

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates County Lea
Initial _____ Annual _____ Special X Date of Test 8-22/8-30-63
Company Reserve Oil and Gas Company* Lease Martin Well No. 2
Unit A Sec. 31 Twp. 24 Rge. 37 Purchaser El Paso Natural Gas Company
Casing 7 Wt. 22 I.D. _____ Set at 3385 Perf. _____ To _____
Tubing None Wt. _____ I.D. _____ Set at _____ Perf. _____ To _____
Gas Pay: From 2936 To 2976 L 2936 xG .663 -GL 1946 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well Single
Date of Completion: April 14, 1941 Packer None Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

Tested Through (~~Borehole~~) (~~Ghoker~~) (Meter)Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Borehole) (Line) Size	(Ghoker) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.	4 x 1.250		94	4.0	87			406		72
2.	4 x 1.250		97	6.25	88			327		24
3.	4 x 1.250		109	10.24	84			283		24
4.	4 x 1.250		122	7.84	82			216		24
5.								179		24

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w P_f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	9.643	20.71		.9750	.9513	- - -	185.2
2.	9.643	26.24		.9741	.9513	- - -	234.4
3.	9.643	35.37		.9777	.9513	1.010	320.4
4.	9.643	38.11		.9795	.9513	1.016	348.0
5.							

PRESSURE CALCULATIONS

as Liquid Hydrocarbon Ratio Dry cf/bbl.
Gravity of Liquid Hydrocarbons None deg.
c. .4792 (1-e^{-s}) .125

Specific Gravity Separator Gas .663
Specific Gravity Flowing Fluid None
P_c 419.2 P_c² 175.7

No.	P _{xx} P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w P _c
1.	340.2	115.7	- - - -	-Negligible-	- - - -	115.7	60.0		
2.	296.2	87.7				87.7	88.0		
3.	229.2	52.5				52.5	123.2		
4.	192.2	36.9				36.9	138.8		
5.									

Absolute Potential: 420 MCFPD; n .774

COMPANY Reserve Oil and Gas Company
ADDRESS 505 Midland Savings Bldg., Midland, Texas
AGENT and TITLE Paul Gregory, Prod. Supt.
WITNESSED Jack T. Littlefield
COMPANY _____

REMARKS

* Well previously operated by Producing Properties, Inc.

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.

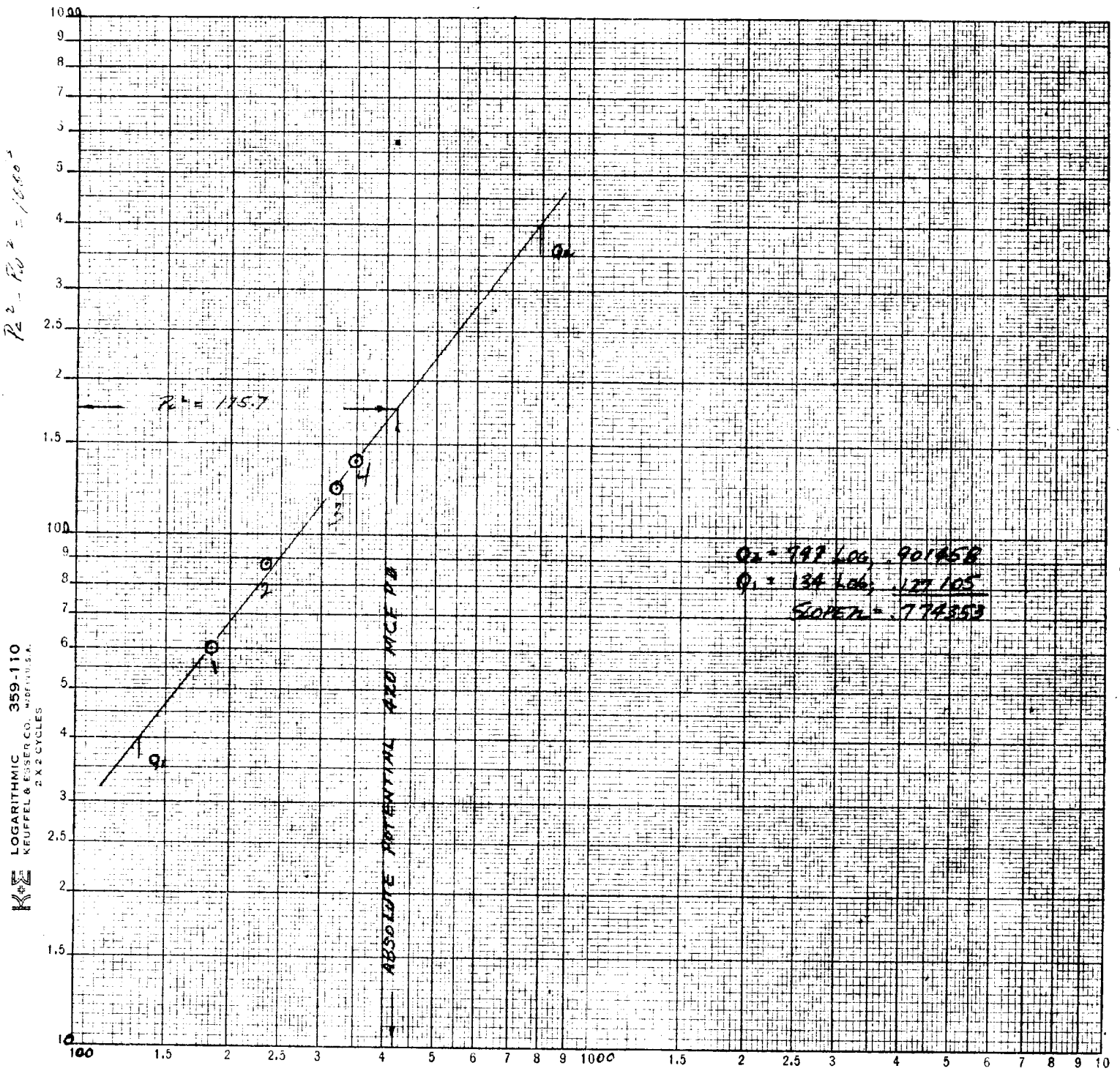
F_{pv} = Supercompressibility factor.

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 .

Oct 21 7 53 AM '69

PRODUCING PROPERTIES INC.
 MARTIN No. 2
 H-31-24-37 LEA Co., NEW MEX.
 8-30-65



$Q = MCF PD$
 15025 P_b