

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 Astec Pictured Cliff Formation Pictured Cliff County San Juan

Purchasing Pipeline El Paso Natural Gas Date Test Filed _____

Operator El Paso Natural Gas Lease Lackey Well No. 9-B

Unit M Sec. 21 Twp. 28N Rge. 9W Pay Zone: From 2196 To 2236

Casing: OD. 5 1/2 WT. 15.5 Set At 4729 Tubing: OD. 2 WT. 4.7 T. Perf. 2236

Produced Through: Casing X Tubing _____ Gas Gravity: Measured .640 Estimated _____

Date of Flow Test: From 6/23 To 7/1/57 * Date S.I.P. Measured 2/14/57

Meter Run Size 4 Orifice Size 2.00 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:

(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 (6.80) ² x sp. const. 500 = 231 psia (g)

Corrected seven day avge. meter press. (P_f) (g) + (e) = 231 psia (h)

P_t = (h) + (f) = 231 psia (i)

Wellhead casing shut-in pressure (Dwt) 607 psig + 12 = 619 psia (j)

Wellhead tubing shut-in pressure (Dwt) 603 psig + 12 = 615 psia (k)

P_c = (j) or (k) whichever well flowed through = 619 psia (l)

Flowing Temp. (Meter Run) 68 °F + 460 = 528 °Abs (m)

P_d = ½ P_c = ½ (l) = 310 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{849}{(\text{integrated})} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} \right) = \frac{849}{1} = 849 \text{ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^n}{\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^n} = \frac{849 \left[\frac{619^2 - 310^2}{619^2 - 231^2} \right]^{.8704}}{\left[\frac{619^2 - 310^2}{619^2 - 231^2} \right]^{.8888}} = 755 \text{ MCF/day}$$

SUMMARY

P_c = 619 psia
Q = 849 Mcf/day
P_w = 231 psia
P_d = 310 psia
D = 755 Mcf/day

Company El Paso Natural Gas Company
By Original Signed
Title Lewis D. Galloway
Witnessed by _____
Company _____

* This is date of completion test.

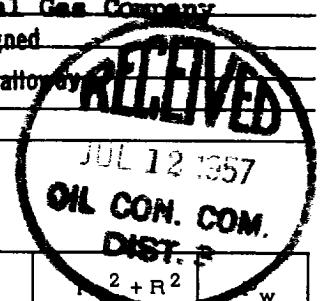
* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ^{-S})	(F _c Q) ²	(F _c Q) ² (1-e ^{-S})	P _t ²	2 + R ²	w
			R ²	(Column 1)		

FRICTION NEGLIGIBLE

D at 250 = 815



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