

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:

400449657

APPLICATION FOR PERMIT TO:

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

TYPE OF WELL OIL ☐ GAS ☒ COALBED ☐ OTHER Horizontal

Refiling ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Date Received:

01/29/2014

Well Name: Bulldog

Well Number: 23-41H-892

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: NENE Sec: 23 Twp: 8N Rng: 92W Meridian: 6

Latitude: 40.633942

Longitude: -107.678303

Footage at Surface: 1304 feet FNL/FSL FNL 265 feet FEL/FWL FEL

Field Name: Wildcat Field Number: 99999

Ground Elevation: 6925 County: MOFFAT

GPS Data:

Date of Measurement: 04/05/2013 PDOP Reading: 1.5 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 2130 FNL 660 FEL 1948 FSL 658 FEL 1948
Sec: 23 Twp: 8N Rng: 92W Sec: 26 Twp: 8N Rng: 92W

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.)

T8N - R92W

Sec. 3: Lots 17, 18, N/2S/2

Sec. 9: NE4, SE NW, NESW, N2SE,

Sec. 11: SW/4, S/2 NW/4

Sec. 14: W/2 NW/4

Sec. 23: E/2 SE/4, NE/4, NWSE, SENW, NESW

Sec. 24: NW NW, SW NW, W/2SW

Sec. 25: W/2NW

Sec. 26: NE NE

See Mineral Lease Map Attached.

Total Acres in Described Lease: 1520 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: 5280 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: 1304 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 670 Feet (Enter 5280 for distance greater than 1 mile.)

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

SPACING & FORMATIONS COMMENTS

See attached unit configuration map.

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 | 540-15 | 2463 | S.23,24,25,26,36 |

DRILLING PROGRAM

Proposed Total Measured Depth: 18986 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 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 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:

Cuttings to be collected in cuttings pit, tested, and if pass Table 910-1 standards, to be buried or spread on location. Oil based cuttings to 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 | 410 | 1500 | 0 |
| 1ST | 9+7/8 | 7+5/8 | 26.4# | 0 | 11500 | 800 | 11500 | |
| 2ND | 6+3/4 | 5+1/2 | 20# | 0 | 11400 | 80 | 11400 | 9500 |
| TAPER | 6+3/4 | 4+1/2 | 13.5# | 11400 | 18986 | 525 | 18986 | 11400 |

☐ 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

☐

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 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

Title: Agent for Axia Energy LLC Date: 1/29/2014 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: _____

Director of COGCC

Date: 8/8/2014

Expiration Date: 08/07/2016

API NUMBER

05 081 07805 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) THE OPERATOR'S PLAN TO ENSURE TOP OF CEMENT FOR THE PRODUCTION CASING (4.5") TO BE A MINIMUM OF 100' PAST THE INTERMEDIATE CASING SHOE IS ACCEPTABLE. VERIFY PRODUCTION CASING CEMENT COVERAGE WITH A CBL. (3) THE OPERATOR SHOULD HAVE PERVIOUSLY DETERMINED THAT CEMENT ON INTERMEDIATE (7-5/8" FIRST STRING) CASING EXTENDS 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 (7-5/8" FIRST STRING) CASING 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

| | |
|-----------|-------------------------|
| 400449657 | FORM 2 SUBMITTED |
| 400470250 | DEVIATED DRILLING PLAN |
| 400470252 | DIRECTIONAL DATA |
| 400470254 | SURFACE AGRMT/SURETY |
| 400493468 | 30 DAY NOTICE LETTER |
| 400493469 | WAIVERS |
| 400517651 | UNIT CONFIGURATION MAP |
| 400517652 | MINERAL LEASE MAP |
| 400517678 | LEGAL/LEASE DESCRIPTION |
| 400547339 | WELL LOCATION PLAT |

Total Attach: 10 Files

General Comments

| <u>User Group</u> | <u>Comment</u> | <u>Comment Date</u> |
|-------------------|---|--------------------------|
| Permit | Final review completed. No LGD comments. | 5/28/2014 11:37:39 AM |
| Engineer | Changed "First Taper" Casing Type to "Second String" | 2/18/2014 1:13:39 PM |
| Engineer | OFFSET WELL REVIEW WITHIN 1500' OF PROPOSED HORIZONTAL SIDETRACK: EVALUATED OFFSET DA WELL CLARA STURMAN ESTATE #1 (05-081-05381), TD IN MANCOS SHALE AT 9650' (BELOW MARAPOS FORMATION BASE AT 9000'), SURFACE CASING SET AT 608' AND CEMENTED TO SURFACE, PLUGS SET TO SEPARATELY ISOLATE MORAPPOS AND MANCOS, MESAVERDE AND LEWIS, LANCE AND FORT UNION, AND SURFACE CASING AT 9050' to 8984' (25 SX), 5485' to 5419' (25 SX), 1780' to 1714' (25 SX), 640' to 564' (35 SX) AND SURFACE (10 SX). FORT UNION FORMATION NOT FULLY COVERED WITH CEMENT, BUT PLUGS ARE SET ABOVE AND BELOW FORT UNION FOR ISOLATION OF FORT UNION FRESH WATER. THIS WELL ALSO TD'S ABOVE PROPOSED HORIZONTAL WELL OBJECTIVE ZONE AND IS LOCATED BEHIND THE HEEL OF THE PROPOSED HORIZONTAL WELL LATERAL. NO MITIGATION REQUIRED. | 2/18/2014 1:07:50 PM |
| Engineer | PROPOSED SURFACE CASING OF 1,500 FEET MAY NOT PROVIDE FULL COVERAGE OF WASATCH FORMATION AND/OR FORT UNION FORMATION, BASED ON REPORTED LOG TOPS IN OFFSET WELLS. | 2/18/2014 1:05:20 PM |
| 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 280 FEET DEEP. | 2/18/2014 1:04:59 PM |
| Permit | Passed completeness. | 1/30/2014 1:46:42 PM |
| Permit | Returned to draft: Please select well type in Well Name & Contact Info tab. | 1/29/2014 2:36:40 PM |

Total: 7 comment(s)