NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Dakota County Rio Arriba

Initial X Annual ____ Special ____ Date of Test March 27, 1961

Company Pan American Petroleum Corporation Lease Jicarilla Contract 155 Well No. 12

Unit K Sec. 32 Twp. 26N Rge. 5W Purchaser El Paso Natural Gas Company

Casing 4-1/2 Wt. 9.5 & 11.5 I.D. 4.090 Set at 7268 Perf. 6912 To 6922

Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 6925 Perf. open ended - no perfs To ____

Gas Pay: From 6912 To 6922 L 6925 xG .700 (est) -GL 4848 Bar.Press. 12

Producing Thru: Casing ____ Tubing X Type Well Single gas

Date of Completion: 3-13-61 Packer None Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. 156° F

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	14 days				2293		2293		
1.	2"	3/4"	143			192	60 (est)	465	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		157	1.000	0.9258	1.019	1891
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 2305 P_c^2 5,313,025

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.						227,529	5,085,496		
2.									
3.									
4.									
5.									

Absolute Potential: 1891 MCFPD; n 0.75

COMPANY Pan American Petroleum Corporation

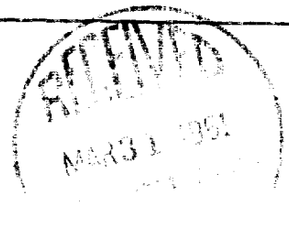
ADDRESS Box 480, Farmington, New Mexico

AGENT and TITLE R. H. Bauer, Jr.; Senior Petroleum Engineer R H Bauer Jr

WITNESSED ____

COMPANY ____

REMARKS



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.