

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 Mesa Verde Mesa Verde Mesa Verde County San Juan
Purchasing Pipeline Pacific Northwest Pipeline Corporation Date Test Filed June 1, 1957
Operator Pacific Northwest Pipeline Corporation Well No. 20-1
Unit 1 Sec. 2 Twp. 36N R. 10E Pay Date From To
Casing: OD 5 WT. 13.00 Set At 4004 Tubing: OD 2 3/8 WT. 4.7 T. Perf. 5966
Produced Through: Casing Tubing X Gas Gravity: Measured Estimated 0.60
Date of Flow Test: From 3-27-57 To 3-28-57 * Date S.I.P. Measured 10-9-55
Meter Run Size Orifice Size 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 () ² 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 500 psig + 12 = 592 psia (g)
Square root chart average reading () ² x sp. const. = 592 psia (g)
Corrected seven day avg. meter press. (p_f) (g) + (e) = 592 psia (h)
P_t = (h) + (f) = 1041 psia (i)
Wellhead casing shut-in pressure (Dwt) 1041 psig + 12 = 1041 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1041 psig + 12 = 1041 psia (k)
P_c = (j) or (k) whichever well flowed through 1041 = 1041 psia (l)
Flowing Temp. (Meter Run) 49 °F + 460 = 509 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 520 psia (n)

FLOW RATE CALCULATION

Q = 2,219 X $\left(\frac{\sqrt{(c)}}{\sqrt{(d)}} \right) = \underline{\underline{2,219}}$ MCF/day
(Integrated)

DELIVERABILITY CALCULATION

D = Q 2,219 $\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^n = \underline{\underline{2,700}}$ MCF/day
813,201 ^{.75} 1.2909 2.0267

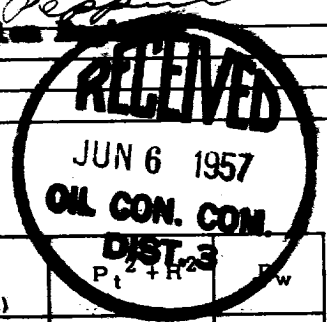
SUMMARY

P_c = 1041 psia
Q = 2219 Mcf/day
P_w = 676 psia
P_d = 520 psia
D = 2700 Mcf/day
Company Pacific Northwest Pipeline Corporation
By George H. Peppin
Title District Production Engineer
Witnessed by
Company

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

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ^{-S})	(F _Q Q) ²	(F _Q Q) ² (1-e ^{-S})	P _t ²	P _t ² + H ₂ S	P _w
			R ²	(Column 1)		
3877.0	0.246	434.265	107.875	350.464	457.539	676



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