

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

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

1. Operator Name and Address COG OPERATING LLC 550 W TEXAS MIDLAND, TX 79701		2. OGRID Number 229137
4. Property Code 38509		3. API Number 30-025-40076
5. Property Name RANGER LAKE 1 STATE COM		6. Well No. 001H

**7. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
H	1	13S	34E	H	2015	N	430	E	LEA

**8. Pool Information**

WILDCAT ABO	97019
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**Additional Well Information**

9. Work Type New Well	10. Well Type OIL	11. Cable/Rotary	12. Lease Type State	13. Ground Level Elevation 4120
14. Multiple N	15. Proposed Depth 13658	16. Formation Wolfcamp	17. Contractor	18. Spud Date 4/30/2011
Depth to Ground water 110		Distance from nearest fresh water well > 1000		Distance to nearest surface water > 1000
Pit: Liner: Synthetic <input checked="" type="checkbox"/> 12 _____ mils thick Clay <input type="checkbox"/> Pit Volume: 5000 _____ bbls Drilling Method: Closed Loop System <input type="checkbox"/> Fresh Water <input checked="" type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

**19. 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	425	300	0
Int1	12.25	9.625	40	4300	1200	0
Int2	8.75	7	29	8550	1000	0
Prod	6.125	4.5	13.5	13658	0	0

**Casing/Cement Program: Additional Comments**

COG proposes to drill 17-1/2" hole to 425' w/ fresh water mud system, wt. 8.5, vis 28, set 13-3/8" casing & cement to surf. Drill an 12.25" hole to 4300' w/ brine mud system, wt 10, vis 30, set 9-5/8" casing & cement to surf. Drill 8-3/4" hole to 8550' w/ cut brine mud system, wt 8.7, vis 29-32. Set 7" prod casing @ +/- 8550'. Drill 6-1/8" pilot hole thru Wolfcamp to +/- 9600', run open hole logs. Spot +/- 250sxs C. Kick off plug from +/- 9600' to +/- 8600'. Drill 6-1/8" hole & kick off @ +/- 8862', building curve over +/- 470' horizontal section in an Westerly direction for +/- 4523' lateral to TD @ +/- 13658' MD, 9340' TVD. Run 4-1/2" prod liner in uncemented open hole lateral & set isolation packers & liner top packer @ +/- 8450' MD.

**Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
DoubleRam	2000	2000	

I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines <input checked="" type="checkbox"/> a general permit <input type="checkbox"/> or an (attached) alternative OCD-approved plan <input type="checkbox"/> .	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Electronically filed by Diane Kuykendall	Approved By: Paul Kautz	
Title: Production Reporting Mgr	Title: Geologist	
Email Address: dkuykendall@conchoresources.com	Approved Date: 3/3/2011	Expiration Date: 3/3/2013
Date: 2/28/2011	Phone: 432-683-7443	Conditions of Approval Attached

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(505) 393-6161 Fax:(505) 393-0720

**District II**  
1301 W. Grand Ave., Artesia, NM 88210  
Phone:(505) 748-1283 Fax:(505) 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

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Form C-102  
Permit 120450

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number 30-025-40076	2. Pool Code 97019	3. Pool Name WILDCAT ABO
4. Property Code 38509	5. Property Name RANGER LAKE 1 STATE COM	6. Well No. 001H
7. OGRID No. 229137	8. Operator Name COG OPERATING LLC	9. Elevation 4120

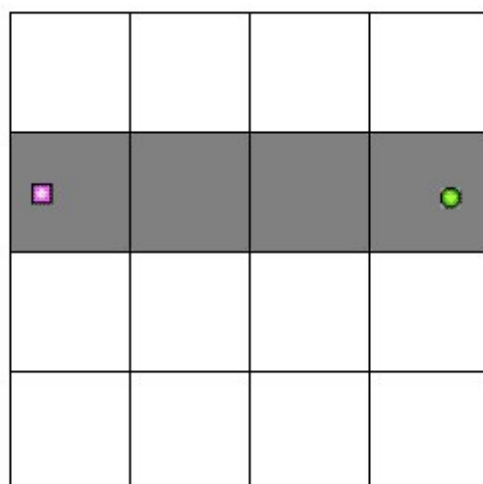
**10. Surface Location**

UL - Lot H	Section 1	Township 13S	Range 34E	Lot Idn	Feet From 2015	N/S Line N	Feet From 430	E/W Line E	County LEA
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**11. Bottom Hole Location If Different From Surface**

11. Bottom Hole Location If Different From Surface									
UL - Lot E	Section 1	Township 13S	Range 34E	Lot Idn E	Feet From 1980	N/S Line N	Feet From 330	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**



**OPERATOR CERTIFICATION**

*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.*

E-Signed By: Diane Kuykendall  
Title: Production Reporting Mgr  
Date: 2/28/2011

**SURVEYOR CERTIFICATION**

*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.*

Surveyed By: Ronald Eidson  
Date of Survey: 11/17/2010  
Certificate Number: 3239

## Permit Comments

**Operator:** COG OPERATING LLC , 229137

**Well:** RANGER LAKE 1 STATE COM #001H

**API:** 30-025-40076

Created By	Comment	Comment Date
rodom	H2S concentrations of wells in this area from surface to TD are low enough that a contingency plan is not required.	9/16/2010
pkautz	Land S/S	2/28/2011
DMULL	OCD Hobbs office has received form C-144CLEZ. OCD Permit Number P1-0294.	3/3/2011



# Permit Conditions of Approval

**Operator:** COG OPERATING LLC , 229137

**Well:** RANGER LAKE 1 STATE COM #001H

**API:** 30-025-40076

OCD Reviewer	Condition
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