NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Formation Pictured Cliffs County San Juan

Initial X Annual ____ Special ____ Date of Test 10/6/59

Company Aztec Oil and Gas Company Lease Grenier Well No. 8

Unit M Sec. 18 Twp. ~~13-W~~ 31N Rge. 11-W Purchaser ____

Casing 4 1/2 Wt. 9.5 I.D. 4.090 Set at 2733 Perf. 2665 To 2700

Tubing 1" Wt. 1.7 I.D. 1.049 Set at 2708 Perf. 2683 To 2693

Gas Pay: From 2665 To 2700 L ____ xG ____ -GL ____ Bar.Press. ____

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

Date of Completion: 10/6/59 Packer ____ Reservoir Temp. ____

TD = 2800'

OBSERVED DATA

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

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) (~~illegible~~) 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						693		693		8 days
1.		.750	190			281	65	190		3 hours
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.	12.3650		202	.9952	.9608	1.019	2,434
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 705 P_c^2 497,025

No.	P_w (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.	253					64,009	433,016		
2.									
3.									
4.									
5.									

Absolute Potential: 2,736 MCFPD; n .85

COMPANY Aztec Oil and Gas Company
ADDRESS Box # 736, Farmington, New Mexico
AGENT and TITLE ORIGINAL SIGNED BY D. K. BRYANT D.K. Bryant, Production Engineer
WITNESSED ____
COMPANY ____

REMARKS

RECEIVED
OCT 15 1959
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.