

Initial Deliverability
TestForm C-123-A
Revised April 20, 1955NEW 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 Verde Formation Mesa Verde County San Juan
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed May 3, 1960Operator Pan American Petroleum Corp. Lease Valencia Gas Field Well No. 1Unit 2 Sec. 22 Twp. 23N Rge. 9E Pay Zone: From 2450 To 4350Casing: OD 7 WT. 20 Set At 2274 Tubing: OD 2 3/8 WT. 4.7 T. Perf. 2274Produced Through: Casing Tubing X Gas Gravity: Measured 0.605 Estimated Date of Flow Test: From 4-7-60 To 4-15-60 * Date S.I.P. Measured 4-22-60Meter Run Size 4" Orifice Size 1.250 Type Chart 2-10 Type Taps Flange

4-1/2" liner out at 2274-4400

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 (4.95) ² x sp. const. 20 = 489 psia (g)Corrected seven day ave. meter press. (p_f) (g) + (e) = 489 psia (h)P_t = (h) + (f) = 489 psia (i)Wellhead casing shut-in pressure (Dwt) 942 psig + 12 = 954 psia (j)Wellhead tubing shut-in pressure (Dwt) 942 psig + 12 = 954 psia (k)P_c = (j) or (k) whichever well flowed through = 954 psia (l)Flowing Temp. (Meter Run) 70 °F + 460 = 530 °Abs (m)P_d = 1/2 P_c = 1/2 (l) = 477 psia (n)

$$Q = \frac{\text{(integrated)}}{\left(\frac{\sqrt{(c)}}{\sqrt{(d)}} \right)} \times \left(\frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c)}} = \frac{\text{ }}{\sqrt{(d)}} = \text{ }} \right) = \text{ } \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \times \left[\frac{(P_c^2 - P_d^2) = 711,907}{(P_c^2 - P_w^2) = 673,716} \right]^n \times \frac{1,017}{1,017} = 1677 \text{ MCF/da.}$$

SUMMARY

P_c = 954 psia
Q = 1677 Mcf/day
P_w = psia
P_d = 477 psia
D = 1677 Mcf/dayCompany Pan American Petroleum Corporation
By R. E. Super, Jr. R. E. Super, 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 (1-e ^{-s}) R ²	P _t ² (Column i)	P _t ² + R ²	P _w
<u>2274</u>	<u>0.302</u>	<u>222,100</u>	<u>61,073</u>	<u>233,209</u>	<u>274,280</u>	<u>954</u>

* Provided by Fluidex Company

