

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

Operator PAE AMERICAN PETROLEUM CORP. Lease L. E. #114-66 "D" Well No. 1
Unit 1 Sec. 27 Twp. 36N Rge. 3E Pay Zone: From 4100 To 4200
Casing: OD 7" WT. 200 Set At 4130 Tubing: OD 2-3/8" WT. 4.75 T. Perf. 4100
Produced Through: Casing Tubing 1 Gas Gravity: Measured 0.600 Estimated
Date of Flow Test: From 12-23-57 To 12-28-57 * Date S.I.P. Measured 1-2-58
Meter Run Size 4" Orifice Size 2.500 Type Chart 20-21 Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 612 psig + 12 = 624 psia (a)
Flowing tubing pressure (Dwt) 521 psig + 12 = 533 psia (b)
Flowing meter pressure (Dwt) 387 psig + 12 = 399 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading psig + 12 = psia (d)
Square root chart reading (7.32)² x spring constant 30 = 387 psia (d)
Meter error (c) - (d) or (d) - (c) ± = +12 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing = 4 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. 30 = 511 psia (g)
Corrected seven day avg. meter press. (p_f) (g) + (e) = 523 psia (h)
P_t = (h) + (f) = 527 psia (i)
Wellhead casing shut-in pressure (Dwt) 620 psig + 12 = 632 psia (j)
Wellhead tubing shut-in pressure (Dwt) 524 psig + 12 = 536 psia (k)
P_c = (j) or (k) whichever well flowed through = 632 psia (l)
Flowing Temp. (Meter Run) 80 °F + 460 = 540 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 316 psia (n)

Q = 2872 X $\left(\frac{\text{FLOW RATE CALCULATION}}{\frac{\sqrt{(c)}}{\sqrt{(d)}}} = \frac{22,706}{22,527} = 1.0316 \right) = 2872$ MCF/day
(Integrated)

DELIVERABILITY CALCULATION

D = Q 2872 $\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^n$ 1.443 = 2700 MCF/day.

SUMMARY

P_c = 632 psia Company PAE AMERICAN PETROLEUM CORP.
Q = 2872 Mcf/day By L. E. Bower, Jr. RMB
P_w = 620 psia Title Field Engineer
P_d = 316 psia Witnessed by
D = 2700 Mcf/day Company

- * This is date of completion test.
- * Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ^{-S})	(FcQ) ²	(FcQ) ² (1-e ^{-S}) R ²	P _t ² (Column i)	P _t ² + R ²	P _w
<u>204</u>	<u>0.226</u>	<u>279.139</u>	<u>21.096</u>	<u>277.729</u>	<u>299.425</u>	<u>620</u>

DELIVERABILITY LINE AFTER LEAKAGE

* LINE: 5" 125 4000-4000
FREQ: 4000



