5. LEASE

Contract No. 127

## UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS  (Co. not use this form for proposals to drill or to deepen or plug back to a different reservoit. Use from 9-331-C for such proposals.)  1. oil gas well other  2. NAME OF OPERATOR Cotton Petroleum Corporation  3. ADDRESS OF OPERATOR 7.17 17th St., Suite 2200, Denver, CO 80202  4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.) AT SURFACE: 660 FEL & 1940 FSL AT TOP PROD. INTERVAL: AT TOP PROD. INTERVAL: AT TOTAL DEPTH:  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 ALIER CASING WILLIPLE COMPLETE CHANGE ZONES ABANDON'S Datas D  (other) Plag B3-Sc.  17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent date including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations ar measured and true vertical depths for all markers and zones pertinent to this work.)*  Per the attached.	GEOLOGICAL SURVEY	6. IF INDIAN, ALLOTTEE OR TRIBE NAME Jicarilla Apache		
1. oil well	SUNDRY NOTICES AND REPORTS ON WELLS  (Do not use this form for proposals to drill or to deepen or plug back to a different proposals.)	7. UNIT AGREEMENT NAME NA		
2. NAME OF PETROLEUM Corporation  3. ADDRESS OF OPERATOR 7/17 17th St., Suite 2200, Denver, CO 80202  4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.) AT SURFACE: 660' FEL & 1940' FSL AT TOP PROD. INTERVAL: AT TOTAL DEPTH:  16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA  REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF: TEST WATER SHUT-OFF SHOOT OR ACIDIZE REPAIR WELL PULL OR ALTER CASING CONTROLED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent date including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations are measured and true vertical depths for all markers and zones pertinent to this work.)*  Per the attached.	1. oil gas :	Apache 9. WELL NO.		
A LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  AT SURFACE: 660' FEL & 1940' FSL AT TOP PROD. INTERVAL: AT TOTAL DEPTH:  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 SHOT OR ACIDIZE REPAIR WELL PULL OR ALTER CASING MULTIPLE COMPLETE DOMESTICATION SUBJECT CHANGE ZONES  ABANDON DELA D MALE COMPLETE DOMESTICATION SUBJECT CHANGE ZONES  ABANDON PLAG D MALE COMPLETE DOPERATIONS (Clearly state all pertinent details, and give pertinent date including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations ar measured and true vertical depths for all markers and zones pertinent to this work.)*  Per the attached.	Cotton Petroleum Corporation	10. FIELD OR WILDCAT NAME		
AT SURFACE: 660 FEL & 1940 FSL AT TOP PROD. INTERVAL: AT TOTAL DEPTH:  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 CONNECTED TO REPORT OF:  (NOTE: Report results of multiple completion or zor change on Form 9-330.)  (NOTE: Report results of multiple completion or zor change on Form 9-330.)  TO ESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent date including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations ar measured and true vertical depths for all markers and zones pertinent to this work.)  Per the attached.	717 17th St., Suite 2200, Denver, CO 80202	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA		
AT TOTAL DEPTH:  16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA  15. ELEVATIONS (SHOW DF, KDB, AND WE 6813' KB  REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF: TEST WATER SHUT-OFF	below.) AT SURFACE: 660' FEL & 1940' FSL	12. COUNTY OR PARISH 13. STATE		
REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF:  TEST WATER SHUT-OFF	16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE,	14. API NO. 30-039-21887-00		
FRACTURE TREAT SHOOT OR ACIDIZE SHOOT OR ACIDIZE  REPAIR WELL  PULL OR ALTER CASING MULTIPLE COMPLETE CHANGE ZONES ABANDON*  O(other)  Plug b3ck  17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent date including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations are measured and true vertical depths for all markers and zones pertinent to this work.)*  Per the attached.  REFINED  MAY I 3 1982 CL CON, COM, DIST. 3				
MULTIPLE COMPLETE CHANGE ZONES ABANDON* Data D  (other) Plug black  17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent date including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations are measured and true vertical depths for all markers and zones pertinent to this work.)*  Per the attached.  ALLIED  MAY 13 1982 CIL CON. COM. DIST. 3	FRACTURE TREAT  SHOOT OR ACIDIZE  REPAIR WELL	(NOTE: Report results of multiple completion or zone change on Form 9–330.)		
including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations are measured and true vertical depths for all markers and zones pertinent to this work.)*  Per the attached.  RECEIVED  MAY 13 1982  CIL CON. COM.  DIST. 3	MULTIPLE COMPLETE   CHANGE ZONES   ABANDON* Dakota D   MULTIPLE COMPLETE   CHANGE ZONES   CHANGE			
MAY 1 3 1982 CIL CON. COM. DIST. 3	:luding actimated date of starting any proposed work. It well is o	directionally drilled, give subsurface locations and		
Subsurface Safety Valve: Manu. and TypeSet @	Per the attached.			
	Subsurface Safety Valve: Manu. and Type	Set @ Ft.		

