NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool **Aztec-Pictured Cliffs**　Formation **Pictured Cliffs**　County **San Juan**

Initial **I**　Annual _____　Special _____　Date of Test **1-19-57**

Company **PAN AMERICAN PETROLEUM CORP.**　Lease **Keys Gas Unit "U"**　Well No. **1**

Unit **N**　Sec. **29**　Twp. **29S**　Rge. **10W**　Purchaser **El Paso Natural Gas Co.**

Casing **5½"**　Wt. **14#**　I.D. **5.012**　Set at **1855**　Perf. **1802**　To **1826**

Tubing **1.66"**　Wt. **2.3#**　I.D. **1-1/4"**　Set at **1805**　Perf. **1994**　To **1805**

Gas Pay: From **1802**　To **1826**L　**1814**　xG **0.69 est** _GL **1252**　Bar.Press. **12**

Producing Thru:　Casing **X**　Tubing _____　Type Well **Gas - Single**

Date of Completion: **11-30-57**　Packer **No**　Single-Bradenhead-G. G. or G.O. Dual　Reservoir Temp. **98° F.**

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Nozzle) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	Shut in 19 days					651		651		
1.		1/4"	60		60 est	100	60 est	62	60 est	3
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		72	1.000	0.9325	1.100	850
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 **0.69 est**

F_c _____ $(1-e^{-s})$ _____　　P_c **663**　P_c^2 **439,569**

No.	P_w / P_t (psia)	P_t^2	$F_c Q$	$(F_c Q)^2$	$\dfrac{(F_c Q)^2}{(1-e^{-s})}$	P_w^2	$P_c^2 - P_w^2$	Cal. P_w	$\dfrac{P_w}{P_c}$
1.						12,544	427,025		
2.									
3.									
4.									
5.									

Absolute Potential: **651** MCFPD; n **0.85**

COMPANY **PAN AMERICAN PETROLEUM CORPORATION**

ADDRESS **Box 457, Farmington, New Mexico**

AGENT and TITLE **E. H. Bauer, Jr., Field 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.

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