

FORM  
2  
Rev  
05/22

# 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:

403308829

Date Received:

04/08/2024

## APPLICATION FOR PERMIT TO

Drill     Deepen     Re-enter     Recomplete and Operate    Amend

TYPE OF WELL    OIL     GAS     COALBED     OTHER: \_\_\_\_\_

Refile

ZONE TYPE    SINGLE ZONE     MULTIPLE ZONES     COMMINGLE ZONES

Sidetrack

Well Name: ELU 396 6A1 FED    Well Number: 12B-5-396  
Name of Operator: CAERUS PICEANCE LLC    ECMC Operator Number: 10456  
Address: 1001 17TH STREET #1600  
City: DENVER    State: CO    Zip: 80202  
Contact Name: Reed Haddock    Phone: (720)880-6369    Fax: (303)565-4606  
Email: rhaddock@caerusoilandgas.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 \$ 83513

## WELL LOCATION INFORMATION

### Surface Location

QtrQtr: SENE    Sec: 6    Twp: 3S    Rng: 96W    Meridian: 6

Footage at Surface: 1932 Feet    FNL/FSL 55 Feet    FEL/FWL FEL

Latitude: 39.820629    Longitude: -108.201895

GPS Data:    GPS Quality Value: 2.4    Type of GPS Quality Value: PDOP    Date of Measurement: 09/02/2022

Ground Elevation: 6662

Field Name: PICEANCE CREEK    Field Number: 68800

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: 5    Twp: 3S    Rng: 96W    Footage at TPZ: 2182    FNL 2491    FEL

Measured Depth of TPZ: 8707    True Vertical Depth of TPZ: 8171    FNL/FSL    FEL/FWL

Base of Productive Zone (BPZ)

Sec: 5 Twp: 3S Rng: 96W Footage at BPZ: 2216 FNL 2585 FEL  
Measured Depth of BPZ: 13300 True Vertical Depth of BPZ: 12763 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 5 Twp: 3S Rng: 96W Footage at BHL: 2216 FNL 2585 FEL  
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., the following questions pertain to the Relevant Local Government approval of the siting of the proposed Oil and Gas Location.

SB 19-181 provides 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. § 34-60-106(1)(f)(I)(A) C.R.S.

Does the Relevant Local Government regulate the siting of Oil and Gas 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: Date of Final Disposition:

Comments: Caerus Piceance LLC contacted Rio Blanco County and they have no siting regulations. Rio Blanco County has waived its right to precede the COGCC in siting determination. Contact Edward Smercina, Rio Blanco LGD and NRS at 970-878-9586 for questions.

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

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

Mineral Owner beneath this Well's Oil and Gas 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.)

Sec. 5-T3S-96W - Lots 2 - 4, S2NW, SW4, SWNE, W2SE and other lands.

Sec. 6-T3S-96W - All

Sec. 7-T3S-96W - Lots 1-2, NE4, E2NW

Total Acres in Described Lease: 1330 Described Mineral Lease is:  Fee  State  Federal  Indian

Federal or State Lease # COC061469

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 4218 Feet  
Building Unit: 4218 Feet  
Public Road: 2945 Feet  
Above Ground Utility: 2654 Feet  
Railroad: 5280 Feet  
Property Line: 1932 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	WMFK	1-229		

Federal or State Unit Name (if appl): Expand Liberty

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: 2182 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: 325 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: 13347 Feet                      TVD at Proposed Total Measured Depth 12810 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 H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No If yes, attach an H<sub>2</sub>S 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? \_\_\_\_\_

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	A252	54#	0	100	218	100	0
SURF	14+3/4	9+5/8	J55	36#	0	3000	1011	3000	900
1ST	8+3/4	4+1/2	HCP110	13.5#	0	13347	1455	13347	5800
		9+5/8		Stage Tool		900	304	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	Unitah	0	0	3400	3209	501-1000	CGS	
Confining Layer	Wasatch	3496	3298	6702	6275			
Hydrocarbon	Wasatch G	6702	6275	6859	6421			The Wasatch G is a nonproductive zone in the referenced area of basin.
Confining Layer	Fort Union	6859	6421	8707	8171			
Hydrocarbon	Ohio Creek	8707	8171	9257	8721	>10000	Produced Water Sample	
Hydrocarbon	Williams Fork	9257	8721	12301	11764	>10000	Produced Water Sample	
Hydrocarbon	Cameo	12301	11764	13047	12510	>10000	Produced Water Sample	
Hydrocarbon	Rollins	13047	12510	13347	12810	>10000	Produced Water Sample	

