

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6179

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

Form C-101
Revised July 18, 2013

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

¹ Operator Name and Address COG Operating LLC 2208 West Main Street Artesia, NM 88210		² OGRID Number 229137 ³ API Number 30-025-42523	
⁴ Property Code 314.771	⁵ Property Name SKULL CAP STATE COM		⁶ Well No 2H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
J	32	24S	35E		2590'	South	1980'	East	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
J	5	25S	35E		1650'	South	1980'	East	Lea

9. Pool Information

¹⁰ Pool Name UIC-025 0-09 5253509D; BONE SPRING	¹¹ Pool Code 98110
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Additional Well Information

¹² Work Type New Well	¹³ Well Type Oil	¹⁴ Cable/Rotary 	¹⁵ Lease Type State	¹⁶ Ground Level Elevation 3286.0'
¹⁷ Multiple N	¹⁸ Proposed Depth 18,425'	¹⁹ Formation Bone Spring	²⁰ Contractor 	²¹ Spud Date 5/1/2015
²² Depth to Ground water		²³ Distance from nearest fresh water well		²⁴ 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
Surface	17.5	13.375	54.5	825'	650	0
Intrmd	12.25	9.625	40	5345'	1800	0
Intrmd 2/Prod	8.75	7.0	29	12,750'	1400	0
Production/Liner	6.125	4.5	13.5	11,800' - 18,425'	575	11,800

Casing/Cement Program: Additional Comments

Plan to drill a 17-1/2" hole to 825' with Fresh Water. Run 13-3/8", 54.5# J-55 casing and cement to surface. Drill 12-1/4" hole to 5345' with Brine, and run 9-5/8", 5345' of 40# J-55/NL-80 and cement to surface. Drill an 8-3/4" Pilot Hole to 12,750' with cut brine and additives/mud as needed to run logs. Plug back to KOP at approximately 11,850' (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 12,750' MD. Run 7" 29# HCP 110 BTC 2nd Intermediate Casing to 12,750'. Cement in two stages with DV Tool at ~5600'. Circulate cement on both stages. Drill 6-1/8" lateral to 18,425' MD with cut brine/brine. Run 4-1/2" 13.5# HCP TXP liner to TD and cement in one stage circulating cement to top of liner (~11,800').

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	Cameron

²⁵ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that 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: <i>Mayte Reyes</i> Printed name: Mayte Reyes Title: Regulatory Analyst E-mail Address: mreyes1@concho.com Date: 4/21/2015	OIL CONSERVATION DIVISION Approved By: <i>[Signature]</i> Title: Petroleum Engineer Approved Date: 04/21/15 Expiration Date: 04/21/17 Conditions of Approval Attached
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APR 22 2015