

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 Elance Formation Mesaverde County Rio Arriba
Purchasing Pipeline Pacific Northwest Date Test Filed 3-7-58
Operator Magnolia Petroleum Company Lease Micarilla Well No. 3 N.V. 1F
Unit A Sec. 13 Twp. 26N Rge. 3W Pay Zone: From 5566' To 6047'
Casing: OD 5 1/2" WT. 14# Set At 6180 Tubing: OD 2 3/8" WT. 4.7# T. Perf. 5543'
Produced Through: Casing - Tubing X Gas Gravity: Measured 0.670 Estimated -
Date of Flow Test: From 1-31-58 To 2-8-58 * Date S.I.P. Measured 9-23-57
Meter Run Size 2.067" Orifice Size 1.000" Type Chart sq. rt. Type Taps Klange

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:
(b) - (c) Flow through tubing; (a) - (c) Flow through casing _____ = _____ psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (7.91) ² x sp. const. 10 _____ = 627 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 627 psia (h)
P_t = (h) + (f) _____ = 627 psia (i)
Wellhead casing shut-in pressure (Dwt) _____ psig + 12 = _____ psia (j)
Wellhead tubing shut-in pressure (Dwt) 1236 psig + 12 = 1248 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 1248 psia (l)
Flowing Temp. (Meter Run) 60 °F + 460 _____ = 520 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 624 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{173}{(\text{integrated})} \times \left(\frac{\sqrt{(c)} \frac{1}{1} = 1}{\sqrt{(d)} \frac{1}{1} = 1} \right) = 173 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{173}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{1168,128}{1,163,748} \right]^{0.75} \frac{1.000}{1}} = 173 \text{ MCF/da.}$$

SUMMARY

P_c = 1248 psia
Q = 173 Mcf/day
P_w = 627 psia
P_d = 624 psia
D = 173 Mcf/day

Company MAGNOLIA PETROLEUM COMPANY
By James A. Fagan, Jr.
Title Gas Engineer
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>3774</u>	<u>0.237</u>	<u>2.644</u>	<u>0.627</u>	<u>393,120</u>	<u>393,747</u>	<u>627</u>

OK



