

EL PASO NATURAL GAS COMPANY

P. O. Box 997
Farmington, New Mexico

September 15, 1958



Mr. E. C. Arnold
Oil Conservation Commission
1000 Rio Brazos Road
Aztec, New Mexico

Re: Packer Leakage Test on the El Paso Natural Gas
Company Well, San Juan 28-6 Unit 82 (PM),
1650N, 1800E; 13-27-6, Rio Arriba, New Mex.
(Name - Location - Company)

Dear Mr. Arnold:

The subject well was dually completed in the Pictured Cliffs and Mesa Verde zones and a packer was set at 3413 feet. The Mesa Verde zone was tested through a 3/4" choke for three hours August 26, 1958 with the following data obtained:

IC SIC 975 psig; Shut-in 11 days
PC SIC 975 psig;
MV SIC 1074 psig; Shut-in 11 days

Time Minutes	(MV) Flowing Pressure Tubing Psig	(PC) SIC (C) Psig	(MV) Working Pressure, Psig	Temp ° F
0		975		66
15	304	978		66
30	281	978		66
45	270	978		66
60	262	978		66
180	200	980	Calc. 404	68

The choke volume for the Mesa Verde was 2466 MCF/D with an AOF of 2777 MCF/D.

The Pictured Cliffs zone was tested Sept. 15, 1958 with a 3/4" choke for 3 hours with the following data obtained:

IC SIC 1047 psig; Shut-in 31 days
PC SIC 1048 psig;
MV SIC 1087 psig; Shut-in 20 days

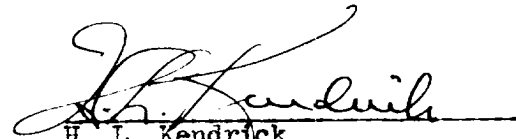
September 15, 1958

Time Minutes	(PC) Flowing Pressure Casing Psig	(MV) SIP (T) Psig	(PC) Working Pressure, Psig	Temp ° F
0		1087		
15	405	1087		56
30	270	1088		58
45	216	1089		59
60	191	1089		60
180	118	1089	Calc. 124	61

The choke volume for the Pictured Cliffs test was 1473 MCF/D with an AOF
of 1494 MCF/D.

The results of the above tests indicate there is no packer leakage.

Very truly yours,


H. L. Kendrick
Gas Engineer

HLK/nb

cc: W. M. Rodgers
H. S. Oberly (6)
File



EL PASO NATURAL GAS COMPANY OPEN FLOW TEST DATA

DUAL COMPLETION

DATE August 26, 1958

Operator El Paso Natural Gas		Lease San Juan 28-6 Unit 82 (M)	
Location 1650N, 1800E; 13-27-6		County Rio Arriba State New Mexico	
Formation Mesa Verde		Blanco MV	
Casing Diameter 7-5/8	Set At Feet 3339	Tubing Diameter 2"	Set At Feet 5361
Pay Zone Feet 4792	5460	Total Depth 5554 c/o 5518	August 15, 1958
Stimulation Material Sand Water Frac.		Flow Through Casing	Flow Through Tubing X

Choke Size, inches .75	Flow Constant 12.365	5-1/2 liner 3313 - 5554	
Shut-In Pressure, casing 975 (PC)	987	Shut-In Pressure, Tubing (MV) 1074	1086
Flowing Pressure, P 200	212	Working Pressure, Pw Calc.	416
Temperature, T 68	.75	App. from Tables 1.024	Gravity .702

Initial SIPT (PC) = 975 psig
Final SIPC (PC) = 980 psig

Packer at 3413
1-1/4" at 3210

CHOKE VOLUME = $Q = C \times P_1 \times F_1 \times F_2 \times F_3$

$$Q = (12.365)(212)(.9924)(.9258)(1.024)$$

2466

MCF/D

OPEN FLOW $Q_{OF} = Q \left(\frac{P_1^2 - P_A^2}{P_1^2 - P_A^2} \right)^n$

$$Q_{OF} = \left(\frac{1179396}{1006340} \right)^{.75}$$

$$(1.1719)^{.75} (2466) = (1.1261)(2466)$$

Act

2777

MCF/D

S. V. Roberts



Lewis D. Galloway
L. D. Galloway