

District I

1625 N French Dr, Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazos Road, Aztec, NM 87410

District IV

1220 S. St Francis Dr, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-101

May 27, 2004

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

AUG 15 2006

OCD-ARTESIA

Submit to appropriate District Office

☐ AMENDED REPORT

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

¹ Operator Name and Address COG OPERATING LLC 550 W. Texas, Suite 1300 Midland, TX 79701		² OGRID Number 299137
		³ API Number 30-015-31002
⁵ Property Code 302502	⁴ Property Name Harper	⁶ Well No. 3
⁹ Proposed Pool 1 Loco Hills; Glorieta-Yeso		¹⁰ Proposed Pool 2

⁷ Surface Location

UL or lot no I	Section 16	Township 17S	Range 30E	Lot Idn	Feet from the 1650	North/South line South	Feet from the 330	East/West line East	County Eddy
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⁸ Proposed Bottom Hole Location If Different From Surface

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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Additional Well Information

¹¹ Work Type Code D	¹² Well Type Code O	¹³ Cable/Rotary Rotary	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3682
¹⁶ Multiple N	¹⁷ Proposed Depth 6000	¹⁸ Formation Yeso	¹⁹ Contractor	²⁰ Spud Date As soon as approved
Depth to Groundwater		Distance from nearest fresh water well		Distance from nearest surface water
Pit Liner Synthetic <input type="checkbox"/> _____ mils thick Clay <input type="checkbox"/> Pit Volume _____ bbls Drilling Method Closed-Loop System <input checked="" type="checkbox"/> Fresh Water <input checked="" type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17-1/2	13-3/8	48	350	350	
12-1/4	8-5/8	24	1171	500	
7-7/8	5-1/2	17	4870	1055	
4-3/4	4	11.3	6000	115	
	2-7/8 tbg		4900		

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

See Attachment

NOTE: NEW PIT RULE

19-15-17 NMAC PART 17

A form C-144 must be approved
before starting drilling operations.²³ 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 ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Printed name: Kanicia Carrillo

Title: Regulatory Analyst

E-mail Address: kcarrillo@conchoresources.com

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date: 8/22/06

Expiration Date: 8/22/10

Date: 08/14/08

Phone: 432-685-4332

Conditions of Approval Attached ☐

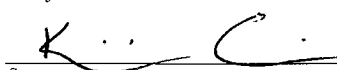
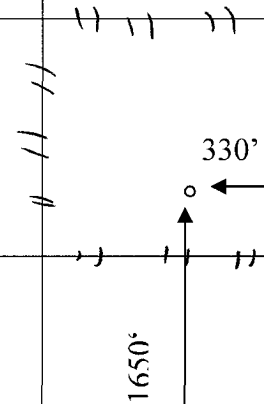
Harper State 3

Deepening Procedure

1. MIRU rig.
2. PU 4-3/4" bit and drill 4-3/4" from 4882' to 6000'.
3. POOH w/ bit and drillstring.
4. RIH w/ logs and log from TD to 4800'.
5. RIH w/ 4", 11.3# casing.
6. Cement casing from TD to 4850' w/ 115 sxs Class C cmt.
7. RDMO rig.

Completion Procedure

1. MIRU rig.
2. RIH/ w/ perforating guns and perforate Yeso from 5800 – 5600 w/ 2 spf, 30 holes.
3. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 190,000 # of sand. Set plug at 5550'.
4. RIH w/ perforating guns and perforate Yeso from 5500' – 5300'.
5. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 190,000 # of sand. Set plug at 5350'.
6. RIH w/ perforating guns and perforate Yeso from 5200' – 5000'.
7. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 190,000 # of sand.
8. RIH and drill out plug at 5350' and 5550'.
9. RIH and cut 4" casing at 4900'. POOH w/ 4" casing. Leave 4" liner from 4900' to 6000' (TD).
10. RIH w/ tbg and locate end of tbg at 4900'.
11. RIH w/ rods and pump.
12. RDMO rig.

				<div>17</div> <div>OPERATOR CERTIFICATION</div> <div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</div> <div></div> <div>Signature</div>
				<div>Kanicia Carrillo</div> <div>Printed Name</div>
				<div>Regulatory Analyst</div> <div>Title and E-mail Address</div>
				<div>08/14/08</div> <div>Date</div>
				<div>18</div> <div>SURVEYOR CERTIFICATION</div> <div>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</div>
				<div></div> <div>Date of Survey</div>
				<div></div> <div>Signature and Seal of Professional Surveyor</div>
				<div></div> <div>Certificate Number</div>