

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 Formation Mesa Verde County Rio Arriba  
Purchasing Pipeline Pacific Northwest Pipeline Corporation Date Test Filed 1-13-58  
Operator Northwest Production Corp. Lease "B" Well No. 14-10  
Unit A Sec. 10 Twp. 26N Rge. 3W Pay Zone: From 5466 To 5979  
Casing: OD 5 1/2 WT. 14 & 15.5 Set At 6042 Tubing: OD 2-3/8 WT. 4.7 T. Perf. 5906  
Produced Through: Casing \_\_\_\_\_ Tubing X Gas Gravity: Measured .703 Estimated \_\_\_\_\_  
Date of Flow Test: From 12-23-57 To 12-31-57 \* Date S.I.P. Measured 6-21-57  
Meter Run Size 4 Orifice Size 1.50 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 627 psig + 12 = 639 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) \_\_\_\_\_ = 639 psia (h)  
P<sub>t</sub> = (h) + (f) \_\_\_\_\_ = 639 psia (i)  
Wellhead casing shut-in pressure (Dwt) \_\_\_\_\_ psig + 12 = \_\_\_\_\_ psia (j)  
Wellhead tubing shut-in pressure (Dwt) 1701 psig + 12 = 1713 psia (k)  
P<sub>c</sub> = (j) or (k) whichever well flowed through \_\_\_\_\_ = 1713 psia (l)  
Flowing Temp. (Meter Run) 60 °F + 460 \_\_\_\_\_ = 520 °Abs (m)  
P<sub>d</sub> = 1/2 P<sub>c</sub> = 1/2 (l) \_\_\_\_\_ = 857 psia (n)

FLOW RATE CALCULATION

$$Q = \text{(Integrated)} \times \left( \frac{\frac{V(c)}{V(d)}}{\frac{V(c)}{V(d)}} \right)^* = \text{_____ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \times \left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \frac{1,278 \times \left[ \frac{1713^2 - 857^2}{1713^2 - 667.8^2} \right]^{0.91177}}{(0.8841)} = 1165 \text{ MCF/day}$$

SUMMARY

P<sub>c</sub> = 1713 psia  
Q = 1278 Mcf/day  
P<sub>w</sub> = 668 psia  
P<sub>d</sub> = 857 psia  
D = 1165 Mcf/day

Company Northwest Production Corp.  
By Ray Phillips RAY PHILLIPS  
Title Asst Mgr. Prod Opr  
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> ) 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>
4152	0.261	144.384	37.684	408,321	446,005	667.8

F<sub>c</sub> = 9.402

