

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 South Elmore Formation Pictured Cliffs County Rio Arriba
Purchasing Pipeline Northern Union Gas Company Date Test Filed February 12, 1960
Operator Astec Oil & Gas Company Lease Arlinson-Bloomfield Well No. 6
Unit 2 Sec. 36 Twp. 25 Rge. 4 Pay Zone: From 3516 To 3546
Casing: OD 4 1/2 WT. 9.5 Set At 3982 Tubing: OD 2 3/8 WT. 4.7 T. Perf. 3509
Produced Through: Casing XX Tubing XX Gas Gravity: Measured 0.695 Estimated
Date of Flow Test: From 1/23 To 1/31/60 * Date S.I.P. Measured 10/14/59
Meter Run Size 4 Orifice Size 1.250 Type Chart 8 H Type Taps 7

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: = 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 psig + 12 = psia (g)
Square root chart average reading (7.5) ² x sp. const. 10 = 562 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 562 psia (h)
P_t = (h) + (f) 1090 = 1090 psia (i)
Wellhead casing shut-in pressure (Dwt) 1090 psig + 12 = 1090 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1090 psig + 12 = 1090 psia (k)
P_c = (j) or (k) whichever well flowed through 65 °F + 460 = 505 ° Abs (l)
Flowing Temp. (Meter Run) 65 °F + 460 = 506 psia (m)
P_d = 1/2 P_c = 1/2 (l) = psia (n)

FLOW RATE CALCULATION

$$Q = \frac{545}{(\text{integrated})} \times \left(\frac{\sqrt{(c)} = 1.000}{\sqrt{(d)}} \right) = 545 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{545}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{0.85}} = 507 \text{ MCF/da.}$$

SUMMARY

P_c = 1090 psia
Q = 545 Mcf/day
P_w = 505 psia
P_d = 506 psia
D = 507 Mcf/day

Company Astec Oil & Gas Company
By ORIGINAL SIGNED BY L. M. STEVENS
Title L. M. Stevens, Dist. 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
2453	0.163	26.255	4.280	315.844	320.124	505.8

