MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool __West Kisson__ Formation __Dakota__ County __San Juan__

Initial __x__ Annual_____ Special_____ Date of Test __7/6/60__

Company __Aztec Oil & Gas Company__ Lease __Culpepper Martin__ Well No. __1A__

Unit __A__ Sec. __32__ Twp. __32N__ Rge. __13W__ Purchaser_____

Casing __4½__ Wt. __9.50__ I.D. __4.090__ Set at __7140__ Perf. __6662__ To __7090__

Tubing __2 3/8__ Wt. __4.70__ I.D. __1.995__ Set at __6866__ Perf. __Pinpointed__ To_____

Gas Pay: From __6662__ To __7090__ L __6866__ xG __0.65__ =GL __4463__ Bar.Press. __12__

Producing Thru: Casing_____ Tubing __X__ Type Well __Single__

Date of Completion: __June 30, 1960__ Packer_____ Single-Bradenhead-G. G. or G.O. Dual

Reservoir Temp._____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meters)   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						1417	---	Packed		7 days
1.		0.750				15		off		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.	19.365		27	1.0000	0.9608	1.004	312
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 __1409__ P_c^2 __2,042,041__

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.	27	729	3.027	9.163	8.538	3.867	2,038,774	53	
2.									
3.									
4.									
5.									

Absolute Potential: __302__ MCFPD; n __0.75__
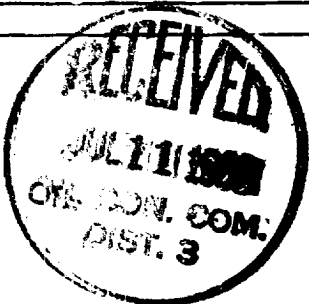
COMPANY __Aztec Oil & Gas Company__

ADDRESS __Drawer # 770, Farmington, New Mexico__

AGENT and TITLE __ORIGINAL SIGNED BY L. M. STEVENS__ __L. M. Stevens, Dist. Engr.__

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.