

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE October 15, 1973

Operator <u>El Paso Natural Gas Company</u>		Lease <u>Vaughn #24 (CH)</u>	
Location <u>790/S, 1450/E, Sec. 27., T26-N, R6W</u>		County <u>Rio Arriba</u>	State <u>New Mexico</u>
Formation <u>Chacra</u>		Pool <u>Otero</u>	
Casing: Diameter <u>2.875</u>	Set At: Feet <u>3596'</u>	Tubing: Diameter <u>No Tubing</u>	Set At: Feet
Pay Zone: From <u>3432</u>	To <u>3544</u>	Total Depth: <u>3596</u>	Shut In <u>10-5-73</u>
Stimulation Method <u>Sandwater Frac</u>		Flow Through Casing <u>X</u>	Flow Through Tubing

Choke Size, Inches <u>.750</u>		Choke Constant: C <u>12.365</u>		Tubingless Completion	
Shut-In Pressure, Casing, PSIG <u>850</u>	+ 12 = PSIA <u>864</u>	Days Shut-In <u>10</u>	Shut-In Pressure, Tubing PSIG <u>No Tubing</u>	+ 12 = PSIA	
Flowing Pressure: P PSIG <u>58</u>	+ 12 = PSIA <u>70</u>		Working Pressure: Pw PSIG <u>Calculated</u>	+ 12 = PSIA <u>90</u>	
Temperature: T = <u>60°F</u> Ft = <u>1.000</u>	n = <u>.75</u>		Fpv (From Tables) <u>1.009</u>	Gravity <u>.655</u>	Fg = <u>.9571</u>

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

$$Q = (12.365) (70) (1.000) (.9571) (1.009) = \underline{\quad 836 \quad} \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{746496}{738396} \right)^n = 836 (1.0110)^{.75} = 836 (1.0082)$$

$$Aof = \underline{\quad 843 \quad} \text{ MCF/D} \quad \text{Note: Dry Flow.}$$

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William D. Welch
William D. Welch
Well Test Engineer