NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Ext. Dk 1 Formation Dakota County San Juan

Initial X Annual _____ Special _____ Date of Test May 31, 1964

Company Aztec Oil & Gas Co. Lease Richardson Well No. 9

Unit B Sec. 15 Twp. 31N Rge. 12W Purchaser Not connected

Casing 4½ Wt. 10.5 lbs. I.D. 4.045 Set at 7320 Perf. 7140 To 7194

Tubing 2 3/8 Wt. 4.70 lbs. I.D. 1.995 Set at 7119 Perf. Pin Collar To _____

Gas Pay: From 7140 To 7194 L 7165 xG 0.70 -GL _____ Bar. Press. 12

Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 5-18-64 Packer no Reservoir Temp. 152 degrees Fahr.

OBSERVED DATA

Tested Through ~~(Orifice)~~ (Choke) ~~(Meter)~~ Type Taps ------

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) (Orifice) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						2031		2035		7 days
1.		0.75"				256	106(Est.)	645		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.	14.1605		268	0.9585	0.9258	1.0000	3368
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c _____ P_c^2 4,190,209

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	657					431,649			
2.									
3.									
4.									
5.									

Absolute Potential: 3653 MCFPD; n 0.75

COMPANY Aztec Oil & Gas Co.
ADDRESS 920 Mercantile Securities Bldg. - Dallas, Texas
AGENT and TITLE L. M. Stevens - Petroleum Engineer
WITNESSED _____
COMPANY _____

REMARKS

RECEIVED
JUN 3 1964
OIL CON. COM.
DIST. 3

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.