GEOTECHNICAL INVESTIGATIONS

Highway Construction
Km 1664.2 to 1674.2
Alaska Highway #1
Yukon 2001-2002
Volume 1 of 2

Yukon
Community and Transportation Services
Transportation Engineering Branch

Geotechnical Services

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Highway Construction
Km 1664.2 to 1674.2
Alaska Highway #1
Yukon 2001-2002
Volume 1 of 2

This Data Package prepared for project viewing:

February, 2001

Transportation Engineering Branch
Geotechnical Services
461 Range Road
Whitehorse, Yukon

CONTENTS

Volume 1 of 2

INTRODUCTION

Investigation notes, classification methods and legends.

2000 CENTRELINE TESTING ALASKA HIGHWAY

Subsurface Exploration and Testing Report Sheets are provided.
The reports for the centreline holes are arranged according to project location, starting at Km 1664+350 and increasing to Km 1673+855.

Laboratory Testing Result Sheets are provided.
The reports for the centreline holes are arranged according to test hole number, starting at 568-1768 and increasing to 576-887.

2000	TEST HOLES 1768 to 1789	shown with prefix 568-
	TEST HOLES 1790 to 1813	shown with prefix 569-
	TEST HOLES 1814 to 1833	shown with prefix 570-
	TEST HOLES 1848 to 1858	shown with prefix 572-
	TEST HOLES 1859 to 1878	shown with prefix 573-
	TEST HOLES 884 to 887	shown with prefix 576-

NOTE: 2000 Centreline Test Hole locations on the Subsurface Exploration and Testing Report Sheets are approximate. Actual Test Hole locations, compiled by GPS survey, are indicated on project plans.

CONTENTS (continued)

Volume 2 of 2

1978 CENTRELINE TESTING ALASKA HIGHWAY

A Test Hole Location Reference Table and Subsurface Exploration & Testing Report Sheets are provided.
The reports for the centreline holes are arranged according to project location, starting at Km 1664+248 and increasing to Km 1674+291.

1978	TEST HOLES 26 to 31, 328 to 340, and 100 to 173	shown with no prefix

IMPORTANT NOTE: Due to alignment revisions subsequent to the 1978 centreline testing the test hole locations indicated on the 1978 Subsurface Exploration and Testing Report sheets are invalid. Utilize the Test Hole Location Reference Table provided in order to determine the test hole locations relevant to the current alignment.

GRANULAR SOURCE Km 1654.3 LHS ALASKA HIGHWAY (Bear Creek Summit)

Location Plans and Subsurface Exploration and Testing Report Sheets are provided.

Backhoe Testing

1998	TEST PITS 20 to 27	shown with prefix 496-

Laboratory Crush Results

1998	TEST PITS 20 to 23 and 26	shown with prefix 496-

Auger Testing

2000	TEST HOLES 1451 to 1455, 1471 to 1479	shown with prefix 571-

QUARRY SOURCE Km 1674 RHS ALASKA HIGHWAY

Location Plans and Subsurface Exploration and Testing Report Sheets are provided.

Air Rotary Drill Testing

2000	TEST HOLES 865 to 883	shown with prefix 576-

INTRODUCTION

GEOTECHNICAL INVESTIGATION DATA

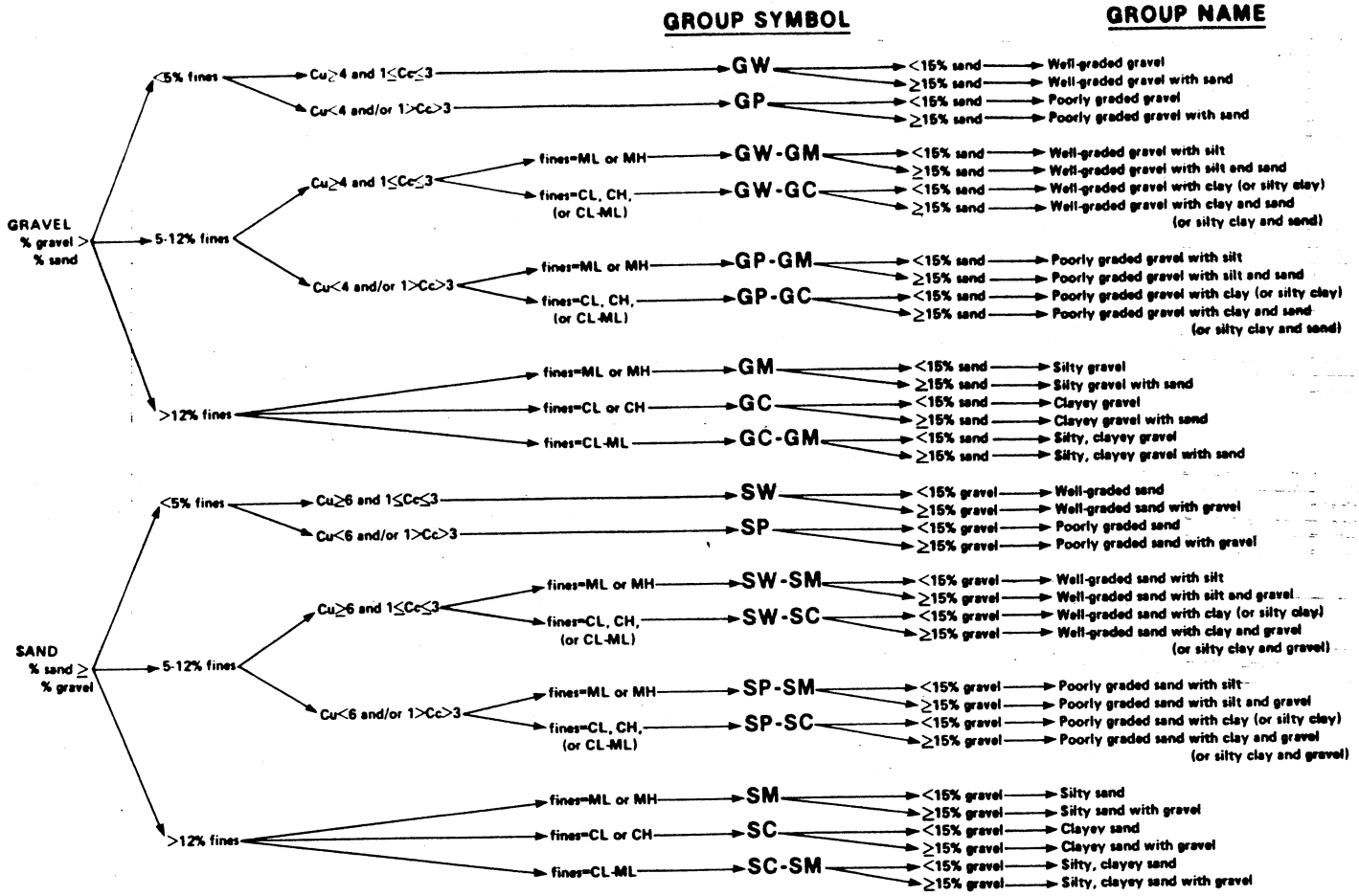
This geotechnical investigation data is provided to assist in the interpretation of soil conditions encountered within this project area. The data presented was prepared solely for Departmental designing and estimating purposes.

The description of material / soil description shown on the subsurface exploration and test reports is a textural description based on identification of retrieved material by the field drilling technician at the time of investigation. This description may be modified following laboratory testing and classification of selected samples. The system used is based on the ASTM standards for identification and classification of soils. Permafrost classifications and groundwater levels are indicated as detected at time of drilling, unless otherwise noted. Changes in moisture or frost conditions should be anticipated depending on the season, time lapse or amount of development work done since the date of investigation.

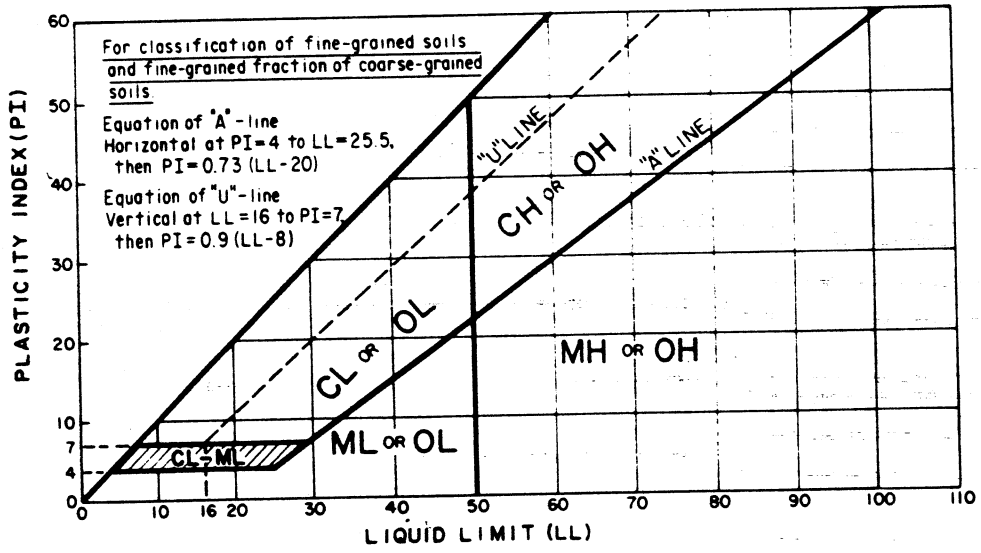
The sample identification and laboratory testing data is provided to give detailed physical properties of selected retrieved samples within the subsurface profile. ***These tests may be conducted on disturbed samples and may exhibit properties different from the native materials. The sample classification may also vary from the soil description due to variations within the sampled strata or because of changes resulting from the sampling method, excavation equipment used or testing preparation procedures.***

These descriptions are not intended to be conclusive as to the nature of any material encountered, or to conditions between or around the test borings/pits.

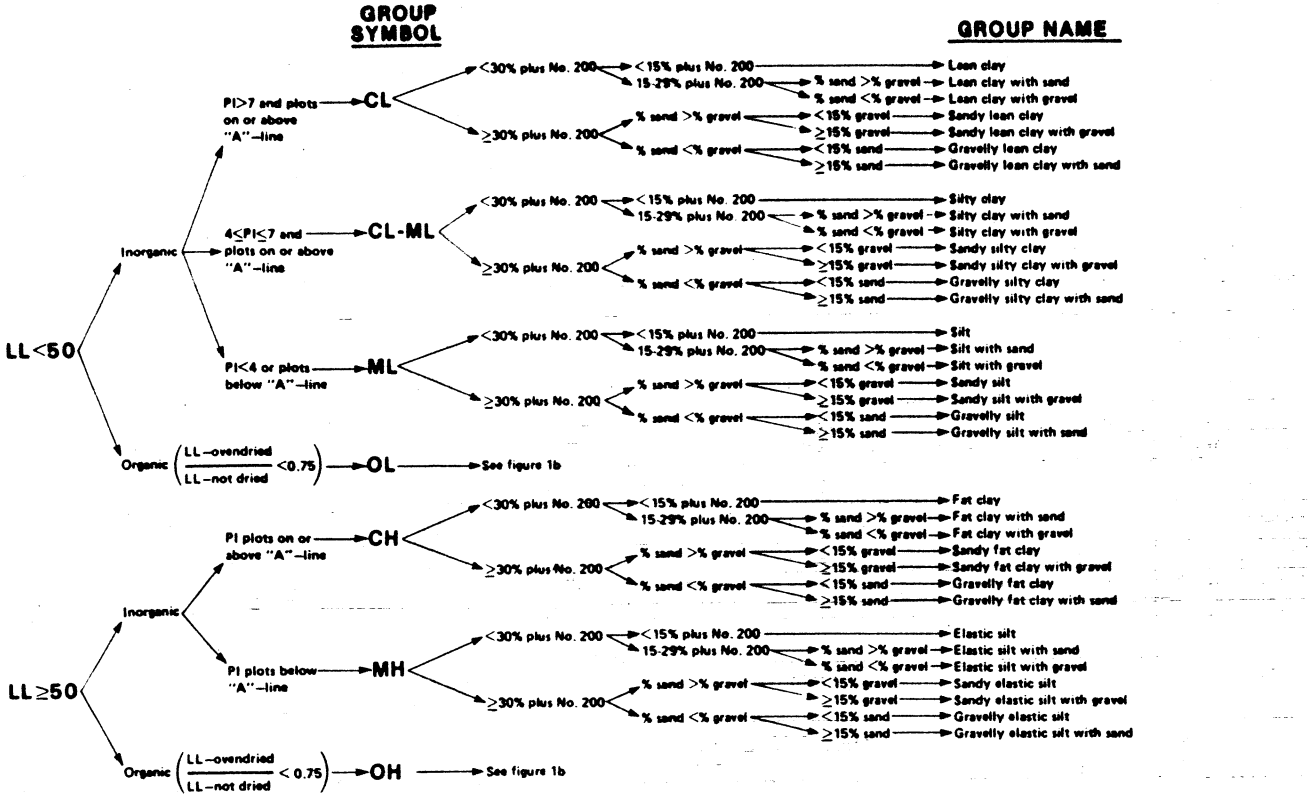
It is recommended that a site inspection, combined with consideration of the regional geology and climatic conditions be conducted. An evaluation of the investigation methods and development work done since the time of investigation should be done prior to interpreting the subsurface conditions at the site for construction purposes.



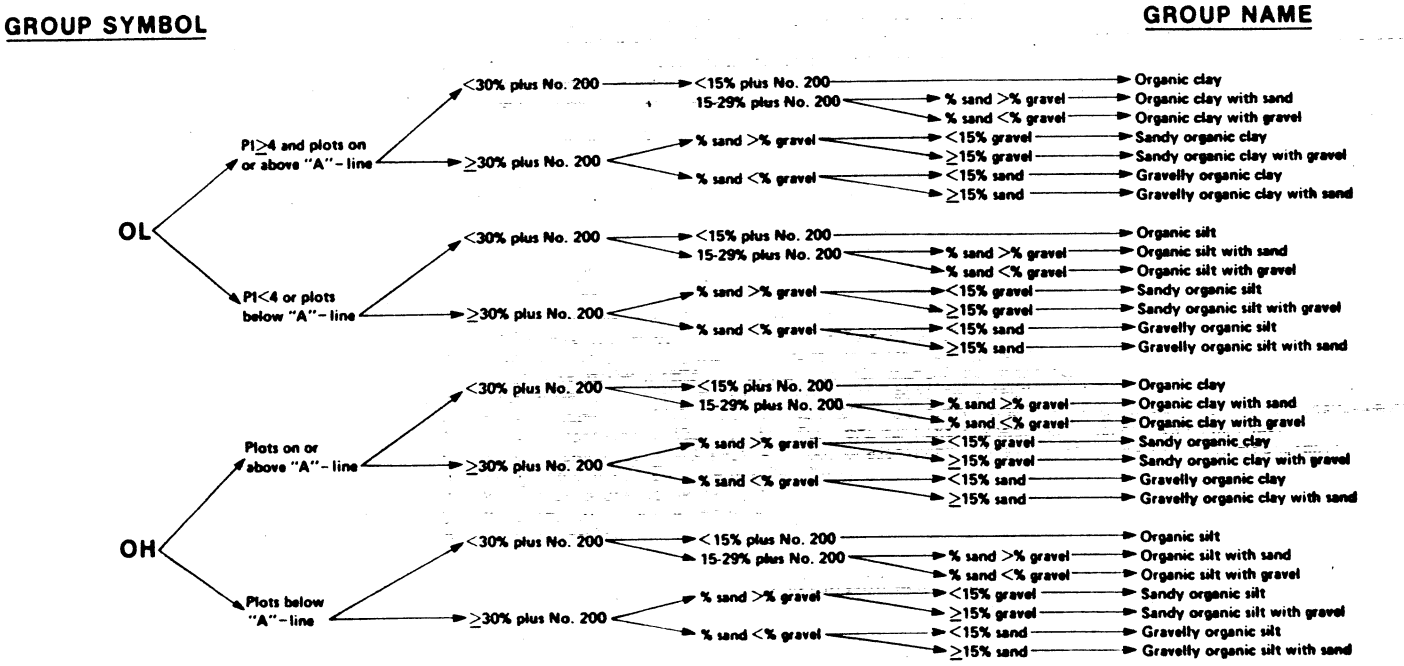
Flow chart for classifying coarse-grained soil.



Plasticity chart.



Flow chart for classifying fine-grained soil.



Flow chart for classifying organic soil.

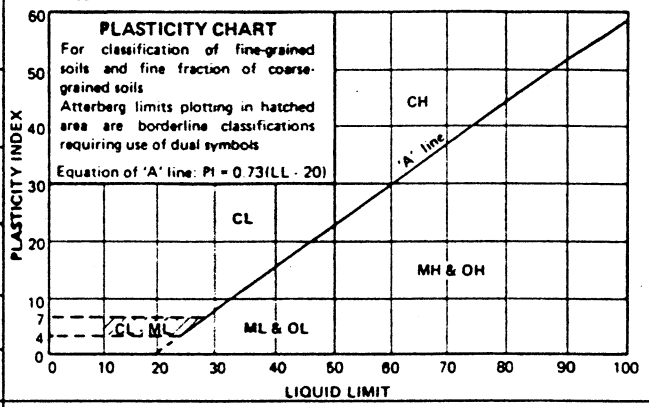
CRITERIA FOR ASSIGNING GROUP SYMBOLS AND GROUP NAMES USING LABORATORY TESTS [a]				SOIL CLASSIFICATION	
				GROUP SYMBOL	GROUP NAME [b]
COARSE-GRAINED SOILS more than 50% retained on No. 200 sieve	GRAVELS More than 50% of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS Less than 5% fines [c]	$C_u \geq 4$ and $1 \leq C_c \leq 3$ [e]	GW	Well-graded gravel [f]
			$C_u < 4$ and/or $1 > C_c > 3$ [e]	GP	Poorly graded gravel [f]
		GRAVELS WITH FINES More than 12% fines [c]	Fines classify as ML or MH	GM	Silty gravel [f,g,h]
			Fines classify as CL or CH	GC	Clayey gravel [f,g,h]
	SANDS 50% or more of coarse fraction passes No. 4 sieve	CLEAN SANDS Less than 5% fines [d]	$C_u \geq 6$ and $1 \leq C_c \leq 3$ [e]	SW	Well-graded sand [i]
			$C_u < 6$ and/or $1 > C_c > 3$ [e]	SP	Poorly graded sand [i]
		SANDS WITH FINES More than 12% fines [d]	Fines classify as ML or MH	SM	Silty sand [g,h,i]
			Fines classify as CL or CH	SC	Clayey sand [g,h,i]
FINE-GRAINED SOILS 50% or more passed the No. 200 sieve	SILTS AND CLAYS Liquid limit less than 50%	inorganic	PI > 7 and plots on or above "A" line [j]	CL	Lean clay [k,l,m]
			PI < 4 or plots below "A" line [j]	ML	Silt [k,l,m]
		organic	$\frac{\text{Liquid limit - oven dried}}{\text{Liquid limit - not dried}} < 0.75$	OL	Organic clay [k, l, m, n] Organic silt [k, l, m, o]
	SILTS AND CLAYS Liquid limit 50% or more	inorganic	PI plots on or above "A" line	CH	Fat clay [k,l,m]
			PI plots below "A" line	MH	Elastic silt [k,l,m]
		organic	$\frac{\text{Liquid limit - oven dried}}{\text{Liquid limit - not dried}} < 0.75$	OH	Organic clay [k, l, m, p] Organic silt [k, l, m, q]
Highly organic soils		Primarily organic matter, dark in color, and organic odor		PT	Peat

a. Based on the material passing the 3-in (75-mm) sieve.
b. If field sample contained cobbles and/or boulders, add "with cobbles and/or boulders" to group name.
c. Gravels with 5 to 12% fines require dual symbols
   GW-GM well graded gravel with silt
   GW-GC well graded gravel with clay
   GP-GM poorly graded gravel with silt
   GP-GC poorly graded gravel with clay
d. Sands with 5 to 12% fines require dual symbols
   SW-SM well graded sand with silt
   SW-SC well graded sand with clay
   SP-SM poorly graded sand with silt
   SP-SC poorly graded sand with clay
e. $C_u = D_{60}/D_{10}$ $\quad C_c = \frac{(D_{30})2}{D_{10} \times D_{60}}$
f. If soil contains $\geq$ 15% sand, add "with sand" to group name.
g. If fines classify as CL-ML, use dual symbol GC-GM, SC-SM.
h. If fines are organic, add "with organic fines" to group name.
i. If soil contains $\geq$ 15% gravel, add "with gravel" to group name.
j. If Atterberg limits plot in hatched area, soil is a CL-ML, silty clay.
k. If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel" whichever is predominant.
l. If soil contains $\geq$ 30% plus No. 200, predominantly sand, add "sandy" to group name.
m. If soil contains $\geq$ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.
n. PI $\geq$ 4 and plots on or above "A" line.
o. PI $<$ 4 or plots below "A" line.
p. PI plots on or above "A" line.
q. PI plots below "A" line.

Soil classification chart

UNIFIED SOIL CLASSIFICATION†

MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES	CLASSIFICATION CRITERIA	
COARSE-GRAINED SOILS More than 50% retained on No. 200 sieve*	GRAVELS 50% or more of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS	GW	Well-graded gravels and gravel-sand mixtures, little or no fines	Classification on basis of percentage of fines Less than 5% pass No. 200 sieve GW, GP, SW, SP More than 12% pass No. 200 sieve GM, GC, SM, SC 5% to 12% pass No. 200 sieve Borderline classification requiring use of dual symbols	$C_U = D_{60}/D_{10}$ Greater than 4; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ Between 1 and 3
			GP	Poorly-graded gravels and gravel-sand mixtures, little or no fines		Not meeting both criteria for GW
		GRAVELS WITH FINES	GM	Silty gravels, gravel-sand-silt mixtures		Atterberg limits plot below 'A' line or plasticity index less than 4
			GC	Clayey gravels, gravel-sand clay mixtures		Atterberg limits plot above 'A' line and plasticity index greater than 7
	SANDS More than 50% of coarse fraction passes No. 4 sieve	CLEAN SANDS	SW	Well-graded sands and gravelly sands, little or no fines		$C_U = D_{60}/D_{10}$ Greater than 6; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ Between 1 and 3
			SP	Poorly-graded sands and gravelly sands, little or no fines		Not meeting both criteria for SW
		SANDS WITH FINES	SM	Silty sands, sand-silt mixtures		Atterberg limits plot below 'A' line or plasticity index less than 4
			SC	Clayey sands, sand-clay mixtures		Atterberg limits plot above 'A' line and plasticity index greater than 7
FINE-GRAINED SOILS 50% or more passes No. 200 sieve*	SILTS AND CLAYS Liquid limit 50% or less		ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands		
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays		
			OL	Organic silts and organic silty clays of low plasticity		
	SILTS AND CLAYS Liquid limit greater than 50%		MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts		
			CH	Inorganic clay of high plasticity, fat clays		
			OH	Organic clays of medium to high plasticity		
HIGHLY ORGANIC SOILS			PT	Peat, muck and other highly organic soils		



*Based on the material passing the 3 in. (75 mm) sieve
†ASTM Designation D 2487, for identification procedure see D 2488

GROUND ICE DESCRIPTION

ICE NOT VISIBLE

GROUP SYMBOLS	SYMBOLS	SUBGROUP DESCRIPTION	
N	Nf	Poorly-bonded or friable	
	Nbn	No excess ice, well-bonded	
	Nbe	Excess ice, well-bonded	

VISIBLE ICE LESS THAN 50% BY VOLUME

GROUP SYMBOLS	SYMBOLS	SUBGROUP DESCRIPTION	
V	Vx	Individual ice crystals or inclusions	
	Vc	Ice coatings on particles	
	Vr	Random or irregularly oriented ice formations	
	Vs	Stratified or distinctly oriented ice formations	

VISIBLE ICE GREATER THAN 50% BY VOLUME

ICE	ICE + Soil Type	Ice with soil inclusions	
	ICE	Ice without soil inclusions (greater than 25 mm (1 in.) thick)	

NOTE:

1. *Dual symbols are used to indicate borderline or mixed ice classifications*
2. *Visual estimates of ice contents indicated on borehole logs ± 5%*
3. *This system of ground ice description has been modified from NRC Technical Memo 79, Guide to the Field Description of Permafrost for Engineering Purposes*

LEGEND

Soil Ice

	BOUNDARY LINES ON DRILL LOGS	TEST HOLE NO: 3
ENGINEERING–CAPITAL		Project No:
		ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	BOUNDARY LINES							0.0
	A solid line is used when a definite soil change is logged and a depth is known.							
1.0	A dashed line is used when a definite soil change is noted either by the field log or the sample test results and the depth of change is unknown.							1.0
2.0	A dotted line is used when a gradual or gradational change is noted by field notes and sample test results.							2.0
3.0	A triangle over two lines indicates water level detected at the time of drilling, unless otherwise noted							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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2000 CENTRELINE TESTING
1664+350 to 1673+855
ALASKA HIGHWAY

SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1768
ENGINEERING CAPITAL	KM 1664- 1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1664+350 12M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ☒ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILTY SAND (SM) -some organic -brown -wet	☒	1523	● ▲	SM		◆	
1.0								1.0
	SANDY SILT TO SILTY SAND WITH GRAVEL (ML)-(SM) -brown -saturated -some grindy drilling	☒	1524	● ▲	ML		■ ◆	
2.0								2.0
3.0								3.0
4.0		☒	1525	● ▲	SM		●	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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	Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1769
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1664+450 12M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (SM)-(GM)-(SM) -brown -moist -grindy drilling							0.0
1.0		⊠	1526	● ▲	SM		■ ◆	1.0
2.0								2.0
3.0		⊠	1527	● ▲	GM		◆ ■	3.0
4.0		⊠	1528	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

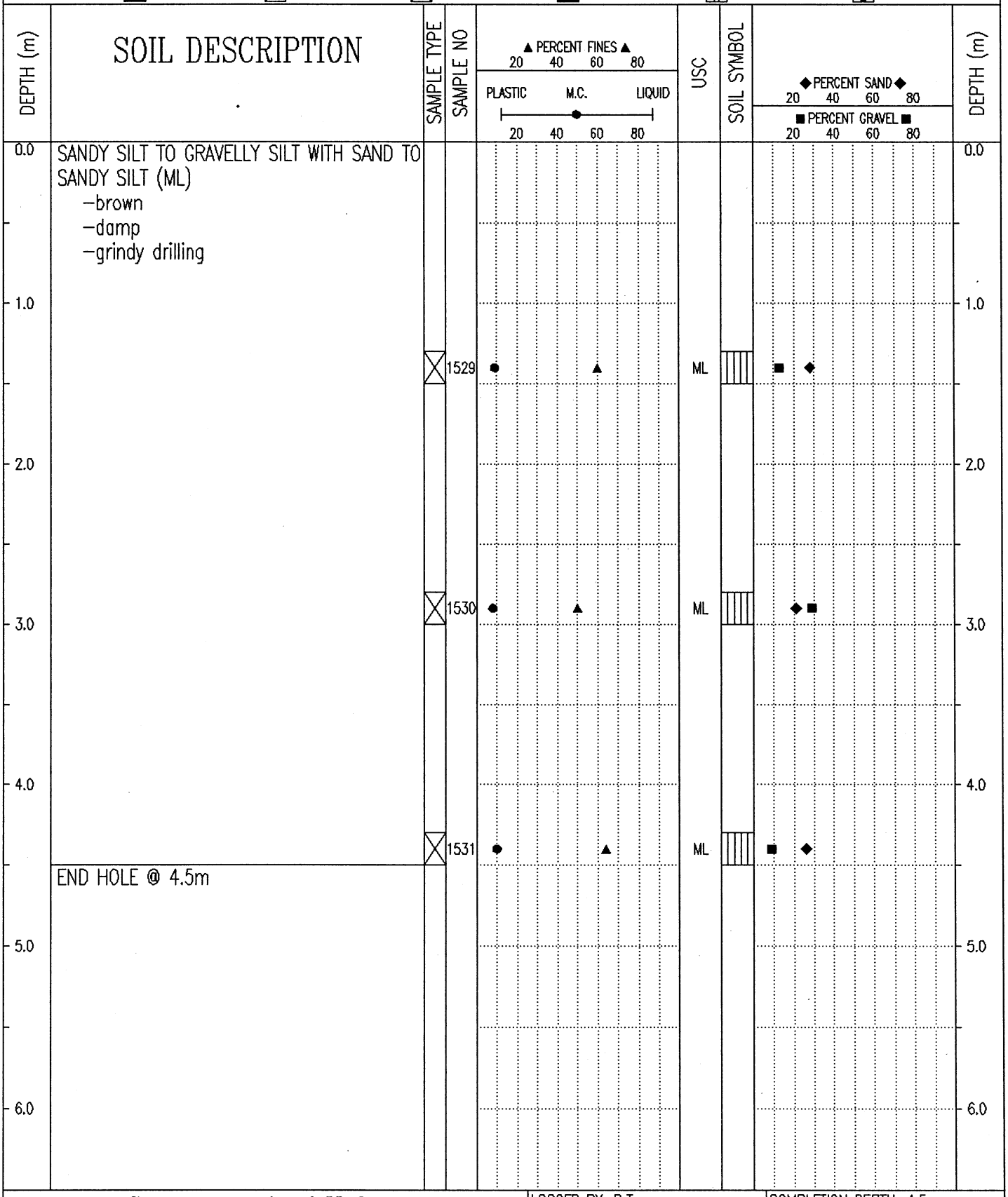
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1770
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1664+550 12M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▧ CORE



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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1771
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1664+600 25 RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▣ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SILTY GRAVEL WITH SAND TO SANDY SILT (GM)-(ML) -brown -damp to moist -some grindy drilling	⊠	1532	● ▲	GM		◆ ■	0.0
1.0								1.0
2.0								2.0
3.0		⊠	1533	● ▲	GM		◆ ■	3.0
4.0								4.0
5.0		⊠	1534	● ▲	GM		◆	5.0
6.0								6.0
7.0								7.0
		⊠	1535	● ▲	ML		■ ◆	
8.0	END HOLE @ 7.6m							8.0
9.0								9.0
10.0								10.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1772
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1664+650 25 RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⧄ S.P.T. ☒ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SANDY SILT (ML) -grey -moist -grindy drilling							0.0
1.0		☒	1536	● ▲	ML		■ ◆	1.0
2.0								2.0
	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) -brown -damp -some +5mm material -smoother drilling							
3.0		☒	1537	● ▲	SM		■ ◆	3.0
4.0	-hard grindy drilling below 3.5m							4.0
		☒	1538	● ▲	SM		■ ◆	
5.0	-difficult slow grindy drilling below 4.8m							5.0
6.0	-more +5mm material below 6.0m							6.0
		☒	1539	● ▲	GM		◆ ■	
7.0	END HOLE @ 7.0m -refusal							7.0
8.0								8.0
9.0								9.0
10.0								10.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1773
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1664+700 25 RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ☒ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
1.0	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL TO SANDY SILT (SM)-(GM)-(SM)-(ML) -grey -moist -grindy drilling	☒	1540	● ▲	SM		■ ◆	1.0
2.0								2.0
3.0		☒	1541	● ▲	GM		◆ ■	3.0
4.0								4.0
5.0		☒	1542	● ▲	SM		■ ◆	5.0
	-diffucult slow grindy drilling below 4.7m							
6.0								6.0
7.0		☒	1543	● ▲	ML		■ ◆	7.0
	END HOLE @ 7.0m -refusal							
8.0								8.0
9.0								9.0
10.0								10.0

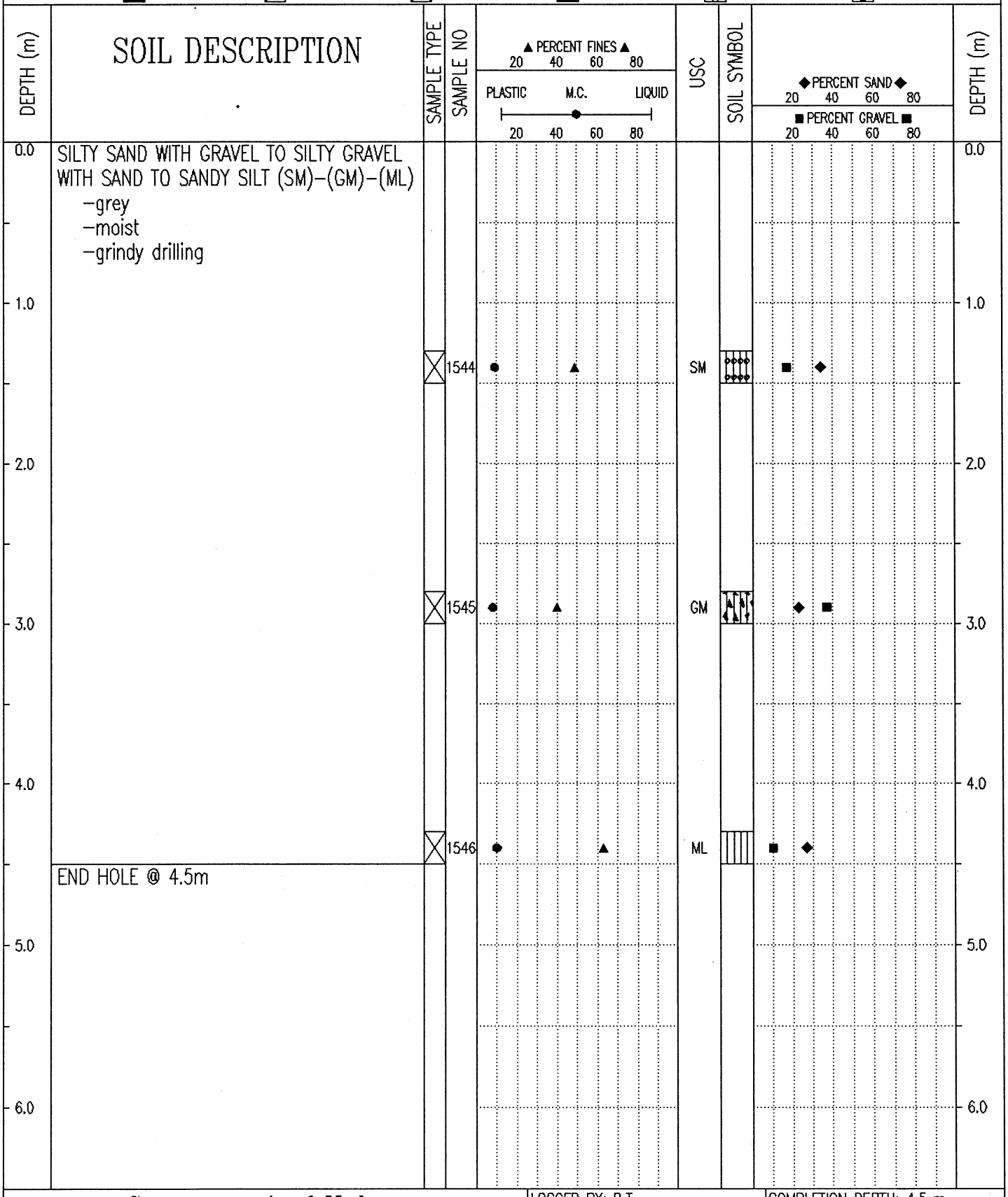
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1774
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1664+800 13M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

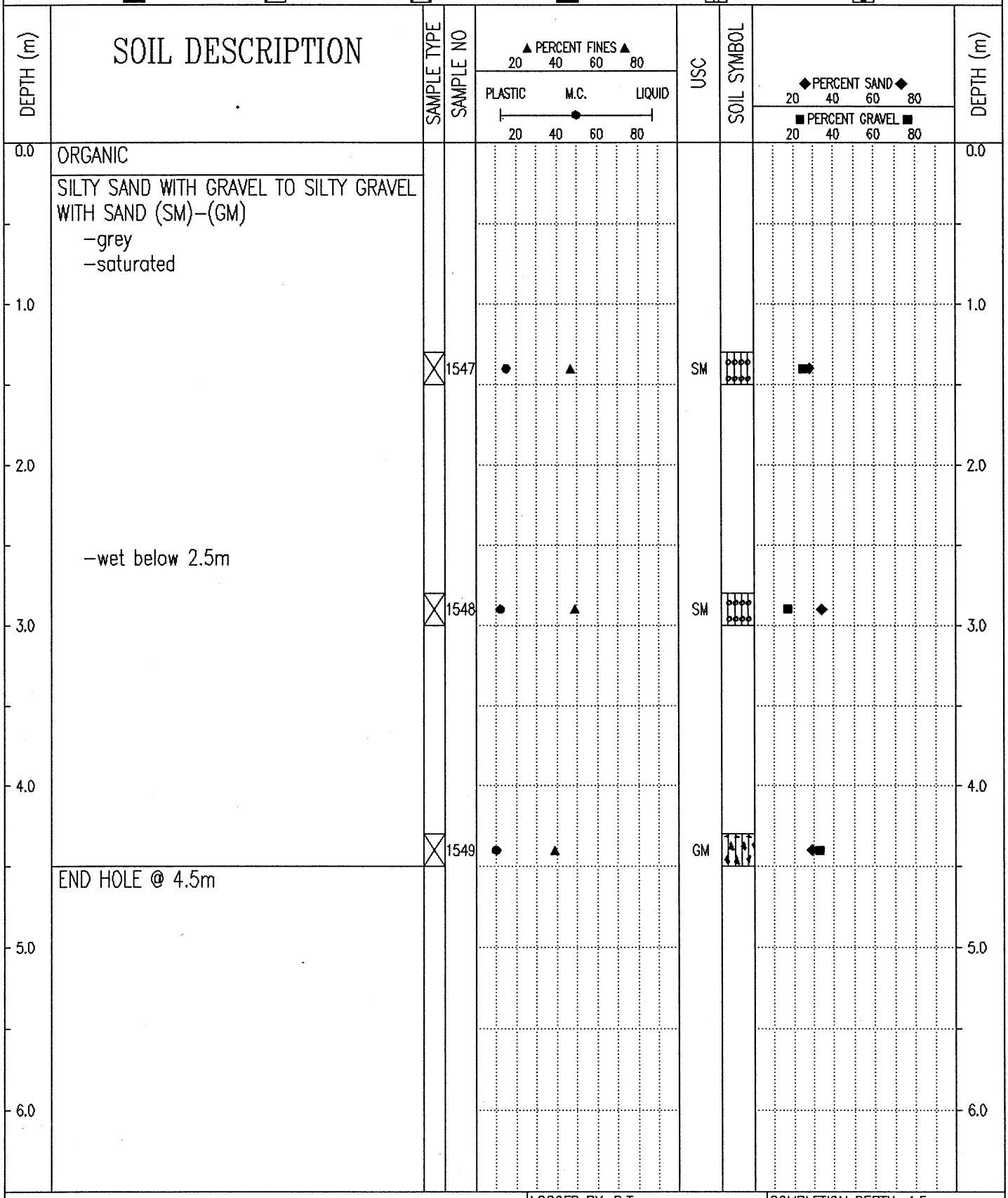


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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1775
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1664+900 15M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE



Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1776
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1664+975 20M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ☒ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC –smooth easy drilling							0.0
	SILT TO SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (ML)–(GM)–(SM) –grey –frozen (Nb) –tight drilling below 0.6m (frozen)							
1.0		☒	1550	● ▲	ML	▥	◆	1.0
2.0	–some +5mm material below 2.0m –frozen (Vr) below 2.0m							2.0
3.0		☒	1551	● ▲	GM	▨	◆	3.0
4.0	–frozen (Nf) below 3.8m	☒	1552	● ▲	SM	▨	■ ◆	4.0
	END HOLE @ 4.5m Note: Test Hole @ culvert							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1777
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1665+075 15M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) -grey -moist -some grindy drilling below 0.7m							
1.0		⊠	1553	● ▲	SM		■ ◆	1.0
2.0	-saturated below 2.0m							2.0
3.0		⊠	1554	● ▲	GM		◆ ■	3.0
	-brown below 3.5m -saturated to free water below 3.5m							
4.0		⊠	1555	● ▲	GM		◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1778
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1665+175 8M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ☒ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SANDY SILT WITH GRAVEL TO SILT WITH SAND TO SANDY SILT (ML) -olive -moist -grindy drilling							0.0
1.0		☒	1556	● ▲	ML		■ ◆	1.0
2.0	-damp below 2.5m							2.0
3.0		☒	1557	● ▲	ML		■ ◆	3.0
4.0		☒	1558	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1779
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1665+275 8M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SANDY SILT TO SILTY SAND WITH GRAVEL TO SANDY SILT WITH GRAVEL (ML)-(SM)-(ML) -olive -moist -grindy drilling							0.0
1.0		⊠	1559	● ▲	ML		■ ◆	1.0
2.0								2.0
3.0		⊠	1560	● ▲	SM		■ ◆	3.0
4.0		⊠	1561	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1780
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1665+375 8M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▯ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆PERCENT SAND◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SILTY SAND WITH GRAVEL TO SANDY SILT TO SANDY SILT WITH GRAVEL –brown –moist							0.0
1.0		⊠	1562	● ▲	SM		■ ◆	1.0
2.0								2.0
3.0		⊠	1563	● ▲	ML		■ ◆	3.0
4.0		⊠	1564	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

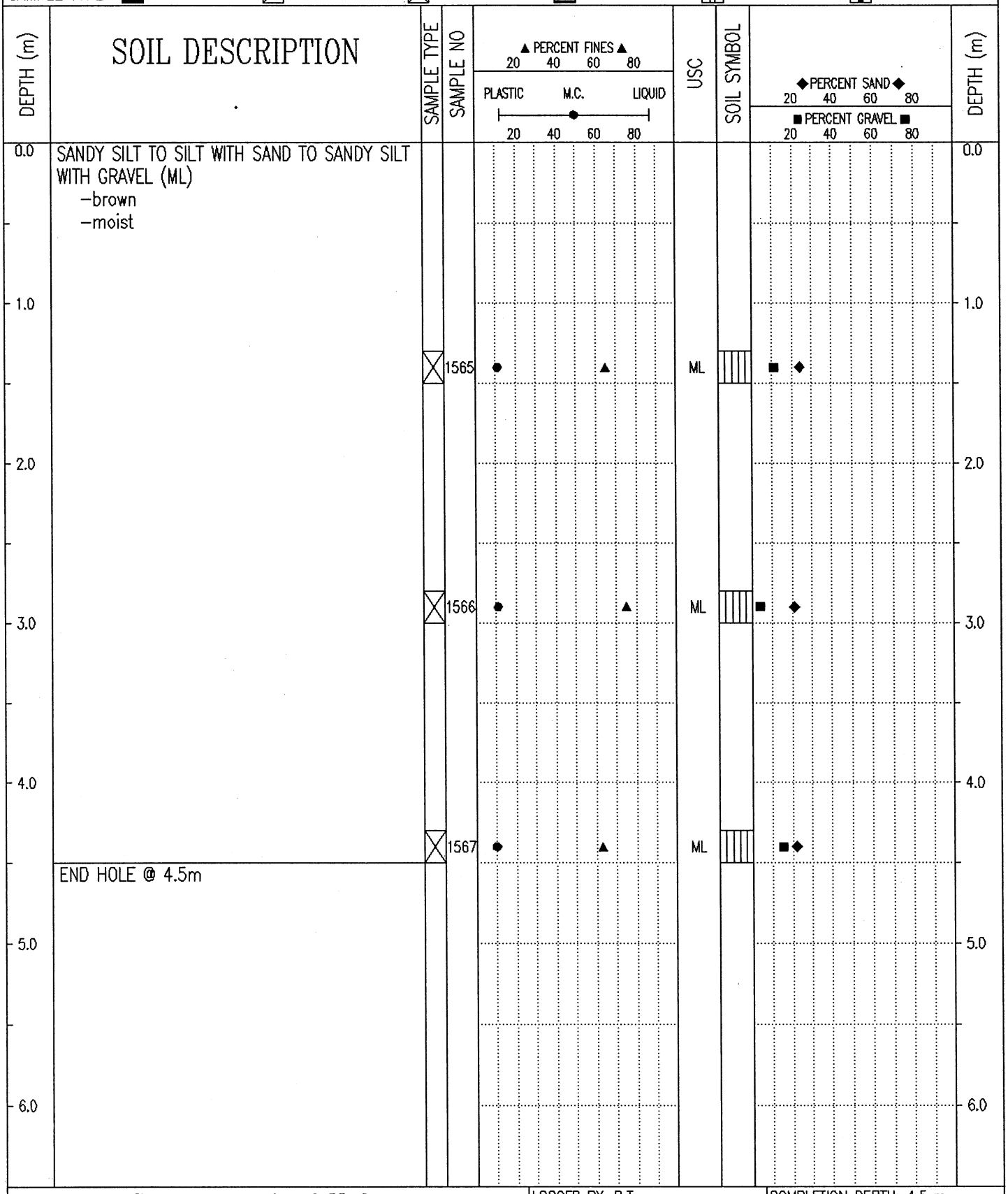
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1781
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1665+475 8M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE



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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1782
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1665+575 9M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆PERCENT SAND◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	GRAVELLY SILT -brown -grindy drilling							0.0
	SANDY MATERIAL -pink							
1.0	SILTY SAND WITH GRAVEL TO SANDY SILT WITH GRAVEL TO SILT WITH SAND (SM)-(ML) -brown -moist	⊠	1568	● ▲	SM		■ ◆	1.0
2.0								2.0
3.0		⊠	1569	● ▲	ML		■ ◆	3.0
4.0		⊠	1570	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1783
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1665+675 15M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SANDY SILT TO SILT WITH SAND (ML) -brown -moist							0.0
1.0		⊠	1571	● ▲	ML		■ ◆	1.0
2.0	-damp to moist below 2.5m							2.0
3.0		⊠	1572	● ▲	ML		■ ◆	3.0
4.0	-damp below 4.0m							4.0
		⊠	1573	● ▲	ML		■ ◆	
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1784
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1665+775 13M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILTY SAND WITH GRAVEL TO SANDY SILT WITH GRAVEL (SM)-(ML) -brown -moist -grindy drilling							
1.0		⊠	1574	● ▲	SM		■ ◆	1.0
2.0								2.0
3.0		⊠	1575	● ▲	ML		■ ◆	3.0
4.0		⊠	1576	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1785
ENGINEERING CAPITAL	KM 1664-1692 A/HH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1665+875 20M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆PERCENT SAND◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (SM)-(GM)-(SM)							
	-brown							
	-moist							
1.0	-grindy drilling							1.0
		⊠	1577	● ▲	SM		■ ◆	
2.0								2.0
		⊠	1578	● ▲	GM		◆ ■	
3.0								3.0
4.0								4.0
		⊠	1579	● ▲	SM		■	
	END HOLE @ 4.5m							
	Note: Test hole @ culvert							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1786
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1665+975 15M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SANDY SILT WITH GRAVEL TO SANDY SILT (ML) -brown -moist -grindy drilling							0.0
1.0		⊠	1580	● ▲	ML	▥	■ ◆	1.0
2.0								2.0
3.0		⊠	1581	● ▲	ML	▥	■ ◆	3.0
4.0		⊠	1582	● ▲	ML	▥	■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1787
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1666+075 12M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SANDY SILT TO SILTY GRAVEL WITH SAND (ML)-(GM) -brown -moist							0.0
1.0		⊠	1583	● ▲	ML		■ ◆	1.0
2.0								2.0
3.0		⊠	1584	● ▲	GM		◆ ■	3.0
4.0	END HOLE @ 4.0M -broke off bit.							4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1788
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1666+175 15M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▥ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SANDY SILT WITH GRAVEL TO SILT WITH SAND TO SANDY SILT (ML) -brown -moist							0.0
1.0		⊠	1585	● ▲	ML		■ ◆	1.0
2.0								2.0
3.0		⊠	1586	● ▲	ML		■ ◆	3.0
4.0		⊠	1587	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 568-1789
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1666+275 15M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SANDY SILT TO GRAVELLY SILT WITH SAND TO SANDY SILT WITH GRAVEL (ML) –brown –moist							0.0
1.0		⊠	1588	● ▲	ML		■ ◆	1.0
2.0	–damp to moist below 2.0m							2.0
3.0		⊠	1589	● ▲	ML		◆ ■	3.0
4.0		⊠	1590	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1790
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1666+375 15M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⧄ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SANDY SILT TO SANDY SILT WITH GRAVEL TO SANDY SILT (ML) –trace +5mm material –brown –moist							0.0
1.0		⊠	1591	● ▲	ML		■ ◆	1.0
2.0								2.0
3.0		⊠	1592	● ▲	ML		■ ◆	3.0
4.0		⊠	1593	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1791
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1666+475 17M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SANDY SILT TO SANDY SILT WITH GRAVEL TO SANDY SILT (ML) –trace +5mm material –olive –wet							0.0
1.0		⊠	1591	● ▲	ML		■ ◆	1.0
2.0	–moist below 2.5m							2.0
3.0		⊠	1592	● ▲	ML		■ ◆	3.0
4.0		⊠	1593	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m Note: Test hole @ culvert outlet							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1792
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1666+575 13M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SANDY SILT (ML) –brown –moist –some grindy drilling							0.0
1.0		⊠	1597	● ▲	ML		■ ◆	1.0
2.0	SILTY GRAVEL WITH SAND (GM) –brown –damp –easy drilling							2.0
3.0		⊠	1598	● ▲	GM		◆ ■	3.0
	SANDY SILT (ML) –brown –moist –tighter drilling							
4.0		⊠	1599	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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REVIEWED BY:	COMPLETE: 00/08/16
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1793
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1666+675 12M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SANDY SILT WITH GRAVEL TO GRAVELLY SILT WITH SAND (ML) –brown –moist –grindy drilling							0.0
1.0		⊠	1600	● ▲	ML		■ ◆	1.0
2.0								2.0
3.0		⊠	1601	● ▲	ML		■ ◆	3.0
4.0		⊠	1602	● ▲	ML		●	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: J.B.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 00/08/16
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1794
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1666+775 12M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SANDY SILT WITH GRAVEL TO SILTY SAND WITH GRAVEL TO SANDY SILT (ML)-(SM)-(ML) -brown -moist -grindy drilling							0.0
1.0		⊠	1603	● ▲	ML		■ ◆	1.0
2.0								2.0
3.0		⊠	1604	● ▲	SM		■ ◆	3.0
4.0		⊠	1605	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1795
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1666+875 12RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SANDY SILT (ML) -brown -moist -grindy drilling							0.0
1.0		⊠	1606	● ▲	ML		■ ◆	1.0
2.0								2.0
3.0		⊠	1607	● ▲	ML		■ ◆	3.0
4.0		⊠	1608	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1796
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1666+975 8M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	GRAVELLY SILT WITH SAND TO SILT WITH SAND TO SANDY SILT (ML) –brown –moist							0.0
1.0		⊠	1609	● ▲	ML		◆ ■	1.0
2.0								2.0
3.0		⊠	1610	● ▲	ML		■ ◆	3.0
4.0		⊠	1611	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1797
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1667+075 8M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SANDY SILT (ML) –brown –damp							0.0
1.0		⊠	1612	● ▲	ML		■ ◆	1.0
2.0								2.0
3.0		⊠	1613	● ▲	ML		■ ◆	3.0
4.0		⊠	1614	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1798
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1667+175 8M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SANDY SILT TO GRAVELLY SILT WITH SAND (ML) -brown -damp							0.0
1.0		⊠	1615	● ▲	ML	▥	■ ◆	1.0
2.0								2.0
3.0		⊠	1616	● ▲	ML	▥	■ ◆	3.0
4.0		⊠	1617	● ▲	ML	▥	●	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1799
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1667+275 12M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ☒ AUGER ▤ BULK ▥ TUBE ▦ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SANDY SILT TO SILTY SAND WITH GRAVEL TO SILT SAND (ML)-(SM) -brown -moist							0.0
1.0		☒	1618	● ▲	ML		■ ◆	1.0
2.0								2.0
3.0		☒	1619	● ▲	SM		■ ◆	3.0
4.0		☒	1620	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1800
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1667+350 17M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SANDY SILT TO SILTY GRAVEL WITH SAND (ML)-(GM) -brown -damp							0.0
1.0		⊠	1621	● ▲	ML		■ ◆	1.0
2.0								2.0
3.0		⊠	1622	● ▲	ML		■ ◆	3.0
4.0		⊠	1623	● ▲	GM		◆ ■	4.0
	END HOLE @ 4.5m Note: Testhole @ culvert outlet							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1801
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1667+450 8M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SILT WITH SAND TO SANDY SILT (ML) -brown -damp							0.0
1.0		⊠	1624	● ▲	ML		■ ◆	1.0
2.0								2.0
3.0		⊠	1625	● ▲	ML		■ ◆	3.0
4.0		⊠	1626	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

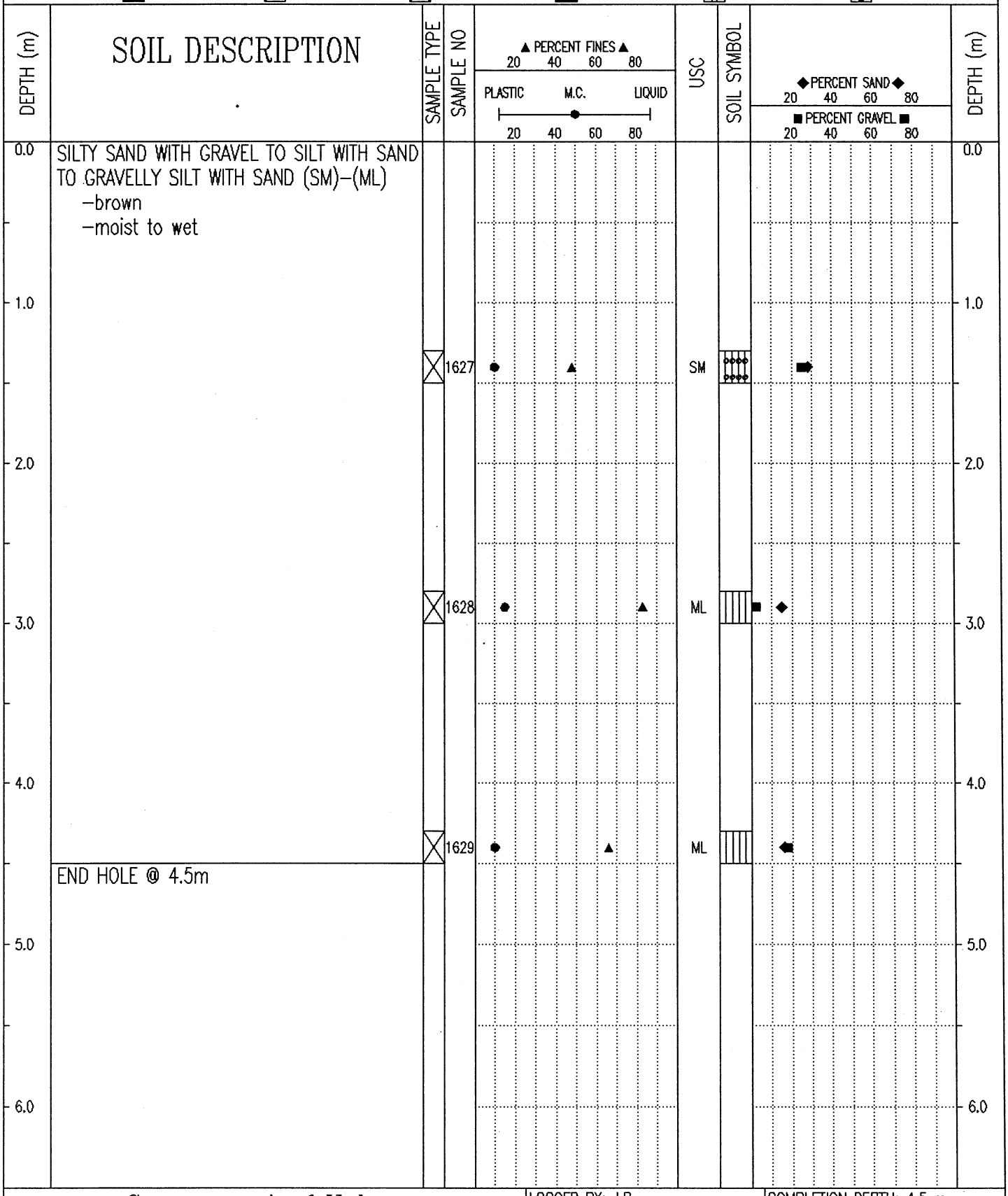
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1802
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1667+550 12M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE



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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1803
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1667+650 12M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SILTY SAND WITH GRAVEL TO SILT WITH SAND (SM)-(ML) -brown -moist							0.0
1.0		⊠	1630	● ▲	SM		■ ◆	1.0
2.0								2.0
3.0		⊠	1631	● ▲	ML		■ ◆	3.0
4.0		⊠	1632	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1804
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1667+730 15M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SANDY SILT (ML) -brown -moist							0.0
1.0		⊠	1633	● ▲	ML		■ ◆	1.0
2.0	SILTY SAND (SM) -trace +5mm material -brown -damp							2.0
3.0		⊠	1634	● ▲	SM		■ ◆	3.0
	SANDY SILT (ML) -some +5mm material -brown -moist							
4.0		⊠	1635	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m Note: Test hole @ culvert outlet							
5.0								5.0
6.0								6.0

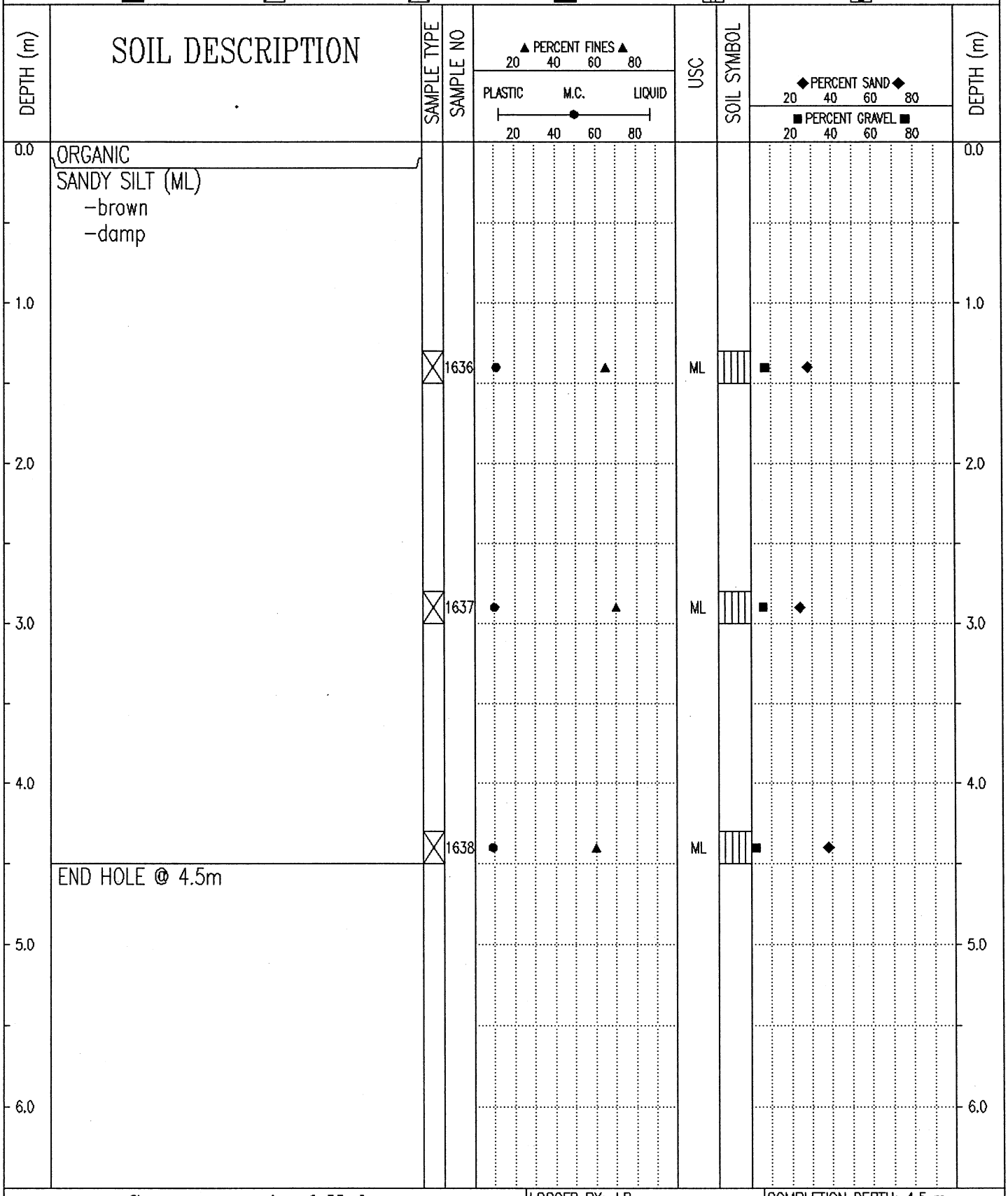
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1805
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1667+800 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▥ CORE



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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1806
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1667+900 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT (mL) -brown -damp							
1.0		⊠	1639	● ▲	ML		■ ◆	1.0
2.0	-less +5mm material below 2.5m							2.0
3.0		⊠	1640	● ▲	ML		■ ◆	3.0
	SILT WITH SAND (ML) -brown -damp							
4.0		⊠	1641	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1807
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1668+000 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SILTY SAND WITH GRAVEL (SM) -brown -moist							0.0
1.0	-lost sample #1642	⊠	1642	●				1.0
2.0								2.0
3.0		⊠	1643	● ▲	SM	▨	■ ◆	3.0
4.0		⊠	1644	● ▲	SM	▨	■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

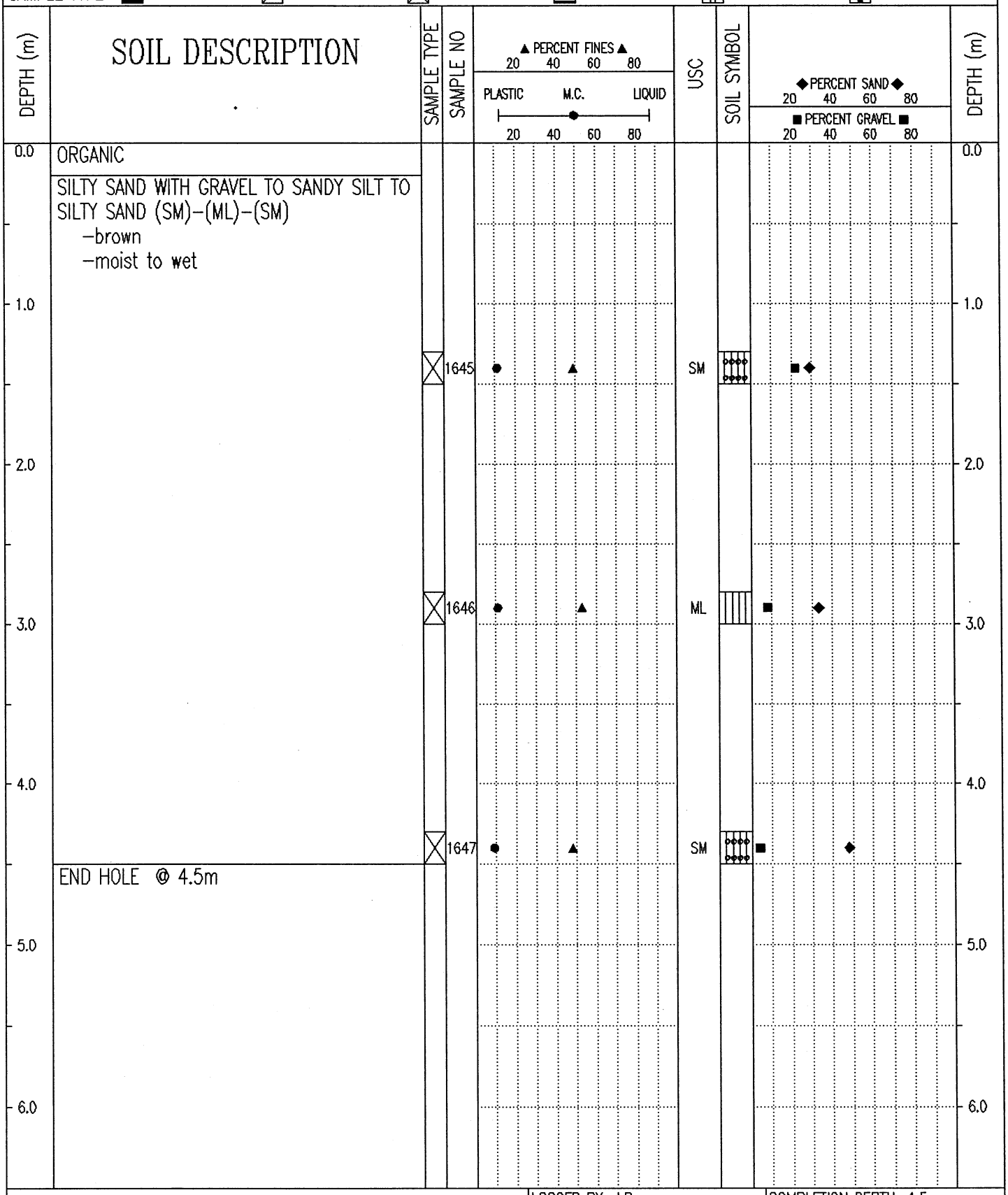
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1808
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1668+100 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE



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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1809
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1668+200 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT (ML) -brown -moist							
1.0		⊠	1648	● ▲	ML		■ ◆	1.0
2.0	SILTY SAND (SM) -trace +5mm material -brown -damp							2.0
3.0		⊠	1649	● ▲	SM		■ ◆	3.0
	SANDY SILT (ML) -brown -damp							
4.0		⊠	1650	● ▲	ML		■◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

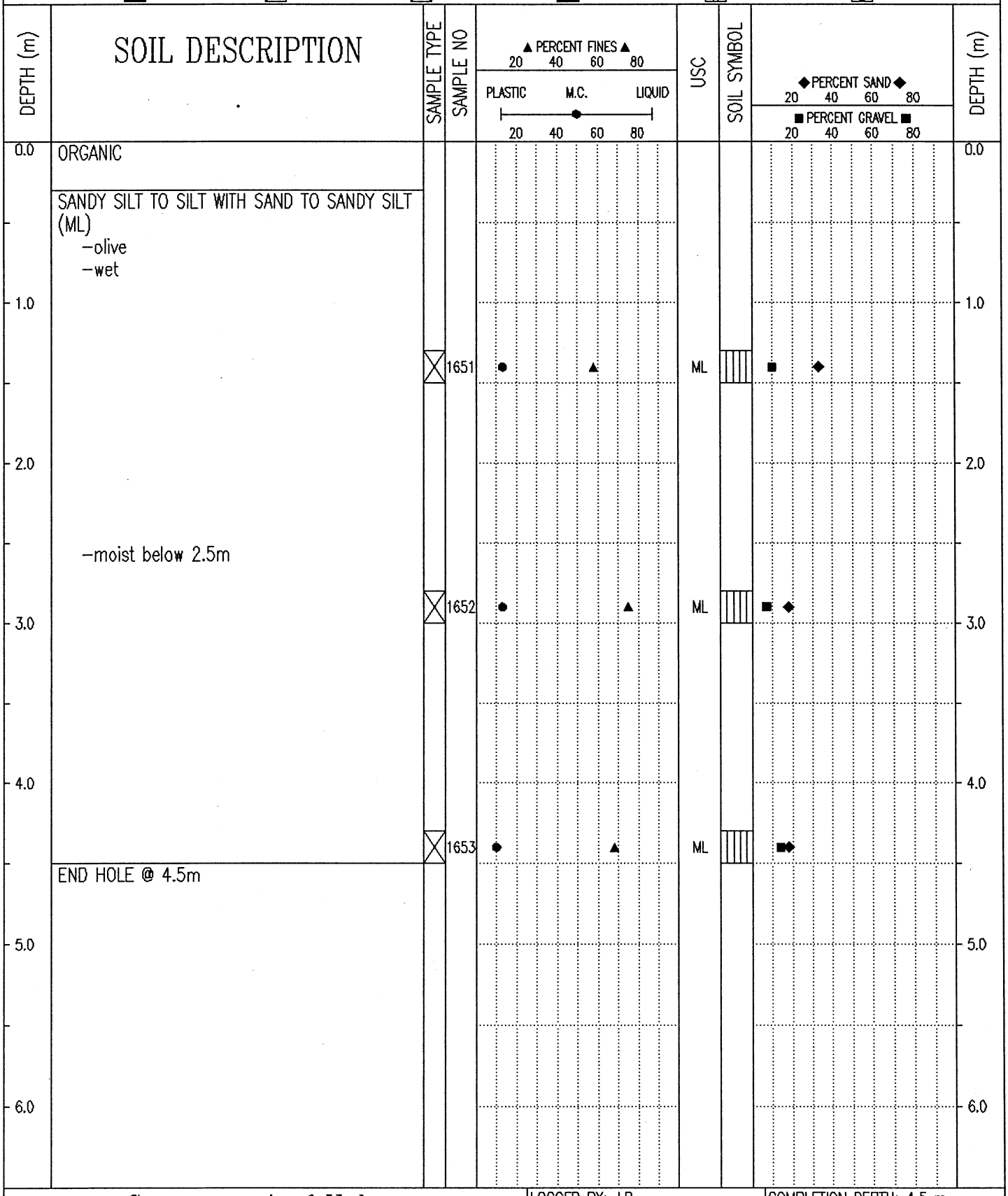
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LOGGED BY: J.B.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1810
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1668+300 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE



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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1811
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1668+400 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT TO SILT WITH SAND TO SANDY SILT WITH GRAVEL (ML) –brown –moist							
1.0		⊠	1654	● ▲	ML	▥	■ ◆	1.0
2.0								2.0
3.0		⊠	1655	● ▲	ML	▥	■ ◆	3.0
4.0		⊠	1656	● ▲	ML	▥	■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: J.B.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1812
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1668+500 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT TO SILT WITH SAND TO SANDY SILT (ML) –brown –wet							
1.0		⊠	1657	● ▲	ML		■ ◆	1.0
2.0	–moist below 2.5m							2.0
3.0		⊠	1658	● ▲	ML		■ ◆	3.0
4.0		⊠	1659	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 569-1813
ENGINEERING CAPITAL	KM 1664 A/H NORTH	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1668+600 20LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▦ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT TO SILTY GRAVEL WITH SAND TO SANDY SILT (ML)-(GM)-(ML) -brown -damp							
1.0		⊠	1660	● ▲	ML		■ ◆	1.0
2.0								2.0
3.0		⊠	1661	▲	GM		◆ ■	3.0
4.0		⊠	1662	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m Note: Test hole @ culvert inlet							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 570-1814
ENGINEERING CAPITAL	KM 1664 -1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1668+700 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT TO SILT WITH SAND TO SANDY SILT (ML) -moist to wet							
1.0		⊠	1663	● ▲	ML		■ ◆	1.0
2.0								2.0
3.0		⊠	1664	● ▲	ML		■ ◆	3.0
4.0	-damp below 4.0m							4.0
		⊠	1665	◆ ▲	ML		■ ◆	
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 570-1815
ENGINEERING CAPITAL	KM 1664 - 1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1668+800 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC, SAND & GRAVEL							0.0
	SILTY SAND WITH GRAVEL TO SANDY SILT WITH GRAVEL (SM)-(ML) -brown -moist							
1.0		⊠	1666	● ▲	SM		■ ◆	1.0
2.0								2.0
	-more +5mm material below 2.5m -damp below 2.5m							
3.0		⊠	1667	● ▲	ML		■ ◆	3.0
4.0		⊠	1668	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m Note: on Old Alaska Hwy Roadbed							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 570-1816
ENGINEERING CAPITAL	KM 1664 – 1962 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1668+900 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⧄ S.P.T. ☒ AUGER ☰ BULK ▯ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT TO SILT WITH SAND (ML) –brown –moist to wet							
1.0								1.0
2.0		☒	1669	● ▲	ML	▯	■ ◆	2.0
3.0								3.0
4.0	–damp below 4.0m	☒	1670	● ▲	ML	▯	■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 570-1817
ENGINEERING CAPITAL	KM 1664 – 1692 A/H	Project No: 092-202002-0363
MOBILE B40 L 6" AUGER	LOCATION: 1669+000 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT WITH GRAVEL TO SANDY SILT TO SILT WITH SAND (ML) –brown –wet							
1.0		⊠	1671	● ▲	ML		■ ◆	1.0
2.0	–moist below 2.5m							2.0
3.0		⊠	1672	● ▲	ML		■ ◆	3.0
4.0		⊠	1673	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 570-1818
ENGINEERING CAPITAL	KM 1664 – 1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1669+100 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ☒ AUGER ▤ BULK ▥ TUBE ◧ CORE

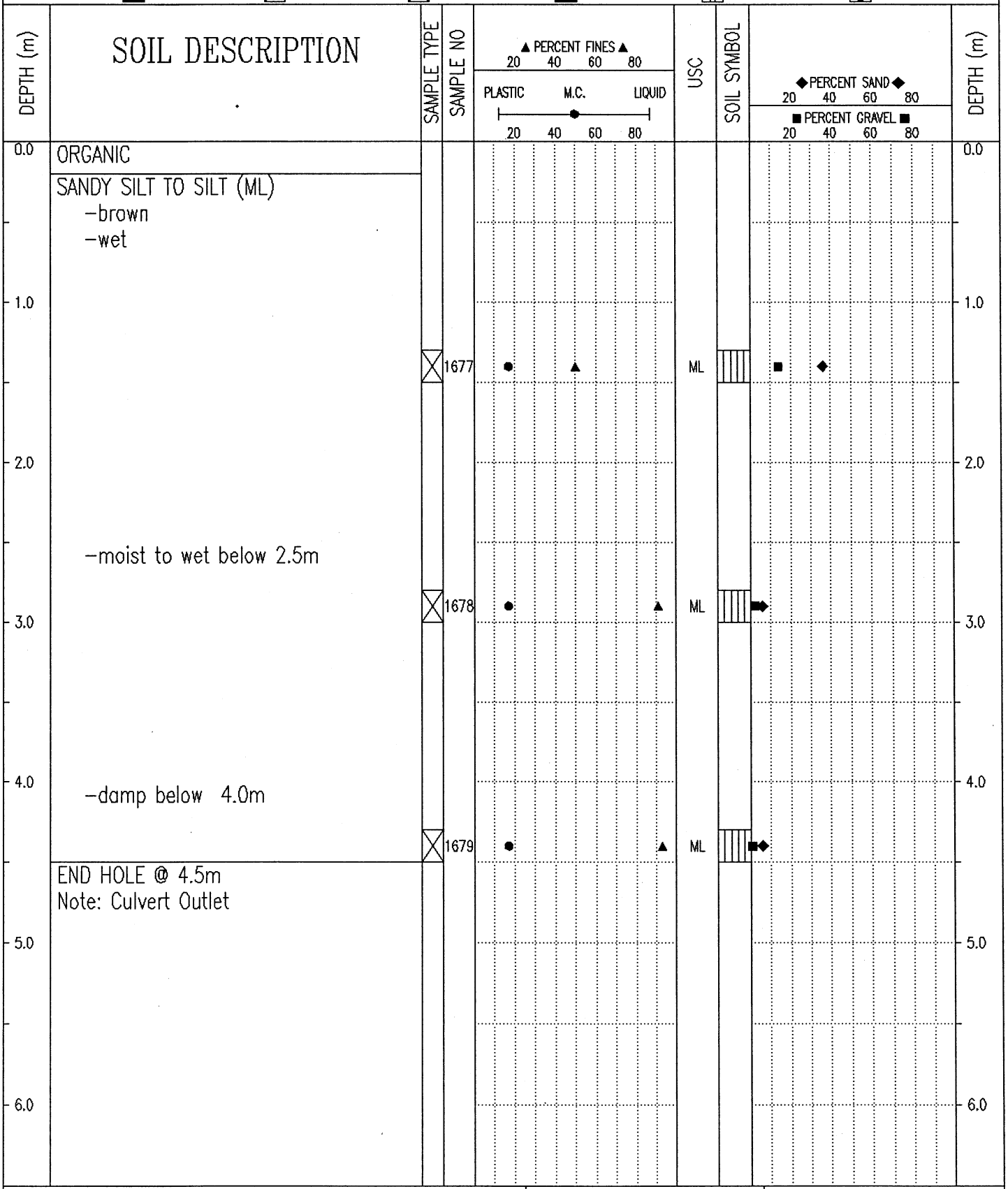
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT TO SILT WITH SAND (ML) –brown –wet							
1.0		☒	1674	● ▲	ML		■ ◆	1.0
2.0								2.0
	–moist below 2.5m							
3.0		☒	1675	● ▲	ML		■ ◆	3.0
4.0	–light brown below 4.0m –less +5mm material below 4.0m	☒	1676	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 570-1819
ENGINEERING CAPITAL	KM 1664 - 1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1669+175 20LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE



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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 570-1820
ENGINEERING CAPITAL	KM 1664 – 1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1669+300 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT TO SILT WITH SAND (ML) –brown –wet							
1.0		⊠	1680	● ▲	ML		■ ◆	1.0
2.0								2.0
	–moist below 2.5m							
3.0		⊠	1681	● ▲	ML		■ ◆	3.0
4.0								4.0
		⊠	1682	● ▲	ML		■ ◆	
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 570-1821
ENGINEERING CAPITAL	KM 1664 - 1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1669+435 20LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT TO SANDY SILT WITH GRAVEL (ML) -brown -moist							
1.0		⊠	1683	● ▲	ML	▥	■ ◆	1.0
2.0	-damp to moist below 2.5m							2.0
3.0		⊠	1684	● ▲	ML	▥	●	3.0
4.0		⊠	1685	● ▲	ML	▥	■ ◆	4.0
	END HOLE @ 4.5m Note: Culvert outlet							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 570-1822
ENGINEERING CAPITAL	KM 1664 – 1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1669+550 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT (ML) –brown –saturated							
1.0		⊠	1686	● ▲	ML		■ ◆	1.0
2.0	–frozen (Vr) below 2.1m							2.0
3.0		⊠	1687	● ▲	ML		■ ◆	3.0
4.0	–thawed & damp below 3.5m							4.0
		⊠	1688	● ▲	ML		■ ◆	
	END HOLE @ 4.5M							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 570-1823
ENGINEERING CAPITAL	KM 1664 – 1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1669+650 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▯ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆PERCENT SAND◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT TO SANDY SILT WITH GRAVEL (ML) –brown							
1.0	–frozen (Vr) below 1.1m	⊠	1689	● ▲	ML	▯	■ ◆	1.0
2.0	–thawed – damp to moist below 2.1m							2.0
3.0		⊠	1690	● ▲	ML	▯	■ ◆	3.0
4.0	–damp below 4.0m							4.0
		⊠	1691	● ▲	ML	▯	■ ◆	
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 570-1824
ENGINEERING CAPITAL	KM 1664 - 1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1669+750 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT WITH GRAVEL TO SANDY SILT (ML) -brown -saturated							
1.0		⊠	1692	● ▲	ML		■ ◆	1.0
2.0	-damp to moist below 2.5m							2.0
3.0		⊠	1693	● ▲	ML		■ ◆	3.0
	-grindy drilling below 3.2m							
	-easier drilling below 3.6m							
4.0	-damp below 4.0m							4.0
		⊠	1694	● ▲	ML		■ ◆	
5.0								5.0
		⊠	1695	● ▲	ML		■ ◆	
6.0	END HOLE @ 6.0m							6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 570-1825
ENGINEERING CAPITAL	KM 1664 – 1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1669+850 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▯ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT TO GRAVELLY SILT WITH SAND (ML) –brown –smooth easy drilling							
1.0	–frozen (Vr) below 1.1m	⊠	1696	● ▲	ML		■ ◆	1.0
2.0	–thawed & moist below 2.1m							2.0
3.0		⊠	1697	● ▲	ML		■ ◆	3.0
4.0		⊠	1698	● ▲	ML		◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 570-1826
ENGINEERING CAPITAL	KM 1664 - 1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1669+950 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▯ TUBE ▮ CORE

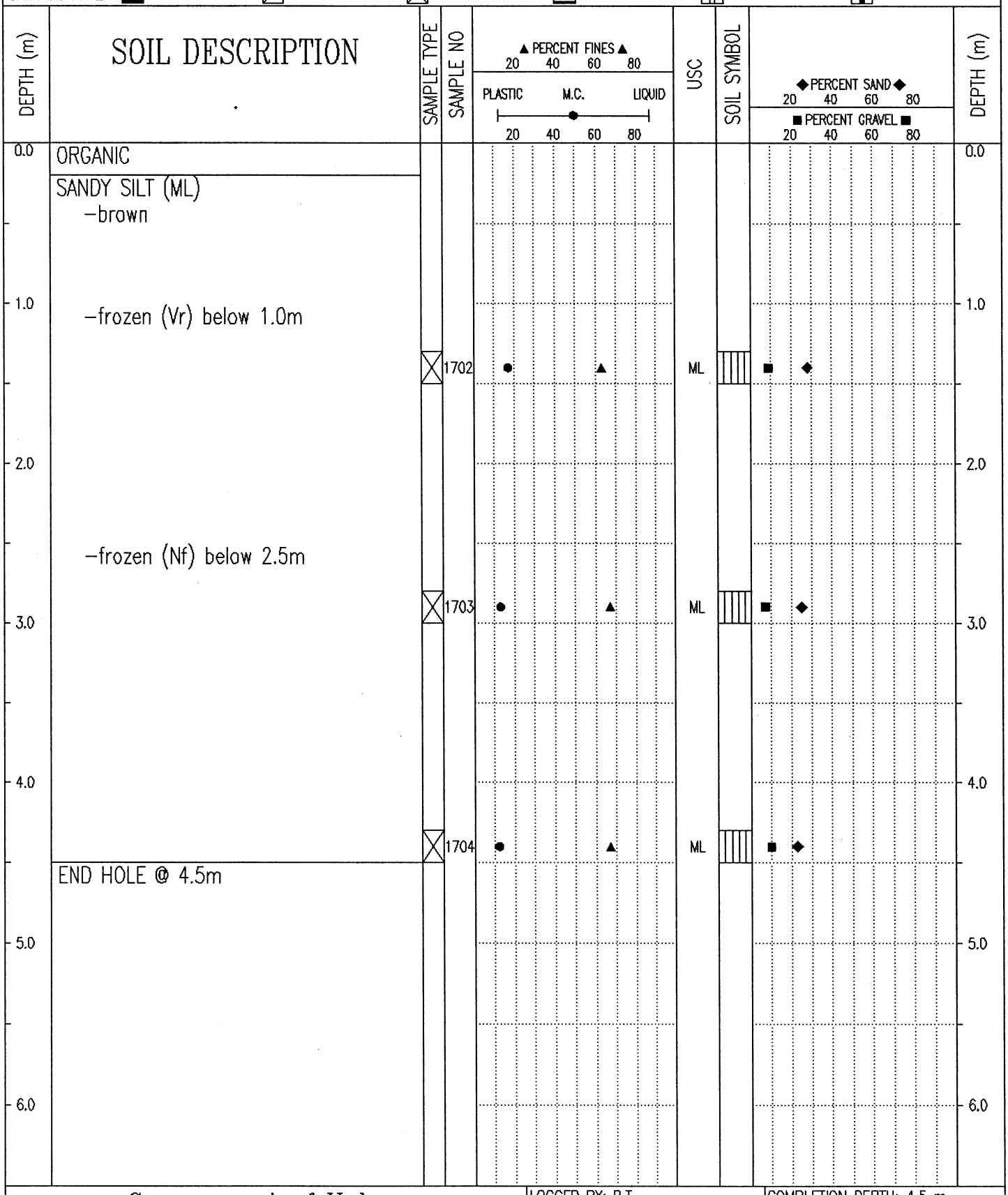
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT TO SILTY GRAVEL WITH SAND TO SANDY SILT (ML)-(GM)-(ML) -brown							
1.0	-frozen (Vr) below 1.1m	⊠	1699	● ▲	ML		■ ◆	1.0
2.0	-frozen (Nf) below 2.5m							2.0
3.0		⊠	1700	● ▲	GM		◆ ■	3.0
4.0		⊠	1701	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 00/08/18
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 570-1827
ENGINEERING CAPITAL	KM 1664 – 1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1670+050 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▥ TUBE ◧ CORE



Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 00/08/18
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 570-1828
ENGINEERING CAPITAL	KM 1664 – 1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1670+150 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▯ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILT (ML) –brown							
1.0	–frozen (Vr) below 1.0m	⊠	1705	● ▲	ML	▯	■ ◆	1.0
2.0								2.0
	END HOLE @ 2.8m –refusal							
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 2.8 m
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 570-1829
ENGINEERING CAPITAL	KM 1664 – 1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1670+250 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILT TO SILT WITH SAND TO SANDY SILT WITH GRAVEL (ML) –trace +5mm material –olive –wet							
1.0		⊠	1706	● ▲	ML		◆	1.0
2.0								2.0
	–moist below 2.5m							
3.0		⊠	1707	● ▲	ML		■ ◆	3.0
4.0	–moist to wet below 4.0m							4.0
		⊠	1708	● ▲	ML		◆	
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 570-1830
ENGINEERING CAPITAL	KM 1664 – 1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1670+350 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▯ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILT TO SILT WITH SAND TO SANDY SILT WITH GRAVEL (ML) –brown –frozen (Nb)							
1.0		⊠	1709	● ▲	ML		◆	1.0
2.0								2.0
	–moist below 2.5m							
3.0		⊠	1710	● ▲	ML		■ ◆	3.0
4.0		⊠	1711	● ▲	ML		■◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 570-1831
ENGINEERING CAPITAL	KM 1664 – 1692 A/H	Project No: 092-202101-0363
MOBILE B40 L 6" AUGER	LOCATION: 1670+450 40LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILT TO SILT WITH SAND TO SANDY SILT WITH GRAVEL (ML) –brown –wet							
1.0		⊠	1712	● ▲	ML			1.0
2.0								2.0
	–more +5mm material below 2.5m –moist to wet below 2.5m							
3.0		⊠	1713	● ▲	ML		■ ◆	3.0
4.0		⊠	1714	● ▲	ML		●	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 570-1833
ENGINEERING CAPITAL	KM 1664 – 1692 A/H	Project No: 092-20210-0363
MOBILE B40 L 6" AUGER	LOCATION: 1670+550 20M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SILT (ML) –grey –moist							0.0
1.0	–wet below 1.1m	⊠	1715	● ▲	ML	▥	◆	1.0
2.0 ▼	SAND –trace silt –grey –free water							2.0 ▼
	SANDY SILT TO SANDY SILT WITH GRAVEL (ML) –brown –saturated	⊠	1716	● ▲	ML	▥	■ ◆	
3.0								3.0
4.0	–grey below 4.0m –wet below 4.0m	⊠	1717	● ▲	ML	▥	■	4.0
	END HOLE @ 4.5m Note: Culvert outlet							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 572-1848
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1670+575 15M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILT(ML) -trace gravel -brown -frozen (Vx)	⊠	1755	● ▲	ML		■ ◆	
1.0								1.0
2.0								2.0
	SILTY SAND (SM) -frozen (Nf) -trace of gravel -grindy drilling	⊠	1756	▲ ●	SM		■ ◆	
3.0								3.0
	SANDY SILT (ML) -grey -saturated -smooth drilling							
4.0		⊠	1757	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.7m Note: Test hole at culvert inlet							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 572-1849
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1670+675 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILT (ML) -brown -frozen (Vx)	⊠	1758	● ▲	ML		◆	
1.0								1.0
2.0	SILTY SAND (SM) -brown -saturated	⊠	1759	● ▲	SM		◆	2.0
3.0								3.0
	SANDY SILT (ML) -brown -moist to wet	⊠	1760	● ▲	ML		■ ◆	
4.0								4.0
	END HOLE @ 4.8m							
5.0								5.0
6.0								6.0

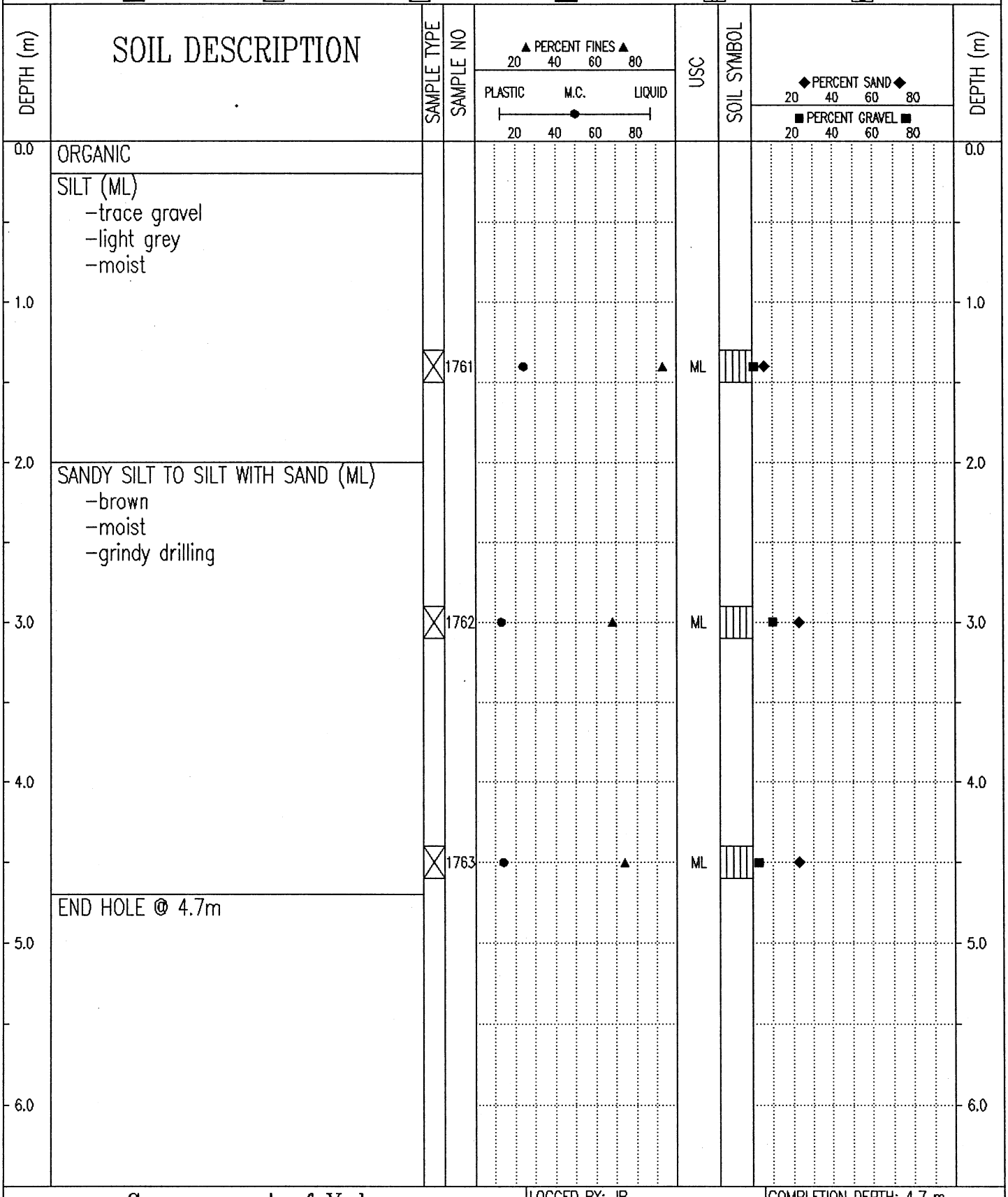
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 572-1850
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1670+775 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

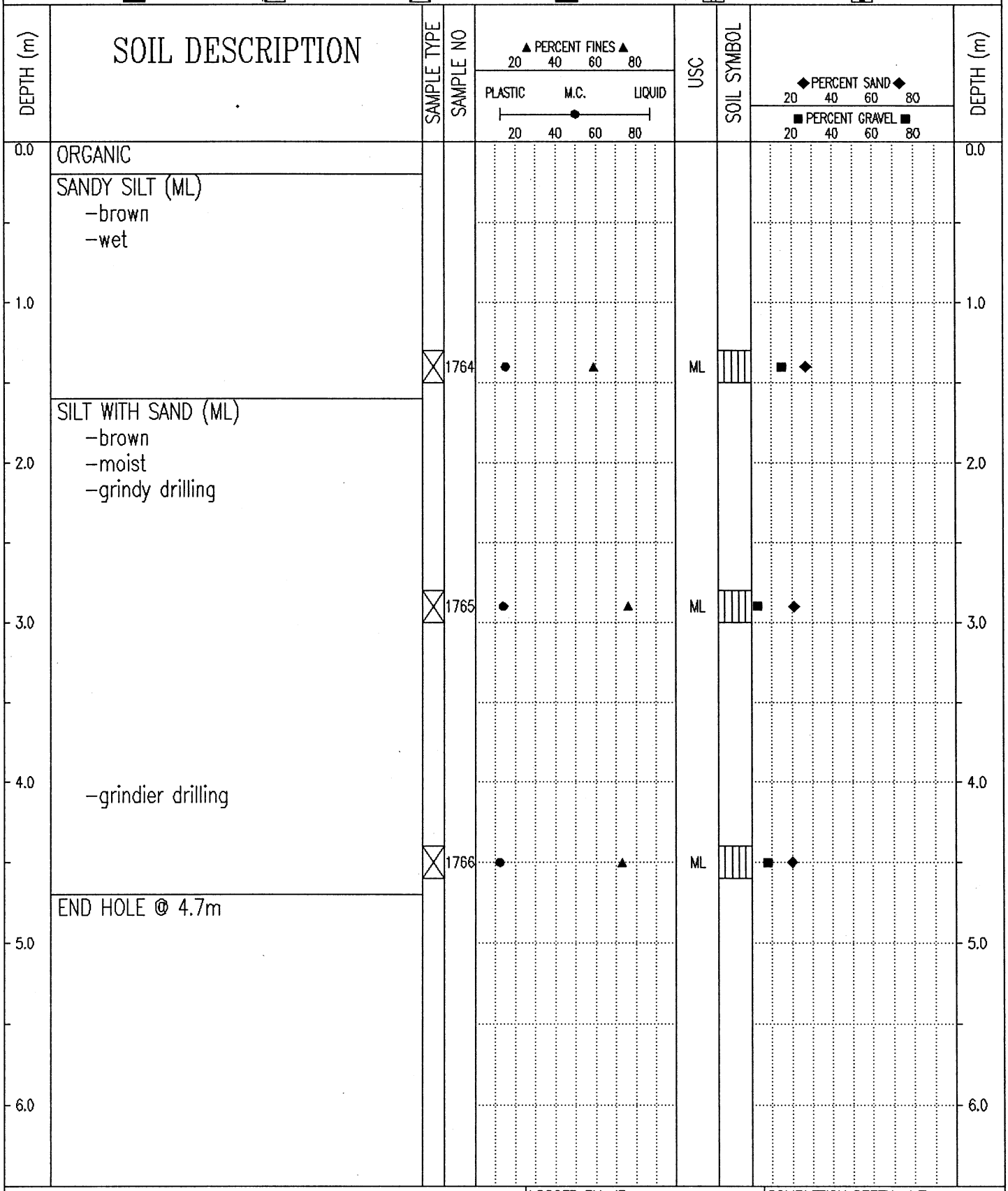


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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 572-1851
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1670+875 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ☒ S.P.T. ☒ AUGER ☰ BULK ▯ TUBE ◧ CORE

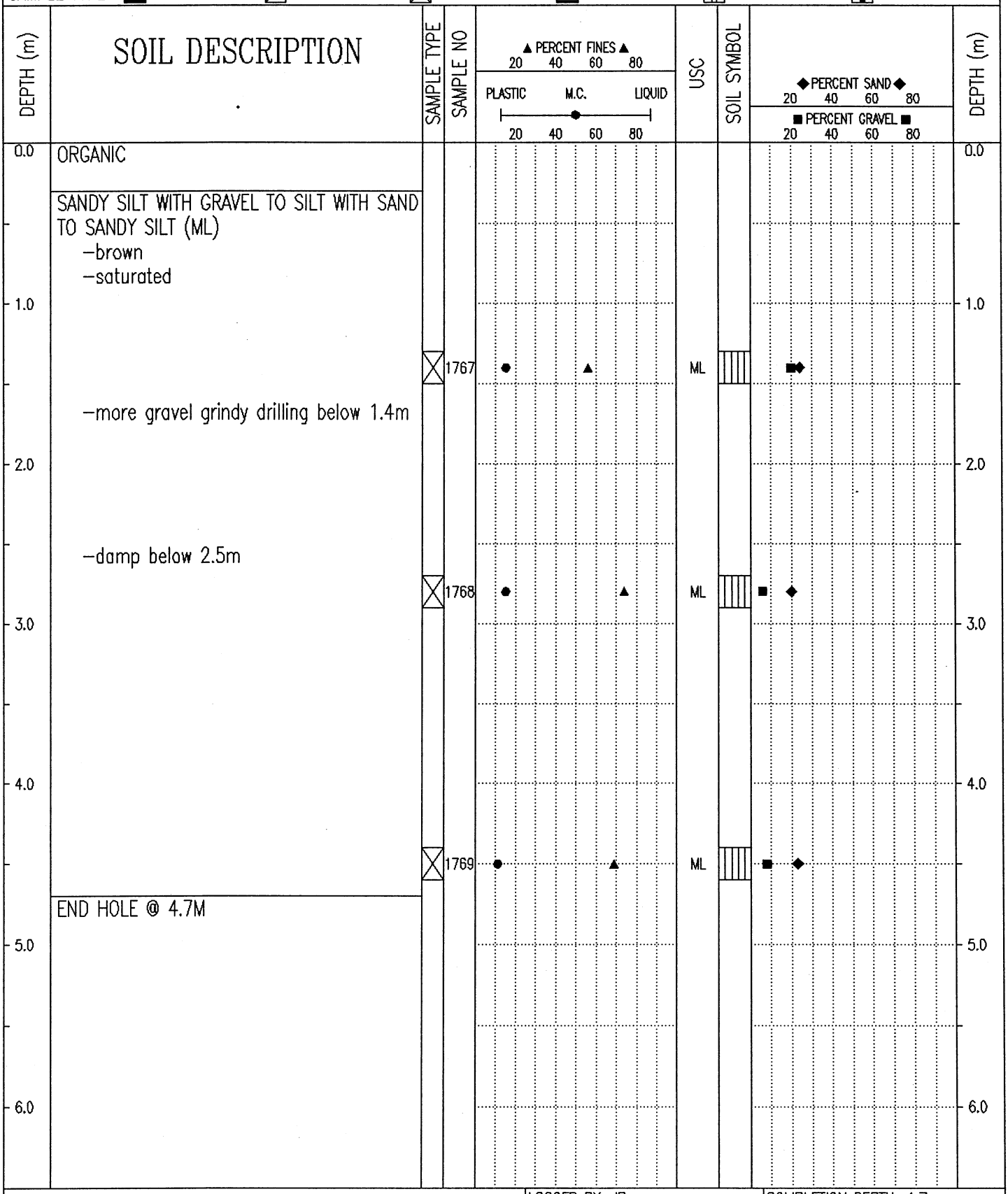


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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 572-1852
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1670+975 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▥ TUBE ◧ CORE



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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 572-1853
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1671+075 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT TO SILT WITH SAND (ML) -brown -moist							
1.0	-grindy drilling below 1.1m	⊠	1770	● ▲	ML	▥	■ ◆	1.0
2.0								2.0
		⊠	1771	● ▲	ML	▥	■ ◆	
3.0	-damp below 3.0m							3.0
4.0								4.0
		⊠	1772	● ▲	ML	▥	■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 572-1854
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1671+175 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILT WITH SAND TO GRAVELLY SILT WITH SAND TO SILTY SAND WITH GRAVEL (ML) -brown -moist							
1.0	-grindy drilling below 1.0m	⊠	1773	● ▲	ML		■ ◆	1.0
2.0								2.0
3.0		⊠	1774	● ▲	ML		◆ ■	3.0
4.0								4.0
5.0								5.0
6.0	END HOLE @ 6.0m	⊠	1775	● ▲	ML		■	6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 572-1855
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1671+275 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▯ TUBE ◧ CORE

