

\*58-F-25

W.P.# 10-58

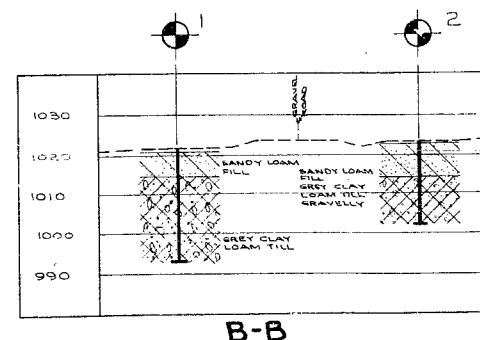
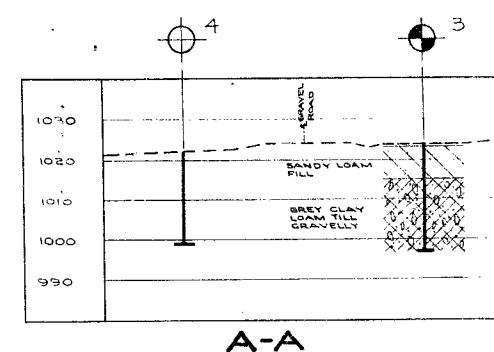
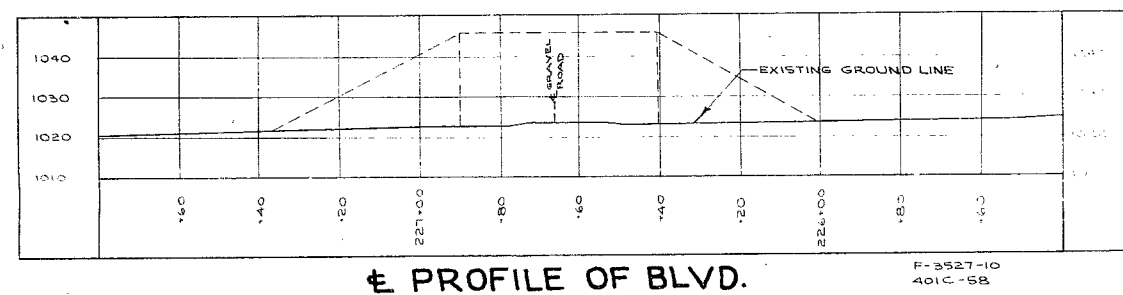
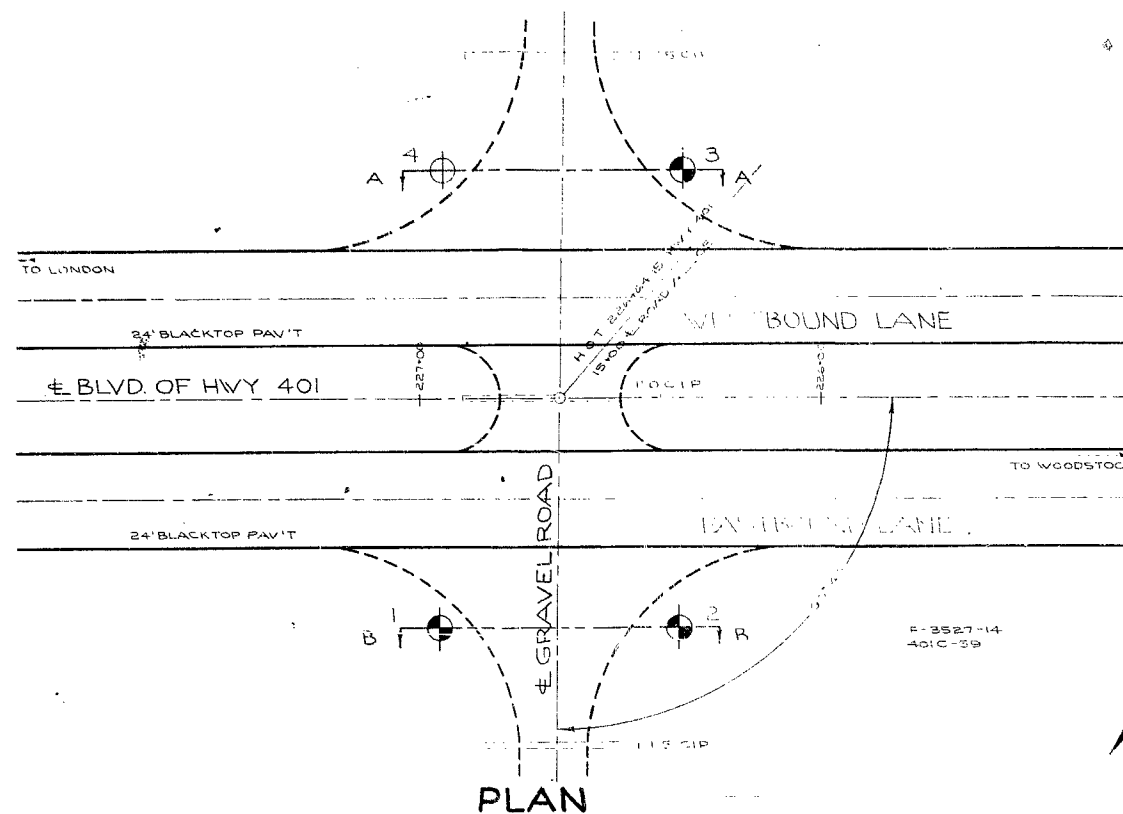
HWY # 401 & GRAVEL  
RD CROSSING

