

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Jalmat Formation Yates 1960 County Valle Date 10-29

Initial _____ Annual _____ Special I Date of Test 3/7-11-1960

Company El Paso Natural Gas Company Lease Farnsworth "C" Well No. 2

Unit G Sec. 4 Twp. 26 Rge. 37 Purchaser El Paso Natural Gas Company

Casing 5 1/2 Wt. 17.0 I.D. _____ Set at 2479 Perf. _____ To _____

Tubing 2 1/2 Wt. 6.5 I.D. _____ Set at 2869 Perf. _____ To _____

Gas Pay: From 2511 To 2833 L 2869 xG .650 -GL 1865 Bar.Press. 13.2

Producing Thru: Casing _____ Tubing I Type Well Single
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 12-19-39 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through (Proven) (Orifice) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Proven) (Line) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						578				72
1.	1 1/2	1.500	533	9.61	64	533				24
2.	1 1/2	1.500	497	29.16	68	497				24
3.	1 1/2	1.500	457	57.76	68	457				24
4.	1 1/2	1.500	424	85.56	66	424				24
5.										

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.	13.99	72.45		.9962	.9608	1.059	1.026
2.	13.99	121.97		.9924	.9608	1.050	1.708
3.	13.99	164.80		.9924	.9608	1.046	2.298
4.	13.99	193.41		.9943	.9608	1.042	2.692
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 5.866 (1-e^{-s}) .120

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 591.2 P_c² 349.5

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.	546.2	298.3	6.024	36.29	4.355	302.6	46.9	550.1	.93
2.	510.2	260.3	10.02	100.4	12.05	272.3	77.2	521.8	.88
3.	470.2	221.1	13.49	182.0	21.84	242.9	106.6	492.8	.83
4.	437.2	191.1	15.80	249.6	29.95	221.0	128.5	470.0	.79
5.									

Absolute Potential: 7,000 MCFPD; n .954

COMPANY El Paso Natural Gas Company

ADDRESS P. O. Box 1384 - Jal, New Mexico

AGENT and TITLE R. T. Wright R. T. Wright - Petroleum Engineer

WITNESSED L. D. Southern

COMPANY 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 .