

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Jurilla Formation Paddock County Lea

Initial X Annual _____ Special _____ Date of Test 5-21-20-99

Company Gulf Oil Corporation Lease Leasey McBuffington Well No. 3

Unit 0 Sec. 13 Twp. 25N Rge. 37E Purchaser El Paso Natural Gas Co.

Casing 7 Wt. 17 I.D. 6.530 Set at 7092 Perf. 4732 To 4870

Tubing 2.375 Wt. 4.7 I.D. 1.995 Set at 7741 Perf. _____ To _____

Gas Pay: From 4732 To 4870 L 4732 xG min .690 -GL 3265 Bar.Press. 13.2

Producing Thru: Casing X Tubing _____ Type Well G-O Dual

Date of _____ 4-20-90 _____ 7777 Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

Tested ILLEGIBLE Type Taps Fig.

No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Tubing Data		Casing Data		Duration of Flow Hr.
						Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.	4	1.50	377.0	12.96	60			1329		72
2.	4	1.50	377.0	22.16	63			1430		24
3.	4	1.50	344.0	30.11	64			1309		24
4.	4	1.50	602.0	32.00	57			1075		24
5.								1155		24

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wPc}}$	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	87.46	370.2	1.0000	.9487	1.064	1227
2.	13.99	113.63	610.2	.9972	.9487	1.064	1995
3.	13.99	149.22	379.2	.9942	.9487	1.064	2009
4.	13.09	223.23	613.2	1.0029	.9487	1.072	3164
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 187,690 cf/bbl.
Gravity of Liquid Hydrocarbons 32.7 deg.
F_c .703 (1-e^{-s}) .807
Friction negligible - less than 1% on highest rate

Specific Gravity Separator Gas .675
Specific Gravity Flowing Fluid .7602
P_c 1542.2 P_c 2370.4

No.	P _w P _w (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 P _w P _c
1.	1443.2					2082.8	295.6		.93
2.	1202.2					1445.0	664.6		.79
3.	1000.2					1100.2	1196.2		.70
4.	1140.2					1304.7	1023.7		.76
5.									

Absolute Potential: 7400 MCFPD; n 1.00 (limited)

COMPANY Gulf Oil Corporation

ADDRESS Box 2167, Hobbs, N.M.

AGENT and TITLE H. L. Smith Gas Tester

WITNESSED Bob Ross

COMPANY El Paso Natural Gas Co.

REMARKS
No point alignment. Logging off on 1st 3 rates. Well making 47% water. A retest will be submitted later.

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.

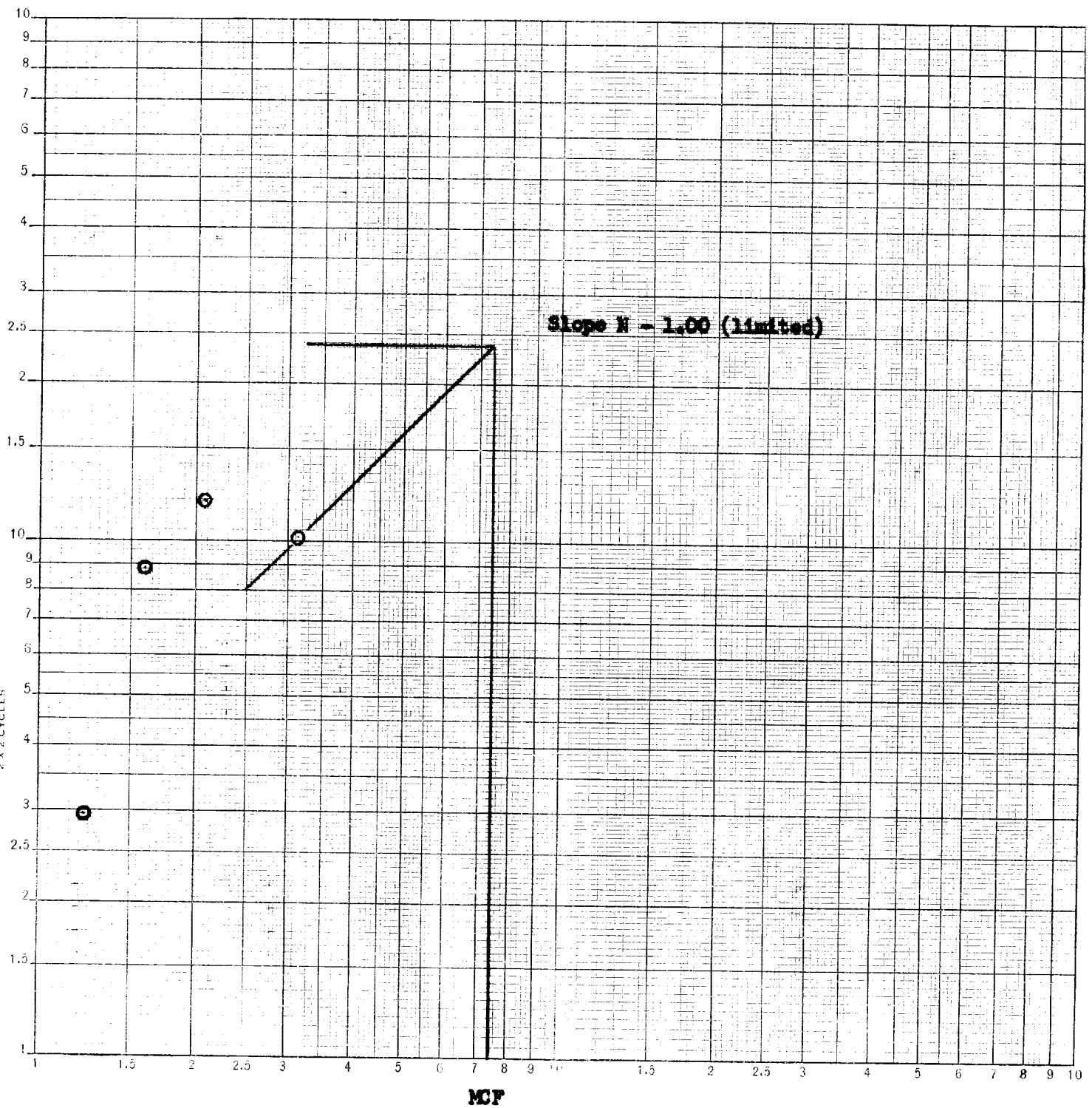
F_{pv} = Supercompressibility factor.

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 .

Gulf Oil Corporation
 Learcy McBuffington No. 3
 Justis Pool, Lea Co.
 May 21-28, 1959
 AP = 7400 MCF

LOGARITHMIC 359-110
 NEUFFEL & ESSER CO. MILWAUKEE, WIS.
 2 X 2 CYCLES



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