BETWEEN LOTS #12 & #13

(CON II) 2.2 MI. E. OF

HWY #19





LEGEND			
BORE HOLE			
PENE'T HOLE			
BORE & PENE'T HOLE			
HOLE NO.	ELEVATION	STATION	DISTANCE FROM A.
1	1021.9'	226+94.15	57' LT.
2	1023.5'	226+34.15	57' LT.
4	1024.1'	226+94.15	57' RT.
3	1022.1'	226+34.15	57' RT.

— NOTE —

THE BOUNDARIES BETWEEN SOIL STRATA HAVE BEEN ESTABLISHED ONLY AT BORE HOLE LOCATIONS. BETWEEN BORE HOLES THE BOUNDARIES ARE ASSUMED FROM GEOLOGICAL EVIDENCE AND MAY BE SUBJECT TO CONSIDERABLE ERROR.

DEPARTMENT OF HIGHWAYS — ONTARIO		
MATERIALS & RESEARCH SECTION DOWNSVIEW		
<b>GRAVEL ROAD</b>		
<b>PROPOSED CROSSING</b>		
<b>3 MILES EAST OF INGERSOL</b>		
SHOWING POSITION & ELEVATION OF HOLES		
HWY NO. 401	W.P. 10-58	LOT 12 & 13
CO. OXFORD	DIV. 2	CON. II
TWP. W. OXFORD		
SCALE	SUBMITTED BY	DATE
1" = 20 FT.		4 SEPT 58
DRAWN BY	APPROVED BY	DRAWING NO.
TM		F 58-25A

Mr. A. Foye,  
Bridge Engineer.  
Materials & Research Section.

September 24, 1958

Re: Foundation investigation at  
Hwy. 401 and gravel road crossing  
between lots 12 & 13 (Con. II),  
2.2 miles E. of Hwy. 19,  
Township of West Oxford.  
W.P. 10-58 H.S. F-58-25.

Attached please find two sets of log sheets and drawing No. F-58-25A,  
in connection with the foundation investigation at this site.

It will be seen that the subsoil, under the top sandy loam fill, is one  
layer of gravelly clay loam till. The new bridge can be supported on spread  
footing type foundations placed at elevation about 1010 ft. at this elevation,  
assessed from the laboratory test results, the subsoil can provide a bearing  
value of 2.5 T.s.f. Due to the nature of the subsoil higher bearing values  
could be obtained by placing the footings at lower elevations.

