

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 Antec Formation Pictured Cliff County San Juan
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed _____
Operator El Paso Natural Gas Lease Johnston Well No. 4
Unit I Sec. 17 Twp. 28N Rge. 9W Pay Zone: From 2216 To 2258
Casing: OD 5 1/2 WT. 15.5 Set At 2310 Tubing: OD 1 1/4 WT. 2.3 T. Perf. 2184
Produced Through: Casing X Tubing _____ Gas Gravity: Measured .640 Estimated _____
Date of Flow Test: From 2/28 To 3/9/57 * Date S.I.P. Measured 6/27/56
Meter Run Size _____ Orifice Size 1.000 Type Chart Sq. Rt. Type Taps Flange

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: _____ = _____ psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading 6.85 _____ psig + 12 = _____ psia (g)
Square root chart average reading (_____) ² x sp. const. 500 _____ = 235 psia (g)
Corrected seven day avge. meter press. (pf) (g) + (e) _____ = 235 psia (h)
 $P_t = (h) + (f)$ _____ = 235 psia (i)
Wellhead casing shut-in pressure (Dwt) 717 _____ psig + 12 = 729 psia (j)
Wellhead tubing shut-in pressure (Dwt) 717 _____ psig + 12 = 729 psia (k)
 $P_c = (j) \text{ or } (k) \text{ whichever well flowed through}$ 50 _____ = 729 psia (l)
Flowing Temp. (Meter Run) 50 _____ °F + 460 _____ = 510 °Abs (m)
 $P_d = \frac{1}{2} P_c = \frac{1}{2} (l)$ _____ = 365 psia (n)

FLOW RATE CALCULATION

$Q = \frac{V(c)}{V(d)} \times \left(\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right)^{1/2} = \frac{347}{1} \text{ MCF/day}$
(integrated)

DELIVERABILITY CALCULATION

$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{1/2} = \frac{347}{1} \left[\frac{398,216}{476,216} \right]^{1/2} = \frac{.8362}{.8591} = 298 \text{ MCF/day}$

SUMMARY

$P_c = 729$ psia Company El Paso Natural Gas Company
 $Q = 347$ Mcf/day By Original Signed
 $P_w = 235$ psia Title Lewis J. Galloway
 $P_d = 365$ psia Witnessed by _____
 $D = 298$ 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 _t ²	P _t ² (Column i)	P _t ² + R ²	P _w

FRICTION NEGLIGIBLE

D @ 250 = 339