

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 Acres Formation Pictured Cliffs County San Juan
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed November 25, 1957
Operator Acres Oil & Gas Company Lease North-State Well No. 1-8
Unit 6 Sec. 31 Twp. 29-N Rge. 9-W Pay Zone: From 2287 To 2290
Casing: OD 7 3/8 WT. 26.40 Set At 2130 Tubing: OD 2" WT. 1.7 T. Perf. 2288
Produced Through: Casing X Tubing _____ Gas Gravity: Measured 0.69 Estimated _____
Date of Flow Test: From 10-1 To 10-8 * Date S.I.P. Measured 1-22-57
Meter Run Size 4" Orifice Size 1.000" Type Chart Eq. 31 Type Taps Flange

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 (7.85)² x sp. const. 10 _____ = 586 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 586 psia (h)
P_t = (h) + (f) _____ = 586 psia (i)
Wellhead casing shut-in pressure (Dwt) 583 psig + 12 = 695 psia (j)
Wellhead tubing shut-in pressure (Dwt) 586 psig + 12 = 698 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 695 psia (l)
Flowing Temp. (Meter Run) 66 °F + 460 _____ = 506 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 348 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{300}{(\text{integrated})} \times \left(\frac{\sqrt{(c)} = 1.000 = 1.000}{\sqrt{(d)}} \right) = 300 \text{ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n}{0.05 \frac{1.000}{2.000}} = 457 \text{ MCF/day}$$

SUMMARY

P_c = 695 psia
Q = 300 Mcf/day
P_w = 586 psia
P_d = 348 psia
D = 457 Mcf/day

Company Acres Oil & Gas Company
By ORIGINAL SIGNED BY L. M. STEVENS
Title District 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

Loss due to friction is negligible

OK

