NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Aztec Formation Pictured Cliffs County San Juan

Initial X Annual ____ Special ____ Date of Test 5/13/60

Company Aztec Oil and Gas Company Lease Reid Well No. 17

Unit B Sec. 19 Twp. 29N Rge. 9W Purchaser ____

Casing 2 7/8 Wt. 6.50 I.D. 2.441 Set at 2107 Perf. 2020 To 2060

Tubing ____ Wt. ____ I.D. ____ Set at ____ Perf. ____ To ____

Gas Pay: From 2020 To 2060 L 2040 xG 0.65 -GL 1315 Bar.Press. 12

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

Date of Completion: 5/6/60 Packer ____ Reservoir Temp. ____

T.D. - 2107
P.B.T.D. - 2095

OBSERVED DATA

Tested Through (Prover) (Choke) (Orifice) 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								644		S.I. - 7 days
1.		0.75						299	60	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		671	1.0000	0.9838	1.031	339
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 656 P_c^2 430.336

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.	671	73.441	18.305	335.104	340.659	106.330	324.006		
2.									
3.									
4.									
5.									

Absolute Potential: 4458 MCFPD; n 0.85

COMPANY Aztec Oil and Gas Company
ADDRESS Box 486, Farmington, New Mexico
AGENT and TITLE ORIGINAL SIGNED BY L. M. STEVENS L. M. Stevens, Dist. Engineer
WITNESSED ____
COMPANY ____

REMARKS

RECEIVED
MAY 20 1960
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.