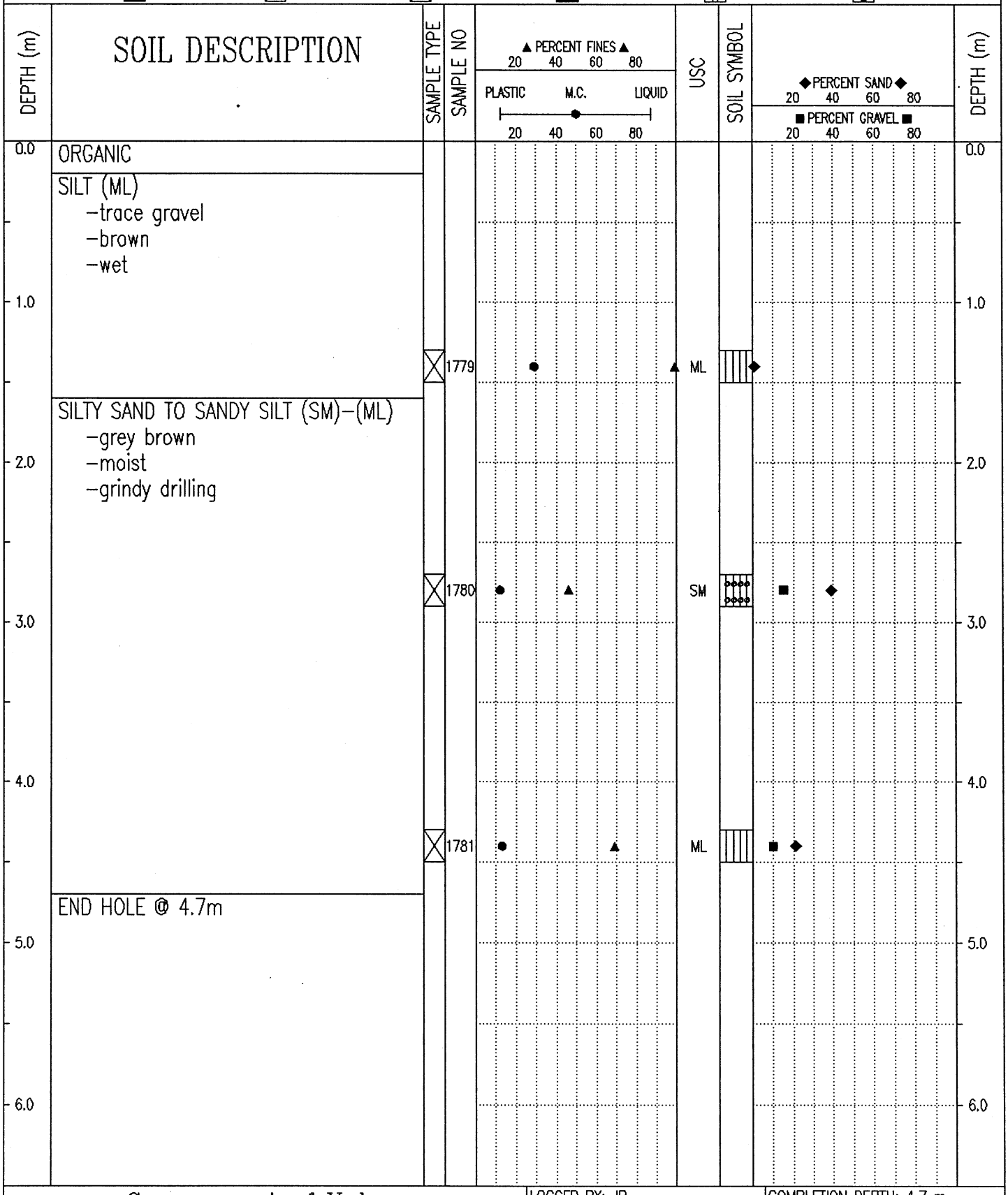
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILT WITH SAND (ML) -brown -moist -grindy drilling							
1.0		⊠	1776	● ▲	ML		■ ◆	1.0
2.0								2.0
		⊠	1777	● ▲	ML		■ ◆	
3.0								3.0
4.0								4.0
5.0								5.0
		⊠	1778	● ▲	ML		■ ◆	
6.0	END HOLE @ 6.0m							6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 572-1856
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1671+375 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

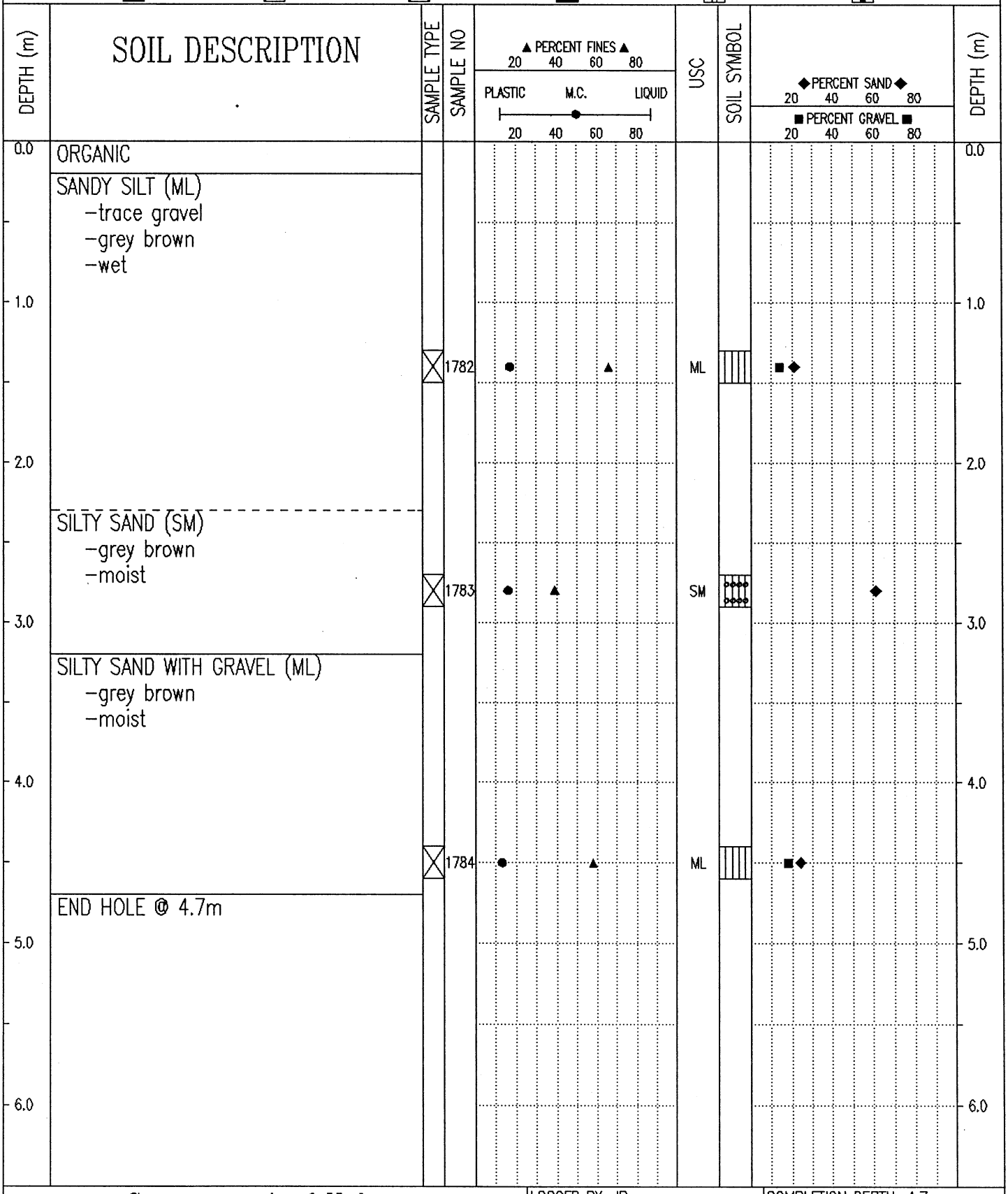


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	REVIEWED BY:	COMPLETE: 00/08/25
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 572-1857
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1671+475 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE: RETURN | S.P.T. | AUGER | BULK | TUBE | CORE

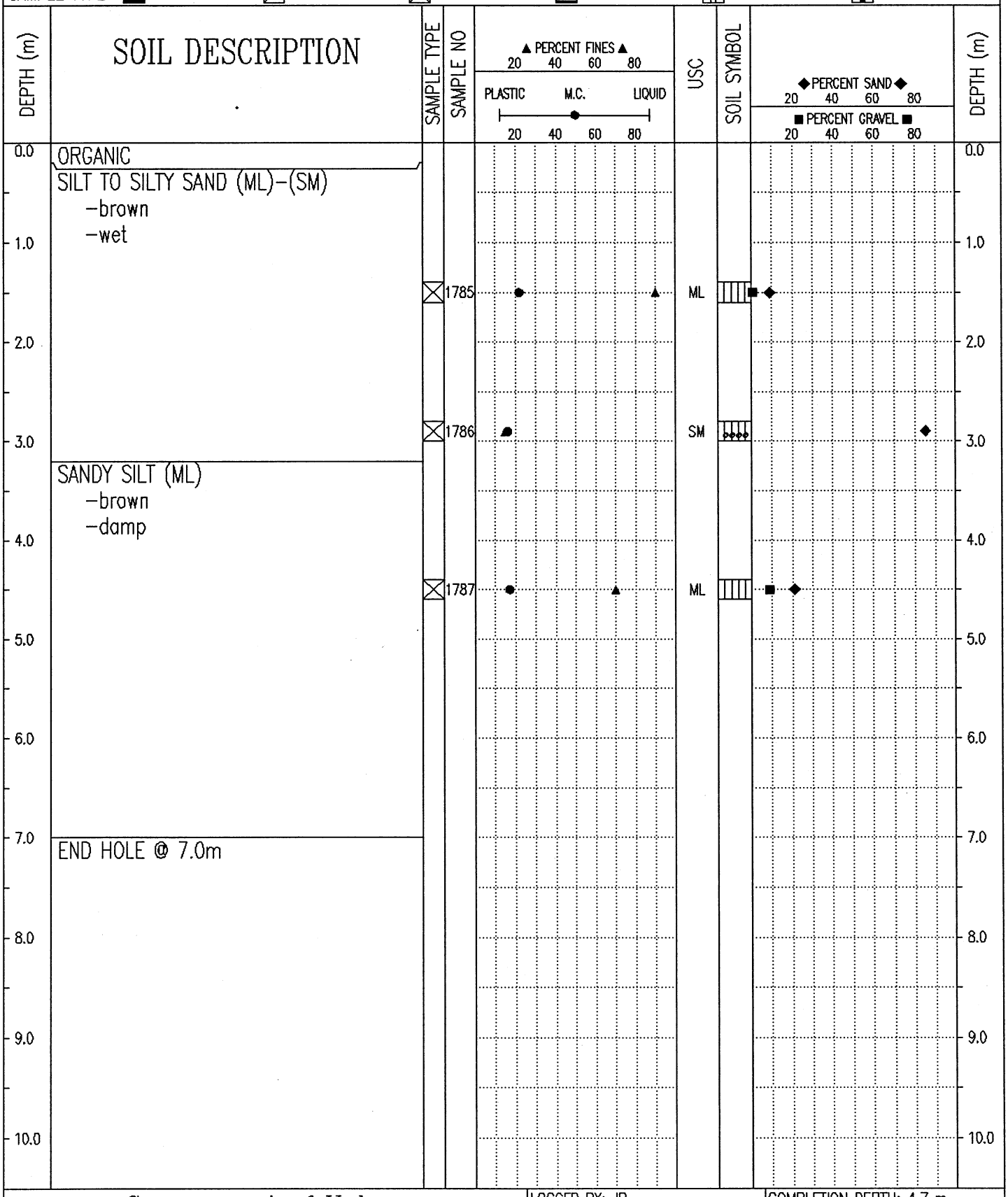


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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 572-1858
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1671+575 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE



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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1859
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1671+625 15M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES (20 40 60 80) / PLASTIC M.C. LIQUID (20 40 60 80)	USC	SOIL SYMBOL	PERCENT SAND (20 40 60 80) / PERCENT GRAVEL (20 40 60 80)	DEPTH (m)
0.0	SILT (SM) -olive -moist -trace plactic -smooth easy drilling							0.0
1.0		⊠	1788	● ▲	ML		◆	1.0
2.0								2.0
3.0	SILTY SAND (SM) -brown -damp	⊠	1789	● ▲	SM		◆	3.0
4.0		⊠	1790	● ▲	SM		◆	4.0
	END HOLE @ 4.5m Note: Test hole @ culvert inlet							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1860
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1671+725 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⧄ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILT (ML) -brown -moist -trace +5mm material							
1.0		⊠	1791	● ▲	ML		◆	1.0
2.0								2.0
3.0		⊠	1792	● ▲	ML		◆	3.0
	SILTY SAND (SM) -brown -damp							
4.0		⊠	1793	● ▲	SM		◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: DT	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 00/08/28
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1861
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1671+825 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊠ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILT WITH SAND (ML) -brown -moist to wet	⊠	1794	● ▲	ML	▥	■ ◆	
1.0								1.0
2.0	SILT (ML) -brown -frozen (Nf) 2.0m to 2.4m -grindy drilling -frozen (Vx) below 2.4m	⊠	1795	● ▲	ML	▥	◆	2.0
3.0								3.0
4.0		⊠	1796	● ▲	ML	▥	◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

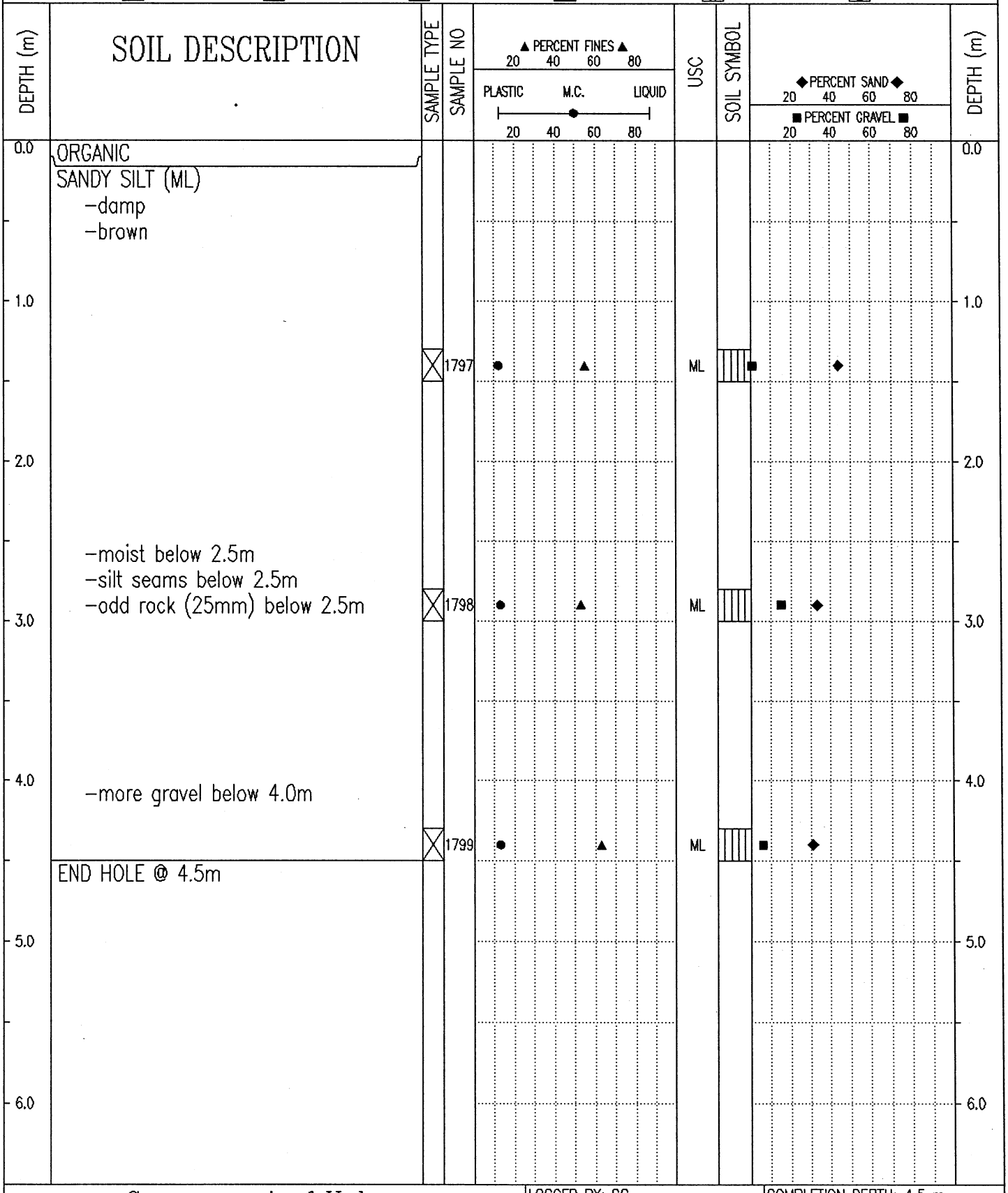
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LOGGED BY: DT	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1862
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1671+925 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE



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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1863
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1672+025 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT TO SILT WITH SAND (ML) -brown -damp							
1.0		⊠	1800	● ▲	ML		◆	1.0
2.0								2.0
3.0		⊠	1801	● ▲	ML		◆	3.0
	SANDY SILT (ML) -brown -moist -grindy drilling							
4.0		⊠	1802	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

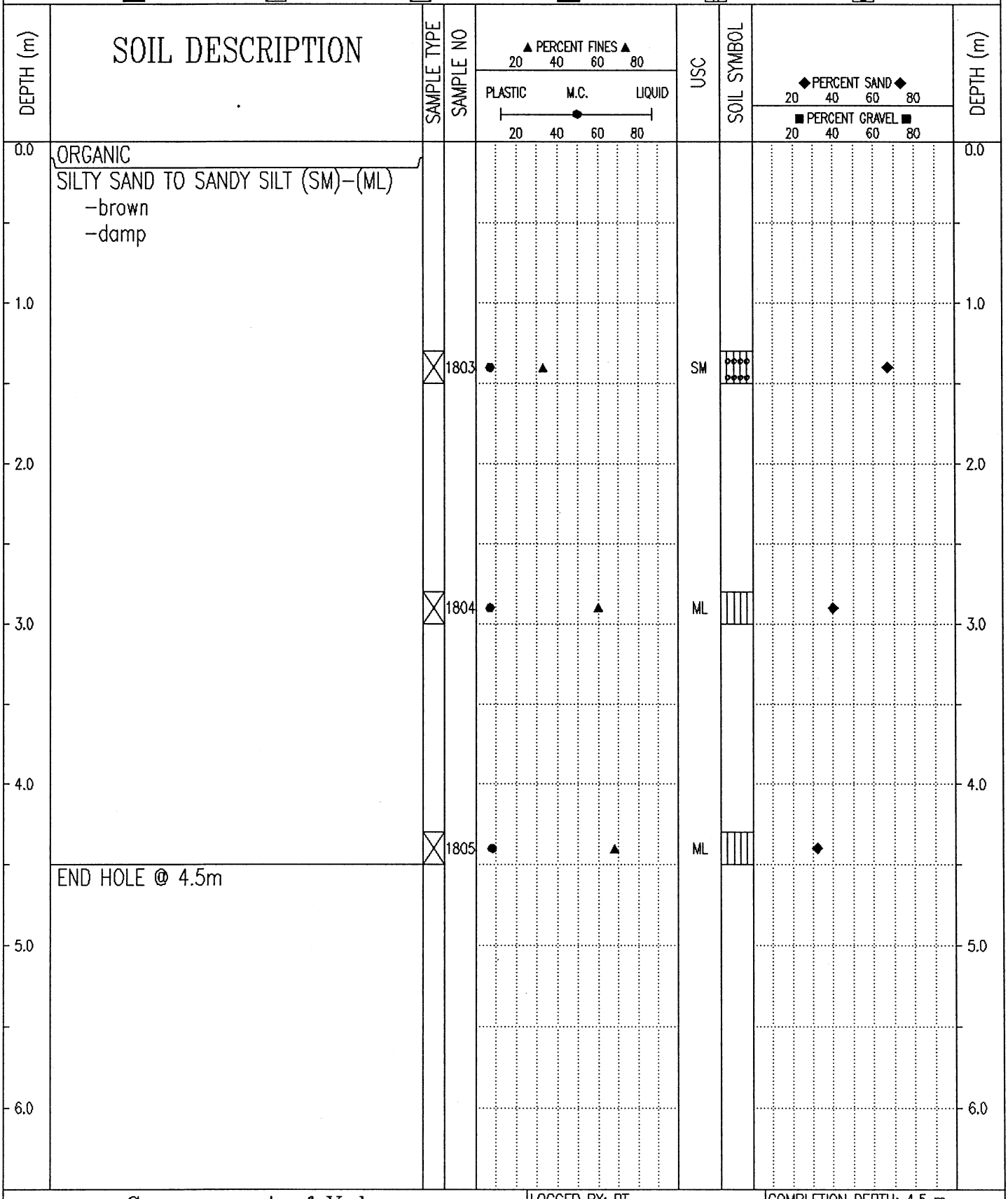
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1864
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1672+125 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⧄ S.P.T. ☒ AUGER ▤ BULK ▥ TUBE ▮ CORE



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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1865
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1672+225 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILT WITH SAND TO SANDY SILT WITH GRAVEL TO SILT WITH SAND (ML)							
	-brown							
	-moist							
1.0	-rocks @ 1.0m							1.0
		⊠	1806	● ▲	ML		■ ◆	
2.0								2.0
		⊠	1807	● ▲	ML		◆	
3.0	-some gravel below 3.0m							3.0
	-damp below 3.0m							
4.0								4.0
		⊠	1808	● ▲	ML		■ ◆	
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1866
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1672+325 35M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC -surface Boulders							0.0
	SANDY SILT TO SILT WITH SAND (ML) -brown -wet -with pebbles							
1.0		⊠	1809	● ▲	ML	▥	■ ◆	1.0
2.0								2.0
	-moist below 2.5m							
3.0		⊠	1810	● ▲	ML	▥	■ ◆	3.0
4.0								4.0
		⊠	1811	● ▲	ML	▥	■ ◆	
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

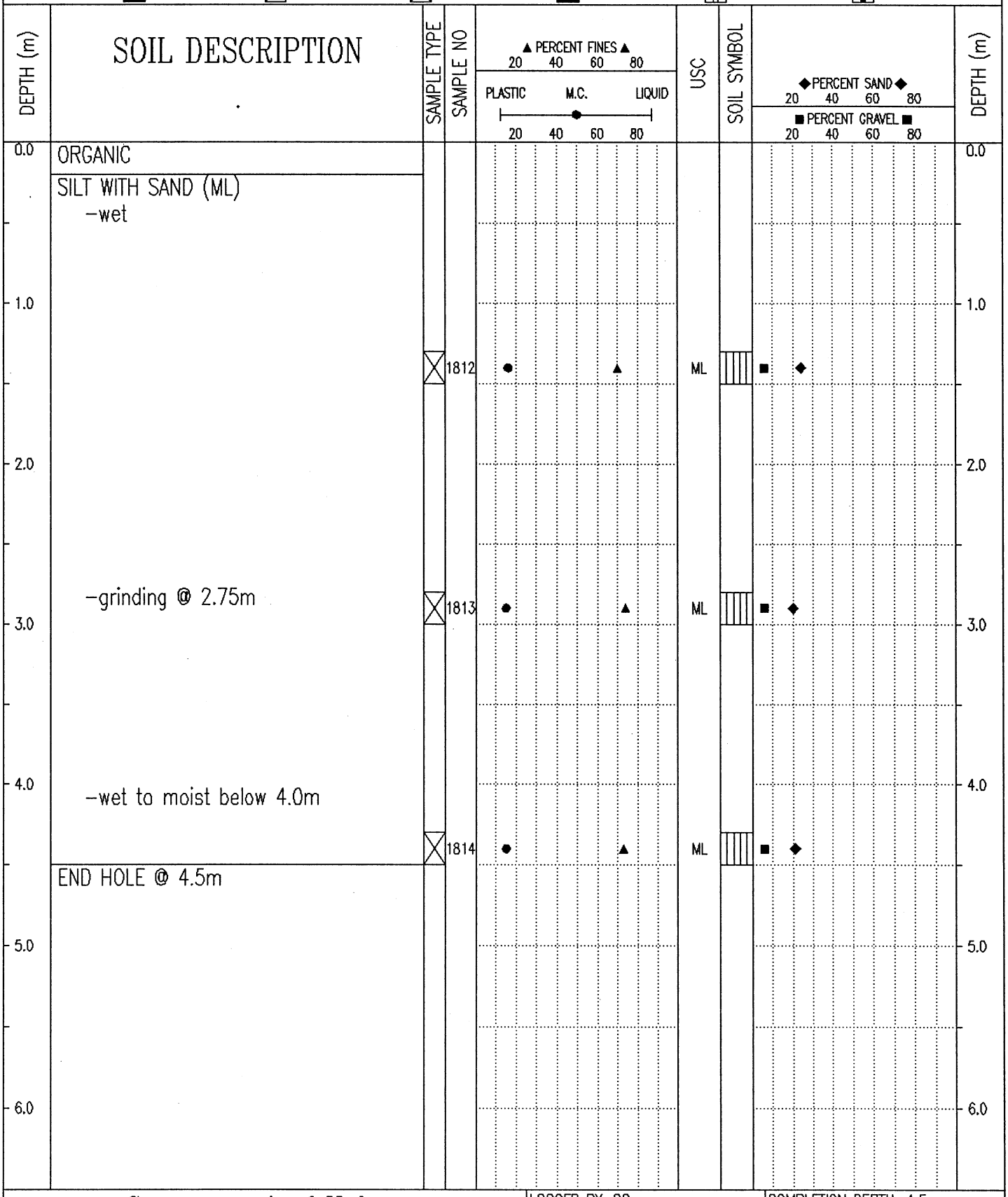
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1867
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1672+425 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

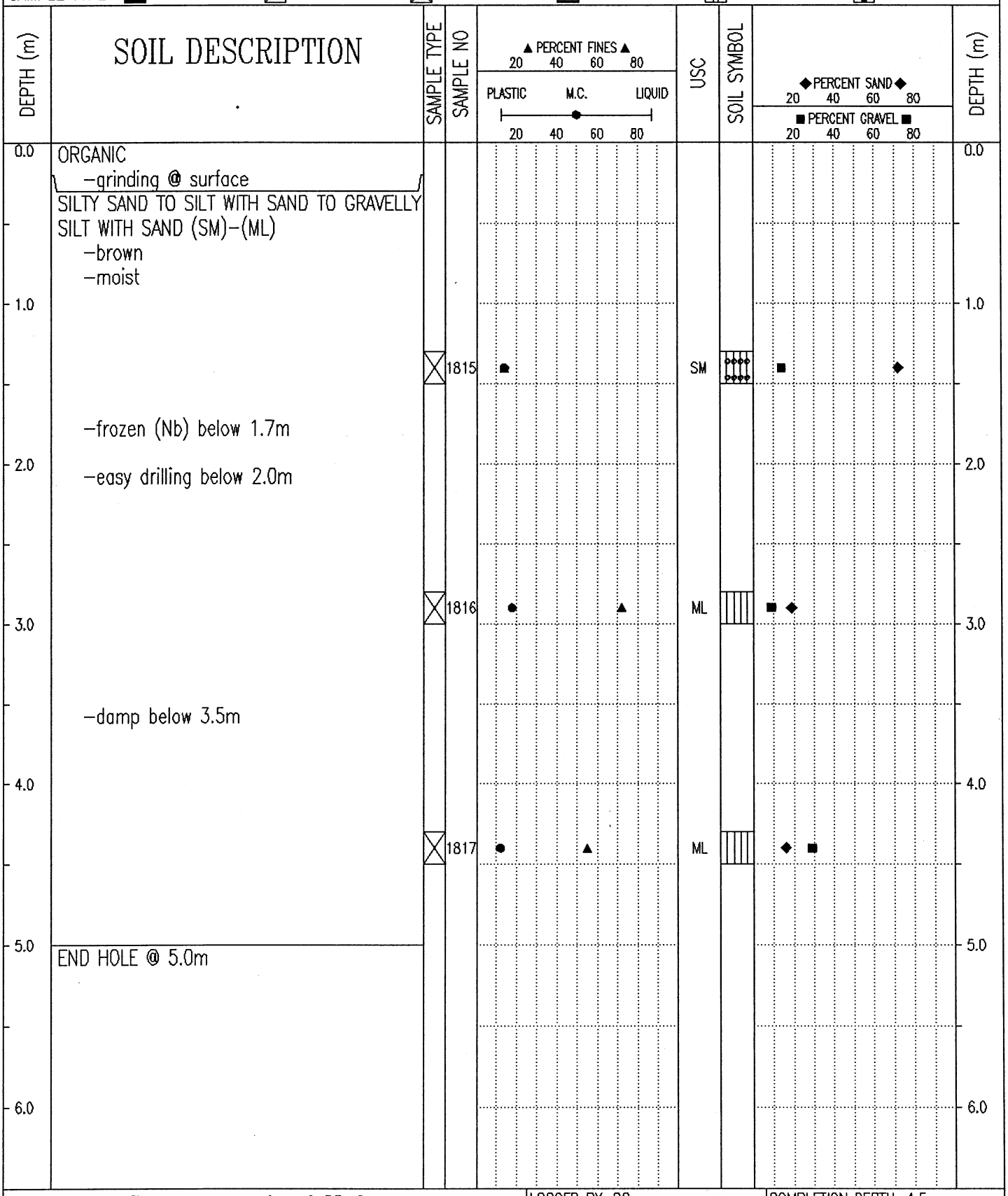


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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1868
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1672+525 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⧄ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE



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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1869
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1672+625 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊠ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▥ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆PERCENT SAND◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT (ML) -brown -wet							
1.0		⊠	1818	● ▲	ML		■ ◆	1.0
2.0	SANDY SILT WITH GRAVEL TO SILT WITH SAND (ML) -brown -moist -smooth drilling							2.0
3.0		⊠	1819	● ▲	ML		◆	3.0
4.0		⊠	1820	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1870
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1672+725 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆PERCENT SAND◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT (ML) -brown -wet							
1.0		⊠	1821	● ▲	ML	▥	■ ◆	1.0
2.0	-moist to wet below 2.4m -lost sample # 1822							2.0
			1822	●				
3.0	-little grindy @ 3.0m -some gravel 3.0m							3.0
4.0		⊠	1823	● ▲	ML	▥	■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1871
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1672+825 40M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILT WITH SAND (ML) -brown -wet -grindy drilling below organics							
1.0		⊠	1824	● ▲	ML		◆	1.0
	-layer of wet sand 1.4 to 1.6m							
2.0								2.0
	-some gravel below 2.5m							
3.0		⊠	1825	● ▲	ML		■ ◆	3.0
	-moist below 3.2m							
4.0		⊠	1826	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1872
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1672+900 30M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT TO SILT WITH SAND TO SANDY SILT (ML)							
	-brown							
	-saturated to 1.0m							
	-some grindy drilling							
1.0	-wet to saturated below 1.0m	⊠	1807	● ▲	ML	▥	■ ◆	1.0
2.0								2.0
	-moist below 2.6m							
	-some contamination from saturated material above	⊠	1808	● ▲	ML	▥	■ ◆	
3.0								3.0
4.0	-damp to moist below 4.5m	⊠	1809	● ▲	ML	▥	■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

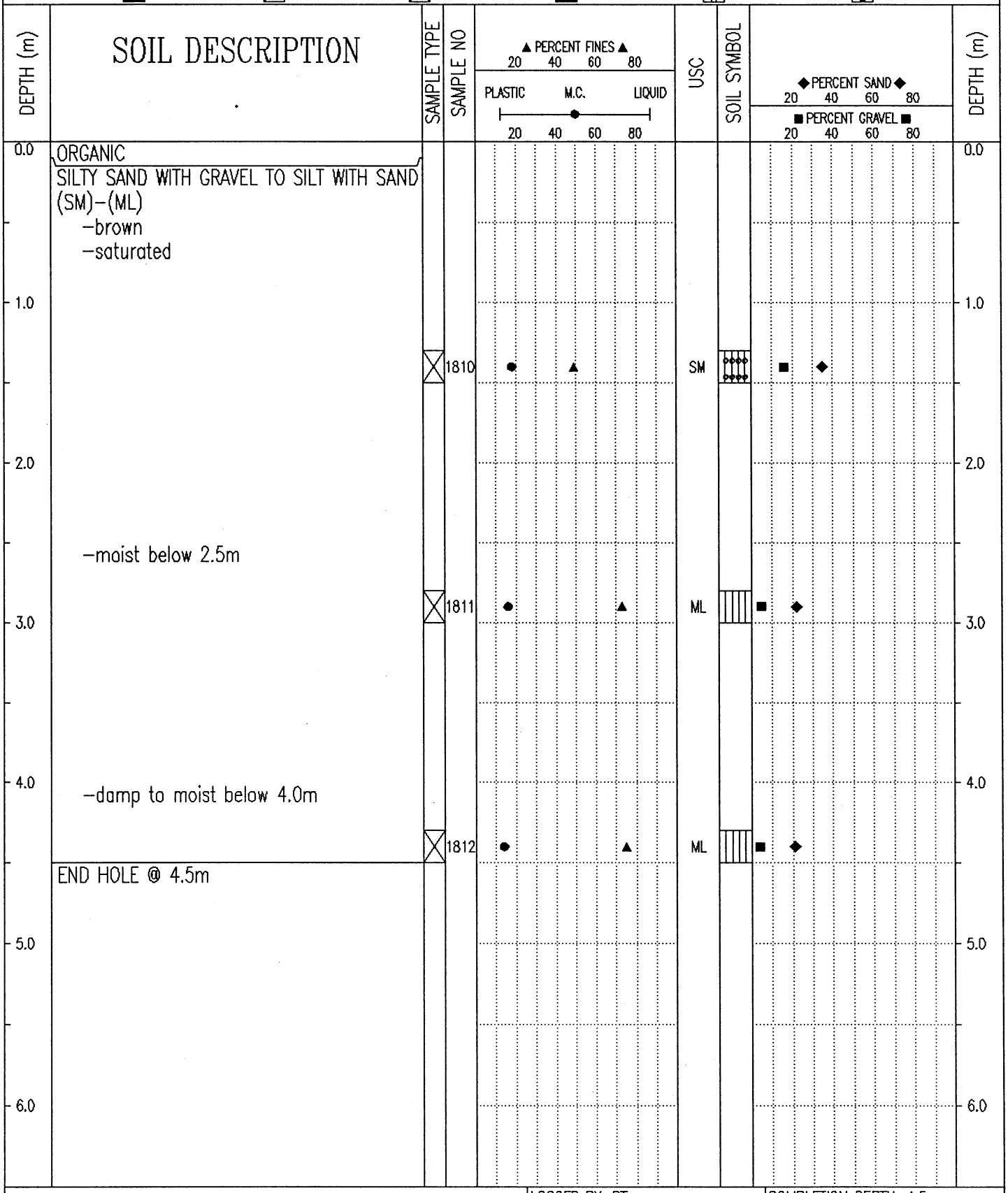
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1873
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1673+000 25M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE



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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1874
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1673+100 25M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT (ML) -some gravel -brown -wet -grindy below organics but not continous	⊠	1813	● ▲	ML		■ ◆	
1.0								1.0
2.0								2.0
	SILTY GRAVEL (GM) -brown -moist -grinding occasionally	⊠	1814	● ▲	GM		◆ ■	
3.0								3.0
	GRAVELLY SILT WITH SAND (ML) -brown -damp	⊠	1815	● ▲	ML		◆ ■	
4.0								4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1875
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1673+130 15M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILTY SAND (SM) -brown -wet -smooth drilling							
1.0		⊠	1816	● ▲	SM		◆	1.0
2.0	GRAVELLY SILT WITH SAND (ML) -brown -moist to wet -grindy drilling @ 2.5m							2.0
3.0		⊠	1817	● ▲	ML		◆ ■	3.0
	SILTY SAND (SM) -brown -wet to saturated							
4.0		⊠	1818	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1876
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1673+275 25M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ☒ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT (ML) -brown -wet							
1.0		☒	1819	● ▲	ML	▥	■ ◆	1.0
	-rocks grinding @ 1.6m -damp to moist below 1.8m							
2.0								2.0
3.0		☒	1820	● ▲	ML	▥	■ ◆	3.0
	-moist below 3.2m -grinding @ 3.2m							
4.0								4.0
		☒	1821	● ▲	ML	▥	■ ◆	
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1877
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1673+375 25M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT WITH GRAVEL TO SILTY SAND WITH GRAVEL (ML)-(SM) -brown -damp to moist -grinding @ 0.5m							
1.0		⊠	1822	● ▲	ML		■ ◆	1.0
2.0	-damp below 2.0m -some grinding below 2.0m							2.0
3.0		⊠	1823	● ▲	ML		■ ◆	3.0
4.0		⊠	1824	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST HOLE NO: 573-1878
ENGINEERING CAPITAL	KM 1664-1692 A/H	Project No: 092-202101-0363
MOBILE B 40L	LOCATION: 1673+468 25M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊠ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILT (ML) -brown -moist	⊠	1825	● ▲	ML		◆	
1.0								1.0
2.0	SILTY SAND TO SANDY SILT WITH GRAVEL (SM)-(ML) -brown -damp -grinding @ 2.0m							2.0
		⊠	1825	● ▲	SM		■ ◆	
3.0	-hard grinding @ 3.3m							3.0
4.0		⊠	1826	● ▲	ML		◆	4.0
	END HOLE @ 4.4m Note: 0.4-0.5m shot rock on surface -Test hole @ existing culvert							
5.0								5.0
6.0								6.0

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Transportation Engineering

LOGGED BY: GC	COMPLETION DEPTH: 4.4 m
REVIEWED BY:	COMPLETE: 00/08/29
Fig. No:	Page 1 of 1

00/11/28 10:56AM

SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-887
ENGINEERING CAPITAL		Project No: 092-202101-0363
AIR ROTARY	LOCATION: 1673+593 19M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ROCK @ .15m							0.0
1.0								1.0
2.0								2.0
3.0	-small seam of fracture rock @ 2.4m (driller estimated .6m) -slow drilling							3.0
4.0								4.0
5.0								5.0
6.0								6.0
7.0	END HOLE @ 6.7m							7.0
8.0								8.0
9.0								9.0
10.0								10.0
11.0								11.0
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 6.7 m
REVIEWED BY:	COMPLETE: 00/09/04
Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-886
ENGINEERING CAPITAL		Project No: 092-202101-0363
AIR ROTARY	LOCATION: 1673+765 17M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ☒ S.P.T. ☒ AUGER ☰ BULK ▯▯ TUBE ▮▯ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANICS MIXED WITH SILTY SAND							0.0
1.0								1.0
	LOOSE ROCK WITH SILT –possibly old stripping etc							
2.0								2.0
3.0								3.0
	ROCK @ 3.5m –slow drilling							
4.0								4.0
5.0								5.0
6.0								6.0
7.0	END HOLE @ 6.7m							7.0
8.0								8.0
9.0								9.0
10.0								10.0
11.0								11.0
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 6.7 m
	REVIEWED BY:	COMPLETE: 00/09/04
	Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-885
ENGINEERING CAPITAL		Project No: 092-202101-0363
AIR ROTARY	LOCATION: 1673+835 15M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SILT GRAVEL & ORGANIC (Mixture)							0.0
1.0	ROCK @ .90M –slow drilling							1.0
2.0								2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0
7.0								7.0
8.0								8.0
9.0								9.0
10.0								10.0
11.0	END HOLE @ 10.4m							11.0
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 10.4 m
	REVIEWED BY:	COMPLETE: 00/09/04
	Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-884
ENGINEERING CAPITAL		Project No: 092-202101-0363
AIR ROTARY	LOCATION: 1673+855 15M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▯ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆PERCENT SAND◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ROCK CHIPS –layer of organic (peat moss – wood)							0.0
1.0								1.0
2.0	ROCK @ 1.8m –very slow drilling							2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0
7.0								7.0
8.0								8.0
9.0								9.0
10.0								10.0
11.0	END HOLE @ 10.4m							11.0
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

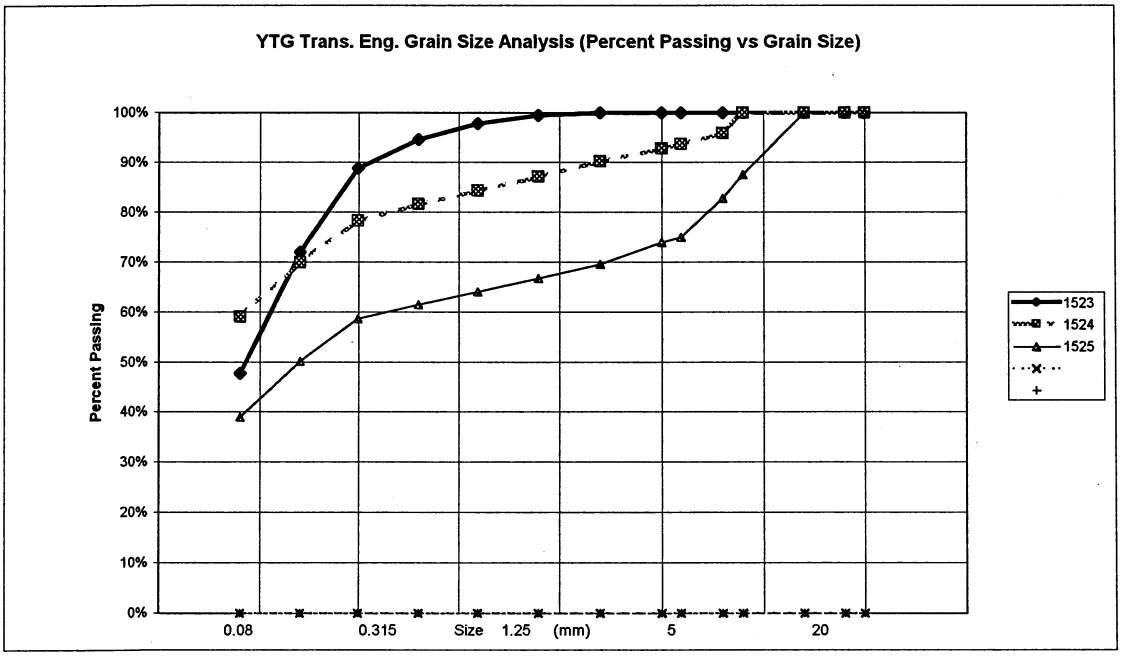
Government of Yukon
Transportation Engineering

LOGGED BY: G.C.	COMPLETION DEPTH: 10.4 m
REVIEWED BY:	COMPLETE: 00/09/04
Fig. No:	Page 1 of 1

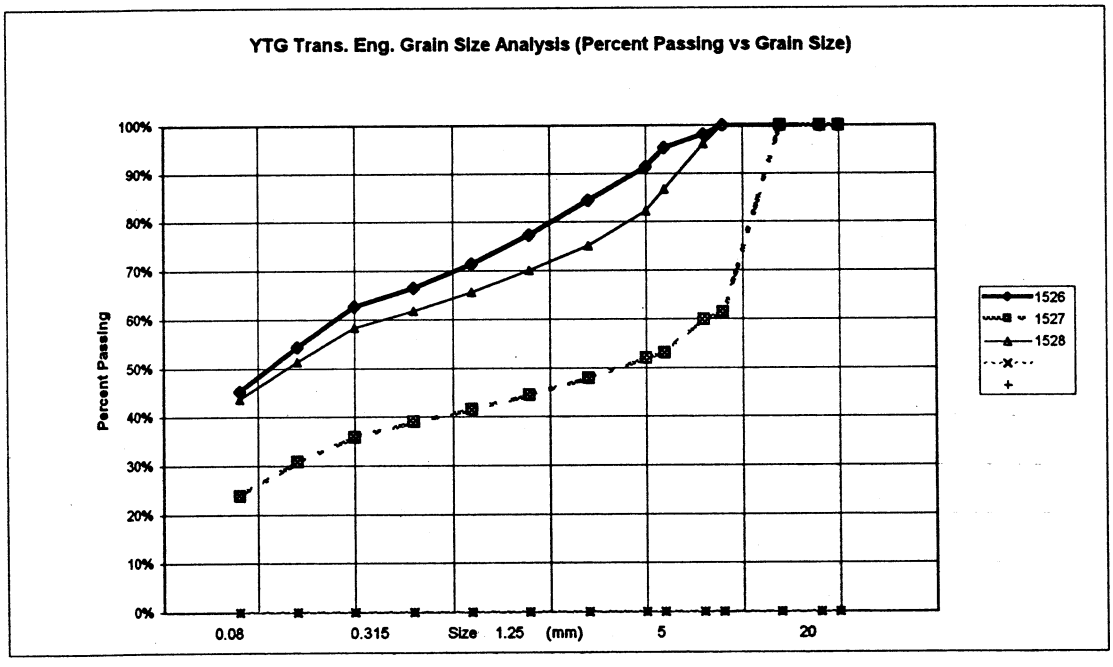
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2000 CENTRELINE TESTING (cont'd)
1664+350 to 1673+855
ALASKA HIGHWAY

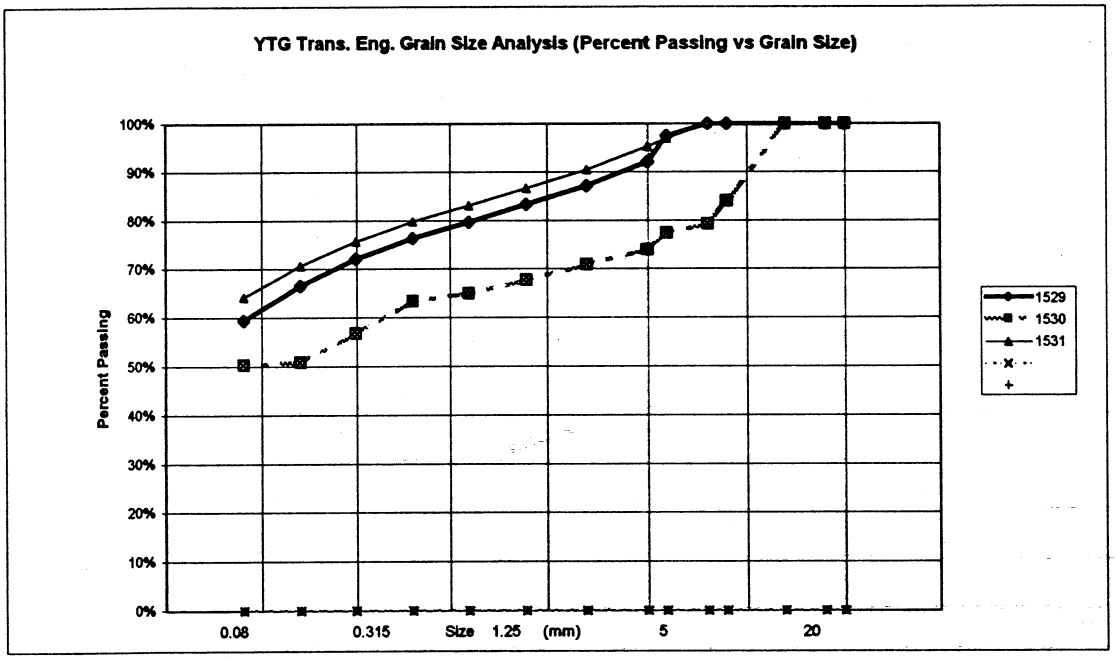
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	568-1768
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM1664.5-1692.6 A/H						
DRILL UNIT:	MOBILE B 40-L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1664+350 12M RT					DATE COM	2000/08/14
FIELD NO:	1523	FIELD No.	1524	FIELD No:	1525		
LAB NO:	1994	LAB No.	1995	LAB No:	1996		
DEPTH:	0.8-1.0	DEPTH	1.8-2.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	87%		
20.0	100%	20.0	96%	20.0	83%		
12.5	100%	12.5	94%	12.5	75%		
10.0	100%	10.0	93%	10.0	74%		
5.0	100%	5.0	90%	5.0	70%		
2.5	100%	2.5	87%	2.5	67%		
1.25	98%	1.25	84%	1.25	64%		
0.630	95%	0.630	82%	0.630	62%		
0.315	89%	0.315	78%	0.315	59%		
0.160	72%	0.160	70%	0.160	50%		
0.080	48%	0.080	59%	0.080	39%		
M.C.(%):	19%	M.C.(%):	17%	M.C.(%):	13%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	0	% GRAVEL	10	% GRAVEL	30		
% SAND:	52	% SAND:	31	% SAND:	30		
% FINES:	48	% FINES:	59	% FINES:	39		
CLASSIFICATION:	SILTY SAND (SM)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)		



PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	568-1769
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM1664.5-1692.6 A/H						
DRILL UNIT:	MOBILE B 40-L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1664+450 12M RT					DATE COM	2000/08/14
FIELD NO:	1526	FIELD No.	1527	FIELD No:	1528		
LAB NO:	1997	LAB No.	1998	LAB No:	1999		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	61%	25.0	100%		
20.0	98%	20.0	60%	20.0	96%		
12.5	95%	12.5	53%	12.5	87%		
10.0	91%	10.0	52%	10.0	82%		
5.0	84%	5.0	48%	5.0	75%		
2.5	77%	2.5	44%	2.5	70%		
1.25	71%	1.25	42%	1.25	66%		
0.630	67%	0.630	39%	0.630	62%		
0.315	63%	0.315	36%	0.315	58%		
0.160	54%	0.160	31%	0.160	51%		
0.080	45%	0.080	24%	0.080	44%		
M.C.(%):	9%	M.C.(%):	7%	M.C.(%):	9%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	16	% GRAVEL	52	% GRAVEL	25		
% SAND:	39	% SAND:	24	% SAND:	31		
% FINES:	45	% FINES:	24	% FINES:	44		
CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)		

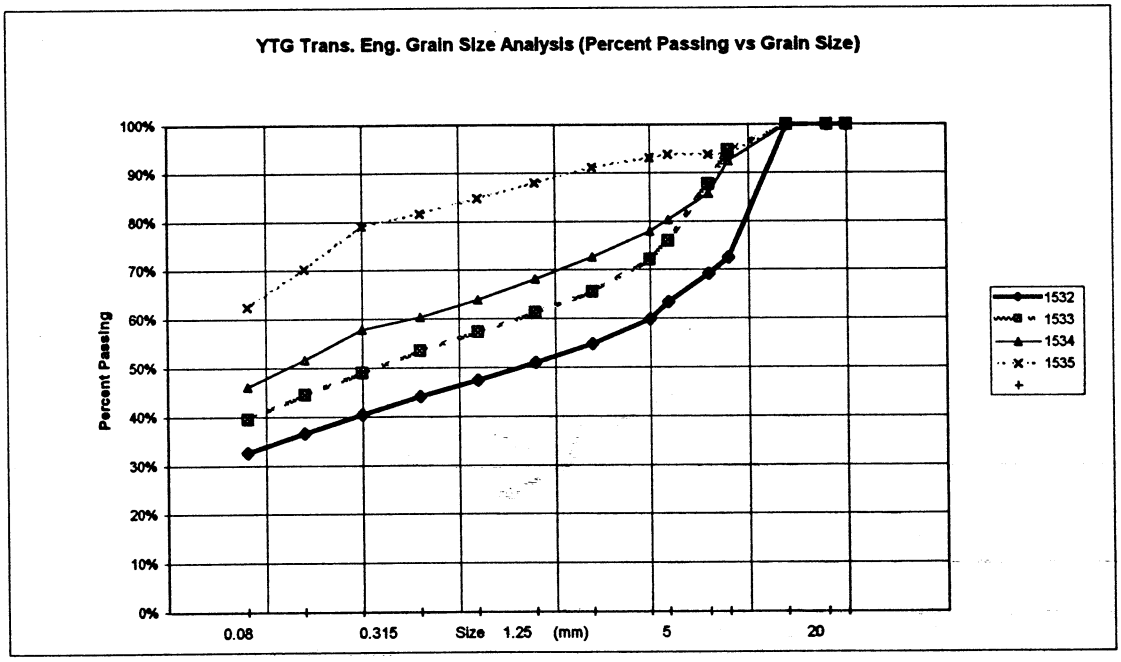


PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	568-1770
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWÁK SEG 9						
PROJECT LOCATION:	KM1664.5-1692.6 A/H						
DRILL UNIT:	MOBILE B 40-L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1664+550 12M RT					DATE COM	2000/08/14
FIELD NO:	1529	FIELD No.	1530	FIELD No:	1531		
LAB NO:	2000	LAB No.	2001	LAB No:	2002		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	84%	25.0	100%		
20.0	100%	20.0	79%	20.0	100%		
12.5	97%	12.5	77%	12.5	97%		
10.0	92%	10.0	74%	10.0	95%		
5.0	87%	5.0	71%	5.0	91%		
2.5	83%	2.5	68%	2.5	87%		
1.25	80%	1.25	65%	1.25	83%		
0.630	76%	0.630	63%	0.630	80%		
0.315	72%	0.315	57%	0.315	76%		
0.160	67%	0.160	51%	0.160	71%		
0.080	60%	0.080	50%	0.080	64%		
M.C.(%):	9%	M.C.(%):	8%	M.C.(%):	10%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	13	% GRAVEL	29	% GRAVEL	9		
% SAND:	28	% SAND:	21	% SAND:	26		
% FINES:	60	% FINES:	50	% FINES:	64		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	GRAVELLY SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT (ML)		



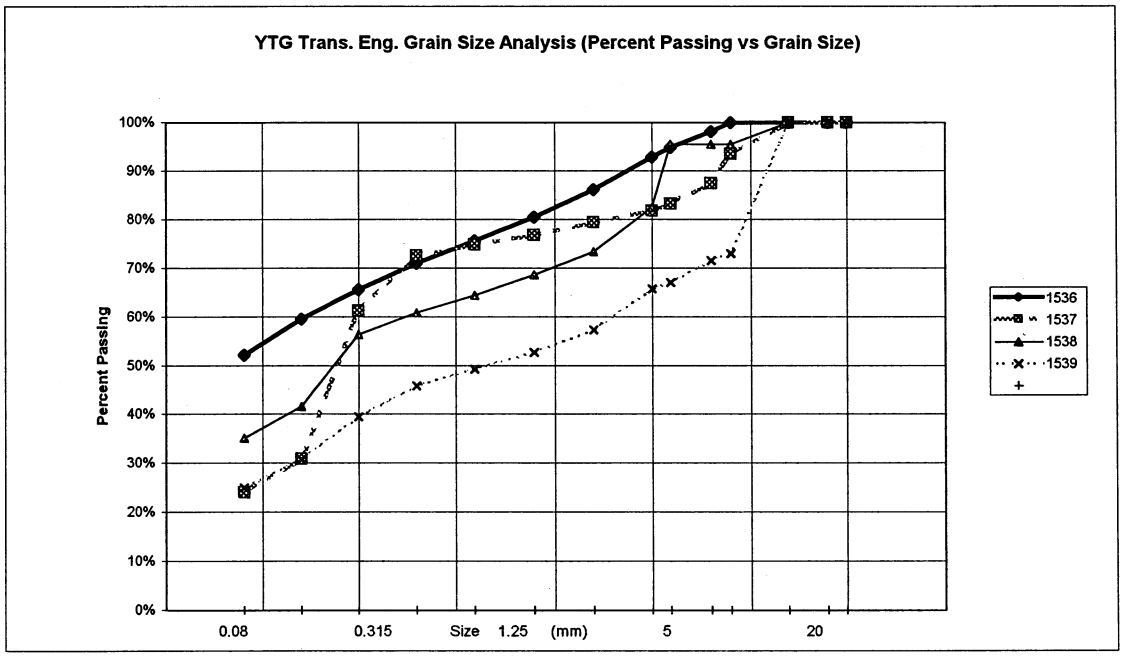
PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 568-1771
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM1664.5-1692.6 A/H		
DRILL UNIT:	MOBILE B 40-L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1664+600 25M RT		DATE COM 2000/08/14

FIELD NO:	1532	FIELD No.	1533	FIELD No:	1534	FIELD No:	1535
LAB NO:	2003	LAB No.	2004	LAB No:	2005	LAB No:	2006
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5	DEPTH:	7.4-7.6
TYPE:	AUGER	A	AUGER	TYPE:	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%	50.0	100%
25.0	73%	25.0	95%	25.0	92%	25.0	94%
20.0	69%	20.0	88%	20.0	86%	20.0	94%
12.5	63%	12.5	76%	12.5	80%	12.5	94%
10.0	60%	10.0	72%	10.0	78%	10.0	93%
5.0	55%	5.0	66%	5.0	73%	5.0	91%
2.5	51%	2.5	61%	2.5	68%	2.5	88%
1.25	48%	1.25	57%	1.25	64%	1.25	85%
0.630	44%	0.630	53%	0.630	60%	0.630	82%
0.315	40%	0.315	49%	0.315	58%	0.315	79%
0.160	37%	0.160	45%	0.160	52%	0.160	70%
0.080	33%	0.080	40%	0.080	46%	0.080	63%
M.C.(%):	10%	M.C.(%):	6%	M.C.(%):	7%	M.C.(%):	9%
LIMITS		LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	45	% GRAVEL	34	% GRAVEL	27	% GRAVEL	9
% SAND:	22	% SAND:	26	% SAND:	27	% SAND:	29
% FINES:	33	% FINES:	40	% FINES:	46	% FINES:	63
CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SANDY SILT (ML)

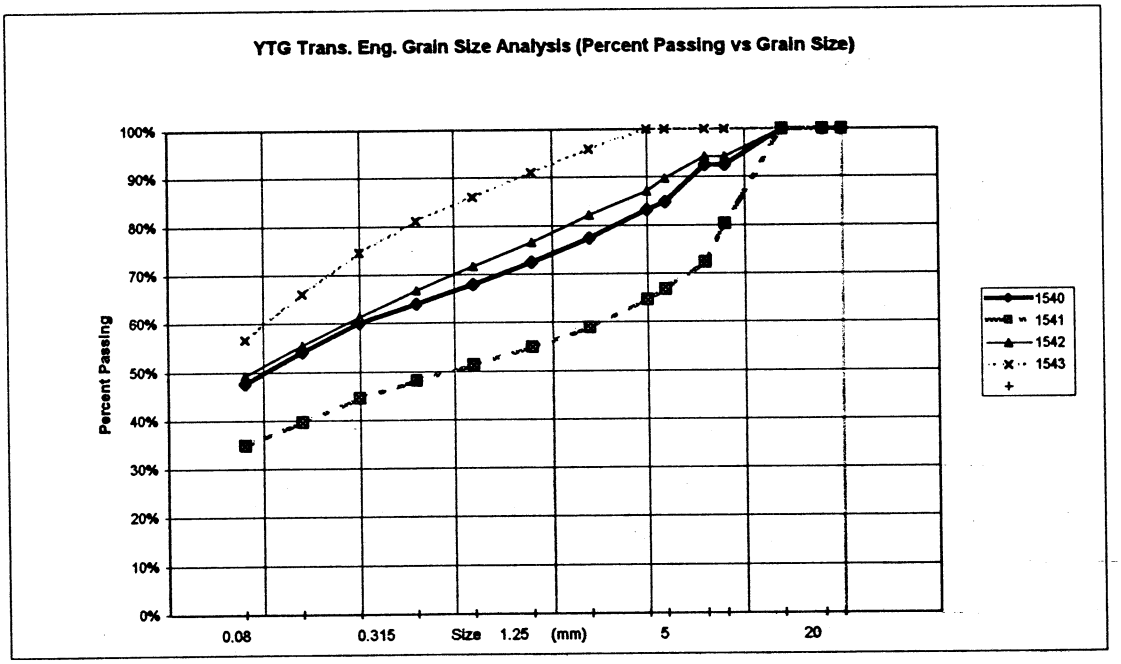


PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 568-1772
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM1664.5-1692.6 A/H		
DRILL UNIT:	MOBILE B 40-L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1664+650 25M RT		DATE COM 2000/08/14

FIELD NO:	1536	FIELD No.	1537	FIELD No:	1538	FIELD No:	1539
LAB NO:	2007	LAB No.	2008	LAB No:	2009	LAB No:	2010
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5	DEPTH:	6.8-7.0
TYPE:	AUGER	A	AUGER	TYPE:	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%	50.0	100%
25.0	100%	25.0	94%	25.0	95%	25.0	73%
20.0	98%	20.0	88%	20.0	95%	20.0	71%
12.5	95%	12.5	83%	12.5	95%	12.5	67%
10.0	93%	10.0	82%	10.0	82%	10.0	66%
5.0	86%	5.0	79%	5.0	73%	5.0	57%
2.5	81%	2.5	77%	2.5	69%	2.5	53%
1.25	76%	1.25	75%	1.25	64%	1.25	49%
0.630	71%	0.630	73%	0.630	61%	0.630	46%
0.315	66%	0.315	61%	0.315	56%	0.315	40%
0.160	60%	0.160	31%	0.160	42%	0.160	31%
0.080	52%	0.080	24%	0.080	35%	0.080	25%
M.C.(%):	10%	M.C.(%):	5%	M.C.(%):	11%	M.C.(%):	4%
LIMITS		LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	14	% GRAVEL	21	% GRAVEL	27	% GRAVEL	43
% SAND:	34	% SAND:	55	% SAND:	38	% SAND:	32
% FINES:	52	% FINES:	24	% FINES:	35	% FINES:	25
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)

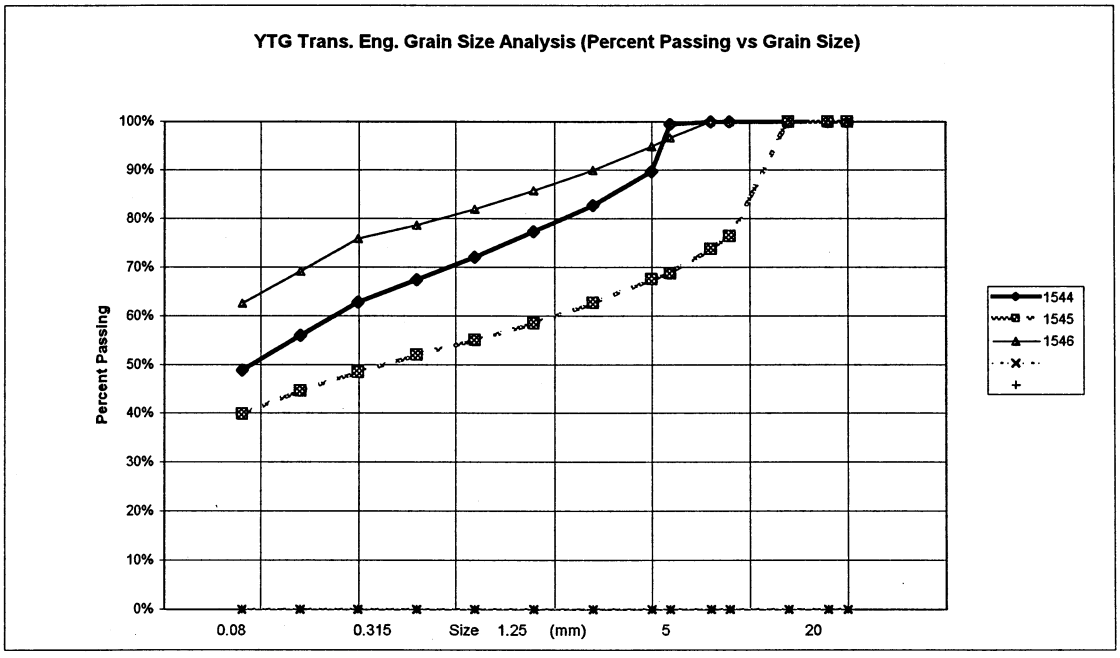


PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	568-1773
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM1664.5-1692.6 A/H						
DRILL UNIT:	MOBILE B 40-L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1664+700 25M RT					DATE COM	2000/08/14
FIELD NO:	1540	FIELD No.	1541	FIELD No:	1542	FIELD No:	1543
LAB NO:	2011	LAB No.	2012	LAB No:	2013	LAB No:	2014
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5	DEPTH:	6.8-7.0
TYPE:	AUGER	A	AUGER	TYPE:	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%	50.0	100%
25.0	93%	25.0	80%	25.0	94%	25.0	100%
20.0	93%	20.0	72%	20.0	94%	20.0	100%
12.5	85%	12.5	67%	12.5	90%	12.5	100%
10.0	83%	10.0	65%	10.0	87%	10.0	100%
5.0	77%	5.0	59%	5.0	82%	5.0	96%
2.5	72%	2.5	55%	2.5	77%	2.5	91%
1.25	68%	1.25	51%	1.25	72%	1.25	86%
0.630	64%	0.630	48%	0.630	67%	0.630	81%
0.315	60%	0.315	45%	0.315	61%	0.315	75%
0.160	54%	0.160	40%	0.160	56%	0.160	66%
0.080	48%	0.080	35%	0.080	49%	0.080	57%
M.C.(%):	9%	M.C.(%):	13%	M.C.(%):	8%	M.C.(%):	8%
LIMITS		LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	23	% GRAVEL	41	% GRAVEL	18	% GRAVEL	4
% SAND:	30	% SAND:	24	% SAND:	33	% SAND:	39
% FINES:	48	% FINES:	35	% FINES:	49	% FINES:	57
CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SANDY SILT (ML)



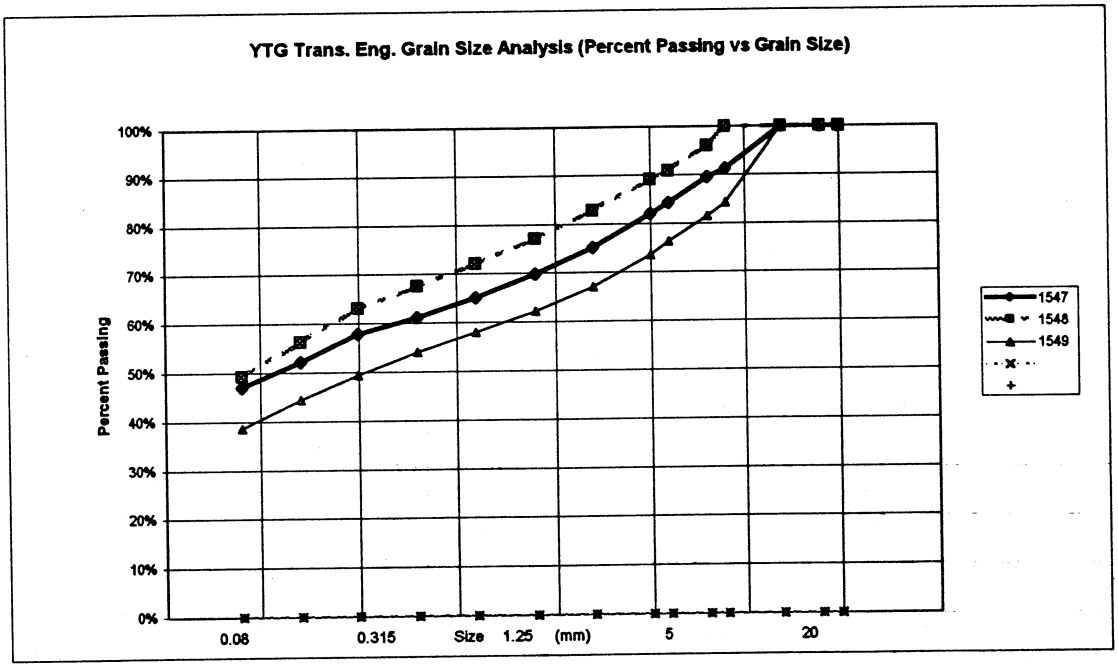
PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 568-1774
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM1664.5-1692.6 A/H		
DRILL UNIT:	MOBILE B 40-L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1664+800 13M RT		DATE COM 2000/08/14

FIELD NO:	1544	FIELD No.	1545	FIELD No:	1546		
LAB NO:	2015	LAB No.	2016	LAB No:	2017		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	76%	25.0	100%		
20.0	100%	20.0	74%	20.0	100%		
12.5	100%	12.5	69%	12.5	97%		
10.0	90%	10.0	68%	10.0	95%		
5.0	83%	5.0	63%	5.0	90%		
2.5	77%	2.5	58%	2.5	86%		
1.25	72%	1.25	55%	1.25	82%		
0.630	67%	0.630	52%	0.630	79%		
0.315	63%	0.315	48%	0.315	76%		
0.160	56%	0.160	45%	0.160	69%		
0.080	49%	0.080	40%	0.080	63%		
M.C.(%):	9%	M.C.(%):	8%	M.C.(%):	10%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	17	% GRAVEL	37	% GRAVEL	10		
% SAND:	34	% SAND:	23	% SAND:	27		
% FINES:	49	% FINES:	40	% FINES:	63		
CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SANDY SILT (ML)		

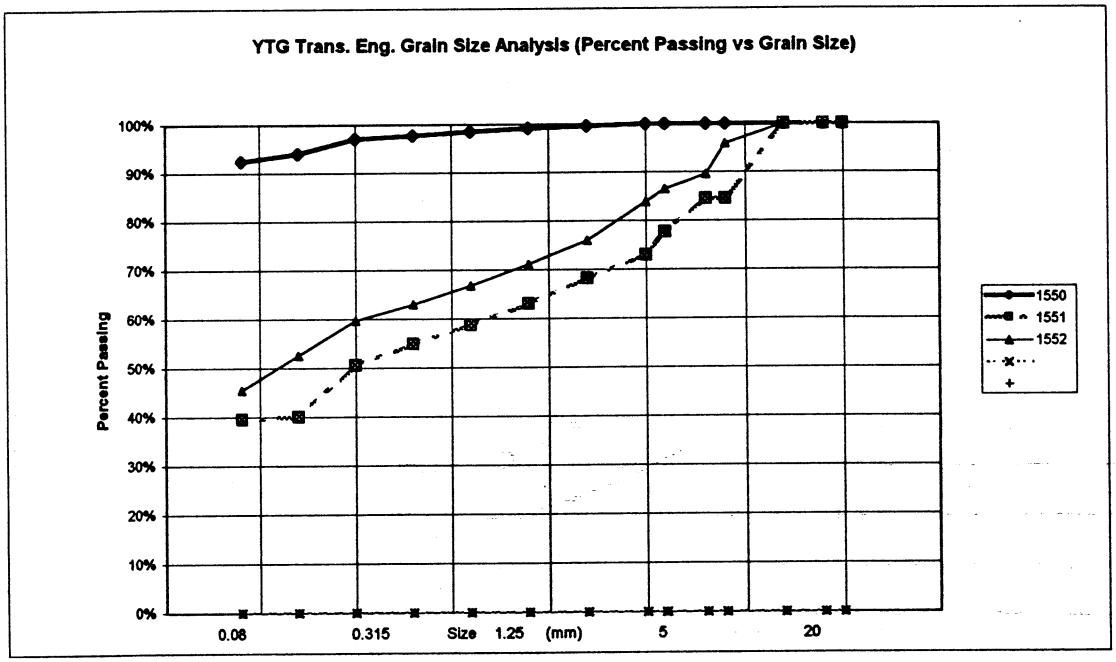


PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 568-1775
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM1664.5-1692.6 A/H		
DRILL UNIT:	MOBILE B 40-L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1664+900 15m lt		DATE COM 2000/08/14

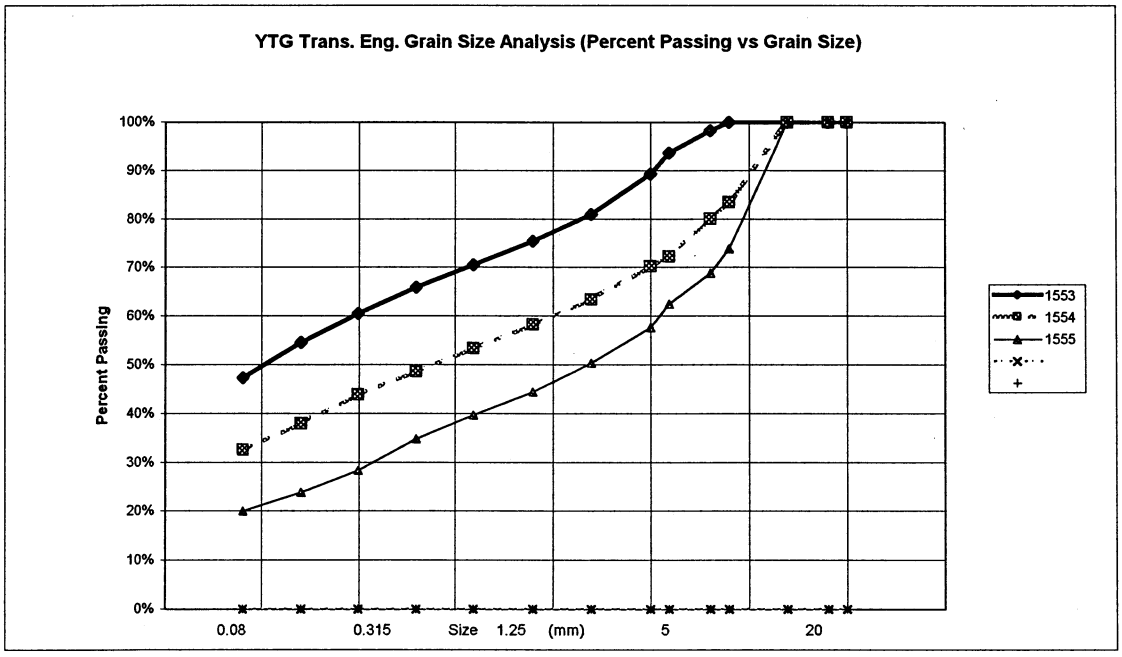
FIELD NO:	1547	FIELD No.	1548	FIELD No:	1549		
LAB NO:	2018	LAB No.	2019	LAB No:	2020		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	91%	25.0	100%	25.0	84%		
20.0	90%	20.0	96%	20.0	82%		
12.5	84%	12.5	91%	12.5	76%		
10.0	82%	10.0	89%	10.0	74%		
5.0	75%	5.0	83%	5.0	67%		
2.5	70%	2.5	77%	2.5	62%		
1.25	65%	1.25	72%	1.25	58%		
0.630	61%	0.630	68%	0.630	54%		
0.315	58%	0.315	63%	0.315	49%		
0.160	52%	0.160	56%	0.160	44%		
0.080	47%	0.080	49%	0.080	39%		
M.C.(%):	15%	M.C.(%):	12%	M.C.(%):	10%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	25	% GRAVEL	17	% GRAVEL	33		
% SAND:	28	% SAND:	34	% SAND:	29		
% FINES:	47	% FINES:	49	% FINES:	39		
CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)		



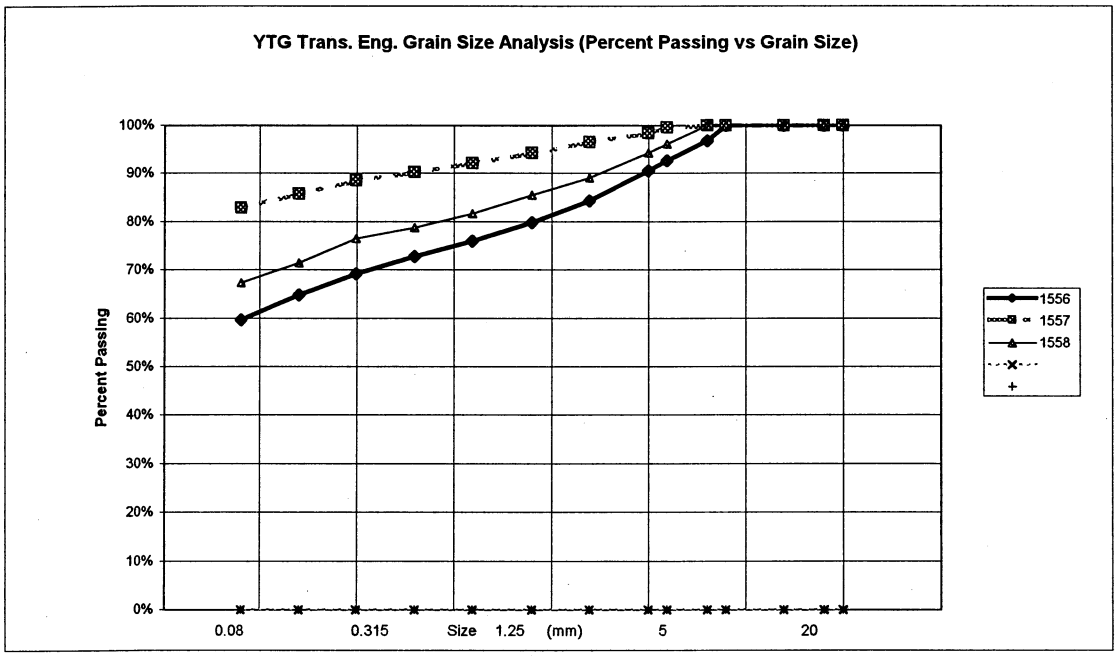
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	568-1776
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM1664.5-1692.6 A/H						
DRILL UNIT:	MOBILE B 40-L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1664+975 20M LT					DATE COM	2000/08/14
FIELD NO:	1550	FIELD No.	1551	FIELD No:	1552		
LAB NO:	2021	LAB No.	2022	LAB No:	2023		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	85%	25.0	96%		
20.0	100%	20.0	85%	20.0	90%		
12.5	100%	12.5	78%	12.5	87%		
10.0	100%	10.0	73%	10.0	84%		
5.0	100%	5.0	68%	5.0	76%		
2.5	99%	2.5	63%	2.5	71%		
1.25	99%	1.25	59%	1.25	67%		
0.630	98%	0.630	55%	0.630	63%		
0.315	97%	0.315	51%	0.315	60%		
0.160	94%	0.160	40%	0.160	53%		
0.080	92%	0.080	40%	0.080	46%		
M.C.(%):	31%	M.C.(%):	12%	M.C.(%):	12%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	0	% GRAVEL	32	% GRAVEL	24		
% SAND:	7	% SAND:	29	% SAND:	31		
% FINES:	92	% FINES:	40	% FINES:	46		
CLASSIFICATION:	SILT (ML)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)		



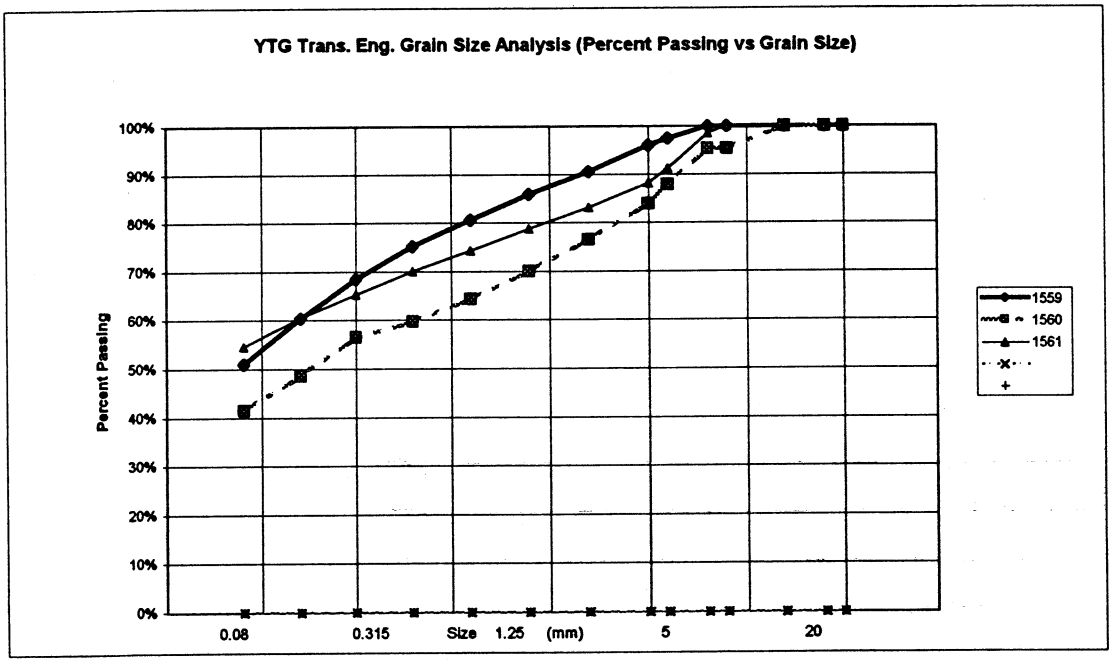
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	568-1777
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM1664.5-1692.6 A/H						
DRILL UNIT:	MOBILE B 40-L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1665+075 15M LT					DATE COM	2000/08/14
FIELD NO:	1553	FIELD No.	1554	FIELD No:	1555		
LAB NO:	2024	LAB No.	2025	LAB No:	2026		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	83%	25.0	74%		
20.0	98%	20.0	80%	20.0	69%		
12.5	94%	12.5	72%	12.5	63%		
10.0	89%	10.0	70%	10.0	58%		
5.0	81%	5.0	64%	5.0	50%		
2.5	76%	2.5	58%	2.5	44%		
1.25	71%	1.25	53%	1.25	40%		
0.630	66%	0.630	49%	0.630	35%		
0.315	61%	0.315	44%	0.315	28%		
0.160	55%	0.160	38%	0.160	24%		
0.080	47%	0.080	33%	0.080	20%		
M.C.(%):	11%	M.C.(%):	10%	M.C.(%):	9%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	19	% GRAVEL	36	% GRAVEL	50		
% SAND:	34	% SAND:	31	% SAND:	30		
% FINES:	47	% FINES:	33	% FINES:	20		
CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)		



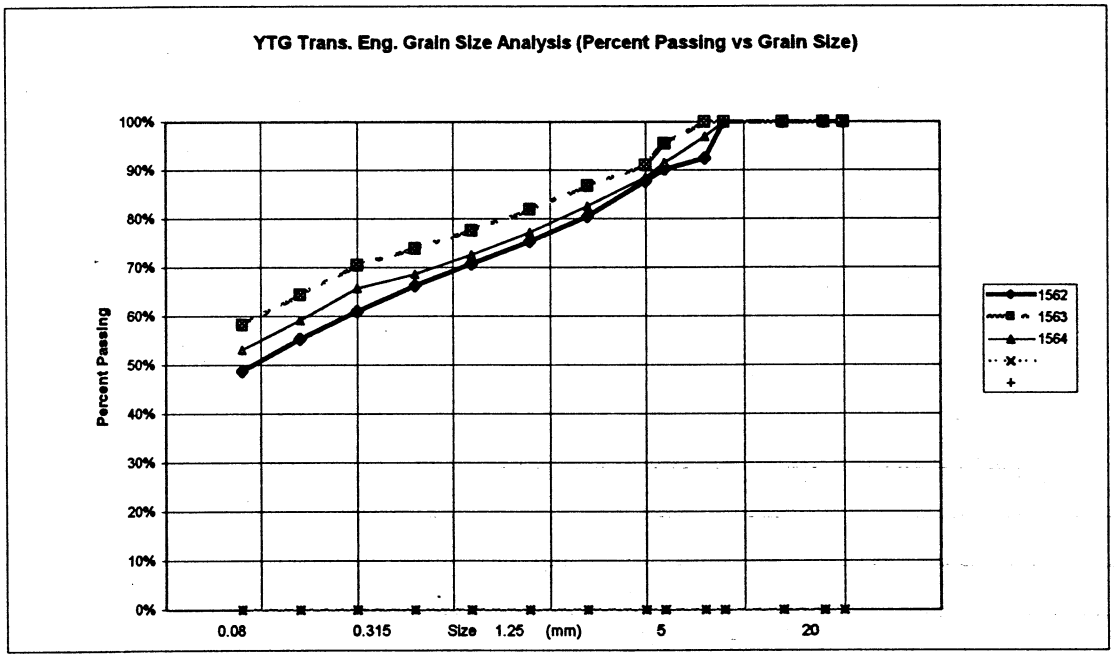
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	568-1778
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM1664.5-1692.6 A/H						
DRILL UNIT:	MOBILE B 40-L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1665+175 8M LT					DATE COM	2000/08/14
FIELD NO:	1556	FIELD No.	1557	FIELD No:	1558		
LAB NO:	2027	LAB No.	2028	LAB No:	2029		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	97%	20.0	100%	20.0	100%		
12.5	93%	12.5	100%	12.5	96%		
10.0	91%	10.0	98%	10.0	94%		
5.0	84%	5.0	97%	5.0	89%		
2.5	80%	2.5	94%	2.5	86%		
1.25	76%	1.25	92%	1.25	82%		
0.630	73%	0.630	90%	0.630	79%		
0.315	69%	0.315	89%	0.315	76%		
0.160	65%	0.160	86%	0.160	71%		
0.080	60%	0.080	83%	0.080	67%		
M.C.(%):	13%	M.C.(%):	13%	M.C.(%):	10%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	16	% GRAVEL	3	% GRAVEL	11		
% SAND:	25	% SAND:	14	% SAND:	22		
% FINES:	60	% FINES:	83	% FINES:	67		
CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT (ML)		



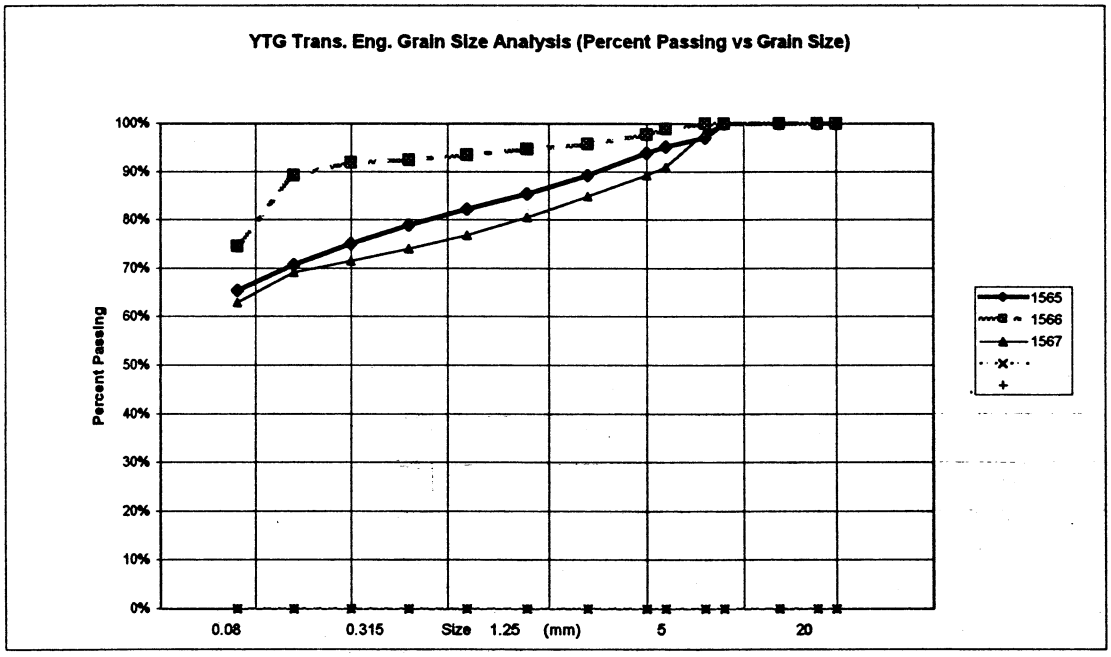
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	568-1779
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM1664.5-1692.6 A/H						
DRILL UNIT:	MOBILE B 40-L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1665+275 8M LT					DATE COM	2000/08/14
FIELD NO:	1559	FIELD No.	1560	FIELD No:	1561		
LAB NO:	2030	LAB No.	2031	LAB No:	2032		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	95%	25.0	100%		
20.0	100%	20.0	95%	20.0	99%		
12.5	98%	12.5	88%	12.5	91%		
10.0	96%	10.0	84%	10.0	88%		
5.0	91%	5.0	77%	5.0	83%		
2.5	86%	2.5	70%	2.5	79%		
1.25	81%	1.25	64%	1.25	74%		
0.630	75%	0.630	60%	0.630	70%		
0.315	69%	0.315	57%	0.315	65%		
0.160	60%	0.160	49%	0.160	61%		
0.080	51%	0.080	42%	0.080	55%		
M.C.(%):	8%	M.C.(%):	7%	M.C.(%):	8%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	9	% GRAVEL	23	% GRAVEL	17		
% SAND:	40	% SAND:	35	% SAND:	29		
% FINES:	51	% FINES:	42	% FINES:	55		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)		



PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	1568-1780
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM1664.5-1692.6 A/H						
DRILL UNIT:	MOBILE B 40-L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1665+375 8M LT					DATE COM	2000/08/14
FIELD NO:	1562	FIELD No.	1563	FIELD No:	1564		
LAB NO:	2033	LAB No.	2034	LAB No:	2035		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	92%	20.0	100%	20.0	97%		
12.5	90%	12.5	95%	12.5	92%		
10.0	88%	10.0	91%	10.0	89%		
5.0	81%	5.0	87%	5.0	83%		
2.5	75%	2.5	82%	2.5	77%		
1.25	71%	1.25	78%	1.25	73%		
0.630	66%	0.630	74%	0.630	69%		
0.315	61%	0.315	71%	0.315	66%		
0.160	55%	0.160	65%	0.160	59%		
0.080	49%	0.080	58%	0.080	53%		
M.C.(%):	9%	M.C.(%):	10%	M.C.(%):	9%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	19	% GRAVEL	13	% GRAVEL	17		
% SAND:	32	% SAND:	29	% SAND:	29		
% FINES:	49	% FINES:	58	% FINES:	53		
CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)		

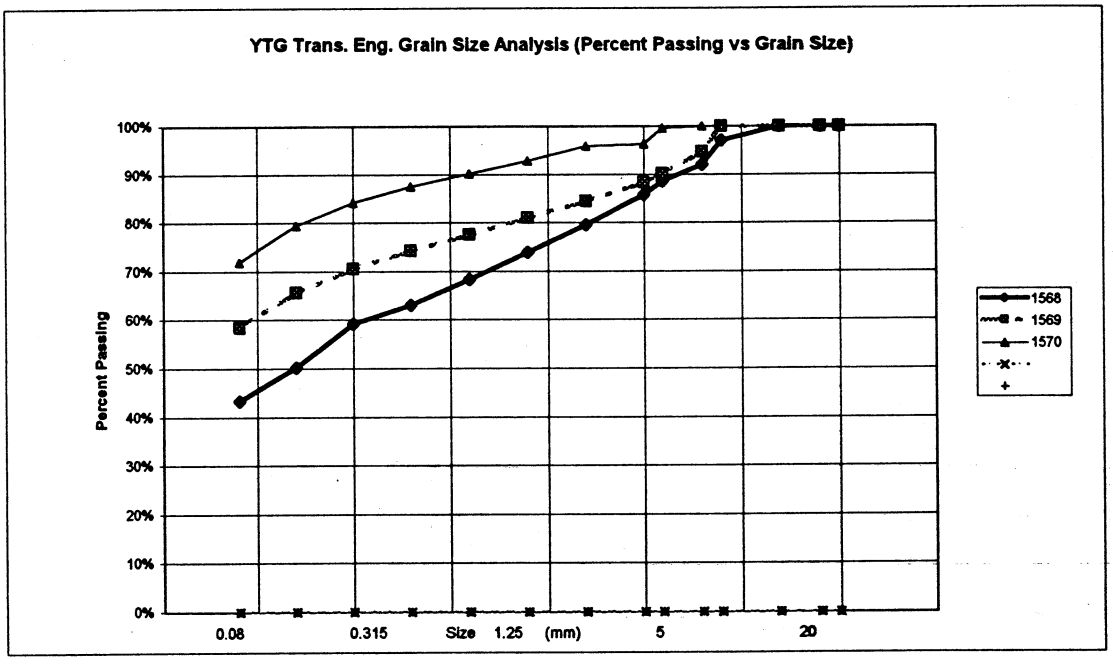


PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	568-1781
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM1664.5-1692.6 A/H						
DRILL UNIT:	MOBILE B 40-L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1665+475 8M LT					DATE COM	2000/08/14
FIELD NO:	1565	FIELD No.	1566	FIELD No:	1567		
LAB NO:	2036	LAB No.	2037	LAB No:	2038		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	97%	20.0	100%	20.0	98%		
12.5	95%	12.5	99%	12.5	91%		
10.0	94%	10.0	98%	10.0	89%		
5.0	89%	5.0	96%	5.0	85%		
2.5	85%	2.5	95%	2.5	81%		
1.25	82%	1.25	93%	1.25	77%		
0.630	79%	0.630	93%	0.630	74%		
0.315	75%	0.315	92%	0.315	72%		
0.160	71%	0.160	89%	0.160	69%		
0.080	65%	0.080	75%	0.080	63%		
M.C.(%):	11%	M.C.(%):	11%	M.C.(%):	10%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	11	% GRAVEL	4	% GRAVEL	15		
% SAND:	24	% SAND:	21	% SAND:	22		
% FINES:	65	% FINES:	75	% FINES:	63		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)		



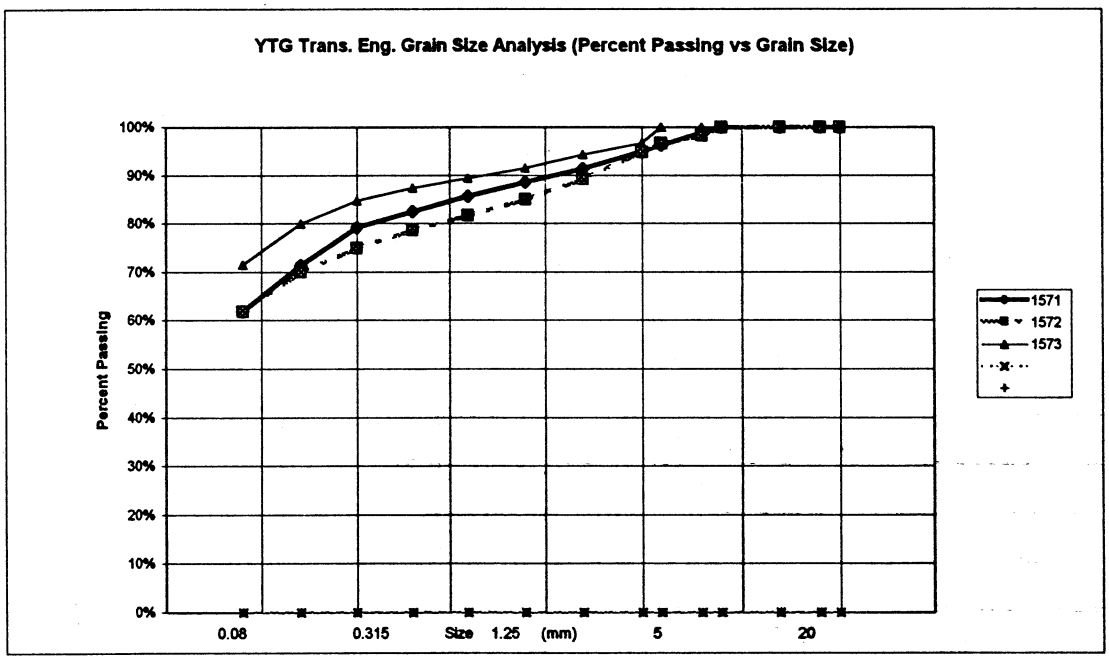
PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 568-1782
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM1664.5-1692.6 A/H		
DRILL UNIT:	MOBILE B 40-L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1665+575 9M LT		DATE COM 2000/08/15

FIELD NO:	1568	FIELD No.	1569	FIELD No:	1570		
LAB NO:	2039	LAB No.	2040	LAB No:	2041		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	97%	25.0	100%	25.0	100%		
20.0	92%	20.0	95%	20.0	100%		
12.5	89%	12.5	90%	12.5	100%		
10.0	86%	10.0	88%	10.0	96%		
5.0	80%	5.0	84%	5.0	96%		
2.5	74%	2.5	81%	2.5	93%		
1.25	68%	1.25	78%	1.25	90%		
0.630	63%	0.630	74%	0.630	88%		
0.315	59%	0.315	71%	0.315	84%		
0.160	50%	0.160	66%	0.160	79%		
0.080	43%	0.080	58%	0.080	72%		
M.C.(%):	7%	M.C.(%):	10%	M.C.(%):	12%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	20	% GRAVEL	16	% GRAVEL	4		
% SAND:	36	% SAND:	26	% SAND:	24		
% FINES:	43	% FINES:	58	% FINES:	72		
CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SILT WITH SAND (ML)		



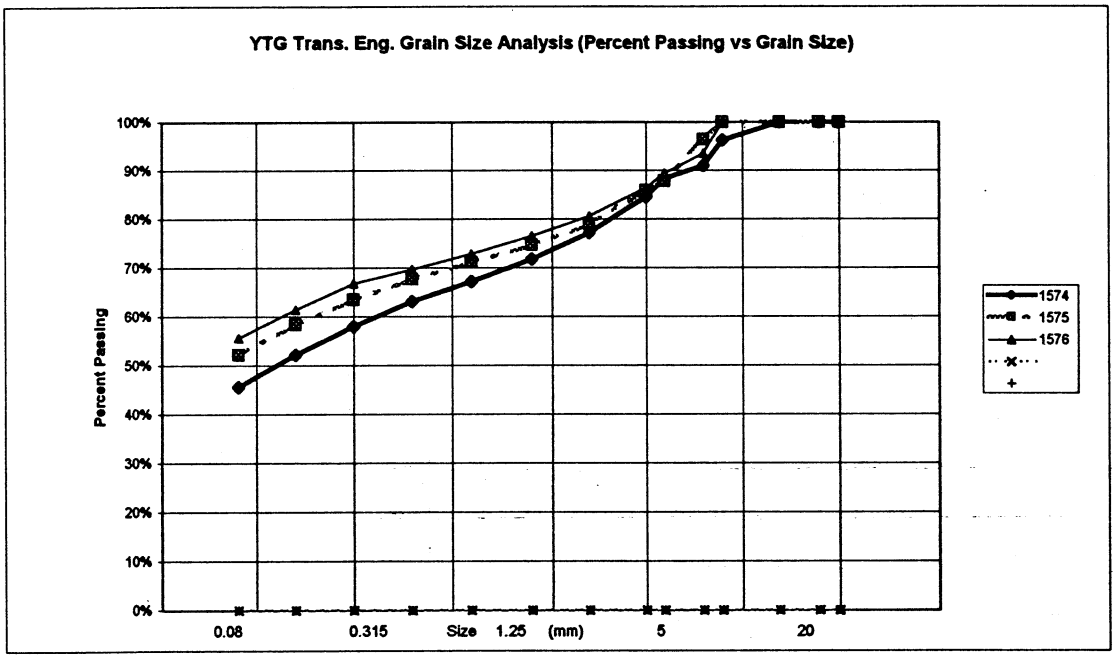
PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 568-1783
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM1664.5-1692.6 A/H		
DRILL UNIT:	MOBILE B 40-L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1665+675 15M LT		DATE COM 2000/08/15

FIELD NO:	1571	FIELD No.	1572	FIELD No:	1573		
LAB NO:	2042	LAB No.	2043	LAB No:	2044		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	99%	20.0	98%	20.0	100%		
12.5	96%	12.5	97%	12.5	100%		
10.0	95%	10.0	95%	10.0	97%		
5.0	91%	5.0	89%	5.0	94%		
2.5	89%	2.5	85%	2.5	92%		
1.25	86%	1.25	82%	1.25	89%		
0.630	83%	0.630	79%	0.630	87%		
0.315	79%	0.315	75%	0.315	85%		
0.160	71%	0.160	70%	0.160	80%		
0.080	62%	0.080	62%	0.080	72%		
M.C.(%):	13%	M.C.(%):	11%	M.C.(%):	13%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	9	% GRAVEL	11	% GRAVEL	6		
% SAND:	29	% SAND:	27	% SAND:	23		
% FINES:	62	% FINES:	62	% FINES:	72		
CLASSIFICATION: SANDY SILT (ML)		CLASSIFICATION: SANDY SILT (ML)		CLASSIFICATION: SILT WITH SAND (ML)			

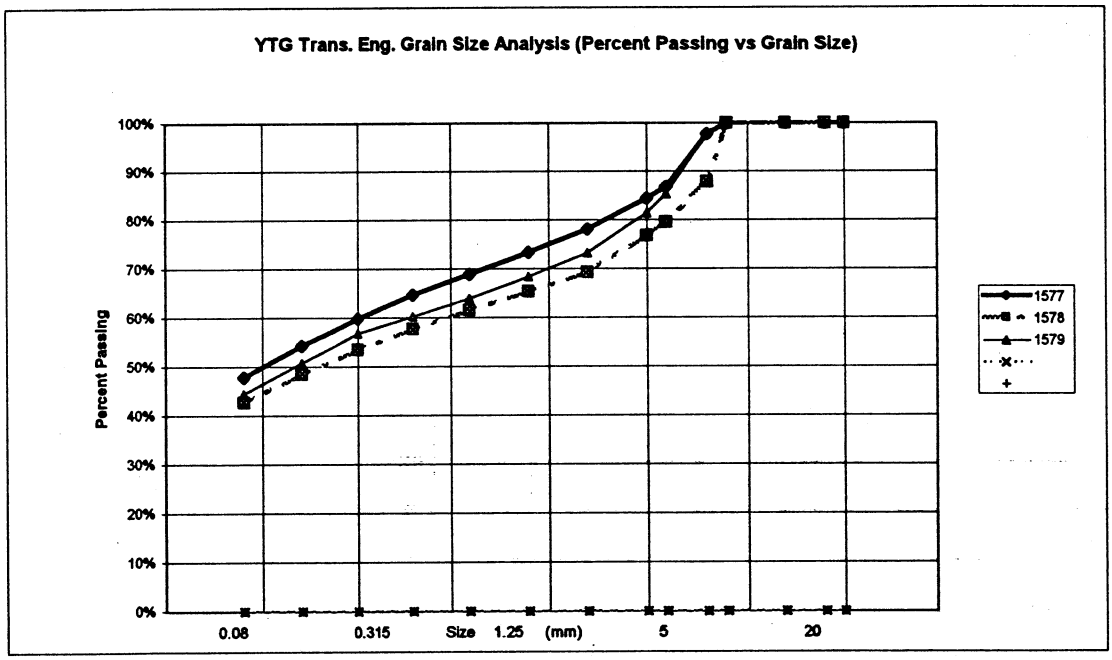


PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 568-1784
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM1664.5-1692.6 A/H		
DRILL UNIT:	MOBILE B 40-L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1665+775 13M LT		DATE COM 2000/08/15

