

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 SJ
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed 1/18/61

Operator Southwest Production Co. Lease Wright State Well No. 1
Unit A Sec. 16 Twp. 27N Rge. 12W Pay Zone: From 3900 To 6004
Casing: OD 5 1/2" WT. 15.50 Set At 6050 Tubing: OD 2 3/8 WT. 4.70 T. Perf. 5976
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .655 Estimated _____
Date of Flow Test: From 1/1/60 To 1/29/61 * Date S.I.P. Measured 2/7/61
Meter Run Size _____ Orifice Size _____ Type Chart _____ Type Taps _____

OBSERVED DATA

Flowing casing pressure (Dwt) _____ psig + 12 = _____ psia (a)
Flowing tubing pressure (Dwt) 520 psig + 12 = 532 psia (b)
Flowing meter pressure (Dwt) 499 psig + 12 = 511 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (7.15)² x spring constant 1000 = 511 psia (d)
Meter error (c) - (d) or (d) - (c) _____ ± _____ = 12 0 psi (e)
Friction loss, Flowing column to meter: _____ = 21 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 (7.10)² x sp. const. 1000 = 490 504 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 512 504 psia (h)
P_t = (h) + (f) = 533 525 psia (i)
Wellhead casing shut-in pressure (Dwt) 1464 psig + 12 = 1476 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1468 psig + 12 = 1480 psia (k)
P_c = (j) or (k) whichever well flowed through = 1480 psia (l)
Flowing Temp. (Meter Run) 79 °F + 460 = 539 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 740 psia (n)

Q = 741 X $\left(\frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c)}} = \frac{1.0}{1.0} = 1.000 \right)^* = \underline{741} \text{ MCF/da}$
(integrated)

DELIVERABILITY CALCULATION
D = Q 741 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \frac{1,642,800}{1,994,274} \cdot \frac{(.8956)}{(.8672)} \cdot \frac{.8956}{(.8672)} = \underline{666} \text{ MCF/da.}$
1,902,737 664

SUMMARY
P_c = 1480 psia Company Southwest Production Company
Q = 741 Mcf/day By _____
P_w = 544 536 psia Title Production Foreman
P_d = 740 psia Witnessed by _____
D = 666 664 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
3914	.248	48.536	12,037	<u>284,089</u> <u>275 625</u>	<u>296,126</u> <u>287 663</u>	<u>544</u> <u>536</u>