

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

10:06

Pool Esmont Formation Queen County Lea
Initial X Annual _____ Special _____ Date of Test 9/6 - 13/57
Company Continental Oil Company Lease Mayer B-17 Well No. 1
Unit I Sec. 17 Twp. 21S Rge. 36E Purchaser E. P. M. G.
Casing 5 1/2 Wt. 17 I.D. _____ Set at 3766 Perf. 3150 To 3682
Tubing 2 1/2 Wt. 6.5 I.D. _____ Set at 3903 Perf. _____ To _____
Gas Pay: From 3150 To 3682 L 3150 xG .665 -GL 2095 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: 9-5-56 Packer 3717 Reservoir Temp. 900

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Proven) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								<u>995</u>		<u>72</u>
1.	<u>4</u>	<u>1.250</u>	<u>555</u>	<u>23.04</u>	<u>60</u>			<u>783</u>		<u>24</u>
2.	<u>4</u>	<u>1.250</u>	<u>527</u>	<u>38.44</u>	<u>62</u>			<u>738</u>		<u>24</u>
3.	<u>4</u>	<u>1.250</u>	<u>508</u>	<u>64.00</u>	<u>59</u>			<u>693</u>		<u>24</u>
4.	<u>4</u>	<u>1.250</u>	<u>545</u>	<u>75.69</u>	<u>64</u>			<u>685</u>		<u>24</u>
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.	<u>9.643</u>	<u>114.40</u>		<u>1.0000</u>	<u>.9498</u>	<u>1.062</u>	<u>1113</u>
2.	<u>9.643</u>	<u>144.08</u>		<u>.9981</u>	<u>"</u>	<u>1.059</u>	<u>1394</u>
3.	<u>9.643</u>	<u>182.60</u>		<u>1.0010</u>	<u>"</u>	<u>1.057</u>	<u>1769</u>
4.	<u>9.643</u>	<u>205.51</u>		<u>.9962</u>	<u>"</u>	<u>1.059</u>	<u>1986</u>
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 2.507 (1-e^{-s}) 0.134
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1011.2 P_c 1022.5

No.	R _x 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.	<u>796.2</u>	<u>633.9</u>	<u>2.79</u>	<u>7.78</u>	<u>1.04</u>	<u>634.9</u>	<u>387.6</u>	<u>796.8</u>	<u>.79</u>
2.	<u>742.2</u>	<u>550.9</u>	<u>3.49</u>	<u>12.18</u>	<u>1.63</u>	<u>552.5</u>	<u>170.0</u>	<u>743.3</u>	<u>.74</u>
3.	<u>706.2</u>	<u>498.7</u>	<u>4.43</u>	<u>19.62</u>	<u>2.63</u>	<u>501.3</u>	<u>521.2</u>	<u>708.0</u>	<u>.70</u>
4.	<u>698.2</u>	<u>487.5</u>	<u>4.98</u>	<u>24.80</u>	<u>3.32</u>	<u>490.8</u>	<u>532.7</u>	<u>700.6</u>	<u>.69</u>
5.									

Absolute Potential: 3.825 MCFPD; n 1.000 #

COMPANY Continental Oil Company
ADDRESS Box 427, Hobbs, New Mexico
AGENT and TITLE W. B. Emswiler, Gas Tester
WITNESSED _____
COMPANY _____

REMARKS

* Second test on subject well. Since slope was greater than 1.000 a slope of 1.000 was drawn thru highest data point.

MM000-3 EWW 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 .

revised and approved by the Commission