A. Rutka  
Acting Materials & Research Engineer

Per:

V. Korlu  
(V. Korlu) *AK*

VK/hk

C.C. Messers. A. Foye  
H. Treganwen  
D.D. Ramsay  
R.M. Richardson  
A. Watt  
Dr. P. Karrow  
Foundation Section  
FILE

DEPARTMENT OF HIGHWAYS - ONTARIO  
MATERIALS & RESEARCH BRANCH - FOUNDATIONS SECTION - DOWNSVIEW  
**OFFICE REPORT ON SOIL EXPLORATION**

DRILL RIG 54-5 OPERATION BORE & PENETIN JOB F-58-25 WP 10-58 BORING 1 STA. 226+94.15 57' LT  
CASING BX (standard samplers to fit unless noted) DATUM GEODETIC DATE REPORT AUGUST 1958  
SAMPLER HAMMER WT. 250 LBS. DROP 19 INCHES COMPILED BY H.S. CHECKED BY AL DATE BORING 18 JULY 1958

## ABBREVIATIONS

## SAMPLE TYPES

## SAMPLE CONDITION

V - INSITU VANE SHEAR TEST Q - TRIAXIAL QUICK K - PERMIABILITY C.S. - CHUNK S.S. - SLEEVE SAMPLE  
M - MECHANICAL ANALYSIS S - TRIAXIAL SLOW C - CONSOLIDATION D.O. - DRIVE OPEN P.S. - PISTON SAMPLE  
U - UNCONFINED COMPRESSION WL - WATER LEVEL IN CASING CA - CASING D.F. - DRIVE FOOT VALVE W.S. - WASHED SAMPLE  
QC - TRIAXIAL CONSOLIDATED QUICK WT - WATER TABLE IN SOIL U - UNIT WEIGHT T.O. - THIN WALLED OPEN R.C. - ROCK CORE



- DISTURBED  
- FAIR  
- GOOD  
- LOST

## SOIL PROFILE

SHEAR STRENGTH IN LBS. PER SQ. FT. \*  
2000 4000 6000 8000

WATER CONTENT W% 20 30 40 50

PENETRATION TEST RESISTANCE BLOWS PER FOOT  
AT STANDARD ENERGY (4200 IN. LBS. PER BLOW)

