GEOTECHNICAL INVESTIGATIONS

Highway Construction
km 1749.6 to 1759.2
Alaska Highway #1
Yukon, 2004-2005
Volume 1 of 2

Highways and Public Works
Transportation Engineering Branch

Geotechnical Services

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Highway Construction
km 1749.6 to 1759.2
Alaska Highway #1
Yukon, 2004-2005
Volume 1 of 2

This Data Package prepared for project viewing:

February, 2004

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.

CENTRELINE TESTING km 1749.6 to 1759.2 Alaska Highway

Subsurface Exploration and Test Report Sheets are provided.
The reports for the Centreline testing holes are arranged according to project location, starting at km 1749+550 and increasing to km 1759+300.

Laboratory Testing Result Sheets are provided.
The reports for the centreline holes are arranged according to test hole number, starting at 544-1390 and increasing to 552-1502.

2000	TEST HOLES 1390 to 1418	shown with prefix 544-
	TEST HOLES 1419 to 1427	shown with prefix 545-
	TEST HOLES 1428 to 1452	shown with prefix 549-
	TEST HOLES 1453 to 1465	shown with prefix 550-
	TEST HOLES 1466 to 1490	shown with prefix 551-
	TEST HOLES 1491 to 1502	shown with prefix 552-

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GRANULAR SOURCE km 1750.0 LHS ALASKA HIGHWAY Pit ID 115 G-04A

A production history, location plans, photographs, and subsurface exploration and testing report sheets are provided.

Auger Testing

1985	TEST HOLES 32	shown with prefix 777-
2001	TEST HOLES 1962 & 1963	shown with prefix 625-

Test Pit Testing

1985	TEST PITS 108	shown with prefix 808-
1988	TEST PITS 1 & 2	shown with prefix 29-
1988	TEST PITS 38 & 39	shown with prefix 30-
2002	TEST PITS 5, 6, 10, 11, 15, 16, 20, & 21	shown with prefix 631-

GRANULAR SOURCE km 1753.0 LHS ALASKA HIGHWAY Pit ID 115 G-20

A production history, location plan, photographs, and subsurface exploration and testing report sheets are provided.

Auger Testing

2003	TEST HOLES 2717 to 2727	shown with prefix 652-

Test Pit Testing

2002	TEST PITS 2400 to 2450	shown with prefix 636-
2003	TEST PITS 2729 to 2731 & 2745 to 2753	shown with prefix 653-

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 & 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.

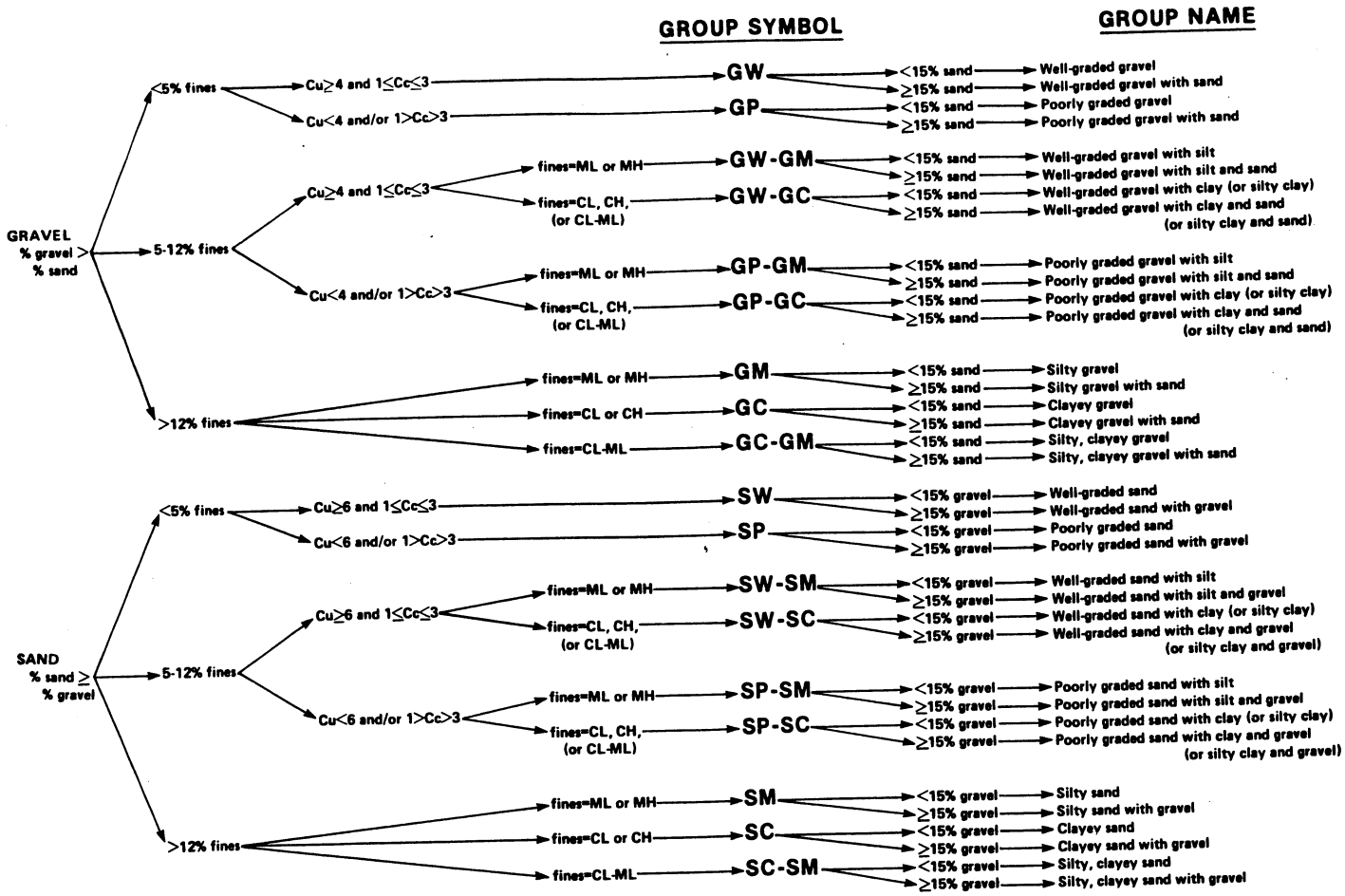
The sample laboratory testing data is provided to give detailed physical properties of selected retrieved samples within the subsurface profile. ***These tests may be conducted on disturbed samples and may exhibit properties different from the native materials. The sample classification may also vary 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.***

History of Aggregate Production Averages shown provide an unweighted average of the total individual quality control tests performed during the production of the indicated stockpiles. Individual test results may fall outside of the material type specification limit. Fracture tests may not have been performed on all samples collected.

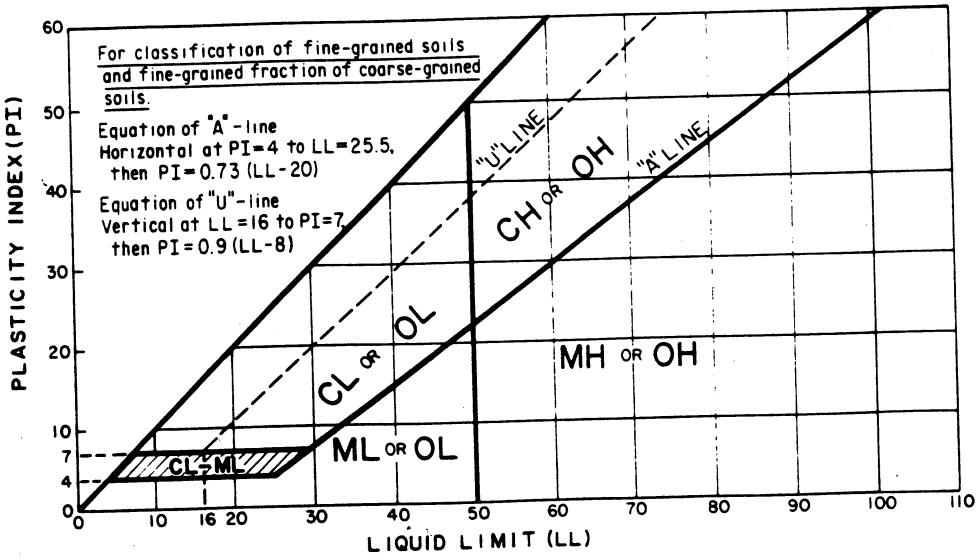
These descriptions and averages are not intended to be conclusive as to the nature of any material encountered, or to conditions between or around the test borings/pits.

Note: Development work may have taken place since the time of geotechnical investigation.

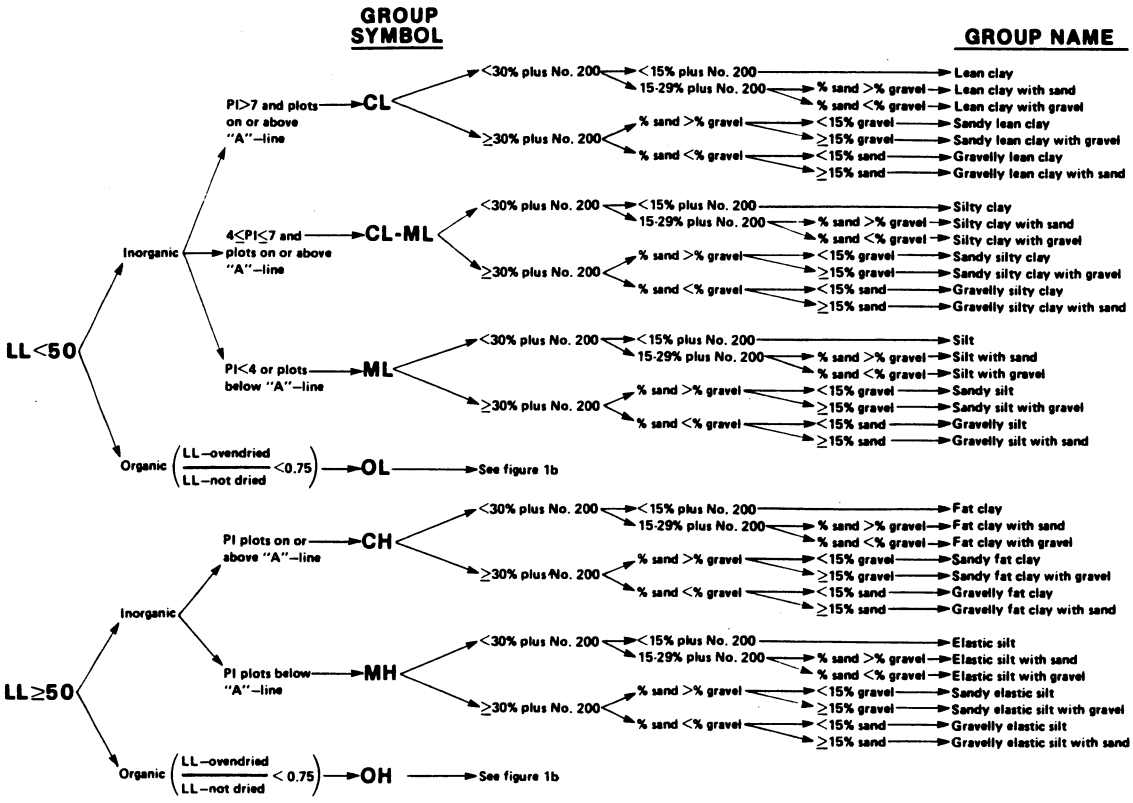
It is recommended that a site inspection, combined with consideration of the regional geology and climatic conditions be conducted. An evaluation of the investigation methods and development work done since the time of investigation should be done prior to interpreting the subsurface conditions at the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



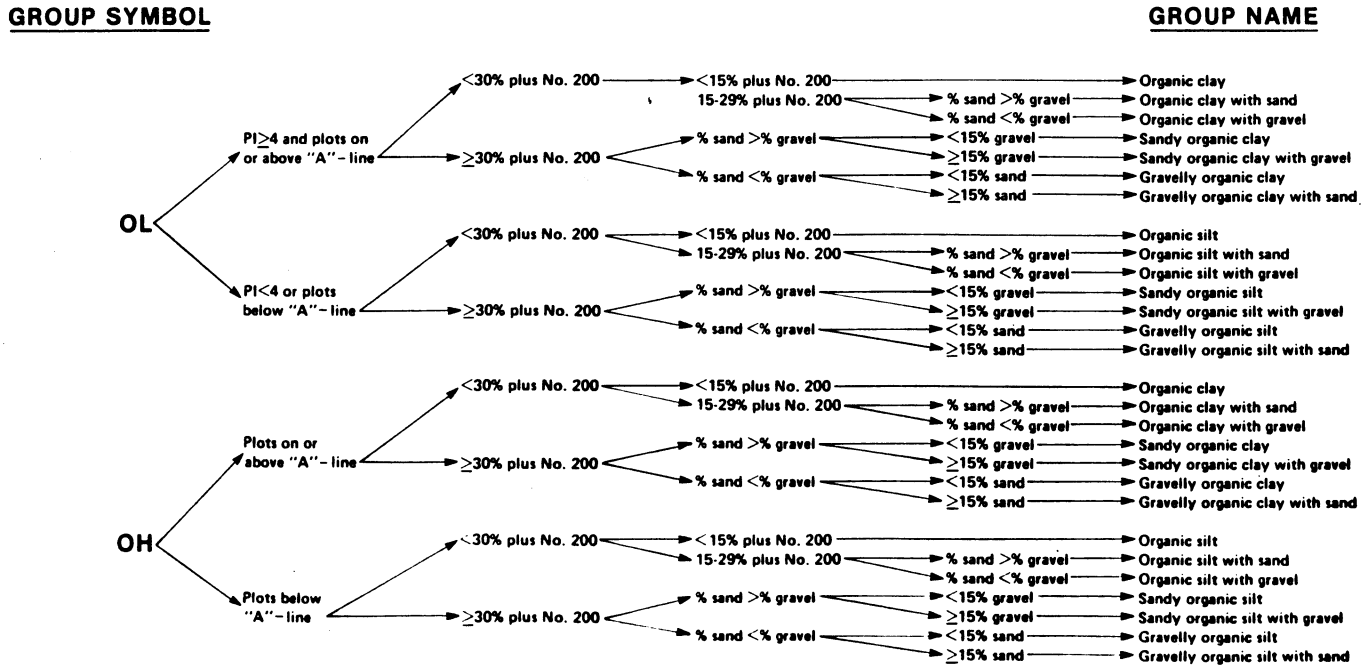
Flow chart for classifying coarse-grained soil.



Plasticity chart.



Flow chart for classifying fine-grained soil.



Flow chart for classifying organic soil.

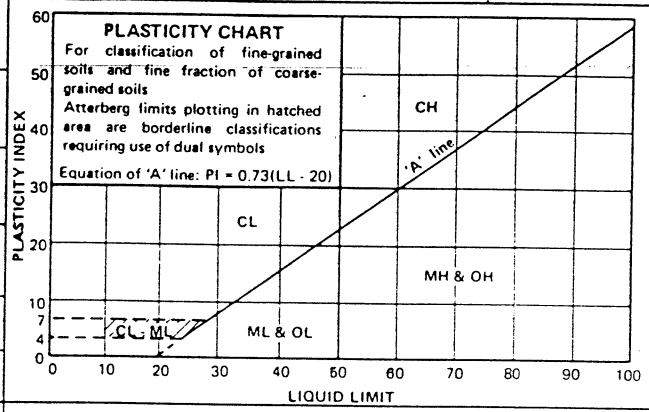
CRITERIA FOR ASSIGNING GROUP SYMBOLS AND GROUP NAMES USING LABORATORY TESTS [a]				SOIL CLASSIFICATION	
				GROUP SYMBOL	GROUP NAME [b]
COARSE-GRAINED SOILS more than 50% retained on No. 200 sieve	GRAVELS More than 50% of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS Less than 5% fines [c]	$C_u \geq 4$ 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	Atterberg limits plotting in hatched area are borderline classifications requiring use of dual symbols	
			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	

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

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)	

	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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LOGGED BY:	COMPLETION DEPTH: 6.0 m
REVIEWED BY:	COMPLETE: / /
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CENTRELINE TESTING
1749.6 to 1759.2
ALASKA HIGHWAY

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1390
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1749+550 7.8M 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	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -dark grey -wet -easy grindy drilling	⊠	357	● ▲	SW-SM		■ ◆	0.0
1.0	SILTY SAND WITH GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND (SM)-(GP) -dark brownish grey -wet -coarser	⊠	358	● ▲	SM		■ ◆	1.0
2.0								2.0
3.0								3.0
4.0	-moist below 4.0m	⊠	359	● ▲	GP-GM		■	4.0
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: W.E.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/05/16
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1391
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1749+647 1.3M 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	POORLY GRADED GRAVEL WITH SAND (GP) -dark grey -wet -grindy drilling							0.0
1.0								1.0
		⊠	360	●	GP		◆ ■	
2.0								2.0
	SILTY GRAVEL WITH SAND (GM) -dark brownish grey -moist							
3.0								3.0
4.0								4.0
		⊠	361	● ▲	GM		◆ ■	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1393
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1749+671 18M 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 GRAVEL -grindy drilling							0.0
	SILT WITH SAND (ML) -with organic -frozen (Nf) -smooth drilling	⊠	365	● ▲	ML	▯	◆	
1.0								1.0
	ORGANIC & ASH SILTY SAND WITH GRAVEL (SM) -brown -moist -grindier drilling							
2.0		⊠	366	● ▲	SM	▯	■ ◆	2.0
3.0	SILTY ORGANIC -wet -smooth drilling							3.0
	SILTY GRAVEL WITH SAND (GM) -brown -moist -hard grindy drilling							
4.0		⊠	367	● ▲	GM	▯	◆	4.0
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1392
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1749+676 10M 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	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -dark brownish grey -wet -grindy drilling	⊠	362	▲ ●	SW-SM		■ ◆	0.0
1.0								1.0
	ORGANIC, WOOD, SILT -frozen (Vx) -smooth drilling							
2.0								2.0
	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -dark brownish grey -moist -grindy drilling	⊠	363	● ▲	SW-SM		■ ◆	
3.0								3.0
	ORGANIC -smooth drilling							
	SILTY SAND WITH GRAVEL (SM) -brown -moist -grindy hard drilling	⊠	364	● ▲	SM		■ ◆	
4.0								4.0
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1394
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1749+789 4.8M 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	ORGANIC							0.0
	SANDY GRAVEL -dark brownish grey -moist -grindy drilling -lost sample # 368 -frozen (Nf) below 0.8m	⊠	368	●				
1.0								1.0
	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -dark brownish grey -damp -smoother drilling	⊠	369	●▲	SW-SM		■ ◆	
2.0	ASH							2.0
	SANDY SILT TO SILTY SAND WITH GRAVEL (ML)-(SM) -dark brown -moist -smooth easy drilling	⊠	370	● ▲	ML		■ ◆	
3.0								3.0
4.0		⊠	371	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1395
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1749+892 32.6M 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 drilling							0.0
	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -brownish dark grey -moist -grindy drilling							
1.0		☒	372	●▲	SW-SM		■◆	1.0
2.0	POORLY GRADED GRAVEL WITH SAND (GP) -dark grey -damp	☒	373	▲	GP		◆■	2.0
3.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -dark brownish grey -moist -hard slow tough drilling below 3.2m	☒	374	●▲	GP-GM		◆■	3.0
4.0		☒	375	●▲	GP-GM		◆■	4.0
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: W.E.	COMPLETION DEPTH: 4.7 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1396
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1750+002 56.6M LT	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 -smooth drilling					0.0
	POORLY GRADED GRAVEL WITH SAND (GP) -grey -damp -grindy drilling					
1.0		☒	376	GP		1.0
	SILT WITH SAND (ML) -trace organic & ash -brown -frozen (Nf) -smooth drilling					
2.0		☒	377	ML		2.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -slightly brownish grey -moist -grindy drilling					
3.0		☒	378	GP-GM		3.0
4.0						4.0
	SILTY SAND WITH GRAVEL (SM) -brown -moist	☒	379	SM		
	END HOLE @ 4.7m					
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

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LOGGED BY: W.E.	COMPLETION DEPTH: 4.6 m
REVIEWED BY:	COMPLETE: 00/05/17
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1397
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1750+106 59.2M 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, WOOD -seasonal ice & snow							0.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -grey -damp -grindy drilling	⊠	380	● ▲	GP-GM		◆ ■	
1.0								1.0
	SILT WITH SAND (ML) -trace organic -brown -frozen (Nf) -smooth drilling	⊠	381	● ▲	ML		◆	
2.0								2.0
	SILTY SAND WITH GRAVEL (SM) -brown -moist	⊠	382	● ▲	SM		■ ◆	
3.0	-hard grindy drilling below 3.5m							3.0
4.0		⊠	383	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: W.E.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/05/17
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1398
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1750+200 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	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM) -grey -damp -grindy drilling below 0.3m							0.0
1.0		⊠	384	● ▲	GW-GM		◆ ■	1.0
2.0	SILT WITH SAND TO SILTY SAND WITH GRAVEL (ML)-(SM) -brown -frozen (Nf) -smooth drilling	⊠	385	● ▲	ML		■ ◆	2.0
3.0	-moist below 3.0m	⊠	386	● ▲	SM		■ ◆	3.0
4.0	SILTY GRAVEL WITH SAND (GM) -brown -moist -grindier drilling	⊠	387	● ▲	GM		◆ ■	4.0
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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	REVIEWED BY:	COMPLETE: 00/05/17
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1399
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1750+240 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	SILTY SAND WITH GRAVEL (SM) -grey -damp -grindy drilling below 0.3m	⊠	388	● ▲	SM		◆	0.0
1.0	ASH & ORGANIC -moist -smooth drilling							1.0
2.0	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) -brown -damp -contamination from above -grindy drilling	⊠	389	● ▲	SM		◆	2.0
3.0	-dark brown below 3.0m -rockier below 3.3m	⊠	390	● ▲	SM		■ ◆	3.0
4.0								4.0
		⊠	391	● ▲	GM		◆ ■	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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REVIEWED BY:	COMPLETE: 00/05/17
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1400
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1750+300 CL	ELEVATION: 0.00 (m)

