

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-8161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-8178 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-101  
August 1, 2011  
Permit 210471

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

|                                                                                                 |  |                               |
|-------------------------------------------------------------------------------------------------|--|-------------------------------|
| 1. Operator Name and Address<br>COG PRODUCTION, LLC<br>600 W. Illinois Ave<br>Midland, TX 79701 |  | 2. OGRID Number<br>217955     |
| 4. Property Code<br>39454                                                                       |  | 3. API Number<br>30-025-42811 |
| 5. Property Name<br>SOPAPILLA STATE                                                             |  | 6. Well No.<br>003H           |

**7. Surface Location**

|          |   |         |   |          |     |       |     |         |   |           |     |          |   |           |      |          |   |        |     |
|----------|---|---------|---|----------|-----|-------|-----|---------|---|-----------|-----|----------|---|-----------|------|----------|---|--------|-----|
| UL - Lot | C | Section | 2 | Township | 23S | Range | 33E | Lot Idn | 3 | Feet From | 190 | N/S Line | N | Feet From | 2260 | E/W Line | W | County | Lea |
|----------|---|---------|---|----------|-----|-------|-----|---------|---|-----------|-----|----------|---|-----------|------|----------|---|--------|-----|

**8. Proposed Bottom Hole Location**

|          |   |         |   |          |     |       |     |         |   |           |     |          |   |           |      |          |   |        |     |
|----------|---|---------|---|----------|-----|-------|-----|---------|---|-----------|-----|----------|---|-----------|------|----------|---|--------|-----|
| UL - Lot | N | Section | 2 | Township | 23S | Range | 33E | Lot Idn | N | Feet From | 330 | N/S Line | S | Feet From | 2260 | E/W Line | W | County | Lea |
|----------|---|---------|---|----------|-----|-------|-----|---------|---|-----------|-----|----------|---|-----------|------|----------|---|--------|-----|

**9. Pool Information**

|                          |      |
|--------------------------|------|
| BRINNINSTOOL;BONE SPRING | 7320 |
|--------------------------|------|

**Additional Well Information**

|                           |                             |                                        |                         |                                    |
|---------------------------|-----------------------------|----------------------------------------|-------------------------|------------------------------------|
| 11. Work Type<br>New Well | 12. Well Type<br>OIL        | 13. Cable/Rotary                       | 14. Lease Type<br>State | 15. Ground Level Elevation<br>3460 |
| 16. Multiple<br>N         | 17. Proposed Depth<br>14248 | 18. Formation<br>Bone Spring           | 19. Contractor          | 20. Spud Date<br>10/7/2015         |
| Depth to Ground water     |                             | Distance from nearest fresh water well |                         | Distance to nearest surface water  |

☒ We will be using a closed-loop system in lieu of lined pits

**21. Proposed Casing and Cement Program**

| Type | Hole Size | Casing Size | Casing Weight/ft | Setting Depth | Sacks of Cement | Estimated TOC |
|------|-----------|-------------|------------------|---------------|-----------------|---------------|
| Surf | 17.5      | 13.375      | 54.5             | 1075          | 800             | 0             |
| Int1 | 12.25     | 9.625       | 40               | 4800          | 1200            | 0             |
| Prod | 8.75      | 5.5         | 17               | 14248         | 2200            | 4400          |

**Casing/Cement Program: Additional Comments**

Plan to drill a 17-1/2" hole to 1075' with Fresh Water. Run 13-3/8", 54.5# J-55 casing and cement to surface. 1st Intermediate - Drill 12-1/4" hole to 4800' with Brine, and run 9-5/8", 4300' of 40# J-55 plus 500' of 40# N/L-80 and cement to surface. Drill an 8-3/4" Pilot Hole to 12,500' with cut brine and additives/mud as needed to run logs. Plug back to KOP at approximately 9200' (cement volumes per open hole log caliper). Kick off cement plug and drill an 8-3/4" curve and lateral with cut brine to approximately 14,248' MD. Run 5-1/2" 17 P110 casing to TD and cement in one stage circulating cement to 4400'.

**22. Proposed Blowout Prevention Program**

|            |                  |               |              |
|------------|------------------|---------------|--------------|
| Type       | Working Pressure | Test Pressure | Manufacturer |
| Double Ram | 5000             | 5000          | Cameron      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.<br>I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable.<br><br>Signature: _____<br>Printed Name: Electronically filed by Diane Kuykendall<br>Title: Production Reporting Manager<br>Email Address: dkuykendall@concho.com<br>Date: 9/28/2015 | <div style="text-align: center;"><b>OIL CONSERVATION DIVISION</b></div> Approved By: Paul Kautz<br>Title: Geologist<br>Approved Date: 9/28/2015<br>Expiration Date: 9/28/2017<br>Conditions of Approval Attached |
| Phone: 432-685-4372                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                  |

