

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE 922
Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

1961 JUL 3 AM 6:02
Revised 12-1-55

Pool Blinberry Gas Formation Blinberry County Lea
Initial X Annual _____ Special _____ Date of Test June 22 to 26, 1961
Company Shell Oil Company Lease Rinswalt Well No. 1
Unit F Sec. 4 Twp. 22S Rge. 37E Purchaser None
Casing 5" Wt. 15.0 I.D. 4.408 Set at 6552 Perf. 5617 To 5663
Tubing 2 3/8" Wt. 4.7 I.D. 1.995 Set at 6364 Perf. _____ To _____
Gas Pay: From 5617 To 5663 L 5617 xG Mix-.779 -GL 4376 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well G. O. Dual
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: May 27, 1961 Packer 6350 Reservoir Temp. _____

OBSERVED DATA

Tested Through (~~1000000~~) (~~1000000~~) (Meter)Type Taps Flgs.

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(1000000) (Line) Size	(1000000) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								1718		72
1.	4	1.500	36	28.0	36			1501		3
2.	4	1.500	36	43.0	44			1354		3
3.	4	2.000	36	33.0	31			1073		3
4.	4	2.000	36	46.0	33			891		3
5.	4	1.500	32	22.0	42			1235		24

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	13.99	37.12	49.2	1.0239	.9325		495.8
2.	13.99	45.99	49.2	1.0197	.9325		609.4
3.	25.58	40.29	49.2	1.0291	.9325		989.4
4.	25.58	47.57	49.2	1.0270	.9325	1165.3	1166.0
5.	13.99	31.53	45.2	1.0178	.9325		418.6

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 29,306 cf/bbl.
Gravity of Liquid Hydrocarbons 54.0 deg.
F_c 2.834 (1-e^{-S}) .260

Specific Gravity Separator Gas .690
Specific Gravity Flowing Fluid .7688
P_c 1731.2 P_c² 2997.0

No.	P _w 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.	1514.2	2292.8	1.405	1.974	.513	2293.3	703.7	1514.4	87.5
2.	1367.2	1869.2	1.727	2.982	.775	1870.0	1127.0	1367.4	79.0
3.	1086.2	1179.8	2.804	7.862	2.044	1181.8	1815.2	1087.1	62.8
4.	904.2	817.6	3.304	10.916	2.838	820.4	2176.6	905.8	52.3
5.	1248.2	1558.0	1.186	1.406	.365	1558.4	1438.6	1248.4	72.1

Absolute Potential: 1,575 MCFPD; n .948COMPANY Shell Oil CompanyADDRESS P. O. Box 1858, Roswell, New MexicoAGENT and TITLE A. L. Ellerd - Gas TesterWITNESSED Jack WhitlingCOMPANY El Paso Natural Gas 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.

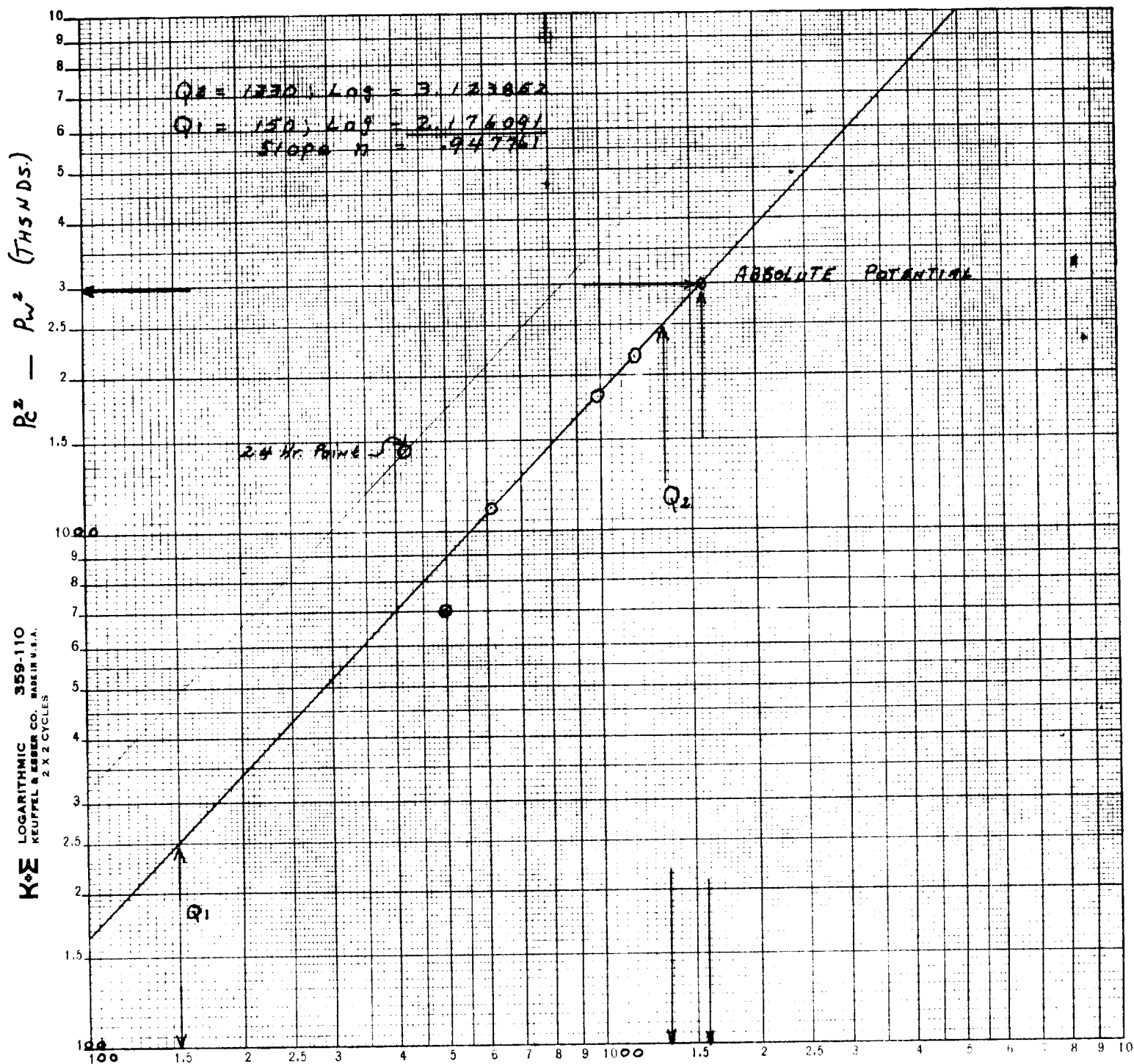
F_{pv} = Supercompressibility factor.

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 .

GAS WELL BACK PRESSURE CURVE

County LEA Field BLINEBRY GAS
Operator SHELL OIL COMPANY
Lease RHINEWALT Well No. 1
Volume 1,575 MCF/24 hr.
Date JUNE 26, 1961



$Q - \text{MCFD} - 15.025 \text{ psia}$