

FORM
2

Rev
12/05

State of Colorado
Oil and Gas Conservation Commission

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



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Date Received:

01/18/2013

PluggingBond SuretyID

20010124

APPLICATION FOR PERMIT TO:

1. ☒ Drill, ☐ Deepen, ☐ Re-enter, ☐ Recomplete and Operate

2. TYPE OF WELL

OIL ☐ GAS ☒ COALBED ☐ OTHER ☐
SINGLE ZONE ☒ MULTIPLE ☐ COMMINGLE ☐

Refiling ☐

Sidetrack ☐

3. Name of Operator: KERR-MCGEE OIL & GAS ONSHORE LP

4. COGCC Operator Number: 47120

5. Address: P O BOX 173779

City: DENVER State: CO Zip: 80217-3779

6. Contact Name: Cheryl Light Phone: (720)929-6461 Fax: (720)929-7461

Email: cheryl.light@anadarko.com

7. Well Name: HOWARD Well Number: 29N-33HZ

8. Unit Name (if appl): Unit Number:

9. Proposed Total Measured Depth: 13367

WELL LOCATION INFORMATION

10. QtrQtr: SESW Sec: 21 Twp: 1N Rng: 67W Meridian: 6

Latitude: 40.030092 Longitude: -104.899559

Footage at Surface: 281 feet FNL/FSL 1519 feet FEL/FWL
FSL FWL

11. Field Name: WATTENBERG Field Number: 90750

12. Ground Elevation: 5025 13. County: WELD

14. GPS Data:

Date of Measurement: 07/11/2012 PDOP Reading: 1.4 Instrument Operator's Name: CONNER MAHOSKEY

15. 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
50 FSL 1210 FWL 200 FNL 1160 FWL
Sec: 21 Twp: 1N Rng: 67W Sec: 33 Twp: 1N Rng: 67W

16. Is location in a high density area? (Rule 603b)? ☐ Yes ☒ No

17. Distance to the nearest building, public road, above ground utility or railroad: 284 ft

18. Distance to nearest property line: 209 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 650 ft

20. LEASE, SPACING AND POOLING INFORMATION

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

21. Mineral Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian Lease #:

22. Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian

23. Is the Surface Owner also the Mineral Owner? ☐ Yes ☒ No Surface Surety ID#:

23a. If 23 is Yes: Is the Surface Owner(s) signature on the lease? ☐ Yes ☒ No

23b. If 23 is No: ☒ Surface Owners Agreement Attached or ☐ \$25,000 Blanket Surface Bond ☐ \$2,000 Surface Bond ☐ \$5,000 Surface Bond

24. Using standard QtrQtr, Sec, Twp, Rng format enter entire mineral lease description upon which this proposed wellsite is located (attach separate sheet/map if you prefer):

Horizontal wellbore will produce from multiple leases, please see attached Lease Description.

25. Distance to Nearest Mineral Lease Line: 0 ft 26. Total Acres in Lease: 6861

DRILLING PLANS AND PROCEDURES

27. Is H2S anticipated? ☐ Yes ☒ No If Yes, attach contingency plan.

28. Will salt sections be encountered during drilling? ☐ Yes ☒ No

29. Will salt (>15,000 ppm TDS CL) or oil based muds be used during drilling? ☐ Yes ☒ No

30. If questions 28 or 29 are yes, is this location in a sensitive area (Rule 901.e)? ☐ Yes ☒ No

31. Mud disposal: ☒ Offsite ☐ Onsite

If 28, 29, or 30 are "Yes" a pit permit may be required.

Method: ☐ Land Farming ☒ Land Spreading ☐ Disposal Facility Other: _____

Note: The use of an earthen pit for Recompletion fluids requires a pit permit (Rule 905b). If air/gas drilling, notify local fire officials.

