NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Formation Queen County Lea

Initial X Annual Special Date of Test 5-21/22-59

Company Gulf Oil Corporation Lease H. T. Mattern "B" Well No. 10

Unit N Sec. 1 Twp. 22S Rge. 36E Purchaser Permian Basin Pipeline Co.

Casing 5.5 Wt. 14 I.D. 5.012 Set at 3705 Perf. 2682 To 3555

Tubing 2.375 Wt. 4.7 I.D. 1.995 Set at 3564 Perf. To

Gas Pay: From 2682 To 3555 L 3564 xG .695 -GL 2477 Bar.Press. 13.2

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

Date of Completion: 8-27-57 Packer None Reservoir Temp.

OBSERVED DATA

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

	Flow Data					Tubing Data		Casing Data		
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	Duration of Flow Hr.
SI						908.7		910.2		69
1.	4	2.00	350.0	5.4	66	864.4		873.6		3
2.	4	2.00	352.1	12.0	61	810.5		838.4		3
3.	4	2.00	349.8	18.4	61	747.5		806.7		3
4.	4	2.00	348.5	26.3	61	663.3		770.0		3
5.	4	2.00	360.9	21.2	64	611.1		720.5		24

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 Flow Q-MCFPD @ 15.025 psia
1.	29.92	44.28	363.2	.9943	.9292	1.036	1268
2.	29.92	66.21	365.3	.9990	.9292	1.038	1909
3.	29.92	81.73	363.0	.9990	.9292	1.037	2354
4.	29.92	97.53	361.7	.9990	.9292	1.037	2809
5.	29.92	89.06	374.1	.9962	.9292	1.039	2563

PRESSURE CALCULATIONS

as Liquid Hydrocarbon Ratio cf/bbl. Specific Gravity Separator Gas

ravity of Liquid Hydrocarbons deg. Specific Gravity Flowing Fluid

c measured $(1-e^{-s})$ P_c 923.4 P_c^2 852.7

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	886.8					786.4	66.3		.96
2.	851.6					725.2	127.5		.92
3.	819.9					672.2	180.5		.89
4.	783.2					613.4	239.3		.85
5.	733.7					538.3	314.4		.79

Absolute Potential: 4734 MCFPD; n .615

COMPANY Gulf Oil Corporation

ADDRESS Box 2167, Hobbs, N.M.

AGENT and TITLE H. L. Smith Gas Tester

WITNESSED J. D. Horton

COMPANY Permian Basin Pipeline Co.

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.