

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 3/2/61

Operator Southwest Production Co. Lease Edgar Federal Well No. #5
Unit G Sec. 11E Twp. 27N Rge. 12W Pay Zone: From 6220 To 6266
Casing: OD 5 1/2 WT. 15.5 Set At 6300 Tubing: OD 2 3/8 WT. 4.70 T. Perf. 6242
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .714 Estimated _____
Date of Flow Test: From 2/6/61 To 2/14/61 * Date S.I.P. Measured 2/23/61
Meter Run Size _____ Orifice Size _____ Type Chart _____ Type Taps _____

OBSERVED DATA

Flowing casing pressure (Dwt) _____ psig + 12 = _____ psia (a)
Flowing tubing pressure (Dwt) 536 psig + 12 = 548 psia (b)
Flowing meter pressure (Dwt) 478 psig + 12 = 490 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken):
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (7.00)² x spring constant 1000 = 490 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 _____ = 58 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (7.0)² x sp. const. 1000 = 490 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 490 psia (h)
P_t = (h) + (f) _____ = 548 psia (i)
Wellhead casing shut-in pressure (Dwt) 1754 psig + 12 = 1766 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1750 psig + 12 = 1762 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 1762 psia (l)
Flowing Temp. (Meter Run) 102 °F + 460 _____ = 562 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 881 psia (n)

Q = 583 X $\left(\frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c)} = 1.0 = 1.00} \right)^* = \underline{583} \text{ MCF/da}$
(integrated) $\sqrt{(d)} = 1.0$

DELIVERABILITY CALCULATION

D = Q 583 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n \frac{(.8328)}{(.8719)} = \underline{508} \text{ MCF/da.}$
 $\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{2,328,438}{2,795,868}$

SUMMARY

P_c = 1762 psia
Q = 583 Mcf/day
P_w = 556 psia
P_d = 881 psia
D = 508 Mcf/day

Company Southwest Production Company
By George L. Hoffman, Jr.
Title Production Foreman
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
4457	.282	30,044	8,472	300,304	308,776	556

