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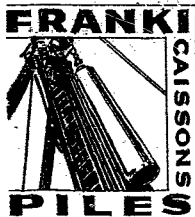
55-F-210C

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HWY 401 &

COUNTY ROAD

DIVERSION



"Franki Piles carry more tons per Pile"

FRANKI
COMPRESSED PILE COMPANY
OF CANADA LIMITED

1835 YONGE STREET

TORONTO 7, ONT.

Our Reference:
OP 3955 PC 366
March 25th, 1955.

CABLEGRAMS:
"FRANKIPILE"



TELEPHONE:
HUDSON 8-9009

SOIL INVESTIGATION REPORT
for
DEPARTMENT OF HIGHWAYS OF ONTARIO
(M.M. Dillon, Consulting Engineers)
at
OXFORD WEST #13.

As requested we carried out a soil investigation
at the proposed bridge site, Oxford West #13.

REPORT OF INVESTIGATION:

Six percussion tests were made at the locations
shown on the Location Sketch. The results are shown on
the accompanying diagrams and are summarized as follows:

S U M M A R Y

Hole No;	Ground Surface	Water Level	2,000 lbs per sq.ft.	3,000 lbs per sq.ft.	4,000 lbs per sq.ft.	Refusal
1	943	939	937	937	936	911
2	942	931	940	938	938	910
3	943	931	939	936	935	911
4	943	931	937	936	931	913
5	943	931	941	940	934	918
6	943	931	940	939	937	914

March 25th, 1955.

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Two auger borings were made at the locations of holes #1 and #6.

LOG OF AUGER BORINGS

Hole #1

Ground Surface Elevation: 943

0' - 1'	Sandy topsoil.
1' - 2'	Fine to very fine sand, slightly silty.
5' - 6'	Clayey fine sand and gravel.
8' - 9'	Clayey fine sand and gravel, very wet.
13' - 14'	Clayey fine sand, slightly stoney, wet.
18' - 19'	Grey compact very fine sand and silt, slightly stoney.
27' - 30'	Saturated clayey very fine sand and silt, slightly stoney.
31' - 31'6"	Compact slightly clayey very fine sand, slightly stoney.

Hole #6

Ground Surface Elevation: 943

0' - 1'	Sandy topsoil.
1' - 2'	Very fine sand, slightly clayey, wet.
4' - 5'	Fine clayey sand, some small stones, wet.
8' - 9'	Fine clayey sand, some small stones, wet.
11' - 12'	Fine clayey sand, with gravel, saturated.
12' - 23'	Submerged very fine sand (assumed; see discussion)
23' - 24'	Fine clayey sand, some small stones, saturated.
24' - 28'	Fine clayey sand, some small stones, saturated.
28' - 28'6"	Fine sand.

DISCUSSION:

No sample was obtainable in hole #6 between 12' and 23' in depth. The material was very liquid and would not remain in the sampler. It is believed that the material was a very fine submerged sand, with not enough clay or silt content to hold the grains together. (Such material is commonly called "quick").

The water level in hole #1, elevation 939, was probably caused by surface run-off into the percussion test hole, since the elevation does not agree with any of the other holes, and since there is no evidence of artesian head developing at this single hole.

March 25th, 1955.

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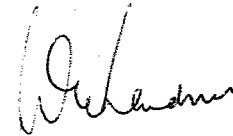
The sampling spoon was driven in boring #6, between depths of 12 feet to 23 feet, with extremely little resistance (as low as 1 blow per foot). The percussion test at hole #6 did not show a comparable "softening" at this depth. The conclusion to be drawn from this is that the submerged material in its undisturbed state ("in place") possesses good bearing capacity, but when opened up in excavation the material flows, or "boils" under hydrostatic pressure below elevation 931.

CONCLUSION:

Footings could safely be based at the elevations shown in the percussion test summary, with the bearing capacities shown, provided they are not placed below the water table.

