DUPLICATE

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool BLU Devonian Formation Devonian County Lea

Initial x Annual ____ Special ____ Date of Test 6-19 to 6-21-60

Company Continental Oil Company Lease Bell Lake Well No. 6

Unit O Sec. 6 Twp. ~~22~~ 23 Rge. 34 Purchaser None

Liner Casing 5" Wt. 18# I.D. 4.295 Set at 14,900 Perf. 14,568 To 14,829

Tubing 2" Wt. 4.7 I.D. 1.995 Set at 14,002 Perf. O.E. To ____

Gas Pay: From 14,568 To 14,829 L 14,002 xG .612 -GL 8,690 Bar.Press. 13.2

Producing Thru: Casing ____ Tubing ~~Gravity .6102~~ 8545 Type Well Single

Date of Completion: 6-19-60 Packer 13,980 Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. 270°

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										
1.	4"	2.500	599	19.00	64°	4603	12/64"	Pkr.		1.5
2.	4"	2.500	598	23.00	62°	4497	14/64"	Pkr.		1.5
3.	4"	3.000	600	11.50	64°	4300	16/64"	Pkr.		2
4.	4"	3.000	622	16.00	58°	4067	18/64"	Pkr.		2
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.	42.19	89.21	612.2	.9962	.9902	1.056	3,915
2.	42.19	116.56	611.2	.9961	.9902	1.056	5,213
3.	66.67	83.97	613.2	.9962	.9902	1.056	5,832
4.	66.67	100.81	635.2	1.0019	.9902	~~1.065~~ 1.061	~~7,101~~ 7074
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 197,250 cf/bbl.

Gravity of Liquid Hydrocarbons 53.1 deg.

F_c 9.936 $(1-e^{-s})$ ~~0.590~~ .446

Specific Gravity Separator Gas .612

Specific Gravity Flowing Fluid .67

P_c 5015.2 P_c^2 25,152

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2$ $(1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	4516.2	~~21,302~~	~~48.90~~	1913	~~853~~	~~22,202~~	2,950	~~4711.9~~	0.940
2.	4510.2	20,342	51.80	2683	1193	21,935	3,227	4662.4	0.934
3.	4313.2	18,604	57.95	3358	~~1494~~	20,585	4,567	4537.1	0.905
4.	4080.2	16,646	~~58.56~~	~~4979~~	~~2217~~	19,585	5,567	4425.4	0.882
5.			72.30	4942					

Absolute Potential: ~~30,500~~ MCFPD; n ~~.75~~ .861

COMPANY ~~Continental Oil Company~~

ADDRESS ~~Box 68, Hobbs, New Mexico~~

AGENT and TITLE R. A. Carlile Dist. Supt.

WITNESSED ____

COMPANY ____

	REMARKS				
(1)	4718	21,785.3	3168.4	4683.1	.935
(2)	17966	21,538.6	3612.6	4641.0	.925
(3)	14927	20,101.7	5050.5	4482.5	.894
(4)	22041	18552.1	6600.1	4319	.860

NMOCC-3 WEG HLJ WAM File-2
(Copies mailed to all partners)

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.

