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 ____ Annual ____ Special x Date of Test 7-6-56

Company Humble Oil & Refining Company Lease N.M. State G Well No. 4

Unit G Sec. 26 Twp. 21S Rge. 36E Purchaser El Paso Natural Gas Company

Casing 5½ Wt. 15.0 I.D. 4.976 Set at 3863 Perf. 3580 To 3754

Tubing 2 Wt. 4.70 I.D. 1.995 Set at 3744 Perf. open To open

Gas Pay: From 3580 To 3754 L 3744 xG 0.705 -GL ____ Bar.Press. 13.2

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

Date of Completion: 1-13-56 Packer none Reservoir Temp. 90

OBSERVED DATA

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

No.	Flow Data (~~Prover~~) (Line) Size	(~~Choke~~) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						1012		1012		72
1.	4"	1.500	551	13.0	60	953		961		24
2.	4"	1.500	554	25.0	65	855		910		24
3.	4"	1.500	563	37.2	68	778		862		24
4.	4"	1.500	567	60.8	72	645		775		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.	13.99	85.6	564.2	1.0000	0.9225	1.073	1185.2
2.	13.99	119.1	567.2	0.9952	0.9225	1.070	1636.5
3.	13.99	146.4	576.2	0.9924	0.9225	1.068	2002.2
4.	13.99	187.8	580.2	0.9887	0.9225	1.070	2563.8
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas ____
Specific Gravity Flowing Fluid ____
P_c 1025.2 P_c^2 1051.04

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.	974.2					949.0	102		95.0
2.	923.2					852.2	199		90.0
3.	875.2					765.9	285		85.4
4.	788.2					621.2	430		76.9
5.									

Absolute Potential: 4300 MCFPD; n 0.58

COMPANY Humble Oil & Refining Company
ADDRESS Box 2347, Hobbs, N.M.
AGENT and TITLE [illegible] District Superintendent
WITNESSED J. R. Blumer
COMPANY El Paso Natural Gas Company

REMARKS

dfl

[illegible] 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.