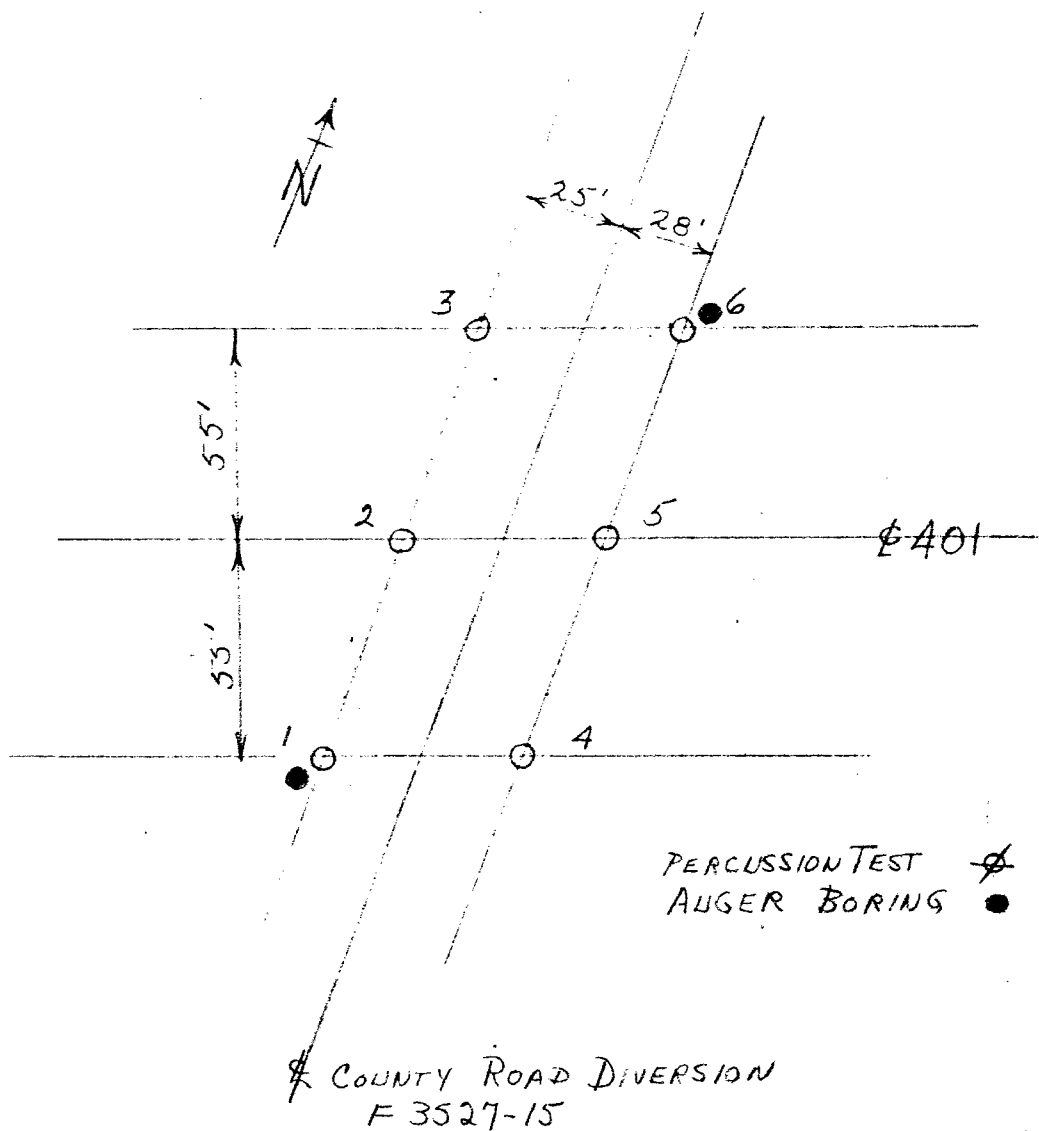
Placing footings below the water table, elevation 931, such as might be required for an underpass, would prove extremely difficult, and bearing capacities would be much lower than indicated by the percussion test results.

No sizeable settlement is anticipated due to consolidation, since the soil is predominately of a granular nature.



W. E. Lardner, P. Eng.

LOCATION SKETCH



FRANKI COMPRESSED PILE COMPANY OF CANADA LTD.
for
DEPARTMENT OF HIGHWAYS OF ONT.
at
OXFORD WEST #13.

