

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MAY 14 2008

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

OCD-ARTESIA

Lease Serial No.
NMNM0467932**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		7. If Unit or CA/Agreement, Name and/or No.
2. Name of Operator COG OPERATING LLC		8. Well Name and No. W D MCINTYRE E 8
3a. Address 550 WEST TEXAS AVE STE 1300 MIDLAND, TX 79701		9. API Well No. 30-015-31787
3b. Phone No. (include area code) Ph: 432-685-4332		10. Field and Pool, or Exploratory LOCO HILLS; GLORIETA-YESO
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 20 T17S R30E 1650FSL 2250FWL		11. County or Parish, and State EDDY COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input checked="" type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

COG Respectfully request to deepen to the Yeso as follows:

1. MIRU rig.
2. PU 4-3/4" bit and drill 4-3/4" from 4967' to 6200'.
3. POOH w/bit and drillstring.
4. RIH w/ logs and log from TD to 4900'.
5. RIH w/4", 11.3# casing.
6. Cmt casing from TD to 4800'. w/115 sxs class C cmt.
7. RDMO rig.

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

14. I hereby certify that the foregoing is true and correct. Electronic Submission #59854 verified by the BLM Well Information System For COG OPERATING LLC, sent to the Carlsbad	
Name (Printed/Typed) KANICIA CARRILLO	Title PREPARER
Signature (Electronic Submission)	Date 04/23/2008
THIS SPACE FOR FEDERAL OR STATE OFFICE USE	
Approved By _____	Title _____
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office _____
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make any statement or representation as to any matter within its jurisdiction.	

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****
Accepted for record - NMOC

W D McIntyre E 8
May 10, 2008
Conditions of Approval

1. Work to be complete within 90 days.
2. Variance for stand-off of less than 0.422" is approved due to NMOCD classifying the formations in this area as the Yeso group – Pool 96718.
3. Minimum tie back to be 100', which should clear Paddock perforations.
4. Variance for not testing seal also approved based on NMOCD classification of formations in this area as the Yeso group – Pool 96718.
5. Radial CBL to be run. Submit copy to BLM.
6. Surface disturbance is not to exceed existing pad without prior approval.
7. Steel tanks to be used.
8. BOP to be tested to 1000 psi based on BHP expected.
9. Subsequent sundry and completion report required when work is complete.

WWI 051008

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

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

State of New Mexico

Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102

Revised June 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-31787	² Pool Code 96718	³ Pool Name Loco Hills; Glorieta-Yeso
⁴ Property Code 302576	⁵ Property Name W D McIntyre E	
⁷ OGRID No. 229137	⁸ Operator Name COG OPERATING LLC	⁶ Well Number 8
		⁹ Elevation 3634

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	20	17S	30E		1650	South	2250	West	Eddy

¹¹ 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

¹² Dedicated Acres 40	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

	¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i> Signature Kanicia Carrillo Printed Name Regulatory Analyst Title and E-mail Address 04/23/08 Date
	¹⁸ SURVEYOR CERTIFICATION <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> Referred Original Plat Date of Survey Signature and Seal of Professional Surveyor
	Certificate Number

MCINTYRE E FED #8 DEEPENING PROGRAM

1. Estimated Tops of Important Geologic Markers

Yeso Group 4400'

2. Estimated Depths of Anticipated Fresh Water, Oil, and Gas

Yeso Group 4400'

This deepening originates in the Yeso and will finish at the base of the Yeso. The entire Yeso group is an oil and gas bearing interval.

3. Casing Program

11.6 NO/M

Hole Size	Interval	OD Casing	Weight	Grade	Jt./Condition	Burst/collapse/tension
4-3/4"	5020' – 6600'	4"	11.3#	L-80	ULT-FJ/New	3.07/3.16/3.37

NOTE: COG OPERATING LLC REQUESTS A VARIANCE TO THE 0.422" STAND OFF RULE BETWEEN CASING AND WELLBORE.

