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

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Report taken by: John Heil

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 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: Andrew Verbonitz Email: averbonitz@qb-energy.com

Phone Numbers
Phone: (970) 902-3598
Mobile: ( )

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 37095 Initial Form 27 Document #: 403935843

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.
- [X] 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

Yes Multiple Facilities

Facility Type: CENTRALIZED EP WASTE MGMT FAC Facility ID: 149012 API #: County Name: RIO BLANCO
Facility Name: LOVE RANCH CENTRALIZED E&P WASTE Latitude: 39.892642 Longitude: -108.296245
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: SWNW Sec: 9 Twp: 2S Range: 97W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 487951 API #: County Name: RIO BLANCO
Facility Name: Love Ranch Facility Latitude: 39.889241 Longitude: -108.296215
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: NWSW Sec: 9 Twp: 2S Range: 97W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications: SM

Most Sensitive Adjacent Land Use: high priority habitat

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? Yes

Other Potential Receptors within 1/4 mile

Piceance Creek

SITE INVESTIGATION PLAN

TYPE OF WASTE:

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

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
Yes	GROUNDWATER	TBD	Laboratory Analytical
Yes	SOILS	TBD	Laboratory Analytical
No	SURFACE WATER	TBD	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 refer to document number, 403928642 (Initial Form 19) and document number, 403935843 (Initial Form 27) for initial actions taken in support of this project. As part of remediation of project #37095, groundwater monitoring was initially conducted on a monthly basis since the addition of monitoring wells MW-100 through MW- 113. Monitoring wells MW-100 through MW- 113 were installed between September 18, 2024 and November 25, 2024. To further delineate the extent of inorganic groundwater impacts, monitoring wells MW14 through MW18 were installed between February 18, 2025 and February 19, 2025. Quarterly groundwater monitoring was approved on January 27, 2025 per Form 27, Document Number 404062712. Between July 16, 2025 and July 21, 2025, the pond liner was removed from the Site. As the liner was removed, Ensolum personnel conducted soil screenings across the base and sidewalls of the pond. Sixty-four (64) soil screenings were collected across the base of the pond from a depth of 0.5 feet bgs. Twenty-eight (28) soil screenings were collected across the walls of the pond from a depth of 0.5 bgs. A total of six (6) soil samples were submitted to Elevation for analysis of the full Table 915-1 analytical suite, with a standard turnaround request. On July 23, 2025, Ensolum personnel returned to the Site to conduct delineation activities across the pond via trackhoe. One (1) soil sample was collected beneath the POR at a depth of approximately 7 feet bgs. Six (6) soil samples were collected from points across the base and sidewalls of the pond at depths ranging from 2 feet bgs to 5 feet bgs. All seven (7) soil samples were submitted to Elevation for analysis of the full Table 915-1 analytical suite, with a standard turnaround request.

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):

Between September 22 and September 26, 2025, a total of 10 soil borings were drilled with 8 completed as monitoring wells. Soil samples were collected from each of the borings at depths ranging from 5 feet – 30 feet and are currently pending laboratory analysis. Monitoring wells are scheduled to be developed and sampled in the near future. Analytical results from both soil and groundwater sampling will be included in the Q4-2025 update.

Proposed Groundwater Sampling

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

All existing and new monitoring wells will be sampled on a quarterly basis and analyzed for full ECMC Table 915-1 organic/inorganic compounds. Analytical results will be monitored to ensure that groundwater compounds are stable and not migrating beyond the POC wells.

Proposed Surface Water Sampling

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

Groundwater points of compliance have been established via MW100 through MW113. Unless those compliance points are lost, surface water sampling of Piceance Creek will not be conducted as part of this remediation project.

Additional Investigative Actions

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

Between September 22 and September 26, 2025, a total of 10 soil borings were drilled with 8 completed as monitoring wells. Soil samples were collected from each of the borings at depths ranging from 5 feet – 30 feet and are currently pending laboratory analysis. Monitoring wells are scheduled to be developed and sampled in the near future. Analytical results from both soil and groundwater sampling will be included in the Q4-2025 update.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected: 72

Number of soil samples exceeeding 915-1: 7

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

Approximate areal extent (square feet): 0

NA / ND

-- Highest concentration of TPH (mg/kg): 55674.82

-- Highest concentration of SAR: 76.31

BTEX > 915-1: Yes

Vertical Extent > 915-1 (in feet): 62

Groundwater

Number of groundwater samples collected: 78

Was extent of groundwater contaminated delineated? No

Depth to groundwater (below ground surface, in feet): 5

Number of groundwater monitoring wells installed: 26

Number of groundwater samples exceeding 915-1: 24

-- Highest concentration of Benzene (µg/l): 0.00642

ND Highest concentration of Toluene (µg/l):

-- Highest concentration of Ethylbenzene (µg/l): 0.00196

ND Highest concentration of Xylene (µg/l):

NA Highest concentration of Methane (mg/l):

Surface Water

0 Number of surface water samples collected

0 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?