D. CONE PEN. X-----X-----X STAND. PEN. 50 100 150 200

## SAMPLES

CASING BLOWS  
(ACTUAL)OTHER  
TESTS

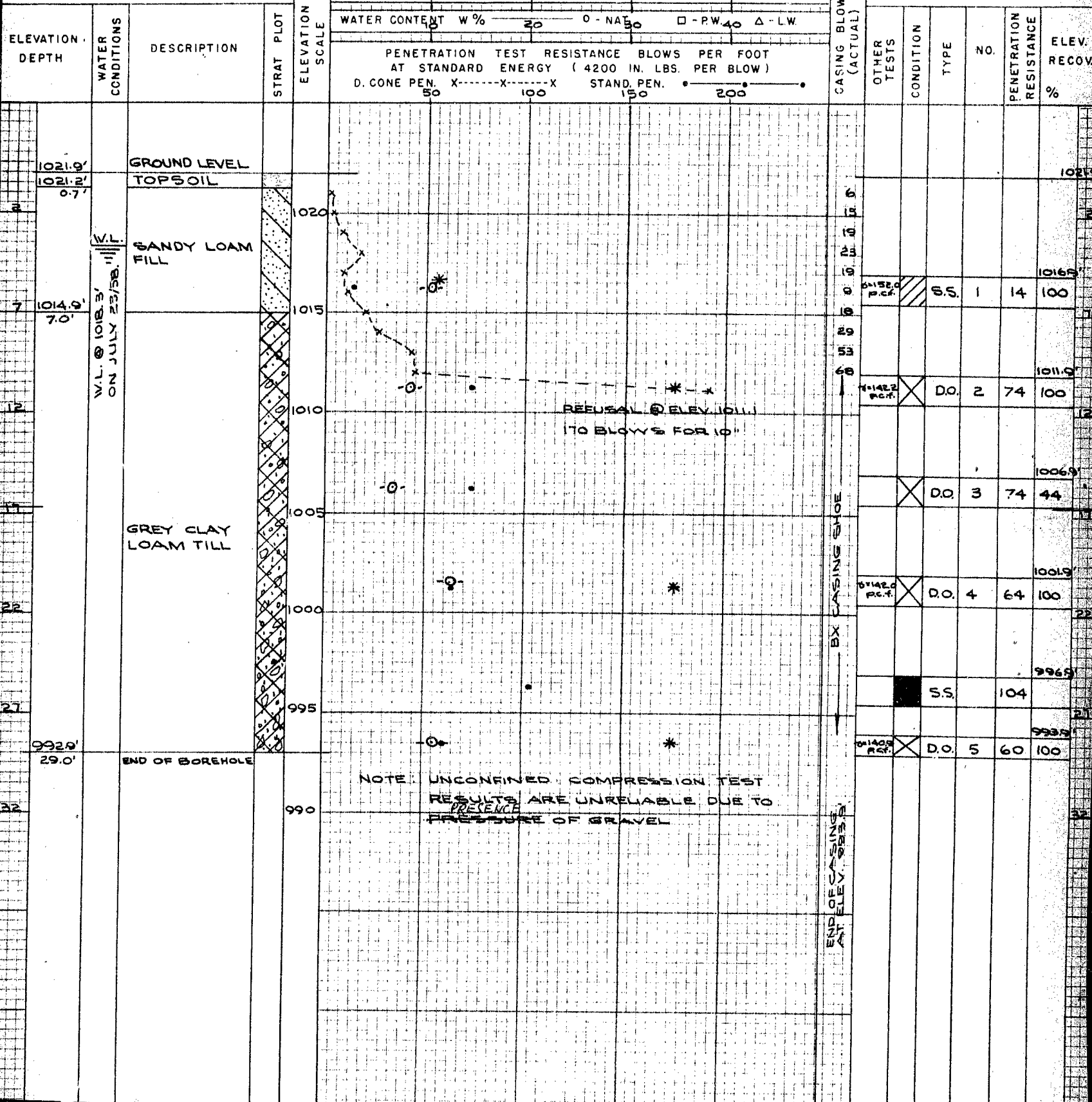
CONDITION

TYPE

NO.

PENETRATION  
RESISTANCEELEV.  
RECOV.

%



DEPARTMENT OF HIGHWAYS - ONTARIO  
MATERIALS & RESEARCH BRANCH - FOUNDATIONS SECTION - DOWNSVIEW  
**OFFICE REPORT ON SOIL EXPLORATION**

DRILL RIG 54-5 OPERATION BORE & PENETIN JOB F-58-25 WP 10-58 BORING 2 STA. 22+34.15 57' LT.  
CASING BX (standard samplers to fit unless noted) DATUM GEODETIC DATE REPORT AUGUST 1958  
SAMPLER HAMMER WT. 250 LBS. DROP 19 INCHES COMPILED BY H.S. CHECKED BY AL DATE BORING 22 JULY 1958

## ABBREVIATIONS

V - INSITU VANE SHEAR TEST Q - TRIAXIAL QUICK K - PERMIABILITY  
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U - UNCONFINED COMPRESSION WL - WATER LEVEL IN CASING CA - CASING  
Q<sub>c</sub> - TRIAXIAL CONSOLIDATED QUICK WT - WATER TABLE IN SOIL U - UNIT WEIGHT

