

## NEW MEXICO OIL CONSERVATION COMMISSION

MOCC

2 Western Development  
1 So. Union (Rudy Motto)  
1 File

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Form C-122

Revised 12-1-55

Pool Basin Formation Dakota County San Juan  
Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 7-9-62  
Company Western Development Co. Lease Mims State Well No. 1-36  
Unit D Sec. 36 Twp. 30N Rge. 11W Purchaser \_\_\_\_\_  
Casing 4 1/2" Wt. 10.5# I.D. \_\_\_\_\_ Set at 6990 Perf. 6756 To 6858  
Tubing 1 1/4" Wt. 2.4# I.D. \_\_\_\_\_ Set at 6821 Perf. Open Ended To \_\_\_\_\_  
Gas Pay: From 6756 To 6858 L \_\_\_\_\_ xG .65 -GL \_\_\_\_\_ Bar.Press. \_\_\_\_\_  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single - Gas  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: 6-28-62 Packer None Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (REMOVED) (Choke) (REMOVED)

Type Taps \_\_\_\_\_

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) ( <del>Orifice</del> ) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						2095		2122		
1.										
2.		3/4"	231		68			1591		3 hrs
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.							
2.							
3.	12.365		243	.9924	.9608	1.024	2934
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> 2134 P<sub>c</sub> 4,553.956

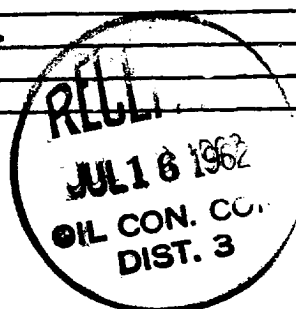
No.	P <sub>w</sub> <del>P<sub>o</sub></del>	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> P <sub>c</sub>
1.									
2.									
3.	1603					2569.609	1984.347		2.2949
4.									
5.									

Absolute Potential: 5470 MCFPD; n = .75 1.8645COMPANY Western Development Co.ADDRESS 825 Petroleum Bldg., Denver, ColoradoAGENT and TITLE Original signed by T. A. Dugan Consulting Engineer

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  $P_t$ .

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OIL CONSERVATION COMMISSION	
ALBUQUERQUE DISTRICT OFFICE	
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