Upgradient monitoring wells MW-110 and MW-111 have been installed to establish background conditions of soil and groundwater in accordance with ECMC Rule 915.e.(2).D. One additional background monitoring well will be installed west of the point of release to provide additional background soil and groundwater data. Additional background samples may be collected southeast of the site to provide additional background soil groundwater data information as needed.

☐ 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?

Between September 22 and September 26, 2025, a total of 10 soil borings were drilled with 8 completed as monitoring wells. Soil samples were collected from each of the borings at depths ranging from 5 feet – 30 feet and are currently pending laboratory analysis. Monitoring wells are scheduled to be developed and sampled in the near future. Analytical results from both soil and groundwater sampling will be included in the Q4-2025 update.

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.

The pond had been drained and removed from operation.

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 investigation results are defined, QB Energy will develop a remediation strategy to be submitted in a future Form 27 Supplemental.

Soil Remediation Summary

☐ **In Situ**

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Air sparge / Soil vapor extraction

_____ Natural Attenuation

_____ Other _____

☐ **Ex Situ**

_____ 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.

Currently, eighteen (18) monitoring wells have been installed and will continue to be sampled on a quarterly monitoring schedule. Eight additional groundwater wells were installed to further define inorganic exceedances east of the pond area, below the point of release, and to the north, south, and northeast of the point of release for a total of 26 monitoring wells that will be sampled quarterly. The monitoring wells will be analyzed for the Full Table 915 analytical suite.

REMEDIATION PROGRESS UPDATE

PERIODIC REPORTING

Approved Reporting Schedule:

[X] 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: [X] Groundwater Monitoring [ ] Land Treatment Progress Report [ ] O&M Report

[ ] Other

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 $1M, and caries excess third liability coverage in the amount of $50M per occurrence.

Operator anticipates the remaining cost for this project to be: $ 200000

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:

REMEDIATION COMPLETION REPORT

REMEDIATION COMPLETION SUMMARY

Is this a Final Closure Request for this Remediation Project? No

If YES:

[ ] Compliant with Rule 913.h.(1).

[ ] Compliant with Rule 913.h.(2).

[ ] Compliant with Rule 913.h.(3).

Do all soils meet Table 915-1 standards?

Does the previous reply indicate consideration of background concentrations?

Does Groundwater meet Table 915-1 standards?

Is additional groundwater monitoring to be conducted?

Operator shall comply with the ECMC 1000-Series Reclamation Requirements for all impacted and disturbed areas.

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 will occur at the time of facility closure

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. 09/19/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 09/19/2024

Proposed site investigation commencement. 09/19/2024

Proposed completion of site investigation. 03/27/2026

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

Between September 22 and September 26, 2025, a total of 10 soil borings were drilled with 8 completed as monitoring wells. Soil samples were collected from each of the borings at depths ranging from 5 feet – 30 feet and are currently pending laboratory analysis. Monitoring wells are scheduled to be developed and sampled in the near future. Analytical results from both soil and groundwater sampling will be included in the Q4-2025 update.

Subsequent remediation measures will be proposed based on the findings from the supplementary assessment data and subsequent identification of soil impacts. All existing and new monitoring wells will be sampled on a quarterly basis and analyzed for full ECMC Table 915-1 organic/inorganic compounds. Analytical results will be monitored to ensure that groundwater compounds are stable and not migrating beyond the POC wells.

Additionally, a site investigation will be conducted pertaining to the decommissioning of the aboveground flowline from the Love Ranch Pond Facility. Visual inspection of the location will occur during decommission activities. Field personnel will field screen all disturbed areas using visual and olfactory senses to determine if laboratory confirmation sampling is required.

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 Specialist

Submit Date: 09/30/2025 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: 05/11/2026

Remediation Project Number: 37095

COA Type	Description
	Operator shall comply with Rule 913.b.(3) and manage Investigation-Derived Waste pursuant to Rules 905 or 906.
	Operator shall comply with Rule 913.b.(5).B.iv and properly store, handle, and manage all E&P Waste to prevent contamination of stormwater, surface water, Groundwater, and soil.
	Comply with COGCC Rule 1105 flowline abandonment requirements, including notification and verification requirements for the abandonment of the aboveground flowline at the Love Ranch Pond Facility.
3 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
404369745	INVESTIGATION/REMEDIATION WORKPLAN (SUPPLEMENTAL)
404369779	ANALYTICAL RESULTS
404369780	ANALYTICAL RESULTS
404369781	ANALYTICAL RESULTS
404369783	ANALYTICAL RESULTS
404374186	REMEDIATION PROGRESS REPORT
404653605	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 7 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)