

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



Document Number:

400263680

Date Received:

03/30/2012

PluggingBond SuretyID

20030041

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: ANADARKO E&P COMPANY LP

4. COGCC Operator Number: 2800

5. Address: PO BOX 173779

City: DENVER State: CO Zip: 80217

6. Contact Name: CINDY VUE Phone: (720)929-6832 Fax: (720)929-7832

Email: CINDY.VUE@ANADARKO.COM

7. Well Name: WATKINS Well Number: 30-5-5GH

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

9. Proposed Total Measured Depth: 12673

WELL LOCATION INFORMATION

10. QtrQtr: SWNW Sec: 30 Twp: 4S Rng: 64W Meridian: 6

Latitude: 39.675715 Longitude: -104.602251

Footage at Surface: 2190 feet FNL/FSL 350 feet FEL/FWL
FNL FWL

11. Field Name: WILDCAT Field Number: 99999

12. Ground Elevation: 5772 13. County: ARAPAHOE

14. GPS Data:

Date of Measurement: 02/08/2012 PDOP Reading: 3.1 Instrument Operator's Name: CHRIS BOUB

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
2200 FNL 600 FEL 2200 FNL 600 FWL
Sec: 25 Twp: 4S Rng: 65W Sec: 25 Twp: 4S 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: 349 ft

18. Distance to nearest property line: 349 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 5280 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.)
GRANEROS	GRRS		640	ALL
GREENHORN	GRNHN		640	ALL

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: 460 ft

26. Total Acres in Lease: 640

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	2,060	710	2,060	0
1ST	8+3/4	7	26	0	8,602	760	8,602	0
1ST LINER	6+1/8	4+1/2	11.6	7636	12,673	0		

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

33. Comments No conductor casing will be used. Operator will run open hole logs into the surface casing on the first well drilled on this pad, either this well or one of the five other wells on the pad.

34. Location ID: _____

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: CINDY VUE

Title: REGULATORY ANALYST II Date: 3/30/2012 Email: DJREGULATORY@ANADARK

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: 8/3/2012

API NUMBER

05 005 07194 00

Permit Number: _____ Expiration Date: 8/2/2014

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.

- 1) Note surface casing setting depth change from 2010' to 2060'. Increase cement coverage accordingly.
- 2) Submit Form 42 electronically to COGCC 48 hours prior to MIRU.
- 3) Comply with Rule 317.i and provide cement coverage from end of 7" casing to a minimum of 200' above Niobrara. Verify coverage with cement bond log.
- 4) Run and submit Directional Survey from TD to base of surface casing. The operator shall comply with Rule 321, and it shall be the operator's responsibility to 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
400263680	FORM 2 SUBMITTED
400263701	OTHER
400263703	30 DAY NOTICE LETTER
400263704	DEVIATED DRILLING PLAN
400263705	PLAT
400263706	TOPO MAP
400264171	SURFACE AGRMT/SURETY
400267112	OIL & GAS LEASE
400267641	DIRECTIONAL DATA

Total Attach: 9 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review completed.	3/2/2012 1:27:01 PM
Permit	Have requested from Anadarko the acceptance of the COA to require open hole logs due to the fact that Greenhorn and Garneros are deeper than the Niobrara. Also, the removal of the Anadarko comment concerning no open hole logs and the removal of the variance request letter. Got bounce back from Cindy Vue and resent to Cheryl Light. Will remain on "pending" until resolved.	6/22/2012 8:39:32 AM
LGD	Will City of Aurora roads be used or impacted by this development? If so, the city requests a meeting be arranged to discuss the matter.	4/19/2012 10:33:05 AM

LGD	<p>Arapahoe County has the following comments:</p> <ol style="list-style-type: none"> 1. The operator will need to either go through the Use by Special Review process or execute a Memorandum of Understanding with Arapahoe County. 2. The oil and gas operator needs to communicate their plans to all surface property owners within a 1 mile radius of the oil and gas well prior to constructing the well pad, including timing, safety, adherence to regulations, and a telephone number for comments and complaints. (THIS SHOULD BE A COGCC CONDITION OF APPROVAL) 3. A GESC (Grading, Erosion and Sedimentation Control) plan and report must be submitted for each oil well site. Collateral to guarantee the BMPs must be provided prior to the issuance of the GESC permit. The GESC permit must be issued prior to any grading related to the oil gas well development. 4. A truck traffic report must be submitted to the County before issuance of an access permit. The report must specify the volume, type and size of truck traffic used in the drilling and production of the well. Included in this report the Applicant must provide a detailed map depicting all County roads intended to be used by truck traffic to ingress and egress the well site. The roadway condition and existing traffic volumes of each of the roadways must be specified in the report. Improvements to any County road along the proposed route may require an agreement with the Operator prior to issuance of the access permit. Any damage to an Arapahoe County road resulting from the Oil and Gas Well operation will be the responsibility of the Applicant. 5. An oversize moving permit is required for transporting drilling rigs or any other oversize and overweight vehicles on any County roadways. 6. In the event any encroachment of a FEMA or County designated floodplain, a floodplain development permit will be required. Prior to issuance of this permit an engineering analysis must be submitted evaluating the impact of this encroachment on the 100-year floodplain. <p>Thank you for the opportunity to comment on this referral.</p>	4/18/2012 8:45:22 AM
Permit	Operator is requesting a variance from the rule to not run open hole logs.	4/4/2012 7:29:27 AM
Permit	Operator corrected directional template and #36. This form has passed completeness.	4/3/2012 9:14:51 AM
Permit	Returned to draft. Missing #36. Directional template does not match deviated drill plan.	4/3/2012 7:08:28 AM
Permit	Returned to draft. Missing #36. Directional template does not match deviated drill plan.	3/30/2012 11:45:30 AM

Total: 8 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
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>
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. Data shall be kept for a period of one year.</p> <p>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>

Total: 2 comment(s)