NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

NOV 13 AM 7:58

Pool [illegible] Formation Queen County Lea

Initial X Annual Special Date of Test 9-21-55

Company Gulf Oil Corporation Lease White "B" Well No. 5

Unit M Sec. 35 Twp. 20S Rge. 36E Purchaser Permian Basin Pipeline Co.

Casing 7.0" Wt. 20.0# I.D. 6.456" Set at 3875' Perf. 3175' To 3700'

Tubing 2.375" Wt. 4.7# I.D. 1.995" Set at 3211' Perf. To

Gas Pay: From 3175' To 3700' L 3175' xG 0.670 -GL 2127 Bar.Press. 13.2

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

Date of Completion: 12-7-55 Packer None Reservoir Temp.

OBSERVED DATA

Tested Through [illegible] (Meter) Type Taps Pipe

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								881.9		72.25
1.	4	0.75	480.4	2.2	111			700.7		23.75
2.	4	0.75	488.0	9.4	81			568.2		24.00
3.	4	0.75	486.8	13.6	80			517.5		24.00
4.	4	0.75	496.6	18.6	80			498.2		24.00
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.	3.515	38.95	493.6	0.9563	0.9663	1.033	108
2.	3.515	68.23	495.2	0.9563	0.9663	1.031	232
3.	3.515	82.46	500.0	0.9563	0.9663	1.031	280
4.	3.515	80.14	509.8	0.9563	0.9663	1.032	273
5.							

CO2 = 0.00%
N2 = 4.90%

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio cf/bbl.
Gravity of Liquid Hydrocarbons deg.
F_c 0.707 $(1-e^{-s})$ 0.136

Specific Gravity Separator Gas
Specific Gravity Flowing Fluid
P_c 835.1 P_c^2 697.4

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	$\frac{P_w}{P_c}$
1.	723.9	524.1	0.0765	0.0059	0.0008	524.1	173.3	723.9	.867
2.	577.4	333.4	0.1640	0.0269	0.0036	333.4	363.9	577.4	.691
3.	530.7	281.6	0.1980	0.0392	0.0053	281.6	415.8	530.7	.636
4.	511.4	261.5	0.1930	0.0372	0.0051	261.5	435.9	511.4	.612
5.									

Absolute Potential: 417 MCFPD; n 0.71

COMPANY Gulf Oil Corporation
ADDRESS Box 2167, Hobbs, N.M.
AGENT and TITLE [signature]
WITNESSED
COMPANY

REMARKS

Retest

ELVIS A. UTZ
GAS ENGINEER

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.