



Public Works
Canada

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GEOTECHNICAL INVESTIGATION

SHAKWAK RELOCATION PROJECT
ALASKA HWY km 1634.5-1664.5 (SEG.8)

CENTERLINE DRILLING
VOLUME III OF III

GEOTECHNICAL & MATERIAL SERVICES
WHITEHORSE, YUKON

VOLUME III

CONTENTS

APRIL 1978 CENTERLINE INVESTIGATION HOLES 78-8-C1 to
78-8-C35

Drill log summaries only

MAY 1978 CENTERLINE INVESTIGATION HOLES 78-8-C1M to
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Drill log summaries only

AUGUST 1978 CENTERLINE INVESTIGATION HOLES 78-8-301 to
78-9-321

Drill log summaries only

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 13-4-78

DRILL TECHNICIAN: H.R.R.

PLOTTED BY: R.S.S.

HOLE ELEVATION:

HOLE NO.: C-2

HOLE DEPTH 6.10
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL _____

DEPTH (M.) SOIL DESCRIPTION

0 CLAYEY SILT
_____ .60

1 SILTY SANDY GRAVEL

1.5

2.4

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA

LABORATORY NUMBER _____
SAMPLE TYPE _____
SAMPLE NUMBER (FIELD) _____
SAMPLE DEPTH (FT.) _____

NATURAL MOISTURE CONTENT

%

CONSISTENCY LIMITS

LIQUID LIMIT % _____
PLASTIC LIMIT % _____
PLASTICITY INDEX % _____

MECHANICAL ANALYSIS

GRAVEL % _____
SAND % _____
>.005mm % _____
<.074mm % _____
<.005mm % _____

DRY DENSITY

LBS. CU. FT.

STANDARD PENETRATION RESISTANCE

BLOWS FT.

UNIFIED CLASSIFICATION

GM



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 13-4-78

DRILL TECHNICIAN: H.R.S.

PLOTTED BY: R.S.S.

HOLE ELEVATION:

HOLE NO.: C-2

HOLE DEPTH 6.10
 TYPE OF DRILL B30-6" AUGERS
 WATER LEVEL _____
 SOIL DESCRIPTION

N.R.C.
PERMAFROST
CLASSIFICATION

SAMPLE DEPTH
(FT.)

SAMPLE NUMBER
(FIELD)

SAMPLE TYPE

LABORATORY
NUMBER

NATURAL
MOISTURE
CONTENT

LIQUID
LIMIT

PLASTIC
LIMIT

PLASTICITY
INDEX

GRAVEL

SAND

MECHANICAL ANALYSIS
 < 0.075 mm %
 > 0.075 mm %
 < 0.005 mm %

DRY
DENSITY

STANDARD
PENETRATION
RESISTANCE

UNIFIED
CLASSIFICATION

5

6

7

8

9

10

SILTY SANDY GRAVEL

END HOLE @ 6.10



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAY SEGMENT 8		HOLE LOCATION:		HOLE NO.: C-3	
DATE DRILLED: 13-4-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.	
HOLE DEPTH: 4.00		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL: B30 6" AUGERS		SAND		BLOWS / FT.	
WATER LEVEL		GRAVEL		CU. FT.	
DEPTH (M.)		PLASTICITY INDEX		UNIFIED CLASSIFICATION	
SOIL DESCRIPTION		PLASTIC LIMIT		SCSM	
CLAYEY SILT		LIQUID LIMIT			
SILTY SANDY GRAVEL		NATURAL MOISTURE CONTENT			
SILTY SANDY GRAVEL TILL		LABORATORY NUMBER			
REFUSAL @ 4.00		SAMPLE TYPE			
		SAMPLE NUMBER (FIELD)			
		SAMPLE DEPTH (FT.)			
		N.R.C. PERMAFROST CLASSIFICATION			



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8			HOLE LOCATION:		HOLE NO.: C-6		UNIFIED CLASSIFICATION	
DATE DRILLED: 13-4-78			DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.		HOLE ELEVATION:	
HOLE DEPTH 4.60			TYPE OF DRILL B20 6" AUGERS		WATER LEVEL		MECHANICAL ANALYSIS	
SOIL DESCRIPTION			SAMPLE IDENTIFICATION DATA		CONSISTENCY LIMITS		GRAVEL	
<p>SILTY SANDY TILL</p> <p>SILTY GRAVELLY SAND</p> <p>END HOLE @ 4.60</p>			LABORATORY NUMBER		PLASTIC LIMIT		SAND	
			SAMPLE TYPE		LIQUID LIMIT		PLASTICITY INDEX	
DEPTH (M)			SAMPLE NUMBER (FIELD)		NATURAL MOISTURE CONTENT		STANDARD PENETRATION RESISTANCE	
0			2.4		%		BLOWS / FT.	
1			3.0		%			
2					%			
3					%			
4					%			
5					%			



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAY SEGMENT 8		HOLE LOCATION:		HOLE NO.: C-7	
DATE DRILLED: 13-4-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.	
HOLE DEPTH: 4.60		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B30 6" AUGERS		SAND		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		GRAVEL		BLOWS / FT.	
DEPTH (M.)		PLASTICITY INDEX		DRY DENSITY	
SOIL DESCRIPTION		PLASTIC LIMIT		LBS. / CU. FT.	
SILT		LIQUID LIMIT		%	
SILTY SANDY GRAVEL		NATURAL MOISTURE CONTENT		%	
SILTY SAND		CONSISTENCY LIMITS		%	
END HOLE @ 4.60		LABORATORY DATA		%	
		SAMPLE IDENTIFICATION DATA		%	
		LABORATORY NUMBER		%	
		SAMPLE TYPE		%	
		SAMPLE NUMBER (FIELD)		%	
		SAMPLE DEPTH (FT.)		%	
		N.R.C. PERMAFROST CLASSIFICATION		%	



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 13-4-78

DRILL TECHNICIAN: H.R.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C-8

DEPTH (M.)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT (%)	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY (LBS./CU. FT.)	STANDARD PENETRATION RESISTANCE (BLOWS/FT.)	UNIFIED CLASSIFICATION
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	> 0.075 mm (%)	< 0.075 mm (%)			
0	CLAY SILT																
1.5	SILTY SANDY GRAVEL		1.5	C8	AUGER S1113	8.4	21.1	15.3	5.8	42.0	22.3	35.7				GC-GM	
2.1	SILTY SAND		2.1														
2.90																	
4.60	END HOLE @ 4.60																



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 13-9-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C-9

HOLE DEPTH 4.60
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL _____
DEPTH (M) _____
SOIL DESCRIPTION _____

DEPTH (M)	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION	
		LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.074 mm %				>.005 mm %
0																
0.20																
0.80																
1.2				C9	1.2											
2.1				AUGER S1119	2.1	16.5										
2.10																ML
4.60																

END HOLE @ 4.60



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAZ SEGMENT 8		HOLE LOCATION:		HOLE NO.: C-10	
DATE DRILLED: 13-4-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 4.60		TYPE OF DRILL: B20 6" AUGERS		WATER LEVEL:	
DEPTH (M)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION	
0	ORGANIC	.20		ML	
1	SANDY SILT				
2					
3					
4					
5					
END HOLE @ 4.60					



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.		HOLE ELEVATION:		HOLE NO.: C-11	
DATE DRILLED: 13-4-78		DRILL TECHNICIAN: H.R.		PLOTTED BY:			
HOLE DEPTH: 4.60		TYPE OF DRILL: B20 6" AUGERS		WATER LEVEL:			
DEPTH (M.)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION			
0	ORGANIC		.20				
1	CLAYEY SILT						
2	1.5	C11	AUGER S1116	30.2	29.4	17.7	11.7
3	2.4						
4							
5							

END HOLE @ 4.60

PROJECT: SHAKWAY SEGMENT 8		HOLE LOCATION:		HOLE NO.: C-12	
DATE DRILLED: 17-4-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 4.60		TYPE OF DRILL: B20 6" AUGERS		WATER LEVEL:	
DEPTH (M)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION	
0	ORGANIC	.10		ML	
1	SAND	.9		ML	
2	SILTY SAND	1.80		ML	
3				ML	
4	SILTY SANDY GRAVEL	4.00		ML	
5	END HOLE @ 4.60			ML	



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 17-4-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C-13

HOLE DEPTH 4.40
TYPE OF DRILL B20 6" AUGERS
WATER LEVEL _____
DEPTH (M) _____
SOIL DESCRIPTION

0 ORGANIC .20
SANDY SILT
SILTY SANDY GRAVEL
1

END HOLE @ 4.40

N.R.C. PERMAFROST CLASSIFICATION

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

MECHANICAL ANALYSIS
GRAVEL %
SAND %
<.074 mm %
<.005 mm %
DRY DENSITY LBS./CU.FT.

STANDARD PENETRATION RESISTANCE BLOWS/FT.

