

FORM

2

Rev  
05/22

## State of Colorado

## Energy &amp; Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203

Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

403250429

Date Received:

01/04/2024

## 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: PCU B27 FED

Well Number: 12B-27-197

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 \$ 23185

## WELL LOCATION INFORMATION

## Surface Location

QtrQtr: Lot 3 Sec: 27 Twp: 1S Rng: 97W Meridian: 6

FNL/FSL

FEL/FWL

Footage at Surface: 681 Feet FNL 2477 Feet FWL

Latitude: 39.940768

Longitude: -108.269042

GPS Data:

GPS Quality Value: 1.9

Type of GPS Quality Value: PDOP

Date of Measurement: 09/12/2022

Ground Elevation: 6528

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: 27 Twp: 1S Rng: 97W

Footage at TPZ: 1408 FNL 1444 FWL

Measured Depth of TPZ: 7516

True Vertical Depth of TPZ: 7398 FNL/FSL FEL/FWL

**Base of Productive Zone (BPZ)**Sec: 27 Twp: 1S Rng: 97WFootage at BPZ: 1490 FNL 1386 FWLMeasured Depth of BPZ: 13100True Vertical Depth of BPZ: 12981 FNL/FSL FEL/FWL**Bottom Hole Location (BHL)**Sec: 27 Twp: 1S Rng: 97WFootage at BHL: 1490 FNL 1386 FWLFNL/FSLFEL/FWL**LOCAL GOVERNMENT PERMITTING INFORMATION**County: RIO BLANCOMunicipality: 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 ☐ IndianMineral 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. 27-T1S-97W - Lots 3-7, Lots 10 and 15, and other lands.

Total Acres in Described Lease: 1896

Described Mineral Lease is: ☐ Fee

☐ State

☒ Federal

☐ Indian

Federal or State Lease # COD0035729

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 5280 Feet

Building Unit: 5280 Feet

Public Road: 3773 Feet

Above Ground Utility: 5039 Feet

Railroad: 5280 Feet

Property Line: 3804 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.)
ILES	ILES	1-229		
WILLIAMS FORK	WMFK	1-229		

Federal or State Unit Name (if appl): Piceance Creek

Unit Number: COC047666X

## 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: 1386 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: 264 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: 13177 Feet

TVD at Proposed Total Measured Depth 13058 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:

<u>Casing Type</u>	<u>Size of Hole</u>	<u>Size of Casing</u>	<u>Grade</u>	<u>Wt/Ft</u>	<u>Csg/Liner Top</u>	<u>Setting Depth</u>	<u>Sacks Cmt</u>	<u>Cmt Btm</u>	<u>Cmt Top</u>
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	13177	1552	13177	5000
		9+5/8		Stage Tool		900	304	900	0

## POTENTIAL FLOW AND CONFINING FORMATIONS

<u>Zone Type</u>	<u>Formation /Hazard</u>	<u>Top M.D.</u>	<u>Top T.V.D.</u>	<u>Bottom M.D.</u>	<u>Bottom T.V.D.</u>	<u>TDS (mg/L)</u>	<u>Data Source</u>	<u>Comment</u>
Groundwater	Unitah	0	0	2600	2567	501-1000	CGS	
Confining Layer	Wasatch	2645	2611	5539	5452			
Hydrocarbon	Wasatch G	5539	5452	6019	5924			The Wasatch G is a nonproductive zone in the referenced area of basin.
Confining Layer	Fort Union	6019	5924	7516	7398			
Hydrocarbon	Ohio Creek	7516	7398	8266	8148	>10000	Produced Water Sample	
Hydrocarbon	Williams Fork	8266	8148	11110	10991	>10000	Produced Water Sample	
Hydrocarbon	Cameo	11110	10991	11660	11541	>10000	Produced Water Sample	
Hydrocarbon	Rollins	11660	11541	11777	11658	>10000	Produced Water Sample	The Rollins is a non-productive zone in the referenced area of basin.
Hydrocarbon	Cozzette	11777	11658	12377	12258	>10000	Produced Water Sample	
Hydrocarbon	Corcoran	12377	12258	13177	13058	>10000	Produced Water Sample	

Comments	Caerus will be providing a reclamation bond to the BLM upon permit approval, and will be providing ECMC an Interim Reclamation Bond per COA on Doc 403206163.
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I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Title: Regulatory Lead                      Date: 1/4/2024                      Email: rhaddock@caerusoilandgas.co

Date Run: 5/27/2024 Doc [#403250429] Well Name: PCU B27 FED 12B-27-197

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: 5/27/2024

Expiration Date: 12/19/2026

**API NUMBER**

05 103 12681 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	Operator will log three (3) additional wells during the first rig occupation with open-hole resistivity log with gamma-ray log from TD into the surface casing for the stratigraphically deepest wells for each quarter of the pad for a total of four wells logged.
Planning	Pursuant to Rule 702.b.(2), the approval of this Application for Permit to Drill constitutes a "change in circumstance" to the approved Financial Assurance Plan. The Operator must file a revised Form 3, Financial Assurance Plan, within 10 days of this approval.
Drilling/Completion Operations	1) Operator shall comply with the most current revision of the Northwest Colorado Notification Policy. See attached notice.  2) Operator shall provide cement coverage from the production casing shoe (4+1/2" FIRST STRING) to a minimum of 200' above all Mesa Verde Group (and Ohio Creek Formation, if present) oil, gas, and water-bearing sandstone and coalbed formations. Verify production casing cement coverage with cement bond log.  3) During stimulation, operator shall monitor the bradenhead, casing, and tubing pressure of the proposed well and all offset wells under Operator's control which penetrate the stimulated formation and have a treated interval separation of 300 feet or less. Operator shall notify COGCC Engineering staff if bradenhead pressures increase by more than 200 psig.
3 COAs	

**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>DRILL CUTTINGS: 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>CONTAINMENT: 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>
403250429	FORM 2 SUBMITTED
403250431	OIL & GAS LEASE
403250432	WELL LOCATION PLAT
403250433	DEVIATED DRILLING PLAN
403250435	DIRECTIONAL DATA
403251739	OffsetWellEvaluations Data
403643999	OffsetWellEvaluations Data
403803933	OFFSET WELL EVALUATION

Total Attach: 8 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	04/17/2024
Permit	-Lease description corrected to Sec. 27-T1S-97W - Lots 3-7, Lots 10 and 15, and other lands. -Surety ID Number corrected from 20190097 to 20230011 -Corrected minimum distance from the Completed Zone of this Well to the Unit Boundary from 1408 to 1386 -Amount of Federal financial assurance (\$23,185.00) added	03/12/2024
Engineer	Well is located in the Piceance Creek Field. Updated field name accordingly  Offset water well check: There are no permitted domestic water wells within one mile of this proposed surface hole location.  Offset Well Evaluation: Existing offset oil and gas wells within 1,500 feet of this wellbore meet standards. No mitigation required. There is one plugged well within 1500 ft. of the Western wells on the pad. Plugging information was found on DOC# 329190. Operators offset well evaluation state, "Operator will not stimulate stages within 500' of the existing well."  There is no offset Wasatch G production within 1 mile	01/30/2024
OGLA	The Commission approved OGDG #485279 on December 20, 2023 for the Oil and Gas Location related to this Form 2. OGLA task passed.	01/05/2024

Total: 4 comment(s)