

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

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.**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		5. Lease Serial No. NMLC029020L
2. Name of Operator COG OPERATING LLC ✓		6. If Indian, Allottee or Tribe Name
Contact: NETHA AARON E-Mail: oaaron@conchoresources.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address 550 WEST TEXAS SUITE 100 MIDLAND, TX 79701	3b. Phone No. (include area code) Ph: 432-818-2319 Fx: 432-685-4396	8. Well Name and No. SHAWNEE FEDERAL 2 ✓
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 15 T17S R30E 2100FSL 1650FEL ✓ ULJ		9. API Well No. 30-015-30980
		10. Field and Pool, or Exploratory LOCO HILLS PADDOCK
		11. County or Parish, and State EDDY COUNTY COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" 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	

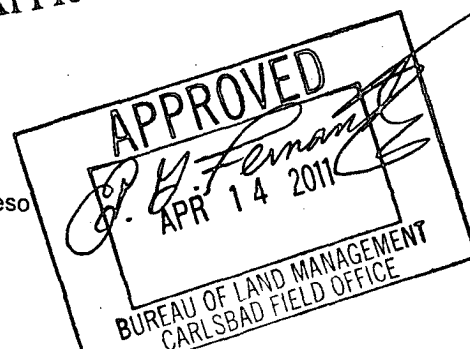
13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths 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.)

SHAWNEE FEDERAL #2 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

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct. Electronic Submission #103817 verified by the BLM Well Information System For COG OPERATING LLC, sent to the Carlsbad	
Name (Printed/Typed) NETHA AARON	Title AUTHORIZED REPRESENTATIVE
Signature (Electronic Submission)	Date 03/08/2011

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By	Title SEE ATTACHED FOR CONDITIONS OF APPROVAL	Date
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 to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

Additional data for EC transaction #103817 that would not fit on the form

32. Additional remarks, continued

Hole Size Interval OD Casing Weight Grade** Jt./Condition Burst/collapse/tension

4-3/4? 4879? ? 6300? 4? 11.3# L-80 or P-110 ULT-FJ/New 3.98/4.09/3.21 (L80)

5.47/5.23/4.25 (P110)

** Due to casing shortages, either L-80 or P-110 will be run. The exact grade is unknown at time of requesting permit.

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

4. Cement Program

4? Liner: Class C, 120 sxs, yield 1.37. 200? 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 OPERATING LLC 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 4850?. THE 100? WILL ALLOW US TO NOT COVER EXISTING PERFORATIONS.

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.

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

SEE ATTACHMENT

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CONDITIONS OF APPROVAL

SHAWNEE FEDERAL #2 DEEPENING PROGRAM

1. Estimated Tops of Important Geologic Markers

Yeso Group +/- 4400'

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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

Hole Size	Interval	OD Casing	Weight	Grade**	Jt./Condition	Burst/collapse/tension
4-3/4"	4879' - 6300'	4"	11.3#	L-80 or P-110	ULT-FJ/New	3.98/4.09/3.21 (L80) 5.47/5.23/4.25 (P110)

** Due to casing shortages, either L-80 or P-110 will be run. The exact grade is unknown at time of requesting permit.

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

4. Cement Program

4" Liner: Class C, 120 sxs, yield 1.37. 200' 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 OPERATING LLC 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 4850'. THE 100' WILL ALLOW US TO NOT COVER EXISTING PERFORATIONS.

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.

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

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See
COA

- A. The electric logging program will consist of GR, Spectral Gr, 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 2800 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

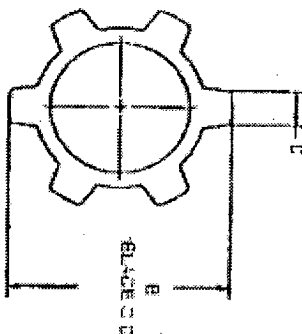
Deepening Procedure

1. MIRU rig.
2. Sqz upper Yeso w/ +/- 400 sx of Class C neat. Drill out squeeze.
3. PU 4-3/4" bit and drill 4-3/4" hole from 4988' to 6500'.
4. POOH w/ bit and drillstring.
5. RIH w/ logs and log from TD to 4300'.
6. RIH w/ 4", 11.3# casing. See section 11 for general centralizer program.
7. Cement casing from TD to 4879' w/ 120 sxs Class C cmt. Drop plug and open DV tool. Circ cmt off DV tool. Drop plug to close DV tool.
8. PU workstring and RIH and drill out DV tool. POOH and LD workstring.
9. RDMO rig.

Completion Procedure

1. MIRU rig.
2. RIH/ w/ perforating guns and perforate Yeso from 6200 – 6400 w/ 2 spf, 30 holes.
3. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 179,800 # of sand. Set plug at 6150'.
4. RIH w/ perforating guns and perforate Yeso from 5900' – 6100'.
5. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 179,800 # of sand. Set plug at 5850'.
6. RIH w/ perforating guns and perforate Yeso from 5600' – 5800'.
7. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 179,800 # of sand.
8. RIH and drill out plug at 5850' and 6150'.
9. RIH and cut or back off 4" casing at 4879'. POOH w/ 4" casing. Leave 4" liner from 4879' to 6500' (TD).
10. RIH w/ tbg and locate end of tbg at 4820'.
11. RIH w/ rods and pump.
12. RDMO rig.

