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 Blanco-Pictured Cliffs Formation Pictured Cliffs County San Juan

Purchasing Pipeline El Paso Natural Gas Company Date Test Filed December 9, 1959

Operator Pan American Petroleum Corp. Lease Helton Gas Unit Well No. 1

Unit O Sec. 32 Twp. 30 Rge. 9 Pay Zone: From 2292 To 2346

Casing: OD 4-1/2 WT. 9.5 Set At 2387 Tubing: OD 1-1/4 WT. 2.3 T. Perf. 2288

Produced Through: Casing X Tubing Gas Gravity: Measured 0.657* Estimated

Date of Flow Test: From 11-1-59 To 11-7-59 * Date S.I.P. Measured 8-17-59

Meter Run Size 4 Orifice Size 1.500* Type Chart Sq. Rt. 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 (7.10*) ^{2} x sp. const. 5	=	252	psia	(g)
Corrected seven day avge. meter press. (p_f) (g) + (e)	=	252	psia	(h)
P_t = (h) + (f)	=	252	psia	(i)
Wellhead casing shut-in pressure (Dwt) 1020	psig + 12 =	1032	psia	(j)
Wellhead tubing shut-in pressure (Dwt) 1020	psig + 12 =	1032	psia	(k)
P_c = (j) or (k) whichever well flowed through	=	1032	psia	(l)
Flowing Temp. (Meter Run) 99* °F + 460	=	519	°Abs	(m)
P_d = ½ P_c = ½ (l)	=	516	psia	(n)

FLOW RATE CALCULATION

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

DELIVERABILITY CALCULATION

$$D = Q \; 390^{*} \left[\frac{P_c^2 - P_d^2 = 798,768}{P_c^2 - P_w^2 = 1,001,520} \right]^{n} \; 0.8251 = 322 \text{ MCF/da.}$$

SUMMARY

P_c =	1032	psia
Q =	390*	Mcf/day
P_w =	252	psia
P_d =	516	psia
D =	322	Mcf/day

Company Pan American Petroleum Corporation
By R. M. Bauer, Jr. RMBauer, Jr.
Title Area Engineer
Witnessed by
Company

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

REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-S})$	$(F_cQ)2$	$\frac{(F_cQ)^2 (1-e^{-S})}{R^2}$	Pt^2 (Column i)	$P_t^2 + R^2$	P_w
Friction Loss Negligible						

*Furnished by pipeline company

INITIAL DELIVERABILITY TEST

RECEIVED
DEC 10 1959
OIL CON. COM.
DIST. 3

LUIS
OCT 1 1 1920
OHIO