

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

TYPE OF WELL OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> COALBED <input type="checkbox"/> OTHER _____	Refiling <input type="checkbox"/>
ZONE TYPE SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONES <input type="checkbox"/> COMMINGLE ZONES <input type="checkbox"/>	Sidetrack <input type="checkbox"/>

Date Received:
01/21/2016

Well Name: Battlement Mesa Well Number: 43A-35-795

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: Lot 12 Sec: 36 Twp: 7S Rng: 95W Meridian: 6

Latitude: 39.392131 Longitude: -107.952958

Footage at Surface: 2047 feet ^{FNL/FSL} FSL 724 feet ^{FEL/FWL} FWL

Field Name: PARACHUTE Field Number: 67350

Ground Elevation: 8900 County: GARFIELD

GPS Data:
Date of Measurement: 10/13/2015 PDOP Reading: 1.9 Instrument Operator's Name: Robert Wood

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}
<u>2505</u>	<u>FSL</u>	<u>501</u>	<u>2505</u>	<u>FSL</u>	<u>501</u>
	<u>FEL</u>			<u>FEL</u>	
Sec: <u>35</u>	Twp: <u>7S</u>	Rng: <u>95W</u>	Sec: <u>35</u>	Twp: <u>7S</u>	Rng: <u>95W</u>

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: Fee State Federal Indian

The 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: No

The right to construct the Oil and Gas Location is granted by: applicant is owner

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. 35, T7S-R95W: SENE, NESE and other lands. Sec. 36, T7S-R95W: Lots 5, 11, 12, and other lands. Total acres in describe lease: 200
The nearest mineral lease line is the south boundary line of NESE Sec. 35.

Total Acres in Described Lease: 200 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: 1214 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 5058 Feet
 Building Unit: 5280 Feet
 High Occupancy Building Unit: 5280 Feet
 Designated Outside Activity Area: 5280 Feet
 Public Road: 3681 Feet
 Above Ground Utility: 5118 Feet
 Railroad: 5280 Feet
 Property Line: 775 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: 346 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 501 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): _____ Unit Number: _____

SPACING & FORMATIONS COMMENTS

Sec. 35, T7S, R95W

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	139-53	640	All - Sec. 35

DRILLING PROGRAM

Proposed Total Measured Depth: 9996 Feet

Distance from proposed wellbore to nearest existing or permitted wellbore belonging to another operator:

56 Feet (Including plugged wells)

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 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: ONSITE 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	52.8#	0	100	218	100	0
SURF	14+3/4	9+5/8	36#	0	2500	548	2500	0
1ST	8+3/4	4+1/2	11.6#	0	9996	891	9996	5781

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

This application is in a Comprehensive Drilling Plan _____ CDP #: _____

Location ID: 334180

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: 1/21/2016 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: *Matthew Lee* Director of COGCC Date: 5/12/2016

Expiration Date: 05/11/2018

API NUMBER
05 045 23146 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 Notification Policy.</p> <p>(2) In lieu of the standard Form 42 spud notice required by the Northwest Notification Policy, submit Form 42 Rulison SAP - Spud Notice, specifying the bottom hole location sector and tier.</p> <p>(3) Operator shall provide complete well-specific emergency contact information to COGCC via email prior to spudding this well. DNR_Rulison.Submittal@state.co.us</p> <p>(4) Operator shall comply with all provisions of the most recent COGCC-approved revision of the Rulison Sampling and Analysis Plan.</p> <p>(5) 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>(6) Operator's proposed surface casing setting depth of 2,500' (measured depth) shall be adjusted as necessary, such that the surface casing is set 50' or more below the Green River Formation / Wasatch Formation contact. See comment below regarding depth to this contact (Wasatch Formation top).</p> <p>(7) Operator shall provide cement coverage from the production casing shoe (4+1/2" FIRST STRING) to a minimum of 200' above the Lower Wasatch (as defined by COGCC's Field Scout Card, Document No. 2056203 and Annotated Type Logs for the Parachute Field) to provide isolation of all Mesaverde Group and underlying formations, if penetrated, the Ohio Creek Formation, and the lower portion of the Wasatch Formation. Verify production casing cement coverage with a cement bond log. See comment below regarding operator's proposed First String top of cement.</p> <p>(8) Operator shall perform an anti-collision evaluation for offset Dry and Abandoned well Battlement Mesa 36-23CXX (045-15471) that has the potential of being within 150 feet of the proposed well prior to drilling operations for the proposed well (Rule 317.r. notice is not required).</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 Battlement Mesa 36L-795 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	Caerus Operating LLC will adhere to the COGCC Policy for Bradenhead Monitoring effective May 29, 2012.

