

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates & 7 Rivers County Lea
Initial _____ Annual _____ Special X Date of Test 4/8 - 4/12/57
Company Late Oil Company Lease Thomas Well No. 1
Unit M Sec. 17 Twp. 24 Rge. 37 Purchaser El Paso Natural Gas Company
Casing 7" Wt. 20 I.D. _____ Set at 3,420 Perf. _____ To _____
Tubing _____ Wt. _____ I.D. _____ Set at _____ Perf. _____ To _____
Gas Pay: From 2,980 To 3,165 L. 2,980 xG .650 -GL 1.937 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 6-23-53 Packer none Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								873		72
1.	4"	1.500	515	15.21	83			829		24
2.	4"	1.500	525	26.01	87			807		24
3.	4"	1.500	537	39.69	88			783		24
4.	4"	1.500	510	56.25	74			755		24
5.										

FLOW CALCULATIONS

No.	Coefficient (Flange) (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	89.61		.9786	.9608	1.047	1,234
2.	13.99	118.29		.9750	.9608	1.049	1,626
3.	13.99	140.71		.9741	.9608	1.049	1,933
4.	13.99	171.52		.9868	.9608	1.050	2,389
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c .4682 (1-e^{-s}) 0.125

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 886.2 P_c² 785.4

No.	$\frac{P_w}{P_t}$ 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	$\frac{P_w}{P_c}$
1.	841.2	707.6	.578	.334	.042	707.6	77.8	841.2	.949221
2.	820.2	672.7	.761	.579	.072	672.8	112.6	820.3	.925637
3.	796.2	633.9	.905	.819	.102	634.0	151.4	796.3	.898555
4.	768.2	590.1	1.119	1.252	.157	590.3	195.1	768.3	.866960
5.									

Absolute Potential: 6500 MCFPD; n .727COMPANY Late Oil CompanyADDRESS Box 670, San Angelo, TexasAGENT and TITLE E. M. Late - PartnerWITNESSED Tests taken by El Paso Natural Gas Company

COMPANY _____

REMARKS

ELVIS A. U.
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} = 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 .