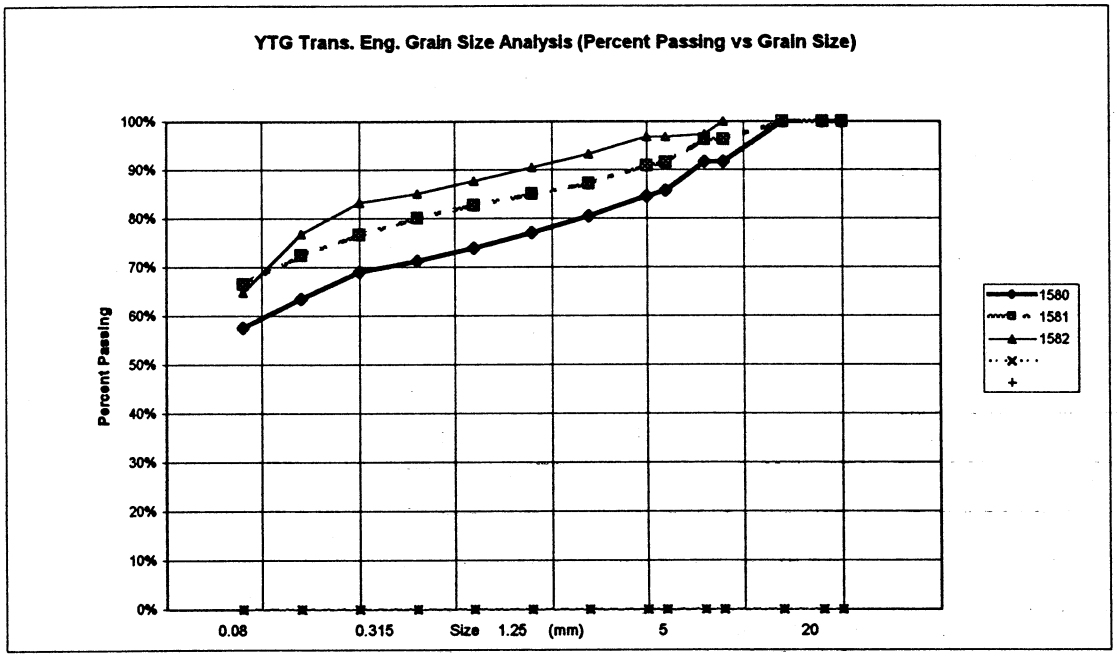
FIELD NO:	1574	FIELD No.	1575	FIELD No:	1576		
LAB NO:	2045	LAB No.	2046	LAB No:	2047		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	96%	25.0	100%	25.0	100%		
20.0	91%	20.0	96%	20.0	94%		
12.5	88%	12.5	88%	12.5	90%		
10.0	85%	10.0	86%	10.0	86%		
5.0	77%	5.0	79%	5.0	81%		
2.5	72%	2.5	75%	2.5	77%		
1.25	67%	1.25	71%	1.25	73%		
0.630	63%	0.630	68%	0.630	70%		
0.315	58%	0.315	64%	0.315	67%		
0.160	52%	0.160	58%	0.160	61%		
0.080	46%	0.080	52%	0.080	56%		
M.C.(%):	11%	M.C.(%):	12%	M.C.(%):	10%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	23	% GRAVEL	21	% GRAVEL	19		
% SAND:	32	% SAND:	27	% SAND:	25		
% FINES:	46	% FINES:	52	% FINES:	56		
CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)		



PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	568-1785
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM1664.5-1692.6 A/H						
DRILL UNIT:	MOBILE B 40-L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1665+875 20M LT					DATE COM	2000/08/15
FIELD NO:	1577	FIELD No.	1578	FIELD No:	1579		
LAB NO:	2048	LAB No.	2049	LAB No:	2050		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	98%	20.0	88%	20.0	98%		
12.5	87%	12.5	80%	12.5	85%		
10.0	84%	10.0	77%	10.0	81%		
5.0	78%	5.0	69%	5.0	73%		
2.5	73%	2.5	65%	2.5	68%		
1.25	69%	1.25	62%	1.25	64%		
0.630	65%	0.630	58%	0.630	60%		
0.315	60%	0.315	54%	0.315	57%		
0.160	54%	0.160	49%	0.160	51%		
0.080	48%	0.080	43%	0.080	45%		
M.C.(%):	10%	M.C.(%):	9%	M.C.(%):	8%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	22	% GRAVEL	31	% GRAVEL	27		
% SAND:	30	% SAND:	27	% SAND:	29		
% FINES:	48	% FINES:	43	% FINES:	45		
CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)		



PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	568-1786
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM1664.5-1692.6 A/H						
DRILL UNIT:	MOBILE B 40-L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1665+975 15M LT					DATE COM	2000/08/15
FIELD NO:	1580	FIELD No.	1581	FIELD No:	1582		
LAB NO:	2051	LAB No.	2052	LAB No:	2053		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	92%	25.0	96%	25.0	100%		
20.0	92%	20.0	96%	20.0	97%		
12.5	86%	12.5	92%	12.5	97%		
10.0	85%	10.0	91%	10.0	97%		
5.0	81%	5.0	87%	5.0	93%		
2.5	77%	2.5	85%	2.5	91%		
1.25	74%	1.25	83%	1.25	88%		
0.630	71%	0.630	80%	0.630	85%		
0.315	69%	0.315	77%	0.315	83%		
0.160	64%	0.160	73%	0.160	77%		
0.080	58%	0.080	67%	0.080	65%		
M.C.(%):	7%	M.C.(%):	11%	M.C.(%):	11%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	19	% GRAVEL	13	% GRAVEL	7		
% SAND:	23	% SAND:	21	% SAND:	28		
% FINES:	58	% FINES:	67	% FINES:	65		
CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)		

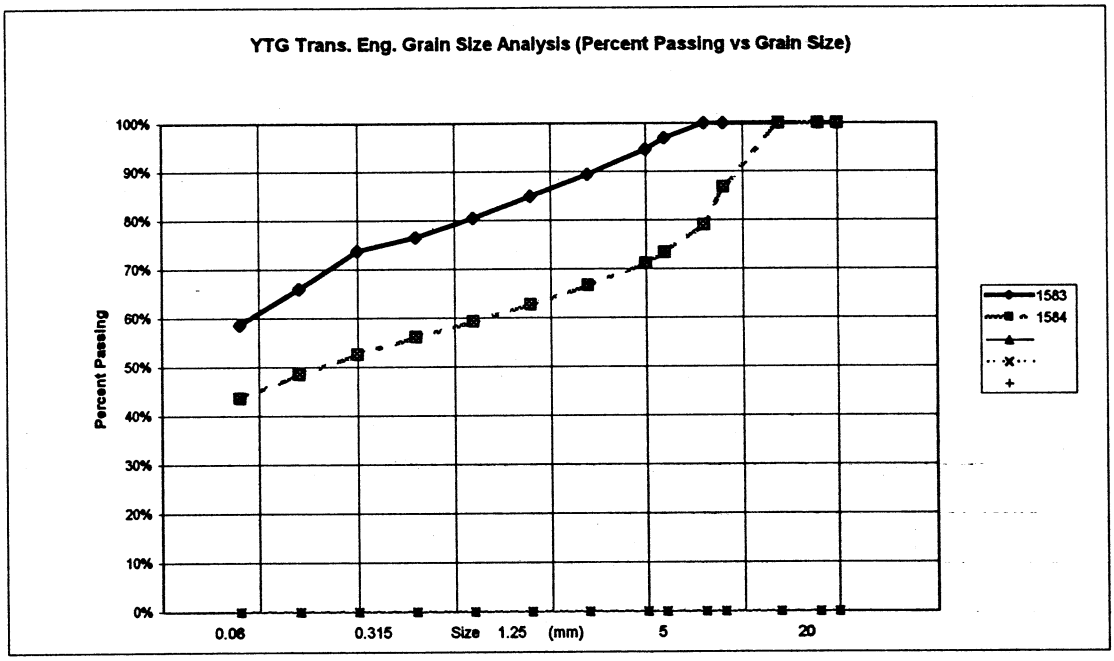


PROJECT NUMBER:	092-202101-0363-1	HOLE No.:	568-1787
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM1664.5-1692.6 A/H		
DRILL UNIT:	MOBILE B 40-L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1666+075 12M LT	DATE COM	2000/08/15

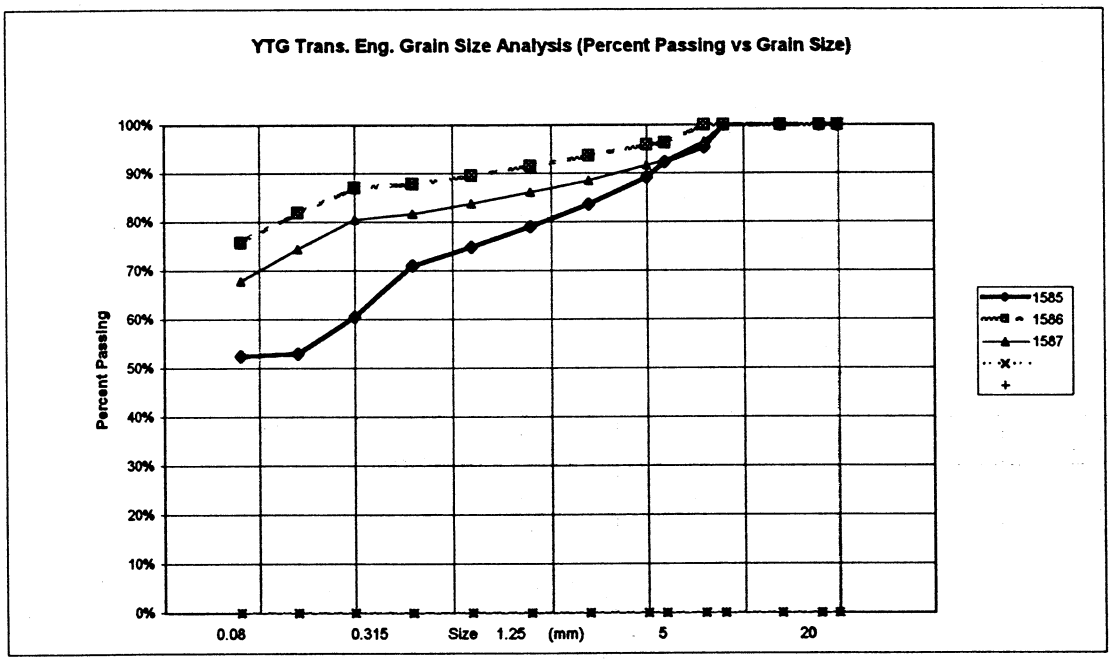
FIELD NO:	1583	FIELD No.	1584
LAB NO:	2054	LAB No.	2055
DEPTH:	1.3-1.5	DEPTH	2.8-3.0
TYPE:	AUGER	A	AUGER

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	100%	25.0	87%
20.0	100%	20.0	79%
12.5	97%	12.5	73%
10.0	95%	10.0	71%
5.0	89%	5.0	67%
2.5	85%	2.5	63%
1.25	81%	1.25	59%
0.630	77%	0.630	56%
0.315	74%	0.315	53%
0.160	66%	0.160	49%
0.080	59%	0.080	44%

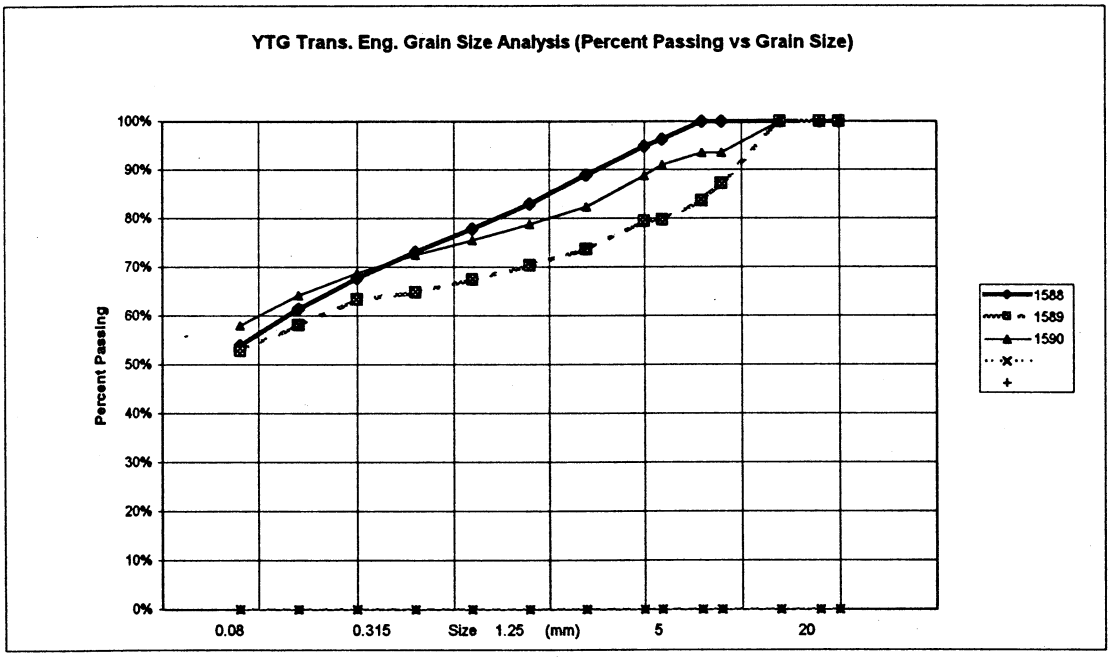
M.C.(%):	11%	M.C.(%):	8%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	11	% GRAVEL	33
% SAND:	31	% SAND:	23
% FINES:	59	% FINES:	44
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)



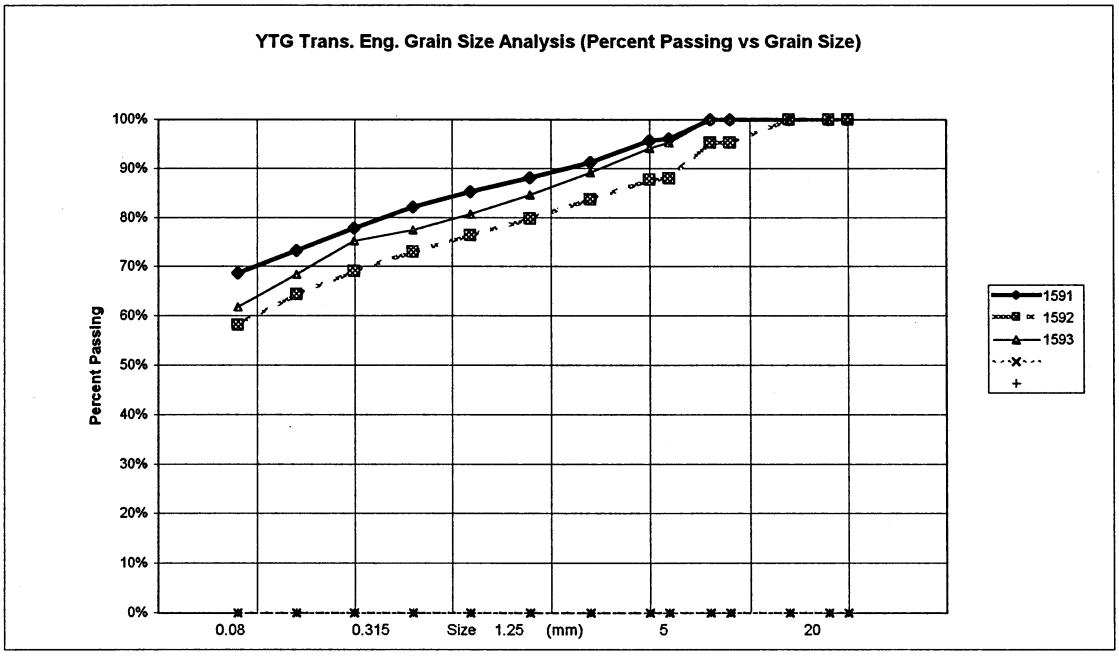
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	568-1788
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM1664.5-1692.6 A/H						
DRILL UNIT:	MOBILE B 40-L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1666+175 15M LT					DATE COM	2000/08/15
FIELD NO:	1585	FIELD No.	1586	FIELD No:	1587		
LAB NO:	2056	LAB No.	2057	LAB No:	2058		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	95%	20.0	100%	20.0	97%		
12.5	92%	12.5	96%	12.5	93%		
10.0	89%	10.0	96%	10.0	92%		
5.0	84%	5.0	94%	5.0	89%		
2.5	79%	2.5	92%	2.5	86%		
1.25	75%	1.25	90%	1.25	84%		
0.630	71%	0.630	88%	0.630	82%		
0.315	61%	0.315	87%	0.315	81%		
0.160	53%	0.160	82%	0.160	75%		
0.080	52%	0.080	76%	0.080	68%		
M.C.(%):	11%	M.C.(%):	14%	M.C.(%):	12%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	16	% GRAVEL	6	% GRAVEL	11		
% SAND:	31	% SAND:	18	% SAND:	21		
% FINES:	52	% FINES:	76	% FINES:	68		
CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT (ML)		



PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	568-1789
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM1664.5-1692.6 A/H						
DRILL UNIT:	MOBILE B 40-L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1666+275 15M LT					DATE COM	2000/08/15
FIELD NO:	1588	FIELD No.	1589	FIELD No:	1590		
LAB NO:	2059	LAB No.	2060	LAB No:	2061		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	87%	25.0	93%		
20.0	100%	20.0	84%	20.0	93%		
12.5	96%	12.5	80%	12.5	91%		
10.0	95%	10.0	79%	10.0	89%		
5.0	89%	5.0	74%	5.0	82%		
2.5	83%	2.5	70%	2.5	79%		
1.25	78%	1.25	67%	1.25	76%		
0.630	73%	0.630	65%	0.630	72%		
0.315	68%	0.315	63%	0.315	69%		
0.160	61%	0.160	58%	0.160	64%		
0.080	54%	0.080	53%	0.080	58%		
M.C.(%):	10%	M.C.(%):	11%	M.C.(%):	10%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	11	% GRAVEL	26	% GRAVEL	18		
% SAND:	35	% SAND:	21	% SAND:	24		
% FINES:	54	% FINES:	53	% FINES:	58		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	GRAVELLY SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)		

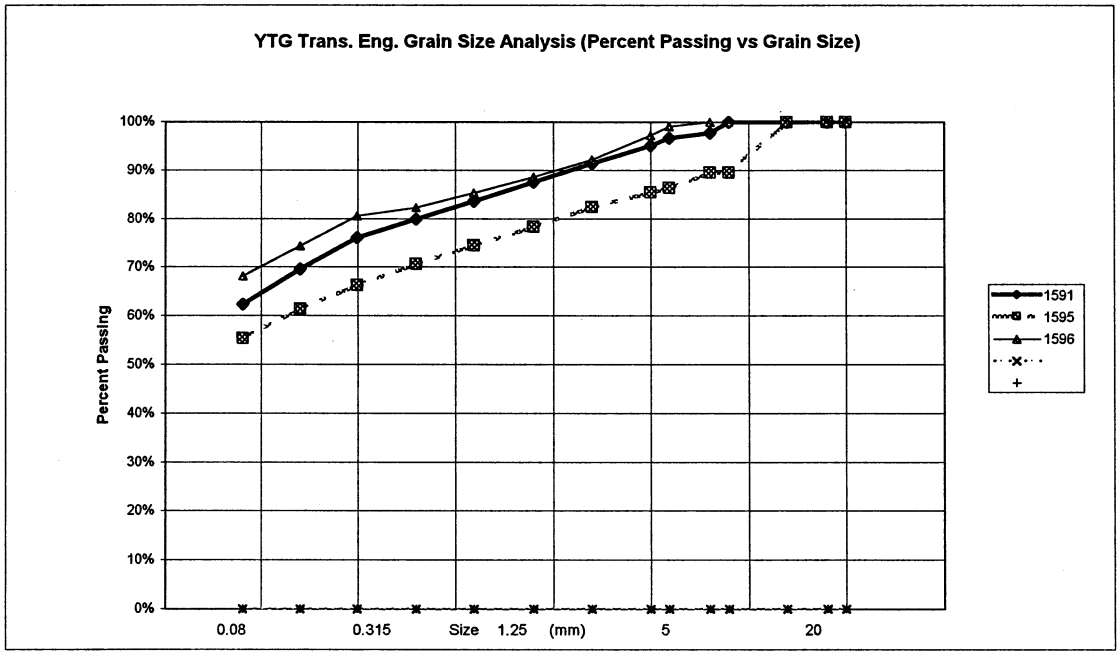


PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	569-1790
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1666+375 15M RT					DATE COM	2000/08/16
FIELD NO:	1591	FIELD No.	1592	FIELD No:	1593		
LAB NO:	2062	LAB No.	2063	LAB No:	2064		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	95%	25.0	100%		
20.0	100%	20.0	95%	20.0	100%		
12.5	96%	12.5	88%	12.5	95%		
10.0	96%	10.0	88%	10.0	94%		
5.0	91%	5.0	84%	5.0	89%		
2.5	88%	2.5	80%	2.5	85%		
1.25	85%	1.25	76%	1.25	81%		
0.630	82%	0.630	73%	0.630	77%		
0.315	78%	0.315	69%	0.315	75%		
0.160	73%	0.160	64%	0.160	68%		
0.080	69%	0.080	58%	0.080	62%		
M.C.(%):	21%	M.C.(%):	13%	M.C.(%):	13%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	9	% GRAVEL	16	% GRAVEL	11		
% SAND:	23	% SAND:	26	% SAND:	27		
% FINES:	69	% FINES:	58	% FINES:	62		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SANDY SILT (ML)		

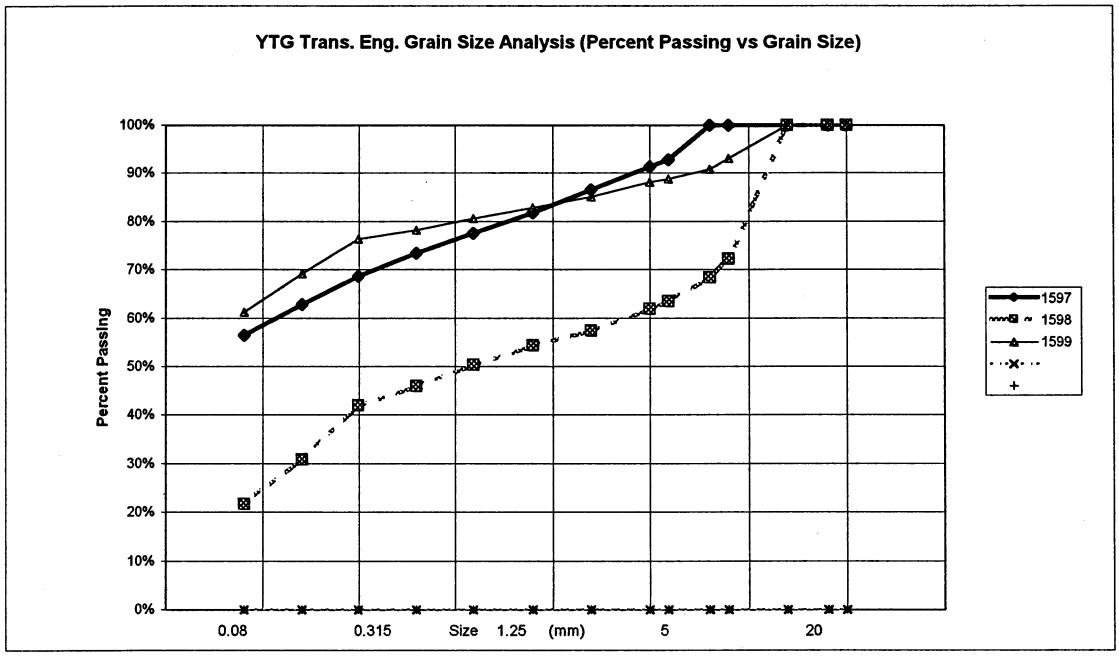


PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 569-1791
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H		
DRILL UNIT:	MOBILE B 40 L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1666+475 17M RT		DATE COM 2000/08/16

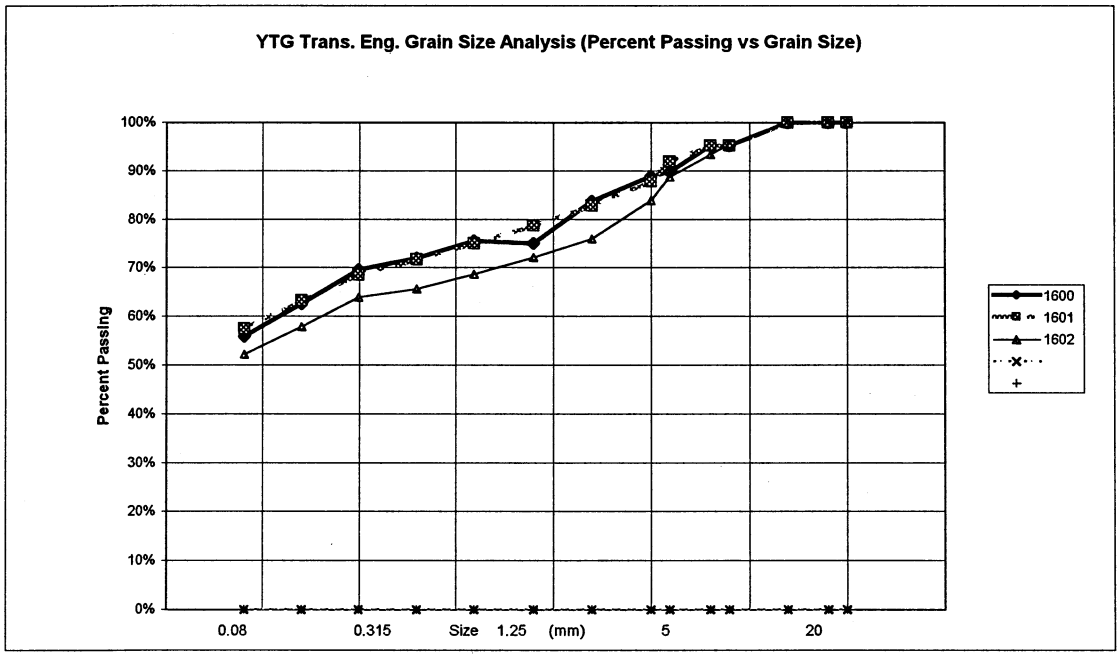
FIELD NO:	1591	FIELD No.	1595	FIELD No:	1596		
LAB NO:	2065	LAB No.	2066	LAB No:	2067		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	90%	25.0	100%		
20.0	98%	20.0	90%	20.0	100%		
12.5	97%	12.5	86%	12.5	99%		
10.0	95%	10.0	86%	10.0	97%		
5.0	91%	5.0	82%	5.0	92%		
2.5	88%	2.5	78%	2.5	89%		
1.25	84%	1.25	74%	1.25	85%		
0.630	80%	0.630	71%	0.630	82%		
0.315	76%	0.315	66%	0.315	81%		
0.160	70%	0.160	61%	0.160	74%		
0.080	62%	0.080	55%	0.080	68%		
M.C.(%):	14%	M.C.(%):	12%	M.C.(%):	13%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	9	% GRAVEL	18	% GRAVEL	8		
% SAND:	29	% SAND:	27	% SAND:	24		
% FINES:	62	% FINES:	55	% FINES:	68		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SANDY SILT (ML)		



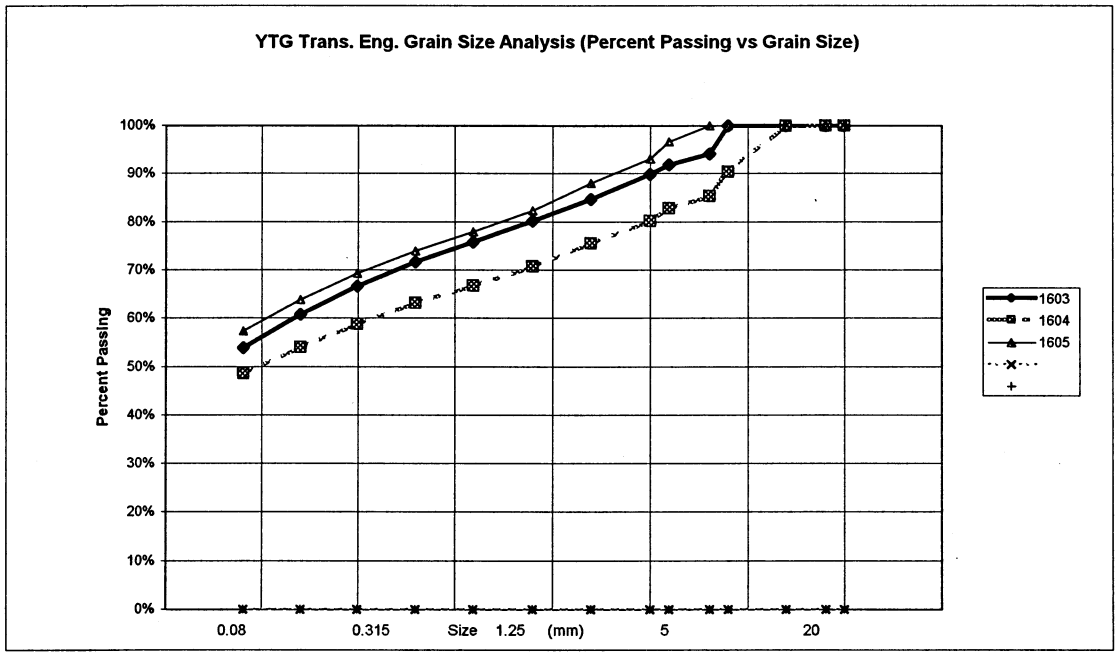
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	569-1792
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1666+575 13M RT					DATE COM	2000/08/16
FIELD NO:	1597	FIELD No.	1598	FIELD No:	1599		
LAB NO:	2068	LAB No.	2069	LAB No:	2070		
DEPTH:	1-3.1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	72%	25.0	93%		
20.0	100%	20.0	68%	20.0	91%		
12.5	93%	12.5	64%	12.5	89%		
10.0	91%	10.0	62%	10.0	88%		
5.0	87%	5.0	57%	5.0	85%		
2.5	82%	2.5	54%	2.5	83%		
1.25	78%	1.25	50%	1.25	81%		
0.630	73%	0.630	46%	0.630	78%		
0.315	69%	0.315	42%	0.315	76%		
0.160	63%	0.160	31%	0.160	69%		
0.080	56%	0.080	22%	0.080	61%		
M.C.(%):	11%	M.C.(%):	5%	M.C.(%):	10%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	13	% GRAVEL	43	% GRAVEL	15		
% SAND:	30	% SAND:	36	% SAND:	24		
% FINES:	56	% FINES:	22	% FINES:	61		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SANDY SILT (ML)		



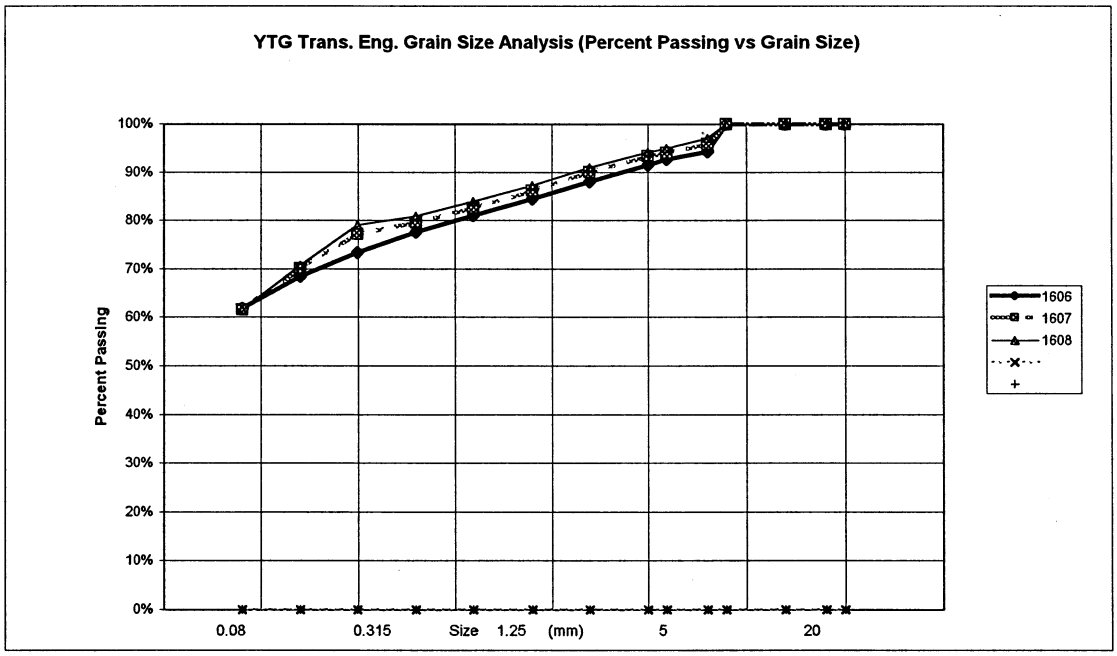
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	569-1793
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1666+675 12M RT					DATE COM	2000/08/16
FIELD NO:	1600	FIELD No.	1601	FIELD No:	1602		
LAB NO:	2071	LAB No.	2072	LAB No:	2073		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	95%	25.0	95%	25.0	96%		
20.0	95%	20.0	95%	20.0	93%		
12.5	90%	12.5	92%	12.5	89%		
10.0	89%	10.0	88%	10.0	84%		
5.0	84%	5.0	83%	5.0	76%		
2.5	75%	2.5	79%	2.5	72%		
1.25	76%	1.25	75%	1.25	69%		
0.630	72%	0.630	72%	0.630	66%		
0.315	70%	0.315	69%	0.315	64%		
0.160	63%	0.160	63%	0.160	58%		
0.080	56%	0.080	58%	0.080	52%		
M.C.(%):	11%	M.C.(%):	10%	M.C.(%):	10%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	16	% GRAVEL	17	% GRAVEL	24		
% SAND:	28	% SAND:	25	% SAND:	24		
% FINES:	56	% FINES:	58	% FINES:	52		
CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	GRAVELLY SILT WITH SAND (ML)		



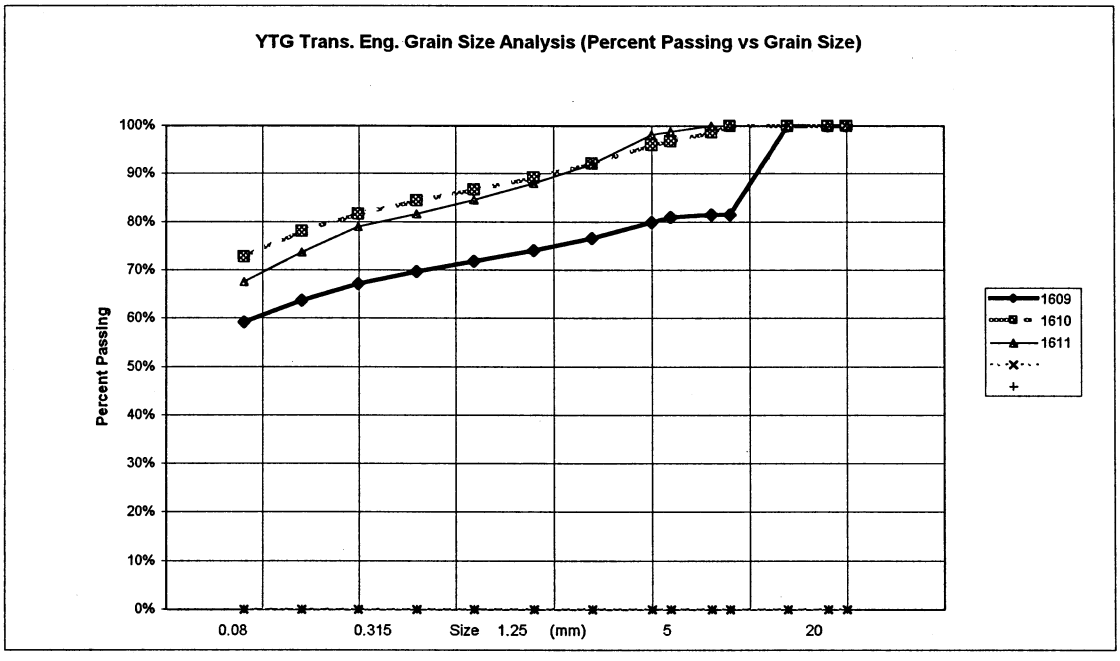
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	569-1794
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1666+775 12M RT					DATE COM	2000/08/16
FIELD NO:	1603	FIELD No.	1604	FIELD No:	1605		
LAB NO:	2074	LAB No.	2075	LAB No:	2076		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	90%	25.0	100%		
20.0	94%	20.0	85%	20.0	100%		
12.5	92%	12.5	83%	12.5	97%		
10.0	90%	10.0	80%	10.0	93%		
5.0	85%	5.0	76%	5.0	88%		
2.5	80%	2.5	71%	2.5	82%		
1.25	76%	1.25	67%	1.25	78%		
0.630	72%	0.630	63%	0.630	74%		
0.315	67%	0.315	59%	0.315	69%		
0.160	61%	0.160	54%	0.160	64%		
0.080	54%	0.080	49%	0.080	57%		
M.C.(%):	11%	M.C.(%):	10%	M.C.(%):	10%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	15	% GRAVEL	24	% GRAVEL	12		
% SAND:	31	% SAND:	27	% SAND:	31		
% FINES:	54	% FINES:	49	% FINES:	57		
CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SANDY SILT (ML)		



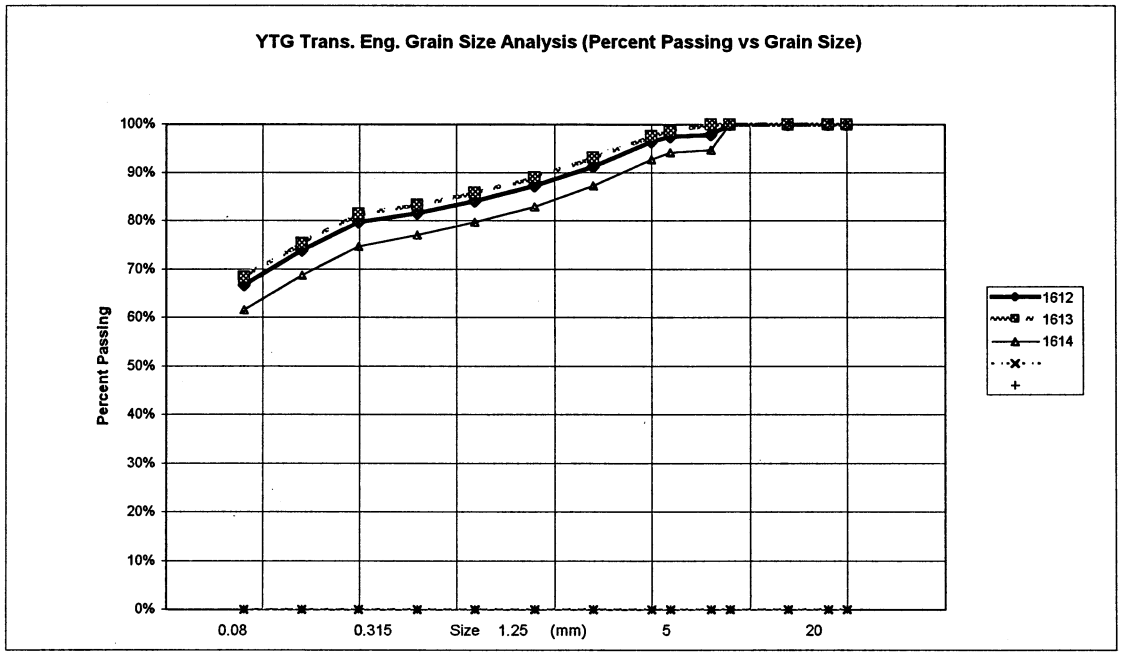
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	569-1795
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1666+875 12M RT					DATE COM	2000/08/16
FIELD NO:	1606	FIELD No.	1607	FIELD No:	1608		
LAB NO:	2077	LAB No.	2078	LAB No:	2079		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	94%	20.0	96%	20.0	97%		
12.5	93%	12.5	94%	12.5	95%		
10.0	92%	10.0	93%	10.0	94%		
5.0	88%	5.0	90%	5.0	91%		
2.5	84%	2.5	86%	2.5	87%		
1.25	81%	1.25	83%	1.25	84%		
0.630	78%	0.630	80%	0.630	81%		
0.315	73%	0.315	77%	0.315	79%		
0.160	68%	0.160	70%	0.160	71%		
0.080	62%	0.080	62%	0.080	62%		
M.C.(%):	13%	M.C.(%):	11%	M.C.(%):	11%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	12	% GRAVEL	10	% GRAVEL	9		
% SAND:	26	% SAND:	29	% SAND:	29		
% FINES:	62	% FINES:	62	% FINES:	62		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)		



PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	569-1796
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1666+975.8M RT					DATE COM	2000/08/16
FIELD NO:	1609	FIELD No.	1610	FIELD No:	1611		
LAB NO:	2080	LAB No.	2081	LAB No:	2082		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	82%	25.0	100%	25.0	100%		
20.0	82%	20.0	99%	20.0	100%		
12.5	81%	12.5	97%	12.5	99%		
10.0	80%	10.0	96%	10.0	98%		
5.0	77%	5.0	92%	5.0	92%		
2.5	74%	2.5	89%	2.5	88%		
1.25	72%	1.25	87%	1.25	85%		
0.630	70%	0.630	84%	0.630	82%		
0.315	67%	0.315	82%	0.315	79%		
0.160	64%	0.160	78%	0.160	74%		
0.080	59%	0.080	73%	0.080	68%		
M.C.(%):	11%	M.C.(%):	11%	M.C.(%):	10%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	23	% GRAVEL	8	% GRAVEL	8		
% SAND:	17	% SAND:	19	% SAND:	24		
% FINES:	59	% FINES:	73	% FINES:	68		
CLASSIFICATION:	GRAVELLY SILT WITH SAND (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT (ML)		

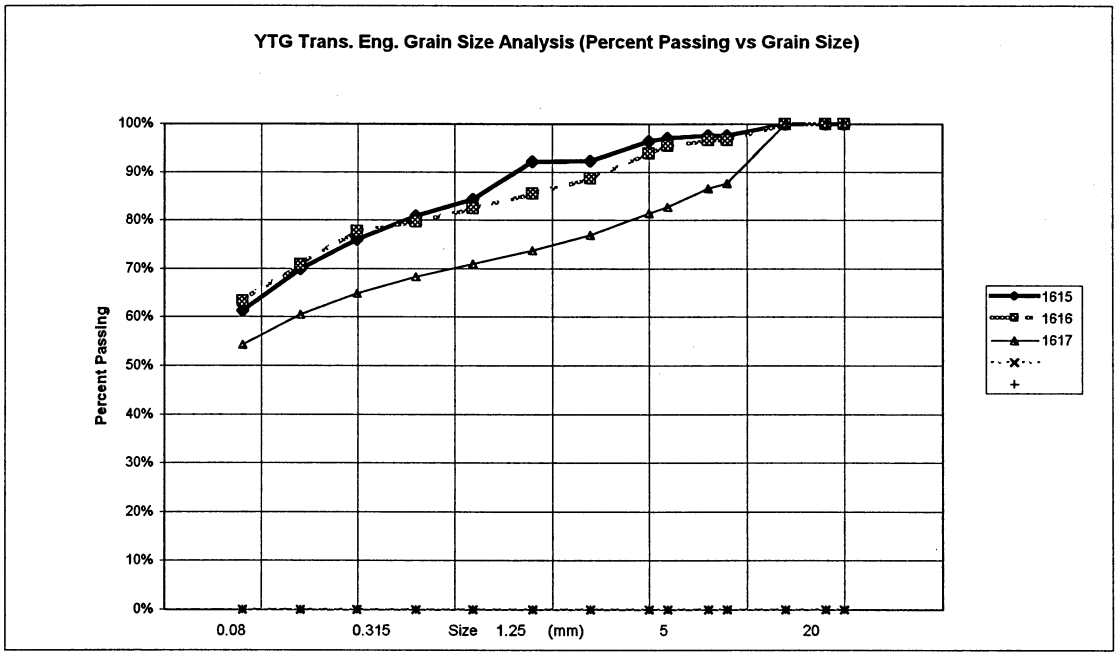


PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	569-1797
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1667+075 8M RT					DATE COM	2000/08/16
FIELD NO:	1612	FIELD No.	1613	FIELD No:	1614		
LAB NO:	2083	LAB No.	2084	LAB No:	2085		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	98%	20.0	100%	20.0	95%		
12.5	97%	12.5	99%	12.5	94%		
10.0	96%	10.0	98%	10.0	93%		
5.0	91%	5.0	93%	5.0	87%		
2.5	87%	2.5	89%	2.5	83%		
1.25	84%	1.25	86%	1.25	80%		
0.630	82%	0.630	83%	0.630	77%		
0.315	80%	0.315	81%	0.315	75%		
0.160	74%	0.160	75%	0.160	69%		
0.080	67%	0.080	68%	0.080	62%		
M.C.(%):	10%	M.C.(%):	9%	M.C.(%):	9%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	9	% GRAVEL	7	% GRAVEL	13		
% SAND:	24	% SAND:	25	% SAND:	26		
% FINES:	67	% FINES:	68	% FINES:	62		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)		



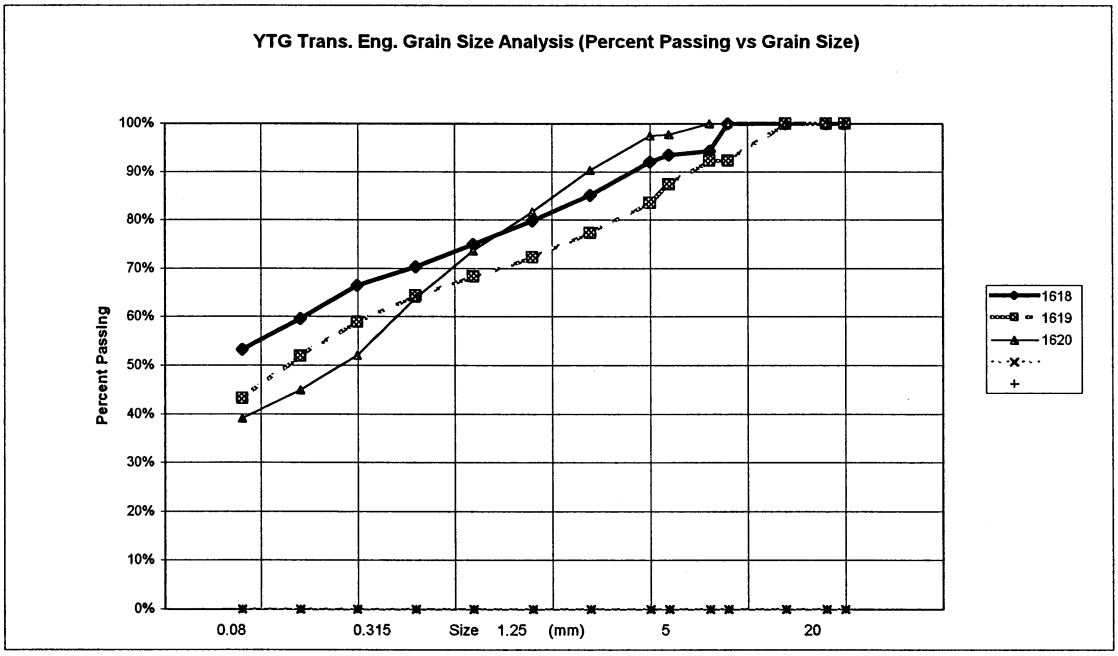
PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 569-1798
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H		
DRILL UNIT:	MOBILE B 40 L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1667+175 8M LT		DATE COM 2000/08/16

FIELD NO: 1615		FIELD No. 1616		FIELD No: 1617	
LAB NO: 2086		LAB No. 2087		LAB No: 2088	
DEPTH: 1.3-1.5		DEPTH 2.8-3.0		DEPTH: 4.3-4.5	
TYPE: AUGER		A AUGER		TYPE: AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	98%	25.0	97%	25.0	88%
20.0	98%	20.0	97%	20.0	87%
12.5	97%	12.5	95%	12.5	83%
10.0	96%	10.0	94%	10.0	82%
5.0	92%	5.0	89%	5.0	77%
2.5	92%	2.5	86%	2.5	74%
1.25	84%	1.25	83%	1.25	71%
0.630	81%	0.630	80%	0.630	68%
0.315	76%	0.315	78%	0.315	65%
0.160	70%	0.160	71%	0.160	61%
0.080	61%	0.080	63%	0.080	54%
M.C.(%):	11%	M.C.(%):	8%	M.C.(%):	9%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	8	% GRAVEL	11	% GRAVEL	23
% SAND:	31	% SAND:	25	% SAND:	23
% FINES:	61	% FINES:	63	% FINES:	54
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	GRAVELLY SILT WITH SAND (ML)

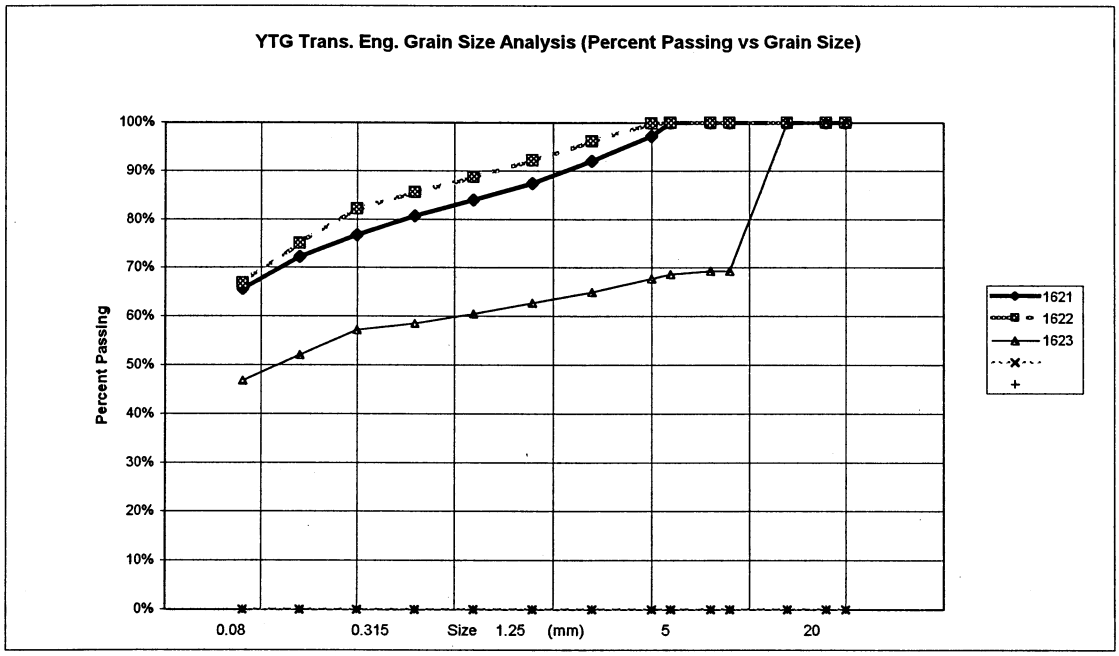


PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 569-1799
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H		
DRILL UNIT:	MOBILE B 40 L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1667+275 12M RT		DATE COM 2000/08/16

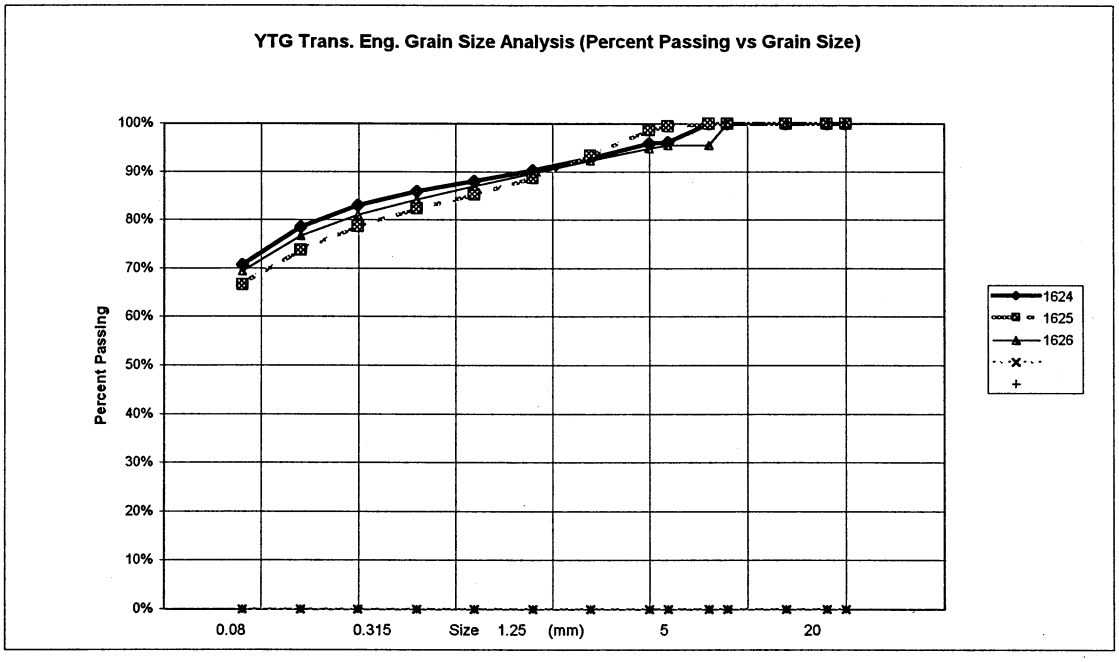
FIELD NO: 1618		FIELD No. 1619		FIELD No: 1620			
LAB NO: 2089		LAB No. 2090		LAB No: 2091			
DEPTH: 1.3-1.5		DEPTH 2.8-3.0		DEPTH: 4.3-4.5			
TYPE: AUGER		A AUGER		TYPE: AUGER			
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	92%	25.0	100%		
20.0	94%	20.0	92%	20.0	100%		
12.5	94%	12.5	87%	12.5	98%		
10.0	92%	10.0	84%	10.0	97%		
5.0	85%	5.0	77%	5.0	90%		
2.5	80%	2.5	72%	2.5	82%		
1.25	75%	1.25	68%	1.25	74%		
0.630	70%	0.630	64%	0.630	64%		
0.315	67%	0.315	59%	0.315	52%		
0.160	60%	0.160	52%	0.160	45%		
0.080	53%	0.080	43%	0.080	39%		
M.C.(%):	11%	M.C.(%):	9%	M.C.(%):	7%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	15	% GRAVEL	23	% GRAVEL	10		
% SAND:	32	% SAND:	34	% SAND:	51		
% FINES:	53	% FINES:	43	% FINES:	39		
CLASSIFICATION: SANDY SILT (ML)		CLASSIFICATION: SILTY SAND WITH GRAVEL (SM)		CLASSIFICATION: SILTY SAND (SM)			



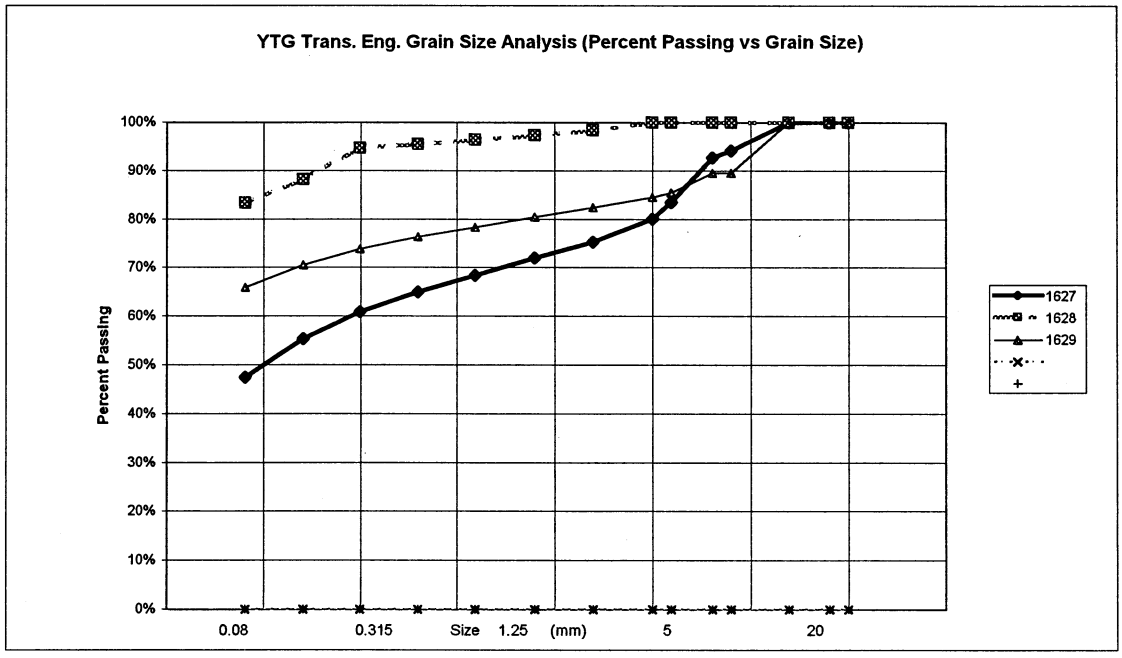
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	569-1800
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1667+350 17M RT					DATE COM	2000/08/16
FIELD NO:	1621	FIELD No.	1622	FIELD No:	1623		
LAB NO:	2092	LAB No.	2093	LAB No:	2094		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	69%		
20.0	100%	20.0	100%	20.0	69%		
12.5	100%	12.5	100%	12.5	69%		
10.0	97%	10.0	100%	10.0	68%		
5.0	92%	5.0	96%	5.0	65%		
2.5	88%	2.5	92%	2.5	63%		
1.25	84%	1.25	89%	1.25	61%		
0.630	81%	0.630	86%	0.630	59%		
0.315	77%	0.315	82%	0.315	57%		
0.160	72%	0.160	75%	0.160	52%		
0.080	66%	0.080	67%	0.080	47%		
M.C.(%):	12%	M.C.(%):	11%	M.C.(%):	8%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	8	% GRAVEL	4	% GRAVEL	35		
% SAND:	26	% SAND:	29	% SAND:	18		
% FINES:	66	% FINES:	67	% FINES:	47		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)		



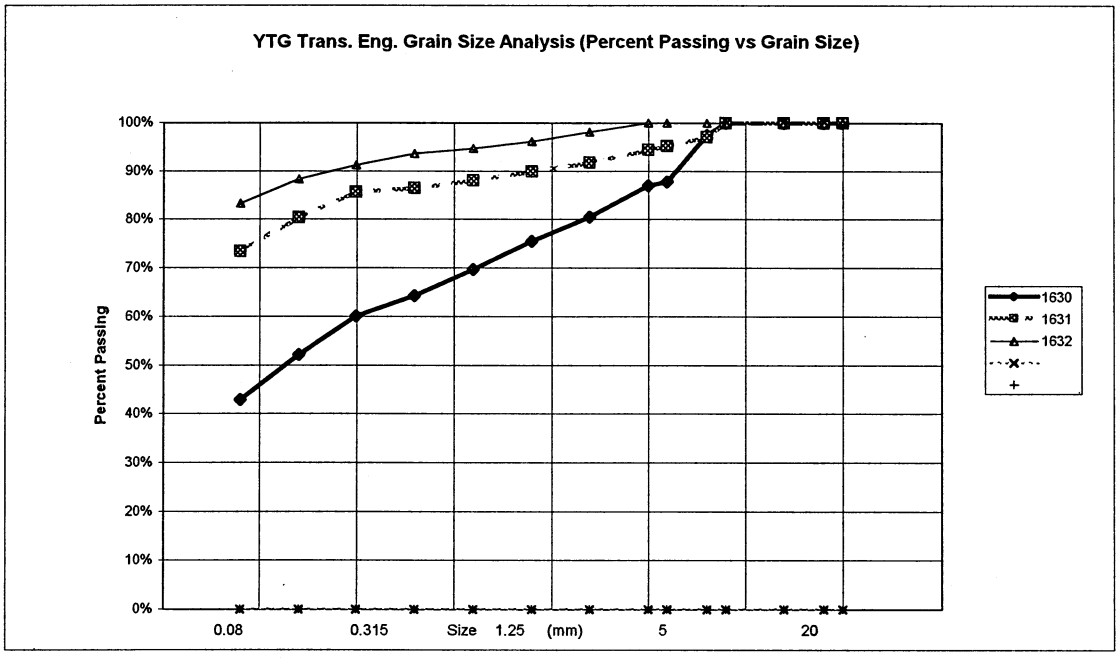
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	569-1801
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1667+450 8M RT					DATE COM	2000/08/16
FIELD NO:	1624	FIELD No.	1625	FIELD No:	1626		
LAB NO:	2095	LAB No.	2096	LAB No:	2097		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	100%	20.0	100%	20.0	96%		
12.5	96%	12.5	99%	12.5	96%		
10.0	96%	10.0	99%	10.0	95%		
5.0	93%	5.0	93%	5.0	92%		
2.5	90%	2.5	89%	2.5	90%		
1.25	88%	1.25	85%	1.25	87%		
0.630	86%	0.630	82%	0.630	84%		
0.315	83%	0.315	79%	0.315	81%		
0.160	79%	0.160	74%	0.160	77%		
0.080	71%	0.080	67%	0.080	69%		
M.C.(%):	11%	M.C.(%):	10%	M.C.(%):	10%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	7	% GRAVEL	7	% GRAVEL	8		
% SAND:	22	% SAND:	27	% SAND:	23		
% FINES:	71	% FINES:	67	% FINES:	69		
CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)		



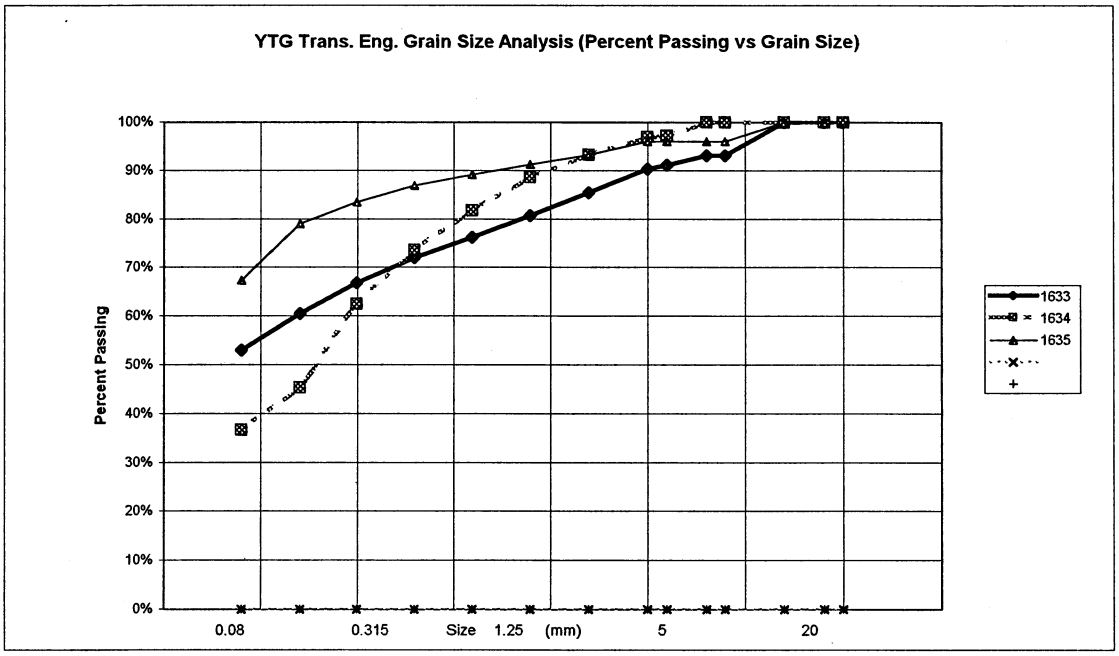
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	569-1802
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1667+550 12M RT					DATE COM	2000/08/16
FIELD NO:	1627	FIELD No.	1628	FIELD No:	1629		
LAB NO:	2098	LAB No.	2099	LAB No:	2100		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	94%	25.0	100%	25.0	90%		
20.0	93%	20.0	100%	20.0	90%		
12.5	84%	12.5	100%	12.5	85%		
10.0	80%	10.0	100%	10.0	85%		
5.0	75%	5.0	98%	5.0	82%		
2.5	72%	2.5	97%	2.5	80%		
1.25	68%	1.25	96%	1.25	78%		
0.630	65%	0.630	96%	0.630	76%		
0.315	61%	0.315	95%	0.315	74%		
0.160	55%	0.160	88%	0.160	71%		
0.080	48%	0.080	83%	0.080	66%		
M.C.(%):	10%	M.C.(%):	15%	M.C.(%):	10%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	25	% GRAVEL	2	% GRAVEL	18		
% SAND:	28	% SAND:	15	% SAND:	16		
% FINES:	48	% FINES:	83	% FINES:	66		
CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	GRAVELLY SILT WITH SAND (ML)		



PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	569-1803
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1667-650 12M RT					DATE COM	2000/08/16
FIELD NO:	1630	FIELD No.	1631	FIELD No:	1632		
LAB NO:	2101	LAB No.	2102	LAB No:	2103		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	98%	20.0	97%	20.0	100%		
12.5	88%	12.5	95%	12.5	100%		
10.0	87%	10.0	94%	10.0	100%		
5.0	81%	5.0	92%	5.0	98%		
2.5	76%	2.5	90%	2.5	96%		
1.25	70%	1.25	88%	1.25	95%		
0.630	64%	0.630	87%	0.630	94%		
0.315	60%	0.315	86%	0.315	91%		
0.160	52%	0.160	80%	0.160	88%		
0.080	43%	0.080	73%	0.080	83%		
M.C.(%):	9%	M.C.(%):	12%	M.C.(%):	13%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	19	% GRAVEL	8	% GRAVEL	2		
% SAND:	38	% SAND:	18	% SAND:	15		
% FINES:	43	% FINES:	73	% FINES:	83		
CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SILT WITH SAND (ML)		

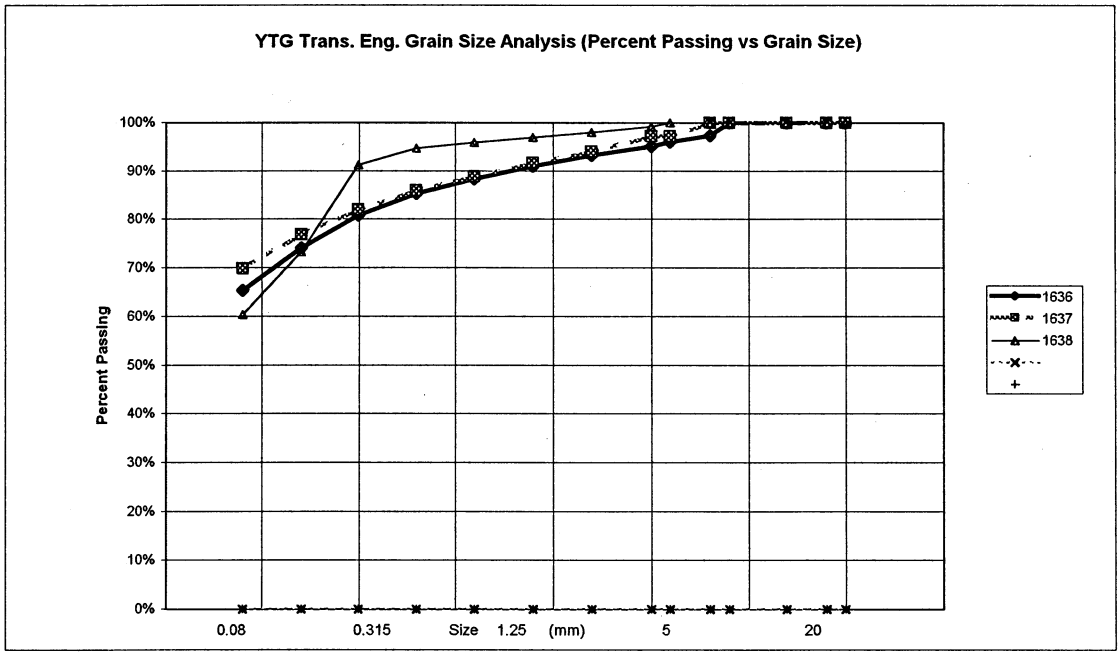


PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	569-1804
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1667+730 15M RT					DATE COM	2000/08/16
FIELD NO:	1633	FIELD No.	1634	FIELD No:	1635		
LAB NO:	2104	LAB No.	2105	LAB No:	2106		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:.	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	93%	25.0	100%	25.0	96%		
20.0	93%	20.0	100%	20.0	96%		
12.5	91%	12.5	97%	12.5	96%		
10.0	90%	10.0	97%	10.0	96%		
5.0	86%	5.0	93%	5.0	93%		
2.5	81%	2.5	89%	2.5	91%		
1.25	76%	1.25	82%	1.25	89%		
0.630	72%	0.630	74%	0.630	87%		
0.315	67%	0.315	63%	0.315	83%		
0.160	61%	0.160	45%	0.160	79%		
0.080	53%	0.080	37%	0.080	67%		
M.C.(%):	11%	M.C.(%):	8%	M.C.(%):	11%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	14	% GRAVEL	7	% GRAVEL	7		
% SAND:	32	% SAND:	57	% SAND:	26		
% FINES:	53	% FINES:	37	% FINES:	67		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILTY SAND (SM)	CLASSIFICATION:	SANDY SILT (ML)		



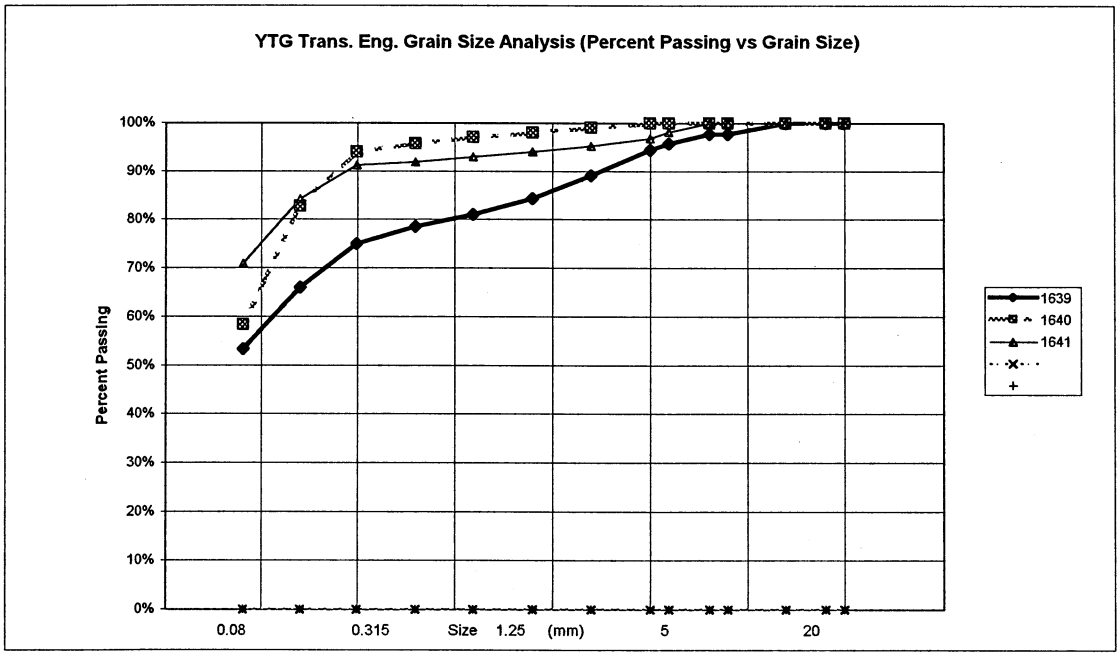
PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 569-1805
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H		
DRILL UNIT:	MOBILE B 40 L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1667+800 40M RT		DATE COM 2000/08/17

FIELD NO:	1636	FIELD No.	1637	FIELD No:	1638		
LAB NO:	2107	LAB No.	2108	LAB No:	21.9		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	97%	20.0	100%	20.0	100%		
12.5	96%	12.5	97%	12.5	100%		
10.0	95%	10.0	97%	10.0	99%		
5.0	93%	5.0	94%	5.0	98%		
2.5	91%	2.5	92%	2.5	97%		
1.25	88%	1.25	89%	1.25	96%		
0.630	85%	0.630	86%	0.630	95%		
0.315	81%	0.315	82%	0.315	91%		
0.160	74%	0.160	77%	0.160	73%		
0.080	65%	0.080	70%	0.080	60%		
M.C.(%):	11%	M.C.(%):	10%	M.C.(%):	9%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	7	% GRAVEL	6	% GRAVEL	2		
% SAND:	28	% SAND:	24	% SAND:	38		
% FINES:	65	% FINES:	70	% FINES:	60		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)		

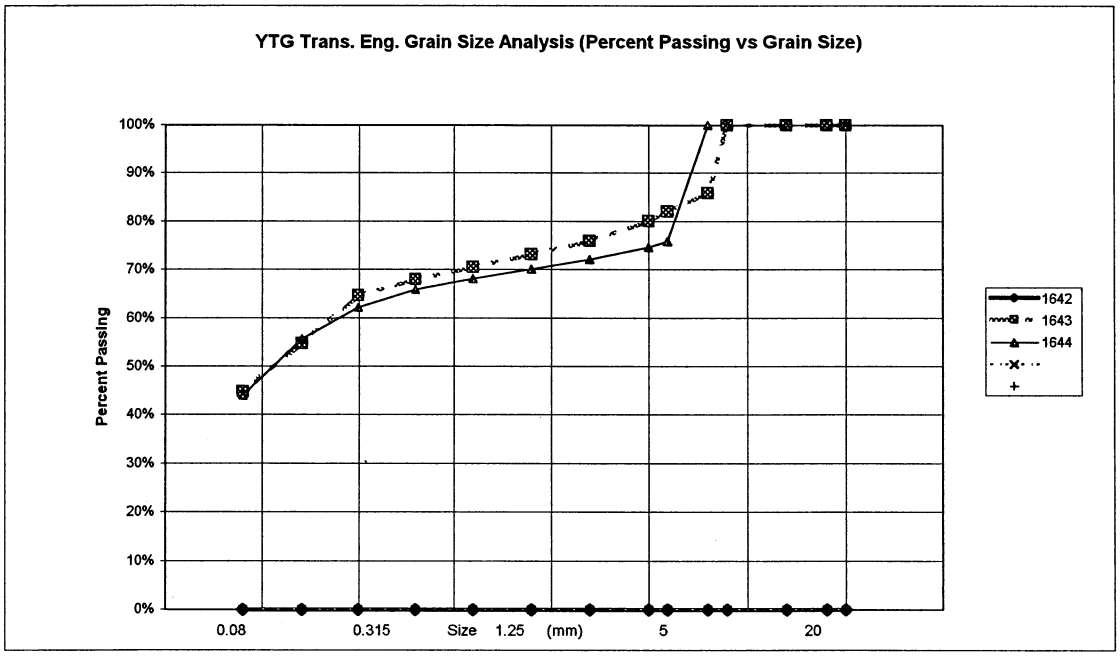


PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 569-1806
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H		
DRILL UNIT:	MOBILE B 40 L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1667+900 40M LT		DATE COM 2000/08/17

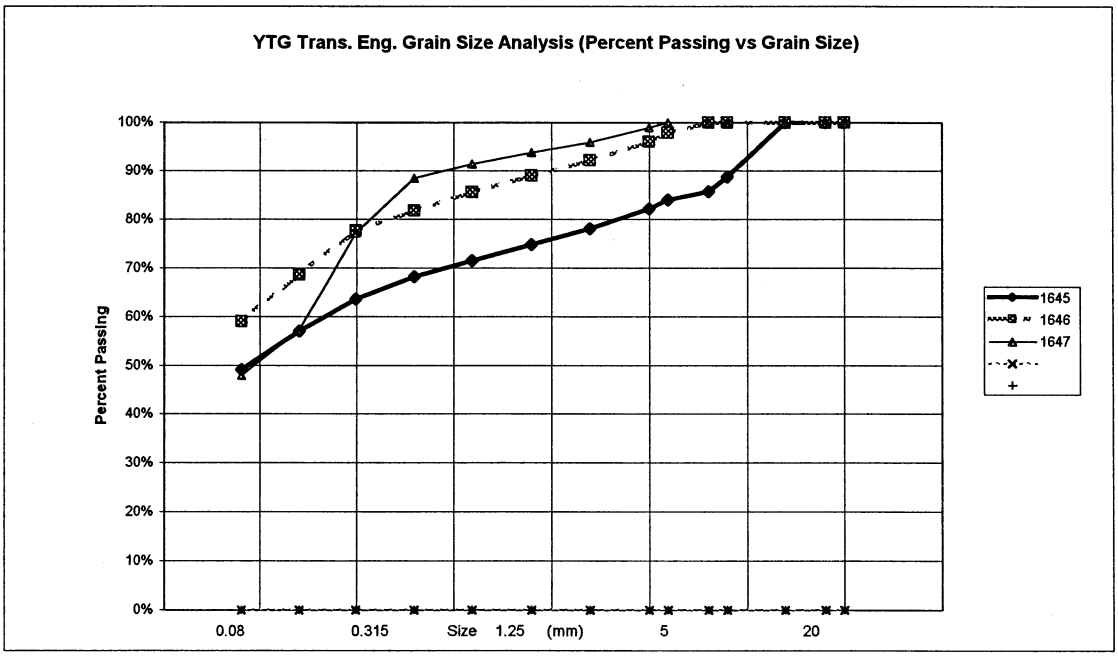
FIELD NO:	1639	FIELD No.	1640	FIELD No:	1641		
LAB NO:	2110	LAB No.	2111	LAB No:	2112		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	98%	25.0	100%	25.0	100%		
20.0	98%	20.0	100%	20.0	100%		
12.5	96%	12.5	100%	12.5	98%		
10.0	94%	10.0	100%	10.0	97%		
5.0	89%	5.0	99%	5.0	95%		
2.5	84%	2.5	98%	2.5	94%		
1.25	81%	1.25	97%	1.25	93%		
0.630	79%	0.630	96%	0.630	92%		
0.315	75%	0.315	94%	0.315	91%		
0.160	66%	0.160	83%	0.160	84%		
0.080	53%	0.080	58%	0.080	71%		
M.C.(%):	11%	M.C.(%):	11%	M.C.(%):	12%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	11	% GRAVEL	1	% GRAVEL	5		
% SAND:	36	% SAND:	41	% SAND:	24		
% FINES:	53	% FINES:	58	% FINES:	71		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)		



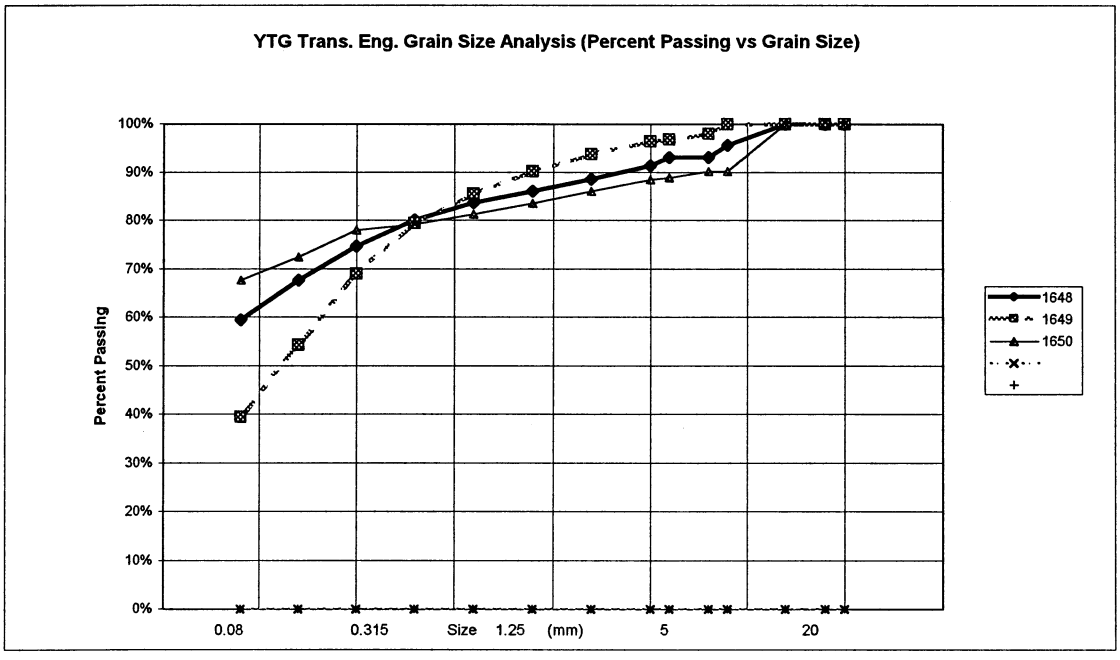
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	569-1807
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1668+000 40M LT					DATE COM	2000/08/17
FIELD NO:	1642	FIELD No.	1643	FIELD No:	1644		
LAB NO:	LOST	LAB No.	2114	LAB No:	2115		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	0%	100.0	100%	100.0	100%		
80.0	0%	80.0	100%	80.0	100%		
50.0	0%	50.0	100%	50.0	100%		
25.0	0%	25.0	100%	25.0	100%		
20.0	0%	20.0	86%	20.0	100%		
12.5	0%	12.5	82%	12.5	76%		
10.0	0%	10.0	80%	10.0	75%		
5.0	0%	5.0	76%	5.0	72%		
2.5	0%	2.5	73%	2.5	70%		
1.25	0%	1.25	71%	1.25	68%		
0.630	0%	0.630	68%	0.630	66%		
0.315	0%	0.315	65%	0.315	62%		
0.160	0%	0.160	55%	0.160	56%		
0.080	0%	0.080	45%	0.080	44%		
M.C.(%):	11%	M.C.(%):	7%	M.C.(%):	8%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	100	% GRAVEL	24	% GRAVEL	28		
% SAND:	0	% SAND:	31	% SAND:	28		
% FINES:	0	% FINES:	45	% FINES:	44		
CLASSIFICATION:	#DIV/0!	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)		



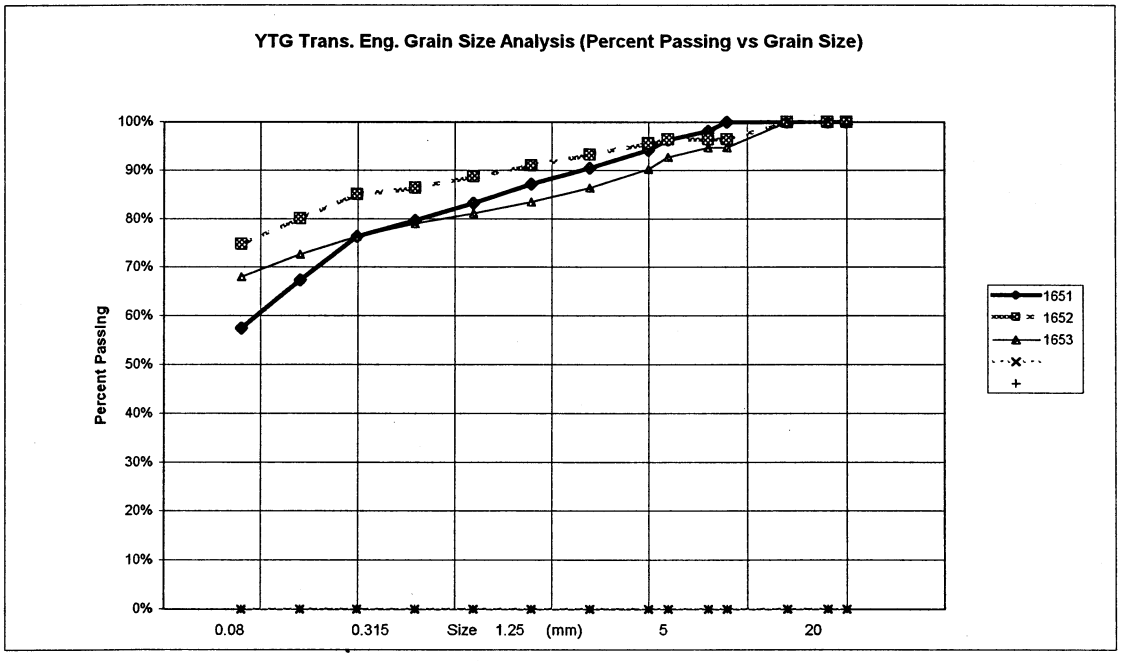
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	569-1808
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1668+100 40M LT					DATE COM	2000/08/17
FIELD NO:	1645	FIELD No.	1646	FIELD No:	1647		
LAB NO:	2116	LAB No.	2117	LAB No:	2118		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	89%	25.0	100%	25.0	100%		
20.0	86%	20.0	100%	20.0	100%		
12.5	84%	12.5	98%	12.5	100%		
10.0	82%	10.0	96%	10.0	99%		
5.0	78%	5.0	92%	5.0	96%		
2.5	75%	2.5	89%	2.5	94%		
1.25	72%	1.25	86%	1.25	91%		
0.630	68%	0.630	82%	0.630	89%		
0.315	64%	0.315	78%	0.315	77%		
0.160	57%	0.160	69%	0.160	57%		
0.080	49%	0.080	59%	0.080	48%		
M.C.(%):	11%	M.C.(%):	11%	M.C.(%):	9%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	22	% GRAVEL	8	% GRAVEL	4		
% SAND:	29	% SAND:	33	% SAND:	48		
% FINES:	49	% FINES:	59	% FINES:	48		
CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILTY SAND (SM)		



PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	569-1809
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1668+200 40M LT					DATE COM	2000/08/17
FIELD NO:	1648	FIELD No.	1649	FIELD No:	1650		
LAB NO:	2119	LAB No.	2120	LAB No:	2121		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	96%	25.0	100%	25.0	90%		
20.0	93%	20.0	98%	20.0	90%		
12.5	93%	12.5	97%	12.5	89%		
10.0	91%	10.0	96%	10.0	88%		
5.0	89%	5.0	94%	5.0	86%		
2.5	86%	2.5	90%	2.5	84%		
1.25	84%	1.25	86%	1.25	81%		
0.630	80%	0.630	79%	0.630	79%		
0.315	75%	0.315	69%	0.315	78%		
0.160	68%	0.160	54%	0.160	72%		
0.080	59%	0.080	39%	0.080	68%		
M.C.(%):	13%	M.C.(%):	7%	M.C.(%):	11%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	11	% GRAVEL	6	% GRAVEL	14		
% SAND:	29	% SAND:	54	% SAND:	18		
% FINES:	59	% FINES:	39	% FINES:	68		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILTY SAND (SM)	CLASSIFICATION:	SANDY SILT (ML)		

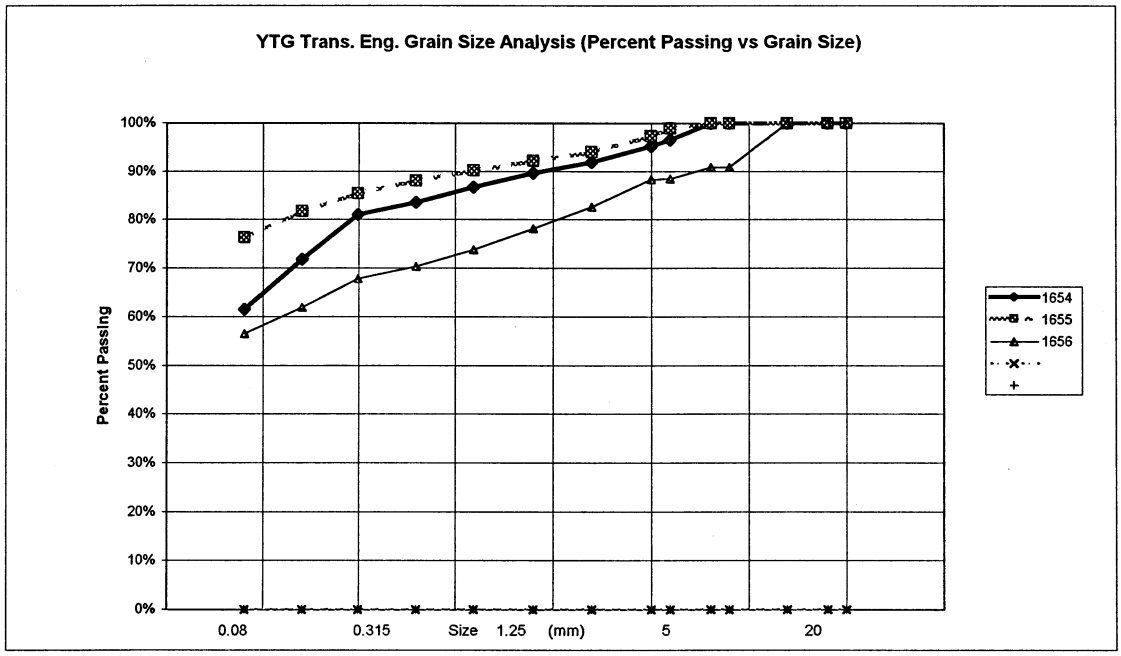


PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	569-1810
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1668+300 40M LT					DATE COM	2000/08/17
FIELD NO:	1651	FIELD No.	1652	FIELD No:	1653		
LAB NO:	2122	LAB No.	2321	LAB No:	2124		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	96%	25.0	95%		
20.0	98%	20.0	96%	20.0	95%		
12.5	96%	12.5	96%	12.5	93%		
10.0	94%	10.0	96%	10.0	90%		
5.0	90%	5.0	93%	5.0	86%		
2.5	87%	2.5	91%	2.5	83%		
1.25	83%	1.25	89%	1.25	81%		
0.630	80%	0.630	86%	0.630	79%		
0.315	76%	0.315	85%	0.315	76%		
0.160	67%	0.160	80%	0.160	73%		
0.080	58%	0.080	75%	0.080	68%		
M.C.(%):	13%	M.C.(%):	13%	M.C.(%):	10%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	10	% GRAVEL	7	% GRAVEL	14		
% SAND:	33	% SAND:	18	% SAND:	18		
% FINES:	58	% FINES:	75	% FINES:	68		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT (ML)		

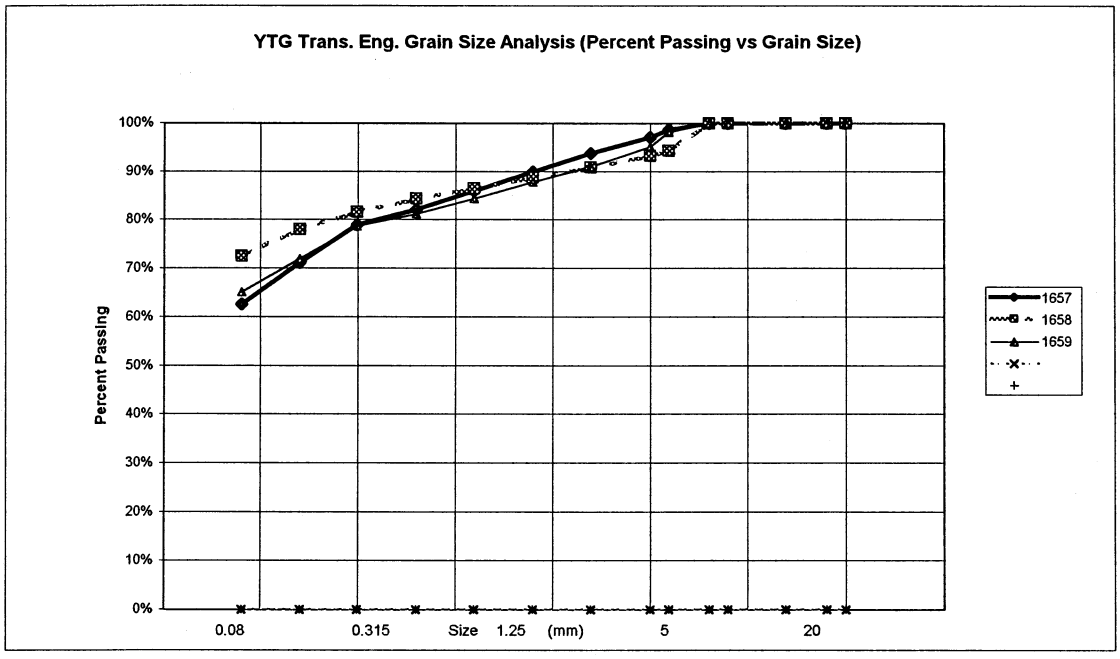


PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 569-1811
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H		
DRILL UNIT:	MOBILE B 40 L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1668+400 40M LT		DATE COM 2000/08/17

FIELD NO: 1654		FIELD No. 1655		FIELD No: 1656	
LAB NO: 2125		LAB No. 2126		LAB No: 2127	
DEPTH: 1.3-1.5		DEPTH 2.8-3.0		DEPTH: 4.3-4.5	
TYPE: AUGER		A AUGER		TYPE: AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	100%	25.0	100%	25.0	91%
20.0	100%	20.0	100%	20.0	91%
12.5	97%	12.5	99%	12.5	89%
10.0	95%	10.0	97%	10.0	88%
5.0	92%	5.0	94%	5.0	83%
2.5	90%	2.5	92%	2.5	78%
1.25	87%	1.25	90%	1.25	74%
0.630	84%	0.630	88%	0.630	70%
0.315	81%	0.315	86%	0.315	68%
0.160	72%	0.160	82%	0.160	62%
0.080	62%	0.080	76%	0.080	57%
M.C.(%):	13%	M.C.(%):	13%	M.C.(%):	8%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	8	% GRAVEL	6	% GRAVEL	17
% SAND:	30	% SAND:	18	% SAND:	26
% FINES:	62	% FINES:	76	% FINES:	57
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)

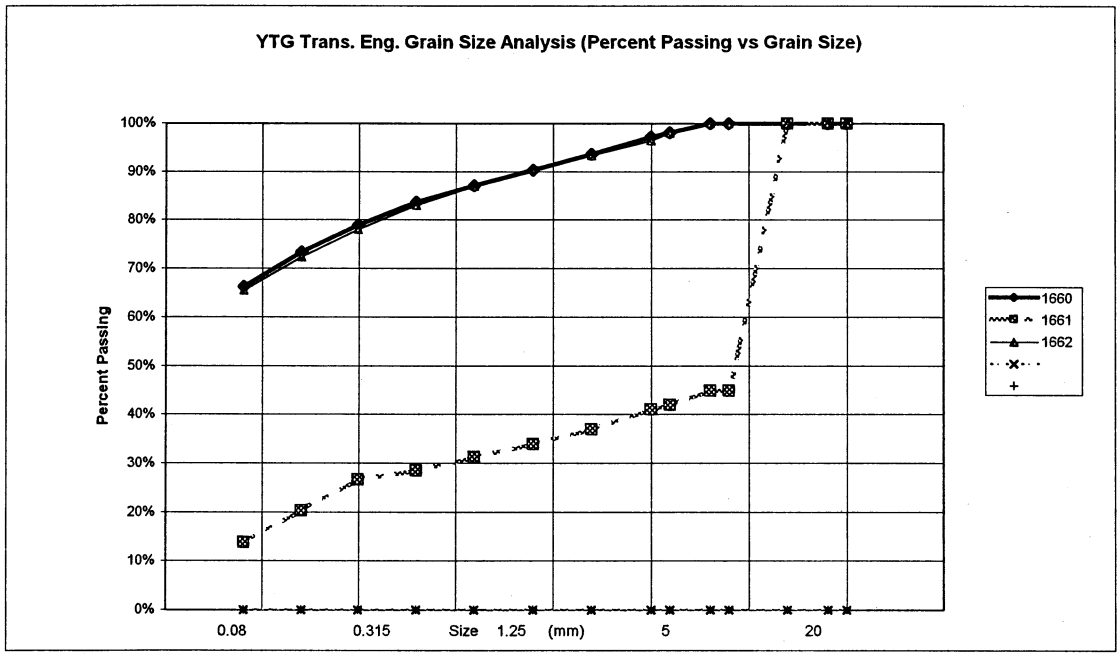


PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	569-1812
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1668+500 40M LT					DATE COM	1905/10/28
FIELD NO:	1657	FIELD No.	1658	FIELD No:	1659		
LAB NO:	2128	LAB No.	2129	LAB No:	2130		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	100%	20.0	100%	20.0	100%		
12.5	99%	12.5	94%	12.5	98%		
10.0	97%	10.0	93%	10.0	95%		
5.0	94%	5.0	91%	5.0	91%		
2.5	90%	2.5	89%	2.5	88%		
1.25	86%	1.25	87%	1.25	84%		
0.630	82%	0.630	84%	0.630	81%		
0.315	79%	0.315	82%	0.315	79%		
0.160	71%	0.160	78%	0.160	72%		
0.080	63%	0.080	72%	0.080	65%		
M.C.(%):	14%	M.C.(%):	13%	M.C.(%):	9%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	6	% GRAVEL	9	% GRAVEL	9		
% SAND:	31	% SAND:	18	% SAND:	26		
% FINES:	63	% FINES:	72	% FINES:	65		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT (ML)		

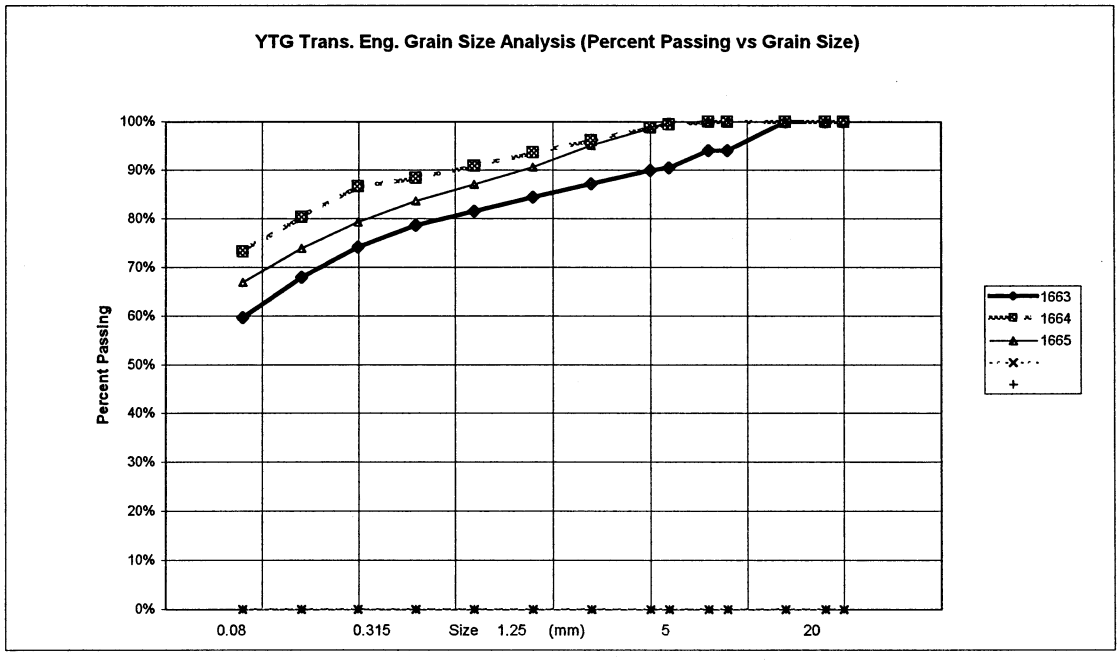


PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 569-1813
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM 1664.5 - 1692.6 A/H		
DRILL UNIT:	MOBILE B 40 L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1668+600 20M LT		DATE COM 2000/08/17

FIELD NO:	1660	FIELD No.	1661	FIELD No:	1662		
LAB NO:	2131	LAB No.	2132	LAB No:	2133		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	45%	25.0	100%		
20.0	100%	20.0	45%	20.0	100%		
12.5	98%	12.5	42%	12.5	98%		
10.0	97%	10.0	41%	10.0	96%		
5.0	94%	5.0	37%	5.0	93%		
2.5	90%	2.5	34%	2.5	91%		
1.25	87%	1.25	31%	1.25	87%		
0.630	84%	0.630	29%	0.630	83%		
0.315	79%	0.315	27%	0.315	78%		
0.160	73%	0.160	20%	0.160	72%		
0.080	66%	0.080	14%	0.080	66%		
M.C.(%):	12%	M.C.(%):	11%	M.C.(%):	11%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	6	% GRAVEL	63	% GRAVEL	7		
% SAND:	27	% SAND:	23	% SAND:	28		
% FINES:	66	% FINES:	14	% FINES:	66		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SANDY SILT (ML)		

