

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 Blanco-Mesa Verde Formation Mesa Verde County Rio Arriba
Purchasing Pipeline Pacific Northwest Pipe Line Corp. Date Test Filed 6-3-57
Operator Magnolia Petroleum Co. Lease Alcorilla "0" Well No. 1 N.V.
Unit A Sec. 35 Twp. 27N Rge. 3W Pay Zone: From 5613' To 6162'
Casing: OD 8 1/2" WT. 14 1/2 Set At 6800' Tubing: OD 2 1/8" WT. 4.78 T. Perf. 5618'
Produced Through: Casing I Tubing I Gas Gravity: Measured 0.675 Estimated
Date of Flow Test: From 5-9-57 To 5-17-57 * Date S.I.P. Measured 9-4-56
Meter Run Size 2.068" Orifice Size 1.375" Type Chart Sq. Rt. Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 568 psig + 12 = 580 psia (a)
Flowing tubing pressure (Dwt) 563 psig + 12 = 575 psia (b)
Flowing meter pressure (Dwt) 563 psig + 12 = 575 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading 7.8 psig + 12 = 570 psia (d)
Square root chart reading (7.8)² x spring constant 10 = 570 psia (d)
Meter error (c) - (d) or (d) - (c) ± = 5 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing; (a) - (c) Flow through casing = 5 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading 7.6 psig + 12 = 577 psia (g)
Square root chart average reading (7.6)² x sp. const. 10 = 577 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 582 psia (h)
P_t = (h) + (f) = 587 psia (i)
Wellhead casing shut-in pressure (Dwt) 1725 psig + 12 = 1737 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1725 psig + 12 = 1737 psia (k)
P_c = (j) or (k) whichever well flowed through = 1737 psia (l)
Flowing Temp. (Meter Run) 61 °F + 460 = 521 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 868.5 psia (n)

Q = 2012 X $\left(\frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c) 575} = \sqrt{1.0068} = 1.0034} \right)^{0.75} = \frac{2000}{\sqrt{(d) 570}} \text{ MCF/day}$

D = Q 2000 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{0.75} = \frac{2000}{\frac{1737^2 - 868.5^2}{1737^2 - 1737^2}} = \frac{2000}{1.000} = 2000 \text{ MCF/day}$

SUMMARY
P_c = 1737 psia
Q = 2000 Mcf/day
P_w = 1737 psia
P_d = 868.5 psia
D = 2000 Mcf/day

Company Magnolia Petroleum Company
By W. W. Rupp
Title Gas Engineer
Witnessed by
Company

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

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ^{-S})	(F _c Q) ²	(F _c Q) ² (1-e ^{-S}) R ²	P _t ² (Column i)	P _t ² + R ²	P _w
3792	0.812	360.7	86.9	344.6	431.5	656.9



