

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Jalnet Formation Yates County Lea

Initial _____ Annual _____ Special X Date of Test 12-3 to 12-7 1956

Company Southern California Petr. Lease Lankford Well No. 1

Unit 0 Sec. 25 Twp. 23 N Rge. 36 E Purchaser El Paso Natural Gas Company

Casing 5 1/2" Wt. 14 I.D. 5.012 Set at 3460 Perf. 2955 To 3190

Tubing 2" Wt. 4.7 I.D. 1.995 Set at 3612 Perf. 3577 To 3580

Gas Pay: From 2955 To 3190 L 2955 xG .650 -GL 1921 Bar.Press. 13.2

Producing Thru: Casing X Tubing _____ Type Well G. O. Dual

Date of Completion: 2-6-50 Packer 3378 Reservoir Temp. _____

OBSERVED DATA

Tested Through (20000) (10000) (Meter)

Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								914		72
1.	4	1.000	893	13.69	85			893		24
2.	4	1.000	881	33.06	82			882		24
3.	4	1.000	869	61.62	79			870		24
4.	4	1.000	857	93.12	77			859 *		24
5.										

* Not enough draw down - orifice too small.

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.	6.135	111.37		.9768	.9608	1.083	694
2.	6.135	171.93		.9795	.9608	1.033	1075
3.	6.135	233.13		.9822	.9608	1.088	1469
4.	6.135	284.64		.9840	.9608	1.088	1796
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.

Gravity of Liquid Hydrocarbons _____ deg.

F_c 1.793 (1-e^{-s}) .124

Specific Gravity Separator Gas _____

Specific Gravity Flowing Fluid _____

P_c 927.2 P_c 859.7

No.	P _{st} 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.	966.2	821.1	1.24	1.54	.19	821.3	38.4		
2.	895.2	801.4	1.93	3.72	.46	801.9	57.8		
3.	883.2	780.0	2.63	6.92	.86	780.9	78.8		
4.	872.2	760.7	3.22	10.37	1.29	761.9	97.8		
5.									

Absolute Potential: 13,800 MCFPD; n .939COMPANY Southern California Petroleum CorporationADDRESS Box 1071, Midland, TexasAGENT and TITLE Joe A. Coleman, P.E., New Mexico, Cert. No. 2208WITNESSED Well tested by El Paso Natural Gas CompanyCOMPANY Rea-Coleman Engineering 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} = 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 .