CORRECTED COPY

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 11-9-59

Company Jal Oil Company, Inc. Lease Harner Well No. 2

Unit J Sec. 20 Twp. 25 Rge. 37 Purchaser El Paso Natural Gas Co.

Casing 7 Wt. 23.0 I.D. Set at 3444 Perf. 2670 To 3170

Tubing 2 3/8 Wt. 6.5 I.D. Set at 3300 Perf. 2760 To 3274

Gas Pay: From 2670 To 3274 L 2670 xG .684 -GL 1826 Bar.Press. 13.2

Producing Thru: Casing x Tubing Type Well single Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 10-21-59 Packer none Reservoir Temp.

OBSERVED DATA

Type Taps

Tested Through (Prover) (~~Choke~~) (~~Meter~~)

No.	Flow Data (Prover) (~~Meter~~) 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.	Durat of F Hr
SI								382		72
1.	2	.1875	364		75			364		3
2.	2	.218	356		68			356		3
3.	2	.3125	319		64			319		3
4.	2	.500	202		64			202		
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 Q-MCF @ 15.0
1.	.7851		377.2	.9859	.9366	1.038	2
2.	1.0834		369.2	.9924	.9366	1.040	3
3.	2.1577		332.2	.9962	.9366	1.036	6
4.	5.5233		215.2	.9962	.9366	1.023	1,1
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio dry cf/bbl.

Gravity of Liquid Hydrocarbons deg.

F_c .865 $(1-e^{-s})$ .118

Specific Gravity Separato

Specific Gravity Flowing

P_c 395.2 P_c^2 156.

No.	P_w (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2 (1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Ca
1.	377.2	142.3	.25	.06	.007	142.3	13.9	37.2
2.	369.2	136.2	.33	.11	.013	136.3	19.9	3.2
3.	332.2	110.4	.60	.36	.042	110.4	45.8	4.2
4.	215.2	46.3	.98	.96	.113	46.3	109.9	4.3
5.								

Absolute Potential: 1,750 MCFPD; n .756

COMPANY Jal Oil Company, Inc.

ADDRESS Drawer Z, Jal, New Mexico

AGENT and TITLE Production Superv

WITNESSED L.D. Southern

COMPANY El Paso Natural Gas Co.

REMARKS

5/16/59 to 1/20/59

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.

g = Gravity correction factor.

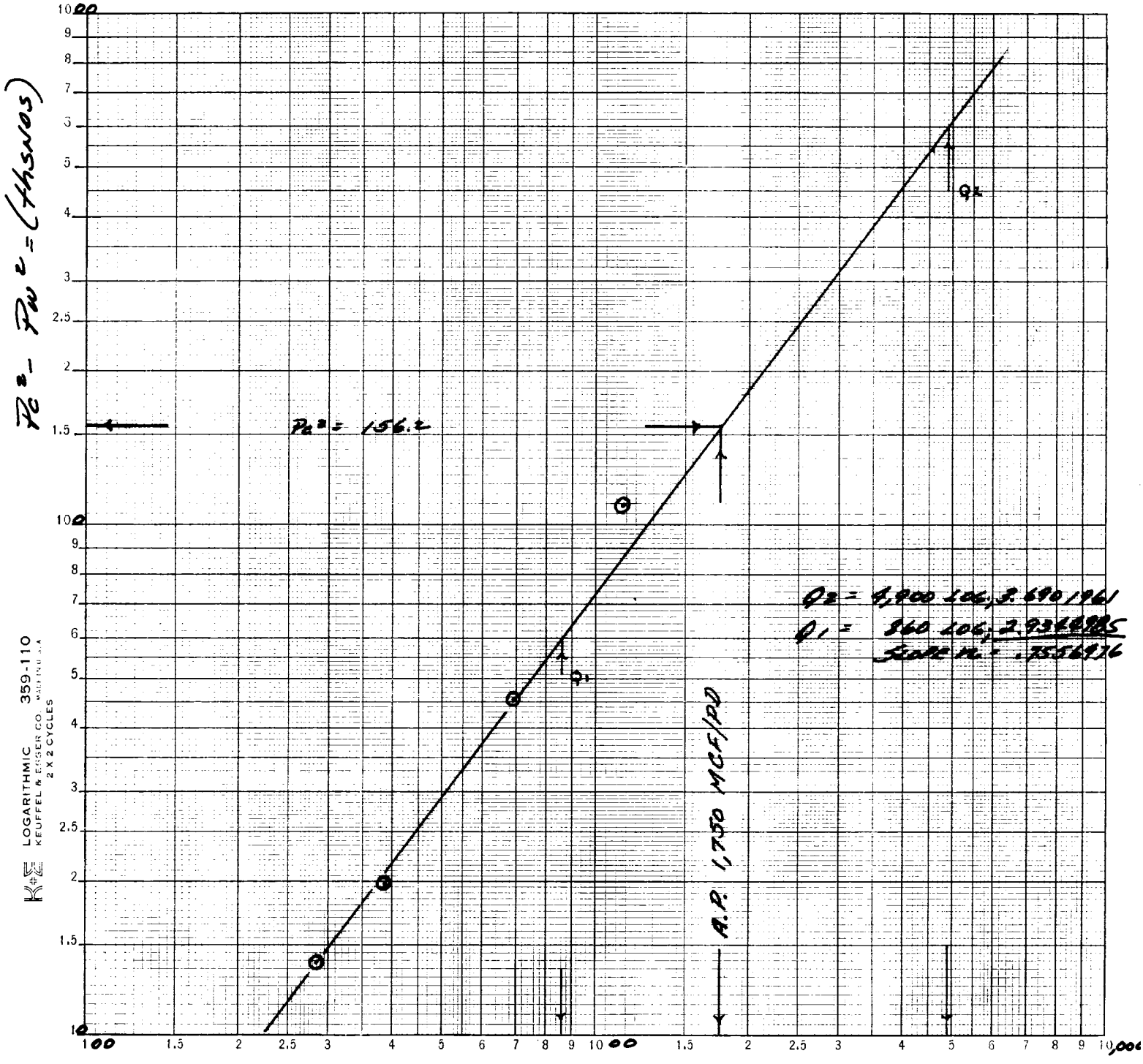
t = Flowing temperature correction factor.

v = Supercompressability factor.

n = Slope of back pressure curve.

* 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.

JAL OIL COMPANY
HARNER No. 2
J-20-25-37 LEA Co., N.M.
11-9-59



Q = MCF/PD

θ 53°