PC 366
March 24, 1955

FRANKI

COMPRESSED PILE COMPANY
OF CANADA LIMITED

PERCUSSION TEST DIAGRAM

FOR: DEPARTMENT OF HIGHWAYS OF ONTARIO

AT: OXFORD WEST #12

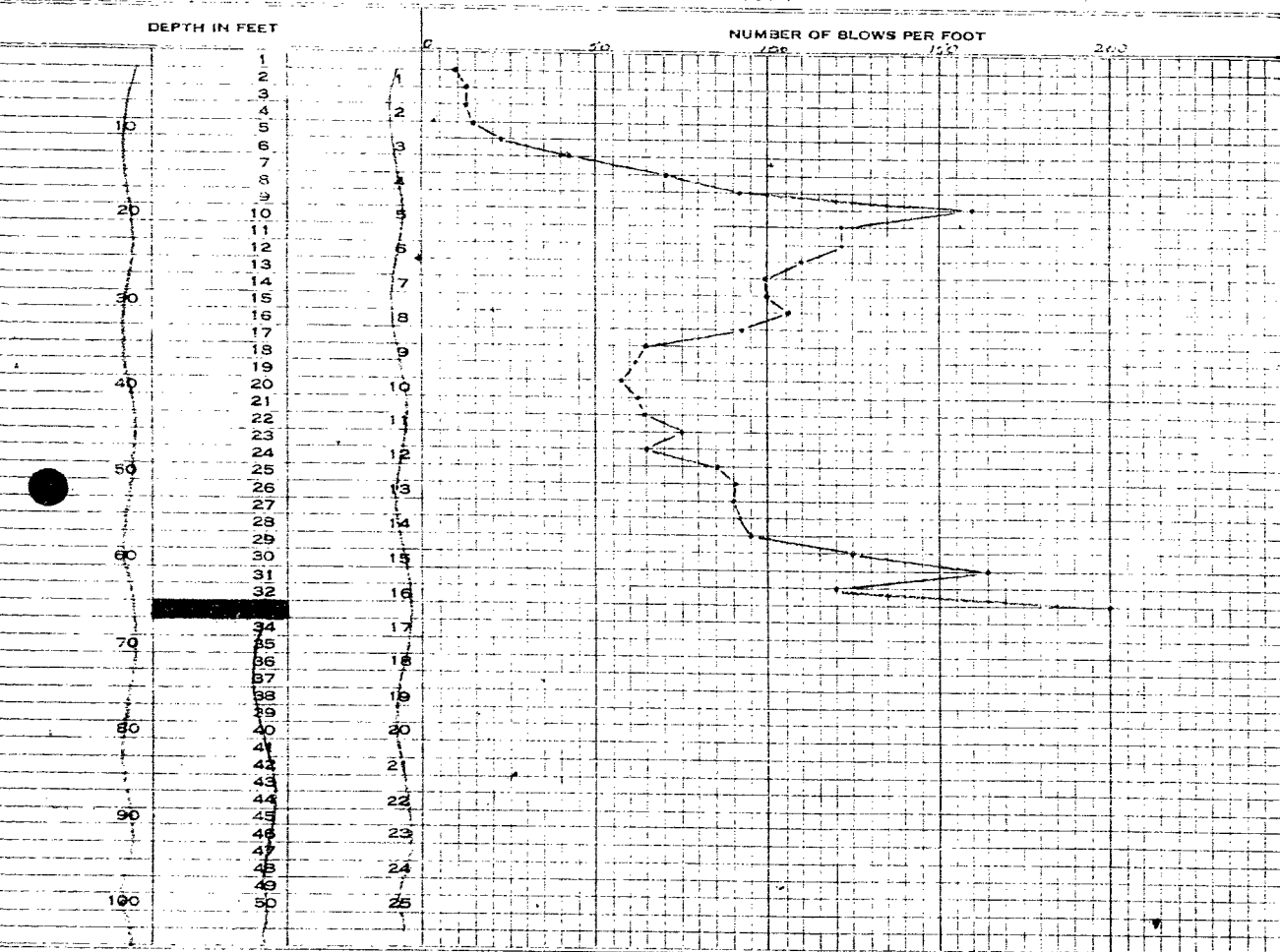
DATE: MARCH 17th, 1955

TEST NO.: 1

JOB NO. PC 366

WEIGHT OF HAMMER 2254

DROP 3 FT.



Ground Surface Elevation 943
Refusal Elevation 911
Number of Blows 200 for 10"

SIGNED

Donald J. C. Sh.

FRANKI

COMPRESSED PILE COMPANY
OF CANADA LIMITED

PERCUSSION TEST DIAGRAM

FOR: DEPARTMENT OF HIGHWAYS OF ONTARIO.

