

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Tubb Formation Tubb County Lea

Initial X Annual _____ Special _____ Date of Test 1-13/1-14-58

Company Continental Oil Company Lease Lockhart B-14 A Well No. 2-A

Unit P Sec. 14 Twp. 21-S Rge. 37-E Purchaser El Paso Natural Gas Company

Casing 5 1/2" Wt. 17# I.D. 4.892 Set at 7446' Perf. 6163 To 6287

Tubing 2" Wt. 4.7 I.D. 1.995 Set at 6160' Perf. _____ To _____

Gas Pay: From 6163 To 6287 L 6163 xG .670 -GL 4129 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: 1-14-58 Packer 5855 & 5671 Reservoir Temp. 102°

OBSERVED DATA

Tested Through XXXXXX (XXXX) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								1890		72
1.	4"	1.500	250	10.0	100			1592		3
2.	4"	1.500	260	19.0	190			1320		3
3.	4"	1.500	265	28.0	280			982		3
4.	4"	1.500	275	43.0	420			573		3
5.	4"	1.500	270	31.0	380			647		20

FLOW CALCULATIONS

No.	Coefficient Flange (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.	13.99	126.69	1605.2	1.0518	.9463	1.333	2351
2.	13.99	159.16	1333.2	1.0419	.9463	1.248	2739
3.	13.99	166.93	995.2	1.0323	.9463	1.137	2639
4.	13.99	156.91	586.2	1.0178	.9463	1.077	2277
5.	13.99	158.39	660.2	1.0219	.9463	1.087	2329

O. F. Potential based on extrapolation from 20-hr rate at 45° slope.

PRESSURE CALCULATIONS

Above points do not line up.

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.

Gravity of Liquid Hydrocarbons _____ deg.

F_c 1.812 (1-e^{-s}) 0.247

Specific Gravity Separator Gas .670

Specific Gravity Flowing Fluid _____

P_c 1953.2 P_c 3622.2

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.	1605.2	2576.7	4.22	17.81	4.40	2581.1	1041.1	1606.6	84.41
2.	1333.2	1777.4	4.96	24.60	6.08	1783.3	1838.7	1335.2	70.17
3.	995.2	990.4	4.78	22.85	5.64	996.0	2626.2	998.0	52.44
4.	586.2	343.6	4.13	17.06	4.21	347.8	3274.4	589.8	30.99
5.	660.2	435.9	4.22	17.81	4.40	440.3	3181.9	663.6	34.88

Absolute Potential: 2,650 MCFPD; n 1.000

COMPANY Continental Oil Company

ADDRESS Box 68, Eunice, New Mexico

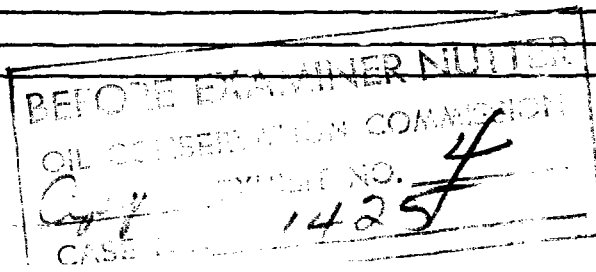
AGENT and TITLE _____

WITNESSED _____

COMPANY _____

*Otis crossover choke set @ 5670'.

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.