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

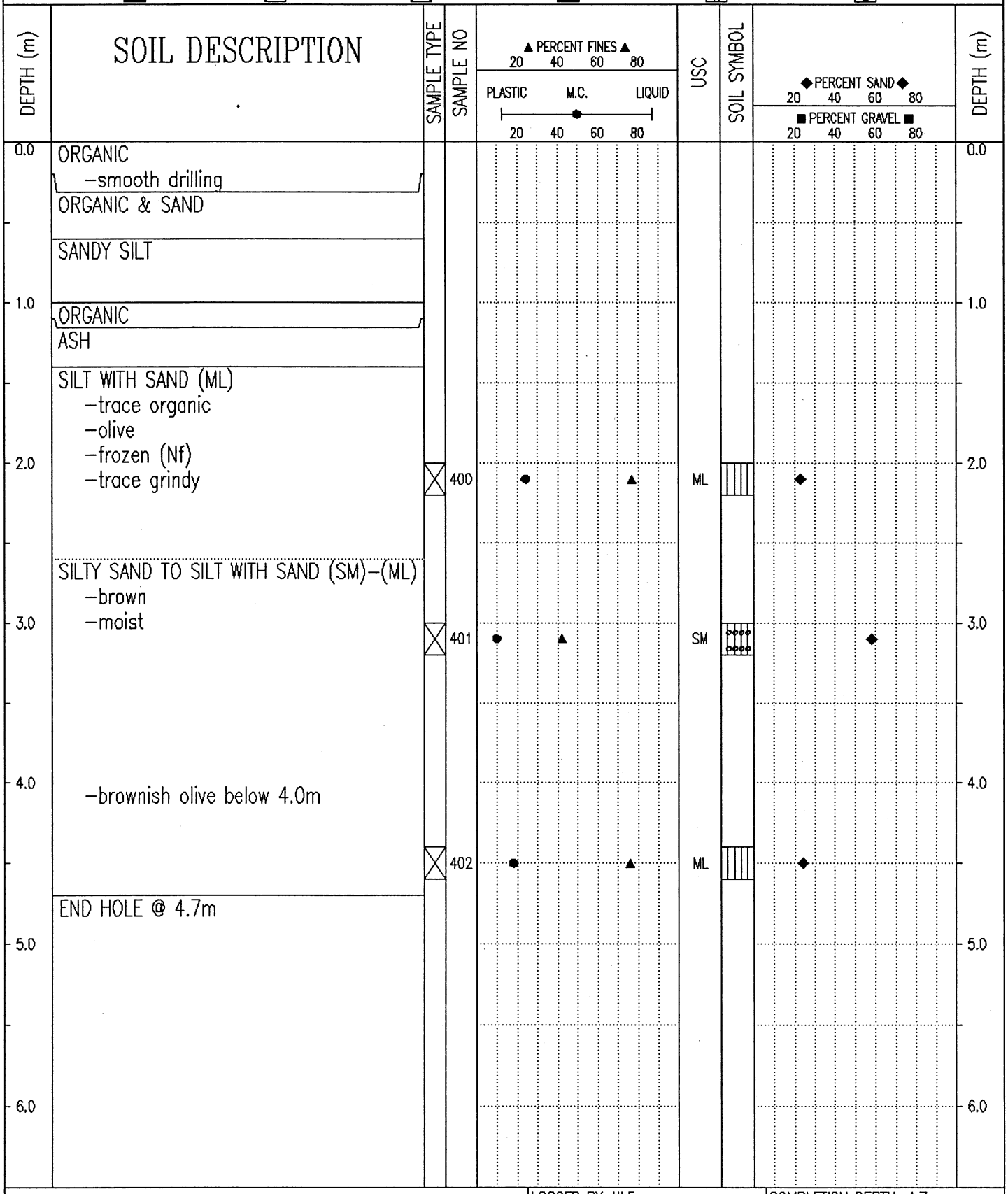
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -grey -damp -grindy drilling below 0.5m	⊠	392	● ▲	GP-GM		◆ ■	0.0
1.0								1.0
2.0	SILTY SAND (SM) -dark brownish grey -frozen (Nf) -smooth drilling	⊠	393	● ▲	SM		◆	2.0
3.0	WELL TO POORLY GRADED GRAVEL WITH SILT & SAND (GW-GM)-(GP-GM) -brownish grey -moist -grindy drilling -rockier below 3.2m	⊠	394	● ▲	GW-GM		◆ ■	3.0
4.0								4.0
		⊠	395	● ▲	GP-GM		◆ ■	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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	REVIEWED BY:	COMPLETE: 00/05/17
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1402
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1750+365 20M RT	ELEVATION: 0.00 (m)

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



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	REVIEWED BY:	COMPLETE: 00/05/17
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1401
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1750+375 20M LT	ELEVATION: 0.00 (m)

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

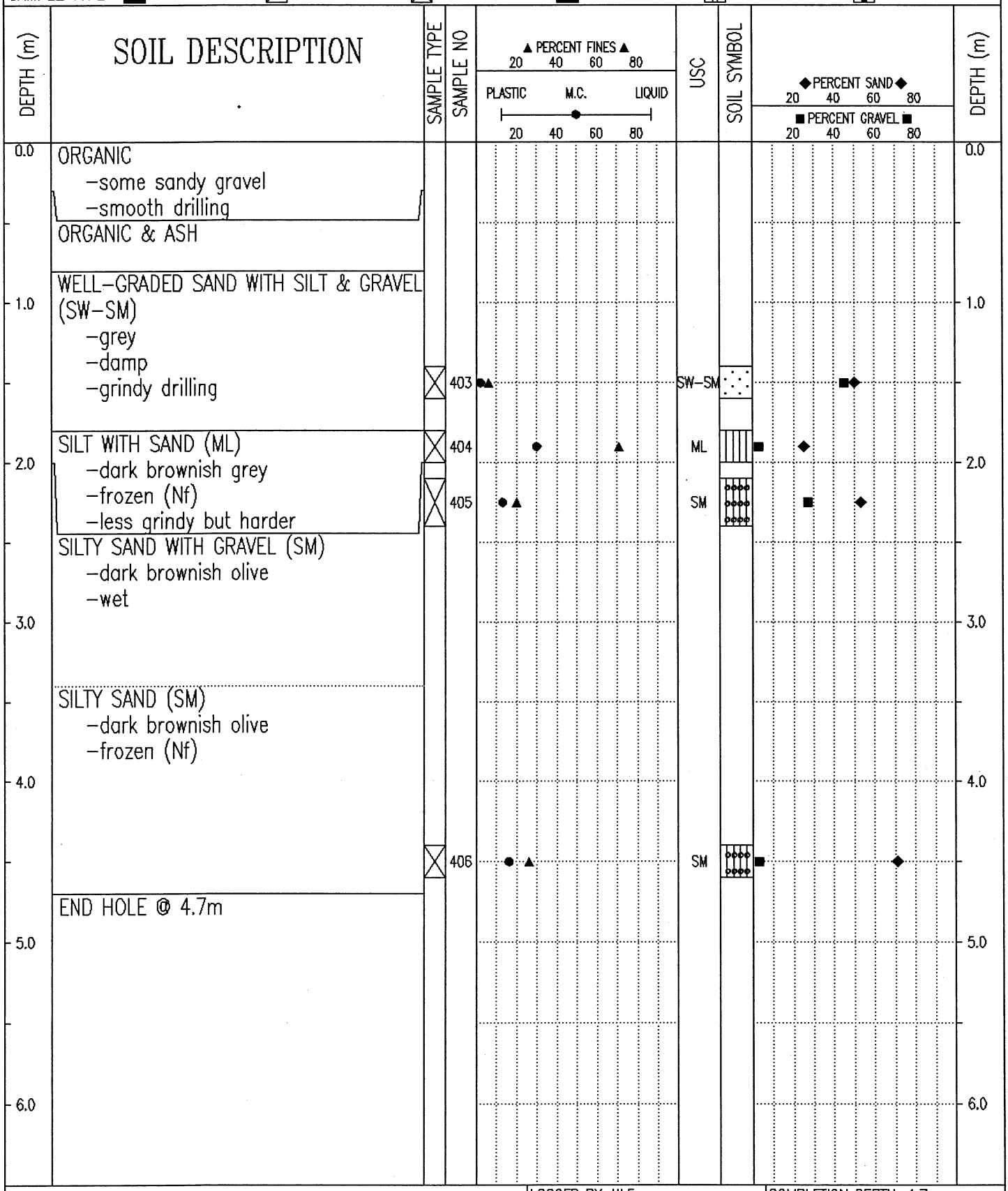
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC & ASH							0.0
	SILT WITH SAND (SM) -brown -damp -slightly grindy drilling							
1.0	-layer of ash 0.6m to 0.7m -ash contamination	☒	396	● ▲	SM	▨	■ ◆	1.0
	SANDY SILT TO SILTY SAND TO SANDY SILT (ML)-(SM)-(ML) -brown -damp							
2.0	-partially frozen (Nf) below 2.0m	☒	397	● ▲	ML	▤	■ ◆	2.0
3.0	-damp below 3.0m	☒	398	● ▲	SM	▨	■ ◆	3.0
4.0								4.0
		☒	399	● ▲	ML	▤	◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: W.E.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/05/17
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1403
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1750+500 6M LT	ELEVATION: 0.00 (m)

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

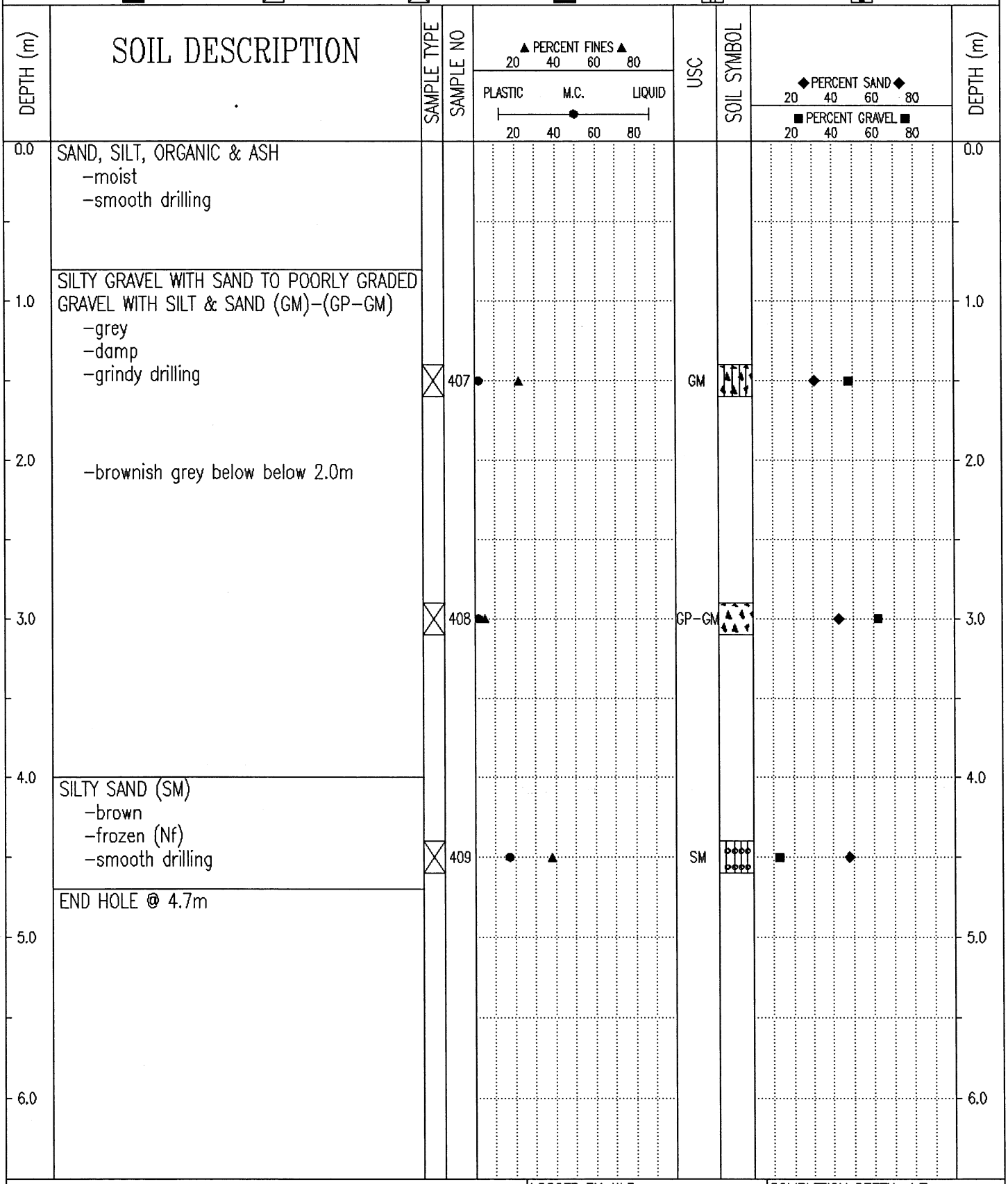


Government of Yukon Transportation Engineering	LOGGED BY: W.E.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/05/17
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1404
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1750+600 CL	ELEVATION: 0.00 (m)

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



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	REVIEWED BY:	COMPLETE: 00/05/17
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1405
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1750+700 CL	ELEVATION: 0.00 (m)

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

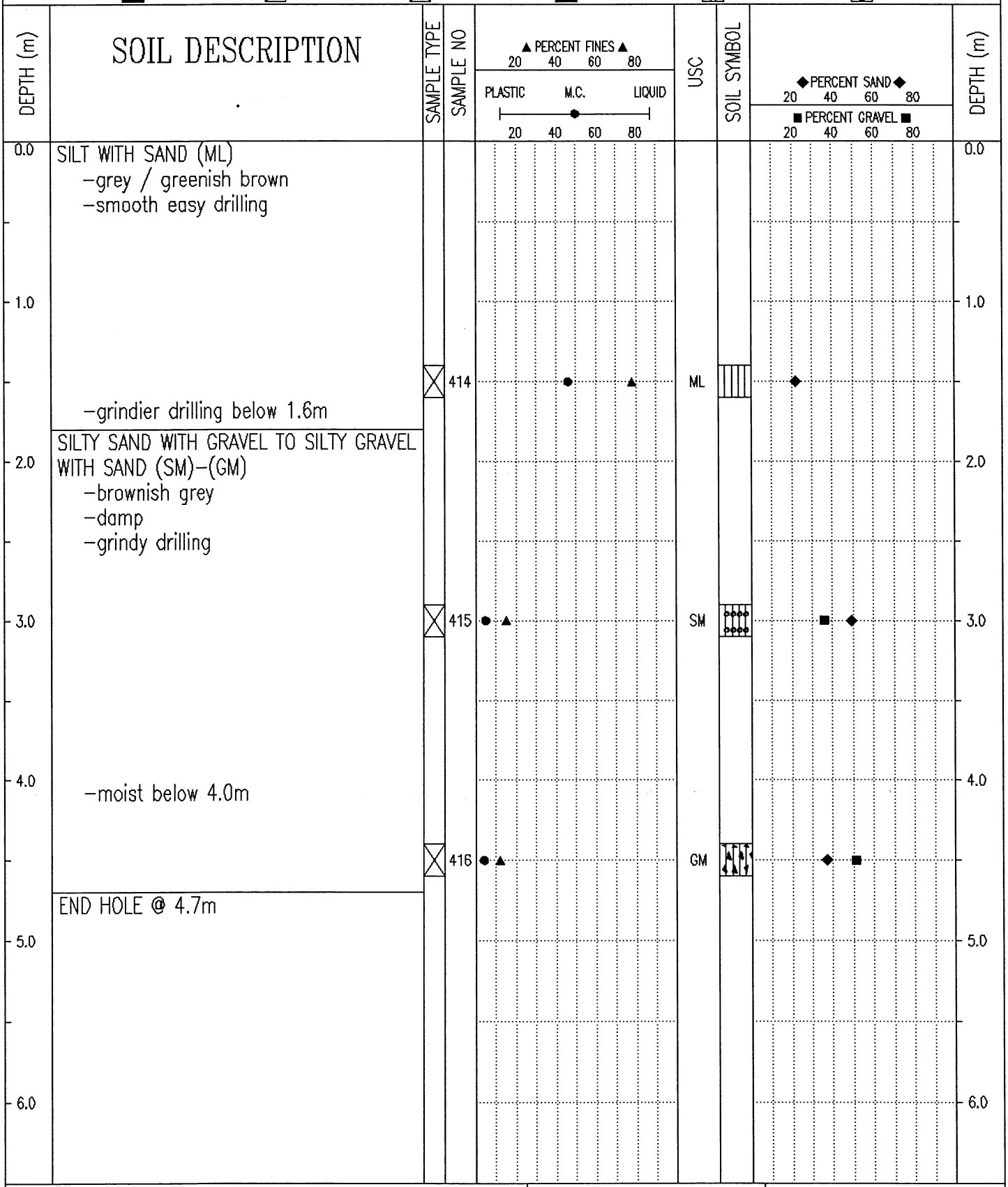
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC & ASH							0.0
	SANDY GRAVEL -grey -grindy drilling							
1.0	GRAVELLY SILT WITH SAND (ML) -orangey light brown -moist -smooth easy, trace grindy drilling	⊠	410	● ▲	ML		◆	1.0
2.0	SILTY SAND WITH GRAVEL TO SILTY SAND (SM) -dark grey -frozen (Nf)	⊠	411	● ▲	SM		■ ◆	2.0
3.0	-dark brownish grey below 3.0m	⊠	412	● ▲	SM		■ ◆	3.0
4.0	-moist below 4.0m	⊠	413	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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	REVIEWED BY:	COMPLETE: 00/05/17
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1406
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1750+810 20M LT	ELEVATION: 0.00 (m)

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

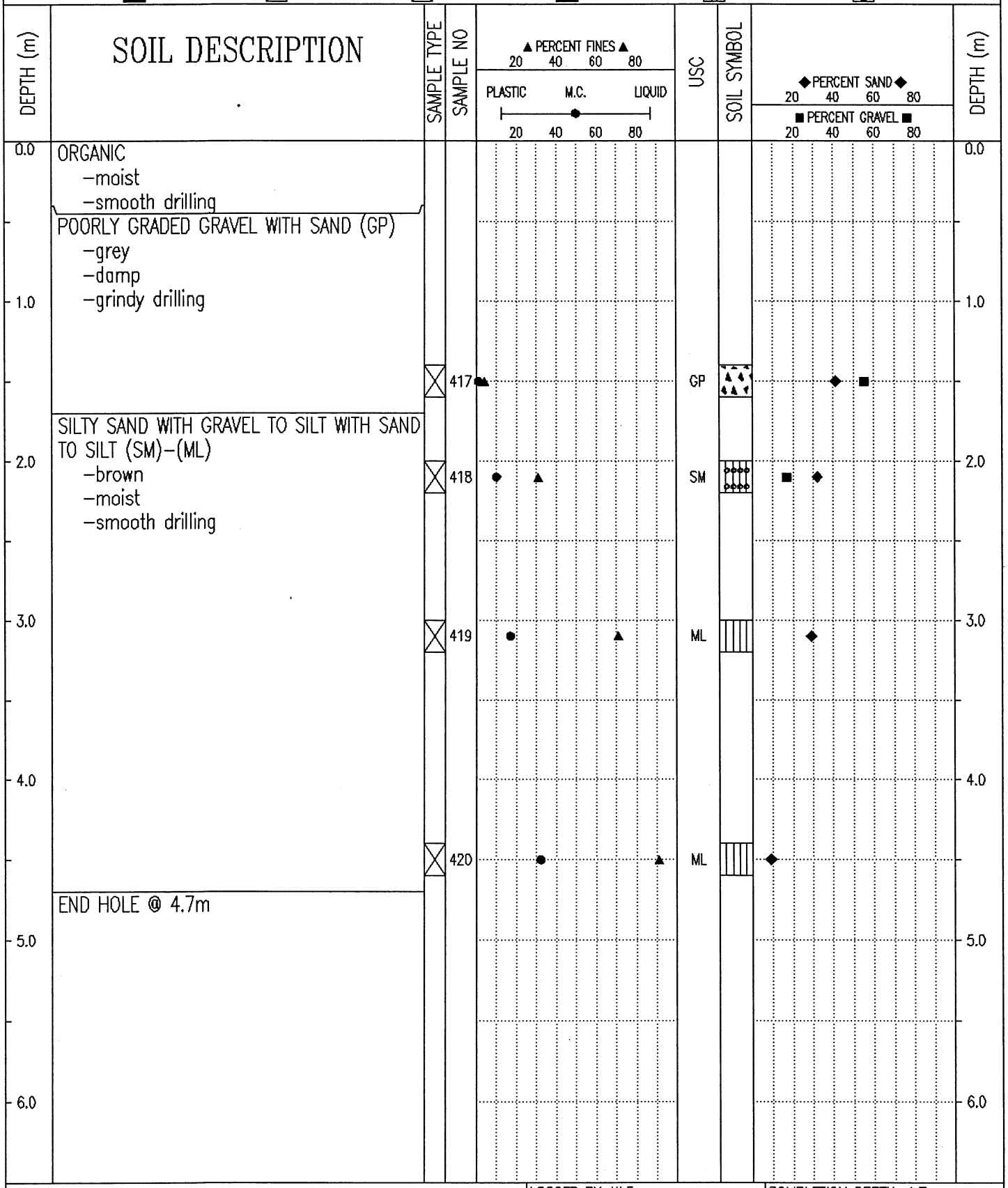


Government of Yukon Transportation Engineering	LOGGED BY: W.E.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/05/17
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1407
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1750+810 20M RT	ELEVATION: 0.00 (m)

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



Government of Yukon Transportation Engineering	LOGGED BY: W.E.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/05/18
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1408
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1750+900 CL	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 -black -smooth drilling							0.0
	SANDY SILT (ML) -olive -moist	⊠	421	● ▲	ML		◆	
1.0	ASH							1.0
	SILT (ML) -brown / grey -frozen (Nb) -grindy drilling below 1.4m -smooth drilling below 1.7m	⊠	422	● ▲	ML		◆	
2.0								2.0
3.0	-brownish olive grey below 3.0m	⊠	423	● ▲	ML		◆	3.0
	SILTY SAND WITH GRAVEL (SM) -dark brownish grey -moist -grindy drilling							
4.0		⊠	424	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1409
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1751+000 CL	ELEVATION: 0.00 (m)

