

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Bumont Formation 1556 OCT 50 Seven Rivers 50 County Lee
Initial Annual Special X Date of Test 8-27 to 8-31-56
Company Humble Oil & Refining Company Lease N.M. State B Well No. 7
Unit I Sec. 29 Twp. 21S Rge. 36E Purchaser El Paso Natural Gas
Casing 5 1/2 Wt. 17 I.D. 4.892 Set at 3807 Perf. 3200 To 3555
Tubing 2-3/8 Wt. 4.7 O.D. 2.375 I.D. 2.375 Set at 3693 Perf. none To none
Gas Pay: From 3200 To 3555 L 3200 xG 0.675 -GL 2160 Bar.Press. 13.2
Producing Thru: Casing X Tubing Type Well G.O. Dual
Re- Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 5-1-53 Packer 3693 Reservoir Temp. 90

OBSERVED DATA

Tested Through (Flowmeter) (Choke) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Flowmeter) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								1013		72
1.	4	1.500	609	47.61	78			828		24
2.	4	1.500	575	34.81	78			867		24
3.	4	1.500	574	21.16	80			895		24
4.	4	1.900	574	9.61	84			953		24
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	13.99	172.1	622.2	0.9831	0.9427	1.061	2367
2.	13.99	163.1	588.2	0.9831	0.9427	1.097	1961
3.	13.99	111.5	587.2	0.9813	0.9427	1.036	1524
4.	13.99	75.12	587.2	0.9777	0.9427	1.036	1083
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio cf/bbl.
Gravity of Liquid Hydrocarbons deg.
F_c 1.812 (1-e^{-s}) 0.138
Specific Gravity Separator Gas
Specific Gravity Flowing Fluid
P_c 1026.2 P_c 1033

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w /F _c
1.	861.2	743.6	4.29	18.4	2.5	710.1	342.9	842.7	81.7
2.	880.2	774.8	3.55	12.6	1.7	774.5	276.5	881.2	81.5
3.	908.2	824.8	2.76	7.6	1.0	821.8	227.2	908.7	82.1
4.	966.2	933.5	1.85	3.4	0.5	924.0	119.0	966.4	93.7
5.									

Absolute Potential: 5750 MCFPD; n 0.79
COMPANY Humble Oil & Refining Company
ADDRESS Box 2347, Hobbs, N.M.
AGENT and TITLE J. K. Blum District Superintendent
WITNESSED J. K. Blum
COMPANY El Paso Natural Gas Company

REMARKS

Poor point alignment on first test. Decreasing flow rate sequence used on this test for better point alignment.

LEWIS A. DIZ
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.

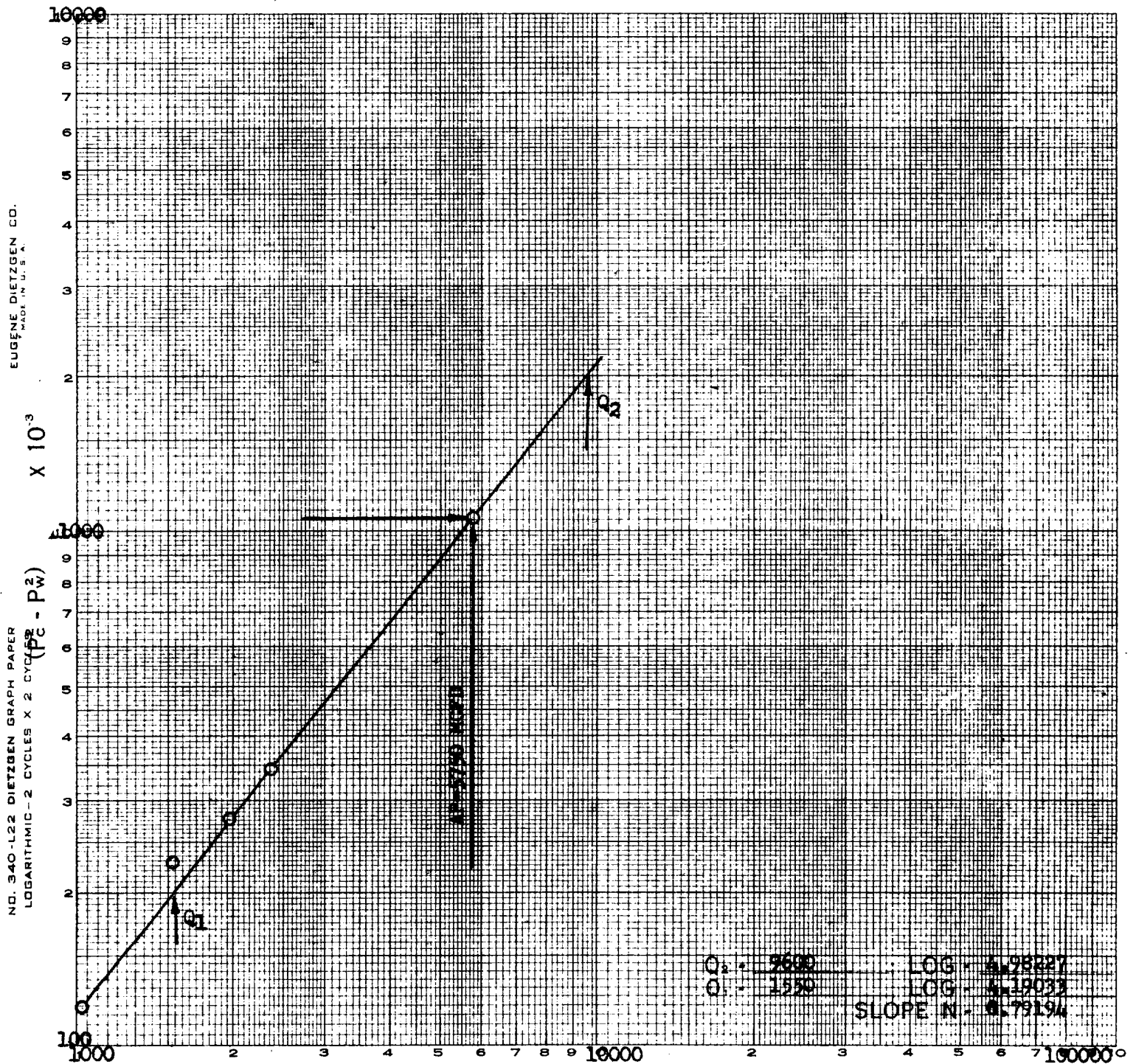
F_{pv} = Supercompressability factor.

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 .

JMBLE OIL AND REFINING COMPANY
MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Well New Mexico State B-7
 Location I-29-21S-36E
 County Lea
 Date 8-27 to 8-31, 1956



Q - MCFD - 15.025 PSIA