

NEW MEXICO OIL CONSERVATION COMMISSION

HOOUS OFFICE OCC

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

1957 APR 1 PM 1:07

Pool Jalnet Formation Talton County Lea

Initial Annual Special X Date of Test 12-14-56

Company Humble Oil & Refining Co. Lease State X Well No. 1

Unit H Sec. 2 Twp. 34S Rge. 34E Purchaser EPNG

Casing 7" Wt. 20 I.D. 6.456 Set at 2814 S.M. 2814 To 3073

Tubing 2" Wt. 4.70 I.D. 1.995 Set at 2991 Perf. 2991 To 2991

Gas Pay: From 2814 To 3073 L 2759 xG 0.640 -GL 1972 Bar.Press. 11.2

Producing Thru: Casing Tubing X Type Well Single

Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 5-29-50 Packer None Reservoir Temp.

OBSERVED DATA

Tested Through (~~2814~~) (~~2814~~) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(2814) (Line) Size	(2814) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						772				72
1.	4	1.250	618	15.21	73	618				24
2.	4	1.250	614	20.25	74	614				24
3.	4	1.250	563	33.66	75	564				24
4.	4	1.250	544	38.66	72	545				24
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wPf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	9.643	97.97	631.2	0.9899	0.9335	1.099	941
2.	9.643	112.48	627.2	0.9868	0.9335	1.098	1085
3.	9.643	139.20	576.2	0.9899	0.9335	1.096	1332
4.	9.643	144.33	557.2	0.9896	0.9335	1.096	1409
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio cf/bbl.
Gravity of Liquid Hydrocarbons deg.
F_c 9.936 (1-e^{-s}) 0.127
Specific Gravity Separator Gas
Specific Gravity Flowing Fluid
P_c 784.2 P_c 614.9

No.	631.2 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	P _w / P _c
1.	631.2	398.4	9.33	87.42	11.1	402.5	285.4	631.9	0.933
2.	627.2	393.4	10.78	116.21	14.8	404.2	283.7	630.9	0.934
3.	576.2	331.8	13.23	175.03	22.2	331.4	239.3	576.2	0.910
4.	557.2	311.6	13.94	194.32	24.7	324.3	278.6	579.9	0.939
5.									

Absolute Potential: 2410 MCFPD; n 0.8936

COMPANY Humble Oil & Refining Co.

ADDRESS Box 2347, Hobbs, New Mexico

AGENT and TITLE M M Regan District Supt.

WITNESSED Edward Mabe

COMPANY Ki Pace Natural Gas Co.

REMARKS

ELVIS A. ULL
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} = Supercompressibility 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 .