

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 Blanco Formation Mesa Verde County San Juan
Purchasing Pipeline El Paso Natural Gas Date Test Filed _____

Operator El Paso Natural Gas Lease Barrett Well No. 3
Unit K Sec. 20 Twp. 31 Rge. 9 Pay Zone: From 5149 To 5739
Casing: OD 7 WT. 23 Set At 5050 Tubing: OD 2 WT. 4.7 T. Perf. 5185 +
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .661 Estimated _____
Date of Flow Test: From 6/7/58 To 6/15/58 * Date S.I.P. Measured 4/14/58
Meter Run Size _____ Orifice Size _____ Type Chart _____ Type Taps _____

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 (6.81) ² x sp. const. 10 = 464 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 464 psia (h)
P_t = (h) + (f) = 464 psia (i)
Wellhead casing shut-in pressure (Dwt) 942 psig + 12 = 954 psia (j)
Wellhead tubing shut-in pressure (Dwt) 925 psig + 12 = 937 psia (k)
P_c = (j) or (k) whichever well flowed through = 954 psia (l)
Flowing Temp. (Meter Run) 72 °F + 460 = 532 °Abs (m)
P_d = ½ P_c = ½ (l) = 477 psia (n)

FLOW RATE CALCULATION

$$Q = \text{(integrated)} \times \left(\frac{\frac{\sqrt{(c)}}{\sqrt{(d)}}}{\sqrt{(d)}} \right) = \frac{739}{\sqrt{(d)}} \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{739}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n} = \frac{739}{\left[\frac{682587}{684,151} \right]^n} = \frac{739}{.9977 / .9983} = 738 \text{ MCF/da.}$$

SUMMARY

P_c = 954 psia
Q = 739 Mcf/day
P_w = 475 psia
P_d = 477 psia
D = 738 Mcf/day

CORRECTED COPY

Company El Paso Natural Gas
By Original Signed
Title Harold L. Kendrick
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
3427	.221	48.275	10,669	215,296	225,965	475

D at INX 500 = 701

+ Tubing perforated on 5/22/58 at 5185'. SIPC used for P_c