UNIFIED CLASSIFICATION

DEPTH (M)	SAMPLE DEPTH (FT.)	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION		
		SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER			LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.074 mm %	<.005 mm %			DRY DENSITY LBS./CU.FT.	
1.5		C13	AUGER S1144		3.4												
2.1																	
3.0																	
3.7		C14	AUGER S1145		15.4												
4.4																	



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: C-14	
DATE DRILLED: 17-4-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.	
HOLE DEPTH: 4.40		TYPE OF DRILL: B20 6" AUGERS		WATER LEVEL:	
DEPTH (M)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION	
0	ORGANIC				
1	SILTY SANDY GRAVEL				
2	1.5	C15 AUGER S1146	GRAVEL 42.5	SAND 37.2	GM
3	2.4		PLASTICITY INDEX TRACE		
4					
5					

END HOLE @ 4.40



MATERIALS QUALITY CONTROL LABORATORY WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION: R.S.		HOLE NO.: C-15	
DATE DRILLED: 19-4-78		DRILL TECHNICIAN: H.R.		PLOTTED BY:		R.S.	
HOLE DEPTH: 3.20		TYPE OF DRILL: B20 6" AUGERS		WATER LEVEL:		SOIL DESCRIPTION	
DEPTH (M.)		SAMPLE IDENTIFICATION DATA		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
		N.R.C. PERMAFROST CLASSIFICATION		NATURAL MOISTURE CONTENT		GRAVEL	
0		SAMPLE DEPTH (FT.)		PLASTIC LIMIT		SAND	
1		.6		LIQUID LIMIT		36.4	
2		1.5		PLASTICITY INDEX		51.4	
3		C16 AUGER S1147		N.P.		12.2	
4		REFUSAL @ 3.20		%		%	
5				%		%	
				UNIFIED CLASSIFICATION		GM	
				STANDARD PENETRATION RESISTANCE		BLOWS FT.	
				DRY DENSITY		LBS. CU. FT.	
				<.005 mm		%	
				>.074 mm		%	
				>.005 mm		%	

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: **19-4-78**

DRILL TECHNICIAN: H. R. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: **C-17**

HOLE DEPTH **2.70**
 TYPE OF DRILL **B30 6" AUGERS**
 WATER LEVEL _____
 DEPTH (M') _____
 SOIL DESCRIPTION

SILTY SANDY GRAVEL

REFUSAL @ 2.70

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE		DRY DENSITY	MECHANICAL ANALYSIS			CONSISTENCY LIMITS			NATURAL MOISTURE CONTENT	SAMPLE IDENTIFICATION DATA												
	BLOWS	FT.		<.005 mm	<.075 mm	>.005 mm	SAND	GRAVEL	PLASTICITY INDEX		PLASTIC LIMIT	LIQUID LIMIT	DEPTH (FT.)	NUMBER (FIELD)	TYPE	LABORATORY NUMBER							
GM											.6	C18	AUGER	S1149	2.2	N.P.	55.3	13.1	31.6				
											1.5												



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 19-4-78

DRILL TECHNICIAN: H.R.

R.S.

HOLE ELEVATION:

HOLE NO.: C-18

HOLE DEPTH 4.40
 TYPE OF DRILL B30 6" AUGERS
 WATER LEVEL
 SOIL DESCRIPTION

SILTY SANDY GRAVEL

0 1 2 3 4 5

END HOLE @ 4.40

N.R.C.
PERMAFROST
CLASSIFICATION

LABORATORY NUMBER
 SAMPLE TYPE
 SAMPLE NUMBER (FIELD)
 SAMPLE DEPTH (FT.)

NATURAL MOISTURE CONTENT %

LIQUID LIMIT %
 PLASTIC LIMIT %
 PLASTICITY INDEX %

GRAVEL %
 SAND %

< 0.075 mm %
 > 0.075 mm %
 < 0.005 mm %

DRY DENSITY LBS./CU. FT.

STANDARD PENETRATION RESISTANCE BLOWS/FT.

UNIFIED CLASSIFICATION

GP-6M

TRACE 84.9 8.4 4.8 1.9

2.3

C19 AUGER S1150

1.5

2.4



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 19-4-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C-19

HOLE DEPTH 1.20
B20 6" AUGERS
TYPE OF DRILL
WATER LEVEL

DEPTH (M.) SOIL DESCRIPTION

0 1 2 3 4 5

GRAVEL

REFUSAL @ 1.20

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA
LABORATORY NUMBER
SAMPLE TYPE
SAMPLE NUMBER (FIELD)
SAMPLE DEPTH (FT.)

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

MECHANICAL ANALYSIS
GRAVEL %
SAND %
<.074 mm %
>.005 mm %
<.005 mm %

DRY DENSITY LBS. CU. FT.
STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: C-20	
DATE DRILLED: 21-4-78		DRILL TECHNICIAN: H.R.R.		PLOTTED BY: R.S.			
HOLE DEPTH: 4.40		TYPE OF DRILL: B20 6" AUGERS		WATER LEVEL:			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0	ORGANIC	.20					
1	SILTY SANDY GRAVEL						
2	SILTY SAND	1.60					
	ORGANIC TRACES	2.00					
	SILTY SANDY GRAVEL						
4	END HOLE @ 4.40						
5							

MECHANICAL ANALYSIS	DRY DENSITY		STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION
	LBS. CU. FT.	BLOWS / FT.		
<.005 mm	%			
<.074 mm	%			
>.005 mm	%			
SAND	%			
GRAVEL	%			
PLASTICITY INDEX	%			
PLASTIC LIMIT	%			
LIQUID LIMIT	%			
NATURAL MOISTURE CONTENT	%			

CONSENSENCY LIMITS	PLASTICITY INDEX	PLASTIC LIMIT	LIQUID LIMIT	NATURAL MOISTURE CONTENT	SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER
					1.5	C20	AUGER	S1151
					2.4			

GRAVEL	%							
SAND	%							
>.005 mm	%							
<.074 mm	%							
<.005 mm	%							

GRAVEL	%							
SAND	%							
>.005 mm	%							
<.074 mm	%							
<.005 mm	%							

GRAVEL	%							
SAND	%							
>.005 mm	%							
<.074 mm	%							
<.005 mm	%							

GRAVEL	%							
SAND	%							
>.005 mm	%							
<.074 mm	%							
<.005 mm	%							

GRAVEL	%							
SAND	%							
>.005 mm	%							
<.074 mm	%							
<.005 mm	%							

GRAVEL	%							
SAND	%							
>.005 mm	%							
<.074 mm	%							
<.005 mm	%							

GRAVEL	%							
SAND	%							
>.005 mm	%							
<.074 mm	%							
<.005 mm	%							

GRAVEL	%							
SAND	%							
>.005 mm	%							
<.074 mm	%							
<.005 mm	%							

GRAVEL	%							
SAND	%							
>.005 mm	%							
<.074 mm	%							
<.005 mm	%							

GRAVEL	%							
SAND	%							
>.005 mm	%							
<.074 mm	%							
<.005 mm	%							

GRAVEL	%							
SAND	%							
>.005 mm	%							
<.074 mm	%							
<.005 mm	%							

GRAVEL	%							
SAND	%							
>.005 mm	%							
<.074 mm	%							
<.005 mm	%							

GRAVEL	%							
SAND	%							
>.005 mm	%							
<.074 mm	%							
<.005 mm	%							

GRAVEL	%							
SAND	%							
>.005 mm	%							
<.074 mm	%							
<.005 mm	%							

GRAVEL	%							
SAND	%							
>.005 mm	%							
<.074 mm	%							
<.005 mm	%							

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: C-21	
DATE DRILLED: 21-4-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 4.40		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B30 6" AUGERS		GRAVEL		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		SAND		BLOWS / FT.	
DEPTH (M)		PLASTIC LIMIT		LBS. / CU. FT.	
SOIL DESCRIPTION		LIQUID LIMIT		DRY DENSITY	
<p style="text-align: center;">SAND</p> <p style="text-align: center;">SILTY SANDY GRAVEL</p> <p style="text-align: center;">END HOLE @ 4.40</p>		PLASTICITY INDEX		NATURAL MOISTURE CONTENT	
		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
N.R.C. PERMAFROST CLASSIFICATION		PLASTIC LIMIT		PLASTICITY INDEX	
SAMPLE IDENTIFICATION DATA		GRAVEL		SAND	
SAMPLE DEPTH (FT.)		PLASTIC LIMIT		PLASTICITY INDEX	
SAMPLE NUMBER (FIELD)		PLASTICITY INDEX		SAND	
SAMPLE TYPE		PLASTICITY INDEX		GRAVEL	
LABORATORY NUMBER		PLASTICITY INDEX		SAND	
C21 AUGER S1152		PLASTICITY INDEX		GRAVEL	
1.5		PLASTICITY INDEX		SAND	
2.4		PLASTICITY INDEX		GRAVEL	
1.40		PLASTICITY INDEX		SAND	
5		PLASTICITY INDEX		GRAVEL	



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 25-4-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C-24

HOLE DEPTH 5.90

TYPE OF DRILL B30-6" AUGERS

WATER LEVEL

DEPTH (M) SOIL DESCRIPTION

5
6
7
8
9
10
SILTY SANDY GRAVEL
END HOLE @ 5.90

N.R.C.
PERMAFROST
CLASSIFICATION

SAMPLE IDENTIFICATION DATA
SAMPLE DEPTH (FT.)
SAMPLE NUMBER (FIELD)
SAMPLE TYPE
LABORATORY NUMBER

NATURAL
MOISTURE
CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

MECHANICAL ANALYSIS
GRAVEL %
SAND %

<.005 mm %
<.074 mm %
>.005 mm %

DRY DENSITY LBS. CU. FT.

STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION



**Public Works
Canada**

**MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.**

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: **25-4-78**

DRILL TECHNICIAN: H. R. R.

PLOTTED BY: R. S. S.

HOLE ELEVATION:

HOLE NO.: **C-26**

HOLE DEPTH **4.40**
 TYPE OF DRILL **B30 6" AUGERS**
 WATER LEVEL _____
 SOIL DESCRIPTION

DEPTH (M)	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS. CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS FT.	UNIFIED CLASSIFICATION	
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	> 0.075 mm %				> 0.005 mm %
0																
1																
1.5		1.5	C26	AUGER	S1157	2.0										
2.4		2.4														
2																
3																
4																
4.40																
5																

SILTY SANDY GRAVEL

ORGANIC TRACES

N.P. 79.2 14.7 6.1

GP-GM

END HOLE @ 4.40



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 25-4-78

DRILL TECHNICIAN: H. R.

