

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Fulcher Kutz Ext Formation Pictured Cliffs County Sand Juan  
Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 10-8-59  
Company Wellshire Development Co. Lease Stevens Well No. 1  
Unit F Sec. 7 Twp. 29N Rge. 12W Purchaser \_\_\_\_\_  
Casing 5 1/2" Wt. 15.5 I.D. \_\_\_\_\_ Set at 1569 Perf. 1540 To 1564  
Tubing 1" Wt. 1.70 I.D. \_\_\_\_\_ Set at 1554 Perf. 1554 To 1548  
Gas Pay: From 1540 To 1564 L \_\_\_\_\_ xG .620 -GL \_\_\_\_\_ Bar. Press. \_\_\_\_\_  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single gas  
Date of Completion: 9-26-59 Packer None Single-Bradenhead-G. G. or G.O. Dual  
Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through Prover (Choke) Prover 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.	
SI						<u>512</u>	<u>512</u>	
1.								
2.								
3.		<u>3/4"</u>	<u>21</u>		<u>70"</u>		<u>432</u>	<u>3 hrs</u>
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.	<u>12.3650</u>		<u>33</u>	<u>0.9905</u>	<u>0.9837</u>	<u>1.000</u>	<u>397</u>
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
P<sub>c</sub> \_\_\_\_\_ (1-e<sup>-5</sup>)

Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 524 P<sub>c</sub><sup>2</sup> 274.6

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>-5</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.	<u>444</u>	<u>197.1</u>					<u>77.5</u>		<u>3.55</u>
4.									
5.									

Absolute Potential: 1166 MCFPD; n .85 2.936

COMPANY Wellshire Development Co.

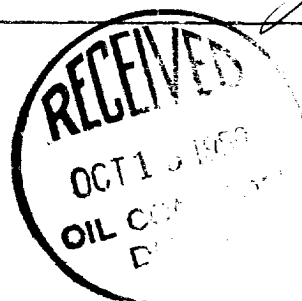
ADDRESS 425 Petroleum Club Bldg., Denver 2, Colorado

AGENT and TITLE T. A. Dugan 1007 N. Dustin, Farmington, N.M.

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.

$F_{pv}$  = 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  $P_t$ .

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