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

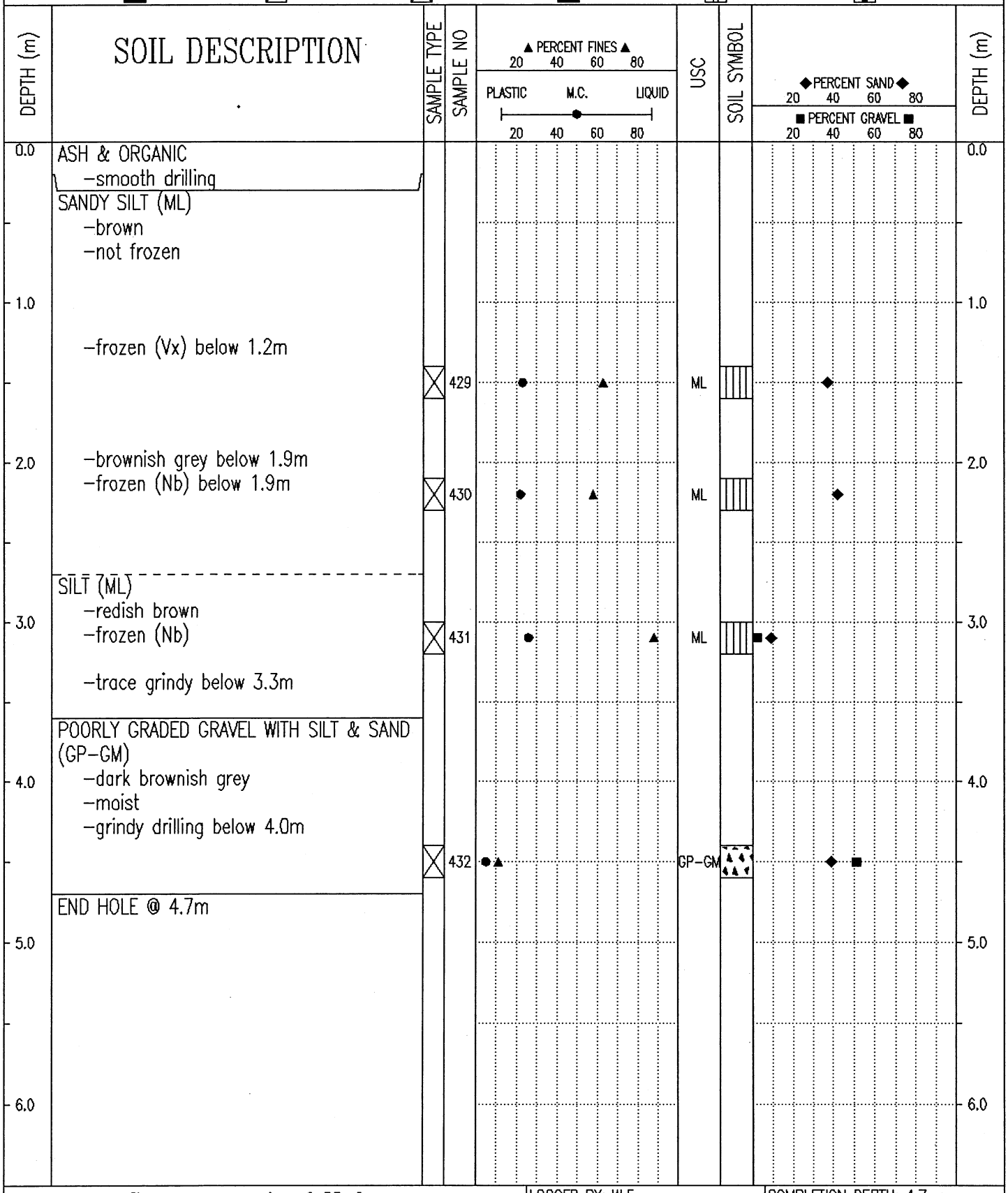
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆PERCENT SAND◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ASH & ORGANIC -smooth drilling							0.0
	SILT WITH SAND (ML) -trace ash -brown -frozen (Nb)	⊠	425		ML			
1.0								1.0
2.0	SANDY SILT TO SILT (ML) -brown -frozen (Nb)	⊠	426		ML			2.0
3.0		⊠	427		ML			3.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brownish grey -moist -grindy drilling							
4.0		⊠	428		GP-GM			4.0
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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	REVIEWED BY:	COMPLETE: 00/05/18
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1410
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1751+100 CL	ELEVATION: 0.00 (m)

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



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	REVIEWED BY:	COMPLETE: 00/05/18
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1411
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1751+210 CL	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 & ORGANIC -smooth & easy drilling							0.0
	SILT & ASH							
	SILT (ML) -brown with grey & red -frozen (Nb)							
1.0		⊠	433	● ▲	ML		◆	1.0
	SILTY SAND (SM) -greyish brown -moist -trace grindy drilling							
2.0		⊠	434	● ▲	SM		■ ◆	2.0
3.0								3.0
	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -dark brownish grey -moist -grindier drilling							
4.0		⊠	435	● ▲	SW-SM		◆	4.0
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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	REVIEWED BY:	COMPLETE: 00/05/18
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1412
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1751+320 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 TO SILT WITH SAND (ML) -brown -smooth drilling -frozen (Nb) below 0.3m							0.0
1.0		⊠	436	● ▲	ML		◆	1.0
2.0	-brown / olive below 1.9m	⊠	437	● ▲	ML		■ ◆	2.0
	SILTY SAND WITH GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND (SM)-(GP-GM) -brownish grey -moist -grindy drilling							
3.0		⊠	438	● ▲	SM		■ ◆	3.0
4.0	-brownish grey below 4.0m							4.0
		⊠	439	● ▲	GP-GM		◆ ■	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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	REVIEWED BY:	COMPLETE: 00/05/18
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1413
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1751+325 15M RT	ELEVATION: 0.00 (m)

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

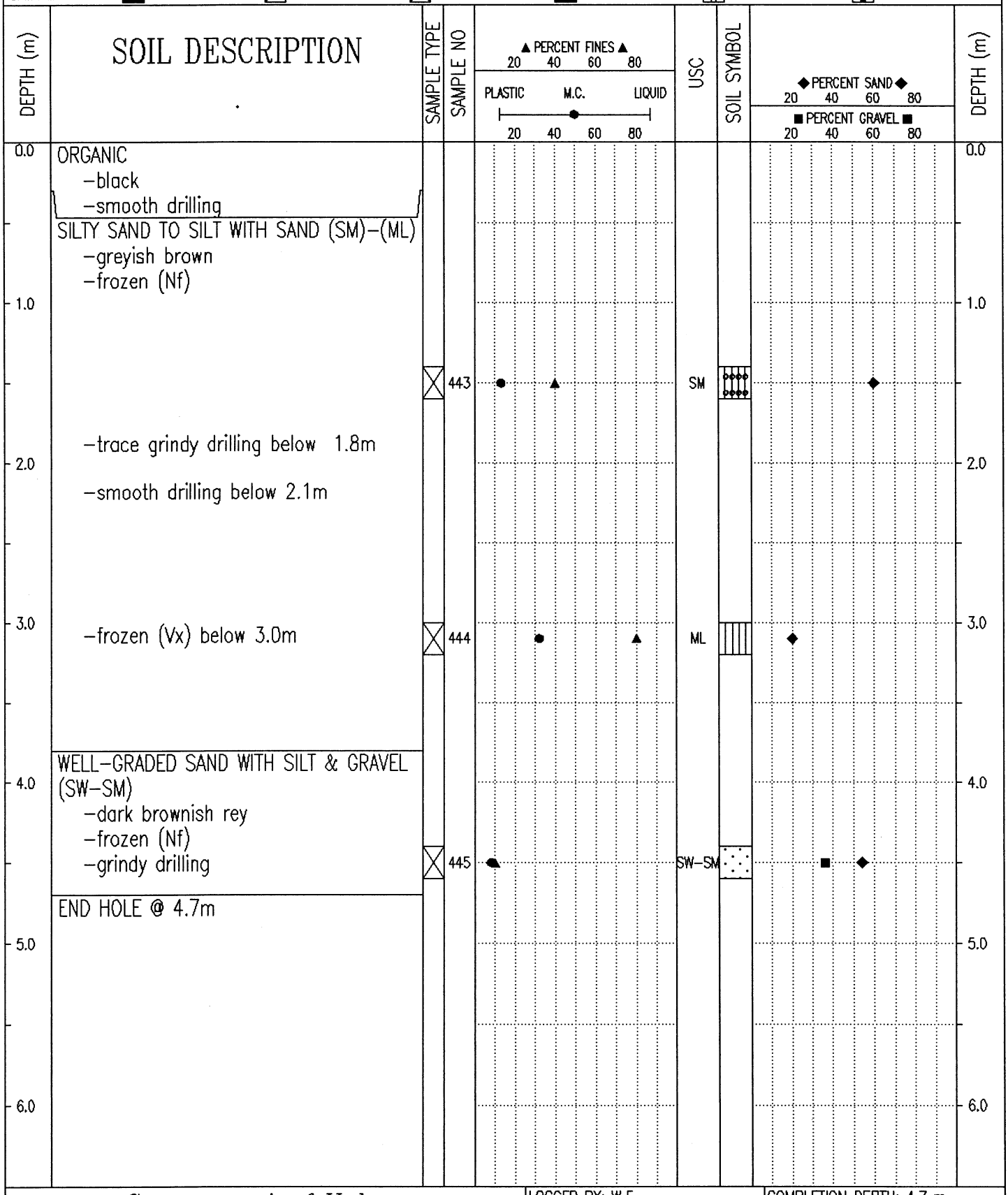
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC & ASH -black -smooth drilling							0.0
	SANDY SILT -no sample taken							
1.0								1.0
	SILTY SAND WITH GRAVEL (SM) -brown -damp -grindy drilling	⊠	440	● ▲	SM		■ ◆	
2.0								2.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -dark brownish grey -frozen (Nf)							
		⊠	441	●	GP-GM		◆ ■	
3.0								3.0
4.0								4.0
		⊠	442	●	GP-GM		◆ ■	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: W.E.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/05/18
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01/01/15 12:03PM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1414
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1751+425 5M RT	ELEVATION: 0.00 (m)

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



Government of Yukon Transportation Engineering	LOGGED BY: W.E.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/05/18
	Fig. No:	Page 1 of 1

03/12/09 03:15PM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1415
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1751+525 CL	ELEVATION: 0.00 (m)

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

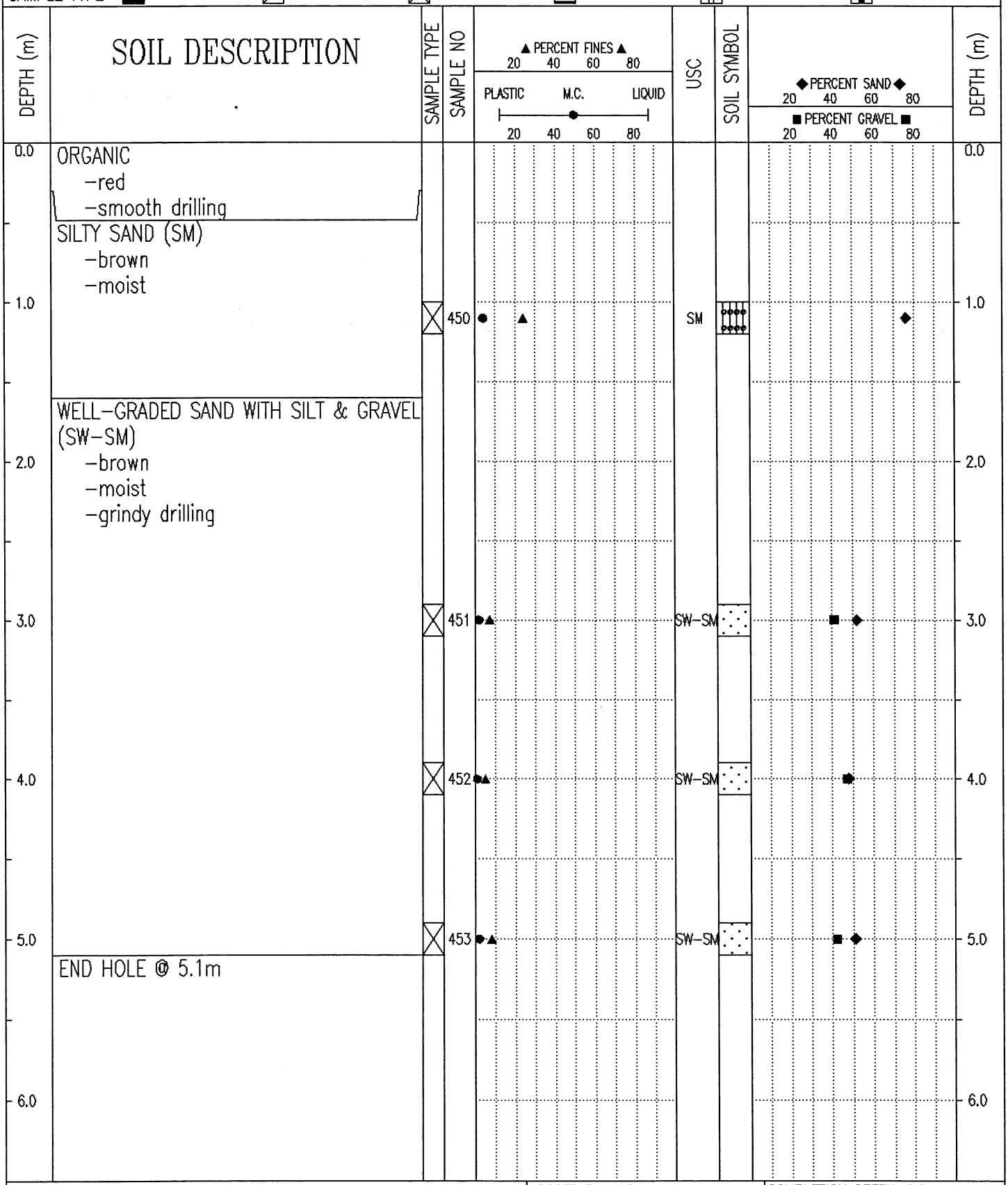
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC -black -smooth easy drilling							0.0
	ORGANIC & SILT							
	SILTY SAND (SM) -greyish brown -moist	⊠	446	● ▲	SM		■ ◆	
1.0								1.0
	SANDY SILT (ML) -brown with red -frozen (Nb)	⊠	447	● ▲	ML		◆	
2.0								2.0
	SILTY SAND WITH GRAVEL (SM) -brown -frozen (Nf)							
3.0		⊠	448	● ▲	SM		■ ◆	3.0
4.0								4.0
	-moist below 4.5m	⊠	449	● ▲	SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: W.E.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/05/18
	Fig. No:	Page 1 of 1

01/01/15 12:03PM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1416
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1751+625 CL	ELEVATION: 0.00 (m)

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



Government of Yukon Transportation Engineering	LOGGED BY: W.E.	COMPLETION DEPTH: 5.2 m
	REVIEWED BY:	COMPLETE: 00/05/18
	Fig. No:	Page 1 of 1

01/01/15 12:03PM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1417
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1751+675 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	SURFACE WATER ORGANIC -smooth drilling							0.0
	SILTY SAND WITH GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND TO WELL-GRADED SAND WITH SILT & GRAVEL (SM)-(GP-GM)-(SW-SM) -olive brown -free water -grindier below 1.3m	⊠	454	◆ ■ ◆	SM			
1.0								1.0
2.0	-saturated below 2.0m	⊠	455	◆ ■	GP-GM		◆ ■	2.0
3.0	-dark brownish grey below 3.0m -moist below 3.0m -contaminated with water below 3.0m	⊠	456	◆	SW-SM		■ ◆	3.0
	END HOLE @ 3.2m							
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: W.E.	COMPLETION DEPTH: 3.2 m
REVIEWED BY:	COMPLETE: 00/05/18
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01/01/26 09:04AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 544-1418
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1751+690 20M RT	ELEVATION: 0.00 (m)

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

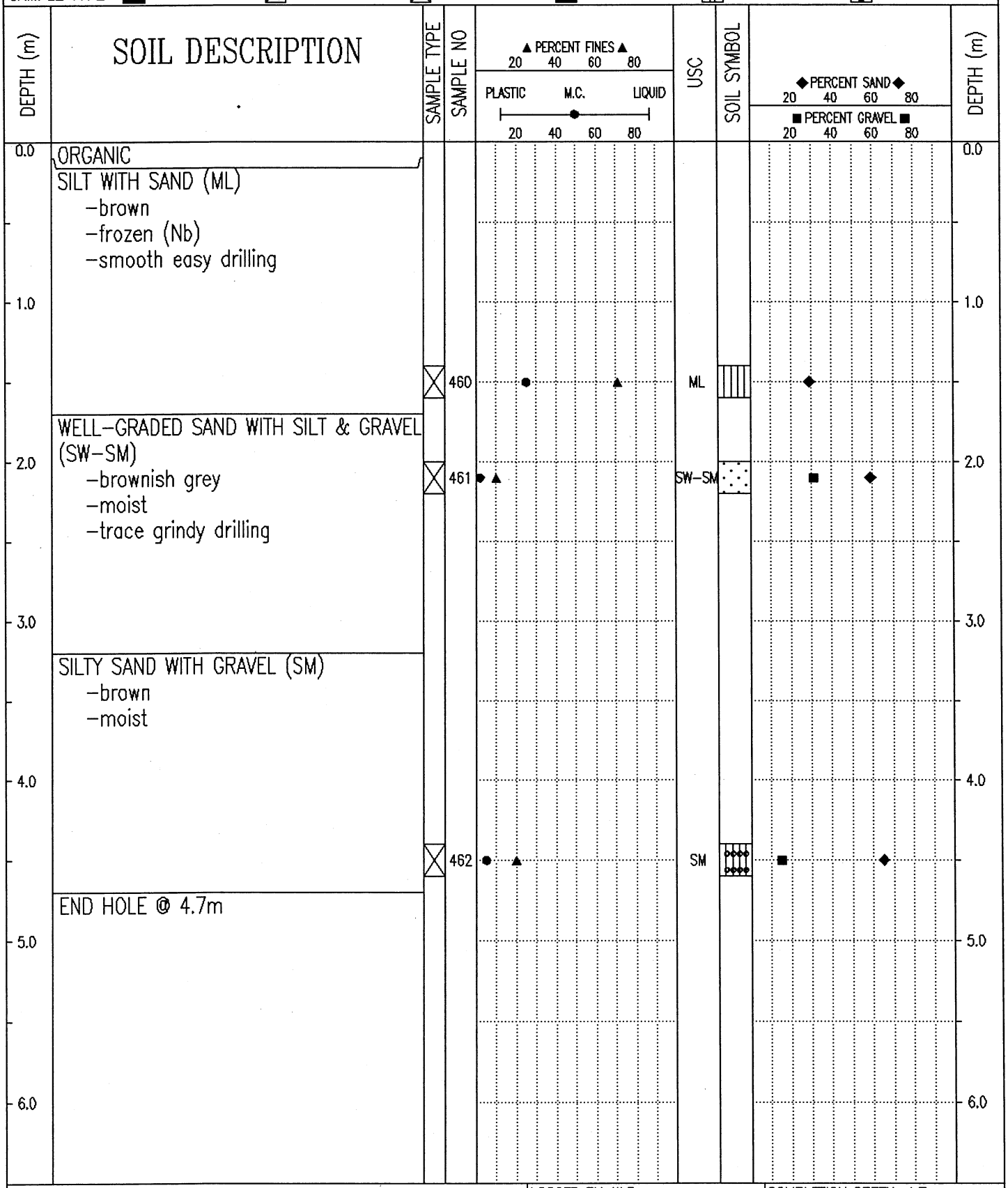
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFACE WATER ORGANIC -black -smooth drilling							0.0
	SILTY SAND WITH GRAVEL (SM) -olive brown -wet	⊠	457	● ▲	SM		●	
1.0	WELL-GRADED SAND WITH SILT & GRAVEL TO SILTY SAND (SW-SM)-(SM) -olive brown -wet -contaminated with water -grindy drilling							1.0
2.0		⊠	458	●	SW-SM		■ ◆	2.0
3.0	-dark brownish grey below 3.0m	⊠	459	● ▲	SM		■ ◆	3.0
	END HOLE @ 3.4m							
4.0								4.0
5.0								5.0
6.0								6.0

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	REVIEWED BY:	COMPLETE: 00/05/18
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 545-1419
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1751+795 15M LT	ELEVATION: 0.00 (m)

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

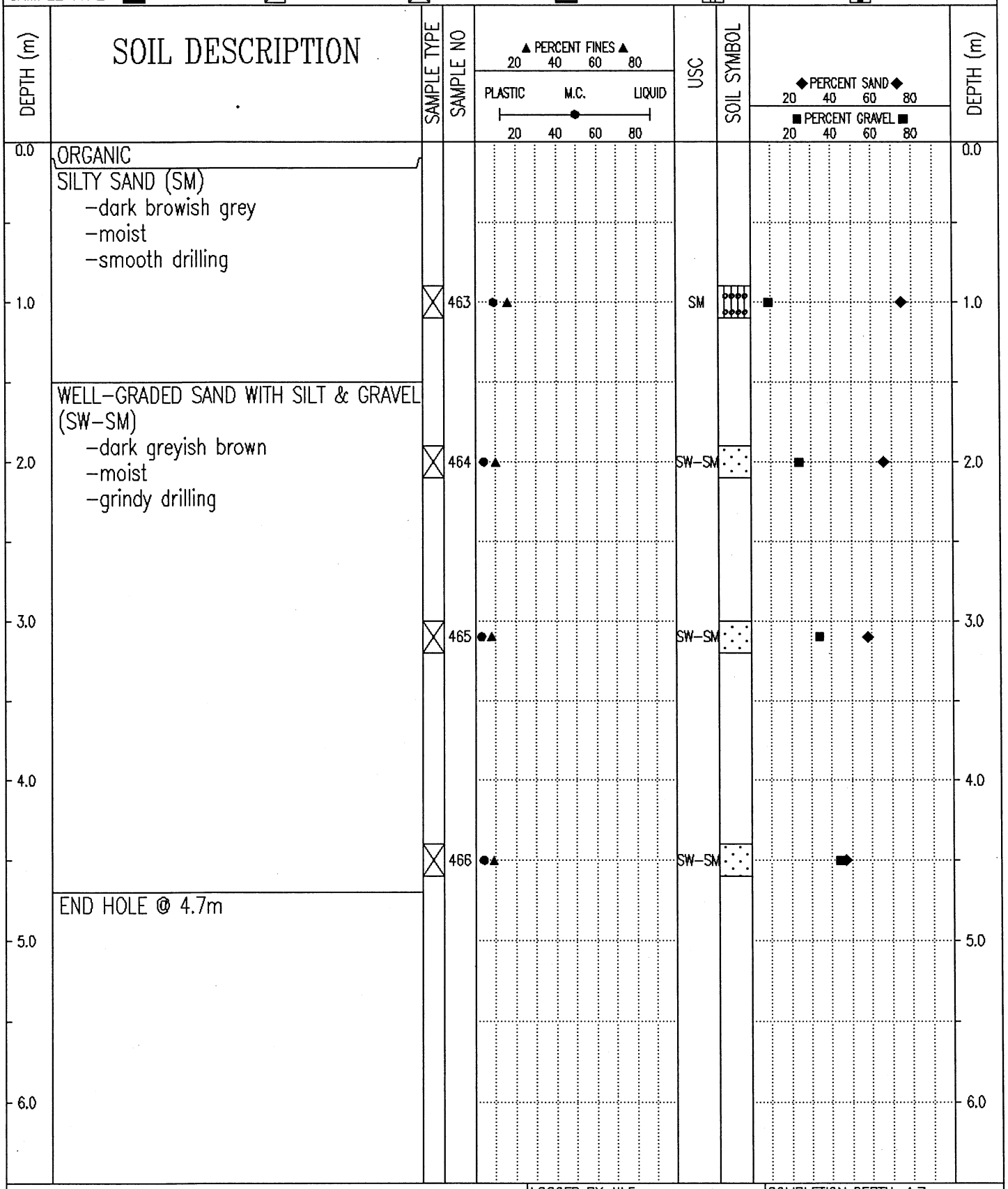


Government of Yukon Transportation Engineering	LOGGED BY: W.E.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/05/19
	Fig. No:	Page 1 of 1

01/01/29 11:55AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 545-1420
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1751+810 20M RT	ELEVATION: 0.00 (m)

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



Government of Yukon Transportation Engineering	LOGGED BY: W.E.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/05/19
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 545-1421
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1751+900 CENTRELINE	ELEVATION: 0.00 (m)

