

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE February 26, 1975

Operator El Paso Natural Gas Company		Lease Howell K #2-A	
Location 1800/N, 1590/W, Sec. 22, T30N, R8W		County San Juan	State New Mexico
Formation Lewis MESAVERDE		Pool Unders BLANCO	
Casing: Diameter 4.500	Set At: Feet 4295'	Tubing: Diameter 2.375	Set At: Feet 4287'
Pay Zone: From 4275'	To 4283'	Total Depth: PBD 4295' 4270	Shut In 2-18-75
Stimulation Method Natural		Flow Through Casing XX	Flow Through Tubing

Choke Size, Inches .750		Choke Constant: C 12.365			
Shut-In Pressure, Casing, PSIG 718	+ 12 = PSIA 730	Days Shut-In 7	Shut-In Pressure, Tubing PSIG 718	+ 12 = PSIA 730	
Flowing Pressure: P PSIG 543	+ 12 = PSIA 555		Working Pressure: P _w PSIG Assume 713 Meas. 718	+ 12 = PSIA 725	
Temperature: T = 89 °F F _{FD} .9732	n = .75		F _{pv} (From Tables) 1.050	Gravity .650 F _g = .9608	

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

$$Q = 12.365(555)(0.9732)(0.9608)(1.050) = \underline{\quad 6738 \quad} \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{532900}{7275} \right)^n = 6738(73.2509)^{.75} = 6738(25.0386)$$

$$Aof = \underline{\quad 168702 \quad} \text{ MCF/D}$$

TESTED BY F. JohnstonWITNESSED BY L. W. Fothergill

Note: The well produced a dry gas flow. The well produced no draw down in pressure in the tubing, during the three hour test thru a 3/4" choke. Therefore it was assumed a pressure drop of 5 lbs to get a working pressure.

Loren W. Fothergill
Well Test Engineer