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

Form C-102  
August 1, 2011  
Permit 210471

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

|                               |                                         |                                          |
|-------------------------------|-----------------------------------------|------------------------------------------|
| 1. API Number<br>30-025-42811 | 2. Pool Code<br>7320                    | 3. Pool Name<br>BRINNINSTOOL;BONE SPRING |
| 4. Property Code<br>39454     | 5. Property Name<br>SOPAPILLA STATE     | 6. Well No.<br>003H                      |
| 7. OGRID No.<br>217955        | 8. Operator Name<br>COG PRODUCTION, LLC | 9. Elevation<br>3460                     |

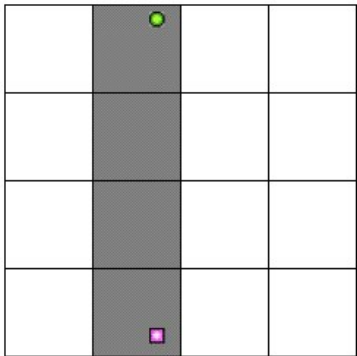
**10. Surface Location**

|               |              |                 |              |              |                  |               |                   |               |               |
|---------------|--------------|-----------------|--------------|--------------|------------------|---------------|-------------------|---------------|---------------|
| UL - Lot<br>C | Section<br>2 | Township<br>23S | Range<br>33E | Lot Idn<br>3 | Feet From<br>190 | N/S Line<br>N | Feet From<br>2260 | E/W Line<br>W | County<br>Lea |
|---------------|--------------|-----------------|--------------|--------------|------------------|---------------|-------------------|---------------|---------------|

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

|                               |                     |                 |              |                        |                  |               |                   |               |               |
|-------------------------------|---------------------|-----------------|--------------|------------------------|------------------|---------------|-------------------|---------------|---------------|
| UL - Lot<br>N                 | Section<br>2        | Township<br>23S | Range<br>33E | Lot Idn                | Feet From<br>330 | N/S Line<br>S | Feet From<br>2260 | E/W Line<br>W | County<br>Lea |
| 12. Dedicated Acres<br>159.63 | 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**

|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p style="text-align: center;"><b>OPERATOR CERTIFICATION</b></p> <p><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></p> <p>E-Signed By: Diane Kuykendall<br/>Title: Production Reporting Manager<br/>Date: 9/28/2015</p> <hr/> <p style="text-align: center;"><b>SURVEYOR CERTIFICATION</b></p> <p><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></p> <p>Surveyed By: Chad Harcrow<br/>Date of Survey: 6/26/2015<br/>Certificate Number: 17777</p> |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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Form APD Comments

Permit 210471

**PERMIT COMMENTS**

|                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                      |                                |
|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Operator Name and Address:<br>COG PRODUCTION, LLC [217955]<br>600 W. Illinois Ave<br>Midland, TX 79701 |                                                                                                                                                                                                                                                                                                                                                                      | API Number:<br>30-025-42811    |
|                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                      | Well:<br>SOPAPILLA STATE #003H |
| Created By                                                                                             | Comment                                                                                                                                                                                                                                                                                                                                                              | Comment Date                   |
| matyereyes                                                                                             | OIL: COG Operating has conducted a review to determine if an H2S contingency plan is required for the above referenced well. We were able to conclude that any potential hazardous volume would be minimal. H2S concentrations of wells in this area from surface to TD are low enough; therefore we do not believe that an H2S Contingency Plan would be necessary. | 9/28/2015                      |

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Form APD Conditions

Permit 210471

**PERMIT CONDITIONS OF APPROVAL**

|                                                                                                        |                                |
|--------------------------------------------------------------------------------------------------------|--------------------------------|
| Operator Name and Address:<br>COG PRODUCTION, LLC [217955]<br>600 W. Illinois Ave<br>Midland, TX 79701 | API Number:<br>30-025-42811    |
|                                                                                                        | Well:<br>SOPAPILLA STATE #003H |

| OCD Reviewer | Condition                                                                                                                                                                                                                                                                                                                                                |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| pkautz       | Will require a directional survey with the C-104                                                                                                                                                                                                                                                                                                         |
| pkautz       | Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string                                                                                     |
| pkautz       | If using a pit for drilling and completion operations, must have an approved pit from prior to spudding the well.                                                                                                                                                                                                                                        |
| pkautz       | 1) SURFACE & INTERMEDIATE CASING - Cement must circulate to surface -- 2) PRODUCTION CASING - Cement must tie back into intermediate casing --                                                                                                                                                                                                           |
| pkautz       | If cement does not circulate to surface, must run temperature survey or other log to determine top of cement                                                                                                                                                                                                                                             |
| pkautz       | Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water                                                                                                                                                                                                                                                     |
| pkautz       | Must notify OCD Hobbs Office if lost circulation is encountered at 575-370-3186                                                                                                                                                                                                                                                                          |
| pkautz       | 1) Must notify OCD Hobbs Office prior to running Stage Tool at 575-370-3186 2) If using Stage Tool on Surface casing, Stage Tool must be set greater than 350' from surface and a minimum of 200 feet above surface shoe. 3) When using a Stage Tool on Intermediate or Production Casing Stage must be a minimum of 50 feet below previous casing shoe. |