

Initial Deliverability  
Test

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 El Paso Natural Gas Company Formation Permian County San Juan  
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed \_\_\_\_\_  
Operator El Paso Natural Gas Company Lease San Juan 12-9 Well No. 37  
Unit 1 Sec. 21 Twp. 32 Rge. 9 Pay Zone: From 5504 To 5991  
Casing: OD 5 1/2 WT. 15.5 Set At 6070 Tubing: OD 2 WT. 4.7 T. Perf. 5978  
Produced Through: Casing \_\_\_\_\_ Tubing 1 Gas Gravity: Measured .600 Estimated \_\_\_\_\_  
Date of Flow Test: From 4/10 To 5/4/57 \* Date S.I.P. Measured 10/20/56 (11 days)  
Meter Run Size 4 Orifice Size 1.500 Type Chart 2 1/2 x 1 1/2 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 (\_\_\_\_\_) <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 (7.30) <sup>2</sup> x sp. const. 10 = 530 psia (g)  
Corrected seven day avge. meter press. (p<sub>f</sub>) (g) + (e) = 530 psia (h)  
P<sub>t</sub> = (h) + (f) = 530 psia (i)  
Wellhead casing shut-in pressure (Dwt) 1061 psig + 12 = 1073 psia (j)  
Wellhead tubing shut-in pressure (Dwt) 1031 psig + 12 = 1043 psia (k)  
P<sub>c</sub> = (j) or (k) whichever well flowed through = 1043 psia (l)  
Flowing Temp. (Meter Run) 70 °F + 460 = 530 °Abs (m)  
P<sub>d</sub> = 1/2 P<sub>c</sub> = 1/2 (l) = 522 psia (n)

FLOW RATE CALCULATION

Q = \_\_\_\_\_ X  $\left( \frac{\sqrt{(c)}}{\sqrt{(d)}} \right) = \underline{973} \text{ MCF/day}$   
(Integrated)

DELIVERABILITY CALCULATION

D = Q 973  $\left[ \frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^n = \underline{1000} \text{ MCF/day}$   
1.0093 1.0273

SUMMARY

P<sub>c</sub> = 1043 psia  
Q = 973 Mcf/day  
P<sub>w</sub> = 551 psia  
P<sub>d</sub> = 522 psia  
D = 1000 Mcf/day

Company El Paso Natural Gas Company  
By \_\_\_\_\_  
Title \_\_\_\_\_  
Witnessed by \_\_\_\_\_  
Company \_\_\_\_\_

REMARKS OR FRICTION CALCULATIONS

| GL         | OH         | (FQ) <sup>2</sup> | (FQ) <sup>2</sup> (1-e <sup>-8</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> |
|------------|------------|-------------------|----------------------------------------|----------------------------------------|----------------------------------------------|----------------|
| <u>307</u> | <u>308</u> | <u>83.606</u>     | <u>19.240</u>                          | <u>1043</u>                            | <u>1043</u>                                  | <u>551</u>     |



|                              |                  |                                     |
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