

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool El Paso Formation Tates & Seven Rivers County Lee
Initial Annual x Special Date of Test 6-15-56
Company Continental Oil Company Lease Brill 3-0 Well No. 1
Unit 0 Sec. 0 Twp. 20 Rge. 37 Purchaser El Paso Natural Gas Co.
Casing 5 1/2" Wt. 17 I.D. 4.892 Set at 3640 Perf. 2900 To 2962
Tubing none Wt. I.D. Set at Perf. To
Gas Pay: From 2900 To 2962 L 2900 xG .600 -GL 1972 Bar.Press. 13.2
Producing Thru: Casing x Tubing Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 1-12-53 Packer None Reservoir Temp. 90°

OBSERVED DATA

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

Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.
SI									
1.	4	1.000	569	30.25	64			935	
2.	4	"	570	42.25	57			920	
3.	4	"	545	54.75	50			890	
4.	4	"	603	70.25	60				
5.	4	"							

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.	6.135	106.50	562.2	.9962	.9999	1.070	667
2.	"	156.99	563.2	1.0029	"	1.075	975
3.	"	177.24	570.2	1.0029	"	1.072	1302
4.	"	200.52	616.2	1.0000	"	1.076	1899
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 0 cf/bbl.
Gravity of Liquid Hydrocarbons deg.
F_c .9503 (1-e^{-s}) .127
Specific Gravity Separator Gas
Specific Gravity Flowing Fluid
P_c 999.2 P_c² 998 220

No.	P _w 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.	962.2	899	.639	.408	.632	899.052	98.948		
2.	931.2	871	.934	.872	.911	871.111	126.889		
3.	916.2	839	1.093	1.195	.941	839.111	156.889		
4.	891.2	794	1.299	1.688	.999	794.195	203.805		
5.									

Absolute Potential: 3,220 MCFPD MCFPD; n .50

COMPANY Continental Oil Co.
ADDRESS Box 427, Hobbs, N.M.
AGENT and TITLE W. D. Howard, Gas Tester.
WITNESSED
COMPANY

REMARKS

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 .