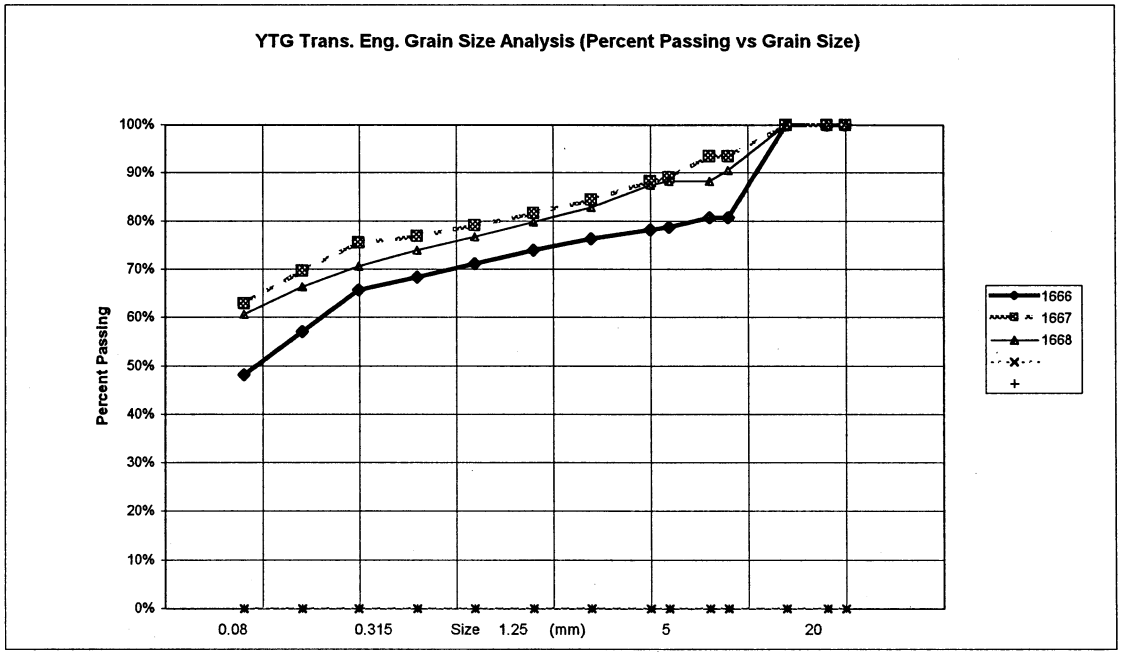


PROJECT NUMBER:	092-202002-0104					HOLE No.:	570-1814
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5-1692.6 ALASKA HWY						
DRILL UNIT:	MOBILE B40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1668+700 40M LT					DATE COM	2000/08/17
FIELD NO:	1663	FIELD No.	1664	FIELD No:	1665		
LAB NO:	2134	LAB No.	2135	LAB No:	2136		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	TYPE	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	94%	25.0	100%	25.0	100%		
20.0	94%	20.0	100%	20.0	100%		
12.5	91%	12.5	99%	12.5	100%		
10.0	90%	10.0	99%	10.0	99%		
5.0	87%	5.0	96%	5.0	95%		
2.5	85%	2.5	94%	2.5	91%		
1.25	82%	1.25	91%	1.25	87%		
0.630	79%	0.630	88%	0.630	84%		
0.315	74%	0.315	87%	0.315	79%		
0.160	68%	0.160	80%	0.160	74%		
0.080	60%	0.080	73%	0.080	67%		
M.C.(%):	13%	M.C.(%):	13%	M.C.(%):	10%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	13	% GRAVEL	4	% GRAVEL	5		
% SAND:	28	% SAND:	23	% SAND:	28		
% FINES:	60	% FINES:	73	% FINES:	67		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT (ML)		



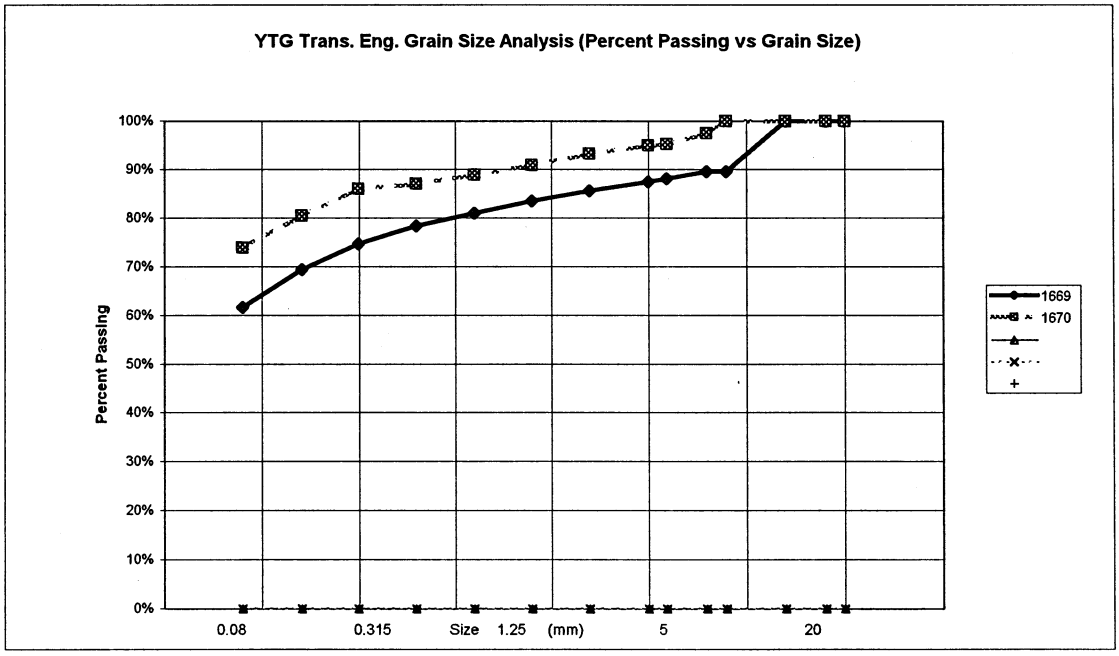
PROJECT NUMBER:	092-202002-0104					HOLE No.:	570-1815
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5-1692.6 ALASKA HWY						
DRILL UNIT:	MOBILE B40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	168+800 40M LT					DATE COM	2000/08/17

FIELD NO:	1666	FIELD No.	1667	FIELD No:	1668		
LAB NO:	2137	LAB No.	2138	LAB No:	2139		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	TYPE	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	81%	25.0	93%	25.0	91%		
20.0	81%	20.0	93%	20.0	88%		
12.5	79%	12.5	89%	12.5	88%		
10.0	78%	10.0	88%	10.0	88%		
5.0	76%	5.0	84%	5.0	83%		
2.5	74%	2.5	82%	2.5	80%		
1.25	71%	1.25	79%	1.25	77%		
0.630	68%	0.630	77%	0.630	74%		
0.315	66%	0.315	76%	0.315	71%		
0.160	57%	0.160	70%	0.160	66%		
0.080	48%	0.080	63%	0.080	61%		
M.C.(%):	11%	M.C.(%):	10%	M.C.(%):	10%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	24	% GRAVEL	16	% GRAVEL	17		
% SAND:	28	% SAND:	22	% SAND:	22		
% FINES:	48	% FINES:	63	% FINES:	61		
CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)		



PROJECT NUMBER:	092-202002-0104		HOLE No.: 570-1816
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM 1664.5-1692.6 ALASKA HWY		
DRILL UNIT:	MOBILE B40 L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1668+900 40M LT		DATE COM 2000/08/17

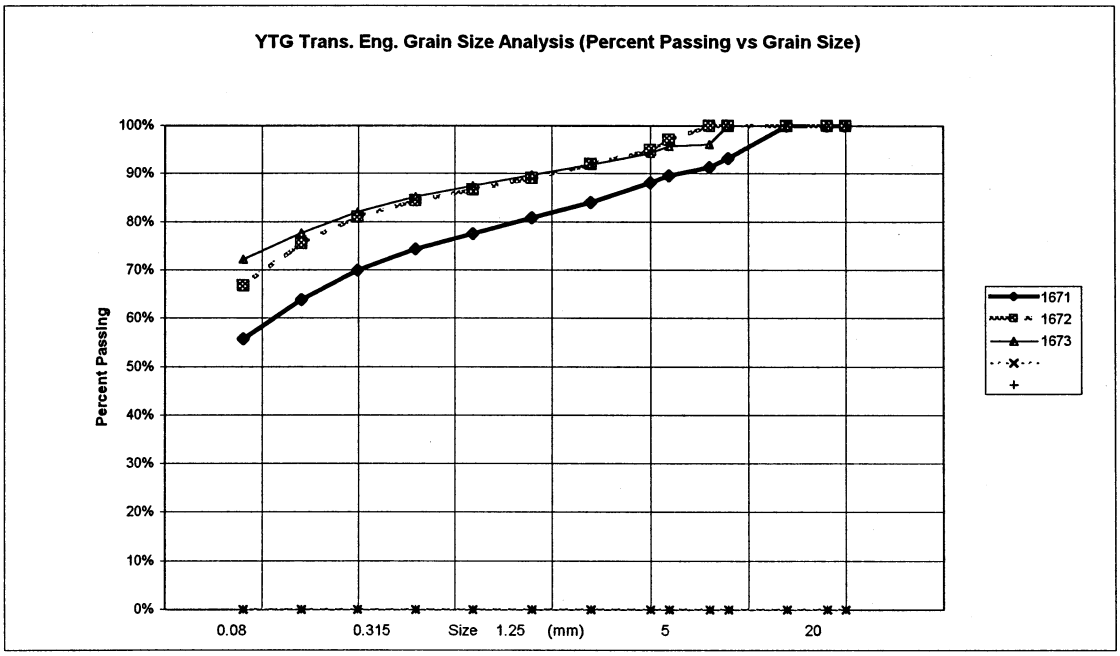
FIELD NO: 1669		FIELD No. 1670	
LAB NO:	2140	LAB No.	2141
DEPTH:	2.0-2.2	DEPTH	4.3-4.5
TYPE:	AUGER	TYPE	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	90%	25.0	100%
20.0	90%	20.0	97%
12.5	88%	12.5	95%
10.0	87%	10.0	95%
5.0	86%	5.0	93%
2.5	83%	2.5	91%
1.25	81%	1.25	89%
0.630	78%	0.630	87%
0.315	75%	0.315	86%
0.160	69%	0.160	80%
0.080	62%	0.080	74%
M.C.(%):	12%	M.C.(%):	10%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	14	% GRAVEL	7
% SAND:	24	% SAND:	19
% FINES:	62	% FINES:	74
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)



PROJECT NUMBER:	092-202002-0104		HOLE No.: 570-1817
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM 1664.5-1692.6 ALASKA HWY		
DRILL UNIT:	MOBILE B40 L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1669+000 40M LT		DATE COM 2000/08/17

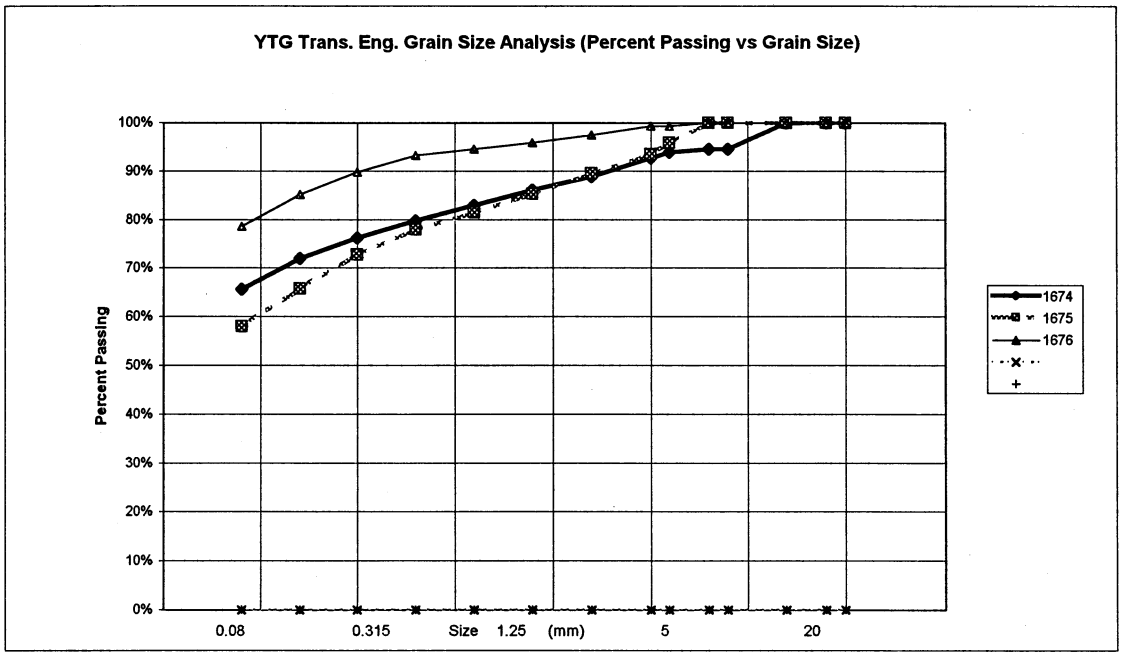
FIELD NO:	1671	FIELD No.	1672	FIELD No:	1673
LAB NO:	2142	LAB No.	2143	LAB No:	21444
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5
TYPE:	AUGER	TYPE	AUGER	TYPE:	AUGER

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	93%	25.0	100%	25.0	100%
20.0	91%	20.0	100%	20.0	96%
12.5	90%	12.5	97%	12.5	96%
10.0	88%	10.0	95%	10.0	94%
5.0	84%	5.0	92%	5.0	92%
2.5	81%	2.5	89%	2.5	90%
1.25	78%	1.25	87%	1.25	88%
0.630	74%	0.630	84%	0.630	85%
0.315	70%	0.315	81%	0.315	82%
0.160	64%	0.160	76%	0.160	78%
0.080	56%	0.080	67%	0.080	72%
M.C.(%):	11%	M.C.(%):	8%	M.C.(%):	12%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	16	% GRAVEL	8	% GRAVEL	8
% SAND:	28	% SAND:	25	% SAND:	20
% FINES:	56	% FINES:	67	% FINES:	72
CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)

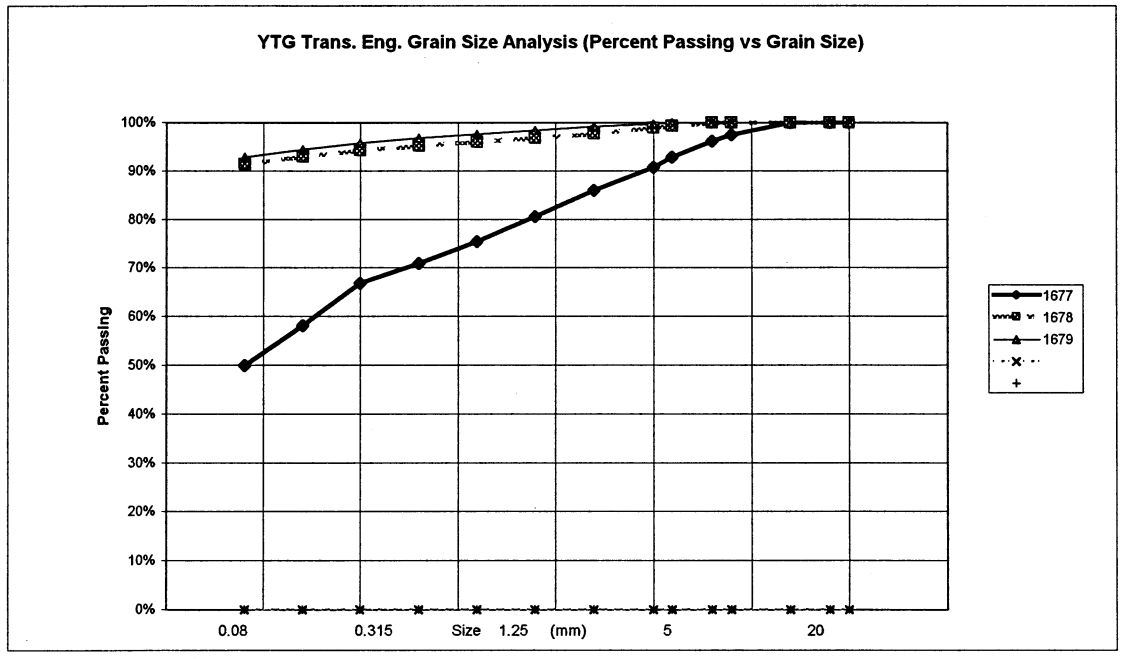


PROJECT NUMBER:	092-202002-0104					HOLE No.:	570-1818
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5-1692.6 ALASKA HWY						
DRILL UNIT:	MOBILE B40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1669+100 40M LT					DATE COM	2000/08/17

FIELD NO:	1674	FIELD No.	1675	FIELD No:	1676		
LAB NO:	2145	LAB No.	2146	LAB No:	2147		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	TYPE	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	95%	25.0	100%	25.0	100%		
20.0	95%	20.0	100%	20.0	100%		
12.5	94%	12.5	96%	12.5	99%		
10.0	93%	10.0	94%	10.0	99%		
5.0	89%	5.0	90%	5.0	97%		
2.5	86%	2.5	85%	2.5	96%		
1.25	83%	1.25	82%	1.25	95%		
0.630	80%	0.630	78%	0.630	93%		
0.315	76%	0.315	73%	0.315	90%		
0.160	72%	0.160	66%	0.160	85%		
0.080	66%	0.080	58%	0.080	79%		
M.C.(%):	12%	M.C.(%):	9%	M.C.(%):	10%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	11	% GRAVEL	10	% GRAVEL	3		
% SAND:	23	% SAND:	32	% SAND:	19		
% FINES:	66	% FINES:	58	% FINES:	79		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)		

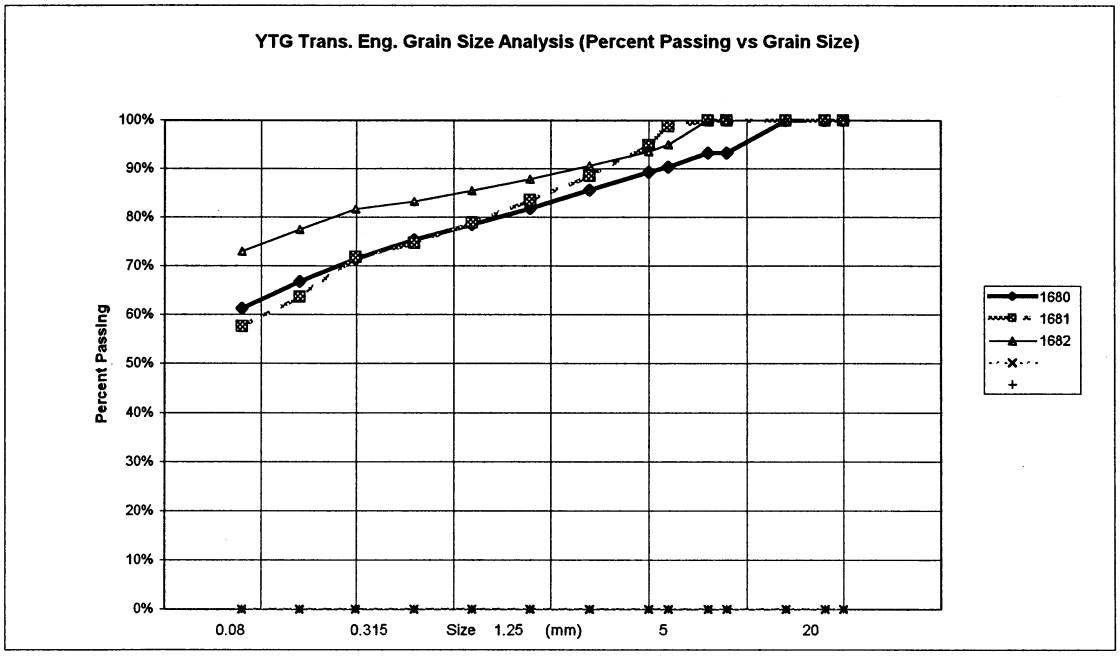


PROJECT NUMBER:	092-202002-0104					HOLE No.:	570-1819
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5-1692.6 ALASKA HWY						
DRILL UNIT:	MOBILE B40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1669+175 20M LT					DATE COM	2000/08/17
FIELD NO:	1677	FIELD No.	1678	FIELD No:	1679		
LAB NO:	2148	LAB No.	2149	LAB No:	2150		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	TYPE	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	97%	25.0	100%	25.0	100%		
20.0	96%	20.0	100%	20.0	100%		
12.5	93%	12.5	99%	12.5	100%		
10.0	91%	10.0	99%	10.0	100%		
5.0	86%	5.0	98%	5.0	99%		
2.5	81%	2.5	97%	2.5	98%		
1.25	75%	1.25	96%	1.25	98%		
0.630	71%	0.630	95%	0.630	97%		
0.315	67%	0.315	94%	0.315	96%		
0.160	58%	0.160	93%	0.160	94%		
0.080	50%	0.080	91%	0.080	93%		
M.C.(%):	17%	M.C.(%):	17%	M.C.(%):	17%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	14	% GRAVEL	2	% GRAVEL	1		
% SAND:	36	% SAND:	6	% SAND:	6		
% FINES:	50	% FINES:	91	% FINES:	93		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILT (ML)	CLASSIFICATION:	SILT (ML)		

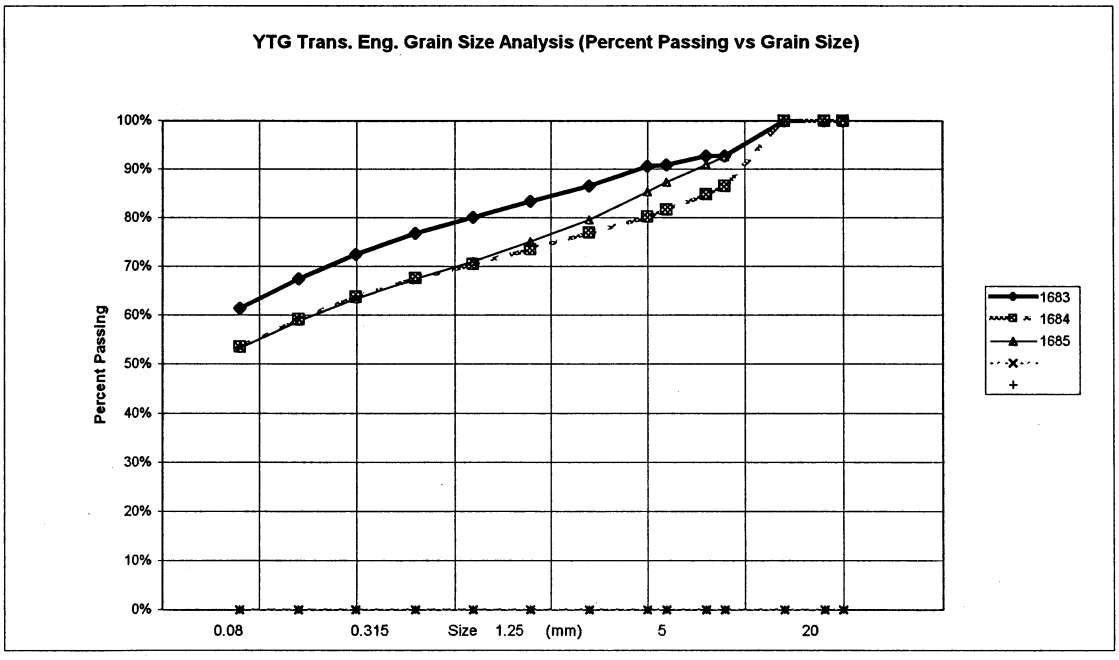


PROJECT NUMBER:	092-202002-0104		HOLE No.: 570-1820
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM 1664.5-1692.6 ALASKA HWY		
DRILL UNIT:	MOBILE B40 L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1669+300 40M LT		DATE COM 2000/08/17

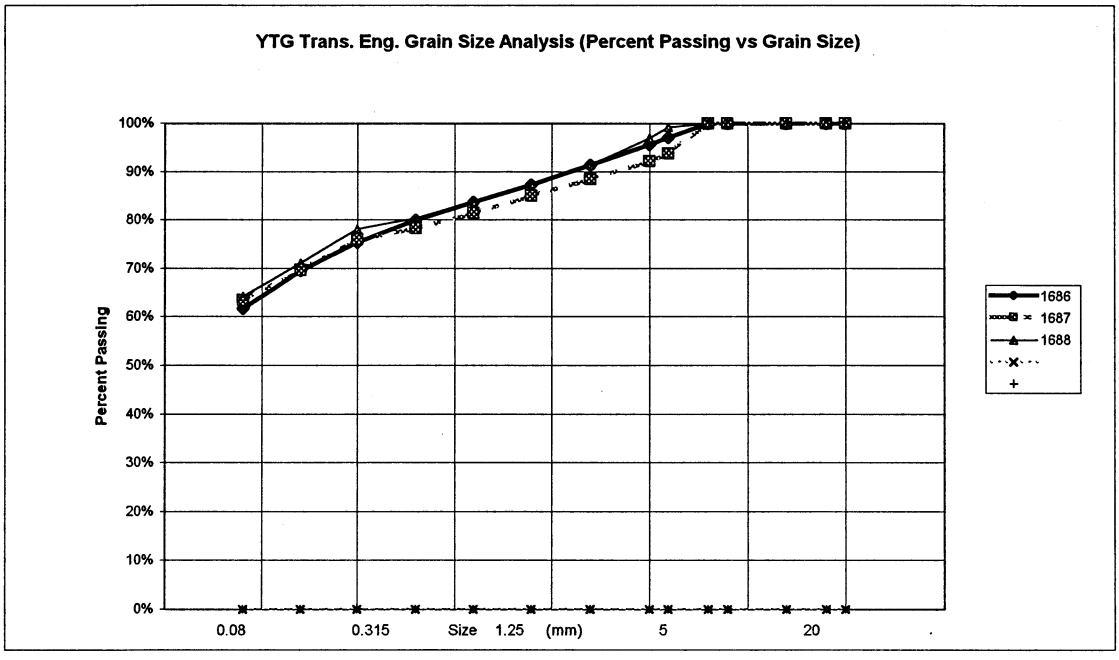
FIELD NO:	1680	FIELD No.	1681	FIELD No:	1682		
LAB NO:	2151	LAB No.	2152	LAB No:	2153		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	TYPE	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	93%	25.0	100%	25.0	100%		
20.0	93%	20.0	100%	20.0	100%		
12.5	90%	12.5	99%	12.5	95%		
10.0	89%	10.0	95%	10.0	94%		
5.0	86%	5.0	89%	5.0	91%		
2.5	82%	2.5	84%	2.5	88%		
1.25	79%	1.25	79%	1.25	85%		
0.630	75%	0.630	75%	0.630	83%		
0.315	71%	0.315	72%	0.315	82%		
0.160	67%	0.160	64%	0.160	77%		
0.080	61%	0.080	58%	0.080	73%		
M.C.(%):	17%	M.C.(%):	11%	M.C.(%):	13%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	14	% GRAVEL	11	% GRAVEL	9		
% SAND:	24	% SAND:	31	% SAND:	18		
% FINES:	61	% FINES:	58	% FINES:	73		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)		



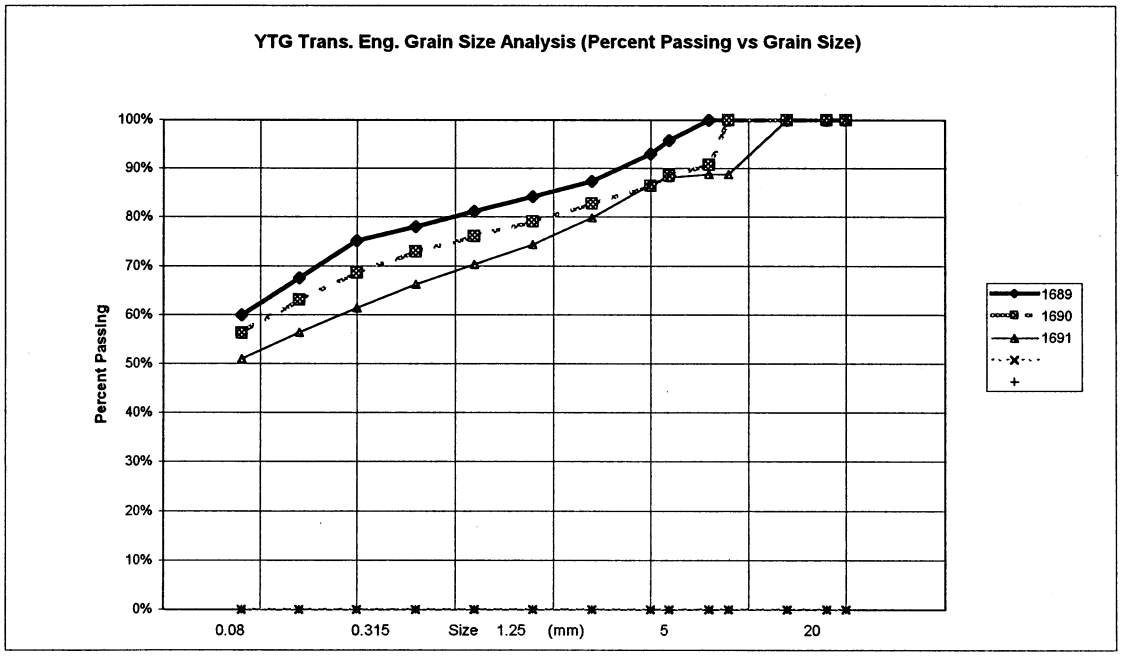
PROJECT NUMBER:	092-202002-0104					HOLE No.:	570-1821
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5-1692.6 ALASKA HWY						
DRILL UNIT:	MOBILE B40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1669+435 20M LT					DATE COM	2000/08/18
FIELD NO:	1683	FIELD No.	1684	FIELD No:	1685		
LAB NO:	2154	LAB No.	2155	LAB No:	2156		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	TYPE	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	93%	25.0	87%	25.0	93%		
20.0	93%	20.0	85%	20.0	91%		
12.5	91%	12.5	82%	12.5	87%		
10.0	91%	10.0	80%	10.0	85%		
5.0	87%	5.0	77%	5.0	80%		
2.5	83%	2.5	74%	2.5	75%		
1.25	80%	1.25	71%	1.25	71%		
0.630	77%	0.630	68%	0.630	68%		
0.315	73%	0.315	64%	0.315	63%		
0.160	68%	0.160	59%	0.160	59%		
0.080	62%	0.080	54%	0.080	53%		
M.C.(%):	11%	M.C.(%):	10%	M.C.(%):	10%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	13	% GRAVEL	23	% GRAVEL	20		
% SAND:	25	% SAND:	23	% SAND:	26		
% FINES:	62	% FINES:	54	% FINES:	53		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)		



PROJECT NUMBER:	092-202002-0104					HOLE No.:	570-1822
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5-1692.6 ALASKA HWY						
DRILL UNIT:	MOBILE B40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1669+550 40M LT					DATE COM	2000/08/18
FIELD NO:	1686	FIELD No.	1687	FIELD No:	1688		
LAB NO:	2157	LAB No.	2158	LAB No:	2159		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	TYPE	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	100%	20.0	100%	20.0	100%		
12.5	97%	12.5	94%	12.5	99%		
10.0	96%	10.0	92%	10.0	97%		
5.0	91%	5.0	88%	5.0	91%		
2.5	87%	2.5	85%	2.5	88%		
1.25	84%	1.25	82%	1.25	84%		
0.630	80%	0.630	78%	0.630	80%		
0.315	75%	0.315	76%	0.315	78%		
0.160	70%	0.160	70%	0.160	71%		
0.080	62%	0.080	63%	0.080	64%		
M.C.(%):	15%	M.C.(%):	12%	M.C.(%):	11%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	9	% GRAVEL	12	% GRAVEL	9		
% SAND:	30	% SAND:	25	% SAND:	27		
% FINES:	62	% FINES:	63	% FINES:	64		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)		

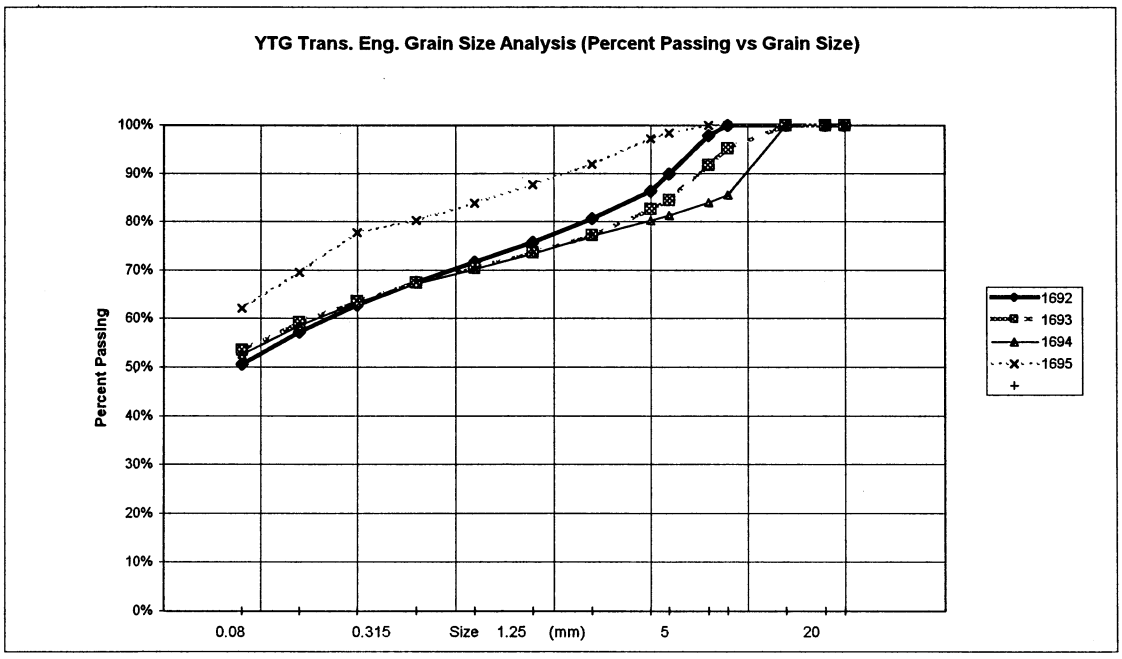


PROJECT NUMBER:	092-202002-0104					HOLE No.:	570-1823
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5-1692.6 ALASKA HWY						
DRILL UNIT:	MOBILE B40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1669+650 40 LT					DATE COM	2000/08/18
FIELD NO:	1689	FIELD No.	1690	FIELD No:	1691		
LAB NO:	2160	LAB No.	2161	LAB No:	2162		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	TYPE	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	89%		
20.0	100%	20.0	91%	20.0	89%		
12.5	96%	12.5	89%	12.5	88%		
10.0	93%	10.0	86%	10.0	87%		
5.0	87%	5.0	83%	5.0	80%		
2.5	84%	2.5	79%	2.5	74%		
1.25	81%	1.25	76%	1.25	70%		
0.630	78%	0.630	73%	0.630	66%		
0.315	75%	0.315	69%	0.315	61%		
0.160	68%	0.160	63%	0.160	56%		
0.080	60%	0.080	56%	0.080	51%		
M.C.(%):	15%	M.C.(%):	11%	M.C.(%):	8%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	13	% GRAVEL	17	% GRAVEL	20		
% SAND:	28	% SAND:	26	% SAND:	29		
% FINES:	60	% FINES:	56	% FINES:	51		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)		

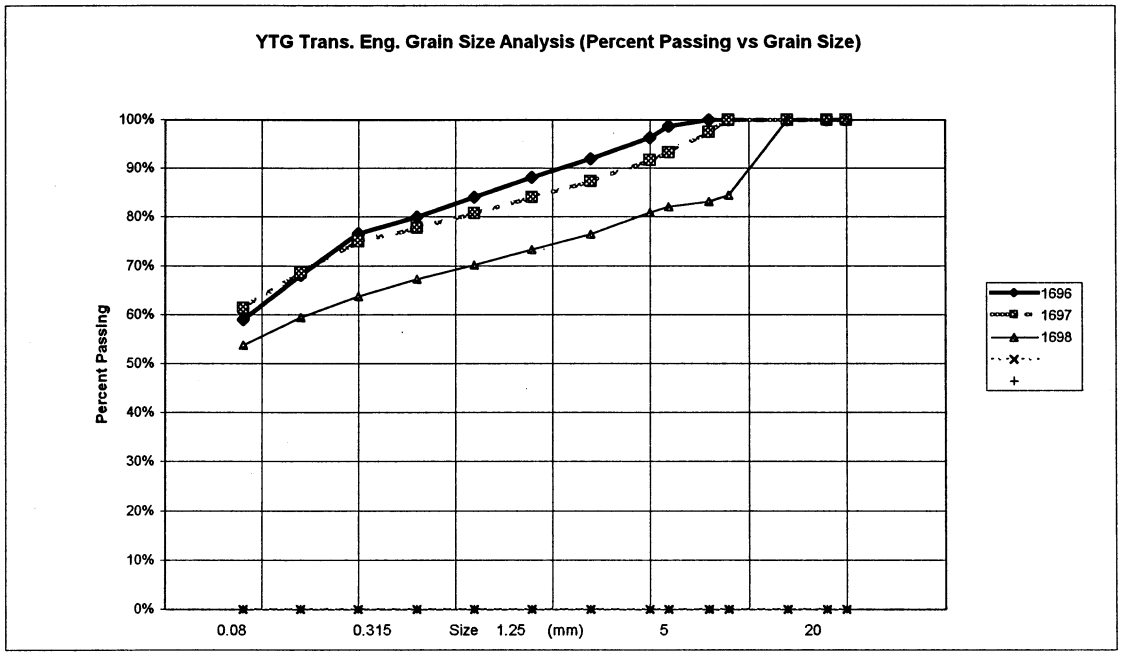


PROJECT NUMBER:	092-202002-0104		HOLE No.: 570-1824
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM 1664.5-1692.6 ALASKA HWY		
DRILL UNIT:	MOBILE B40 L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1669+750 40M LT		DATE COM 2000/08/18

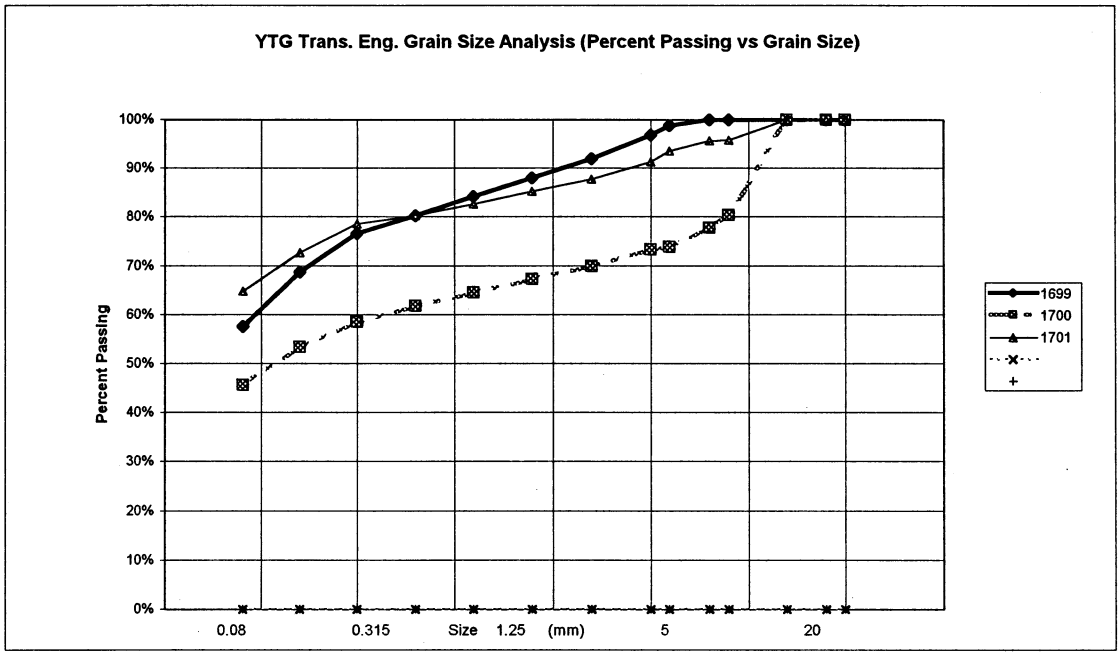
FIELD NO: 1692		FIELD No. 1693		FIELD No: 1694		FIELD No: 1695	
LAB NO: 2163		LAB No. 2164		LAB No: 2165		LAB No: 2166	
DEPTH: 1.3-1.5		DEPTH 2.8-3.0		DEPTH: 4.3-4.5		DEPTH: 5.8-6.0	
TYPE: AUGER		A AUGER		TYPE: AUGER		TYPE: AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%	50.0	100%
25.0	100%	25.0	95%	25.0	86%	25.0	100%
20.0	98%	20.0	92%	20.0	84%	20.0	100%
12.5	90%	12.5	84%	12.5	81%	12.5	98%
10.0	86%	10.0	83%	10.0	80%	10.0	97%
5.0	81%	5.0	77%	5.0	77%	5.0	92%
2.5	76%	2.5	74%	2.5	73%	2.5	88%
1.25	72%	1.25	71%	1.25	70%	1.25	84%
0.630	68%	0.630	67%	0.630	67%	0.630	80%
0.315	63%	0.315	64%	0.315	63%	0.315	78%
0.160	57%	0.160	59%	0.160	59%	0.160	70%
0.080	51%	0.080	54%	0.080	53%	0.080	62%
M.C.(%):	14%	M.C.(%):	9%	M.C.(%):	9%	M.C.(%):	10%
LIMITS		LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	19	% GRAVEL	23	% GRAVEL	23	% GRAVEL	8
% SAND:	30	% SAND:	24	% SAND:	24	% SAND:	30
% FINES:	51	% FINES:	54	% FINES:	53	% FINES:	62
CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SANDY SILT (ML)



PROJECT NUMBER:	092-202002-0104					HOLE No.:	570-1825
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5-1692.6 ALASKA HWY						
DRILL UNIT:	MOBILE B40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1669+850 40M LT					DATE COM	2000/08/18
FIELD NO:	1696	FIELD No.	1697	FIELD No:	1698		
LAB NO:	2197	LAB No.	2168	LAB No:	2169		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	84%		
20.0	100%	20.0	97%	20.0	83%		
12.5	99%	12.5	93%	12.5	82%		
10.0	96%	10.0	92%	10.0	81%		
5.0	92%	5.0	87%	5.0	76%		
2.5	88%	2.5	84%	2.5	73%		
1.25	84%	1.25	81%	1.25	70%		
0.630	80%	0.630	78%	0.630	67%		
0.315	77%	0.315	75%	0.315	64%		
0.160	68%	0.160	69%	0.160	59%		
0.080	59%	0.080	61%	0.080	54%		
M.C.(%):	15%	M.C.(%):	14%	M.C.(%):	11%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	8	% GRAVEL	13	% GRAVEL	24		
% SAND:	33	% SAND:	26	% SAND:	23		
% FINES:	59	% FINES:	61	% FINES:	54		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	GRAVELLY SILT WITH SAND (ML)		

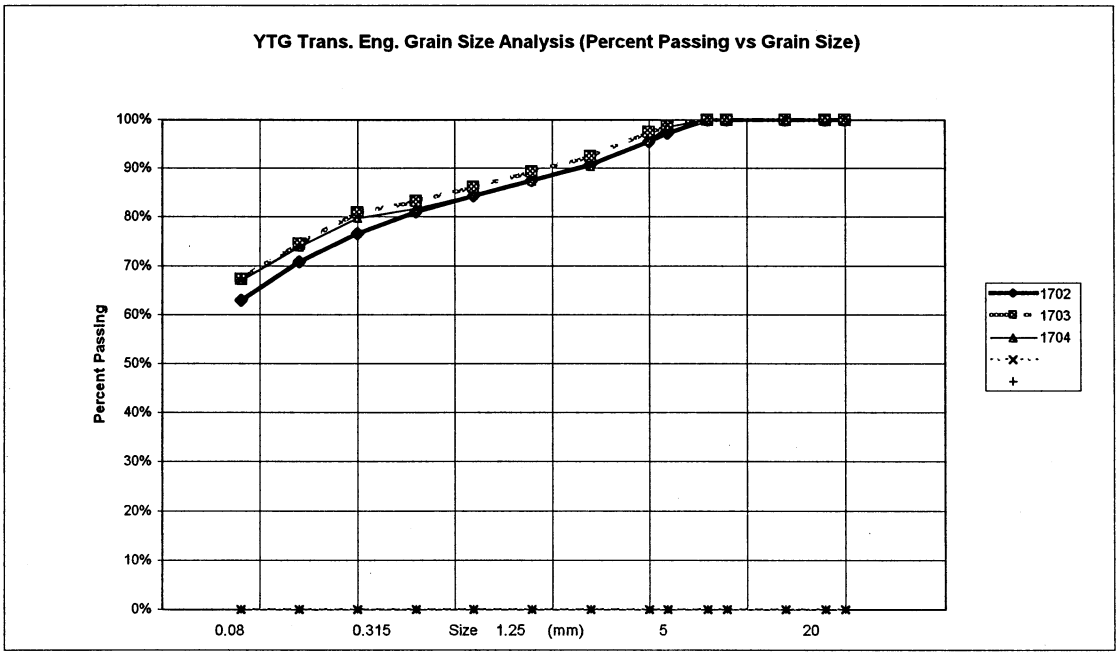


PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	570-1826
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5-1692.6 ALASKA HWY						
DRILL UNIT:	MOBILE B40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1669+950 40M LT					DATE COM	2000/08/18
FIELD NO:	1699	FIELD No.	1700	FIELD No:	1701		
LAB NO:	2170	LAB No.	2171	LAB No:	2172		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	TYPE	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	80%	25.0	96%		
20.0	100%	20.0	78%	20.0	96%		
12.5	99%	12.5	74%	12.5	94%		
10.0	97%	10.0	73%	10.0	91%		
5.0	92%	5.0	70%	5.0	88%		
2.5	88%	2.5	67%	2.5	85%		
1.25	84%	1.25	65%	1.25	83%		
0.630	80%	0.630	62%	0.630	80%		
0.315	77%	0.315	58%	0.315	79%		
0.160	69%	0.160	53%	0.160	73%		
0.080	58%	0.080	46%	0.080	65%		
M.C.(%):	15%	M.C.(%):	13%	M.C.(%):	14%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	8	% GRAVEL	30	% GRAVEL	12		
% SAND:	34	% SAND:	24	% SAND:	23		
% FINES:	58	% FINES:	46	% FINES:	65		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SANDY SILT (ML)		



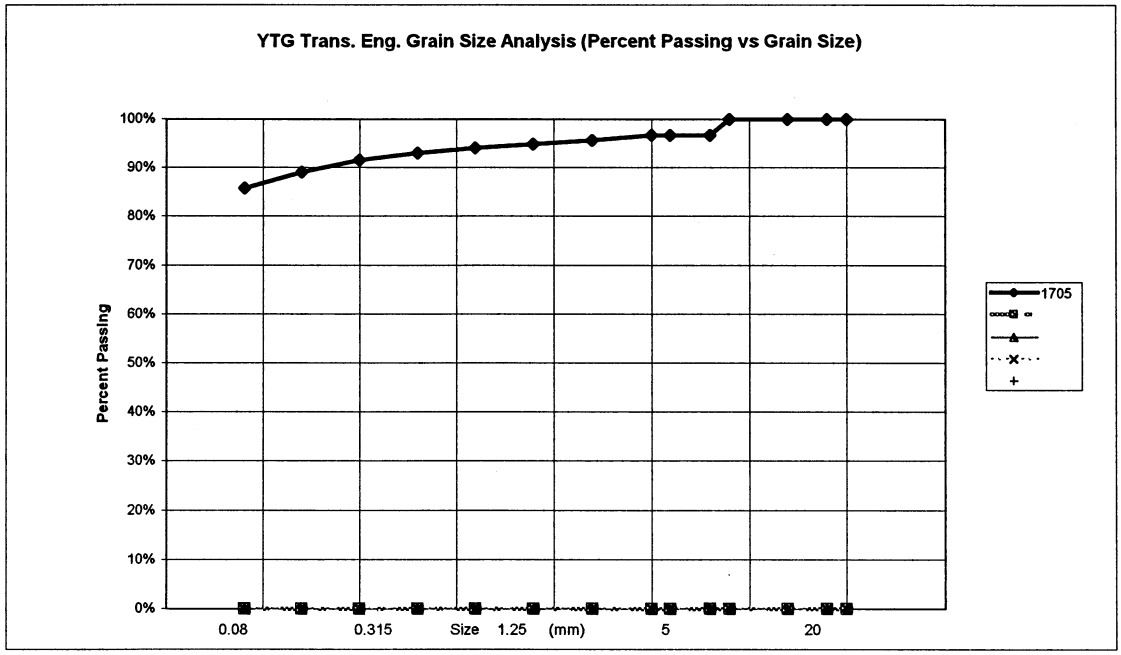
PROJECT NUMBER:	092-202002-0104					HOLE No.:	570-1827
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5-1692.6 ALASKA HWY						
DRILL UNIT:	MOBILE B40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1670+050 40M LT					DATE COM	2000/08/18

FIELD NO:	1702	FIELD No.	1703	FIELD No:	1704		
LAB NO:	2173	LAB No.	2174	LAB No:	2175		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	TYPE	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	100%	20.0	100%	20.0	100%		
12.5	97%	12.5	99%	12.5	98%		
10.0	96%	10.0	97%	10.0	96%		
5.0	91%	5.0	93%	5.0	90%		
2.5	87%	2.5	89%	2.5	87%		
1.25	84%	1.25	86%	1.25	84%		
0.630	81%	0.630	83%	0.630	82%		
0.315	77%	0.315	81%	0.315	80%		
0.160	71%	0.160	74%	0.160	74%		
0.080	63%	0.080	67%	0.080	67%		
M.C.(%):	17%	M.C.(%):	13%	M.C.(%):	12%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	9	% GRAVEL	7	% GRAVEL	10		
% SAND:	28	% SAND:	25	% SAND:	23		
% FINES:	63	% FINES:	67	% FINES:	67		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)		

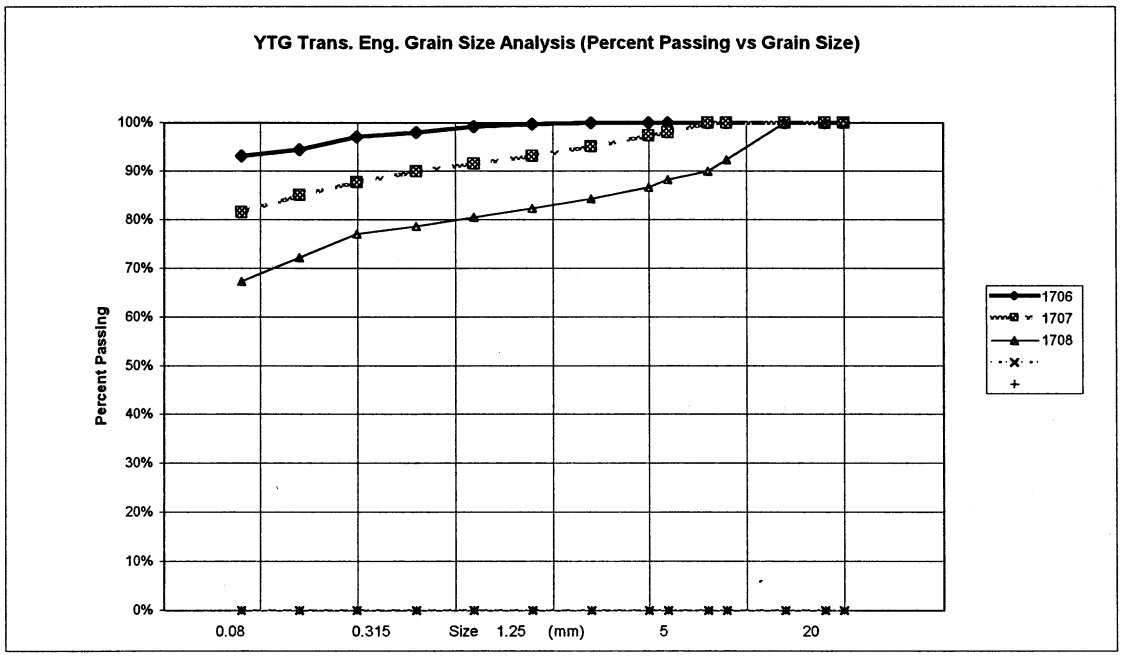


PROJECT NUMBER:	092-202002-0104		HOLE No.: 570-1828
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM 1664.5-1692.6 ALASKA HWY		
DRILL UNIT:	MOBILE B40 L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1670+150 40M LT		DATE COM 2000/08/18

FIELD NO:	1705						
LAB NO:	2176						
DEPTH:	1.3-1.5						
TYPE:	AUGER	TYPE					
SIEVE SIZE	PERCENT PASSING						
100.0	100%						
80.0	100%						
50.0	100%						
25.0	100%						
20.0	97%						
12.5	97%						
10.0	97%						
5.0	96%						
2.5	95%						
1.25	94%						
0.630	93%						
0.315	92%						
0.160	89%						
0.080	86%						
M.C.(%):	10%						
LIMITS							
LIQUID:	0.0						
PLASTIC:	0.0						
P.I.:	0.0						
% GRAVEL	4						
% SAND:	10						
% FINES:	86						
CLASSIFICATION:	SILT (ML)						

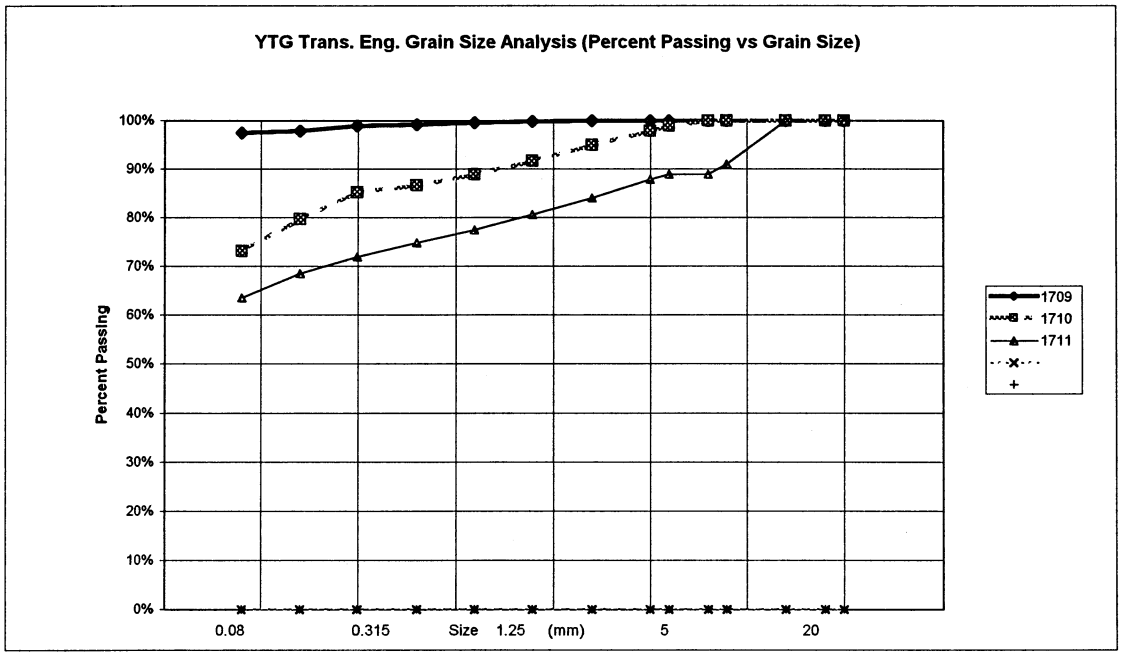


PROJECT NUMBER:	092-202002-0104					HOLE No.:	570-1829
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5-1692.6 ALASKA HWY						
DRILL UNIT:	MOBILE B40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1670+250 40M LT					DATE COM	2000/08/18
FIELD NO:	1706	FIELD No.	1707	FIELD No:	1708		
LAB NO:	2177	LAB No.	2178	LAB No:	2179		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	TYPE	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	92%		
20.0	100%	20.0	100%	20.0	90%		
12.5	100%	12.5	98%	12.5	88%		
10.0	100%	10.0	97%	10.0	87%		
5.0	100%	5.0	95%	5.0	84%		
2.5	100%	2.5	93%	2.5	82%		
1.25	99%	1.25	92%	1.25	81%		
0.630	98%	0.630	90%	0.630	79%		
0.315	97%	0.315	88%	0.315	77%		
0.160	94%	0.160	85%	0.160	72%		
0.080	93%	0.080	82%	0.080	67%		
M.C.(%):	21%	M.C.(%):	17%	M.C.(%):	15%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	0	% GRAVEL	5	% GRAVEL	16		
% SAND:	7	% SAND:	14	% SAND:	17		
% FINES:	93	% FINES:	82	% FINES:	67		
CLASSIFICATION:	SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)		

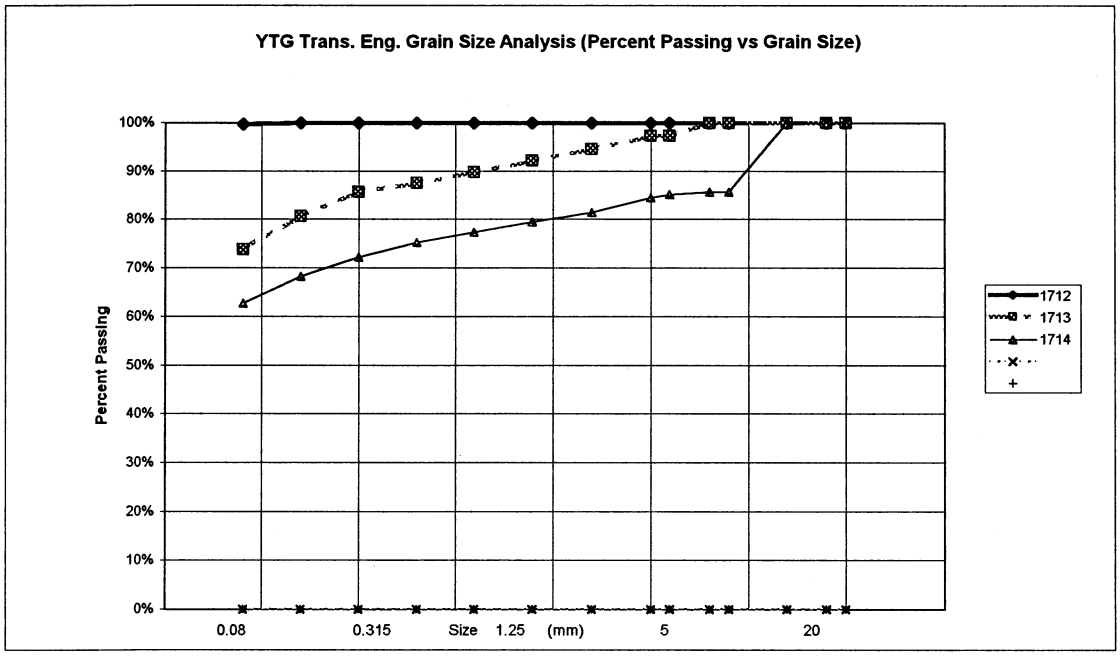


PROJECT NUMBER:	092-202002-0104		HOLE No.: 570-1830
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM 1664.5-1692.6 ALASKA HWY		
DRILL UNIT:	MOBILE B40 L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1670+350 40M LT		DATE COM 2000/08/18

FIELD NO:	1709	FIELD No.	1710	FIELD No:	1711		
LAB NO:	2180	LAB No.	2181	LAB No:	2182		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	TYPE	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	91%		
20.0	100%	20.0	100%	20.0	89%		
12.5	100%	12.5	99%	12.5	89%		
10.0	100%	10.0	98%	10.0	88%		
5.0	100%	5.0	95%	5.0	84%		
2.5	100%	2.5	92%	2.5	81%		
1.25	100%	1.25	89%	1.25	78%		
0.630	99%	0.630	87%	0.630	75%		
0.315	99%	0.315	85%	0.315	72%		
0.160	98%	0.160	80%	0.160	69%		
0.080	98%	0.080	73%	0.080	64%		
M.C.(%):	25%	M.C.(%):	13%	M.C.(%):	13%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	0	% GRAVEL	5	% GRAVEL	16		
% SAND:	2	% SAND:	22	% SAND:	21		
% FINES:	98	% FINES:	73	% FINES:	64		
CLASSIFICATION:	SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)		

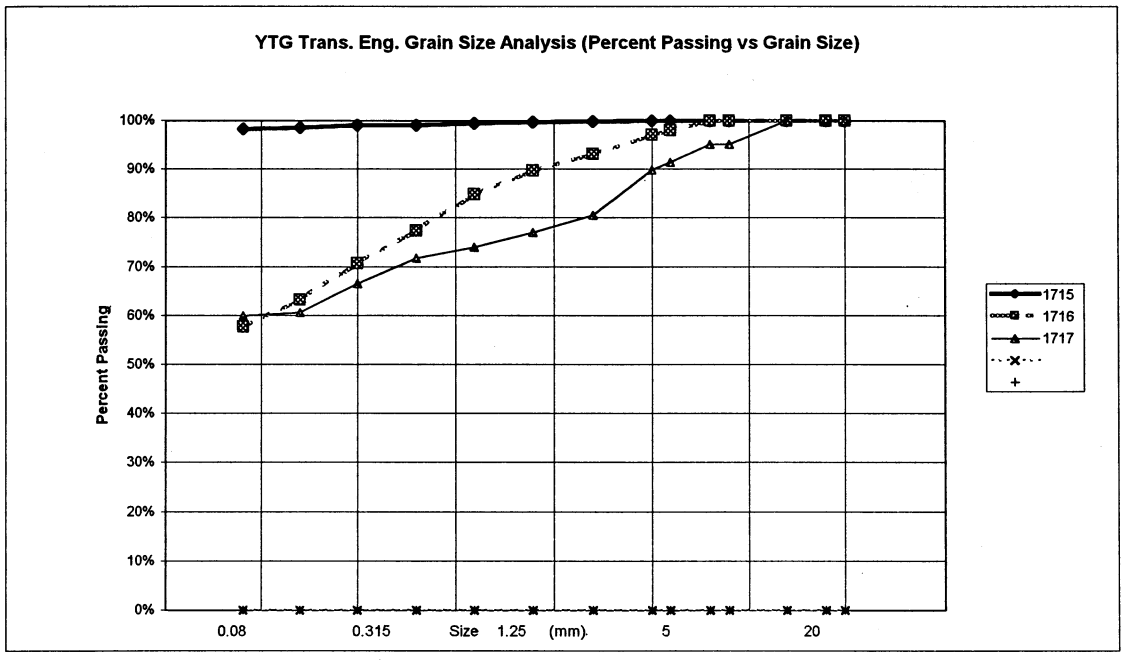


PROJECT NUMBER:	092-202002-0104					HOLE No.:	570-1831
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	KM 1664.5-1692.6 ALASKA HWY						
DRILL UNIT:	MOBILE B40 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1670+450 40M LT					DATE COM	2000/08/18
FIELD NO:	1712	FIELD No.	1713	FIELD No:	1714		
LAB NO:	2183	LAB No.	2184	LAB No:	2185		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	86%		
20.0	100%	20.0	100%	20.0	86%		
12.5	100%	12.5	97%	12.5	85%		
10.0	100%	10.0	97%	10.0	85%		
5.0	100%	5.0	95%	5.0	81%		
2.5	100%	2.5	92%	2.5	79%		
1.25	100%	1.25	90%	1.25	77%		
0.630	100%	0.630	88%	0.630	75%		
0.315	100%	0.315	86%	0.315	72%		
0.160	100%	0.160	81%	0.160	68%		
0.080	100%	0.080	74%	0.080	63%		
M.C.(%):	25%	M.C.(%):	15%	M.C.(%):	14%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	0	% GRAVEL	5	% GRAVEL	19		
% SAND:	0	% SAND:	21	% SAND:	19		
% FINES:	100	% FINES:	74	% FINES:	63		
CLASSIFICATION:	SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)		

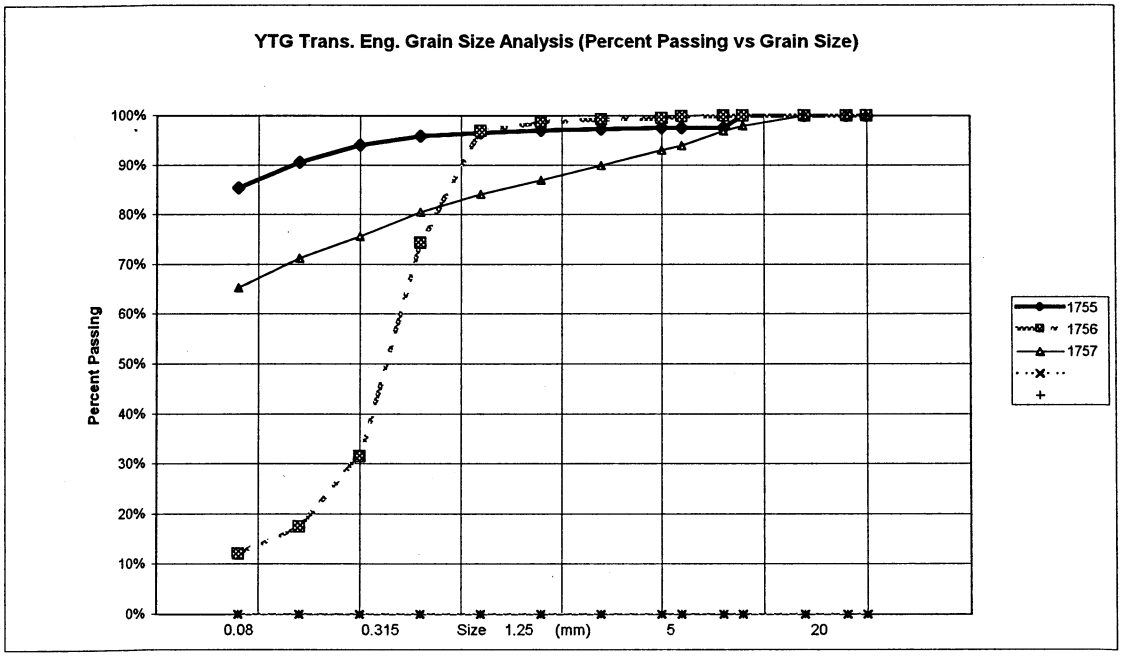


PROJECT NUMBER:	092-202002-0104		HOLE No.: 570-1833
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	KM 1664.5-1692.6 ALASKA HWY		
DRILL UNIT:	MOBILE B40 L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1670+550 20M LT		DATE COM 2000/08/18

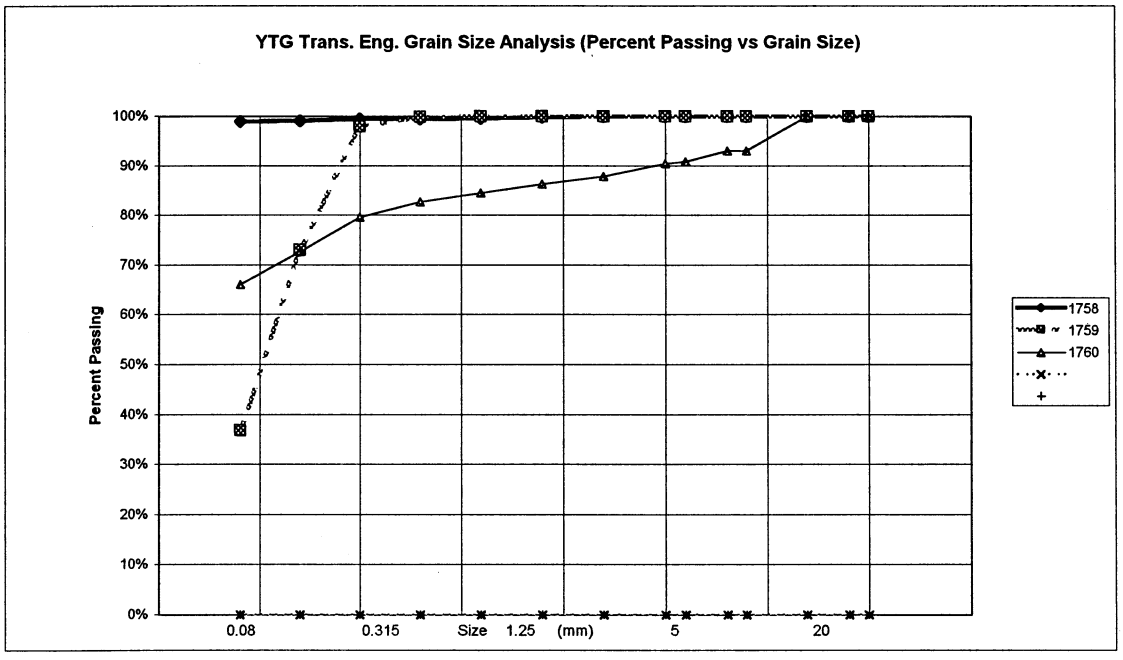
FIELD NO:	1715	FIELD No.	1716	FIELD No:	1717		
LAB NO:	2186	LAB No.	2187	LAB No:	2188		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	95%		
20.0	100%	20.0	100%	20.0	95%		
12.5	100%	12.5	98%	12.5	92%		
10.0	100%	10.0	97%	10.0	90%		
5.0	100%	5.0	93%	5.0	81%		
2.5	100%	2.5	90%	2.5	77%		
1.25	100%	1.25	85%	1.25	74%		
0.630	99%	0.630	77%	0.630	72%		
0.315	99%	0.315	71%	0.315	67%		
0.160	99%	0.160	63%	0.160	61%		
0.080	98%	0.080	58%	0.080	60%		
M.C.(%):	21%	M.C.(%):	15%	M.C.(%):	13%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	0	% GRAVEL	7	% GRAVEL	19		
% SAND:	2	% SAND:	35	% SAND:	21		
% FINES:	98	% FINES:	58	% FINES:	60		
CLASSIFICATION:	SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)		



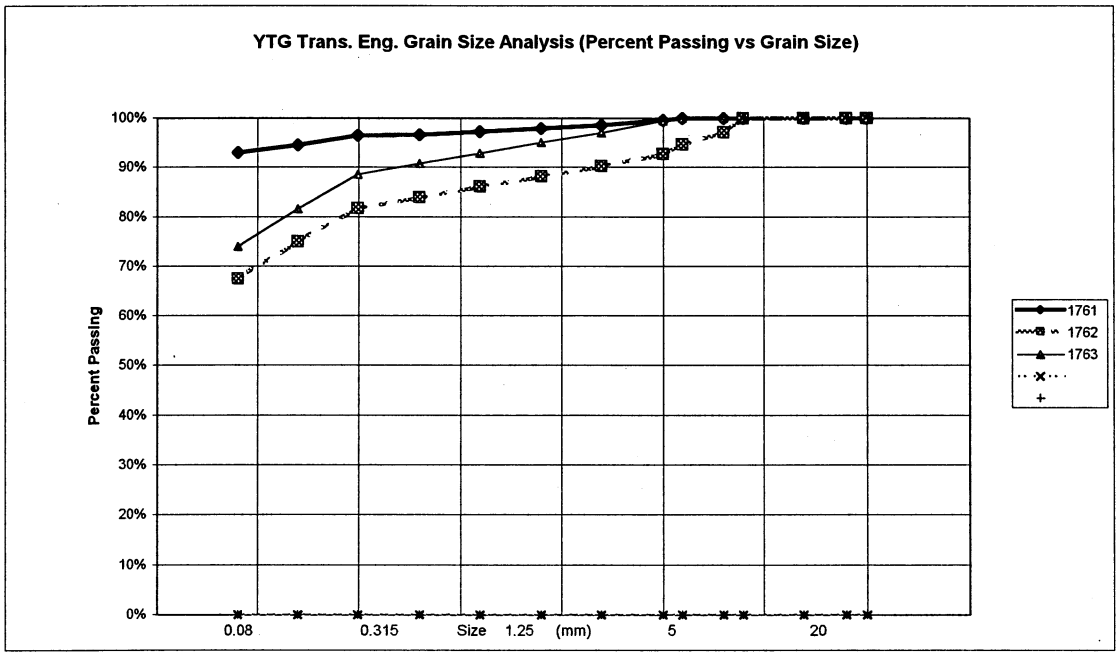
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	572-1848
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 A/H						
DRILL UNIT:	MOBILE B 30 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1670+575 15M RT					DATE COM	2000/08/25
FIELD NO:	1755	FIELD No.	1756	FIELD No:	1757		
LAB NO:	2226	LAB No.	2227	LAB No:	2228		
DEPTH:	1.3-1.4	DEPTH	2.5-2.7	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	98%		
20.0	98%	20.0	100%	20.0	97%		
12.5	98%	12.5	100%	12.5	94%		
10.0	98%	10.0	99%	10.0	93%		
5.0	97%	5.0	99%	5.0	90%		
2.5	97%	2.5	99%	2.5	87%		
1.25	97%	1.25	97%	1.25	84%		
0.630	96%	0.630	74%	0.630	81%		
0.315	94%	0.315	32%	0.315	76%		
0.160	91%	0.160	18%	0.160	71%		
0.080	85%	0.080	12%	0.080	65%		
M.C.(%):	57%	M.C.(%):	24%	M.C.(%):	14%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	3	% GRAVEL	1	% GRAVEL	10		
% SAND:	12	% SAND:	87	% SAND:	25		
% FINES:	85	% FINES:	12	% FINES:	65		
CLASSIFICATION:	SILT (ML)	CLASSIFICATION:	SILTY SAND (SM)	CLASSIFICATION:	SANDY SILT (ML)		



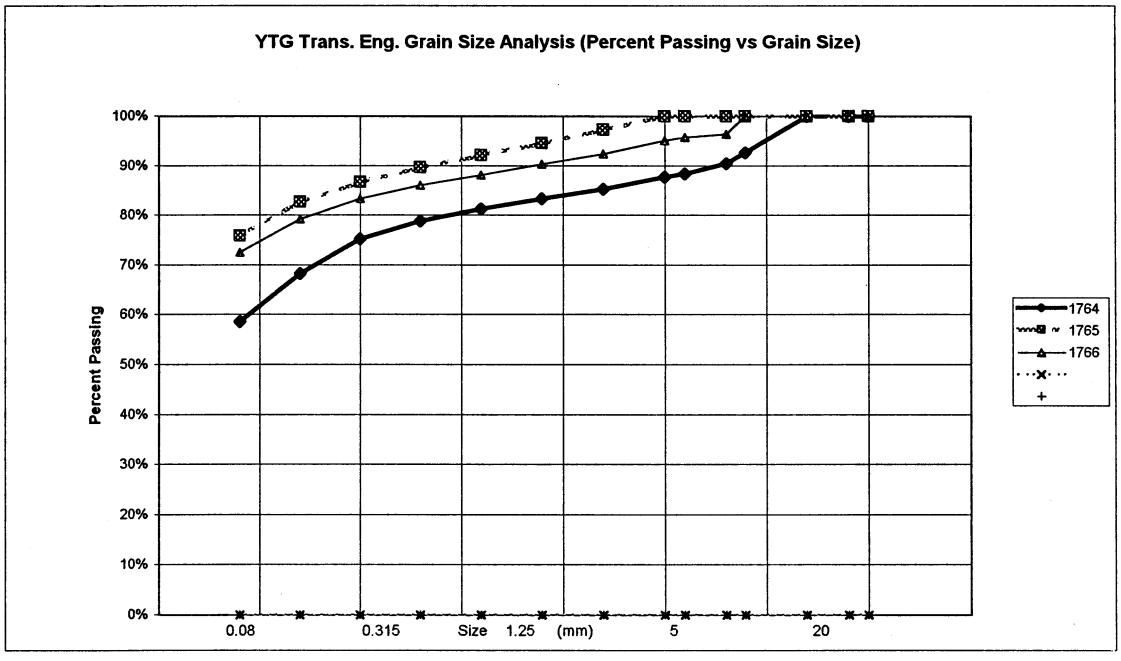
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	572-1849
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 A/H						
DRILL UNIT:	MOBILE B 30 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1670+675 40M RT					DATE COM	2000/08/25
FIELD NO:	1758	FIELD No.	1759	FIELD No:	1760		
LAB NO:	2229	LAB No.	2230	LAB No:	2231		
DEPTH:	1.2-1.4	DEPTH	2.6-2.8	DEPTH:	4.6-4.8		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	93%		
20.0	100%	20.0	100%	20.0	93%		
12.5	100%	12.5	100%	12.5	91%		
10.0	100%	10.0	100%	10.0	90%		
5.0	100%	5.0	100%	5.0	88%		
2.5	100%	2.5	100%	2.5	86%		
1.25	100%	1.25	100%	1.25	85%		
0.630	100%	0.630	100%	0.630	83%		
0.315	99%	0.315	98%	0.315	80%		
0.160	99%	0.160	73%	0.160	73%		
0.080	99%	0.080	37%	0.080	66%		
M.C.(%):	29%	M.C.(%):	20%	M.C.(%):	16%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	0	% GRAVEL	0	% GRAVEL	12		
% SAND:	1	% SAND:	63	% SAND:	22		
% FINES:	99	% FINES:	37	% FINES:	66		
CLASSIFICATION:	SILT (ML)	CLASSIFICATION:	SILTY SAND (SM)	CLASSIFICATION:	SANDY SILT (ML)		



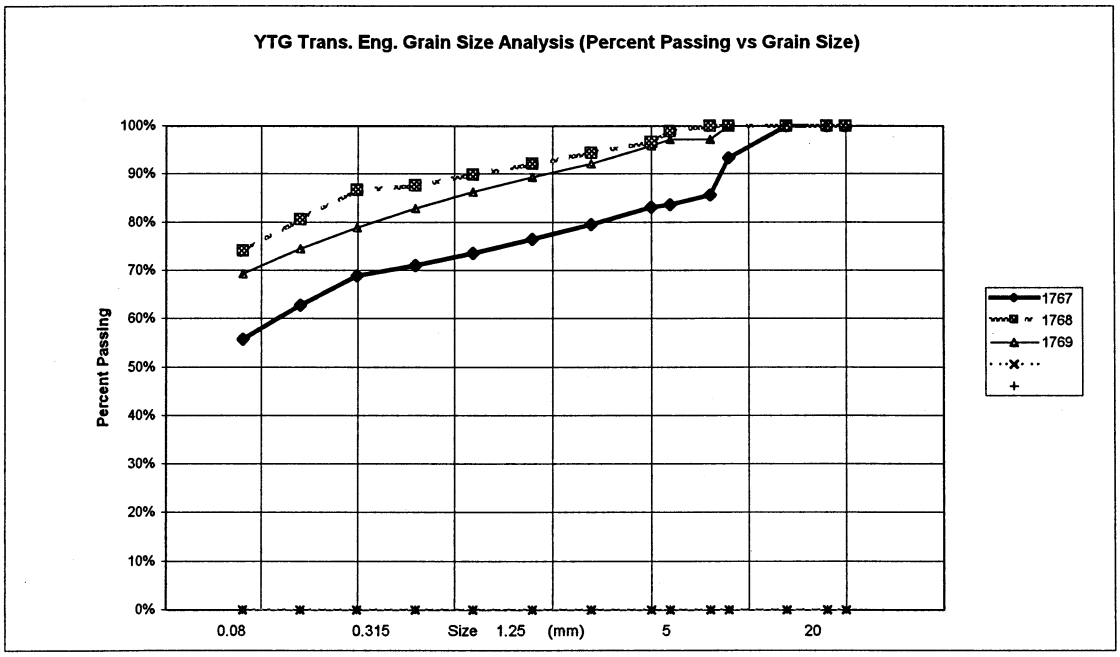
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	572-1850
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 A/H						
DRILL UNIT:	MOBILE B 30 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1670+775 40M RT					DATE COM	2000/08/25
FIELD NO:	1761	FIELD No.	1762	FIELD No:	1763		
LAB NO:	2232	LAB No.	2233	LAB No:	2234		
DEPTH:	1.3-1.5	DEPTH	2.9-3.1	DEPTH:	4.4-4.6		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	100%	20.0	97%	20.0	100%		
12.5	100%	12.5	95%	12.5	100%		
10.0	100%	10.0	93%	10.0	99%		
5.0	99%	5.0	90%	5.0	97%		
2.5	98%	2.5	88%	2.5	95%		
1.25	97%	1.25	86%	1.25	93%		
0.630	97%	0.630	84%	0.630	91%		
0.315	96%	0.315	82%	0.315	89%		
0.160	95%	0.160	75%	0.160	82%		
0.080	93%	0.080	68%	0.080	74%		
M.C.(%):	24%	M.C.(%):	13%	M.C.(%):	14%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	1	% GRAVEL	10	% GRAVEL	3		
% SAND:	6	% SAND:	23	% SAND:	23		
% FINES:	93	% FINES:	68	% FINES:	74		
CLASSIFICATION:	SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)		



PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	572-1851
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 A/H						
DRILL UNIT:	MOBILE B 30 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1670+875 40M RT					DATE COM	2000/08/25
FIELD NO:	1764	FIELD No.	1765	FIELD No:	1766		
LAB NO:	2235	LAB No.	2236	LAB No:	2237		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.4-4.6		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	93%	25.0	100%	25.0	100%		
20.0	90%	20.0	100%	20.0	96%		
12.5	88%	12.5	100%	12.5	96%		
10.0	88%	10.0	100%	10.0	95%		
5.0	85%	5.0	97%	5.0	92%		
2.5	83%	2.5	95%	2.5	90%		
1.25	81%	1.25	92%	1.25	88%		
0.630	79%	0.630	90%	0.630	86%		
0.315	75%	0.315	87%	0.315	83%		
0.160	68%	0.160	83%	0.160	79%		
0.080	59%	0.080	76%	0.080	73%		
M.C.(%):	15%	M.C.(%):	14%	M.C.(%):	12%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	15	% GRAVEL	3	% GRAVEL	8		
% SAND:	27	% SAND:	21	% SAND:	20		
% FINES:	59	% FINES:	76	% FINES:	73		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SILT WITH SAND (ML)		

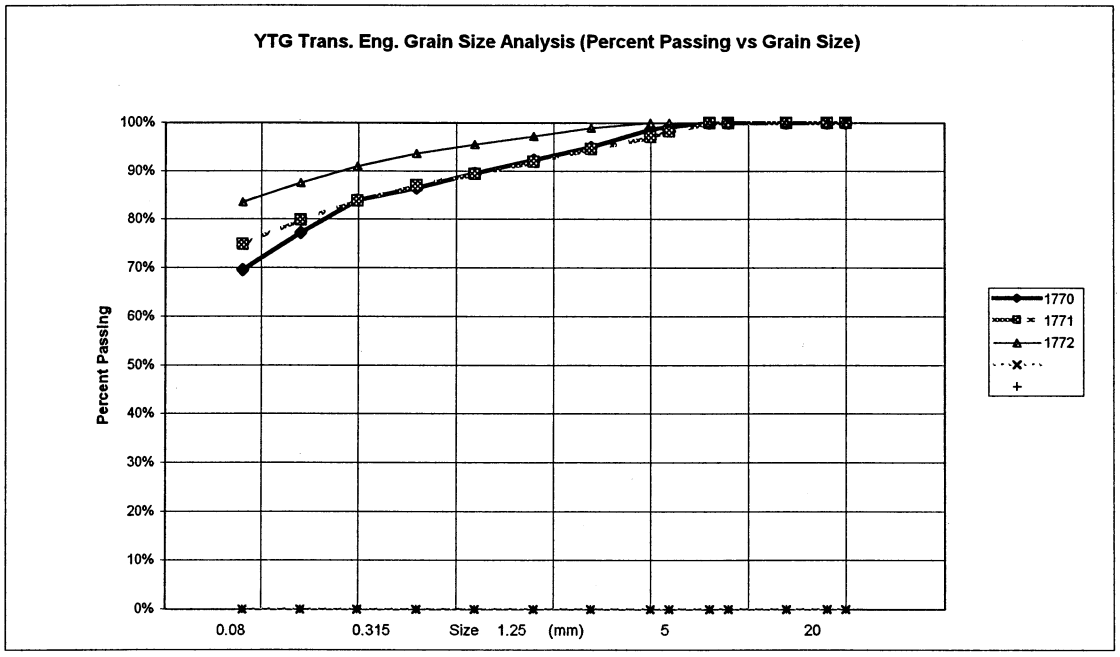


PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	572-1852
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 A/H						
DRILL UNIT:	MOBILE B 30 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1670+975 40M RT					DATE COM	2000/08/25
FIELD NO:	1767	FIELD No.	1768	FIELD No:	1769		
LAB NO:	2238	LAB No.	2239	LAB No:	2240		
DEPTH:	1.3-1.5	DEPTH	2.7-2.9	DEPTH:	4.4-4.6		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	93%	25.0	100%	25.0	100%		
20.0	86%	20.0	100%	20.0	97%		
12.5	84%	12.5	99%	12.5	97%		
10.0	83%	10.0	97%	10.0	96%		
5.0	80%	5.0	94%	5.0	92%		
2.5	76%	2.5	92%	2.5	89%		
1.25	74%	1.25	90%	1.25	86%		
0.630	71%	0.630	88%	0.630	83%		
0.315	69%	0.315	87%	0.315	79%		
0.160	63%	0.160	81%	0.160	75%		
0.080	56%	0.080	74%	0.080	69%		
M.C.(%):	15%	M.C.(%):	15%	M.C.(%):	11%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	20	% GRAVEL	6	% GRAVEL	8		
% SAND:	24	% SAND:	20	% SAND:	23		
% FINES:	56	% FINES:	74	% FINES:	69		
CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT (ML)		

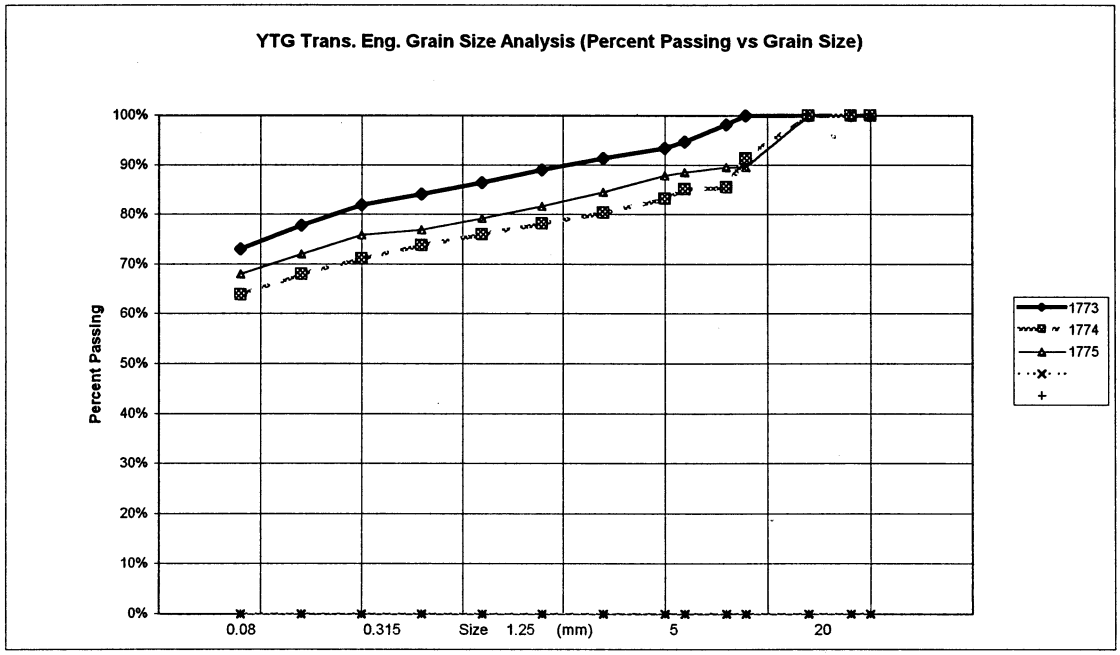


PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 572-1853
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 A/H		
DRILL UNIT:	MOBILE B 30 L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1671+075 40M RT		DATE COM 2000/08/25

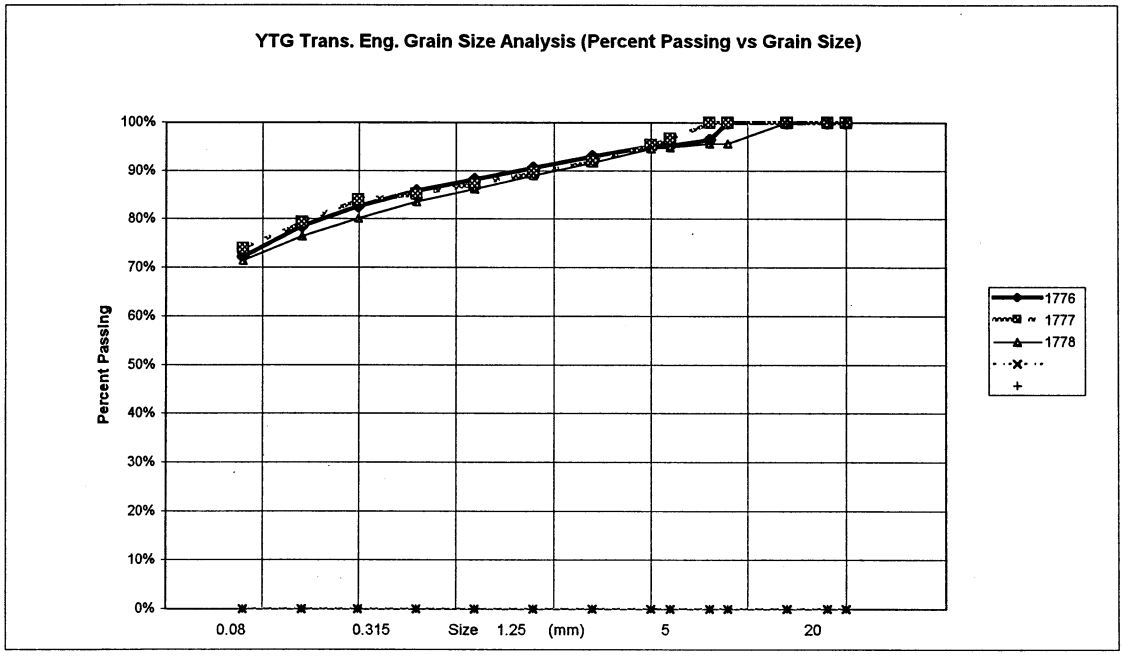
FIELD NO:	1770	FIELD No.	1771	FIELD No:	1772		
LAB NO:	2241	LAB No.	2242	LAB No:	2243		
DEPTH:	1.3-1.5	DEPTH	2.7-2.9	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	100%	20.0	100%	20.0	100%		
12.5	99%	12.5	98%	12.5	100%		
10.0	99%	10.0	97%	10.0	100%		
5.0	95%	5.0	95%	5.0	99%		
2.5	92%	2.5	92%	2.5	97%		
1.25	90%	1.25	89%	1.25	96%		
0.630	87%	0.630	87%	0.630	94%		
0.315	84%	0.315	84%	0.315	91%		
0.160	77%	0.160	80%	0.160	88%		
0.080	70%	0.080	75%	0.080	84%		
M.C.(%):	15%	M.C.(%):	12%	M.C.(%):	15%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	5	% GRAVEL	5	% GRAVEL	1		
% SAND:	25	% SAND:	20	% SAND:	15		
% FINES:	70	% FINES:	75	% FINES:	84		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SILT WITH SAND (ML)		



PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	572-1854
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 A/H						
DRILL UNIT:	MOBILE B 30 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1671+175 40M RT					DATE COM	2000/08/25
FIELD NO:	1773	FIELD No.	1774	FIELD No:	1775		
LAB NO:	2244	LAB No.	2245	LAB No:	2246		
DEPTH:	1.3-1.5	DEPTH	2.7-2.9	DEPTH:	5.9-6.0		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	91%	25.0	90%		
20.0	98%	20.0	86%	20.0	90%		
12.5	95%	12.5	85%	12.5	89%		
10.0	93%	10.0	83%	10.0	88%		
5.0	91%	5.0	80%	5.0	84%		
2.5	89%	2.5	78%	2.5	82%		
1.25	86%	1.25	76%	1.25	79%		
0.630	84%	0.630	74%	0.630	77%		
0.315	82%	0.315	71%	0.315	76%		
0.160	78%	0.160	68%	0.160	72%		
0.080	73%	0.080	64%	0.080	68%		
M.C.(%):	15%	M.C.(%):	11%	M.C.(%):	11%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	9	% GRAVEL	20	% GRAVEL	16		
% SAND:	18	% SAND:	16	% SAND:	16		
% FINES:	73	% FINES:	64	% FINES:	68		
CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	GRAVELLY SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)		

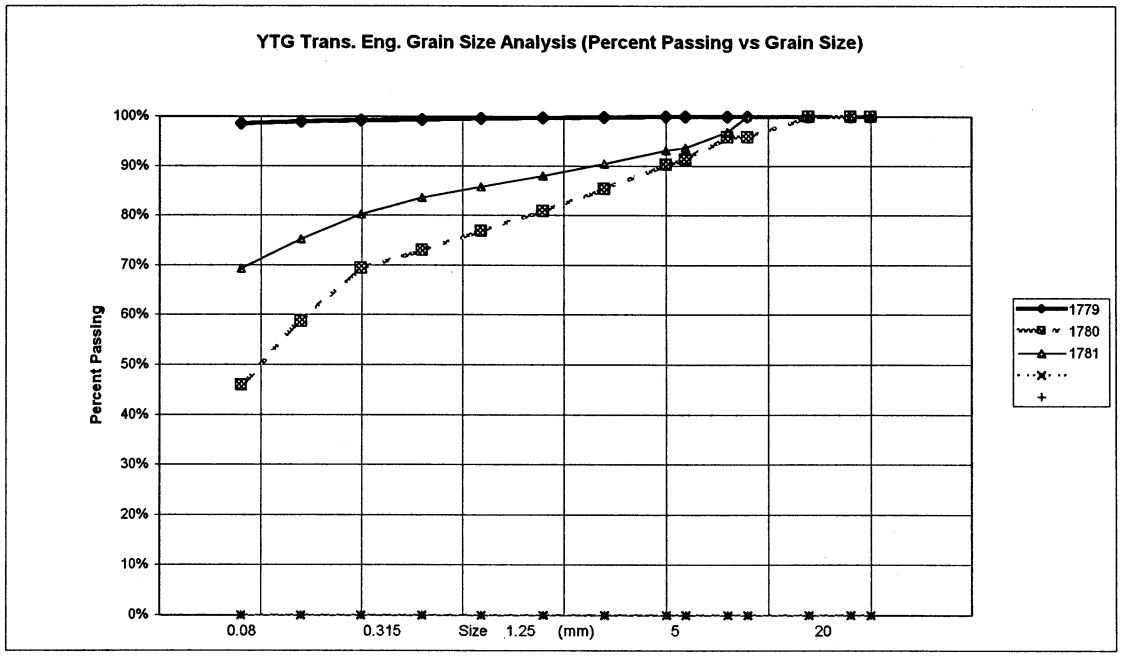


PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	572-1855
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 A/H						
DRILL UNIT:	MOBILE B 30 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1671+275 40M RT					DATE COM	2000/08/25
FIELD NO:	1776	FIELD No.	1777	FIELD No:	1778		
LAB NO:	2247	LAB No.	2248	LAB No:	2249		
DEPTH:	1.3-1.5	DEPTH	2.7-2.9	DEPTH:	5.8-6.0		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	96%		
20.0	96%	20.0	100%	20.0	96%		
12.5	95%	12.5	97%	12.5	95%		
10.0	95%	10.0	95%	10.0	95%		
5.0	93%	5.0	92%	5.0	92%		
2.5	91%	2.5	90%	2.5	89%		
1.25	88%	1.25	87%	1.25	86%		
0.630	86%	0.630	85%	0.630	84%		
0.315	83%	0.315	84%	0.315	80%		
0.160	79%	0.160	79%	0.160	76%		
0.080	72%	0.080	74%	0.080	71%		
M.C.(%):	14%	M.C.(%):	12%	M.C.(%):	12%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	7	% GRAVEL	8	% GRAVEL	8		
% SAND:	21	% SAND:	18	% SAND:	20		
% FINES:	72	% FINES:	74	% FINES:	71		
CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SILT WITH SAND (ML)		

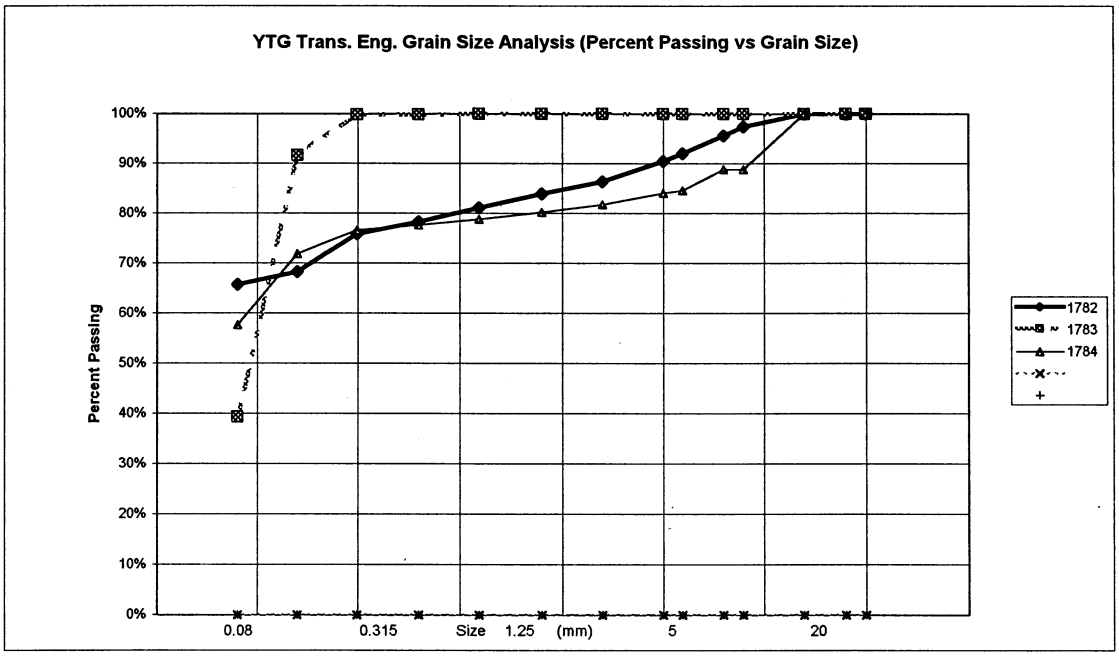


PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 572-1856
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 A/H		
DRILL UNIT:	MOBILE B 30 L		
LOGGED BY:	DOUG TRIM		
HOLE LOCATION:	1671+375 40M RT		DATE COM 2000/08/25

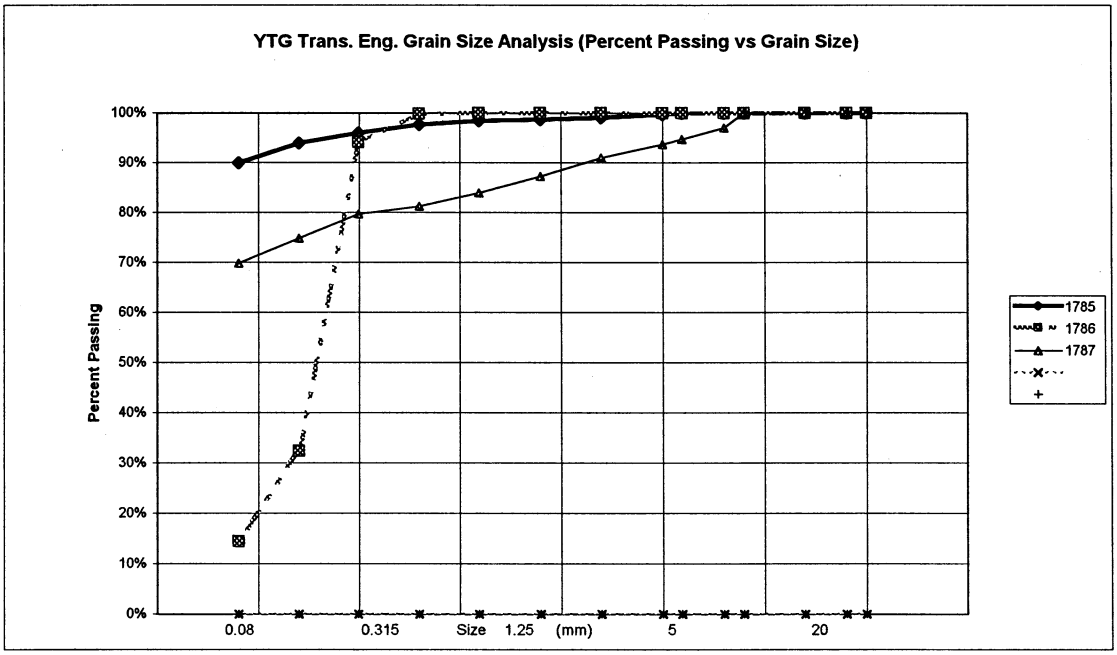
FIELD NO:	1779	FIELD No.	1780	FIELD No:	1781		
LAB NO:	2250	LAB No.	2251	LAB No:	2252		
DEPTH:	1.3-1.5	DEPTH	2.7-2.9	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	96%	25.0	100%		
20.0	100%	20.0	96%	20.0	97%		
12.5	100%	12.5	91%	12.5	94%		
10.0	100%	10.0	90%	10.0	93%		
5.0	100%	5.0	85%	5.0	90%		
2.5	100%	2.5	81%	2.5	88%		
1.25	100%	1.25	77%	1.25	86%		
0.630	99%	0.630	73%	0.630	84%		
0.315	99%	0.315	69%	0.315	80%		
0.160	99%	0.160	59%	0.160	75%		
0.080	99%	0.080	46%	0.080	69%		
M.C.(%):	29%	M.C.(%):	12%	M.C.(%):	13%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	0	% GRAVEL	15	% GRAVEL	10		
% SAND:	1	% SAND:	39	% SAND:	21		
% FINES:	99	% FINES:	46	% FINES:	69		
CLASSIFICATION:	SILT (ML)	CLASSIFICATION:	SILTY SAND (SM)	CLASSIFICATION:	SANDY SILT (ML)		



PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	572-1857
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 A/H						
DRILL UNIT:	MOBILE B 30 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1671+475 40M RT					DATE COM	2000/08/25
FIELD NO:	1782	FIELD No.	1783	FIELD No:	1784		
LAB NO:	2253	LAB No.	2254	LAB No:	2255		
DEPTH:	1.3-1.5	DEPTH	2.7-2.9	DEPTH:	4.4-4.6		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	97%	25.0	100%	25.0	89%		
20.0	96%	20.0	100%	20.0	89%		
12.5	92%	12.5	100%	12.5	85%		
10.0	91%	10.0	100%	10.0	84%		
5.0	86%	5.0	100%	5.0	82%		
2.5	84%	2.5	100%	2.5	80%		
1.25	81%	1.25	100%	1.25	79%		
0.630	78%	0.630	100%	0.630	78%		
0.315	76%	0.315	100%	0.315	77%		
0.160	68%	0.160	92%	0.160	72%		
0.080	66%	0.080	39%	0.080	58%		
M.C.(%):	17%	M.C.(%):	16%	M.C.(%):	13%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	14	% GRAVEL	0	% GRAVEL	18		
% SAND:	21	% SAND:	61	% SAND:	24		
% FINES:	66	% FINES:	39	% FINES:	58		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILTY SAND (SM)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)		

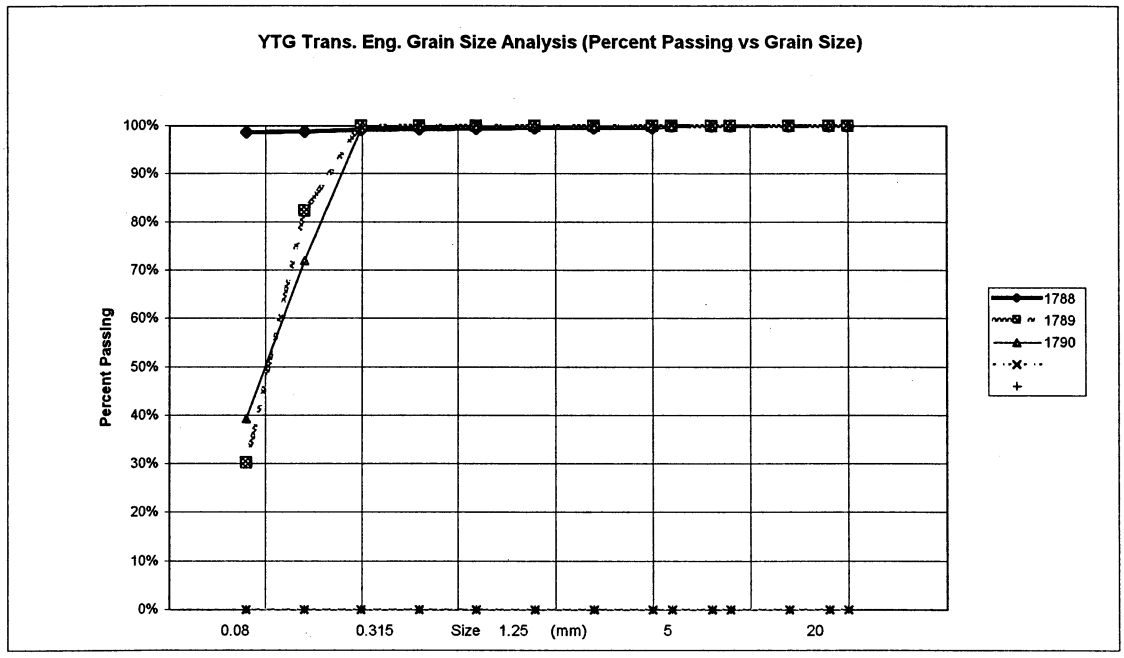


PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	572-1858
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 A/H						
DRILL UNIT:	MOBILE B 30 L						
LOGGED BY:	DOUG TRIM						
HOLE LOCATION:	1671+575 RT					DATE COM	2000/08/25
FIELD NO:	1785	FIELD No.	1786	FIELD No:	1787		
LAB NO:	2256	LAB No.	2257	LAB No:	2258		
DEPTH:	1.4-1.6	DEPTH	2.8-3.0	DEPTH:	4.4-4.6		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	100%	20.0	100%	20.0	97%		
12.5	100%	12.5	100%	12.5	95%		
10.0	100%	10.0	100%	10.0	94%		
5.0	99%	5.0	100%	5.0	91%		
2.5	99%	2.5	100%	2.5	87%		
1.25	98%	1.25	100%	1.25	84%		
0.630	98%	0.630	100%	0.630	81%		
0.315	96%	0.315	94%	0.315	80%		
0.160	94%	0.160	32%	0.160	75%		
0.080	90%	0.080	15%	0.080	70%		
M.C.(%):	22%	M.C.(%):	16%	M.C.(%):	17%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	1	% GRAVEL	0	% GRAVEL	9		
% SAND:	9	% SAND:	85	% SAND:	21		
% FINES:	90	% FINES:	15	% FINES:	70		
CLASSIFICATION:	SILT (ML)	CLASSIFICATION:	SILTY SAND (SM)	CLASSIFICATION:	SANDY SILT (ML)		

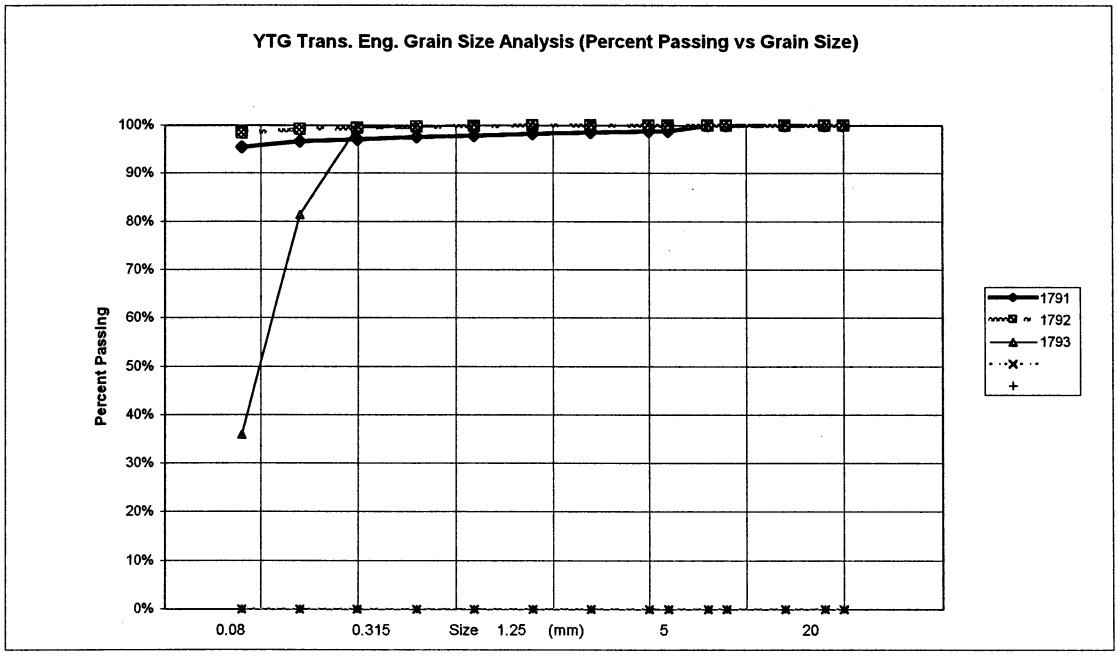


PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 573-1859
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	JARVIS CREEK NORTH		
DRILL UNIT:	MOBILE B 40 L		
LOGGED BY:	Doug Trim		
HOLE LOCATION:	1671+625 15M RT		DATE COM 2000/08/28

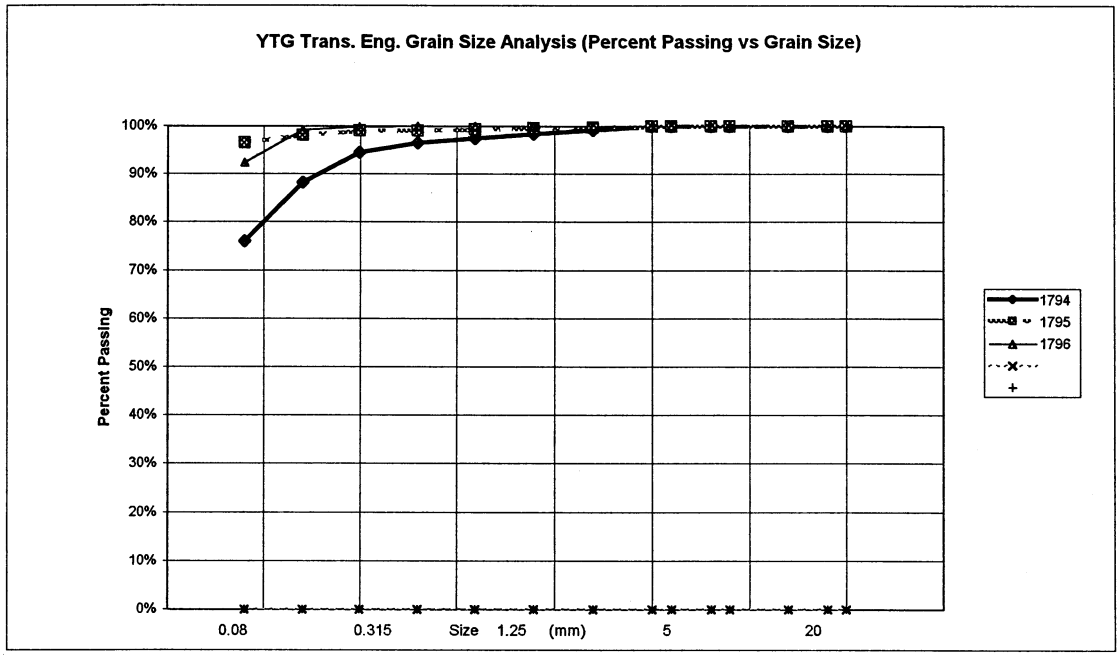
FIELD NO:	1788	FIELD No.	1789	FIELD No:	1790		
LAB NO:	2292	LAB No.	2293	LAB No:	2294		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	100%	20.0	100%	20.0	100%		
12.5	100%	12.5	100%	12.5	100%		
10.0	100%	10.0	100%	10.0	100%		
5.0	100%	5.0	100%	5.0	100%		
2.5	100%	2.5	100%	2.5	100%		
1.25	100%	1.25	100%	1.25	100%		
0.630	99%	0.630	100%	0.630	100%		
0.315	99%	0.315	100%	0.315	99%		
0.160	99%	0.160	82%	0.160	72%		
0.080	99%	0.080	30%	0.080	39%		
M.C.(%):	23%	M.C.(%):	7%	M.C.(%):	13%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	0	% GRAVEL	0	% GRAVEL	0		
% SAND:	1	% SAND:	70	% SAND:	61		
% FINES:	99	% FINES:	30	% FINES:	39		
CLASSIFICATION:	SILT (ML)	CLASSIFICATION:	SILTY SAND (SM)	CLASSIFICATION:	SILTY SAND (SM)		



PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	573-1860
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	JARVIS CREEK NORTH						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	Doug Trim						
HOLE LOCATION:	1671+725 40M RT					DATE COM	2000/08/28
FIELD NO:	1791	FIELD No.	1792	FIELD No:	1793		
LAB NO:	2295	LAB No.	2296	LAB No:	2297		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	100%	20.0	100%	20.0	100%		
12.5	99%	12.5	100%	12.5	100%		
10.0	99%	10.0	100%	10.0	100%		
5.0	99%	5.0	100%	5.0	100%		
2.5	98%	2.5	100%	2.5	100%		
1.25	98%	1.25	100%	1.25	100%		
0.630	98%	0.630	100%	0.630	100%		
0.315	97%	0.315	99%	0.315	100%		
0.160	97%	0.160	99%	0.160	81%		
0.080	95%	0.080	98%	0.080	36%		
M.C.(%):	24%	M.C.(%):	25%	M.C.(%):	10%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	1	% GRAVEL	0	% GRAVEL	0		
% SAND:	3	% SAND:	2	% SAND:	64		
% FINES:	95	% FINES:	98	% FINES:	36		
CLASSIFICATION:	SILT (ML)	CLASSIFICATION:	SILT (ML)	CLASSIFICATION:	SILTY SAND (SM)		

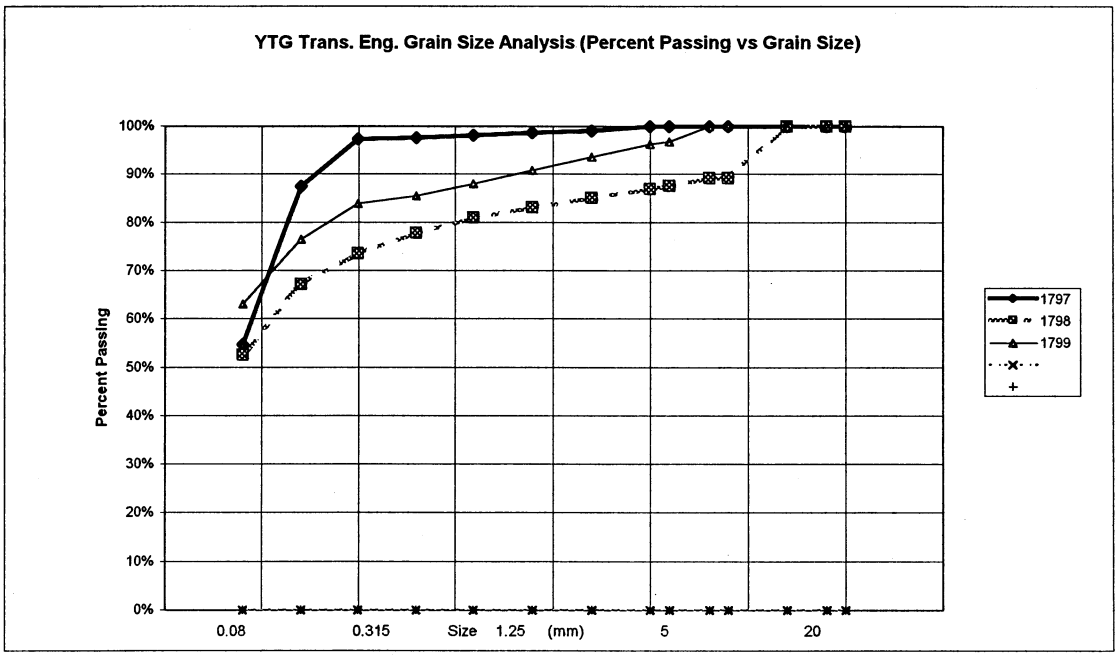


PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	573-1861
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	JARVIS CREEK NORTH						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	Doug Trim						
HOLE LOCATION:	1671+825 40M RT					DATE COM	2000/08/28
FIELD NO:	1794	FIELD No.	1795	FIELD No:	1796		
LAB NO:	2298	LAB No.	2299	LAB No:	2300		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	100%	20.0	100%	20.0	100%		
12.5	100%	12.5	100%	12.5	100%		
10.0	100%	10.0	100%	10.0	100%		
5.0	99%	5.0	100%	5.0	100%		
2.5	98%	2.5	100%	2.5	100%		
1.25	98%	1.25	99%	1.25	100%		
0.630	97%	0.630	99%	0.630	100%		
0.315	95%	0.315	99%	0.315	100%		
0.160	88%	0.160	98%	0.160	99%		
0.080	76%	0.080	97%	0.080	92%		
M.C.(%):	19%	M.C.(%):	39%	M.C.(%):	25%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	1	% GRAVEL	0	% GRAVEL	0		
% SAND:	23	% SAND:	3	% SAND:	8		
% FINES:	76	% FINES:	97	% FINES:	92		
CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SILT (ML)	CLASSIFICATION:	SILT (ML)		



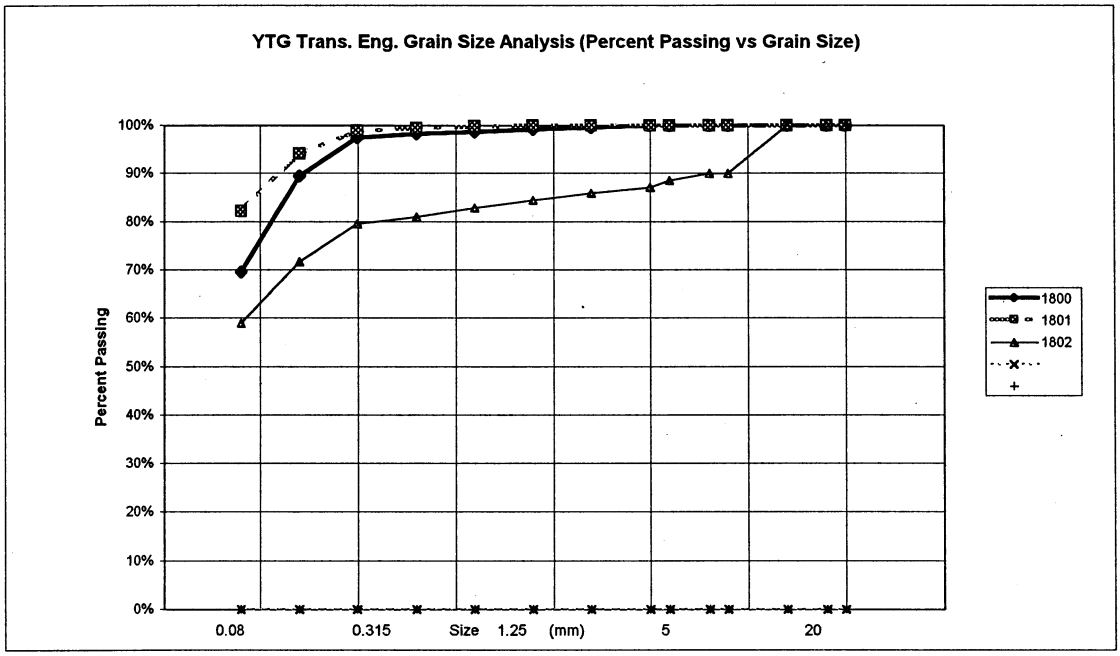
PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 573-1862
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	JARVIS CREEK NORTH		
DRILL UNIT:	MOBILE B 40 L		
LOGGED BY:	Doug Trim		
HOLE LOCATION:	1671+925 40M RT		DATE COM 2000/08/28

FIELD NO:	1797	FIELD No.	1798	FIELD No:	1799		
LAB NO:	2301	LAB No.	2302	LAB No:	2303		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	89%	25.0	100%		
20.0	100%	20.0	89%	20.0	100%		
12.5	100%	12.5	88%	12.5	97%		
10.0	100%	10.0	87%	10.0	96%		
5.0	99%	5.0	85%	5.0	94%		
2.5	99%	2.5	83%	2.5	91%		
1.25	98%	1.25	81%	1.25	88%		
0.630	98%	0.630	78%	0.630	86%		
0.315	97%	0.315	74%	0.315	84%		
0.160	88%	0.160	67%	0.160	76%		
0.080	55%	0.080	53%	0.080	63%		
M.C.(%):	12%	M.C.(%):	13%	M.C.(%):	13%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	1	% GRAVEL	15	% GRAVEL	6		
% SAND:	44	% SAND:	33	% SAND:	31		
% FINES:	55	% FINES:	53	% FINES:	63		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)		

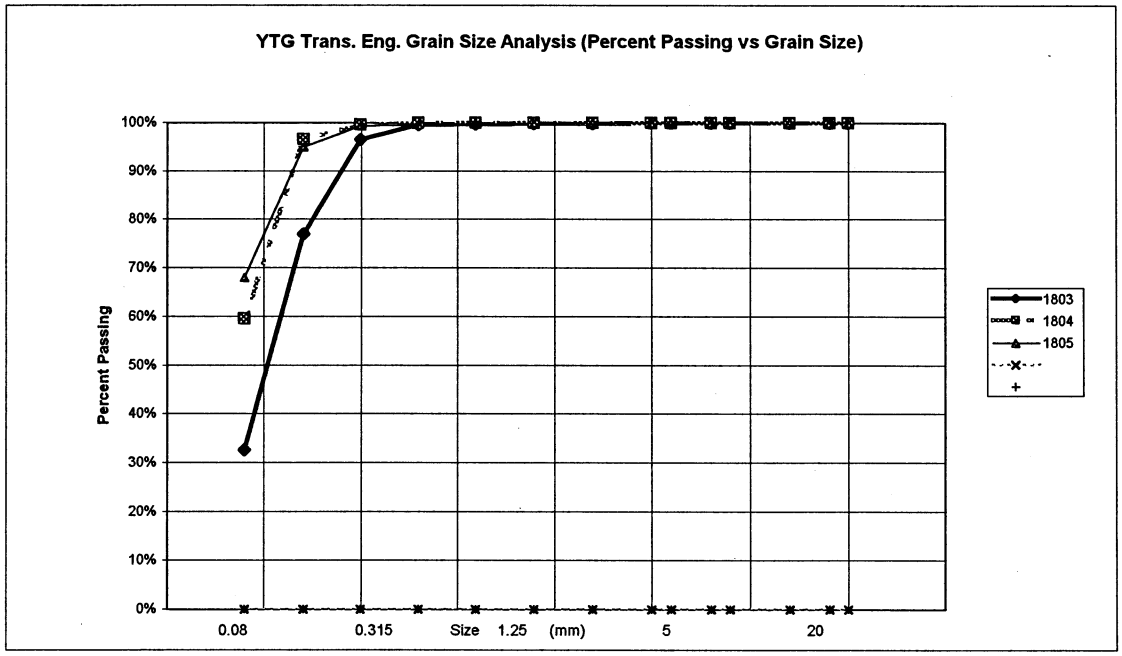


PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 573-1863
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	JARVIS CREEK NORTH		
DRILL UNIT:	MOBILE B 40 L		
LOGGED BY:	Doug Trim		
HOLE LOCATION:	1672+025 40M RT		DATE COM 2000/08/28

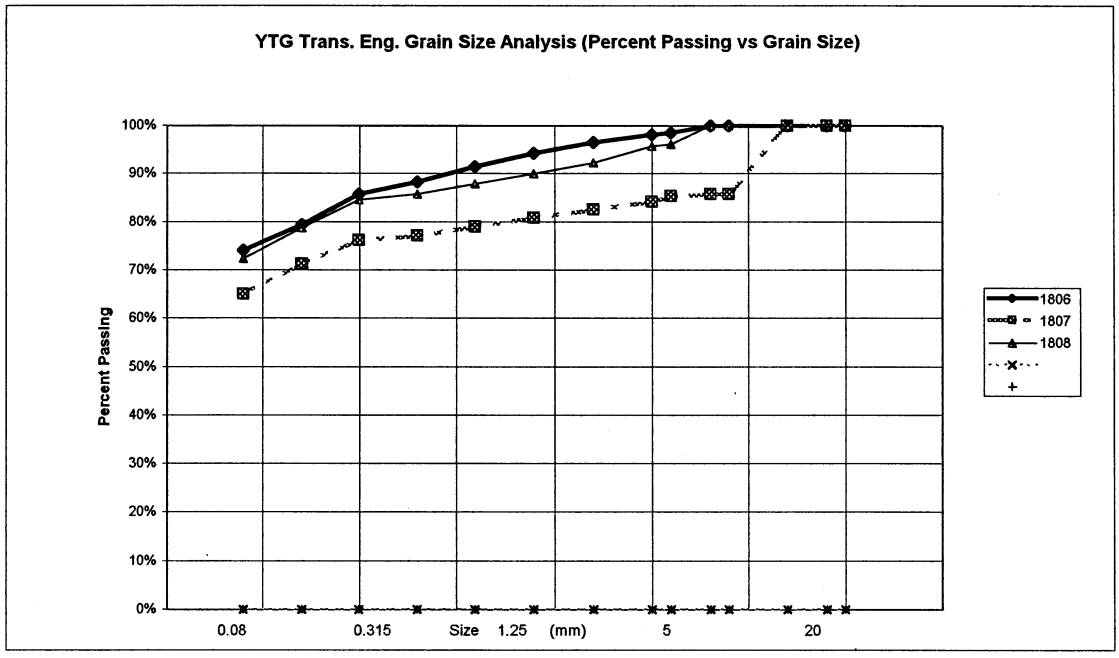
FIELD NO:	1800	FIELD No.	1801	FIELD No:	1802		
LAB NO:	2304	LAB No.	2305	LAB No:	2306		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	90%		
20.0	100%	20.0	100%	20.0	90%		
12.5	100%	12.5	100%	12.5	89%		
10.0	100%	10.0	100%	10.0	87%		
5.0	100%	5.0	100%	5.0	86%		
2.5	99%	2.5	100%	2.5	84%		
1.25	99%	1.25	100%	1.25	83%		
0.630	98%	0.630	99%	0.630	81%		
0.315	97%	0.315	99%	0.315	80%		
0.160	90%	0.160	94%	0.160	72%		
0.080	70%	0.080	82%	0.080	59%		
M.C.(%):	13%	M.C.(%):	14%	M.C.(%):	12%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	0	% GRAVEL	0	% GRAVEL	14		
% SAND:	30	% SAND:	18	% SAND:	27		
% FINES:	70	% FINES:	82	% FINES:	59		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT (ML)		



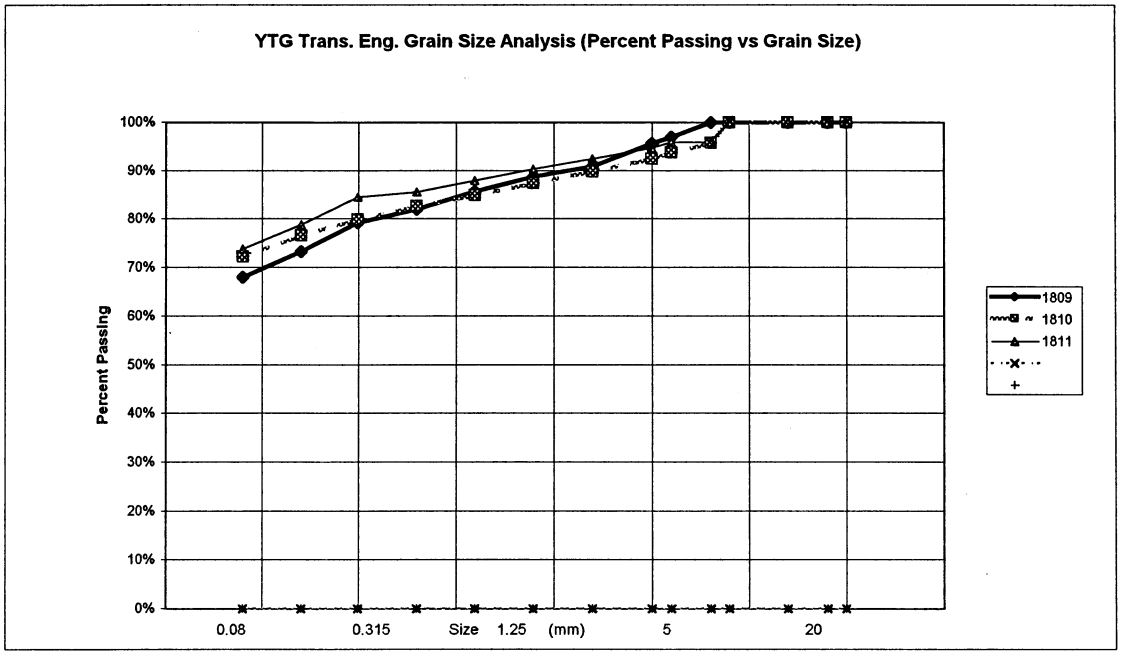
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	573-1864
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	JARVIS CREEK NORTH						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	Doug Trim						
HOLE LOCATION:	1672+125 40M RT					DATE COM	2000/08/28
FIELD NO:	1803	FIELD No.	1804	FIELD No:	1805		
LAB NO:	2307	LAB No.	2308	LAB No:	2309		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	100%	20.0	100%	20.0	100%		
12.5	100%	12.5	100%	12.5	100%		
10.0	100%	10.0	100%	10.0	100%		
5.0	100%	5.0	100%	5.0	100%		
2.5	100%	2.5	100%	2.5	100%		
1.25	100%	1.25	100%	1.25	100%		
0.630	100%	0.630	100%	0.630	100%		
0.315	97%	0.315	100%	0.315	99%		
0.160	77%	0.160	97%	0.160	95%		
0.080	33%	0.080	60%	0.080	68%		
M.C.(%):	7%	M.C.(%):	7%	M.C.(%):	8%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	0	% GRAVEL	0	% GRAVEL	0		
% SAND:	67	% SAND:	40	% SAND:	32		
% FINES:	33	% FINES:	60	% FINES:	68		
CLASSIFICATION:	SILTY SAND (SM)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)		



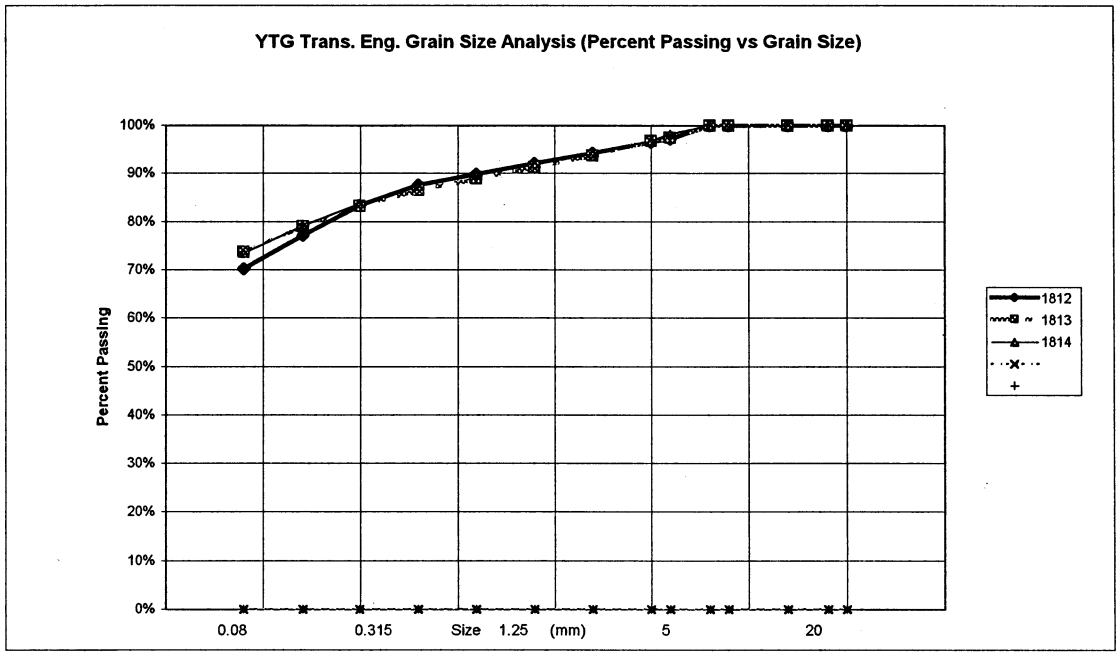
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	573-1865
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	JARVIS CREEK NORTH						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	Doug Trim						
HOLE LOCATION:	1672+225 40M RT					DATE COM	2000/08/28
FIELD NO:	1806	FIELD No.	1807	FIELD No:	1808		
LAB NO:	2310	LAB No.	2311	LAB No:	2312		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	86%	25.0	100%		
20.0	100%	20.0	86%	20.0	100%		
12.5	99%	12.5	85%	12.5	96%		
10.0	98%	10.0	84%	10.0	96%		
5.0	97%	5.0	83%	5.0	92%		
2.5	94%	2.5	81%	2.5	90%		
1.25	91%	1.25	79%	1.25	88%		
0.630	88%	0.630	77%	0.630	86%		
0.315	86%	0.315	76%	0.315	85%		
0.160	79%	0.160	71%	0.160	79%		
0.080	74%	0.080	65%	0.080	72%		
M.C.(%):	15%	M.C.(%):	12%	M.C.(%):	11%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	3	% GRAVEL	17	% GRAVEL	8		
% SAND:	23	% SAND:	18	% SAND:	20		
% FINES:	74	% FINES:	65	% FINES:	72		
CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SILT WITH SAND (ML)		



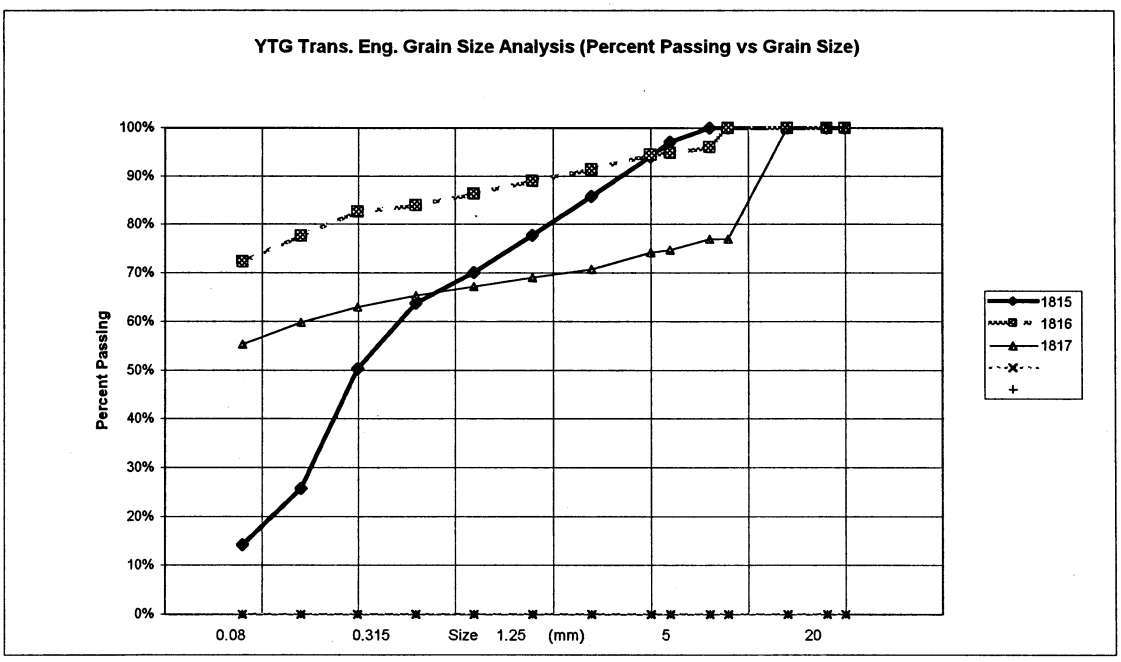
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	573-1866
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	JARVIS CREEK NORTH						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	Doug Trim						
HOLE LOCATION:	1672+325 35M RT					DATE COM	2000/08/28
FIELD NO:	1809	FIELD No.	1810	FIELD No:	1811		
LAB NO:	2313	LAB No.	2314	LAB No:	2315		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	100%	20.0	96%	20.0	96%		
12.5	97%	12.5	94%	12.5	96%		
10.0	96%	10.0	92%	10.0	95%		
5.0	91%	5.0	90%	5.0	93%		
2.5	89%	2.5	87%	2.5	90%		
1.25	86%	1.25	85%	1.25	88%		
0.630	82%	0.630	83%	0.630	86%		
0.315	79%	0.315	80%	0.315	85%		
0.160	73%	0.160	77%	0.160	79%		
0.080	68%	0.080	72%	0.080	74%		
M.C.(%):	17%	M.C.(%):	15%	M.C.(%):	15%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	9	% GRAVEL	10	% GRAVEL	7		
% SAND:	23	% SAND:	18	% SAND:	19		
% FINES:	68	% FINES:	72	% FINES:	74		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SILT WITH SAND (ML)		



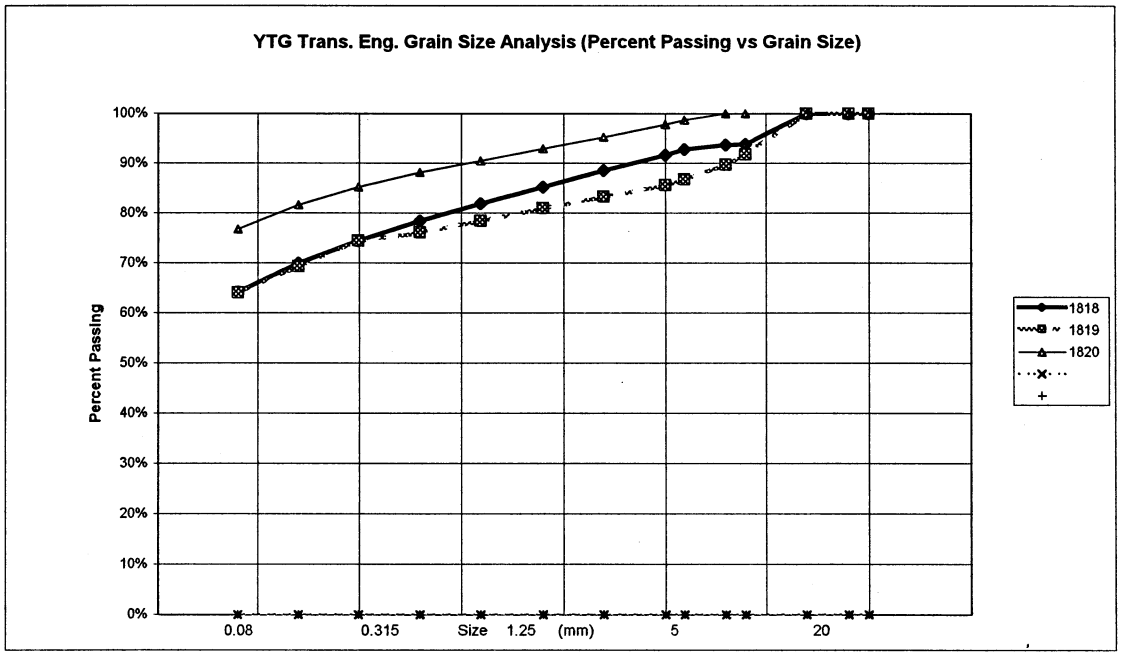
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	573-1867
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	JARVIS CREEK NORTH						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	Doug Trim						
HOLE LOCATION:	1672+425 40M RT					DATE COM	2000/08/28
FIELD NO:	1812	FIELD No.	1813	FIELD No:	1814		
LAB NO:	2316	LAB No.	2317	LAB No:	2318		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	100%	20.0	100%	20.0	100%		
12.5	97%	12.5	97%	12.5	98%		
10.0	97%	10.0	97%	10.0	97%		
5.0	94%	5.0	94%	5.0	94%		
2.5	92%	2.5	91%	2.5	92%		
1.25	90%	1.25	89%	1.25	90%		
0.630	88%	0.630	87%	0.630	87%		
0.315	83%	0.315	83%	0.315	84%		
0.160	77%	0.160	79%	0.160	79%		
0.080	70%	0.080	74%	0.080	73%		
M.C.(%):	16%	M.C.(%):	15%	M.C.(%):	15%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	6	% GRAVEL	6	% GRAVEL	6		
% SAND:	24	% SAND:	20	% SAND:	21		
% FINES:	70	% FINES:	74	% FINES:	73		
CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SILT WITH SAND (ML)		



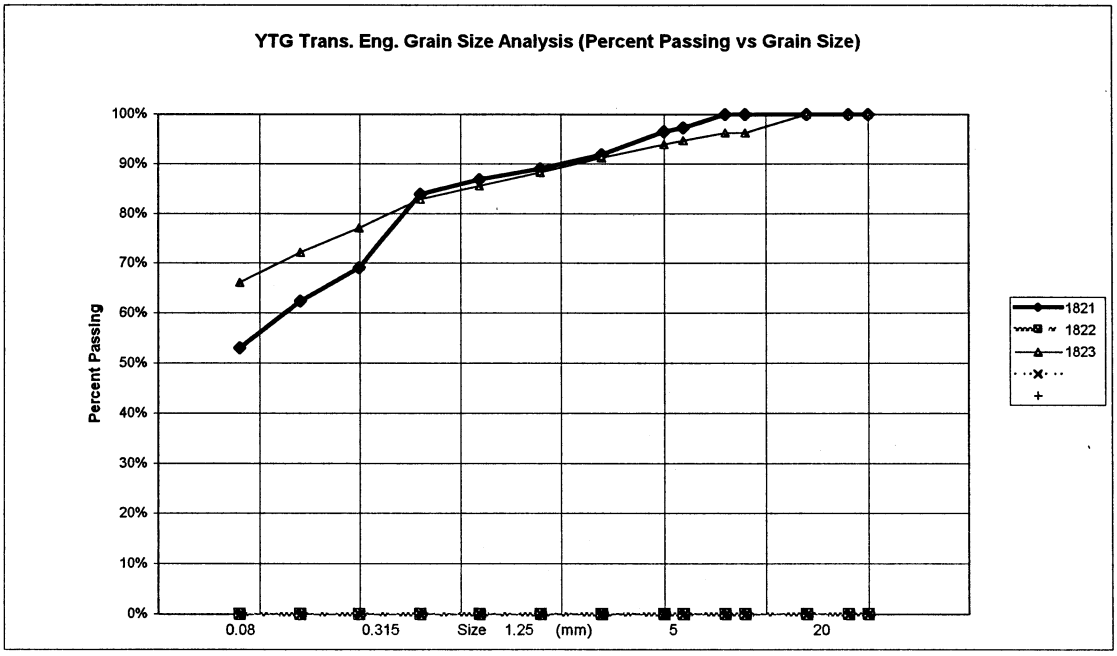
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	573-1868
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	JARVIS CREEK NORTH						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	Doug Trim						
HOLE LOCATION:	1672+525 40M RT					DATE COM	2000/08/28
FIELD NO:	1815	FIELD No.	1816	FIELD No:	1817		
LAB NO:	2319	LAB No.	2320	LAB No:	2321		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	77%		
20.0	100%	20.0	96%	20.0	77%		
12.5	97%	12.5	95%	12.5	75%		
10.0	94%	10.0	94%	10.0	74%		
5.0	86%	5.0	91%	5.0	71%		
2.5	78%	2.5	89%	2.5	69%		
1.25	70%	1.25	86%	1.25	67%		
0.630	64%	0.630	84%	0.630	65%		
0.315	50%	0.315	83%	0.315	63%		
0.160	26%	0.160	78%	0.160	60%		
0.080	14%	0.080	72%	0.080	55%		
M.C.(%):	14%	M.C.(%):	18%	M.C.(%):	12%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	14	% GRAVEL	9	% GRAVEL	29		
% SAND:	72	% SAND:	19	% SAND:	16		
% FINES:	14	% FINES:	72	% FINES:	55		
CLASSIFICATION:	SILTY SAND (SM)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	GRAVELLY SILT WITH SAND (ML)		



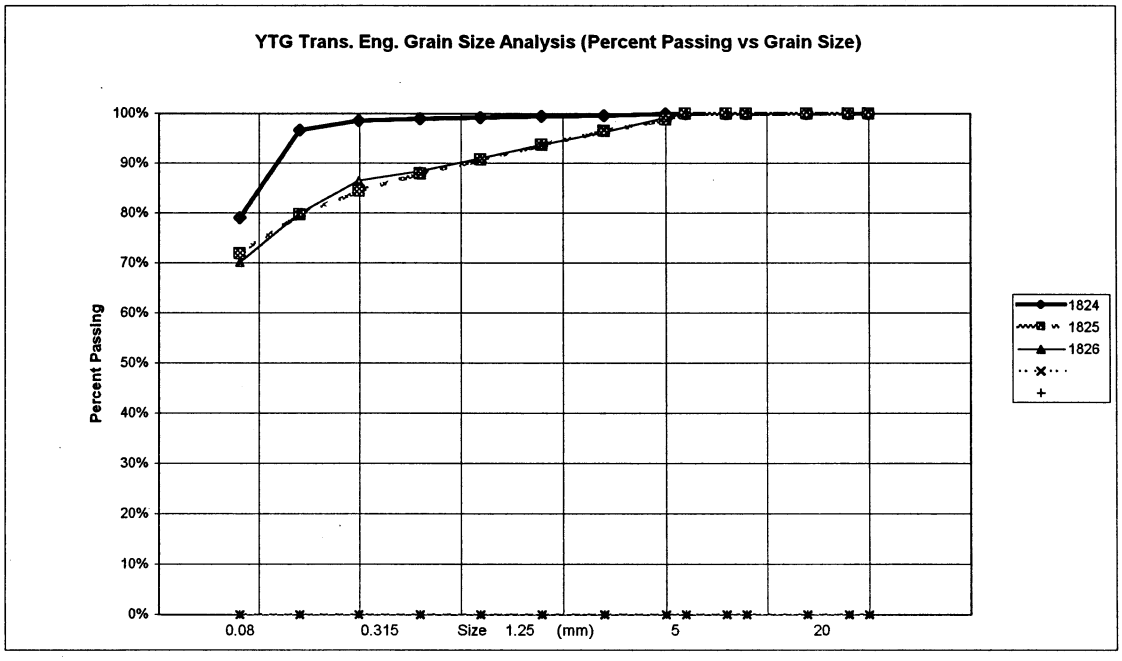
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	573-1869
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	JARVIS CREEK NORTH						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	Doug Trim						
HOLE LOCATION:	1672+625 40M RT					DATE COM	2000/08/28
FIELD NO:	1818	FIELD No.	1819	FIELD No:	1820		
LAB NO:	2322	LAB No.	2323	LAB No:	2324		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	94%	25.0	92%	25.0	100%		
20.0	94%	20.0	90%	20.0	100%		
12.5	93%	12.5	87%	12.5	99%		
10.0	92%	10.0	86%	10.0	98%		
5.0	89%	5.0	83%	5.0	95%		
2.5	85%	2.5	81%	2.5	93%		
1.25	82%	1.25	79%	1.25	91%		
0.630	78%	0.630	76%	0.630	88%		
0.315	74%	0.315	74%	0.315	85%		
0.160	70%	0.160	69%	0.160	82%		
0.080	64%	0.080	64%	0.080	77%		
M.C.(%):	18%	M.C.(%):	15%	M.C.(%):	13%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	11	% GRAVEL	17	% GRAVEL	5		
% SAND:	24	% SAND:	19	% SAND:	18		
% FINES:	64	% FINES:	64	% FINES:	77		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SILT WITH SAND (ML)		



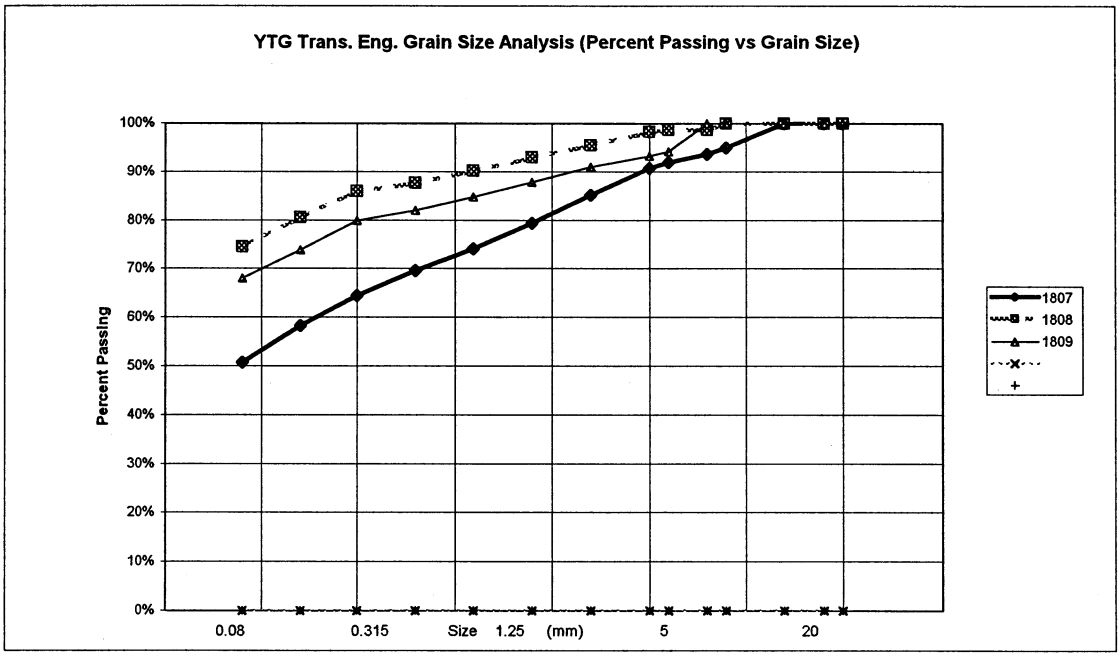
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	573-1870
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	JARVIS CREEK NORTH						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	Doug Trim						
HOLE LOCATION:	1672+725 40M RT					DATE COM	2000/08/28
FIELD NO:	1821	FIELD No.	1822	FIELD No:	1823		
LAB NO:	2325	LAB No.	lost	LAB No:	2327		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0		100.0	100%		
80.0	100%	80.0		80.0	100%		
50.0	100%	50.0		50.0	100%		
25.0	100%	25.0		25.0	96%		
20.0	100%	20.0		20.0	96%		
12.5	97%	12.5		12.5	95%		
10.0	97%	10.0		10.0	94%		
5.0	92%	5.0		5.0	91%		
2.5	89%	2.5		2.5	88%		
1.25	87%	1.25		1.25	86%		
0.630	84%	0.630		0.630	83%		
0.315	69%	0.315		0.315	77%		
0.160	62%	0.160		0.160	72%		
0.080	53%	0.080		0.080	66%		
M.C.(%):	15%	M.C.(%):	13%	M.C.(%):	15%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	8	% GRAVEL	#VALUE!	% GRAVEL	9		
% SAND:	39	% SAND:	#VALUE!	% SAND:	25		
% FINES:	53	% FINES:	#VALUE!	% FINES:	66		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	#VALUE!	CLASSIFICATION:	SANDY SILT (ML)		



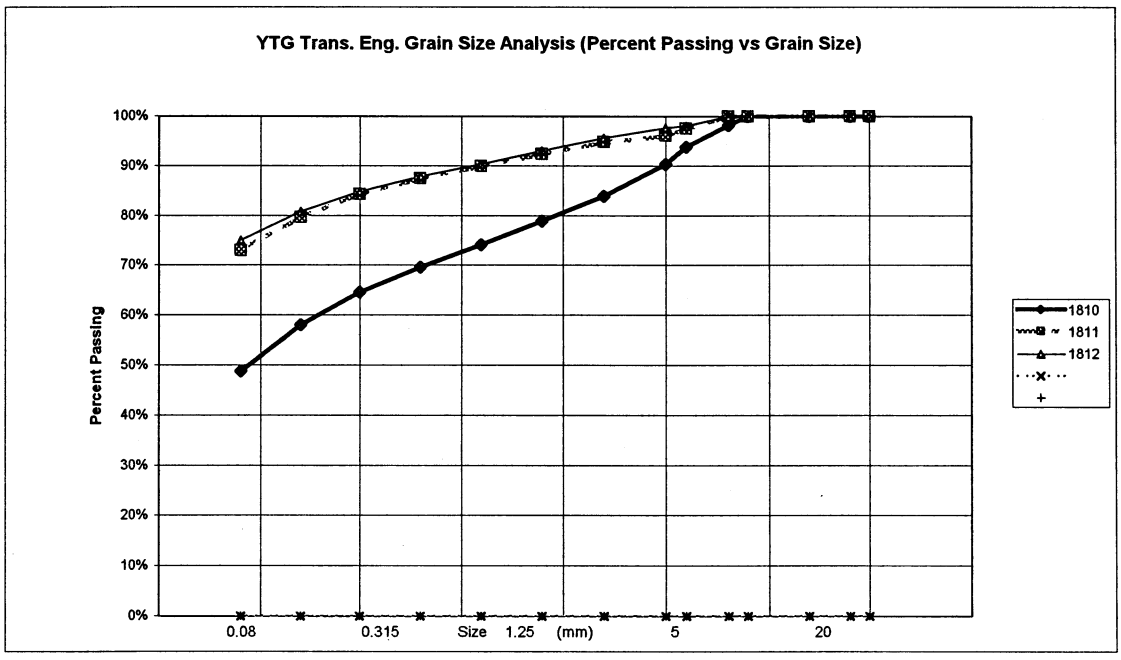
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	573-1871
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	JARVIS CREEK NORTH						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	Doug Trim						
HOLE LOCATION:	1672+825 40m rt					DATE COM	2000/08/28
FIELD NO:	1824	FIELD No.	1825	FIELD No:	1826		
LAB NO:	2328	LAB No.	2329	LAB No:	2330		
DEPTH:	1.1-1.3	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	100%	20.0	100%	20.0	100%		
12.5	100%	12.5	100%	12.5	100%		
10.0	100%	10.0	99%	10.0	99%		
5.0	100%	5.0	97%	5.0	96%		
2.5	99%	2.5	94%	2.5	94%		
1.25	99%	1.25	91%	1.25	91%		
0.630	99%	0.630	88%	0.630	88%		
0.315	99%	0.315	84%	0.315	87%		
0.160	97%	0.160	80%	0.160	80%		
0.080	79%	0.080	72%	0.080	70%		
M.C.(%):	18%	M.C.(%):	15%	M.C.(%):	15%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	0	% GRAVEL	3	% GRAVEL	4		
% SAND:	20	% SAND:	25	% SAND:	26		
% FINES:	79	% FINES:	72	% FINES:	70		
CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SILT WITH SAND (ML)		



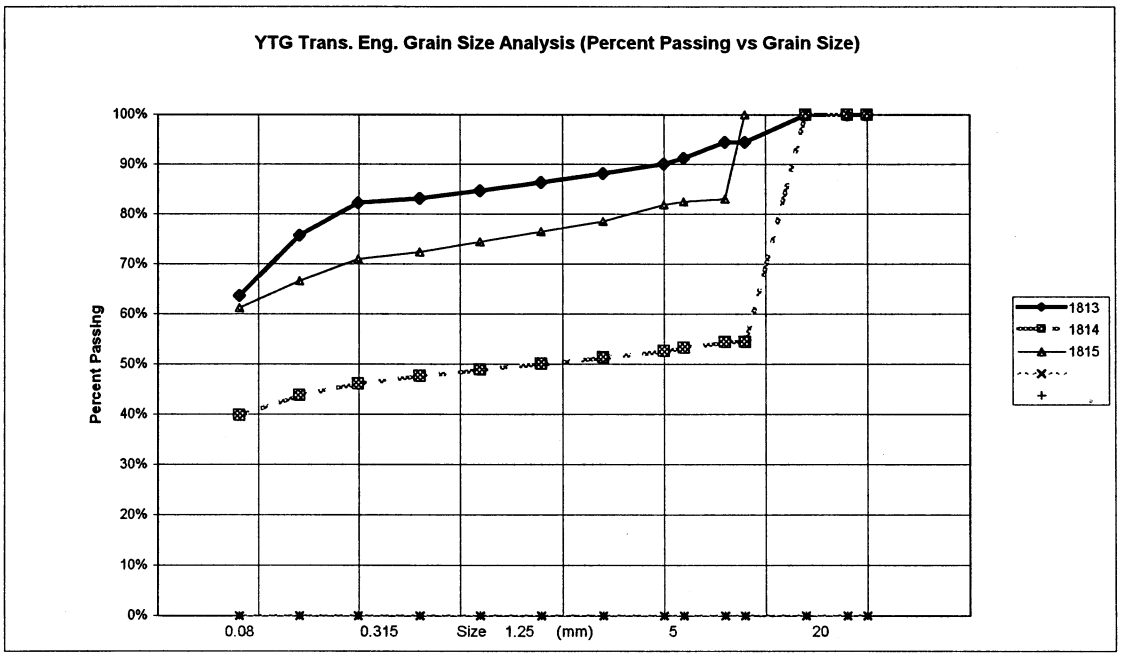
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	573-1872
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	JARVIS CREEK NORTH						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	Doug Trim						
HOLE LOCATION:	1672+900 30M LT					DATE COM	2000/08/29
FIELD NO:	1807	FIELD No.	1808	FIELD No:	1809		
LAB NO:	2331	LAB No.	2332	LAB No:	2333		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	95%	25.0	100%	25.0	100%		
20.0	94%	20.0	99%	20.0	100%		
12.5	92%	12.5	99%	12.5	94%		
10.0	91%	10.0	98%	10.0	93%		
5.0	85%	5.0	96%	5.0	91%		
2.5	79%	2.5	93%	2.5	88%		
1.25	74%	1.25	90%	1.25	85%		
0.630	70%	0.630	88%	0.630	82%		
0.315	65%	0.315	86%	0.315	80%		
0.160	58%	0.160	81%	0.160	74%		
0.080	51%	0.080	75%	0.080	68%		
M.C.(%):	13%	M.C.(%):	15%	M.C.(%):	15%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	15	% GRAVEL	4	% GRAVEL	9		
% SAND:	34	% SAND:	21	% SAND:	23		
% FINES:	51	% FINES:	75	% FINES:	68		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT (ML)		



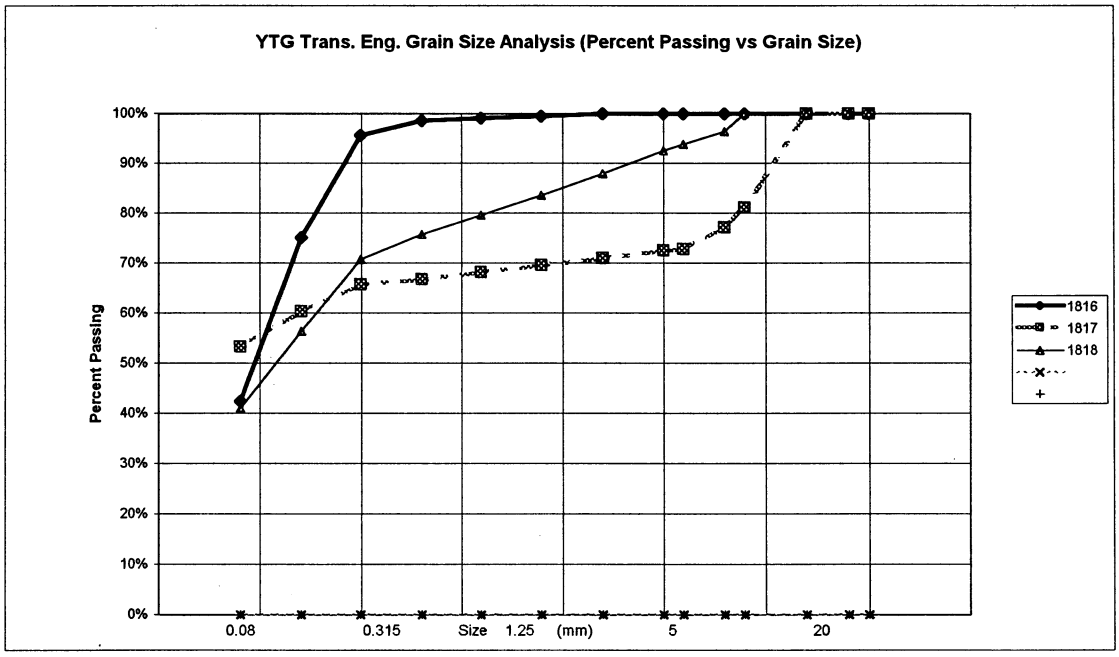
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	573-1873
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	JARVIS CREEK NORTH						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	Doug Trim						
HOLE LOCATION:	1673+000 25m lt					DATE COM	2000/08/29
FIELD NO:	1810	FIELD No.	1811	FIELD No:	1812		
LAB NO:	2334	LAB No.	2335	LAB No:	2336		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	98%	20.0	100%	20.0	100%		
12.5	94%	12.5	98%	12.5	98%		
10.0	90%	10.0	96%	10.0	98%		
5.0	84%	5.0	95%	5.0	96%		
2.5	79%	2.5	92%	2.5	93%		
1.25	74%	1.25	90%	1.25	90%		
0.630	70%	0.630	88%	0.630	88%		
0.315	65%	0.315	84%	0.315	85%		
0.160	58%	0.160	80%	0.160	81%		
0.080	49%	0.080	73%	0.080	75%		
M.C.(%):	18%	M.C.(%):	16%	M.C.(%):	14%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	16	% GRAVEL	5	% GRAVEL	4		
% SAND:	35	% SAND:	22	% SAND:	21		
% FINES:	49	% FINES:	73	% FINES:	75		
CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SILT WITH SAND (ML)		



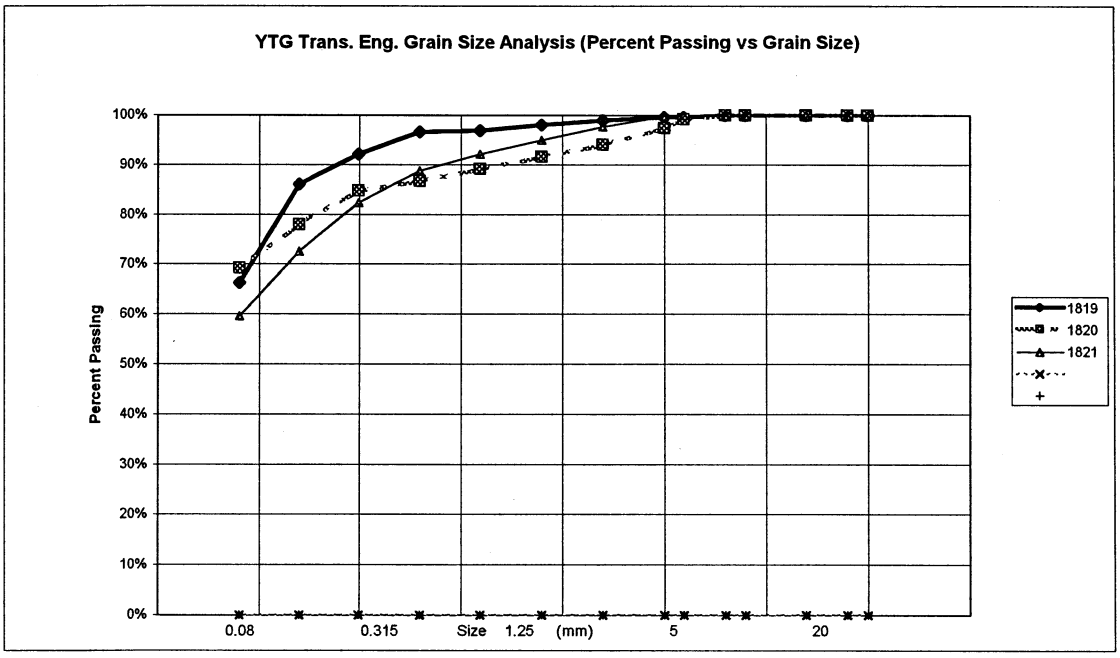
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	573-1874
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	JARVIS CREEK NORTH						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	Doug Trim						
HOLE LOCATION:	1673+10025M LT					DATE COM	2000/08/29
FIELD NO:	1813	FIELD No.	1814	FIELD No:	1815		
LAB NO:	2337	LAB No.	2338	LAB No:	2339		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	95%	25.0	55%	25.0	100%		
20.0	95%	20.0	55%	20.0	83%		
12.5	91%	12.5	53%	12.5	83%		
10.0	90%	10.0	53%	10.0	82%		
5.0	88%	5.0	51%	5.0	79%		
2.5	86%	2.5	50%	2.5	77%		
1.25	85%	1.25	49%	1.25	74%		
0.630	83%	0.630	48%	0.630	72%		
0.315	82%	0.315	46%	0.315	71%		
0.160	76%	0.160	44%	0.160	67%		
0.080	64%	0.080	40%	0.080	61%		
M.C.(%):	17%	M.C.(%):	11%	M.C.(%):	13%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	12	% GRAVEL	49	% GRAVEL	21		
% SAND:	25	% SAND:	12	% SAND:	17		
% FINES:	64	% FINES:	40	% FINES:	61		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILTY GRAVEL (GM)	CLASSIFICATION:	GRAVELLY SILT WITH SAND (ML)		



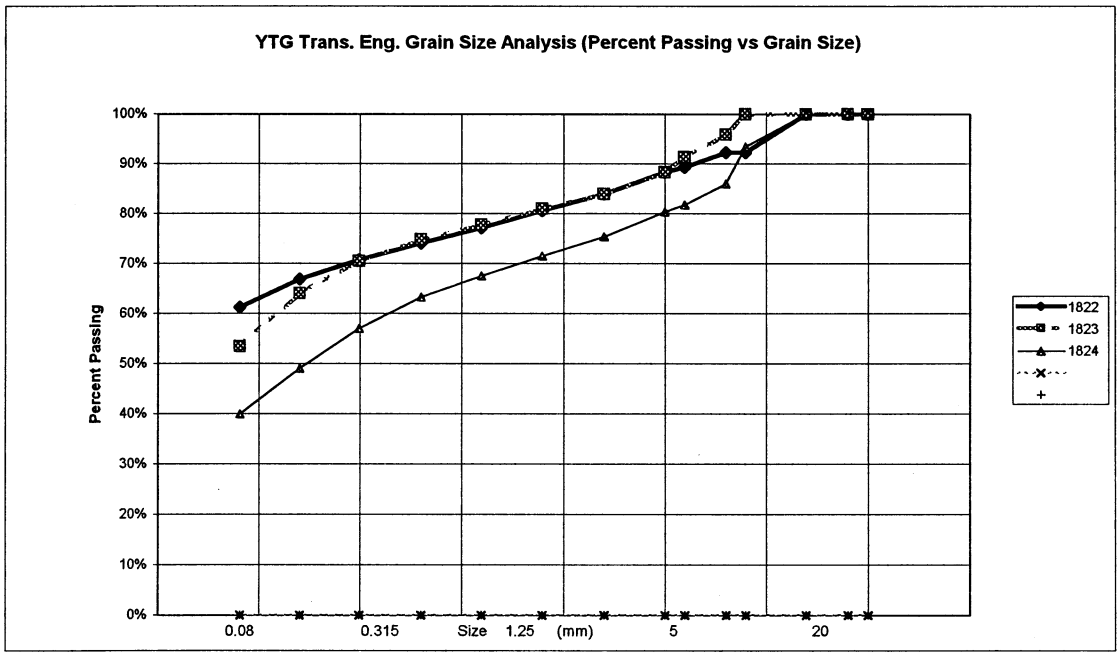
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	573-1875
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	JARVIS CREEK NORTH						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	Doug Trim						
HOLE LOCATION:	1673+130 15M LT					DATE COM	2000/08/29
FIELD NO:	1816	FIELD No.	1817	FIELD No:	1818		
LAB NO:	2340	LAB No.	2341	LAB No:	2342		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	81%	25.0	100%		
20.0	100%	20.0	77%	20.0	96%		
12.5	100%	12.5	73%	12.5	94%		
10.0	100%	10.0	73%	10.0	93%		
5.0	100%	5.0	71%	5.0	88%		
2.5	99%	2.5	70%	2.5	84%		
1.25	99%	1.25	68%	1.25	80%		
0.630	99%	0.630	67%	0.630	76%		
0.315	96%	0.315	66%	0.315	71%		
0.160	75%	0.160	60%	0.160	56%		
0.080	42%	0.080	53%	0.080	41%		
M.C.(%):	18%	M.C.(%):	18%	M.C.(%):	16%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	0	% GRAVEL	29	% GRAVEL	12		
% SAND:	58	% SAND:	18	% SAND:	47		
% FINES:	42	% FINES:	53	% FINES:	41		
CLASSIFICATION:	SILTY SAND (SM)	CLASSIFICATION:	GRAVELLY SILT WITH SAND (ML)	CLASSIFICATION:	SILTY SAND (SM)		



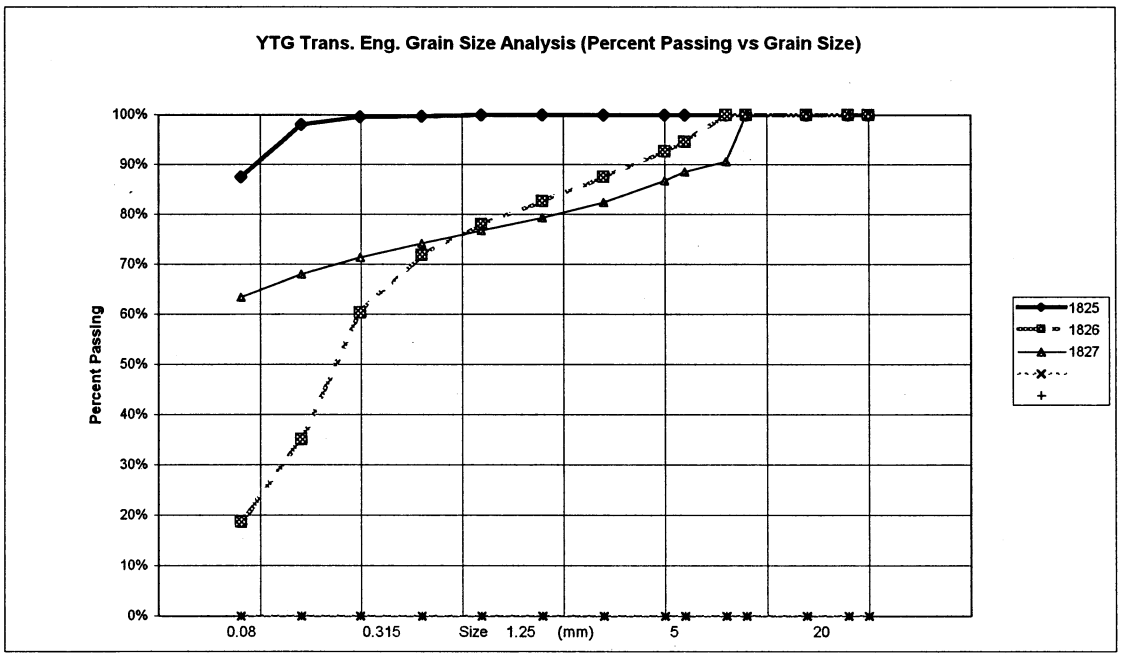
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	573-1876
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	JARVIS CREEK NORTH						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	Doug Trim						
HOLE LOCATION:	1673+275 25M LT					DATE COM	2000/08/29
FIELD NO:	1819	FIELD No.	1820	FIELD No:	1821		
LAB NO:	2343	LAB No.	2344	LAB No:	2345		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	100%	20.0	100%	20.0	100%		
12.5	100%	12.5	99%	12.5	100%		
10.0	100%	10.0	97%	10.0	100%		
5.0	99%	5.0	94%	5.0	98%		
2.5	98%	2.5	92%	2.5	95%		
1.25	97%	1.25	89%	1.25	92%		
0.630	97%	0.630	87%	0.630	89%		
0.315	92%	0.315	85%	0.315	82%		
0.160	86%	0.160	78%	0.160	73%		
0.080	66%	0.080	69%	0.080	60%		
M.C.(%):	20%	M.C.(%):	14%	M.C.(%):	18%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	1	% GRAVEL	6	% GRAVEL	2		
% SAND:	33	% SAND:	25	% SAND:	38		
% FINES:	66	% FINES:	69	% FINES:	60		
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SANDY SILT (ML)		



PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	573-1877
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	JARVIS CREEK NORTH						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	Doug Trim						
HOLE LOCATION:	1673+375 25M LT					DATE COM	2000/08/29
FIELD NO:	1822	FIELD No.	1823	FIELD No:	1824		
LAB NO:	2346	LAB No.	2347	LAB No:	2348		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.3-4.5		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	92%	25.0	100%	25.0	94%		
20.0	92%	20.0	96%	20.0	86%		
12.5	89%	12.5	91%	12.5	82%		
10.0	88%	10.0	88%	10.0	80%		
5.0	84%	5.0	84%	5.0	75%		
2.5	81%	2.5	81%	2.5	72%		
1.25	77%	1.25	78%	1.25	68%		
0.630	74%	0.630	75%	0.630	63%		
0.315	71%	0.315	71%	0.315	57%		
0.160	67%	0.160	64%	0.160	49%		
0.080	61%	0.080	53%	0.080	40%		
M.C.(%):	13%	M.C.(%):	9%	M.C.(%):	9%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	16	% GRAVEL	16	% GRAVEL	25		
% SAND:	23	% SAND:	30	% SAND:	35		
% FINES:	61	% FINES:	53	% FINES:	40		
CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)		



PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	573-1878
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	JARVIS CREEK NORTH						
DRILL UNIT:	MOBILE B 40 L						
LOGGED BY:	Doug Trim						
HOLE LOCATION:	1673+468 25M LT					DATE COM	2000/08/29
FIELD NO:	1825	FIELD No.	1826	FIELD No:	1827		
LAB NO:	2349	LAB No.	2350	LAB No:	2351		
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.2-4.4		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	100%	25.0	100%	25.0	100%		
20.0	100%	20.0	100%	20.0	91%		
12.5	100%	12.5	95%	12.5	89%		
10.0	100%	10.0	93%	10.0	87%		
5.0	100%	5.0	88%	5.0	82%		
2.5	100%	2.5	83%	2.5	79%		
1.25	100%	1.25	78%	1.25	77%		
0.630	100%	0.630	72%	0.630	74%		
0.315	100%	0.315	60%	0.315	71%		
0.160	98%	0.160	35%	0.160	68%		
0.080	88%	0.080	19%	0.080	63%		
M.C.(%):	19%	M.C.(%):	8%	M.C.(%):	8%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	0	% GRAVEL	12	% GRAVEL	18		
% SAND:	12	% SAND:	69	% SAND:	19		
% FINES:	88	% FINES:	19	% FINES:	63		
CLASSIFICATION:	SILT (ML)	CLASSIFICATION:	SILTY SAND (SM)	CLASSIFICATION:	SANDY SILT WITH GRAVEL (ML)		



GEOTECHNICAL INVESTIGATIONS

Highway Construction
Km 1664.2 to 1674.2
Alaska Highway #1
Yukon 2001-2002
Volume 2 of 2

Yukon
Community and Transportation Services
Transportation Engineering Branch

Geotechnical Services

BOX 2703, WHITEHORSE, YUKON
PHONE 867-667-8820 FAX 867-393-6447

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Highway Construction
Km 1664.2 to 1674.2
Alaska Highway #1
Yukon 2001-2002
Volume 2 of 2

This Data Package prepared for project viewing:

February, 2001

Transportation Engineering Branch
Geotechnical Services
461 Range Road
Whitehorse, Yukon

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Volume 1 of 2

INTRODUCTION

Investigation notes, classification methods and legends.

2000 CENTRELINE TESTING ALASKA HIGHWAY

Subsurface Exploration and Testing Report Sheets are provided.
The reports for the centreline holes are arranged according to project location, starting at Km 1664+350 and increasing to Km 1673+855.

Laboratory Testing Result Sheets are provided.
The reports for the centreline holes are arranged according to test hole number, starting at 568-1768 and increasing to 576-887.

2000	TEST HOLES 1768 to 1789	shown with prefix 568-
	TEST HOLES 1790 to 1813	shown with prefix 569-
	TEST HOLES 1814 to 1833	shown with prefix 570-
	TEST HOLES 1848 to 1858	shown with prefix 572-
	TEST HOLES 1859 to 1878	shown with prefix 573-
	TEST HOLES 884 to 887	shown with prefix 576-

NOTE: 2000 Centreline Test Hole locations on the Subsurface Exploration and Testing Report Sheets are approximate. Actual Test Hole locations, compiled by GPS survey, are indicated on project plans.

CONTENTS (continued)

Volume 2 of 2

1978 CENTRELINE TESTING ALASKA HIGHWAY

A Test Hole Location Reference Table and Subsurface Exploration & Testing Report Sheets are provided.
The reports for the centreline holes are arranged according to project location, starting at Km 1664+248 and increasing to Km 1674+291.

1978	TEST HOLES 26 to 31, 328 to 340, and 100 to 173	shown with no prefix

IMPORTANT NOTE: Due to alignment revisions subsequent to the 1978 centreline testing the test hole locations indicated on the 1978 Subsurface Exploration and Testing Report sheets are invalid. Utilize the Test Hole Location Reference Table provided in order to determine the test hole locations relevant to the current alignment.

GRANULAR SOURCE Km 1654.3 LHS ALASKA HIGHWAY (Bear Creek Summit)

Location Plans and Subsurface Exploration and Testing Report Sheets are provided.

Backhoe Testing

1998	TEST PITS 20 to 27	shown with prefix 496-

Laboratory Crush Results

1998	TEST PITS 20 to 23 and 26	shown with prefix 496-

Auger Testing

2000	TEST HOLES 1451 to 1455, 1471 to 1479	shown with prefix 571-

QUARRY SOURCE Km 1674 RHS ALASKA HIGHWAY

Location Plans and Subsurface Exploration and Testing Report Sheets are provided.

Air Rotary Drill Testing

2000	TEST HOLES 865 to 883	shown with prefix 576-

1978 CENTRELINE TESTING
1664+248 to 1674+291
ALASKA HIGHWAY

TEST HOLE LOCATION REFERENCE TABLE

Km 1664.2 to 1674.3

TEST HOLE #	DRILL LOG LOCATION		CURRENT LOCATION	
	STATION	OFFSET	STATION	OFFSET
30	1664+282	C.L.	1664+248	0.2 m Rt
29	1664+320	C.L.	1664+286	0.2 m Rt
26	1664+445	C.L.	1664+411	C.L.
27	1664+526	C.L.	1664+492	0.1 m Lt
28	1664+602	C.L.	1664+568	0.2 m Lt
31	1664+681	C.L.	1664+647	0.3 m Lt
328	1664+747	C.L.	1664+713	0.4 m Lt
329	1664+845	C.L.	1664+811	0.5 m Lt
330	1664+940	C.L.	1664+906	0.7 m Lt
331	1665+033	C.L.	1664+999	0.7 m Lt
332	1665+126	C.L.	1665+092	0.2 m Lt
333	1665+200	C.L.	1665+166	0.7 m Rt
334	1665+300	C.L.	1665+266	1.2 m Rt
335	1665+380	C.L.	1665+346	1.6 m Rt
336	1665+462	C.L.	1665+428	1.9 m Rt
337	1665+541	C.L.	1665+507	2.3 m Rt
338	1665+620	C.L.	1665+586	2.6 m Rt
339	1665+740	C.L.	1665+706	3.1 m Rt
340	1665+820	C.L.	1665+786	3.5 m Rt
100	1668+690	C.L.	1668+659	3.5 m Rt
101	1668+766	C.L.	1668+735	4.1 m Rt
102	1668+850	C.L.	1668+820	5.8 m Rt
103	1668+928	C.L.	1668+898	6.5 m Rt
104	1669+005	C.L.	1668+975	5.1 m Rt
105	1669+089	C.L.	1669+059	3.5 m Rt
106	1669+205	C.L.	1669+175	1.5 m Rt
107	1669+282	C.L.	1669+252	0.1 m Rt
108	1669+364	C.L.	1669+334	1.4 m Lt
109	1669+440	C.L.	1669+410	2.8 m Lt
110	1669+527	C.L.	1669+497	4.4 m Lt
111	1669+605	C.L.	1669+575	5.8 m Lt
112	1669+688	C.L.	1669+658	7.3 m Lt
113	1669+760	C.L.	1669+730	8.1 m Lt
114	1669+838	C.L.	1669+808	7.3 m Lt

TEST HOLE #	DRILL LOG LOCATION		CURRENT LOCATION	
	STATION	OFFSET	STATION	OFFSET
115	1669+913	C.L.	1669+883	5.4 m Lt
116	1669+995	C.L.	1669+965	3.2 m Lt
117	1670+070	C.L.	1670+040	1.3 m Lt
118	1670+152	C.L.	1670+122	0.9 m Rt
119	1670+225	C.L.	1670+195	2.8 m Rt
120	1670+293	C.L.	1670+263	4.4 m Rt
121	1670+362	C.L.	1670+332	4.1 m Rt
122	1670+435	C.L.	1670+406	2.3 m Rt
123	1670+582	C.L.	1670+553	0.2 m Rt
124	1670+655	C.L.	1670+626	0.1 m Lt
125	1670+782	C.L.	1670+753	0.1 m Lt
126	1670+860	C.L.	1670+831	0.1 m Lt
127	1670+937	C.L.	1670+908	0.1 m Lt
128	1670+995	C.L.	1670+966	0.1 m Lt
129	1671+088	C.L.	1671+059	C.L.
130	1671+160	C.L.	1671+131	C.L.
131	1671+235	C.L.	1671+206	C.L.
132	1671+310	C.L.	1671+281	C.L.
133	1671+385	C.L.	1671+356	C.L.
134	1671+465	C.L.	1671+436	C.L.
135	1671+535	C.L.	1671+506	C.L.
136	1671+609	C.L.	1671+580	C.L.
137	1671+680	C.L.	1671+651	0.1 m Rt
138	1671+760	C.L.	1671+731	0.1 m Rt
139	1671+827	C.L.	1671+798	0.1 m Rt
140	1671+900	C.L.	1671+871	0.1 m Rt
141	1671+974	C.L.	1671+945	0.1 m Rt
142	1672+040	C.L.	1672+011	0.1 m Rt
143	1672+115	C.L.	1672+086	0.1 m Rt
144	1672+183	C.L.	1672+154	0.2 m Rt
145	1672+256	C.L.	1672+227	0.2 m Rt
146	1672+325	C.L.	1672+296	0.2 m Rt
147	1672+400	C.L.	1672+371	0.2 m Rt
148	1672+468	C.L.	1672+439	0.2 m Rt
149	1672+540	C.L.	1672+511	0.2 m Rt
150	1672+619	C.L.	1672+590	0.2 m Rt
151	1672+691	C.L.	1672+662	0.2 m Rt

TEST HOLE #	DRILL LOG LOCATION		CURRENT LOCATION	
	STATION	OFFSET	STATION	OFFSET
152	1672+768	C.L.	1672+739	0.3 m Rt
153	1672+840	C.L.	1672+811	0.3 m Rt
154	1672+915	C.L.	1672+886	0.3 m Rt
155	1672+990	C.L.	1672+961	0.3 m Rt
156	1673+055	C.L.	1673+026	0.3 m Rt
157	1673+132	C.L.	1673+103	0.3 m Rt
158	1673+210	C.L.	1673+181	0.3 m Rt
159	1673+280	C.L.	1673+251	0.4 m Rt
160	1673+351	C.L.	1673+322	0.4 m Rt
161	1673+428	C.L.	1673+399	0.4 m Rt
162	1673+512	C.L.	1673+483	0.4 m Rt
163	1673+583	C.L.	1673+554	0.4 m Rt
164	1673+658	C.L.	1673+629	0.4 m Rt
165	1673+740	C.L.	1673+711	0.4 m Rt
166	1673+808	C.L.	1673+779	0.5 m Rt
167	1673+885	C.L.	1673+856	0.5 m Rt
168	1673+990	C.L.	1673+961	0.5 m Rt
169	1674+022	C.L.	1673+993	0.5 m Rt
170	1674+091	C.L.	1674+062	0.5 m Rt
171	1674+160	C.L.	1674+131	0.5 m Rt
172	1674+230	C.L.	1674+201	0.5 m Rt
173	1674+320	C.L.	1674+291	0.5 m Rt

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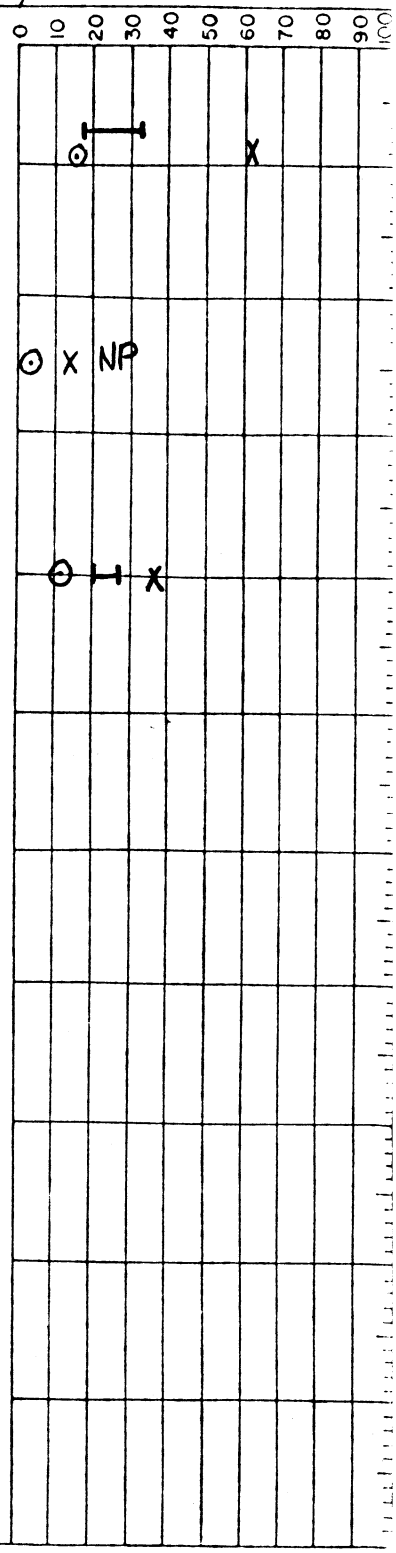
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 30
HOLE LOCATION	1664+282	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT B 30	TECHNICIAN R.K.

SAMPLE DATA

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	1772	CL	10.0	29.2	34.9	
2										
3			A/P	2	1773	GM	61.2	25.3		
4										
			A/P	3	1774	SC	31.0	31.5		
5	END HOLE									
6										
7										
8										
9										
10										

0 – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢⊣ PLASTIC LIMIT



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SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 29
HOLE LOCATION	1664+320	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT B 30	TECHNICIAN R.K.

SAMPLE DATA

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
2			A/P	1	1770	GP	80.1	16.0		
4			A/P	2	1771	GP-GM	76.2	14.9		
5	END HOLE									

0 – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT

0 10 20 30 40 50 60 70 80 90

2 ⊗ NP.
4 ⊗X NP

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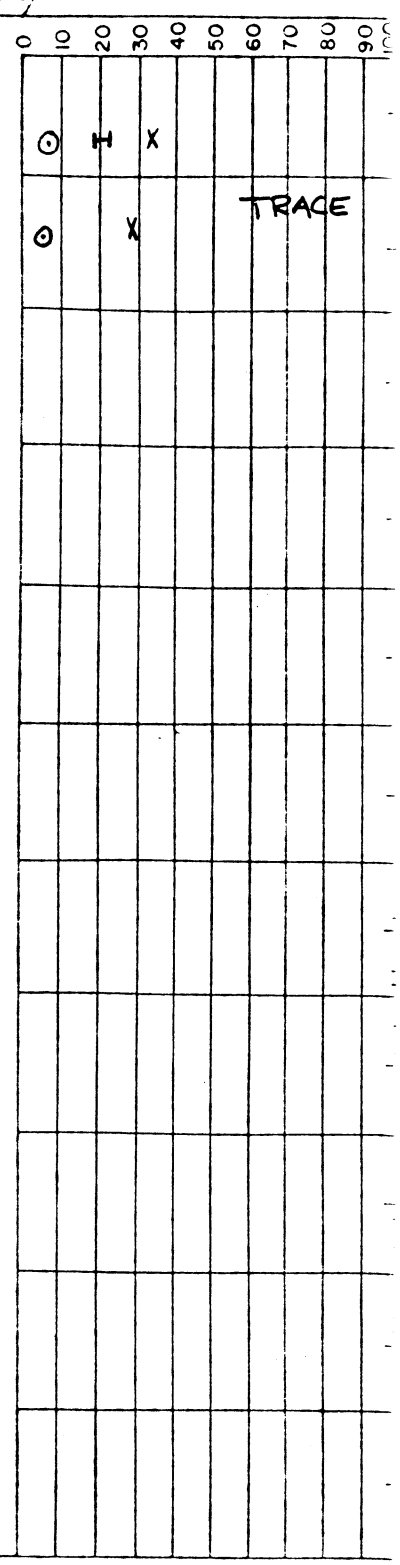
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 26
HOLE LOCATION	1664 + 445	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-23	DRILL UNIT B 30	TECHNICIAN R.K.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
			A/P	1	1765	GM	46.9	21.6		
			A/P	2	1766	GM	42.7	28.8	9.4	
	END HOLE									

0 – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢⊣ PLASTIC LIMIT



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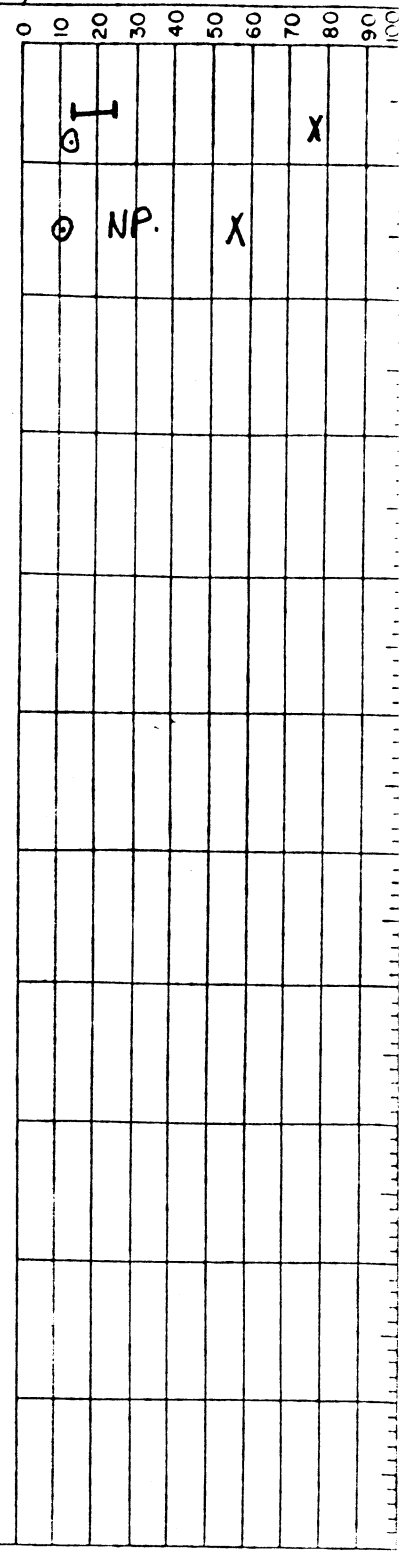
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION: SHAKWAK SEGMENT 9 | HOLE No.: 27
HOLE LOCATION: 1664+526 | ELEV. | DEPTH TO G.W.L.
DATE DRILLED: 78-10-23 | DRILL UNIT: B 30 | TECHNICIAN: R.K.

SAMPLE DATA

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	1767	CL	5.3	17.7	35.6	
			A/P	2	1768	ML	20.8	23.2		
	END HOLE									

0 – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢⊣ PLASTIC LIMIT



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SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 28
HOLE LOCATION	1664+602	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-23	DRILL UNIT B-30	TECHNICIAN R.K.

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
			A/P	1	1769	GM	34.2	16.4		
1	REFUSAL									

0 – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT

0 10 20 30 40 50 60 70 80 90 100

⊙ NP. X

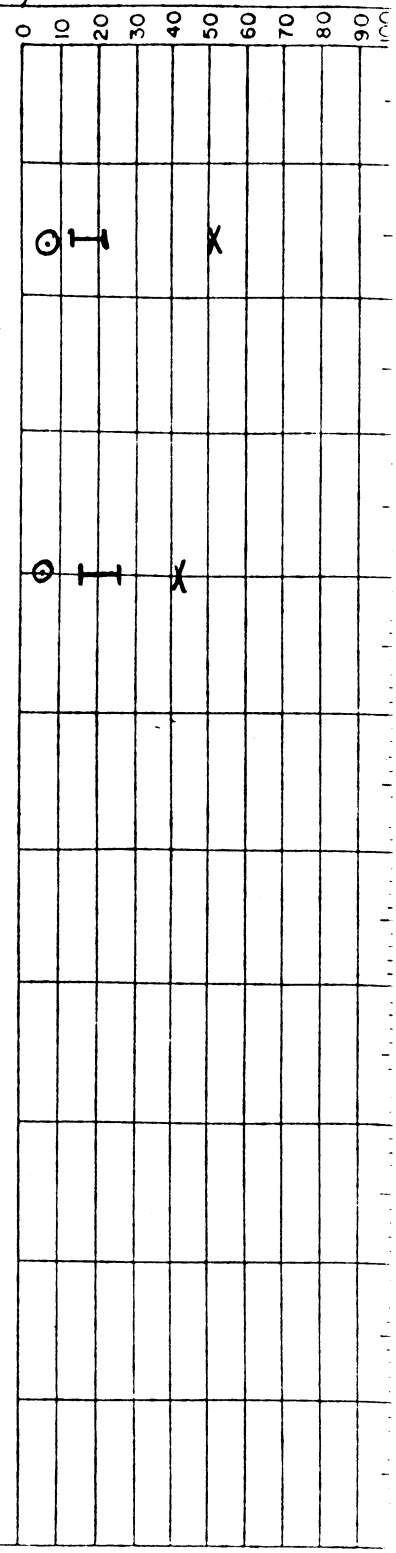
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SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 31
HOLE LOCATION	1664+681	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT B 30	TECHNICIAN R.K.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1										
2			A/P	1	1775	CL	23.4	25.9		
3										
4			A/P	2	1776	SC	25.6	33.8	19.6	
	END HOLE									
5										
6										
7										
8										
9										
10										



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SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9			HOLE No. 328
HOLE LOCATION 1664+747		ELEV.	DEPTH TO G.W.L.
DATE DRILLED 78.1100	DRILL UNIT		TECHNICIAN B.C

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	SAMPLE DATA: FIELD No.	SAMPLE DATA: LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
0	REFUSAL									
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

0 - % MOISTURE CONTENT
x - % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT

0 10 20 30 40 50 60 70 80 90

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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

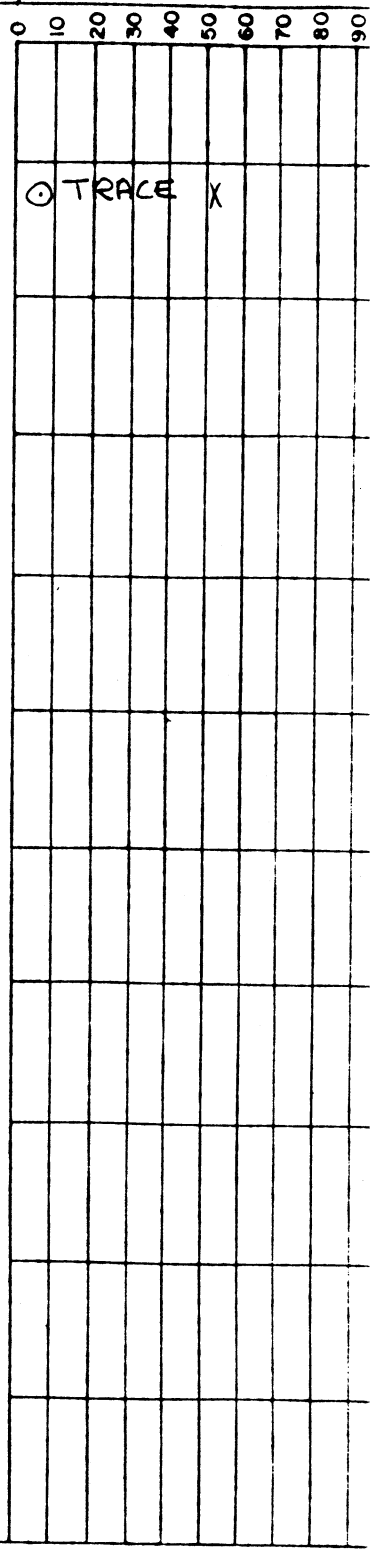
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 329
HOLE LOCATION	1664+845	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78.11.10	DRILL UNIT	TECHNICIAN S.C.

SAMPLE DATA

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A	P	1	2328	ML	12	37	18
2	REFUSAL									
3										
4										
5										
6										
7										
8										
9										
10										

0 - % MOISTURE CONTENT
x - % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9 | HOLE No. 330
HOLE LOCATION 1664+940 | ELEV. | DEPTH TO G.W.L.
DATE DRILLED 78.11.10 | DRILL UNIT | TECHNICIAN S.C.

SAMPLE DATA

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
			A/P	1	2319	SM	20	34	14	
			A/P	2	2225	SAMPLE LOST.				
	END HOLE									

0 – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT

0 10 20 30 40 50 60 70 80 90

1 2 3 4 5 6 7 8 9 10

⊙ TRACE X
⊖

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SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9		HOLE No. 331
HOLE LOCATION 1665+033	ELEV.	DEPTH TO G.W.L.
DATE DRILLED 78·11·10	DRILL UNIT	TECHNICIAN S.C.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
3			A|P	1	2329	GM	42	32	10	
5	END HOLE									

0 – % MOISTURE CONTENT
x – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT

0 10 20 30 40 50 60 70 80 90

⊙ x N.P.

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SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9		HOLE No. 332
HOLE LOCATION 1665+126	ELEV.	DEPTH TO G.W.L.
DATE DRILLED 78.11.15	DRILL UNIT	TECHNICIAN S.C.

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	SAMPLE DATA: FIELD No.	SAMPLE DATA: LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm	0 – % MOISTURE CONTENT; x – % < .074mm; LIQUID LIMIT ⊢ PLASTIC LIMIT (0 10 20 30 40 50 60 70 80 90)
	REFUSAL										
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

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SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEG 9			HOLE No. 333
HOLE LOCATION 1665 + 200		ELEV.	DEPTH TO G.W.L.
DATE DRILLED 78·11·23	DRILL UNIT		TECHNICIAN

SAMPLE DATA

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300mm
4			A/P	2	2325	CL	12	19	31	

O – % MOISTURE CONTENT
x – % < .074 mm
PLASTIC LIMIT ⊢⊣ LIQUID LIMIT

0 10 20 30 40 50 60 70 80 90

Dwg No 60-2532

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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHANWAK. SEG 9 | HOLE No. 334

HOLE LOCATION 1665 + 300 | ELEV. | DEPTH TO G.W.L.

DATE DRILLED 78·11·23 | DRILL UNIT | TECHNICIAN

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A/P	1	2331	ML	13	31	13	

0 – % MOISTURE CONTENT
X – % < .074 mm
PLASTIC LIMIT ⊢⊣ LIQUID LIMIT

0 10 20 30 40 50 60 70 80 90 100

⊙ TRACE X

1 2 3 4 5 6 7 8 9 10

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WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHANNAN SEG 9 | HOLE No. 335

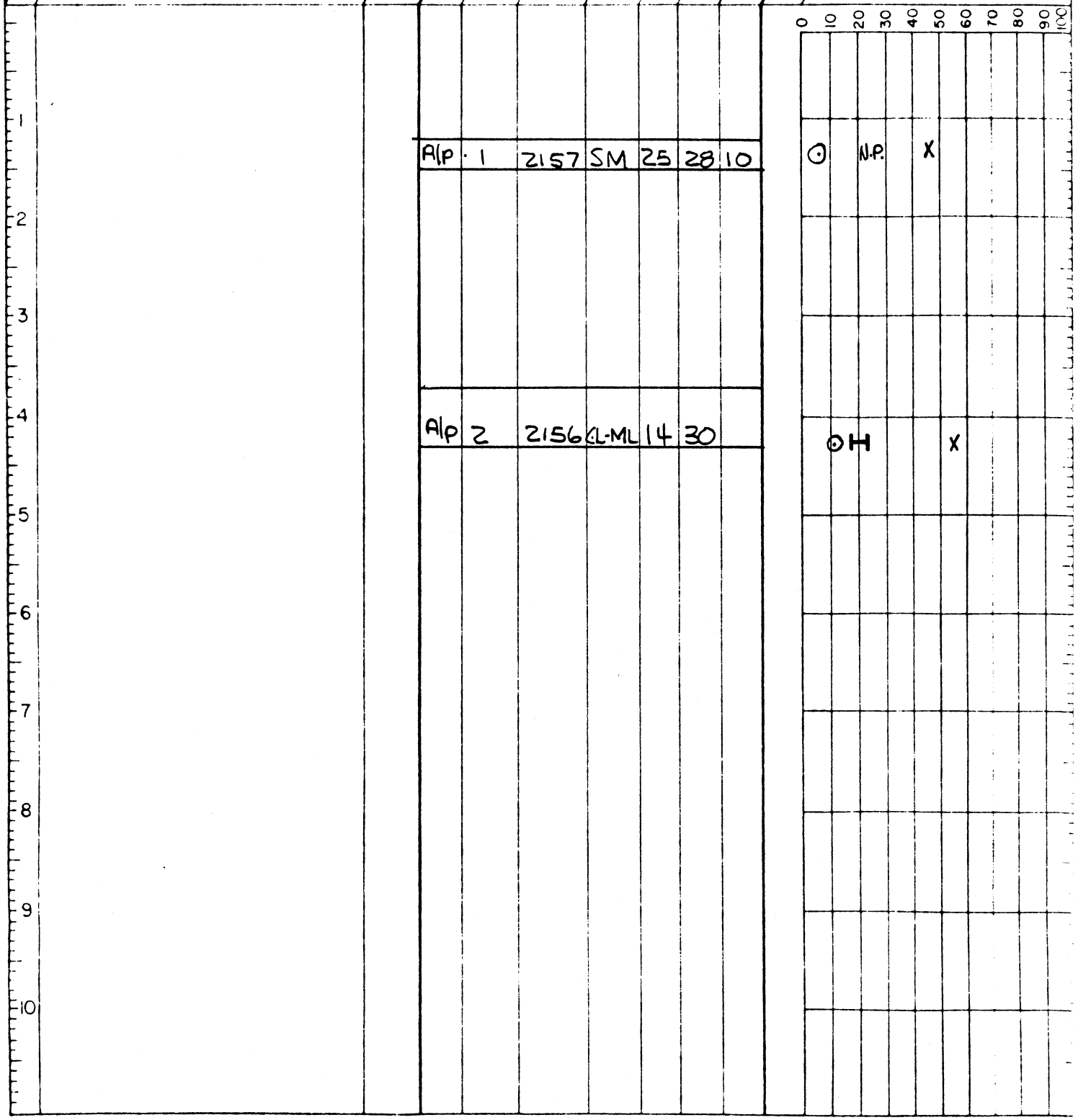
HOLE LOCATION 1665+380 | ELEV. | DEPTH TO G.W.L.

