NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool **Undesignated** Formation **Dakota** County **San Juan**

Initial X Annual ~~X~~ Special ____ Date of Test **11-21-59**

Company **Tennessee Oil & Gas Company** Lease **Marquis G. Eaton Gas Unit "A"** Well No. **1**

Unit P Sec. 25 Twp. 29N Rge. 11W Purchaser ____

Casing **4½** Wt. ____ I.D. ____ Set at **6441** Perf. **6173** To **6336**

Tubing ____ Wt. ____ I.D. ____ Set at **6106** Perf. ____ To ____

Gas Pay: From ____ To ____ L ____ xG **.700** -GL ____ Bar.Press. **12.0**

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

Date of Completion: ____ Packer **No** Reservoir Temp. **178°**

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						1528	45	1465	45	
1.	2"	3/4	390		57	390	57	851	57	3
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.	12.2023		402	1.0029	.9258	1.052	4,791.4
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl. Specific Gravity Separator Gas **.700**
Gravity of Liquid Hydrocarbons **None Produced** deg. Specific Gravity Flowing Fluid ____
P_c ____ $(1-e^{-s})$ ____ P_c **1540** P_c^2 **2,371.6**

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.	863					744.8	1,626.8		56.0
2.									
3.									
4.									
5.									

Absolute Potential: **6,350** MCFPD; n **.75**
COMPANY **Unitex Engineering Service, Inc.**
ADDRESS **P. O. Box 4456 - Midland, Texas**
AGENT and TITLE ____
WITNESSED ____
COMPANY ____

REMARKS

RECEIVED
DEC 21 1959
OIL CON. COM.
DIST. 3

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.

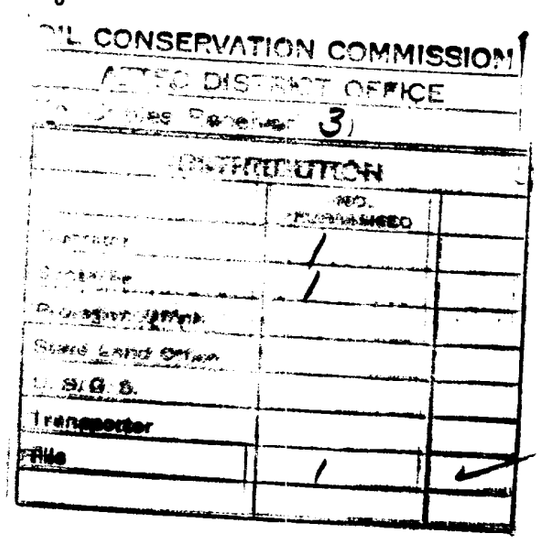
F_g = Gravity correction factor.

F_t = Flowing temperature correction factor.

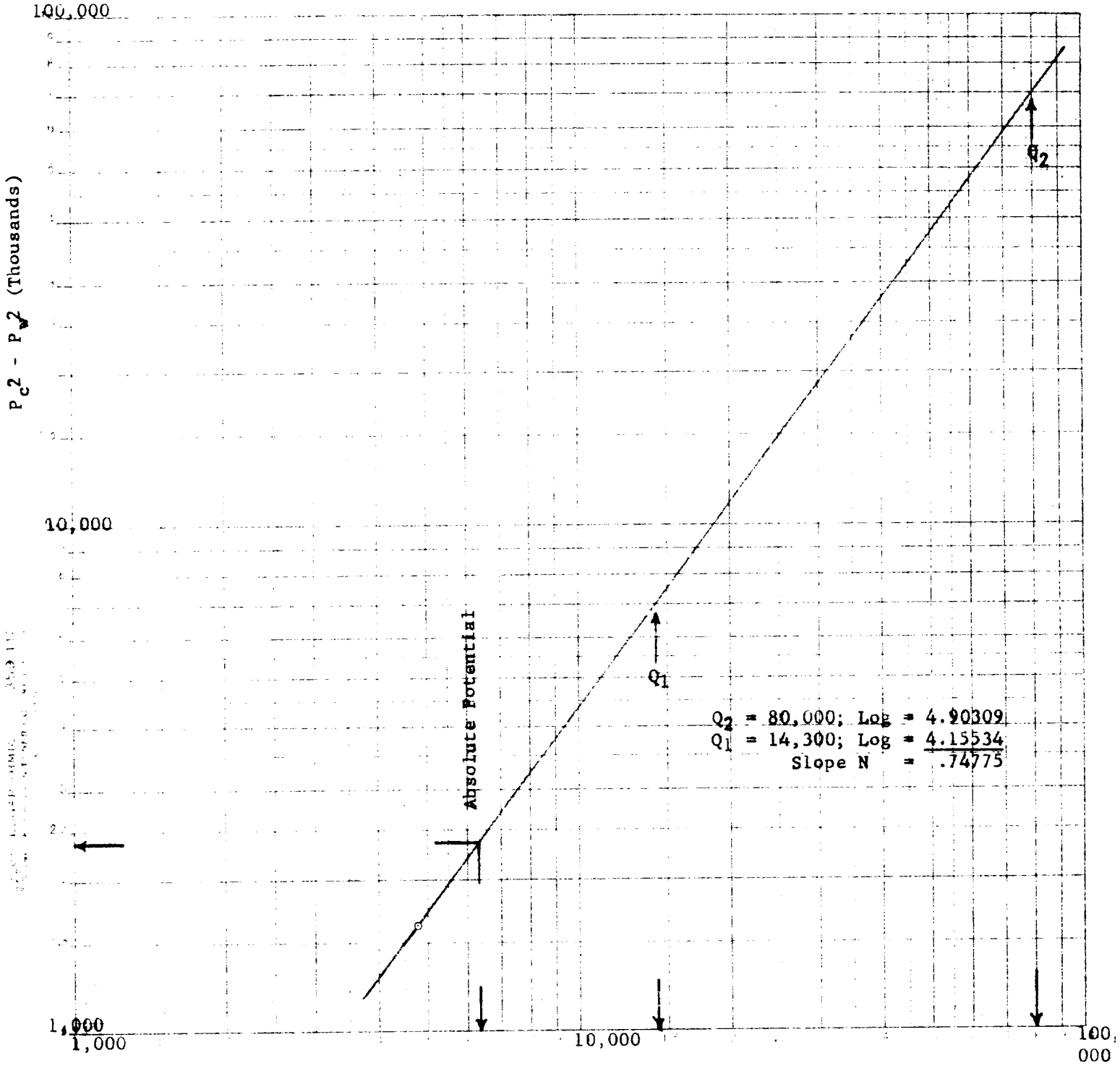
F_{pv} = Supercompressability factor.

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.



COMPANY Tennessee Oil & Gas Company
WELL Marquis G. Eaton Gas Unit "A" No. 1
COUNTY San Juan, New Mexico
DATE 11-21-59



OIL CONSERVATION COMMISSION
AZTEC DISTRICT OFFICE