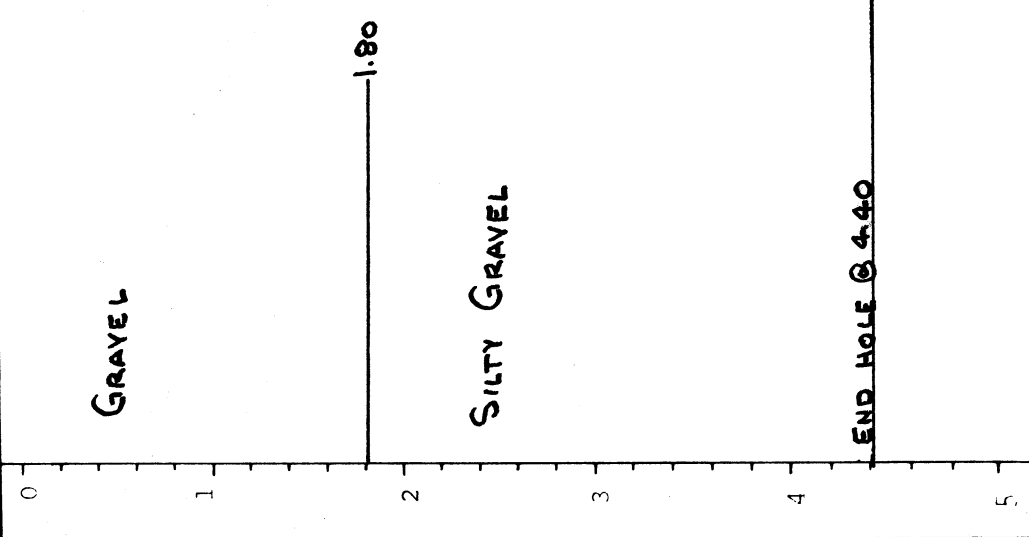
PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C-27

HOLE DEPTH 4.40
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL _____
DEPTH (M) _____

SOIL DESCRIPTION



N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA

SAMPLE DEPTH (FT.)

SAMPLE NUMBER (FIELD)

SAMPLE TYPE

LABORATORY NUMBER

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS

LIQUID LIMIT %

PLASTIC LIMIT %

PLASTICITY INDEX %

MECHANICAL ANALYSIS

GRAVEL %

SAND %

<.074 mm %

>.005 mm %

<.005 mm %

DRY DENSITY LBS. CU.FT.

STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION

2.4	3.0	C27 AUGERS1158	11.9	25.4	22.0	3.4	30.9	29.2	31.9	GM
-----	-----	----------------	------	------	------	-----	------	------	------	----



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 25-4-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C-28

HOLE DEPTH 4.40
B20 6" AUGERS
TYPE OF DRILL _____
WATER LEVEL _____
DEPTH (M) _____

SOIL DESCRIPTION

SILTY SAND

2.0

SILTY SANDY GRAVEL

END HOLE @ 4.40

N.R.C.
PERMAFROST
CLASSIFICATION

SAMPLE IDENTIFICATION DATA

LABORATORY NUMBER
SAMPLE TYPE
SAMPLE NUMBER (FIELD)
SAMPLE DEPTH (FT.)

.3

C28 AUGER S1159

1.2

NATURAL
MOISTURE
CONTENT

%

15.8

CONSISTENCY LIMITS

LIQUID LIMIT
PLASTIC LIMIT
PLASTICITY INDEX

%

%

%

N.P.

MECHANICAL ANALYSIS

GRAVEL
SAND
>.005 mm
>.074 mm
<.005 mm

%

%

%

%

%

2.5 45.4 52.1

STANDARD
PENETRATION
RESISTANCE

BLOWS
/ FT.

DRY
DENSITY

LBS.
/ CU. FT.

UNIFIED
CLASSIFICATION

DL



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 26-4-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C-29

HOLE DEPTH 3.20
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL

SOIL DESCRIPTION

SILTY SANDY GRAVEL

REFUSAL @ 3.2

N.R.C. PERMAFROST CLASSIFICATION

LABORATORY NUMBER
SAMPLE TYPE
SAMPLE NUMBER (FIELD)
SAMPLE DEPTH (FT.)

NATURAL MOISTURE CONTENT

LIQUID LIMIT
PLASTIC LIMIT
PLASTICITY INDEX

GRAVEL
SAND

<.074 mm
>.005 mm
<.005 mm

DRY DENSITY
STANDARD PENETRATION RESISTANCE

UNIFIED CLASSIFICATION

DEPTH (M)

0 1 2 3 4 5

.6

1.5

C29 AUGER S1160 7.2

19.7

15.8

3.9

47.0

24.3

18.1

10.6

GM



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 20-4-78

DRILL TECHNICIAN: H.R.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C-30

HOLE DEPTH 4.40
TYPE OF DRILL B20 6" AUGERS
WATER LEVEL _____
DEPTH (M) _____
SOIL DESCRIPTION _____

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE DEPTH (FT.)	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION
	LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	> 0.075 mm %			
.3														
1.2			C30	AUGER S1161	10.0	19.3	16.4	2.9	21.2	29.3	49.5			SM

SILT TILL

SILT TILL

END HOLE @ 4.40

PROJECT: SHAKWAZ SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: C-31	
DATE DRILLED: 26-9-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.			
HOLE DEPTH 4.40		TYPE OF DRILL B30 6" AUGERS		WATER LEVEL			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0		ORGANIC	.10				
1		SANDY SILTY GRAVEL					
2							
3		SAND SILT TILL	2.30				
4							
5		END HOLE @ 4.40					

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY	MECHANICAL ANALYSIS			CONSISTENCY LIMITS			NATURAL MOISTURE CONTENT		
			<.005 mm	<.074 mm	>.005 mm	GRAVEL	SAND	PLASTICITY INDEX		PLASTIC LIMIT	LIQUID LIMIT
GM					27.9	48.0	24.1	2.5	15.6	18.1	6.8

LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)
S1162	AUGER	C31	1.2

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY	MECHANICAL ANALYSIS	CONSISTENCY LIMITS	NATURAL MOISTURE CONTENT

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY	MECHANICAL ANALYSIS	CONSISTENCY LIMITS	NATURAL MOISTURE CONTENT

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY	MECHANICAL ANALYSIS	CONSISTENCY LIMITS	NATURAL MOISTURE CONTENT

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY	MECHANICAL ANALYSIS	CONSISTENCY LIMITS	NATURAL MOISTURE CONTENT

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY	MECHANICAL ANALYSIS	CONSISTENCY LIMITS	NATURAL MOISTURE CONTENT

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY	MECHANICAL ANALYSIS	CONSISTENCY LIMITS	NATURAL MOISTURE CONTENT

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY	MECHANICAL ANALYSIS	CONSISTENCY LIMITS	NATURAL MOISTURE CONTENT

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY	MECHANICAL ANALYSIS	CONSISTENCY LIMITS	NATURAL MOISTURE CONTENT

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY	MECHANICAL ANALYSIS	CONSISTENCY LIMITS	NATURAL MOISTURE CONTENT

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY	MECHANICAL ANALYSIS	CONSISTENCY LIMITS	NATURAL MOISTURE CONTENT

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY	MECHANICAL ANALYSIS	CONSISTENCY LIMITS	NATURAL MOISTURE CONTENT

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY	MECHANICAL ANALYSIS	CONSISTENCY LIMITS	NATURAL MOISTURE CONTENT

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY	MECHANICAL ANALYSIS	CONSISTENCY LIMITS	NATURAL MOISTURE CONTENT

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY	MECHANICAL ANALYSIS	CONSISTENCY LIMITS	NATURAL MOISTURE CONTENT

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY	MECHANICAL ANALYSIS	CONSISTENCY LIMITS	NATURAL MOISTURE CONTENT



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: C-32	
DATE DRILLED: 26-4-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.			
HOLE DEPTH 4.40		TYPE OF DRILL B30 6" AUGERS		WATER LEVEL		UNIFIED CLASSIFICATION	
DEPTH (M.)		SOIL DESCRIPTION		NATURAL MOISTURE CONTENT		STANDARD PENETRATION RESISTANCE	
0		ORGANIC .10		%		BLOWS / FT.	
1		SILTY SANDY GRAVEL		18.9		35.9	
2				4.1		29.7	
3				14.8		34.4	
4				6.6			
5							
		END HOLE @ 4.40					



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: C-34	
DATE DRILLED: 26-4-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.			
HOLE DEPTH: 4.40		TYPE OF DRILL: B30 6" AUGERS		WATER LEVEL:			
DEPTH (M.)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0		ORGANIC					
1		SAND SILT TILL					
2							
3							
4							
5							

MECHANICAL ANALYSIS	CONSISTENCY LIMITS		NATURAL MOISTURE CONTENT	SAMPLE IDENTIFICATION DATA		GRAVEL	SAND	<074mm	<005mm	DRY DENSITY	STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION
	LIQUID LIMIT	PLASTIC LIMIT		PLASTICITY INDEX	LABORATORY NUMBER							
	18.3	15.3	3.0	C34	AUGERS1165	9.0	18.3	31.1	32.8	36.1		SM

END HOLE @ 4.40

**Public Works
Canada**

**MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.**

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8
 HOLE LOCATION: _____
 HOLE ELEVATION: _____
 HOLE NO.: **C1M**

DATE DRILLED: **17-5-78**
 DRILL TECHNICIAN: H.R.R.
 PLOTTED BY: R.S.S.

HOLE DEPTH 3.0	TYPE OF DRILL B30 6" AUGERS	WATER LEVEL	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU.FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION
				N.R.C. PERMAFROST CLASSIFICATION	LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)		SAMPLE DEPTH (FT.)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	GRAVEL	SAND			

0	SANDY SILTY GRAVEL 0.3																
1	SILT SAND TILL																
2																	
3	END HOLE 3.0																
4																	
5																	



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 17-5-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C2M

HOLE DEPTH 3.8
B30 6" AUGERS
TYPE OF DRILL
WATER LEVEL
DEPTH (M.)

