

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 San Juan Formation San Juan County San Juan
Purchasing Pipeline San Juan Date Test Filed 5/10/55
Operator W. H. Brown Lease San Juan Well No. 3
Unit Sec. 22 Twp. 1 Rge. 1 Pay Zone: From 1 To 2
Casing: OD 4 1/2 WT. 15 Set At 100 Tubing: OD 2 1/2 WT. 10 T. Per. 1
Produced Through: Casing 1 Tubing 1 Gas Gravity: Measured 1.0 Estimated 1.0
Date of Flow Test: From 5/10/55 To 5/10/55 * Date S.I.P. Measured 5/10/55
Meter Run Size 1 1/2 Orifice Size 1/8 Type Chart 1 Type Taps 1

OBSERVED DATA

Flowing casing pressure (Dwt) 1054 psig + 12 = 1066 psia (a)
Flowing tubing pressure (Dwt) 1054 psig + 12 = 1066 psia (b)
Flowing meter pressure (Dwt) 1054 psig + 12 = 1066 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading 1054 psig + 12 = 1066 psia (d)
Square root chart reading (1054)² x spring constant 1054 = 1066 psia (d)
Meter error (c) - (d) or (d) - (c) 0 = 0 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing 0 = 0 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading 1054 psig + 12 = 1066 psia (g)
Square root chart average reading (1054)² x sp. const. 1054 = 1066 psia (g)
Corrected seven day avg. meter press. (P_g) (g) + (e) 1066 = 1066 psia (h)
P_g = (h) + (f) 1066 = 1066 psia (i)
Wellhead casing shut-in pressure (Dwt) 1054 psig + 12 = 1066 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1054 psig + 12 = 1066 psia (k)
P_c = (j) or (k) whichever well flowed through 1066 = 1066 psia (l)
Flowing Temp. (Meter Run) 1054 °F + 460 = 1054 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) 533 = 533 psia (n)

FLOW RATE CALCULATION

Q = 1054 X $\left(\frac{\sqrt{(c)} - \sqrt{(d)}}{\sqrt{(d)}} \right) = \frac{1054}{1054} = 1.0$ MCF/day
(integrated)

DELIVERABILITY CALCULATION

D = Q $\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^n = \frac{1054}{1054} = 1.0$ MCF/day
 $\left[\frac{(1054^2 - 533^2)}{(1054^2 - 1054^2)} \right]^{1.2164} = 1.0$

SUMMARY

P_c = 1054 psia
Q = 1054 Mcf/day
P_w = 1054 psia
P_d = 533 psia
D = 1054 Mcf/day

Company W. H. Brown
By W. H. Brown
Title Owner
Witnessed by W. H. Brown
Company W. H. Brown

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

REMARKS OR FRICTION CALCULATIONS

GL	(1-σ ²)	(F _c Q) ²	(F _c Q) ² (1-σ ²)	P _i ²	P _i ² + P _d ²	P _w
			R ²	(Column 1)		
<u>1054</u>	<u>1054</u>	<u>1054</u>	<u>1054</u>	<u>1054</u>	<u>1054</u>	<u>1054</u>