DATE DRILLED 78·11·24 | DRILL UNIT | TECHNICIAN

SAMPLE DATA

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
			A/P	1	2157	SM	25	28	10	
			A/P	2	2156	CL-ML	14	30		

0 – % MOISTURE CONTENT
X – % < .074 mm
PLASTIC LIMIT ⊢ LIQUID LIMIT



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAMAN 2LG 9			HOLE No. 336
HOLE LOCATION 1665 + 462		ELEV.	DEPTH TO G.W.L.
DATE DRILLED 78.11.24	DRILL UNIT		TECHNICIAN

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	2155	GM	43	26		
2										
3										
4			A/P	2	2154	CL-ML	14	24	20	
5										
6										
7										
8										
9										
10										

0 - % MOISTURE CONTENT
x - % < .074mm
PLASTIC LIMIT ⊢ LIQUID LIMIT

0 10 20 30 40 50 60 70 80 90

⊙ x TRACE

⊙⊣ N.P.

Public Works Canada

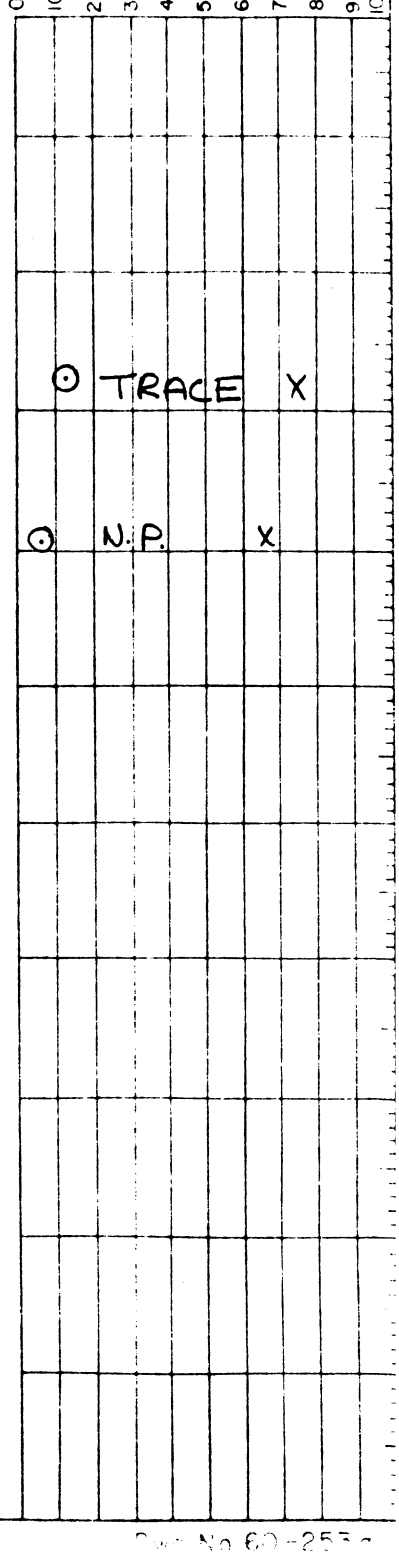
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK. SEG 9		HOLE No. 337
HOLE LOCATION 1665+541	ELEV.	DEPTH TO G.W.L.
DATE DRILLED 78·11·24	DRILL UNIT	TECHNICIAN

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300mm
3			A/P	1	2153	ML	9	14	26	
4			A/P	2	2152	ML	1	33		

0 – % MOISTURE CONTENT
x – % < .074mm
PLASTIC LIMIT ⊢ LIQUID LIMIT



Form No 60-253

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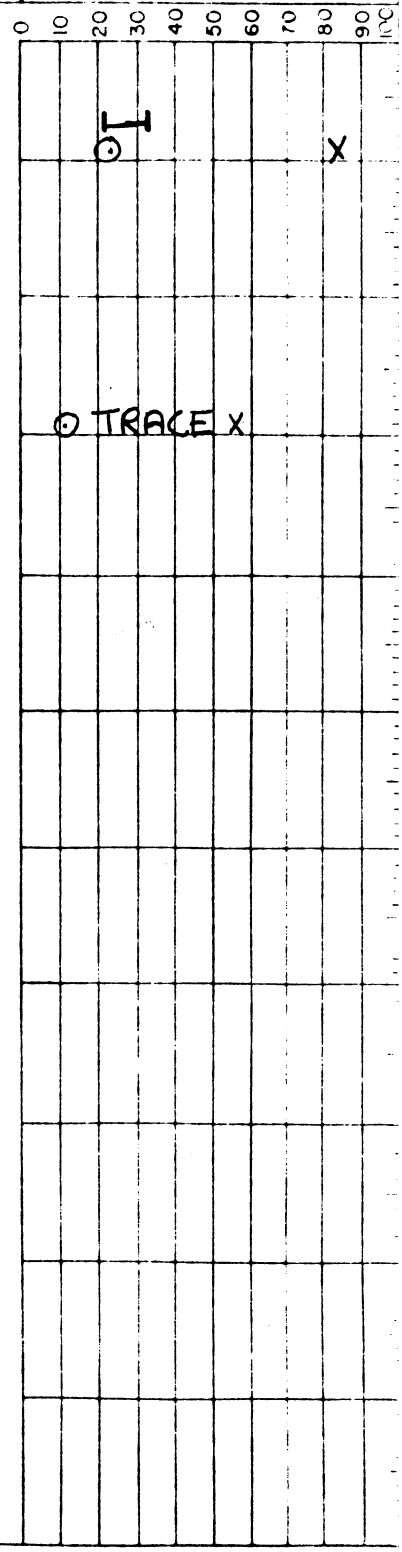
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEG			HOLE No. 338
HOLE LOCATION 1665+620		ELEV.	DEPTH TO G.W.L.
DATE DRILLED '78.11.25	DRILL UNIT		TECHNICIAN

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300mm
0 – 1			A/P	1	2151	CL	1	16		
1 – 3			A/P	2	2150	ML	11	32	16	
3 – 10										

0 – % MOISTURE CONTENT
x – % < .074 mm
PLASTIC LIMIT ⊢ LIQUID LIMIT



Dwg. No. 60-253-3

Public Works Canada

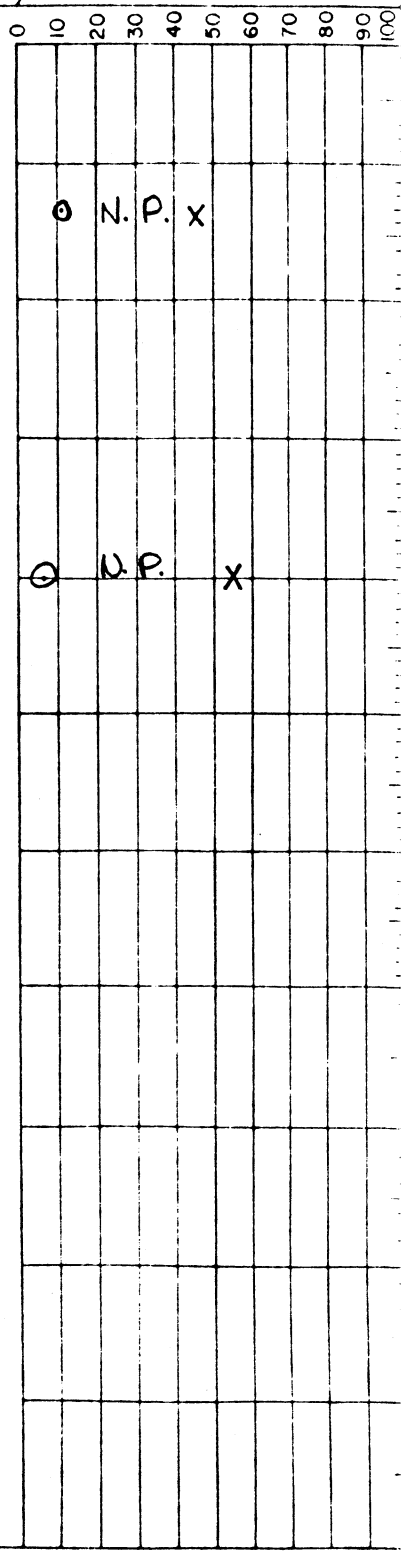
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEG 9			HOLE No. 339
HOLE LOCATION 16665+740		ELEV.	DEPTH TO G.W.L.
DATE DRILLED 78.11.24	DRILL UNIT		TECHNICIAN

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300mm
			A/P	1	2149	SM	7	46		
			A/P	2	2148	ML	15	30	17	

0 – % MOISTURE CONTENT
x – % < .074 mm
PLASTIC LIMIT ⊢ LIQUID LIMIT



Eng No 60-253-1

Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK - LEG 2 | HOLE No. 340

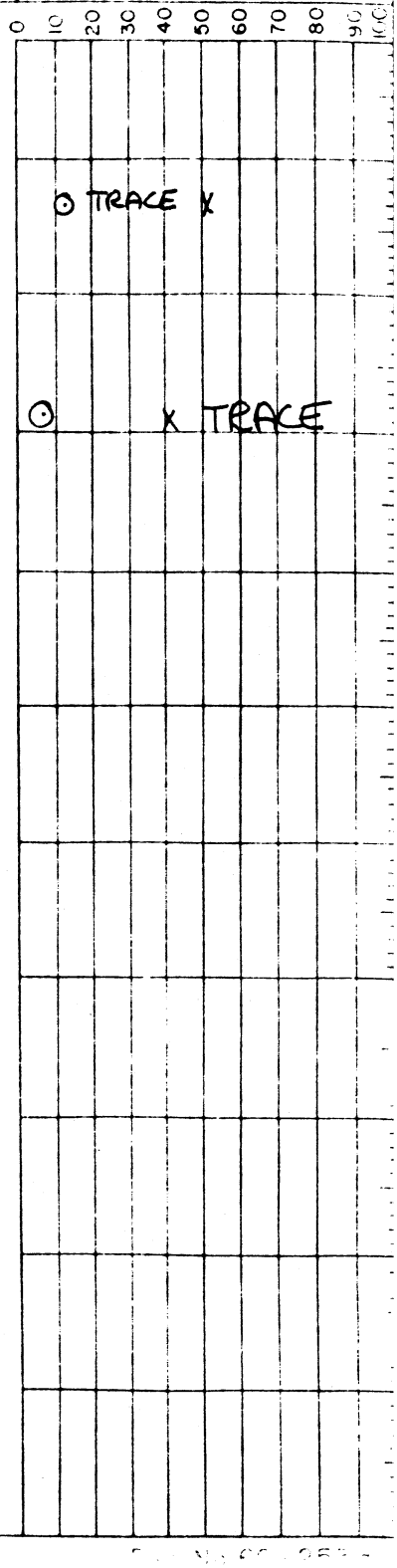
HOLE LOCATION ~ 1665 + 820 | ELEV. | DEPTH TO G.W.L.

DATE DRILLED 78.11.24 | DRILL UNIT B40 - AUGER | TECHNICIAN

SAMPLE DATA

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	2147	ML	19	30	-	
2										
3			A/P	2	2146	GM	35	24	15	
4										
5										
6										
7										
8										
9										
10										

0 - % MOISTURE CONTENT
x - % < .074mm
PLASTIC LIMIT ⊢ LIQUID LIMIT



Public Works Canada

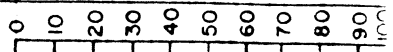
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 100
HOLE LOCATION	1668+690	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-23	DRILL UNIT B40	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A/P	1	1802	CL	11.1	37.3		
2										
3										
4			A/P	2	1803	CL	9.2	28.1	28.1	
5	END HOLE									
6										
7										
8										
9										
10										

0 – % MOISTURE CONTENT
x – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

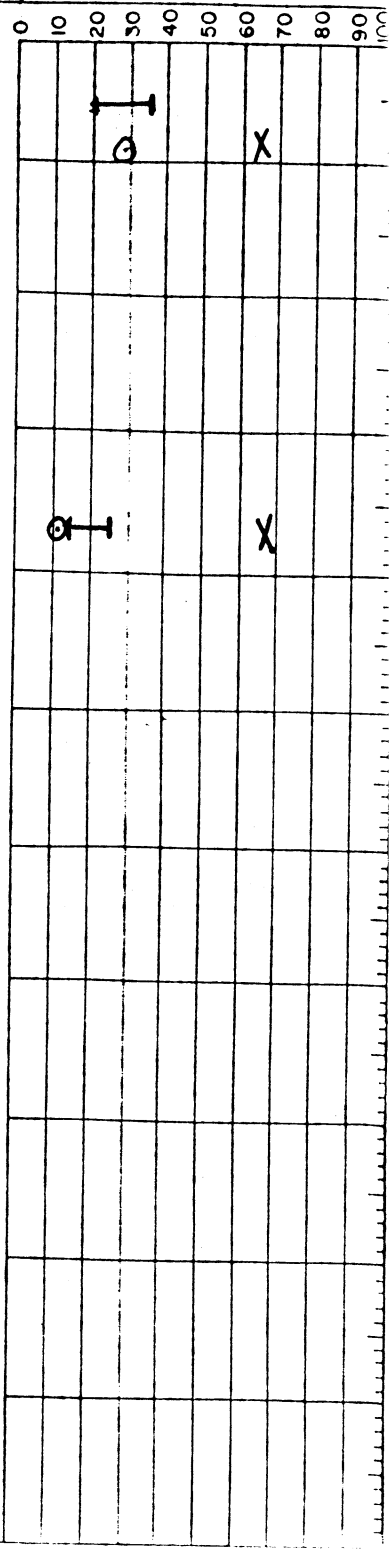
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9	HOLE No.	101
HOLE LOCATION	1668+766	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-23	DRILL UNIT	B 40
TECHNICIAN	T.M.		

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A/P	1	1804	CL	1.1	33.9		
2										
3										
4			A/P	2	1805	CL	7.1	25.7	27.7	
5	END HOLE									
6										
7										
8										
9										
10										

SAMPLE DATA

O – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

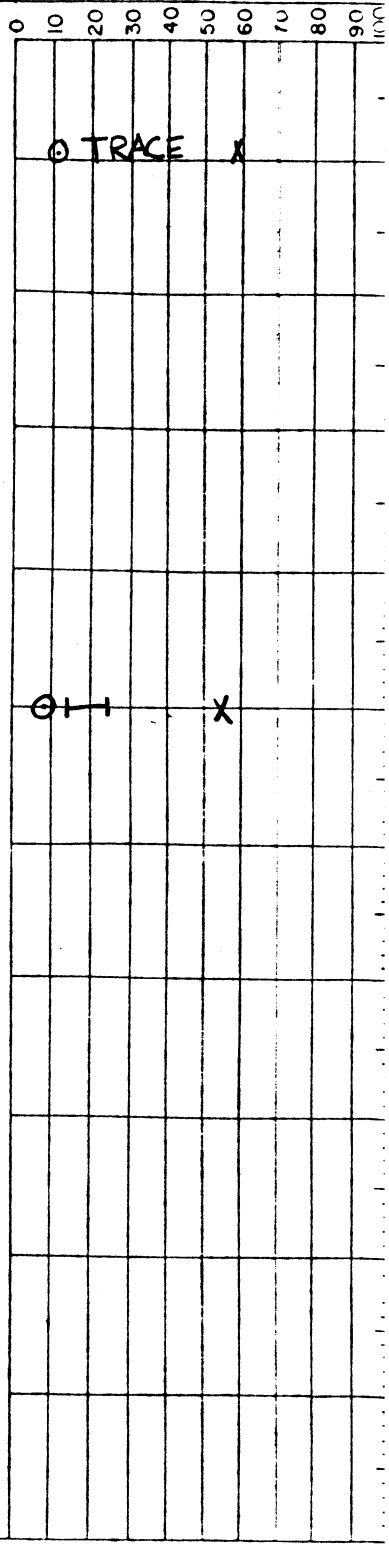
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 102
HOLE LOCATION	1668+850	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-23	DRILL UNIT B 40	TECHNICIAN T.M.

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A/P	1	1806	ML	8.0	38.2		
2										
3										
4										
5			A/P	2	1807	CL	10.2	34.3	28.6	
6	REFUSAL									
7										
8										
9										
10										

0 – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

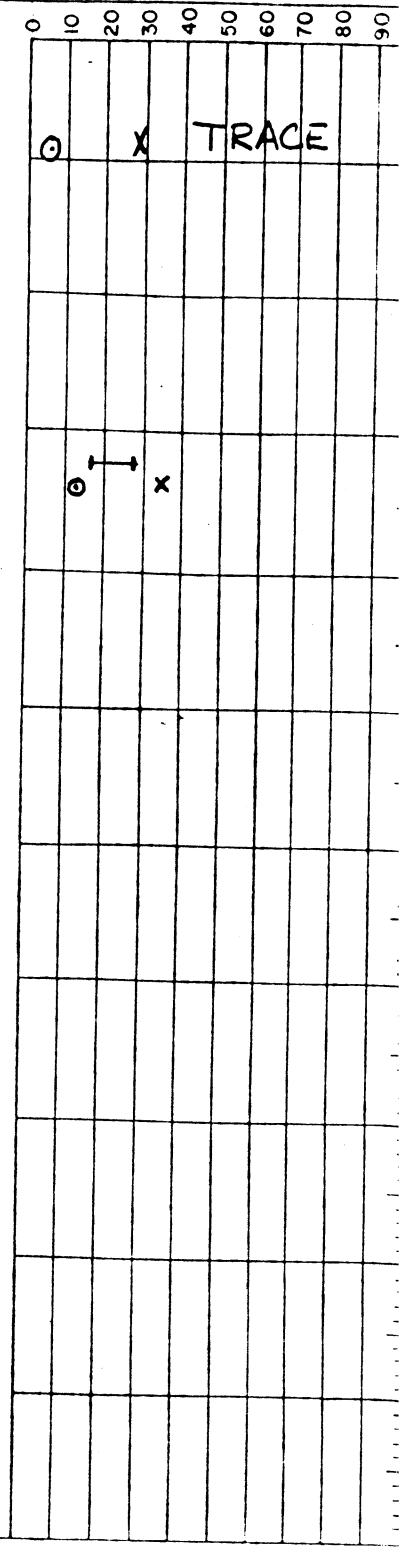
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 103
HOLE LOCATION	1668+928	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-23	DRILL UNIT B 40	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A/P	1	1808	SM	23.4	47.0	9.1	
2										
3			A/P	2	1828	CL	8	18		
4										
5	END HOLE									
6										
7										
8										
9										
10										

O – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

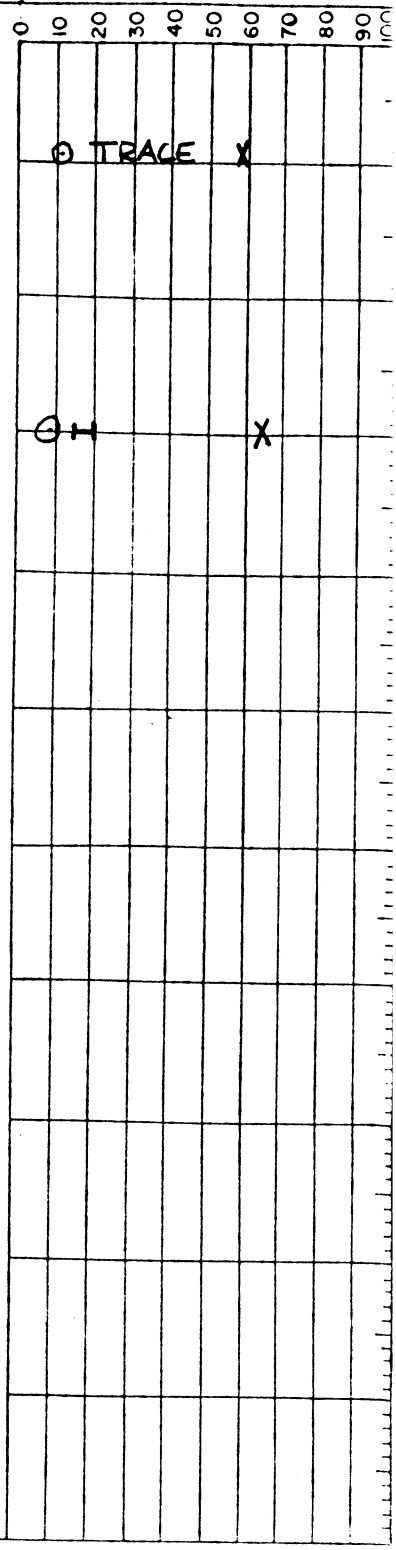
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9	HOLE No.	104
HOLE LOCATION	1669 + 005	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT	B 40
TECHNICIAN	T.M.		

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A/P	1	2647	ML	4.5	36.2	16.2	
2										
3			A/P	2	2676	CL-ML	10	27		
4										
5	END HOLE									
6										
7										
8										
9										
10										

0 – % MOISTURE CONTENT
x – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

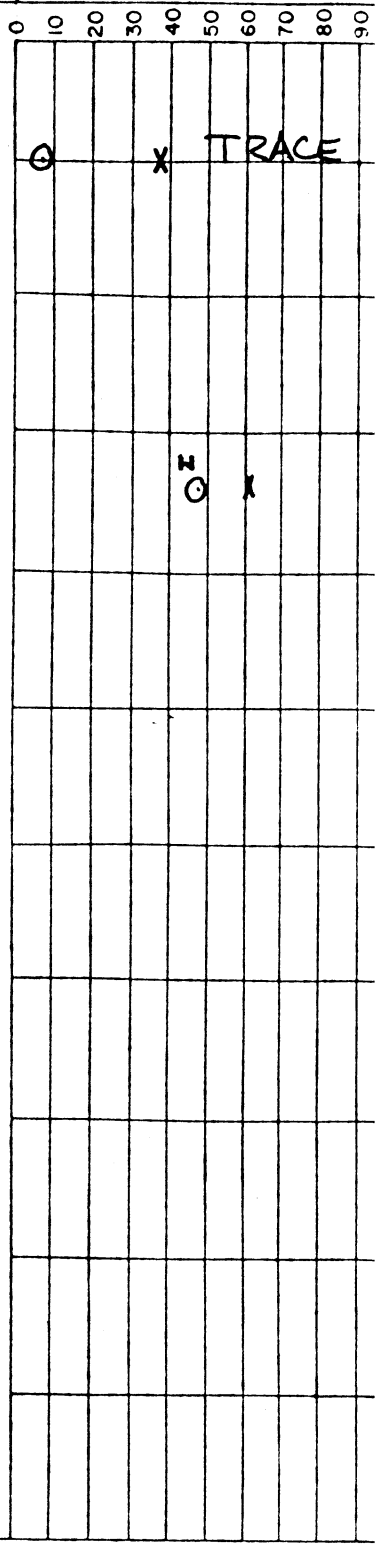
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 105
HOLE LOCATION	1669+089	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT B 40	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A/P	1	2672	SM	15	48	14	
2										
3										
4			A/P	2	2661	ML-OL	0	40	4	
5	END HOLE									
6										
7										
8										
9										
10										

O – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

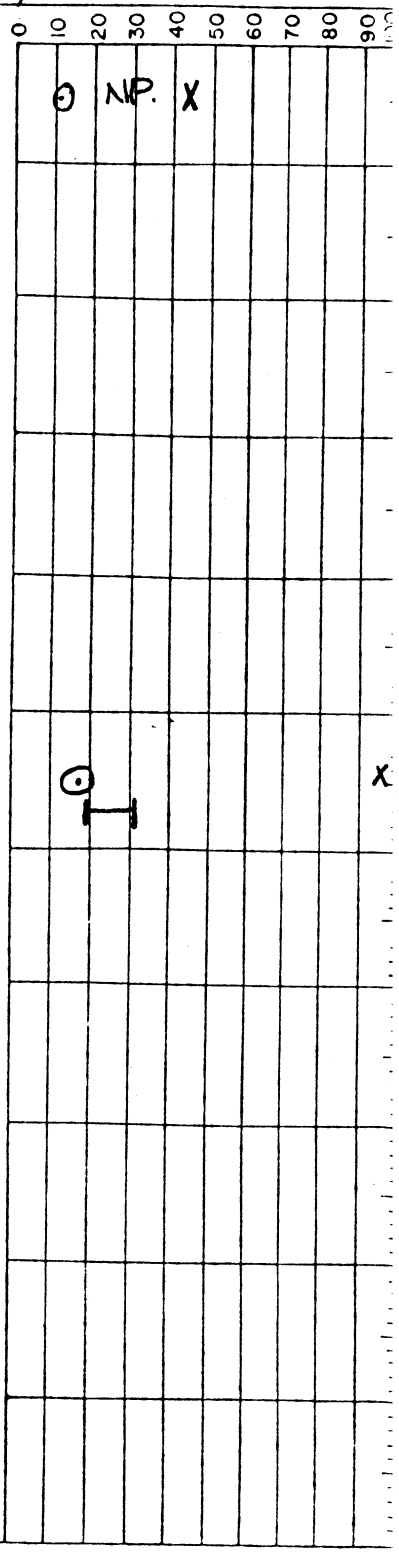
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 106
HOLE LOCATION	1669+205	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT B 40	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	2657	SM	24	33		
2										
3										
4										
5			A/P	2	2654	CL	-	4.2	41.8	
6	END HOLE									
7										
8										
9										
10										

0 – % MOISTURE CONTENT
X – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

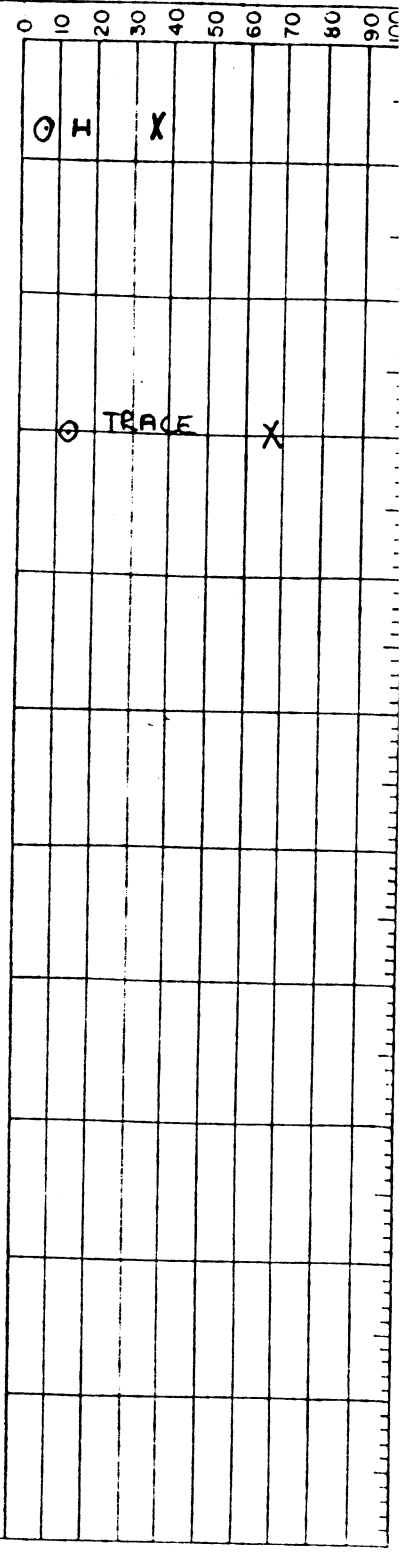
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9	HOLE No.	107
HOLE LOCATION	1669+282	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT	B 40
TECHNICIAN	T.M.		

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A/P	1	2674	SM	23	40	13	
2										
3			A/P	2	2669	ML-OL	8	24	30	
4										
5	END HOLE									
6										
7										
8										
9										
10										

O – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

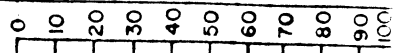
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9	HOLE No.	108
HOLE LOCATION	1669+364	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT	B 40
TECHNICIAN	T.M.		

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	2678	ML	12	37		
2										
3										
4			A/P	2	2679	CL-ML	11	29	27	
5	END HOLE									
6										
7										
8										
9										
10										

O – % MOISTURE CONTENT
X – % < .074mm
LIQUID LIMIT ⊢⊣ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

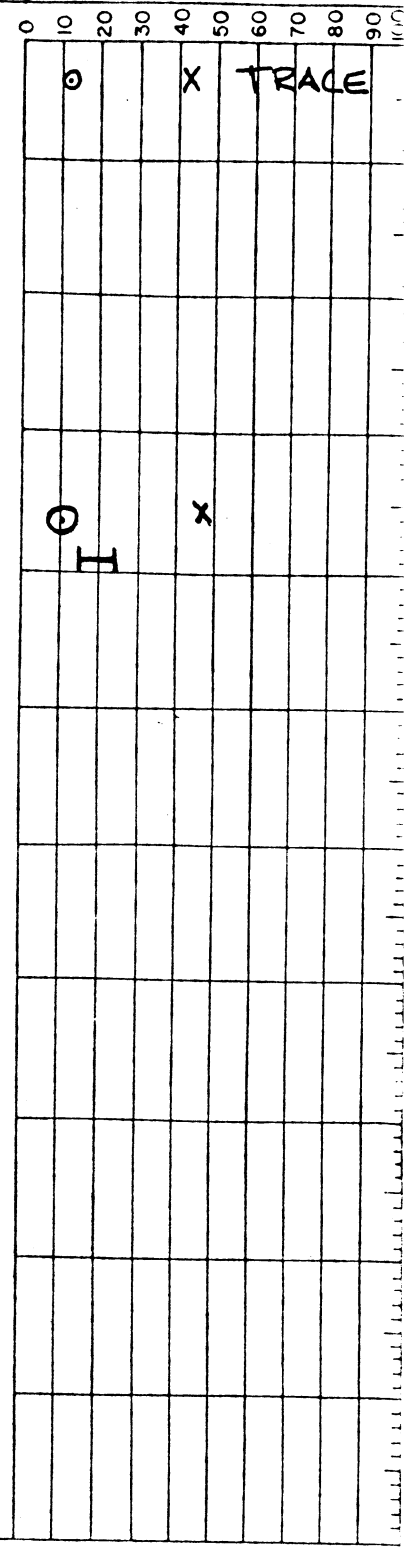
PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 109
HOLE LOCATION	1669 + 440	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT B 40	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
0			A/P	1	2643	SM	16	42		
4			A/P	2	2668	SC	11.0	41.7	25.3	
5	END HOLE									

SAMPLE DATA

O – % MOISTURE CONTENT
X – % < .074mm
LIQUID LIMIT ⊢⊣ PLASTIC LIMIT

0 10 20 30 40 50 60 70 80 90 100



Public Works Canada

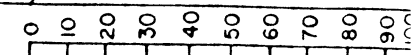
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION: SHAKWAK SEGMENT 9 | HOLE No.: 110
HOLE LOCATION: 1669+527 | ELEV. | DEPTH TO G.W.L.
DATE DRILLED: 78-10-24 | DRILL UNIT: B 40 | TECHNICIAN: T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	2651	SM	32	34	10	
2			A/P	2	2682	GC.	45	26	12	
3										
4										
5	END HOLE									
6										
7										
8										
9										
10										

O – % MOISTURE CONTENT
X – % < .074mm
LIQUID LIMIT ⊢⊣ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

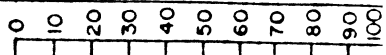
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 111
HOLE LOCATION	1669+605	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT B 40	TECHNICIAN T.M.

SAMPLE DATA

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A/P	1	2673	CL	15	30		
2										
3			A/P	2	2648	CL	10	37	24	
4										
5	END HOLE									
6										
7										
8										
9										
10										

0 – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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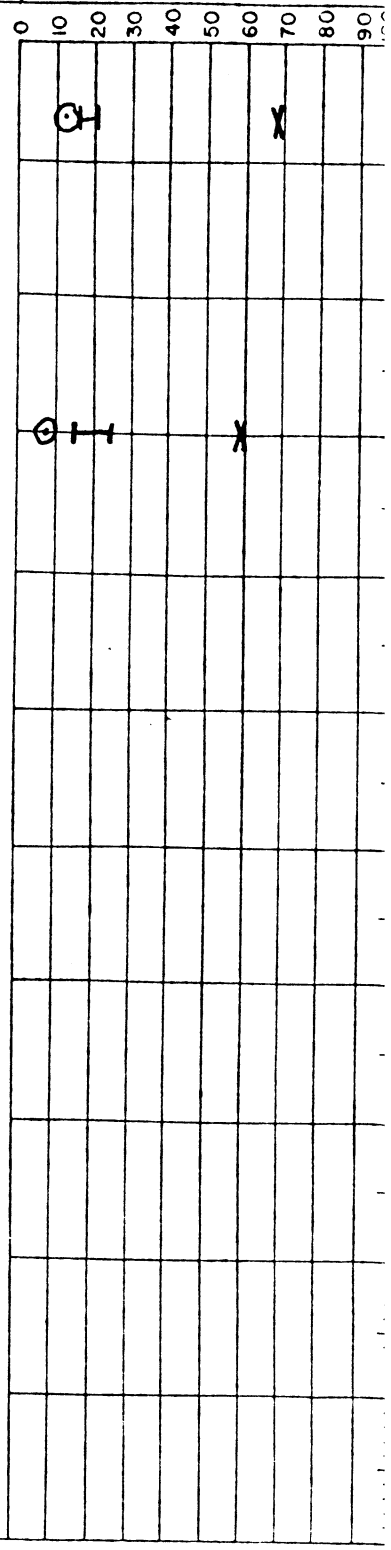
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9	HOLE No.	112
HOLE LOCATION	1669+688	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT	B 40
TECHNICIAN	T.M.		

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	2677	CL-ML	7	25		
2										
3			A/P	2	2649	CL	14	26	21	
4										
5	END HOLE									
6										
7										
8										
9										
10										

0 – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

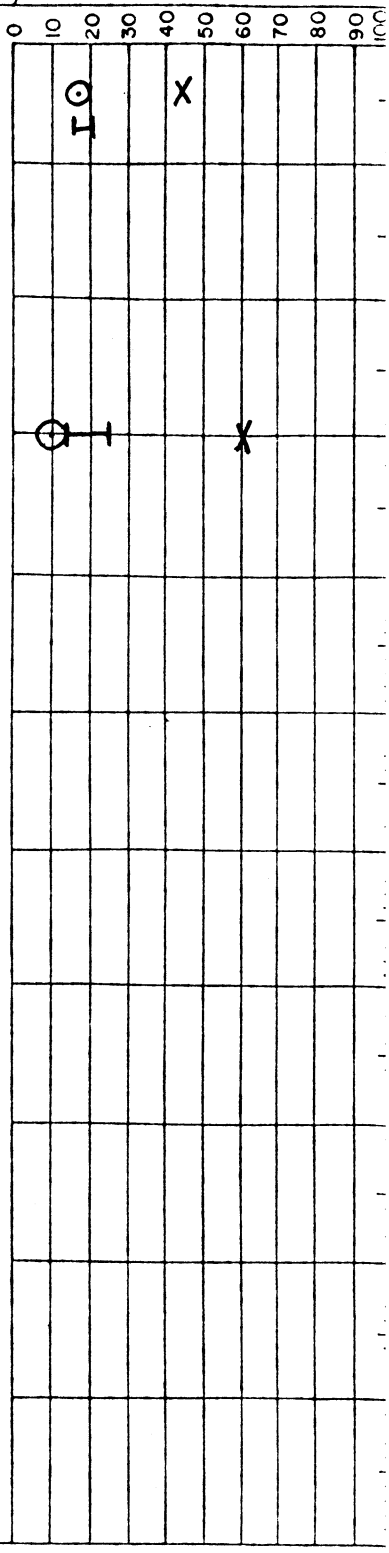
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9	HOLE No.	113
HOLE LOCATION	1669+760	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT	B 40
TECHNICIAN	T.M.		

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
0										
1			A/P	1	2663	SM	19	37		
2										
3			A/P	2	2667	CL	17	23	26	
4										
5	END HOLE									
6										
7										
8										
9										
10										

SAMPLE DATA

O – % MOISTURE CONTENT
X – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 114
HOLE LOCATION	1669+838	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT B40	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
0			A/P	1	2659	SM	22	43	9	
3			A/P	2	2671	ML	13	29	2	
4.5	END HOLE									

0 – % MOISTURE CONTENT
x – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT

0 10 20 30 40 50 60 70 80 90

0	⊙	N.P.	X							
3	⊙	N.P.			X					

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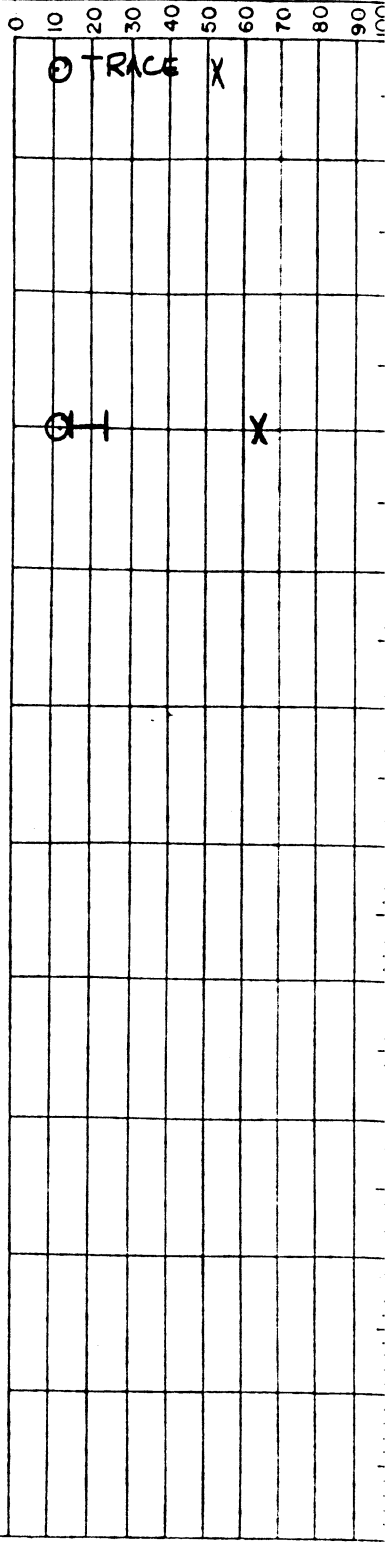
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 115
HOLE LOCATION	1669+913	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT B 40	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
0			A/P	1	2639	ML	19	30		
3			A/P	2	2646	CL	11	25	24	
5	END HOLE									

0 – % MOISTURE CONTENT
X – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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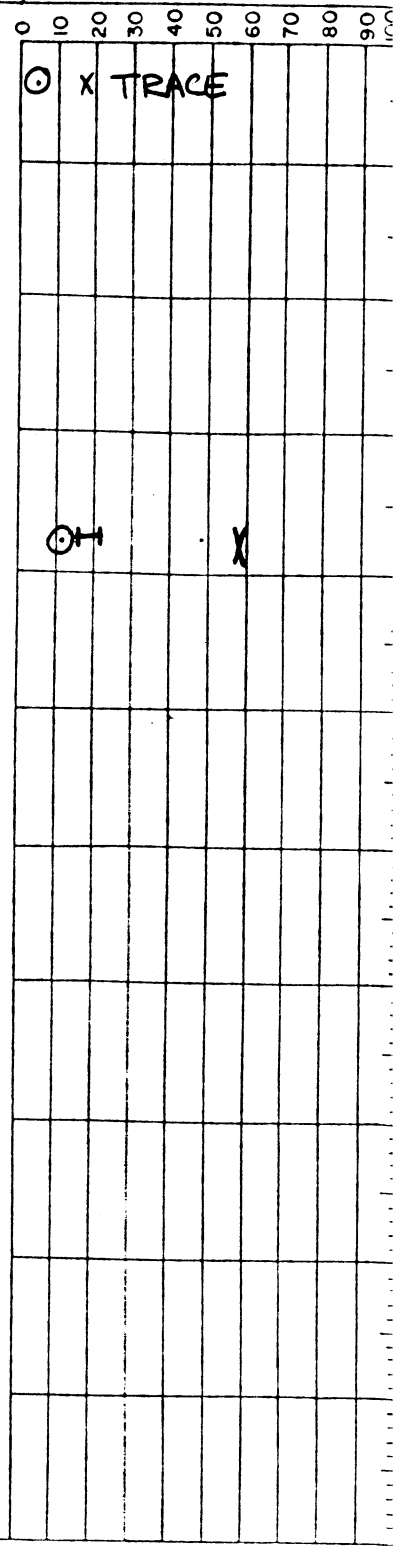
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 116
HOLE LOCATION	1669+995	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT B 40	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
0			A/P	1	2641	SM	40	41	-	
4			A/P	2	2683	CL-ML	10	32	20	
5	END HOLE									

0 - % MOISTURE CONTENT
x - % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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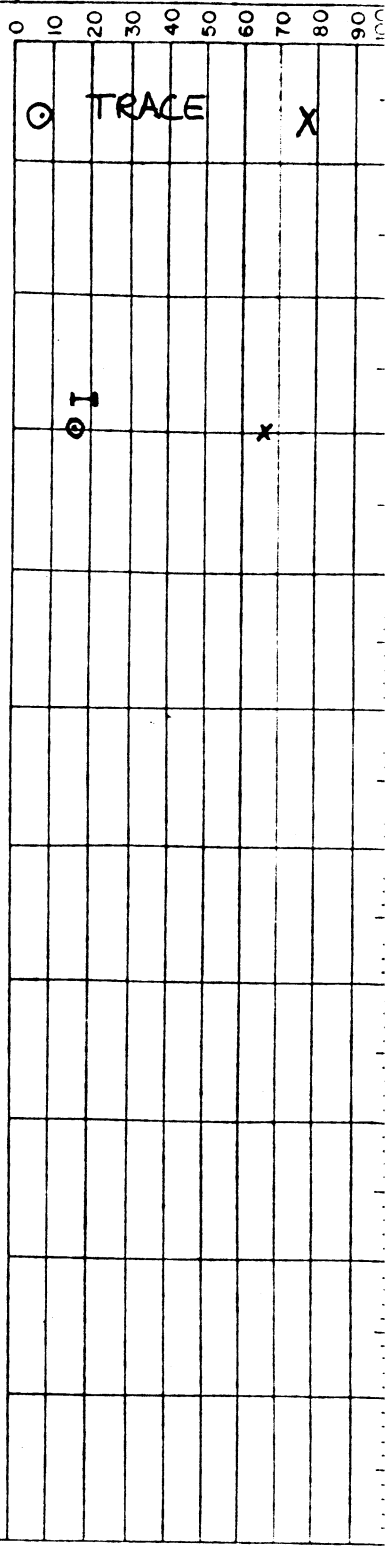
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9	HOLE No.	117
HOLE LOCATION	1670+070	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT	B-40
TECHNICIAN	T.M.		

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
0			A/P	1	2644	ML	12	10		
1										
2										
3			A/P	2	2680	CL-ML	13	21	23	
4										
5										
6	END HOLE									
7										
8										
9										
10										

0 – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 118
HOLE LOCATION	1670+152	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT B40	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
			A/P	1	2662	CL	4	17	36	
			A/P	2	2640	CL	9	20	32	
	END HOLE									

SAMPLE DATA

0 – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT

0 10 20 30 40 50 60 70 80 90

1 2 3 4 5 6 7 8 9 10

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WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

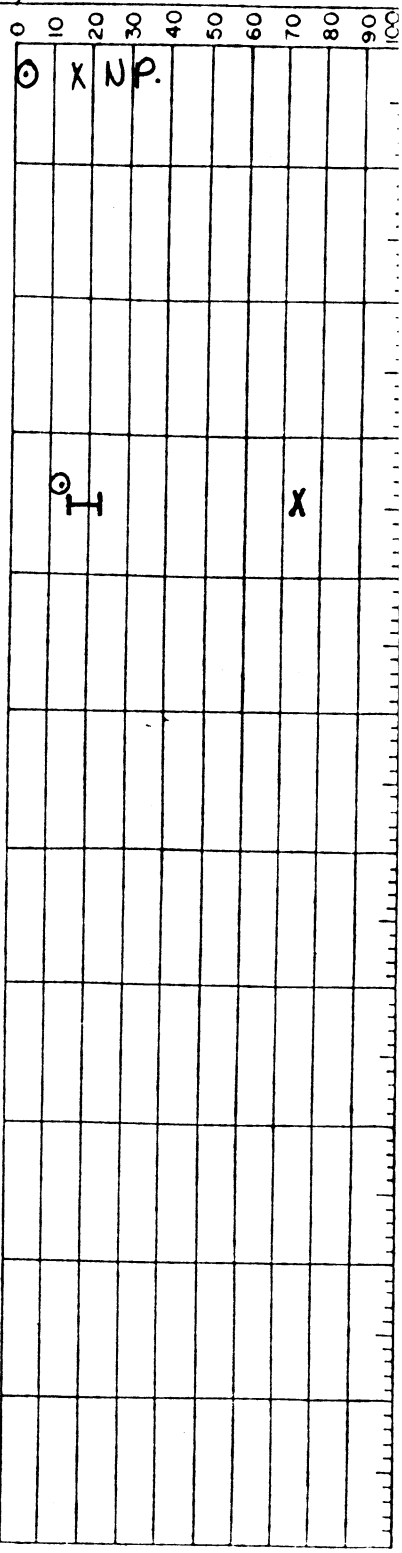
PROJECT/SECTION SHAKWAK SEGMENT 9 — HOLE No. 119

HOLE LOCATION 1670+225 — ELEV. — DEPTH TO G.W.L.

DATE DRILLED 78-10-24 — DRILL UNIT B40 — TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
0			A/P	1	2670	SM	41	41		
3			A/P	2	2652	CL-ML	6	21	26	
5	END HOLE									

0 – % MOISTURE CONTENT
x – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



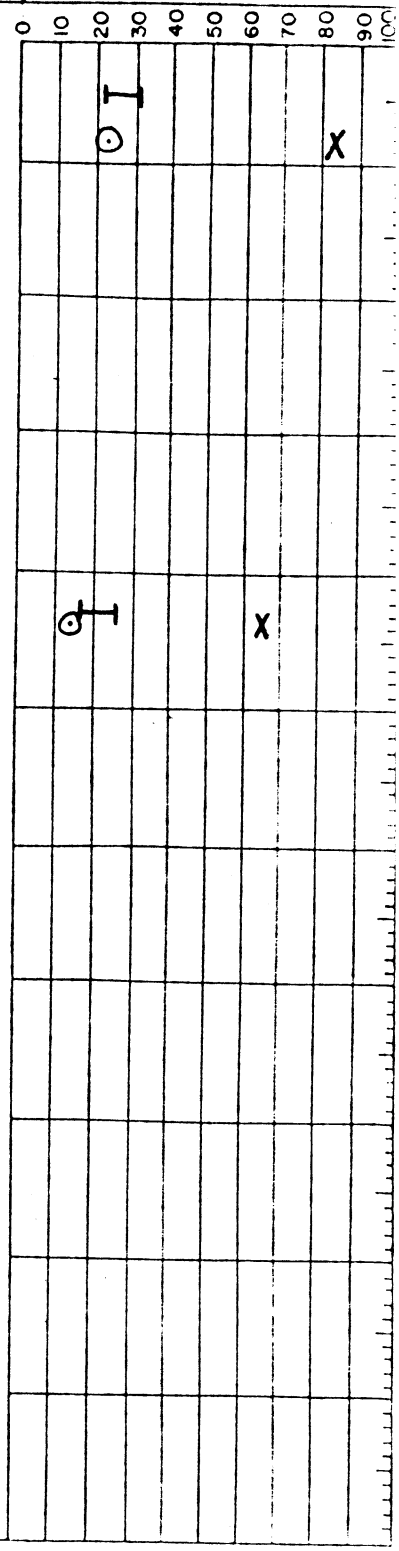
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WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9	HOLE No.	120
HOLE LOCATION	1670+293	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT	B40
TECHNICIAN	T.M.		

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	2681	CL	5	11		
2										
3										
4			A/P	2	2653	CL	10	25	28	
5	END HOLE									
6										
7										
8										
9										
10										



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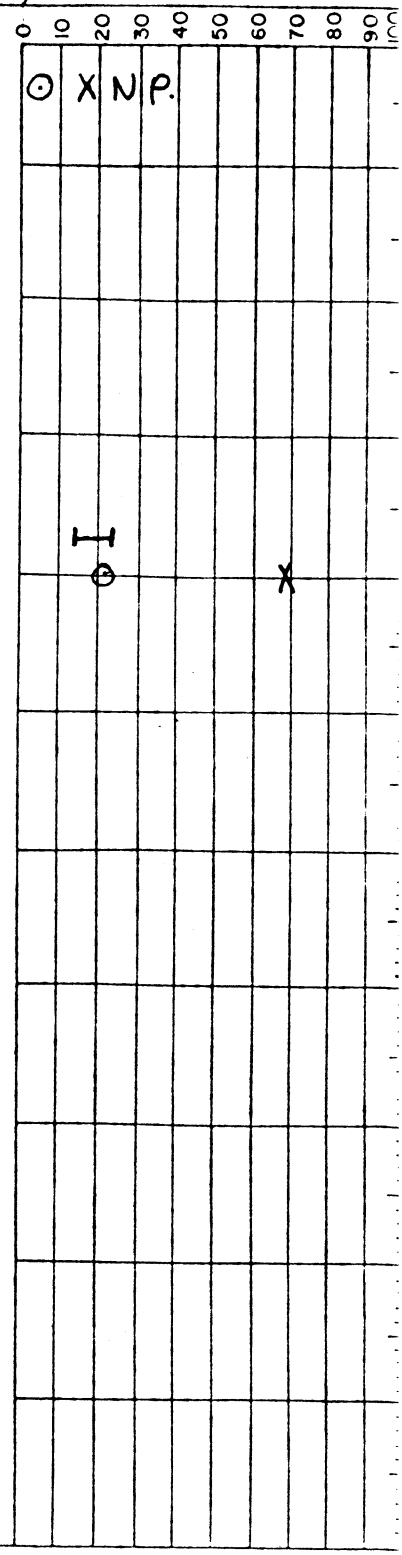
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 121
HOLE LOCATION	1670+362	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT B40	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300mm
			A/P	1	2658	SM	39	42		
			A/P	2	2655	CL	12	19	26	
	END HOLE									

0 – % MOISTURE CONTENT
x – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 122
HOLE LOCATION	1670+435	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT B 40	TECHNICIAN T.M.

SAMPLE DATA

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A/P	1	2656					
2										
3			A/P	2	2642					
4										
5	END HOLE									
6										
7										
8										
9										
10										

O – % MOISTURE CONTENT
x – % < .074 mm
LIQUID LIMIT ⊢⊣ PLASTIC LIMIT

0 10 20 30 40 50 60 70 80 90

Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

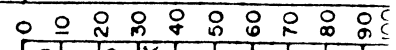
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 123
HOLE LOCATION	1670+582	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-24	DRILL UNIT B40	TECHNICIAN T.M.

SAMPLE DATA

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
			A/P	1	2664	SM	23	45		
			A/P	2	2660	SM	32	39	9	
			A/P	3	2665	CL	0	10	51	
			A/P	4	2666	CL-ML	10	28	3	
	END HOLE									

0 – % MOISTURE CONTENT
x – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

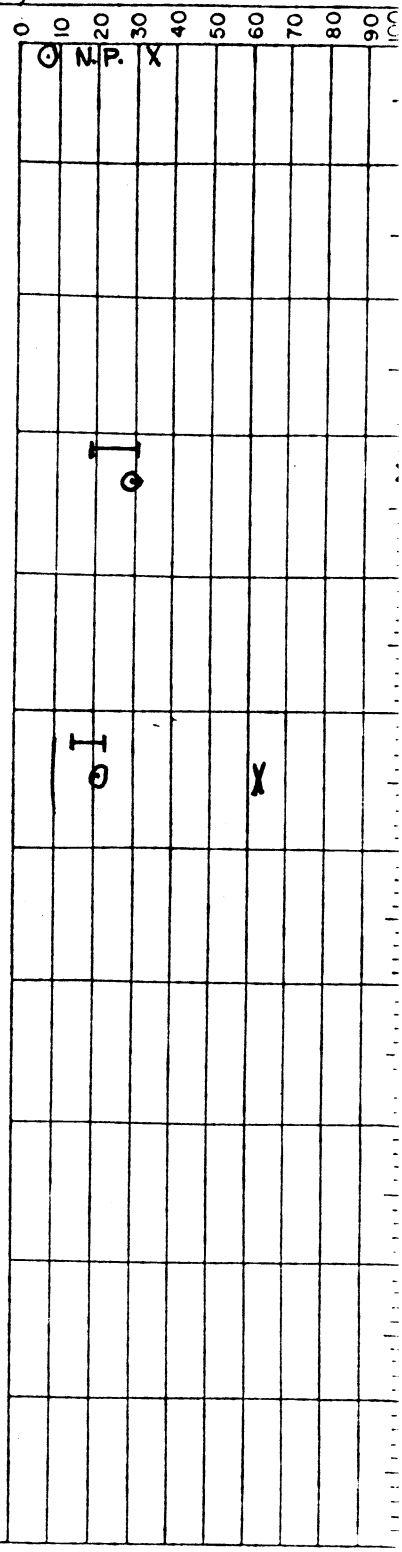
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION: SHAKWAK SEGMENT 9 | HOLE No.: 124
HOLE LOCATION: 1670+655 | ELEV. | DEPTH TO G.W.L.
DATE DRILLED: 78-10-24 | DRILL UNIT: B40 | TECHNICIAN: T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
			A/P	1	2650	SM	25	42		
			A/P	2	2645	CL	0	0	5	
			A/P	3	2675	CL	18	20	25	
6	END HOLE									

SAMPLE DATA

0 – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

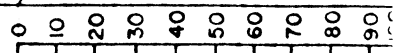
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 125
HOLE LOCATION	1670+782	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-25	DRILL UNIT B40	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	1972	SM	0	76		
2										
3			A/P	2	1970	GL-ML	7	27		
4			A/P	3	1969	CL	4	21	28	
5	END HOLE									
6										
7										
8										
9										
10										

SAMPLE DATA

O – % MOISTURE CONTENT
X – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 126
HOLE LOCATION	1670 + 860	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-25	DRILL UNIT B40	TECHNICIAN T.M.

SAMPLE DATA

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	1971	SM	36	41	7	
2										
3										
4			A/P	2	1867					
5	END HOLE									
6										
7										
8										
9										
10										

0 – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT

0 10 20 30 40 50 60 70 80 90

⊙ X TRACE

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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

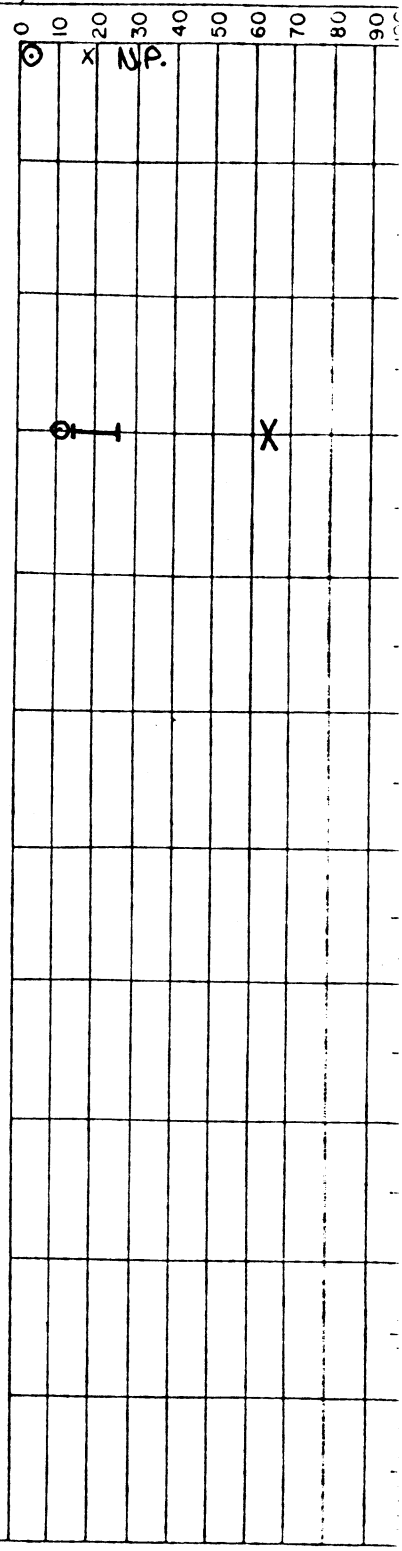
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 127
HOLE LOCATION	1670+937	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-25	DRILL UNIT B 40	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
			A/P	1	1869	SM	36	46		
			A/P	2	1868	CL	12	24	24	
	END HOLE									

SAMPLE DATA

O – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT — PLASTIC LIMIT



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 128
HOLE LOCATION	1670+995	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-25	DRILL UNIT B40	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A/P	1	1866	CL-ML	12	18		
2			A/P	2	1870	ML	8	13	39	
3										
4										
5	END HOLE									
6										
7										
8										
9										
10										

O – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT

0 10 20 30 40 50 60 70 80 90

TRACE

Public Works Canada

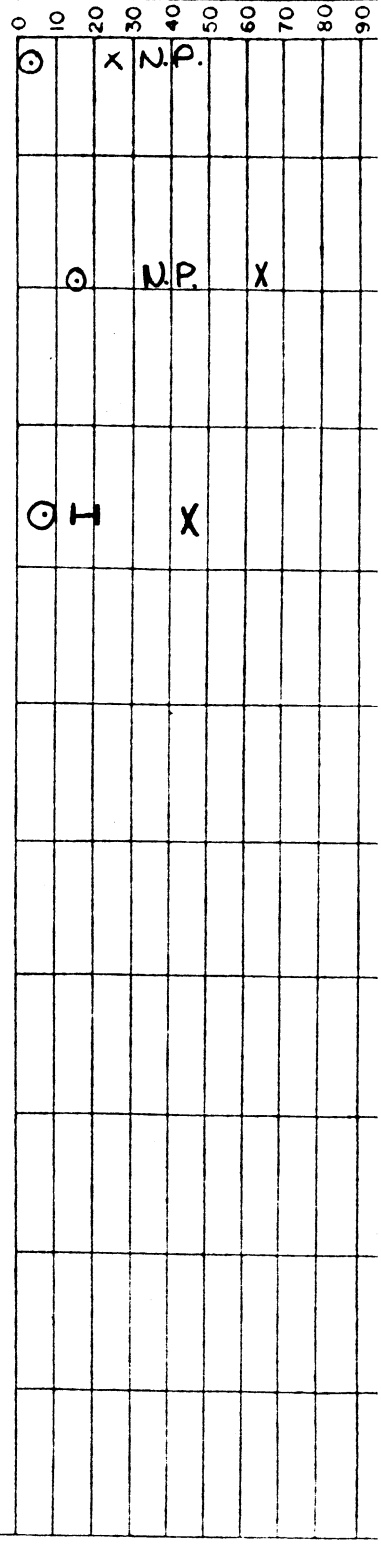
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 129
HOLE LOCATION	1671 + 088	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-25	DRILL UNIT B40	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	1872	SM	24	50		
2			A/P	2	1948	ML	9	29		
3			A/P	3	1949	GC.	30	28		
4	END HOLE									
5										
6										
7										
8										
9										
10										

0 - % MOISTURE CONTENT
x - % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

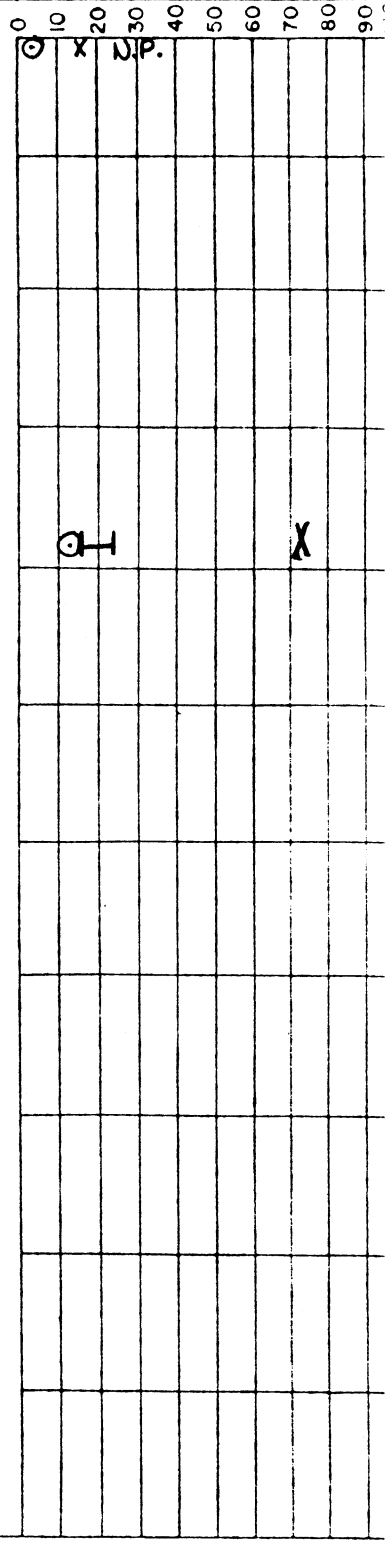
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 130
HOLE LOCATION	1671+160	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-25	DRILL UNIT B 40	TECHNICIAN T.M.

SAMPLE DATA

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
0			A/P	1	1968	SM	41	42		
4			A/P	2	1967	CL	10	18	32	
5	END HOLE									

0 – % MOISTURE CONTENT
x – % < .074 mm
LIQUID LIMIT ⊣ PLASTIC LIMIT



Public Works Canada

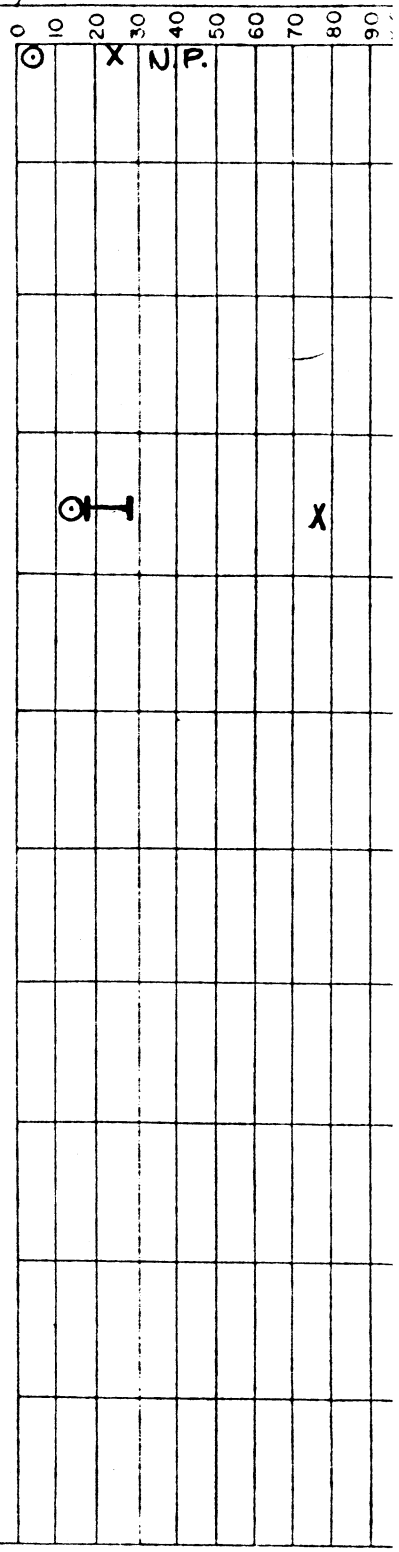
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 131
HOLE LOCATION	1671+235	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-25	DRILL UNIT B40	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	1965	SM	28	47	5	
2										
3										
4			A/P	2	1950	CL	5	18	40	
5	END HOLE									
6										
7										
8										
9										
10										

0 – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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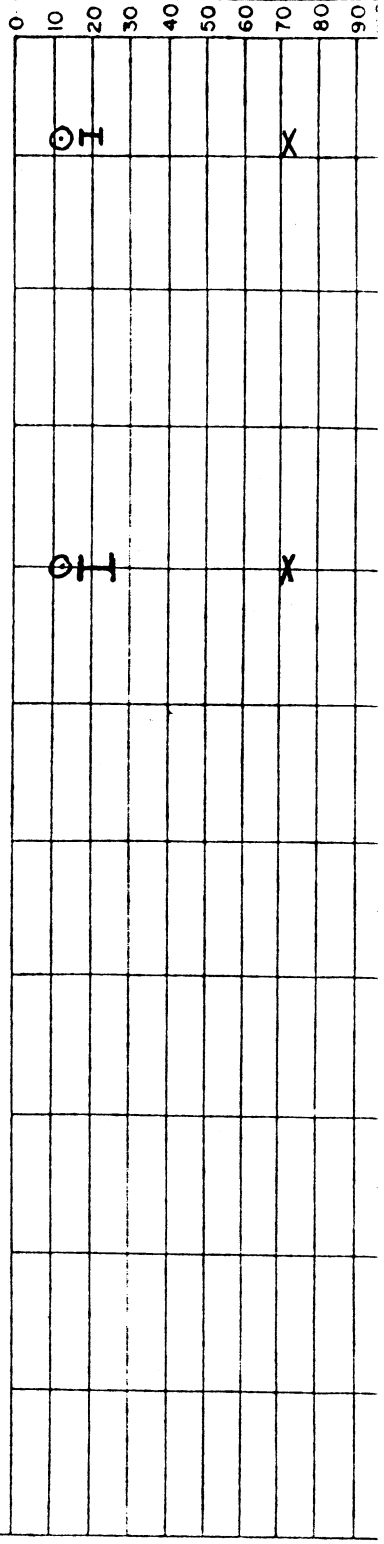
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 132
HOLE LOCATION	1671 + 310	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-25	DRILL UNIT B40	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	1960	CL-ML	11	18		
2										
3										
4			A/P	2	1952	CL	7	22	17	
5	END HOLE									
6										
7										
8										
9										
10										

0 - % MOISTURE CONTENT
x - % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

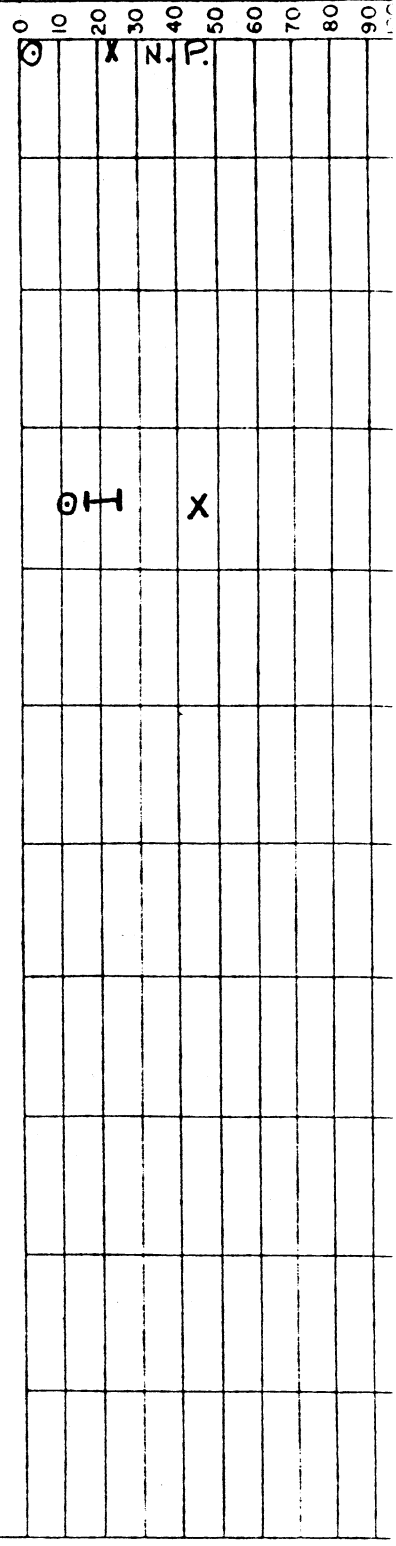
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 133
HOLE LOCATION	1671+385	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-25	DRILL UNIT B40	TECHNICIAN T.M.

SAMPLE DATA

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
			A/P	1	1959	SM	27	48	6	
			A/P	2	1953	GC	41	14		
	END HOLE									

O – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

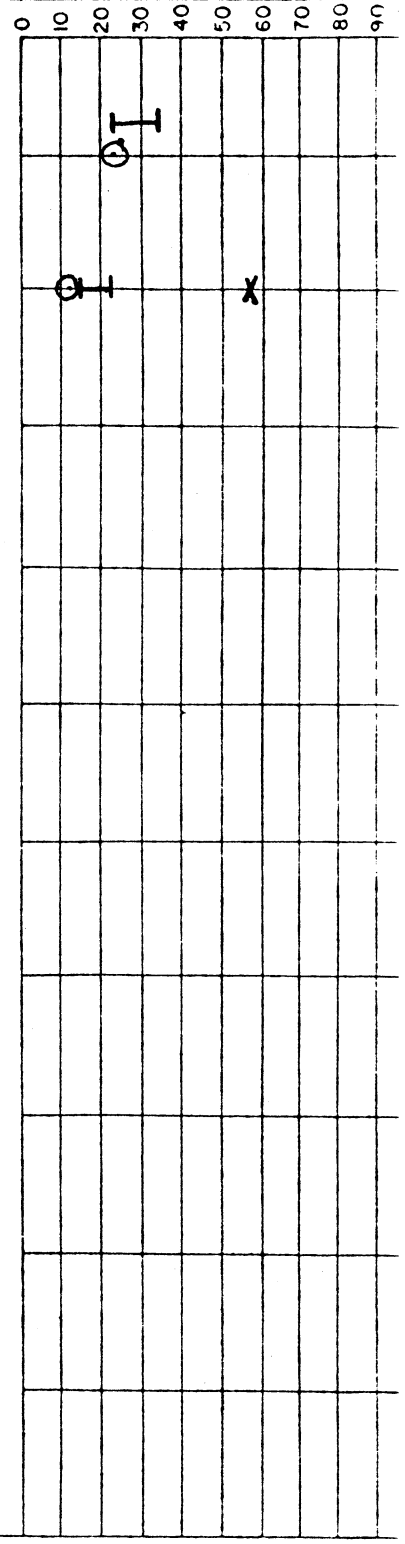
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 134
HOLE LOCATION	1671+465	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-25	DRILL UNIT B 40	TECHNICIAN T. M.

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	1958	CL	0	1		
2			A/P	2	1957	CL-ML	28	14	23	
3										
4										
5	END HOLE									
6										
7										
8										
9										
10										

SAMPLE DATA

O – % MOISTURE CONTENT
X – % < .074mm
LIQUID LIMIT ⊢⊣ PLASTIC LIMIT



Public Works Canada

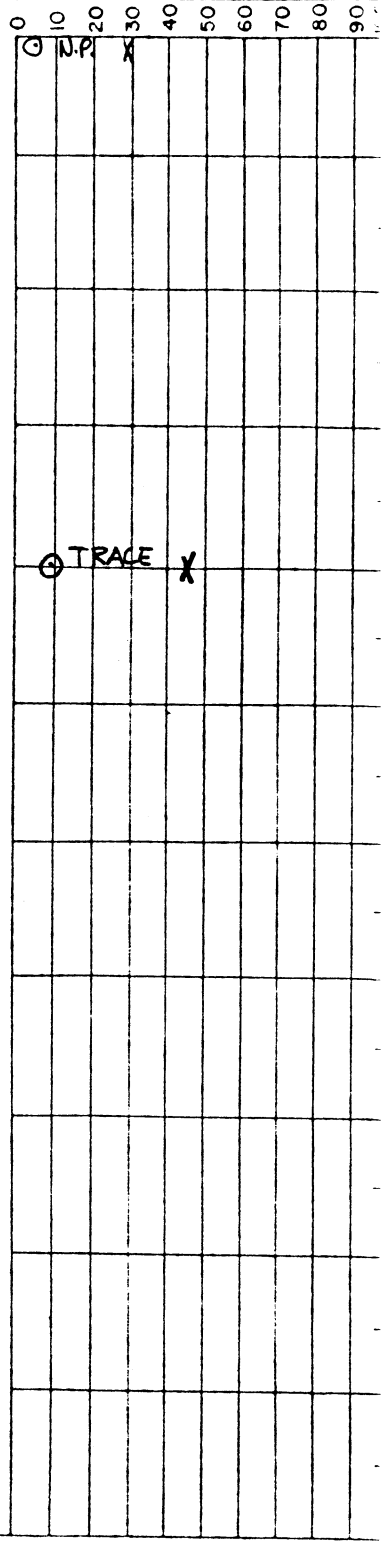
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9	HOLE No.	135
HOLE LOCATION	1671 + 535	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-25	DRILL UNIT	TECHNICIAN T.M.

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
			A/P	1	1961	SM	31	39		
			A/P	2	1954	GM	27	27	12	
	END HOLE									

0 – % MOISTURE CONTENT
X – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9 | HOLE No. 136

HOLE LOCATION 1671+609 | ELEV. | DEPTH TO G.W.L.

DATE DRILLED 78-10-25 | DRILL UNIT B40 | TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A/P	1	2011	ML	12	36	13	
2										
3			A/P	2	2003	SM	4	61	5	
4										
5										
6	END HOLE									
7										
8										
9										
10										

0 – % MOISTURE CONTENT
x – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



1: ⊙ N.P. X
3: ⊕ N.P. X

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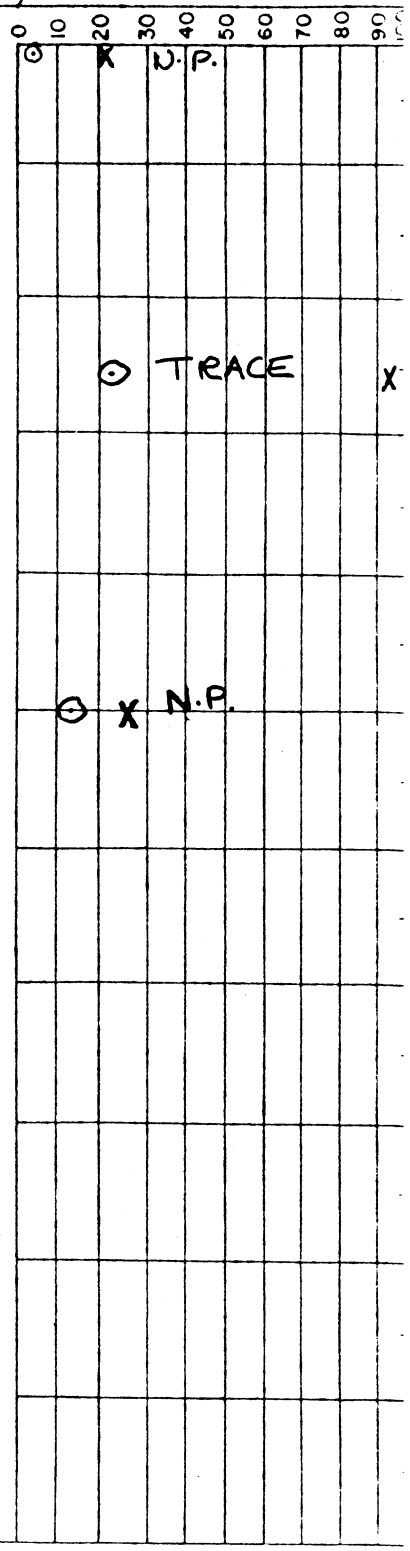
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 137
HOLE LOCATION	1671+680	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-25	DRILL UNIT B40	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	2010	SM	34	46		
2										
3			A/P	2	2013	ML	0	7		
4										
5			A/P	3	1999	SM	1	73	2	
6	END HOLE									
7										
8										
9										
10										

0 – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

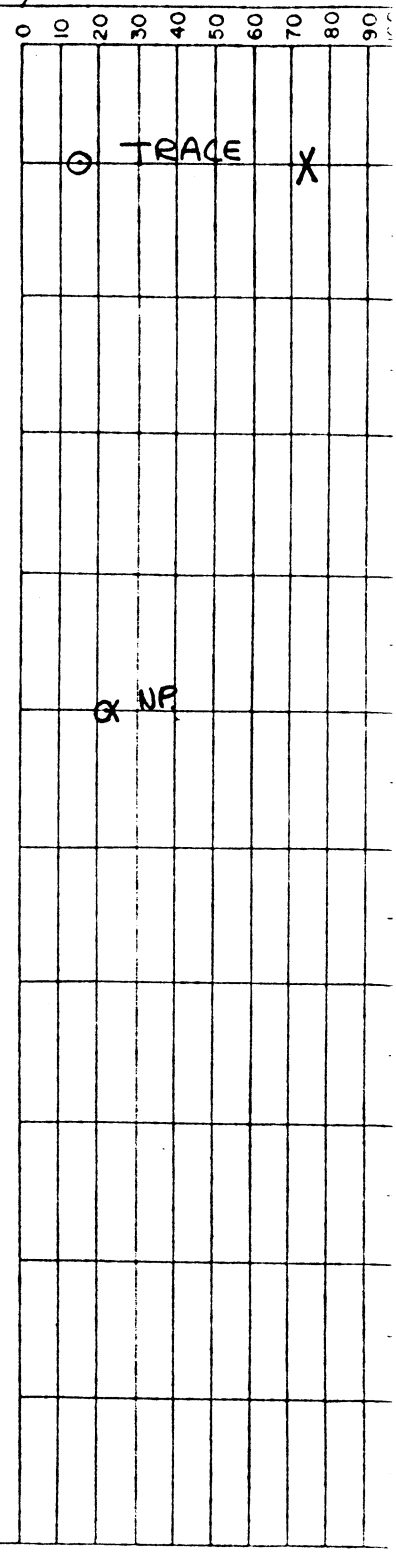
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 138
HOLE LOCATION	1671+760	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-25	DRILL UNIT B40	TECHNICIAN T. M.

SAMPLE DATA

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A/P	1	2001	ML	4	21	28	
2										
3										
4										
5	-		A/P	2	2000	SM	0	76		
6	END HOLE									
7										
8										
9										
10										

O – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

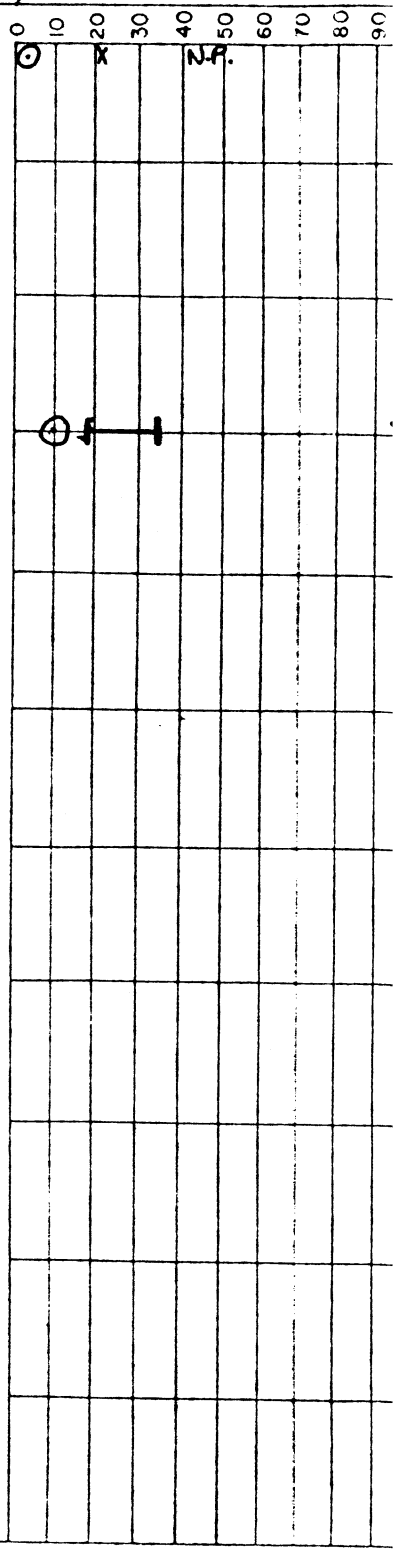
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION: SHAKWAK SEGMENT 9 | HOLE No.: 139
HOLE LOCATION: 1671+827 | ELEV. | DEPTH TO G.W.L.
DATE DRILLED: 78-10-25 | DRILL UNIT: B40 | TECHNICIAN: T.M.

SAMPLE DATA

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	2002	SM	31	48		
2										
3			A/P	2	2024	CL	0	2	49	
4										
5	END HOLE									
6										
7										
8										
9										
10										

O – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

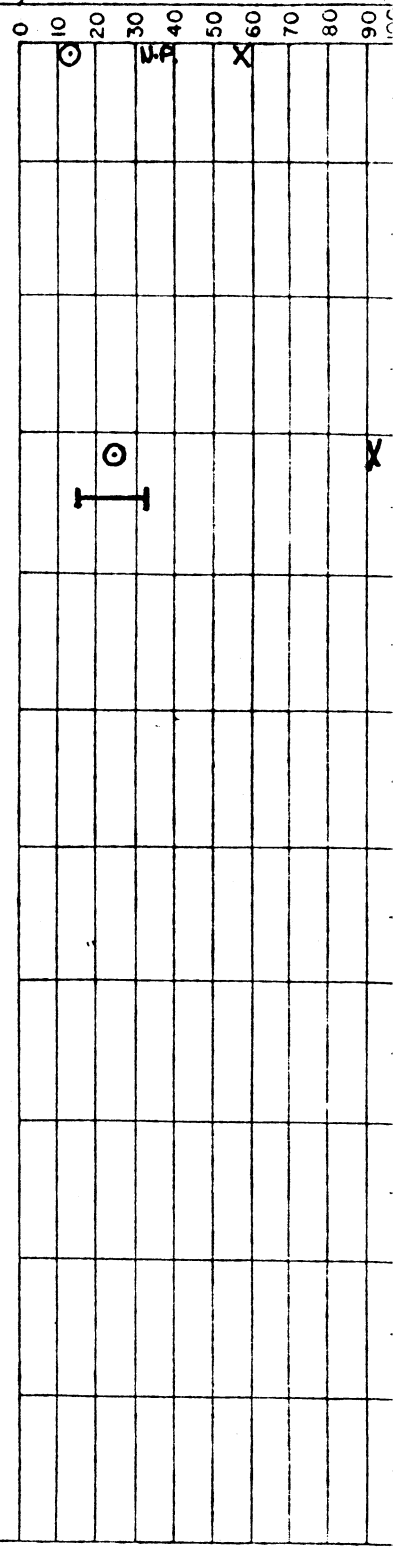
PROJECT/SECTION SHAKWAK SEGMENT 9 | HOLE No. 140

HOLE LOCATION 1671 + 900 | ELEV. | DEPTH TO G.W.L.

DATE DRILLED 78-10-25 | DRILL UNIT B 40 | TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
			A/P	1	2026	ML	3	38		
			A/P	2	1994	CL	0	8	48	
6	END HOLE									

0 – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9 | HOLE No. 141

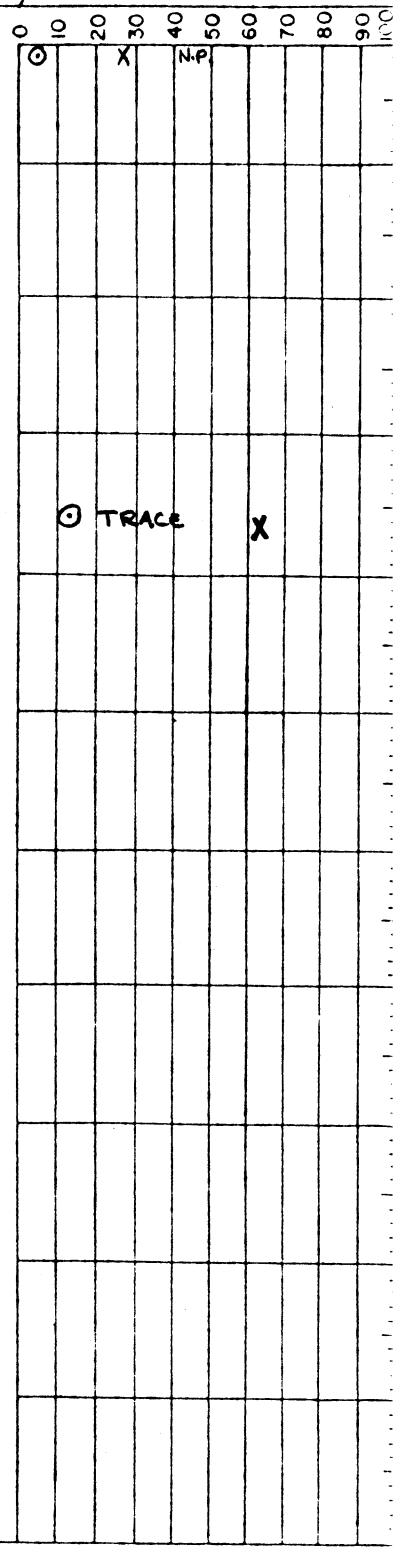
HOLE LOCATION 1671+974 | ELEV. | DEPTH TO G.W.L.

DATE DRILLED 78-10-25 | DRILL UNIT B40 | TECHNICIAN T.M.

SAMPLE DATA

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	2039	SM	27	46		
2										
3										
4			A/P	2	2023	ML	8	30	14	
5	END HOLE									
6										
7										
8										
9										
10										

0 - % MOISTURE CONTENT
X - % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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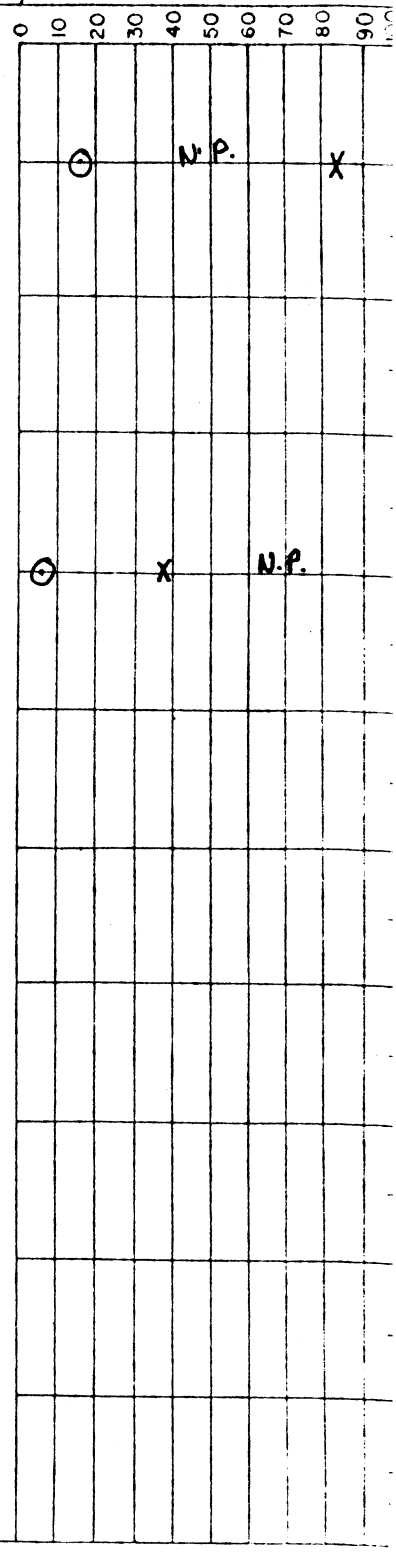
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9	HOLE No.	142
HOLE LOCATION	1672+040	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-25	DRILL UNIT	B40
TECHNICIAN	T.M.		

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A/P	1	2042	ML	6	10		
2										
3										
4			A/P	2	2027	SM.	4	58	4	
5	END HOLE									
6										
7										
8										
9										
10										

O – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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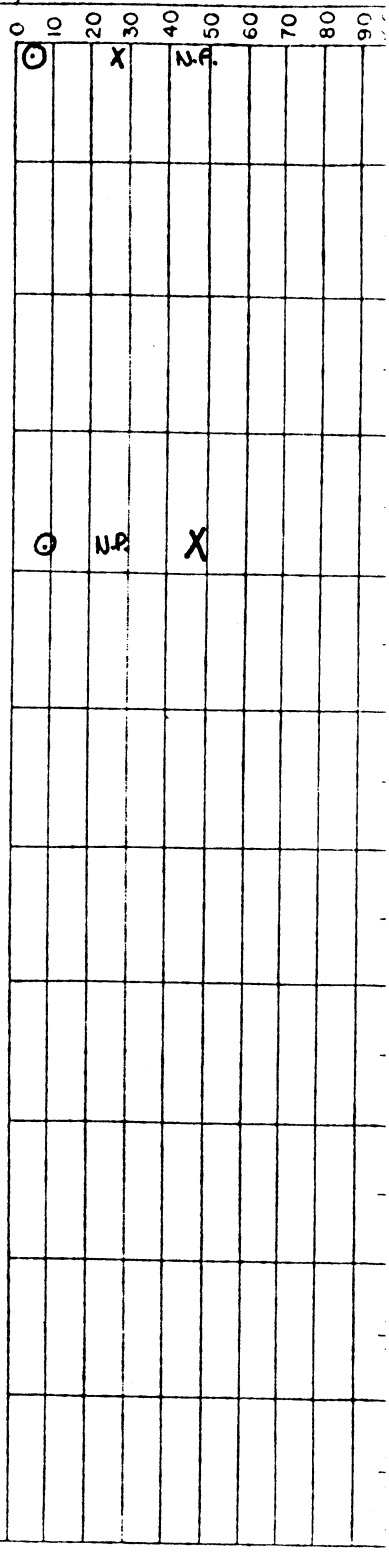
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 143
HOLE LOCATION	1672+115	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-25	DRILL UNIT B40	TECHNICIAN T.M.

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	1964	GM	44	28		
2										
3										
4			A/P	2	1997	SM	14	38	10	
5	END HOLE									
6										
7										
8										
9										
10										

O – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9 | HOLE No. 144

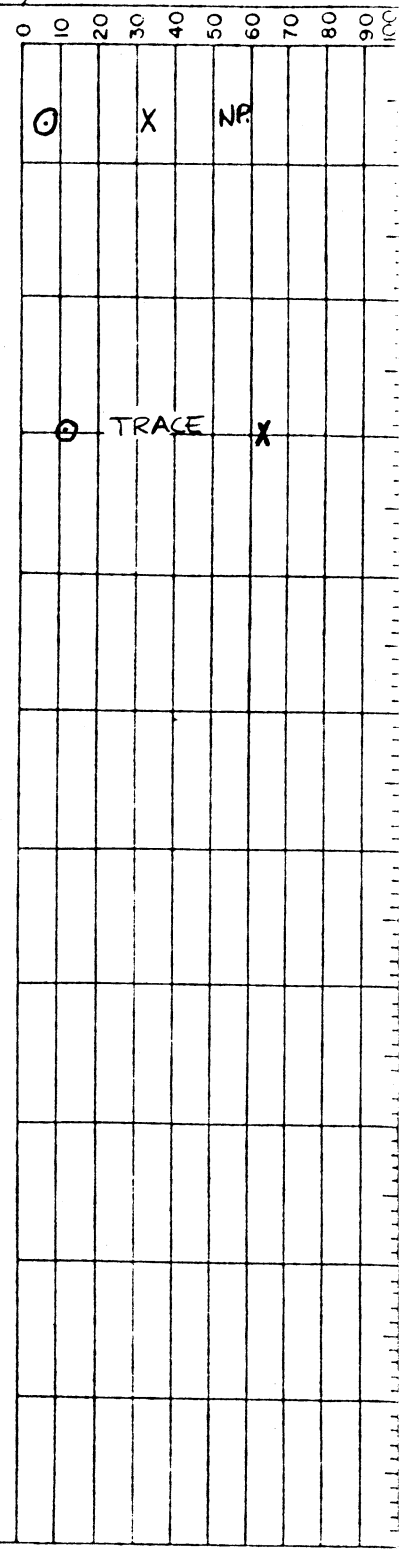
HOLE LOCATION 1672 + 183 | ELEV. | DEPTH TO G.W.L.

DATE DRILLED 78-10-25 | DRILL UNIT B40 | TECHNICIAN T.M.

SAMPLE DATA

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A/P	1	2028	SM	2	64	4	
2										
3			A/P	2	1995	ML	12	26		
4										
5	END HOLE									
6										
7										
8										
9										
10										

O - % MOISTURE CONTENT
X - % < .074 mm
LIQUID LIMIT ⊢⊣ PLASTIC LIMIT



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

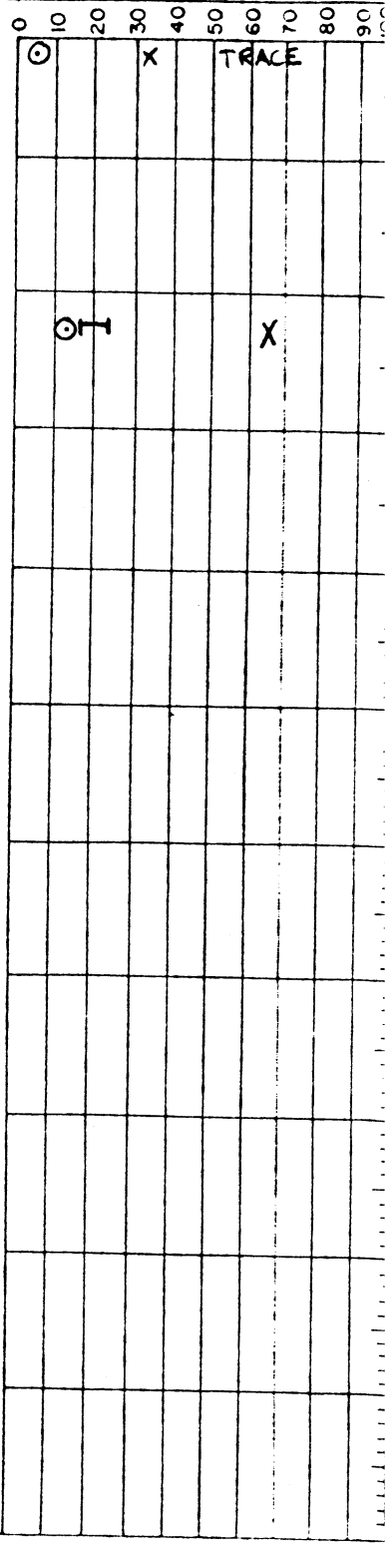
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 145
HOLE LOCATION	1672+256	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78-10-25	DRILL UNIT B40	TECHNICIAN T.M.

SAMPLE DATA

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
			A/P	1	2040	SM	33	35		
			A/P	2	2041	CL	16	20	20	
	END HOLE									

0 – % MOISTURE CONTENT
x – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

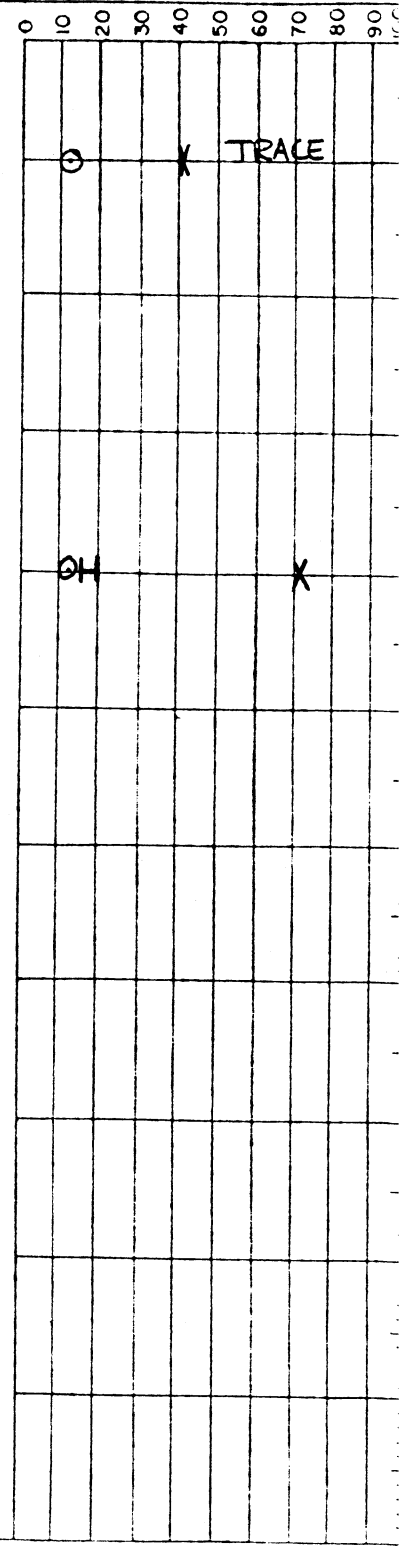
PROJECT/SECTION SHAKWAK SEGMENT 9 | HOLE No. 146

HOLE LOCATION 1672+325 | ELEV. | DEPTH TO G.W.L.

DATE DRILLED 78.10.25 | DRILL UNIT | TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	2031	GM	45	14	12	
2										
3										
4			A/P	2	1966	ML	12	18		
5	END HOLE									
6										
7										
8										
9										
10										

0 – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

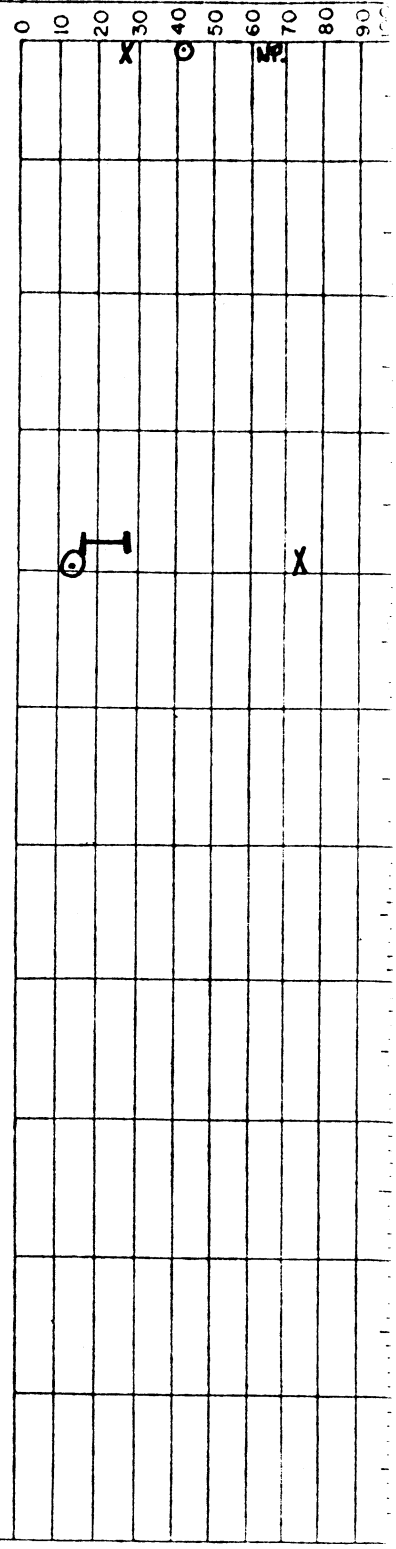
PROJECT/SECTION SHAKWAK SEGMENT 9 — HOLE No. 147

HOLE LOCATION 1672+400 — ELEV. — DEPTH TO G.W.L.

DATE DRILLED 78·10·25 — DRILL UNIT — TECHNICIAN T.M.

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
0			A/P	1	2037	SM	29	43		
1										
2										
3										
4			A/P	2	2032	CL	6	19		
5	END HOLE									
6										
7										
8										
9										
10										

0 – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

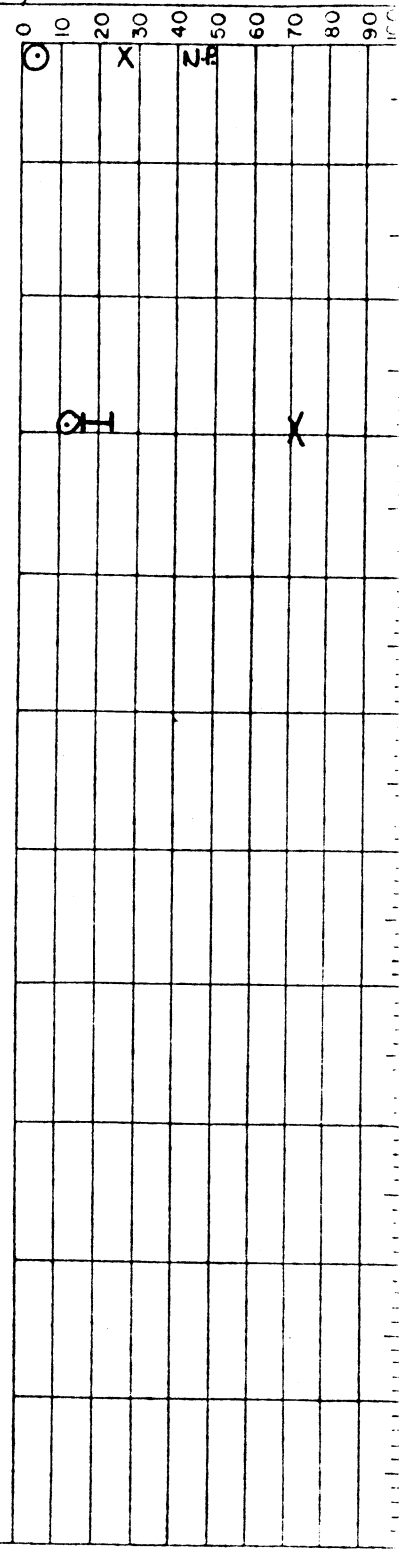
PROJECT/SECTION SHAKWAK SEGMENT 9 | HOLE No. 148

HOLE LOCATION 1672+468 | ELEV. | DEPTH TO G.W.L.

