

NEW MEXICO OIL CONSERVATION COMMISSION

FIELD OFFICE OCC

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Mont Formation Queen County LeeInitial X Annual _____ Special _____ Date of Test 6-10 to 6-17-56Company Gulf Oil Corp Lease Graham State "F" Well No. 4Unit 0 Sec. 36 Twp. 19E Rge. 36E Purchase Permian Basin Pipeline Co.Casing 5.5 Wt. 17 I.D. 4.892 Set at 1869 Perf. 2820 To 3270Tubing 2.375 Wt. 4.7 I.D. 1.995 Set at 1785 Perf. _____ To _____Gas Pay: From 2820 To 3270 L 2820 xG .665 -GL 1875 Bar. Press. 13.2Producing Thru: Casing X Tubing _____ Type Well GO DualDate of Completion: 8-21-54 Packer 1600 Reservoir Temp. _____

OBSERVED DATA

Tested Through (2820)-(3270) (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								950.7		72
1.	4	1.25	455.2	8.2	67			878.5		24
2.	4	1.25	459.0	19.0	65			850.1		24
3.	4	1.25	454.1	30.3	67			787.3		23
4.	4	1.25	454.1	42.2	69			729.3		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.	10.24	61.98	458.1	.9933	.9498	1.045	626
2.	10.24	94.72	472.2	.9952	.9498	1.045	958
3.	10.24	118.99	467.3	.9750	.9498	1.039	1172
4.	10.24	160.43	467.3	.9732	.9498	1.039	1381
5.							

PRESSURE CALCULATIONS

CO₂ 2.19%
N₂ 1.29%Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 1.812 (1-e^{-s}) 0.120Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 963.9 P_c 929.1

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	P _w P _c
1.	791.7	795.1	1.134	1.288	.15	795.2	133.9	891.7	92.5
2.	843.3	711.2	1.736	3.01	.36	711.6	217.5	843.4	87.4
3.	800.5	640.8	2.124	4.51	.58	641.3	287.8	800.6	83.0
4.	742.5	551.3	2.908	6.26	.75	552.1	377.0	742.8	77.0
5.									

Absolute Potential: 2,600 MCFPD; n 0.69COMPANY Gulf Oil CorporationADDRESS Box 2167, Hobbs, N.M.AGENT and TITLE H. 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} = 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 .