AT: OXFORD TEST #12.

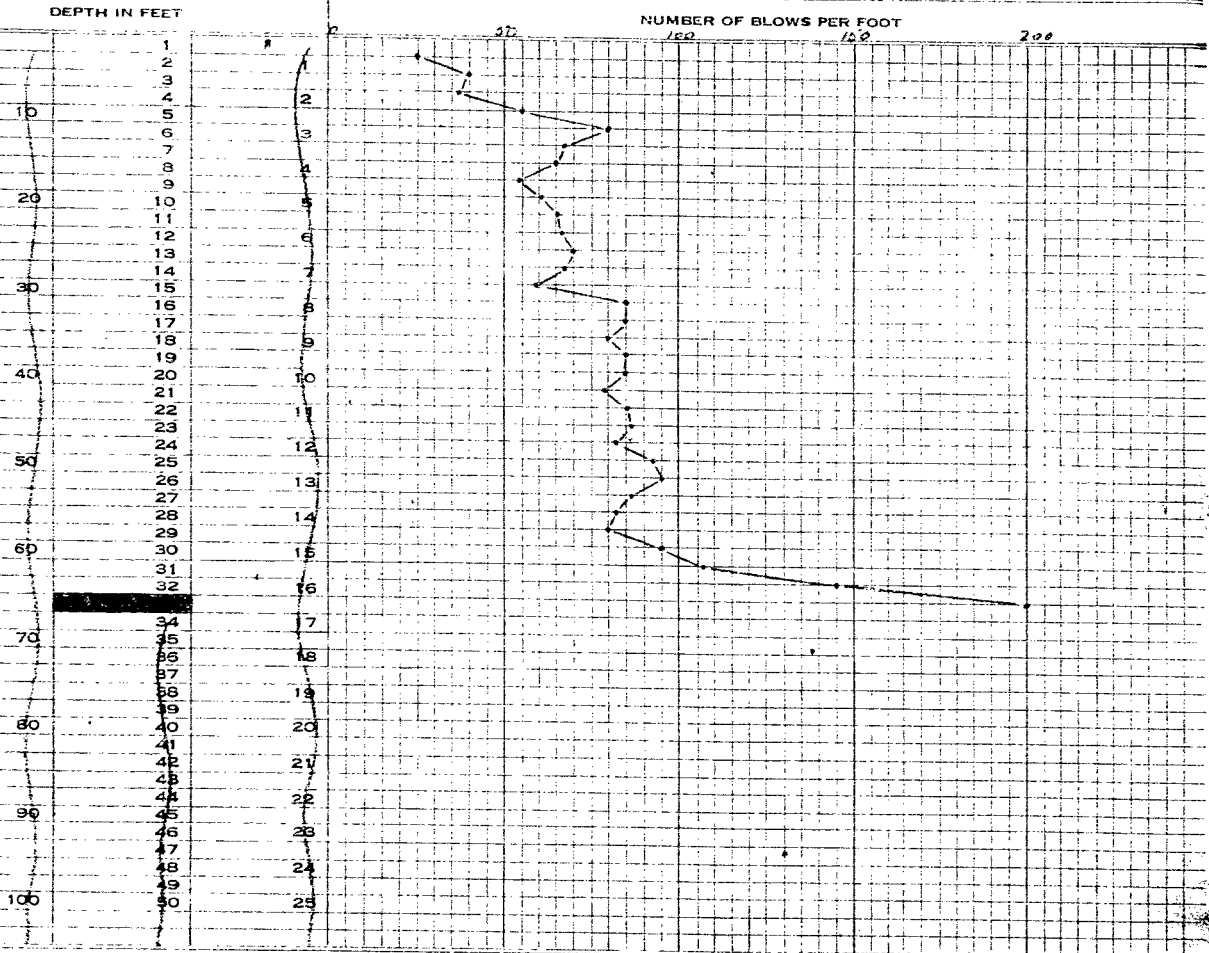
DATE: MARCH 15th, 1955.

TEST NO.: 2

JOB NO. PC 366

WEIGHT OF HAMMER 225#

DROP 3 FT.



Ground Surface Elevation 942
 Refusal Elevation 910
 Number of Blows 200 for 8"

SIGNED

Donald J. Clough

FRANKI

COMPRESSED PILE COMPANY
OF CANADA LIMITED

PERCUSSION TEST DIAGRAM

FOR: DEPARTMENT OF HIGHWAYS OF ONTARIO,

AT: OXFORD WEST #12.