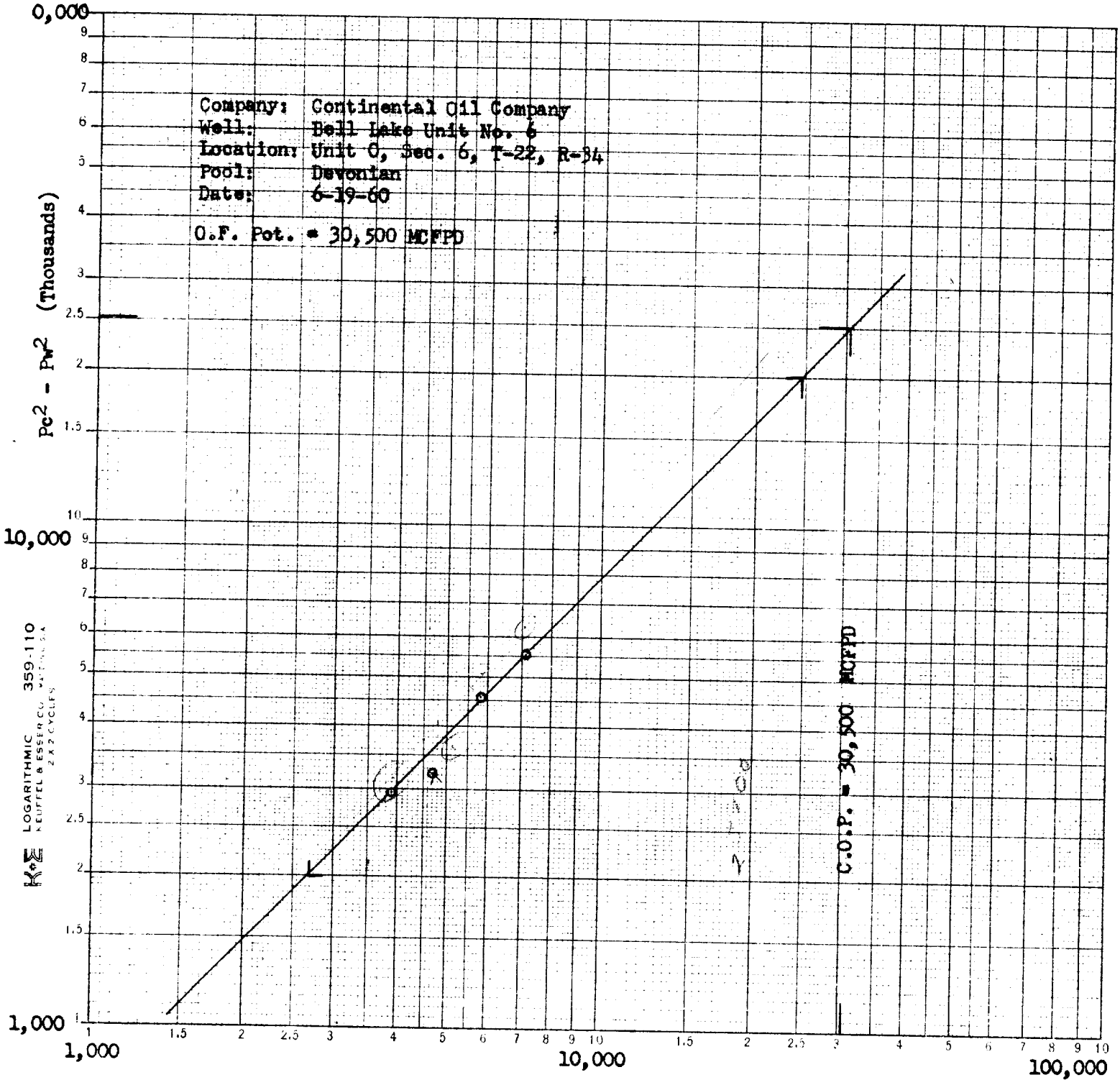
F_g = Gravity correction factor.

F_t = Flowing temperature correction factor.

F_{pv} = Supercompressability factor.

n = Slope of back pressure curve.

