

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
		3. API Number 30-015-36095
4. Property Code 302502	5. Property Name HARPER STATE	6. Well No. 016

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
N	16	17S	30E	N	835	S	1650	W	EDDY

8. Pool Information

LOCO HILLS; GLORIETA-YESO	96718
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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 3666
14. Multiple N	15. Proposed Depth 6000	16. Formation Yeso Formation	17. Contractor	18. Spud Date 3/1/2008
Depth to Ground water 150		Distance from nearest fresh water well > 1000		Distance to nearest surface water > 1000
Pit: Liner: Synthetic ☒ 12 _____ mils thick Clay ☐ Pit Volume: 5000 _____ bbls Drilling Method: Closed Loop System ☐ Fresh Water ☐ Brine ☐ Diesel/Oil-based ☐ Gas/Air ☒				

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	450	0
Int1	12.25	8.625	32	1225	800	0
Prod	7.875	5.5	17	6000	1000	0

Casing/Cement Program: Additional Comments

COG proposes to drill a 17-1/2 hole to 425' w/fr water mud system, wt 8.5, vis 28, set 13-3/8" casing & cement to surface. Drill a 12-1/4 hole to 1225' w/fr mud system, wt 10, vis 30, set 8-5/8" casing & cement to surface. Drill a 7-7/8" hole to 6000' w/cut brine mud system, wt 9.1, vis 29-32. Test Yeso formation. Run 5-1/2" casing & cement to surface. Note: On production string, a caliper will be run, COG will attempt to circulate.

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 NMOC guidelines ☒ , a general permit ☐ , or an (attached) alternative OCD-approved plan ☐ .	OIL CONSERVATION DIVISION	
	Approved By: Bryan Arrant	
	Title: Geologist	
	Approved Date: 2/7/2008	Expiration Date: 2/7/2010
	Email Address: dkuykendall@conchoresources.com	
Date: 2/6/2008	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 67867

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-015-36095	2. Pool Code 96718	3. Pool Name LOCO HILLS; GLORIETA-YESO
4. Property Code 302502	5. Property Name HARPER STATE	6. Well No. 016
7. OGRID No. 229137	8. Operator Name COG OPERATING LLC	9. Elevation 3666

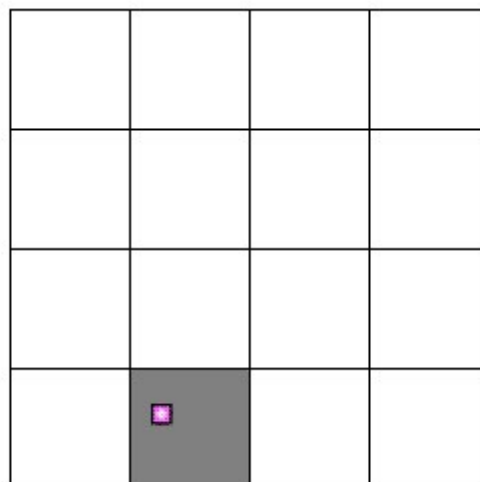
10. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
N	16	17S	30E		835	S	1650	W	EDDY

11. Bottom Hole Location If Different From Surface

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12. Dedicated Acres 40.00		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: Regulatory Analyst
 Date: 2/6/2008

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: 1/29/2008
 Certificate Number: 3239

Permit Comments

Operator: COG OPERATING LLC , 229137

Well: HARPER STATE #016

API: 30-015-36095

Created By	Comment	Comment Date
PEDWARDS	H2S concentrations of wells in this area from surface to TD are low enough that a contingency plan is not required.	1/17/2008

Permit Conditions of Approval

Operator: COG OPERATING LLC , 229137

Well: HARPER STATE #016

API: 30-015-36095

OCD Reviewer	Condition
BArrant	Pit construction and closure must satisfy all requirements of your approved plan, O.C.D. Rule 19.15.2.50, and the Pit and Below-Grade Tank Guidelines
BArrant	Operator to set surface casing above the Salado.