

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATADATE October 5, 1973

Operator <b>El Paso Natural Gas Company</b>		Lease <b>San Juan 28-5 Unit #91</b>	
Location <b>1000/S, 825/W, Sec. 14, T-28-N, R5W</b>		County <b>Rio Arriba</b>	State <b>New Mexico</b>
Formation <b>Dakota</b>		Pool <b>Basin</b>	
Casing: Diameter <b>4.500</b>	Set At: Feet <b>8182'</b>	Tubing: Diameter <b>1 1/2"</b>	Set At: Feet <b>8151'</b>
Pay Zone: From <b>8054</b>	To <b>8170'</b>	Total Depth: <b>8182</b>	Shut In <b>9-27-73</b>
Stimulation Method <b>Sandwater Frac</b>		Flow Through Casing <b>X</b>	Flow Through Tubing

Choke Size, Inches <b>.750</b>		Choke Constant: C <b>12.365</b>			
Shut-In Pressure, Casing, PSIG <b>2615</b>	+ 12 = PSIA <b>2627</b>	Days Shut-In <b>7</b>	Shut-In Pressure, Tubing PSIG <b>2379</b>	+ 12 = PSIA <b>2391</b>	
Flowing Pressure: P PSIG <b>216</b>	+ 12 = PSIA <b>228</b>		Working Pressure: P <sub>w</sub> PSIG <b>464</b>	+ 12 = PSIA <b>476</b>	
Temperature: T = <b>65 °F</b>	F <sub>t</sub> = <b>.9952</b>	n = <b>.75</b>	F <sub>pv</sub> (From Tables) <b>1.018</b>	Gravity <b>.610</b>	F <sub>g</sub> = <b>.9918</b>

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

$$Q = (12.365)(228)(.9952)(.9918)(1.018) = \underline{2833} \text{ MCF/D}$$

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

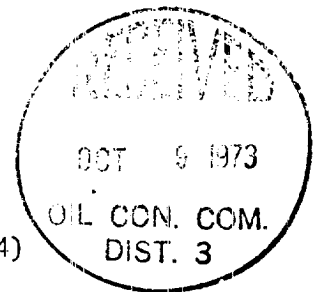
$$A_{of} = Q \left( \frac{6901129}{6674553} \right)^n = 2833 (1.0339)^{.75} = 2833 (1.0254)$$

$$A_{of} = \underline{2905} \text{ MCF/D}$$

Note: Well blew a medium mist to distillate and water throughout the test.

TESTED BY Rhames

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



*William D. Welch*  
William D. Welch  
Well Test Engineer