

DOCUMENT MICROFILMING IDENTIFICATION

G.I.-30 SEPT. 1976

GEOCRES No. 41K-11

DIST. 18 REGION

W.P. No. 1521-70-00

CONT. No.

W. O. No.

STR. SITE No.

HWY. No. 550

LOCATION SOIL BORING

AT STA 234+00

No of PAGES - MEMO ONLY

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OVERSIZE DRAWINGS TO BE INCLUDED WITH THIS REPORT.

REMARKS:

41K - 11

Mr. R. Morgenroth,
Regional Materials Engineer,
Thunder Bay.

Foundation Section,
Materials & Testing Office,
Room 107, Lab. Bldg.

Mr. C. Smith,
Project Soils Engineer.

June 10, 1970.

W.P. 1521-70 Hwy. 550
Soil Boring at Sta. 234+00
W.O. 70-11036 Dist. #18
(Sault Ste. Marie)

Enclosed please find a copy of the log of the borehole carried out at your request at the above-mentioned site, together with the laboratory mechanical analysis test results. As discussed with you by 'phone your section will provide the District with recommendations relating to this project.

KGS/hrd

K. G. Selby,
SUPERVISING FOUNDATION ENGINEER
For
A. G. Stermac,
PRINCIPAL FOUNDATION ENGINEER

cc: Foundation Files
General Files

DEPARTMENT OF HIGHWAYS- ONTARIO
MATERIALS & TESTING OFFICE

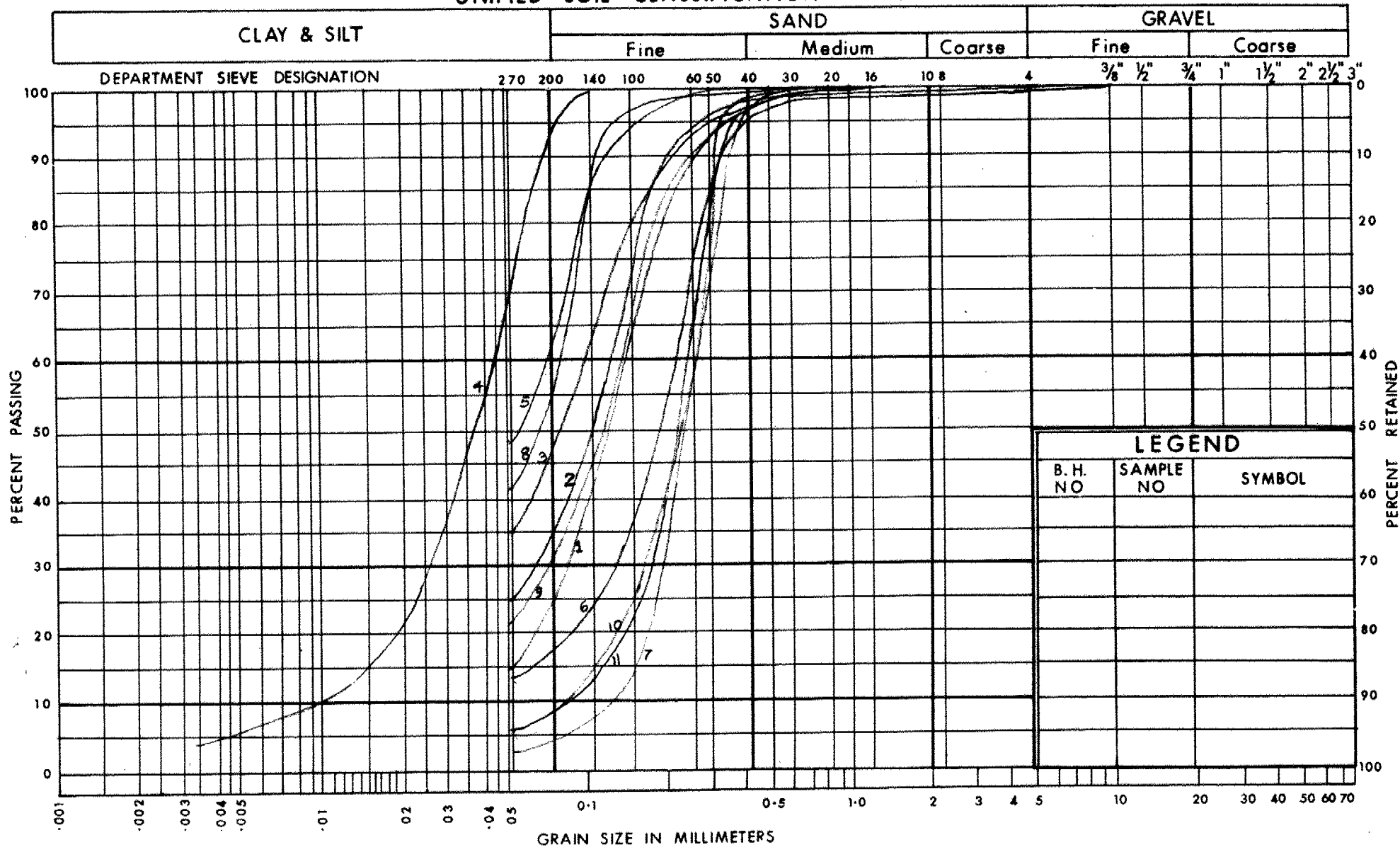
RECORD OF BOREHOLE No. 1

FOUNDATION SECTION

JOB 70-11036 LOCATION HWY 550 STA. 234+00 ORIGINATED BY AP
V.M. 1521-70 BORING DATE MAY 12, 1970 COMPILED BY AP
DATUM GEODETIC BOREHOLE TYPE BOMBARDIER FLIGHT AUGER, AND CONE CHECKED BY _____

SOIL PROFILE			SAMPLES			ELEV. SCALE	DYNAMIC PENETRATION RESISTANCE BLOWS / FOOT					LIQUID LIMIT — w_L PLASTIC LIMIT — w_p WATER CONTENT — w			BULK DENSITY γ P.C.F.	REMARKS
ELEV. DEPTH	DESCRIPTION	STRAT. PLOT	NUMBER	TYPE	BLOWS / FOOT		20	40	60	80	100	w_p	w	w_L		
730.5	GROUND LEVEL					730.0										GR. SA. S & CL.
0.0			1	SS	27											0 85 15
			2	SS	28	720.0										0 75 25
			3	SS	28											0 65 35
	LAYER OF SILT WITH TRACES OF SAND & CLAY		4	SS	41	710.0										0 7 93
			5	SS	34											0 39 61
	SANDY SILT TO FINE SAND WITH TRACES OF CLAY		6	SS	34	700.0										1 82 17
	REDDISH BROWN COMPACT TO VEKY DENSE		7	SS	29											0 97 3
			8	SS	43	690.0										0 45 55
			9	SS	72											0 70 30
			10	SS	88	680.0										0 92 8
669.0			11	SS	109 1/2	670.0										0 92 8
61.5	END OF BOREHOLE															
	NOTE: THE BOREHOLE WAS DRY AT THE END OF THE INVESTIGATION.					660.0										

UNIFIED SOIL CLASSIFICATION SYSTEM



DEPARTMENT OF HIGHWAYS
MATERIALS and
TESTING
DIVISION

GRAIN SIZE DISTRIBUTION

W.P. No.

JOB No. 70-11036

MEMORANDUM

To: Mr. A. Stermac,
