

FORM
2
Rev
10/24

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:

404332474

Date Received:

08/29/2025

APPLICATION FOR PERMIT TO

Drill Deepen Re-enter Recomplete and Operate Amend

TYPE OF WELL OIL GAS COALBE GEOTHERMAL OTHER: _____

Refile

ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Sidetrack

Well Name: ELU M12 FED Well Number: 15C-12 496
Name of Operator: QB ENERGY OPERATING LLC ECMC Operator Number: 10844
Address: 1001 17TH STREET SUITE 1600
City: DENVER State: CO Zip: 80202
Contact Name: Katie Biersmith Phone: (720)547-8746 Fax: ()
Email: kbiersmith@qb-energy.com

FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

ECMC Financial Assurance

The Operator has provided or will provide Financial Assurance to the ECMC for this Well.

Surety ID Number (if applicable): _____

Federal Financial Assurance

In checking this box, the Operator certifies that it has provided or will provide at least this amount of Financial Assurance to the federal government for this Well. (Per Rule702.a.)

Amount of Federal Financial Assurance \$ 14199

WELL LOCATION INFORMATION

Surface Location

QtrQtr: SWSW Sec: 12 Twp: 4S Rng: 96W Meridian: 6

Footage at Surface: 1138 Feet FSL 809 Feet FWL

Latitude: 39.712838 Longitude: -108.123546

GPS Data: GPS Quality Value: 1.1 Type of GPS Quality Value: PDOP Date of Measurement: 09/18/2023

Ground Elevation: 7993

Field Name: GRAND VALLEY Field Number: 31290

Well Plan: is Directional Horizontal (highly deviated) Vertical

If Well plan is Directional or Horizontal attach Deviated Drilling Plan and Directional Data.

Subsurface Locations

Top of Productive Zone (TPZ)

Sec: 12 Twp: 4S Rng: 96W Footage at TPZ: 529 FSL 1099 FWL

Measured Depth of TPZ: 8574 True Vertical Depth of TPZ: 8527 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 12 Twp: 4S Rng: 96W Footage at BPZ: 495 FSL 1006 FWL
Measured Depth of BPZ: 13159 True Vertical Depth of BPZ: 13111 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 12 Twp: 4S Rng: 96W Footage at BHL: 495 FSL 1006 FWL
FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: RIO BLANCO Municipality: N/A

Is the Surface Location of this Well in an area designated as one of State interest and subject to the requirements of § 24-65.1-108 C.R.S.? No

Per §34-60-106(1)(f)(I)(A) C.R.S and §37-90.5-107(2)(b)(I) C.R.S, the following questions pertain to the Relevant Local Government approval of the siting of the proposed Oil and Gas or Deep Geothermal Locations.

The Energy and Carbon Management Act and the Geothermal Resources Act provide that when "applying for a permit to drill," operators must include proof that they sought a local government siting permit and the disposition of that permit application, or that the local government does not have siting regulations.

Does the Relevant Local Government regulate the siting of Oil and Gas and Deep Geothermal Locations, with respect to this Location? Yes No

If yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location.

The disposition of the application filed with the Relevant Local Government is: Other Date of Final Disposition:

Comments: QB Energy Operating LLC contacted Rio Blanco County and they have no siting regulations. Rio Blanco County has waived its right to precede the ECMC in siting determination. Contact Matt Franks, Rio Blanco LGD and Energy & Industry Director at 970-878-9452 for questions.

GEOTHERMAL

Well Overview

The following questions determine informational requirements based on Well type:

Which type of Geothermal Well is this? Select one of the following:

Will this well be constructed using cementing methodologies other than those listed in Rule 408.f?

If Yes, what method will be used:

Please describe the cementing method to be used in detail:

Geothermal Resource Units

Fill out the information below to submit an application for a Geothermal Resource Unit (GRU) as part of the current permit application. This may also be completed later using a Form 4 Sundry.

Will this Well be in an existing GRU?

Are you submitting your application for a new GRU as part of the current application?

SURFACE AND MINERAL OWNERSHIP AT WELL'S OIL & GAS OR DEEP GEOTHERMAL LOCATION

Surface Owner of the land at this Well's Oil and Gas Or Deep Geothermal Location: Fee State Federal Indian

Mineral Owner beneath this Well's Oil and Gas Or Deep Geothermal Location: Fee State Federal Indian

Surface Owner Protection Bond (if applicable): _____ Surety ID Number (if applicable): _____

MINERALS DEVELOPED BY WELL

The ownership of all the minerals that will be developed by this Well is (check all that apply):

- Fee
- State
- Federal
- Indian
- N/A

LEASE INFORMATION

Using standard QtrQtr, Section, Township, Range format describe one entire mineral lease as follows:

* If this Well is within a unit, describe a lease that will be developed by the Well.

* If this Well is not subject to a unit, describe the lease that will be produced by the Well.

(Attach a Lease Map or Lease Description or Lease if necessary.)

T4S R96W Sec.11: All Sec. 12: All

Total Acres in Described Lease: 1278 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # COC 057955

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 5160 Feet
Building Unit: 5280 Feet
Public Road: 1795 Feet
Above Ground Utility: 5280 Feet
Railroad: 5280 Feet
Property Line: 3262 Feet

INSTRUCTIONS:

- Specify all distances per Rule 308.b.(1).
- Enter 5280 for distance greater than 1 mile.
- Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.
- Building Unit – as defined in 100 Series Rules.

