

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 Astec FORMATION Pictured Cliff COUNTY San Juan
PURCHASING PIPELINE El Paso Natural Gas Co. DATE TEST FILED 12-14-55

OPERATOR Paces Development, Inc. LEASE State WELL NO. 22
UNIT F SEC. 34 TWP. 28N RGE. 10W PAY ZONE: From 1914 To 1946
CASING: OD 5 1/2 WT. 14 & 15 1/2 SET AT 1906 ft TUBING: OD 2" WT. 4.7 T.Perf. 1904
PRODUCED THROUGH: CASING TUBING X GAS GRAVITY: MEASURED .655 ESTIMATED
DATE OF FLOW TEST: From 11-23-55 To 11-30-55 *Date S.I.P. MEASURED 2-20-55
METER RUN SIZE 4" ORIFICE SIZE 1.25 TYPE CHART 30-31 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 () ²x 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 (6.13) ²x sp. const. = 128 psia (g)
Corrected seven day avge. meter press. (P_f) (g) + (e) = psia (h)
P_t = (h) + (f) = 128 psia (i)
Wellhead casing shut-in pressure (Dwt) 678 psig + 12 = 690 psia (j)
Wellhead tubing shut-in pressure (Dwt) 678 psig + 12 = 690 psia (k)
P_c = (j) or (k) whichever well flowed through. = 690 psia (l)
Flowing Temp. (Meter Run). 55 °F + 460 = 515 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 345 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{475}{(\text{integrated})} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{\quad}{\quad} = \frac{\quad}{\quad} \right)^* = 475 \text{ MCF/da.}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{475}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n} = \frac{475}{\left[\frac{690^2 - 345^2}{690^2 - 191^2} \right]^{.85}} = \frac{475}{(.81193)^{.85}} = 596 \text{ MCF/da.}$$

SUMMARY

P _c = <u>690</u> psia	Company <u>Paces Development, Inc.</u>
Q = <u>475</u> Mcf/day	By <u>N. E. Maxwell, Jr.</u>
P _w = <u>191</u> psia	Title <u>Supt. Prod. Rept.</u>
P _d = <u>345</u> psia	Witnessed by <u>Wayne Martin</u>
D = <u>596</u> Mcf/day	Company <u> </u>

* 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
1247	.087	19,776	1721		34596	36317	191

Initial production deliverability. First production to El Paso 11-4-55.

Production Test

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AETEC DISTRICT OFFICE
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