

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATADATE September 17, 1975

Operator El Paso Natural Gas Company		Lease Howell A #3-A	
Location 1500'N, 1650'W, Sec. 4, T30N, R8W		County San Juan	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing: Diameter 4.500	Set At: Feet 5768'	Tubing: Diameter 2.375	Set At: Feet 5713'
Pay Zone: From 4888	To 5712	Total Depth: PBDT 5770' 5751'	Shut In 8-22-75
Stimulation Method Sandwater Frac		Flow Through Casing	Flow Through Tubing XX

Choke Size, Inches 2.500 M.R. 4"		Choke Constant: C 32.64		Tested thru .750" variable choke	
Shut-In Pressure, Casing, PSIG 646	+ 12 = PSIA 658	Days Shut-In 26	Shut-In Pressure, Tubing PSIG 596	+ 12 = PSIA 608	
Flowing Pressure: P PSIG WH 222 M.R. 77	+ 12 = PSIA WH 234 M.R. 89	Working Pressure: P <sub>w</sub> PSIG 580	+ 12 = PSIA 592		
Temperature: T = 64 °F	F <sub>t</sub> = .9962	n = .75	F <sub>p</sub> (From Tables) 1.009	Gravity .653	F <sub>g</sub> = 1.237

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

$$Q = \text{Calculated from orifice meter readings} = \underline{\hspace{2cm}} 3044 \text{ MCF/D}$$

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

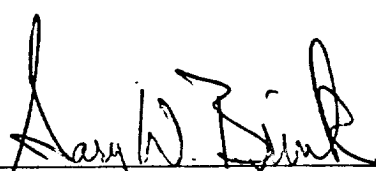
$$Aof = Q \left( \frac{432964}{82500} \right)^n = 3044(5.248)^{.75} = 3044(3.467)$$

$$Aof = \underline{\hspace{2cm}} 10555 \text{ MCF/D}$$

Note: This well produced 2 bbl of water throughout the test. During the test 370.23 MCF of gas was vented to atmosphere.

TESTED BY R. Hardy & C. Rhames

WITNESSED BY \_\_\_\_\_

  
Well Test Engineer
