

74804
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 ANGEL PEAK Formation DAKOTA County SAN JUAN
Purchasing Pipeline EL PASO NATURAL GAS COMPANY Date Test Filed _____

Operator EPNG Lease Huerfano Well No. 103 (D)
Unit C Sec. 3 Twp. 26 Rge. 10 Pay Zone: From 6880 To 7000
Casing: OD 5-1/2 WT. 17 1/2 Set At 7027 Tubing: OD 2 WT. 4.7 T. Perf. 6837
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .745 Estimated _____
Date of Flow Test: From 9-21-59 To 9-29-59 Date S.I.P. Measured 12-17-58 (8 days)
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 478 psig + 12 = 490 psia (g)
Square root chart average reading (_____) ² x sp. const. _____ = _____ psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 490 psia (h)
P_t = (h) + (f) _____ = 490 psia (i)
Wellhead casing shut-in pressure (Dwt) _____ psig + 12 = _____ psia (j)
Wellhead tubing shut-in pressure (Dwt) 1702 psig + 12 = 1714 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 1714 psia (l)
Flowing Temp. (Meter Run) 75 °F + 460 _____ = 535 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 857 psia (n)

Q = $\frac{2561}{8} = 320$ X $\left(\frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c)} = \text{_____} = \text{_____}} \right) = 320$ MCF/day
(integrated) $\sqrt{(d)} = \text{_____}$

DELIVERABILITY CALCULATION

D = Q 320 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \frac{2203347}{2694890} \cdot \frac{.8176}{.8597} = 275$ MCF/day.

SUMMARY

P_c = 1714 psia
Q = 320 Mcf/day
P_w = 493 psia
P_d = 857 psia
D = 275 Mcf/day

Company El Paso Natural Gas Company
By _____
Title Original Signed
Witnessed by Harold L. Kendrick
Company _____

RECEIVED
OCT 23 1959
OIL CON. COM.
DIST. 3

- * 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
5094	.310	9.052	2806	240100	242906	493

D500 = 318