

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Jalnah Formation Yates County Lea 1 27
Initial X Annual _____ Special _____ Date of Test Dec. 6-10, 1960
Company STANDARD PRODUCTION COMPANY Lease Brown Well No. 1
Unit F Sec. 25 Twp. 25S Rge. 36E Purchaser El Paso
Casing 5-1/2" Wt. 15# I.D. 4.976 Set at 3400' Perf. 3032' To 3040'
Tubing 2" Wt. 4.7# I.D. 1.995 Set at 3070' Perf. _____ To _____
Gas Pay: From 3032 To 3040 L 3070 xG .650 -GL 1995 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Date of Completion: 7/1/60 Packer _____ Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

Tested Through (~~Pressure~~)(~~Orifice~~) (Meter)Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Pressure) (Line) Size	(Orifice) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.	4	1.25	168.0	25.92	56	316.0		349.0		72
2.	4	1.25	165.0	18.00	54	194.0		247.0		2.5
3.	4	1.25	167.0	9.68	52	209.0		264.0		2.0
4.	4	1.25	165.0	5.12	50	225.0		290.0		3.0
5.	4	1.25	160.0	20.48	56	249.0		307.0		3.0
						183.0		240.0		24.0

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.	9.643	68.53	181.2	1.0039	.9608	1.016	648.0
2.	9.643	56.64	178.2	1.0058	.9608	1.017	537.0
3.	9.643	41.76	180.2	1.0078	.9608	1.017	396.0
4.	9.643	30.20	178.2	1.0098	.9608	1.017	287.0
5.	9.643	59.56	173.2	1.0039	.9608	1.016	563.0

PRESSURE CALCULATIONS

as Liquid Hydrocarbon Ratio _____ cf/bbl.
ravity of Liquid Hydrocarbons _____ deg.
c Measured (1-e^{-s})

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 362.2 P_c² 131.2

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.	260.2					67.7	63.5		.72
2.	277.2					76.8	54.4		.77
3.	303.2					91.9	39.3		.84
4.	320.2					102.5	28.7		.88
5.	253.2					64.1	67.1		.70

Absolute Potential: 1140 MCFPD; n .986COMPANY STANDARD PRODUCTION COMPANYADDRESS P. O. Box 5006 Lubbock, TexasAGENT and TITLE H. L. Smith Independent Gas TesterWITNESSED Dave DyerCOMPANY El Paso Natural Gas Co.

New Well
Producing spray load water.

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} = Supercompressability 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 .