## SAMPLE TYPES

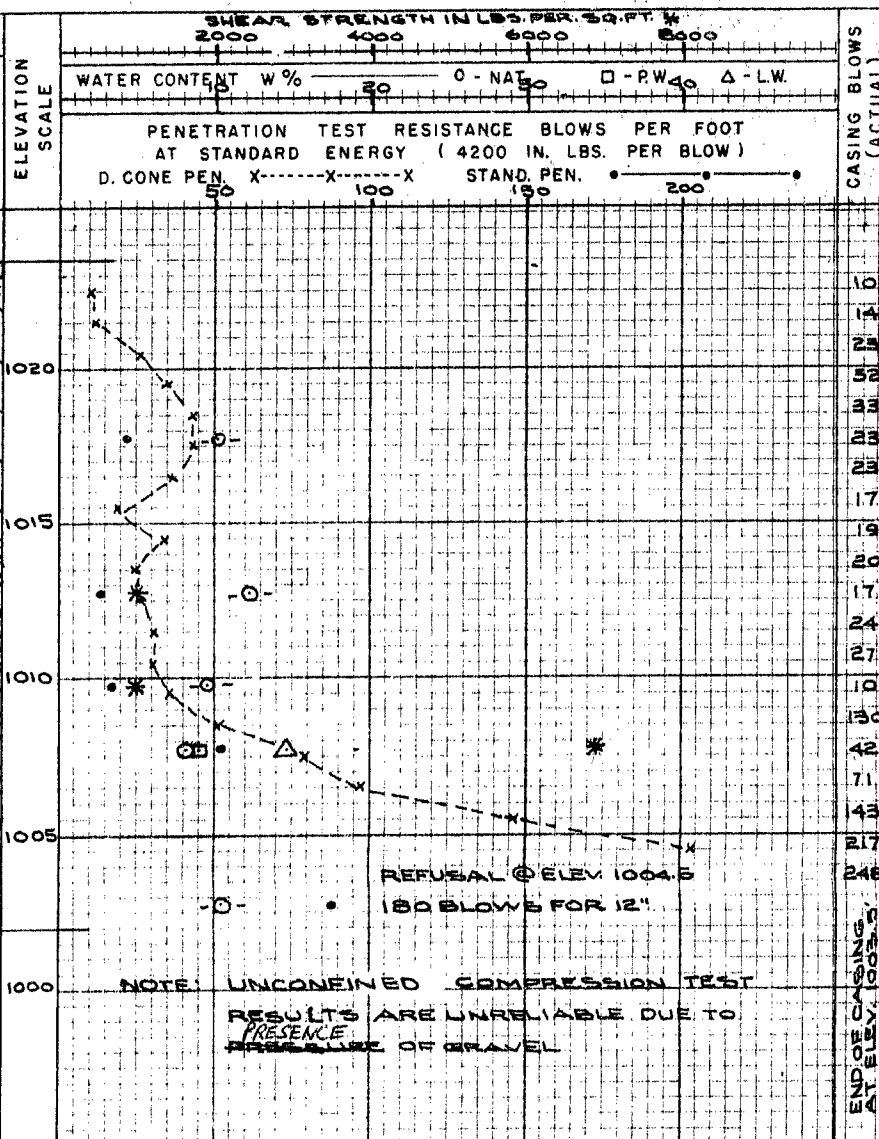
C.S. - CHUNK S.S. - SLEEVE SAMPLE  
D.O. - DRIVE OPEN P.S. - PISTON SAMPLE  
D.F. - DRIVE FOOT VALVE W.S. - WASHED SAMPLE  
T.O. - THIN WALLED OPEN R.C. - ROCK CORE

## SAMPLE CONDITION

 - DISTURBED  
 - FAIR  
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 - LOST

## SOIL PROFILE

ELEVATION DEPTH	WATER CONDITIONS	DESCRIPTION	STRAT PLOT
1023.5'		GROUND LEVEL	
1023.0'		TOP SOIL	
1014.5'	W.L. @ 1013.2' ON JULY 23/58	SANDY LOAM FILL	
1002.0'		GREY CLAY LOAM TILL GRAVELLY	
21.5'		END OF BOREHOLE	



## SAMPLES

OTHER TESTS	CONDITION	TYPE	NO.	PENETRATION RESISTANCE	ELEV. RECOVER %
					1023.5
					1018.5
					1013.5
					1010.5
					1008.5
					1003.5
					23

DEPARTMENT OF HIGHWAYS - ONTARIO  
MATERIALS & RESEARCH BRANCH - FOUNDATIONS SECTION - DOWNSVIEW  
**OFFICE REPORT ON SOIL EXPLORATION**

DRILL RIG 54-S OPERATION BORE & PENET'N JOB F-56-25 W.P. 10-58 BORING 3 STA 226+94.15 ST' R  
CASING BX & AX (standard samplers to fit unless noted) DATUM GEODETIC DATE REPORT AUGUST 1958  
SAMPLER HAMMER WT. 250 LBS. DROP 19 INCHES COMPILED BY H.S. CHECKED BY AL DATE BORING 24 JULY 1958

## ABBREVIATIONS

V - INSITU VANE SHEAR TEST Q - TRIAXIAL QUICK K - PERMIABILITY  
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U - UNCONFINED COMPRESSION WL - WATER LEVEL IN CASING CA - CASING  
QC - TRIAXIAL CONSOLIDATED QUICK WT - WATER TABLE IN SOIL  $\gamma$  - UNIT WEIGHT

