

EL PASO NATURAL GAS COMPANY

OPEN FLOW TEST DATA

DATE November 26, 1975

Operator El Paso Natural Gas Company		Lease Howell L #1A	
Location 1075'N, 1100'W, Sec.23, T-30-N, R-8-W		County San Juan	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing: Diameter 4.500	Set At: Feet 5545'	Tubing: Diameter 2.375	Set At: Feet 5495'
Pay Zone: From 4654'	To 5522'	Total Depth: 5545' PBTD 5528'	Shut In 11-10-75
Stimulation Method Sand Water Frac		Flow Through Casing	Flow Through Tubing XX

Plate					
K ₁ Size, Inches 2.500 4" M.R.		Choke Constant: C 32.64		tested thru 3/4" variable choke	
Shut-In Pressure, Casing, PSIG 747	+ 12 = PSIA 759	Days Shut-In 9	Shut-In Pressure, Tubing PSIG 747	+ 12 = PSIA 759	
Flowing Pressure: P WH 242 MR 55 PSIG	+ 12 = PSIA WH 254 MR 67		Working Pressure: P _w PSIG 654	+ 12 = PSIA 666	
Temperature: T = 49 °F F _t = 1.011	n = .75		F _{pv} (From Tables) 1.010	Gravity .655 F _g = 1.236	

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

$$Q = \text{calculated from orifice meter readings} = \underline{2455} \text{ MCF/D}$$

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

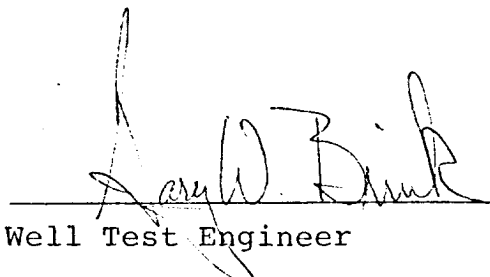
$$Aof = \left(\frac{576081}{132525} \right)^n = 2455 (4.3469)^{.75} = 2455 (3.0105)^3$$

$$Aof = \underline{7391} \text{ MCF/D}$$

Note: during the test, 369.51 MCF of gas was vented to atmosphere.

TESTED BY Johnson and Norton

WITNESSED BY _____


 Well Test Engineer
