



**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.)

Lease contains 8,802.79 acres. Please see attached lease Description.

Total Acres in Described Lease: 8803 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: 660 Feet

**CULTURAL DISTANCE INFORMATION**

Distance to nearest:

Building: 1462 Feet  
 Building Unit: 1533 Feet  
 High Occupancy Building Unit: 5280 Feet  
 Designated Outside Activity Area: 5280 Feet  
 Public Road: 822 Feet  
 Above Ground Utility: 948 Feet  
 Railroad: 5280 Feet  
 Property Line: 2145 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: 1328 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**

Distance to nearest completed portion of wellbore to the unit boundary is zero feet because this pilot hole will not be completed.

**OBJECTIVE FORMATIONS**

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
NIOBRARA	NBRR			

**DRILLING PROGRAM**

Proposed Total Measured Depth: 14102 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 1328 Feet (Including plugged wells)

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? Yes

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: Commercial Disposal

Cuttings Disposal: ONSITE Cuttings Disposal Method: Other

Other Disposal Description:

Water based cuttings will be tested to Table 910 standards, mixed/treated as necessary, and buried or spread at location. Oil based cuttings will be hauled to a commercial disposal facility.

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	20	16	55	0	60	60	60	0
SURF	13+1/2	10+3/4	40.5	0	1500	545	1500	0
1ST	9+7/8	7+5/8	26.4	0	11700	823	11700	5000
OPEN HOLE	6+3/4			11700	14102			

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 Note - the APD for this well was original submitted on July 20, 2013 (Doc. No. 40038764) prior to the form being changed. As requested by Bill Yokely, this form is being resubmitted on the new revised Form 2.  
  
This well will be drilled for informational purposes only and will not be produced.  
  
COGCC: Operator's details moved here from eForm Casing Tab - open hole will be plugged back from 14,102' MD to 11,700' MD with 300 sacks cement prior to drilling the lateral sidetrack.

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

Location ID: 435185

Is this application being submitted with an Oil and Gas Location Assessment application? No

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: \_\_\_\_\_ Print Name: Lisa Smith

Title: Agent for Axia Energy LLC Date: 1/31/2014 Email: lisa@permitco-usa.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: 3/8/2014

Expiration Date: 03/07/2016

**API NUMBER**  
05 081 07798 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.**

<b>COA Type</b>	<b>Description</b>
	(1) COMPLIANCE WITH THE MOST CURRENT REVISION OF THE NORTHWEST COLORADO NOTIFICATION POLICY IS REQUIRED. SEE ATTACHED NOTICE.  (2) CEMENT ON INTERMEDIATE CASING (7-5/8" FIRST STRING) MUST EXTEND INTO THE SURFACE CASING (MINIMUM 200' LAP ABOVE SURFACE CASING SHOE) TO PROVIDE ISOLATION OF ALL CRETACEOUS (INCLUDING MESAVERDE GROUP, LEWIS, FOX HILLS, AND LANCE) AND TERTIARY (INCLUDING FORT UNION AND WASATCH, IF PRESENT) OIL, GAS, AND WATER-BEARING SANDSTONE AND COALBED FORMATIONS THAT ARE NOT OTHERWISE COVERED BY SURFACE CASING. VERIFY INTERMEDIATE CASING (7-5/8" FIRST STRING) CEMENT COVERAGE WITH A CBL.
	Open hole resistivity and gamma logs shall be run to describe the stratigraphy of the entire well bore and to adequately verify the setting depth of surface casing and aquifer coverage. On a multi-well pad, these open hole logs are only required on one of the first wells drilled on the pad and the Drilling Completion Report - Form 5 for every well on the pad shall identify which well was logged.

## Best Management Practices

**No BMP/COA Type**

**Description**

--	--

### Applicable Policies and Notices to Operators

NW Colorado Notification Policy.

Notice Concerning Operating Requirements for Wildlife Protection.

### Attachment Check List

**Att Doc Num**

**Name**

400541606	FORM 2 SUBMITTED
400542046	PLAT
400542047	SURFACE AGRMT/SURETY
400542048	30 DAY NOTICE LETTER
400542050	LEASE MAP
400542051	UNIT CONFIGURATION MAP
400542052	WAIVERS
400548688	WELL LOCATION PLAT
400548691	DEVIATED DRILLING PLAN
400548695	DIRECTIONAL DATA

Total Attach: 10 Files

### General Comments

**User Group**

**Comment**

**Comment Date**

Permit	Final review completed. No LGD comments.	3/4/2014 8:43:22 AM
Engineer	OFFSET WELL REVIEW WITHIN 1500' OF PROPOSED HORIZONTAL PILOT HOLE: EVALUATED OFFSET DA WELL COTTONWOOD GULCH UNIT WELL #2 (05-081-060471), TD IN MESAVERDE GROUP AT 6642', SURFACE CASING SET AT 539' AND CEMENTED TO SURFACE, PLUGS SET SEPARATELY TO ISOLATE THE MESAVERDE GROUP (PLUGGED 6110' TO 6010', 30 SX), THE LEWIS AND LANCE FORMATIONS (PLUGGED 2800' TO 2700'. 30 SX), THE FORT UNION FORMATION (PLUGGED 2050' TO 1950', 30 SX), THE WASATCH FORMATION (PLUGGED 590' TO 490', 49 SX), AND SURFACE (10 SX). FORT UNION AND WASATCH FORMATIONS NOT FULLY COVERED WITH CEMENT, BUT PLUGS ARE SET ABOVE AND BELOW BOTH FORMATIONS FOR ISOLATION OF FRESH WATER. THIS WELL ALSO TD'S ABOVE PROPOSED HORIZONTAL WELL OBJECTIVE ZONE. NO MITIGATION REQUIRED.	2/18/2014 1:53:10 PM
Engineer	THE PROPOSED SURFACE CASING IS MORE THAN 50 FEET BELOW THE DEPTH OF THE DEEPEST WATER WELL WITHIN 1-MILE OF THE SURFACE LOCATION WHEN CORRECTED FOR ELEVATION DIFFERENCES. THE DEEPEST WATER WELL WITHIN 1-MILE IS 000 FEET DEEP (NO PERMITTED WATER WELLS WITHIN 1-MILE).	2/18/2014 1:38:44 PM
Engineer	PROPOSED SURFACE CASING OF 1,500 FEET MAY NOT PROVIDE FULL COVERAGE OF WASATCH FORMATION, BASED ON FORT UNION REPORTED LOG TOPS IN OFFSET WELLS.	2/18/2014 1:38:27 PM
Permit	Passed completeness.	2/3/2014 4:31:28 PM
Permit	Returned to draft: Missing attached Deviated Drilling Plan.	1/31/2014 4:03:35 PM

Total: 6 comment(s)