

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

NOV 21 PM 2 51 Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Summit Formation Queen County Lee
Initial X Annual _____ Special _____ Date of Test 10-3/11-57
Company Gulf Oil Corporation Lease Matterson "B" Well No. 10
Unit C Sec 31 Twp. 21S Rge. 37E Purchaser Purnian Basin PL Co.
Casing 5 1/2" Wt. 14 I.D. 5.012 Set at 3809 Perf. 2695 To 3635
Tubing 2 Wt. 4.7 I.D. 1.995 Set at 3797 Perf. _____ To _____
Gas Pay: From 2695 To 3635 L 2695 xG .685 -GL 1846 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well G-O Dual
Date of Completion: 3-31-57 Packer 3675 Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)Type Taps Pipe

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.	4	1.50	485.0	4.2	88			856.3		72
2.	4	1.50	482.3	12.1	91			791.4		24
3.	4	1.50	480.6	22.7	94			789.3		24
4.	4	1.50	480.4	22.7	92			573.7		24
5.	4	1.50	484.3	22.7	92			583.5		24

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.	15.26	49.90	208.2	1.0019	.9159	1.054	753
2.	15.26	78.21	205.5	.9715	.9152	1.042	1131
3.	15.26	103.5	193.8	.9688	.9159	1.041	1191
4.	15.26	119.3	197.3	.9708	.9159	1.041	1724
5.							

PRESSURE CALCULATIONS

CO₂ - 5.10%N₂ - 1.09%

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 1.712 (1-e^{-s}) .119

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 869.5 P_c 756.0

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 P _c
1.	856.3	687.4	1.889	1.652	.1978	647.6	288.4	804.7	.93
2.	791.4	514.3	1.936	1.748	.4460	516.9	239.1	719.0	.83
3.	789.3	514.3	2.553	6.518	.7756	345.3	430.7	587.6	.68
4.	573.7	367.0	2.951	8.708	1.036	268.0	488.0	517.7	.60
5.									

Absolute Potential: 2049 MCFPD; n 0.51COMPANY Gulf Oil CorporationADDRESS Box 2167, Hobbs, N.M.AGENT and TITLE L. L. Smith

WITNESSED _____

COMPANY _____

REMARKS _____

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 .

Gulf Oil Corporation
H. T. Mattern "B" No. 10
C-31-218-37E, Lea Co.
Eumont Pool
10-3, 11-57
AP = 2049 MCF

KE LOGARITHMIC 359-110
KEUFFEL & ESSER CO. MADE IN U.S.A.
2 X 2 CYCLES