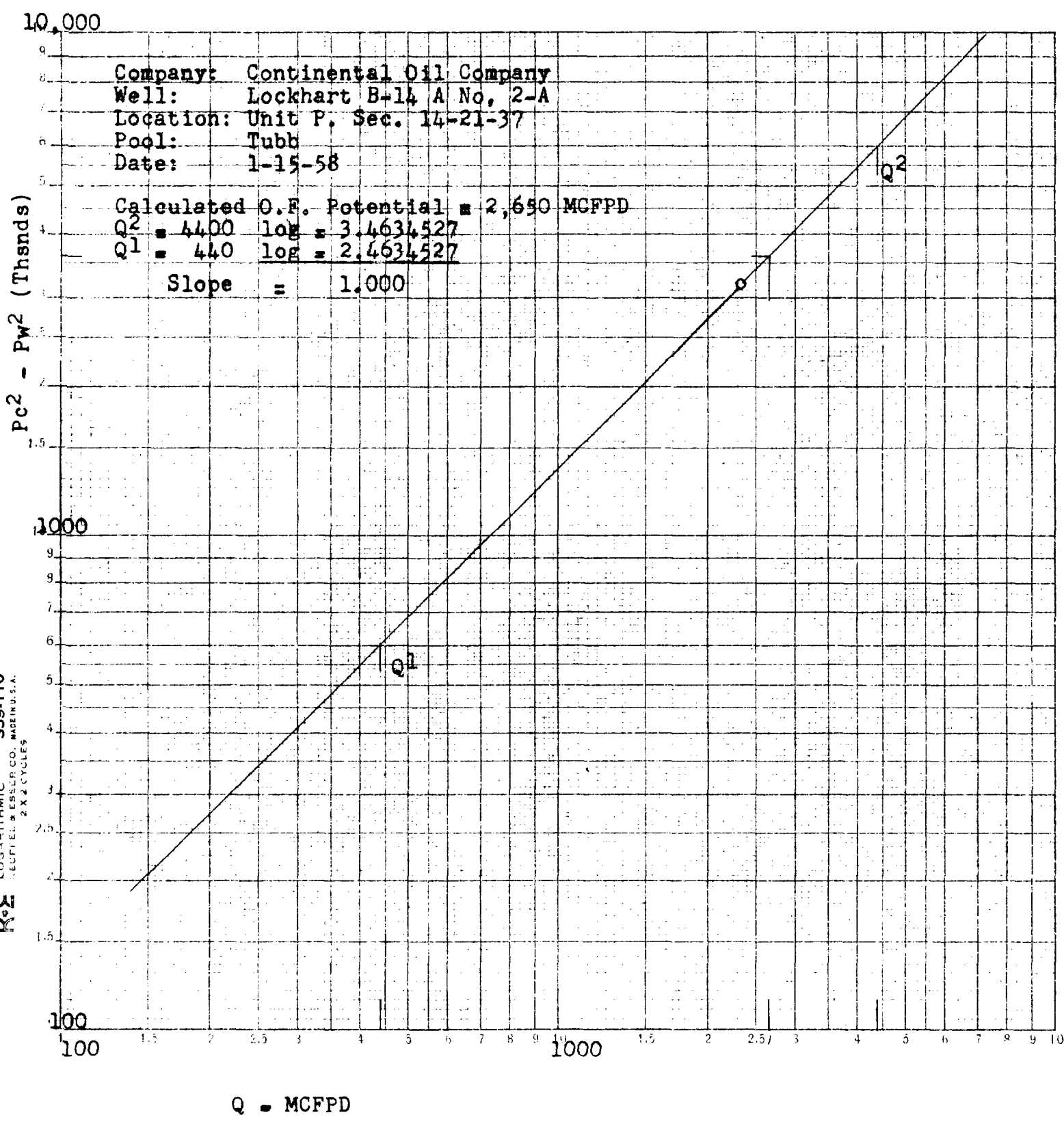
F_t = Flowing temperature correction factor.

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 .

K&E LOGARITHMIC 359-110
EQUIPMENT & SUPPLY CO. MADE IN U.S.A.
2 X 2 CYCLES



Wellhead Pressure -
psig

Company: Continental Oil Company
Well: Lockhart B-14 A No. 2-A
Location: Unit P. Sec. 14-21-37
Pool: Tubb
Date: 1-15-58
Deliverability @ 600 psig = 2,370 MCFPD
Deliverability @ 150 psig = 2,630 MCFPD
Shut In Pressure = 1903.2 PSIA

