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 Mesa Verde County San Juan

Purchasing Pipeline El Paso Natural Gas Date Test Filed

Operator El Paso Natural Gas Lease Sunray Well No. No. 2-D

Unit H Sec. 21 Twp. 30N Rge. 10W Pay Zone: From 5046 To 5280

Casing: OD 5-1/2" WT. 15.5 Set At 5385 Tubing: OD 2" WT. 4.7 T. Perf. 5179

Produced Through: Casing ____ Tubing X Gas Gravity: Measured .685 Estimated ____

Date of Flow Test: From 3/9/58 To 3/17/58 * Date S.I.P. Measured 1-9-58

Meter Run Size ____ Orifice Size 1.500 Type Chart ____ Type Taps ____

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 (6.75) ^{2} x sp. const. 10	= 456	psia	(g)
Corrected seven day avge. meter press. (p_f) (g) + (e)	= 456	psia	(h)
P_t = (h) + (f)	= 456	psia	(i)
Wellhead casing shut-in pressure (Dwt) 1033	psig + 12 = 1045 ~~1058~~	psia	(j)
Wellhead tubing shut-in pressure (Dwt) 1036	psig + 12 = 1048 ~~1058~~	psia	(k)
P_c = (j) or (k) whichever well flowed through	= 1048 ~~1058~~	psia	(l)
Flowing Temp. (Meter Run) 63 °F + 460	= 523 ~~534~~	°Abs	(m)
P_d = ½ P_c = ½ (l)	= 524	psia	(n)

FLOW RATE CALCULATION

$$Q = \text{(integrated)} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{\quad}{\quad} = \quad \right)^{*} = 631 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q\,631 \left[\left(\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right) = \frac{823728}{882378} \right]^{n} \frac{.9335}{.9497} = 599 \text{ MCF/da.}$$

SUMMARY

P_c =	1048	psia	Company El Paso Natural Gas
Q =	631	Mcf/day	By Original Signed
P_w =	~~524~~ 465	psia	Title Lewis D. Galloway
P_d =	~~529~~ 524	psia	Witnessed by
D =	599	Mcf/day	Company

* This is date of completion test.

* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-s})$	$(F_cQ)2$	$\frac{(FcQ)^2 (1-e^{-s})}{R^2}$	Pt^2 (Column i)	$P_t^2 + R^2$	P_w
3548	.227	35.200	7,990	207936	215926	465

D at 500 = 602

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