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 Fulcher Kutz Formation Dakota County San Juan

Purchasing Pipeline Southern Union Gas Co. Date Test Filed 3-29-58

Operator McRae Oil & Gas Corp. Lease ~~Kutz~~ Fed. (12) Well No: 1

Unit A Sec. 28 Twp. 28N Rge. 10W Pay Zone: From 6444 To 6672

Casing: OD 5½" WT. 17# Set At 6721 Tubing: OD 2 3/8" WT. 4.7# T. Perf. 6595

Produced Through: Casing ____ Tubing X Gas Gravity: Measured .667 Estimated ____

Date of Flow Test: From 3-6-58 To 3-16-58 * Date S.I.P. Measured 2-15-58

Meter Run Size 4" Orifice Size 2.250 Type Chart Normal Type Taps ____

OBSERVED DATA

Flowing casing pressure (Dwt)	600 psig + 12 =	612	psia	(a)
Flowing tubing pressure (Dwt)	462 psig + 12 =	474	psia	(b)
Flowing meter pressure (Dwt)	210 psig + 12 =	222	psia	(c)
Flowing meter pressure (meter reading when Dwt. measurement taken:				
Normal chart reading	212 psig + 12 =	224	psia	(d)
Square root chart reading (____)^2 x spring constant	=		psia	(d)
Meter error (c) - (d) or (d) - (c)	± =	-2	psi	(e)
Friction loss, Flowing column to meter:				
(b) - (c) Flow through tubing: (a) - (c) Flow through casing	=	252	psi	(f)
Seven day average static meter pressure (from meter chart):				
Normal chart average reading	218 psig + 12 =	230	psia	(g)
Square root chart average reading (____)^2 x sp. const.	=		psia	(g)
Corrected seven day avge. meter press. (p_f) (g) + (e)	=	228	psia	(h)
P_t = (h) + (f)	=	480	psia	(i)
Wellhead casing shut-in pressure (Dwt)	1975 psig + 12 =	1987	psia	(j)
Wellhead tubing shut-in pressure (Dwt)	1975 psig + 12 =	1987	psia	(k)
P_c = (j) or (k) whichever well flowed through	=	1987	psia	(l)
Flowing Temp. (Meter Run)	58 °F + 460 =	518	°Abs	(m)
P_d = ½ P_c = ½ (l)	=	994	psia	(n)

FLOW RATE CALCULATION

$$Q = 1898 \text{ (integrated)} \times \left(\frac{\sqrt{h_w}}{\sqrt{(d)}} = \frac{14.90}{14.97} = .9953 \right)^* = 1889 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{2960133}{3631344} = .8151 \right]^n = 1889 \times .8579^{.75} = 1621 \text{ MCF/da.}$$

SUMMARY

P_c =	1987	psia	
Q =	1889	Mcf/day	
P_w =	563	psia	
P_d =	994	psia	
D =	1621	Mcf/day	

Company Well Production Co.
By N.A.Neely
Title Owner
Witnessed by ____
Company ____

* This is date of completion test.

* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-s})$	$(F_cQ)^2$	$\frac{(F_cQ)^2}{R^2}(1-e^{-s})$	Pi^2 (Column i)	$P_t^2 + R^2$	P_w
4399	.274	315418	86425	230400	316825	563

RECEIVED
MAR 31 1958
OIL CON. COM.
DIST. 3