

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE July 7, 1976

Operator El Paso Natural Gas Company		Lease Pierce A #1-A	
Location SE 13-30N-10W		County San Juan	State New Mexico
Formation Mesa Verde		Fool Blanco Mesa Verde	
Casing: Diameter 4 1/2	Set At: Feet 5693'	Tubing: Diameter 2 3/8"	Set At: Feet 5627'
Pay Zone: From 4665	To 5634'	Total Depth: PBD 5693' 5685	Shut In 6-26-76
Stimulation Method Sandwater Frac		Flow Through Casing Flow Through Tubing	

Choke Size, Inches 0.750		Choke Constant: C 12.365	
Shut-In Pressure, Casing, PSIG 728	+ 12 = PSIA 740	Days Shut-In 11	Shut-In Pressure, Tubing PSIG 545
Flowing Pressure: P PSIG 231	+ 12 = PSIA 243	Working Pressure: Pw PSIG 665	+ 12 = PSIA 677
Temperature: T = 81°F	n = 0.75	Fpv (From Tables) 1.022	Gravity 0.685 Fg = .9359

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

$$Q = (12.365)(243)(0.9804)(0.9359)(1.022) = 2818 \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{547600}{89271} \right)^n = (2818)(6.1341)^{.75} = (2818)(3.8978)$$

$$Aof = 10984 \text{ MCF/D}$$

Note: The well unloaded a 3 minute slug of distillate and water after seven minutes and blew a medium spray of distillate and water throughout the remainder of the test. Vented 379 MCF of gas to atmosphere.

TESTED BY C. R. WagnerWITNESSED BY J. W. Andes

J. W. Andes
Well Test Engineer