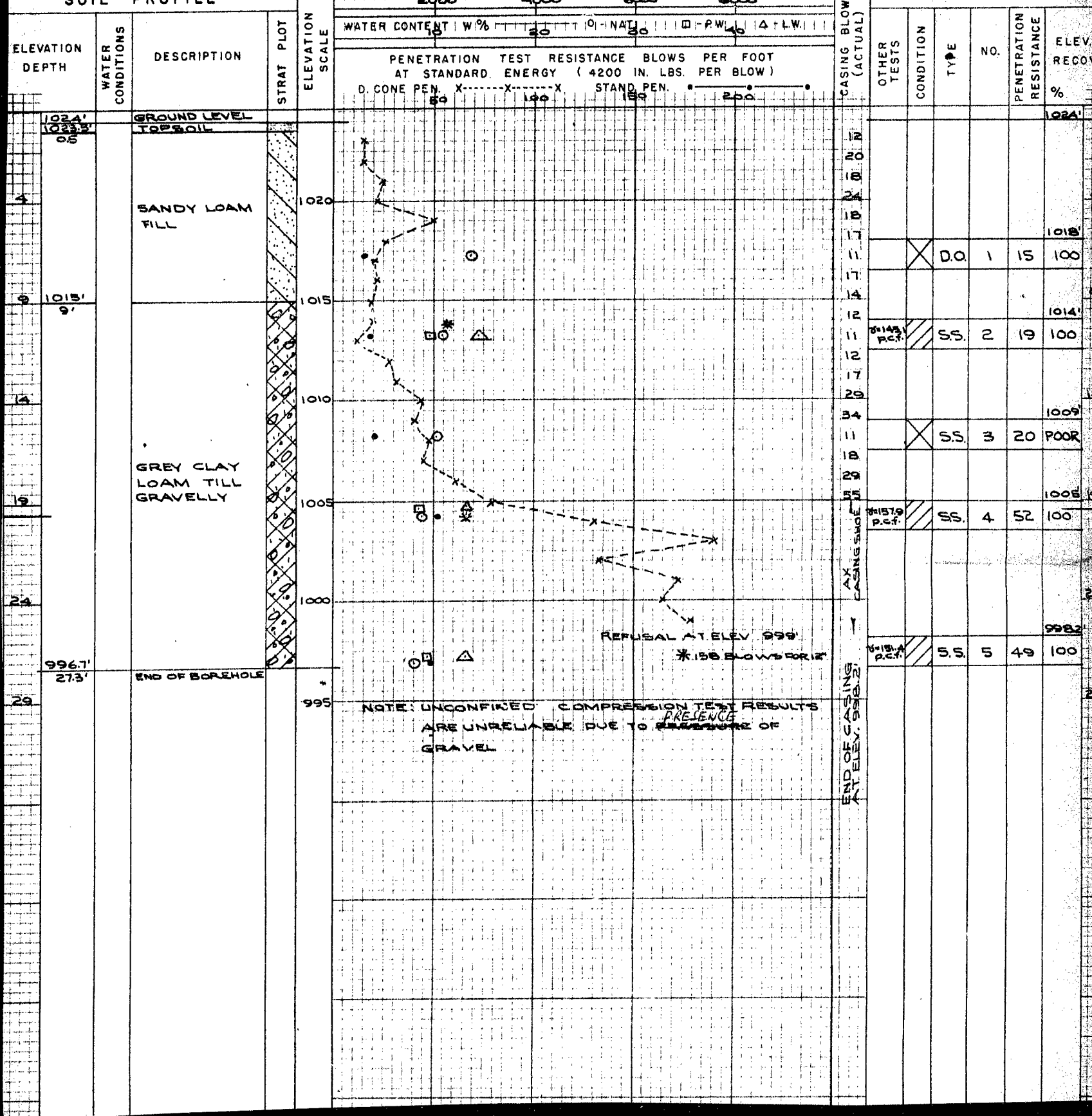
## SAMPLE TYPES

C.S. - CHUNK S.S. - SLEEVE SAMPLE  
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T.O. - THIN WALLED OPEN R.C. - ROCK CORE

## SAMPLE CONDITION

 - DISTURBED  
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 - LOST

## SOIL PROFILE



OFFICE REPORT ON SOIL EXPLORATION

- DISTURBED
- FAIR
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