

RECEIVED

PENNZOIL UNITED, INC.  
ECHOES NO. 1  
1980 FSL & 1980 FEL  
SEC. 12, T-23-S, R-26-E  
EDDY COUNTY, NEW MEXICO

MAR 5 1977

U. S. G. S.  
ARTILLERY OFFICE

DRILL STEM TEST DATA:

DST #1 10,371-452': (Strawn) 30" pre-flow, weak blow increased to good; 90" ISI - GTS 10" after closing tool; 1 hr 2nd flow 1/4" ck - G.V. 42 MCFPD; 90" 2nd SI, 1 hr 3rd flow 1/4" ck - G.V. 74 MCF decreased to 50 MCF - 90 min 3rd SI - 2 hr final flow 1/4" ck - G.V. 82 MCF DECREASED to 46 MCF - 2 hr FSI - recovered full string gas in drill pipe - Sample chamber had 700# press, 4.5 CFG & 30cc drilling mud - HPI 5806# - HPO 5730# - IF 81# - 2nd flow 81# - 3rd flow 81# - Final flow 56# - ISIP 5565# - 2nd SIP 4587# - 3rd SIP 4308# - FSIP 5171# - BHT 180 degrees

DST #2 10,845-904': (Atoka) 30" pre-flow, weak blow increased to fair; 2 hr ISI - 1 hr 2nd flow, good blow - GTS 15" 1/2" ck, - G.V. 42 MCFPD decreased to TSTM; 1 1/2 hr 2nd SI - 2 hr final flow 1/4" ck - G.V. 36 MCFPD decreased to TSTM; 4 hr FSI - recovered 20' GCØM - Sample chamber had 810# press, 5.82 CFG - HPI 6079# - HPO 6042# - IF 68# - 2nd flow 30 - FF 30 - ISIP 3282 - 2nd SIP 3080 - FSIP 3282# - BHT 186 degrees

DST #3 11,503-526': (Morrow) 30" pre-flow, strong blow - GTS in 7" on 1/4" ck, 1,000# surface pressure - G.V. 1.7 MMCFGPD - 1 1/2 hr ISI - 3 hr final flow 24/64" ck, TP 1350# - G.V. 5.1 MMCFPD & still increasing slightly - 4 1/2 hr hr FSI - recovered 90' GCØM - Sample chamber failed - HPI 6204# - HPO 6166# - IF 1573# - FF 1859# - ISIP 4794# - FSIP 4699# & still building slightly