Total: 2 comment(s)

Applicable Policies and Notices to Operators

Policy
Piceance Rulison Field - Notice to Operators. http://cogcc.state.co.us/documents/reg/Policies/NoticeToOp-20060623-2.pdf
NW Colorado Notification Policy. http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.pdf
Notice Concerning Operating Requirements for Wildlife Protection. http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf

Attachment Check List

Att Doc Num	Name
2168085	DOE APPROVAL LETTER
400952947	FORM 2 SUBMITTED
400972988	DEVIATED DRILLING PLAN
400972990	DIRECTIONAL DATA
400972993	WELL LOCATION PLAT
400974364	TOPO MAP

Total Attach: 6 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Engineer	<p>Evaluated existing offset oil and gas wells within 1,500 feet of this wellbore. No mitigation required.</p> <p>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 water well within one mile is 98 feet.</p> <p>Geologic Isolation Comments: Landslide deposits are present at surface, likely underlain by the Uinta Formation. The Green River Formation / Wasatch Formation contact (Wasatch Formation top) shown on Directional Survey #1697355 (offset producing well Battlement Mesa 36-13D, 045-15468, located on the same pad as this proposed well) is approximately 2,400' (vertical depth). The following formation tops were selected by COGCC from the Reservoir Monitoring Tool Elite log #1372445 for 045-15468 (correlated to COGCC's Field Scout Card, Document No. 2056203 and Annotated Type Logs for the Parachute Field): Ohio Creek 6,277' vertical depth below the pad (2,624' AMSL) and Lower Wasatch 6,198' vertical depth below the pad (2,703' AMSL). Condition of Approval #7 requires a First String cement top 200' above the Lower Wasatch. Operator's proposed cement top of 5,781' measured depth appears to satisfy this criterion. Based on COGCC offset log review, Fort Union Formation cement coverage is not required for wells on this pad.</p>	5/12/2016 8:50:09 AM
Final Review	<p>Contacted operator (Reed Haddock) on 5/11/2016 to change "Distance from proposed wellbore to nearest existing or permitted wellbore belonging to another operator (including plugged wells)." Operator provided a revised distance to the closest well with a different operator of record, Battlement Mesa #36-23CXX (located on the same pad, 045-15471, a Dry and Abandoned well plugged by Noble Energy Inc). Changed distance on this Form 2 to the correct SHL to SHL distance: changed value from 1350' to 56' with concurrence from operator on 5/11/2016. Wellbore-to-wellbore distance is less than 150'. Added anti-collision Condition of Approval to this form.</p>	5/12/2016 8:35:40 AM
Final Review	<p>Copied from OGLA Comment on Form 2A #400972039, "...corrected distance from Wellhead to Designated Outdoor Activity Area (from 3672' to 5280')...per review of COGCC's Online GIS Map and the DOAA layer (concurred by operator on 03-02-16)..." Changed Designated Outside Activity Area on this Form 2 from 3718' to 5280'.</p>	5/12/2016 8:32:34 AM
Permit	<p>Attached DOE Approval Letter. Final review complete.</p>	4/5/2016 3:44:29 PM
Permit	<p>Request for approval letter sent to DOE. Added Lot to location qtr/qtr. Corrected lease description and acres in lease from 1685 to 200 as per operator. Ready to pass pending approval of 2A by OGLA and DOE.</p>	2/8/2016 4:10:20 PM
Permit	<p>Passed completeness.</p>	1/22/2016 8:43:32 AM

Total: 6 comment(s)