SOIL DESCRIPTION

SANDY SILTY GRAVEL 0.3

GRAVEL
SILT
SAND
TILL

END HOLE 3.8

N.R.C. PERMAFROST CLASSIFICATION

LABORATORY NUMBER
SAMPLE TYPE
SAMPLE NUMBER (FIELD)
SAMPLE DEPTH (FT.)

NATURAL MOISTURE CONTENT %
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

GRAVEL %
SAND %

MECHANICAL ANALYSIS
75.005 mm %
75.074 mm %
75.005 mm %

DRY DENSITY
LBS./CU. FT.

STANDARD PENETRATION RESISTANCE
BLOWS/FT.

UNIFIED CLASSIFICATION

0																						
1																						
2																						
3																						
4																						
5																						

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 17-5-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C 3 M

HOLE DEPTH _____
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL _____
SOIL DESCRIPTION

0
1
2
3
4
5

SILTY SANDY GRAVEL — 0.5

CLAYEY SILT-SAND TILL

END HOLE — 3.0

N.R.C. PERMAFROST CLASSIFICATION

LABORATORY NUMBER
SAMPLE TYPE
SAMPLE NUMBER (FIELD)
SAMPLE DEPTH (FT.)

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

GRAVEL %
SAND %

MECHANICAL ANALYSIS
<.074 mm %
>.005 mm %
<.005 mm %

DRY DENSITY LBS. CU. FT.
STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION

13.7 25.3 15.5 9.8 13.5 15.1 43.6 27.8

CL

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.S.		HOLE ELEVATION:		HOLE NO.: C4M	
DATE DRILLED: 17-5-78		DRILL TECHNICIAN: H.R.		PLOTTED BY:			
HOLE DEPTH: 4.0		TYPE OF DRILL: B30 6" AUGERS		WATER LEVEL:			
DEPTH (M.)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION		STANDARD PENETRATION RESISTANCE (BLOWS/FT.)	
0		SILTY SANDY GRAVEL — 0.5					
1		CLAYEY SILT					
2		SILT-SANDY TILL — 1.8					
3							
4		END HOLE — 4.0				CL	
5							

C4M AUG. 1201 12.6 25.2 14.4 10.7 6.8 26.7 35.3 31.2

2.7

3.7

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.S.		HOLE ELEVATION:		HOLE NO.: C6M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H.R.R.		PLOTTED BY:			
HOLE DEPTH	4.0	LABORATORY NUMBER		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL	B30 6" AUGERS	SAMPLE IDENTIFICATION DATA		GRAVEL		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		SAMPLE TYPE		SAND		BLOWS / FT.	
DEPTH (M)		SAMPLE NUMBER (FIELD)		PLASTICITY INDEX		LBS. / CU. FT.	
		SAMPLE DEPTH (FT.)		PLASTIC LIMIT			
				LIQUID LIMIT			
				NATURAL MOISTURE CONTENT			
				N.R.C. PERMAFROST CLASSIFICATION			
0							
1							
2							
3							
4							
5							

SILTY SANDY GRAVEL 0.5

SAND

2.1

CLAYEY SILT TILL

END HOLE 4.0

2.7

3.7

C6M AUG. 1203 27.1 20.5 6.6 10.2 42.6 33.6

CL-ML



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.		HOLE ELEVATION:		HOLE NO.: C7M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H.R.		PLOTTED BY:			
HOLE DEPTH: 4.3		TYPE OF DRILL: B30 6" AUGERS		WATER LEVEL:			
DEPTH (M.)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0		SANDY GRAVEL — 0.5					
1		SILTY SAND — 1.1					
2		CLAY SILT TILL				CL	
3							
4		END HOLE — 4.3					
5							



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C8M

HOLE DEPTH 4.3
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL _____
DEPTH (M) _____
SOIL DESCRIPTION

0 SANDY GRAVEL 0.3
1 SAND 1.4
2 CLAYEY SILT 1.8
SANDY SILT TILL
4.3
END HOLE

N.R.C. PERMAFROST CLASSIFICATION

LABORATORY NUMBER
SAMPLE TYPE
SAMPLE NUMBER (FIELD)
SAMPLE DEPTH (FT.)

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

GRAVEL %
SAND %

MECHANICAL ANALYSIS
< 0.075 mm %
< 0.005 mm %

DRY DENSITY LBS. CU. FT.
STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION

2.7
3.7

C8M Avg. 1205 21.9 25.8 21.9 3.9 3.2 16.7 42.7 37.4 ML



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C 9 M

HOLE DEPTH 4.3
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL _____
DEPTH (M) _____
SOIL DESCRIPTION

SANDY GRAVEL — 0.3

SAND

— 1.2

CLAYEY SILT

— 2.1

SILT TILL

END HOLE — 4.3

N.R.C. PERMAFROST CLASSIFICATION

LABORATORY NUMBER
SAMPLE TYPE
SAMPLE NUMBER (FIELD)
SAMPLE DEPTH (FT.)

NATURAL MOISTURE CONTENT %

LIQUID LIMIT %

PLASTIC LIMIT %

PLASTICITY INDEX %

GRAVEL %

SAND %

> 0.075 mm %

< 0.075 mm %

DRY DENSITY LBS. CU. FT.

STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION

C 9 M AUG 1206

27.3

44.5

20.8

23.7

.1

4.1

25.2

70.6

CL

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R. S.		HOLE ELEVATION:		HOLE NO.: C10M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H. R.		PLOTTED BY:			
HOLE DEPTH: 4.3		TYPE OF DRILL: B20 6" AUGERS		WATER LEVEL:			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0		SANDY GRAVEL — 0.3					
1		GRAVELY SAND					
2		SILT TILL					
4.3		ENDO HOLE — 4.3					
5							

SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	SAMPLE IDENTIFICATION DATA		NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION	
			LABORATORY NUMBER			LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	> 0.075 mm %				> 0.005 mm %
0.6	C10M	Aug.	1207		9.1						4.4	64.1	17.7	13.8	SM
1.5															

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: C12M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 4.3		TYPE OF DRILL: B30 6" AUGERS		WATER LEVEL:	
DEPTH (M.)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION	
0	SANDY GRAVEL	0.2			
1	SAND	0.9			
	SANDY CLAYEY SILT	1.8		32.2	67.8
2	SANDY SILT TILL				
4.3	END HOLE				



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

DRILL TECHNICIAN: H. R.

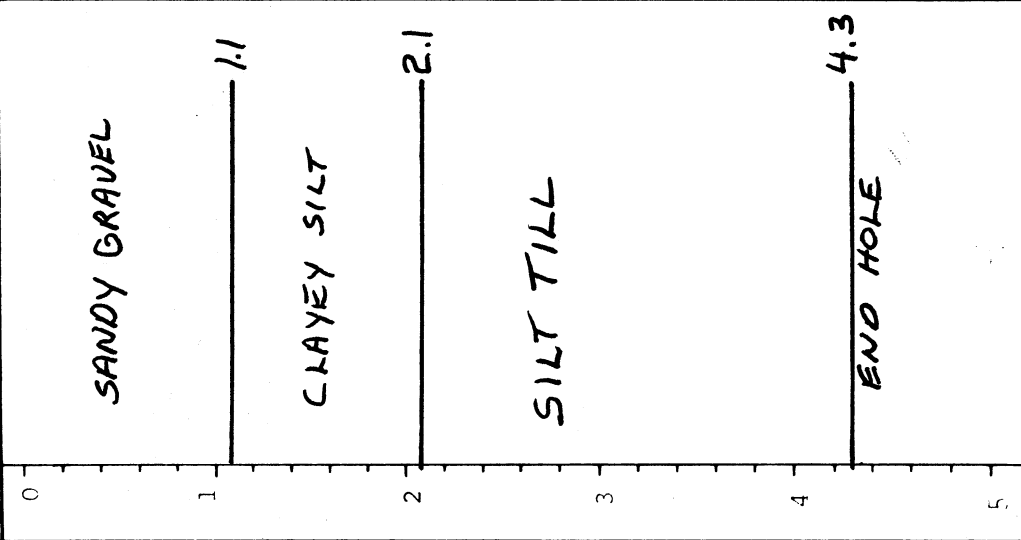
PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C 13 / M

HOLE DEPTH: 4.3
TYPE OF DRILL: B30 6" AUGERS
WATER LEVEL: _____
DEPTH (M.): _____

SOIL DESCRIPTION



N.R.C. PERMAFROST CLASSIFICATION

LABORATORY NUMBER
SAMPLE TYPE
SAMPLE NUMBER (FIELD)
SAMPLE DEPTH (FT.)

NATURAL MOISTURE CONTENT %
CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

MECHANICAL ANALYSIS
GRAVEL %
SAND %
AND
AND
AND

DRY DENSITY LBS./CU. FT.
STANDARD PENETRATION RESISTANCE BLOWS/FT.
UNIFIED CLASSIFICATION

1.2	C13 AUG. 1226 M	29.4	52.8	15.8	37.0	27.9	72.1	CL
2.1								



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C14M

HOLE DEPTH 3.3
TYPE OF DRILL B20 6" AUGERS
WATER LEVEL _____

DEPTH (M.) SOIL DESCRIPTION

0 SANDY GRAVEL
0.6
1 CLAYEY SILT
0.9
SILT
TILL
2 2.1
SANDY SILTY GRAVEL TILL
3 3.3
REFUSAL

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE DEPTH (FT.)

SAMPLE NUMBER (FIELD)

SAMPLE TYPE

LABORATORY NUMBER

NATURAL MOISTURE CONTENT %

LIQUID LIMIT %

PLASTIC LIMIT %

PLASTICITY INDEX %

GRAVEL %

SAND %

MECHANICAL ANALYSIS
>.005mm %
<.074mm %
<.005mm %

DRY DENSITY LBS. CU. FT.

STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION CL

1.2

C14M

AUG. 1227

26.3 16.7 9.6 9.3 19.0 37.0 34.7

2.1



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C15M

HOLE DEPTH 4.3
TYPE OF DRILL B20 6" AUGERS
WATER LEVEL _____
DEPTH (M) _____

N.R.C. PERMAFROST CLASSIFICATION

SOIL DESCRIPTION

SAMPLE IDENTIFICATION DATA
SAMPLE DEPTH (FT.)
SAMPLE NUMBER (FIELD)
SAMPLE TYPE
LABORATORY NUMBER

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

MECHANICAL ANALYSIS
GRAVEL %
SAND %

< 0.075 mm %
< 0.005 mm %

DRY DENSITY LBS./CU. FT.

STANDARD PENETRATION RESISTANCE BLOWS/FT.

UNIFIED CLASSIFICATION

0																			
1	SANDY GRAVEL	0.8																	
2	CLAYEY SILT	1.5																	
3	SILT																		
4	TILL																		
5	END HOLE	4.3																	



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R. S.		HOLE ELEVATION:		HOLE NO.: C 16 M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H. R.		PLOTTED BY:			
HOLE DEPTH	4.0	LABORATORY NUMBER		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL	B20 6" AUGERS	SAMPLE TYPE		GRAVEL		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		SAMPLE NUMBER (FIELD)		SAND		BLOWS / FT.	
DEPTH (M)		SAMPLE DEPTH (FT.)		PLASTICITY INDEX		LBS. / CU. FT.	
0		1.5		LIQUID LIMIT			
1		2.4		PLASTIC LIMIT			
2				NATURAL MOISTURE CONTENT			
3				CONSISTENCY LIMITS			
4				N.R.C. PERMAFROST CLASSIFICATION			
5				LABORATORY DATA			

SANDY GRAVEL

1.2

SANDY SILT

4.0

END HOLE

4.4 50.4 45.2

18.1 13.0

26.6 31.1

C 16 AUG. 1238 M

CL



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C17M

HOLE DEPTH 4.0
TYPE OF DRILL B20 6" AUGERS
WATER LEVEL
DEPTH (M)

SOIL DESCRIPTION

SANDY GRAVEL

0.5

SANDY SILT

1.2

2.1

END HOLE 4.0

N.R.C.
PERMAFROST
CLASSIFICATION

SAMPLE IDENTIFICATION DATA
SAMPLE DEPTH (FT.)
SAMPLE NUMBER (FIELD)
SAMPLE TYPE
LABORATORY NUMBER

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

GRAVEL %
SAND %

MECHANICAL ANALYSIS
<.074 mm %
>.005 mm %
<.005 mm %

DRY DENSITY
LBS. CU. FT.

STANDARD PENETRATION RESISTANCE
BLOWS FT.

UNIFIED CLASSIFICATION

C17 M
AUG. 1237
45.4 54.6

27.0 35.4 18.7 16.7

27.0 35.4 18.7 16.7

CL



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

HOLE ELEVATION:

HOLE NO.: C18M

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE DEPTH 3.7
TYPE OF DRILL B20 6" AUGERS
WATER LEVEL _____
DEPTH (M.) _____

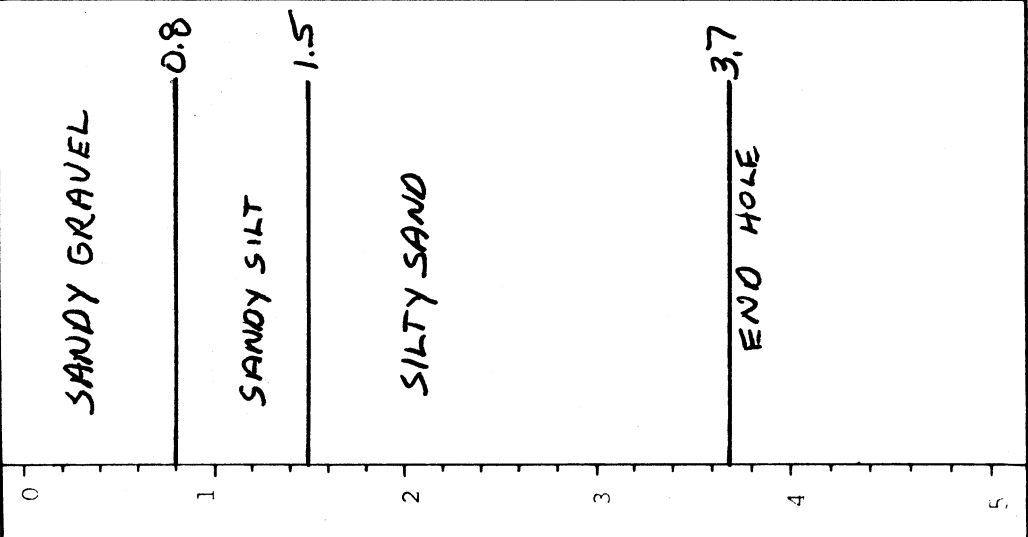
N.R.C. PERMAFROST CLASSIFICATION

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

MECHANICAL ANALYSIS
GRAVEL %
SAND %
> .075 mm %
< .075 mm %
< .005 mm %

DRY DENSITY LBS./CU. FT.
STANDARD PENETRATION RESISTANCE BLOWS/FT.
UNIFIED CLASSIFICATION



SAMPLE DEPTH (FT.)	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION	
	LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	> .075 mm %				< .075 mm %
1.5															
2.4			C-18 AUG. 1220 M		9.1				TRACE	27.6	20.7	39.6	12.1		ML
3.7															



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

DRILL TECHNICIAN: H. R.

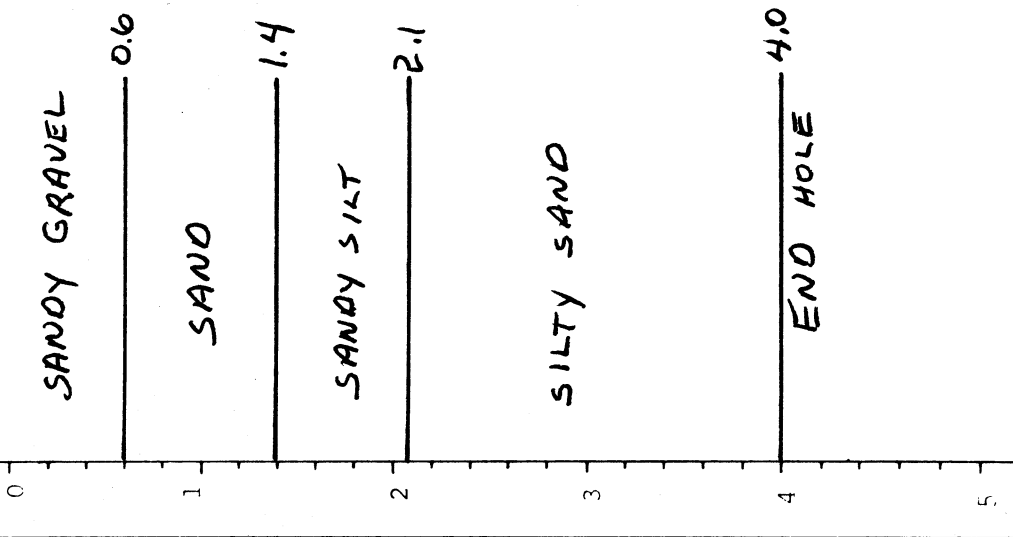
PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C19M

HOLE DEPTH B20 6" AUGERS
TYPE OF DRILL
WATER LEVEL
DEPTH (M)

SOIL DESCRIPTION



N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA
SAMPLE DEPTH (FT.)
SAMPLE NUMBER (FIELD)
SAMPLE TYPE
LABORATORY NUMBER

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

GRAVEL %

SAND %

MECHANICAL ANALYSIS
> 0.075 mm %
< 0.075 mm %
< 0.005 mm %

DRY DENSITY LBS. CU. FT.

STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION

2.1
3.0

C19 AUG. 1241 M

10.8

N.P.

30.6 59.7 9.7

ML



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C 20 (M)

DEPTH (M)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY LBS. CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS FT.	UNIFIED CLASSIFICATION
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.074 mm %	>.005 mm %			
0	SANDY GRAVEL		0.6	C20 AUG. M													
1	SANDY SILT		1.2				28.6	47.7	21.5	26.2	25.0	75.0					CL
2	SILTY SANDY GRAVEL																
3																	
3.3	END HOLE																



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.:		C21 M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.					
HOLE DEPTH: 2.7		TYPE OF DRILL: B30 6" AUGERS		WATER LEVEL:		SOIL DESCRIPTION:			
DEPTH (M.):		SOIL DESCRIPTION:		N.R.C. PERMAFROST CLASSIFICATION:		SAMPLE IDENTIFICATION DATA:			
0		SANDY GRAVEL				SAMPLE DEPTH (FT.):			
1		SANDY SILT TILL				1.5			
2		SILTY SANDY GRAVEL				2.1			
3		REFUSAL							
4									
5									
				NATURAL MOISTURE CONTENT		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
				%		LIQUID LIMIT		GRAVEL	
				%		PLASTIC LIMIT		SAND	
				%		PLASTICITY INDEX		V 005 mm	
				%				V 074 mm	
				%				V 005 mm	
				%				DRY DENSITY	
				%				LBS. CU. FT.	
				%				STANDARD PENETRATION RESISTANCE	
				%				BLOWS / FT.	
				%				UNIFIED CLASSIFICATION	
				%				CL-ML	

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: C 22 M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H. R.		HOLE ELEVATION:	
HOLE DEPTH: 5.5		PLOTTED BY: R. S.			
TYPE OF DRILL: B30 6" AUGERS		SAMPLE IDENTIFICATION DATA		MECHANICAL ANALYSIS	
WATER LEVEL: _____		LABORATORY NUMBER		SAND	
DEPTH (M)		SAMPLE TYPE		GRAVEL	
SOIL DESCRIPTION		SAMPLE NUMBER (FIELD)		PLASTICITY INDEX	
SANDY GRAVEL — 0.4		C22 AUG 1217 M		PLASTIC LIMIT	
SAND		SAMPLE DEPTH (FT.)		LIQUID LIMIT	
GRAVELY SAND		0.6		NATURAL MOISTURE CONTENT	
GRAVELY SAND		1.5		%	
				CONSISTENCY LIMITS	
				PLASTIC INDEX	
				PLASTIC LIMIT	
				LIQUID LIMIT	
				%	
				UNIFIED CLASSIFICATION	
				SM	
				STANDARD PENETRATION RESISTANCE	
				BLOWS / FT.	
				DRY DENSITY	
				LBS. / CU. FT.	

