

## Energy, Minerals and Natural Resources

## Oil Conservation Division

**1220 S. St Francis Dr.**

**Santa Fe, NM 87505**

## APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

|                                                                                              |                                   |                               |
|----------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------|
| 1. Operator Name and Address<br>CIMAREX ENERGY CO.<br>15 EAST 5TH STREET<br>TULSA , OK 74103 |                                   | 2. OGRID Number<br>215099     |
|                                                                                              |                                   | 3. API Number<br>30-025-38668 |
| 4. Property Code<br>36686                                                                    | 5. Property Name<br>ANTERO 12 FEE | 6. Well No.<br>005            |

## 7. Surface Location

|          |         |          |       |         |           |          |           |          |        |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|--------|
| UL - Lot | Section | Township | Range | Lot Idn | Feet From | N/S Line | Feet From | E/W Line | County |
| K        | 12      | 15S      | 37E   | K       | 2160      | S        | 1980      | W        | LEA    |

## 8. Pool Information

|                  |       |
|------------------|-------|
| DENTON-WOLF CAMP | 17290 |
|------------------|-------|

### Additional Well Information

|                                                                                                                                                                                                       |                      |                                        |                           |                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------------------------|---------------------------|------------------------------------|
| Additional Well Information                                                                                                                                                                           |                      |                                        |                           |                                    |
| 9. Work Type<br>New Well                                                                                                                                                                              | 10. Well Type<br>OIL | 11. Cable/Rotary                       | 12. Lease Type<br>Private | 13. Ground Level Elevation<br>3782 |
| 14. Multiple<br>N                                                                                                                                                                                     | 15. Proposed Depth   | 16. Formation<br>Wolfcamp              | 17. Contractor            | 18. Spud Date<br>1/15/2007         |
| Depth to Ground water<br>72                                                                                                                                                                           |                      | Distance from nearest fresh water well |                           | Distance to nearest surface water  |
| Pit: Liner: Synthetic <input type="checkbox"/> miles thick    Clay <input type="checkbox"/> Pit Volume:      bbls    Drilling Method:                                                                 |                      |                                        |                           |                                    |
| Closed Loop System <input checked="" type="checkbox"/> Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/> |                      |                                        |                           |                                    |

## 19. Proposed Casing and Cement Program

| Type   | Hole Size | Casing Type | Casing Weight/ft | Setting Depth | Sacks of Cement | Estimated TOC |
|--------|-----------|-------------|------------------|---------------|-----------------|---------------|
| Surf   | 17.5      | 13.375      | 48               | 600           | 510             | 0             |
| Int1   | 11        | 8.625       | 32               | 4500          | 1390            | 0             |
| Prod   | 7.875     | 5.5         | 17               | 9750          | 565             | 4100          |
| Liner1 | 4.75      | 2.875       | 6.5              | 11092         | 0               |               |

**Casing/Cement Program: Additional Comments**

PEAK Completions Systems iso-packer, iso-port liner will be used and will not require cementing. KOP for the lateral will be 9153'.  
Projected TD at BHL is MD 11092,' TVD 9344'.

### Proposed Blowout Prevention Program

| Type      | Working Pressure | Test Pressure | Manufacturer |
|-----------|------------------|---------------|--------------|
| DoubleRam | 5000             | 5000          | Cameron      |

|                                                                                                                                                                                                                                                                                                                                                            |                                                         |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--|
| I hereby certify that the information given above is true and complete to the best of my knowledge and belief.<br>I further certify that the drilling pit will be constructed according to NMOCD guidelines <input type="checkbox"/> a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> . | OIL CONSERVATION DIVISION                               |  |
| Printed Name: Electronically filed by Sharon LaValley                                                                                                                                                                                                                                                                                                      | Approved By: Paul Kautz                                 |  |
| Title: Manager                                                                                                                                                                                                                                                                                                                                             | Title: Geologist                                        |  |
| Email Address: slavalley@cimarex.com                                                                                                                                                                                                                                                                                                                       | Approved Date: 12/28/2007   Expiration Date: 12/28/2008 |  |
| Date: 12/27/2007   Phone: 918-295-1673                                                                                                                                                                                                                                                                                                                     | Conditions of Approval Attached                         |  |

