N. M. OIL CONS. COMMISSION
P. O. BOX 1980
HOBBS, NEW MEXICO 88240

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well ☑ gas well ☐ other

2. NAME OF OPERATOR
CONOCO INC.

3. ADDRESS OF OPERATOR
P. O. Box 460, Hobbs, N.M. 88240

OIL & GAS
MINERALS MANAGEMENT SERVICE
ROSWELL, NEW MEXICO

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1980 FNL & 660 FWL
AT TOP PROD. INTERVAL: —
AT TOTAL DEPTH: —

5. LEASE
LC 052191 (a)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
NMFU

8. FARM OR LEASE NAME
Lockhart A-27

9. WELL NO.
9

10. FIELD OR WILDCAT NAME
Drinkard

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec 27 T-21S R-37E

12. COUNTY OR PARISH
Lea

13. STATE
N.M.

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	☐	☐
FRACTURE TREAT	☐	☐
SHOOT OR ACIDIZE	☑	☐
REPAIR WELL	☐	☐
PULL OR ALTER CASING	☐	☐
MULTIPLE COMPLETE	☐	☐
CHANGE ZONES	☐	☐
ABANDON*	☐	☐
(other)		

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

We plan to open additional pay and stimulate the Drinkard formation. See attached procedure.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED W. R. Burkhart TITLE Administrative Supervisor DATE 10-11-82

APPROVED

(This space for Federal or State office use)

APPROVED BY (ORIG. SGD.) JOE W. CHESTER TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

OCT 25 1982

FOR
JAMES A. GILLHAM
DISTRICT SUPERVISOR

*See Instructions on Reverse Side

LOCKHART A-27 NO. 9

DRILL OUT, OPEN ADDITIONAL PAY, & STIMULATE

Well Data

TD: 6677' PBD: +6544' ELEVATION: 3427' ZERO: 10' AGL

LOCATION: 660' FWL & 1980' FNL of Section 27, T-21S, R-37E, Lea County, NM

CASING: 13-3/8", 48#, H-40 Surface String @ 209' w/200 sx (circ)
9-5/8", 36#, H-40 Intermediate String @ 2749' w/500 sx
5-1/2", 14# & 17#, J-55 & N-80 Production String @ 6577' w/500 sx

PERFORATIONS: 6493'-6538' - Drinkard (120 Perfs)
6548'-6572' - Drinkard (118 Perfs - Squeezed)

Recommended Procedure

1. Rig up & if necessary, kill well w/ 10 ppg brine water.

2. POOH w/rods & pump.
   A. Tag for fill w/2-3/8" tubing.
   B. POOH w/2-3/8" tubing & tally.

3. GIH w/4-3/4" bit, 5-1/2" casing scraper, & 2-3/8" tubing.
   A. Run bit to +6544'.
   B. POOH w/2-3/8" tubing, 5-1/2" casing scraper, & 4-3/4" bit.

4. Pick up & GIH w/4-3/4" bit, bit sub, 4 - 3-1/2" drill collars, & 2-7/8" workstring.
   A. Drill out cement retainer @ +6544' & cement to +6575'.
   B. Circulate wellbore clean w/2% KCL TFW w/1 gallon Adomall per 1000 gallons.
   C. POOH w/2-7/8" workstring, 4 - 3-1/2" drill collars, bit sub, & 4-3/4" bit.

   NOTE: Utilize medium size oyster shells to obtain circulation.

5. Rig up wireline services.
   A. GIH w/CIBP, setting tool, collar locator, & wireline.
   B. Set CIBP @ +6575'.
   C. POOH w/wireline, collar locator, & setting tool.

   Collars located @ 6424'+,6450', 6464+', 6512', and 6528'.

6. GIH w/4" select-fire centralized perforating gun (90° phase, 4 JSPF, 0.40" EHD), collar locator, & wireline.

7. Perforate Lower Drinkard interval @ 6550', 6552', 6560', 6562', & 6568'. (Total: 20 Perforations.)

   Collars located @ 6424'+, 6450', 6464+', 6480', 6512', and 6528'.

   NOTE: Interval is to be perforated from bottom to top.

8. POOH w/wireline, collar locator, & 4" perf gun.

9. GIH w/5-1/2" packer, S.N., & 2-7/8" workstring.
   A. Hydro-test workstring w/5000 psi above slips.
   B. Set packer @ +6300'.
   C. Load backside w/2% KCL TFW w/1 gallon Adomall per 1000 gals.
   D. Pressure backside w/800 psi.

10. Acidize Lower Drinkard (6493'-6568') through 2-7/8" workstring @ 4-6 BPM with a maximum surface treating pressure of 4800 psi as follows:

    NOTE: Monitor backside during treatment.

    A. Pump 840 gallons (20 bbls) 15% HCL-NE-FE (inhibit acid for 24 hours @ 115° F).
    B. Pump 200 lbs Diverting Agent (50% Graded Rock Salt & 50% Benzoic Acid Flakes) mixed in 126 gallons (3 bbls) 10 PPG brine w/5 lbs Guar Gum (2 hour breaker).
    C. Pump 840 gallons (20 bbls) 15% HCL-NE-FE (inhibit acid for 24 hours @ 115° F).
    D. Pump 200 lbs Diverting Agent (50% Graded Rock Salt & 50% Benzoic Acid Flakes) mixed in 126 gallons (3 bbls) 10 PPG brine w/5 lbs Guar Gum (2 hour breaker).
    E. Pump 840 gallons (20 bbls) 15% HCL-NE-FE (inhibit acid for 24 hours @ 115° F).
    F. Flush w/60 bbls 2% KCL TFW w/1 gallon Adomall per 1000 gallons.
    G. Shut in for one hour.

