

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE September 7, 1973

Operator <u>El Paso Natural Gas Company</u>		Lease <u>San Juan 27-5 Unit #164</u>	
Location <u>840/N, 1000/E, Sec. 30, T-27N, R5W</u>		County <u>Rio Arriba</u>	State <u>New Mexico</u>
Formation <u>Dakota</u>		Pool <u>Basin</u>	
Casing: Diameter <u>4.500</u>	Set At: Feet <u>7759</u>	Tubing: Diameter <u>1 1/2</u>	Set At: Feet <u>7707'</u>
Pay Zone: From <u>7542</u>	To <u>7734'</u>	Total Depth: <u>7759</u>	Shut In <u>8-24-73</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>			
Shut-In Pressure, Casing, PSIG <u>2650</u>	+ 12 = PSIA <u>2662</u>	Days Shut-In <u>20</u>	Shut-In Pressure, Tubing PSIG <u>2654</u>	+ 12 = PSIA <u>2666</u>	
Flowing Pressure: P PSIG <u>312</u>	+ 12 = PSIA <u>324</u>		Working Pressure: P _w PSIG <u>637</u>	+ 12 = PSIA <u>649</u>	
Temperature: T = <u>76 °F</u>	F _t = <u>.9850</u>	n = <u>.75</u>	F _{pv} (From Tables) <u>1.029</u>	Gravity <u>.655</u>	F _g = <u>.9571</u>

$$\text{CHOKE VOLUME} = Q = C \times P_t \times F_t \times F_g \times F_{pv}$$

$$Q = (12.365) (324) (.9850) (.9571) (1.029) = \underline{\quad 3886 \quad} \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{7086244}{6665043} \right)^n = 3886 (1.0632)^{.75} = 3886 (1.0470)$$

$$Aof = \underline{\quad 4069 \quad} \text{ MCF/D}$$

TESTED BY B.J.B.

WITNESSED BY _____



William D. Welch
William D. Welch
Well Test Engineer