

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Dakota Formation Dakota County San Juan
Initial X Annual _____ Special _____ Date of Test March 21, 1960
Company Pan American Petroleum Corporation Lease Gallegos Canyon Unit Well No. 86
Unit H Sec. 35 Twp. 29N Rge. 13W Purchaser ---
Casing 7" Wt. 20 & 23 I.D. _____ Set at 6293 Perf. 6176 To 6226
Tubing 2-3/8" Wt. 4.7 I.D. _____ Set at 6128 Perf. open ended at 6128 To _____
Gas Pay: From 6176 To 6226 L 6128 xG 0.70 est. GL 4290 Bar. Press. 12
Producing Thru: Casing _____ Tubing X Type Well G. O. Dual
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 3-22-60 Packer 6120 Reservoir Temp. 140° F

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Choke) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	<u>31 19 days</u>					<u>1993</u>		<u>---</u>		
1.	<u>2"</u>	<u>1/4"</u>	<u>612</u>		<u>10° est.</u>	<u>493</u>		<u>---</u>		<u>3 hours</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, MCFD @ 14.7 psia
1.	<u>12.363</u>		<u>424</u>	<u>1.000</u>	<u>.9236</u>	<u>1.032</u>	<u>300</u>
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 9.402 (1-e^{-S}) .268
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1967 P_c 3,069,089

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-S})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w P _c
1.	<u>907</u>	<u>822,649</u>	<u>48.007</u>	<u>2304.672</u>	<u>617.632</u>	<u>822,701</u>	<u>2,994,368</u>	<u>935</u>	
2.									
3.									
4.									
5.									

Absolute Potential: 6100 MCFPD; n 0.75

COMPANY Pan American Petroleum Corporation

ADDRESS Box 407, Farmington, New Mexico

AGENT and TITLE R. H. Bauer, Jr., Area 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 = Differential meter pressure, inches water.

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 .