11. Swab back load (+126 bbls).

12. Release packer @ +6300'.
    A. POOH w/2-7/8" workstring, S.N., & packer.
    B. GIH w/5-1/2" retrievable bridge plug, setting-releasing tool, & 2-7/8" workstring.
    C. Set retrievable bridge plug @ +6485'.
    D. Pressure test retrievable bridge plug w/1000 psi.
    E. Spot 5' sand on top of retrievable bridge plug.
    F. Spot 126 gallons (3 bbls) 15% HCL-NE-FE (inhibit acid for 48 hours @ 115° F) from +6465' to +6339'.
    G. POOH w/2-7/8" workstring & setting-releasing tool.

13. GIH w/4" select-fire decentralized perforating gun (0° phase, 1 JSPF, 0.40" EHD), collar locator, & wireline.

14. Perforate Upper Drinkard @ 6368', 6376', 6383', 6391', 6410', 6417', 6429', 6438', 6448', 6452', 6456', & 6465' (Total: 12 Perfs).

    Collars located @ 6344', 6365+', 6388', 6409', 6424+', 6450', 6464'+, and 6480'.

    NOTE: Interval is to be perforated from top to bottom.

15. POOH w/wireline, collar locator, & 4" perforating gun.

16. GIH w/setting-releasing tool, 5-1/2" packer, S.N., & 2-7/8" workstring.
    A. Set packer @ ±6200'.
    B. Load backside w/2% KCL TFW w/1 gallon Adomall per 1000 gallons.
    C. Pressure backside w/800 psi.

17. Breakdown Upper Drinkard (6368'-6465') through 2-7/8" workstring @ 10 BPM as follows:

    Maximum surface treating pressures: See Pressure/Rate Chart I.

    NOTE: Monitor backside during breakdown.

    A. Pump 1008 gallons (24 bbls) 15% HCL-NE-FE (inhibit acid for 24 hours @ 115° F).
       1. Release 2 ballsealers after every 2 bbls acid pumped. (Total: 24 ballsealers).
       2. Attempt to achieve ballout.
    B. Flush w/40 bbls 2% KCL TFW w/1 gallon Adomall per 1000 gallons.

18. Release packer @ ±6200'.
    A. Run packer through perforations, knocking off ballsealers.
    B. Set packer @ ±6200'.
    C. Load backside w/2% KCL TFW w/1 gallon Adomall per 1000 gallons.
    D. Pressure backside w/800 psi.

19. Acid fracture Upper Drinkard (6368'-6465') through 2-7/8" tubing in two stages as follows:

    NOTE: Monitor backside during frac job.

    Optimum pump rate: 12 BPM
    Maximum surface treating pressures: See Pressure/Rate Chart II
    Estimated surface treating pressure: 4250 psi

    A. Pump 1932 gallons (46 bbls) 40# gelled TFW pad.
    B. Pump 2520 gallons (60 bbls) 28% HCL-NE-FE.
    C. Pump 1554 gallons (37 bbls) 40# gelled TFW flush.
    D. Release 6 ballsealers.
    E. Pump 1932 gallons (46 bbls) 40# gelled TFW pad.

F. Pump 2520 gallons (60 bbls) 28% HCL-NE-FE.
G. Pump 3150 gallons (75 bbls) 40# gelled TFW flush.
H. Record ISIP & pressures every 5 minutes for 15 minutes.
I. SION.

FRAC FLUID VOLUMES & COMPOSITION (WESTERN)
Per 1000 Gallons

40# Gelled Pad 3862 gallons (92 bbls)	40 lbs J-2 (Gelling Agent) 25 lbs Aqua Seal-2 (FLA) 1 gal Aqua Flo (Non-Emulsifier) 2% KCL
28% HCL-NE-FE 5040 gallons (120 bbls)	28% HCL DS-30 3 gals I-15 (Inhibitor) 5 gals XR-2L (Iron Sequesterant) 1-1/2 gals FR-20 (Friction Reducer) 1 gal Aqua Flo (Non-Emulsifier)
40# Gelled Flush 4704 gallons (112 bbls)	40 lbs J-2 (Gelling Agent) 25 lbs Aqua Seal-2 (FLA) 1 gal Aqua Flo (Non-Emulsifier) 2% KCL

20. Swab back load. (±388 bbls).

21. Release packer @ ±6200'.
    A. Release retrievable bridge plug @ ±6485'.
    B. POOH & lay down 2-7/8" workstring, S.N., packer, setting-releasing tool, & retrievable bridge plug.

22. GIH w/Orange-Peeled-Slotted Mud Anchor, S.N., & 2-3/8" tubing.
    A. Hydro-test tubing w/5000 psi above slips.
    B. Land S.N. @±6525'.
    C. GIH w/8' gas dip tube, pump, & rods.
    D. Hang well on & place on production.

Jim L Sprague — 9-24-82
PRODUCTION ENGINEER — DATE

SUPERVISING PRODUCTION ENGINEER — DATE

DIVISION ENGINEER — DATE

DRILLING SUPERINTENDENT — DATE

JLS:vrm
CC: WELL FILE, DLW, HDM (4), FEP, LBD, CRP, JLS