

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATA

DATE March 18, 1978

Operator <b>Manana Gas Inc.</b>		Lease <b>Charlie #1</b>	
Location <b>1850'/S, 690'/E, Sec. 7, T30N, R11W</b>		County <b>San Juan</b>	State <b>New Mexico</b>
Formation <b>Pictured Cliffs</b>		Pool <b>Aztec</b>	
Casing: Diameter <b>3.500</b>	Set At: Feet <b>2099'</b>	Tubing: Diameter <b>1.660</b>	Set At: Feet <b>2044'</b>
Pay Zone: From <b>1991</b>	To <b>2054'</b>	Total Depth: <b>2100'</b>	Shut In <b>3-10-78</b>
Stimulation Method <b>Sand water fractured</b>		Flow Through Casing <b>XX</b>	Flow Through Tubing

Choke Size, Inches <b>0.750</b>		Choke Constant: C <b>12.365</b>			
Shut-In Pressure, Casing, PSIG <b>237</b>	+ 12 = PSIA <b>249</b>	Days Shut-In <b>8</b>	Shut-In Pressure, Tubing PSIG <b>231</b>	+ 12 = PSIA <b>243</b>	
Flowing Pressure: P PSIG <b>33</b>	+ 12 = PSIA <b>45</b>		Working Pressure: P <sub>w</sub> PSIG <b>115</b>	+ 12 = PSIA <b>127</b>	
Temperature: T = <b>57 °F</b>	F <sub>t</sub> = <b>1.0029</b>	n = <b>0.85</b>	F <sub>pv</sub> (From Tables) <b>1.003</b>	Gravity <b>0.635</b>	F <sub>g</sub> = <b>0.9721</b>

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

$$Q = (12.365)(45)(1.0029)(0.9721)(1.003) = \underline{544} \text{ MCF/D}$$

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

$$Aof = Q \left( \frac{62001}{45872} \right)^n = (544)(1.3516)^{.85} = (544)(1.2919)$$

$$Aof = \underline{703} \text{ MCF/D}$$

Note: The well produced a light spray of water and a heavy fog of distillate throughout the test.

TESTED BY H. E. McAnally (EPNG)WITNESSED BY Curtis Little (Manana)

*H. E. McAnally*  
Well Test Engineer