Principal Foundations Engineer,
Downsview.

From: Materials and Testing,
Northwestern Region.

Attention: Mr. R. Selby,
Supervising Foundations Engineer.

Date: April 15, 1970.

Our File Ref. _____

In Reply To _____

Subject: Foundation Investigations, District 18
Sault Ste. Marie

As per our telephone conversation of April 14, 1970, the following is a list of the areas to be investigated in the Sault Ste. Marie District.

1. Work Project 162-67-01: Highway 546 From Iron Bridge Northerly to Highway 554.

Approximate borehole locations are indicated on Plan B-338-8 and Profile C-338-8, which are being forwarded under separate cover for your information. The investigation should determine the maximum fill height that can be placed without stabilization or the required treatment, if the proposed fill cannot be maintained without stabilization at the locations indicated.

This information is required by July 9, 1970 so that our commitments can be met.

2. Bolton River: Approximately 2 Miles South of Iron Bridge via Township Road, Township of Bright.

The District is proposing a timber structure at this location (Site Plan is enclosed), and have requested a recommendation pertaining to the length of timber pile required. This information is required by May 15, 1970.

3. Various Locations: As Per the Attached Memorandum.

Parts (a), (b) and (c) of Mr. Sawyer's memorandum are self-explanatory. Part (d) pertains to the probable sand cut near Gros Cap and an approximate location for this borehole has been indicated on Plan B-595-2 and Profile C-595-2, which are being forwarded under separate cover. This information should be available by May 27, 1970.

Part (e) may already have been completed under Foundation Investigation Report No. W.J. 69-F-42.

Mr. A. Stermac

April 15, 1970

The suggested date of May 5, 1970 will be satisfactory to review the above sites in the field. Perhaps someone from the District staff can be available at this time to assist in locating some of the sites in question.

If any further information is required, please contact this office.

[Signature]
C. M. Smith,
Project Soils Engineer,

For:

R. Morgenroth,
REGIONAL MATERIALS ENGINEER.

CMS/mh

c.c.: R. G. Gascoyne
W. G. Sawyer
J. P. Marcolin

MEMORANDUM

To: Mr. J. J. Jordan,
Engineer, Engineering Services,
Thunder Bay, Ontario.

From: Mr. W. G. Sawyer,
District Maintenance Engineer,
Sault Ste. Marie, Ontario.

ATTENTION: R. MORGENTHAU - P&C MATERIALS ENG

DATE: April 1, 1970.

OUR FILE REF.