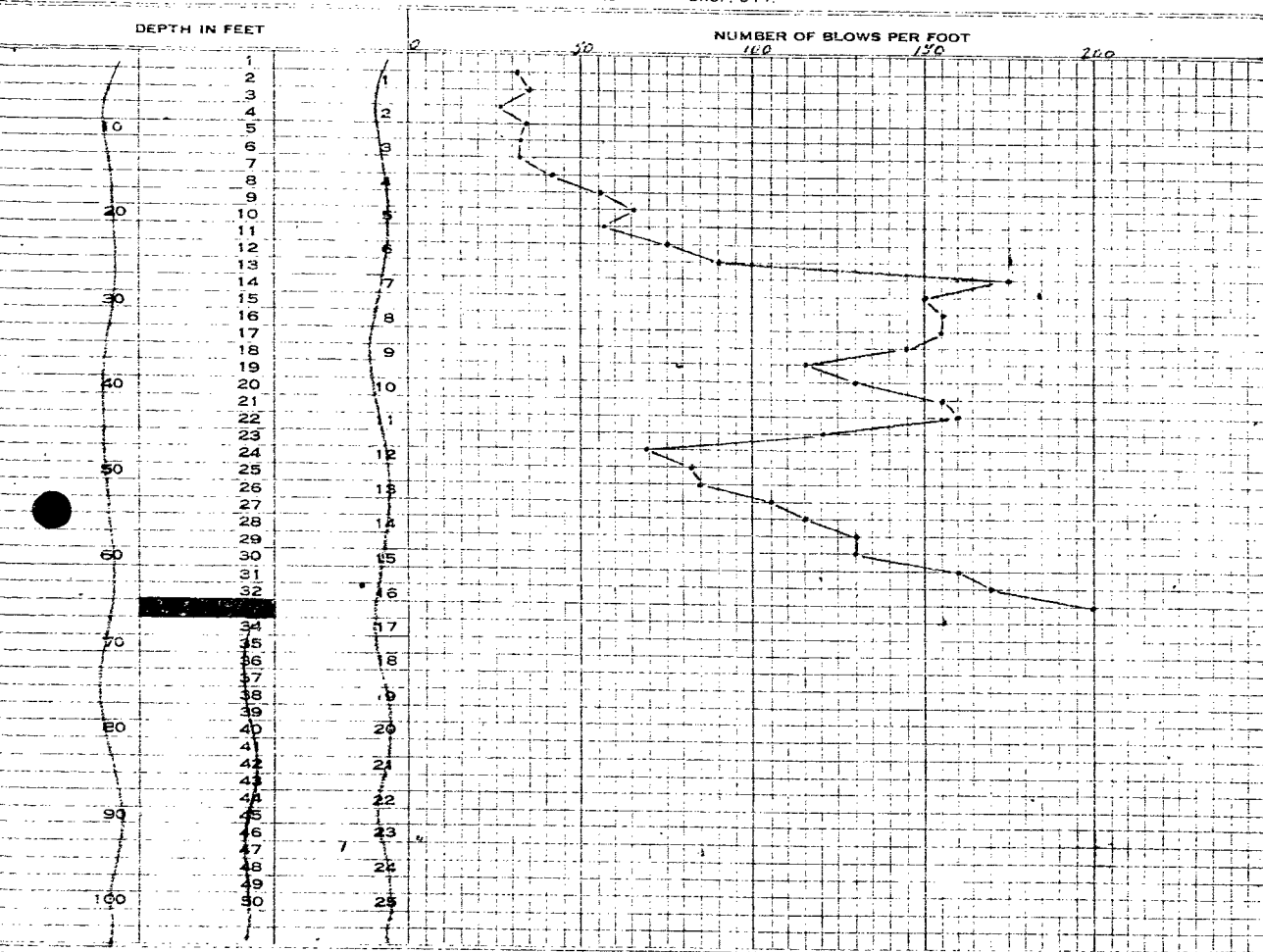
DATE: MARCH 14th, 1955.

TEST NO.: 3

JOB NO. MC 366

WEIGHT OF HAMMER 2254

DRCP, 3 FT.



