

FORM
2
Rev
08/16

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:
401192230

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

TYPE OF WELL OIL GAS COALBED OTHER _____
ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Refiling
Sidetrack

Date Received:
01/31/2017

Well Name: CANNON Well Number: 4N-4HZ
Name of Operator: KERR MCGEE OIL & GAS ONSHORE LP COGCC Operator Number: 47120
Address: P O BOX 173779
City: DENVER State: CO Zip: 80217-3779
Contact Name: CRAIG RICHARDSON Phone: (720)929-6092 Fax: (720)929-7093
Email: CRAIG.RICHARDSON@ANADARKO.COM

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20010124

WELL LOCATION INFORMATION

QtrQtr: NWNW Sec: 33 Twp: 3N Rng: 65W Meridian: 6
Latitude: 40.188149 Longitude: -104.674222

Footage at Surface: 370 Feet FNL/FSL FNL 1034 Feet FEL/FWL

Field Name: WATTENBERG Field Number: 90750

Ground Elevation: 4862 County: WELD

GPS Data:
Date of Measurement: 09/15/2016 PDOP Reading: 1.5 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
150 FNL 926 FWL 362 FNL 1025 FWL
Sec: 33 Twp: 3N Rng: 65W Sec: 4 Twp: 2N 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.)

Township 3 North, Range 65 West, 6th P.M.
Section 23: NW/4, S/2
Section 25: NW/4, S/2
Section 27: NW/4, S/2
Section 33: NW/4, S/2
Section 35: NW/4, S/2
Township 2 North, Range 65 West, 6th P.M.
Section 1: Lot 2 (N/2 NW/4) (74.81), S/2 NW/4, S/2
Section 11: NW/4, S/2
Township 3 North, Range 64 West
Section 31: Lots 1 and 2 (W/2 W/2) (136.84), E/2 W/2, SE/4
Section 33: NW/4, S/2

Township 2 North, Range 64 West
Section 3: Lot 2 (N/2 NW/4) (79.20), S/2 NW/4, S/2
Section 5: Lot 2 (N/2 NW/4) (79.67), S/2 NW/4, S/2
Section 7: Lots 1 and 2 (W/2 W/2) (138.96), E/2 W/2, SE/4
Weld County, Colorado

Total Acres in Described Lease: 5709 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: 2552 Feet
Building Unit: 2603 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 355 Feet
Above Ground Utility: 405 Feet
Railroad: 5280 Feet
Property Line: 370 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: 45 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 827 Feet (Enter 5280 for distance greater than 1 mile.)

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

SPACING & FORMATIONS COMMENTS

Spacing Unit: 3N-65W: Sec 33:W2; Sec 28: S2SW; 2N-65W: Sec 4: N2NW

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		480	GWA

DRILLING PROGRAMProposed Total Measured Depth: 13011 Feet

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells:

Enter distance if less than or equal to 1,500 feet: 997 Feet No well belonging to another operator within 1,500 feetWill a closed-loop drilling system be used? YesIs 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? NoWill salt based (>15,000 ppm Cl) drilling fluids be used? NoWill oil based drilling fluids be used? YesBOP Equipment Type: Annular Preventor Double Ram Rotating Head None**GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING**Water well sampling required per Rule 318A**DRILLING WASTE MANAGEMENT PROGRAM**Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial DisposalCuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Please see Comments section. Disposal description will not fit in space provided.

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	26	16	42.1	0	40	30	40	0
SURF	13+1/2	9+5/8	36	0	1500	590	1500	0
1ST	7+7/8	5+1/2	17	0	13001	1524	13001	

 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

Drilling fluids disposal: KMG 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. KMG 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 disposal at a licensed, commercial disposal site.

Cuttings disposal: Water-based cuttings will be disposed of using a Centralized E&P Waste Management facility or a private spread field, depending on what is feasible at the time of drilling. Oil-based cuttings will be disposed of offsite and at a licensed, commercial disposal site.

This proposed well will have a treated interval less than one hundred fifty (150) feet from the treated interval of another well and is subject to COGCC Rule 317.r.

The following well(s) belong to Kerr-McGee and will have treated intervals within one hundred fifty (150) feet of this proposed well:

CANNON H 33-13
CANNON X 04-29D
REIGLE 29N-9HZ
REIGLE 29C-9HZ
SKIM 13N-28HZ

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: CRAIG RICHARDSON

Title: REGULATORY ANALYST II Date: 1/31/2017 Email: djregulatory@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: _____

Matthew Lee

Director of COGCC

Date: 5/14/2017

Expiration Date: 05/13/2019

API NUMBER

05 123 44793 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

	<p>Operator acknowledges the proximity of the listed wells. Operator agrees to: provide mitigation option 1 or 2 (per the DJ Basin Horizontal Offset Policy) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well. 05-123-18616, MOORE UPRC H 28-13 05-123-17697, UPRC 33-4J5 05-123-17703, UPRC 33-12J5</p>
	<p>1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 48 hour spud notice via Form 42 for all subsequent wells drilled on the pad. 2) Comply with Rule 317.j. and provide cement coverage from TD to a minimum of 200' above Niobrara and from 200' below Sussex to 200' above Sussex. Verify coverage with cement bond log.</p>
	<p>Bradenhead tests shall be performed according to the following schedule and the Form 17 submitted within 10 days of each test: 1) Within 60 days of rig release and prior to stimulation and 2) If a delayed completion, 6 months after rig release and prior to stimulation. 3) Within 30 days after first production, as reported on Form 5A.</p>

Best Management Practices

No	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	Kerr-McGee acknowledges and will comply with the COGCC Policy for Bradenhead Monitoring during Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012.
2	Drilling/Completion Operations	Anti-Collision: Kerr-McGee 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.
3	Drilling/Completion Operations	317.p Logging Program: One of the first wells drilled on the pad will be logged with Cased-hole Pulsed Neutron Log with Gamma Ray Log 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 in that well and have those logs attached. The Form 5 for each well shall clearly state "No open-hole logs were run" and shall reference the Rule 317.p Exception granted for the well.

Total: 3 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
Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area. http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1696751	OPEN HOLE LOGGING EXCEPTION
2365874	SURFACE CASING CHECK
401192230	FORM 2 SUBMITTED
401196872	OffsetWellEvaluations Data
401196876	DIRECTIONAL DATA
401196877	WELL LOCATION PLAT
401197639	DEVIATED DRILLING PLAN
401197641	EXCEPTION LOC REQUEST
401197643	EXCEPTION LOC WAIVERS
401198224	PROPOSED SPACING UNIT
401233985	SURFACE AGRMT/SURETY
401282501	OFFSET WELL EVALUATION

Total Attach: 12 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	05/09/2017
Permit	Attached corrected Open Hole Logging Exception letter. Permitting Review Complete.	05/09/2017
Permit	Operator requested Exception to Open Hole Logging Rule 317.p. See attached. Per operator changed right to construct to SUA and removed the surface bonding info. ON HOLD: requesting corrected Open Hole Logging Exception letter.	05/05/2017
Permit	Passed Completeness	03/21/2017
Permit	Returned to Draft per Operator Request.	02/03/2017

Total: 5 comment(s)