

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATADATE September 17, 1968

Operator <u>El Paso Natural Gas Company</u>		Lease <u>San Juan 27-4 Unit No. 46</u>	
Location <u>1750'N, 850'E, Sec. 31, T-27-N, R-4-W</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>8060</u>	Tubing: Diameter <u>2.375</u>	Set At: Feet <u>7773</u>
Pay Zone: From <u>7814</u>	To <u>8032</u>	Total Depth: <u>8060</u>	Shut In <u>9-4-68</u>
Stimulation Method <u>Sand Water Frac</u>		Flow Through Casing	Flow Through Tubing <u>X</u>

Choke Size, Inches <u>.750</u>		Choke Constant: C <u>12.365</u>	
Shut-In Pressure, Casing, PSIG <u>2460</u>	+ 12 = PSIA <u>2472</u>	Days Shut-In <u>13</u>	Shut-In Pressure, Tubing PSIG <u>2436</u>
Flowing Pressure: P PSIG <u>298</u>	+ 12 = PSIA <u>310</u>		Working Pressure: P <sub>w</sub> PSIG <u>851</u>
Temperature: T = <u>84</u> °F	n = <u>.75</u>	F <sub>pv</sub> (From Tables) <u>1.028</u>	Gravity <u>.670</u> F <sub>g</sub> = <u>.9463</u>

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

$$Q = (12.365)(310)(.9777)(.9463)(1.028) = \underline{3646} \text{ MCF/D}$$

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

$$Aof = \left( \frac{6110784}{5366015} \right)^n = (3646)(1.1387)^{.75} = (3646)(1.1022)$$

Note: The well produced a heavy mist of water and distillate throughout the test.

$$Aof = \underline{4019} \text{ MCF/D}$$

TESTED BY Bobbie J. BroughtonCalculated  
WITNESSED BY Hermon E. McAnally

Tom B. Grant  
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