

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE October 8, 1964

Operator <u>El Paso Natural Gas Company</u>		Lease <u>Huerfano Unit No. 140</u>	
Location <u>830'N, 1650'W, Sec. 5, T-26-N, R-9-W</u>		County <u>San Juan</u>	State <u>New Mexico</u>
Formation <u>Dakota</u>		Pool <u>Basin</u>	
Casing: Diameter <u>1.500</u>	Set At: Feet <u>6932</u>	Tubing: Diameter <u>2.375</u>	Set At: Feet <u>6841</u>
Pay Zone: From <u>6672</u>	To <u>6848</u>	Total Depth: <u>6935</u>	Shut In <u>9-23-64</u>
Stimulation Method <u>Sand Water Frac.</u>		Flow Through Casing	Flow Through Tubing <u>X</u>

Choke Size, Inches <u>.75</u>		Choke Constant: C <u>12.365</u>			
Shut-In Pressure, Casing, PSIG <u>2005</u>	+ 12 = PSIA <u>2017</u>	Days Shut-In <u>15</u>	Shut-In Pressure, Tubing PSIG <u>1927</u>	+ 12 = PSIA <u>1939</u>	
Flowing Pressure: P PSIG <u>311</u>	+ 12 = PSIA <u>323</u>		Working Pressure: P _w PSIG <u>781</u>	+ 12 = PSIA <u>793</u>	
Temperature: T = <u>82 °F</u>	F _t = <u>.9795</u>	n = <u>.750</u>	F _{pv} (From Tables) <u>1.045</u>	Gravity <u>.790</u>	F _g = <u>.8715</u>

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

$$Q = (12.365)(323)(.9795)(.8715)(1.045) = \underline{3,563} \text{ MCF/D}$$

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

$$Aof = \left(\frac{1,068,289}{3,439,440} \right)^n = (1.1828)^{.75} (3563) = (1.1344)(3563)$$

$$Aof = \underline{4,042} \text{ MCF/D}$$

NOTE: Made very heavy slug of oil after approx. 3 min., then a slug of water which lasted only a few seconds and then turned back to heavy spray of oil & continued to make heavy spray of oil throughout test.

TESTED BY R. F. Headrick
Checked _____
WITNESSED BY Tom B. Grant

Lewis D. Galloway
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