NEW MEXICO OIL CONSERVATION COMMISSION

1960 APR 27 PM 2 33 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 **x** Date of Test **3-24 to 4-1-60**

Company **TEXACO Inc.** Lease **C.C. Fristoe "B"** Well No. **1**

Unit **E** Sec. **30** Twp. **24** Rge. **37** Purchaser **El Paso Natural Gas Co.**

Casing **7** Wt. **20.0** I.D. **6.456** Set at **2828** Perf. _____ To _____

Tubing **2-3/8** Wt. **4.7** I.D. **1.995** Set at **3050** Perf. _____ To _____

Gas Pay: From **2828** To **3180** L **2828** xG **.666** -GL **1883** Bar.Press. **13.2**

Producing Thru: Casing **x** Tubing _____ Type Well **Single**

Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: **9-10-53** Packer _____ Reservoir Temp. _____

Well reclassified from oil to gas well Sept. 1, 1958.

OBSERVED DATA

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

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								339		72
1.	4	0.750	177	5.76	69			284		24
2.	4	0.750	193	11.56	68			271		24
3.	4	0.750	205	22.09	73			254		24
4.	4	0.750	207	35.40	62			231		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.	3.435	33.10	190.2	.9915	.9491	1.018	108.9
2.	3.435	48.82	206.2	.9924	.9491	1.019	160.9
3.	3.435	69.43	218.2	.9877	.9491	1.021	228.3
4.	3.435	88.29	220.2	.9981	.9491	1.022	293.6
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio **No Liquid** cf/bbl. Specific Gravity Separator Gas **.666**

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

c **.707** $(1-e^{-s})$ **.122** P_c **352.2** P_c^2 **124.0**

Friction Negligible.

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	$\frac{P_w}{P_c}$
.	297.2	88.33	.0770	.0059		88.33	35.67	297.2	.8438
.	284.2	80.77	.1137	.1293		80.77	43.23	284.2	.8069
.	267.2	71.39	.1614	.2604		71.39	52.61	267.2	.7586
.	244.2	59.63	.2076	.4309		59.63	64.37	244.2	.6933
.									

Absolute Potential: **580** MCFPD; n **1.000**

COMPANY **TEXACO Inc.**

ADDRESS **P. O. Box 1270, Midland, Texas**

AGENT and TITLE **F. W. Moore, District Gas Foreman** F. W. Moore

WITNESSED **L. D. Southern**

COMPANY **El Paso Natural Gas Company**

REMARKS

Good pull down and point alignment, resulting slope in excess of 1.000. A slope of 1.000 was drawn through the highest rate of flow.

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.