NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates County Lea

Initial X Annual Special Date of Test 7-1-60

Company Stanolind Prod. & Refining Co. Lease Brown Well No. 1

Unit F Sec. 25 Twp. 25 Rge. 36 Purchaser

Casing 5 1/2 Wt. 15.0 I.D. Set at 3400 Perf. 3032 To 3040

Tubing 2 Wt. 4.7 I.D. Set at 3070 Perf. To

Gas Pay: From 3032 To 3040 L .650 Assumed GL Bar.Press. 13.2

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

Date of Completion: Packer None Reservoir Temp.

OBSERVED DATA

Tested Through (Prover) ~~(Choke)~~ ~~(Meter)~~ Type Taps

No.	Flow Data (Prover) (~~Line~~) Size	Flow Data (Choke) (~~Orifice~~) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI								379		72
1.	2	1/8				335	82	337		3
2.	2	7/32				323	72	325		1 1/2
3.	2	5/16				285	76	303		1 1/2
4.	2	3/8	257*		91	279	91	289		2
5.	2	3/8	195*		91	289	91	298		24

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.	.3418		348.2	.9795	.9608	1.030	115.4
2.	1.0834		336.2	.9887	.9608	1.031	356.7
3.	2.1577		298.2	.9350	.9608	1.026	624.6
4.	3.0691		270.2	.9715	.9608	1.021	790.3
5.	3.0691		208.2	.9715	.9608	1.017	606.6

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl. Specific Gravity Separator Gas .650
Gravity of Liquid Hydrocarbons deg. Specific Gravity Flowing Fluid
F_c $(1-e^{-s})$ P_c 392.2 P_c^2 153.8

No.	P_w / P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	348.2	121.2				122.6	31.2		.89
2.	336.2	113.0				114.4	39.4		.86
3.	298.2	88.9	---------MEASURED---------			100.0	53.8		.81
4.	292.2	85.4				91.3	62.5		.77
5.	302.2	91.3				96.8	57.0		.79

Absolute Potential: 1,600 MCFPD; n 1.000
COMPANY Stanolind Prod. Co
ADDRESS P. O. Box 5006 - Lubbock, Texas
AGENT and TITLE R. M. Bass - Geologist
WITNESSED Jack C. Whitling
COMPANY El Paso Natural Gas Company

REMARKS

*Last 2 rates run through seperator w/prover on vent line.

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.