

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 Basin Dakota Formation Dakota County San Juan  
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed 12-24-64  
Operator PAN AMERICAN PETROLEUM CORP. Lease H. B. McGrady "A" Well No. 2  
Unit E Sec. 23 Twp. 27N Rge. 12W Pay Zone: From 6016 To 6119  
Casing: OD 4-1/2 WT. 10.5 Set At 6170 Tubing: OD 2-3/8 WT. 4.7 T. Perf. 5997  
Produced Through: Casing \_\_\_\_\_ Tubing X Gas Gravity: Measured .638 Estimated \_\_\_\_\_  
Date of Flow Test: From 11-26-64 To 12-4-64 \* Date S.I.P. Measured 8-27-64  
Meter Run Size 4" Orifice Size 1.250 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 ( \_\_\_\_\_ )<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 ( 7.00 )<sup>2</sup> x sp. const. 10 \_\_\_\_\_ = 496 psia (g)  
Corrected seven day avge. meter press. (p<sub>f</sub>) (g) + (e) \_\_\_\_\_ = 496 psia (h)  
P<sub>t</sub> = (h) + (f) \_\_\_\_\_ = 496 psia (i)  
Wellhead casing shut-in pressure (Dwt) 2038 psig + 12 = 2050 psia (j)  
Wellhead tubing shut-in pressure (Dwt) 2038 psig + 12 = 2050 psia (k)  
P<sub>c</sub> = (j) or (k) whichever well flowed through \_\_\_\_\_ = \_\_\_\_\_ psia (l)  
Flowing Temp. (Meter Run) \_\_\_\_\_ °F + 460 \_\_\_\_\_ = \_\_\_\_\_ °Abs (m)  
P<sub>d</sub> = 1/2 P<sub>c</sub> = 1/2 (l) \_\_\_\_\_ = 1025 psia (n)

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

(integrated)

DELIVERABILITY CALCULATION

D = Q 520  $\left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right] = \frac{3,151,875}{3,956,448}^n \cdot 0.8432 = \text{_____} = \text{438 MCF/da.}$

SUMMARY

P<sub>c</sub> = 2050 psia  
Q = 520 Mcf/day  
P<sub>w</sub> = 496 psia  
P<sub>d</sub> = 1025 psia  
D = 438 Mcf/day

Company PAN AMERICAN PETROLEUM CORPORATION  
By F. L. Nabors  
Title District Engineer  
Witnessed by By: ORIGINAL SIGNED BY  
Company E. W. Foell

- \* 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> ) | P <sub>t</sub> <sup>2</sup> | P <sub>t</sub> <sup>2</sup> + R <sup>2</sup> | P <sub>w</sub> |
|------|----------------------|---------------------------------|------------------------------------------------------|-----------------------------|----------------------------------------------|----------------|
|      |                      |                                 | R <sup>2</sup>                                       | (Column i)                  |                                              |                |
| 3946 | 0.249                | 23.903                          | 5.952                                                | 240.100                     | 246.052                                      | 496            |

