

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Jalnet Formation Yates County Lea
Initial _____ Annual _____ Special X Date of Test 12-3 to 12-7-56
Company Ralph Lowe Lease Shall-State "C" Well No. 2
Unit N Sec. 36 Twp. 23S Rge. 36E Purchaser El Paso Natural Gas Company
Casing 5 1/2 Wt. 17.0 I.D. 4.892 Set at 3600 Perf. 2895 To 2910
Tubing 2 Wt. 4.7 I.D. 1.995 Set at 3500 Perf. _____ To _____
Gas Pay: From 2895 To 2910 L 2895 xG .650 -GL 1882 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well G. O. Dual
Date of Completion: 3-3-48 Packer 3425 Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps Flg.

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								809		72
1.	4.000	1.250	707	9.0	95			708		24
2.	4.000	1.250	671	15.2	95			675		24
3.	4.000	1.250	650	20.7	90			656		24
4.	4.000	1.250	569	46.2	87			576		24
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wP_f}}$	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	80.50		.9680	.9608	1.060	705
2.	9.643	102.00		.9680	.9608	1.057	968
3.	9.643	117.16		.9723	.9608	1.059	1118
4.	9.643	181.05		.9750	.9608	1.052	1559
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 1.812 (1-e^{-s}) .121

Specific Gravity Separator Gas .650
Specific Gravity Flowing Fluid _____
P_c 822.2 P_c 676.0

No.	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.	721.2	520.1	1.4	2.0	0.2	520.3	155.7	721.3	.877
2.	688.2	473.6	1.8	3.2	0.4	474.0	202.0	688.5	.837
3.	669.2	447.8	2.0	4.0	0.5	448.3	227.7	669.6	.814
4.	589.2	347.2	2.8	7.8	0.9	348.1	327.9	590.0	.718
5.									

Absolute Potential: 3100 MCFPD; n .964
COMPANY Ralph Lowe
ADDRESS P. O. Box 832, Midland, Texas
AGENT and TITLE Ardene P. Farr, Petroleum Engineer
WITNESSED _____
COMPANY _____

REMARKS

012
ENGINEER

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.

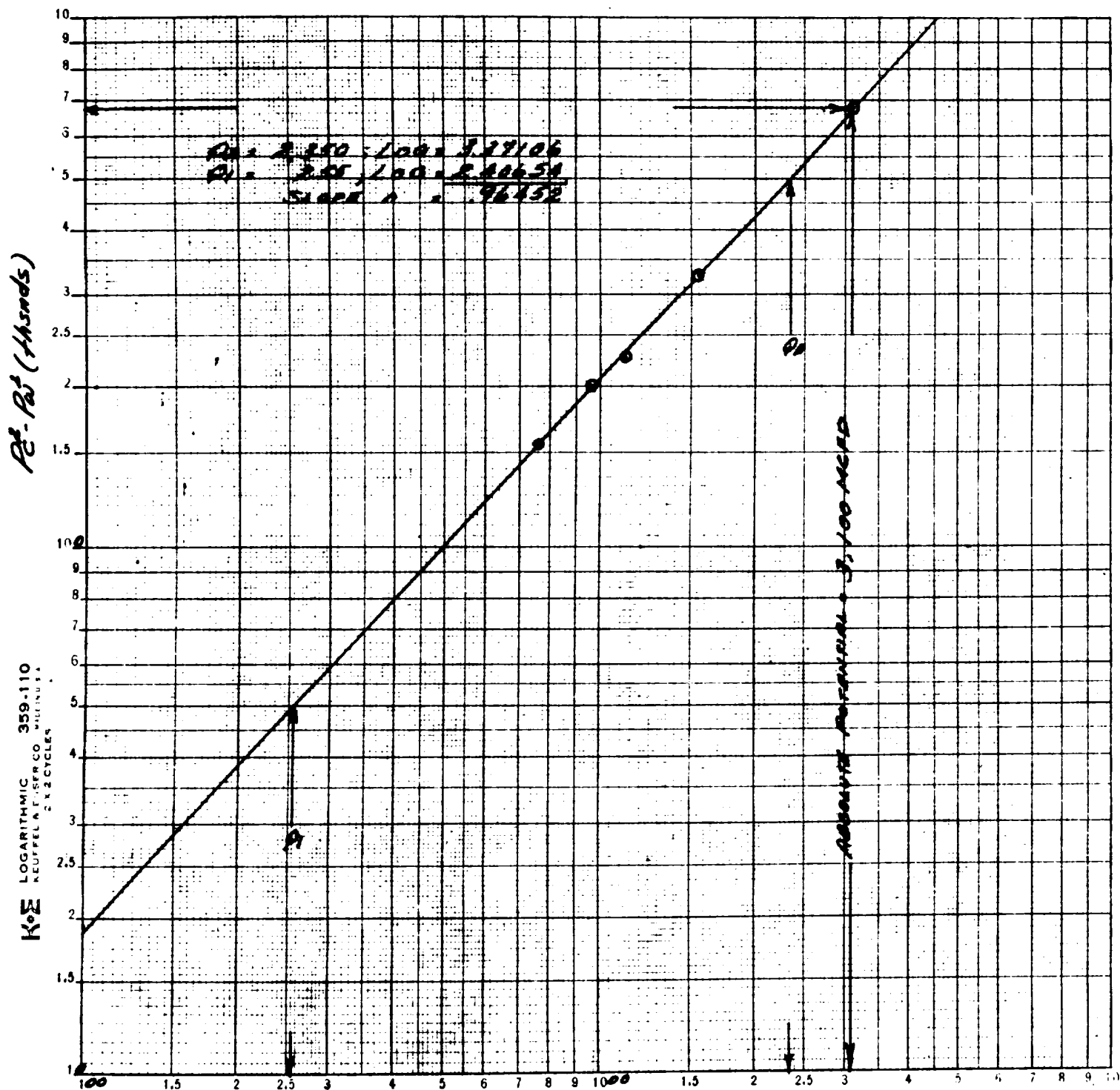
F_t = Flowing temperature correction factor.

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 .

RALPH LOWE
SHELL STATE C N92
N-36-23-36 LEA NM
12-7-1956



Q-MGPD-15.025 PSIA 60°F