

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE November 19, 1975

Operator El Paso Natural Gas Company		Lease Howell D #3 (OWWO)	
Location 1650/N, 1650/E, Sec. 31, T31N, R8W		County San Juan	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing: Diameter 4.500	Set At: Feet 5878'	Tubing: Diameter 2.375	Set At: Feet 5770'
Pay Zone: From 5662	To 5833'	Total Depth: PBD 5879' 5862'	Shut In 11-11-75
Stimulation Method Sandwater Frac		Flow Through Casing	Flow Through Tubing XX

Plate Choke Size, Inches 2.50" Plate, 4" M.R.	Choke Constant: C 32.64	Tested through a 3/4" variable choke	
Shut-In Pressure, Casing, PSIG 450	+ 12 = PSIA 462	Days Shut-In 8	Shut-In Pressure, Tubing PSIG 283
Flowing Pressure: P PSIG 45 M.R., 101 W.H.	+ 12 = PSIA 57 M.R., 113 W.H.	Working Pressure: Pw PSIG 426	+ 12 = PSIA 438
Temperature: T = 59 °F	n = .75	Fpv (From Tables) 1.004	Gravity 0.654 Fg = 1.237

CHOKE VOLUME = Q = C x P_i x F_i x F_g x F_{pv}

Q = Calculated from orifice meter readings = 1165 MCF/D

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

Aof = Q $\left(\frac{213444}{21600} \right)^n = (1165)(9.8817)^{.75} = (1165)(5.5734)$

Aof = 6493 MCF/D



Note: The well produced 7.7 bbls. of API gravity oil during the test and 115.87 MCF of gas during the test.

TESTED BY R. Hardy and J. Goodwin

WITNESSED BY _____

H. E. McAnally
Well Test Engineer