NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Aztec Formation Pictured Cliff County San Juan

Initial X Annual ____ Special ____ Date of Test September 25, 1957

Company Southern Union Gas Company Lease Albright Well No. 1-A

Unit A Sec. 25 Twp. 30N Rge. 11W Purchaser Southern Union Gas Company

Casing 5½" Wt. 15.5 I.D. 4.950 Set at 2694 Perf. 2569 To 2648

Tubing 1" Wt. 1.7 I.D. ____ Set at 2635 Perf. 2615 To 2635

Gas Pay: From 2569 To 2648 L ____ xG 0.67 Est. -GL ____ Bar.Press. 12.0

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

Date of Completion: Sept. 18, 1957 Packer ____ Reservoir Temp. ____

OBSERVED DATA

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

	Flow Data					Tubing Data		Casing Data		
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	Duration of Flow Hr.
SI						626		626		12 days
1.		3/4"	302		66°F	313		302	66°F	
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		314	0.9943	0.9463	1.031	3.777
2.							
3.							
4.							
5.							

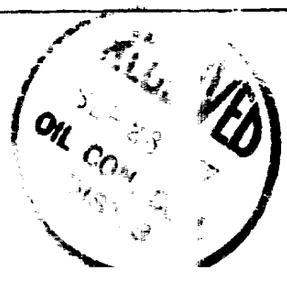
PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl. Specific Gravity Separator Gas ____
Gravity of Liquid Hydrocarbons ____ deg. Specific Gravity Flowing Fluid ____
F_c ____ $(1-e^{-s})$ ____ P_c 638 P_c^2 407
P_w 325 P^2_w 105.6

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.						105.6	301.4		0.510
2.									
3.									
4.									
5.									

Absolute Potential: 4,872 MCFPD; n 0.85
COMPANY Southern Union Gas Company
ADDRESS P. O. Box 815 Farmington, New Mexico
AGENT and TITLE Vernon L. Lowe Asst. Drilling Superintendent
WITNESSED ____
COMPANY ____

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.