

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 X Annual _____ Special _____ Date of Test September 25, 1961
Company San American Petroleum Corp. Lease White Gas Unit Well No. 1
Unit 0 Sec. 22 Twp. 29N Rge. 13W Purchaser _____
Casing 4-1/2" Wt. 9.5# I.D. 4.090" Set at 5857 Perf. 5753 To 5758
5770 5775
Tubing 2-3/8" Wt. 4.7# I.D. 1.975" Set at 5738 Perf. open ended To _____
Gas Pay: From 5753 To 5775' L 5738 xG 0.70 -GL 4017 Bar.Press. 12
Producing Thru: Casing _____ Tubing X Type Well Gas-Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 9-21-61 Packer None Reservoir Temp. 143° F

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (2 1/2 inch) Size	(Choke) (3 1/4 inch) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	Shut-in	7 days				2066		2086		
1.	2 inch	3/4 inch	257			825	60° est	1087	60° est	3 hr.
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		269	1.000	0.9258	1.091	3175
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 2098 P_c 4,401.604

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.						1,207,801	3,193,809		
2.									
3.									
4.									
5.									

Absolute Potential: 4039 MCFPD; n 0.75COMPANY San American Petroleum CorporationADDRESS P. O. Box 480, Farmington, New MexicoAGENT and TITLE H. 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 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 .