

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS 27

Pool Jalnet Formation Yates County Lea
Initial _____ Annual _____ Special X Date of Test 1-29-5-3-1957
Company El Paso Natural Gas Company Lease Carlson Federal Well No. 1
Unit L Sec. 22 Twp. 25 Rge. 37 Purchaser EPNG
Casing 5 1/2 Wt. 15.5 # I.D. _____ Set at 3074 Perf. _____ To _____
Tubing 2" Wt. 4.7 # I.D. _____ Set at 3062 Perf. _____ To _____
Gas Pay: From 2822 To 3062 L 3062 xG 0.645 -GL 1975 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 9-1-1955 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through (Brown) (Choke) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(<u>Brown</u>) (Line) Size	(<u>Choke</u>) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						565		565		72
1.	4	1.250	224	7.84	50	553		553		24
2.	4	1.250	305	9.30	55	547		547		24
3.	4	1.250	211	28.62	52	530		530		24
4.	4	1.250	224	30.25	56	516		516		24
5.										

FLOW CALCULATIONS

No.	Coefficient (<u>FLO</u>) (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.	9.643	43.11		1.0098	0.9645	1.023	414
2.	9.643	54.39		1.0048	0.9645	1.031	524
3.	9.643	80.07		1.0078	0.9645	1.022	767
4.	9.643	84.67		1.0039	0.9645	1.023	808
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas 0.645
Specific Gravity Flowing Fluid _____
P_c 578.2 P_c² 334.3

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.	566.2					320.6	13.7		.98
2.	560.2					313.8	20.5		.97
3.	543.2					295.1	39.2		.94
4.	529.2					280.1	54.2		.91
5.									

Absolute Potential: 2,750 MCFPD; n 0.600

COMPANY El Paso Natural Gas Company

ADDRESS P.O. Box 1384

AGENT and TITLE

WITNESSED Earl G. Smith

COMPANY El Paso Natural Gas Co.

R. T. Wright

REMARKS

ELVIS A. UTZ
GAS 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.

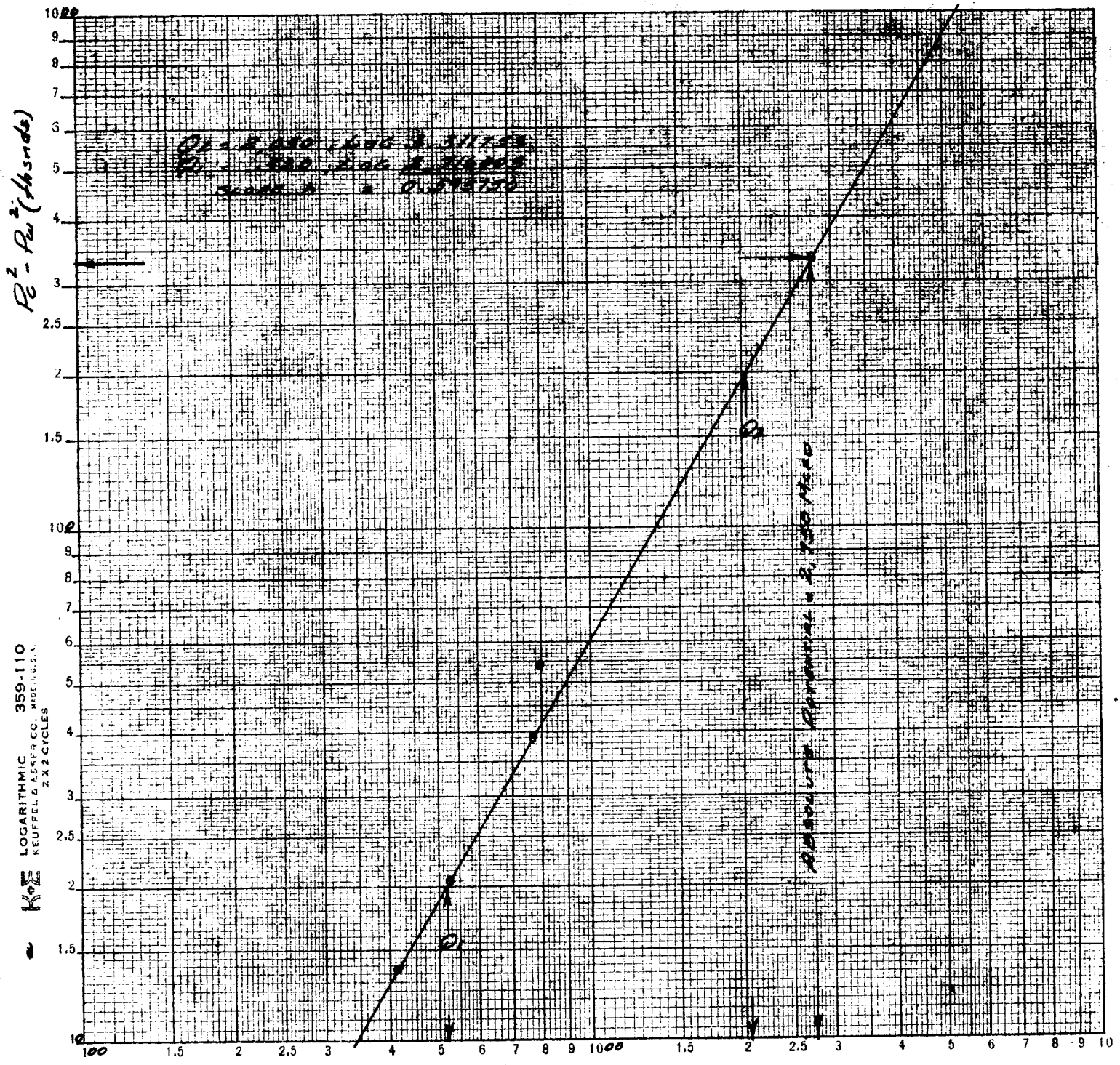
The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

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 .

L PASO NATURAL GAS CO.
 CARLSON FEDERAL NR1
 L-22-25.37 LER CO. N.M.
 5-3-1957



Q-MCPD 15.025 PSIA 60°F