5. LEASE

Form 9-331 Dec. 1973

Form Approved. Budget Bureau No. 42-R1424

## UNITED STATES DEPARTMENT OF THE INTERIOR **GEOLOGICAL SURVEY**

NM-025604	
6. IF INDIAN, ALLOTTEE OR TRIB	BE NAME
7. UNIT AGREEMENT NAME Empire Abo Pressure Maintenance Project 8. FARM OR LEASE NAME Empire Abo Unit "M"	RECEIVE
9. WELL NO. 901	<del>- 007 2</del> 3 198
10. FIELD OR WILDCAT NAME Empire Abo	OFFICE ARTESIA, OFFICE
11. SEC., T., R., M., OR BLK. AND AREA 10-18S-27E	SURVEY OR
12. COUNTY OR PARISH 13. STA Eddy N M	ATE
14. API NO.	
15. ELEVATIONS (SHOW DF, KD 3507.7' GR	B, AND WD)

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 ' gas  $\mathbf{X}$ other well well 2. NAME OF OPERATOR ARCO Oil & Gas Company Division of Atlantic Richfield Company 3. ADDRESS OF OPERATOR P. O. Box 1710, Hobbs, New Mexico 88240 4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 AT SURFACE: 1300' FNL & 1220' FWL Unit Ltr "D" AT TOP PROD. INTERVAL: AT TOTAL DEPTH: As Above 16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA SUBSEQUENT REPORT OF: REQUEST FOR APPROVAL TO: TEST WATER SHUT-OFF RECEIVED FRACTURE TREAT SHOOT OR ACIDIZE REPAIR WELL OCT 20 1980: Report results of multiple completion or zone change on Form 9-330.) PULL OR ALTER CASING MULTIPLE COMPLETE U.S. GEDLUGICAL SURVEY **CHANGE ZONES** ABANDON\* Squeeze ARTESIA NEW NEXICO (other) Comp lower in reef 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.)\*

Rig up on 8/15/80, kill well, install BOP. POH w/ comp assy. Set cmt retr @ 5708'. Squeeze cmt Abo perfs 5766-84' w/ 150 sx Cl "C" cmt contg .75% LWL additive, 100 sx C1 "C" cmt w/2% CaCl2, squeeze press 3000#. Rev out 2 bb1 cmt. WOC. Drld out cmt & retr, circ hole cleam. Press tested squeeze job w/ 1500# for 30 mins, press dropped to 1100# in 15 mins, RIH w/ Lok-set pkr, set @ 5739', pmpd 250 gals 15% NE acid into perfs. POH w/ pkr. RIH w/ cmt retr, set @ 5710'. Squeezed perfs 5766-84' w/ 10 bb1 FW cont'g 1 gal Morflo, spot 75 sx C1 "C" cmt w/ .6% Halad-9 & 50 sx C1 "C" w/2% CaCl, displ w/ 20 bbls FW. Rev out 2 bbls cmt. WOC. Drilled cmt & cmt retr, circ hole clean. Press tested squeeze job to 1500# for 30 mins, OK. Ran GR-Neutron log. Perf Abo lower in reef 5928-5940'. Set pkr @ 5896'. Acidized perfs 5928-5940' w/150 gals SA-4 acid, 1000 gals gelled CaCl, wtr. Pkr & tbg failed to hole press. POH w/pkr. RIH w/pkr & tbg, set pkr @ 5928'. Trtd perfs 5928-40' w/ 150 gals 15% LSTNE acid, 1000 gals gelled CaCl, wtr, 1000 gals gelled LC, 1350 gals LSTNE 15% acid, 23 BLC. Swbd tbg dry. On 9/8/80 pmpd 1500 gals LC, 3000 gals LSTNE-FE acid, 23 BLC, Swbd back part of

Subsurface Safety valve: Manu. and Type	
18. I hereby certify that the foregoing is true and correct	
SIGNED JORGAN Schmidt TITLE Dist. Drlg. Supt	10/15/80
(This space for Federal or State office use	9)
APPROVED BY TITLE CONDITIONS OF APPROVAL, IF ANY:	— PATE ACCEPTED FOR RECORD
	OCT 2 i 1980

\*See Instructions on Reverse Side

Form 9-331 Empire Abo Unit "M" #901 Sec 10-18S-27E Eddy County, N M Page 2

load. POH w/ comp assy. Set RBP @ 5915'. Perf'd add'l Abo 5874-5884'. Set pkr @ 5858'. Treat perfs 5874-5884' w/ 2000 gals 60% LSTNE-FE acid, 40% Xylene, 23 BLC. Swbd 4 BW, 0 BO in  $3\frac{1}{2}$  hrs. Re-set RBP @ 5950', pkr @ 5858', swbd  $24\frac{1}{2}$  BW & 8 BO. In  $9\frac{1}{2}$  hrs swbd 3 BO, 1 BW. POH w/ pkr & BP. On 9/20/80 RIH w/ cmt retr @ 5831'. Pmpd 100 sx LWL cmt & 50 sx Cl "C" cmt w/ 2% CaCl  $_2$ , squeeze press 1000%, rev out  $1\frac{1}{2}$  bbl cmt. TA eff 9/22/80. Installed wellhead, closed valves. FINAL REPORT.