NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool South Blanco Formation Pictured Cliffs County San Juan

Initial X Annual Special Date of Test July 24, 1958

Company Aztec Oil & Gas Company Lease Whitley Well No. 2

Unit M Sec. 9 Twp. 27-N Rge. 9-W Purchaser Southern Union Gas Company

Casing 5 1/2" Wt. 14# I.D. 5.012 Set at 2308 Perf. 2204 To 2270

Tubing 1" Wt. 1.7# I.D. 1.049 Set at 2234 Perf. 2212 To 2222

Gas Pay: From 2204 To 2270 L 2204 xG 0.65 -GL Bar.Press.

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

Date of Completion: July 17, 1958 Packer None Reservoir Temp.

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						619	60	619	60	7 days
1.		0.750	134		60	207	60	134	60	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.	12.365		136	1.0000	0.9608	1.014	1763
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 631 P_c^2 398.161

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.						[redacted]			
2.									
3.									
4.									
5.									

Absolute Potential: 1857 MCFPD; n 0.85

COMPANY AZTEC OIL & GAS COMPANY

ADDRESS P O BOX 786, Farmington, New Mexico

AGENT and TITLE ~~ORIGINAL SIGNED BY L. M. STEVENS~~ District Engineer

WITNESSED

COMPANY

RECEIVED
AUG 1 1958
OIL CON. COM.
DIST. 3

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.