Ground Surface Elevation 943
Refusal Elevation 911
Number of Blows 200 for 11"

SIGNED

Donald J. [Signature]

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COMPRESSED PILE COMPANY
OF CANADA LIMITED

PERCUSSION TEST DIAGRAM

FOR: DEPARTMENT OF HIGHWAYS OF ONTARIO.

AT: OXFORD WEST #12.

DATE: MARCH 17th, 1955.

JOB NO. EC 366

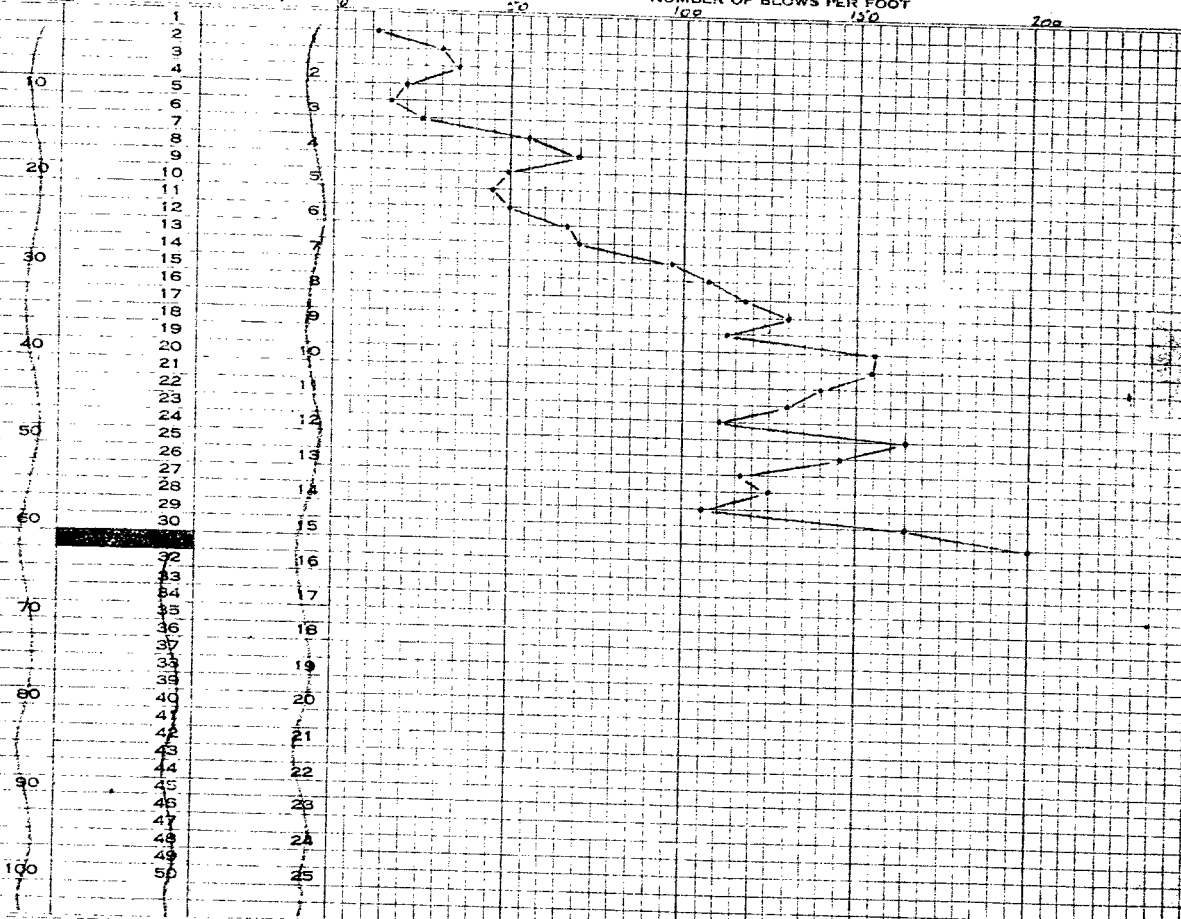
TEST NO.: 4

WEIGHT OF HAMMER 225

DROP: 3 FT.

DEPTH IN FEET

NUMBER OF BLOWS PER FOOT



S. & T. LTD.

Ground Surface Elevation 943
Refusal Elevation 913
Number of Blows 200

SIGNED

Donald J. Pugh

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COMPRESSED PILE COMPANY
OF CANADA LIMITED

PERCUSSION TEST DIAGRAM

FOR: DEPARTMENT OF HIGHWAYS OF ONTARIO.

