NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Otero Chacra Formation Chacra County Rio Arriba

Initial X Annual ____ Special ____ Date of Test 10-2-61

Company Pan American Petroleum Corp. Lease Jicarilla Contract 146 Well No. 12

Unit K Sec. 4 Twp. 25N Rge. 5W Purchaser ------

Casing 4½ Wt. 9.5 I.D. 4.090 Set at 3675 Perf. 3778-82 To 3788-92

Tubing 2 3/8 Wt. 4.7 I.D. 1.995 Set at 3822 Perf. Open Ended To ____

Gas Pay: From 3778 To 3792 L 3822 xG 0.70(EST) -GL 2675 Bar.Press. 12

Producing Thru: Casing ____ Tubing X Type Well Single-Gas

Date of Completion 6/30/61 Packer None Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. Unknown

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	9½ days				853		853		
1.	2-inch	3/4-inch	84		60(EST)	109	60(EST)	267	60(EST)	3 Hrs.
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		96	1.000	0.9256	1.000	1099
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 ____

F_c ____ $(1-e^{-s})$ ____ P_c 865 P_c^2 748,225

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.						77,841	670,384		
2.									
3.									
4.									
5.									

Absolute Potential: 1193 MCFPD; n 0.75

COMPANY Pan American Petroleum Corporation

ADDRESS P. O. Box 480

AGENT and TITLE R. L. Hauer, Jr., Senior Petroleum Engineer

WITNESSED ____

COMPANY ____

REMARKS

RECEIVED
OCT 11 1961
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.