

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blando Mesa Verde Formation Mesa Verde County San Juan  
Initial \_\_\_\_\_ Annual \_\_\_\_\_ Special XI Date of Test 7-15-63  
Company Southern Union Production Co. Lease Nordhaus Well No. 1  
Unit N Sec. 13 Twp. 32-N Rge. 9-W Purchaser Southern Union Gathering Co.  
Casing 3-1/2 Wt. 9.20 I.D. 2.992 Set at 6040 Perf. 5236 To 6016  
Tubing 1-1/2 Wt. 2.90 I.D. 1.610 Set at 5874 Perf. 5864 To 5874  
Gas Pay: From 5236 To 6018 L 5864 xG .700 -GL 4105 Bar.Press. 12.0  
Producing Thru: Casing \_\_\_\_\_ Tubing XI Type Well Single Gas  
Date of Completion: 6-25-63 Packer \_\_\_\_\_ Single-Bradenhead-G. G. or G.O. Dual  
Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through 1 1/2" (Choke) (Choke) (None) Type Taps \_\_\_\_\_

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						750		750		7 days
1.	2"	3/4	135		68°	135	68°	681		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.	12.3650		147	.9924	.9258	1.016	1697
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
F<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>)  
Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 762 P<sub>c</sub><sup>2</sup> 580.5

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.						480.2	100.4		.909
2.									
3.									
4.									
5.									

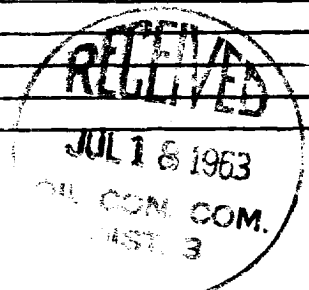
Absolute Potential: 6328 MCFPD; n .75  
COMPANY Southern Union Production Co.  
ADDRESS P. O. Box 808 - Farmington, New Mexico  
AGENT and TITLE Verne Rockhold - Jr. Engineer  
WITNESSED Val Ripper - Production Superintendent  
COMPANY Southern Union Production Company

cc: New Mexico Oil Conservation Commission

Mr. Paul J. Clote  
Mr. Len Muenink  
Mr. Ruddy Motto  
Mr. Bob Corliss  
File

REMARKS

Well Re-worked



## 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  $P_t$ .