

FORM  
2

Rev  
12/05

State of Colorado  
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109



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| DE | ET | OE | ES |
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Document Number:

400240428

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: Rebecca Heim Phone: (720)929-6361 Fax: (720)929-7361

Email: rebecca.heim@anadarko.com

7. Well Name: WARDELL Well Number: 28N-20HZ

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

9. Proposed Total Measured Depth: 16309

WELL LOCATION INFORMATION

10. QtrQtr: SESW Sec: 29 Twp: 3N Rng: 65W Meridian: 6

Latitude: 40.190716 Longitude: -104.689107

Footage at Surface: 561 feet FNL/FSL 2128 feet FEL/FWL

11. Field Name: WATTENBERG Field Number: 90750

12. Ground Elevation: 4878 13. County: WELD

14. GPS Data:

Date of Measurement: 10/10/2011 PDOP Reading: 2.4 Instrument Operator's Name: OWEN McKEE

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  
1161 FSL 2475 FWL 460 FNL 2475 FWL  
Sec: 29 Twp: 3N Rng: 65W Sec: 20 Twp: 3N Rng: 65W

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: 522 ft

18. Distance to nearest property line: 544 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 710 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           |                         | 640                           | See Comments                         |

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):

Please see attached Oil and Gas Lease.

25. Distance to Nearest Mineral Lease Line: 188 ft

26. Total Acres in Lease: 480

### 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        | 12+1/4       | 9+5/8          | 36.0  | 0             | 1,000         | 750       | 1,000   | 0       |
| 1ST         | 8+3/4        | 7              | 26.0  | 0             | 7,374         | 660       | 7,374   |         |
| 1ST LINER   | 6+1/8        | 4+1/2          | 11.6  | 6366          | 16,309        |           |         |         |

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

33. Comments No conductor casing will be used. Unit Configuration NBRR 20: W2E2, E2W2; 29: W2E2, E2W2 Kerr-McGee Oil & Gas Onshore LP ("KMG") respectfully requests the Director to waive Rule 318A.m for this well. KMG is the operator of the encroached upon well(s). 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.

34. Location ID: 336494

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: Rebecca Heim

Title: Regulatory Analyst II Date: 1/18/2012 Email: DJRegulatory@anadarko.com

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: David S. Nash

Director of COGCC Date: 2/25/2012

#### API NUMBER

05 123 35136 00

Permit Number: \_\_\_\_\_ Expiration Date: 2/24/2014

#### 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.

Requires water sampling & needs request for waiver of Rule 318A.m. Opr notified.

- 1)Provide 24 hour notice of MIRU to Mike Hickey via e-mail at mike.hickey@state.co.us.
- 2)Comply with Rule 317.i and provide cement coverage from the end of the production casing to a minimum of 200' above the Niobrara and from 200' below Sussex to 200' above Sussex. Verify coverage with a cement bond log.
- 3)Comply with Rule 321. Run and submit Directional Survey from the end of production casing to base of surface casing. Ensure that the wellbore complies with setback requirements in commission orders or rules prior to producing the well.

### **Attachment Check List**

| Att Doc Num | Name                   |
|-------------|------------------------|
| 2113339     | VARIANCE REQUEST       |
| 2481402     | SURFACE CASING CHECK   |
| 400240428   | FORM 2 SUBMITTED       |
| 400240452   | DEVIATED DRILLING PLAN |
| 400240453   | PLAT                   |
| 400240454   | TOPO MAP               |
| 400240455   | 30 DAY NOTICE LETTER   |
| 400240456   | SURFACE AGRMT/SURETY   |
| 400240458   | OIL & GAS LEASE        |
| 400240459   | EXCEPTION LOC REQUEST  |
| 400240462   | EXCEPTION LOC WAIVERS  |
| 400240463   | PROPOSED SPACING UNIT  |
| 400240464   | OTHER                  |
| 400242513   | DIRECTIONAL DATA       |

Total Attach: 14 Files

### **General Comments**

| <b><u>User Group</u></b> | <b><u>Comment</u></b>  | <b><u>Comment Date</u></b> |
|--------------------------|--|----------------------------|
| Permit                   | Corrected top of production as directed by opr. Final review complete.                         | 2/21/2012<br>10:54:53 AM   |
| Permit                   | Final review compelte  | 2/16/2012<br>9:24:32 AM    |
| Permit                   | Rec'd & attachced Variance Request to Rule 318A.m. Ready to pass pending public comment 2/8/12 | 2/7/2012<br>11:52:33 AM    |

Total: 3 comment(s)

## BMP

| <u>Type</u>                    | <u>Comment</u>   |
|--------------------------------|--|
| Drilling/Completion Operations | <p>1. At least seven (7) days prior to fracture stimulation, the operator is to notify all operators of non-operated wells within 300 feet of the wellbore to be fracture stimulated of the anticipated date stimulation date and the recommended best management practice to shut-in all wells within 300' of the stimulated wellbore completed in the same formation.</p> <p>2. The operator will monitor the bradenhead pressure of all wells operated by the operator within 300 feet of the well to be fracture stimulated.</p> <p>3. Bradenhead pressure gauges are to be installed 24 hours prior to stimulation. The gauges are to read at least once during every 24-hour period until 24-hours after stimulation is completed (post flowback). The gauges are to be of the type able to read current pressure and record the maximum encountered pressure in a 24-hour period. The gauge is to be reset between each 24-hour period. The pressures are to be recorded and saved. Alternate electronic measurement may be used to record the prescribed pressures.</p> <p>4. If at any time during stimulation or the 24-hour post-stimulation period, the bradenhead annulus pressure of the treatment well or offset wells increases more than 200 psig, as per Rule 341, the operator of the well being stimulated shall verbally notify the Director as soon as practicable, but no later than twenty-four (24) hours following the incident. Within fifteen (15) days after the occurrence, the operator shall submit a Sundry Notice, Form 4, giving all details, including corrective actions taken.</p>     |
| Drilling/Completion Operations | <p>"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."</p> <p>At the time of permitting, the operator has identified the following well(s) as being within close proximity of the proposed well:</p> <ul style="list-style-type: none"> <li>- WARDELL 23-29</li> <li>- WARDELL 25-29</li> <li>- WARDELL 21-29</li> <li>- WARDELL 21-20</li> <li>- WARDELL 14-29</li> </ul> |

Total: 2 comment(s)