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 3/18/60

Company MEIER DRILLING COMPANY Lease Woolworth Well No. 4

Unit L Sec. 28 Twp. 24S Rge. 37E Purchaser El Paso Natural Gas Co.

Casing 7 Wt. 24# I.D. ____ Set at 3251 Perf. 3100 To ____

Tubing None Wt. ____ I.D. ____ Set at ____ Perf. ____ To ____

Gas Pay: From 3100 To 3170 L 3100 xG .658 =GL 2040 Bar.Press. 13.2

Producing Thru: Casing X Tubing ____ Type Well Single

Date of Completion: 1949 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	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI								471.0		72
1.	4	.750	198.0	7.84	53			192.0		24
2.										
3.										
4.										
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	40.11	205.2	1.0068	.9549	1.021	135.2
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

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

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

P_c .4915 $(1-e^{-s})$ .131 P_c 484.2 P_c^2 234.4

No.	P_w 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	$\frac{P_w}{P_c}$
1.	205.2	42.11	Negligible			42.1	192.3	205.2	.42
2.									
3.									
4.									
5.									

Absolute Potential: 158.0 MCFPD; n .777

COMPANY Meier Drilling Company

ADDRESS Box 716 Monahans, Texas

AGENT and TITLE H. L. Smith agent

WITNESSED L. D. Southern

COMPANY EPNG

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.