4. Cement Program

4" Liner: Class C, 115 sxs, yield 1.37. 100' minimum tie back to production casing.

NOTE: COG OPERATING LLC REQUESTS A VARIANCE TO THE LINER TOP FLUID ENTRY OR PRESSURE TEST BECAUSE THE DEEPENED WELL WILL BE COMPLETED IN THE SAME ZONE AS THE CURRENT PERFS AND THE ENTIRE INTERVAL IS RECOGNIZED BY THE OCD AS ONE INTERVAL (YESO). AS PER ONSHORE ORDER NO. 2 SECT III: REQUIREMENTS, PART B. CASING AND CEMENTING REQUIREMENTS, SUBPART b. "NO TEST SHALL BE REQUIRED FOR LINERS THAT DO NOT INCORPORATE OR NEED A SEAL MECHANISM." COG BELIEVES WE MEET THE CRITERIA TO NOT BE REQUIRED TESTING THE LINER TOP BECAUSE THERE IS NO NEED FOR A SEAL MECHANISM.

NOTE: COG OPERATING LLC REQUESTS A VARIANCE TO THE 200' MINIMUM TIE BACK TO THE PRODUCTION CASING BECAUSE THE LOWEST PERFORATION IS AT 4826'. THE 75' WILL ALLOW US TO NOT COVER EXISTING PERFORATIONS.

100' see COF

5. Minimum Specifications for Pressure Control

The BOP equipment will be a 3000 psi double ram type manually operated preventer. This equipment will be nipple up to a 7-1/16" 3K flange. The pipe rams are located above blind rams. There is no choke or kill manifold. The BOP is tested to 500 psi prior to drilling new formation. Access to the annulus will be through the valves on the 5-1/2" casing head. *see COF*

6. Types and Characteristics of the Proposed Mud System

This well will drilled from end of the existing 5-1/2" casing to TD with 2% KCl.

7. Auxillary Well Control and Monitoring Equipment

- A. A full opening drill pipe-stabbing valve with proper drill pipe connections will be on the rig floor at all times.

8. Logging, Testing, and Coring Program

- A. The electric logging program will consist of GR-Dual Laterolog, Spectral Density, Dual Spaced Neutron, CSNG Log and will be run from TD to 5-1/2" production casing shoe.
- B. No drill stem tests.

- C. No conventional coring anticipated.
- D. Further testing procedures will be determined after the 4" liner has been cemented at TD, based on drill shows and log evaluation.

9. Abnormal Conditions, Pressure, Temperatures, and Potential Hazards

No abnormal pressures or temperatures are anticipated. The estimated bottomhole temperature at TD is 110 degrees and the estimated maximum bottomhole pressure is 2300 psig. The drilling starts in the Yeso and ends in the Yeso. The section of Yeso being drilled has very low permeability (less than 1 md).

10. Anticipated Starting Date and Duration of Operations

There will be no road or location work required as this is an existing well location. Once commenced, drilling operations should be finished in approximately 14 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made.

11. Centralizer Program

Fixed blade stabilizer subs will be utilized in the casing string to insure adequate isolation and seal throughout the wellbore. These stabilizer subs are positive fixed blade type. These subs will actually be screwed into the casing string. A diagram of the fixed blade stabilizer sub is located at the end of this program.

The standard location of the stabilizers will be the following:

Shoe Location

Guide shoe, 1 jt casing, stabilizer sub, float collar, 1 jt casing, stabilizer sub

