

**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 <u>Horizontal</u>	Refiling <input type="checkbox"/>
ZONE TYPE    SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONES <input type="checkbox"/> COMMINGLE ZONES <input type="checkbox"/>	Sidetrack <input checked="" type="checkbox"/>

Date Received:  
09/15/2013

Well Name: Bulldog      Well Number: 2-43H-791

Name of Operator: AXIA ENERGY LLC      COGCC Operator Number: 10335

Address: 1430 LARIMER STREET #400

City: DENVER      State: CO      Zip: 80202

Contact Name: Lisa Smith      Phone: (303)857-9999      Fax: (303)450-9200

Email: Lisa@permitco-usa.com

**RECLAMATION FINANCIAL ASSURANCE**  
Plugging and Abandonment Bond Surety ID: \_\_\_\_\_

**WELL LOCATION INFORMATION**

QtrQtr: Lot 13    Sec: 2    Twp: 7N    Rng: 91W    Meridian: 6

Latitude: 40.592886      Longitude: -107.566813

Footage at Surface:      2283 feet      FSL      1155 feet      FEL

Field Name: Wildcat      Field Number: 99999

Ground Elevation: 6624      County: MOFFAT

GPS Data:  
Date of Measurement: 01/17/2013    PDOP Reading: 1.3    Instrument Operator's Name: Glen McElroy

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>1980</u>	<u>FSL</u>	<u>680</u>	<u>2012</u>	<u>FNL</u>	<u>664</u>
Sec: <u>2</u>	Twp: <u>7N</u>	Rng: <u>91W</u>	Sec: <u>14</u>	Twp: <u>7N</u>	Rng: <u>91W</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:    Yes

The right to construct the Oil and Gas Location is granted by:    Surface Use Agreement

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.)

At surface: Lessor: Alice Lorraine Robinson. T7N - R90W: Sec. 6: Lot 10, 12, 13, 18-21; Sec. 7: Lots 5-15, 18-20; Sec. 8: Lots 9-16; Sec. 17: Lots 3-4; Sec. 18: Lots 5-8; T7N - R91W: Sec. 1: Lots 17-20; Sec. 2: Lots 13, 14, 19, 20; Sec. 12: Lots 1-6, 8, 11-16; Sec. 13: Lots 1, 2 - containing 2307.7 acres.

Total Acres in Described Lease: 2308 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: 0 Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 3705 Feet  
Building Unit: 5280 Feet  
High Occupancy Building Unit: 5280 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 345 Feet  
Above Ground Utility: 3705 Feet  
Railroad: 5280 Feet  
Property Line: 2978 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: 1320 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 637 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.)
NIOBRARA	NBRR	540-16	2608	ALL

## DRILLING PROGRAM

Proposed Total Measured Depth: 20928 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 1320 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:     OFFSITE          Cuttings Disposal Method:     Commercial Disposal    

Other Disposal Description:

Water based cuttings to 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?     No    

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	75#	0	60	60	60	0
SURF	13+1/2	10+3/4	40.5#	0	1500	410	1500	0
1ST	9+7/8	7+5/8	26.4#	0	10686	820	10686	
2ND	6+3/4	5+1/2	20#	0	10586	85	10586	8586
TAPER	6+3/4	4+1/2	13.5#	10586	20928	720	20928	10586

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 Liner is tapered string 4-1/2" to 5-1/2" casing. The surface owner requests to waive the consultation with the CPW, and does not want any COA's attached to the approval of the APD.

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: Lisa Smith - PermitCo

Title: Authorized Agent for Axia Date: 9/15/2013 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: 6/6/2014

Expiration Date: 06/05/2016

<b>API NUMBER</b>
05 081 07803 01

## 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) COMPLIANCE WITH THE MOST CURRENT REVISION OF THE NORTHWEST COLORADO NOTIFICATION POLICY IS REQUIRED.</p> <p>(2) CEMENT ON INTERMEDIATE CASING (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 (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 (FIRST STRING) CASING CEMENT COVERAGE WITH A CBL.</p>
	<p>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.</p>

## Best Management Practices

### No BMP/COA Type

### Description

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## Applicable Policies and Notices to Operators

NW Colorado Notification Policy.

Notice Concerning Operating Requirements for Wildlife Protection.

## Attachment Check List

### Att Doc Num

### Name

400432770	FORM 2 SUBMITTED
400479942	MINERAL LEASE MAP
400479943	DEVIATED DRILLING PLAN
400479944	WELL LOCATION PLAT
400479945	SURFACE AGRMT/SURETY
400479946	30 DAY NOTICE LETTER
400479947	WAIVERS
400479948	DIRECTIONAL DATA
400481278	UNIT CONFIGURATION MAP

Total Attach: 9 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review completed. No LGD comments.	3/6/2014 6:35:55 AM
Engineer	EVALUATED OFFSET DA WELL STEHLE #14-32 (05-081-06637), TD IN MESAVERDE GROUP AT 4700', SURFACE CASING SET AT 340' AND CEMENTED TO SURFACE, PLUGS SET SEPARATELY TO ISOLATE THE MESAVERDE GROUP (PLUGGED 4200' TO 4050', 55 SX), THE LEWIS, LANCE, AND FORT UNION FORMATIONS (PLUGGED 430' TO 330', 70 SX) AND SURFACE (10 SX). THE FORT UNION FORMATION IS NOT FULLY COVERED WITH CEMENT, BUT PLUGS ARE SET ABOVE AND BELOW THE FORMATION FOR ISOLATION OF FRESH WATER. THIS WELL ALSO TD'S ABOVE PROPOSED HORIZONTAL WELL OBJECTIVE ZONE. NO MITIGATION REQUIRED.	5/1/2014 11:23:08 AM
Permit	The Deviated drilling plan shows a pilot for this lateral but there is no APD on file for this pilot. Has the drilling plan been changed? Don't feel the Deviated drilling plan for the pilot should be shown if it's not going to be in the plan.	1/29/2014 9:39:54 AM
Permit	Pilot for one directional remains in DRAFT.	10/24/2013 9:22:45 AM
Engineer	THE PROPOSED SURFACE CASING IS MORE THAN 50' 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 440 FEET DEEP.	10/7/2013 12:23:34 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.	10/7/2013 12:23:00 PM
Permit	This form has passed completeness.	9/16/2013 9:00:54 AM

Total: 7 comment(s)