

Initial Deliverability
Test

Form C-122-A
Revised April 20, 1955

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 Company Date Test Filed _____
Operator El Paso Natural Gas Lease San Juan 29-6 Well No. Q-9
Unit 6 Sec. 9 Twp. 26-29 Rge. 6 Pay Zone: From 5232 To 5716
Casing: OD 7 WT. 23 Set At 3672 Tubing: OD 2-7/8 WT. 6.4 T. Perf. 5794
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .686 Estimated _____
Date of Flow Test: From 11-21-60 To 11-29-60 * Date S.I.P. Measured 8-30-60
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 (6.85) ² x sp. const. 10 = 469 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 469 psia (h)
P_t = (h) + (f) _____ = 469 psia (i)
Wellhead casing shut-in pressure (Dwt) 1060 psig + 12 = 1072 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1060 psig + 12 = 1072 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 1072 psia (l)
Flowing Temp. (Meter Run) 62 °F + 460 _____ = 502 °Abs (m)
P_d = ½ P_c = ½ (l) _____ = 536 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{\int_{P_c}^{P_d} \frac{V}{P} dP}{\left(\frac{V(c)}{V(d)} \right)^{0.5}} = \frac{863}{1} \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = 863 \left[\frac{1072^2 - 536^2}{1072^2 - 475^2} \right]^{0.9335} = 619 \text{ MCF/da.}$$

SUMMARY

P_c = 1072 psia
Q = 863 Mcf/day
P_w = 475 psia
P_d = 536 psia
D = 619 Mcf/day

Company El Paso Natural Gas Company
By Original Signed
Title Harold L. Kendrick Sr. Gas Engineer
Witnessed by _____
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 i)	P _t ² + R ²	P _w
<u>5715</u>	<u>.251</u>	<u>22.974</u>	<u>5.761</u>	<u>219.961</u>	<u>225.722</u>	<u>475</u>

D at 900 = 855

