

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)

Blanco

Mesa Verde

Rio Arriba

Pool _____ Formation _____ County _____
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed _____

Operator El Paso Natural Gas Co. Lease San Juan 29-7 Unit Well No. 45
Unit M Sec. 20 Twp. 29 Rge. 7 Pay Zone: From 5475 To 5575
Casing: OD 7 WT. _____ Set At 4908 Tubing: OD 2 WT. 4.7 T. Perf. 5399
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .680 Estimated _____
Date of Flow Test: From 11/30 To 12/8 * Date S.I.P. Measured 10/12/55
Meter Run Size 4 Orifice Size _____ 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)
(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 (7.55)² x sp. const. 10 = 570 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 570 psia (h)
P_t = (h) + (f) = 570 psia (i)
Wellhead casing shut-in pressure (Dwt) 1067 psig + 12 = 1079 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1065 psig + 12 = 1077 psia (k)
P_c = (j) or (k) whichever well flowed through = 1077 psia (l)
Flowing Temp. (Meter Run) 67 °F + 460 = 527 °Abs (m)
P_d = ½ P_c = ½ (l) = 539 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{\text{(integrated)}}{\left(\frac{V(c)}{V(d)} \right)^*} = \frac{995}{1} \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \cdot \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \frac{995 \cdot \left[\frac{1077^2 - 539^2}{1077^2 - 588^2} \right]^{1.0673}}{1.0500} = 1045 \text{ MCF/da.}$$

SUMMARY

P_c = 1077 psia
Q = 995 Mcf/day
P_w = 588 psia
P_d = 539 psia
D = 1045 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}) R ²	P _t ² (Column 4)	P _t ² + R ²	P _w
3671	.234	87.516	20,479	34,900	345,379	588

$$D \cdot 500 = 1051$$



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