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

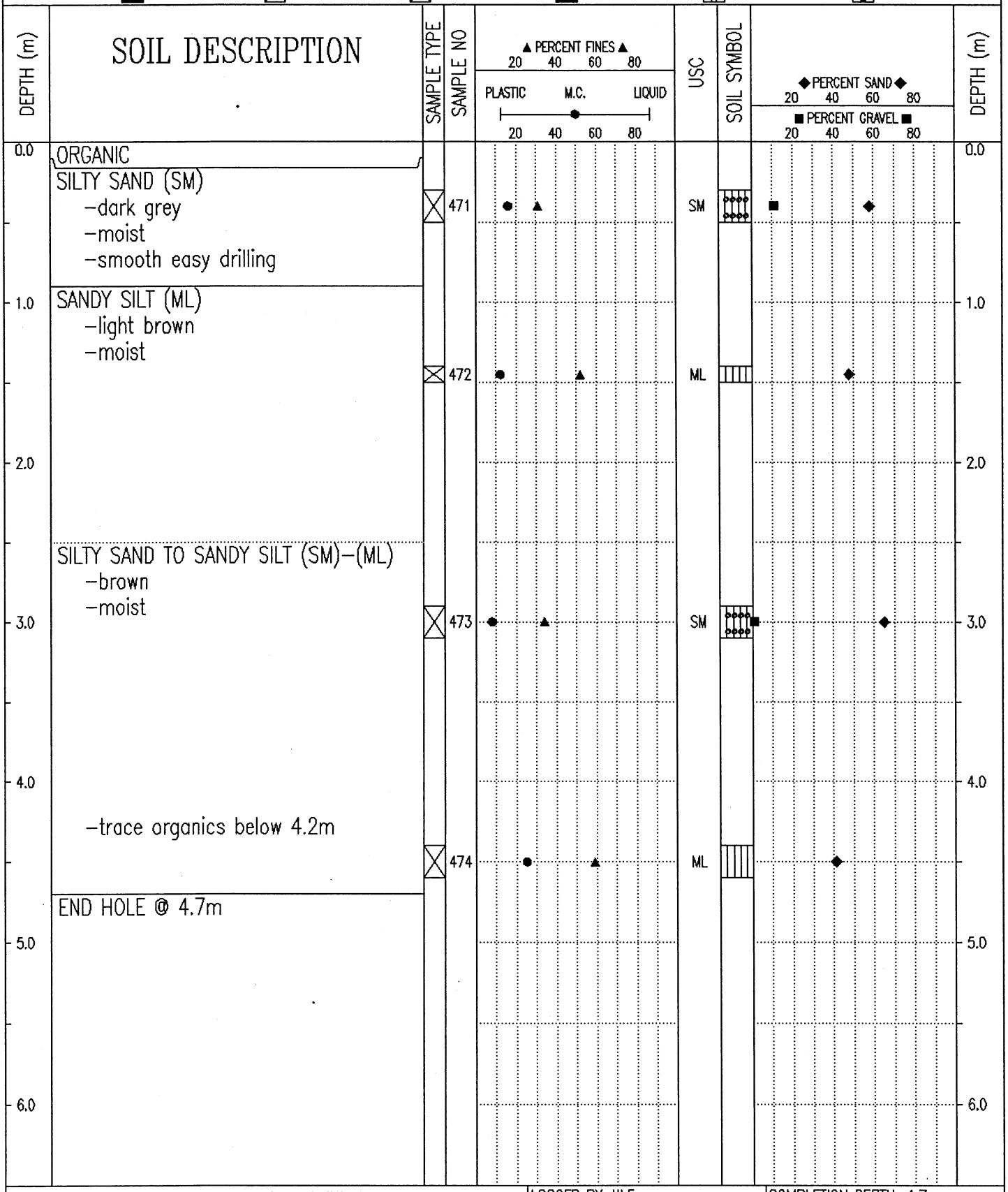
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SAND -trace gravel -dark grey -wet	⊠	467	● ▲	ML	▥	■ ◆	
1.0	SANDY SILT (ML) -tan -moist -smooth easy drilling							1.0
	SILTY SAND (SM) -brown -moist	⊠	468	● ▲	SM	▨	■ ◆	
2.0								2.0
	SANDY SILT (ML) -brown -moist -trace organic	⊠	469	● ▲	ML	▥	■ ◆	
3.0								3.0
4.0	-trace grindy drilling below 4.0m							4.0
		⊠	470	● ▲	ML	▥	■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: W.E.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/05/19
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 545-1422
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1751+970 15M LT	ELEVATION: 0.00 (m)

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



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	REVIEWED BY:	COMPLETE: 00/05/19
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 545-1423
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1752+020 20M 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 WITH GRAVEL (SM) -dark grey -moist -trace grindy	⊠	475	● ▲	SM		■ ◆	
1.0	SANDY SILT (ML) -tan -damp -smooth drilling	⊠	476	● ▲	ML		■ ◆	1.0
	WELL-GRADED SAND WITH SILT & GRAVEL TO SILTY GRAVEL WITH SAND (SW-SM)-(GM) -brown -moist -grindy drilling							
2.0								2.0
3.0		⊠	477	● ▲	SW-SM		■ ◆	3.0
4.0								4.0
		⊠	478	● ▲	GM		◆ ■	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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REVIEWED BY:	COMPLETE: 00/05/19
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 545-1424
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1752+125 CENTRELINE	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
	ORGANIC & SAND							
	POORLY GRADED GRAVEL WITH SILT & SAND TO POORLY GRADED SAND WITH SILT AND GRAVEL (GP-GM)-(SW-SM) -light brownish grey -damp -grindy drilling							
1.0		⊠	479	● ▲	GP-GM		◆ ■	1.0
2.0								2.0
	-brown below 1.8m	⊠	480	● ▲	SW-SM		◆	
3.0								3.0
	SILTY SAND WITH GRAVEL (SM) -brown -moist							
4.0		⊠	481	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: W.E.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/05/19
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 545-1425
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1752+200 CENTRELINE	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 AND SAND -wet							0.0
	WELL-GRADED SAND WITH SILT & GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND TO WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)-(GP-GM)-(SW-SM) -dark brownish grey -moist -grindy							
1.0		⊠	482	● ▲	SW-SM		■ ◆	1.0
2.0								2.0
	-dark greyish brown below 2.8m	⊠	483	▲	GP-GM		◆ ■	
3.0								3.0
4.0		⊠	483A	● ▲	SW-SM		■ ◆	4.0
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

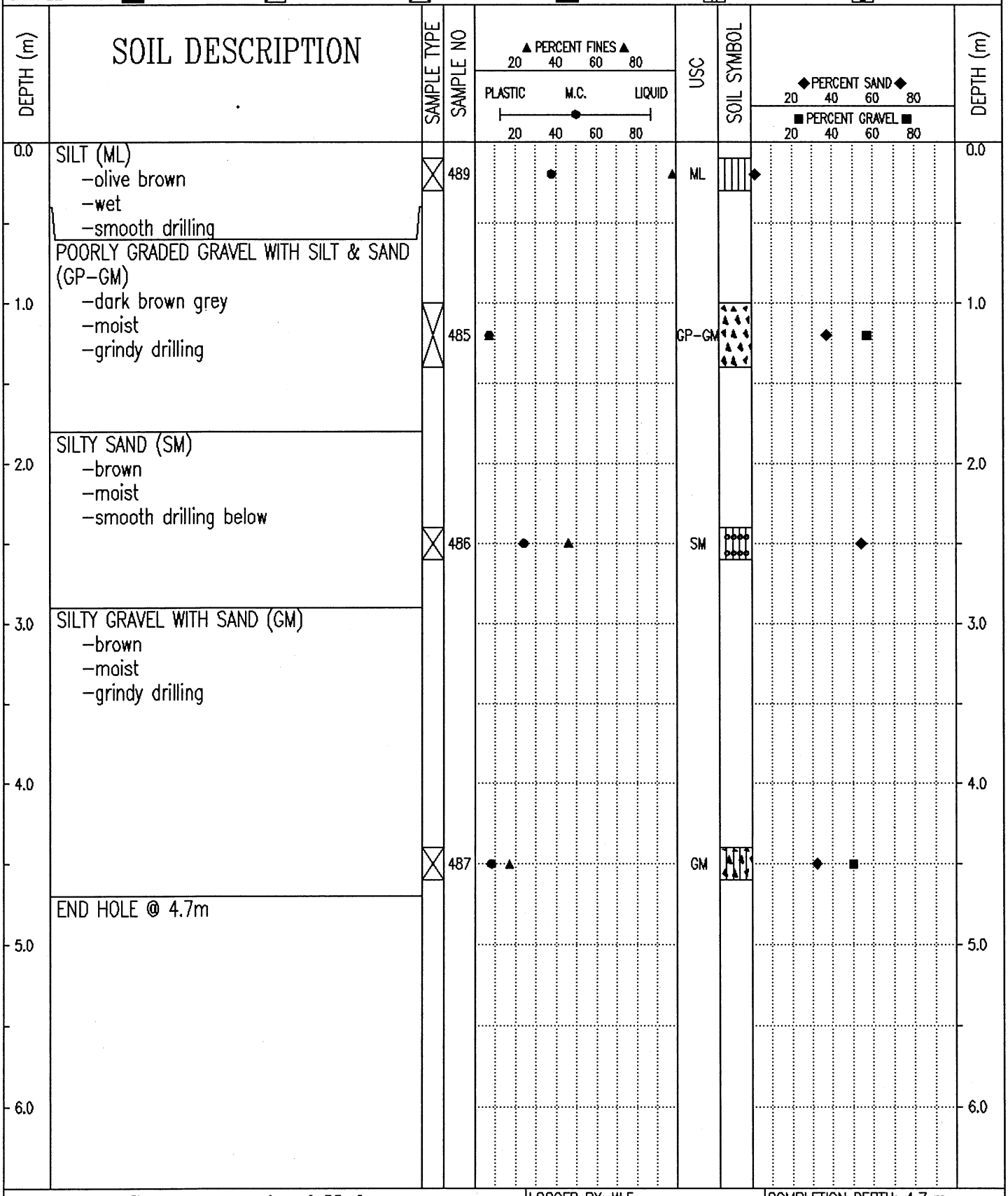
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LOGGED BY: W.E.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/05/19
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 545-1426
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1752+310 15M RT	ELEVATION: 0.00 (m)

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

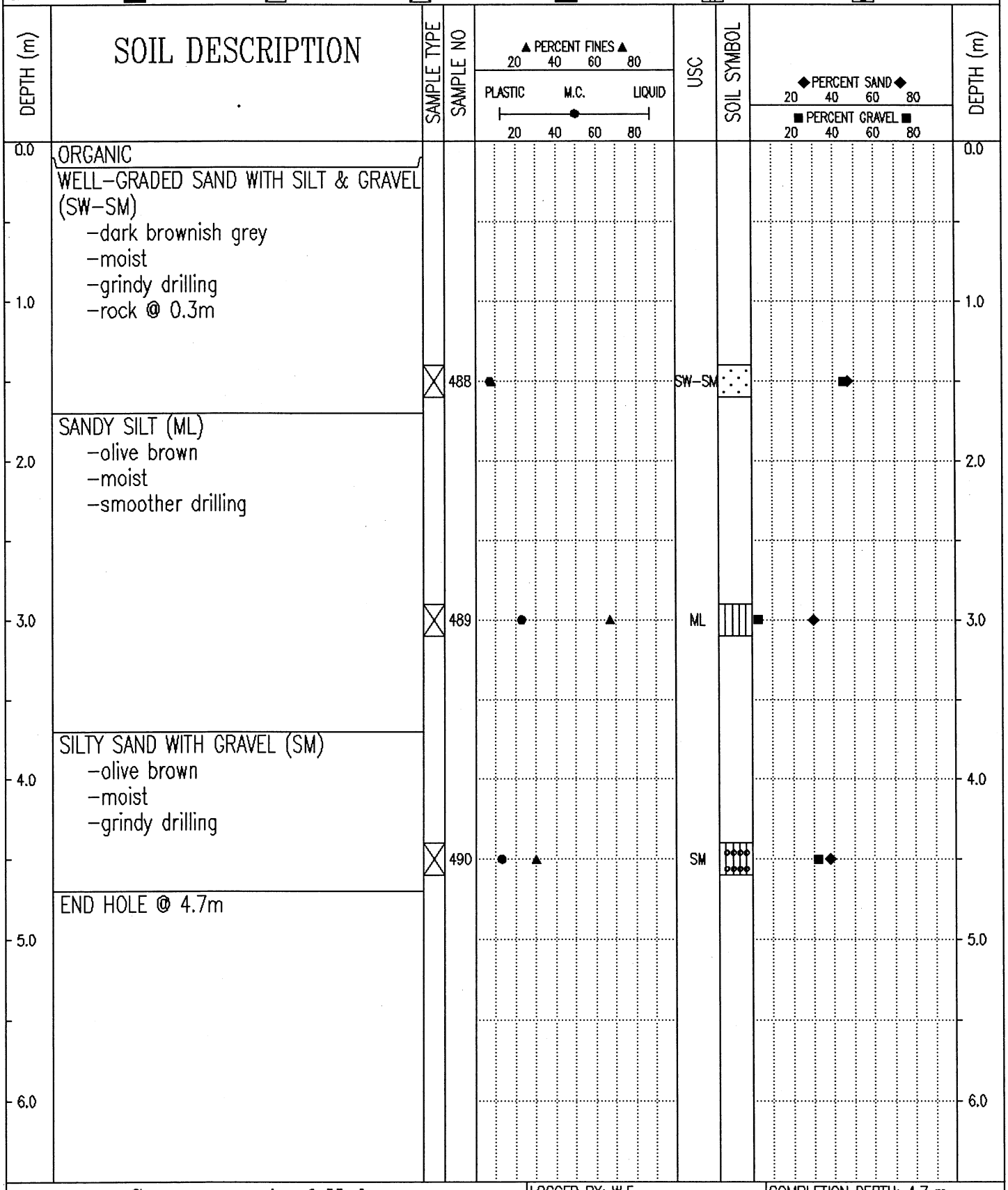


Government of Yukon Transportation Engineering	LOGGED BY: W.E.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/05/19
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 545-1427
ENGINEERNG CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B-40L	LOCATION: 1752+310 15M LT	ELEVATION: 0.00 (m)

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



Government of Yukon Transportation Engineering	LOGGED BY: W.E.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/05/19
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1428
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1752+425 CENTRELINE	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 TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM)							
	-grey							
	-damp							
	-grindy drilling							
1.0	-maximum 50mm material	⊠	491	▲	GP		◆ ■	1.0
2.0								2.0
3.0		⊠	492	▲	GP-GM		◆ ■	3.0
	TRACE OF SAND ON AUGER ON RETRIEVAL							
	-easier drilling							
	-no sample							
4.0								4.0
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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LOGGED BY: D.T	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/05/30
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1429
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1752+525 CENTRELINE	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 GRAVEL -trace of silt -grey -moist -maximum 25mm material -grindy drilling	⊠	493	●				
1.0								1.0
	GRAVELLY SILTY SAND -light brown -damp -smooth drilling	⊠	494	●				
2.0								2.0
3.0		⊠	495	●				3.0
4.0								4.0
	SILTY SANDY GRAVEL -brown -moist -maximum 50mm material -grindy drilling	⊠	496	●				
5.0								5.0
	END HOLE @ 4.7m -all samples for this hole were lost.							
6.0								6.0

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	REVIEWED BY:	COMPLETE: 00/05/30
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1430
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1752+625 CENTRELINE	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 -brown -moist -smooth drilling	⊠	497	●				
1.0	SANDY GRAVEL -some silt -brown -damp -maximum 50mm material -grindy drilling							1.0
		⊠	498	●				
2.0								2.0
	GRAVELLY SAND -brown -moist -easier drilling							
3.0								3.0
4.0								4.0
		⊠	499	●				
	END HOLE @ 4.7m -all samples for this hole were lost.							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/05/30
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1431
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1752+775 CENTRELINE	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 -some organic -light brown -damp -lost sample # 500	⊠	500	●				
1.0								1.0
	SILTY SAND WITH GRAVEL TO WELL-GRADED SAND WITH SILT & GRAVEL (SM)-(SW-SM) -grey -damp -maximum 50mm material -grindy drilling	⊠	501	● ▲	SM		■ ◆	
2.0								2.0
		⊠	502	● ▲	SW-SM		■ ◆	
3.0								3.0
4.0								4.0
		⊠	503	● ▲	SW-SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1432
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1752+810 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	SAND -trace silt -trace +5mm material -brown -moist -smooth drilling							0.0
1.0	WELL-GRADED SAND WITH SILT & GRAVEL TO SILTY SAND WITH GRAVEL (SW-SM)-(SM) -brown -moist	⊠	504	●	SW-SM		■ ◆	1.0
2.0	-maximum 50mm material -more gravels @ 1.8m							2.0
3.0	-trace organic @ 2.5m -lost sample # 505	⊠	505	●				3.0
4.0		⊠	506	● ▲	SM		■ ◆	4.0
5.0	END HOLE @ 4.7m Note: Test hole @ culvert site							5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1433
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1752+820 20M 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) -brown -damp -some +5mm material	⊠	507	● ▲	SM		■ ◆	
1.0								1.0
2.0								2.0
	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) -brown -moist -grindy drilling	⊠	508	● ▲	SM		■ ◆	
3.0								3.0
4.0								4.0
		⊠	509	● ▲	GM		◆ ■	
	END HOLE @ 4.7m Note: Test hole @ culvert site							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1434
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1752+915 20M 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	WELL-GRADED SAND WITH GRAVEL (SW) -brown -moist -maximum 100mm material -grindy drilling							0.0
1.0		⊠	510	●	SW		■ ◆	1.0
2.0								2.0
3.0								3.0
4.0	-more silt below 3.6m -saturated below 3.6m -easier drilling below 3.6m							4.0
	-lost sample # 511	⊠	511	●				
5.0	END HOLE @ 4.7m Note: Test hole @ culvert site. Copper Joe Creek overflow channel.							5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1435
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1752+915 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	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -moist -maximum 100mm material -grindy drilling							0.0
1.0	-lost sample # 512	⊠	512	●				1.0
2.0								2.0
3.0		⊠	513	▲	GP-GM		◆ ■	3.0
4.0	-more silt below 4.0m -wet below 4.0m -lost sample # 514	⊠	514	●				4.0
5.0	END HOLE @ 4.7m Note: Test Hole @ culvert site. Copper Joe Creek overflow channel							5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1436
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1752+950 Centreline	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 drilling							0.0
	SILTY SAND -redish brown -moist							
1.0	SILTY SAND WITH GRAVEL (SM) -light brown -damp -grindy drilling	⊠	515	● ▲	SM		■ ◆	1.0
2.0	-hard slow grindy drilling below 2.0m							2.0
3.0		⊠	516	● ▲	SM		■ ◆	3.0
4.0	-very dense below 4.0m							4.0
5.0		⊠	517	● ▲	SM		■ ◆	5.0
	END HOLE @ 4.7m							
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1437
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1753+050 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 -brown - black -frozen (Vx) -smooth hard drilling							0.0
1.0								1.0
2.0	SILT TO SILTY SAND WITH GRAVEL (ML)-(SM) -with ice -organic contamination -brown -trace +5mm material -grindy drilling -less +5mm material below 2.4m -smooth hard drilling below 2.4m	⊠	518	● ▲	ML	▥	■ ◆	2.0
3.0	-frozen (Vx) -lost sample # 519	⊠	519	●				3.0
4.0	-more +5mm material below 3.5m -grindy drilling below 3.5m	⊠	520	● ▲	SM	▥	■ ◆	4.0
5.0	END HOLE @ 4.7m							5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1438
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1753+100 20M 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 SILTY SAND WITH GRAVEL TO SANDY SILT (ML)-(SM)-(ML) -brown -frozen (Nb) -smooth hard drilling							
1.0		⊠	521	● ▲	ML		■ ◆	1.0
	-some +5mm material below 1.8m -frozen (Nf) below 1.8m -grindy drilling below 1.8m							
2.0		⊠	522	● ▲	SM		■ ◆	2.0
3.0								3.0
4.0								4.0
		⊠	523	● ▲	ML		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1439
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1753+150 Centreline	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 SAND WITH GRAVEL TO SILTY SAND (ML)-(SM)-(SM) -brown -moist -some +5mm material -grindy drilling below 0.9m	⊠	524	● ▲	ML		■ ◆	
1.0								1.0
2.0								2.0
	-more +5mm material below 2.5m							
3.0		⊠	525	● ▲	SM		■ ◆	3.0
4.0								4.0
		⊠	526	● ▲	SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

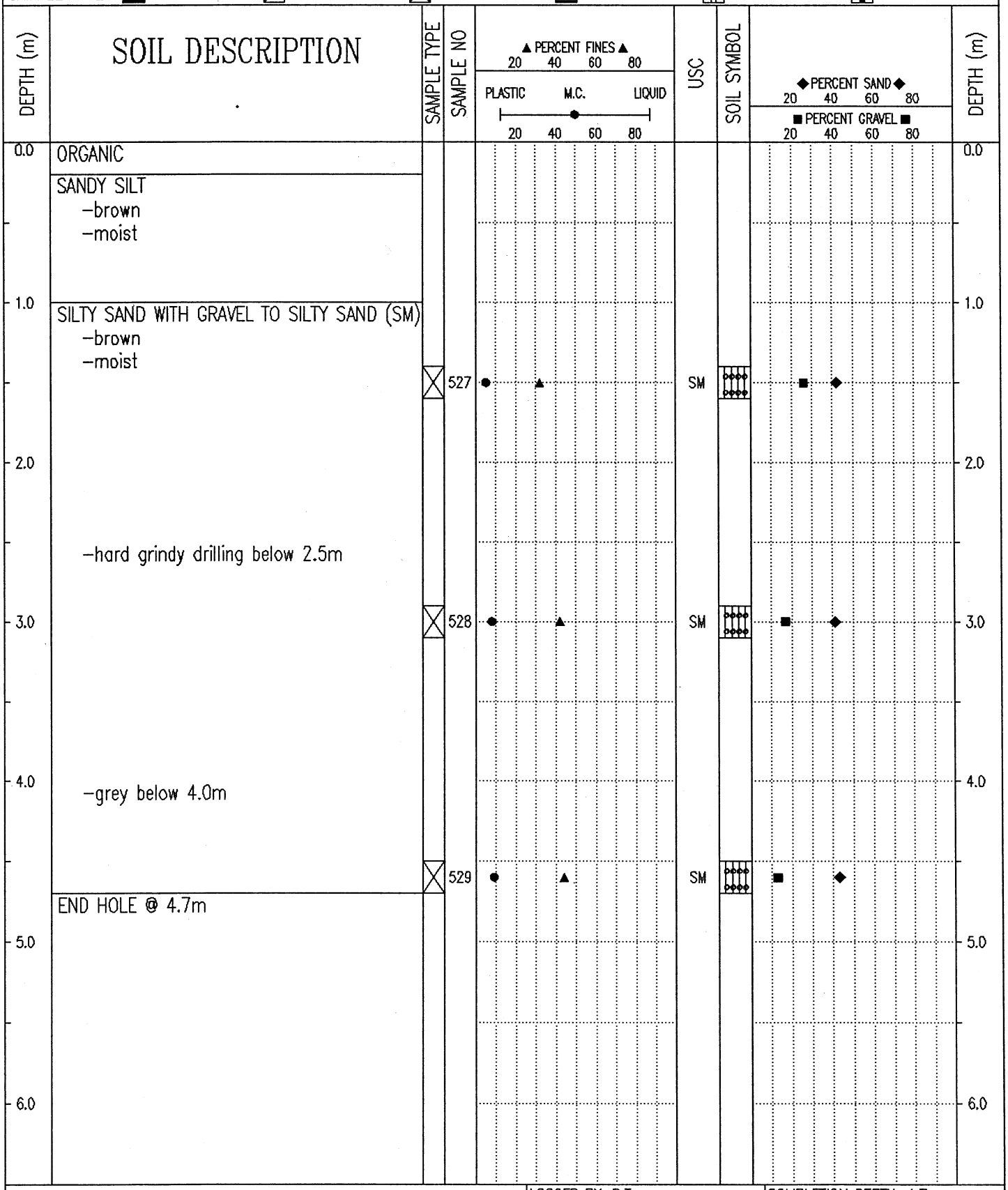
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1440
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1753+250 Centreline	ELEVATION: 0.00 (m)

