NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco-Mesaverde Formation Mesaverde County San Juan

Initial X Annual ____ Special ____ Date of Test January 27, 1960

Company Pan American Petroleum Corp. Lease Valencia Gas Unit Well No. 1

Unit J Sec. 18 Twp. 29N Rge. 9W Purchaser El Paso Natural Gas Company

Liner 4-1/2" Wt. 9.5 I.D. 4.090 Set at 2171-4402 Perf. Liner Perforated To
Casing 7" Wt. 20 I.D. 6.456 Set at 2274 Perf. 3659 To 4340

Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 4264 Perf. Open ended To

Gas Pay: From 3659 To 4340 L 4264 xG 0.67 (est.) GL 2857 Bar.Press. 12

Producing Thru: Casing ____ Tubing X Type Well Gas-single
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 1-20-60 Packer None Reservoir Temp. ____

OBSERVED DATA

Tested Through (~~Prover~~) (Choke) (~~Meter~~) Type Taps ____

No.	Flow Data (~~Prover~~) (Line) Size	Flow Data (Choke) (~~Orifice~~) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI	Shut in	7 days				962		962		
1.	2-inch	3/4-inch	277		60 (est)	292	60(est)	710	60 (est)	3 hours
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	Pressure psia	Flow Temp. Factor F_t	Gravity Factor F_g	Compress. Factor F_{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	12.365		289	1.000	0.9462	1.030	3483
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl. Specific Gravity Separator Gas ____
Gravity of Liquid Hydrocarbons ____ deg. Specific Gravity Flowing Fluid ____
P_c ____ $(1-e^{-s})$ ____ P_c 974 P_c^2 948,676

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.						521,284	427,392		
2.									
3.									
4.									
5.									

Absolute Potential: 6336 MCFPD; n 0.75
COMPANY Pan American Petroleum Corporation
ADDRESS Box 487, Farmington, New Mexico
AGENT and TITLE R. M. Bauer, Jr., Area Engineer R M Bauer, Jr.
WITNESSED ____
COMPANY ____

REMARKS

RECEIVED
FEB 3 1960
OIL CON. COM.
DIST. 3

INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

NOMENCLATURE

Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w). MCF/da. @ 15.025 psia and 60° F.

P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater. psia

P_w = Static wellhead working pressure as determined at the end of flow period. (Casing if flowing thru tubing, tubing if flowing thru casing.) psia

P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

P_f = Meter pressure, psia.

h_w = Differential meter pressure, inches water.

F_g = Gravity correction factor.

F_t = Flowing temperature correction factor.

F_{pv} = Supercompressability factor.

n = Slope of back pressure curve.

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t.