

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 Blanco Formation Mesa Verde County San Juan
Purchasing Pipeline Southern Union Gas Company Date Test Filed 3-19
Operator Anderson-Pritchard-Johnson Lease Culpepper Martin Well No. 1
Unit P Sec. 31 Twp. 32 Rge. 12 Pay Zone: From 4570 To 4617
Casing: OD 7" WT. 20# Set At 4567 Tubing: OD 2.375 WT. 4.70 T. Perf. 55 456 /
Produced Through: Casing Tubing X Gas Gravity: Measured Estimated .710
Date of Flow Test: From 2-21-57 To 2-28-57 * Date S.I.P. Measured 12-24-56
Meter Run Size 4" Orifice Size 3/4" Type Chart Normal Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) psig + 12 = 648 psia (a)
Flowing tubing pressure (Dwt) psig + 12 = 589 psia (b)
Flowing meter pressure (Dwt) psig + 12 = 588 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading psig + 12 = 588 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 = 1 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading psig + 12 = 592 psia (g)
Square root chart average reading () ² x sp. const. = psia (g)
Corrected seven day ave. meter press. (p_f) (g) + (e) = 592 psia (h)
P_t = (h) + (f) = 593 psia (i)
Wellhead casing shut-in pressure (Dwt) psig + 12 = 641 psia (j)
Wellhead tubing shut-in pressure (Dwt) psig + 12 = 770 psia (k)
P_c = (j) or (k) whichever well flowed through = 770 psia (l)
Flowing Temp. (Meter Run) 58 °F + 460 = 518 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 385 psia (n)

Q = 221 X $\left(\frac{\text{FLOW RATE CALCULATION}}{\frac{\sqrt{(c)} \ 588}{\sqrt{(d)} \ 588} = \underline{1}} \right)^* = \underline{221} MCF/da
(integrated)$

DELIVERABILITY CALCULATION

D = Q 221 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \underline{350.8} MCF/da.
 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right] = \frac{770^2 - 385^2}{770^2 - 593^2} = \underline{1.5876}$$

SUMMARY

P_c = 770 psia
Q = 221 Mcf/day
P_w = 594 psia
P_d = 385 psia
D = 351 Mcf/day

Company
By B. J. Williams
Title
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	$\frac{(F_c Q)^2 (1-e^{-S})}{R^2}$	P _t ² (Column i)	P _t ² + R ²	P _w
3239	.210	4.30	.903	351.6	352.5	593.7

OK 24 to 26 sandstone

