

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 Blanca Formation Pictured Cliffs County El Paso
Purchasing Pipeline Southern Union Gas Company Date Test Filed January 29, 1960
Operator Astec Oil & Gas Company Lease Arizona-Houston Well No. 3
Unit 1 Sec. 35 Twp. 25 Rge. 4 Pay Zone: From 3564 To 3518
Casing: OD 4.5 WT. 9.50 Set At 3660 Tubing: OD 2 WT. 4.7 T. Perf. 3596
Produced Through: Casing _____ Tubing XX Gas Gravity: Measured 0.710 Estimated _____
Date of Flow Test: From 1/26 To 1/28/60 * Date S.I.P. Measured 9/23/59
Meter Run Size 4 Orifice Size 1.000 Type Chart S.S. Type Taps P

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 (7.4) ² x sp. const. 10 _____ = 548 psia (g)
Corrected seven day ave. meter press. (p_f) (g) + (e) _____ = 548 psia (h)
P_t = (h) + (f) _____ = 548 psia (i)
Wellhead casing shut-in pressure (Dwt) 989 psig + 12 = 941 psia (j)
Wellhead tubing shut-in pressure (Dwt) 753 psig + 12 = 765 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 941 psia (l)
Flowing Temp. (Meter Run) 84 °F + 460 _____ = 484 °Abs (m)
P_d = ½ P_c = ½ (l) _____ = 471 psia (n)

Q = 648 (integrated) X $\left(\frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c)}} = \frac{1.000}{\sqrt{(d)}} \right)^* = \underline{648} \text{ MCF/da}$

DELIVERABILITY CALCULATION

D = Q 648 $\left[\frac{(P_c^2 - P_d^2) = \underline{663540}}{(P_c^2 - P_w^2) = \underline{576305}} \right]^n \frac{0.85}{1.1886} = \underline{788} \text{ MCF/da}$

SUMMARY

P_c = 941 psia
Q = 648 Mcf/day
P_w = 553.7 psia
P_d = 471 psia
D = 788 Mcf/day

Company Astec Oil & Gas Company CON. COM.
By ORIGINAL SIGNED BY L. M. STEVENS DIST. 3
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
2553	0.169	37.112	6.272	300.304	306.576	553.7

* Tubing loaded - used SICP in calculation

Note: Permission to file this 47 hr. test granted Jan. 29, 1960 by Dist. Supervisor.
Annual test will be filed in March, 1960.

OK