

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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APPLICATION FOR PERMIT TO:

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

2. TYPE OF WELL

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

Refilling ☒

Sidetrack ☐

Document Number:

400122110

Plugging Bond Surety

20040071

3. Name of Operator: ANTERO RESOURCES PICEANCE CORPORATION

4. COGCC Operator Number: 10079

5. Address: 1625 17TH ST STE 300

City: DENVER State: CO Zip: 80202

6. Contact Name: Hannah Knopping Phone: (303)357-6412 Fax: (303)357-7315

Email: hknopping@anteroresources.com

7. Well Name: O'Toole Well Number: A5

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

9. Proposed Total Measured Depth: 7977

WELL LOCATION INFORMATION

10. QtrQtr: SESE Sec: 16 Twp: 6S Rng: 92W Meridian: 6

Latitude: 39.522767 Longitude: -107.663673

Footage at Surface: 1102 feet FNL/FSL FSL 345 feet FEL/FWL FEL

11. Field Name: Mamm Creek Field Number: 52500

12. Ground Elevation: 5652 13. County: GARFIELD

14. GPS Data:

Date of Measurement: 11/15/2006 PDOP Reading: 1.4 Instrument Operator's Name: Scott E. Aibner

15. If well is ☒ Directional ☐ Horizontal (highly deviated) **submit deviated drilling plan.**

Footage at Top of Prod Zone: FNL/FSL 2278 FSL 669 FEL FEL Bottom Hole: FNL/FSL 2278 FSL 669 FEL FEL  
Sec: 16 Twp: 6S Rng: 92W Sec: 16 Twp: 6S Rng: 92W

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: 200 ft

18. Distance to nearest property line: 200 ft 19. Distance to nearest well permitted/completed in the same formation: 299 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.)
Williams Fork	WMFK	191-33	40	NESE

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):  
Section 16-T6S-R92W: NESE (39.86 acres)

25. Distance to Nearest Mineral Lease Line: 324 ft 26. Total Acres in Lease: 40

### 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 27 or 28 are yes, is this location in a sensitive area (Rule 903)? ☐ Yes ☒ No If 28, 29, or 30 are "Yes" a pit permit may be required.

31. Mud disposal: ☐ Offsite ☒ Onsite

Method: ☐ Land Farming ☐ Land Spreading ☐ Disposal Facility Other: Onsite if meet Table 910

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
CONDUCTOR	24	16	55#	0	60	177	60	0
SURF	12+1/4	8+5/8	24/32#	0	1,000	416	1,000	0
1ST	7+7/8	4+1/2	11.6#	0	7,977	356	7,977	

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

33. Comments I certify that conditions in the original permit are the same except SHL change, BHL change, new TD, updated lease information (no longer bottomholes on federal lease) and updated casing program. An updated plat and directional plan are attached. Please note that the pad location has been constructed, however we have filed a Form 2A-Amend Existing Location because we are modifying the location to add an additional well. First String/Production TOC will be >500 feet above Top of Gas. "Prior to drilling, Antero will relocate 2 power poles that are north of the O'Toole A Pad 7 feet farther north making distance from power lines and wellheads 206 feet, in compliance with Rule 603a.1 (see attached "Power Line Exhibit"). per HK." plg.

34. Location ID: 335541

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: Hannah Knopping

Title: Permit Representative Date: 1/10/2011 Email: hknopping@anteroresources.co

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. Neslin Director of COGCC Date: 2/8/2011

Permit Number: \_\_\_\_\_ Expiration Date: 2/7/2013

**API NUMBER**

05 045 18329 00

**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.

The minimum setback from each well head to the above ground utility lines must be at least 1 ½ times the height of the derrick (measured from ground to crown). The minimum setback shall be achieved for a 136' rig by moving the utility poles and lines 7' north of the present pole and line locations.

1) COMPLIANCE WITH THE MOST CURRENT REVISION OF THE NORTHWEST COLORADO NOTIFICATION POLICY IS REQUIRED.

2) GARFIELD COUNTY RULISON FIELD NOTICE TO OPERATORS. NOTE: ALL NOTICES SHALL BE GIVEN VIA E-MAIL. SEE ATTACHED NOTICE

3) NEW MAMM CREEK FIELD NOTICE TO OPERATORS APPLIES TO THIS WELL. NOTE: ALL NOTICES SHALL BE GIVEN VIA E-MAIL. SEE ATTACHED NOTICE

4) THE PROPOSED SURFACE CASING IS MORE THAN 50' BELOW THE DEPTH OF THE DEEPEST WATER WELL WITHIN 1 MILE OF THE SURFACE LOCATION WHEN CORRECTED FOR ELEVATION DIFFERENCES. THE DEEPEST WATER WELL WITHIN 1 MILE IS 600 FEET DEEP.

**Attachment Check List**

Att Doc Num	Name
1693818	CONST. LAYOUT DRAWINGS
400122110	FORM 2 SUBMITTED
400122422	WELL LOCATION PLAT
400122423	DEVIATED DRILLING PLAN
400122424	30 DAY NOTICE LETTER
400122425	SURFACE AGRMT/SURETY

Total Attach: 6 Files

**General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
Permit	Received attachment: Construction Layout Drawing "Power Line Exhibit" moving utility line to 206' from wellhead. Added in comments "Prior to drilling, Antero will relocate 2 power poles that are north of the O'Toole A Pad 7 feet farther north making distance from power lines and wellheads 206 feet, in compliance with Rule 603a.1 (see attached "Power Line Exhibit"). per HK." plg.	2/7/2011 9:54:18 AM
Permit	ON HOLD. Well head 200' from utility line. Rig height is 136 feet (1.5 x 136= 204 feet) over safety limit. Operator looking at alternatives. plg.	1/28/2011 9:28:54 AM
Permit	Dolphin Energy (10118) has four expired permits (exp 4/8/09) in NESE Sec 16 6S 92W. Dolphin built the pad and set conductors. The spud notice was submitted per the COGCC NTO 4/6/06 that report setting of the conductor. The page 2 info indicates the company was waiting on an economic upturn. Dolphin Energy filed Chapter 11 on 3/18/08. Antero has leased the minerals in the NESE Sec 16 6S 92W and have four O'Toole wells that are permitted with BHL in the NESE qtr/qtr. COGCC is aware and working on the reclamation of the Dolphin pad.	1/21/2011 9:34:19 AM
Permit	ON HOLD. Currently 4 expired permits in the NESE quarter/quarter. Company built pad and set Conductors. Dolphin Energy no longer in business. Requires COGCC research. OK once expired permit BHL cleared. plg.	1/18/2011 11:20:28 AM

Total: 4 comment(s)

## **BMP**

Type

Comment

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Total: 0 comment(s)