

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(505) 393-8161 Fax:(505) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(505) 748-1283 Fax:(505) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-8178 Fax:(505) 334-8170
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 212546

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 315647		3. API Number 30-025-42942
5. Property Name VAST STATE		6. Well No. 002H

7. Surface Location

UL - Lot	P	Section	17	Township	26S	Range	33E	Lot Idn	P	Feet From	210	N/S Line	S	Feet From	445	E/W Line	E	County	Lea
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8. Proposed Bottom Hole Location

UL - Lot	A	Section	17	Township	26S	Range	33E	Lot Idn	A	Feet From	330	N/S Line	N	Feet From	330	E/W Line	E	County	Lea
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9. Pool Information

RED HILLS;UPPER BONE SPRING SHALE	97900
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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 3256
16. Multiple N	17. Proposed Depth 14000	18. Formation Bone Spring	19. Contractor	20. Spud Date 11/17/2015
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	815	650	
Int1	12.25	9.625	40	4870	1450	
Prod	8.75	5.5	17	14000	2000	

Casing/Cement Program: Additional Comments

Plan to drill a 17-1/2" hole to 815' with Fresh Water. Run 13-3/8", 54.5# J-55 casing and cement to surface. Drill 12-1/4" hole to 4870' with Brine, and run 9-5/8", 4870' of 40# J-55/N/L-80 and cement to surface. Drill an 8-3/4" vertical, curve and lateral to ~14,000' with Brine/Cut Brine. Run 5-1/2" 17# P 110 LTC. Cement in one stage circulating cement to 300' inside 9-5/8" intermediate casing.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	Cameron

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 ☒ and/or 19.15.14.9 (B) NMAC ☒ , if applicable. Signature:	OIL CONSERVATION DIVISION
Printed Name: Electronically filed by Diane Kuykendall Title: Production Reporting Mgr Email Address: production@concho.com Date: 11/10/2015	Approved By: Paul Kautz Title: Geologist Approved Date: 11/13/2015 Conditions of Approval Attached
Phone: 432-683-7443	Expiration Date: 11/13/2017

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Form C-102
August 1, 2011
Permit 212546

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-025-42942	2. Pool Code 97900	3. Pool Name RED HILLS;UPPER BONE SPRING SHALE
4. Property Code 315647	5. Property Name VAST STATE	6. Well No. 002H
7. OGRID No. 229137	8. Operator Name COG OPERATING LLC	9. Elevation 3256

10. Surface Location

UL - Lot P	Section 17	Township 26S	Range 33E	Lot Idn P	Feet From 210	N/S Line S	Feet From 445	E/W Line E	County Lea
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11. Bottom Hole Location If Different From Surface

UL - Lot A	Section 17	Township 26S	Range 33E	Lot Idn A	Feet From 330	N/S Line N	Feet From 330	E/W Line E	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

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 25%; height: 30px;"></td><td style="width: 25%; height: 30px;"></td><td style="width: 25%; height: 30px;"></td><td style="width: 25%; height: 30px; background-color: #cccccc; text-align: center; vertical-align: middle;">■</td></tr> <tr><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px; background-color: #cccccc;"></td></tr> <tr><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px; background-color: #cccccc;"></td></tr> <tr><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px; background-color: #cccccc; text-align: center; vertical-align: middle;">●</td></tr> </table>				■												●	OPERATOR CERTIFICATION <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 Title: Production Reporting Mgr Date: 11/10/2015 SURVEYOR CERTIFICATION <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: Gary Jones Date of Survey: 9/29/2015 Certificate Number: 7977
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Form APD Comments

Permit 212546

PERMIT COMMENTS

Operator Name and Address: COG OPERATING LLC [229137] One Concho Center Midland, TX 79701		API Number: 30-025-42942
		Well: VAST STATE #002H
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.	11/10/2015

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Form APD Conditions

Permit 212546

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: COG OPERATING LLC [229137] One Concho Center Midland, TX 79701	API Number: 30-025-42942
	Well: VAST STATE #002H

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.