AT: OXFORD WEST #12.

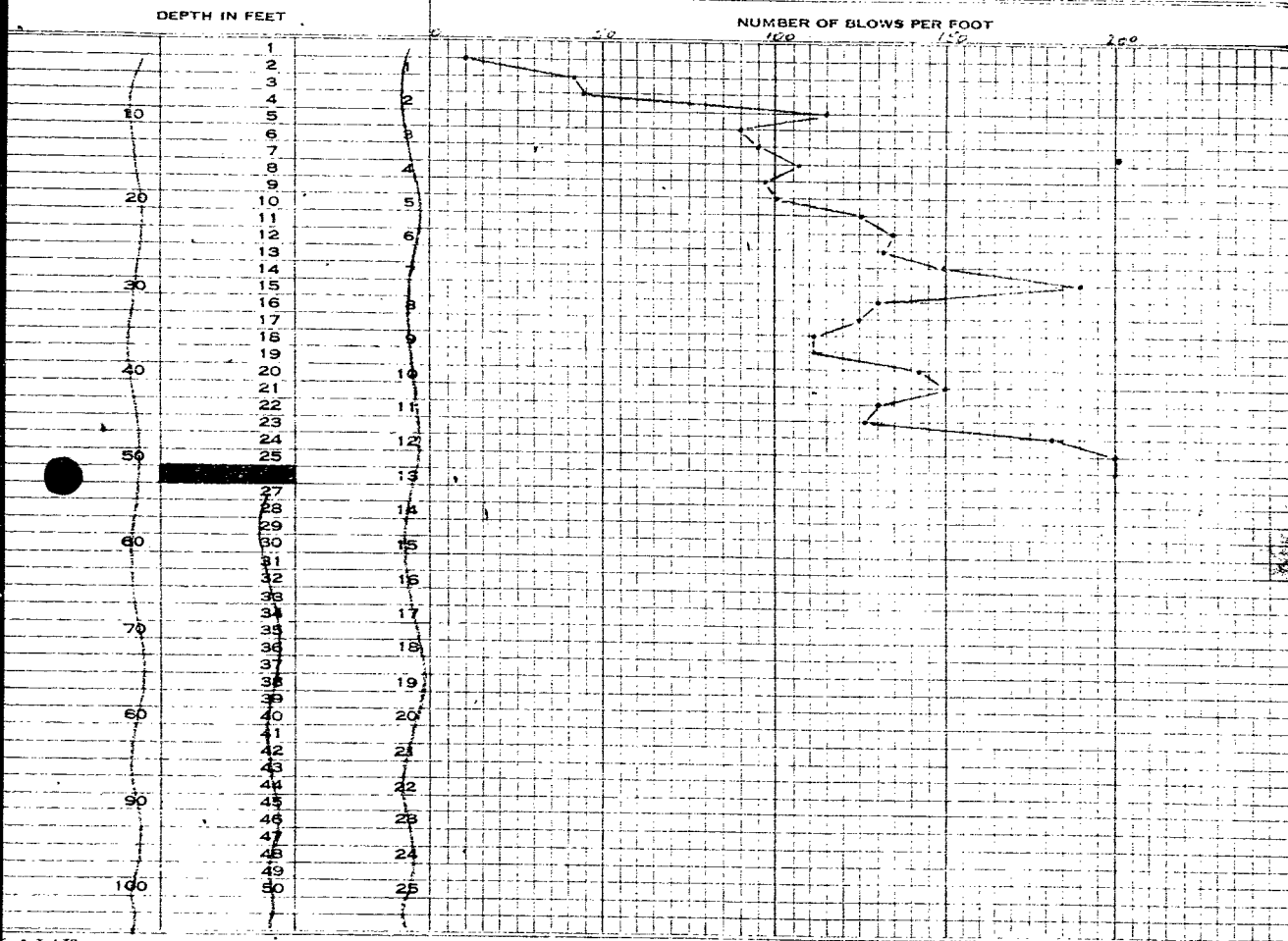
DATE: MARCH 15th, 1955.

JOB NO. 10 366

TEST NO.: 5

WEIGHT OF HAMMER 225#

DROP: 3 FT.