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.S.		HOLE ELEVATION:		HOLE NO.: C 22 M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H.R.		PLOTTED BY:			
HOLE DEPTH: 5.5		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL:			
DEPTH (M.)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
5	ENDO HOLE 5.5						
6							
7							
8							
9							
10							
				CONSISTENCY LIMITS			
				LIQUID LIMIT			
				PLASTIC LIMIT			
				PLASTICITY INDEX			
				GRAVEL			
				SAND			
				> 0.075 mm			
				< 0.075 mm			
				< 0.005 mm			
				DRY DENSITY		LBBS. CU. FT.	
				STANDARD PENETRATION RESISTANCE		BLOWS / FT.	
				UNIFIED CLASSIFICATION			



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

DATE DRILLED: 18-5-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C 23 M

HOLE LOCATION:

HOLE DEPTH 4.0
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL _____

DEPTH (M.) SOIL DESCRIPTION

0	SANDY GRAVEL	0.5
1	SAND	
2	GRAVELLY SAND	1.8
3		
4	END HOLE	4.0

N.R.C. PERMAFROST CLASSIFICATION

LABORATORY NUMBER
SAMPLE TYPE
SAMPLE NUMBER (FIELD)
SAMPLE DEPTH (FT.)

NATURAL MOISTURE CONTENT %

LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

GRAVEL %
SAND %

> .005 mm %
< .074 mm %
< .005 mm %

DRY DENSITY LBS. CU. FT.

STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION

1.8
2.7

C23 AUG. 1259 M
N.P. 21.9 59.4 13.8 4.9
SM

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C-24M

HOLE DEPTH 3.7
TYPE OF DRILL B20 6" AUGERS
WATER LEVEL
DEPTH (M.) SOIL DESCRIPTION

DEPTH (M.)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY LBS. CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS FT.	UNIFIED CLASSIFICATION
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.074mm %	>.005mm %			
0																	
0.8	SANDY GRAVEL		1.5	C24 M	AUG. 1228	5.3	N.P.	70.7	20.3	5.8							SM
1.2	SILTY SAND		2.4														
2.7	SAND																
3.7	GRAVELY SAND																
3.7	END HOLE																



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R. S.		HOLE ELEVATION:		HOLE NO.: C25 M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H. R.		PLOTTED BY:			
HOLE DEPTH: 3.7		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL:			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		UNIFIED CLASSIFICATION	
0		SANDY GRAVEL 0.3					
1		SAND SILT TILL 1.1					
2		SILTY SANDY GRAVEL					
3							
4		END HOLE 3.7					
5							



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

DRILL TECHNICIAN: H. R.

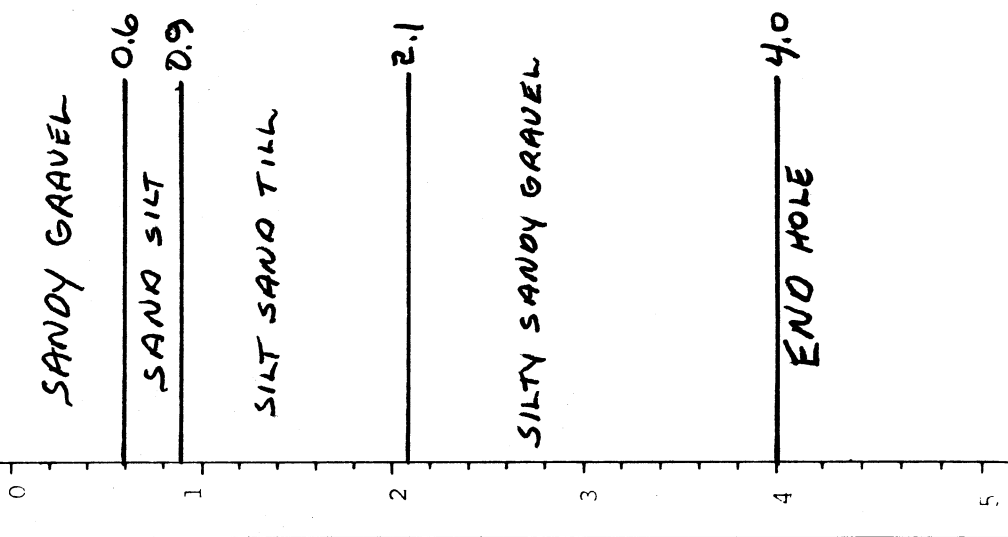
PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C26 M

HOLE DEPTH 4.0
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL _____
DEPTH (M) _____

SOIL DESCRIPTION



N.R.C.
PERMAFROST
CLASSIFICATION

SAMPLE DEPTH
(FT.)

SAMPLE NUMBER
(FIELD)

SAMPLE TYPE

LABORATORY
NUMBER

NATURAL
MOISTURE
CONTENT
%

LIQUID
LIMIT
%

PLASTIC
LIMIT
%

PLASTICITY
INDEX
%

GRAVEL
%

SAND
%

MECHANICAL ANALYSIS

<.005 mm
%

<.074 mm
%

>.005 mm
%

DRY
DENSITY
LBS.
CU. FT.

STANDARD
PENETRATION
RESISTANCE
BLOWS
/ FT.

UNIFIED
CLASSIFICATION

0.9

1.8

CES
M

1230

37.8

20.8

17.0

29.8

21.9

6.0

42.3

GC



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 19-5-78

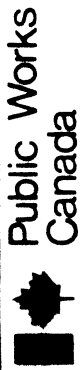
DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C-27M

DEPTH (M)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.074 mm %	>.005 mm %			
0	SANDY GRAVEL 0.2																
1	SAND 1.1																
	SANDY SILT 1.4																
2	GRAVELLY SILTY SAND		1.5	C26 M	AUG. 1224		10.5	29.5	15.1	14.5	11.2	22.9	37.7	28.2			CL
3			2.4														
4	ENO HOLE 3.3																
5																	



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R. S.		HOLE ELEVATION: C 29 M	
DATE DRILLED: 19-5-78		PLOTTED BY: H. R.		HOLE NO.: C 29 M	
HOLE DEPTH: 3.7		LABORATORY DATA		MECHANICAL ANALYSIS	
TYPE OF DRILL: B40-6" AUGERS		SAMPLE NUMBER (FIELD): C28 AUG. 1232		<.005 mm % <.075 mm % >.005 mm %	
WATER LEVEL		SAMPLE TYPE		SAND %	
DEPTH (M)		SAMPLE DEPTH (FT.)		GRAVEL %	
SOIL DESCRIPTION		0.6		PLASTICITY INDEX %	
SILTY SANDY GRAVEL 0.3		1.2		PLASTIC LIMIT %	
GRAVELLY SANDY SILT				LIQUID LIMIT %	
END HOLE 3.7				NATURAL MOISTURE CONTENT %	
				STANDARD PENETRATION RESISTANCE	
				BLOWS / FT.	
				DRY DENSITY	
				LB. / CU. FT.	
				UNIFIED CLASSIFICATION	
				CL	



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: C31M	
DATE DRILLED: 19-5-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 3.7		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL: B40-6" AUGERS		< 0.075 mm		BLOWS / FT.	
WATER LEVEL		> 0.075 mm		LIB. CU. FT.	
DEPTH (M)		SAND		DRY DENSITY	
0	SILTY SANDY GRAVEL	GRAVEL		UNIFIED CLASSIFICATION	
0.3	_____ 0.3	PLASTICITY INDEX		ML	
0.9	SILTY SAND	PLASTIC LIMIT			
0.9	_____ 0.9	LIQUID LIMIT			
1.5	SAND SILT	NATURAL MOISTURE CONTENT		26.3	
1.5	_____ 0.9	LABORATORY NUMBER		1235	
1.5		SAMPLE TYPE		Aug.	
1.5		SAMPLE NUMBER (FIELD)		C30 M	
1.5		SAMPLE DEPTH (FT.)		0.9	
1.5		N.R.C. PERMAFROST CLASSIFICATION			
3.7	END HOLE				
3.7	_____ 3.7				



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: C32 M	
DATE DRILLED: 19-5-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 3.3		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B40-6" AUGERS		SAND		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		GRAVEL		BLOWS / FT.	
DEPTH (M.)		PLASTICITY INDEX		LIBB. CUB. FT.	
SOIL DESCRIPTION		CONSISTENCY LIMITS		DRY DENSITY	
SILTY SANDY GRAVEL 0.3		LIQUID LIMIT		LBS. / CU. FT.	
SILTY SANDY GRAVEL TILL		PLASTIC LIMIT		LBS. / CU. FT.	
END HOLE 3.3		NATURAL MOISTURE CONTENT		LBS. / CU. FT.	
		LABORATORY NUMBER		LBS. / CU. FT.	
		SAMPLE TYPE		LBS. / CU. FT.	
		SAMPLE NUMBER (FIELD)		LBS. / CU. FT.	
		SAMPLE DEPTH (FT.)		LBS. / CU. FT.	
		N.R.C. PERMAFROST CLASSIFICATION		LBS. / CU. FT.	
		LABORATORY NUMBER		LBS. / CU. FT.	
		SAMPLE TYPE		LBS. / CU. FT.	
		SAMPLE NUMBER (FIELD)		LBS. / CU. FT.	
		SAMPLE DEPTH (FT.)		LBS. / CU. FT.	
		N.R.C. PERMAFROST CLASSIFICATION		LBS. / CU. FT.	