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



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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1441
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1753+350 Centreline	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 – frozen 0.1–0.2					0.0
	SANDY SILT –brown –moist					
1.0	SILTY SAND WITH GRAVEL (SM) –grey –moist –grindy drilling	⊠	530	SM		1.0
2.0	–hard grindy drilling below 2.4m					2.0
3.0	–dense below 3.0m	⊠	531	SM		3.0
4.0		⊠	532	SM		4.0
	END HOLE @ 4.7m					
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

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1442
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1753+600 Centreline	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 -brown -moist -some +5mm material							
1.0	SILTY SAND TO SILTY SAND WITH GRAVEL (SM) -grey -moist -some +5mm material -grindy drilling	⊠	533	● ▲	SM		■ ◆	1.0
2.0								2.0
3.0	-dense below 2.8m -more +5mm material below 2.8m	⊠	534	● ▲	SM		■ ◆	3.0
4.0								4.0
		⊠	535	◆ ▲	SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1443
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1753+700 Centreline	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 -brown -moist -trace +5mm material							
1.0	SILTY SAND (SM) -olive -moist -grindy drilling -lost sample # 536	⊠	536	●				1.0
2.0								2.0
	-dense below 2.5m							
3.0		⊠	537	● ▲	SM		■ ◆	3.0
4.0								4.0
		⊠	538	● ▲	SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1444
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1753+800 Centreline	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 -trace sand -olive -moist							
1.0	SILTY SAND (SM) -olive -moist -grindy drilling	⊠	539	●				1.0
2.0								2.0
	-more +5mm material below 2.5m -dense below 2.5m	⊠	540	● ▲	SM	▥	■ ◆	
3.0								3.0
4.0								4.0
		⊠	541	●				
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1445
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1753+900 Centreline	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 SILT -some sand -olive -moist							0.0
1.0	GRAVELLY SANDY SILT -olive -moist -grindy drilling	⊠	542	●				1.0
2.0								2.0
	-dense below 2.6m							
3.0		⊠	543	●				3.0
4.0								4.0
		⊠	544	●				
5.0	END HOLE @ 4.7m -all samples for this hole were lost							5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1446
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1754+000 20M 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 GRAVEL -trace silt -brown -hard slow rough grindy drilling -free water below .4m							0.0
1.0	-lost sample # 545	⊠	545	●				1.0
2.0								2.0
3.0	END HOLE @ 3.0m -refusal Note: Test hole in Copper Joe Creek main channel							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: D.T	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1447
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1754+000 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	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -brown -grindy drilling -free water @ 0.5m							0.0
1.0		⊠	546	▲	SW-SM		■ ◆	1.0
2.0	-harder drilling below 1.8m -frozen (Nf) below 1.8m -lost sample #547	⊠	547	◆				2.0
3.0	END HOLE @ 3.0M Note: Test hole in Copper Joe Creek main channel							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: D.T	COMPLETION DEPTH: 3.0 m
REVIEWED BY:	COMPLETE: 00/05/31
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1448
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1754+050 Centreline	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 ASH SANDY SILT -brown -moist -trace +5mm material							0.0
1.0	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GM)-(SM) -brown -moist -grindy drilling	⊠	548	●				1.0
2.0	-maximum 25mm material -lost sample # 548 -2nd refusal @ 2.0m - moved 2m upchain -hard slow grindy drilling @ 1.9m -1st refusal @ 2.0m - moved 2m upchain -rock dust on bit							2.0
3.0	-very dense / well consolidated @ 2.8m	⊠	549	● ▲	GM		■	3.0
4.0	-moist to wet below 4.0m	⊠	550	● ▲	SM		■ ◆	4.0
5.0	END HOLE @ 4.5m -refusal - rock dust on bit							5.0
6.0								6.0

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	REVIEWED BY:	COMPLETE: 00/06/01
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1449
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1754+150 Centreline	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				
	ASH				
	SANDY SILT				
	-brown				
	-frozen 0.2-0.4m				
	-trace +5mm material				
1.0	-moist below 0.4m				
	SILTY SAND WITH GRAVEL (SM)				
	-brown				
	-moist	⊠	551		
	-maximum 50mm material				
	-grindy drilling				
2.0	-lost sample # 551				
	-hard slow grindy drilling below 1.8m				
	-very dense material @ 2.8m	⊠	552	SM	▨
3.0					
4.0	END HOLE @ 4.1m				
	-refusal				
	-rock dust of bit				
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) 0.0 1.0 2.0 3.0 4.0 5.0 6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1450
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1754+250 Centreline	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 -some organic -dark brown -moist							
1.0	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) -brown -damp -maximum 25mm material -grindy drilling	⊠	553	● ▲	SM		■ ◆	1.0
2.0	-hard slow grindy drilling below 1.8m							2.0
	-1st refusal @ 2.6m - moved 2m upchain							
3.0	-very dense @ 3.0m -2nd refusal @ 3.1m - moved 2m upchain	⊠	554	● ▲	GM		◆ ■	3.0
4.0								4.0
	END HOLE @ 4.5m -refusal - rock dust on bit							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549–1452
ENGINEERING CAPITAL	KM 1729.6–1787 A/H	Project No: 092–202101–0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1754+315 20M 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 & ORGANIC							
	POORLY GRADED GRAVEL WITH SILT & SAND (GP–GM) –brown –moist –maximum 75mm material –grindy drilling	⊠	558	● ▲	GP–GM		◆ ■	
1.0								1.0
2.0								2.0
		⊠	559	● ▲	GP–GM		◆ ■	
3.0								3.0
4.0	–wet to saturated below 3.9m							4.0
		⊠	560	●	GP–GM		◆ ■	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 549-1451
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1754+325 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
	SANDY SILT WITH ORGANIC -with small gravels -brown -moist							
1.0	SILTY SAND WITH GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND (SM)-(GP-GM) -light brown -damp -maximum 50mm material -grindy drilling	⊠	555	● ▲	SM	▨	➡	1.0
2.0								2.0
3.0		⊠	556	● ▲	GP-GM	▨	◆ ■	3.0
4.0	-saturated below 4.0m							4.0
	-lost sample # 557	⊠	557	●				
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 550-1453
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1754+350 CENTRELINE	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 SILT (ML) -light brown -moist	⊠	561	● ▲	ML	▥	◆	0.0
1.0	SILTY SAND WITH GRAVEL (SM) -light brown -damp -maximum 50mm material -grindy drilling	⊠	562	● ▲	SM	▨	■ ◆	1.0
2.0	-very hard slow grindy drilling below 2.0m							2.0
3.0		⊠	563	● ▲	SM	▨	■ ◆	3.0
	END HOLE @ 3.5m -refusal - moved 2m upchain, replaced bit. -2nd refusal @ 3.2m							
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 550–1454
ENGINEERING CAPITAL	KM 1729.6–1787 A/H	Project No: 092–202101–0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1754+450 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
	SANDY SILT –brown –moist							
1.0	SILTY SAND WITH GRAVEL (SM) –brown –moist –maximum 25mm material –grindy drilling	⊠	564	● ▲	SM		■ ◆	1.0
2.0	–very hard slow grindy drilling below 1.9m							2.0
3.0		⊠	565	● ▲	SM		■ ◆	3.0
4.0	–very dense below 4.0m							4.0
		⊠	566	● ▲	SM		■ ◆	
5.0								5.0
		⊠	567	● ▲	SM		■ ◆	
6.0	END HOLE @ 6.0m							6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 550-1455
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1754+550 CENTRELINE	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 & ORGANIC							
	SILTY SAND WITH GRAVEL (SM) -olive -moist -grindy drilling							
1.0		⊠	568	● ▲	SM		■ ◆	1.0
2.0	-very hard slow grindy drilling							2.0
3.0	-dense below 3.0m	⊠	569	● ▲	SM		■ ◆	3.0
4.0								4.0
		⊠	570	● ▲	SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 550-1456
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1754+680 CENTRELINE	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 -brown -moist							
1.0	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GM)-(SM) -brown -moist -maximum 50mm material -grindy drilling	⊠	571	● ▲	GM		◆ ■	1.0
2.0	-dense below 2.5m							2.0
3.0		⊠	572	● ▲	SM		➡	3.0
4.0								4.0
		⊠	573	● ▲	SM		➡	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 550-1457
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1754+800 CENTRELINE	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 -brown -damp							
1.0	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (SM)-(GM)-(SM) -light brown -moist -grindy drilling	⊠	574	● ▲	SM		■ ◆	1.0
2.0								2.0
	-very dense below 2.5m							
3.0		⊠	575	● ▲	GM		■ ◆	3.0
4.0								4.0
		⊠	576	● ▲	SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 550–1458
ENGINEERING CAPITAL	KM 1729.6–1787 A/H	Project No: 092–202101–0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1755+000 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 ASH SANDY SILT –moist –brown							0.0
1.0	SILTY GRAVEL WITH SAND (GM) –light brown –damp –grindy drilling	☒	577	● ▲	GM		◆ ■	1.0
2.0	POORLY GRADED GRAVEL WITH SILT & SAND TO SILTY SAND WITH GRAVEL (GP–GM)–(SM) –light brown –damp –maximum 50mm material –very hard slow grindy drilling –refusal @ 2.0m – moved 2m upchain							2.0
3.0		☒	578	● ▲	GP–GM		◆ ■	3.0
4.0		☒	579	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.2m –refusal							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 550-1459
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1755+100 CENTRELINE	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 -some sand -frozen (Nf)							
1.0	SILTY SAND WITH GRAVEL TO WELL-GRADED SAND WITH SILT & GRAVEL (SM)-(SW-SM) -brown -frozen (Nf) -maximum 50mm material -grindy drilling	⊠	580	● ▲	SM	▨	■ ◆	1.0
2.0								2.0
3.0		⊠	581	● ▲	SW-SM	▨	■ ◆	3.0
4.0	END HOLE @ 4.0m -refusal							4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 550-1460
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1755+200 CENTRELINE	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 -light brown -moist							
1.0	SILTY GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GM)-(GP-GM) -brown -moist -maximum 50mm material -grindy drilling	⊠	582	● ▲	GM		◆ ■	1.0
2.0	-very slow hard grindy drilling below 1.9m							2.0
3.0		⊠	583	● ▲	GP-GM		◆ ■	3.0
	END HOLE @ 3.7m -refusal - moved 2m upchain -2nd refusal @ 3.4m							
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 550-1461
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1755+300 CENTRELINE	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 ASH SANDY SILT -with organic -brown & black -moist							0.0
1.0	SILTY GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND TO SILTY GRAVEL WITH SAND (GM)-(GP-GM)-(GM) -brown -moist -maximum 50mm material -grindy drilling	⊠	584	● ▲	GM		◆ ■	1.0
2.0								2.0
3.0	-damp below 2.5m -very dense below 2.5m	⊠	585	● ▲	GP-GM		◆ ■	3.0
4.0								4.0
		⊠	586	● ▲	GM		◆ ■	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 550-1462
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1755+400 10M 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 ASH SANDY SILT -brown -moist -some +5mm material							0.0
1.0	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GM)-(SM) -brown -damp -maximum 50mm material -grindy drilling	⊠	587	● ▲	GM		✸	1.0
2.0								2.0
	-very dense below 2.5m							
3.0		⊠	588	● ▲	GM		◆ ■	3.0
4.0								4.0
		⊠	589	● ▲	SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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LOGGED BY: D.T	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/02
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 550–1463
ENGINEERING CAPITAL	KM 1729.6–1787 A/H	Project No: 092–202101–0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1755+500 CENTRELINE	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 ASH SANDY SILT –some organic –trace +5mm material							0.0
1.0	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (GM)–(SM)–(GM) –brown –damp –maximum 50mm material –grindy drilling	☒	590	● ▲	GM		◆ ■	1.0
2.0	–very hard slow grindy drilling below 2.2m –very dense below 2.6m							2.0
3.0		☒	591	● ▲	SM		■ ◆	3.0
4.0								4.0
		☒	592	● ▲	GM		◆ ■	
	END HOLE @ 4.7 M							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/06/02
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 550-1464
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1755+600 CENTRELINE	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 -brown -damp							
1.0	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GM)-(SM) -brown -damp -maximum 50mm material -grindy drilling	⊠	593	● ▲	GM		◆ ■	1.0
2.0	-very hard slow grindy drilling below 2.0m							2.0
3.0	-dense below 3.0m	⊠	594	● ▲	GM		◆ ■	3.0
4.0								4.0
	-moist below 4.5m	⊠	596	● ▲	SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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LOGGED BY: D.T	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/02
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 550-1465
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1755+700 CENTRELINE	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 ASH SANDY SILT -trace +5mm material -brown -moist							0.0
1.0	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GM)-(SM) -brown -damp -maximum 50mm material -very dense -grindy drilling -very hard slow grindy drilling below 1.4m	⊠	596	● ▲	GM		■	1.0
2.0								2.0
3.0		⊠	597	● ▲	GM		◆ ■	3.0
4.0								4.0
		⊠	598	● ▲	SM		■ ◆	
5.0	END HOLE @ 4.6m -refusal							5.0
6.0								6.0

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LOGGED BY: D.T	COMPLETION DEPTH: 4.6 m
REVIEWED BY:	COMPLETE: 00/06/02
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1466
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1755+800 CENTRELINE	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
	ASH							
	SAND, SILT & ORGANIC							
	SILTY SAND WITH GRAVEL (SM) -light brown -damp -grindy drilling							
1.0		⊠	599	● ▲	SM		◆	1.0
2.0	-brown below 2.0m -moist below 2.0m -maximum 25mm material below 2.0m -dense below 2.0m							2.0
3.0		⊠	600	● ▲	SM		◆	3.0
4.0								4.0
		⊠	601	● ▲	SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1467
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1755+900 CENTRELINE	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 ASH SAND, SILT & ORGANIC							0.0
	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) -brown -damp -grindy drilling	⊠	602	● ▲	SM	▨	■ ◆	
1.0								1.0
2.0	-moist below 2.1m -maximum 50mm material below 2.1m							2.0
3.0		⊠	603	● ▲	SM	▨	■ ◆	3.0
4.0								4.0
		⊠	604	● ▲	GM	▨	●	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1468
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1756+000 CENTRELINE	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
	SAND, SILT & ORGANIC -some +5mm material -moist							
	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GM)-(SM) -brown -moist -maximum 25mm material -grindy drilling -lost sample # 605	⊠	605	●				
1.0								1.0
2.0								2.0
	-dense below 2.5m							
3.0		⊠	606	● ▲	GM		◆ ■	3.0
4.0								4.0
		⊠	607	● ▲	SM		■	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1469
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1756+100 CENTRELINE	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 ORGANIC -some +5mm material -moist							
1.0	SILTY SAND WITH GRAVEL (SM) -brown -moist -maximum 25mm material -grindy drilling	⊠	608	● ▲	SM		■ ◆	1.0
2.0								2.0
3.0		⊠	609	● ▲	SM		■ ◆	3.0
4.0	END HOLE @ 3.7m -refusal							4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 3.7 m
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1470
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1756+200 CENTRELINE	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 ORGANIC -moist							
1.0	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GM)-(SM) -brown -damp -grindy drilling	⊠	610	● ▲	GM		◆ ■	1.0
2.0								2.0
3.0		⊠	611	● ▲	SM		■	3.0
4.0		⊠	612	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1471
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1756+300 CENTRELINE	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 & SILT -brown -satuarted							0.0
	SILTY SAND WITH GRAVEL TO SILTY SAND (SM) -brown -frozen (Nf) -grindy drilling							
1.0								1.0
			613	● ▲	SM		■ ◆	
2.0								2.0
	-refusal @ 2.7m - moved 2m upchain -moist to wet below 2.7m							
3.0			614	● ▲	SM		■ ◆	3.0
4.0	END HOLE @ 4.0m -refusal # 2							4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1472
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1756+400 CENTRELINE	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 -saturated							0.0
	SAND, SILT & ORGANIC -brown -moist							
1.0	SILTY SAND WITH GRAVEL TO SILTY SAND (SM) -brown -moist -maximum 25mm material -grindy drilling							1.0
		⊠	615	● ▲	SM	▨	■ ◆	
2.0	-refusal @ 1.8m - moved 2m upchain							2.0
	-frozen (Nb) below 2.5m							
3.0		⊠	616	● ▲	SM	▨	■ ◆	3.0
4.0	END HOLE @ 4.0m -refusal							4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1473
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1756+542 CENTRELINE	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 ASH SAND,SILT & ORGANIC							0.0
	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GM)-(SM) -brown -damp -grindy drilling							
1.0		⊠	616A	● ▲	GM		◆ ■	1.0
2.0								2.0
	-maximum 50mm material below 2.6m							
3.0		⊠	617	● ▲	GM		◆ ■	3.0
4.0								4.0
		⊠	618	● ▲	SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1474
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1756+650 CENTRELINE	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
	SAND, SILT & ORGANIC -grey - brown							
1.0	SILTY SAND WITH GRAVEL (SM) -brown -damp -maximum 25mm material	⊠	619	● ▲	SM		■ ◆	1.0
2.0	-slow hard grindy drilling below 1.8m							2.0
3.0	-dense below 2.5m	⊠	620	● ▲	SM		■ ◆	3.0
4.0		⊠	621	● ▲	SM		◆	4.0
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1475
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1756+750 CENTRELINE	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 AND ORGANIC -trace sand							
	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GM)-(SM) -brown -moist -maximum 25mm material -grindy drilling							
1.0		⊠	622	● ▲	GM		◆ ■	1.0
	-dense below 1.8m							
2.0								2.0
3.0		⊠	623	● ▲	SM		■ ◆	3.0
4.0								4.0
		⊠	624	● ▲	SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1476
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 192-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1756+850 CENTRELINE	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 -frozen (Nf)							0.0
	SILT & ORGANIC -moist							
	SILTY SAND WITH GRAVEL TO SILTY SAND (SM) -brown -moist -grindy drilling -maximum 25mm material -hard slow grindy drilling below 1.0m							
1.0		⊠	625	● ▲	SM		■ ◆	1.0
2.0								2.0
	-moist to wet below 2.5m	⊠	626	● ▲	SM		■ ◆	
3.0	-very hard slow grindy drilling below 3.0m							3.0
4.0		⊠	627	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.4m -refusal							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1477
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 192-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1756+950 CENTRELINE	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	ROAD BED MATERIAL ORGANIC SANDY SILT & ORGANIC							0.0
	SILTY SAND WITH GRAVEL TO WELL-GRADED SAND WITH SILT & GRAVEL TO SILTY SAND WITH GRAVEL (SM)-(SW-SM)-(SM) -brown -moist -grindy drilling	⊠	628	● ▲	SM		■ ◆	
1.0								1.0
2.0								2.0
3.0		⊠	629	● ▲	SW-SM		■ ◆	3.0
	-very hard slow grindy drilling below 3.3m							
4.0	-dense below 4.0m							4.0
		⊠	630	● ▲	SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1478
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 192-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1757+050 CENTRELINE	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	PUSH PILE DEBRIS							0.0
	ORGANIC -frozen (Nf)							
1.0	ORGANIC & ASH							1.0
	SILTY SAND TO SILTY SAND WITH GRAVEL (SM) -light brown -damp -grindy drilling	⊠	631	● ▲	SM		■ ◆	
2.0	-moist below 2.5m							2.0
3.0	-very hard slow grindy drilling below 3.4	⊠	632	● ▲	SM		■ ◆	3.0
4.0		⊠	633	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1479
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 192-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1757+150 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	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (GM)-(SM)-(GM) -brown -moist -maximum 50mm material							0.0
1.0								1.0
		⊠	634	● ▲	GM		◆ ■	
	-material saturated 1.8m to 2.4m							
2.0								2.0
	-frozen (Nf) below 2.4m							
		⊠	635	● ▲	SM		◆ ■	
3.0								3.0
4.0	-saturated below 4.0m							4.0
		⊠	636	● ▲	GM		◆ ■	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1480
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 192-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1757+250 CENTRELINE	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 -frozen (Vx)							0.0
	SILTY SAND WITH GRAVEL (SM) -brown -damp							
1.0	-grindy drilling -hard slow grindy drilling below .8m	⊠	637	● ▲	SM	▥	■	1.0
	-dense below 1.5m	⊠	638	● ▲	SM	▥	■	
2.0								2.0
3.0								3.0
4.0								4.0
		⊠	639	● ▲	SM	▥	■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1481
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 192-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1757+350 CENTRELINE	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, SILT & ORGANIC							0.0
	SILTY SAND WITH GRAVEL TO WELL-GRADED SAND WITH SILT & GRAVEL (SM)-(SW-SM) -brown -damp -grindy drilling							
1.0		⊠	640	● ▲	SM		■ ◆	1.0
	-refusal @ 1.6m - move 1m upchain							
2.0								2.0
	-moist below 2.5m -maximum 50mm material below 2.5m							
3.0		⊠	641	● ▲	SM		■ ◆	3.0
4.0	-frozen (Nf) below 4.0m							4.0
		⊠	642	● ▲	SW-SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1482
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 192-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1757+450 CENTRELINE	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 & ORGANIC							
	SILTY SAND (SM) -brown -moist -grindy drilling							
1.0								1.0
		⊠	643	● ▲	SM		■ ◆	
2.0	SILTY SAND WITH GRAVEL (SM) -brown -moist -maximum 25mm material							2.0
3.0		⊠	644	● ▲	SM		■ ◆	3.0
4.0								4.0
		⊠	645	● ▲	SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551–1483
ENGINEERING CAPITAL	KM 1729.6–1787 A/H	Project No: 192-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1757+550 CENTRELINE	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, SILT & SAND –damp							0.0
	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)–(GM) –brown –damp –maximum 25mm material –grindy drilling							
1.0								1.0
		⊠	646	● ▲	SM		■	
2.0								2.0
	–moist below 2.5m							
3.0		⊠	647	● ▲	SM		■ ◆	3.0
4.0								4.0
		⊠	648	● ▲	GM		◆ ■	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1484
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 192-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1757+650 CENTRELINE	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
	ORGANIC, SILT & SAND -brown -moist							
1.0	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GM)-(SM) -brown -damp -maximum 50mm material -grindy drilling -hard slow grindy drilling below 1.2m	⊠	649	● ▲	GM		◆ ■	1.0
2.0								2.0
3.0		⊠	650	● ▲	GM		◆ ■	3.0
4.0	-moist below 4.0m							4.0
		⊠	651	● ▲	SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551–1485
ENGINEERING CAPITAL	KM 1729.6–1787 A/H	Project No: 192–202101–0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1757+750 CENTRELINE	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, SILT & ORGANIC							0.0
1.0	SILT GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GM)–(SM) –brown –damp –maximum 50mm material –grindy drilling	⊠	652		GM			1.0
2.0	–refusal @ 1.8m – moved 2m upchain							2.0
3.0		⊠	653		SM			3.0
4.0								4.0
		⊠	654		SM			
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1486
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 192-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1757+850 CENTRELINE	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, ORGANIC & SILT							0.0
	SILTY GRAVEL WITH SAND TO SILTY SAND (GM)-(SM) -brown -damp -maximum 50mm material -grindy drilling							
1.0		⊠	655	● ▲	GM		◆ ■	1.0
2.0								2.0
3.0		⊠	656	● ▲	GM		◆ ■	3.0
4.0	-moist below 4.0m							4.0
		⊠	657	● ▲	SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1487
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 192-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1757+950 CENTRELINE	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, SILT & ORGANIC -wet							0.0
	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (GM)-(SM)-(GM) -brown -damp -maximum 25mm material -grindy drilling	⊠	658	● ▲	GM		◆ ■	
1.0								1.0
2.0								2.0
		⊠	659	● ▲	SM		■ ◆	
3.0	-refusal @ 2.9m - moved 2m upchain							3.0
4.0								4.0
		⊠	660	● ▲	GM		◆ ■	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1488
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 192-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1758+050 CENTRELINE	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
	SAND, SILT & ORGANIC					
	SILTY SAND WITH GRAVEL TO SILTY SAND (SM) -brown -damp -maximum 25mm material -grindy drilling -refusal @ 1.0m - moved 2m upchain	AUGER	661	SM		
1.0						1.0
2.0						2.0
3.0		AUGER	662	SM		3.0
4.0	-moist below 4.0m					4.0
		AUGER	663	SM		
	END HOLE @ 4.7m					
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

