

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 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
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised July 18, 2013
Permit 172480

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 40079		3. API Number 30-015-41633
5. Property Name GRAHAM CRACKER 16 STATE		6. Well No. 003H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
B	16	26S	28E	B	190	N	1910	E	EDDY

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
O	16	26S	28E	O	330	S	1880	E	Eddy

9. Pool Information

HAY HOLLOW BONE SPRING	30215
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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 3056
16. Multiple N	17. Proposed Depth 12741	18. Formation Bone Spring	19. Contractor	20. Spud Date 9/3/2013
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 Type	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	48	350	345	
Int1	12.25	9.625	36	2450	860	
Prod	7.875	5.5	17	12741	1790	2190

Casing/Cement Program: Additional Comments

Drill 17-1/2" hole to ~350' w/ fresh water spud mud. Run 13-3/8" 48# H40 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 12-1/4" hole to ~2450' with saturated brine water. Run 9-5/8" 36# J55 LTC casing to TD and cement to surface in one stage. Drill 7-7/8" vertical hole, curve and lateral to 12741' with cut brine. Run 5-1/2" 17# P110 LTC casing to TD and cement in one stage bringing TOC to 2150' (300' overlap). "I further certify that I will comply with Rule 19.15.17 NMAC by using a Closed Loop System."

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
DoubleRam	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 <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: dkuykendall@conchoresources.com Date: 8/28/2013 Phone: 432-683-7443	OIL CONSERVATION DIVISION Approved By: Randy Dade Title: District Supervisor Approved Date: 8/29/2013 Expiration Date: 8/29/2015 Conditions of Approval Attached
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State of New Mexico
Energy, Minerals and Natural Resources
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1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-102
August 1, 2011
Permit 172480

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-015-41633	2. Pool Code 30215	3. Pool Name HAY HOLLOW;BONE SPRING
4. Property Code 40079	5. Property Name GRAHAM CRACKER 16 STATE	6. Well No. 003H
7. OGRID No. 229137	8. Operator Name COG OPERATING LLC	9. Elevation 3056

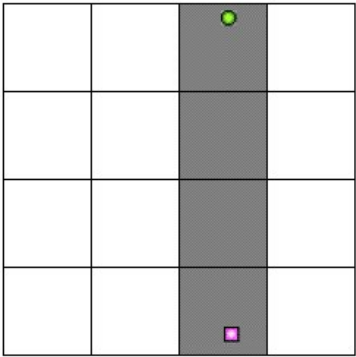
10. Surface Location

UL - Lot B	Section 16	Township 26S	Range 28E	Lot Idn O	Feet From 190	N/S Line N	Feet From 1910	E/W Line E	County EDDY
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11. Bottom Hole Location If Different From Surface

UL - Lot O	Section 16	Township 26S	Range 28E	Lot Idn O	Feet From 330	N/S Line S	Feet From 1880	E/W Line E	County EDDY
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;">OPERATOR CERTIFICATION</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: 8/28/2013</p> <hr/> <p style="text-align: center;">SURVEYOR CERTIFICATION</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: 7/11/2013 Certificate Number: 17777</p>
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Permit Comments

Operator: COG OPERATING LLC , 229137

Well: GRAHAM CRACKER 16 STATE #003H

API: 30-015-41633

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.	8/28/2013
CSHAPARD	Land s/S	8/28/2013

Permit Conditions of Approval

Operator: COG OPERATING LLC , 229137

Well: GRAHAM CRACKER 16 STATE #003H

API: 30-015-41633

OCD Reviewer	Condition
CSHAPARD	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