

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.)

N/2SW/4 S20U T34N R6W

Total Acres in Described Lease: 80 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: 664 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 1817 Feet
 Building Unit: 1886 Feet
 High Occupancy Building Unit: 5280 Feet
 Designated Outside Activity Area: 5280 Feet
 Public Road: 3998 Feet
 Above Ground Utility: 1817 Feet
 Railroad: 5280 Feet
 Property Line: 290 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 Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 1851 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 664 Feet (Enter 5280 for distance greater than 1 mile.)

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

SPACING & FORMATIONS COMMENTS

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
FRUITLAND COAL	FRLDC	112-214	320	S/2

DRILLING PROGRAM

Proposed Total Measured Depth: 3465 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 1851 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 608

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

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
SURF	12+1/4	9+5/8	36	0	438	155	438	0
1ST	8+3/4	7	20	0	3465	540	3465	0

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 well is located in SESE of Sec. 19U T34N R6W and will be drilled directionally to produce the Fruitland Coal in the S/2 Sec. 20U T34N R6W.

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: Nolan Redmond

Title: Geo/Eng Tech Date: 9/12/2014 Email: nredmond@catamountep.com

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: 11/28/2014

Expiration Date: 11/27/2016

API NUMBER

05 067 09922 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

- 1) Provide 48 hour notice of spud to COGCC via form 42
 - 2) Set at least 438' of surface casing per Rule 317 (f) cement to surface
 - 3) Provide cement coverage of production casing from TD to surface. Verify cement coverage with Cement Bond Log.
 - 4) Run and submit Directional Survey from TD to kick-off point
 - 5) The operator shall comply with Rule 321, and it shall be the operator's responsibility to ensure that the well bore complies with setback requirements in Commission orders and/or rules prior to producing the well.
 - 6) Sample and test two closest water wells within 1/4 mile swath of the directional wellbore.
 - 7) Operators are required to obtain a bottom hole pressure utilizing a bottom hole gauge after a minimum 48 hour shut-in period following completion and prior to sales
 - 8) Comply with all applicable provisions of Order 112-214
 - 9) Borehole problems encountered while drilling that require an unplanned sidetrack: Contact, discuss & receive prior approval from COGCC Regional Engineer – Mark Weems
- 970-259-4587 off
970-749-0624 cell
mark.weems@state.co.us

Best Management Practices

No	BMP/COA Type	Description
1	Wildlife	<p>Catamount agrees not to commence surface disturbing activities, construction activities, drilling, or non-emergency workover activities if there is one (1) foot of snow or greater on the ground of the Well Pad without obtaining permission of the surface owner. Catamount will consult with the Surface Owner before activities occurring when snow is present.</p> <p>Catamount will consult with the surface owner regarding the composition of the seed mix prior to interim or final reclamation and will use CPW's recommended seed mix if the surface owner is agreeable.</p>
2	Construction	<p>Standard stormwater BMPs will be implemented during construction and may include the following:</p> <p>Erosion Control: Seeding, mulching, berms, check dams, grading techniques</p> <p>Sediment Control: Erosion bales, sediment traps, gravel barriers, sediment basins</p>
3	Drilling/Completion Operations	A closed loop system will be used during drilling operations so a pit will be unnecessary.
4	Final Reclamation	<p>Equipment will be painted with dull, non reflective paint slightly darker than the surrounding landscape.</p> <p>Noxious weeds will be controlled onsite by herbicide application based on recommendations from the La Plata County weed control technician and will be applied by a professional.</p>

Total: 4 comment(s)

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

Att Doc Num	Name
1857507	SELECTED ITEMS REPORT
400685371	FORM 2 SUBMITTED
400685499	DEVIATED DRILLING PLAN
400685508	DIRECTIONAL DATA
400686003	OTHER
400687542	WELL LOCATION PLAT
400687545	SURFACE AGRMT/SURETY

Total Attach: 7 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	Corrected distance to nearest public road from 4982' (CR 523 to west) to 3998' (FS 335 to southeast); corrected wildlife BMPs based on surface owner and operator agreed to wildlife related BMPs (no construction/drilling if more than one [1] of snow and wildlife friendly seed mix if surface owner agrees with the mix) independent of the CPW consultation on 11-14-14; surface owner signed a waiver indicating she does not consent to any permit specific conditions of approval relating to Wildlife Resources as described in COGCC's Rules 306.c. and 1202, or general operating requirements in COGCC Rule 1203.	11/28/2014 5:24:49 PM
Engineer	The operator was notified by email of the required deepening of the proposed surface casing setting depth of 400' to a new depth of 438' (see SELECTED ITEMS REPORT in the attachments).	10/2/2014 1:14:55 PM
Engineer	<p>The proposed gas well is located within an area where unconfined fresh water aquifers are mostly developed in bedrock formations consisting mainly of shale with intermittent sandstone stringers with limited areal extent or having pockets of isolated water reservoirs. Water wells found in these locations can vary in depth from 100' to 650'. These aquifers are commonly identified as the Animas formation.</p> <p>Respective to the proposed gas well, a one (1) mile radius of investigation of all offsetting fresh water wells has determined that the deepest surface casing required to protect the aquifers is a depth of 438' (includes a 50' margin of additional protection). The operator proposed a depth of 400' which which is less than the minimal requirement by a depth of 38'. The surface casing on the proposed well will be cemented from total depth to surface. The production casing on the proposed gas well will also be cemented from total depth to surface. This will serve two purposes (1) it will isolate and confine all hydrocarbon and brackish waters to their respective zones and (2) it will provide double protection for the fresh water aquifers which includes two concentric (2) steel casing strings and two concentric external (2) cement sheaths extending from total depth to surface (see attached SELECTED ITEMS REPORT).</p>	10/2/2014 1:11:24 PM
Permit	Passed Completeness	9/15/2014 9:06:36 AM

Total: 4 comment(s)