NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Justis Formation Paddock County Lea

Initial X Annual ____ Special ____ Date of Test 5-21/28-59

Company Gulf Oil Corporation Lease Arnott-Ramsay "F" Well No. 3

Unit B Sec. 36 Twp. 25S Rge. 37E Purchaser El Paso Natural Gas Co.

Casing 5.5 Wt. 14 I.D. 5.012 Set at 4875 Perf. 4746 To 4825

Tubing 2.375 Wt. 4.7 I.D. 1.995 Set at 4808 Perf. ____ To ____

Gas Pay: From 4746 To 4825 L 4808 xG .708 -GL 3404 Bar.Press. 13.2

Producing Thru: Casing ____ Tubing X Type Well Single

Date of Completion: 5-6-57 Packer - Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. ____

PB 4825 - 4-1-59

OBSERVED DATA

Tested Through ~~(Prover)~~ ~~(Choke)~~ (Meter) Type Taps Flg.

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) (Orifice) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						1534		1538		72
1.	4	2.00	544.0	16.40	65	1387		1441		24
2.	4	2.00	562.0	26.01	60	1310		1389		24
3.	4	2.00	575.0	37.21	60	1192		1320		24
4.	4	2.00	614.0	49.00	63	1053		1249		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.	25.58	95.59	557.2	.9952	.9206	1.066	2388
2.	25.58	122.31	575.2	1.0000	.9206	1.073	3091
3.	25.58	147.94	588.2	1.0000	.9206	1.073	3738
4.	25.58	175.31	627.2	.9971	.9206	1.082	4453
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio None cf/bbl.

Gravity of Liquid Hydrocarbons ____ deg.

F_c measured $(1-e^{-s})$ ____

Specific Gravity Separator Gas .708

Specific Gravity Flowing Fluid ____

P_c 1551.2 P_c^2 2406.2

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.	1454.2								
2.	1402.2					2114.7	291.5		.94
3.	1333.2					1966.2	440.0		.90
4.	1362.2					1777.4	628.8		.86
5.						1593.1	813.1		.81

Absolute Potential: 8600 MCFPD; n .602

COMPANY Gulf Oil Corporation

ADDRESS Box 2167, Hobbs, N.M.

AGENT and TITLE [illegible] Gas Tester

WITNESSED Bob Goss

COMPANY El Paso Natural Gas 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.

Gulf Oil Corporation
Arnott-Ramsay "F" No. 3
Justis Gas Pool, Lea Co.
May 21-28, 1959
AP = 8600 MCF