NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS 11 : 37

Pool Eumont Formation Queen County Lea

Initial X Annual ____ Special ____ Date of Test 4-3 - 4-12-57

Company Gulf Oil Corporation Lease Kutter "F" Well No. 4

Unit F Sec. 28 Twp. 19S Rge. 37E Purchaser Permian Basin P.L. Co.

Casing 5.5 Wt. 14.0 I.D. 4.887 Set at 2975 Perf. 3594 To 3740

Tubing 2.375 Wt. 4.7 I.D. 1.995 Set at 3965 Perf. ____ To ____

Gas Pay: From 3594 To 3740 L 3594 xG .600 -GL 2444 Bar.Press. 13.2

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

Date of Completion: 7-22-56 Packer 3785 Reservoir Temp. ____

OBSERVED DATA

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

No.	Flow Data (Line) Size	(Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Temp. °F.	Casing Data Press. psig	Temp. °F.	Duration of Flow Hr.
SI								897.4		70
1.	4	2.50	437.3	6.3	93			841.9		24
2.	4	2.50	436.0	13.6	78			807.6		24
3.	4	2.50	439.7	21.7	77			767.7		24
4.	4	2.50	449.3	31.5	75			716.5		24
5.										

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.	54.44	61.15	450.5	.9677	.9393	1.038	3147
2.	54.44	78.16	449.2	.9831	.9393	1.039	4062
3.	54.44	99.14	452.9	.9840	.9393	1.039	5183
4.	54.44	120.7	462.5	.9859	.9393	1.040	6328
5.							

PRESSURE CALCULATIONS

CO_2 - 1.05%
N_2 - 2.51%

Gas Liquid Hydrocarbon Ratio ____ cf/bbl.
Gravity of Liquid Hydrocarbons ____ deg.
F_c 1.083 $(1-e^{-s})$ .155

Specific Gravity Separator Gas ____
Specific Gravity Flowing Fluid ____
P_c 910.6 P_c^2 829.2

No.	P_w / P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2 (1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	855.1	731.2	5.926	35.12	5.444	736.6	92.6	858.3	.94
2.	820.8	673.7	7.686	59.07	9.156	682.9	146.3	[illegible]	.91
3.	780.9	609.8	9.760	95.26	14.77	624.6	204.6	790.3	.87
4.	729.7	532.5	11.92	142.1	22.03	554.5	274.7	744.6	.82
5.									

Absolute Potential: 13,400 MCFPD; n 0.68
COMPANY Gulf Oil Corporation
ADDRESS Hobbs, New Mexico
AGENT and TITLE W. L. Smith
WITNESSED R. L. West
COMPANY Permian Basin P. L. 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.