IN REPLY TO:

SUBJECT: Foundation and Soils Investigation District 18

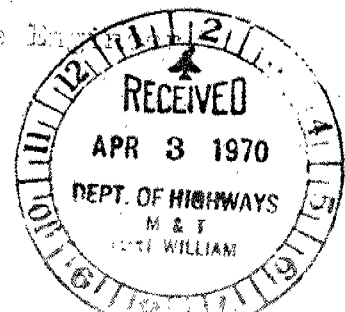
It is my understanding that the Regional Materials and Testing will have a drilling crew in this area in the near future. While they are in the area the District would appreciate the following work being performed:

- a) Two holes at Bellevue Creek on Highway 556 - We propose to replace the existing pipe at this location.
- b) Two holes at Richardson's Creek, Highway 548, 6.5 miles south of Richards Landing - The existing timber culvert is inadequate, and we propose installation of a multiplate pipe. Mr. Brock
- c) Two holes at Unnamed Creek, approximately 2.5 miles north of Highway 17 on Highway 561. The existing pipe in this area is too high for effective drainage, and we propose to lower the pipe.
- d) One hole on the proposed revision of Highway 550 at Gros Cap, WP 1521-70-00.
- e) Foundation investigation required at two creek crossings on Highway 638 on the new revised line under WP 263-66-010.

Kindly advise whether you will be able to perform the above-mentioned work. If the work can be performed, I suggest that the man in charge of the drilling crew contact this office before starting the work, as we can be of some assistance in locating the various areas in question.

W. G. Sawyer
W. G. Sawyer,
District Maintenance Engineer
for
R. G. Gascoyne,
District Engineer.

AGS:my



Hwy 546

Sta 203 + 25
275 + 50
293 + 75
295 + 30
312 + 00

Both sides of Φ
Left
 Φ
10' Left
 Φ

Eley Road Municipal 2 miles S. of Hwy 17
Bolton River.

Hwy 550

Sta 234 + 00 on Φ (New)
About 40' deep cut

Mr ^{Bob} Slater Regional Engg. Sweeney

177 Andrew St.
254 - 4172

FIELD BORING LOG

DRILLING CO. DOMINION DATUM ELEV. SEE PROFILE B.H. NO. 1
 DRILLER JOHN MESE GROUND ELEV. 730.5 JOB NO. 70-11036
 ENGINEER A. P. CASING SIZE _____ DATE MAY 12, 1970
 SITE LOCATION HWY 550 GROS CAP
 HOLE LOCATION 234+00 2
 REMARKS _____

Arr. at 550 & 565 8:00

DEPTH FEET		DESCRIPTION	SAMPLE TYPE, NO. & RECOVERY	METHOD OR BLOWS & DISTANCE
FROM	TO			
0.0	5.0	Auger - Fine to med. reddish brown sand		
5.0	6.5	SS - Same	SS #1	9, 10, 17
5.0	10.0	Auger		
10.0	11.5	SS - Same	SS #2	7, 9, 12
10.0	15.0	Auger		
15.0	16.5	SS - Same	SS #3	9, 11, 17
15.0	20.0	Auger		
20.0	21.5	SS - Same. A clayey silt layer layer 20.0 - 20.6 ft	SS #4	12, 18, 23
20.0	25.0	Auger		
25.0	26.5	SS - Fine to med sand, reddish brown	SS #5	13, 15, 12
25.0	30.0	Auger		
30.0	31.5	SS - Same	SS #6	11, 15, 19
30.0	35.0	Auger		
35.0	36.5	SS - Same	SS #7	10, 13, 16
35.0	40.0	Auger		
40.0	41.5	SS - Same	SS #8	12, 21, 22
40.0	45.0	Auger		
45.0	46.5	SS - Same	SS #9	18, 36, 36

FIELD BORING LOG

DRILLING CO. _____	DATUM ELEV. _____	B.H. NO. <u>1</u>
DRILLER _____	GROUND ELEV. _____	JOB NO. <u>70-11036</u>
ENGINEER _____	CASING SIZE _____	DATE <u>MAY 12, 1970</u>
SITE LOCATION _____		
HOLE LOCATION _____		
REMARKS _____		

DEPTH FEET		DESCRIPTION	SAMPLE TYPE, NO. & RECOVERY	METHOD OR BLOWS & DISTANCE
FROM	TO			
45.0	50.0	Auger		
50.0	51.5	SS - Sand	SS # 10	22, 40, 48
50.0	60.0	Auger		
60.0	61.5	SS - Same	SS # 11	27, 52, 48 1/2
		END OF BARGE LOG		
		9 AM TO 1 PM		
0.0	10.0	4-13-23-24-26-36-34-24-24-24		
10.0	20.0	25-25-26-25-22-20-22-24-28-32		
20.0	30.0	41-36-27-50-56-61-45-42-38-34		
30.0	40.0	24-26-28-36-54-52-45-48-50-60		
		END OF CONE TEST		
		1 - 2 PM Load up 2 - 2:30 PM		
		Travel to St. Joseph Island,		
		Lunch 3:00 - 3:30.		