

NEW MEXICO OIL CONSERVATION COMMISSION
GAS WELL TEST DATA SHEET - SAN JUAN BASIN

(TO BE USED FOR FRUITLAND, PICTURED CLIFFS, MESAVARDE, & ALL DAKOTA
EXCEPT BARKER BONE STORAGE AREA)

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

Operator El Paso Natural Gas Lease Johnston Well No. 5
Unit H Sec. 9 Twp. 28 Rge. 9 Pay Zone: From 4982 To 5339
Casing: OD 5-1/2 WT. 15.5 Set At 5449 Tubing: OD 2 WT. 4.7 T. Perf. 5253
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .725 Estimated _____
Date of Flow Test: From 8/3 To 9/8 * Date S.I.P. Measured 6/5/57
Meter Run Size 4 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:
(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 (7.10) ² x sp. const. 10 = 504 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 504 psia (h)
P_t = (h) + (f) = 504 psia (i)
Wellhead casing shut-in pressure (Dwt) 1013 psig + 12 = 1025 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1014 psig + 12 = 1026 psia (k)
P_c = (j) or (k) whichever well flowed through = 1026 psia (l)
Flowing Temp. (Meter Run) 73 °F + 460 = 533 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 513 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \times \left(\frac{\sqrt{P_c} - \sqrt{P_d}}{\sqrt{P_c} - \sqrt{P_w}} \right) = \frac{1026^2 - 513^2}{1026^2 - 505^2} \times \left(\frac{\sqrt{1026} - \sqrt{513}}{\sqrt{1026} - \sqrt{505}} \right) = 220 \text{ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \times \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = 220 \times \left[\frac{1026^2 - 513^2}{1026^2 - 505^2} \right]^{.9898 / .9923} = 218 \text{ MCF/day}$$

SUMMARY

P_c = 1026 psia
Q = 220 Mcf/day
P_w = 505 psia
P_d = 513 psia
D = 218 Mcf/day
Company El Paso Natural Gas
By Original Signed
Witnessed by Lewis D. Galloway
Company _____

* This is date of completion test.
* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ⁻⁸)	(F _c Q) ²	(F _c Q) ² (1-e ⁻⁸) R ²	P _t ² (Column 1)	P _t ² + R ²	P _w
3808	.242	4.277	1.035	254,016	255,051	505

[Handwritten signature]

D at 500 = 218

