

Initial Deliverability  
Test  
72929

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 Basin Formation Dakota County San Juan  
Purchasing Pipeline El Paso Natural Gas Date Test Filed \_\_\_\_\_

Operator El Paso Natural Gas Lease Mudge Well No. 24  
Unit A Sec. 33 Twp. 32 Rge. 11 Pay Zone: From 7324 To 7514  
Casing: OD 5-1/2 WT. 17 Set At 7537 Tubing: OD 2-3/8 WT. 4.7 T. Perf. 7470  
Produced Through: Casing \_\_\_\_\_ Tubing I Gas Gravity: Measured .638 Estimated \_\_\_\_\_  
Date of Flow Test: From 5/29/61 To 6/6/61 \* Date S.I.P. Measured 9/27/60  
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 (\_\_\_\_\_) <sup>2</sup> 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 (\_\_\_\_\_) <sup>2</sup> x sp. const. \_\_\_\_\_ = \_\_\_\_\_ psia (g)  
Corrected seven day avge. meter press. (p<sub>f</sub>) (g) + (e) \_\_\_\_\_ = \_\_\_\_\_ psia (h)  
P<sub>t</sub> = (h) + (f) \_\_\_\_\_ = \_\_\_\_\_ psia (i)  
Wellhead casing shut-in pressure (Dwt) 2116 psig + 12 = 2128 psia (j)  
Wellhead tubing shut-in pressure (Dwt) 2116 psig + 12 = 2128 psia (k)  
P<sub>c</sub> = (j) or (k) whichever well flowed through \_\_\_\_\_ = \_\_\_\_\_ psia (l)  
Flowing Temp. (Meter Run) 73 °F + 460 \_\_\_\_\_ = 533 °Abs (m)  
P<sub>d</sub> = 1/2 P<sub>c</sub> = 1/2 (l) \_\_\_\_\_ = 1064 psia (n)

$$Q = \text{(Integrated)} \times \left( \frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c)}} = \frac{\text{ } }{\sqrt{(d)}} = \text{ } \right) = \text{229 MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \text{ 229 } \left[ \frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^n = \frac{.7922}{.8398} = \text{192 MCF/da.}$$

SUMMARY

P<sub>c</sub> = 2128 psia  
Q = 229 Mcf/day  
P<sub>w</sub> = 191 psia  
P<sub>d</sub> = 1064 psia  
D = 192 Mcf/day

Company El Paso Natural  
By \_\_\_\_\_  
Title Original signed by  
Witnessed by H. I. Kendrick  
Company \_\_\_\_\_

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

REMARKS OR FRICTION CALCULATIONS

GL	(1-e <sup>-S</sup> )	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-S</sup> ) R <sup>2</sup>	P <sub>t</sub> <sup>2</sup> (Column i)	P <sub>t</sub> <sup>2</sup> + R <sup>2</sup>	P <sub>w</sub>
4766	0.293	4635	1358	240100	241458	191

D at 500 = 228

