NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

NOV 19 AM 7:57

Pool **Eumont** Formation **Queen** County **Lea**

Initial **X** Annual ______ Special ______ Date of Test **9-30-56**

Company **Gulf Oil Corporation** Lease **Gulp, B. V. "B"** Well No. **1**

Unit **J** Sec. **31** Twp. **19S** Rge. **37E** Purchaser **Permian Basin PL Co.**

Casing **5.5"** Wt. **17.0#** I.D. **4.892"** Set at **3785'** Perf. **3342'** To **3528'**

Tubing **2.375"** Wt. **4.7#** I.D. **1.995"** Set at **3863'** Perf. ______ To ______

Gas Pay: From **3342'** To **3528'** L **3342'** xG **.670** -GL **2239** 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: **5-27-56** Packer **3400'** Reservoir Temp. ______

OBSERVED DATA

Tested Through ([illegible]) (Meter) Type Taps **Pipe**

No.	Flow Data: ([illegible]) (Line) Size	(Choke) (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								952.5		72
1.	4	1.75	462.0	6.5	89			774.3		24
2.	4	1.75	461.2	11.8	77			691.5		24
3.	4	1.75	460.8	18.8	67			593.5		24
4.	4	1.75	456.7	25.8	71			512.7		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.	21.69	55.58	475.2	.9732	.9463	1.037	1161
2.	21.69	74.82	474.4	.9840	.9463	1.050	1572
3.	21.69	96.10	474.0	.9933	.9463	1.064	2009
4.	21.69	110.1	469.9	.9896	.9463	1.061	2328
5.							

CO_2 - 2.[illegible]
N_2 - 2.2%

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ______ cf/bbl.
Gravity of Liquid Hydrocarbons ______ deg.
F_c **1.812** $(1-e^{-s})$ **0.149**

Specific Gravity Separator Gas ______
Specific Gravity Flowing Fluid ______
P_c **965.7** P_c^2 **932.6**

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.	787.5	620.2	2.0[illegible]	4.3[illegible]	0.6[illegible]	620.8	311.8	787.9	.8[illegible]
2.	704.7	496.6	2.8[illegible]	8.111	1.209	497.8	434.8	705.5	.73
3.	606.7	368.1	3.6[illegible]	13.25	1.974	370.1	562.5	608.4	.63
4.	525.9	276.6	4.218	17.79	2.651	279.3	653.3	528.5	.55
5.									

Absolute Potential: **3265** MCFPD; n **0.95**
COMPANY **Gulf Oil Corporation**
ADDRESS **Box 2167, Hobbs, N.M.**
AGENT and TITLE H. L. Smith
WITNESSED ______
COMPANY ______

REMARKS

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.

Gulf Oil Corporation
Culp, B. V. "B" No. 1
J-31-19S-37E, Lea Co.
9-30-56
Eumont Pool
Absolute Potential 3265 MCF