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone:(505) 393-6161 Fax:(505) 393-0720

**District II**  
 1301 W. Grand Ave., Artesia, NM 88210  
 Phone:(505) 748-1283 Fax:(505) 748-9720

**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

Form C-102  
 Permit 66588

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

|                               |                                        |                                 |
|-------------------------------|----------------------------------------|---------------------------------|
| 1. API Number<br>30-025-38668 | 2. Pool Code<br>17290                  | 3. Pool Name<br>DENTON,WOLFCAMP |
| 4. Property Code<br>36686     | 5. Property Name<br>ANTERO 12 FEE      | 6. Well No.<br>005              |
| 7. OGRID No.<br>215099        | 8. Operator Name<br>CIMAREX ENERGY CO. | 9. Elevation<br>3782            |

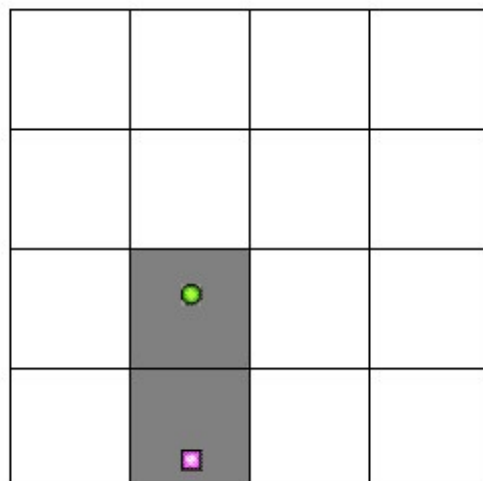
**10. Surface Location**

| UL - Lot | Section | Township | Range | Lot Idn | Feet From | N/S Line | Feet From | E/W Line | County |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|--------|
| K        | 12      | 15S      | 37E   |         | 2160      | S        | 1980      | W        | LEA    |

**11. Bottom Hole Location If Different From Surface**

| UL - Lot                     | Section | Township            | Range | Lot Idn                | Feet From | N/S Line      | Feet From | E/W Line | County |
|------------------------------|---------|---------------------|-------|------------------------|-----------|---------------|-----------|----------|--------|
| N                            | 12      | 15S                 | 37E   | N                      | 330       | S             | 1980      | W        | LEA    |
| 12. Dedicated Acres<br>80.00 |         | 13. Joint or Infill |       | 14. Consolidation Code |           | 15. Order No. |           |          |        |

**NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION**



**OPERATOR CERTIFICATION**

*I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.*

E-Signed By: Sharon LaValley

Title: Manager

Date: 12/27/2007

**SURVEYOR CERTIFICATION**

*I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.*

Surveyed By: Gary L. Jones

Date of Survey: 11/19/2007

Certificate Number: 7977

## Permit Comments

Operator: CIMAREX ENERGY CO. , 215099

Well: ANTERO 12 FEE #005

API: 30-025-38668

| Created By | Comment                                                                                                                                                                                                        | Comment Date |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| ZFARRIS1   | C-102, C-144, and preliminary directional survey will be emailed to Donna Mull.                                                                                                                                | 12/27/2007   |
| ZFARRIS1   | The Antero 12 Fee 5 is a proposed horizontal Wolfcamp test with SHL in UL Kand BHL in UL N and will require a stand-up 80-acre spacing unit (E2S00).                                                           | 12/27/2007   |
| ZFARRIS1   | Cimarex Energy Co. does not anticipate that there will be enough H2S from the surface to the Wolfcamp formation to meet the OCD's minimum requirements for the submission of a contingency plan for this test. | 12/27/2007   |

# Permit Conditions of Approval

Operator: CIMAREX ENERGY CO. , 215099

Well: ANTERO 12 FEE #005

API: 30-025-38668

| OCD<br>Reviewer | Condition                                                                                                                                             |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| pkautz          | Pit construction and closure must satisfy all requirements of your approved plan, O.C.D. Rule 19.15.2.50, and the Pit and Below-Grade Tank Guidelines |