

Initial Deliverability
Test

Form C-122-A
Revised April 20, 1955

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 Southern Union Gas Company Date Test Filed 10-9-59

Operator Caulkins Oil Company Lease Breesh "7" Well No. 10-4
Unit A Sec. 33 Twp. 27N Rge. 6W Pay Zone: From 4914 To 4920
Casing: OD 5 1/2" WT. 13.55 Set At 6771' Tubing: OD 1 1/2" WT. 2.41 T. Perf. 1507
Produced Through: Casing No Tubing Yes Gas Gravity: Measured .690 Estimated
Date of Flow Test: From 9-8-59 To 9-16-59 * Date S.I.P. Measured 9-23-59
Meter Run Size 1/2" OD Orifice Size 3/4" Type Chart Normal Type Taps Flanged

OBSERVED DATA

Flowing casing pressure (Dwt) 492 psig + 12 = 504 psia (a)
Flowing tubing pressure (Dwt) 492 psig + 12 = 504 psia (b)
Flowing meter pressure (Dwt) 490 psig + 12 = 502 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken):
Normal chart reading 498 psig + 12 = 510 psia (d)
Square root chart reading () ² x spring constant = -3 psia (d)
Meter error (c) - (d) or (d) - (c) = -2 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing = 2 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading 500 psig + 12 = 512 psia (g)
Square root chart average reading () ² x sp. const. = - psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 508 psia (h)
P_t = (h) + (f) = 510 psia (i)
Wellhead casing shut-in pressure (Dwt) 693 psig + 12 = 707 psia (j)
Wellhead tubing shut-in pressure (Dwt) 693 psig + 12 = 707 psia (k)
P_c = (j) or (k) whichever well flowed through = 707 psia (l)
Flowing Temp. (Meter Run) 68 °F + 460 = 528 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 353 psia (n)

FLOW RATE CALCULATION

Q = 98 X $\left(\frac{\sqrt{(c)} - \sqrt{(d)}}{\sqrt{(d)}} \right) = \frac{502 - 510}{510} = -0.0157$ = 97 MCF/day
(Integrated)

DELIVERABILITY CALCULATION

D = Q 97 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{1/n} = \frac{707^2 - 353^2}{707^2 - 907^2} = 1.35$ MCF/day
(1.35)ⁿ

SUMMARY

P_c = 707 psia
Q = 97 Mcf/day
P_w = 907 psia
P_d = 353 psia
D = 1.35 Mcf/day

Company Caulkins Oil Company
By Charles J. ...
Title Production Manager
Witnessed by Southern Union Gas Company
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
3800	0.241	5.586	1.346	256,016	257,362	907

