

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 Mesa-Mesa Verde Formation Mesa Verde County San Juan
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed 1-15-58

Operator PAN AMERICAN PETROLEUM CORP. Lease Elizabet Gas Unit "C" Well No. 1
Unit 6 Sec. 9 Twp. 30N Rge. 7W Pay Zone: From 4706 To 5306
Casing: OD 7" WT. 20 1/2 Set At 4990 Tubing: OD 2 3/8 WT. 4.7 T. Perf. 5306
Produced Through: Casing _____ Tubing I Gas Gravity: Measured 0.670 Estimated _____
Date of Flow Test: From 12-23-57 To 12-31-57 * Date S.I.P. Measured 1-7-58
Meter Run Size 4 Orifice Size 1.900 Type Chart Sq. Rt. Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 723 psig + 12 = 735 psia (a)
Flowing tubing pressure (Dwt) 528 psig + 12 = 540 psia (b)
Flowing meter pressure (Dwt) 513 psig + 12 = 525 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (7.20)² x spring constant 10 = 528 psia (d)
Meter error (c) - (d) or (d) - (c) _____ = 0.9 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing _____ = 5 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (7.15)² x sp. const. 10 = 521 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 526 psia (h)
P_t = (h) + (f) _____ = 531 psia (i)
Wellhead casing shut-in pressure (Dwt) 826 psig + 12 = 838 psia (j)
Wellhead tubing shut-in pressure (Dwt) 825 psig + 12 = 837 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 837 psia (l)
Flowing Temp. (Meter Run) 69 °F + 460 _____ = 529 ° Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 418 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{1109}{(\text{integrated})} \times \left(\frac{\frac{22.9229}{\sqrt{(c)}} = 1.0067}{\frac{22.7996}{\sqrt{(d)}}} \right) = 1116 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{1116}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n} = 1382 \text{ MCF/da.}$$

SUMMARY

P_c = 837 psia
Q = 1116 Mcf/day
P_w = 526 psia
P_d = 418 psia
D = 1382 Mcf/day

Company PAN AMERICAN PETROLEUM CORPORATION
By E. H. Bauer, Jr.
Title Field 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>3063</u>	<u>0.228</u>	<u>110.095</u>	<u>25.162</u>	<u>273.529</u>	<u>298.691</u>	<u>546</u>

DELIVERABILITY TEST AFTER METER

* LINE: 5" 150 4500-5306
PERFS: 4706' to 5306'