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R. S.		HOLE ELEVATION:		HOLE NO.: C 33 M	
DATE DRILLED: 19-5-78		DRILL TECHNICIAN: H. R.		PLOTTED BY:			
HOLE DEPTH: 3.3		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL:			
SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		SAMPLE IDENTIFICATION DATA		NATURAL MOISTURE CONTENT	
SILTY SANDY GRAVEL 0.3				LABORATORY NUMBER		%	
SAND-SILT TILL-GRAVEL				SAMPLE TYPE		%	
SANDY SILTY GRAVEL 1.5				SAMPLE NUMBER (FIELD)		%	
END HOLE 3.3				SAMPLE DEPTH (FT.)		%	
				C 32 AUG. 12 40 M		9.8	
				0.6		24.4 34.4 22.9 18.3	
				1.5		N.P.	
						LIQUID LIMIT	
						PLASTIC LIMIT	
						PLASTICITY INDEX	
						GRAVEL	
						SAND	
						> .005 mm	
						> .075 mm	
						> .005 mm	
						DRY DENSITY	
						STANDARD PENETRATION RESISTANCE	
						UNIFIED CLASSIFICATION	
						SM	



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Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 19-5-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C 34M

HOLE DEPTH 3.0
TYPE OF DRILL B40-6" AUGERS
WATER LEVEL
DEPTH (M)

SOIL DESCRIPTION

SILTY SANDY GRAVEL 0.3

SANDY SILT

1.8

SILTY SANDY GRAVEL

3.0

REFUSAL

N.R.C. PERMAFROST CLASSIFICATION

LABORATORY NUMBER
SAMPLE TYPE
SAMPLE NUMBER (FIELD)
SAMPLE DEPTH (FT.)

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

MECHANICAL ANALYSIS
GRAVEL %
SAND %
<.074 mm %
>.005 mm %
<.005 mm %

DRY DENSITY LBS. CU. FT.
STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION

1.1
1.5

27.4

54.6

22.5

32.1

30.0

70.0

CL

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.S.		HOLE ELEVATION:		HOLE NO.: C35M	
DATE DRILLED: 19-5-78		DRILL TECHNICIAN: H.R.		PLOTTED BY:			
HOLE DEPTH: 2.7		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL:			
DEPTH (M.)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0		SILTY SANDY GRAVEL 0.3					
1		SILTY SANDY GRAVEL					
2	1.2	C34 AVG. 1233 M		NATURAL MOISTURE CONTENT %		10.4	
	2.1	REFUSAL		LIQUID LIMIT %		20.5	
				PLASTIC LIMIT %		16.0	
				PLASTICITY INDEX %		4.4	
				GRAVEL %		18.2	
				SAND %		38.3	
				>.005 mm %		25.6	
				<.074 mm %		17.9	
				<.005 mm %			
				DRY DENSITY LB./CU.FT.			
				STANDARD PENETRATION RESISTANCE			
				UNIFIED CLASSIFICATION		SC-SM	

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: 1635+000		HOLE NO.: TH-8-301	
DATE DRILLED: 31-9-78		DRILL TECHNICIAN: H.R.S.		PLOTTED BY: R.S.S.	
HOLE DEPTH: 0.9		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B40-6" AUGERS		< .075 mm		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		> .005 mm		BLOWS / FT.	
DEPTH (M)		SAND		DRY DENSITY	
0	ROAD SURFACE — 0.2	GRAVEL		LB/ CU. FT.	
1	SILTY SAND	PLASTICITY INDEX		%	
2	END HOLE — 0.9	PLASTIC LIMIT		%	
3		LIQUID LIMIT		%	
4		NATURAL MOISTURE CONTENT		%	
5		CONSISTENCY LIMITS		%	
		LABORATORY NUMBER		%	
		SAMPLE TYPE		%	
		SAMPLE NUMBER (FIELD)		%	
		SAMPLE DEPTH (FT.)		%	
		N.R.C. PERMAFROST CLASSIFICATION		%	



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PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: 1635+200		HOLE NO.: TH-8-302	
DATE DRILLED: 31-8-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.	
HOLE DEPTH: 0.9		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B40-6" AUGERS		<.005 mm % <.075 mm % >.005 mm %		DRY DENSITY LB./CU. FT. BLOWS 1 FT.	
WATER LEVEL		SAND %		GRAVEL %	
SOIL DESCRIPTION		GRAVEL %		PLASTICITY INDEX %	
ROAD SURFACE 0.2		SAND %		PLASTIC LIMIT %	
SILTY GRAVEL 0.9		GRAVEL %		LIQUID LIMIT %	
REFUSAL		GRAVEL %		NATURAL MOISTURE CONTENT %	
DEPTH (M)		CONSISTENCY LIMITS		N.C. PERMAFROST CLASSIFICATION	
0	LABORATORY DATA		SAMPLE IDENTIFICATION DATA		SAMPLE DEPTH (FT.) 0.0 0.9
1	LABORATORY NUMBER SAMPLE TYPE SAMPLE NUMBER (FIELD)		SAMPLE NUMBER (FIELD) SAMPLE TYPE LABORATORY NUMBER		
2	2		2 AUG 12 79		
3					
4					
5					

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: 1635+400		HOLE NO.: 74-8-303	
DATE DRILLED: 31-8-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.	
HOLE DEPTH: 0.9		HOLE ELEVATION:		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B40-6" AUGERS		CONSISTENCY LIMITS		STANDARD PENETRATION RESISTANCE	
WATER LEVEL:		LIQUID LIMIT		BLOWS / FT.	
SOIL DESCRIPTION		PLASTIC LIMIT		DRY DENSITY	
ROAD SURFACE		PLASTICITY INDEX		LIB. CU. FT.	
SILTY GRAVEL 0.2-0.3		GRAVEL		MECHANICAL ANALYSIS	
SILTY CLAY		SAND		< 0.075 mm	
END HOLE 0.9		GRAVEL		> 0.075 mm	
		SAND		< 0.005 mm	
		GRAVEL		> 0.005 mm	
		SAND			
		GRAVEL			
		PLASTICITY INDEX			
		PLASTIC LIMIT			
		LIQUID LIMIT			
		NATURAL MOISTURE CONTENT			
		LABORATORY NUMBER			
		SAMPLE TYPE			
		SAMPLE NUMBER (FIELD)			
		SAMPLE DEPTH (FT.)			
		N.R.C. PERMAFROST CLASSIFICATION			
		0.3			
		0.9			
		3 AUG. 1280			
		28.0			
		16.5			
		11.5			
		4.7			
		24.0			
		35.8			
		35.5			
		CL			



Public Works
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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION: 1635+600

DATE DRILLED: 31-8-78

H.R. PLOTTED BY:

R.S. HOLE ELEVATION:

HOLE NO.: TH-8-304

HOLE DEPTH 0.6

TYPE OF DRILL B40-6" AUGERS

WATER LEVEL _____

DEPTH (M.) SOIL DESCRIPTION

0 ROAD SURFACE 0.2

SILTY SAND 0.6

END HOLE

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA

SAMPLE DEPTH (FT.)

0.3

0.6

SAMPLE NUMBER (FIELD) 4

SAMPLE TYPE AUG 1281

LABORATORY NUMBER

NATURAL MOISTURE CONTENT

%

10.5

CONSISTENCY LIMITS

LIQUID LIMIT

%

PLASTIC LIMIT

%

PLASTICITY INDEX

%

N.P.

MECHANICAL ANALYSIS

GRAVEL

%

SAND

%

40.4

> .005 mm

%

40.2

< .075 mm

%

19.4

< .005 mm

%

STANDARD PENETRATION RESISTANCE

BLOWS / FT.

DRY DENSITY

LBBS. / CU. FT.

UNIFIED CLASSIFICATION

ML



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MATERIALS QUALITY CONTROL LABORATORY
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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION: 16357800

HOLE NO.: TH-8-305

DATE DRILLED: 31-8-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE DEPTH 0.8
TYPE OF DRILL B40-6" AUGERS
WATER LEVEL _____
DEPTH (M) _____

SOIL DESCRIPTION

ROAD SURFACE 0.2
SILTY SAND
END HOLE 0.8

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA

SAMPLE DEPTH (FT.)
SAMPLE NUMBER (FIELD)
SAMPLE TYPE
LABORATORY NUMBER

0.3
0.6

5

AUG 1282

NATURAL MOISTURE CONTENT

%

10.9

CONSISTENCY LIMITS

LIQUID LIMIT
PLASTIC LIMIT
PLASTICITY INDEX

%
%
%

TRACE

MECHANICAL ANALYSIS

GRAVEL
SAND
>.005 mm
>.075 mm
>.005 mm

%
%
%
%
%

.9
65.1
23.8
10.2

STANDARD PENETRATION RESISTANCE

BLOWS/FT.

DRY DENSITY

LB/CU.FT.

