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 __March 26, 1960__

Company __Pan American Petroleum Corp.__ Lease __M. N. Galt "H"__ Well No. __1__

Unit __L__ Sec. __1__ Twp. __27N__ Rge. __10W__ Purchaser __Southern Union Gas Company__

Casing __4-1/2__ Wt. __11.6 & 9.5__ I.D. __4.000 4.090__ Set at __6645__ Perf. __Circumferential cut at 6440' and 6488'__

Tubing __2-3/8__ Wt. __4.7__ I.D. _____ Set at __6414__ Perf. __Open ended - No perforations__ To _____

Gas Pay: From __6422__ To __6570__ L __6414__ xG __0.70 (est.)__ GL __4490__ Bar.Press. __12__

Producing Thru: Casing _____ Tubing __X__ Type Well __Single Gas__

Date of Completion: __3-3-60__ Packer __None__ Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. __144__

OBSERVED DATA

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

No.	~~(Prover)~~ (Line) Size	(Choke) ~~(Orifice)~~ Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI	Shut In	18 days				1966		1966		
1.	2"	3/4"	109		60 (est.)	177		637		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.	12.565		117	1.000	.9238	1.013	1,357
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 _____

F_c _____ $(1-e^{-s})$ _____ P_c __1978__ P_c^2 __3,912,484__

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	$\frac{P_w}{P_c}$
1.						201,601	3,710,883		
2.									
3.									
4.									
5.									

Absolute Potential: __1412__ MCFPD; n __0.75__

COMPANY __Pan American Petroleum Corporation__

ADDRESS __Box 457, Farmington, New Mexico__

AGENT and TITLE __R. H. Bauer, Jr. Area Engineer__

WITNESSED _____

COMPANY _____

REMARKS

Well produced 3 barrels of distillate during 3-hour test.

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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