Form C-122-A
Revised April 20, 1955

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 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. 1

Unit M Sec. 36 Twp. 25N Rge. 4W Pay Zone: From 3281 To 3330

Casing: OD 5-1/2" WT. 14#/ft. Set At 3399 Tubing: OD 2-3/8" WT 4.7#/ft. T. Perf. 3267

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-inch 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 (7.65)^2 x sp. const. 10	=	585	psia	(g)
Corrected seven day avge. meter press. (p_f) (g) + (e)	=		psia	(h)
P_t = (h) + (f)	=	585	psia	(i)
Wellhead casing shut-in pressure (Dwt) 1000	psig + 12 =	1012	psia	(j)
Wellhead tubing shut-in pressure (Dwt) 1000	psig + 12 =	1012	psia	(k)
P_c = (j) or (k) whichever well flowed through	=	1012	psia	(l)
Flowing Temp. (Meter Run) 61 °F + 460	=	521	°Abs	(m)
P_d = ½ P_c = ½ (l)	=	506	psia	(n)

FLOW RATE CALCULATION

$$Q = \underset{\text{(integrated)}}{444} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \_\_\_ = \_\_\_ \right)^{*} = \_\_\_ \text{ MCF/da}$$

DELIVERABILITY CALCULATION n=0.85 for Pictured Cliffs

$$D = Q\ 444 \left[\frac{P_c^2 - P_d^2 = 768.1}{P_c^2 - P_w^2 = 679.3} \right]^{n} = (444)(1.1101) = 493 \text{ MCF/da.}$$

SUMMARY

P_c =	1012	psia
Q =	444	Mcf/day
P_w =	587.2	psia
P_d =	506	psia
D =	493	Mcf/day

Company Humble Oil & Refining Company
By Russell M. Lilly Russell M. Lilly
Title Agent
Witnessed by H. Stocking
Company Southern Union Gas Co.

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DIST. 3

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

REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-S})$	$(F_cQ)^2$	$\frac{(F_cQ)^2 (1-e^{-S})}{R^2}$	Pt^2 (Column i)	P_t^2	P_w^2
2222	0.149	17.4	2.6	342.2	344.8	587.2

OK