UNIFIED CLASSIFICATION

SM



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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: 1636 + 000		HOLE NO.: TH-8-306	
DATE DRILLED: 21-8-78		DRILL TECHNICIAN: H. R. S.		HOLE ELEVATION:	
HOLE DEPTH: 0.9		PLOTTED BY:			
TYPE OF DRILL: B40-6" AUGERS		SAMPLE IDENTIFICATION DATA		MECHANICAL ANALYSIS	
WATER LEVEL:		LABORATORY NUMBER		SAND	
SOIL DESCRIPTION		SAMPLE TYPE		GRAVEL	
ROAD SURFACE 0.2 CLAY SILT TILL END HOLE 0.9		SAMPLE NUMBER (FIELD)		PLASTICITY INDEX	
		SAMPLE DEPTH (FT.)		PLASTIC LIMIT	
N.R.C. PERMAFROST CLASSIFICATION		LIQUID LIMIT		NATURAL MOISTURE CONTENT	
		6		30.7	
		0.3		19.8	
		0.8		10.9	
				6.4	
				.1	
				57.6	
				35.9	
				LIB. CU. FT.	
				STANDARD PENETRATION RESISTANCE	
				BLOWS / FT.	
				UNIFIED CLASSIFICATION	
				CL	

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: 1636 + 00		HOLE NO.: TH-B-307	
DATE DRILLED: 31-8-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 0.9		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL	
DEPTH (M.)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION	
0	ROAD SURFACE	0.2			
1	GRAVELY SAND	0.5			SM
2					
3					
4					
5					



MATERIALS QUALITY CONTROL LABORATORY
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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION: 1636 + 600

DATE DRILLED: 31-8-78

H.R. PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: TH-8-309

HOLE DEPTH 0.8
TYPE OF DRILL B40-6" AUGERS
WATER LEVEL
DEPTH (M)
SOIL DESCRIPTION

ROAD SURFACE 0.2
SILT TILL
END HOLE 0.8

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA
SAMPLE DEPTH (FT.) 0.2
SAMPLE NUMBER (FIELD) 9
SAMPLE TYPE AUG. 1286
LABORATORY NUMBER

NATURAL MOISTURE CONTENT % 7.3

CONSISTENCY LIMITS
LIQUID LIMIT % 43.2
PLASTIC LIMIT % 19.7
PLASTICITY INDEX % 23.5

GRAVEL % 7.7
SAND % 7.7
MECHANICAL ANALYSIS
> 0.075 mm % 35.4
> 0.005 mm % 56.2

DRY DENSITY LBS. CU. FT.
STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION CL

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: 1637+000		HOLE NO.: TH-8-311	
DATE DRILLED: 31-8-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.	
HOLE DEPTH: 1.2		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL: _____	
SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		UNIFIED CLASSIFICATION	
ROAD SURFACE 0.2					
SILTY GRAVEL					
END HOLE 1.2				SM	
DEPTH (M.)		SAMPLE IDENTIFICATION DATA		MECHANICAL ANALYSIS	
0	0.3	SAMPLE DEPTH (FT.)	11	GRAVEL	<.005 mm
1	1.2	SAMPLE NUMBER (FIELD)	AUG. 1288	SAND	<.075 mm
2		SAMPLE TYPE			>.005 mm
3		LABORATORY NUMBER			
4					
5					



MATERIALS QUALITY CONTROL LABORATORY
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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: 1637+200		HOLE NO.: TH-8-312	
DATE DRILLED: 31-8-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.	
HOLE DEPTH: 0.6		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL: _____	
ROAD SURFACE 0.2		SILT TILL 0.6		END HOLE	
SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		UNIFIED CLASSIFICATION	
0		0.2		0.5	
1		2		3	
4		5		6	
7		8		9	
10		11		12	
13		14		15	
16		17		18	
19		20		21	
22		23		24	
25		26		27	
28		29		30	
31		32		33	
34		35		36	
37		38		39	
40		41		42	
43		44		45	
46		47		48	
49		50		51	
52		53		54	
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61		62		63	
64		65		66	
67		68		69	
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82		83		84	
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100		101		102	
103		104		105	
106		107		108	
109		110		111	
112		113		114	
115		116		117	
118		119		120	
121		122		123	
124		125		126	
127		128		129	
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820		821		822	
823		824		825	
826		827		828	
829		830		831	
832		833		834	
835		836			



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: 1637+620		HOLE NO.: TH-8-314	
DATE DRILLED: 3/8-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 0.6		HOLE ELEVATION:			
TYPE OF DRILL: B40-6" AUGERS		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		GRAVEL		BLOW COUNT	
SOIL DESCRIPTION ROAD SURFACE 0.2 SILTY GRAVELLY SAND 0.6 END HOLE		SAND		DRY DENSITY	
		PLASTICITY LIMIT		UNIFIED CLASSIFICATION	
N.R.C. PERMAFROST CLASSIFICATION		LIQUID LIMIT			
SAMPLE IDENTIFICATION DATA		PLASTIC INDEX			
SAMPLE DEPTH (FT.)		NATURAL MOISTURE CONTENT			
SAMPLE NUMBER (FIELD)		CONSISTENCY LIMITS			
SAMPLE TYPE		GRAVEL			
LABORATORY NUMBER		SAND			
0.2		PLASTIC LIMIT			
0.5		LIQUID LIMIT			
14 AUG 1971		PLASTIC INDEX			
		GRAVEL			
		SAND			
		PLASTICITY LIMIT			
		PLASTIC INDEX			
		NATURAL MOISTURE CONTENT			
		CONSISTENCY LIMITS			
		GRAVEL			
		SAND			
		PLASTICITY LIMIT			
		PLASTIC INDEX			
		NATURAL MOISTURE CONTENT			
		CONSISTENCY LIMITS			
		GRAVEL			
		SAND			
		PLASTICITY LIMIT			
		PLASTIC INDEX			
		NATURAL MOISTURE CONTENT			
		CONSISTENCY LIMITS			
		GRAVEL			
		SAND			
		PLASTICITY LIMIT			
		PLASTIC INDEX			
		NATURAL MOISTURE CONTENT			
		CONSISTENCY LIMITS			
		GRAVEL			
		SAND			
		PLASTICITY LIMIT			
		PLASTIC INDEX			
		NATURAL MOISTURE CONTENT			
		CONSISTENCY LIMITS			
		GRAVEL			
		SAND			
		PLASTICITY LIMIT			
		PLASTIC INDEX			
		NATURAL MOISTURE CONTENT			
		CONSISTENCY LIMITS			
		GRAVEL			
		SAND			
		PLASTICITY LIMIT			
		PLASTIC INDEX			
		NATURAL MOISTURE CONTENT			
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		NATURAL MOISTURE CONTENT			



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8
 DATE DRILLED: 31-8-78
 HOLE LOCATION: 1638 + 800
 HOLE NO.: TH-8-319
 DRILL TECHNICIAN: J.G.
 PLOTTED BY: R.S.
 HOLE ELEVATION:

HOLE DEPTH (M.)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT (%)	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY (LBS. CU. FT.)	STANDARD PENETRATION RESISTANCE (BLOWS FT.)	UNIFIED CLASSIFICATION
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	> 0.075 mm (%)	< 0.075 mm (%)			
0	ROAD SURFACE 0.2																
0.6	SILT TILL		0.6	19	AUG. 1296		12.8	26.5	17.6	8.9	4.7	23.8	43.4	28.1			CL
0.9			0.9														
1.2	END HOLE 1.2																



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: 1639+030		HOLE NO.: TH-8-320	
DATE DRILLED: 31-8-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.	
HOLE DEPTH: 0.9		HOLE ELEVATION:			
TYPE OF DRILL: 40L-6" AUGERS		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
WATER LEVEL:		<.005 mm % <.075 mm % >.005 mm %		DRY DENSITY LBS./CU. FT. BLOWS/FT.	
DEPTH (M.):		SAND % GRAVEL %		UNIFIED CLASSIFICATION	
SOIL DESCRIPTION		PLASTICITY INDEX % PLASTIC LIMIT % LIQUID LIMIT %		N.P. 31.9 49.4 12.0 6.7 SM	
ROAD SURFACE 0.2 SILTY GRAVEL END HOLE 0.9		NATURAL MOISTURE CONTENT % 3.1			
N.R.C. PERMAFROST CLASSIFICATION		SAMPLE IDENTIFICATION DATA LABORATORY NUMBER SAMPLE TYPE SAMPLE NUMBER (FIELD) SAMPLE DEPTH (FT.)			
		0.3 0.9			
		20 AUG. 1978			



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: 1639+280		HOLE NO.: TH-8-321	
DATE DRILLED: 3/8-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.	
HOLE DEPTH: 0.9		HOLE ELEVATION:		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B40L-6" AUGERS		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		SAND		BLOWS / FT.	
DEPTH (M.)		GRAVEL		LBS. / CU. FT.	
SOIL DESCRIPTION		PLASTICITY INDEX		DRY DENSITY	
ROAD SURFACE 0.2		PLASTIC LIMIT		MECHANICAL ANALYSIS	
SANDY SILT		LIQUID LIMIT		<.005 mm	
END HOLE 0.9		NATURAL MOISTURE CONTENT		<.075 mm	
		LABORATORY NUMBER		>.005 mm	
		SAMPLE TYPE		SAND	
		SAMPLE NUMBER (FIELD)		GRAVEL	
		SAMPLE DEPTH (FT.)		PLASTICITY INDEX	
0		0.3		PLASTIC LIMIT	
		0.9		LIQUID LIMIT	
1				NATURAL MOISTURE CONTENT	
				LABORATORY NUMBER	
				SAMPLE TYPE	
				SAMPLE NUMBER (FIELD)	
				SAMPLE DEPTH (FT.)	
				N.R.C. PERMAFROST CLASSIFICATION	
				UNIFIED CLASSIFICATION	
				STANDARD PENETRATION RESISTANCE	
				BLOWS / FT.	
				DRY DENSITY	
				LBS. / CU. FT.	
				MECHANICAL ANALYSIS	
				<.005 mm	
				<.075 mm	
				>.005 mm	
				SAND	
				GRAVEL	
				PLASTICITY INDEX	
				PLASTIC LIMIT	
				LIQUID LIMIT	
				NATURAL MOISTURE CONTENT	
				LABORATORY NUMBER	
				SAMPLE TYPE	
				SAMPLE NUMBER (FIELD)	
				SAMPLE DEPTH (FT.)	
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				UNIFIED CLASSIFICATION	
				STANDARD PENETRATION RESISTANCE	
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