

**State of New Mexico**  
**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>COG OPERATING LLC<br>550 W TEXAS<br>MIDLAND, TX 79701 |  | 2. OGRID Number<br>229137     |
| 4. Property Code<br>302513  |  | 3. API Number<br>30-015-35945 |
| 5. Property Name<br>JUNIPER STATE   |  | 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 |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|--------|
| P        | 17      | 17S      | 30E   | P       | 990       | S        | 100       | E        | EDDY   |

**8. Pool Information**

|                           |       |
|---------------------------|-------|
| LOCO HILLS; GLORIETA-YESO | 96718 |
|---------------------------|-------|

**Additional Well Information**

|   |                            |  |                         |   |
|---|----------------------------|--|-------------------------|---|
| 9. Work Type<br>New Well  | 10. Well Type<br>OIL       | 11. Cable/Rotary                                 | 12. Lease Type<br>State | 13. Ground Level Elevation<br>3664          |
| 14. Multiple<br>N   | 15. Proposed Depth<br>5850 | 16. Formation<br>Yeso Formation                  | 17. Contractor          | 18. Spud Date<br>1/10/2008                  |
| Depth to Ground water<br>150  |                            | Distance from nearest fresh water well<br>> 1000 |                         | Distance to nearest surface water<br>> 1000 |
| Pit: Liner: Synthetic <input checked="" type="checkbox"/> 12 _____ mils thick Clay <input type="checkbox"/> Pit Volume: 5000 _____ bbls Drilling Method:<br>Closed Loop System <input type="checkbox"/> Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input checked="" 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               | 425           | 450             | 0             |
| Int1 | 12.25     | 8.625       | 32               | 1225          | 850             | 0             |
| Prod | 7.875     | 5.5         | 17               | 5850          | 1000            | 0             |

**Casing/Cement Program: Additional Comments**

COG proposes to drill a 17-1/2" hole to 425' w/fr wtr mud system, wt 8.5, vis 28. Run 13-3/8" csg & cmt to surf. Drill 12-1/4" hole to 1225' w/brine mud system, wt 10, vis 30. Run 8-5/8" csg & cmt to surf. Directionally drill 7-7/8" hole to apprx 5850' TVD, 5918' MD w/cut brine mud system, wt 9.1, vis 29-32. Test Yeso formation. Run 5-1/2" csg & cmt to surf. Note: On production string, a caliper will be run & COG will attempt to circulate cement.

**Proposed Blowout Prevention Program**

| Type      | Working Pressure | Test Pressure | Manufacturer |
|-----------|------------------|---------------|--------------|
| DoubleRam | 2000             | 2000          |              |

|  |                                  |                                 |
|--|----------------------------------|---------------------------------|
| 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 NMOC guidelines <input checked="" type="checkbox"/> , a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> . | <b>OIL CONSERVATION DIVISION</b> |                                 |
| Printed Name: Electronically filed by Diane Kuykendall   | Approved By: Bryan Arrant        |                                 |
| Title: Regulatory Analyst  | Title: Geologist                 |                                 |
| Email Address: dkuykendall@conchoresources.com   | Approved Date: 12/6/2007         | Expiration Date: 12/6/2008      |
| Date: 11/28/2007   | Phone: 432-685-4372              | 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**  
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**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

Form C-102  
 Permit 65072

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

|                               |                                       |   |
|-------------------------------|---------------------------------------|---|
| 1. API Number<br>30-015-35945 | 2. Pool Code<br>96718                 | 3. Pool Name<br>LOCO HILLS; GLORIETA-YESO |
| 4. Property Code<br>302513    | 5. Property Name<br>JUNIPER STATE     | 6. Well No.<br>005                        |
| 7. OGRID No.<br>229137        | 8. Operator Name<br>COG OPERATING LLC | 9. Elevation<br>3664                      |

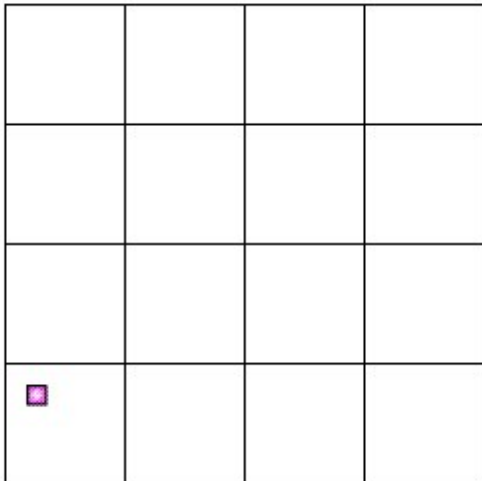
**10. Surface Location**

|               |               |                 |              |         |                  |               |                  |               |                |
|---------------|---------------|-----------------|--------------|---------|------------------|---------------|------------------|---------------|----------------|
| UL - Lot<br>P | Section<br>17 | Township<br>17S | Range<br>30E | Lot Idn | Feet From<br>990 | N/S Line<br>S | Feet From<br>100 | E/W Line<br>E | County<br>EDDY |
|---------------|---------------|-----------------|--------------|---------|------------------|---------------|------------------|---------------|----------------|

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

|                              |               |                     |              |                        |                  |               |                  |               |                |
|------------------------------|---------------|---------------------|--------------|------------------------|------------------|---------------|------------------|---------------|----------------|
| UL - Lot<br>M                | Section<br>16 | Township<br>17S     | Range<br>30E | Lot Idn<br>M           | Feet From<br>990 | N/S Line<br>S | Feet From<br>330 | E/W Line<br>W | County<br>EDDY |
| 12. Dedicated Acres<br>40.00 |               | 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**

|  |   |  |
|--|---|--|
|   | <b>OPERATOR CERTIFICATION</b>   |  |
|  | <i>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.</i> |  |
|  | E-Signed By: Diane Kuykendall<br>Title: Regulatory Analyst<br>Date: 11/28/2007  |  |
|  | <b>SURVEYOR CERTIFICATION</b>   |  |
| <i>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.</i> |   |  |
| Surveyed By: Ronald Eidson<br>Date of Survey: 9/12/2007<br>Certificate Number: 3239  |   |  |

## Permit Comments

Operator: COG OPERATING LLC , 229137

Well: JUNIPER STATE #005

API: 30-015-35945

| Created By | Comment   | Comment Date |
|------------|---|--------------|
| PEDWARDS   | H2S concentrations of wells in this area from surface to TD are low enough that a contingency plan is not required. | 11/28/2007   |
| PEDWARDS   | C-102 and directional plan to follow.   | 11/28/2007   |

# Permit Conditions of Approval

Operator: COG OPERATING LLC , 229137

Well: JUNIPER STATE #005

API: 30-015-35945

| OCD<br>Reviewer | Condition   |
|-----------------|---|
| BArrant         | 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 |
| BArrant         | As noted, operator to drill surface hole w/fresh water.   |
| BArrant         | Operator to set surface casing above the Salado.  |
| BArrant         | Will require a directional survey with the C-104  |