

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 S. Blanco PC Formation P C County Hio Arriba
Purchasing Pipeline El Paso Natural Gas Co. Date Test Filed 8-28-62
Operator Shar-Alan Lease Gardner Fed. Well No. 1
Unit 5 Sec. 5 Twp. 23 N Rge. 1 W Pay Zone: From 3376 To 3374
Casing: OD 5 1/2 WT. 3470 Set At 3470 Tubing: OD 2 1/2 WT. 27 T. Perf.
Produced Through: Casing Tubing X Gas Gravity: Measured .707 Estimated
Date of Flow Test: From 7-14 To 7-22 * Date S.I.P. Measured 7-29-62
Meter Run Size 4" Orifice Size 1.250 Type Chart S R Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 220 psig + 12 = 232 psia (a)
Flowing tubing pressure (Dwt) 219 psig + 12 = 231 psia (b)
Flowing meter pressure (Dwt) psig + 12 = psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken):
Normal chart reading 6.80 500 psig + 12 = 231 psia (d)
Square root chart reading ()² x spring constant = 0 psia (d)
Meter error (c) - (d) or (d) - (c) ± = psi (e)
Friction loss, Flowing column to meter: 1 psi (f)
(b) - (c) Flow through tubing: (a) - (c) Flow through casing
Seven day average static meter pressure (from meter chart):
Normal chart average reading 6.75 500 psig + 12 = 228 psia (g)
Square root chart average reading ()² x sp. const. = 228 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 229 psia (h)
P_t = (h) + (f) 548 = 560 psia (i)
Wellhead casing shut-in pressure (Dwt) 548 psig + 12 = 560 psia (j)
Wellhead tubing shut-in pressure (Dwt) psig + 12 = 560 psia (k)
P_c = (j) or (k) whichever well flowed through 61 = 521 psia (l)
Flowing Temp. (Meter Run) 61 °F + 460 = 280 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 260 psia (n)

FLOW RATE CALCULATION

Q = 731 X $\left(\frac{\sqrt{V(c)}}{\sqrt{V(d)}} = \frac{1.000}{1.000} = 1.000 \right) = \underline{731} MCF/day
(integrated)$

DELIVERABILITY CALCULATION

D = Q 731 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{235,200}{45,338} \right]^n = \frac{3.0426}{5.1877} = \underline{2224} MCF/day$

SUMMARY

P_c = 560 psia
Q = 731 Mcf/day
P_w = 200 psia
P_d = 260 psia
D = 2224 Mcf/day

Company Shar-Alan
By Don Burton
Piggy Supt.
Calculated by D. H. Keyes
Witnessed by
Company Geoelectric, Inc.

- * 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
<u>2387</u>	<u>.159</u>	<u>1957.362</u>	<u>215.821</u>	<u>52,441</u>	<u>268,262</u>	<u>518</u>