DATE DRILLED 78.10.26 | DRILL UNIT | TECHNICIAN T.M

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
0			A/P	1	2009	SM	23	49		
2			A/P	2	1996	CL-ML	7	23	29	
5	END HOLE									

0 – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9 | HOLE No. 149

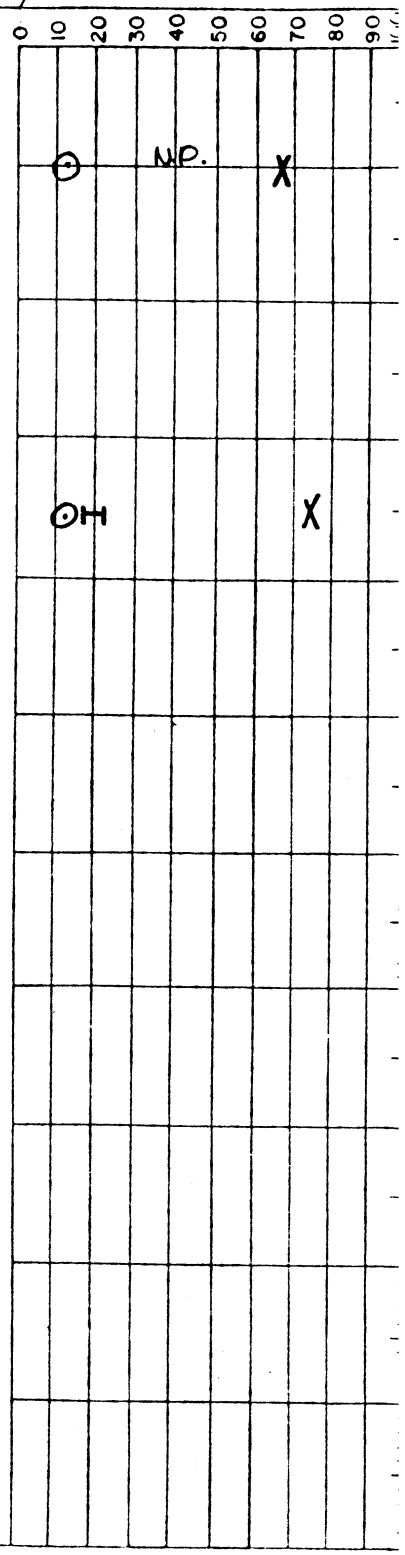
HOLE LOCATION 1672+540 | ELEV. | DEPTH TO G.W.L.

DATE DRILLED 78.10.26 | DRILL UNIT | TECHNICIAN T.M.

SAMPLE DATA

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A	P	1	1871	ML	8	24	
2										
3			A	P	2	2029	CL-ML	5	20	34
4										
4.6	END HOLE									
5										
6										
7										
8										
9										
10										

O – % MOISTURE CONTENT
X – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

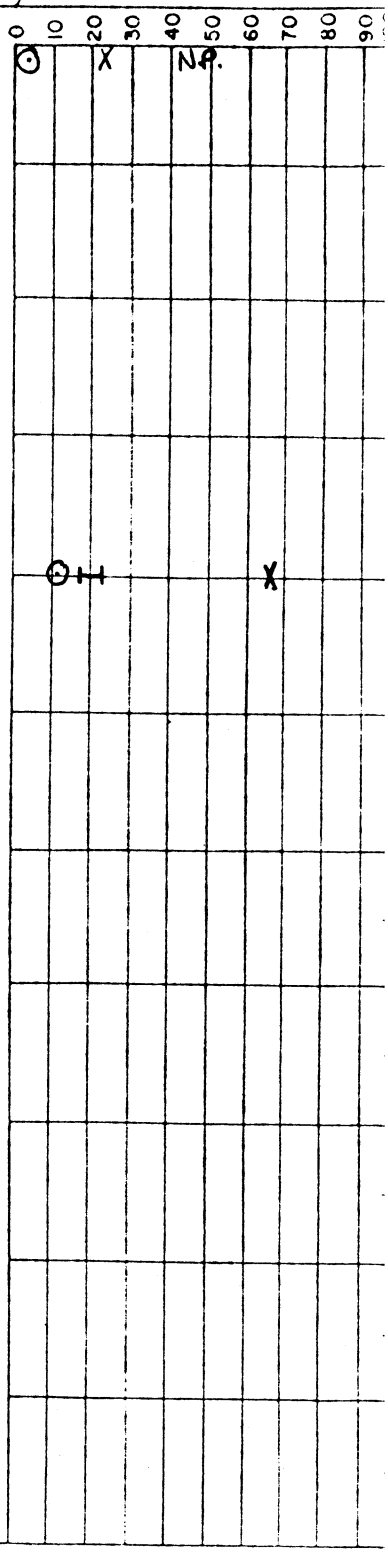
PROJECT/SECTION SHAKWAK SEGMENT 9 — HOLE No. 150

HOLE LOCATION 1672+619 — ELEV. — DEPTH TO G.W.L.

DATE DRILLED 78.10.26 — DRILL UNIT — TECHNICIAN T.M.

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
0			A/P	1	2030	SM	33	45	6	
4			A/P	2	1975	CL-ML	13	22	26	
4.6	END HOLE									

0 – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9 | HOLE No. 151

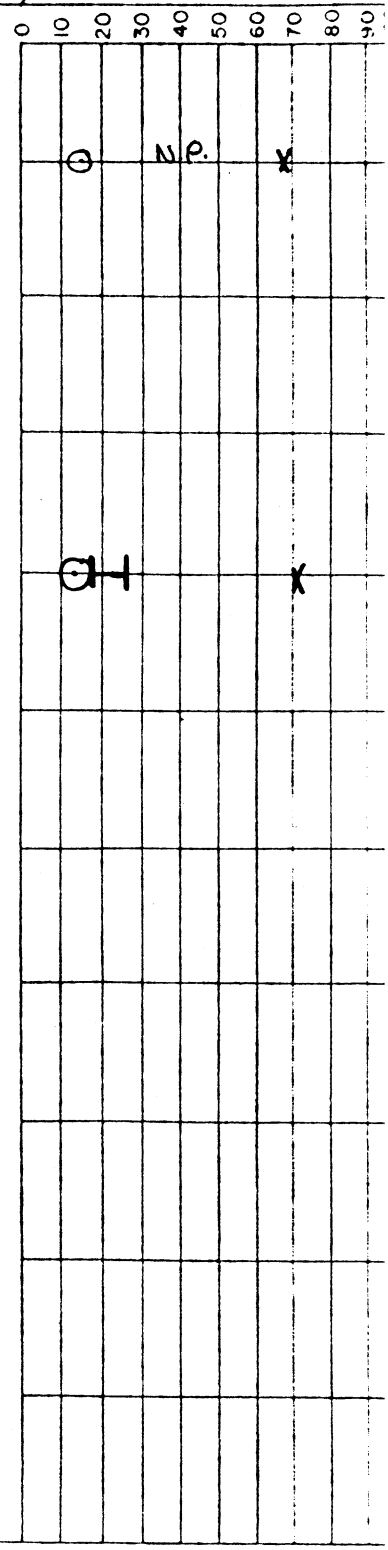
HOLE LOCATION 1672+691 | ELEV. | DEPTH TO G.W.L.

DATE DRILLED 78·10·26 | DRILL UNIT | TECHNICIAN T.M.

SAMPLE DATA

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1										
2										
3										
4			A/P	1	2007	ML	1	32		
5	END HOLE		A/P	2	2019	CL	5	25	31	
6										
7										
8										
9										
10										

O – % MOISTURE CONTENT
X – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

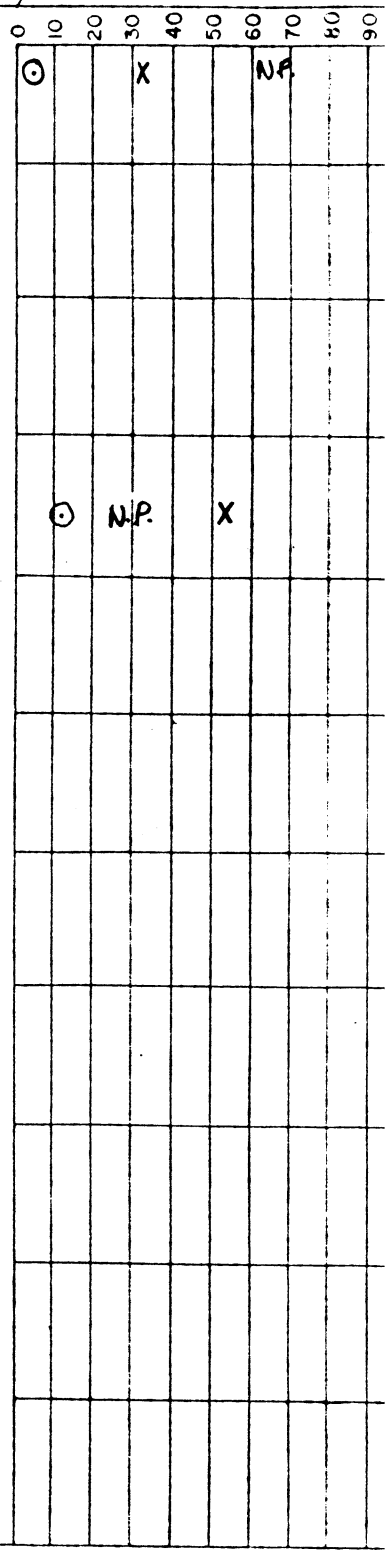
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 152
HOLE LOCATION	1672+768	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78·10·26	DRILL UNIT	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
0			A/P	1	2012	SM	32	34	9	
3			A/P	2	1998	ML	9	38		
4	END HOLE									

O – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9 | HOLE No. 153

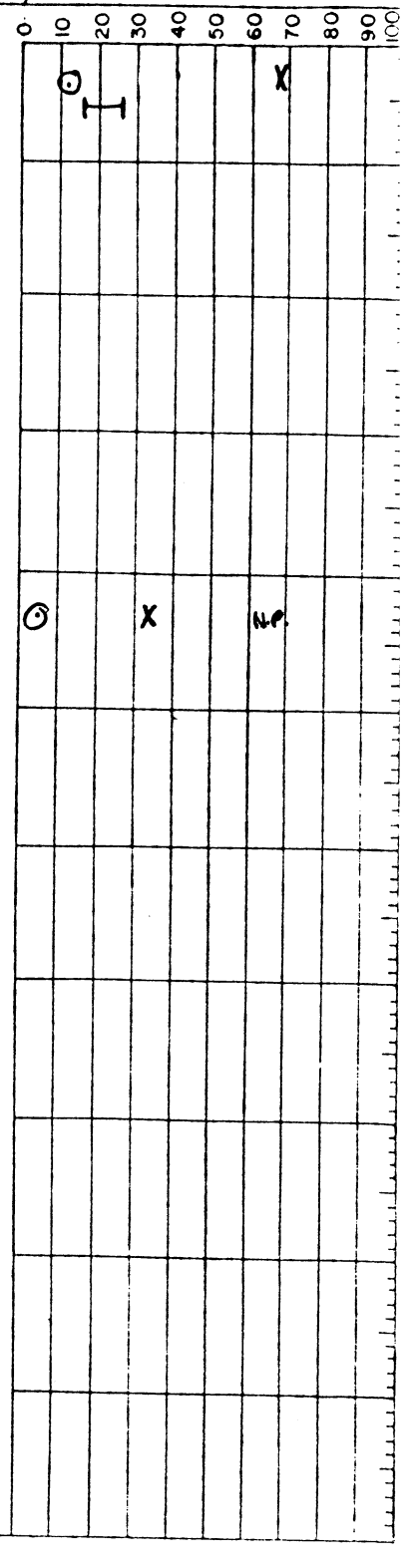
HOLE LOCATION 1672+840 | ELEV. — | DEPTH TO G.W.L.

DATE DRILLED 78·10·26 | DRILL UNIT | TECHNICIAN T.M

SAMPLE DATA

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
0		A	P	1	2017	CL	9	22		
4.6	END HOLE	A	P	2	2038	SM	30	37		

0 – % MOISTURE CONTENT
x – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9 — HOLE No. 154

HOLE LOCATION 1672+915 — ELEV. — DEPTH TO G.W.L.

DATE DRILLED 78.10.26 — DRILL UNIT — TECHNICIAN T.M.

SAMPLE DATA

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A	P	1	1963	GM	41	34	
2										
3										
4										
5										
6			A	P	2	1865	CL	12	24	24
	END HOLE									
7										
8										
9										
10										

0 – % MOISTURE CONTENT

x – % < .074 mm

LIQUID LIMIT ⊢ PLASTIC LIMIT

0 10 20 30 40 50 60 70 80 90

TRACE

Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9 — HOLE No. 155
HOLE LOCATION 1672+990 — ELEV. — DEPTH TO G.W.L.
DATE DRILLED 78.10.26 — DRILL UNIT — TECHNICIAN T. M.

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
0			A/P	1	1951	SM	21	50		
1			A/P	2	2005	ML	0	35	15.5	
2										
3										
4										
5			A/P	3	1979	ML	10	23		
6	END HOLE									
7										
8										
9										
10										

O – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊣ PLASTIC LIMIT

0 10 20 30 40 50 60 70 80 90

O X NP
O TRACE X
O TRACE X

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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9 — HOLE No. 156

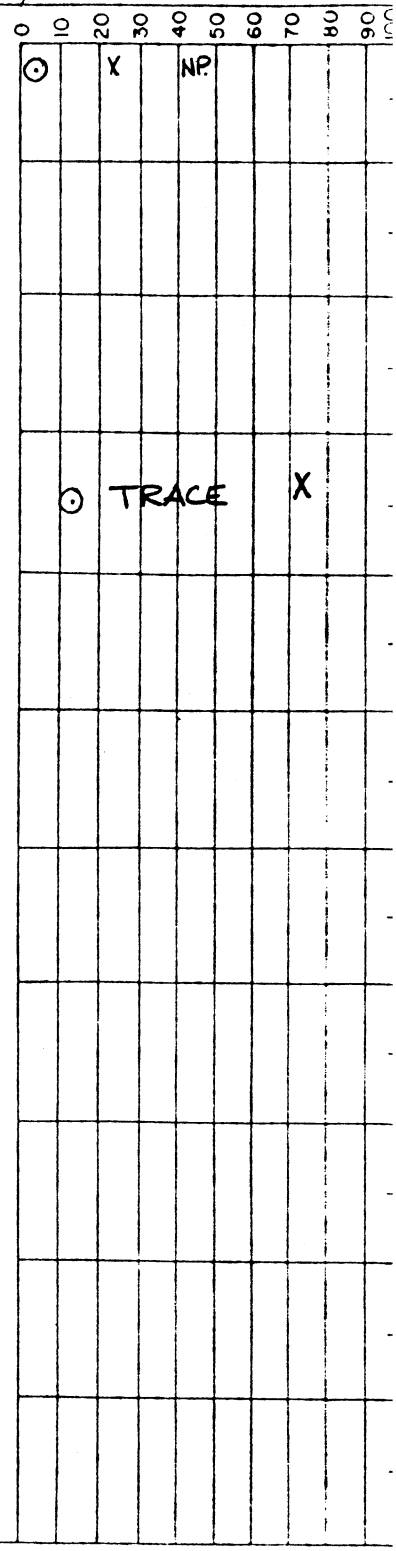
HOLE LOCATION 1673+055 — ELEV. — DEPTH TO G.W.L.

DATE DRILLED 78.10.26 — DRILL UNIT — TECHNICIAN T.M

SAMPLE DATA

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A	P	1	2034	SM	32	46	6
2										
3			A	P	2	1978	ML	4	22	28
4										
5	END HOLE									
6										
7										
8										
9										
10										

0 – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

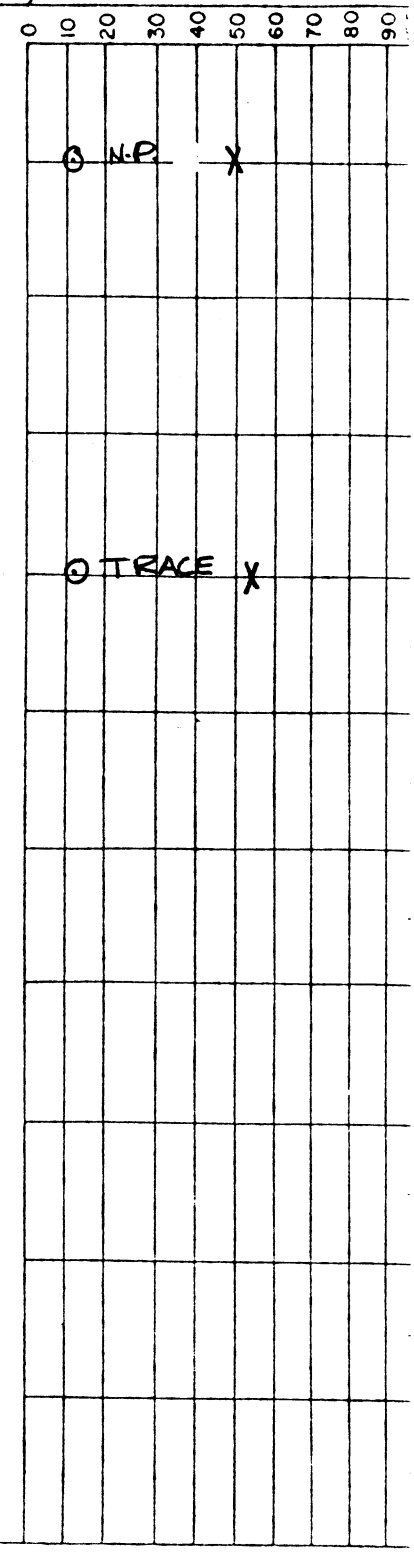
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9		HOLE No. 157
HOLE LOCATION	ELEV.	DEPTH TO G.W.L.
DATE DRILLED 78.10.26	DRILL UNIT	TECHNICIAN T. M.

SAMPLE DATA

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1		A	P	1	1956	SM	0	50		
2										
3										
4		A	P	2	2004	ML	5	40	15	
	REFUSAL									
5										
6										
7										
8										
9										
10										

0 – % MOISTURE CONTENT
x – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9 — HOLE No. 158

HOLE LOCATION 1673+210 — ELEV. — DEPTH TO G.W.L.

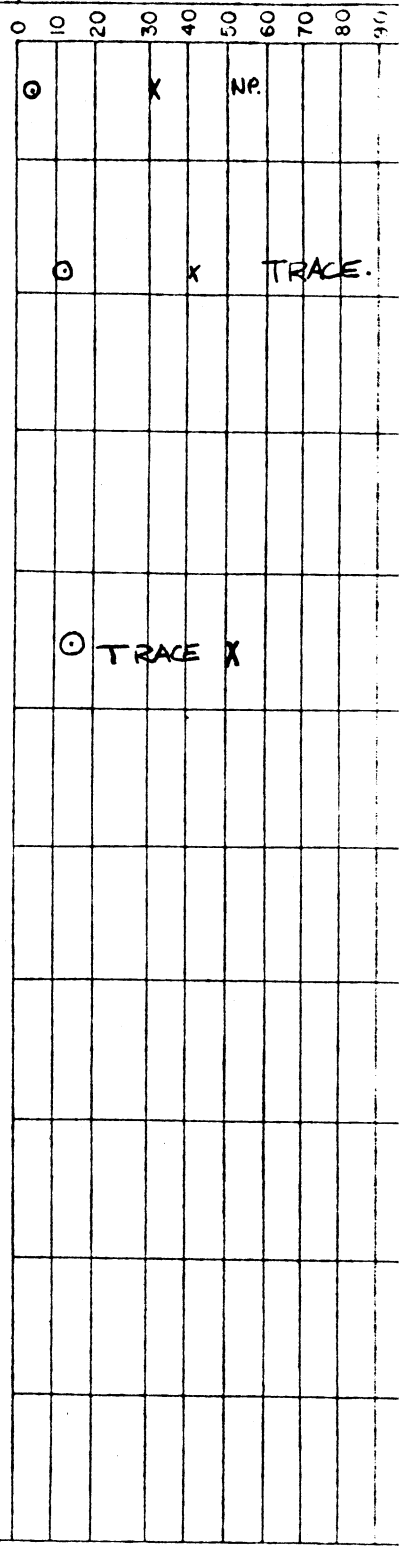
DATE DRILLED 78.10.26 — DRILL UNIT — TECHNICIAN T.M.

SAMPLE DATA

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
0		A|P	1		2015	SM	34	35		
1										
2		A|P	2		1955	SM	11	48		
3										
4		A|P	3		1984	ML	8	42	13	
5	END HOLE									
6										
7										
8										
9										
10										

0 – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT

0 10 20 30 40 50 60 70 80 90



Public Works Canada

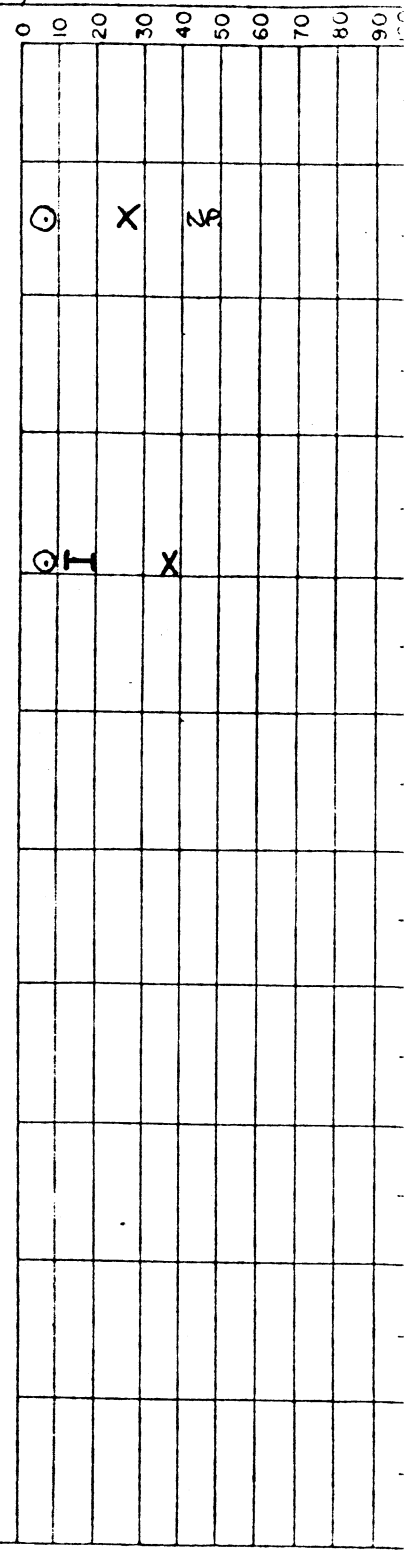
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 159
HOLE LOCATION	1673+280	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78·10·26.	DRILL UNIT	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A_{1p}	1	2018	SM	19	54		
2										
3			A_{1p}	2	1980	SM	30	34	14	
4	END HOLE									
5										
6										
7										
8										
9										
10										

0 – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9 | HOLE No. 160
HOLE LOCATION 1673 + 351 | ELEV. | DEPTH TO G.W.L.
DATE DRILLED 78·10·26 | DRILL UNIT | TECHNICIAN T.M

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
0		A/P	1		2022	SM	34	38	-	
2		A/P	2		2016	CL	5	29	24	
5	END HOLE									

SAMPLE DATA

O – % MOISTURE CONTENT
X – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT

0 10 20 30 40 50 60 70 80 90 100

Public Works Canada

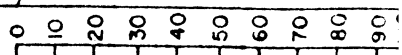
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

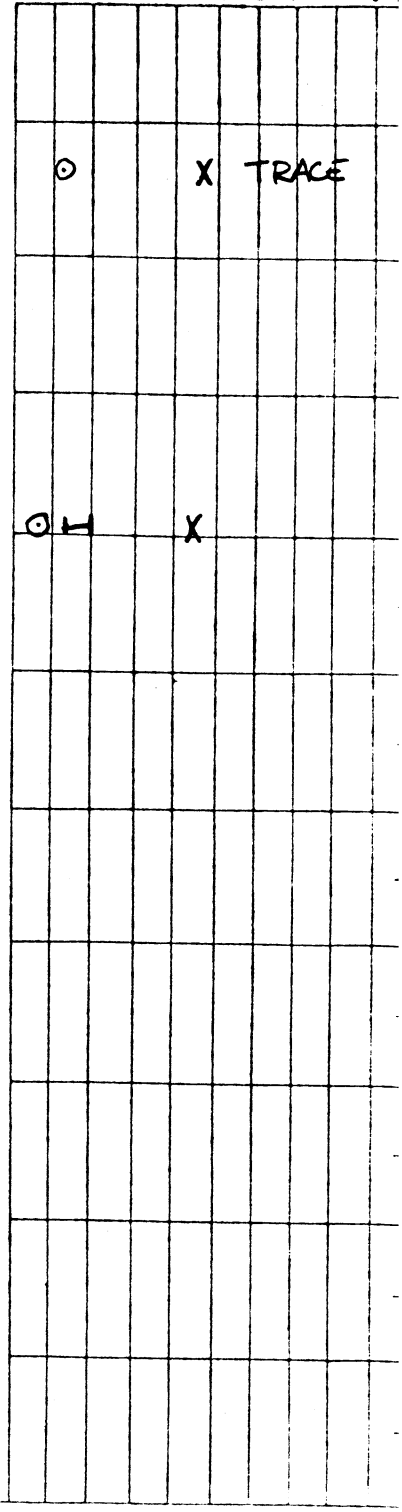
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9 — HOLE No. 161
HOLE LOCATION 1673+428 — ELEV. — DEPTH TO G.W.L.
DATE DRILLED 78.10.26 — DRILL UNIT — TECHNICIAN T.M

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A|P	1	2020	SM	26	27		
2										
3										
4			A|P	2	2044	SC	24	40	12	
5	END HOLE									
6										
7										
8										
9										
10										

0 – % MOISTURE CONTENT
x – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT





Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

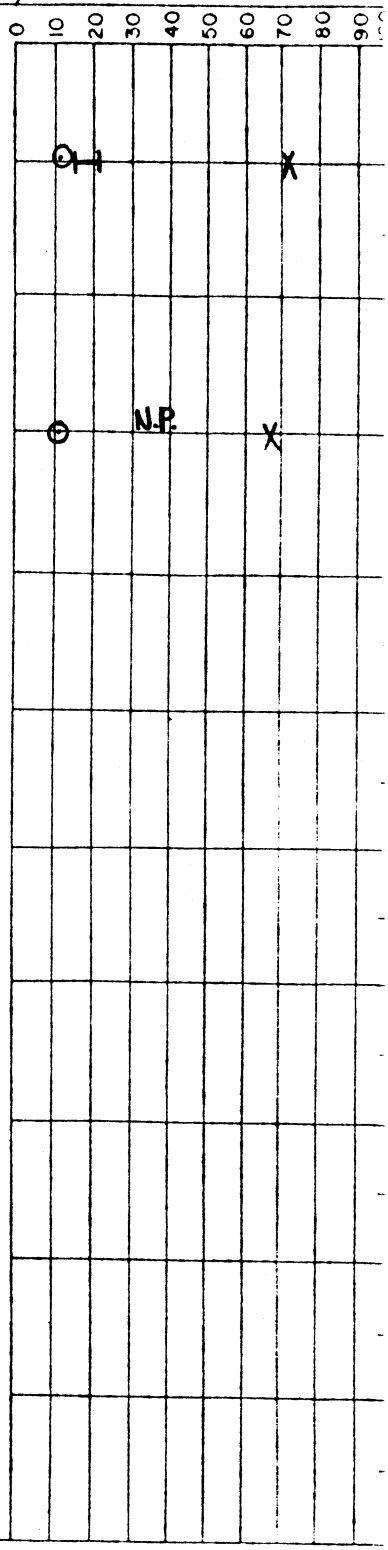
PROJECT/SECTION SHAKWAK SEGMENT 9 | HOLE No. 162

HOLE LOCATION 1673 + 512 | ELEV. | DEPTH TO G.W.L.

DATE DRILLED 78.10.26 | DRILL UNIT | TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	2036	CL	6	24		
2										
3			A/P	2	2035	ML	5	28	21	
4										
5	END HOLE									
6										
7										
8										
9										
10										

O - % MOISTURE CONTENT
X - % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

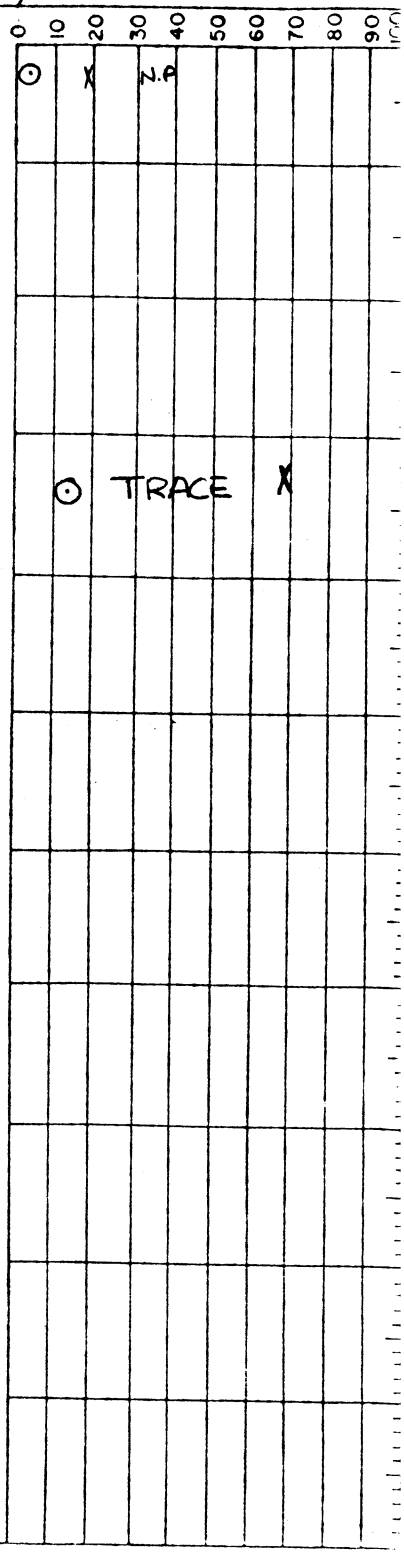
PROJECT/SECTION SHAKWAK SEGMENT 9 | HOLE No. 163

HOLE LOCATION 1673+583 | ELEV. | DEPTH TO G.W.L.

DATE DRILLED 78·10·26 | DRILL UNIT | TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
0			A/P	1	2014	GM	53	28		
3			A/P	2	1962	ML	0	30	24	
4.6	END HOLE									

0 – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9 | HOLE No. 164
HOLE LOCATION 1673+658 | ELEV. | DEPTH TO G.W.L.
DATE DRILLED 78·10·26 | DRILL UNIT | TECHNICIAN T.M

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			A/P	1	1977	SM	25	38	11	
2										
3			A/P	2	2006	ML	10	23		
4	REFUSAL									
5										
6										
7										
8										
9										
10										

SAMPLE DATA

0 – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT

0 10 20 30 40 50 60 70 80 90

1: ⊙ N.P. x
3: ⊙ TRACE x

Public Works Canada

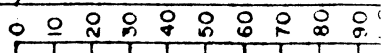
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

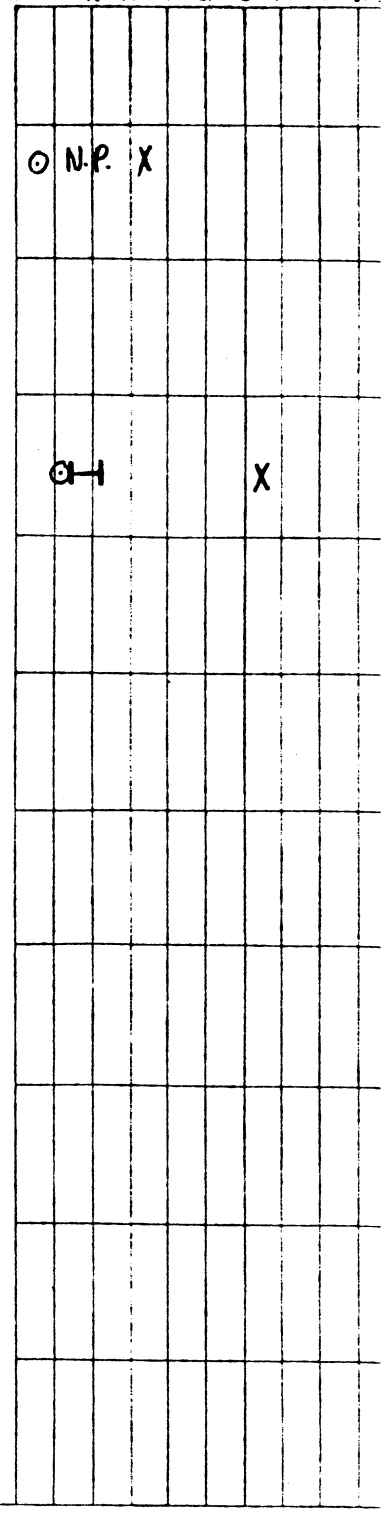
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 165
HOLE LOCATION	1673+740	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78.10.26	DRILL UNIT	TECHNICIAN T.M

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A/P	1	2043	SM	26	39		
2										
3			A/P	2	2021	CL	10	26	23	
4										
5	END HOLE									
6										
7										
8										
9										
10										

O – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT





Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

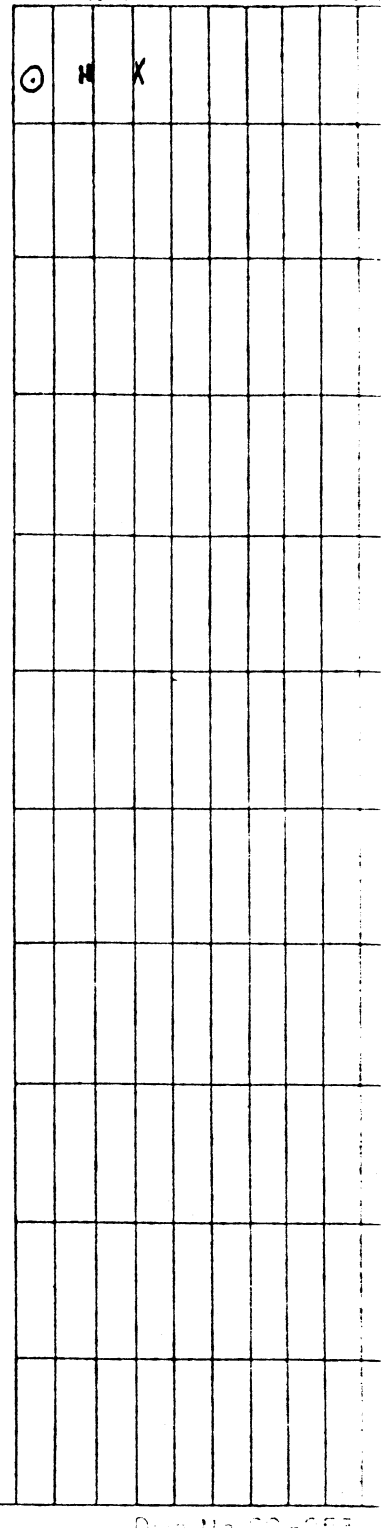
PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 166
HOLE LOCATION	1673+808	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78·10·26	DRILL UNIT	TECHNICIAN T.M.

SAMPLE DATA

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
			AP	1	1974	GM	38	32	9	
1	REFUSAL									

O – % MOISTURE CONTENT
X – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT

0 10 20 30 40 50 60 70 80 90



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 167
HOLE LOCATION	1673+885	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78·10·26	DRILL UNIT	TECHNICIAN T.M.

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1	REFUSAL		AP	1	1983	GM	38	27	0	

0 – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT

0 10 20 30 40 50 60 70 80 90

⊙ X TRACE

Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

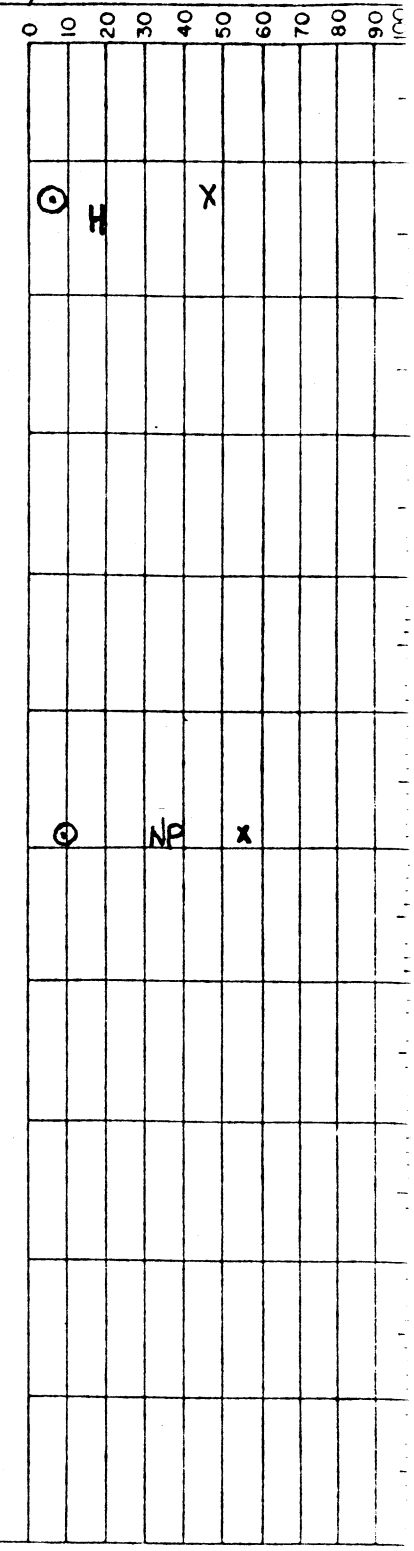
SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 168
HOLE LOCATION	1673+990	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78·10·26	DRILL UNIT	TECHNICIAN T.M

SAMPLE DATA

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300mm
1										
			A/P	1	1985	GM	28.9	25.2		
2										
3										
4										
5										
			A/P	2	1989	ML	.1	44.5	11.7	
6	END HOLE									
7										
8										
9										
10										

O – % MOISTURE CONTENT
X – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

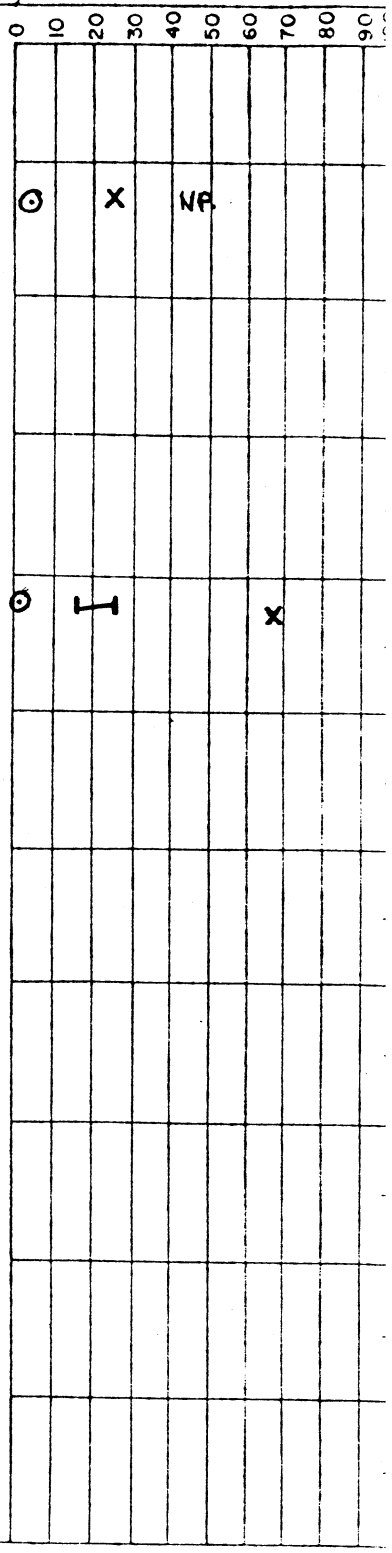
PROJECT/SECTION SHAKWAK SEGMENT 9 — HOLE No. 169

HOLE LOCATION 1674 + 022 — ELEV. — DEPTH TO G.W.L.

DATE DRILLED 78·10·26 — DRILL UNIT — TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1										
2			A	p	1	1988	GM	39	36	
3										
4			A	p	2	1973	CL	4	28	28
5	END HOLE									
6										
7										
8										
9										
10										

0 – % MOISTURE CONTENT
x – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9 | HOLE No. 170
HOLE LOCATION 1674+091 | ELEV. | DEPTH TO G.W.L.
DATE DRILLED 78·10·26 | DRILL UNIT | TECHNICIAN T.M

SAMPLE DATA

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
0			A/P	1	1976	CL-ML				
4.5	END HOLE		A/P	2	2008	ML	4	23	33	

0 – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT

0 10 20 30 40 50 60 70 80 90

⊙ H

⊙ NP. X

Public Works Canada

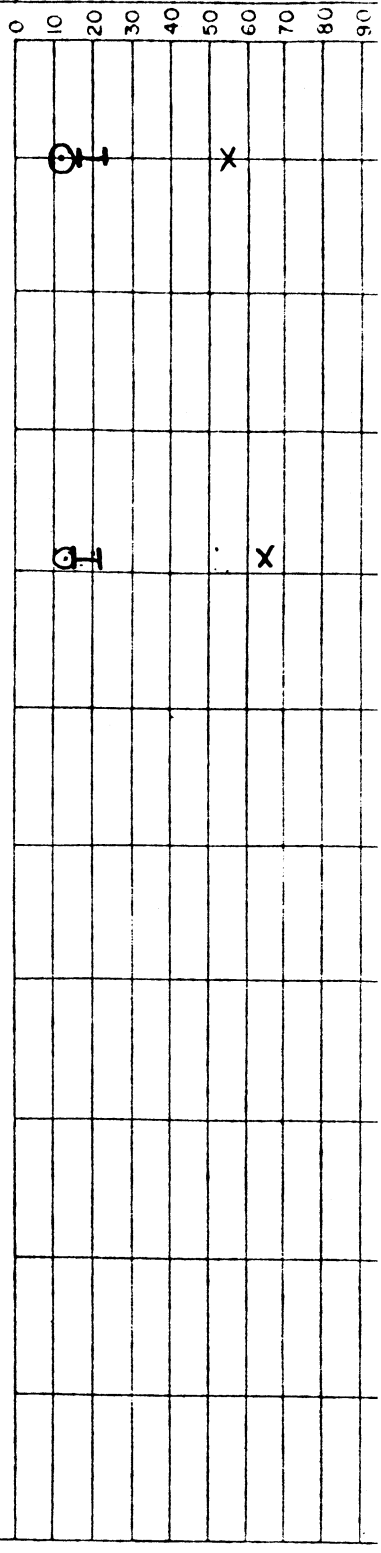
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 171
HOLE LOCATION	1674+160	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78·10·26	DRILL UNIT	TECHNICIAN T.M.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD. PENETRATION BLOWS/300 mm
1			A/P	1	2033	CL-ML	12	34	18	
2										
3										
4			A/P	2	1986	CL-ML	11	24		
5	END HOLE									
6										
7										
8										
9										
10										

O – % MOISTURE CONTENT
x – % < .074 mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION SHAKWAK SEGMENT 9 | HOLE No. 172

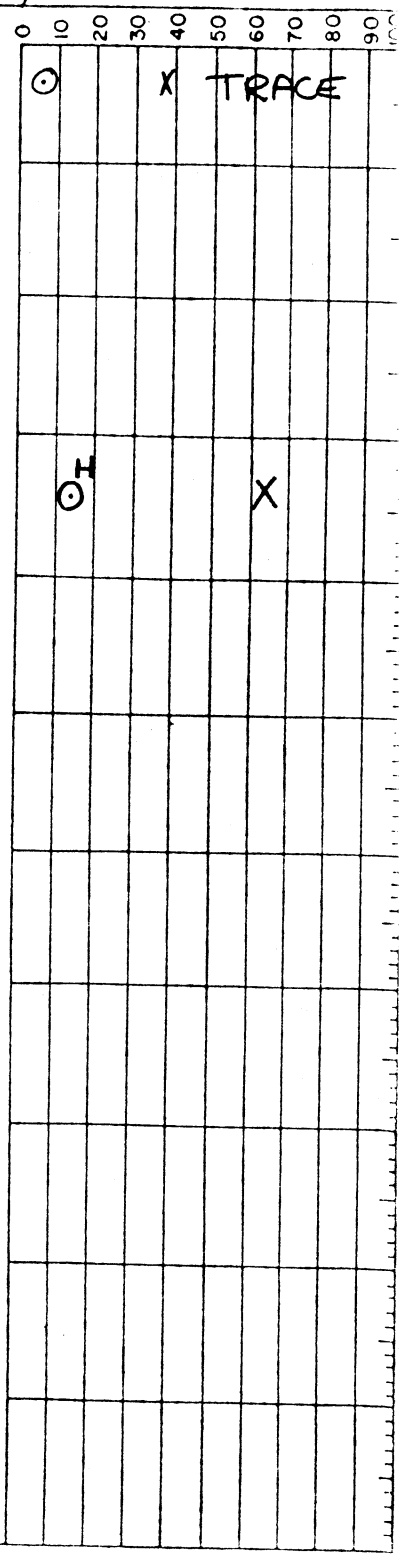
HOLE LOCATION 1674+230 | ELEV. | DEPTH TO G.W.L.

DATE DRILLED | DRILL UNIT | TECHNICIAN T. M.

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
		A/P	1	1982	SM	18	44			
		A/P	2	1990	ML	10	28	20		
	END HOLE									

SAMPLE DATA

0 – % MOISTURE CONTENT
x – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



Public Works Canada

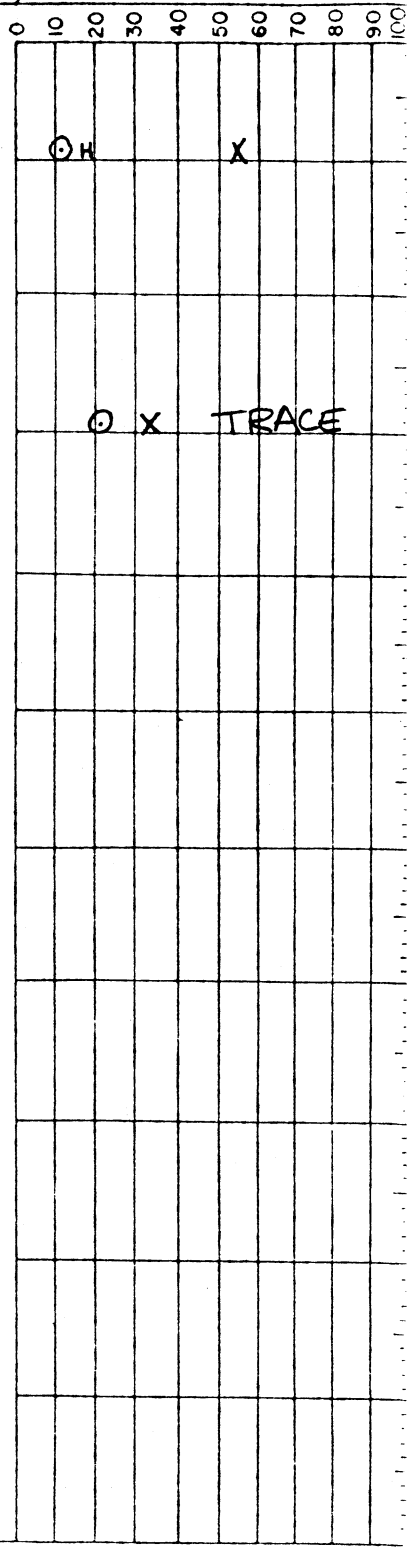
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE EXPLORATION AND TESTING REPORT

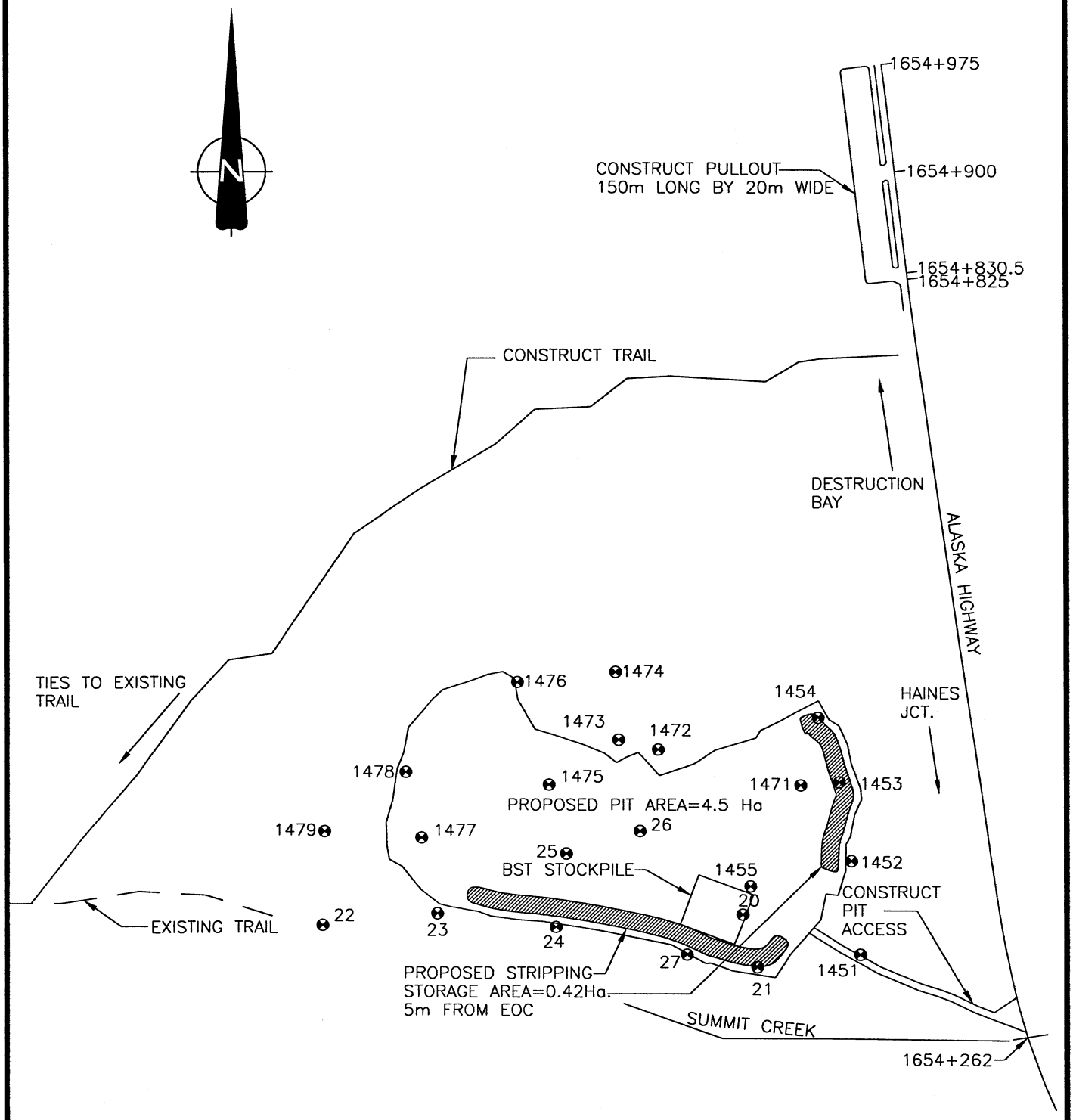
PROJECT/SECTION	SHAKWAK SEGMENT 9		HOLE No. 173
HOLE LOCATION	1674+320	ELEV.	DEPTH TO G.W.L.
DATE DRILLED	78.10.27	DRILL UNIT	TECHNICIAN TM.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASSIFICATION	SAMPLE DATA: SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm	STD. PENETRATION BLOWS/300mm
1			AP	1	1987	ML	9	36		
2										
3			AP	2	1993	SM	2	64	6	
4	END HOLE									
5										
6										
7										
8										
9										
10										

O – % MOISTURE CONTENT
X – % < .074mm
LIQUID LIMIT ⊢ PLASTIC LIMIT



GRANULAR SOURCE TESTING
Km 1654.3 LHS
ALASKA HIGHWAY



NOTES: TEST HOLES 20–27 LOG PREFIX 496
TEST HOLES 1451–1479 LOG PREFIX 571

Yukon
Community and Transportation Services

Transportation Engineering Branch

SITE PLAN
TRAIL & PIT DEVELOPMENT
Km 1654.3 L.H.S.
ALASKA HWY, YUKON

pit#:	115A–23S
drawn:	J.B.
app'd:	
date:	01–02–05
scale:	1:4000
drwg:	115A–23S.dwg

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY PRE-ENGINEERING	TEST PIT NO: 496-20
SHAKWAK PROJECT SEGMENT 9	KM 1655 LHS	Project No: 092-202002-0201
CAT 320L EXCAVATOR	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SAND, SILT & ORGANIC							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp -maximum 300mm material -estimate 20% +100mm material		56	▲	GP		◆ ■	
1.0								1.0
2.0			57	▲	GP		◆ ■	2.0
3.0								3.0
4.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -damp -maximum 300mm material -estimate 20% +100mm material		58	▲	GP-GM		◆ ■	4.0
	END HOLE at 4.8m							
5.0								5.0
6.0								6.0

PLASTIC M.C. LIQUID 20 40 60 80

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.8 m
	REVIEWED BY:	COMPLETE: 98/10/30
	Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY PRE-ENGINEERING	TEST PIT NO: 496-21
SHAKWAK PROJECT SEGMENT 9	KM 1655 LHS	Project No: 092-202002-0201
CAT 320L EXCAVATOR	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⧄ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES (20 40 60 80) / PLASTIC M.C. LIQUID (20 40 60 80)	USC	SOIL SYMBOL	PERCENT SAND (20 40 60 80) / PERCENT GRAVEL (20 40 60 80)	DEPTH (m)
0.0	SAND, SILT, GRAVEL & ORGANIC							0.0
	SILTY SAND WITH GRAVEL (SM) –brown –damp –maximum 50mm material		59	▲	SM		■ ◆	
1.0								1.0
	POORLY GRADED GRAVEL WITH SAND (GP) –brown –damp –maximum 200mm material –estimate 20% +100mm material		60	▲	GP		◆ ■	
2.0								2.0
3.0								3.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) –brown –damp –maximum 200mm material –estimate 20% +100mm material		61	▲	GP-GM		◆ ■	
4.0								4.0
5.0	END HOLE at 5.0m							5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 5.0 m
	REVIEWED BY:	COMPLETE: 98/10/30
	Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY PRE-ENGINEERING	TEST PIT NO: 436-22
SHAKWAK PROJECT SEGMENT 9	KM 1655 LHS	Project No: 092-202002-0201
CAT 320L EXCAVATOR	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) –dark brown –maximum 200mm material –estimate 20% +100mm material		62 ▲		GP		◆ ■	
1.0								1.0
2.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) –dark brown –moist –maximum 200mm material –estimate 20% +100mm material		63 ▲		GP-GM		◆ ■	2.0
3.0								3.0
4.0			64 ▲		GP-GM		◆	4.0
	END HOLE at 4.6m							
5.0								5.0
6.0								6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.6 m
REVIEWED BY:	COMPLETE: 98/10/30
Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY PRE-ENGINEERING	TEST PIT NO: 496-23
SHAKWAK PROJECT SEGMENT 9	KM 1655 LHS	Project No: 092-202002-0201
CAT 320L EXCAVATOR	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⧄ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC & GRAVEL							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) –brown –damp –maximum 200mm material –estimate 20% +100mm material		65 ▲		GP		◆ ■	
1.0								1.0
2.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) –brown –damp –maximum 200mm material –estimate 20% +100mm material		66 ▲		GP-GM		◆ ■	2.0
3.0								3.0
4.0	SILT & ORGANIC							4.0
	END HOLE at 4.6m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.6 m
	REVIEWED BY:	COMPLETE: 98/10/30
	Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY PRE-ENGINEERING	TEST PIT NO: 496-24
SHAKWAK PROJECT SEGMENT 9	KM 1655 LHS	Project No: 092-202002-0201
CAT 320L EXCAVATOR	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▯ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM) -brown -damp -maximum 200mm material -estimate 20% +100mm material		67 ▲		GP		◆ ■	
1.0								1.0
2.0			68 ▲		GP-GM		◆ ■	2.0
3.0								3.0
4.0	SILT, ORGANIC, SAND & GRAVELS							4.0
	END HOLE at 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 98/10/30
	Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY PRE-ENGINEERING	TEST PIT NO: 496-25
SHAKWAK PROJECT SEGMENT 9	KM 1655 LHS	Project No: 092-202002-0201
CAT 320L EXCAVATOR	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▥ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	WELL TO POORLY GRADED GRAVEL WITH SAND (GW)-(GP) -brown -damp -maximum 200mm material -estimate 15% +100mm material -small silt & organic lens 1.2-1.4m		69 ▲		GW		◆ ■	
1.0								1.0
2.0			70 ▲		GP		◆ ■	2.0
3.0								3.0
4.0	SAND, SILT & ORGANIC -some +5mm material							4.0
5.0	END HOLE at 4.6m							5.0
6.0								6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.6 m
REVIEWED BY:	COMPLETE: 98/10/31
Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY PRE-ENGINEERING	TEST PIT NO: 496-26
SHAKWAK PROJECT SEGMENT 9	KM 1655 LHS	Project No: 092-202002-0201
CAT 320L EXCAVATOR	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⟋ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC POORLY GRADED GRAVEL WITH SAND (GP) -brown -moist -maximum 100mm material		71 ▲		GP		◆ ■	0.0
1.0								1.0
2.0			72 ▲		GP		◆ ■	2.0
3.0								3.0
4.0			73 ▲		GP		◆ ■	4.0
5.0	END HOLE at 4.8m							5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.8 m
	REVIEWED BY:	COMPLETE: 98/10/31
	Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY PRE-ENGINEERING	TEST PIT NO: 496-27
SHAKWAK PROJECT SEGMENT 9	KM 1655 LHS	Project No: 092-202002-0201
CAT 320L EXCAVATOR	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

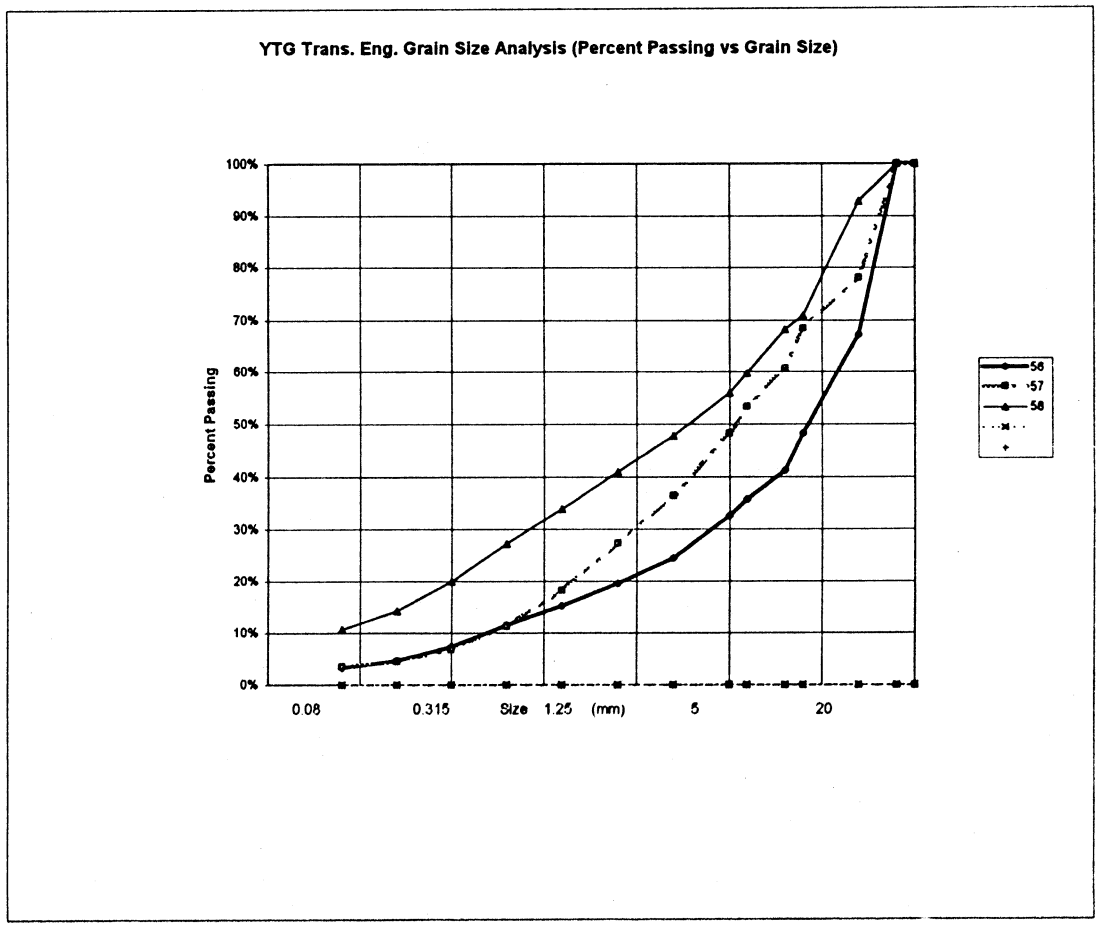
SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	POORLY GRADED GRAVEL WITH SAND (GP) –brown –damp –maximum 100mm material		74 ▲		GP		◆ ■	0.0
1.0								1.0
2.0	–maximum 300mm material below 2.0m –estimate 20% +100mm material below 2m							2.0
			75 ▲		GP		◆ ■	
3.0								3.0
4.0								4.0
	SILT –brown –damp –some +5mm material –some sand							
5.0	END HOLE at 4.6m							5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.6 m
	REVIEWED BY:	COMPLETE: 98/10/31
	Fig. No:	Page 1 of 1

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PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	496-20
CLIENT:	ENGINEERING CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9B						
PROJECT LOCATION:	KM 1655 LHS						
DRILL UNIT:	CAT 320L EXCAVATOR						
HOLE LOCATION:	SEE PLAN						
LOGGED BY:	D.T.					DATE COMP	98-10-30
FIELD NO:	56	FIELD No.	57	FIELD No:	58		
LAB NO:	1137	LAB No.	1138	LAB No:	1139		
DEPTH:	0.8-1.2	DEPTH	2.2-2.6	DEPTH:	4.4-4.8		
TYPE:	BULK	TYPE	BULK	TYPE:	BULK		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	67%	50.0	78%	50.0	93%		
25.0	48%	25.0	68%	25.0	71%		
20.0	41%	20.0	61%	20.0	68%		
12.5	36%	12.5	53%	12.5	60%		
10.0	32%	10.0	48%	10.0	56%		
5.0	24%	5.0	36%	5.0	48%		
2.5	19%	2.5	27%	2.5	41%		
1.25	15%	1.25	18%	1.25	34%		
0.630	11%	0.630	11%	0.630	27%		
0.315	7%	0.315	7%	0.315	20%		
0.160	5%	0.160	4%	0.160	14%		
0.080	3%	0.080	3%	0.080	11%		
M.C.(%):	0%	M.C.(%):	0%	M.C.(%):	0%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL:	76	% GRAVEL:	64	% GRAVEL:	52		
% SAND:	21	% SAND:	33	% SAND:	37		
% FINES:	3	% FINES:	3	% FINES:	11		
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		

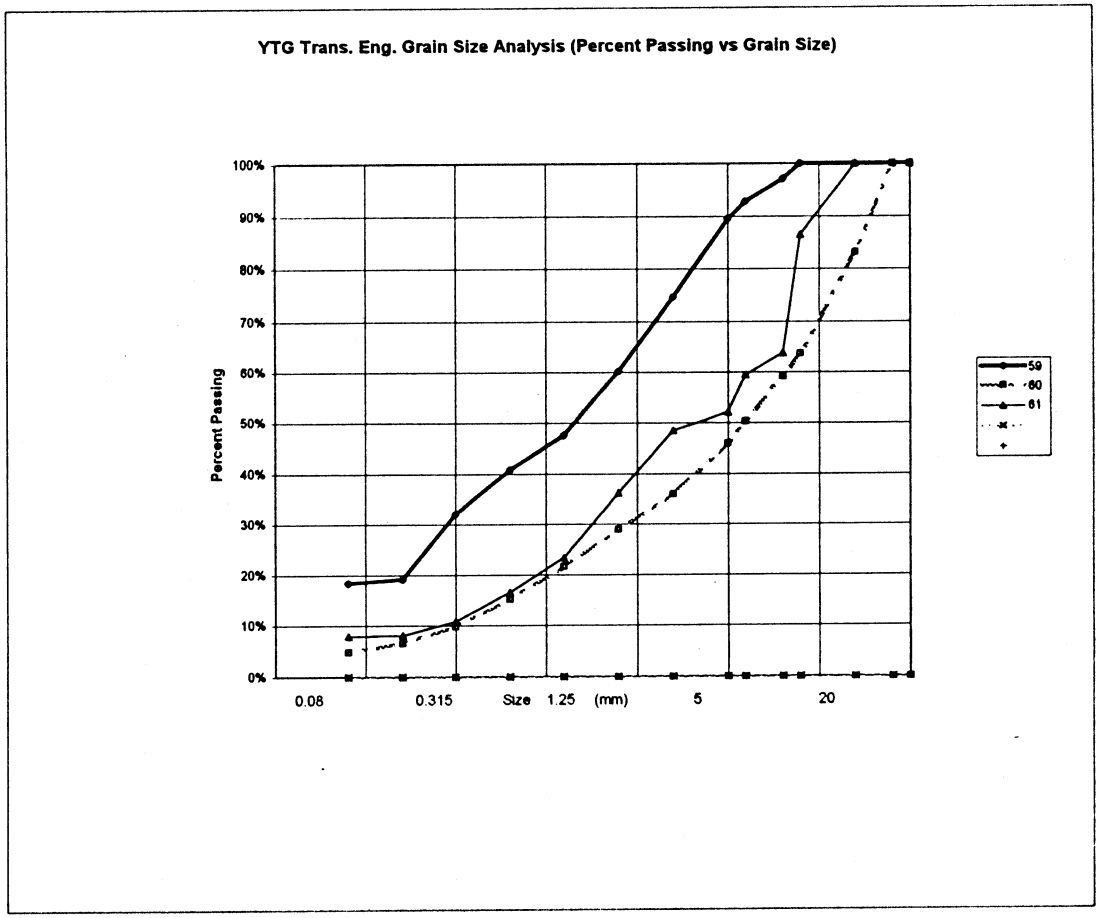


PROJECT NUMBER:	092-202101-0363-1	HOLE No.:	496-21
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9B		
PROJECT LOCATION:	KM 1655 LHS		
DRILL UNIT:	CAT 320L EXCAVATOR		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	D.T.	DATE COMP	98-10-30

FIELD NO:	59	FIELD No.	60	FIELD No:	61
LAB NO:	1140	LAB No.	1141	LAB No:	1142
DEPTH:	0.6-1.0	DEPTH	2.4-2.8	DEPTH:	4.6-5.0
TYPE:	BULK	TYPE	BULK	TYPE:	BULK

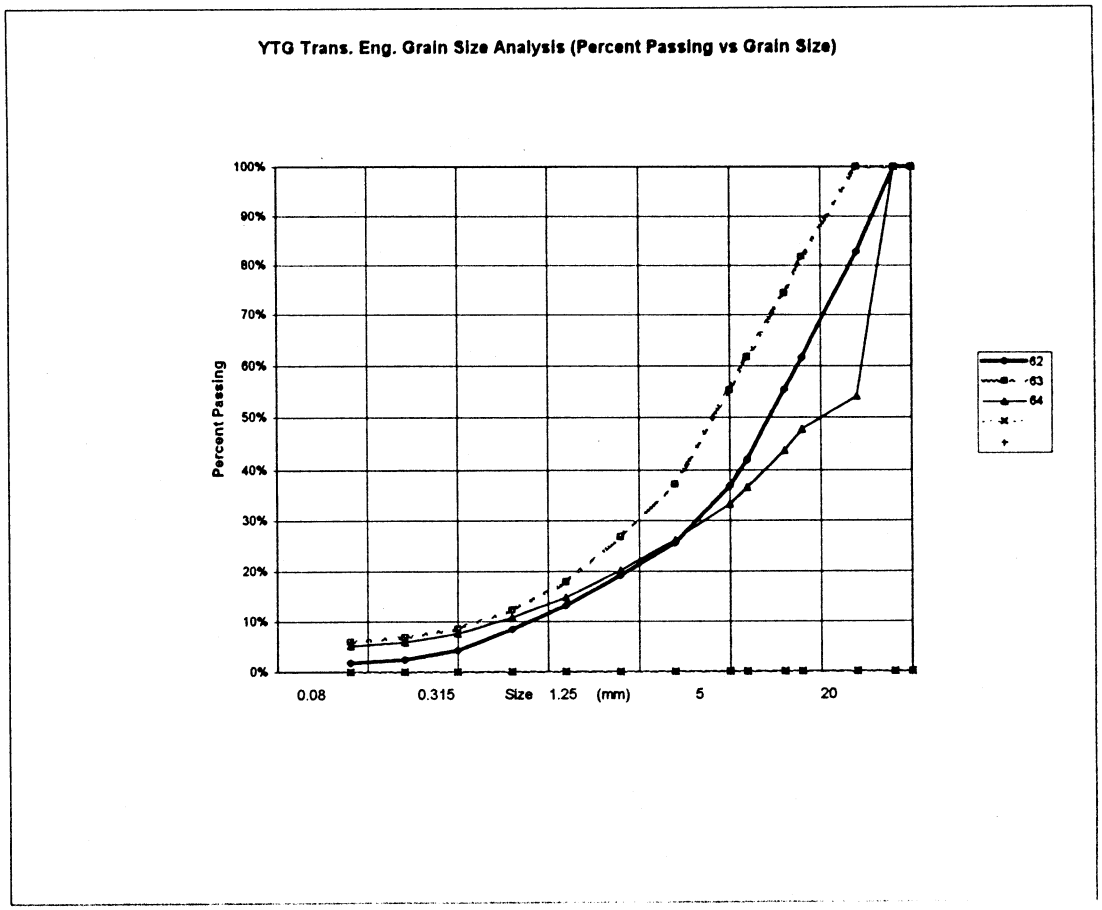
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	83%	50.0	100%
25.0	100%	25.0	64%	25.0	87%
20.0	97%	20.0	59%	20.0	64%
12.5	93%	12.5	50%	12.5	59%
10.0	89%	10.0	46%	10.0	52%
5.0	75%	5.0	36%	5.0	48%
2.5	60%	2.5	29%	2.5	36%
1.25	47%	1.25	22%	1.25	23%
0.630	41%	0.630	15%	0.630	17%
0.315	32%	0.315	10%	0.315	11%
0.160	19%	0.160	7%	0.160	8%
0.080	18%	0.080	5%	0.080	8%

M.C.(%):	0%	M.C.(%):	0%	M.C.(%):	0%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL:	25	% GRAVEL:	64	% GRAVEL:	52
% SAND:	56	% SAND:	31	% SAND:	41
% FINES:	18	% FINES:	5	% FINES:	8
CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)



PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 496-22
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9B		
PROJECT LOCATION:	KM 1655 LHS		
DRILL UNIT:	CAT 320L EXCAVATOR		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	D.T.		DATE COMP 98-10-30

FIELD NO:	62	FIELD No.	63	FIELD No:	64	
LAB NO:	1143	LAB No.	1144	LAB No:	1145	
DEPTH:	0.3-0.7	DEPTH	2.3-2.7	DEPTH:	4.2-4.6	
TYPE:	BULK	TYPE	BULK	TYPE:	BULK	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	
100.0	100%	100.0	100%	100.0	100%	
80.0	100%	80.0	100%	80.0	100%	
50.0	83%	50.0	100%	50.0	54%	
25.0	62%	25.0	82%	25.0	48%	
20.0	55%	20.0	74%	20.0	44%	
12.5	42%	12.5	62%	12.5	37%	
10.0	37%	10.0	55%	10.0	33%	
5.0	26%	5.0	37%	5.0	26%	
2.5	19%	2.5	27%	2.5	20%	
1.25	13%	1.25	18%	1.25	15%	
0.630	8%	0.630	12%	0.630	11%	
0.315	4%	0.315	9%	0.315	8%	
0.160	2%	0.160	7%	0.160	6%	
0.080	2%	0.080	6%	0.080	5%	
M.C.(%):	0%	M.C.(%):	0%	M.C.(%):	0%	
LIMITS		LIMITS		LIMITS		
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0	
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0	
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0	
% GRAVEL:	74	% GRAVEL:	63	% GRAVEL:	74	
% SAND:	24	% SAND:	31	% SAND:	21	
% FINES:	2	% FINES:	6	% FINES:	5	
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	

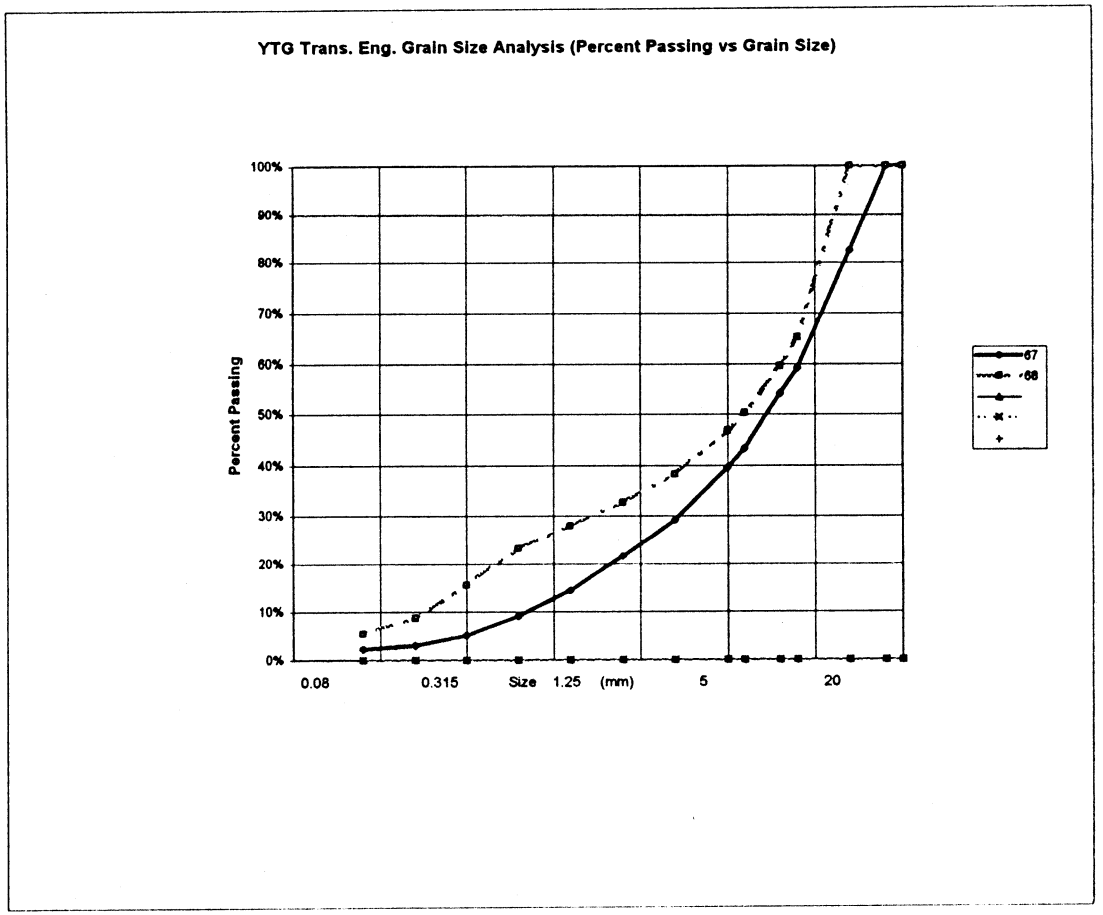


PROJECT NUMBER:	092-202101-0363-1	HOLE No.:	496-24
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9B		
PROJECT LOCATION:	KM 1655 LHS		
DRILL UNIT:	CAT 320L EXCAVATOR		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	D.T.	DATE COMP	98-10-30

FIELD NO:	67	FIELD No.	68
LAB NO:	1148	LAB No.	1149
DEPTH:	0.6-1.0	DEPTH	2.2-2.6
TYPE:	BULK	TYPE	BULK

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	82%	50.0	100%
25.0	59%	25.0	65%
20.0	54%	20.0	60%
12.5	43%	12.5	50%
10.0	40%	10.0	47%
5.0	29%	5.0	38%
2.5	22%	2.5	33%
1.25	14%	1.25	28%
0.630	9%	0.630	23%
0.315	5%	0.315	16%
0.160	3%	0.160	9%
0.080	2%	0.080	6%

M.C.(%):	0%	M.C.(%):	0%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL:	71	% GRAVEL:	62
% SAND:	27	% SAND:	33
% FINES:	2	% FINES:	6
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)

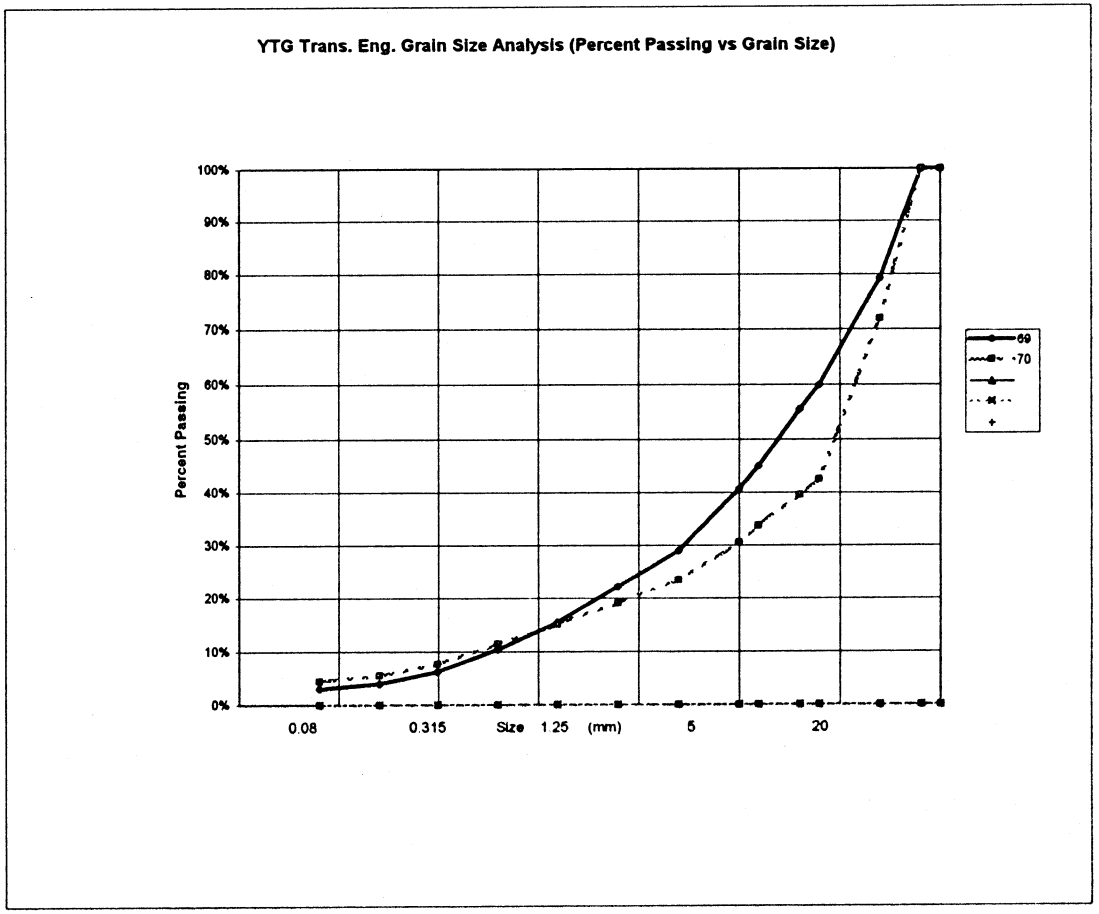


PROJECT NUMBER:	092-202101-0363-1	HOLE No.:	496-25
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9B		
PROJECT LOCATION:	KM 1655 LHS		
DRILL UNIT:	CAT 320L EXCAVATOR		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	D.T.	DATE COMP	98-10-31

FIELD NO:	69	FIELD No.	70
LAB NO:	1150	LAB No.	1151
DEPTH:	0.6-1.0	DEPTH	2.2-2.6
TYPE:	BULK	TYPE	BULK

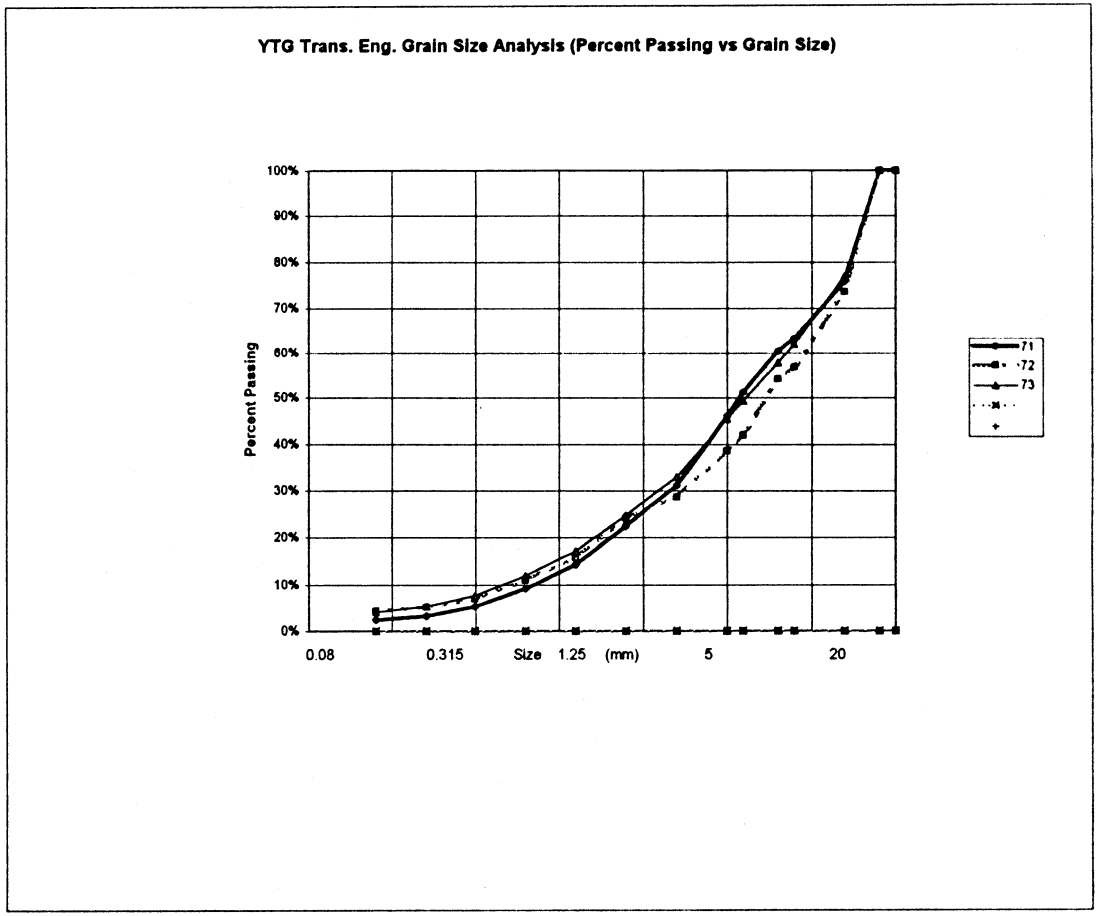
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	79%	50.0	72%
25.0	60%	25.0	43%
20.0	55%	20.0	40%
12.5	45%	12.5	34%
10.0	41%	10.0	31%
5.0	29%	5.0	23%
2.5	22%	2.5	19%
1.25	15%	1.25	15%
0.630	10%	0.630	11%
0.315	6%	0.315	8%
0.160	4%	0.160	5%
0.080	3%	0.080	4%

M.C.(%):	0%	M.C.(%):	0%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL:	71	% GRAVEL:	77
% SAND:	26	% SAND:	19
% FINES:	3	% FINES:	4
CLASSIFICATION:	WELL-GRADED GRAVEL WITH SAND (GW)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)



PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 496-26
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9B		
PROJECT LOCATION:	KM 1655 LHS		
DRILL UNIT:	CAT 320L EXCAVATOR		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	D.T.		DATE COMP 98-10-31

FIELD NO:	71	FIELD No.	72	FIELD No:	73	
LAB NO:	1152	LAB No.	1153	LAB No:	1154	
DEPTH:	0.4-0.6	DEPTH	2.2-2.6	DEPTH:	4.4-4.8	
TYPE:	BULK	TYPE	BULK	TYPE:	BULK	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	
100.0	100%	100.0	100%	100.0	100%	
80.0	100%	80.0	100%	80.0	100%	
50.0	76%	50.0	74%	50.0	77%	
25.0	63%	25.0	57%	25.0	62%	
20.0	60%	20.0	54%	20.0	58%	
12.5	51%	12.5	42%	12.5	49%	
10.0	46%	10.0	39%	10.0	45%	
5.0	31%	5.0	29%	5.0	33%	
2.5	22%	2.5	24%	2.5	25%	
1.25	14%	1.25	16%	1.25	17%	
0.630	9%	0.630	11%	0.630	12%	
0.315	5%	0.315	7%	0.315	8%	
0.160	3%	0.160	5%	0.160	5%	
0.080	2%	0.080	4%	0.080	4%	
M.C.(%):	0%	M.C.(%):	0%	M.C.(%):	0%	
LIMITS		LIMITS		LIMITS		
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0	
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0	
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0	
% GRAVEL:	69	% GRAVEL:	71	% GRAVEL:	67	
% SAND:	29	% SAND:	24	% SAND:	29	
% FINES:	2	% FINES:	4	% FINES:	4	
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	

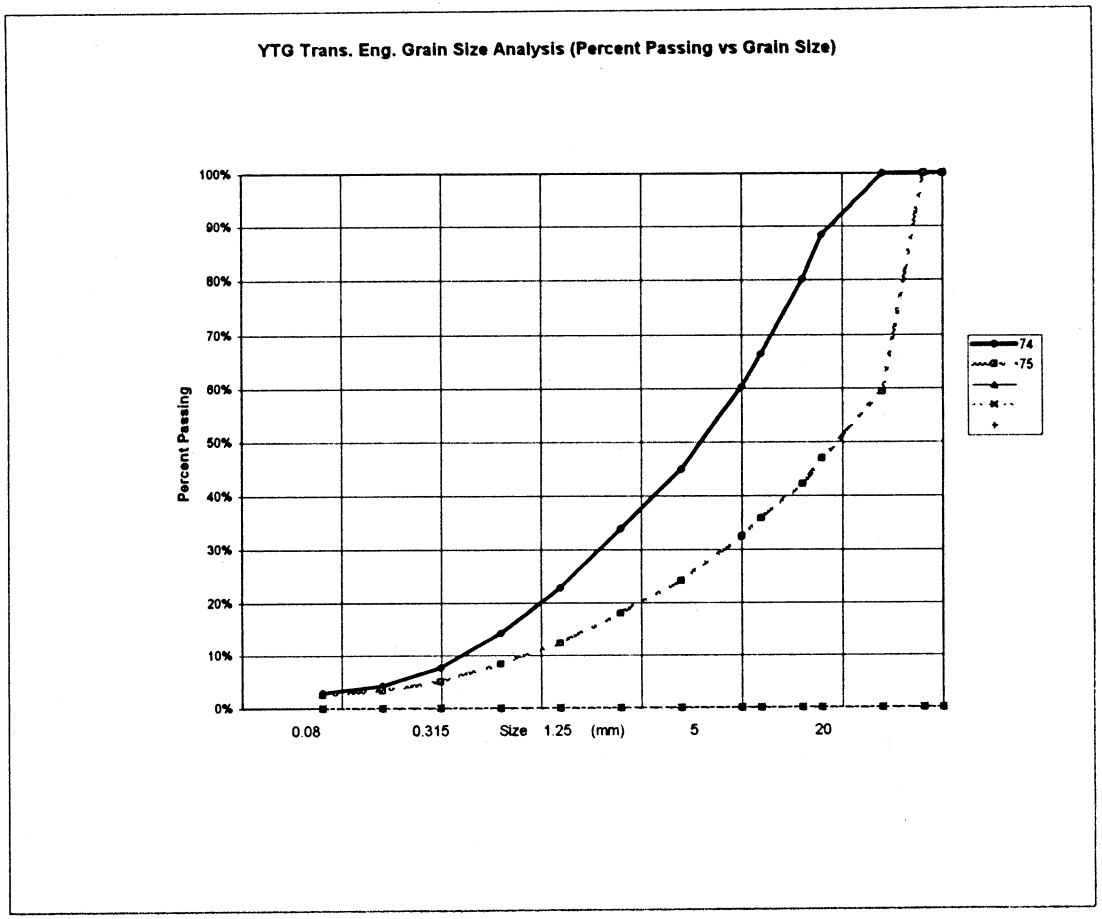


PROJECT NUMBER:	092-202101-0363-1	HOLE No.:	496-27
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9B		
PROJECT LOCATION:	KM 1655 LHS		
DRILL UNIT:	CAT 320L EXCAVATOR		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	D.T.	DATE COMP	98-10-31

FIELD NO:	74	FIELD No.	75
LAB NO:	1155	LAB No.	1156
DEPTH:	0.4-0.8	DEPTH	2.4-2.8
TYPE:	BULK	TYPE	BULK

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	59%
25.0	88%	25.0	47%
20.0	80%	20.0	42%
12.5	66%	12.5	36%
10.0	60%	10.0	33%
5.0	45%	5.0	24%
2.5	34%	2.5	18%
1.25	23%	1.25	12%
0.630	14%	0.630	8%
0.315	8%	0.315	5%
0.160	4%	0.160	3%
0.080	3%	0.080	3%

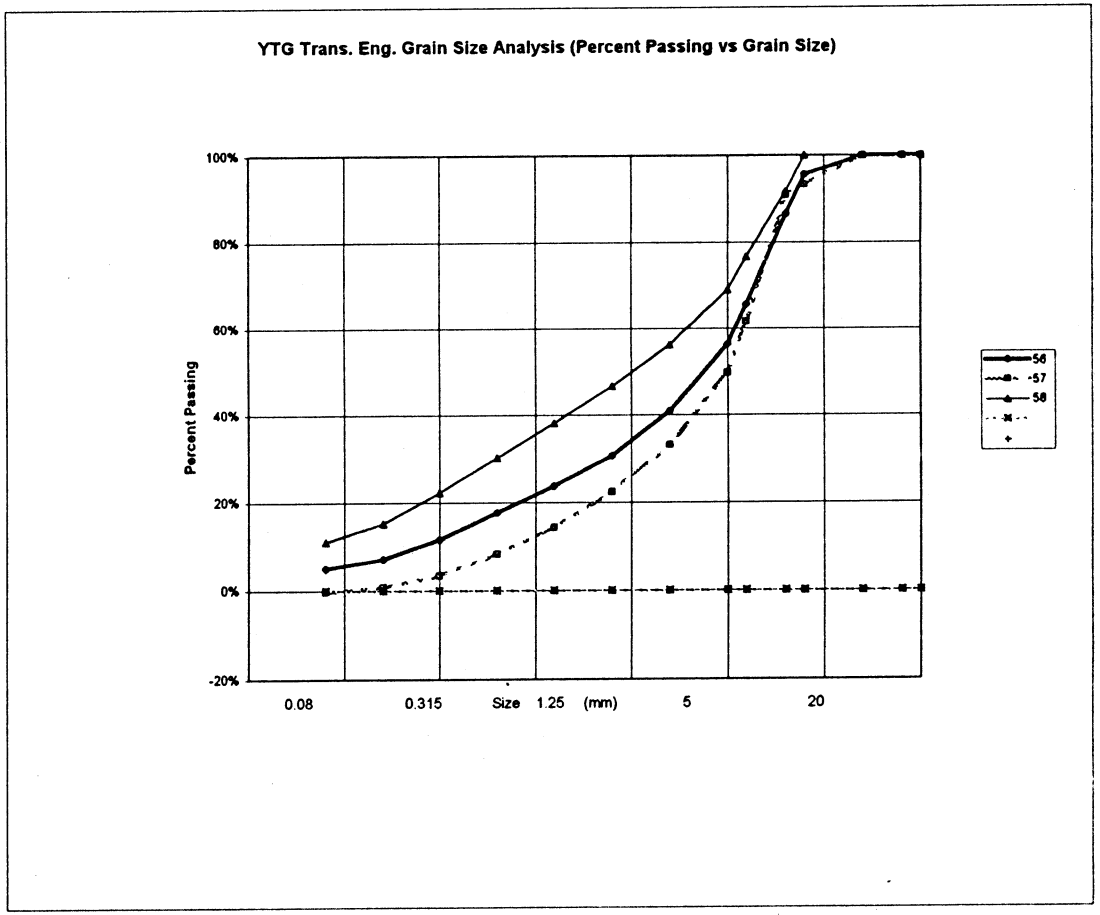
M.C.(%):	0%	M.C.(%):	0%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL:	55	% GRAVEL:	78
% SAND:	42	% SAND:	22
% FINES:	3	% FINES:	3
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)



LAB CRUSH RESULTS

PROJECT NUMBER:	092-202101-0363		HOLE No.: 496-20
CLIENT:	Engineering Capital		
PROJECT NAME:	Seg. 9		
PROJECT LOCATION:	01-1655 lt		
DRILL UNIT:	Cat 300LC Hoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	dt		DATE COMP 1998-10-30

FIELD NO:	56	FIELD No.	57	FIELD No:	58	
LAB NO:	1137cr	LAB No.	1138cr	LAB No:	1139cr	
DEPTH:	0.8-102	DEPTH	2.2-2.6	DEPTH:	4.4-4.8	
TYPE:	#N/A	TYPE	#N/A	TYPE:	#N/A	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	
100.0	100%	100.0	100%	100.0	100%	
80.0	100%	80.0	100%	80.0	100%	
50.0	100%	50.0	100%	50.0	100%	
25.0	96%	25.0	93%	25.0	100%	
20.0	86%	20.0	91%	20.0	92%	
12.5	65%	12.5	62%	12.5	77%	
10.0	56%	10.0	50%	10.0	69%	
5.0	41%	5.0	33%	5.0	56%	
2.5	31%	2.5	22%	2.5	47%	
1.25	24%	1.25	14%	1.25	38%	
0.630	18%	0.630	8%	0.630	30%	
0.315	12%	0.315	3%	0.315	22%	
0.160	7%	0.160	1%	0.160	15%	
0.080	5%	0.080	0%	0.080	11%	
cc 65.6%		cc 73.1%		cc 80.9%		
M.C.(%):	0%	M.C.(%):	0%	M.C.(%):	0%	
LIMITS		LIMITS		LIMITS		
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0	
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0	
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0	
% GRAVEL:	50	% GRAVEL:	67	% GRAVEL:	44	
% SAND:	38	% SAND:	33	% SAND:	45	
% FINES:	5	% FINES:	0	% FINES:	11	
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	

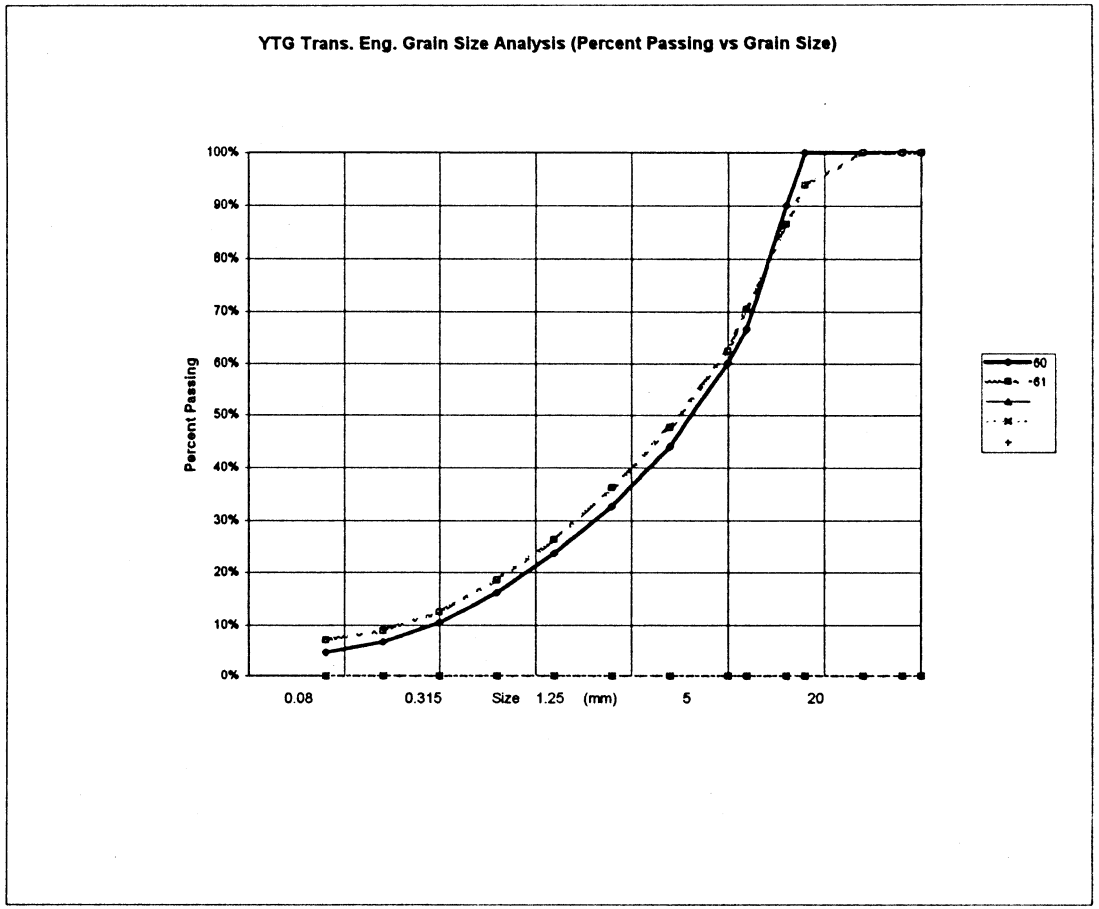


PROJECT NUMBER:	092-202101-0363	HOLE No.:	496-21
CLIENT:	Engineering Capital		
PROJECT NAME:	Seg. 9		
PROJECT LOCATION:	01-1655 lt		
DRILL UNIT:	Cat 300LC Hoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	dt	DATE COMP	1998-10-30

FIELD NO:	60	FIELD No.	61
LAB NO:	1141cr	LAB No.	1142cr
DEPTH:	2.4-2.8	DEPTH	4.6-5.0
TYPE:	BULK	TYPE	BULK

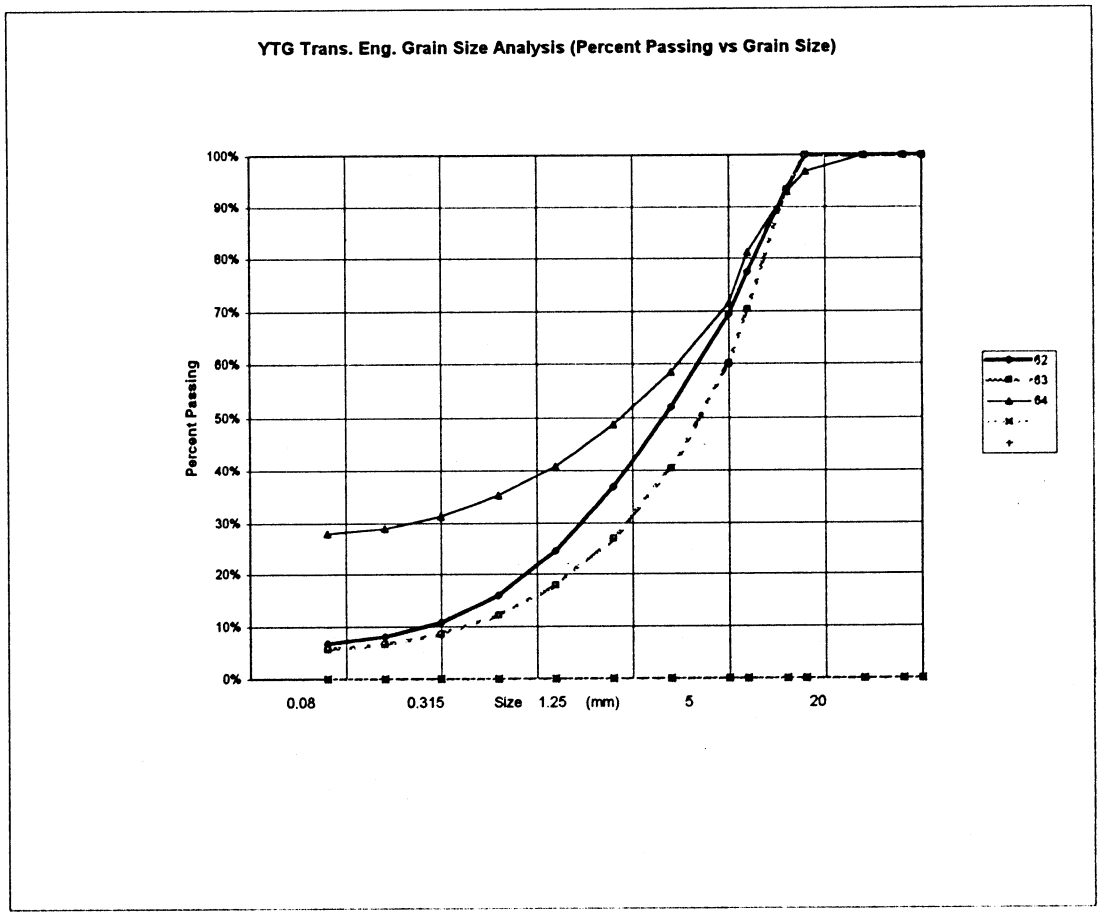
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	100%	25.0	94%
20.0	90%	20.0	86%
12.5	67%	12.5	70%
10.0	60%	10.0	62%
5.0	44%	5.0	48%
2.5	33%	2.5	36%
1.25	24%	1.25	26%
0.630	16%	0.630	19%
0.315	10%	0.315	13%
0.160	7%	0.160	9%
0.080	5%	0.080	7%
cc 65.9		cc 67.2	

