

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Angels Peak Dakota Formation Dakota County San Juan
Initial X Annual _____ Special _____ Date of Test July 30, 1959
Company Pan American Petroleum Corporation Lease Fred Fensel "L" Well No. 1
Unit H Sec. 32 Twp. 28N Rge. 10W Purchaser Southern Union Gas Company
Casing 4-1/2 Wt. 11.6 I.D. 4.000 Set at 6602 Perf. 6466 To 6524
Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 6449 Perf. Open ended; no perforations
Gas Pay: From 6466 To 6524 L 6449 xG 0.70 (est) GL 4514 Bar. Press. 12
Producing Thru: Casing _____ Tubing X Type Well Single Gas
Date of Completion: July 9, 1959 Packer None Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. 136°F.

OBSERVED DATA

Tested Through (Bocomer) (Choke) (Necor)

Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Bocomer) (Line) Size	(Choke) (Fastflow) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	Shut in 21 days					1986		2000		
1.	2"	3/4"	515		60°(est)	735	60°(est)	1341	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		527	1.000	0.9298	1.068	6443
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 1998 P_c 3,992,004

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.						1,830,609	2,161,395		
2.									
3.									
4.									
5.									

Absolute Potential: 10,206 MCFPD; n 0.75COMPANY Pan American Petroleum CorporationADDRESS Box 487, Farmington, New MexicoAGENT and TITLE R. M. 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_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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