

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 Basin Dakota Formation Dakota County San Juan
Purchasing Pipeline El Paso Natural Gas Co. Date Test Filed 9-26-61

Operator Adobe Oil Company Lease Johnson Well No. 1
Unit M Sec. 21 Twp. 31N Rge. 13W Pay Zone: From 6676 To 6613
Casing: OD 2 1/2" WT. 15.4 Set At 6686 Tubing: OD 2-3/8" WT. 4.70 T. Perf. 6607
Produced Through: Casing X Tubing X Gas Gravity: Measured 0.70 Estimated 0.70
Date of Flow Test: From 8-14-61 To 8-21-61 * Date S.I.P. Measured 8-25-61
Meter Run Size 4.037 Orifice Size 1.00 Type Chart SR 10 Type Taps Flgs

OBSERVED DATA

Flowing casing pressure (Dwt) 690 psig + 12 = 702 psia (a)
Flowing tubing pressure (Dwt) 491 psig + 12 = 503 psia (b)
Flowing meter pressure (Dwt) 473 psig + 12 = 485 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading 6.9 psig + 12 = 476 psia (d)
Square root chart reading (6.9)² x spring constant 10 = 9 psia (d)
Meter error (c) - (d) or (d) - (c) ± = 9 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing = 18 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading 6.9 psig + 12 = 476 psia (g)
Square root chart average reading (6.9)² x sp. const. 10 = 483 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 503 psia (h)
P_t = (h) + (f) = 1719 psia (i)
Wellhead casing shut-in pressure (Dwt) 1707 psig + 12 = 1719 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1691 psig + 12 = 1703 psia (k)
P_c = (j) or (k) whichever well flowed through = 1703 psia (l)
Flowing Temp. (Meter Run) 82 °F + 460 = 542 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 851 psia (n)

FLOW RATE CALCULATION

Q = 306 (Integrated) X $\left(\frac{\sqrt{P_c} - \sqrt{P_d}}{\sqrt{P_c} - \sqrt{P_w}} \right) = \frac{485 - 1.010}{476 - 21.81} = \frac{484}{454.19} = 1.07$ MCF/day

DELIVERABILITY CALCULATION

D = Q 306 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \frac{485^2 - 1.010^2}{476^2 - 21.81^2} = \frac{235125 - 1.02}{227376 - 475.68} = \frac{235124}{226900} = 1.036$ MCF/day

SUMMARY

P_c = 1703 psia
Q = 306 Mcf/day
P_w = 503 psia
P_d = 851 psia
D = 267 Mcf/day

Company Adobe Oil Company
By A. T. Simmel
Title Vice-President
Witnessed by Leslie Kramer
Company Adobe Oil 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>4485</u>	<u>.286</u>	<u>8.44</u>	<u>2.414</u>	<u>253</u>	<u>255.414</u>	<u>503</u>