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1489
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 192-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1758+150 CENTRELINE	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
	ASH							
	SILT & ORGANIC							
	SILTY SAND WITH GRAVEL (SM) -light brown -damp -maximum 25mm material -grindy drilling							
1.0		⊠	664	● ▲	SM	▥	■ ◆	1.0
	-refusal @ 1.8m - moved 2m upchain -2nd refusal @ 1.8m - moved 3m upchain							
2.0	END HOLE @ 2.1m -refusal # 3							2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 551-1490
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 192-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1758+175 CENTRELINE	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 ASH SILT & ORGANIC							0.0
	SILTY SAND WITH GRAVEL (SM) -light brown -damp -maximum 50mm material -grindy drilling							
1.0	-very hard slow grindy drilling @ .8m	⊠	665	● ▲	SM		■ ◆	1.0
2.0	WELL-GRADED SAND WITH GRAVEL (SW) -grey -moist -very hard smooth drilling							2.0
3.0		⊠	666	▲●	SW		■ ◆	3.0
	SANDY SILTY GRAVEL -grey -moist -angular gravels -very hard slow grindy drilling							
4.0	END HOLE @ 3.9m -refusal							4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 552-1491
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1758+225 CENTRELINE	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
	SAND, SILT & ORGANIC							
	SILTY SAND WITH GRAVEL (SM) -brown -damp -maximum 25mm material -grindy drilling							
1.0								1.0
		⊠	667	● ▲	SM		■ ◆	
2.0								2.0
	-frozen (Nf) below 2.5m							
		⊠	668	● ▲	SM		■ ◆	
3.0								3.0
4.0	-moist to wet below 4.0m							4.0
		⊠	669	● ▲	SM		■ ◆	
	END HOLE @ 4.5m -refusal							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 552-1492
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1758+325 CENTRELINE	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 -damp	⊠	670	● ▲	ML		◆	
1.0								1.0
	SILTY GRAVEL WITH SAND (GM) -brown -moist -grindy drilling -maximum 25mm material below 2.0m							
2.0								2.0
		⊠	671	● ▲	GM		■	
3.0								3.0
	END HOLE @ 3.4m -refusal							
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 552-1493
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1758+425 20M 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 -some sand -frozen (Nb)							
	SILTY SAND WITH GRAVEL (SM) -brown -moist -maximum 25mm material	⊠	672A	● ▲	SM		◆	
1.0								1.0
2.0	-frozen (Nf) below 2.0m	⊠	672	● ▲	SM		■ ◆	2.0
	END HOLE @ 2.5m -refusal - moved to o/s 18 m rt -2nd refusal @ 1.8m -Note: Test hole @ culvert site.							
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: 2.5 m
REVIEWED BY:	COMPLETE: 00/06/07
Fig. No:	Page 1 of 1

00/12/20 09:58AM

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 552-1494
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1758+450 20 M 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 SILT AND ORGANIC							0.0
	SILTY SAND WITH GRAVEL (SM) -light brown -damp -maximum 25mm material -grindy drilling							
1.0		⊠	673	● ▲	SM		■ ◆	1.0
2.0	-frozen (Nf) below 2.0m							2.0
3.0		⊠	674	● ▲	SM		■ ◆	3.0
	END HOLE @ 3.2m -refusal -Note: Test hole @ culvert site							
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 3.2 m
REVIEWED BY:	COMPLETE: 00/06/07
Fig. No:	Page 1 of 1

00/12/20 10:51AM

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 552-1495
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1758+550 CENTRELINE	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 -trace +5mm material							
1.0	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (SM)-(GM)-(SM) -light brown -damp -maximum 25mm material -grindy drilling	⊠	675	● ▲	SM		■ ◆	1.0
2.0	-frozen (Nf) below 2.1m							2.0
3.0		⊠	676	● ▲	GM		■ ◆	3.0
4.0	-moist below 4.0m							4.0
		⊠	677	● ▲	SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/07
Fig. No:	Page 1 of 1

00/12/19 10:00AM

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 552-1496
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1758+650 CENTRELINE	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 -some +5mm material -brown -damp							
1.0	SILTY SAND WITH GRAVEL (SM) -light brown -damp -maximum 25mm material -grindy drilling	⊠	678	● ▲	SM		■ ◆	1.0
2.0								2.0
3.0	-moist below 2.8m	⊠	679	● ▲	SM		■	3.0
4.0	-damp below 4.0m							4.0
		⊠	680	● ▲	SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/07
Fig. No:	Page 1 of 1

03/05/20 07:57PM

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 552-1497
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1758+800 CENTRELINE	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 -some +5mm material -brown -moist							
1.0	SILTY SAND WITH GRAVEL (SM) -brown -damp -maximum 25mm material -grindy drilling -dense	⊠	681	● ▲	SM		■ ◆	1.0
2.0	-harder grindy drilling below 2.1m							2.0
	-frozen (Nf) below 2.5m	⊠	682	● ▲	SM		■ ◆	
3.0								3.0
4.0	-grey below 4.0m	⊠	683	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/07
Fig. No:	Page 1 of 1

03/05/20 07:57PM

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 552-1498
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1758+900 14M 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 -brown -moist							
1.0								1.0
	POORLY GRADED GRAVEL WITH SILT & SAND TO SILTY SAND WITH GRAVEL (GP-GM)-(SM) -brown -damp -maximum 25mm material -grindy drilling -harder drilling below 1.8m	⊠	684	● ▲	GP-GM		◆ ■	
2.0	-frozen (Nf) below 2.5m							2.0
3.0		⊠	685	● ▲	SM		■ ◆	3.0
4.0	-grey below 4.0m -easier drilling below 4.0m							4.0
		⊠	686	● ▲	SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/07
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 552-1499
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1759+010 + 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	DITCH DEBRIS							0.0
	SANDY SILTY ORGANIC -frozen (Nb)							
1.0	SILTY SAND WITH GRAVEL (SM) -brown -frozen (Nf) -grindy drilling	⊠	687	●▲	SM		■ ◆	1.0
2.0 ▼	-H20 level @ 2.0m -no sample recovered below 2.0m material washed off augers. -gravelly material observed							2.0 ▼
3.0								3.0
4.0								4.0
5.0	END HOLE @ 4.7m -Note: Test hole @ culvert site							5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/06/07
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 552-1500
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1759+100 + 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
	SILT -some organic -light brown -damp							
1.0	SILTY SAND WITH GRAVEL (SM) -light grey -damp -maximum 25mm material -grindy drilling	⊠	688	● ▲	SM		■ ◆	1.0
2.0	-saturated below 2.0m -lost sample # 689	⊠	689	●				2.0
	-grey below 2.6m -frozen (Nb) below 2.6m							
3.0	-harder grindy drilling	⊠	690	● ▲	SM		■ ◆	3.0
4.0								4.0
		⊠	691	● ▲	SM		■ ◆	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/06/07
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 552-1501
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1759+200 + 07M 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 -trace sand -damp -brown							
1.0	SILTY SAND WITH GRAVEL TO POORLY GRADED GRAVEL WITH SAND TO WELL-GRADED SAND WITH SILT & GRAVEL (SM)-(GP-GM)-(SW-SM) -brown -damp -maximum 50mm material -grindy drilling	⊠	692	● ▲	SM		■ ◆	1.0
2.0	-very hard grindy drilling below 2.0m							2.0
3.0		⊠	693	● ▲	GP-GM		◆ ■	3.0
4.0	-grey below 4.0m -wet below 4.0							4.0
		⊠	694	● ▲	SW-SM		●	
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/07
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SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 552-1502
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1759+300 + 11M 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 & ORGANIC -brown -damp							0.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -damp -maximum 50mm material -grindy drilling	⊠	695	●▲	GP-GM		◆■	
1.0								1.0
2.0								2.0
	-grey below 2.5m -very hard grindy drilling below 2.5m	⊠	696	●▲	GP-GM		●	
3.0								3.0
	SILTY SAND WITH GRAVEL (SM) -grey -satuarated	⊠	697	● ▲	SM		■ ◆	
4.0								4.0
	END HOLE @ 4.7m							
5.0								5.0
6.0								6.0

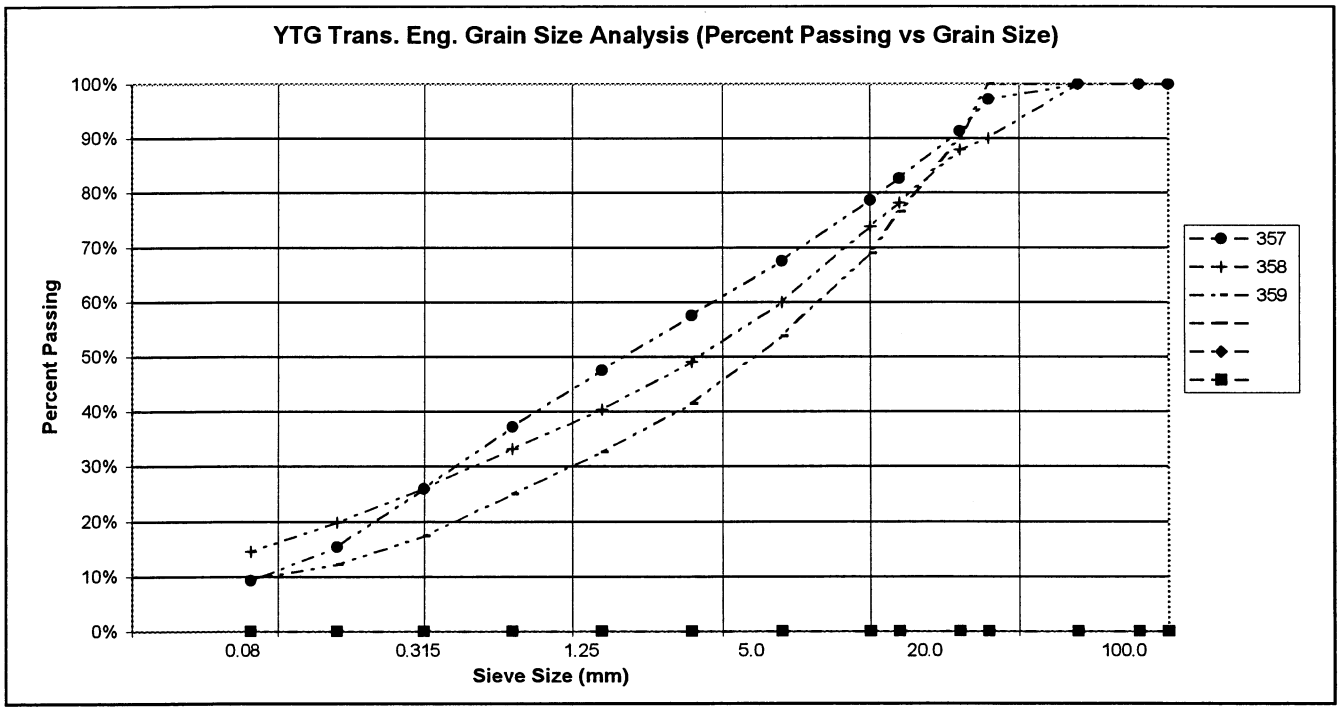
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LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/07
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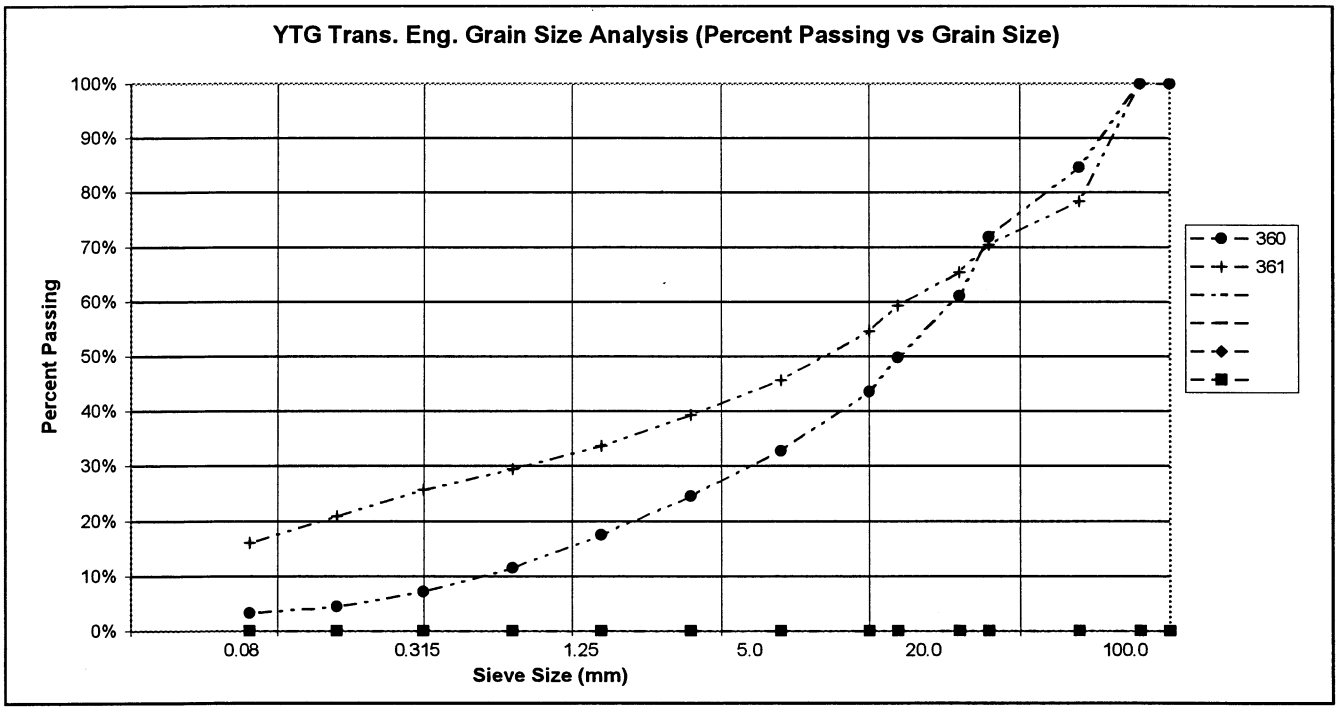
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 544-1390
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1749+550 10M RT		
LOGGED BY:	W.E.		DATE COMP: 5/16/2000

FIELD NO:	357	358	359			
LAB NO:	660	661	662			
DEPTH:	0.8-1.0	2.0-2.2	4.4-4.6			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	97%	90%	100%			
20.0	91%	88%	90%			
12.5	83%	78%	77%			
10.0	79%	74%	69%			
5.0	67%	60%	54%			
2.5	57%	49%	41%			
1.25	48%	40%	33%			
0.630	37%	33%	25%			
0.315	26%	26%	17%			
0.160	15%	20%	12%			
0.080	9%	15%	10%			
M.C.(%):	3%	7%	3%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	33	40	46			
% SAND:	58	45	44			
% FINES:	9	15	10			
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			



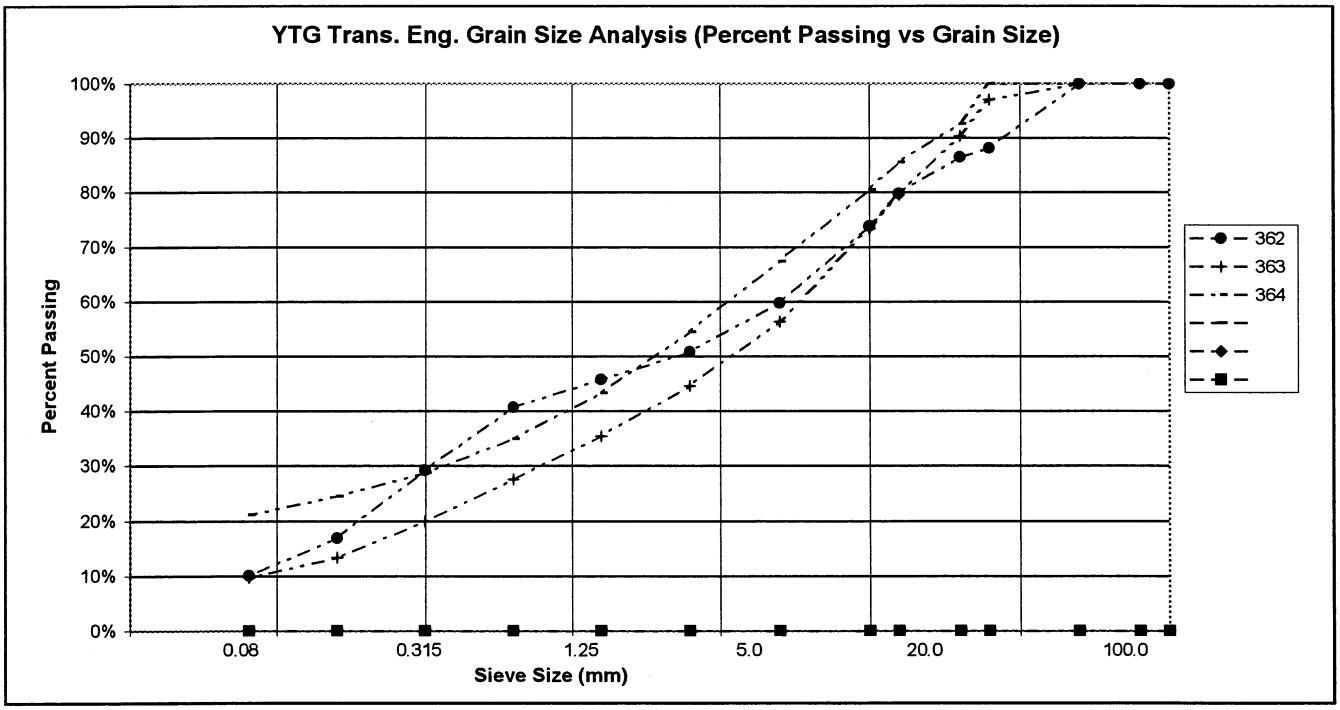
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CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	KM 1729.6-1787 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1749+650 CL					
LOGGED BY:	W.E.				DATE COMP: 5/16/2000	

FIELD NO:	360	361				
LAB NO:	663	664				
DEPTH:	1.4-1.6	4.4-4.6				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	85%	78%				
25.0	72%	70%				
20.0	61%	65%				
12.5	50%	59%				
10.0	44%	55%				
5.0	33%	46%				
2.5	25%	39%				
1.25	17%	34%				
0.630	11%	29%				
0.315	7%	26%				
0.160	4%	21%				
0.080	3%	16%				
M.C.(%):	3%	6%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	67	54				
% SAND:	29	30				
% FINES:	3	16				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY GRAVEL WITH SAND (GM)				



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 544-1392
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1749+687 10M RT		
LOGGED BY:	W.E.		DATE COMP: 5/17/2000

FIELD NO:	362	363	364			
LAB NO:	665	666	667			
DEPTH:	1.1-1.3	2.5-2.7	4.4-4.6			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	88%	97%	100%			
20.0	87%	90%	93%			
12.5	80%	80%	86%			
10.0	74%	73%	81%			
5.0	60%	56%	67%			
2.5	51%	45%	55%			
1.25	46%	35%	43%			
0.630	41%	28%	35%			
0.315	29%	20%	29%			
0.160	17%	13%	25%			
0.080	10%	10%	21%			
M.C.(%):	13%	4%	8%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	40	44	33			
% SAND:	50	47	46			
% FINES:	10	10	21			
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILTY SAND WITH GRAVEL (SM)			

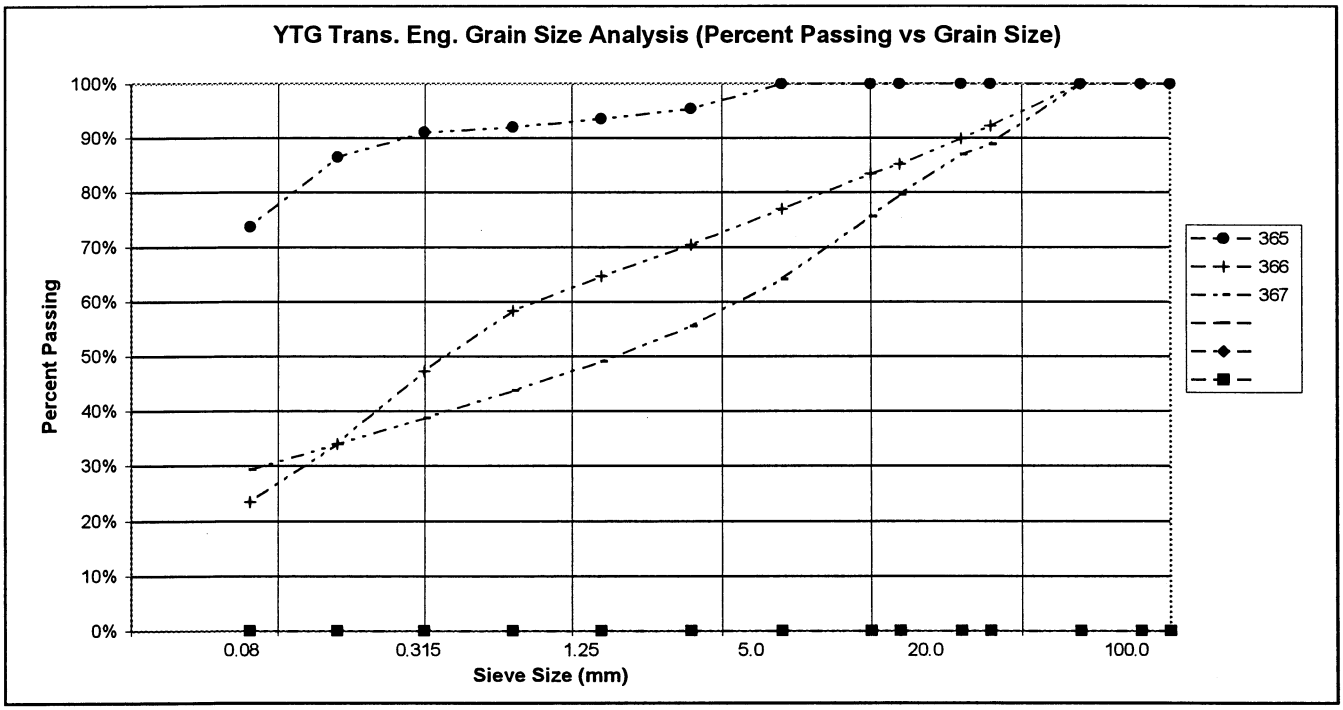


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1749+687 24M LT
LOGGED BY: W.E.

