NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool **Blanco** Formation **Mesa Verde** County **San Juan**

Initial **#** Annual Special Date of Test **December 1, 1956**

Company **Southern Union Gas Company** Lease **Seymour** Well No. **8**

Unit **O** Sec. **14** Twp. **31N** Rge. **9W** Purchaser **Southern Union Gas Company**

Casing **5½** Wt. **15.5** I.D. **4.950** Set at **5790** Perf. **5204** To **5720**

Tubing **2 3/8** Wt. **4.7** I.D. **2.0** Set at **5722** Perf. **5692** To **5722**

Gas Pay: From **5204** To **5720** L xG **0.67** -GL Bar.Press. **12.0**

Producing Thru: Casing Tubing **X** Type Well **Single-Gas**

Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: **11/21/56** 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						1028		1037		10 days
1.		3/4		235	76°F			675		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.	12.150		247	0.9050	0.9163	1.024	2915
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 **1019** P_c^2 **1100.4**
     P_w **687** P_w^2 **471.9**

No.	P_w P_t (psia)	P_t^2	$F_c Q$	$(F_c Q)^2$	$(F_c Q)^2$ $(1-e^{-s})$	P_w^2	$P_c^2 - P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.					471.9	628.5			
2.									
3.									
4.									
5.									

Absolute Potential: **4,440** MCFPD; n **0.75**
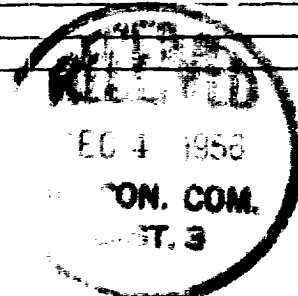COMPANY **Southern Union Gas Company**
ADDRESS **Box 615, Farmington, New Mexico**
AGENT and TITLE **Gilbert Noland, Jr.**
WITNESSED
COMPANY

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.