

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 Tapiwaite Formation Pictured Cliffs County McKinley  
Purchasing Pipeline Pacific Northwest Date Test Filed \_\_\_\_\_

Operator Magnolia Petroleum Co. Lease Jicarilla "B" Well No. 5  
Unit A Sec. 20 Twp. 26N Rge. 3E Pay Zone: From 3945' To 3997'  
Casing: OD 7-5/8" WT. 24.6 Set At 4,200' Tubing: OD 2-3/8" WT. 4.78 T. Perf. 3098'  
Produced Through: Casing \_\_\_\_\_ Tubing I Gas Gravity: Measured .660 Estimated \_\_\_\_\_  
Date of Flow Test: From 4/29/58 To 5/7/58 \* Date S.I.P. Measured 11/12/57  
Meter Run Size 1" Orifice Size 1.000 Type Chart L-10-S Type Taps Flg.

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 ( 7.5 )<sup>2</sup> x sp. const. 10 \_\_\_\_\_ = 561 psia (g)  
Corrected seven day avge. meter press. (p<sub>f</sub>) (g) + (e) \_\_\_\_\_ = 561 psia (h)  
P<sub>t</sub> = (h) + (f) \_\_\_\_\_ = 561 psia (i)  
Wellhead casing shut-in pressure (Dwt) \_\_\_\_\_ psig + 12 = \_\_\_\_\_ psia (j)  
Wellhead tubing shut-in pressure (Dwt) 984 psig + 12 = 996 psia (k)  
P<sub>c</sub> = (j) or (k) whichever well flowed through \_\_\_\_\_ = 996 psia (l)  
Flowing Temp. (Meter Run) 54 °F + 460 \_\_\_\_\_ = 514 °Abs (m)  
P<sub>d</sub> = 1/2 P<sub>c</sub> = 1/2 (l) \_\_\_\_\_ = 498 psia (n)

Q = 168.5 X  $\left( \frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c)} = 1 = 1} \right)^* = \underline{168.5}$  MCF/da  
(integrated)  $\sqrt{(d)} = 1$

DELIVERABILITY CALCULATION

D = Q 168.5  $\left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{.85} = \underline{183}$  MCF/da.  
 $\frac{744.0}{676.9}$  <sup>.85</sup> 1.0844

SUMMARY

P<sub>c</sub> = 996 psia  
Q = 168.5 Mcf/day  
P<sub>w</sub> = 561 psia  
P<sub>d</sub> = 498 psia  
D = 183 Mcf/day  
Company Magnolia Petroleum Co.  
By James A. Logan, Jr.  
Title Gas Engineer  
Witnessed by \_\_\_\_\_  
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> )<br>R <sup>2</sup> | P <sub>t</sub> <sup>2</sup><br>(Column i) | P <sub>t</sub> <sup>2</sup> + R <sup>2</sup> | P <sub>w</sub> |
|-------------|----------------------|---------------------------------|------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------|----------------|
| <u>2873</u> | <u>0.171</u>         | <u>2.5</u>                      | <u>0.4</u>                                                             | <u>314.7</u>                              | <u>315.1</u>                                 | <u>561</u>     |

