

Shell Oil Company
"GR" Federal 4 #1
SE/4 NW/4 Section 4
T-22-S, R-34-E
~~Grama Ridge Unit~~
Lea County, New Mexico

DST #1A: 6245'-6350' (105' Delaware). Packers failed. Misrun.

DST #1: 6030'-6350' (320' Delaware). Tool open 2 hours 5 minutes thru 5/8" BC, 1/4" TC, 4 1/2" DP. Opened w/strong blow. Strong to good blow throughout test decreasing to fair blow at end of flow period. No gas or oil to surface. Recovered 2000' (28 bbls.) drilling mud and filtrate + 2185' (31 bbls.) salt water. 60 minutes ISIBHP 2653 psi. FBHP 661-2080 psi. 120 minutes FSIBHP 2611 psi. HMP 2908-2929 psi. Salt water titrated 120,000 ppm Cl⁻. Pit mud 2400 ppm Cl⁻. Maximum temperature 110^o F. Conclusive Test. (HOWCO)

DST #2A: 7184'-7273' (89' Delaware). Misrun.

DST #2: 7184'-7273' (89' Delaware). Tool open 1 hour 37 minutes thru 5/8" BC, 1/4" TC, 4 1/2" DP. Opened w/weak blow, increased to fair in 15 minutes. NGTS. Recovered 270' (4 bbls.) slightly gas cut mud + 1890' (20 bbls.) salt water. 71 minutes ISIBHP 3013 psi. FBHP 475-1100 psi. 120 minutes FSIBHP 2927 psi. HMP 3486-3464 psi. Recovered water titrated 190,000 ppm Cl⁻. Pit mud titrated 3000 ppm Cl⁻. Conclusive Test. (HOWCO)

DST #3: 8830'-8981' (151' Bone Spring Limestone). Tool open 1 2/3 hours thru 5/8" BC, 1/4" TC, 4 1/2" DP. Opened w/weak blow, increased to fair in 10 minutes, decreased to weak and continued weak throughout test. NGTS. Recovered 930' gas in DP and DC + 180' (0.7 bbls.) gas cut drilling mud and filtrate. BHT 170^o F. 60 minutes ISIBHP 231 psi. FBHP 105-147 psi. 120 minutes FSIBHP 253 psi. HMP 4307-4307 psi. Recovered mud titrated 1000 ppm Cl⁻. Pit mud titrated 2500 ppm Cl⁻. Conclusive Test. (Foster)

DST #4: 11,265'-11,505' (240' Bone Spring and Wolfcamp). Tool open 1 hour thru 5/8" BC, 1" TC, 4 1/2" DP. Opened w/weak blow, increased to good in 5 minutes, decreased to fair in 15 minutes and weak at end of test. GTS 31 minutes. TSTM. Recovered 1890' (21 bbls.) slightly gas cut drilling mud. 60 minutes ISIBHP 841 psi. FBHP 411-583 psi. 90 mins. FSIBHP 1033 psi. HMH 5447-5436 psi. BHT 200^o F. Recovered mud titrated 400 ppm Cl⁻. Pit mud titrated 1000 ppm Cl⁻. Conclusive Test. (Foster)

DST #5: 11,505'-11,630' (125' Wolfcamp). Tool open 2 1/3 hours thru 5/8" BC, 7/8" TC, 4 1/2" DP. Tool open w/strong blow on 5 minute preflow. Tool reopened w/strong blow following initial shut in. GTS 9 minutes. Flowed gas at 275 MCF/D w/15 psi FSP. Gas decreased in 20 minutes to TSTM and continued TSTM throughout test. Recovered 773' (5 bbls.) gas