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 11-5 to 11 9-56

Company Trebol & Redman Lease Federal Y Well No. 1

Unit C Sec. 5 Twp. 23S Rge. 36E Purchaser E. Paso Natural gas

Casing 5 1/2 Wt. 17 I.D. Set at 3404 Perf. To

Tubing 2 1/2 Wt. 6.5 I.D. 2.441 Set at 3573 Perf. To

Gas Pay: From 3404 To 3575 L 3573 xG .665 -GL 2376 Bar.Press. 13.2

Producing Thru: Casing Tubing x Type Well single

Date of Completion: 10-20-53 Packer None Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp.

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						670				72
1.	4	1.000	353	2.89	58	611				24
2.	4	1.000	359	16.00	60	516				24
3.	4	1.000	442	9.61	60	515				24
4.	4	1.000	383	36.00	65	410				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	32.52		1.0019	.9498	1.039	197
2.	6.135	77.15		1.0000	.9498	1.038	466
3.	6.135	66.13		1.0000	.9498	1.049	405
4.	6.135	119.40		.9952	.9498	1.039	719
5.							

PRESSURE CALCULATIONS

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

Gravity of Liquid Hydrocarbons deg. Specific Gravity Flowing Fluid

P_c 5.866 $(1-e^{-s})$ 0.151 P_c 683.2 P_c^2 466.8

No.	P_w ~~XXX~~ P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2$ $(1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	P_w P_c
1.	624.2	389.6	1.16	1.35	.20	389.8	77.0		91.4
2.	529.2	280.0	2.73	7.45	1.1	281.1	185.7		77.5
3.	528.2	278.9	2.38	5.66	.9	279.8	187.0		77.4
4.	423.2	179.1	4.22	17.81	2.69	181.8	285.0		62.0
5.									

Absolute Potential: 1150 MCFPD; n .978

COMPANY Trebol & Redman

ADDRESS Box 3908 Odessa, Texas

AGENT and TITLE Earl Redman, Engineer

WITNESSED Edward Mabe

COMPANY El Paso Natural Gas 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.