

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 El Paso Pictured Cliffs Formation Pictured Cliffs County San Juan
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed January 25, 1960
Operator Pan American Petroleum Corp. Lease Likins Gas Unit #1 Well No. 2
Unit 3 Sec. 34 Twp. 35N Rge. 9W Pay Zone: From 2405 To 2436
Casing: OD 4-1/2 WT. 9.5 Set At 2495 Tubing: OD 1-3/4 WT. 2.3 T. Perf. 2404
Produced Through: Casing X Tubing _____ Gas Gravity: Measured 0.677 Estimated _____
Date of Flow Test: From 1-1-60 To 1-8-60 * Date S.I.P. Measured 1-18-59
Meter Run Size 4 Orifice Size 2.370 Type Chart 31, 32 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 (7.30)² x sp. const. _____ = 281 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 281 psia (h)
P_t = (h) + (f) _____ = 282 psia (i)
Wellhead casing shut-in pressure (Dwt) 930 psig + 12 = 942 psia (j)
Wellhead tubing shut-in pressure (Dwt) 930 psig + 12 = 942 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 942 psia (l)
Flowing Temp. (Meter Run) 72 °F + 460 _____ = 532 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 471 psia (n)

FLOW RATE CALCULATION

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

DELIVERABILITY CALCULATION

$$D = Q \cdot \frac{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n} = \frac{2806 \cdot \left[\frac{465,523}{808,403} \right]^{0.8475}}{\left[\frac{465,523}{808,403} \right]^{0.8475}} = 2839 \text{ MCF/day}$$

SUMMARY

P_c = 942 psia
Q = 2806 Mcf/day
P_w = 281 psia
P_d = 471 psia
D = 2839 Mcf/day

Company Pan American Petroleum Corporation
By H. K. Bauer, Jr.
Title Area 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 R ²	(1-e ^{-S})	P _t ² (Column i)	P _t ² + R ²	P _w
Friction loss negligible.							

*Furnished by pipeline company.



