ILLEGIBLE NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122

Revised 12-1-55

MAY 27 AM 10 05

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Formation Yates - 7 Rivers County Lea

Initial Annual Special X Date of Test 4/1 - 5/57

Company Continental Oil Company Lease State C-20 Well No. 5

Unit M Sec. 20 Twp. 21S Rge. 36E Purchaser E. P. N. G.

Casing 5 1/2 Wt. 17 I.D. 3797 Set at Perf. To

Tubing None Wt. I.D. Set at Perf. To

Gas Pay: From 3210 To 3720 L 3210 xG .665 -GL 2135 Bar.Press. 13.2

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

Date of Completion: 7-24-49 Packer None Reservoir Temp. 90°

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps Flange

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								924		72
1.	4	1.000	561	19.04	57			622		24
2.	4	1.000	565	27.04	92			611		24
3.	4	1.000	550	37.21	104			589		24
4.	4	1.000	547	44.89	110			565		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.	6.135	106.42		1.0029	.9498	1.064	655
2.	6.135	125.02		.9706	"	1.051	743
3.	6.135	144.74		.9602	"	1.045	846
4.	6.135	153.55		.9553	"	1.039	916
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl. Specific Gravity Separator Gas _____

Gravity of Liquid Hydrocarbons _____ deg. Specific Gravity Flowing Fluid _____

P_c 937.2 P_c^2 878.3 F_c .9583 $(1-e^{-s})$ 0.137

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.	635.2	403.5	.63	.4	.05	403.6	474.7	635.3	.68
2.	624.2	389.6	.71	.5	.07	389.7	488.6	624.3	.67
3.	602.2	362.6	.81	.7	.10	362.7	515.6	602.3	.64
4.	578.2	334.3	.88	.8	.11	334.4	543.9	578.3	.62
5.									

Absolute Potential: 1.500 MCFPD; n 1.000 *

COMPANY Continental Oil Company

ADDRESS Box 427, Hobbs, New Mexico

AGENT and TITLE W. D. Howard, Gas Tester

WITNESSED

COMPANY

REMARKS

* NOTE: Slope n greater than 1.000; slope of 1.000 drawn through highest data point.

NMOCC-3 EMW HLJ RLA FTE EVB WDH

Attach.

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.