

FORM

2

Rev  
08/16

## 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:

401105010

## APPLICATION FOR PERMIT TO:

☒ Drill
 ☐ Deepen
 ☐ Re-enter
 ☐ Recomplete and Operate

Date Received:

09/19/2016

TYPE OF WELL OIL ☐ GAS ☒ COALBED ☐ OTHER \_\_\_\_\_Refiling ☐ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐Sidetrack ☐

Well Name: Puckett

Well Number: 14B-23 697

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

## RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20130021

## WELL LOCATION INFORMATION

QtrQtr: SESW Sec: 23 Twp: 6S Rng: 97W Meridian: 6

Latitude: 39.503139

Longitude: -108.188069

Footage at Surface: 692 Feet FNL/FSL FSL 2446 Feet FEL/FWL FWL

Field Name: GRAND VALLEY

Field Number: 31290

Ground Elevation: 8436

County: GARFIELD

GPS Data:

Date of Measurement: 09/06/2016 PDOP Reading: 1.2 Instrument Operator's Name: Bart Hunting

If well is ☒ Directional ☐ Horizontal (highly deviated) **submit deviated drilling plan.**

Footage at Top of Prod Zone: FNL/FSL FEL/FWL Bottom Hole: FNL/FSL FEL/FWL

 1654 FSL 227 FWL 1654 FSL 227 FWL  
 Sec: 23 Twp: 6S Rng: 97W Sec: 23 Twp: 6S Rng: 97W

## LOCATION SURFACE &amp; MINERALS &amp; RIGHT TO CONSTRUCT

Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ IndianThe Surface Owner is: ☒ is the mineral owner beneath the location.

(check all that apply)

☒ is committed to an Oil and Gas Lease.☒ has signed the Oil and Gas Lease.☐ is the applicant.The Mineral Owner beneath this Oil and Gas Location is: ☒ Fee ☐ State ☐ Federal ☐ Indian

The Minerals beneath this Oil and Gas Location will be developed by this Well: Yes

The right to construct the Oil and Gas Location is granted by: oil and gas lease

Surface damage assurance if no agreement is in place:

Surface Surety ID:

## LEASE INFORMATION

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

Sec. 23, T6S, R97W: S/2. Sec. 26, T6S, R97W: All. Distance from completed portion of Wellbore to nearest lease line was measured to the western boundary line of Sec. 23, T6S, R97W.

Total Acres in Described Lease: 960 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease # \_\_\_\_\_

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 227 Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 5280 Feet

Building Unit: 5280 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 2531 Feet

Above Ground Utility: 5280 Feet

Railroad: 5280 Feet

Property Line: 2446 Feet

### INSTRUCTIONS:

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).
- 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, High Occupancy Building Unit, and Designated Outside Activity Area - as defined in 100-Series Rules.

## DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a: ☐ Buffer Zone  
☐ Exception Zone  
☐ Urban Mitigation Area

- Buffer Zone – as described in Rule 604.a.(2), within 1,000' of a Building Unit
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
- Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: \_\_\_\_\_

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: \_\_\_\_\_

## SPACING and UNIT INFORMATION

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 272 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary \_\_\_\_\_ Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_

## SPACING & FORMATIONS COMMENTS

Sec. 23, T6S-R97W - 10 acre density

## 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	510-21		

## DRILLING PROGRAM

Proposed Total Measured Depth: 9483 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: 125 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 Operations Plan)

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

## GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 609

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Recycle/reuse

Cuttings Disposal: ONSITE Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

Waste Management Plan attached to Form 2A.

Beneficial reuse or land application plan submitted?

Reuse Facility ID:  or Document Number:

## CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	30	20	54#	0	100	218	100	0
SURF	14+3/4	9+5/8	40#	0	2500	829	2500	0
1ST	8+3/4	4+1/2	11.6#	0	9483	890	9483	4453

☐ Conductor Casing is NOT planned

## DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- ☐ Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- ☐ Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- ☐ Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- ☐ Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

## GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 318A.a. Exception Location (GWA Windows).
- ☐ Rule 318A.c. Exception Location (GWA Twinning).

## RULE 502.b VARIANCE REQUEST

☐ Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number \_\_\_\_\_

## OTHER LOCATION EXCEPTIONS

Check all that apply:

☐ Rule 318.c. Exception Location from Rule or Spacing Order Number \_\_\_\_\_

☐ Rule 603.a.(2) Exception Location (Property Line Setback).

