

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:

400957687

APPLICATION FOR PERMIT TO:

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

TYPE OF WELL OIL ☐ GAS ☒ COALBED ☐ OTHER _____

Refilling ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Date Received:

01/29/2016

Well Name: RESOLUTION

Well Number: 12-65-25-25-5NH

Name of Operator: ANADARKO E&P ONSHORE LLC

COGCC Operator Number: 2800

Address: P O BOX 173779

City: DENVER

State: CO

Zip: 80217-3779

Contact Name: Shayelyn Marshall

Phone: (720)929-6907

Fax: (720)929-7907

Email: shayelyn.marshall@anadarko.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20030041

WELL LOCATION INFORMATION

QtrQtr: SWSE Sec: 25 Twp: 12N Rng: 65W Meridian: 6

Latitude: 40.972480

Longitude: -104.606589

Footage at Surface: 470 feet FNL/FSL FSL 1772 feet FEL/FWL FEL

Field Name: WILDCAT

Field Number: 99999

Ground Elevation: 5851

County: WELD

GPS Data:

Date of Measurement: 11/23/2015 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 FSL 600 FSL 1960 FEL FEL 600 FNL 1960 FEL
Sec: 25 Twp: 12N Rng: 65W Sec: 25 Twp: 12N Rng: 65W

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.)

All Section 25 T12N-R65W

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: 600 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: 470 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 proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 619 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

Unit Description: T12N-R65W Section 25: All
Please refer to January hearing, docket number - 160100005.

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 | 535-725 | 640 | Sec 25 ALL |

DRILLING PROGRAM

Proposed Total Measured Depth: 12870 Feet

Distance from proposed wellbore to nearest existing or permitted wellbore belonging to another operator:

2620 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: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted? Yes

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 | 42 | 0 | 90 | 60 | 90 | 0 |
| SURF | 12+1/4 | 9+5/8 | 36 | 0 | 2210 | 580 | 2210 | 0 |
| 1ST | 8+3/4 | 7 | 26 | 0 | 8818 | 1020 | 8818 | 1500 |
| 1ST LINER | 6+1/8 | 4+1/2 | 11.6 | 7917 | 12870 | 420 | 12870 | 7917 |

☐ 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 | <p>This well will be permitted closest to the Resolution 12-65-25-25-4NH approximately 619' away.</p> <p>Drilling fluids disposal: APC will reuse water-based drilling fluids to the maximum extent possible, at which point they will either be land applied or taken to a licensed, commercial disposal site; the decision will be based upon laboratory analysis of fluids. APC will reuse oil-based drilling fluids to the maximum extent possible, at which point they will be returned to the fluids manufacturer for reconditioning or disposed of at the licensed, commercial disposal sites listed below:</p> <p>Liquids</p> <ul style="list-style-type: none">• Waste Management's CSI facility in Bennett, CO• Republic Services' Tower Road landfill in Denver, CO <p>Solids</p> <ul style="list-style-type: none">• Waste Management's Buffalo Ridge facility in Keenesburg, CO• Waste Management's North Weld facility in Ault, CO• Waste Connection's North Regional Landfill in Erie, CO |
|----------|---|

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: Shayelyn Marshall

Title: Regulatory Analyst I Date: 1/29/2016 Email: shayelyn.marshall@anadarko.c

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: 4/17/2016

Expiration Date: 04/16/2018

API NUMBER

05 123 43082 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

| | |
|--|---|
| | Submit Form 42 electronically to COGCC 48 hours prior to MIRU for the first well activity with a rig on the pad and provide 48 hour spud notice for each subsequent well drilled on the pad. Comply with Rule 317.j and provide cement coverage from end of 7" casing to a minimum of 200' above Niobrara. Verify coverage with cement bond log. Oil-based drilling fluid is to be used only after all aquifers are covered. |
| | Bradenhead tests shall be performed on all wells on this pad on the following schedule: 1) Within 60 days of rig release and prior to stimulation (wells already stimulated excepted). 2) Between 6 and 7 months after rig release or prior to stimulation. 3) Within 30 days of First Production as reported on Form 5A (wells already producing shall be tested within 30 days). Test results shall be submitted on Form 17 within 10 days of test. |

Best Management Practices

No BMP/COA Type

Description

| | | |
|---|--------------------------------|--|
| 1 | Planning | The nearest building unit is located 5280' away from this oil and gas location, therefore it is not within a Designated Setback Location and is exempt from 604.c. |
| 2 | Drilling/Completion Operations | One of the first wells drilled on the pad will be logged with open-hole Resistivity Log and Gamma Ray Log from the kick-off point into the surface casing. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The horizontal portion of every well will be logged with a measured-while-drilling gamma-ray log. The Form 5, Completion Report, for each well on the pad will list all logs run and have those logs attached. The Form 5 for a well without open-hole logs shall clearly state "No open-hole logs were run" and shall clearly identify (by API#, well name & number) the well in which open-hole logs were run. |
| 3 | Drilling/Completion Operations | Anadarko will comply with the COGCC Policy for Bradenhead Monitoring during Hydraulic Fracturing Treatments. |
| 4 | Drilling/Completion Operations | Anti-Collision: Anadarko will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within one hundred fifty (150) feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators within one hundred fifty (150) feet prior to drilling. |

Total: 4 comment(s)

Applicable Policies and Notices to Operators

| |
|--|
| Policy |
| Notice Concerning Operating Requirements for Wildlife Protection. http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf |

Attachment Check List

| <u>Att Doc Num</u> | <u>Name</u> |
|---------------------------|----------------------------|
| 400957687 | FORM 2 SUBMITTED |
| 400972926 | WELL LOCATION PLAT |
| 400972927 | DEVIATED DRILLING PLAN |
| 400972928 | DIRECTIONAL DATA |
| 400980891 | WASTE MANAGEMENT PLAN |
| 400981060 | SURFACE AGRMT/SURETY |
| 401023677 | OffsetWellEvaluations Data |

Total Attach: 7 Files

General Comments

| <u>User Group</u> | <u>Comment</u> | <u>Comment Date</u> |
|--------------------------|--|----------------------------|
| Permit | Final Review Complete. | 4/11/2016 1:23:48 PM |
| Engineer | Changed "Distance from proposed wellbore to nearest existing or permitted wellbore belonging to another operator" to reflect the distance to 123-32371. Evaluated offset wells. | 3/30/2016 10:54:38 AM |
| Permit | Added approved spacing order. | 3/27/2016 2:01:49 PM |
| Permit | Passed completeness. | 2/1/2016 12:03:49 PM |
| Permit | Returned to draft per operator. | 1/29/2016 3:16:25 PM |

Total: 5 comment(s)