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 Blanco Formation Mesaverde County San Juan

Purchasing Pipeline ElPaso Natural Date Test Filed

Operator Blackwood Nichols Lease NEBU Well No. 4-21

Unit M Sec. 21 Twp. 30N Rge. 7W Pay Zone: From 5432 To 6035

Casing: OD 7 WT. Set At 5210 Tubing: OD 2 WT. 4.70 T. Perf. 5900

Produced Through: Casing Tubing X Gas Gravity: Measured .678 Estimated

Date of Flow Test: From 4/21 To 4/29 * Date S.I.P. Measured 5/6/60

Meter Run Size Orifice Size .750 Type Chart Type Taps

OBSERVED DATA

Flowing casing pressure (Dwt)	617 psig + 12 =	629	psia	(a)
Flowing tubing pressure (Dwt)	562 psig + 12 =	574	psia	(b)
Flowing meter pressure (Dwt)	504 psig + 12 =	516	psia	(c)
Flowing meter pressure (meter reading when Dwt. measurement taken):				
Normal chart reading	psig + 12 =		psia	(d)
Square root chart reading (7.10)^2 x spring constant 1000	=	504	psia	(d)
Meter error (c) - (d) or (d) - (c)	± =	- 12	psi	(e)
Friction loss, Flowing column to meter:				
(b) - (c) Flow through tubing: (a) - (c) Flow through casing	=	58	psi	(f)
Seven day average static meter pressure (from meter chart):				
Normal chart average reading	psig + 12 =		psia	(g)
Square root chart average reading (7.05)^2 x sp. const.	=	497	psia	(g)
Corrected seven day avge. meter press. (p_f) (g) + (e)	=	509	psia	(h)
P_t = (h) + (f)	=	567	psia	(i)
Wellhead casing shut-in pressure (Dwt) 800	psig + 12 =	812	psia	(j)
Wellhead tubing shut-in pressure (Dwt) 797	psig + 12 =	809	psia	(k)
P_c = (j) or (k) whichever well flowed through	=	809	psia	(l)
Flowing Temp. (Meter Run) 55 °F + 460	=	515	°Abs	(m)
P_d = ½ P_c = ½ (l)	=	404	psia	(n)

FLOW RATE CALCULATION

$$Q = 301 \text{ (integrated)} \times \left(\frac{\sqrt{h_w}}{\sqrt{(d)}} = \frac{1.0238}{} = 1.0118 \right)^* = 304 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{491.265}{330.934} \right]^n = 304 \times 1.3448 = 409 \text{ MCF/da.}$$

1.4844

SUMMARY

P_c =	809	psia
Q =	304	Mcf/day
P_w =	569	psia
P_d =	404	psia
D =	409	Mcf/day

Company Blackwood Nichols
By
Title
Witnessed by
Company Thurmond McGlothlin

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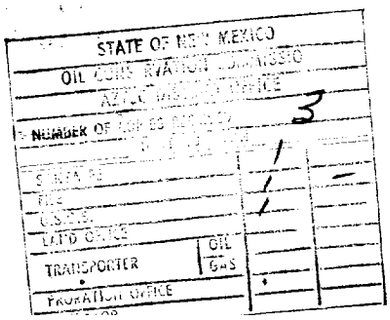
JUN 1960
OIL CON. COM.
DIST. 3

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

REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-s})$	$(F_cQ)^2$	$\frac{(F_cQ)^2 (1-e^{-s})}{R^2}$	P_t^2 (Column i)	$P_t^2 + R^2$	P_w
4000	.252	8.168	2.058	321.489	323.547	569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