil contamination delineated? No

Approximate areal extent (square feet) 1000

NA / ND

-- Highest concentration of TPH (mg/kg) 4573.44

-- Highest concentration of SAR 39.82

BTEX > 915-1 Yes

Vertical Extent > 915-1 (in feet) 46

Groundwater

Number of groundwater samples collected 0

Was extent of groundwater contaminated delineated? Yes

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?

See Proposed Sampling section and the attached ROWC for details

REMEDIAL ACTION PLAN

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

QB is in the process of determining the extent of contamination associated with the project. Once impacts are delineated, QB will prepare a remediation plan to remove the source material within the release area.

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.

See Form 19 Document 404069425 and the associated attachments for initial site investigation details.

On January 30, 2025, an additional investigation was completed to delineate soil impacts at the POR. One pothole (SB01) was advanced via hydrovacuum truck at the POR to a depth of 13 feet bgs and one sample was collected from the terminus of the boring. Analytical results were compliant for all analyzed constituents of concern except TPH, EC, and SAR.

On February 20, 2025, drilling activities were conducted to continue vertical delineation of impacts at the POR. A soil boring was advanced in the location of SB01 using a drill rig to total depths of 29.5 feet bgs. Two soil samples were collected from the boring: one at 18-19.5 feet bgs and one from the terminus of the boring. Analytical results of delineation samples were compliant with RSSLs for all analyzed organic constituents. Values of EC, SAR, and boron elevated above Soil Suitability for Reclamation (SSR) standards were observed at 18-19.5 and 28-29.5 feet bgs.

On March 11, 2025, additional drilling activities were completed to continue vertical delineation of impacts at the POR. A soil boring was advanced in the location of SB01 to a total depth of 46 feet bgs. Four soil samples were collected from the boring beginning at 35-36 feet bgs. Analytical results of vertical delineation samples were compliant with RSSLs for all analyzed organic constituents. Values of SAR and boron elevated above the SSR standard were observed in all samples. See the attached ROWC for additional details.

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 ECMC 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.

Groundwater is not anticipated to be encountered. If groundwater is encountered during site investigation activities, QB will attempt to collect a sample for characterization.

REMEDIATION 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 Request to Open Remediation Project

Adequacy of Operator's General Liability Insurance and Financial Assurance

Describe the adequacy of the Operator's general liability insurance and Financial Assurance to fully address the anticipated costs of Remediation, including the estimated remaining cost for this project (below).

If this information has been provided on a Form 27 within the last 12 months, provide the Document Number of that form.

Per Rule 705.b, and in line with guidance laid out in the SBAP, QB Energy has general liability insurance in the amount of \$5M, and QB Energy has umbrella insurance, which sits over the general liability insurance in the amount of \$65M. The umbrella and general liability insurance covers property damage, bodily injury to third parties, and sudden or accidental pollution under a combined \$70M.

Operator anticipates the remaining cost for this project to be: \$ _____

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 _____

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: _____

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

E&P waste (liquid) description _____

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC 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.

Any disturbance will be returned to the active working surface of the well pad for continued operation. When the site is decommissioned at a later date, it will be reclaimed in accordance with 1000 Series regulations.

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? _____

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. _____

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. 01/10/2025

Actual Spill or Release date, or date of discovery. 01/07/2025

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 01/17/2025

Proposed site investigation commencement. 01/17/2025

Proposed completion of site investigation. _____

REMEDIAL ACTION DATES

Proposed start date of Remediation. 01/17/2025

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

This form has been submitted to open a Remediation Project for Spill ID 488977 and to report results of site investigation. See the attached ROWC for details.

This form was originally submitted on 4/1/25. Following the data integrity NTO issued on 4/8/25, this form was returned to draft on 4/10/25, and is now being resubmitted on 4/11/25 with secured laboratory reports included.

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

Signed: Andrew Verbonitz

Title: EHS Rem. Specialist

Submit Date: 04/11/2025

Email: averbonitz@qb-energy.com

Based on the information provided herein, this Application for Site Investigation and Remediation Workplan complies with ECMC Rules and applicable orders and is hereby approved.

ECMC Approved: John Heil

Date: 05/21/2025

Remediation Project Number: 40573

COA Type**Description**

	Comply with outstanding COAs from the Form 19s.
	Updated Implentation Schedule
2 COAs	

ATTACHMENT 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**

404143559	FORM 27-INITIAL-SUBMITTED
404148454	SITE INVESTIGATION REPORT
404161867	ANALYTICAL RESULTS
404161868	ANALYTICAL RESULTS
404161870	ANALYTICAL RESULTS

Total Attach: 5 Files

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

Environmental	ECMC has returned this form to Draft (RTD) due to the laboratory report not being secured.	04/10/2025
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Total: 1 comment(s)