

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 Bailled Formation PICTURED CLIFFS County SAN JUAN
Purchasing Pipeline EL PASO NATURAL GAS COMPANY Date Test Filed 11-13-56
Operator BENSON-MONTIN-ORRER DRILLING CORP. Lease FOSTER-RIDDLE Well No. 1
Unit C Sec. 13 Twp. 25N Rge. 8W Pay Zone: From 2298 To 2350
Casing: OD 5-1/2" WT. 15.5# Set At 2298 Tubing: OD 1" WT. 1.7# T. Perf. 2323
Produced Through: Casing X Tubing _____ Gas Gravity: Measured 0.650 Estimated _____
Date of Flow Test: From 10-17-56 To 10-24-56 * Date S.I.P. Measured April 11 26, 1956
Meter Run Size 4.031 Orifice Size 1.750 Type Chart Sq. Rt. 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:
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 (7.35) ² x sp. const. 5 _____ = 270 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 270 psia (h)
P_t = (h) + (f) _____ = 270 psia (i)
Wellhead casing shut-in pressure (Dwt) 610 psig + 12 = 622 psia (j)
Wellhead tubing shut-in pressure (Dwt) 610 psig + 12 = 622 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 622 psia (l)
Flowing Temp. (Meter Run) 66 °F + 460 _____ = 526 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 311 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{2122}{(\text{integrated})} \times \left(\frac{\sqrt{V(c)}}{\sqrt{V(d)}} = \frac{1}{1} = \frac{1}{1} \right) = 2122 \text{ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{2122}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n} = \frac{290,200}{313,600} \times 0.936 = 1986 \text{ MCF/day}$$

SUMMARY

P_c = 622 psia
Q = 2122 Mcf/day
P_w = 271 psia
P_d = 311 psia
D = 1986 Mcf/day

Company BENSON-MONTIN-ORRER DRILLING CORP.
By W. J. Starnes
Title 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
1603	0.110	3.38	373	72,900	73,273	271