HOLE No.: 544-1393

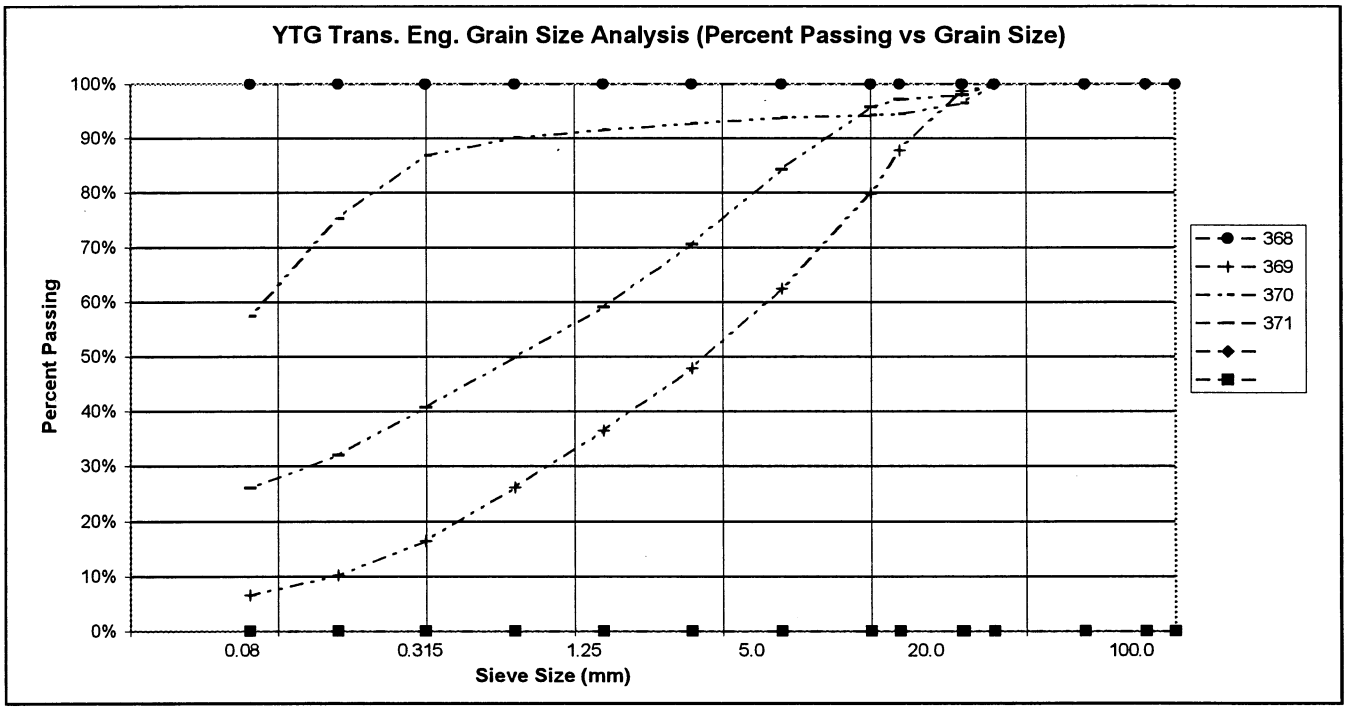
DATE COMP: 5/17/2000

FIELD NO:	365	366	367			
LAB NO:	668	669	670			
DEPTH:	0.9-1.0	2.5-2.8	4.2-4.4			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	92%	89%			
20.0	100%	90%	87%			
12.5	100%	85%	80%			
10.0	100%	83%	76%			
5.0	100%	77%	64%			
2.5	95%	70%	56%			
1.25	94%	65%	49%			
0.630	92%	58%	44%			
0.315	91%	47%	39%			
0.160	87%	34%	34%			
0.080	74%	24%	29%			
M.C.(%):	39%	6%	9%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	0	23	36			
% SAND:	26	54	35			
% FINES:	74	24	29			
CLASSIFICATION	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)			



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 544-1394
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1749+780 CL		
LOGGED BY:	W.E.		DATE COMP: 5/17/2000

FIELD NO:	368	369	370	371		
LAB NO:	LOST	672	673	674		
DEPTH:	0.6-1.0	1.9-2.1	3.0-3.2	4.7-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	100%	100%	100%	100%		
20.0	100%	99%	96%	98%		
12.5	100%	88%	95%	97%		
10.0	100%	80%	94%	96%		
5.0	100%	62%	94%	84%		
2.5	100%	48%	93%	71%		
1.25	100%	36%	92%	59%		
0.630	100%	26%	90%	50%		
0.315	100%	16%	87%	41%		
0.160	100%	10%	75%	32%		
0.080	100%	7%	57%	26%		
M.C.(%):	14%	2%	18%	6%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	0	38	6	16		
% SAND:	0	56	36	58		
% FINES:	100	7	57	26		
CLASSIFICATION	SILT (ML)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SANDY SILT (ML)	SILTY SAND WITH GRAVEL (SM)		

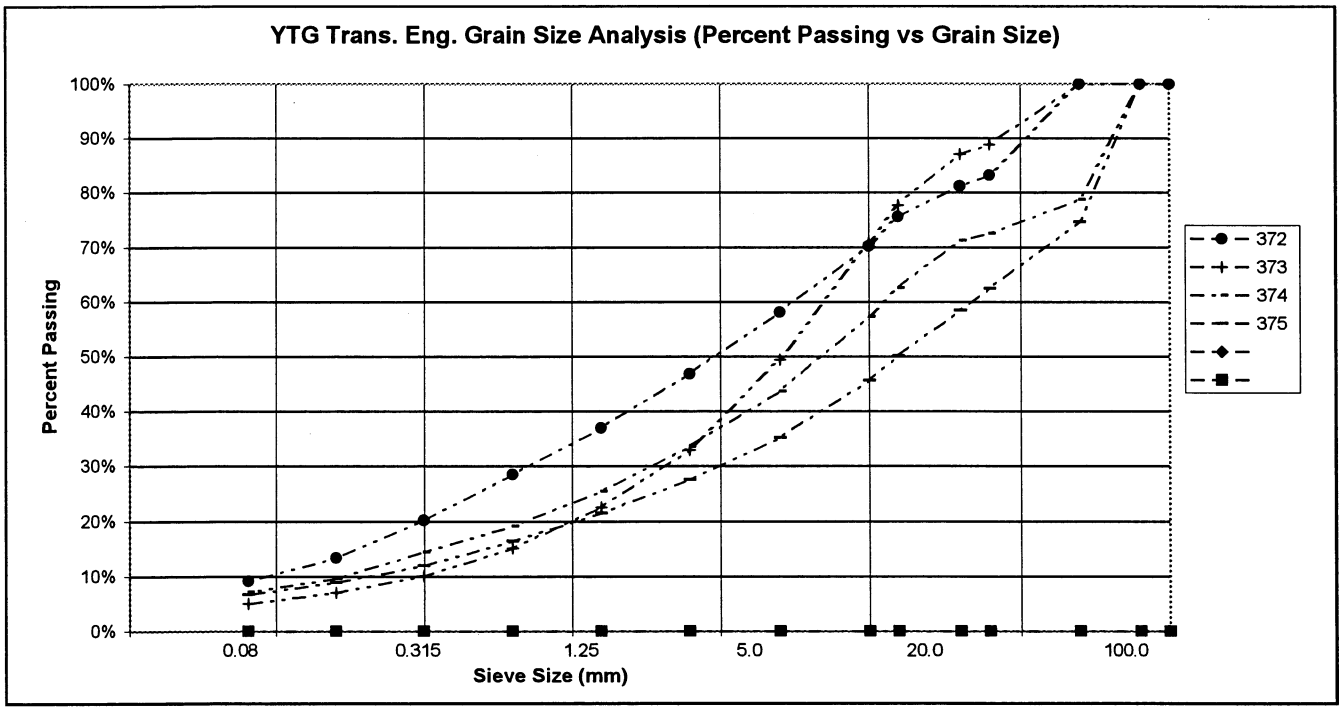


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1749+900 CL
LOGGED BY: W.E.

HOLE No.: 544-1395

DATE COMP: 5/17/2000

FIELD NO:	372	373	374	375		
LAB NO:	675	676	677	678		
DEPTH:	1.4-1.6	2.3-2.5	3.0-3.2	4.4-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	79%	75%		
25.0	83%	89%	73%	62%		
20.0	81%	87%	71%	58%		
12.5	76%	78%	63%	50%		
10.0	70%	71%	57%	46%		
5.0	58%	49%	44%	35%		
2.5	47%	33%	34%	28%		
1.25	37%	22%	25%	21%		
0.630	29%	15%	19%	16%		
0.315	20%	10%	14%	12%		
0.160	13%	7%	10%	9%		
0.080	9%	5%	7%	7%		
M.C.(%):	4%	2%	3%	2%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	42	51	56	65		
% SAND:	49	44	36	29		
% FINES:	9	5	7	7		
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		

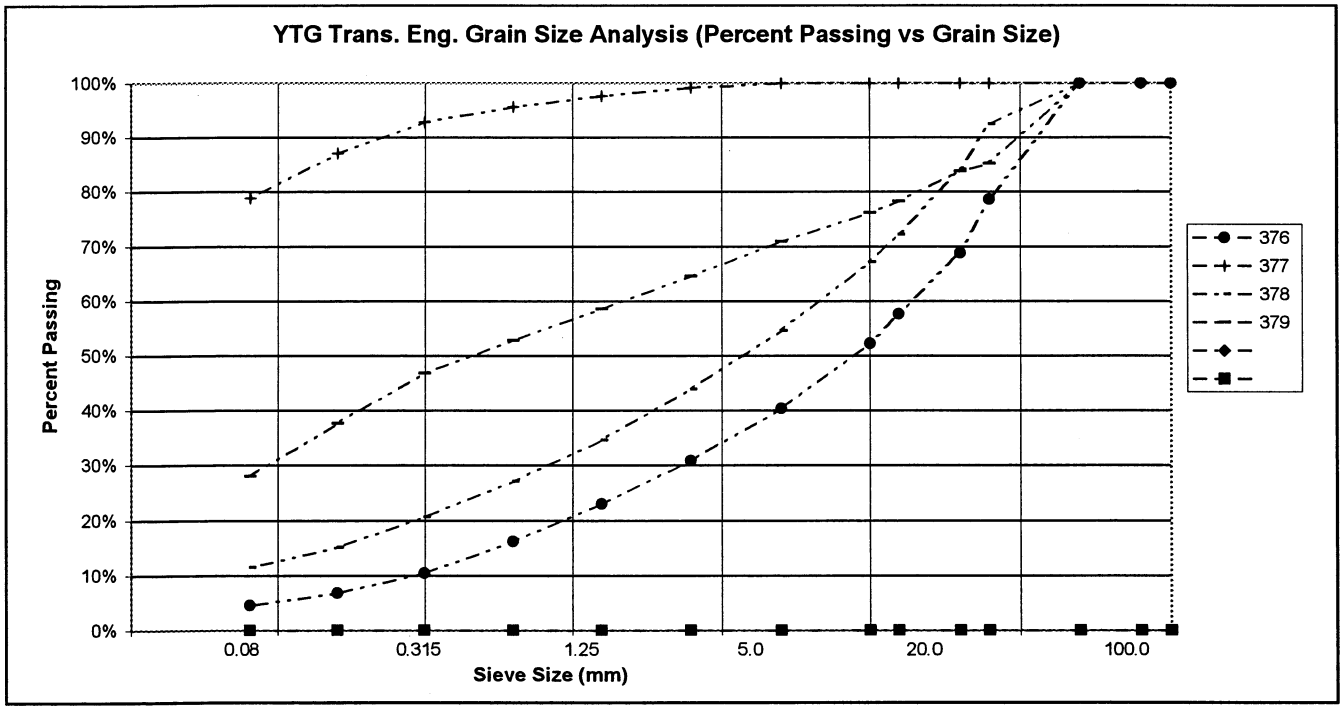


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1750+000 CL
LOGGED BY: W.E.

HOLE No.: 544-1396

DATE COMP: 5/17/2000

FIELD NO:	376	377	378	379		
LAB NO:	679	680	681	682		
DEPTH:	1.4-1.6	2.0-2.4	3.0-3.2	4.4-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	79%	100%	92%	85%		
20.0	69%	100%	84%	84%		
12.5	58%	100%	72%	78%		
10.0	52%	100%	67%	76%		
5.0	40%	100%	55%	71%		
2.5	31%	99%	44%	65%		
1.25	23%	98%	35%	59%		
0.630	16%	96%	27%	53%		
0.315	10%	93%	21%	47%		
0.160	7%	87%	15%	38%		
0.080	5%	79%	11%	28%		
M.C.(%):	2%	40%	4%	7%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	60	0	45	29		
% SAND:	36	21	43	43		
% FINES:	5	79	11	28		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILT WITH SAND (ML)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH GRAVEL (SM)		

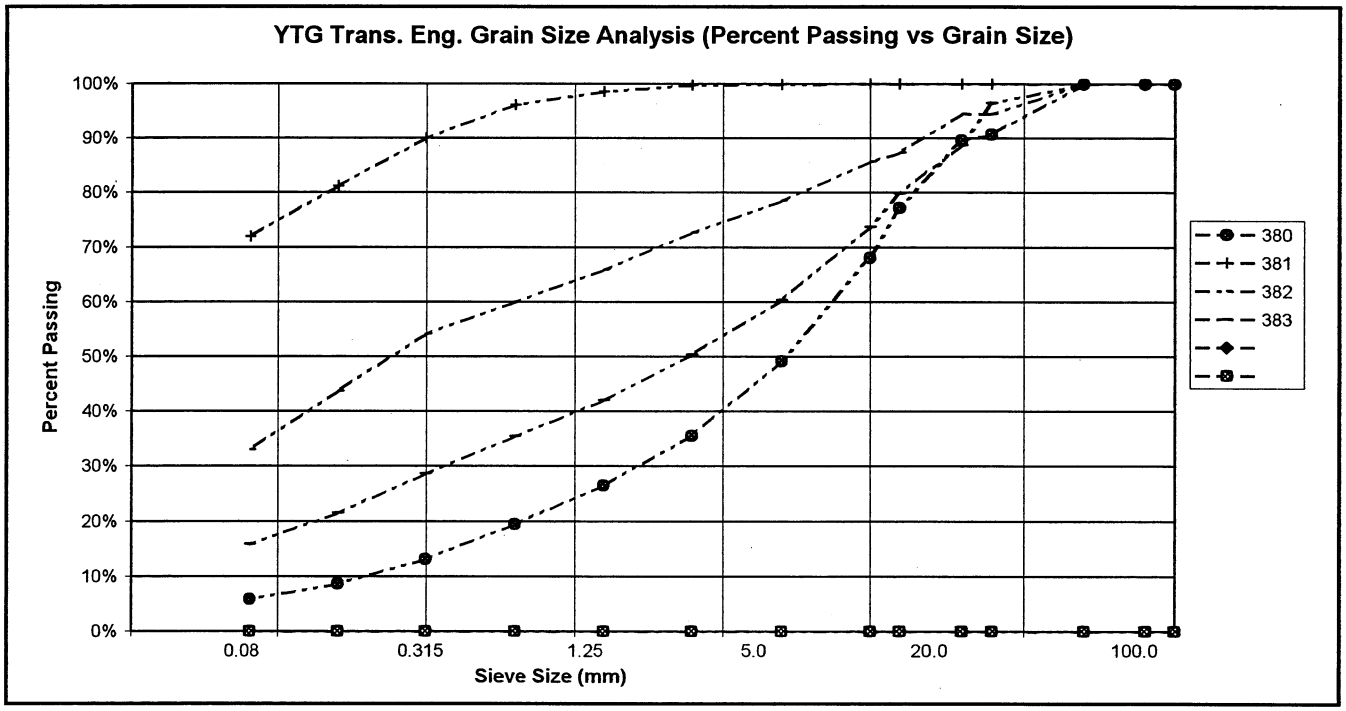


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1750+100 CL
LOGGED BY: W.E.

HOLE No.: 544-1397

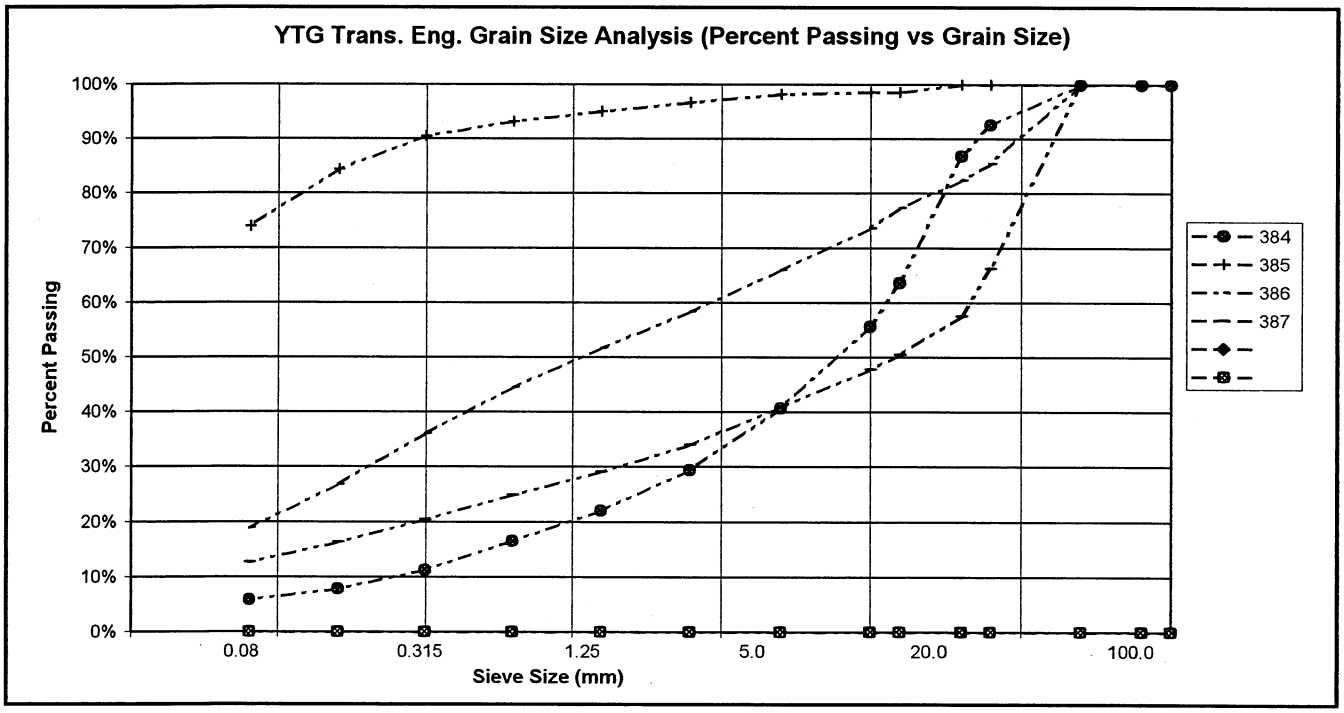
DATE COMP: 2000/05/17

FIELD NO:	380	381	382	383		
LAB NO:	683	684	685	686		
DEPTH:	1.1-1.3	2.0-2.2	3.0-3.2	4.4-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	91%	100%	94%	96%		
20.0	90%	100%	94%	89%		
12.5	77%	100%	87%	80%		
10.0	68%	100%	86%	74%		
5.0	49%	100%	79%	60%		
2.5	36%	100%	73%	50%		
1.25	27%	99%	66%	42%		
0.630	19%	96%	60%	35%		
0.315	13%	90%	54%	29%		
0.160	9%	81%	44%	21%		
0.080	6%	72%	33%	16%		
M.C.(%):	2%	37%	11%	4%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	51	0	21	40		
% SAND:	43	28	46	44		
% FINES:	6	72	33	16		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		



