

1 Penrose
1 El Paso
1 File

Form C-122-A
Revised April 20, 1955

Initial Deliverability
Test

CORRECTION OF TEST FILED OCTOBER 6, 1964

NEW MEXICO OIL CONSERVATION COMMISSION

GAS WELL TEST DATA SHEET - - SAN JUAN BASIN

(TO BE USED FOR FRUITLAND, PICTURED CLIFFS, MESAVERDE, & ALL DAKOTA
EXCEPT BARKER DOME STORAGE AREA)

Pool Tapacito Formation Pictured Cliffs County Rio Arriba
Purchasing Pipeline El Paso Natural Gas Co. Date Test Filed 11-20-64
Operator Penrose Production Co. Lease Flanagan Federal Well No. 2
Unit A Sec. 5 Twp 25N Rge. 3W Pay Zone: From 3830 To 3879
Casing: OD 5 1/2" WT. 31# Set At 3830 Tubing: OD 2 3/8" WT. 4.7# T. Perf. 3855
Produced Through: Casing 31# Tubing X Gas Gravity: Measured .659 Estimated
Date of Flow Test: From 8-31-64 To 9-8-64 * Date S.I.P. Measured 1-27-64
Meter Run Size 4" Orifice Size 1.250 Type Chart Type Taps

OBSERVED DATA

Flowing casing pressure (Dwt) psig + 12 = psia (a)
Flowing tubing pressure (Dwt) psig + 12 = psia (b)
Flowing meter pressure (Dwt) psig + 12 = psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading psig + 12 = psia (d)
Square root chart reading ()² x spring constant = psia (d)
Meter error (c) - (d) or (d) - (c) ± = psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing = psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading psig + 12 = psia (g)
Square root chart average reading (7.10)² x sp. const. 5 = 252 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 252 psia (h)
P_t = (h) + (f) = 252 psia (i)
Wellhead casing shut-in pressure (Dwt) 462 psig + 12 = 474 psia (j)
Wellhead tubing shut-in pressure (Dwt) 461 psig + 12 = 473 psia (k)
P_c = (j) or (k) whichever well flowed through = 474 psia (l)
Flowing Temp. (Meter Run) °F + 460 = °Abs (m)
P_d = 1/2 P_c = 1/2 (l) 80% = 379 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{\left(\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right)^{.85}}{\left(\frac{V(c)}{V(d)} \right)} = \text{MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{.85} = 331 \text{ MCF/day}$$

SUMMARY

P_c = 474 psia
Q = 578 Mcf/day
P_w = 262 psia
P_d = 379 psia
D = 331 Mcf/day

Company Penrose Production Co.
By Original signed by [Signature]
Title Consulting Engineer
Witnessed by
Company

- * This is date of completion test.
- * Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ^{-S})	(F _c Q) ²	(F _c Q) ² (1-e ^{-S}) R ²	P _t ² (Column i)	P _t ² + R ²	P _w
2540	.169	29.532	4.991	63.504	68.495	262

*This well was worked over and placed back on production 8-28-64.

