

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:

400463251

APPLICATION FOR PERMIT TO:

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

TYPE OF WELL OIL ☐ GAS ☐ COALBED ☐ OTHER SWD

Refiling ☐

ZONE TYPE SINGLE ZONE ☐ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Date Received:

10/21/2013

Well Name: Caboose

Well Number: 1548-21-44

Name of Operator: ANADARKO E&P ONSHORE LLC

COGCC Operator Number: 2800

Address: PO BOX 173779

City: DENVER State: CO Zip: 80217

Contact Name: Kenny Trueax

Phone: (720)929-6383

Fax: ()

Email: kenny.trueax@anadarko.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20030041

WELL LOCATION INFORMATION

QtrQtr: SESE Sec: 21 Twp: 15S Rng: 48W Meridian: 6

Latitude: 38.722635

Longitude: -102.779769

Footage at Surface: 675 feet FNL/FSL FSL 1100 feet FEL/FWL FEL

Field Name: Wildcat

Field Number:

Ground Elevation: 4254

County: CHEYENNE

GPS Data:

Date of Measurement: 06/20/2013 PDOP Reading: 1.3 Instrument Operator's Name: Rob Wilson

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

Sec: Twp: Rng: Sec: Twp: Rng:

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: No

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.)

Right to construct pad is granted by signed Surface Use Agreement dated Nov. 13, 2013. A signed Memorandum of Surface Use Agreement and Memorandum of Water Disposal Well Agreement is attached to corresponding 2A Doc. ID 400466051.

Total Acres in Described Lease: 640 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: 675 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 2350 Feet
Building Unit: 2350 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 671 Feet
Above Ground Utility: 702 Feet
Railroad: 5280 Feet
Property Line: 650 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: 5280 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 5280 Feet (Enter 5280 for distance greater than 1 mile.)

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

SPACING & FORMATIONS COMMENTS

This well will be drilled and completed as a SWD injection well only. This well is proposed to inject into the Arbuckle formation below any current production within a one mile radius.

OBJECTIVE FORMATIONS

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

DRILLING PROGRAM

Proposed Total Measured Depth: 5714 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 5280 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? No

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: Beneficial reuse

Other Disposal Description:

Cuttings will be tested and spread on pad (with landowner approval) or disposed of per Waste Management Plan for this area updated 9/16/2013 and included with corresponding 2A. All testing and disposal will comply with rule 910 and Table 910-1 of regs.

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	27	20	42.09	0	60	5	60	0
SURF	17+1/2	13+3/8	54.5	0	500	300	500	0
1ST	12+1/4	9+5/8	36	0	2750	720	2750	0
2ND	8+3/4	7	26	2750	5484	290	5484	2250

☐ 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

This well is planned to have an open hole cement plug at 5714'-5614' MD; actual length of cement plug to be determined after logging attempt.

Injection application Forms 26, 31 and 33 submitted to UIC department at COGCC.

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: Kenny Trueax

Title: Sr. Regulatory Analyst Date: 10/21/2013 Email: kenny.trueax@anadarko.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: 1/3/2014

Expiration Date: 01/02/2016

API NUMBER

05 017 07780 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.

COA Type

Description

	1) Provide 48 hour notice prior to spud via electronic Form 42. 2) If production casing is set provide cement coverage from TD to at least 200' above Spergen, and cement across Cheyenne/Dakota aquifers (minimum 2050' – 1250'). Verify with CBL. 3) If well is a dry hole set the following plugs: 40 sks cement +/- 50' above the Spergen, 40 sks cement +/- 50' above any DST w/ show, 40 sks cement at 2050' up, 40 sks cement at 1250' up, 50 sks cement from 50' below surface casing shoe up into surface casing, 10 sks cement in top of surface csg, cut 4 ft below GL, weld on plate, 5 sks cement each in rat hole and mouse hole.
	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 Form 5 for every well on the pad shall identify which well was logged.

Best Management Practices

No BMP/COA Type

Description

1	Planning	The proposed SWD injection pad is located in a rural rangeland area. The closest occupied building is 2,435 feet to the NE separated by Highway 287.
2	Wildlife	Burrowing Owl Habitat ID 176, 191: 3/3 consecutive negative surveys 8/21/2013; No burrowing owls observed 8/28/2013; No burrowing owls observed 9/5/2013; No burrowing owls observed

Total: 2 comment(s)

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

Att Doc Num

Name

400463251	FORM 2 SUBMITTED
400466752	ACCESS ROAD MAP
400499406	WELL LOCATION PLAT
400514724	SURFACE OWNER CONSENT
400514726	SURFACE AGRMT/SURETY

Total Attach: 5 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review completed; no LGD or public comment received.	12/31/2013 6:32:38 AM
Permit	Operator is the mineral owner of the entire section 21, 15S/48W	12/4/2013 5:14:44 AM
Permit	This form passes completeness.	11/19/2013 10:51:50 AM
Permit	Returned to draft: Need the signed SUA before approval.	10/22/2013 6:16:10 AM

Total: 4 comment(s)