

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 Undesignated Formation Dakota County San Juan
Purchasing Pipeline El Paso Natural Gas Co. Date Test Filed _____
Operator Monsanto Chemical Co. Lease State J Well No. 1
Unit D Sec. 16 Twp. 26 N Rge. 11 W Pay Zone: From 6090 To 6164
Casing: OD 7" WT. 23 & 26 Set At 6379.82' Tubing: OD 2 3/8" WT. 4.7# T. Perf. 6090
Produced Through: Casing _____ Tubing X Gas Gravity: Measured 0.684 Estimated _____
Date of Flow Test: From 4-7-59 To 4-15-59 * Date S.I.P. Measured 12-27-58
Meter Run Size 4.026 Orifice Size 1.500 Type Chart 1-10 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: _____ psig + 12 = _____ psia (d)
Normal chart reading _____ = _____ psia (d)
Square root chart reading (_____) ² x spring constant _____ = _____ psi (e)
Meter error (c) - (d) or (d) - (c) _____ ± _____
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): _____ psig + 12 = _____ psia (g)
Normal chart average reading _____ = 476 psia (g)
Square root chart average reading (6.9) ² x sp. const. 10 = _____ psia (h)
Corrected seven day avge. meter press. (pf) (g) + (e) = 476 psia (i)
 $P_t = (h) + (f)$ Measured _____ psig + 12 = _____ psia (j)
Wellhead casing shut-in pressure (Dwt) _____ psig + 12 = 2035 psia (k)
Wellhead tubing shut-in pressure (Dwt) 2023 = 2035 psia (l)
 $P_c = (j)$ or (k) whichever well flowed through = 542 ° Abs (m)
Flowing Temp. (Meter Run) 82 ° F + 460 = 1018 psia (n)
 $P_d = \frac{1}{2} P_c = \frac{1}{2} (l)$

FLOW RATE CALCULATION

$Q = \frac{1380}{(\text{integrated})} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} \right) = \frac{1380}{1} \text{ MCF/da}$

DELIVERABILITY CALCULATION

$D = Q \frac{1380}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n} = \frac{1380}{\left[\frac{3,104,901}{3,870,709} \right]^{.848}} = 1170 \text{ MCF/da.}$

SUMMARY

$P_c =$ 2035 psia
 $Q =$ 1380 Mcf/day
 $P_w =$ 520 psia
 $P_d =$ 1018 psia
 $D =$ 1170 Mcf/day

Company Monsanto Chemical Company
By [Signature]
Title District Supt.
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	$\frac{(F_c Q)^2 (1-e^{-s})}{R^2}$	P_t^2 (Column i)	$P_t^2 + R^2$	P_w
4166	0.261	168,344	43,940	226,576	270,516	520