\*See Instructions on Reverse Side

Cotton Petroleum request permission to abandon the Dakota 'D' perfs @ 7264' - 7312'. The zone will be abandon by setting a Wireline set cement retainer @ 7230', 34' above top perf and pmp 100 sxs Class B neat cement.

The reason for abandonment is excessive wtr production. The following testing has occurred:

- 1. March 6, 1982, a BP was set @ 7224', immediately above the Dakota 'D', and a pkr was set @ 7060', immediately above the Dakota 'A'. The well was then produced for 10 days from the Dakota 'A' with a stabalized production of 15 BOPD x 1 BW x 110 MCFD.
- 2. March 20, 1982, the pkr was released and the well was then produced for 21 days from the Gallup and Dakota 'A' with a stablized rate of approx. 4 BOPD  $\times$  90 BWPD  $\times$  10 MCF.
- 3. April 14, 1982, the BP was moved from 7224' to 6128' which is above the Gallup to test for a csg leak. No fluid entry from above the Gallup was occurring.
- 4. April 17, 1982, the BP was moved to 6446' and a pkr was set @ 6150' to straddle test the Gallup. The well swabbed 80 BW.
- 5. The Gallup was cmt squeezed on April 21 & 22, 1982 per Sundry dated May 3, 1982. The well was pressure tested and swabbed with no fluid entry before drilling out BP.
- 6. April 27, 1982, the well was returned to production from the Dakota 'A' and Dakota 'D'. Production has stabalized @approx. 100 BWPD.



# APACHE NO. 124 NESE Section 4-T24N-R4W West Lindrith Gallup-Dakota Field Rio Arriba County, New Mexico

#### May 4, 1982 ABANDON DAKOTA 'D'

- MIRUSU
- 2. NDWH
- 3. NUBOP
- 4. TOOH w/production string.
- 5. RU Wireline Company.
- 6. TIH w/Wireline set Howco.cmt rtnr @ 7230'.
- 7. RD Wireline Company.
- 8. Load hole w/produced wtr.
- 9. TIH w/stinger x 2-3/8" tbg, sting into rtnr.
- 10. Pmp 100 sxs Class B neat cmt, displace to the cmt rtnr w/fresh wtr.

Displacement volume:  $7230' \times .00387 \frac{bbls}{ft} = 28 bbls$ 

General Comments: The Dakota 'A' perfs are open above the cmt rtnr.

Keep the backside loaded. If the Dakota 'A' & Dakota 'D' communicate and starts flg on the backside,

then pmp dwn the backside @ 1 BPM w/produced wtr.

If zone squeezed before cmt is displaced to the rtnr.

- a. Sting our of rtnr.
- b. Attempt to reverse out
- c. If unable to reverse out, pull tbg to above the calculated cmt fill and reverse circulate working dwn to rtnr. See the attached table for cmt fill calculations.
- d. Skip to step 12.
- 11. Sting out of rtnr and reverse out.
- 12. TOOH w/stinger x tbg. If the Dakota 'A' perfs @ 7119' 7160' were @ anytime covered w/cmt then continue to next step, otherwise skip to Step 24.
- 13. TIH w/3-7/8" bit x 4-1/2" csg scraper x 6 3" or 3-1/8" DC's that can be fished x tbg.
- 14. Clean out to top of cmt rtnr, set @ 7230'.

- 15. Roll hole w/2% KCL wtr.
- 16. Spot 250 gal, 7-1/2% acedic acid from approx 7165' 6795'.
- 17. TOOH w/btm hole assembly x tbg.
- 18. RU Wireline Company.
- 19. Correlate and perf the following CNL-FDC intervals w/1 JSPF using csg gun: 7119' 7129'; 7143' 7152'; 7156' 7160'.
- 20. TIH w/RTTS pkr of equivalent x SN x tbg, set pkr @ approx 6730'.
- 21. Acidize dwn tbg w/1000 gal 15% HCL.
- 22. Swab back load.
- 23. TOOH  $w/pkr \times SN \times tbg$ .
- 24. TIH w/mud anchorx perf nipple x SN x tbg x anchor x tbg x pmp x rod, land tbg @ approx 7200'.
- 25. NDBOP
- 26. NUWH
- 27. Return well to production.

#### CEMENT FILL TABLE

SXS REMAINING IN TBG	BBLS REMAINING	CU FT. REMAINING	CASING FILL
100	21.4	120	1341'
90	19.2	108	1207'
80	17.1	96	1073'
70	15.0	84	939'
60	12.8	72	804'
50	10.7	60	670'
40	8.5	48	536'
30	6.4	36	402'
20	4.3	24	268'
10	2.1	12	134'

Calculated based slurry properties = Volume 1.2 cu. ft./sxs

Csg Constants 4-1/2". 10.5#/ft csg: .089 
$$\frac{\text{cu.ft.}}{\text{Lin ft.}}$$
.0159  $\frac{\text{bbls}}{\text{Lin ft.}}$ 

### **APACHE #124**