Technical drawing of a tool joint. The side view shows a shaft with a central hole and a flange. Dimensions include 18" total length, 4" flange thickness, 8" flange diameter, and 6" shaft diameter. Labels include 'A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J', 'K', 'L', 'M', 'N', 'O', 'P', 'Q', 'R', 'S', 'T', 'U', 'V', 'W', 'X', 'Y', 'Z', 'AA', 'BB', 'CC', 'DD', 'EE', 'FF', 'GG', 'HH', 'II', 'JJ', 'KK', 'LL', 'MM', 'NN', 'OO', 'PP', 'QQ', 'RR', 'SS', 'TT', 'UU', 'VV', 'WW', 'XX', 'YY', 'ZZ', 'AAA', 'BBB', 'CCC', 'DDD', 'EEE', 'FFF', 'GGG', 'HHH', 'III', 'JJJ', 'KKK', 'LLL', 'MMM', 'NNN', 'OOO', 'PPP', 'QQQ', 'RRR', 'SSS', 'TTT', 'UUU', 'VVV', 'WWW', 'XXX', 'YYY', 'ZZZ', 'AAAA', 'BBBB', 'CCCC', 'DDDD', 'EEEE', 'FFFF', 'GGGG', 'HHHH', 'IIII', 'JJJJ', 'KKKK', 'LLLL', 'MMMM', 'NNNN', 'OOOO', 'PPPP', 'QQQQ', 'RRRR', 'SSSS', 'TTTT', 'UUUU', 'VVVV', 'WWWW', 'XXXX', 'YYYY', 'ZZZZ', 'AAAAA', 'BBBBB', 'CCCCC', 'DDDDD', 'EEEEE', 'FFFFF', 'GGGGG', 'HHHHH', 'IIIII', 'JJJJJ', 'KKKKK', 'LLLLL', 'MMMMM', 'NNNNN', 'OOOOO', 'PPPPP', 'QQQQQ', 'RRRRR', 'SSSSS', 'TTTTT', 'UUUUU', 'VVVVV', 'WWWWW', 'XXXXX', 'YYYYY', 'ZZZZZ', 'AAAAA', 'BBBBB', 'CCCCC', 'DDDDD', 'EEEEE', 'FFFFF', 'GGGGG', 'HHHHH', 'IIIII', 'JJJJJ', 'KKKKK', 'LLLLL', 'MMMMM', 'NNNNN', 'OOOOO', 'PPPPP', 'QQQQQ', 'RRRRR', 'SSSSS', 'TTTTT', 'UUUUU', 'VVVVV', 'WWWWW', 'XXXXX', 'YYYYY', 'ZZZZZ'. The end view shows a gear-like flange with a central hole. Dimensions include 18" total length, 4" flange thickness, 8" flange diameter, and 6" shaft diameter. Labels include 'A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J', 'K', 'L', 'M', 'N', 'O', 'P', 'Q', 'R', 'S', 'T', 'U', 'V', 'W', 'X', 'Y', 'Z', 'AA', 'BB', 'CC', 'DD', 'EE', 'FF', 'GG', 'HH', 'II', 'JJ', 'KK', 'LL', 'MM', 'NN', 'OO', 'PP', 'QQ', 'RR', 'SS', 'TT', 'UU', 'VV', 'WW', 'XX', 'YY', 'ZZ', 'AAA', 'BBB', 'CCC', 'DDD', 'EEE', 'FFF', 'GGG', 'HHH', 'III', 'JJJ', 'KKK', 'LLL', 'MMM', 'NNN', 'OOO', 'PPP', 'QQQ', 'RRR', 'SSS', 'TTT', 'UUU', 'VVV', 'WWW', 'XXX', 'YYY', 'ZZZ', 'AAAA', 'BBBB', 'CCCC', 'DDDD', 'EEEE', 'FFFF', 'GGGG', 'HHHH', 'IIII', 'JJJJ', 'KKKK', 'LLLL', 'MMMM', 'NNNN', 'OOOO', 'PPPP', 'QQQQ', 'RRRR', 'SSSS', 'TTTT', 'UUUU', 'VVVV', 'WWWW', 'XXXX', 'YYYY', 'ZZZZ', 'AAAAA', 'BBBBB', 'CCCCC', 'DDDDD', 'EEEEE', 'FFFFF', 'GGGGG', 'HHHHH', 'IIIII', 'JJJJJ', 'KKKKK', 'LLLLL', 'MMMMM', 'NNNNN', 'OOOOO', 'PPPPP', 'QQQQQ', 'RRRRR', 'SSSSS', 'TTTTT', 'UUUUU', 'VVVVV', 'WWWWW', 'XXXXX', 'YYYYY', 'ZZZZZ'.



1/4
L80
P110