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
WILLIAMS FORK-ILES	WFILS	1-229		

Federal or State Unit Name (if appl): Ex Liberty Unit Unit Number: COC069926X

SUBSURFACE MINERAL SETBACKS

Enter 5280 for distance greater than 1 mile.

Is this Well within a unit? Yes

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: 5280 Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well within the same unit permitted or completed in the same formation: 350 Feet

If NO:

Enter the minimum distance from the Completed Zone of this Well to the Lease Line of the described lease: _____ Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well producing from the same lease and permitted or completed in the same formation: _____ Feet

Exception Location

If this Well requires the approval of a Rule 401.c Exception Location, enter the Rule or spacing order number and attach the Exception Location Request and Waivers. _____

SPACING & FORMATIONS COMMENTS

DRILLING PROGRAM

Proposed Total Measured Depth: 13159 Feet TVD at Proposed Total Measured Depth 13111 Feet

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells:

Enter distance if less than or equal to 1,500 feet: _____ Feet No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H₂S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No If yes, attach an H₂S Drilling Plan unless a plan was already submitted with the Form 2A per Rule 304.c.(10).

Will there be hydraulic fracture treatment at a depth less than 2,000 feet in this well? No

Will salt sections be encountered during drilling? No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? No

BOP Equipment Type: Annular Preventor Double Ram Rotating Head None

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: _____ or Document Number: _____

CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Grade	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	30	20	H40	54	0	100	220	100	0
SURF	14+3/4	9+5/8	J55	36	0	3000	728	3000	900
1ST	8+3/4	4+1/2	HCP110	13.5	0	13159	1698	13159	
		9+5/8		Stage Tool		900	310	900	0

Conductor Casing is NOT planned

POTENTIAL FLOW AND CONFINING FORMATIONS

Zone Type	Formation /Hazard	Top M.D.	Top T.V.D.	Bottom M.D.	Bottom T.V.D.	TDS (mg/L)	Data Source	Comment
Groundwater	Green River	0	0	4030	4030	501-1000	CGS	
Confining Layer	Wasatch	4030	3995	6124	6077			
Confining Layer	Wasatch G	6124	6077	6738	6691			
Confining Layer	Fort Union	6738	6691	8574	8527			
Hydrocarbon	Ohio Creek	8574	8527	9161	9114	>10000	Produced Water Sample	
Hydrocarbon	Williams Fork	9161	9114	12159	12111	>10000	Produced Water Sample	
Hydrocarbon	Cameo Coal	12159	12111	12659	12611	>10000	Produced Water Sample	
Hydrocarbon	Rollins	12659	12611	13159	13111	>10000	Produced Water Sample	

OPERATOR COMMENTS AND SUBMITTAL

Comments Distance from completed zone of this well to the completed zone of an offset well within the same unit permitted or completed in the same formation was measured to the proposed M12 Fed 15B-12 496.

There are no wells owned by another operator within 1,500'.

This application is in a Comprehensive Area Plan No CAP #: _____

Oil and Gas Development Plan Name ELU M12-496 OGDID #: 486817

Location ID: 487650

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

Signed: _____ Print Name: Andrea Gross

Title: Permit Agent Date: 8/29/2025 Email: agross@upstreampm.com

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

Based on the information provided herein, this Application for Permit-to-Drill complies with ECMC Rules, applicable orders, and SB 19-181 and is hereby approved.

ECMC Approved:  _____ Director of ECMC Date: 10/31/2025

Expiration Date: 08/13/2027

API NUMBER

05 103 12737 00

CONDITIONS OF APPROVAL, IF ANY LIST

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

COA Type

Description

Interim Reclamation	In the event delayed operations are to occur, Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017).
Drilling/Completion Operations	1. Submit Form 42 electronically to ECMC 2 business days prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 2 business day spud notice via Form 42 for all subsequent wells drilled on the pad. 2. Operator shall provide cement coverage from the first string casing shoe to a minimum of 500' above the Wasatch G. Verify cement coverage with a cement bond log. 3. Operator shall comply with the most current revision of the Northwest Notification Policy 4. Bradenhead tests shall be performed according to the following schedule and Form 17 submitted within 10 days of each test: 1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 150 psig is observed or if there is evidence of communication, Operator must contact ECMC engineering for approval prior to stimulation. 2) A post-production test within 60 days after first sales

2 COAs

Operator Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	Alternative Logging Program: One of the first wells drilled on the pad will be logged with open-hole resistivity log with gamma-ray log from TD into the surface casing. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The Form 5, Completion Report, for each well on the pad will list all logs run and have those logs attached. The Form 5 for a well without open-hole logs will state, "Alternative Logging Program - No open-hole logs were run" and will clearly identify the type of log and the well (by API#) in which open-hole logs were run.

Total: 1 comment(s)

ATTACHMENT LIST

<u>Att Doc Num</u>	<u>Name</u>
404332474	FORM 2 SUBMITTED
404333200	DEVIATED DRILLING PLAN
404333216	WELL LOCATION PLAT
404333273	DIRECTIONAL DATA

Total Attach: 4 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Complete	10/31/2025
OGLA	The Commission approved OGDG #486817 on August 14, 2024 for the Oil and Gas Location related to this Form 2. OGLA task passed.	10/29/2025
Permit	Permit Review Complete.	10/24/2025
Engineer	Offset water well check: The deepest domestic water well within 1 mile of the surface location is 100 ft There is no offset Wasatch G production within 1 mile Production TOC removed from casing table per Engineering Supervisor. See COA 2 for production casing top of cement requirement. Top of first stage cement changed to stage tool depth This well has federal minerals	10/22/2025

Total: 4 comment(s)