EL PASO NATURAL GAS COMPANY

OPEN FLOW TEST DATA

DATE October 13, 1977

Operator: El Paso Natural Gas Company		Lease: Lucerne A #3-A	
Location: Unit I Sec. 3, T31N, R10W		County: San Juan	State: New Mexico
Formation: Pictured Cliffs		Pool: Blanco	
Casing: Diameter: 7.000	Set At: Feet: 3222'	Tubing: Diameter: 1.660	Set At: Feet: 2878'
Pay Zone: From: 2814'	To: 2882'	Total Depth: PB 5493	Shut In: 9-29-77
Stimulation Method: Sandwater Frac		Flow Through Casing: XX	Flow Through Tubing

Choke Size, Inches: .750		Choke Constant: C: 12.3650			
Shut-In Pressure, Casing, PSIG: 700	+ 12 = PSIA: 712	Days Shut-In: 14	Shut-In Pressure, Tubing PSIG: 701	+ 12 = PSIA: 713	
Flowing Pressure: P PSIG: 236	+ 12 = PSIA: 248		Working Pressure: Pw PSIG: 241	+ 12 = PSIA: 253	
Temperature: T= 62 °F	Ft= .9990	n = .85	Fpv (From Tables): 1.024	Gravity: .650	Fg = .9608

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

$Q = 12.365(248)(.9990)(.9608)(1.024) = 3014$ MCF/D

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

$Aof = Q\left(\frac{508369}{444360}\right)^n = 3014(1.1440)^{.85} = 3014(1.1219)$

Aof = 3381 MCF/D

Note: Well blew dry gas throughout test. Well vented 466 MCF of gas to atmosphere during the test.

TESTED BY J. Thurstonson

WITNESSED BY

C. R. Wagner
Well Test Engineer