

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 Alamosa Formation Mesa Verde County San Juan
Purchasing Pipeline Southern Union Refining Company Date Test Filed October 10, 1955
Operator Armed Oil & Gas Company Lease Calapogon-Martin Well No. 9
Unit 7 Sec. 30 Twp. 36N Rge. 10E Pay Zone: From 400 To 450
Casing: OD 5 1/8" WT. 120 Set At 4000 Tubing: OD 2 1/8" WT. 4.75 T. Perf. 4750
Produced Through: Casing ^ Tubing X Gas Gravity: Measured 0.750 Estimated ^
Date of Flow Test: From 9-20 To 10-1 * Date S.I.P. Measured 10-2-55
Meter Run Size 1 Orifice Size 1.125 Type Chart Normal Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 407 psig + 12 = 419 psia (a)
Flowing tubing pressure (Dwt) 406 psig + 12 = 418 psia (b)
Flowing meter pressure (Dwt) 400 psig + 12 = 412 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading 400 psig + 12 = 412 psia (d)
Square root chart reading () ² x spring constant = ^ 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 = 3 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading 400 psig + 12 = 412 psia (g)
Square root chart average reading () ² x sp. const. = ^ psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 412 psia (h)
P_t = (h) + (f) = 414 psia (i)
Wellhead casing shut-in pressure (Dwt) 720 psig + 12 = 732 psia (j)
Wellhead tubing shut-in pressure (Dwt) 400 psig + 12 = 412 psia (k)
P_c = (j) or (k) whichever well flowed through = 732 psia (l)
Flowing Temp. (Meter Run) 63 °F + 460 = 523 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 366 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{607}{(\text{integrated})} \times \left(\frac{\sqrt{(c)} = \sqrt{(d)} = 2.000}{\sqrt{(d)}} \right) = 607 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q = 607 \left[\frac{(P_c^2 - P_d^2) = 2000}{(P_c^2 - P_w^2) = 2750} \right]^n \frac{0.75}{2.000} = 720 \text{ MCF/da.}$$

SUMMARY

P_c = 732 psia
Q = 607 Mcf/day
P_w = 453 psia
P_d = 366 psia
D = 720 Mcf/day

Company ARMED OIL & GAS COMPANY
By ORIGINAL SIGNED BY L. M. S. [Signature]
Title Manager
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})	P _t ²	P _t ² + R ²	P _w
			R ²	(Column i)		
1370	0.228	32.970	7.100	190.003	205.103	453

