

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Dakota Formation Dakota County San Juan  
 Initial XXX Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 6-19-62  
 Company R & G DRILLING CO. Lease LUNT Well No. 67  
 Unit AV Sec. 6 Twp. 30 Rge. 13 Purchaser Southern Union Gas Co.  
 Casing 4 1/2 Wt. \_\_\_\_\_ I.D. \_\_\_\_\_ Set at 6282 Perf. 6095 To 6210  
 Tubing 2" Wt. \_\_\_\_\_ I.D. \_\_\_\_\_ Set at 6205 Perf. 6095 To 6205  
 Gas Pay: From 6095 To 6210 L \_\_\_\_\_ xG .65 -GL \_\_\_\_\_ Bar.Press. \_\_\_\_\_  
 Producing Thru: Casing \_\_\_\_\_ Tubing XX Type Well Gas - Single  
 Date of Completion: \_\_\_\_\_ Packer \_\_\_\_\_ Reservoir Temp. \_\_\_\_\_  
 Single-Bradenhead-G. G. or G.O. Dual

OBSERVED DATA

Tested Through (XXXX) (Choke) (XXXX) 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		<u>.750</u>				<u>1710</u>		<u>2078</u>	
1.						<u>589</u>		<u>1237</u>	
2.						<u>517</u>		<u>1056</u>	
3.						<u>445</u>	<u>80</u>	<u>970</u>	<u>80</u>
4.									
5.									

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w P_f}$	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.	<u>12.365</u>	<del>XXXXXXXXXX</del>	<u>497</u>	<u>.9813</u>	<u>1.0</u>	<u>1.031</u>	<u>5,715,864</u>
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
 Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
 F<sub>c</sub> \_\_\_\_\_ (1-e<sup>-8</sup>)  
 Specific Gravity Separator Gas \_\_\_\_\_  
 Specific Gravity Flowing Fluid \_\_\_\_\_  
 P<sub>c</sub> 2090 P<sub>c</sub><sup>2</sup> 4,368,100

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>-8</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.						<u>964,382</u>	<u>3,403,718</u>		
2.									
3.									
4.									
5.									

Absolute Potential: 6,564 MCFPD; n .75  
 COMPANY R & G Drilling Company  
 ADDRESS Box 327 - Farmington, N.M.  
 AGENT and TITLE Bill R. Hastings, Representative  
 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  $P_t$ .