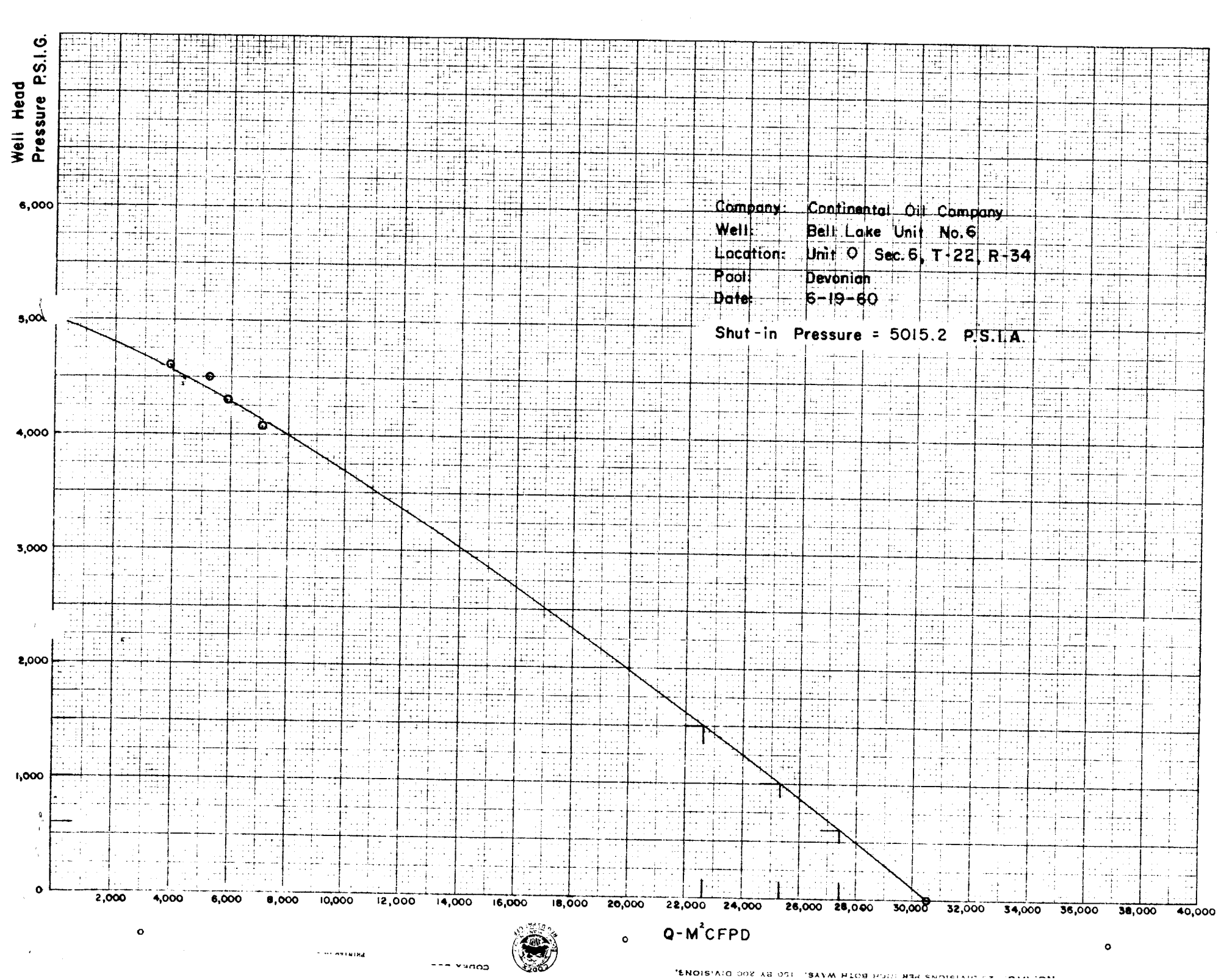
Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t.



$Q_2 = 10\,600 \quad 4.025 \quad .26$

$4. \quad 1450 \quad \underline{3\ 101\ 368}$

$.263\ 728$


Well Head Pressure P.S.I.G.
6,000
5,000
4,000
3,000
2,000
1,000
0
2,000
4,000
6,000
8,000
10,000
12,000
14,000
16,000
18,000
20,000
22,000
24,000
26,000
28,000
30,000
32,000
34,000
36,000
38,000
40,000
Q-M²CFPD
Company: Continental Oil Company
Well: Bell Lake Unit No. 6
Location: Unit O Sec. 6, T-22, R-34
Pool: Devonian
Date: 6-19-60
Shut-in Pressure = 5015.2 P.S.I.A.