

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATA

DATE December 5, 1973

Operator <u>El Paso Natural Gas Company</u>		Lease <u>San Juan 28-4 Unit #37</u>	
Location <u>1335/N, 870/E, Sec. 29, T28N, R4W</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>8772'</u>	Tubing: Diameter <u>1 1/2"</u>	Set At: Feet <u>8710'</u>
Pay Zone: From <u>8561</u>	To <u>8728</u>	Total Depth: <u>8772</u>	Shut In <u>11-22-73</u>
Stimulation Method <u>Sandwater Frac</u>		Flow Through Casing <u>X</u>	Flow Through Tubing

MR Choke Size, Inches <u>4"</u>	Orifice <u>2.500</u>	Orifice Choke Constant: C <u>32.64</u>	Well Tested thru <u>48/64</u> choke		
Shut-In Pressure, Casing, PSIG <u>2452</u>	+ 12 = PSIA <u>2464</u>	Days Shut-In <u>13</u>	Shut-In Pressure, Tubing PSIG <u>2464</u>	+ 12 = PSIA <u>2476</u>	
Flowing Pressure: P PSIG <u>WH 100 MR 35</u>	+ 12 = PSIA <u>WH 112 MR 47</u>		Working Pressure: Pw PSIG <u>335</u>	+ 12 = PSIA <u>347</u>	
Temperature: <u>T = 54 °F</u>	Ft = <u>1.006</u>	n = <u>.75</u>	Fpv (From Tables) <u>1.004</u>	Gravity <u>.650</u>	Fg = <u>.9608</u>

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

$$Q = \text{Calculated from meter readings} = \underline{\hspace{2cm}} 1195 \text{ MCF/D}$$

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

$$Aof = Q \left( \frac{6071296}{5950887} \right)^n = 1195(1.0202)^{.75} = 1195(1.0151)$$

$$Aof = \underline{1213} \text{ MCF/D}$$

Note: Well produced 10 bbl. of water with a trace of oil.

TESTED BY Rhames & Norton

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

William D. Welch  
William D. Welch  
Well Test Engineer