

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 Flue Lake Formation P C County Rio Arriba
Purchasing Pipeline El Paso Natural Gas Co. Date Test Filed Sept. 1, 1960
Operator Cabot Carbon Co. Lease Humble Fed. A Well No. 1
Unit N Sec. 29 Twp. 26 N Rge. 2 W Pay Zone: From 3978 To 4060
Casing: OD 4 1/2 WT. 4108 Set At 4108 Tubing: OD 1 WT. 4010 T. Perf. 4010
Produced Through: Casing Tubing X Gas Gravity: Measured .677 Estimated
Date of Flow Test: From 6-1 To 6-8 * Date S.I.P. Measured 2-23-1960
Meter Run Size 4" Orifice Size 2.000 Type Chart S R 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 () ² x spring constant = psia (d)
Meter error (c) - (d) or (d) - (c) ± = psi (e)
Friction loss, Flowing column to meter: = psi (f)
(b) - (c) Flow through tubing: (a) - (c) Flow through casing
Seven day average static meter pressure (from meter chart):
Normal chart average reading psig + 12 = psia (g)
Square root chart average reading (7.25) ² x sp. const. 500 = 263 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 263 psia (h)
P_t = (h) + (f) = 263 psia (i)
Wellhead casing shut-in pressure (Dwt) 1025 psig + 12 = 1037 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1025 psig + 12 = 1037 psia (k)
P_c = (j) or (k) whichever well flowed through = 1037 psia (l)
Flowing Temp. (Meter Run) 58 °F + 460 = 518 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 518 psia (n)

FLOW RATE CALCULATION

Q = X $\left(\frac{\sqrt{V(c)}}{\sqrt{V(d)}} \right) = \text{MCF/da}$
(Integrated)

DELIVERABILITY CALCULATION

D = Q 1503 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \text{MCF/da.}$
807.045 ^{.8304} 1248
995.929 ^{.8363} 1257
1004.267

SUMMARY

P_c = 1037 psia
Q = 1503 Mcf/day
P_w = 267 ~~282~~ psia
P_d = 518 psia
D = 1248 ~~1257~~ Mcf/day

Company Geolectric, Inc.
By B. H. Keyes
Title Agent
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
<u>2715</u>	<u>.179</u>	<u>57.382</u>	<u>10.271</u>	<u>69,169</u>	<u>79,440</u>	<u>282</u>

10,798 1.932 71,102 267

OK

