FORM 27 Rev 5/22

State of Colorado
Energy & Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109

Document Number: 404280433
Receive Date: 09/18/2025
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 INFORMATON

Name of Operator: QB ENERGY OPERATING LLC Operator No: 10844
Address: 1001 17TH STREET SUITE 1600
City: DENVER State: CO Zip: 80202
Contact Person: Brett Middleton Email: bmiddleton@qb-energy.com

Phone Numbers
Phone: (970) 285-2739
Mobile: (970) 285-2739

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 42591 Initial Form 27 Document #: 404280433

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.
- [X] 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: 490800 API #: County Name: GARFIELD
Facility Name: A10W Dumpline Failure Latitude: 39.465414 Longitude: -107.754676
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: NENE Sec: 10 Twp: 7S Range: 93W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications OH
Most Sensitive Adjacent Land Use Rangeland
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

Dry Creek is 0.98 Miles to the east of the Site, and Ramsey Gulch is 1.41 miles west of the location.

SITE INVESTIGATION PLAN

TYPE OF WASTE:

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

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
UNDETERMINED	SOILS	To Be Determined	Field Investigation and Soil 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.

Please reference the State of Colorado Energy and Carbon Management Commission (ECMC) Form 19 for Spill / Release Point ID Number 490800 for descriptions of the initial emergency response measures taken.

On July 15, 2025, Using a hand auger, a point of release (POR) sample was collected from the beneath the area of the failed dumpline at 7 feet below ground surface (bgs). The failed dumpline was daylighted prior to sampling activities via a hydro-vacuum truck. The confirmation soil sample was screened using a photoionization detector (PID) to screen the soil headspace for the presence or absence of volatile organic compounds (VOCs). The soils were also inspected using visual and olfactory senses for staining and hydrocarbon odor.

The POR sample was submitted for laboratory analysis of the full list of ECMC Table 915-1 constituents.

Please see the attached Report of Work Completed (ROWC) provided by WSP for additional details regarding field soil screening and sample collection, corresponding figures, and a discussion of the analytical results.

Please see the "Operator Comments" section of this document for QB's request for a reduced analyte suite.

PROPOSED SAMPLING PLAN

Proposed Soil Sampling

[X] Will soil samples be collected as part of this investigation? (Number, type (grab/composite), analyses, and locations of samples):

QB plans complete an initial drilling investigation to delineate documented impacts related to the release. QB will advance on central boring at the presumed center of impacts. The central boring will be drilled to 25 ft bgs or to a depth that impacts are no longer observed. Additionally, four perimeter borings will be drilled in each cardinal direction approximately 20 feet beyond the initial POR. All perimeter borings will be advanced to the same vertical depth as the central boring to confirm vertical delineation. All soils will be field screened at 5 foot intervals via visual and olfactory senses along with PID measurements. Two confirmation soil samples will be submitted for analysis from each boring. One will be submitted from the most impacted interval based off field screening results, and the second at or near the boring terminus. If impacts are observed in the perimeter borings, stepout borings will be drilled to delineate the lateral extent of impacts.

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):

Please see the "Proposed Sampling" section of this document for QB's investigative plan to delineate impacts at the site.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected: 1

Number of soil samples exceeeding 915-1: 1

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): 1051.84

-- Highest concentration of SAR: 23.62

BTEX > 915-1: Yes

Vertical Extent > 915-1 (in feet): 7

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?

REMEDIAL ACTION PLAN

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

The source was a dumpline that failed in response to subsidence along the eastern side of the production separators at the Site.

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.

Upon completion of delineation actives a remediation plan will be developed.

Soil Remediation Summary

☐ **In Situ** ☐ **Ex Situ**

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Air sparge / Soil vapor extraction

_____ Natural Attenuation

_____ Other _____

_____ Excavate and offsite disposal

If Yes: Estimated Volume (Cubic Yards) _____

Name of Licensed Disposal Facility or ECMC Facility ID # _____

_____ Excavate and onsite remediation

_____ 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.

REMEDIATION PROGRESS UPDATE

PERIODIC REPORTING

Approved Reporting Schedule:

☐ Quarterly ☐ Semi-Annually ☐ Annually ☒ Other Initial Form 27 - A10W - Dumpline Produced Water Release

☐ **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 Initial Form 27 - A10W - Dumpline Produced Water Release

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: $ 20000

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:

none

Volume of E&P Waste (solid) in cubic yards 0

E&P waste (solid) description

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility:

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

E&P waste (liquid) description Produced water from leaking dumpline

ECMC Disposal Facility ID #, if applicable: 426582

Non-ECMC Disposal Facility: Greenleaf Environmental Services

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 release occurred with the work pad boundary, all reclamation actives will comply with ECMC series 1000 rules.

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. _____

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. 07/04/2025

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 07/04/2025

Proposed site investigation commencement. 07/15/2025

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

A discussion of QB's assessment of potential pathways to groundwater is described below. QB believes that a pathway to groundwater from soil identified beneath the point of release (POR) does not exist due to the following reasons:

1) The vertical distance between the POR and the anticipated static water depth table. The static water depth is estimated to be approximately 47 feet below ground surface (bgs) based on documents affiliated with the nearest active groundwater monitoring well, positioned approximately 3,881 feet to the southeast and identified by DWR Permit # 232947. The well and the Site are both positioned within alluvial valleys of Flatiron Mesa. The vertical distance between the assumed static water level and the POR related to this remediation project is approximately 47 feet.

2) No groundwater was / has been observed infiltrating the existing excavation or during site investigation activities.

3) The nearest sensitive receptor (162 feet north, based on surface flow orientation) is an unnamed tributary of Dry Creek, which the United States Geological Survey (USGS) characterizes as intermittent. Based on local knowledge and field observations, this tributary is better characterized as ephemeral because it rarely flows except during extreme weather events, exceptional groundwater elevation increases manifested through natural springs, and/or rain/snow melting events. There is no observable standing water within the immediate area and any resulting appreciable groundwater elevation increase would have been observed in the excavation affiliated with this remediation project.

Given these observations and facts regarding groundwater in the immediate vicinity of the project Site, QB requests that the Director make a determination to evaluate the remediation success of this project using the Residential Soil Screening Level Concentrations (RSSLCs) listed in ECMC Table 915-1.

Pending approval of using Residential Soil Screening Level Concentrations (RSSLCs) QB requests a reduced analyte list of TPH, Xylene, SAR, pH, and As.

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

Signed: Brett Middleton Title: EH&S Lead Specialist

Submit Date: 09/18/2025 Email: bmiddleton@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: 09/18/2025

Remediation Project Number: 42591

COA Type	Description
0 COA	

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
404280433	INVESTIGATION/REMEDIATION WORKPLAN (INITIAL)
404328908	SITE INVESTIGATION PLAN
404336575	LABORATORY ANALYTICAL REPORT
404360034	FORM 27-INITIAL-SUBMITTED

Total Attach: 4 Files

General Comments

User Group	Comment	Comment Date
Environmental	ECMC approves the request for reduced analyte suite of TPH, Xylene, SAR, pH, and As.	09/18/2025
Environmental	ECMC approves the request to evaluate the remediation success of this project using the Residential Soil Screening Level Concentrations (RSSLCs).	09/18/2025

Total: 2 comment(s)