

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Ballard Pictured Cliffs Formation Pictured Cliffs County San Juan  
 Initial XX Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 9-13-63  
 Company Southern Union Prod. Co. Lease Foster Well No. 1  
 Unit N Sec. 24 Twp. 26-N Rge. 8-W Purchaser Southern Union Gas Co.  
 Casing 3-1/2 Wt. 9.30 I.D. 2.992 Set at 2364 Perf. 2318 To 2338  
5-1/2 Wt. 15.5 I.D. 4.950 Set at 2187 Perf. 2318 To 2338  
 Tubing 1-1/2 Wt. 2.90 I.D. 1.610 Set at 2303 Perf. 2293 To 2303  
 Gas Pay: From 2318 To 2338 L 2293 xG .640 -GL 1468 Bar.Press. 12.0  
 Producing Thru: Casing \_\_\_\_\_ Tubing XX Type Well Single Gas  
 Single-Bradenhead-G. G. or G.O. Dual  
 Date of Completion: 9-6-63 Packer \_\_\_\_\_ Reservoir Temp. \_\_\_\_\_

OBSERVED DATA

Tested Through (None) (Choke) (None) 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
SI						555		555	7 days
1.	2"	3/4	51		63°	51	63°	139	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		63	.9971	.9682	-	752
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

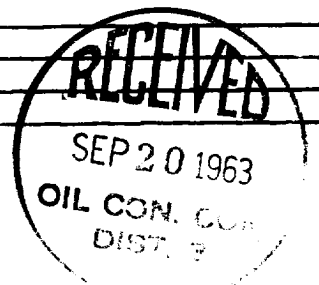
Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
 Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
 F<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>)  
 Specific Gravity Separator Gas \_\_\_\_\_  
 Specific Gravity Flowing Fluid \_\_\_\_\_  
 P<sub>c</sub> 567 P<sub>c</sub> 321.5

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.						22.8	298.7		.266
2.									
3.									
4.									
5.									

Absolute Potential: 801 MCFPD; n .85  
 COMPANY Southern Union Production Company  
 ADDRESS P. O. Box 808 - Farmington, New Mexico  
 AGENT and TITLE Verne Rockhold - Jr. Engineer  
 WITNESSED Herman Mesnally  
 COMPANY El Paso Natural Gas Company

REMARKS

- cc:
- (3) New Mexico O.C.C.
- (1) Mr. Paul J. Clote
- (1) Mr. Bob Corliss
- (1) Mr. Bob McCrary
- (1) Mr. Rudy Motto
- (1) File



## 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.

$F_{pv}$  = Supercompressibility 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  $P_t$ .