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
SURF	13+1/2	9+5/8	36.0	0	900	670	900	0
1ST	8+3/4	7	26.0	0	7,837	770	7,837	0
1ST LINER	6+1/8	4+1/2	11.6	6808	13,367			

32. BOP Equipment Type: ☒ Annular Preventer ☐ Double Ram ☒ Rotating Head ☐ None

33. Comments No conductor casing will be used. Unit Configuration NBRR: Sec. 21:S/2SW/4; Sec. 28:W/2; Sec. 33:N/2NW/4. The surface location of this well is an exception to Rule 318A.a and to Rule 318A.c. This well is not within the GWA surface location window and does not meet the twinning requirement due to the number of wells planned for this area and at the request of the surface owner. An exception location request letter and signed waivers are attached to the Form 2 and Form 2A. Operator will run open hole logs into the surface casing on the first well drilled on this pad.

34. Location ID: 317564

35. Is this application in a Comprehensive Drilling Plan ? ☐ Yes ☐ No

36. Is this application part of submitted Oil and Gas Location Assessment ? ☒ Yes ☐ No

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: _____ Print Name: Cheryl Light

Title: Sr. Regulatory Analyst Date: 1/18/2013 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: 2/15/2013

API NUMBER

05 123 36790 00

Permit Number: _____ Expiration Date: 2/14/2015

CONDITIONS OF APPROVAL, IF ANY:

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.

1)Provide notice of MIRU via an electronic Form 42.

2)Comply with Rule 317.i and provide cement coverage from the 7" casing TD to a minimum of 200' above the Niobrara and from 200' below Sussex to 200' above Sussex. Verify coverage with a cement bond log per Rule 317.o.

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area.

Attachment Check List

Att Doc Num	Name
1695477	LEGAL/LEASE DESCRIPTION
1695478	PROPOSED SPACING UNIT
2485283	SURFACE CASING CHECK
400370806	FORM 2 SUBMITTED
400370812	DEVIATED DRILLING PLAN
400370813	PLAT
400370815	30 DAY NOTICE LETTER
400370816	SURFACE AGRMT/SURETY
400370819	EXCEPTION LOC REQUEST
400370820	EXCEPTION LOC WAIVERS
400370822	OTHER
400371858	DIRECTIONAL DATA

Total Attach: 12 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Added Location ID# 317564 per operator. Final Review Completed. No LGD or public comment received.	2/15/2013 10:57:17 AM
Permit	ON HOLD: w/o form 2A. Attached corrected mineral lease acreage & proposed spacing unit. ok to pass.	2/1/2013 12:47:20 PM
Permit	ON HOLD: Requesting 1)Correct mineral lease acreage. 2)Corrected Proposed Spacing unit map.	1/31/2013 12:55:35 PM
Permit	Horizontal wellbore crosses lease lines within drilling and spacing unit; distance to lease line is 0'; distance to unit boundary is 460'.	1/31/2013 12:55:34 PM
Permit	Operator's request for omission of open hole logs.	1/31/2013 12:55:33 PM
Permit	Operator requests approval of a Rule 318Aa and Rule 318Ac exception location: Wellhead is to be located outside of a GWA drilling window and will be located more than 50' from an existing well location. Request and waivers attached.	1/31/2013 12:55:31 PM
Engineer	Evaluated offset wells for adequate coverage.	1/23/2013 4:53:31 PM
Permit	This form has passed completeness.	1/22/2013 11:12:51 AM

Total: 8 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
Drilling/Completion Operations	"Prior to drilling operations, Operator may perform an anti-collision review of existing offset wells that have the potential of being within close proximity of the proposed well. This anti-collision review may include MWD or gyro surveys and surface locations of the offset wells with included error of uncertainty per survey instrument, and compared against the proposed wellpath with its respective error of uncertainty. If current surveys do not exist for the offset wells, Operator may have gyro surveys conducted to verify bottomhole location. The proposed well may only be drilled if the anti-collision review results indicate that the risk of collision is sufficiently low as defined by the anti-collision plan, with separation factors greater than 1.5, or if the risk of collision has been mitigated through other means including shutting in wells, plugging wells, increased drilling fluid in the event of lost returns or as is appropriate for the specific situation. In the event of an increased risk of collision, that risk will be mitigated to prevent harm to people, the environment or property. For the proposed well, upon conclusion of drilling operations, an as-constructed directional survey will be submitted to COGCC with the Form 5."
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.

Total: 2 comment(s)