

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco Mesaverde Formation Mesaverde County Rio Arriba  
Initial \_\_\_\_\_ Annual \_\_\_\_\_ Special I Date of Test Jan. 21, 1960  
Company Southern Union Gas Company Lease Jicarilla "F" Well No. 1-F  
Unit L Sec. 27 Twp. 26N Rge. 4W Purchaser Southern Union Gas Company  
Casing 5" Wt. 15# I.D. 4.408 Set at 8350 Perf. 6030 To 5900 (Mesaverde)  
Tubing 2-3/8" Wt. 4.7 I.D. 1.995 Set at 5180 Perf. 5180 To 5176  
Gas Pay: From 6030 To 5900 (Mesaverde) xG 0.67 -GL \_\_\_\_\_ Bar.Press. 12.0  
Producing Thru: Casing \_\_\_\_\_ Tubing I Type Well Gas-Oil Dual  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: 1-10-60 Packer 7816 Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through ~~(Prover)~~ (Choke) ~~(Meter)~~ Type Taps \_\_\_\_\_

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						1177		1177		S.I. 7 days +
1.		3/8"	867		70	867	70	907		3 hrs.
2.										
3.										
4.										
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCFPD @ 15.025 psia
1.	3.0300		879	0.9905	0.9463	1.100	2.746 MCFD
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 0 cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
P<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>)  
Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 1189 P<sub>c</sub><sup>2</sup> 1413.7  
P<sub>w</sub> 919 P<sub>w</sub><sup>2</sup> 844.6

No.	P <sub>w</sub> P <sub>t</sub> (psia)	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> /P <sub>c</sub>
1.						844.6	569.1		
2.									
3.									
4.									
5.									

Absolute Potential: 5432 MCFD MCFPD; n 0.75

COMPANY SOUTHERN UNION GAS COMPANY

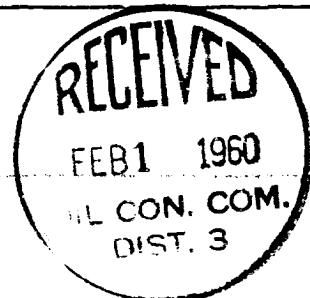
ADDRESS P. O. Box 815 Farmington, New Mexico

AGENT and TITLE Oran L. Haseltine, Production Supt.

WITNESSED G. L. Hoffman

COMPANY SOUTHERN UNION GAS 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  $P_t$ .

DISTRIBUTION		
	NO. FURNISHED	
Operator	3	
County	1	
Production Office		
State Land Office		
U. S. G. S.		
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