

Initial Deliverability
Test

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 Mesaverde County San Juan
Purchasing Pipeline Southern Union Gas Company Date Test Filed February 14, 1958

Operator Aztec Oil & Gas Company Lease Cain Well No. 3
Unit 0 Sec. 30 Twp. 29 Rge. 9 Pay Zone: From 4395 To 4423
Casing: OD 7" WT. 20# Set At 4125 Tubing: OD 2 3/8" WT. 4.7# T. Perf. 4242
Produced Through: Casing X Tubing X Gas Gravity: Measured 0.665 Estimated
Date of Flow Test: From 1-23 To 1-31 * Date S.I.P. Measured 2-7-58
Meter Run Size 4 Orifice Size 0.500 Type Chart Normal Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) Packed Off psig + 12 = psia (a)
Flowing tubing pressure (Dwt) 520 psig + 12 = 532 psia (b)
Flowing meter pressure (Dwt) 520 psig + 12 = 532 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading 520 psig + 12 = 532 psia (d)
Square root chart reading () ² x spring constant = 0 psia (d)
Meter error (c) - (d) or (d) - (c) = 0 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing; (a) - (c) Flow through casing = 0 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading 513 psig + 12 = 525 psia (g)
Square root chart average reading () ² x sp. const. = 525 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 525 psia (h)
P_t = (h) + (f) = 525 psia (i)
Wellhead casing shut-in pressure (Dwt) Packed Off psig + 12 = psia (j)
Wellhead tubing shut-in pressure (Dwt) 850 psig + 12 = 862 psia (k)
P_c = (j) or (k) whichever well flowed through = 862 psia (l)
Flowing Temp. (Meter Run) 45 °F + 460 = 505 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 431 psia (n)

FLOW RATE CALCULATION

Q = 187 X $\left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{1.0000}{\sqrt{(d)}} \right)^* = \underline{187} MCF/day
(Integrated)$

DELIVERABILITY CALCULATION

D = Q 187 $\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^{0.75} \frac{1.1421}{\sqrt{(d)}} = \underline{214} MCF/day$

SUMMARY

P_c = 862 psia Company AZTEC OIL & GAS COMPANY
Q = 187 Mcf/day By
P_w = 525.5 psia Title District Engineer
P_d = 431 psia Witnessed by
D = 214 Mcf/day 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
2621	0.185	3.091	0.572	275.625	276.197	525.5