## OPERATOR COMMENTS AND SUBMITTAL

Comments \_\_\_\_\_

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

Oil and Gas Development Plan Name EXPANDED LIBERTY UNIT 396-6A1 OGDP ID#: 485817

Location ID: 419501

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

Signed: \_\_\_\_\_

Print Name: Reed Haddock

Title: Regulatory Lead

Date: 4/8/2024

Email: rhaddock@caerusoilandgas.co

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: 7/12/2024

Expiration Date: 03/26/2027

**API NUMBER**

05 103 12702 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**

Drilling/Completion Operations	1)Operator shall comply with the most current revision of the Northwest Notification Policy.  2)Operator shall provide cement coverage from the production casing shoe 4 ½" FIRST STRING to a minimum of 200' above all Mesaverde Group (and Ohio Creek Formation, if present) oil, gas, and water-bearing sandstone and coalbed formations. Verify production casing cement coverage with a cement bond log.
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1 COA

**Best Management Practices**

**No BMP/COA Type**

**Description**

1 Planning	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."
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2	Drilling/Completion Operations	<p>Closed loop system will be used.</p> <p><b>DRILL CUTTINGS:</b> The moisture content of all drill cuttings managed onsite shall be kept as low as practicable to prevent accumulation of liquids greater than de minimis amounts. All cuttings generated during drilling will be placed in a bermed portion of the well pad prior to onsite beneficial reuse.</p> <p>Drill cuttings will be put through shakers to minimize moisture and analyzed for Table 915-1 constituents. Cuttings that meet 915-1 levels will be backfilled into the cuttings management area along the northwestern portion of the pad.</p> <p><b>CONTAINMENT:</b> During drilling activities, Caerus utilizes a portable containment liner under the substructure of the drilling rig during drilling activities to protect shallow groundwater from any potential spills surrounding the rig during drilling. A liquid release would simply be vacuumed up from the liner. When drilling activity is completed, the liner is removed and transferred to the next drilling location. For permanent containment at the oil and gas location Caerus will ensure 150% secondary containment of volume in the single largest tank on the oil and gas location in compliance with Rule 603.o. During completions, Caerus may utilize 15-20 temporary tanks to hold frac fluid and flowback water. Tanks would be housed in a compacted earthen bermed area and secondary containment.</p>
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Total: 2 comment(s)

**ATTACHMENT LIST**

<b>Att Doc Num</b>	<b>Name</b>
403308829	FORM 2 SUBMITTED
403308832	OIL & GAS LEASE
403543040	DEVIATED DRILLING PLAN
403543041	DIRECTIONAL DATA
403561923	WELL LOCATION PLAT
403780577	OffsetWellEvaluations Data
403853507	OFFSET WELL EVALUATION

Total Attach: 7 Files

**General Comments**

<b>User Group</b>	<b>Comment</b>	<b>Comment Date</b>
Permit	Final Review Completed.	07/10/2024
Permit	<ul style="list-style-type: none"> <li>-Corrected lease description</li> <li>-Added amount of Federal financial assurance</li> <li>-Corrected Footage at BHL to FEL</li> <li>-Corrected distance to nearest unit boundary</li> <li>-Removed released ECMC Financial Assurance Surety ID number.</li> </ul>	07/09/2024
Engineer	<p>Uploaded offset review that was not originally attached</p> <p>Offset water well check: COGCC evaluated offset water wells within one mile of this proposed well's surface hole location. This information in addition to locally-available geophysical logs and hydrogeological information was used to evaluate the adequacy of the operator's proposed surface casing setting depth. The deepest water well within one mile is 255 feet. None of the water wells within one mile are for domestic use.</p> <p>Offset Well Evaluation: Existing offset oil and gas wells within 1,500 feet of this wellbore meet standards. No mitigation required.</p>	05/06/2024
OGLA	The Commission approved OGDG #485817 on March 27, 2024 for the Oil and Gas Location related to this Form 2. OGLA task passed.	04/09/2024

Total: 4 comment(s)