

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 Blanco Formation Mesaverde County Rio Arriba
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed 6/10/60

Operator Mobil Oil Company Lease Jicarilla B Well No. 3 MVL
Unit M Sec. 20 Twp. 26N Rge. 3W Pay Zone: From 5473' To 6065'
Casing: OD 5 1/2" WT. 14# Set At 6130 Tubing: OD 2-3/8" WT. 4.7# T. Perf. 5449'
Produced Through: Casing Tubing X Gas Gravity: Measured .673 Estimated
Date of Flow Test: From 5/15/60 To 5/22/60 * Date S.I.P. Measured 5/27/60
Meter Run Size 4.026" Orifice Size 1.000" Type Chart Sq. Rt. Type Taps Flg.

OBSERVED DATA

Flowing casing pressure (Dwt) 488 psig + 12 = 479 psia (a)
Flowing tubing pressure (Dwt) 465 psig + 12 = 477 psia (b)
Flowing meter pressure (Dwt) 452 psig + 12 = 464 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading psig + 12 = psia (d)
Square root chart reading (6.80)² x spring constant 10 = 462 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 13 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading psig + 12 = psia (g)
Square root chart average reading (6.70)² x sp. const. 10 = 449 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 451 psia (h)
 = 464 psia (i)
P_t = (h) + (f)
Wellhead casing shut-in pressure (Dwt) psig + 12 = psia (j)
Wellhead tubing shut-in pressure (Dwt) 820 psig + 12 = 832 psia (k)
P_c = (j) or (k) whichever well flowed through = 832 psia (l)
Flowing Temp. (Meter Run) 73 °F + 460 = 533 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 416 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{638}{(\text{Integrated})} \times \left(\frac{\frac{\sqrt{c}}{\sqrt{d}} = \frac{21.54}{21.49} = 1.002}{1} \right) = 639 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{639}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{519.1}{468.5} \right]^{.75} \cdot 1.080} = 690 \text{ MCF/da.}$$

SUMMARY

P_c = 832 psia
Q = 639 Mcf/day
P_w = 473 psia
P_d = 416 psia
D = 690 Mcf/day

Company Mobil Oil Company
By Max Beasley By H.C. McG
Title Prod. Engr.
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
3667	.234	36.09	8.446	215.296	223.742	473

JUN 24 1960

CON. COM.

DIST. 3

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