DUPLICATE

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

1960 AUG 31 AM 9 35

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Seven Rivers County Lea

Initial x Annual Special Date of Test 7-12-60

Company Jal Oil Co., Inc. Lease Gutman Well No. 2

Unit J Sec. 29 Twp. 25 S Rge. 37 E Purchaser

Casing 5 1/2 Wt. 15.5 I.D. Set at 3282 Perf. Plugged to 3070 2960 -2992 3018 - 3060 2970 - 3000 To 3028 - 3068

Tubing 2 1/2 Wt. 6.5 I.D. Set at 2954 Perf. To

Gas Pay: From 2960 To 2970 L 2954 xG .700 -GL 2068 Bar.Press. 13.2

Producing Thru: Casing Tubing x Type Well single

Date of Completion: 6-30-60 Packer 3115 Reservoir Temp.

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

OBSERVED DATA

Tested Through (Prover) (Orifice) (Meter) Type Taps

No.	Flow Data (Prover) Size	(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						869				72
1.	2	1.000	49		86	220				3
2.	2	.875	48		94	270				3
3.	2	.875	30		84	390				3
4.	2	.875	5		74	140				3
5.	2	.500	55		80	390				24

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.	22.0662		62.2	.9759	.9258		1,240
2.	16.7816		61.2	.9688	.9258		921.1
3.	16.7816		43.2	.9777	.9258	NIL	656.2
4.	16.7816		18.2	.9868	.9258		279.0
5.	5.5233		68.2	.9813	.9258		342.2

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio dry cf/bbl.

Gravity of Liquid Hydrocarbons deg.

P_c 5.866 $(1-e^{-s})$ 0.133

Specific Gravity Separator Gas

Specific Gravity Flowing Fluid

P_c 882.2 P_c^2 778.3

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.	233.2	54.4	7.27	52.85	7.03	61.43	716.9	247.8	.28
2.	283.2	80.2	5.40	29.16	3.88	84.08	694.2	290.0	.32
3.	403.2	162.6	3.85	14.82	1.97	164.57	613.7	405.7	.46
4.	153.2	23.5	1.64	2.69	.36	23.86	754.4	154.5	.16
5.	403.2	162.6	2.01	4.04	.54	163.14	615.2	403.9	.46

Absolute Potential: 440 MCFPD; n 1.000

COMPANY Jal Oil Company, Inc.

ADDRESS Drawer Z, Jal, New Mexico

AGENT and TITLE Ladell Ellis, Production Superintendent

WITNESSED Bobby Boaz

COMPANY El Paso Natural Gas Co.

REMARKS

Slope greater than 1.000 Slope of 1.000 drawn thru 24 hr. point.

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.

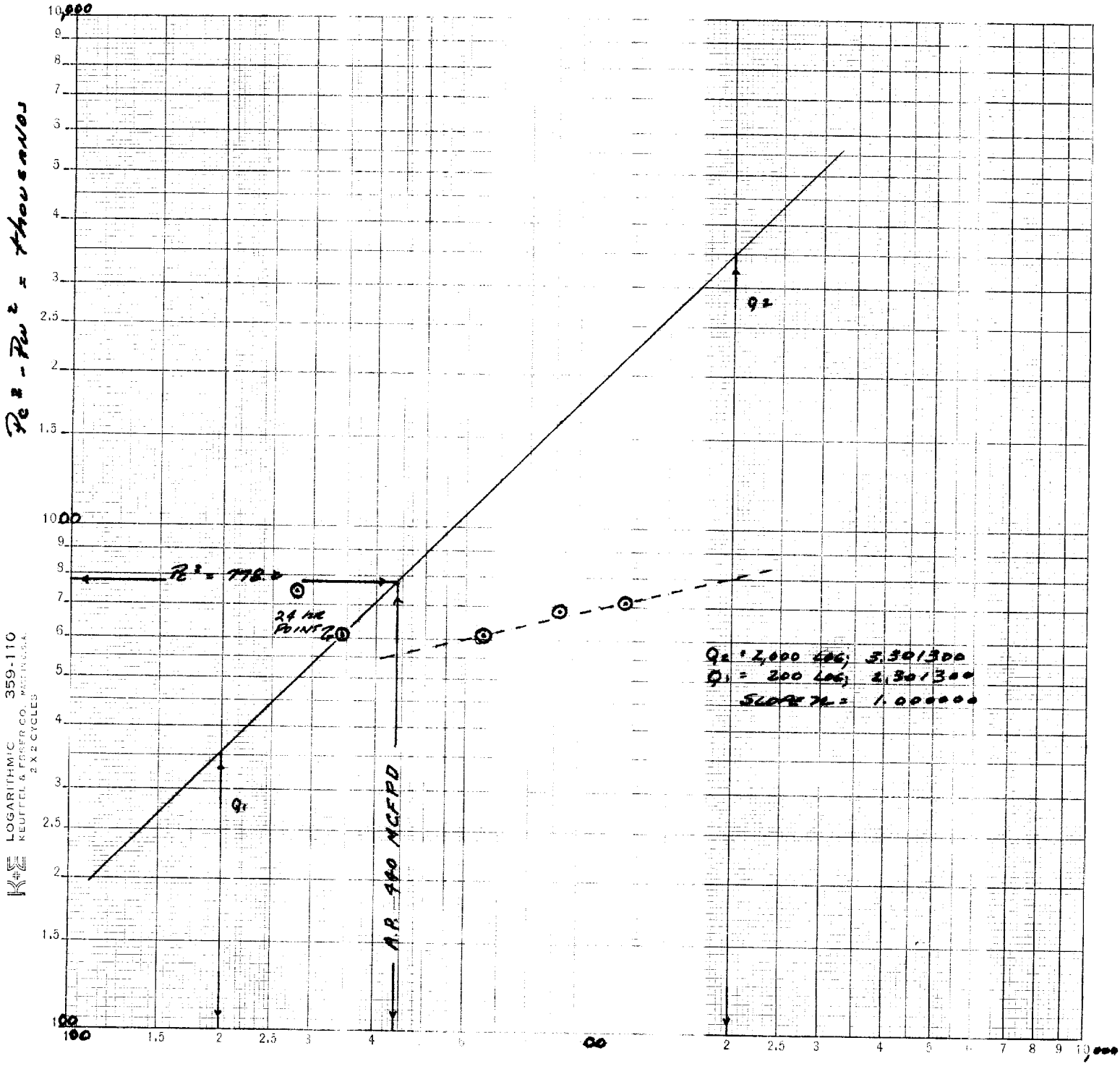
Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t.

JAG OIL CO., INC.

GUTMAN No. 2

J-29-255-37E LEA Co., N.M.

7-12-60



Q = MCFPD

15.025 P_b