Ground Surface Elevation 912
 Refusal Elevation 918
 Number of Blows 200 for 10'

SIGNED

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OF CANADA LIMITED

PERCUSSION TEST DIAGRAM

FOR: DEPARTMENT OF HIGHWAYS OF ONTARIO.

AT: OXFORD WEST #12.

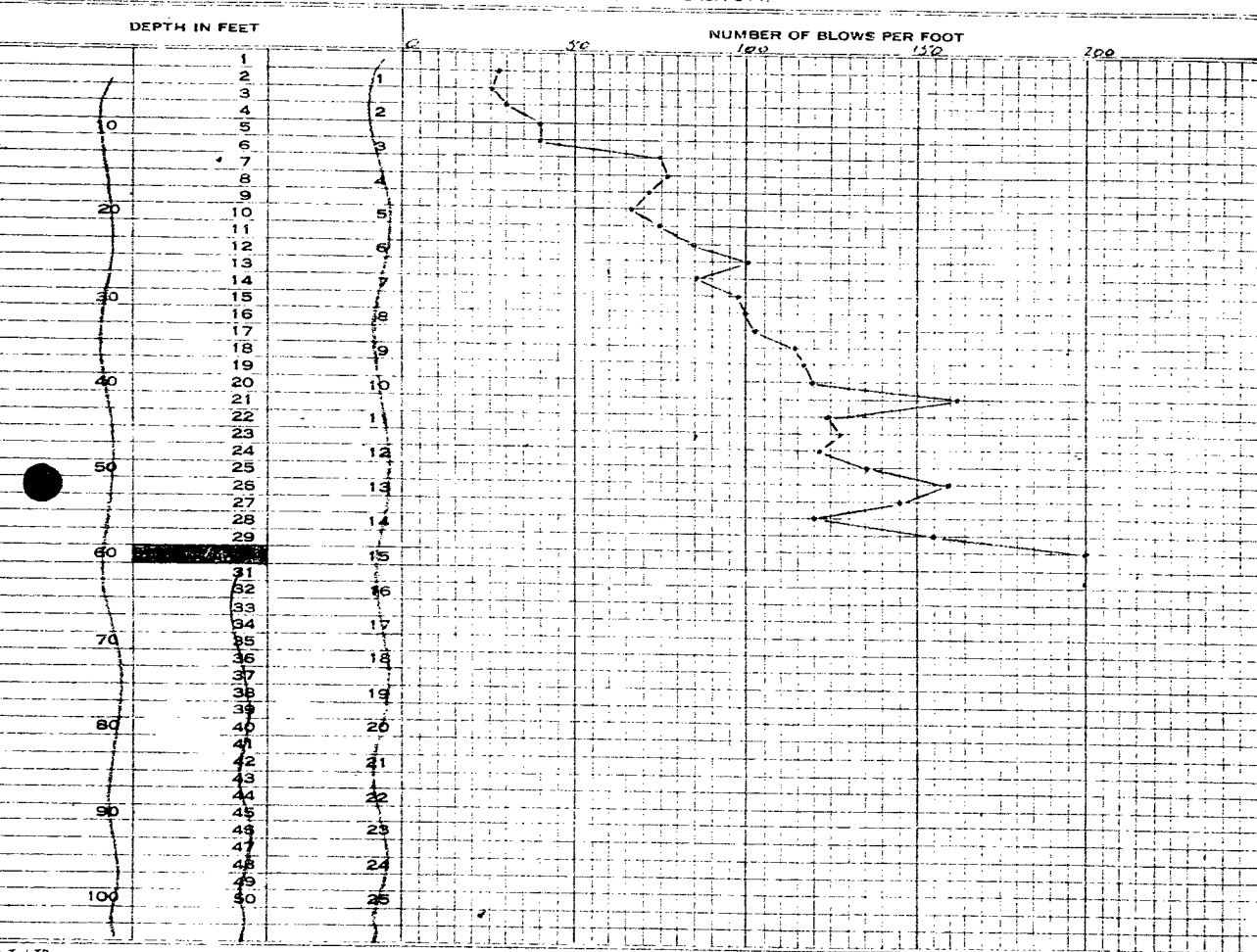
DATE: MARCH 14th, 1955.

TEST NO.: 6

JOB NO. PG 366

WEIGHT OF HAMMER 225#

DROP: 3 FT.



Ground Surface Elevation 94.3
 Refusal Elevation 91.1
 Number of Blows 200 for 7"

SIGNED