

Initial Deliverability
Test

Form C-122-A
Revised April 20, 1955

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 Undesignated Pictured Cliffs Formation Pictured Cliffs County Rio Arriba
Purchasing Pipeline Southern Union Gas Company Date Test Filed March 19, 1957
Operator Humble Oil & Refining Co. Lease Jicarilla Apache Tribe "L" Well No. 3
Unit ~~35~~ M Sec. 35 Twp. 25N Rge. 4W Pay Zone: From 3226 To 3248
Casing: OD 4-1/2" WT. 114/lb. Set At 3322 Tubing: OD 2-3/8" WT. 4.74/lb. T. Perf. 3218
Produced Through: Casing Tubing X Gas Gravity: Measured Estimated .680
Date of Flow Test: From 2-7-57 To 2-14-57 * Date S.I.P. Measured 6-15-56
Meter Run Size 4" Orifice Size 1-3/4" Type Chart Sq. root 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 (7.75)² x sp. const. 10 = 600 psia (g)
Corrected seven day avge. meter press. (pf) (g) + (e) = psia (h)
 $P_t = (h) + (f)$ = 600 psia (i)
Wellhead casing shut-in pressure (Dwt) 1011 psig + 12 = 1023 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1011 psig + 12 = 1023 psia (k)
 $P_c = (j) \text{ or } (k) \text{ whichever well flowed through}$ = 1023 psia (l)
Flowing Temp. (Meter Run) 70 °F + 460 = 530 °Abs (m)
 $P_d = \frac{1}{2} P_c = \frac{1}{2} (l)$ = 511.5 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{727}{(\text{integrated})} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} \right) = \text{ } \text{ MCF/day}$$

DELIVERABILITY CALCULATION $n=0.85$ for Pictured Cliffs

$$D = Q \frac{727}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]} = \frac{727(1.1302)}{1.1302} = 822 \text{ MCF/day}$$

SUMMARY

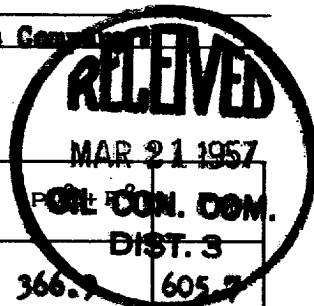
$P_c =$ 1023 psia
 $Q =$ 727 Mcf/day
 $P_w =$ 605.7 psia
 $P_d =$ 511.5 psia
 $D =$ 822 Mcf/day

Company Humble Oil & Refining Company
By Russell M. Lilly Russell M. Lilly
Title Agent
Witnessed by H. Stoecking
Company Southern Union Gas 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 (Column i)	P _t ² (Column i)
2188	0.147	46.7	6.9	360.0	366.7	605.7



$$\frac{17771}{68659} = 1.4244 = 1.352$$

OK 983

