

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 Basin Dakota Formation Dakota County San Juan
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed 6-1-61
Operator Gulf Oil Corporation Lease Farmington State Well No. 1
Unit K Sec. 36 Twp. 31N Rge. 13W Pay Zone: From 6866 To 6930
Casing: OD 5 1/2 WT. 14.00 Set At 7041 Tubing: OD 2 3/8 WT. 4.7 T. Perf. 6875
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .708 Estimated _____
Date of Flow Test: From 5-8-61 To 5-16-61 * Date S.I.P. Measured 5-23-61
Meter Run Size 4" Orifice Size 1.250 Type Chart Sq. Rt. Type Taps _____

OBSERVED DATA

Flowing casing pressure (Dwt) 537 psig + 12 = 549 psia (a)
Flowing tubing pressure (Dwt) 477 psig + 12 = 489 psia (b)
Flowing meter pressure (Dwt) 468 psig + 12 = 480 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken):
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (6.90)² x spring constant 1000 = 476 psia (d)
Meter error (c) - (d) or (d) - (c) ± _____ = + 4 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing _____ = 9 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (6.85)² x sp. const. 1000 = 469 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 473 psia (h)
P_t = (h) + (f) _____ = 482 psia (i)
Wellhead casing shut-in pressure (Dwt) 1473 psig + 12 = 1485 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1473 psig + 12 = 1485 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 1485 psia (l)
Flowing Temp. (Meter Run) 77 °F + 460 _____ = 537 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 743 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{808}{(\text{integrated})} \times \left(\frac{\sqrt{(c)} = 21.91}{\sqrt{(d)} = 21.82} = 1.0041 \right) = 811$$

DELIVERABILITY CALCULATION

$$D = Q \frac{811}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{.75}} = 715 \text{ MCF/da.}$$

SUMMARY

P _c =	<u>1485</u>	psia	Company	<u>Well Production Company</u>
Q =	<u>811</u>	Mcf/day	By	<u>N.A. Neely</u>
P _w =	<u>500</u>	psia	Title	<u>Agent & Tester</u>
P _d =	<u>743</u>	psia	Witnessed by	<u>[Signature]</u>
D =	<u>715</u>	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
4868	.298	58.141	17.326	232.324	249.650	500

