

FORM
2

Rev
08/13

State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

400387936

APPLICATION FOR PERMIT TO:

☒ Drill ☐ Deepen ☐ Re-enter ☐ Recomplete and Operate

TYPE OF WELL OIL ☐ GAS ☒ COALBED ☐ OTHER Horizontal

Refilling ☐

Date Received:

11/21/2013

ZONE TYPE SINGLE ZONE ☐ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☒

Well Name: Bulldog

Well Number: 17-21H-891

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: NW NE Sec: 17 Twp: 8N Rng: 91W Meridian: 6

Latitude: 40.658607

Longitude: -107.627397

Footage at Surface: 101 feet FNL/FSL FNL 2145 feet FEL/FWL FEL

Field Name: Wildcat Field Number: 99999

Ground Elevation: 6975 County: MOFFAT

GPS Data:

Date of Measurement: 01/11/2013 PDOP Reading: 1.1 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 660 FNL 1981 FWL 625 FSL 1980 FWL
Sec: 17 Twp: 8N Rng: 91W Sec: 20 Twp: 8N Rng: 91W

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: 20100083

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.)

Partial Lease Description: T8N-R91W Sec. 17: E/2NW/4, NWNW, NE, E/2, SE. Total numbers of acres in lease - 8802.79. Distance to mineral lease line 0' because lateral crosses multiple lease lines. Total acres in proposed spacing unit - 2604.68

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: 0 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: 1325 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 625 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	TBD	2605	Sec. 17-20 All

DRILLING PROGRAM

Proposed Total Measured Depth: 22904 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 1325 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? 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 N/A

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 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	26.4#	0	11700	823	11700	
2ND	6+3/4	5+1/2	20#	0	11650	100	11650	9650
TAPER	6+3/4	4+1/2	13.5#	11650	22094	965	22094	11650

☐ 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 Production casing is tapered string 5-1/2" to 4-1/2".

This application is in a Comprehensive Drilling Plan No 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 Inc

Title: Agent for Axia Energy Date: 11/21/2013 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:  Director of COGCC Date: 3/8/2014

Expiration Date: 03/07/2016

API NUMBER

05 081 07798 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) CEMENT ON THE 7-5/8" FIRST STRING (INTERMEDIATE CASING) MUST EXTEND INTO THE SURFACE CASING (MINIMUM 200' LAP ABOVE SURFACE CASING SHOE) TO PROVIDE ISOLATION OF ALL CRETACEOUS (MESAVERDE, LEWIS, FOX HILLS [IF PRESENT] AND LANCE) AND TERTIARY (FORT UNION AND WASATCH) OIL, GAS, AND WATER-BEARING SANDSTONE AND COALBED FORMATIONS THAT ARE NOT OTHERWISE COVERED BY SURFACE CASING. VERIFY 7-5/8" FIRST STRING (INTERMEDIATE CASING) CEMENT COVERAGE WITH A CBL.

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

400387936	FORM 2 SUBMITTED
400513768	DIRECTIONAL DATA
400513769	PLAT
400513770	OIL & GAS LEASE
400513771	MINERAL LEASE MAP
400513772	UNIT CONFIGURATION MAP
400513776	DEVIATED DRILLING PLAN
400516900	SURFACE AGRMT/SURETY
400516901	WAIVERS
400516902	WAIVERS

Total Attach: 10 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review completed. No LGD comments.	3/4/2014 8:41:45 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 000 FEET DEEP (NO PERMITTED WATER WELLS WITHIN ONE MILE).	12/10/2013 12:19:50 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.	12/10/2013 12:19:19 PM
Engineer	Changed 5-1/2" Casing Type from "1st Liner" to "Second String." Changed 4-1/2" Casing Type from "2nd Liner" to "Taper."	12/10/2013 12:16:48 PM
Permit	Passed completeness.	11/22/2013 12:18:29 PM

Total: 5 comment(s)