

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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Document Number:

400139458

Plugging Bond Surety

20040071

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 ☒

Refiling ☒
Sidetrack ☐

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: Left Hand Federal Well Number: A5

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

9. Proposed Total Measured Depth: 7805

WELL LOCATION INFORMATION

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

Latitude: 39.522078 Longitude: -107.677961

Footage at Surface: 941 feet FNL/FSL FSL 906 feet FEL/FWL FWL

11. Field Name: Mamm Creek Field Number: 52500

12. Ground Elevation: 5684 13. County: GARFIELD

14. GPS Data:

Date of Measurement: 01/04/2011 PDOP Reading: 2.5 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 1278 FSL 331 FWL FWL Bottom Hole: FNL/FSL 1278 FSL 331 FWL FWL
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: 246 ft

18. Distance to nearest property line: 146 ft 19. Distance to nearest well permitted/completed in the same formation: 251 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.)
Iles	ILES	191-25	160	SW/4
Williams Fork	WMFK	191-27	160	SW/4

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 Bon ☐ \$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: Portions of the SW/4SW/4 (see attached lease map)

25. Distance to Nearest Mineral Lease Line: _____ 63 ft 26. Total Acres in Lease: _____ 28

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

Method: ☐ Land Farming ☐ Land Spreading ☒ Disposal Facility Other: Onsite if app.(see comments)

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	7,805	356	7,805	

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, new lease information and updated casing program. A Form 2A has been submitted since this location was permitted but never built. #17 Antero's rig derrick height is 136' and therefore well location does comply with Rule 603a.1 (136'x 1.5=204'). #18 Exception Location to Rule 603a.2. (Exception Location Request letter and signed property line waiver attached). #24 Distance provided is to nearest lease line within the unit. The bottomhole location complies with the spacing order since distance to nearest unit boundary is 331 feet. #31 Mud Disposal: Antero will bury onsite if disposal meets Table 910 and if there is a provision in SUA which allows for such operation. TOP OF CEMENT OF 1ST STRING/PRODUCTION CASING WILL BE >500 FEET ABOVE TOP OF GAS.

34. Location ID: _____ 335543

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: 3/11/2011 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: 4/17/2011

API NUMBER

05 045 14632 00

Permit Number: _____

Expiration Date: 4/16/2013**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) 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) COMPLIANCE WITH THE NOTICE TO OPERATORS DRILLING WELLS IN THE BUZZARD, MAMM CREEK, AND RULISON FIELDS, GARFIELD COUNTY AND MESA COUNTY IS REQUIRED. SEE ATTACHED NOTICE.

(5) THE MOISTURE CONTENT OF ANY DRILL CUTTINGS IN A CUTTINGS PIT, TRENCH, OR PILE SHALL BE AS LOW AS PRACTICABLE TO PREVENT ACCUMULATION OF LIQUIDS GREATER THAN DE-MINIMIS AMOUNTS. AT THE TIME OF CLOSURE, THE DRILL CUTTINGS MUST ALSO MEET THE APPLICABLE STANDARDS OF TABLE 910-1.

(6) NO PORTION OF ANY PIT THAT WILL BE USED TO HOLD LIQUIDS SHALL BE CONSTRUCTED ON FILL MATERIAL, UNLESS THE PIT AND FILL SLOPE ARE DESIGNED AND CERTIFIED BY A PROFESSIONAL ENGINEER, SUBJECT TO REVIEW AND APPROVAL BY THE DIRECTOR PRIOR TO CONSTRUCTION OF THE PIT. THE CONSTRUCTION AND LINING OF THE PIT SHALL BE SUPERVISED BY A PROFESSIONAL ENGINEER OR THEIR AGENT. THE ENTIRE BASE OF THE PIT MUST BE IN CUT.

(7) THE 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
400139458	FORM 2 SUBMITTED
400140155	DEVIATED DRILLING PLAN
400140156	WELL LOCATION PLAT
400140158	SURFACE AGRMT/SURETY
400140159	TOPO MAP
400141684	EXCEPTION LOC WAIVERS
400141685	EXCEPTION LOC REQUEST
400145415	LEASE MAP

Total Attach: 8 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Lease map resented is sw sw sec. 16.	3/25/2011 11:23:42 AM
Permit	Verbage on lease map denotes acres and section correctly. sf	3/23/2011 11:59:04 AM
Permit	Lease map has no verbage. Back to draft. sf	3/22/2011 1:14:14 PM
Permit	back to draft for Lease map to be reloaded. sf	3/14/2011 9:17:29 AM

Total: 4 comment(s)

BMP

<u>Type</u>	<u>Comment</u>

Total: 0 comment(s)