

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>Lateral</u>	Refiling <input checked="" 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: 07/29/2014

Well Name: Bulldog Well Number: 7-14H-789

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: 20100083

WELL LOCATION INFORMATION

QtrQtr: Lot 17 Sec: 7 Twp: 7N Rng: 89W Meridian: 6

Latitude: 40.572106 Longitude: -107.426561

Footage at Surface: 368 feet FNL/FSL FSL 623 feet FEL/FWL FWL

Field Name: WILDCAT Field Number: 99999

Ground Elevation: 6854 County: MOFFAT

GPS Data:
Date of Measurement: 03/22/2012 PDOP Reading: 1.4 Instrument Operator's Name: Greg Olsen

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>912</u>	<u>FSL</u>	<u>853</u>	<u>600</u>	<u>FNL</u>	<u>600</u>
	<u>FWL</u>			<u>FEL</u>	
Sec: <u>7</u>	Twp: <u>7N</u>	Rng: <u>89W</u>	Sec: <u>6</u>	Twp: <u>7N</u>	Rng: <u>89W</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: 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.)

Please see attached lease description

Total Acres in Described Lease: 996 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: 3319 Feet

Building Unit: 5280 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 5280 Feet

Above Ground Utility: 5280 Feet

Railroad: 5280 Feet

Property Line: 746 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: 2220 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 600 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	540-5	1273	S6:L8-23,S7:L5-20

DRILLING PROGRAM

Proposed Total Measured Depth: 21267 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 2220 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? Yes

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: _____ Cuttings Disposal Method: Other

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 to 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	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	29.7	0	8500	850	8500	
2ND	6+3/4	5+1/2	20	0	8400	125	8400	6500
TAPER	6+3/4	4+1/2	13.5	8400	21267	1440	21267	8400

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

- There have been no changes to the location.
- I certify that there have been no changes on land use, lease description.
- The pad has not been built.
- No pits have been constructed.
- There will be no additional surface disturbance.
- The location does not require a variance from any of the rules listed in Rule 306.d.(1).(A).(ii).
- The location is within a wildlife Restricted Surface Occupancy Area.

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

Location ID: 429571

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

Title: Authorized Agent Date: 7/29/2014 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: 8/29/2014

Expiration Date: 08/28/2016

API NUMBER

05 081 07732 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

	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.
	(1) COMPLIANCE WITH THE MOST CURRENT REVISION OF THE NORTHWEST COLORADO NOTIFICATION POLICY IS REQUIRED. SEE ATTACHED NOTICE. (2) SURFACE CASING SHALL BE SET AT A SUFFICIENT DEPTH TO COVER THE UPPER 50 FEET OR MORE OF THE LANCE FORMATION AND THE ENTIRE FORT UNION FORMATION. (3) 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 MESA VERDE GROUP, LEWIS, FOX HILLS AND LANCE) 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.

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

400589285	FORM 2 SUBMITTED
-----------	------------------

Total Attach: 1 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review completed on this refile. No LGD comments.	8/27/2014 7:12:31 AM
Permit	The Form 2A expires 7/9/2015	8/27/2014 7:11:42 AM
Engineer	<p>EVALUATED EXISTING OFFSET WELLS WITHIN 1500 FEET OF THIS PROPOSED WELLBORE:</p> <p>EVALUATED OFFSET PR WELL BULLDOG #5-14H-789 (05-081-07737), TD AT 15883' IN THE NBRR. THE WELL PRODUCES FROM A NBRR HORIZONTAL. THE PRODUCTION CASING (5+1/2" BY 4+1/2" TAPERED SECOND STRING) IS CEMENTED BELOW THE INTERMEDIATE CASING SHOE (7+5/8" FIRST STRING) AT 9986'. INTERMEDIATE CASING CEMENT IS APPARENT ON A CBL FROM THE SHOE UP TO APPROXIMATELY 8120', THEN APPARENT COVERAGE IS POOR UP TO THE TOP OF THE LOG AT 4950'. POTENTIAL OIL, GAS, COALBED, AND/OR WATER-BEARING ZONES ARE PRESENT IN THE UNCEMENTED INTERMEDIATE CASING INTERVAL, INCLUDING MRPS, MVRD, LWIS, FXHLS, LNCE, AND FTUN. HOWEVER, THE MULTIPLE CASING STRING DESIGN ALLOWS FOR ADDED PROTECTION FROM COMMUNICATION WITH OFFSET STIMULATION, AND PLANNED DOWNHOLE SEPARATION BETWEEN THE TWO WELLS APPEARS TO EXCEED 1250'. NO MITIGATION REQUIRED.</p>	8/20/2014 11:27:07 AM
Engineer	<p>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 000 FEET DEEP (ONE PERMITTED WATER WELL WITH NO REPORTED DEPTH).</p> <p>PROPOSED SURFACE CASING OF 1,500 FEET MAY PROVIDE FULL COVERAGE OF THE FORT UNION FORMATION, BASED ON LANCE FORMATION REPORTED LOG TOPS IN OFFSET WELLS. MINIMUM SURFACE CASING REQUIREMENTS ARE SPECIFIED IN CONDITION OF APPROVAL #2.</p>	8/20/2014 11:26:12 AM
Permit	Passed completeness.	7/30/2014 9:39:55 AM

Total: 5 comment(s)