

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 Alto Arriba

Initial X Annual _____ Special _____ Date of Test October 20, 1961

Company Pan American Petroleum Corporation Lease Jicarilla Contract 155 Well No. 13

Unit B Sec. 30 Twp. 26N Rge. 5W Purchaser El Paso Natural Gas Company

Casing 4 1/2 Wt. 21.5 I.D. 4.090 Set at 7397 Perf. 7271 To 7276

Tubing 2.375 Wt. 4.7 I.D. 1.995 Set at 7270 Perf. Open ended To _____

Gas Pay: From 7271 To 7276 L 7270 xG 0.700 est -GL 5000 Bar.Press. 12

Producing Thru: Casing _____ Tubing I Type Well Gas-Single

Date of Completion: 10/12/61 Packer None Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. 11.30

OBSERVED DATA

Tested Through (Prover) (Choke) (meter) Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(<u>Prover</u>) (Line) Size	(<u>Choke</u>) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	<u>8 days</u>									
1.	<u>2 in.</u>	<u>1/4 in</u>	<u>247</u>		<u>60°F est. 32</u>	<u>2272</u>	<u>60°F est. 605</u>	<u>2272</u>		<u>1 hour</u>
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.	<u>12.365</u>		<u>259</u>	<u>1.000</u>	<u>0.9258</u>	<u>1.031</u>	<u>3057</u>
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.

Gravity of Liquid Hydrocarbons _____ deg.

r_c _____ ($1-e^{-S}$) _____

Specific Gravity Separator Gas _____

Specific Gravity Flowing Fluid _____

P_c 2300 P_c 5,300, 116

No.	$\frac{P_w}{P_t}$ (psia)	P_t^2	$F_c Q$	$(F_c Q)^2$	$\frac{(F_c Q)^2}{(1-e^{-S})}$	P_w^2	$P_c^2 - P_w^2$	Cal. $\frac{P_w}{P_c}$	$\frac{P_w}{P_c}$
1.									
2.						<u>485.809</u>	<u>4,822.607</u>		
3.									
4.									
5.									

Absolute Potential: 3285 MCFPD; n 0.75

COMPANY Pan American Petroleum Corporation

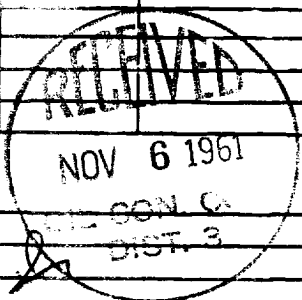
ADDRESS P. O. Box 140, Farmington, New Mexico

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

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 .