

**State of Colorado**  
**Energy & Carbon Management Commission**

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404293496

Receive Date:  
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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 ECOM 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>QB ENERGY OPERATING LLC</u>	Operator No: <u>10844</u>	<b>Phone Numbers</b>
Address: <u>1001 17TH STREET SUITE 1600</u>		
City: <u>DENVER</u>	State: <u>CO</u>	Zip: <u>80202</u>
Contact Person: <u>Derek Horn</u>	Email: <u>dhorn@qb-energy.com</u>	Phone: <u>(720) 830-7549</u>
		Mobile: <u>(720) 830-7549</u>

**PROJECT, PURPOSE & SITE INFORMATION**

**PROJECT INFORMATION**

Remediation Project #: 41075 Initial Form 27 Document #: 404190238

**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>LOCATION</u>	Facility ID: <u>324207</u>	API #: _____	County Name: <u>GARFIELD</u>
Facility Name: <u>PUCKETT-66S97W 36NESE</u>	Latitude: <u>39.483580</u>	Longitude: <u>-108.161780</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NESE</u>	Sec: <u>36</u>	Twp: <u>6S</u>	Range: <u>97W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

**SITE CONDITIONS**

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

Is domestic water well within 1/4 mile? Yes 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:

- |  |  |  |
|--|--|--|
| <input checked="" type="checkbox"/> E&P Waste      | <input type="checkbox"/> Other E&P Waste             | <input type="checkbox"/> Non-E&P Waste |
| <input checked="" type="checkbox"/> Produced Water | <input type="checkbox"/> Workover Fluids             | _____                                  |
| <input type="checkbox"/> Oil                       | <input type="checkbox"/> Tank Bottoms                |  |
| <input type="checkbox"/> Condensate                | <input type="checkbox"/> Pigging Waste               |  |
| <input type="checkbox"/> Drilling Fluids           | <input type="checkbox"/> Rig Wash                    |  |
| <input type="checkbox"/> Drill Cuttings            | <input type="checkbox"/> Spent Filters               |  |
|  | <input type="checkbox"/> Pit Bottoms                 |  |
|  | <input type="checkbox"/> Other (as described by EPA) | _____                                  |

### DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
UNDETERMINED	SOILS	Undetermined	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.

This form is being submitted as the initial notification of the actions set for Puckett 41-36 PBV removal.

### 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 ):

Upon removal of the partially buried vault, four sidewall soil samples and one base soil sample will be collected from the excavation. Samples will be submitted for laboratory analysis of full table 915-1 constituents. For comparison, background soil samples may be collected to use as representation of native undisturbed soil conditions a the location.

#### 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 5

Highest concentration of TPH (mg/kg) \_\_\_\_\_

Number of soil samples exceeding 915-1 5

Highest concentration of SAR \_\_\_\_\_

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

BTEX > 915-1 No

Approximate areal extent (square feet) 400

Vertical Extent > 915-1 (in feet) 6

**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 \_\_\_\_\_

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?

Additional work is necessary to remove impacted soil identified in the east sidewall of the excavation and collect confirmation soil samples.

**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.

Impacted soil identified by field screening and/or laboratory analysis will be excavated and removed to an independent off-site disposal facility (e.g. Greenleaf).

**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.

Impacted soil identified by field screening and/or laboratory analysis will be excavated and removed to an independent off-site disposal facility (e.g. Greenleaf). Soil samples will be collected from the sidewalls and base of the excavation to confirm compliance with Table 915-1.

**Soil Remediation Summary**

In Situ

Ex Situ

       Bioremediation ( or enhanced bioremediation )

       Yes        Excavate and offsite disposal

       Chemical oxidation

If Yes: Estimated Volume (Cubic Yards)       100

       Air sparge / Soil vapor extraction

Name of Licensed Disposal Facility or ECMC Facility ID # \_\_\_\_\_

\_\_\_\_ Natural Attenuation  
\_\_\_\_ Other \_\_\_\_\_

\_\_\_\_ 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

### 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 Q3 2025 REM Update

## 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: \$ 75000

## 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.

Any excavation associated with this project will be backfilled to match existing pad/site conditions.

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. \_\_\_\_\_

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 05/05/2025

Proposed site investigation commencement. 05/05/2025

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

This form is being submitted to report the results of site investigation following the removal of the PBV in June of 2025. Please see the attached site investigation report and laboratory analytical reports for complete details.

Based on depth to water reported in the two (2) nearest water wells to the Site in the DWR database (Permits 271289 and 271290), groundwater at the Site is expected to be at least 250 feet below the pad surface.

Following PBV removal, five (5) soil samples were collected from the sidewalls and base of the excavation.

The concentration of Total TPH in sample 20250624-PUCKETT 4136-(FC-T- EWALL)@5 was reported at <894.18 mg/kg. This was primarily made up of TPH-DRO at a concentration of 758.73 mg/kg, with TPH-GRO at a concentration of just 34.45mg/kg, and TPH-ORO reported as below the laboratory RDL of 100 mg/kg.

The concentration of arsenic in all five (5) samples was above the Table 915-1 Residential Soil Screening Level (RSSL) limit (max 13.09 mg/kg). A search of QB Energy's background soil sample database identified seven (7) samples within 1 mile of the Site with arsenic concentration greater than 13.09 mg/kg, ranging from 14.6 mg/kg to 53 mg/kg.

Based on the information presented above and in the attached site investigation report, QB Energy is requesting the following:

- 1.) Approval to proceed under Table 915-1 RSSL concentrations based on the available groundwater information presented.
- 2.) Consideration of Table 915-1 Footnote 1 with regard to arsenic concentrations and the Director's approval to raise the threshold for arsenic to 53 mg/kg.
- 3.) Approval of a reduced analyte suite for future excavation soil samples consisting of TPH-DRO only based on the negligible presence of TPH-GRO and TPH-ORO in the sample with Total TPH exceedance.

QB Energy is in the process of scheduling excavation to remove impacts identified at the Site and will report results on a future supplemental Form 27.

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

Signed: Derek Horn

Title: EHS Specialist

Submit Date: 07/28/2025

Email: dhorn@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: 08/08/2025

Remediation Project Number: 41075

## COA Type

## Description

COA Type	Description
1 COA	ECMC denies the request for a reduced analyte suite of TPH-DRO only. Benzo (a)pyrene and Dibenz(a,h)anthracen have detection limits greater than the cleanup concentrations in Table 915-1. Per Rule 915.e.(1).C the method selected will have detection limits less than or equal to the cleanup concentrations in Table 915-1 and WQCC Regulation 41, as incorporated by reference in Rule 901.b. Operator shall include Benzo(a)pyrene and Dibenz(a,h)anthracen in the reduced analyte suite and ensure that the the method selected will have detection limits less than or equal to the cleanup concentrations in Table 915-1.

## 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

Att Doc Num	Name
404293496	INVESTIGATION/REMEDATION WORKPLAN (SUPPLEMENTAL)
404294121	LABORATORY ANALYTICAL REPORT
404294157	SITE INVESTIGATION REPORT
404296446	LABORATORY ANALYTICAL REPORT
404296447	LABORATORY ANALYTICAL REPORT
404296448	LABORATORY ANALYTICAL REPORT
404296449	LABORATORY ANALYTICAL REPORT
404296450	LABORATORY ANALYTICAL REPORT
404310628	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 9 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Environmental	ECMC approves the request to raise the threshold for arsenic to 53 mg/kg.	08/08/2025
Environmental	ECMC approves the request to proceed under Table 915-1 RSSL concentrations.	08/08/2025

Total: 2 comment(s)