NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Angel Peak Extension Formation Dakota County San Juan

Initial X Annual ____ Special ____ Date of Test 11/28/60

Company Aztec Oil and Gas Company Lease Reid Well No. 21-B

Unit L Sec. 19 Twp. 28N Rge. 9W Purchaser ____

Casing 4½ Wt. 9.50 I.D. 4.090 Set at 6665 Perf. 6402 To 6582

Tubing 2 3/8 Wt. 4.70 I.D. 1.995 Set at 6367 Perf. Pin collar To ____

Gas Pay: From 6402 To 6582 L 6367 xG 0.65(e) -GL 4139 Bar.Press. 12

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

Date of Completion: 11/22/60 Packer ____ Reservoir Temp. ____

OBSERVED DATA

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

No.	Flow Data (Prover) (Line) Size	Flow Data (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						1980		1980		7 days
1.		0.75				535	60 (E)	1117		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		547	1.0000	0.9608	1.061	6895
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 ____
P_c ____ $(1-e^{-s})$ ____ P_c 1992 P_c^2 3,968,064

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.	1189					1,274,041	2,693,023		
2.									
3.									
4.									
5.									

Absolute Potential: 9178 MCFPD; n 0.75
COMPANY Aztec Oil and Gas Company
ADDRESS Room # 570, Farmington, New Mexico
AGENT and TITLE ORIGINAL SIGNED BY L. M. STEVENS L. M. Stevens, Dist. Engr.
WITNESSED ____
COMPANY ____

REMARKS

RECEIVED
DEC 2 1960
OIL CON. COM.

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.