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

## OPERATOR COMMENTS AND SUBMITTAL

Comments: Nearest offset operated producing/plugged well is Sinclair Oil and Gas Haystack Mountain # 1 (05-045-05209).

This application is in a Comprehensive Drilling Plan \_\_\_\_\_ CDP #: \_\_\_\_\_

Location ID: \_\_\_\_\_

Is this application being submitted with an Oil and Gas Location Assessment application? \_\_\_\_\_ Yes

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: Sr. Regulatory Specialist Date: 9/19/2016 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 and applicable orders and is hereby approved.

COGCC Approved:  Director of COGCC Date: 11/28/2016

Expiration Date: 11/27/2018

### API NUMBER

05 045 23383 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

	<p>1)Operator shall comply with the most current revision of the Northwest Colorado 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 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.</p> <p>4)Comply with all provisions of the June 12, 2008 Notice to Operators drilling wells within ¾ mile of the rim of the Roan Plateau in Garfield County – Pit Design, Construction and Monitoring Requirements.</p> <p>5)The Operator shall monitor the bradenhead 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. Monitoring shall occur from 24 hours prior to stimulation and shall continue until 24 hours after stimulation is complete. Recording shall be at a frequency of at least once per 24 hours with the capability of recording the maximum pressure observed during each 24 hour period. Operator shall notify COGCC Engineering staff if bradenhead pressures increase by more than 200 psig.</p>
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## Best Management Practices

### No BMP/COA Type

### Description

1	Planning	In compliance with Rule 317.p the first well that is operationally feasible on the Mesa N23-697 pad will be logged with an open-hole Resistivity Log and Gamma Ray Log from TD into the surface casing. All wells on the pad will have a Cement Bond Log with cased-hole Gamma Ray run on the production casing. The Form 5 Completion Report will list all the logs run in the subject well and identify the well that was logged with the open-hole Resistivity Log.
2	Drilling/Completion Operations	Closed loop system will be used. No pits will be built. Caerus will ensure 110 percent secondary containment for any potential volume of fluids that may be released.

Total: 2 comment(s)

## Applicable Policies and Notices to Operators

Policy
Piceance Rulison Field - Notice to Operators. <a href="http://cogcc.state.co.us/documents/reg/Policies/NoticeToOp-20060623-2.pdf">http://cogcc.state.co.us/documents/reg/Policies/NoticeToOp-20060623-2.pdf</a>
NW Colorado Notification Policy. <a href="http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.pdf">http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.pdf</a>
Notice Concerning Operating Requirements for Wildlife Protection. <a href="http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf">http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf</a>
Pit Design, Construction and Monitoring Requirements Within 3/4 mile of the Rim of the Roan Plateau. <a href="http://cogcc.state.co.us/documents/reg/Policies/RoanCliffsNTO-06-12-2008.pdf">http://cogcc.state.co.us/documents/reg/Policies/RoanCliffsNTO-06-12-2008.pdf</a>

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401105010	FORM 2 SUBMITTED
401109641	WELL LOCATION PLAT
401112134	DEVIATED DRILLING PLAN
401112135	DIRECTIONAL DATA

Total Attach: 4 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review complete.	11/22/2016
Permit	Corrected waste management plan to reflect changes made on form 2A with operator approval. Ready to pass pending OGLA review and approval of 2A.	11/03/2016
LGD	Pass, KHW	10/10/2016
Engineer	Offset water well check: COGCC evaluated offset water wells within one mile of this proposed well's surface hole location. This information was used in addition to locally-available geophysical logs and hydrogeologic information to evaluate the adequacy of the operator's proposed surface casing setting depth. The deepest permitted water well within one mile has a reported depth of 3 feet. Review of offset logs and geologic mapping indicates the proposed surface casing will cover the entire Parachute Creek member of the Green River formation.  Offset Well Evaluation: Existing offset oil and gas wells within 1,500 feet of this wellbore meet standards. No mitigation required.  Distance to nearest wellbore belonging to another operator: Haystack Mountain Strat-T #1 (045-05209) is a shallow offset drilled to a total depth of 733'. Distance listed is measured in plan view. Actual separation is much greater.	10/03/2016
Permit	Passed completeness.	09/28/2016
Permit	Note - nearest nonop well is vertical, TD 733', and abandoned per COGCC well file.	09/28/2016
Permit	Corrected Field Name/Code per Operator request.	09/28/2016

Total: 7 comment(s)