

FORM

2

Rev
05/22

State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109

Document Number:

403119092

Date Received:

11/10/2022

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: BJU B26 FED

Well Number: 15B-26-496

Name of Operator: CAERUS PICEANCE LLC

COGCC 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

COGCC Financial Assurance

☐ The Operator has provided or will provide Financial Assurance to the COGCC 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 \$ 7382

WELL LOCATION INFORMATION

Surface Location

QtrQtr: NENW Sec: 26 Twp: 4S Rng: 96W Meridian: 6

 Footage at Surface: 1279 Feet FNL/FSL 1968 Feet FEL/FWL
 FNL FWL

Latitude: 39.677052

Longitude: -108.138400

GPS Data:

GPS Quality Value: 1.3

Type of GPS Quality Value: PDOP

Date of Measurement: 03/09/2020

Ground Elevation: 8227

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: 26 Twp: 4S Rng: 96W

Footage at TPZ: 1446 FSL 1173 FWL

Measured Depth of TPZ: 8528

True Vertical Depth of TPZ: 8059 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 26 Twp: 4S Rng: 96W Footage at BPZ: 1412 FSL 1079 FWL
Measured Depth of BPZ: 12086 True Vertical Depth of BPZ: 11616 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 26 Twp: 4S Rng: 96W Footage at BHL: 1412 FSL 1079 FWL
FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: GARFIELD 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 has contacted Garfield County, the local government with jurisdiction over the siting of this proposed oil and gas location and determined that per the Garfield County Land Use and Development Code, Table 3-403, "Oil and Gas Drilling and Production" and "Hydraulic Fracturing, Remote Surface Location" are a use by right or Exempt from Land Use Regulation at this site. Garfield County's disposition is not required for the purposes of this submittal.

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. 26, T4S-R96W - NE/4, S2
Sec. 27, T4S-R96W - SE/4

Total Acres in Described Lease: 640

Described Mineral Lease is: ☐ Fee ☐ State ☒ Federal ☐ Indian

Federal or State Lease # COC061137

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 5280 Feet
Building Unit: 5280 Feet
Public Road: 2088 Feet
Above Ground Utility: 5280 Feet
Railroad: 5280 Feet
Property Line: 5280 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): Big Jimmy

Unit Number: COC074105X

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: 265 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: 12286 Feet

TVD at Proposed Total Measured Depth 11816 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? _____

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	710	3000	1400
1ST	8+3/4	4+1/2	HCP110	11.6#	0	12286	1145	12286	3600
		9+5/8		Stage Tool		1400	312	1400	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	3400	3227	501-1000	CGS	
Confining Layer	Wasatch	3467	3290	6030	5690			
Hydrocarbon	Wasatch G	6030	5690	6350	5990			The Wasatch G is a non-productive zone in the referenced area of the basin.
Confining Layer	Fort Union	6350	5990	8528	8059			
Hydrocarbon	Ohio Creek	8528	8059	8754	8285	>10000	Produced Water Sample	
Hydrocarbon	Williams Fork	8754	8285	11586	11116	>10000	Produced Water Sample	
Hydrocarbon	Cameo	11586	11116	12086	11616	>10000	Produced Water Sample	
Hydrocarbon	Rollins	12086	11616	12286	11816	>10000	Produced Water Sample	

OPERATOR COMMENTS AND SUBMITTAL

Comments: Caerus Piceance LLC is currently drilling permitted wells on the BJU B26-496 Pad. All permits expire on January 10, 2023. This refile application is required so Caerus can complete drilling all proposed wells on this pad. The previously submitted directional plans, location survey plats, and casing design stay the same. The first well was spud June 12, 2022. Its anticipated drilling will be completed in early April 2023.

This application is in a Comprehensive Area Plan _____

CAP #: _____

Oil and Gas Development Plan Name _____

OGDP ID#: _____

Location ID: 479149

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: 11/10/2022

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 COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved: _____

Director of COGCC

Date: 12/9/2022

Expiration Date: 12/08/2025

API NUMBER

05 045 24443 00

Conditions Of Approval

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	<p>1)Operator shall comply with the most current revision of the Northwest Notification Policy.</p> <p>2)Operator shall comply with the most current revision of the Garfield County Rulison Field Notice to Operators, with the following exception: All field notice requirements specified in that Notice to Operators are superseded by the requirements of the most current revision of the Northwest Colorado Notification Policy (see Condition of Approval #1).</p> <p>3)Operator shall provide cement coverage from the production casing shoe (4 1/2" FIRST STRING) to a minimum of 200' above the Wasatch G as defined by COGCC in the report "Casing and Cement Standards for Geologic Isolation Piceance Basin Bradenhead Monitoring Area and Nearby Fields," dated April 18, 2016, COGCC Document No. 2056199, Appendix A Field Scout Cards and Annotated Type Logs) to provide isolation of the Lower Wasatch, all Mesaverde Group formations including the Ohio Creek Formation, and underlying formations, if penetrated. Verify production casing cement coverage with a cement bond log.</p> <p>4) 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.</p>
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 the kick-off point 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 horizontal portion of every well will be logged with a measured-while-drilling gamma-ray log. 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 shall state, "Alternative Logging Program - No open-hole logs were run", and shall clearly identify the type of log and the well (by API#) in which open-hole logs were run.
2	Planning	The associated well pad Location ID: 479149 was approved on January 11, 2021, by the COGCC. The BLM White River Field Office (WRFO) approved the Application for Permit to Drill (APD) for this well on December 1, 2020, under the land use planning review of the WRFO Record of Decision and Approved Resource Management Plan (ROD/RMP), as amended by the WRFO Oil and Gas Development Plan Approved Resource Management Plan Amendment and the Northwest Colorado Greater Sage-Grouse Approved RMPA. Please reference the attached WRFO Environmental Assessment from November 2020 and the Decision Record approved by the WRFO BLM on November 25, 2020, which specifically addresses the criteria in which the associated well pad was evaluated and approved.
3	Drilling/Completion Operations	Closed loop system will be used. 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. 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. 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.

Total: 3 comment(s)

Attachment List

Att Doc Num	Name
403119092	FORM 2 SUBMITTED
403214355	OffsetWellEvaluations Data
403242572	OffsetWellEvaluations Data
403256286	OFFSET WELL EVALUATION

Total Attach: 4 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	12/06/2022
Engineer	<p>Offset Well Evaluation: Existing offset oil and gas wells within 1,500 feet of this wellbore meet standards. No mitigation required. Two active Wasatch G injection wells owned by Caerus, SGU *CP01B-27 M23 49 & SGU *8506B F26 496 are within the offset evaluation areas. These injection wells have been taken into consideration for the cement coverage COA#3.</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 hydrogeologic information was used to evaluate the adequacy of the operator's proposed surface casing setting depth. The deepest water well within one mile is 235 feet. None of the water wells within one mile are for domestic use.</p> <p>Corrected TOC for first stage surface cement job to depth of stage tool</p> <p>Uploaded a updated version of offset well evaluation</p>	11/29/2022
OGLA	This Location (ID #479149) and its associated Form 2A materials were fully reviewed during the OGLA review of this APD in accordance with current Rules. This APD complies with all COGCC Rules and is adequately protective of public health, safety, welfare, the environment, and wildlife resources.	11/10/2022

Total: 3 comment(s)