

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Jalmat Formation Yates County Lea  
Initial \_\_\_\_\_ Annual \_\_\_\_\_ Special X Date of Test 4-22/4-26 1957  
Company R. Olsen Oil Company Lease Winningham Well No. 1  
Unit C Sec. 30 Twp. 25 Rge. 37 Purchaser El Paso Natural Gas Company  
Casing 7" Wt. 20.0# I.D. \_\_\_\_\_ Set at 2672 Perf. \_\_\_\_\_ To \_\_\_\_\_  
Tubing 2 1/2 Wt. 4.7 I.D. \_\_\_\_\_ Set at 1500 Perf. \_\_\_\_\_ To \_\_\_\_\_  
Gas Pay: From 2745 To 2887 L 1500 xG 0.680 -GL 1020 Bar.Press. 13.2  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single  
Date of Completion: 7-8-1949 Packer \_\_\_\_\_ Single-Bradenhead-G. G. or G.O. Dual  
Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through ~~XXXXXXXXXX~~ (Meter)

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	<del>XXXXXXXXXX</del> (Line) Size	<del>XXXXXXXXXX</del> (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						281		281		72
1.	4	1.250	132	12.96	75	215		210		24
2.	4	1.250	139	24.01	75	207		212		24
3.	4	1.250	114	41.60	76	197		203		
4.	4	1.250	113	53.29	73	189		196		
5.										

## FLOW CALCULATIONS

No.	Coefficient fig. (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.	9.643	43.35		.9859	.9393	1.014	392
2.	9.643	60.41		.9859	.9393	1.014	548
3.	9.643	72.69		.9850	.9393	1.012	656
4.	9.643	81.94		.9877	.9393	1.012	742
5.							

## PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas 0.680  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 294.2 P<sub>c</sub> 86.6

No.	<del>XXX</del> 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>	<del>XXX</del> <del>XXX</del>	<del>XXX</del> <del>XXX</del>
1.	228.2	52.1				53.5	33.1		
2.	220.2	48.5				50.7	35.9		
3.	210.2	44.2				46.7	39.9		
4.	202.2	40.9				43.8	42.8		
5.									

Absolute Potential: 1,500 MCFPD; n 1.000COMPANY R. Olsen Oil CompanyADDRESS 2805 Liberty Bank Building, Oklahoma City, OklahomaAGENT and TITLE Philip Randolph, Vice President

WITNESSED \_\_\_\_\_

COMPANY \_\_\_\_\_

## REMARKS

Second test on this well. Both tests had slope in excess of 1.000 A slope of 1.000 was drawn through the flow point corresponding to the highest rate of flow. Good pull down and alignment on three points.

## 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.

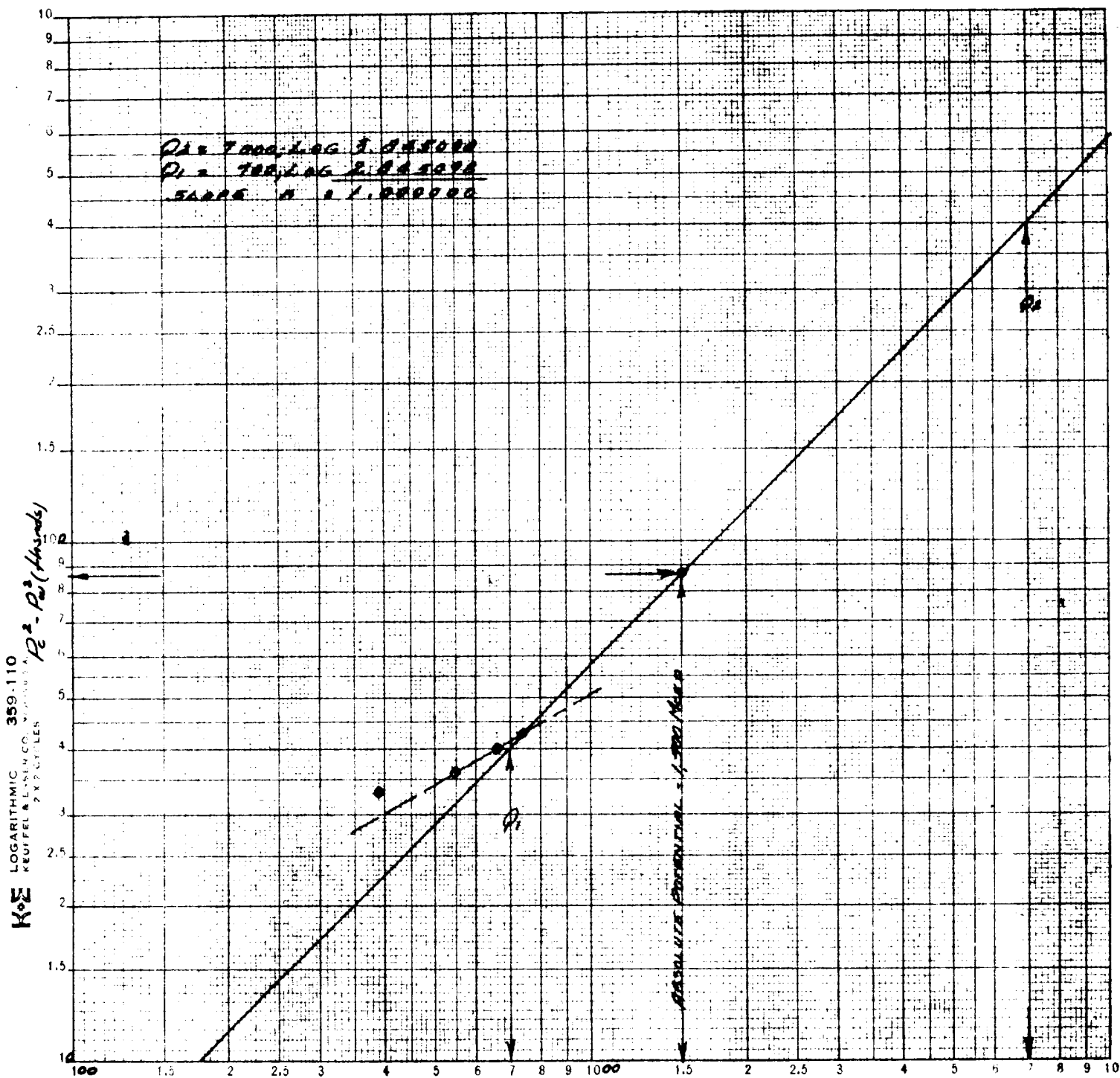
$F_t$  = Flowing temperature correction factor.

$F_{pv}$  = 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  $P_t$ .

R. OLSEN OIL CO.  
 WINNINGHAM NO 1  
 C-30-25-37 L&A CO. NM.  
 A-26-1957



$Q$  - MCRD 15.025 PSIA 60°F