M.C.(%):	0%	M.C.(%):	0%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL:	56	% GRAVEL:	52
% SAND:	39	% SAND:	41
% FINES:	5	% FINES:	7
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)



PROJECT NUMBER:	092-202101-0363		HOLE No.: 496-22
CLIENT:	Engineering Capital		
PROJECT NAME:	Seg. 9		
PROJECT LOCATION:	01-1655 lt		
DRILL UNIT:	Cat 300LC Hoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	dt		DATE COMP 1998-10-30

FIELD NO:	62	FIELD No.	63	FIELD No:	64	
LAB NO:	1143cr	LAB No.	1144cr	LAB No:	1145cr	
DEPTH:	0.3-0.7	DEPTH	2.3-2.7	DEPTH:	4.2-4.6	
TYPE:	BULK	TYPE	BULK	TYPE:	BULK	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	
100.0	100%	100.0	100%	100.0	100%	
80.0	100%	80.0	100%	80.0	100%	
50.0	100%	50.0	100%	50.0	100%	
25.0	100%	25.0	100%	25.0	97%	
20.0	93%	20.0	93%	20.0	93%	
12.5	77%	12.5	70%	12.5	81%	
10.0	69%	10.0	60%	10.0	71%	
5.0	52%	5.0	40%	5.0	58%	
2.5	37%	2.5	27%	2.5	49%	
1.25	24%	1.25	18%	1.25	41%	
0.630	16%	0.630	12%	0.630	35%	
0.315	11%	0.315	8%	0.315	31%	
0.160	8%	0.160	7%	0.160	29%	
0.080	7%	0.080	6%	0.080	28%	
cc 52.9%		cc 63.5%		cc 65.7%		
M.C.(%):	0%	M.C.(%):	0%	M.C.(%):	0%	
LIMITS		LIMITS		LIMITS		
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0	
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0	
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0	
% GRAVEL:	48	% GRAVEL:	60	% GRAVEL:	42	
% SAND:	45	% SAND:	35	% SAND:	31	
% FINES:	7	% FINES:	6	% FINES:	28	
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	



PROJECT NUMBER:	092-202101-0363	HOLE No.:	496-23
CLIENT:	Engineering Capital		
PROJECT NAME:	Seg. 9		
PROJECT LOCATION:	01-1655 lt		
DRILL UNIT:	Cat 300LC Hoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	dt	DATE COMP	1998-10-30

FIELD NO:	65
LAB NO:	1146cr
DEPTH:	.7-1.0
TYPE:	BULK

SIEVE SIZE	PERCENT PASSING
100.0	100%
80.0	100%
50.0	100%
25.0	95%
20.0	88%
12.5	65%
10.0	55%
5.0	42%
2.5	34%
1.25	27%
0.630	19%
0.315	11%
0.160	5%
0.080	3%

cc 52.4%

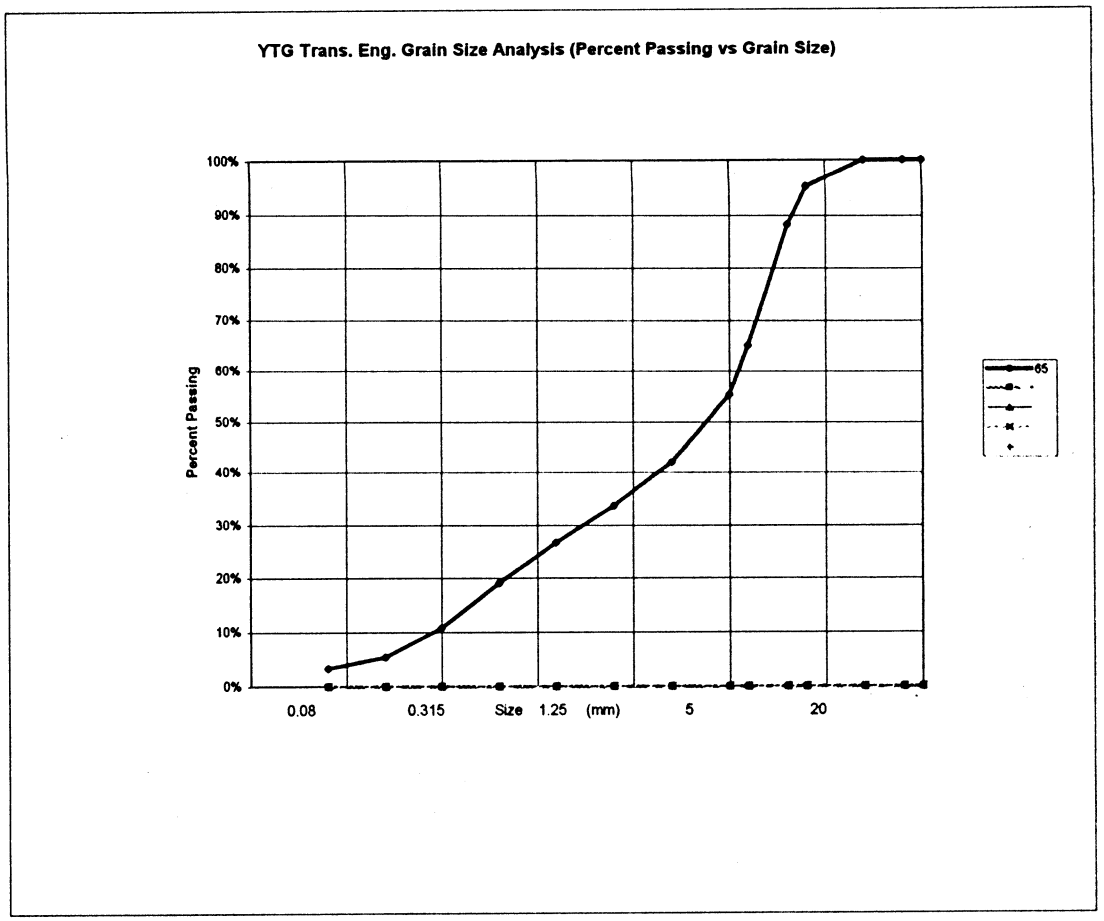
M.C.(%): 0%

LIMITS

LIQUID:	0.0
PLASTIC:	0.0
P.I.:	0.0

% GRAVEL:	58
% SAND:	39
% FINES:	3

CLASSIFICATION:
POORLY GRADED GRAVEL WITH SAND (GP)



PROJECT NUMBER:	092-202101-0363	HOLE No.:	496-26
CLIENT:	Engineering Capital		
PROJECT NAME:	Seg. 9		
PROJECT LOCATION:	01-1655 lt		
DRILL UNIT:	Cat 300LC Hoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	dt	DATE COMP	1998-10-30

FIELD NO:	72
LAB NO:	1153cr
DEPTH:	2.2-2.6
TYPE:	BULK

SIEVE SIZE	PERCENT PASSING
100.0	100%
80.0	100%
50.0	100%
25.0	85%
20.0	71%
12.5	54%
10.0	47%
5.0	35%
2.5	25%
1.25	17%
0.630	12%
0.315	8%
0.160	5%
0.080	4%

cc 53.7%

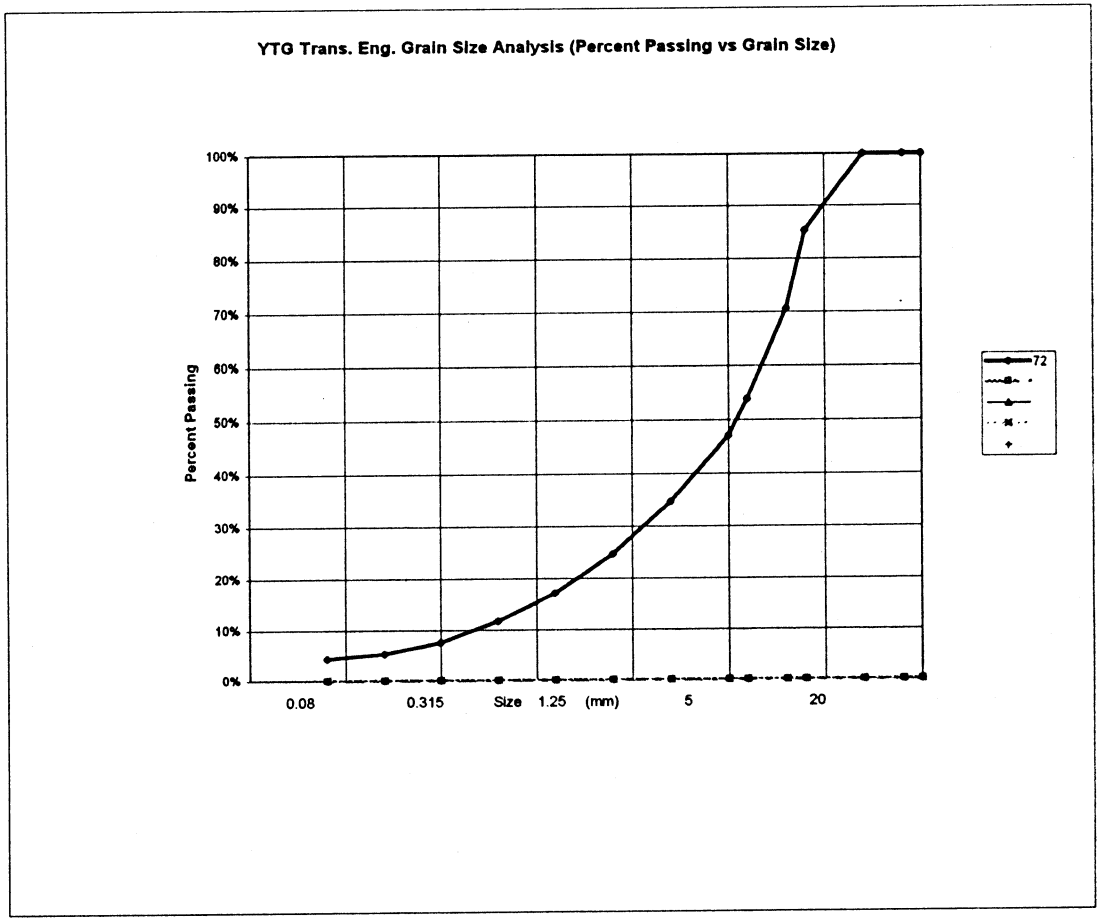
M.C.(%): 0%

LIMITS

LIQUID:	0.0
PLASTIC:	0.0
P.I.:	0.0

% GRAVEL:	65
% SAND:	30
% FINES:	4

CLASSIFICATION:
POORLY GRADED GRAVEL WITH SAND (GP)



SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST PIT NO: 571-1451
ENGINEERING CAPITAL	BEAR CREEK SUMMIT	Project No: 092-202101-0363
MOBILE B 30 - D-4 CAT	LOCATION: SEE GPS	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ☒ AUGER ▤ BULK ▥ TUBE ▥ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL	DEPTH (m)
0.0	ORGANIC					0.0
	SILTY SAND WITH GRAVEL TO SILT WITH SAND (SM)-(ML)					
	-grey					
	-moist to wet					
	-maximum 75mm material augered up					
1.0	-grindy drilling					1.0
		☒	1718	SM		
	-brown below 1.7m					
	-wet below 1.7m					
2.0	-smooth drilling below 1.7m					2.0
		☒	1719	SM		
3.0						3.0
4.0						4.0
	-some sand & gravel contamination from above	☒	1720	ML		
	END HOLE @ 4.3m					
5.0						5.0
6.0						6.0

▲ PERCENT FINES ▲ 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

◆ PERCENT SAND ◆ 20 40 60 80

■ PERCENT GRAVEL ■ 20 40 60 80

Government of Yukon
Transportation Engineering

LOGGED BY: JB	COMPLETION DEPTH: 4.3 m
REVIEWED BY:	COMPLETE: 00/08/22
Fig. No: 115-A-23	Page 1 of 1

01/02/06 11:12AM

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST PIT NO: 571-1452
ENGINEERING CAPITAL	BEAR CREEK SUMMIT	Project No: 092-202101-0363
MOBILE B 30 - D-4 CAT	LOCATION: SEE GPS	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▯ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	POORLY TO WELL TO POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)-(GW-GM)-(GP-GM) -grey -moist -grindy drilling							
1.0		⊠	1721	▲	GP-GM		◆ ■	1.0
	-slow hard grindy drilling							
2.0								2.0
		⊠	1722	▲	GW-GM		◆ ■	
3.0								3.0
4.0		⊠	1723	▲	GP-GM		◆ ■	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: JB	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 00/08/22
	Fig. No: 115-A-23	Page 1 of 1

01/02/06 11:14AM

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST PIT NO: 571-1453
ENGINEERING CAPITAL	BEAR CREEK SUMMIT	Project No: 092-202101-0363
MOBILE B 30 - D-4 CAT	LOCATION: SEE GPS	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	ORGANIC				
	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM) -grey -moist	⊠	1724	GP	
1.0					
2.0		⊠	1725	GP-GM	
3.0					
	SILTY SAND WITH GRAVEL (SM) -brown -wet -smoother drilling -sand & gravel contamination	⊠	1726	SM	
4.0	END HOLE @ 4.3m				
5.0					
6.0					

▲ PERCENT FINES ▲ 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

◆ PERCENT SAND ◆ 20 40 60 80

■ PERCENT GRAVEL ■ 20 40 60 80

DEPTH (m)

Government of Yukon
Transportation Engineering

LOGGED BY: JB	COMPLETION DEPTH: 4.3 m
REVIEWED BY:	COMPLETE: 00/08/22
Fig. No: 115-A-23	Page 1 of 1

01/02/06 10:47AM

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST PIT NO: 571-1454
ENGINEERING CAPITAL	BEAR CREEK SUMMIT	Project No: 092-202101-0363
MOBILE B 30 - D-4 CAT	LOCATION: SEE GPS	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▥ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILTY SAND WITH GRAVEL (SM) -trace organic -grey -moist to wet -grindy drilling	⊠	1727	● ▲	SM			
1.0								1.0
2.0	SILTY GRAVEL WITH SAND (GM) -grey -wet -hard slow grindy drilling	⊠	1728	● ▲	GM			2.0
3.0								3.0
4.0		⊠	1729	● ▲	GM			4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

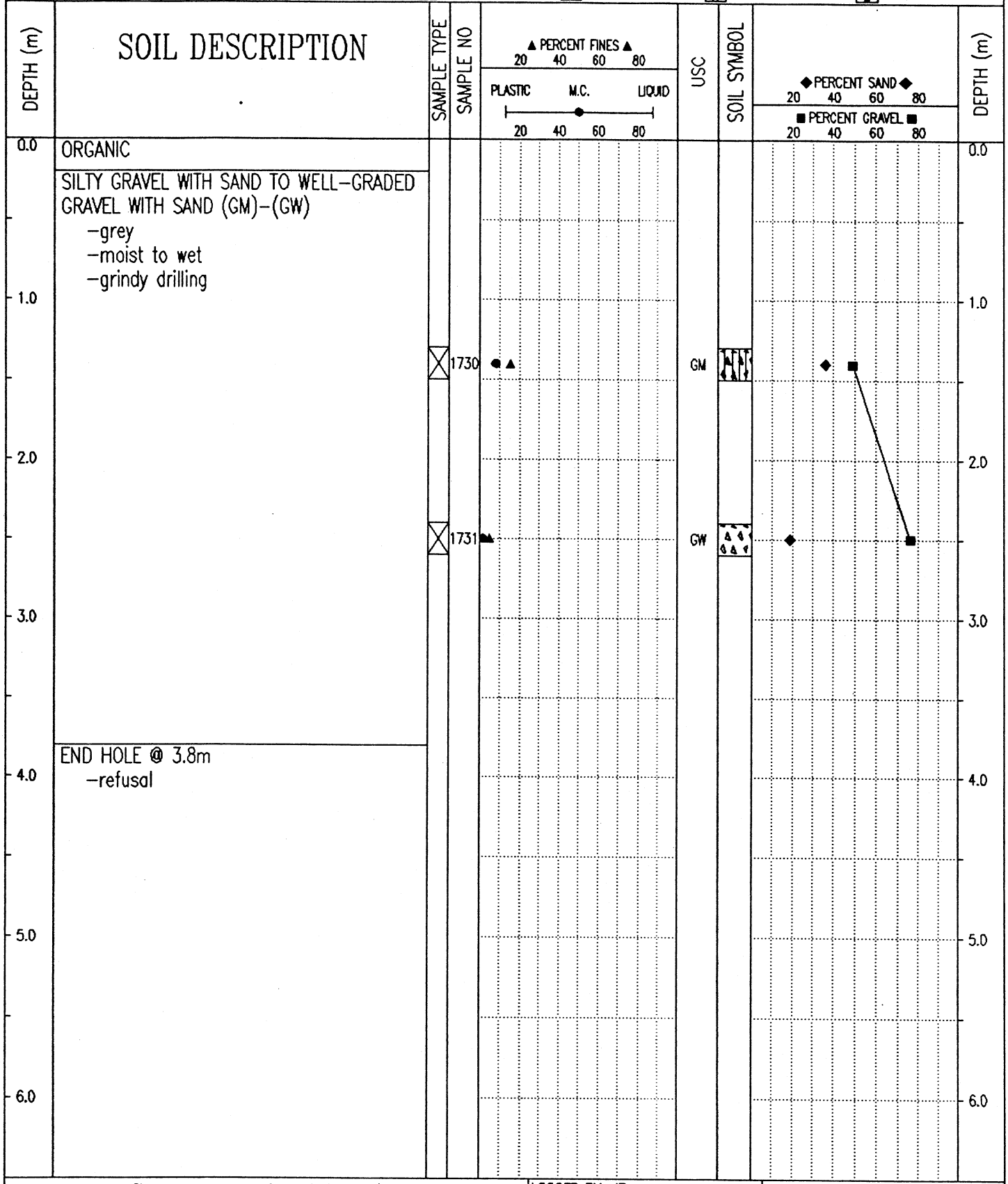
Government of Yukon
Transportation Engineering

LOGGED BY: JB	COMPLETION DEPTH: 4.3 m
REVIEWED BY:	COMPLETE: 00/08/22
Fig. No: 115-A-23	Page 1 of 1

01/02/06 10:48AM

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST PIT NO: 571-1455
ENGINEERING CAPITAL	BEAR CREEK SUMMIT	Project No: 092-202101-0363
MOBILE B 30 - D-4 CAT	LOCATION: SEE GPS	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE



Government of Yukon Transportation Engineering	LOGGED BY: JB	COMPLETION DEPTH: 3.8 m
	REVIEWED BY:	COMPLETE: 00/08/23
	Fig. No: 115-A-23	Page 1 of 1

01/02/06 10:48AM

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST PIT NO: 571-1471
ENGINEERING CAPITAL	BEAR CREEK SUMMIT	Project No: 092-202101-0363
MOBILE B 30 - D-4 CAT	LOCATION: SEE GPS	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	POORLY TO WELL TO POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)-(GW-GM)-(GP-GM) -grey -moist -grindy drilling							
1.0		⊠	1732	● ▲	GP-GM		◆ ■	1.0
2.0								2.0
3.0		⊠	1733	▲	GW-GM		◆ ■	3.0
4.0		⊠	1734	● ▲	GP-GM		◆ ■	4.0
	END HOLE @ 4.2m							
5.0								5.0
6.0								6.0

Government of Yukon
Transportation Engineering

LOGGED BY: JB	COMPLETION DEPTH: 4.2 m
REVIEWED BY:	COMPLETE: 00/08/23
Fig. No: 115-A-23	Page 1 of 1

01/02/06 11:00AM

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST PIT NO: 571-1472
ENGINEERING CAPITAL	BEAR CREEK SUMMIT	Project No: 092-202101-0363
MOBILE B 30 - D-4 CAT	LOCATION: SEE GPS	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▯ CORE

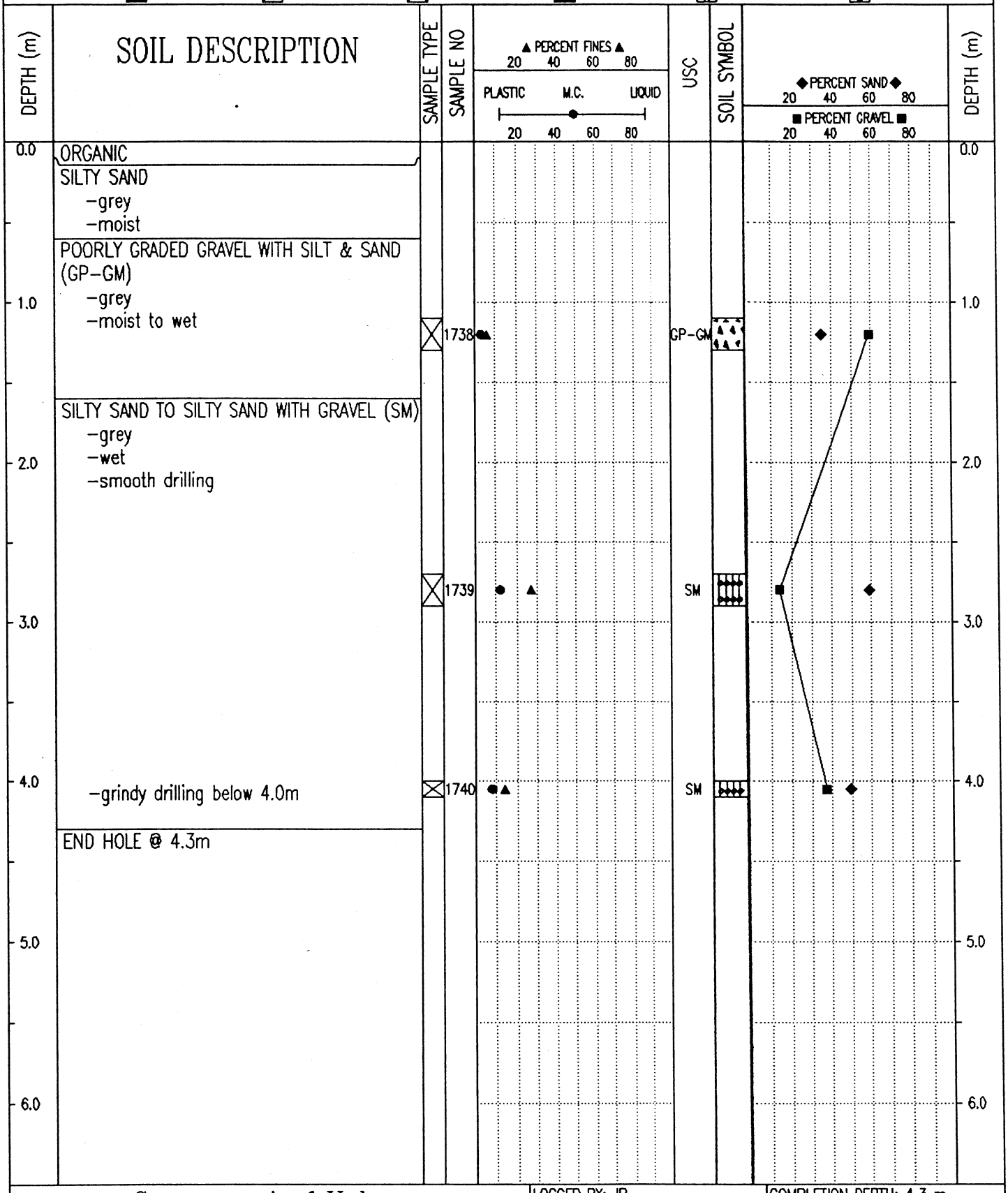
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) -grey -moist -grindy drilling							
1.0		⊠	1735	▲	GP		◆ ■	1.0
	POORLY TO WELL-GRADED GRAVEL WITH SILT & SAND (GP-GM)-(GW-GM) -grey -moist -hard tough drilling							
2.0								2.0
		⊠	1736	▲	GP-GM		◆ ■	
3.0								3.0
		⊠	1737	● ▲	GW-GM		◆ ■	
4.0	END HOLE @ 4.0m -refusal							4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: JB	COMPLETION DEPTH: 4.0 m
	REVIEWED BY:	COMPLETE: 00/08/23
	Fig. No: 115-A-23	Page 1 of 1

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST PIT NO: 571-1473
ENGINEERING CAPITAL	BEAR CREEK SUMMIT	Project No: 092-202101-0363
MOBILE B 30 - D-4 CAT	LOCATION: SEE GPS	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▯ CORE



Government of Yukon Transportation Engineering	LOGGED BY: JB	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 00/08/24
	Fig. No: 115-A-23	Page 1 of 1

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST PIT NO: 571-1474
ENGINEERING CAPITAL	BEAR CREEK SUMMIT	Project No: 092-202101-0363
MOBILE B 30 - D-4 CAT	LOCATION: SEE GPS	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)							
	-grindy drilling							
1.0		⊠	1741	▲	GP-GM		◆ ■	1.0
	-hard course drilling below 1.8m							
2.0								2.0
		⊠	1742	▲	GP-GM		◆ ■	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon
Transportation Engineering

LOGGED BY: JB	COMPLETION DEPTH: 3.0 m
REVIEWED BY:	COMPLETE: 00/08/24
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST PIT NO: 571-1475
ENGINEERING CAPITAL	BEAR CREEK SUMMIT	Project No: 092-202101-0363
MOBILE B 30 - D-4 CAT	LOCATION: SEE GPS	ELEVATION: 0.00 (m)

SAMPLE TYPE: RETURN | S.P.T. | AUGER | BULK | TUBE | CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	ORGANIC				
	POORLY GRADED GRAVEL WITH SILT & SAND TO WELL-GRADED GRAVEL WITH SILT (GP-GM)-(GW-GM)				
	-grey				
	-moist				
	-grindy drilling				
1.0		AUGER	1743	GP-GM	
2.0					
	-first refusal @ 2.2m (rock dust)	AUGER	1744	GW-GM	
	-moved 2m & put on new bit				
3.0					
	SILTY SAND WITH GRAVEL (SM)				
	-moist				
	-grey				
	-soft drilling				
4.0		AUGER	1745	SM	
5.0	END HOLE @ 4.3m				
6.0					

▲ PERCENT FINES ▲ 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

◆ PERCENT SAND ◆ 20 40 60 80

■ PERCENT GRAVEL ■ 20 40 60 80

DEPTH (m)

Government of Yukon
Transportation Engineering

LOGGED BY: JB	COMPLETION DEPTH: 4.3 m
REVIEWED BY:	COMPLETE: 00/08/24
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST PIT NO: 571-1476
ENGINEERING CAPITAL	BEAR CREEK SUMMIT	Project No: 092-202101-0363
MOBILE B 30 - D-4 CAT	LOCATION: SEE GPS	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▥ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES (20 40 60 80) / PLASTIC M.C. LIQUID (20 40 60 80)	USC	SOIL SYMBOL	PERCENT SAND (20 40 60 80) / PERCENT GRAVEL (20 40 60 80)	DEPTH (m)
0.0	ORGANIC							0.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -grey -moist -grindy drilling							
1.0		⊠	1746	▲	GP-GM		◆ ■	1.0
	-hard grindy drilling below 1.4m							
2.0		⊠	1747	● ▲	GP-GM		◆ ■	2.0
3.0	END HOLE @ 3.0m -refusal							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: JB	COMPLETION DEPTH: 3.0 m
	REVIEWED BY:	COMPLETE: 00/08/24
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST PIT NO: 571-1477
ENGINEERING CAPITAL	BEAR CREEK SUMMIT	Project No: 092-202101-0363
MOBILE B 30 - D-4 CAT	LOCATION: SEE GPS	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▯ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -grey -moist -grindy drilling							
1.0		⊠	1748	● ▲	GP-GM		◆ ■	1.0
2.0								2.0
		⊠	1749	● ▲	GP-GM		◆ ■	
3.0		⊠	1750	● ▲	GP-GM		◆ ■	3.0
	END HOLE @ 3.1m -refusal							
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: JB	COMPLETION DEPTH: 3.1 m
	REVIEWED BY:	COMPLETE: 00/08/24
	Fig. No: 115-A-23	Page 1 of 1

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST PIT NO: 571-1478
ENGINEERING CAPITAL	BEAR CREEK SUMMIT	Project No: 092-202101-0363
MOBILE B 30 - D-4 CAT	LOCATION: SEE GPS	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▥ CORE

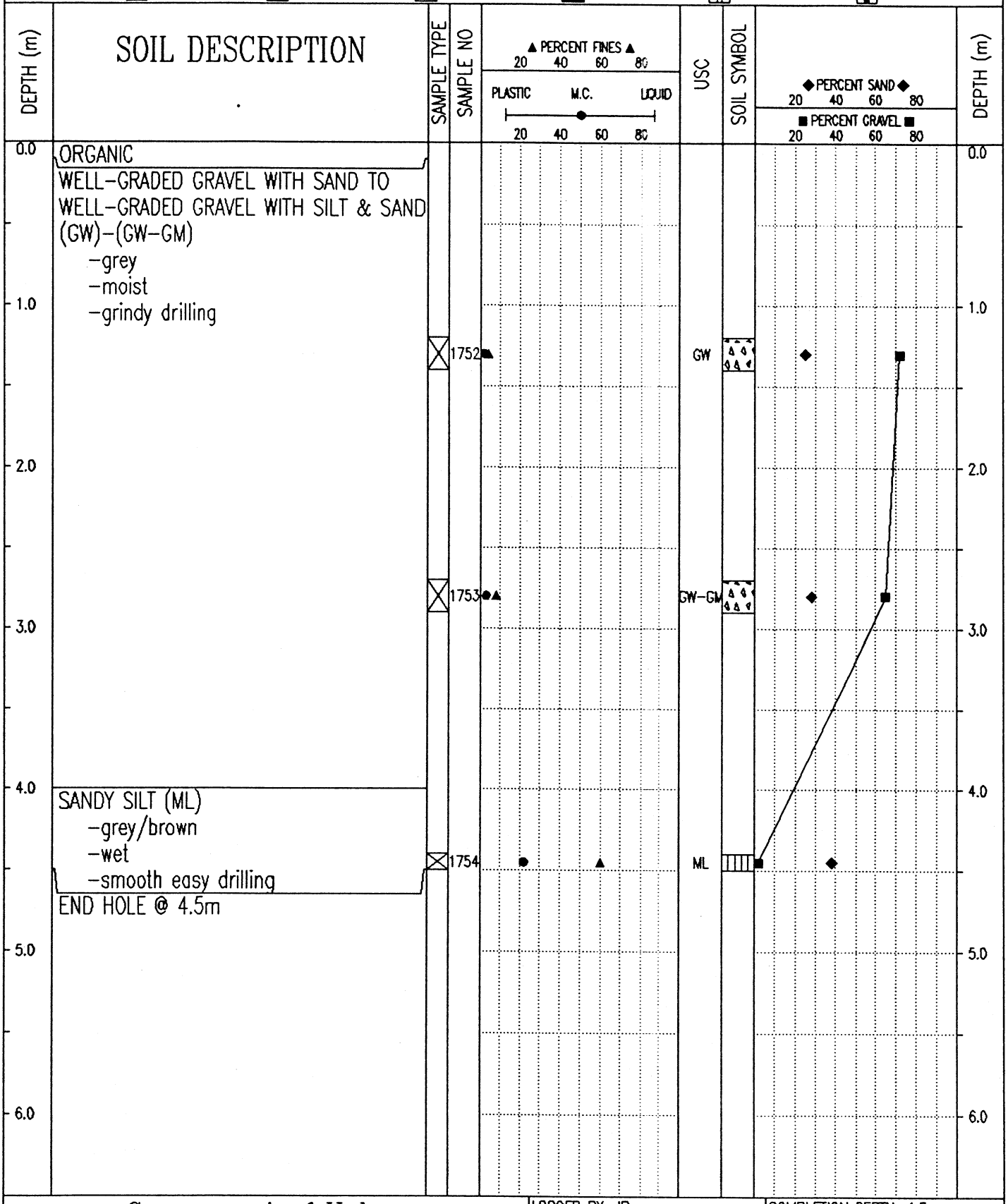
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILTY SAND -with organic							
1.0	SANDY GRAVEL -some silt -moist -grey -smooth drilling							1.0
2.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -grindy drilling	⊠	1751	● ▲	GP-GM		◆ ■	2.0
	END HOLE @ 2.8m -refusal							
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: JB	COMPLETION DEPTH: 2.8 m
	REVIEWED BY:	COMPLETE: 00/08/24
	Fig. No: 115-A-23	Page 1 of 1

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 9	TEST PIT NO: 571-1479
ENGINEERING CAPITAL	BEAR CREEK SUMMIT	Project No: 092-202101-0363
MOBILE B 30 - D-4 CAT	LOCATION: SEE GPS	ELEVATION: 0.00 (m)

SAMPLE TYPE: RETURN | S.P.T. | AUGER | BULK | TUBE | CORE

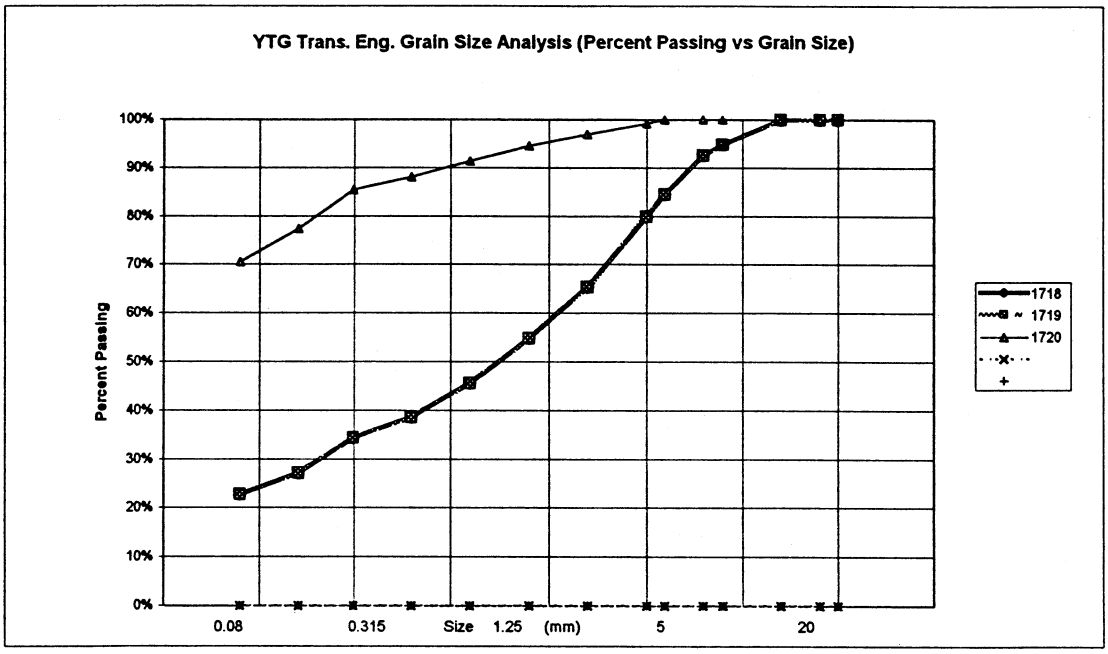


Government of Yukon Transportation Engineering	LOGGED BY: JB	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 00/08/24
	Fig. No: 115-A-23	Page 1 of 1

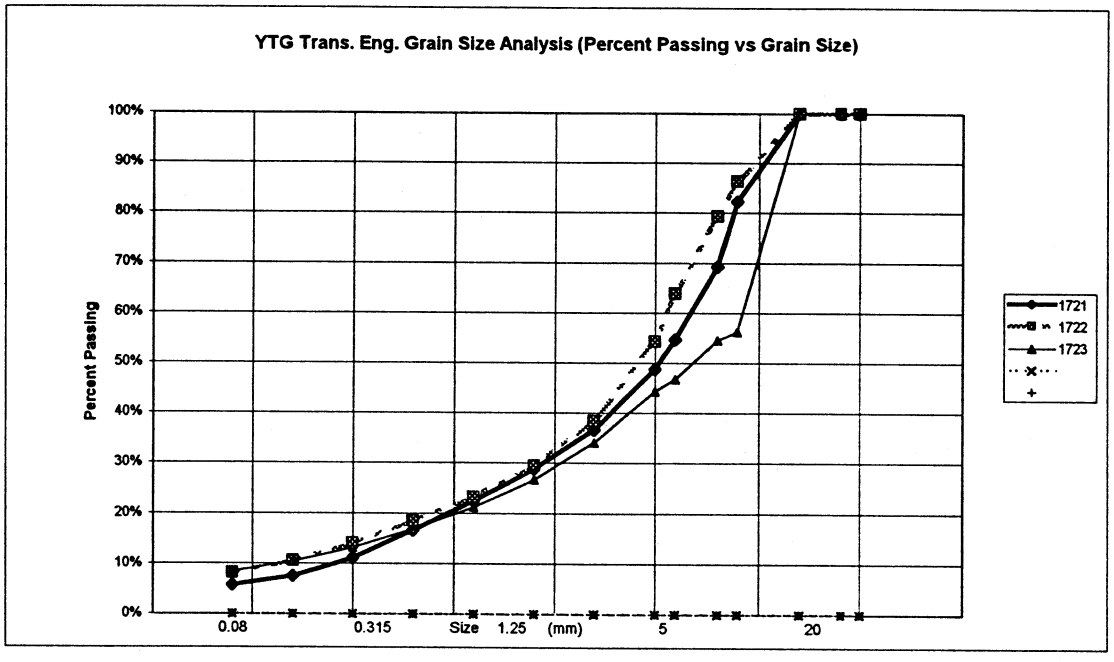
01/02/06 11:08AM

PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 571-1451
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 LHS		
DRILL UNIT:	MOBILE B 30 L D-4 CAT		
LOGGED BY:	J.B.		
HOLE LOCATION:	SEE GPS		DATE COM 2000/08/22

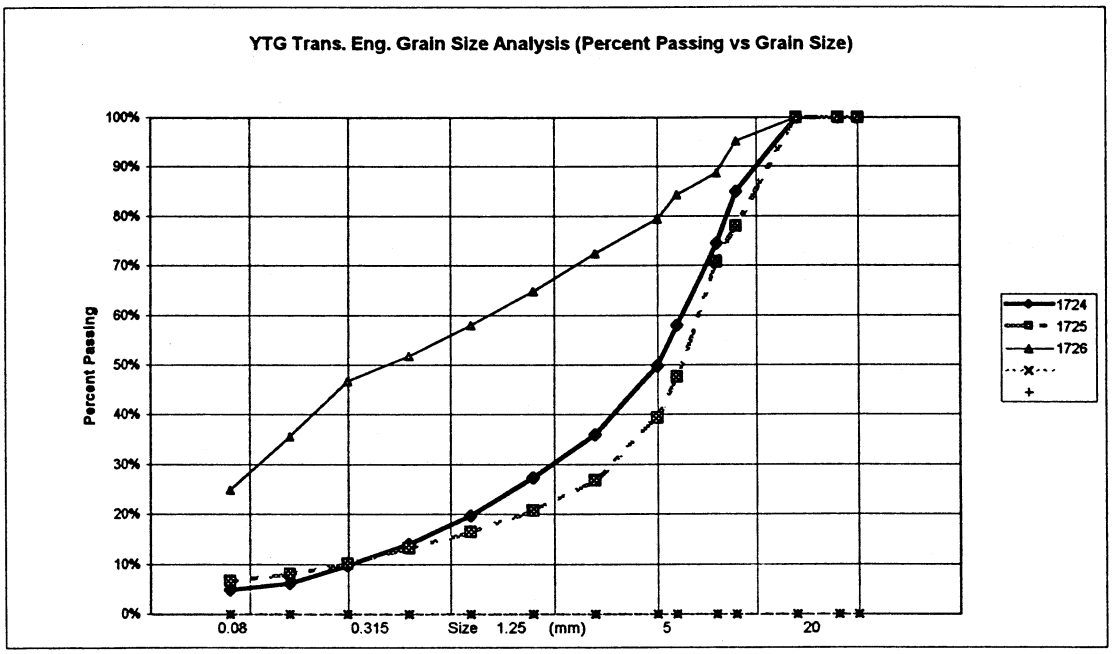
FIELD NO:	1718	FIELD No.	1719	FIELD No:	1720		
LAB NO:	2189	LAB No.	2190	LAB No:	2191		
DEPTH:	1.2-1.4	DEPTH	2.5-2.7	DEPTH:	4.1-4.3		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	95%	25.0	95%	25.0	100%		
20.0	93%	20.0	93%	20.0	100%		
12.5	85%	12.5	85%	12.5	100%		
10.0	80%	10.0	80%	10.0	99%		
5.0	65%	5.0	65%	5.0	97%		
2.5	55%	2.5	55%	2.5	95%		
1.25	46%	1.25	46%	1.25	91%		
0.630	39%	0.630	39%	0.630	88%		
0.315	34%	0.315	34%	0.315	85%		
0.160	27%	0.160	27%	0.160	77%		
0.080	23%	0.080	23%	0.080	71%		
M.C.(%):	3%	M.C.(%):	8%	M.C.(%):	29%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	35	% GRAVEL	35	% GRAVEL	3		
% SAND:	43	% SAND:	43	% SAND:	26		
% FINES:	23	% FINES:	23	% FINES:	71		
CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILT WITH SAND (ML)		



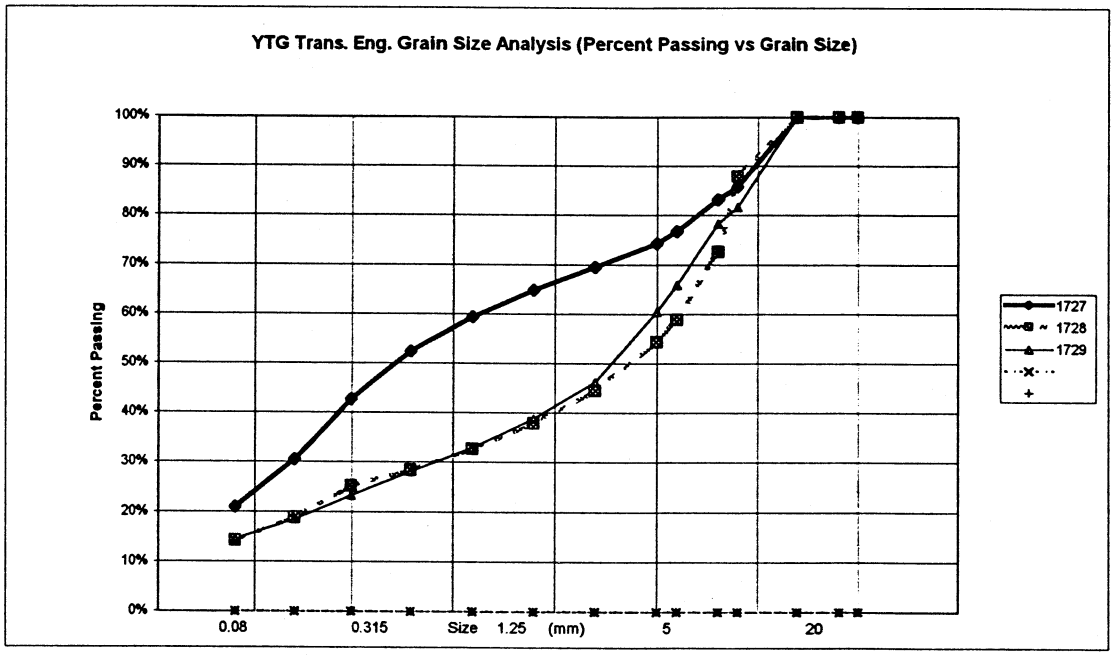
PROJECT NUMBER:	092-202101-0363-1					HOLE No.	571-1452
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 LHS						
DRILL UNIT:	MOBILE B 30 L D-4 CAT						
LOGGED BY:	J.B.						
HOLE LOCATION:	SEE GPS					DATE COM	2000/08/22
FIELD NO:	1721	FIELD No.	1722	FIELD No:	1723		
LAB NO:	2192	LAB No.	2193	LAB No:	2194		
DEPTH:	1.2-1.4	DEPTH	2.5-2.7	DEPTH:	4.1-4.3		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	82%	25.0	86%	25.0	56%		
20.0	69%	20.0	79%	20.0	55%		
12.5	55%	12.5	64%	12.5	47%		
10.0	49%	10.0	54%	10.0	44%		
5.0	37%	5.0	39%	5.0	34%		
2.5	29%	2.5	30%	2.5	27%		
1.25	22%	1.25	23%	1.25	21%		
0.630	17%	0.630	19%	0.630	17%		
0.315	11%	0.315	14%	0.315	13%		
0.160	8%	0.160	11%	0.160	10%		
0.080	6%	0.080	8%	0.080	8%		
M.C.(%):	2%	M.C.(%):	5%	M.C.(%):	3%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	63	% GRAVEL	61	% GRAVEL	66		
% SAND:	31	% SAND:	30	% SAND:	26		
% FINES:	6	% FINES:	8	% FINES:	8		
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



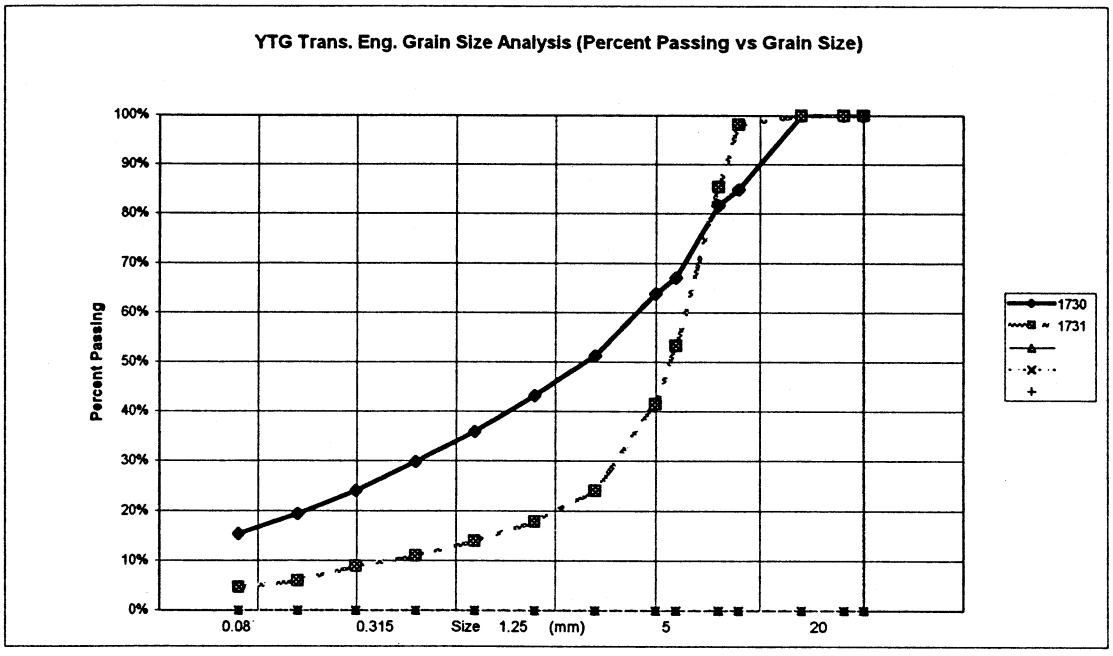
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	571-1453
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 LHS						
DRILL UNIT:	MOBILE B 30 L D-4 CAT						
LOGGED BY:	J.B.						
HOLE LOCATION:	SEE GPS					DATE COM	2000/08/22
FIELD NO:	1724	FIELD No.	1725	FIELD No:	1726		
LAB NO:	2195	LAB No.	2196	LAB No:	2197		
DEPTH:	1.3-1.5	DEPTH	2.5-2.7	DEPTH:	4.1-4.3		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	85%	25.0	78%	25.0	95%		
20.0	75%	20.0	71%	20.0	89%		
12.5	58%	12.5	48%	12.5	84%		
10.0	50%	10.0	39%	10.0	80%		
5.0	36%	5.0	27%	5.0	73%		
2.5	27%	2.5	21%	2.5	65%		
1.25	20%	1.25	16%	1.25	58%		
0.630	14%	0.630	13%	0.630	52%		
0.315	10%	0.315	10%	0.315	47%		
0.160	6%	0.160	8%	0.160	36%		
0.080	5%	0.080	7%	0.080	25%		
M.C.(%):	3%	M.C.(%):	3%	M.C.(%):	12%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	64	% GRAVEL	73	% GRAVEL	27		
% SAND:	31	% SAND:	20	% SAND:	48		
% FINES:	5	% FINES:	7	% FINES:	25		
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)		



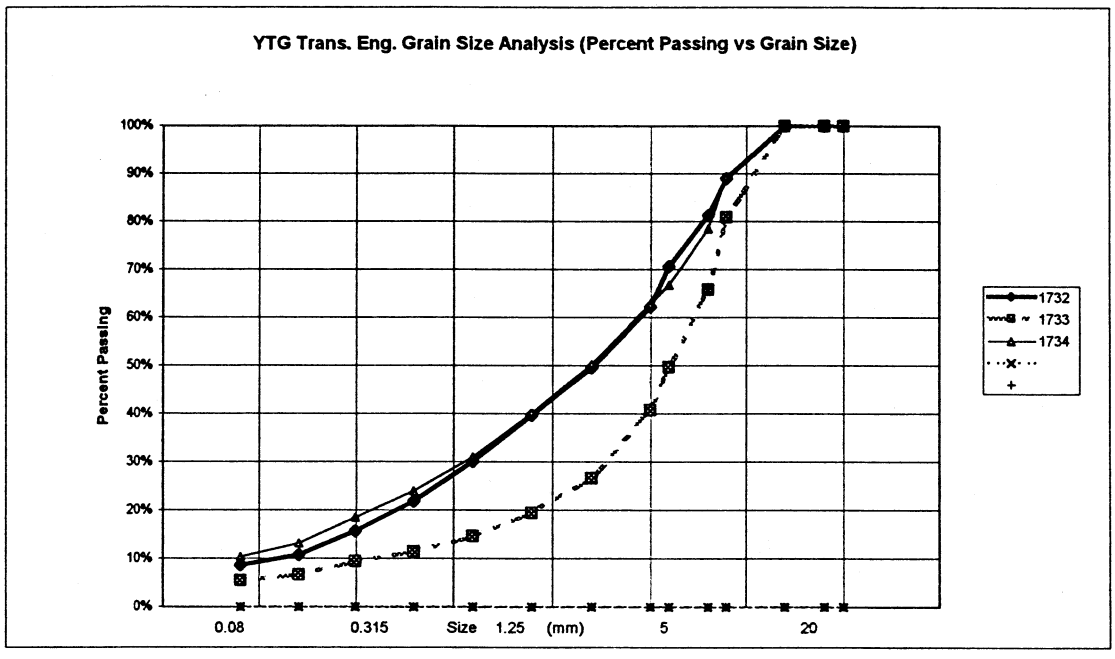
PROJECT NUMBER:	092-202101-0363-1					HOLE No	571-1454
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 LHS						
DRILL UNIT:	MOBILE B 30 L D-4 CAT						
LOGGED BY:	J.B.						
HOLE LOCATION:	SEE GPS					DATE COM	2000/08/22
FIELD NO:	1727	FIELD No.	1728	FIELD No:	1729		
LAB NO:	2198	LAB No.	2199	LAB No:	2200		
DEPTH:	1.1-1.3	DEPTH	2.3-2.5	DEPTH:	4.1-4.3		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	86%	25.0	88%	25.0	82%		
20.0	83%	20.0	73%	20.0	78%		
12.5	77%	12.5	59%	12.5	66%		
10.0	74%	10.0	54%	10.0	60%		
5.0	70%	5.0	45%	5.0	46%		
2.5	65%	2.5	38%	2.5	39%		
1.25	59%	1.25	33%	1.25	33%		
0.630	53%	0.630	28%	0.630	28%		
0.315	43%	0.315	25%	0.315	23%		
0.160	31%	0.160	19%	0.160	19%		
0.080	21%	0.080	14%	0.080	14%		
M.C.(%):	13%	M.C.(%):	9%	M.C.(%):	7%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	30	% GRAVEL	55	% GRAVEL	54		
% SAND:	49	% SAND:	30	% SAND:	32		
% FINES:	21	% FINES:	14	% FINES:	14		
CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)		



PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	571-1455
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 LHS						
DRILL UNIT:	MOBILE B 30 L D-4 CAT						
LOGGED BY:	J.B.						
HOLE LOCATION:	SEE GPS					DATE COM	2000/08/22
FIELD NO:	1730	FIELD No.	1731				
LAB NO:	2201	LAB No.	2202				
DEPTH:	1.3-1.5	DEPTH	2.4-2.6				
TYPE:	AUGER	A	AUGER				
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING				
100.0	100%	100.0	100%				
80.0	100%	80.0	100%				
50.0	100%	50.0	100%				
25.0	85%	25.0	98%				
20.0	82%	20.0	86%				
12.5	67%	12.5	53%				
10.0	64%	10.0	42%				
5.0	51%	5.0	24%				
2.5	43%	2.5	18%				
1.25	36%	1.25	14%				
0.630	30%	0.630	11%				
0.315	24%	0.315	9%				
0.160	19%	0.160	6%				
0.080	15%	0.080	5%				
M.C.(%):	8%	M.C.(%):	2%				
LIMITS		LIMITS					
LIQUID:	0.0	LIQUID:	0.0				
PLASTIC:	0.0	PLASTIC:	0.0				
P.I.:	0.0	P.I.:	0.0				
% GRAVEL	49	% GRAVEL	76				
% SAND:	36	% SAND:	19				
% FINES:	15	% FINES:	5				
CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	WELL-GRADED GRAVEL WITH SAND (GW)				

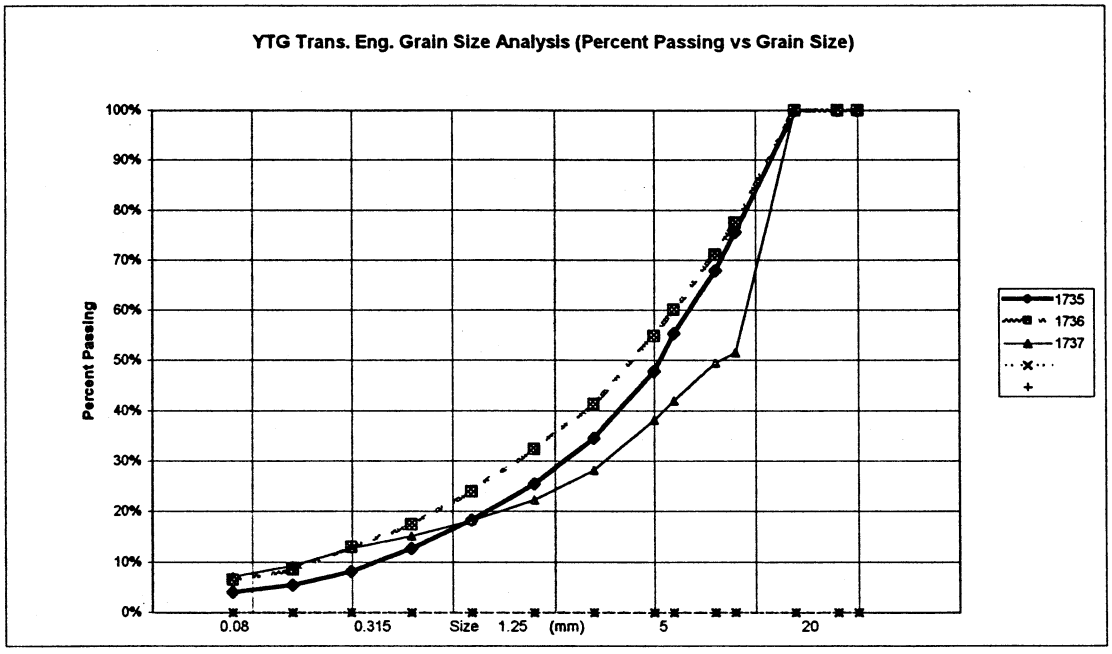


PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	571-1471
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 LHS						
DRILL UNIT:	MOBILE B 30 L D-4 CAT						
LOGGED BY:	J.B.						
HOLE LOCATION:	SEE GPS					DATE COM	2000/08/22
FIELD NO:	1732	FIELD No.	1733	FIELD No:	1734		
LAB NO:	2203	LAB No.	2204	LAB No:	2205		
DEPTH:	1.1-1.3	DEPTH	2.7-2.9	DEPTH:	4.0-4.1		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	89%	25.0	81%	25.0	90%		
20.0	81%	20.0	66%	20.0	79%		
12.5	71%	12.5	50%	12.5	67%		
10.0	62%	10.0	41%	10.0	63%		
5.0	50%	5.0	27%	5.0	50%		
2.5	40%	2.5	19%	2.5	40%		
1.25	30%	1.25	15%	1.25	31%		
0.630	22%	0.630	11%	0.630	24%		
0.315	16%	0.315	9%	0.315	19%		
0.160	11%	0.160	7%	0.160	13%		
0.080	9%	0.080	5%	0.080	10%		
M.C.(%):	3%	M.C.(%):	2%	M.C.(%):	4%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	50	% GRAVEL	73	% GRAVEL	50		
% SAND:	41	% SAND:	21	% SAND:	40		
% FINES:	9	% FINES:	5	% FINES:	10		
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		

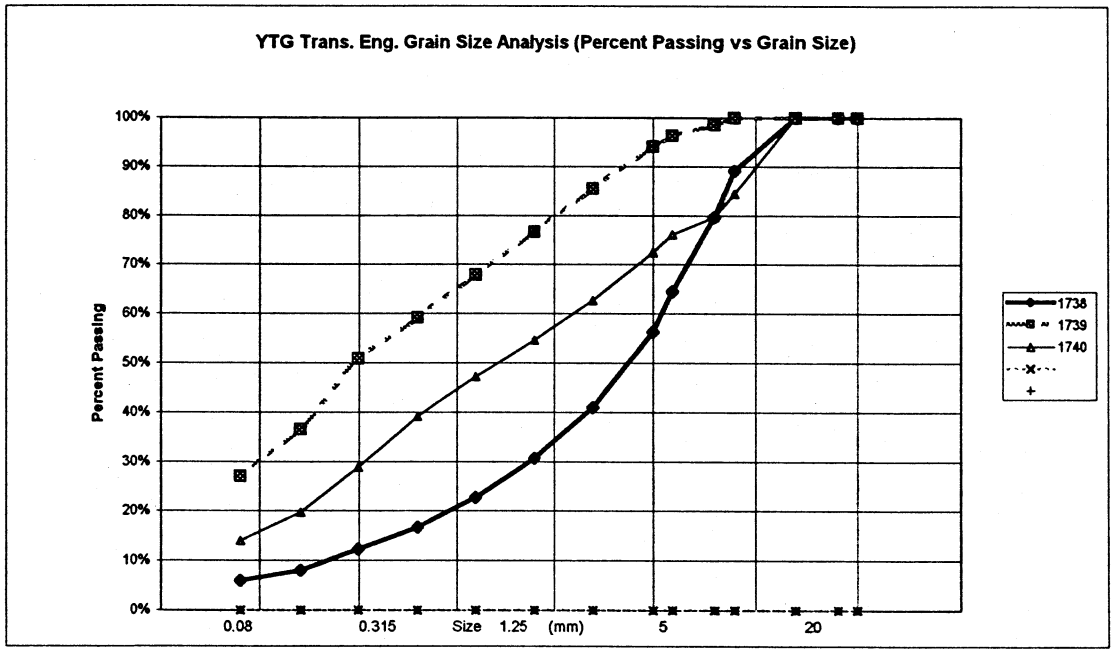


PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 571-1472
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 LHS		
DRILL UNIT:	MOBILE B 30 L D-4 CAT		
LOGGED BY:	J.B.		
HOLE LOCATION:	SEE GPS		DATE COM 2000/08/22

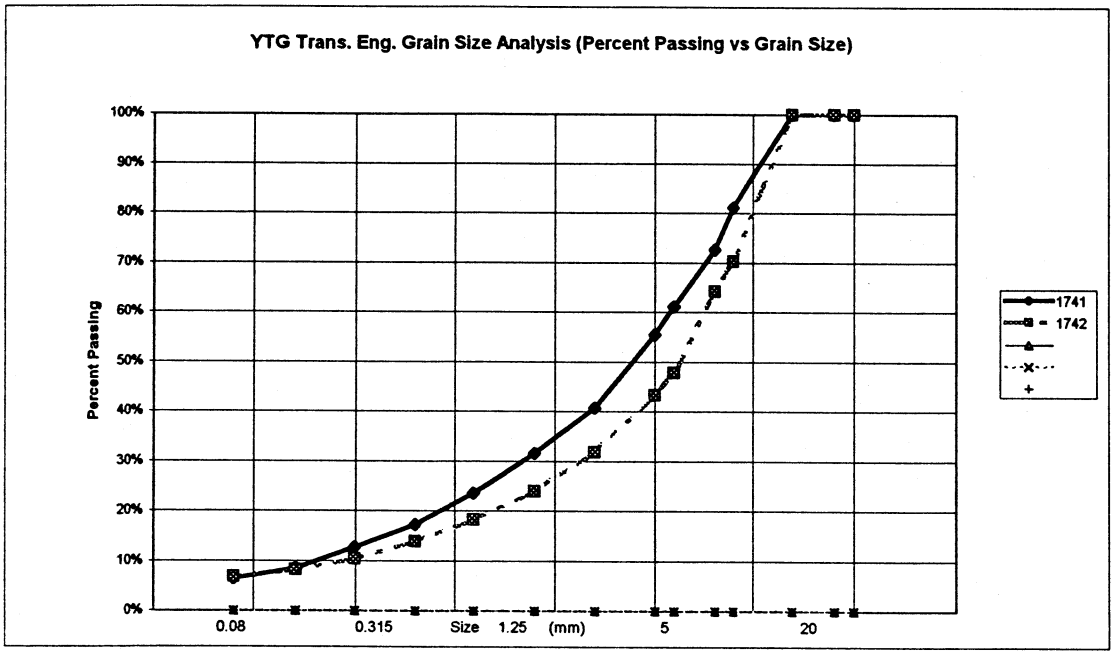
FIELD NO:	1735	FIELD No.	1736	FIELD No:	1737
LAB NO:	2206	LAB No.	2207	LAB No:	2208
DEPTH:	1.1-1.3	DEPTH	2.7-2.9	DEPTH:	3.9-4.1
TYPE:	AUGER	A	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	76%	25.0	77%	25.0	52%
20.0	68%	20.0	71%	20.0	50%
12.5	55%	12.5	60%	12.5	42%
10.0	48%	10.0	55%	10.0	38%
5.0	35%	5.0	41%	5.0	28%
2.5	26%	2.5	32%	2.5	22%
1.25	18%	1.25	24%	1.25	18%
0.630	13%	0.630	18%	0.630	15%
0.315	8%	0.315	13%	0.315	13%
0.160	6%	0.160	9%	0.160	9%
0.080	4%	0.080	6%	0.080	7%
M.C.(%):	3%	M.C.(%):	4%	M.C.(%):	3%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	65	% GRAVEL	59	% GRAVEL	72
% SAND:	30	% SAND:	35	% SAND:	21
% FINES:	4	% FINES:	6	% FINES:	7
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)



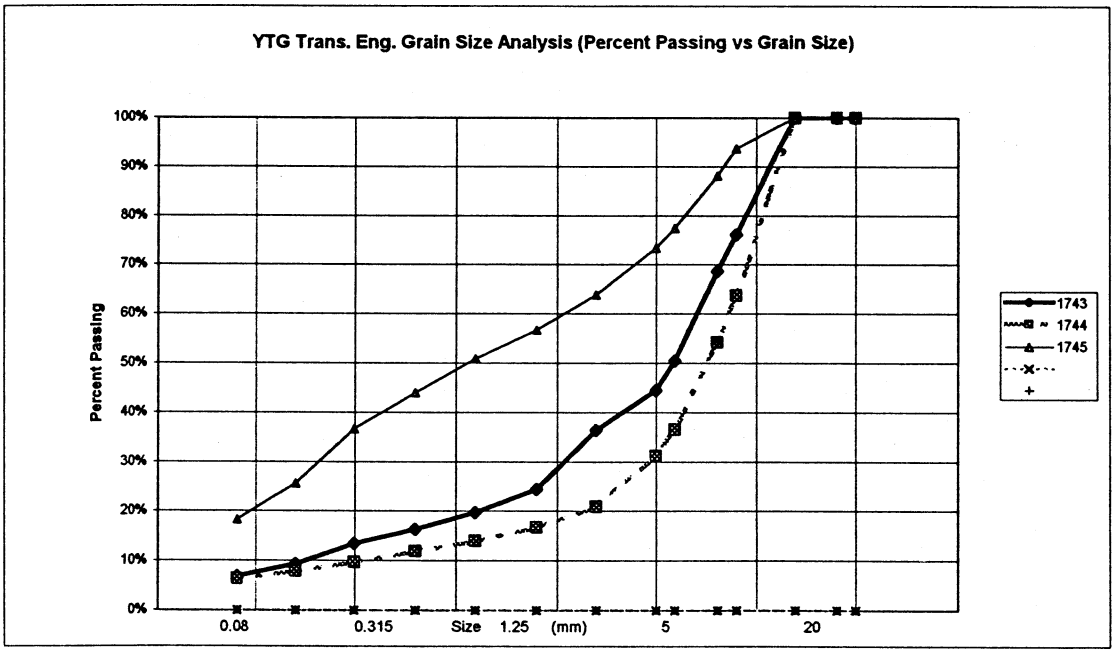
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	571-1473
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 LHS						
DRILL UNIT:	MOBILE B 30 L D-4 CAT						
LOGGED BY:	J.B.						
HOLE LOCATION:	SEE GPS					DATE COM	2000/08/22
FIELD NO:	1738	FIELD No.	1739	FIELD No:	1740		
LAB NO:	2209	LAB No.	2210	LAB No:	2211		
DEPTH:	1.1-1.3	DEPTH	2.7-2.9	DEPTH:	4.0-4.1		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	89%	25.0	100%	25.0	85%		
20.0	80%	20.0	99%	20.0	80%		
12.5	65%	12.5	96%	12.5	76%		
10.0	56%	10.0	94%	10.0	73%		
5.0	41%	5.0	86%	5.0	63%		
2.5	31%	2.5	77%	2.5	55%		
1.25	23%	1.25	68%	1.25	47%		
0.630	17%	0.630	59%	0.630	39%		
0.315	12%	0.315	51%	0.315	29%		
0.160	8%	0.160	37%	0.160	20%		
0.080	6%	0.080	27%	0.080	14%		
M.C.(%):	3%	M.C.(%):	12%	M.C.(%):	8%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	59	% GRAVEL	14	% GRAVEL	37		
% SAND:	35	% SAND:	59	% SAND:	49		
% FINES:	6	% FINES:	27	% FINES:	14		
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	SILTY SAND (SM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)		



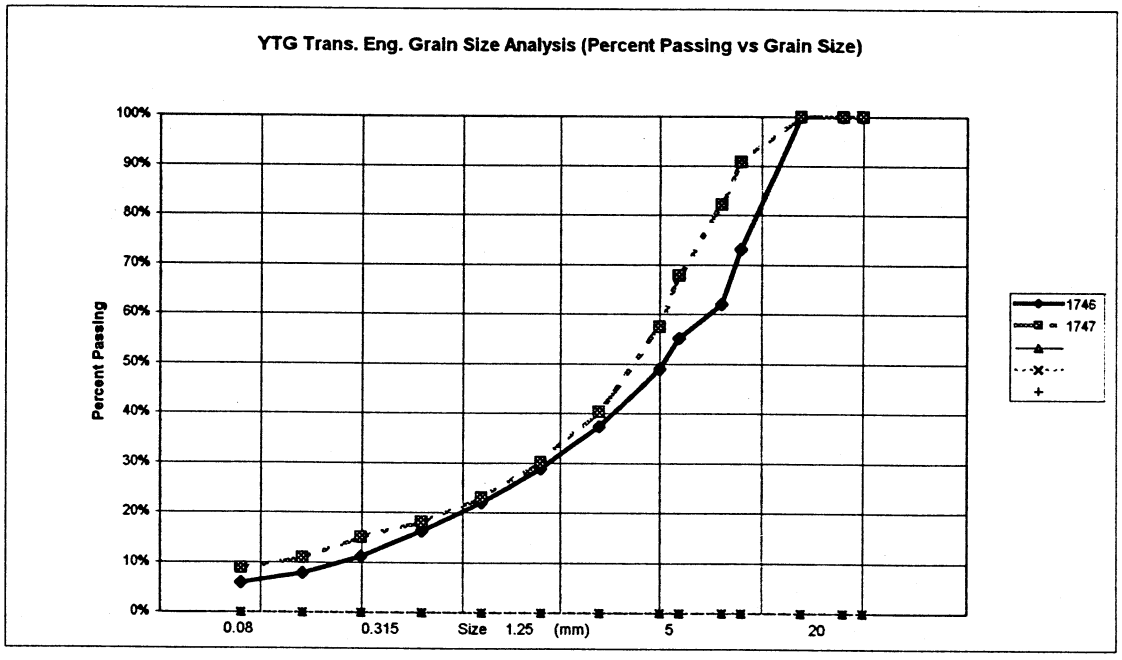
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	571-1474
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 LHS						
DRILL UNIT:	MOBILE B 30 L D-4 CAT						
LOGGED BY:	J.B.						
HOLE LOCATION:	SEE GPS					DATE COM	2000/08/22
FIELD NO:	1741	FIELD No.	1742				
LAB NO:	2212	LAB No.	2213				
DEPTH:	1.1-1.3	DEPTH	2.7-2.9				
TYPE:	AUGER	A	AUGER				
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING				
100.0	100%	100.0	100%				
80.0	100%	80.0	100%				
50.0	100%	50.0	100%				
25.0	81%	25.0	70%				
20.0	73%	20.0	64%				
12.5	61%	12.5	48%				
10.0	56%	10.0	43%				
5.0	41%	5.0	32%				
2.5	32%	2.5	24%				
1.25	24%	1.25	18%				
0.630	17%	0.630	14%				
0.315	13%	0.315	11%				
0.160	8%	0.160	8%				
0.080	6%	0.080	7%				
M.C.(%):	3%	M.C.(%):	2%				
LIMITS		LIMITS					
LIQUID:	0.0	LIQUID:	0.0				
PLASTIC:	0.0	PLASTIC:	0.0				
P.I.:	0.0	P.I.:	0.0				
% GRAVEL	59	% GRAVEL	68				
% SAND:	34	% SAND:	25				
% FINES:	6	% FINES:	7				
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)				



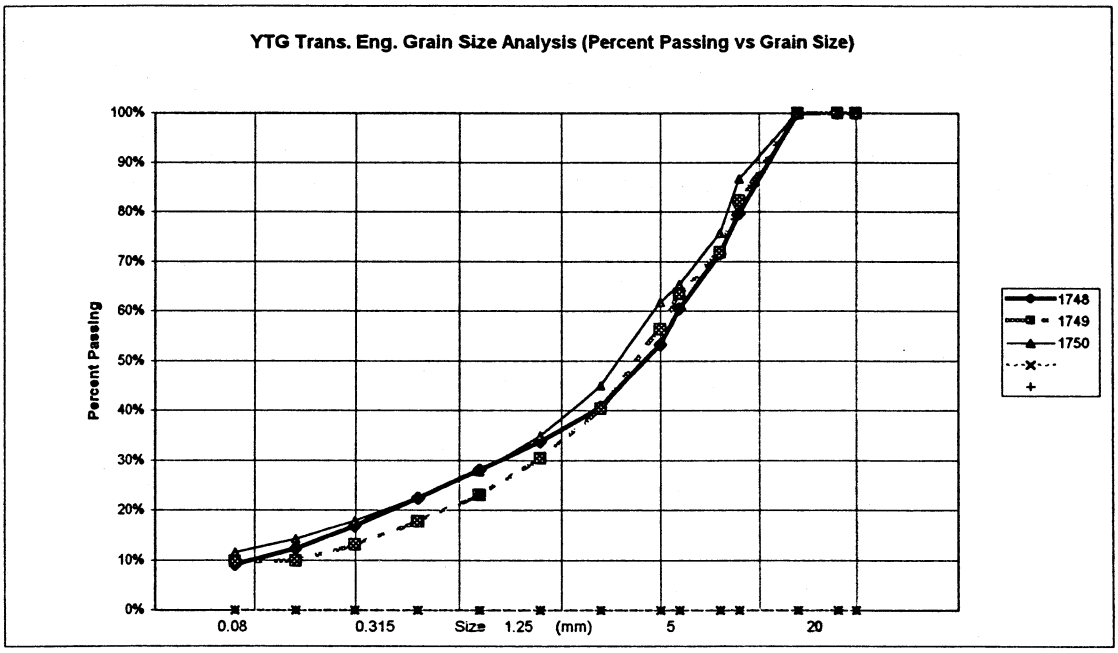
PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	571-1475
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 LHS						
DRILL UNIT:	MOBILE B 30 L D-4 CAT						
LOGGED BY:	J.B.						
HOLE LOCATION:	SEE GPS					DATE COM	2000/08/22
FIELD NO:	1743	FIELD No.	1744	FIELD No:	1745		
LAB NO:	2214	LAB No.	2215	LAB No:	2216		
DEPTH:	1.1-1.3	DEPTH	2.3-2.5	DEPTH:	4.0-4.2		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	76%	25.0	64%	25.0	94%		
20.0	69%	20.0	54%	20.0	88%		
12.5	50%	12.5	37%	12.5	77%		
10.0	44%	10.0	31%	10.0	73%		
5.0	36%	5.0	21%	5.0	64%		
2.5	25%	2.5	17%	2.5	57%		
1.25	20%	1.25	14%	1.25	51%		
0.630	16%	0.630	12%	0.630	44%		
0.315	14%	0.315	10%	0.315	37%		
0.160	9%	0.160	8%	0.160	26%		
0.080	7%	0.080	6%	0.080	18%		
M.C.(%):	4%	M.C.(%):	3%	M.C.(%):	8%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	64	% GRAVEL	79	% GRAVEL	36		
% SAND:	30	% SAND:	15	% SAND:	46		
% FINES:	7	% FINES:	6	% FINES:	18		
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	WELL-GRADED GRAVEL WITH SILT (GW-GM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)		



PROJECT NUMBER:	092-202101-0363-1					HOLE No.:	571-1476
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 LHS						
DRILL UNIT:	MOBILE B 30 L D-4 CAT						
LOGGED BY:	J.B.						
HOLE LOCATION:	SEE GPS					DATE COM	2000/08/22
FIELD NO:	1746		FIELD No.	1747			
LAB NO:	2217		LAB No.	2218			
DEPTH:	1.1-1.3		DEPTH	2.5-2.7			
TYPE:	AUGER		A	AUGER			
SIEVE SIZE	PERCENT PASSING		SIEVE SIZE	PERCENT PASSING			
100.0	100%		100.0	100%			
80.0	100%		80.0	100%			
50.0	100%		50.0	100%			
25.0	73%		25.0	91%			
20.0	62%		20.0	82%			
12.5	55%		12.5	68%			
10.0	49%		10.0	58%			
5.0	37%		5.0	40%			
2.5	29%		2.5	30%			
1.25	22%		1.25	23%			
0.630	16%		0.630	18%			
0.315	11%		0.315	15%			
0.160	8%		0.160	11%			
0.080	6%		0.080	9%			
M.C.(%):	3%		M.C.(%):	3%			
LIMITS			LIMITS				
LIQUID:	0.0		LIQUID:	0.0			
PLASTIC:	0.0		PLASTIC:	0.0			
P.I.:	0.0		P.I.:	0.0			
% GRAVEL	63		% GRAVEL	60			
% SAND:	31		% SAND:	31			
% FINES:	6		% FINES:	9			
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			



PROJECT NUMBER:	092-202101-0363-1					HOLE No :	571-1477
CLIENT:	ENGINEERING-CAPITAL						
PROJECT NAME:	SHAKWAK SEG 9						
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 LHS						
DRILL UNIT:	MOBILE B 30 L D-4 CAT						
LOGGED BY:	J.B.						
HOLE LOCATION:	SEE GPS					DATE COM	2000/08/22
FIELD NO:	1748	FIELD No.	1749	FIELD No:	1750		
LAB NO:	2219	LAB No.	2220	LAB No:	2221		
DEPTH:	1.0-1.2	DEPTH	2.7-2.9	DEPTH:	3.0-3.1		
TYPE:	AUGER	A	AUGER	TYPE:	AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%	100.0	100%		
80.0	100%	80.0	100%	80.0	100%		
50.0	100%	50.0	100%	50.0	100%		
25.0	80%	25.0	82%	25.0	87%		
20.0	72%	20.0	72%	20.0	76%		
12.5	60%	12.5	63%	12.5	65%		
10.0	53%	10.0	56%	10.0	62%		
5.0	41%	5.0	40%	5.0	45%		
2.5	34%	2.5	30%	2.5	35%		
1.25	28%	1.25	23%	1.25	28%		
0.630	22%	0.630	18%	0.630	23%		
0.315	17%	0.315	13%	0.315	18%		
0.160	12%	0.160	10%	0.160	14%		
0.080	9%	0.080	10%	0.080	12%		
M.C.(%):	5%	M.C.(%):	2%	M.C.(%):	3%		
LIMITS		LIMITS		LIMITS			
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0		
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0		
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0		
% GRAVEL	59	% GRAVEL	60	% GRAVEL	55		
% SAND:	32	% SAND:	31	% SAND:	34		
% FINES:	9	% FINES:	10	% FINES:	12		
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



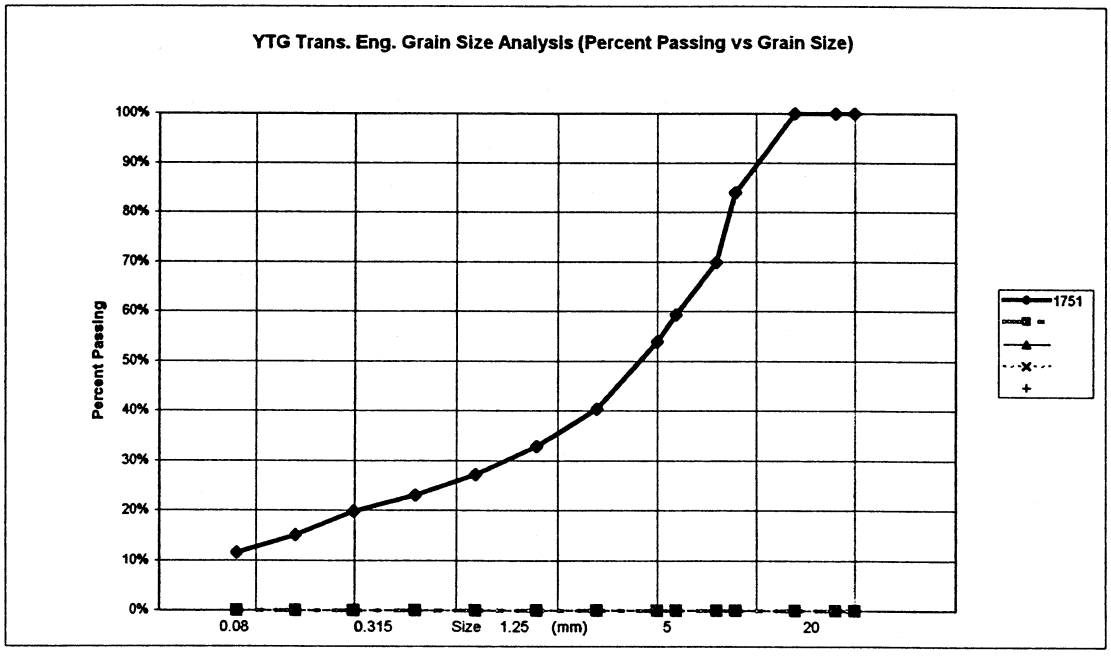
PROJECT NUMBER:	092-202101-0363-1	HOLE No.:	571-1478
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 LHS		
DRILL UNIT:	MOBILE B 30 L D-4 CAT		
LOGGED BY:	J.B.		
HOLE LOCATION:	SEE GPS	DATE COM	2000/08/22

FIELD NO:	1751
LAB NO:	2222
DEPTH:	2.6-2.8
TYPE:	AUGER

SIEVE SIZE	PERCENT PASSING
100.0	100%
80.0	100%
50.0	100%
25.0	84%
20.0	70%
12.5	59%
10.0	54%
5.0	40%
2.5	33%
1.25	27%
0.630	23%
0.315	20%
0.160	15%
0.080	12%

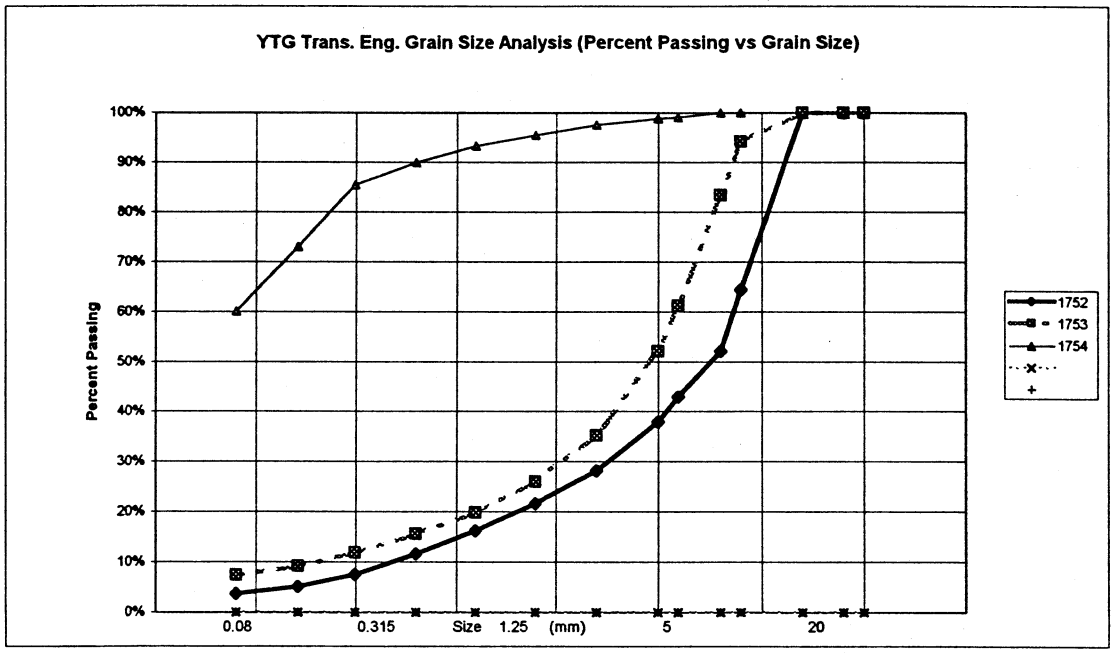
M.C.(%):	5%
LIMITS	
LIQUID:	0.0
PLASTIC:	0.0
P.I.:	0.0
% GRAVEL	60
% SAND:	29
% FINES:	12

CLASSIFICATION:
POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)

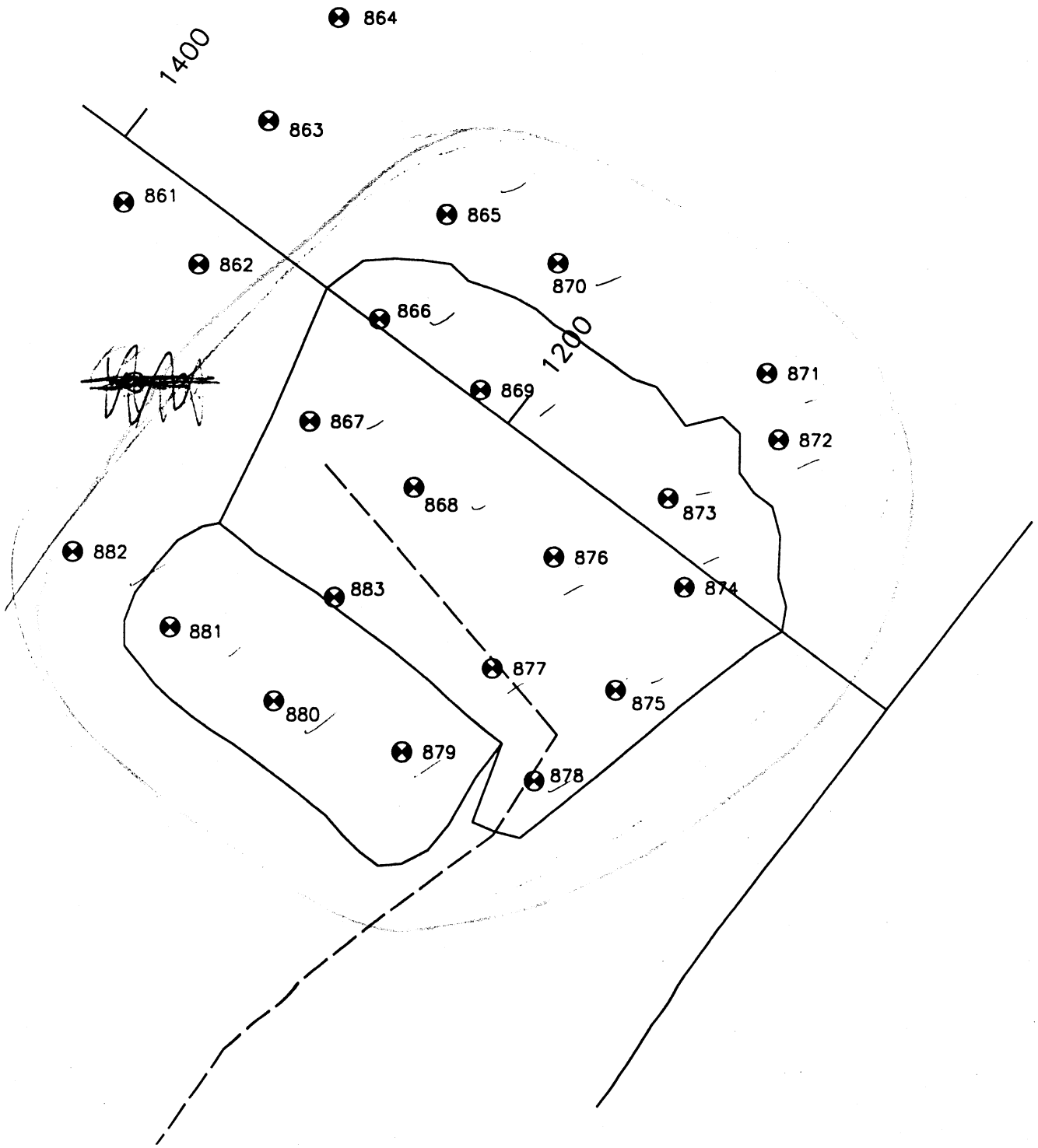


PROJECT NUMBER:	092-202101-0363-1		HOLE No.: 571-1479
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 9		
PROJECT LOCATION:	BEAR CREEK SUMMIT KM 1655 LHS		
DRILL UNIT:	MOBILE B 30 L D-4 CAT		
LOGGED BY:	J.B.		
HOLE LOCATION:	SEE GPS		DATE COM 2000/08/22

FIELD NO:	1752	FIELD No.	1753	FIELD No:	1754
LAB NO:	2223	LAB No.	2224	LAB No:	2225
DEPTH:	1.2-1.4	DEPTH	2.7-2.9	DEPTH:	4.4-4.5
TYPE:	AUGER	A	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	64%	25.0	94%	25.0	100%
20.0	52%	20.0	83%	20.0	100%
12.5	43%	12.5	61%	12.5	99%
10.0	38%	10.0	52%	10.0	99%
5.0	28%	5.0	35%	5.0	98%
2.5	22%	2.5	26%	2.5	96%
1.25	16%	1.25	20%	1.25	93%
0.630	12%	0.630	16%	0.630	90%
0.315	8%	0.315	12%	0.315	86%
0.160	5%	0.160	9%	0.160	73%
0.080	4%	0.080	8%	0.080	60%
M.C.(%):	2%	M.C.(%):	3%	M.C.(%):	22%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	72	% GRAVEL	65	% GRAVEL	2
% SAND:	25	% SAND:	28	% SAND:	38
% FINES:	4	% FINES:	8	% FINES:	60
CLASSIFICATION:	WELL-GRADED GRAVEL WITH SAND (GW)	CLASSIFICATION:	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	CLASSIFICATION:	SANDY SILT (ML)



QUARRY SOURCE TESTING
Km 1674 RHS
ALASKA HIGHWAY


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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-865
ENGINEERING CAPITAL	KM 1674 RHS	Project No: 092-202101-0363
AIR ROTARY	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▥ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0								0.0
1.0	ROCK @ 1.1m –slow drilling							1.0
2.0								2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0
7.0								7.0
8.0								8.0
9.0								9.0
10.0								10.0
11.0	END HOLE @ 10.4m Note: visible surface rock 15m downchain –visible surface rock 12m rt of test hole. –water in hole 3 days after drilling							11.0
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

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Transportation Engineering

LOGGED BY: G.C.	COMPLETION DEPTH: 10.4 m
REVIEWED BY:	COMPLETE: 00/09/01
Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-866
ENGINEERING CAPITAL	KM 1674 RHS	Project No: 092-202101-0363
AIR ROTARY	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0								0.0
1.0								1.0
2.0	ROCK @ 2.1m -white rock dust 2.1 to 10.4m -slow drilling -no coarse chips							2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0
7.0								7.0
8.0								8.0
9.0								9.0
10.0								10.0
11.0	END HOLE @ 10.4m Note: visible surface rock between testhole #866 & #865 -no water in testhole 2000-09-03							11.0
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

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Transportation Engineering

LOGGED BY: G.C.	COMPLETION DEPTH: 10.4 m
REVIEWED BY:	COMPLETE: 00/08/31
Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-867
ENGINEERING CAPITAL	KM 1674 RHS	Project No: 092-202101-0363
AIR ROTARY	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ☒ S.P.T. ☒ AUGER ☰ BULK ▯ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0								0.0
1.0								1.0
	ROCK @ 1.5m –white rock dust 1.5m to 10.4m –slow drilling –no coarse chips							
2.0								2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0
7.0								7.0
8.0								8.0
9.0								9.0
10.0								10.0
	END HOLE @ 10.4m Note: Steep slope below testhole –surface rock 3m upchain –water in hole 3 days after drilling							
11.0								11.0
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

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Transportation Engineering

LOGGED BY: G.C.	COMPLETION DEPTH: 10.4 m
REVIEWED BY:	COMPLETE: 00/09/01
Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-868
ENGINEERING CAPITAL	KM 1674 RHS	Project No: 092-202101-0363
AIR ROTARY	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▯▯ TUBE ▮▯ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0								0.0
1.0	ROCK @ 1.1m -slow drilling -coarse rock chips							1.0
2.0								2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0
7.0	END HOLE @ 6.7m Note: surface rock 10 & 15m rt -steep slope below test hole -H20 in hole 3 days after drilling							7.0
8.0								8.0
9.0								9.0
10.0								10.0
11.0								11.0
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

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Transportation Engineering

LOGGED BY: G.C.	COMPLETION DEPTH: 6.7 m
REVIEWED BY:	COMPLETE: 00/09/01
Fig. No:	Page 1 of 1

00/12/14 09:20AM

SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-869
ENGINEERING CAPITAL	KM 1674 RHS	Project No: 092-202101-0363
AIR ROTARY	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0								0.0
1.0	ROCK @ .61m -slow drilling -no large rock chips							1.0
2.0								2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0
7.0								7.0
8.0								8.0
9.0								9.0
10.0								10.0
11.0	END HOLE @ 10.4m Note: no visible surface rock. -water in hole 3 days after drilling							11.0
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 10.4 m
	REVIEWED BY:	COMPLETE: 00/09/01
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-870
ENGINEERING CAPITAL	KM 1674 RHS	Project No: 092-202101-0363
AIR ROTARY	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0								0.0
1.0	ROCK -broken rock - still dusty -slow drilling below 1.1m -solid below 3.0m							1.0
2.0								2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0
7.0								7.0
8.0								8.0
9.0								9.0
10.0								10.0
11.0	END HOLE @ 10.4m Note: water in hole 3 days after drilling							11.0
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

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Transportation Engineering

LOGGED BY: G.C.	COMPLETION DEPTH: 10.4 m
REVIEWED BY:	COMPLETE: 00/08/31
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-871
ENGINEERING CAPITAL	KM 1674 RHS	Project No: 092-202101-0363
AIR ROTARY	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▥ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0								0.0
1.0								1.0
2.0								2.0
3.0								3.0
4.0	ROCK @ 3.7m -light brown -slow drilling							4.0
5.0								5.0
6.0								6.0
7.0								7.0
8.0								8.0
9.0								9.0
10.0								10.0
11.0								11.0
12.0								12.0
13.0								13.0
14.0	END HOLE @ 14.0m Note: no visible surface rock around hole - water in hole 3 days after drilling							14.0
15.0								15.0
16.0								16.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 14.0 m
REVIEWED BY:	COMPLETE: 00/08/31
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-872
ENGINEERING CAPITAL	KM 1674 RHS	Project No: 092-202101-0363
AIR ROTARY	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	BROWN DUST -possibly oxidized -easy drilling (speed) fracture							0.0
1.0								1.0
2.0	ROCK -white -slow drilling							2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0
7.0								7.0
8.0	-some brown or oxidized rock dust 7.3m to 9.1m							8.0
9.0								9.0
10.0								10.0
11.0	10.4HOLE @ 10.1m Note: Test hole in a small gulley -Water in hole 3 days after drilling -visible rock on surface							11.0
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 10.4 m
REVIEWED BY:	COMPLETE: 00/08/31
Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-873
ENGINEERING CAPITAL	KM 1674 RHS	Project No: 092-202101-0363
AIR ROTARY	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0								0.0
1.0								1.0
2.0								2.0
3.0								3.0
4.0	ROCK @ 3.7m							4.0
5.0								5.0
6.0								6.0
7.0								7.0
8.0	-damp cuttings 7.3 to 9.1m -possibly sandstone -damp (moisture) -easy drilling							8.0
9.0	-dry dust below 9.1m							9.0
10.0								10.0
11.0	END HOLE @ 10.4m Note: test hole in gulley - water in hole imediately after drilling (5 min.)							11.0
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 10.4 m
REVIEWED BY:	COMPLETE: 00/09/03
Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-874
ENGINEERING CAPITAL	KM 1674 RHS	Project No: 092-202101-0363
AIR ROTARY	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0								0.0
1.0								1.0
	ROCK @ .1.5m							
2.0								2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0
7.0								7.0
8.0								8.0
	ROCK CHIPS 8.5m TO 10.4m -brown -large chips 12.5mm							
9.0								9.0
10.0								10.0
	END HOLE @ 10.4m Note: visible rock 15m lt & 3m rt -visible surface rock 25m downchain on trail 50m rt of testhole #877 -water in hole 3 days after drilling							
11.0								11.0
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 10.4 m
REVIEWED BY:	COMPLETE: 00/08/31
Fig. No:	Page 1 of 1

00/12/14 09:00AM

SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-875
ENGINEERING CAPITAL	KM 1674 RHS	Project No: 092-202101-0363
AIR ROTARY	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▯ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0								0.0
1.0	ROCK @ 0.9m							1.0
2.0								2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0
7.0								7.0
8.0								8.0
9.0								9.0
10.0								10.0
11.0	END HOLE @ 10.4m Note: Visible surface rock 5m from Testhole.							11.0
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 10.4 m
REVIEWED BY:	COMPLETE: 00/08/31
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-876
ENGINEERING CAPITAL	KM 1674 RHS	Project No: 092-202101-0363
AIR ROTARY	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0								0.0
1.0								1.0
2.0								2.0
	ROCK @ 2.4m							
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0
7.0								7.0
8.0								8.0
9.0								9.0
10.0								10.0
	END HOLE @ 10.4m							
11.0	Note: last length of steel was wet when it was removed.							11.0
	-water in hole 5 mins after drilling							
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 10.4 m
REVIEWED BY:	COMPLETE: 00/09/03
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-877
ENGINEERING CAPITAL	KM 1674 RHS	Project No: 092-202101-0363
AIR ROTARY	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▯▯ TUBE ▯▯ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0								0.0
1.0								1.0
	ROCK @ 1.5m							
2.0	-12.5mm rock chips							2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0	-brown dust & rock chips 6.1 to 7.3m							6.0
	-white dust below 7.3							
7.0								7.0
8.0	-brown seam @ 8.2m							8.0
9.0								9.0
10.0								10.0
	END HOLE @ 10.4m							
11.0	Note: Hole was dry after drilling							11.0
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 10.4 m
REVIEWED BY:	COMPLETE: 00/09/03
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-878
ENGINEERING CAPITAL	KM 1674 RHS	Project No: 092-202101-0363
AIR ROTARY	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▥ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0								0.0
1.0								1.0
2.0								2.0
3.0	ROCK -harder drilling than testhole #879 -slower drilling -coarse rock chips 12.5mm							3.0
4.0								4.0
5.0								5.0
6.0								6.0
7.0								7.0
8.0								8.0
9.0								9.0
10.0								10.0
11.0	END HOLE @ 10.4m Note: Water in hole 3 days after drilling.							11.0
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 10.4 m
REVIEWED BY:	COMPLETE: 00/08/31
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-879
ENGINEERING CAPITAL	KM 1674 RHS	Project No: 092-202101-0363
AIR ROTARY	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0								0.0
1.0								1.0
2.0								2.0
3.0	-boulder @ 2.74m							3.0
4.0								4.0
5.0	ROCK @4.3m -white -drillers comment - rock was easy drilling							5.0
6.0								6.0
7.0								7.0
8.0								8.0
9.0								9.0
10.0	END HOLE @ 10.1m							10.0
11.0								11.0
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 10.1 m
REVIEWED BY:	COMPLETE: 00/08/31
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-880
ENGINEERING CAPITAL	KM 1674 RHS	Project No: 092-202101-0363
AIR ROTARY	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ☒ S.P.T. ☒ AUGER ☰ BULK ▯▯ TUBE ▯▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SILT WITH SUB-ROUNDED GRAVEL							0.0
1.0								1.0
2.0								2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0
7.0								7.0
8.0								8.0
9.0	ROCK @ 8.5m -large rock chips -hard slow drilling -driller comment - granite -grey to white							9.0
10.0								10.0
11.0								11.0
12.0								12.0
13.0								13.0
14.0	END HOLE @ 14.0m							14.0
15.0								15.0
16.0								16.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 14.0 m
REVIEWED BY:	COMPLETE: 00/09/03
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-881
ENGINEERING CAPITAL	KM 1674 RHS	Project No: 092-202101-0363
AIR ROTARY	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0								0.0
1.0								1.0
2.0								2.0
3.0								3.0
4.0								4.0
5.0	BOULDER @ 4.6m -white - brown -(1500 pounds down press - soft rock)							5.0
6.0								6.0
7.0								7.0
8.0	WEATHERED ROCK -possibly wet -looked like wet coloured silt with rock chips							8.0
9.0								9.0
10.0								10.0
11.0								11.0
12.0								12.0
13.0	END HOLE @ 12.2m Note: Steel stuck - 45min to remove -Air rushing from hole for a couple minutes after removing steel.							13.0
14.0								14.0
15.0								15.0
16.0								16.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 12.2 m
REVIEWED BY:	COMPLETE: 00/09/03
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-882
ENGINEERING CAPITAL	KM 1674 RHS	Project No: 092-202101-0363
AIR ROTARY	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▯ TUBE ▯ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0								0.0
1.0								1.0
	-water @ 1.5m - second length of steel							
2.0								2.0
3.0								3.0
4.0								4.0
5.0	ROCK @ 4.6m							5.0
6.0								6.0
7.0								7.0
8.0	-drillers comment was (very hard rock)							8.0
9.0								9.0
10.0								10.0
	END HOLE @ 10.4m							
11.0								11.0
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 10.4 m
REVIEWED BY:	COMPLETE: 00/09/03
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SUBSURFACE EXPLORATION & TEST REPORT	SHAKWAK SEG 09	TEST HOLE NO: 576-883
ENGINEERING CAPITAL	KM 1674 RHS	Project No: 092-202101-0363
AIR ROTARY	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID / 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ROCK @ .05m							0.0
1.0								1.0
2.0								2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0
7.0	END HOLE @ 6.7m -no water in hole							7.0
8.0								8.0
9.0								9.0
10.0								10.0
11.0								11.0
12.0								12.0
13.0								13.0
14.0								14.0
15.0								15.0
16.0								16.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 6.7 m
REVIEWED BY:	COMPLETE: 00/09/03
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