Perf Interval Location – between perf intervals

Stabilizer sub, 1 jt casing, stabilizer sub

Top of Liner Location

DV tool, 1 jt casing, stabilizer sub, 1 jt casing, stabilizer sub

12. Summary Drilling and Completion Program

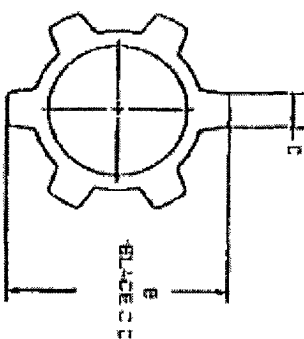
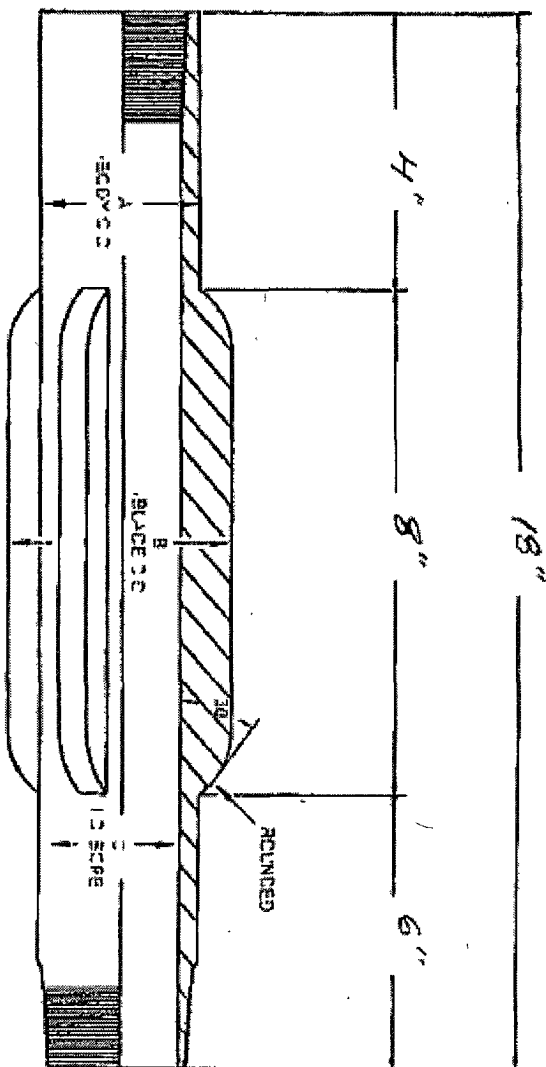
Deepening Procedure

1. MIRU rig.
2. PU 4-3/4" bit and drill 4-3/4" from 5020' to 6600'.
3. POOH w/ bit and drillstring.
4. RIH w/ logs and log from TD to 4900'.
5. RIH w/ 4", 11.3# casing. See section 11 for general centralizer program.
6. Cement casing from TD to 4867' w/ 115 sxs Class C cmt. Drop plug and open DV tool. Circ cmt off DV tool. Drop plug to close DV tool.
7. PU workstring and RIH and drill out DV tool. POOH and LD workstring.
8. RDMO rig.

Completion Procedure


1. MIRU rig.
2. RIH/ w/ perforating guns and perforate Yeso from 6400 – 6600 w/ 2 spf, 30 holes.
3. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 89,900 # of sand. Set plug at 6350'.
4. RIH w/ perforating guns and perforate Yeso from 6100' – 6300'.
5. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 89,900 # of sand. Set plug at 6050'.
6. RIH w/ perforating guns and perforate Yeso from 5800' – 6000'.
7. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 89,900 # of sand.
8. RIH and drill out plug at 6050' and 6350'.
9. RIH and cut or back off 4" casing at 4867'. POOH w/ 4" casing. Leave 4" liner from 4867' to 6600' (TD).
10. RIH w/ tbg and locate end of tbg at 4800'.
11. RIH w/ rods and pump.
12. RDMO rig.

Centralizer Diagram



1/4" L80 P110

SIZE	A	B	C	D	E	F	G	DRIFT
4" 1/4 3/4 11/16 1/2 1/4 1/8	4.050	4.750	3.347	3/4"				3.303"

 RAY OIL TOOL CO.	
STAND OFF 3"	
CENTRALIZED INTERCASING	
CLIENT	Chaco Res
WELL NAME & NO	
CASING	4" 2145 11/8"
MATERIAL	4 3/4 x 3/4 x 18" 4135"

INSURANCE LTD.

45