

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 B - MV Formation MV County El ArribaPurchasing Pipeline El Paso Natural Gas Company Date Test Filed _____Operator El Paso Natural Gas Company Lease Marshall Well No. 1Unit L Sec. 19 Twp. 29 Rge. 7 Pay Zone: From 5,012 To 5,775Casing: OD 7 WT. 23 Set At 5,003 Tubing: OD 2 WT. 4.7 T. Perf. 5101Produced Through: Casing _____ Tubing x Gas Gravity: Measured .761 Estimated _____Date of Flow Test: From 12/22/58 To 12/30/58 * Date S.I.P. Measured 5-22-58

Meter Run Size _____ Orifice Size _____ Type Chart _____ Type Taps _____

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 (7.20) ² x sp. const. 1000 _____ = 518 psia (g)Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 518 psia (h)P_t = (h) + (f) _____ = 518 psia (i)Wellhead casing shut-in pressure (Dwt) 1012 psig + 12 = 1024 psia (j)Wellhead tubing shut-in pressure (Dwt) 847 psig + 12 = 859 psia (k)P_c = (j) or (k) whichever well flowed through _____ = 859 psia (l)Flowing Temp. (Meter Run) 60 °F + 460 _____ = 520 ° Abs (m)P_d = 1/2 P_c = 1/2 (l) _____ = 430 psia (n)

FLOW RATE CALCULATION

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

DELIVERABILITY CALCULATION

$$D = Q = \text{251} \left[\frac{(P_c^2 - P_d^2) = \text{552,981}}{(P_c^2 - P_w^2) = \text{468,187}} \right]^n \frac{1.1811}{1.1330} = \text{284} \text{ MCF/da.}$$

SUMMARY

P_c = 859 psia
 Q = 251 Mcf/day
 P_w = 519 psia
 P_d = 430 psia
 D = 284 Mcf/day

Company El Paso Natural Gas Company
 By Original Signed
 Title Harold L. Kendrick
 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>3882</u>	<u>.246</u>	<u>5.570</u>	<u>1.370</u>	<u>268,324</u>	<u>269,694</u>	<u>519</u>

$$D500 = \frac{475,737}{469,557} = \frac{1.0131}{1.0098} = 2.53$$

OK



