

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE September 11, 1967

Operator El Paso Natural Gas Company		Lease Howell M No. 1 (OWWO)	
Location 990'S, 990'W, Sec. 30, T-30-N, R-8-W		County San Juan	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing: Diameter 4.500	Set At: Feet 4819	Tubing: Diameter 2.375	Set At: Feet 4695
Pay Zone: From 4150	To 4788	Total Depth: 4820	Shut In 8-31-67
Stimulation Method Sand Water Frac		Flow Through Casing	Flow Through Tubing X

Choke Size, Inches .750		Choke Constant: C 12.365			
Shut-In Pressure, Casing, PSIG 918	+ 12 = PSIA 930	Days Shut-In 11	Shut-In Pressure, Tubing PSIG 917	+ 12 = PSIA 929	
Flowing Pressure: P PSIG 372	+ 12 = PSIA 384		Working Pressure: P _w PSIG 793	+ 12 = PSIA 805	
Temperature: T = 76 °F	n = F _t = .9850		F _{pv} (From Tables) 1.040	Gravity .695	F _g = .9292

$$\text{CHOKE VOLUME} = Q = C \times P_i \times F_i \times F_g \times F_{pv}$$

$$Q = (12.365)(384)(.9850)(.9292)(1.040) = \underline{4520} \text{ MCF/D}$$

$$\text{OPEN FLOW} = Aof = Q \left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$$

$$Aof = \left(\frac{864900}{216875} \right)^n = (4520)(3.9880)^{.75} = (2.8221)(4520)$$

NOTE: Made very small amount of H₂O right after opening well up, then cleared up to a very light spray of light hydrocarbons.

$$Aof = \underline{12756} \text{ MCF/D}$$

TESTED BY R. F. HeadrickCHECKED
WITNESSED BY H. E. McAnally

H. L. Kendrick
H. L. Kendrick