

**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) 476-3482

**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 211980

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

1. Operator Name and Address COG OPERATING LLC One Concho Center Midland, TX 79701		2. OGRID Number 229137
4. Property Code 315318		3. API Number 30-025-42904
5. Property Name WARBLER STATE COM		6. Well No. 002Y

**7. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
C	28	21S	33E	C	195	N	2010	W	Lea

**8. Proposed Bottom Hole Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
N	28	21S	33E	N	330	S	1980	W	Lea

**9. Pool Information**

WC-025 G-06 S213326D;BONE SPRING	97929
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**Additional Well Information**

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3698
16. Multiple N	17. Proposed Depth 15482	18. Formation Bone Spring	19. Contractor	20. Spud Date 10/29/2015
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	20	16	65	1750	1340	
Int1	14.75	11.75	47	3500	1575	
Int2	10.625	8.625	32	5370	1335	
Prod	7.875	5.5	17	15482	1830	3000

**Casing/Cement Program: Additional Comments**

Drill 20" hole to ~ (+/-) 1750' w/ fresh water spud mud. Run 16" 65# J55 STC casing to TD and cement to surface in one stage. Will use 1" tubing and Class C w/ 2% CaCl2 to cement to surface, if necessary. Drill 14 3/4" hole to ~3500' with saturated brine water. Run 11 3/4" 47# J55 STC-BTC to TD. This will case off the salt section Drill 10 5/8" hole to ~5370' with either saturated brine or Fresh water mud. If losses occur in the Reef, will switch to fresh water to interval TD. Run 8 5/8" 47# J55 casing to TD with a DV tool placed ~ 100' above the Reef. Plan to circulate cement on both stages. Drill 7 7/8" vertical hole, curve, and lateral to ~ (+/-) 15482' with cut brine. Run 5-1/2" 17# HCP110 LTC casing to TD and cement to surface in one stage.

**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	Shaeffer

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. 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.  Signature: _____ Printed Name: Electronically filed by Diane Kuykendall Title: Production Reporting Mgr Email Address: production@concho.com Date: 10/28/2015	<div style="text-align: center;"><b>OIL CONSERVATION DIVISION</b></div> Approved By: Paul Kautz Title: Geologist Approved Date: 10/29/2015 Expiration Date: 10/29/2017 Conditions of Approval Attached
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Form C-102  
August 1, 2011  
Permit 211980

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number 30-025-42904	2. Pool Code 97929	3. Pool Name WC-025 G-06 S213326D;BONE SPRING
4. Property Code 315318	5. Property Name WARBLER STATE COM	6. Well No. 002Y
7. OGRID No. 229137	8. Operator Name COG OPERATING LLC	9. Elevation 3698

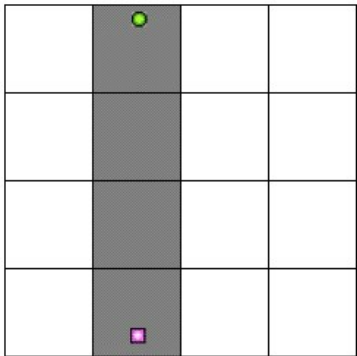
**10. Surface Location**

UL - Lot C	Section 28	Township 21S	Range 33E	Lot Idn C	Feet From 195	N/S Line N	Feet From 2010	E/W Line W	County Lea
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**11. Bottom Hole Location If Different From Surface**

UL - Lot N	Section 28	Township 21S	Range 33E	Lot Idn N	Feet From 330	N/S Line S	Feet From 1980	E/W Line W	County Lea
12. Dedicated Acres 160.00	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**

	<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 Title: Production Reporting Mgr Date: 10/28/2015</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 Date of Survey: 9/23/2015 Certificate Number: 17777</p>
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**Santa Fe, NM 87505**

Form APD Comments

Permit 211980

**PERMIT COMMENTS**

Operator Name and Address: COG OPERATING LLC [229137] One Concho Center Midland, TX 79701		API Number: 30-025-42904
		Well: WARBLER STATE COM #002Y

Created By	Comment	Comment Date
mreyes1	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.	10/28/2015
pkautz	Sent Potash review forms to BLM & SLO @ 11:54 10/28/2015	10/28/2015
pkautz	Received reply from BLM 12:31 10/28/2015 OK per BLM. Waiting for reply from SLO	10/28/2015

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Form APD Conditions

Permit 211980

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: COG OPERATING LLC [229137] One Concho Center Midland, TX 79701	API Number: 30-025-42904
	Well: WARBLER STATE COM #002Y

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	Potash Area - Four String Casing Program – In accordance with R-111-P surface string, salt protection string and intermediate string shall be cemented to surface. Production string must tie back into the intermediate string
pkautz	Potash Area - Salt Protection String - If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or other survey and additional cementing shall be done until the cement is brought to the surface.
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.