

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 San Juan
Initial I Annual _____ Special _____ Date of Test September 17, 1961
Company Pan American Petroleum Corp. Lease Gallegos Canyon Unit Well No. 102
Unit B Sec. 13 Twp. 29N Rge. 13W Purchaser Town of Farmington
Casing 4 1/2 Wt. 9.5 I.D. 4.090 Set at 6089 Perf. 5953-5957 To 5965-5971
Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 5944 Perf. open ended To _____
Gas Pay: From 5953 To 5971 L 5944 xG .700(est) GL 4161 Bar.Press. 12
Producing Thru: Casing _____ Tubing X Type Well Single Gas
Date of Completion: 9-10-61 Packer None Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. 148° F

OBSERVED DATA

Tested Through (KNOWAN) (Choke) (KNOWAN)

Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(KNOWAN) (Line) Size	(Choke) (KNOWAN) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	<u>7 Days</u>					<u>1933</u>		<u>1757</u>		
1.	<u>2 inch</u>	<u>3/4 inch</u>		<u>212</u>		<u>281</u>	<u>60° est</u>	<u>594</u>	<u>60° est</u>	<u>3 Hr.</u>
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	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>224</u>	<u>1.000</u>	<u>.9258</u>	<u>1.025</u>	<u>2628</u>
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-s})

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1769 P_c² 3,129,361

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>367,236</u>	<u>2,762,125</u>		
2.									
3.									
4.									
5.									

Absolute Potential: 2682 MCFPD: n 0.75COMPANY Pan American Petroleum CorporationADDRESS Box 400, Farmington, New MexicoAGENT and TITLE R. M. 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 600 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 .