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 ____ Annual ____ Special X Date of Test 5-31-57

Company Weier Drlg. Co. Lease Woolworth Well No. 4

Unit L Sec. 28 Twp. 24 Rge. 37 Purchaser EPNG

Casing 7 ~~XXX~~ Wt. 24.0 I.D. ____ Set at 3251 Perf. 3100 To 3170

Tubing -0- Wt. ____ I.D. ____ Set at ____ Perf. ____ To ____

Gas Pay: From 3100 To 3170 L 3100 xG .655 -GL 2031 Bar.Press. 13.2

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

Date of Completion: 1949 Packer -0- 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								670		72
1.	4 x 1,000		218	1.92/	74			452		24
2.	"		219	3.52/	72			372		24
3.	"		216	4.72/	73			305		24
4.	"		220	5.52/	72			257		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.	6.135	28.88		.9868	.9571	1,021	171
2.	"	53.31		.9887	"	"	316
3.	"	70.97		.9877	"	"	420
4.	"	83.95		.9877	"	1,023	498
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl. Specific Gravity Separator Gas ____

Gravity of Liquid Hydrocarbons ____ deg. Specific Gravity Flowing Fluid ____

F_c 0.4915 $(1-e^{-s})$ 0.130 P_c 683.2 P_c^2 466.8

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.	465.2	216.4	.084	.007	.001	216.4	250.4		250.4
2.	385.2	148.4	.155	.024	.003	148.4	318.4		318.4
3.	318.2	101.3	.206	.042	.005	101.3	365.5		365.5
4.	270.2	73.0	.245	.060	.008	73.0	393.8		393.8
5.									

Absolute Potential: 500 MCFPD; n 1,000

COMPANY ____

ADDRESS ____

AGENT and TITLE ____

WITNESSED ____

COMPANY Weier Drilling Co. - By - A. B. Weier Jr. - Sec. - Treas.

REMARKS

1st Test - Slope greater than 1,000
2nd Test - Slope greater than 1,000-Slope of 1,000 drawn thru highest rate.

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.