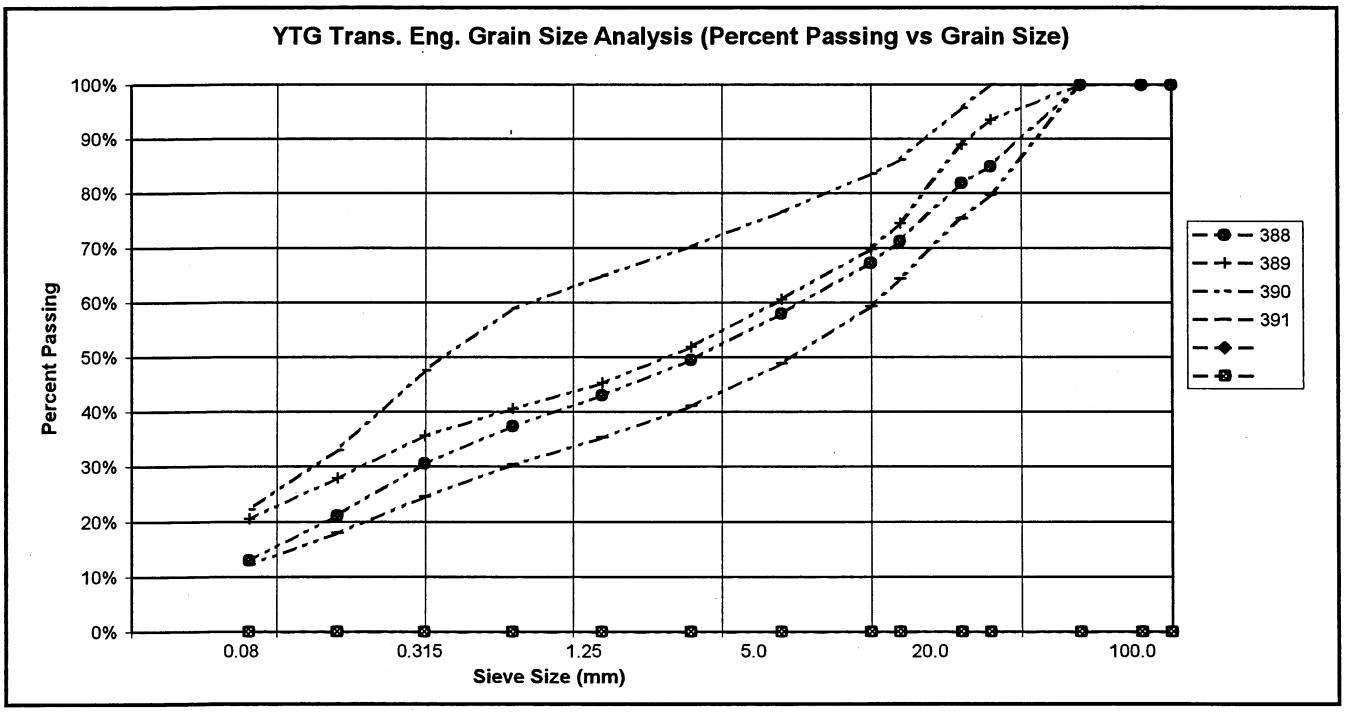
PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	544-1398
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1750+200 15M LT		
LOGGED BY:	W.E.	DATE COMP:	2000/05/17

FIELD NO:	384	385	386	387		
LAB NO:	687	688	689	690		
DEPTH:	1.4-1.6	2.0-2.4	3.0-3.2	4.4-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	93%	100%	85%	66%		
20.0	87%	100%	82%	57%		
12.5	64%	99%	77%	50%		
10.0	56%	99%	74%	48%		
5.0	41%	98%	66%	41%		
2.5	29%	97%	58%	34%		
1.25	22%	95%	52%	29%		
0.630	17%	93%	44%	25%		
0.315	11%	91%	36%	20%		
0.160	8%	84%	27%	16%		
0.080	6%	74%	19%	13%		
M.C.(%):	2%	24%	7%	5%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	59	2	34	59		
% SAND:	35	24	47	28		
% FINES:	6	74	19	13		
CLASSIFICATION	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)		



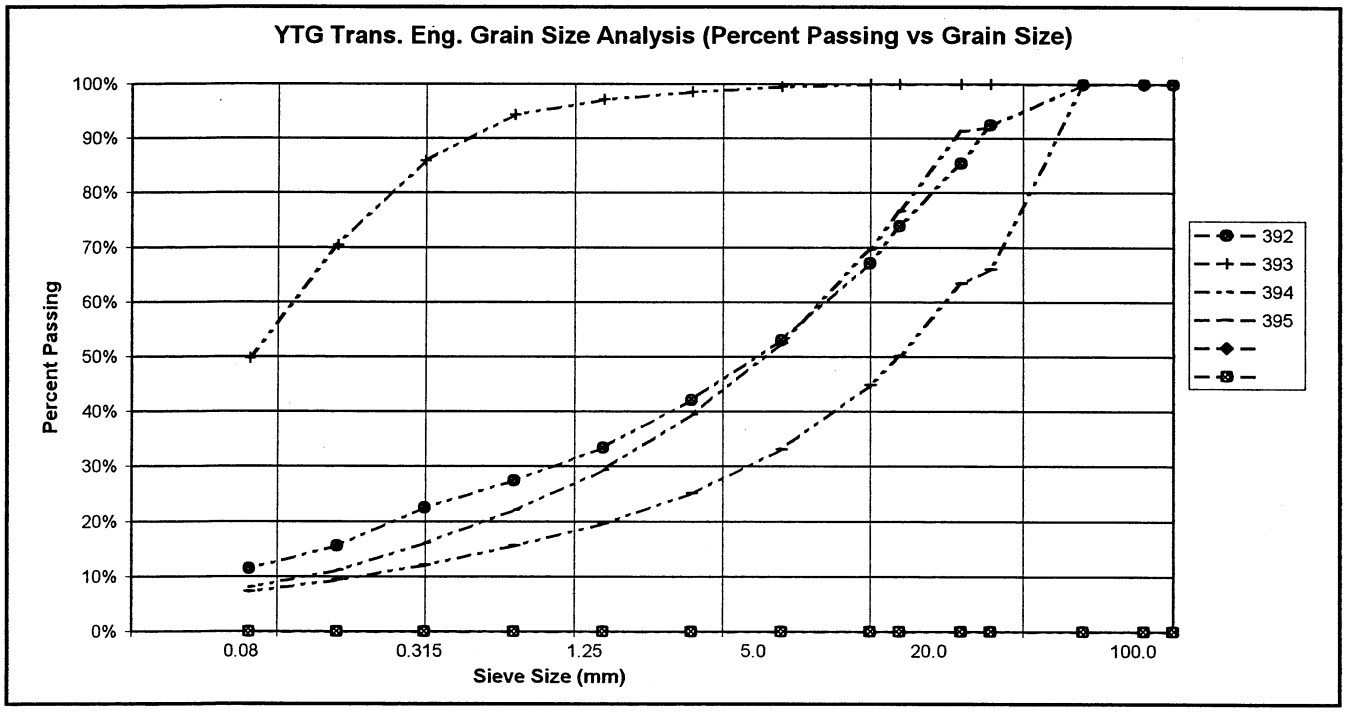
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 544-1399
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1750+240 15M RT		
LOGGED BY:	W.E.		DATE COMP: 2000/05/17

FIELD NO:	388	389	390	391		
LAB NO:	691	692	693	694		
DEPTH:	0.8-1.0	1.9-2.1	3.0-3.2	4.4-4.6		
TYPE:	AUGER	#N/A	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	85%	94%	100%	80%		
20.0	82%	89%	96%	75%		
12.5	71%	75%	86%	64%		
10.0	67%	70%	84%	59%		
5.0	58%	61%	77%	49%		
2.5	49%	52%	70%	41%		
1.25	43%	45%	65%	35%		
0.630	37%	41%	59%	30%		
0.315	31%	36%	48%	25%		
0.160	21%	28%	33%	18%		
0.080	13%	21%	22%	12%		
M.C.(%):	3%	5%	7%	3%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	42	39	23	51		
% SAND:	45	40	54	37		
% FINES:	13	21	22	12		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)		



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 544-1400
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1750+300 CL		
LOGGED BY:	W.E.		DATE COMP: 2000/05/17

FIELD NO:	392	393	394	395		
LAB NO:	695	696	697	698		
DEPTH:	1.4-1.6	2.0-2.2	2.9-3.1	4.4-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	92%	100%	92%	66%		
20.0	85%	100%	91%	63%		
12.5	74%	100%	77%	50%		
10.0	67%	100%	70%	45%		
5.0	53%	100%	52%	33%		
2.5	42%	99%	39%	25%		
1.25	33%	97%	29%	20%		
0.630	28%	94%	22%	16%		
0.315	22%	86%	16%	12%		
0.160	16%	70%	11%	9%		
0.080	11%	50%	8%	7%		
M.C.(%):	2%	25%	3%	3%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	47	0	48	67		
% SAND:	42	50	44	26		
% FINES:	11	50	8	7		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND (SM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		

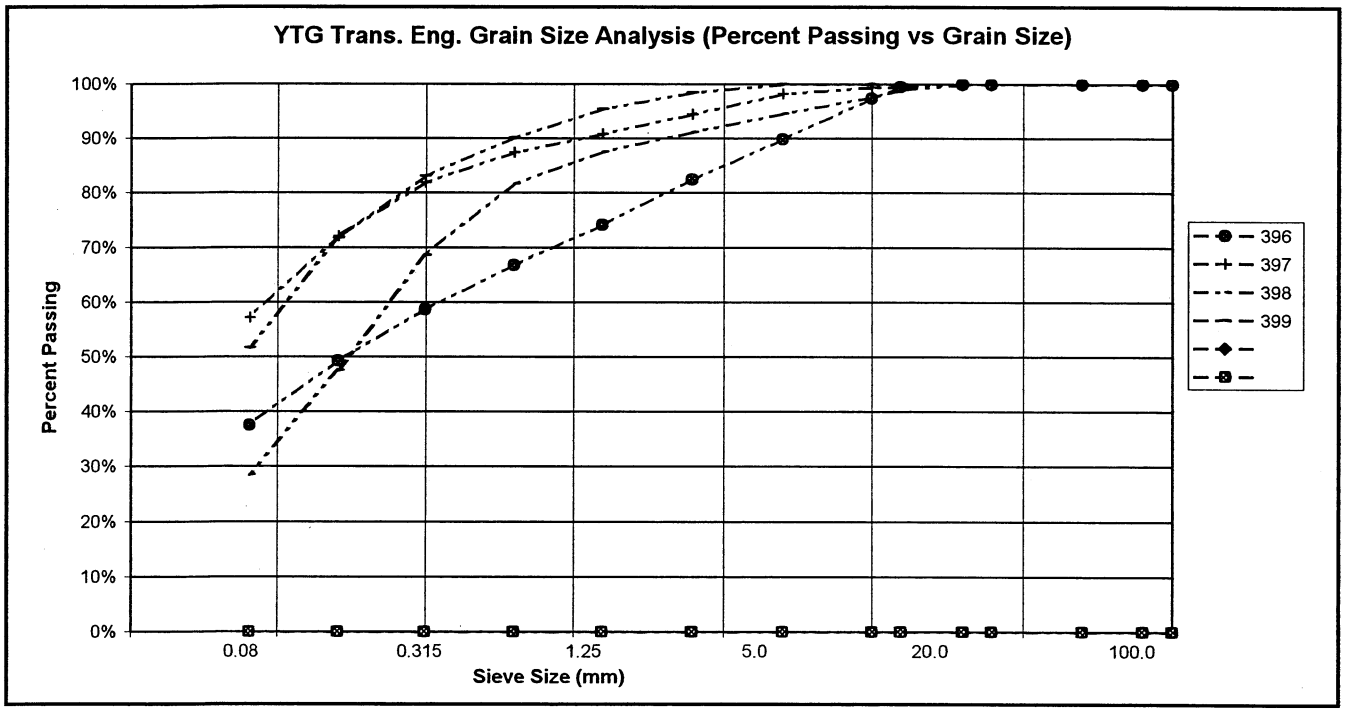


PROJECT NUMBER:	092-202101-0361-1
CLIENT:	ENGINEERING CAPITAL
PROJECT NAME:	SHAKWAK SEG 11
PROJECT LOCATION:	KM 1729.6-1787 A/H
DRILL UNIT:	MOBILE B40 L
HOLE LOCATION:	1750+375 20M LT
LOGGED BY:	W.E.

HOLE No.: 544-1401

DATE COMP: 2000/05/17

FIELD NO:	396	397	398	399		
LAB NO:	699	700	701	7.2		
DEPTH:	1.3-1.5	2.0-2.2	3.0-3.2	4.4-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	100%	100%	100%	100%		
20.0	100%	100%	100%	100%		
12.5	99%	99%	99%	100%		
10.0	97%	99%	98%	100%		
5.0	90%	98%	95%	100%		
2.5	83%	95%	91%	98%		
1.25	74%	91%	88%	95%		
0.630	67%	87%	82%	90%		
0.315	59%	82%	69%	83%		
0.160	49%	72%	48%	72%		
0.080	38%	57%	28%	52%		
M.C.(%):	7%	14%	4%	9%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	10	2	5	0		
% SAND:	52	41	66	48		
% FINES:	38	57	28	52		
CLASSIFICATION	SILTY SAND (SM)	SANDY SILT (ML)	SILTY SAND (SM)	SANDY SILT (ML)		

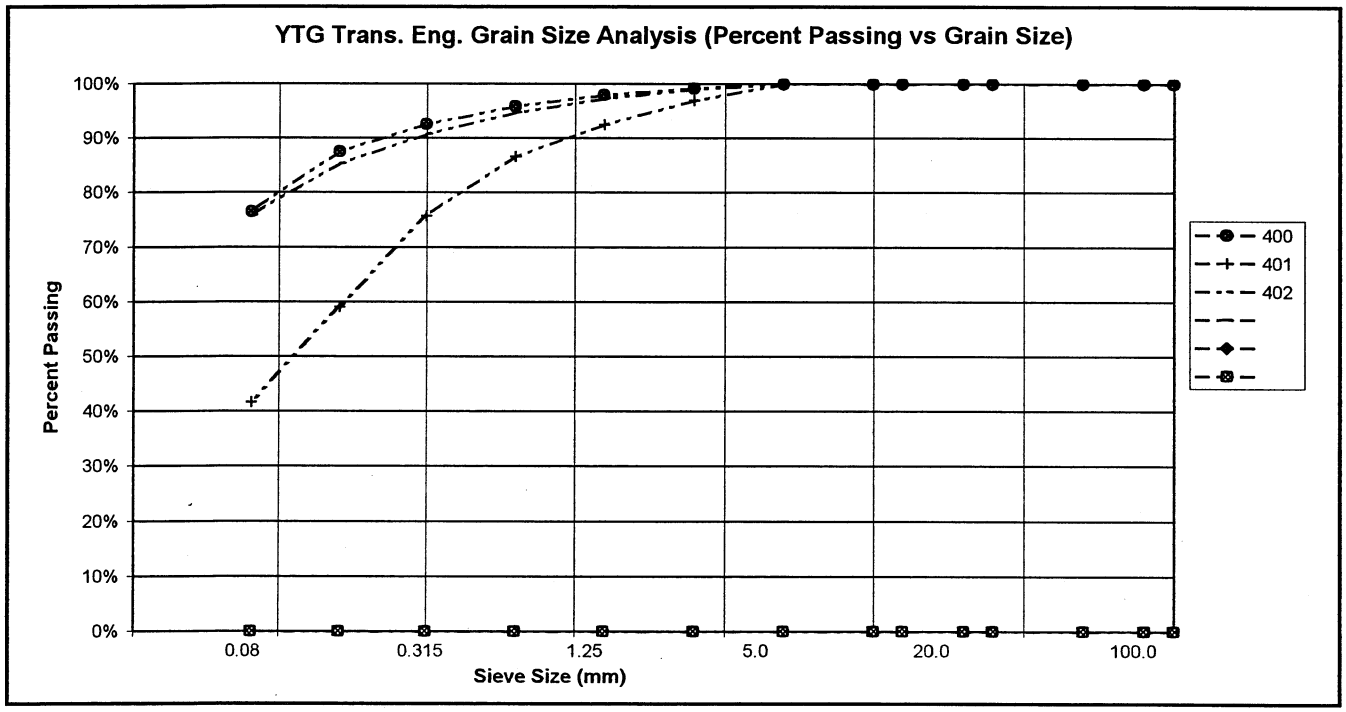


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1750+365 20M RT
LOGGED BY: W.E.

HOLE No.: 544-1402

DATE COMP: 2000/05/17

FIELD NO:	400	401	402			
LAB NO:	703	704	705			
DEPTH:	2.0-2.2	3.0-3.2	4.4-4.6			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	100%			
20.0	100%	100%	100%			
12.5	100%	100%	100%			
10.0	100%	100%	100%			
5.0	100%	100%	100%			
2.5	99%	97%	99%			
1.25	98%	93%	97%			
0.630	96%	87%	95%			
0.315	93%	76%	91%			
0.160	88%	59%	85%			
0.080	77%	42%	76%			
M.C.(%):	24%	10%	18%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	0	0	0			
% SAND:	23	58	24			
% FINES:	77	42	76			
CLASSIFICATION	SILT WITH SAND (ML)	SILTY SAND (SM)	SILT WITH SAND (ML)			

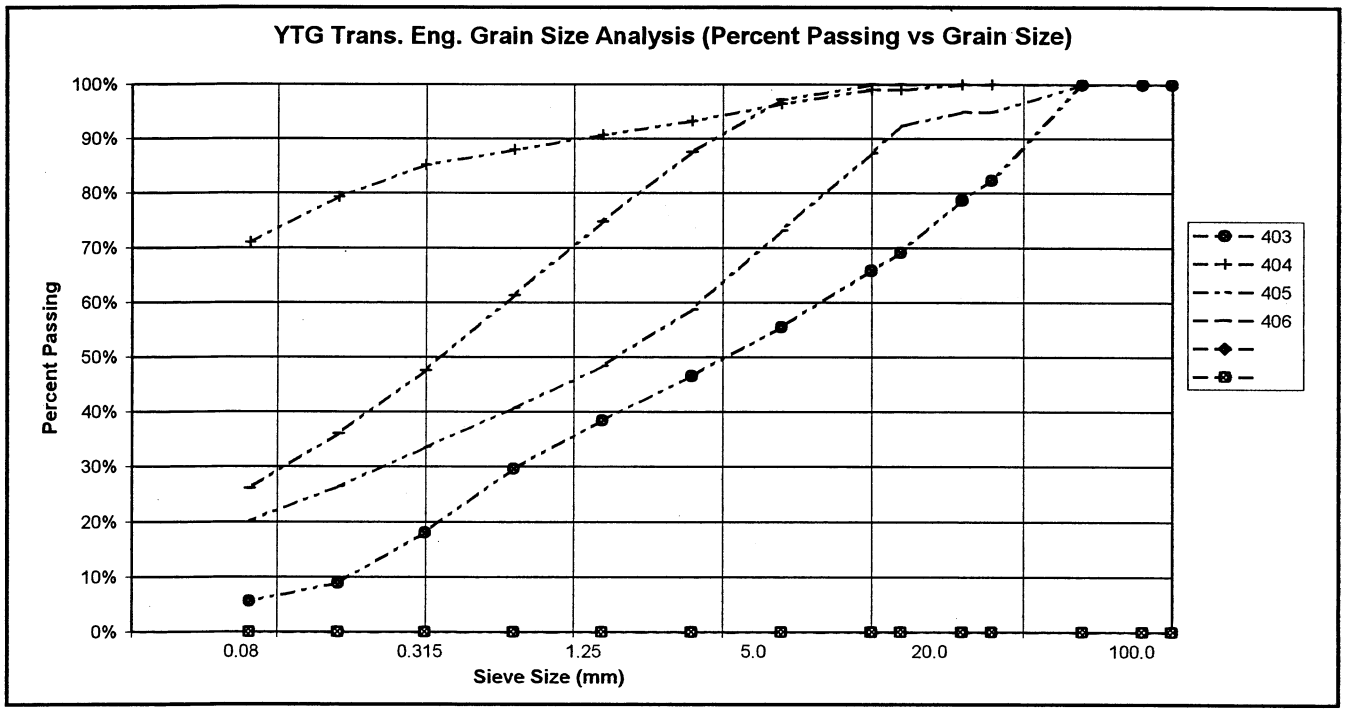


PROJECT NUMBER:	092-202101-0361-1
CLIENT:	ENGINEERING CAPITAL
PROJECT NAME:	SHAKWAK SEG 11
PROJECT LOCATION:	KM 1729.6-1787 A/H
DRILL UNIT:	MOBILE B40 L
HOLE LOCATION:	1750+500 6M LT
LOGGED BY:	W.E.

HOLE No.: 544-1403

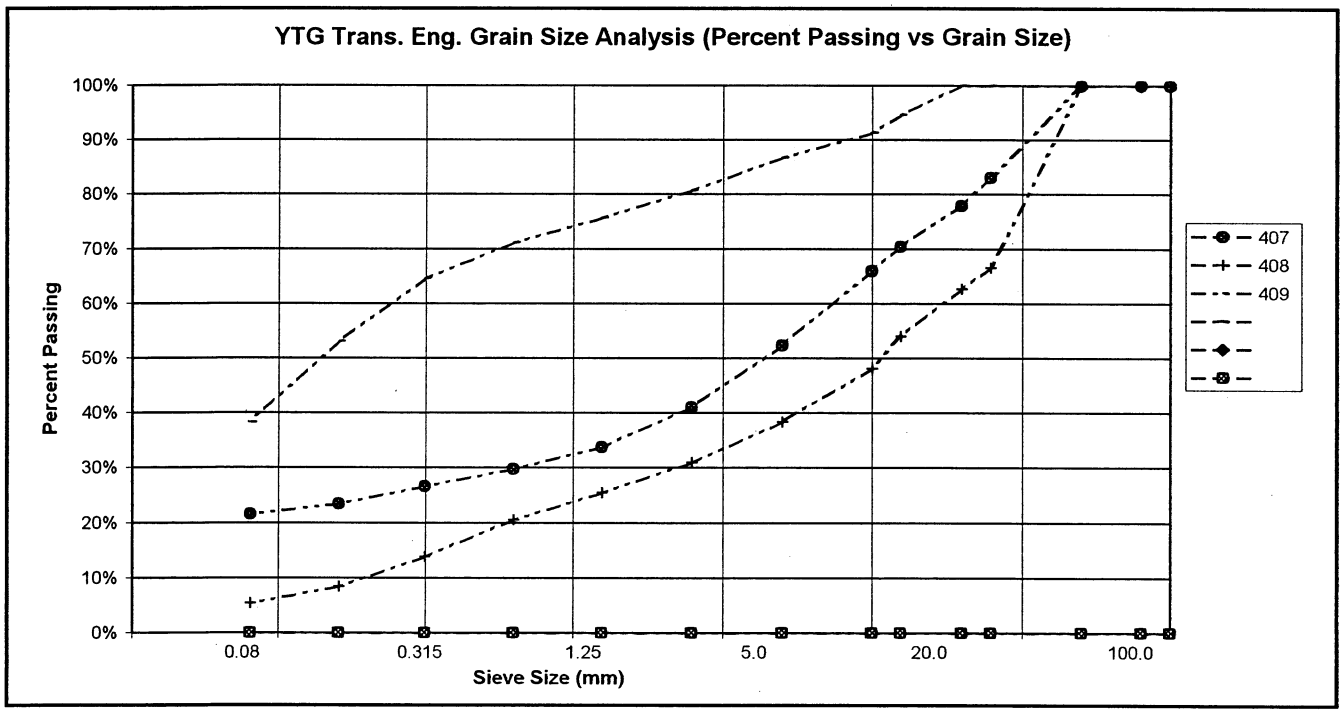
DATE COMP: 2000/05/17

FIELD NO:	403	404	405	406		
LAB NO:	706	707	708	709		
DEPTH:	1.4-1.6	1.8-2.0	2.1-2.4	4.4-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	82%	100%	95%	100%		
20.0	79%	100%	95%	100%		
12.5	69%	99%	92%	100%		
10.0	66%	99%	87%	100%		
5.0	55%	97%	73%	97%		
2.5	47%	93%	59%	88%		
1.25	39%	91%	48%	75%		
0.630	30%	88%	41%	61%		
0.315	18%	85%	34%	47%		
0.160	9%	79%	26%	36%		
0.080	6%	71%	20%	26%		
M.C.(%):	2%	30%	13%	16%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	45	3	27	3		
% SAND:	50	25	53	71		
% FINES:	6	71	20	26		
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND (SM)		



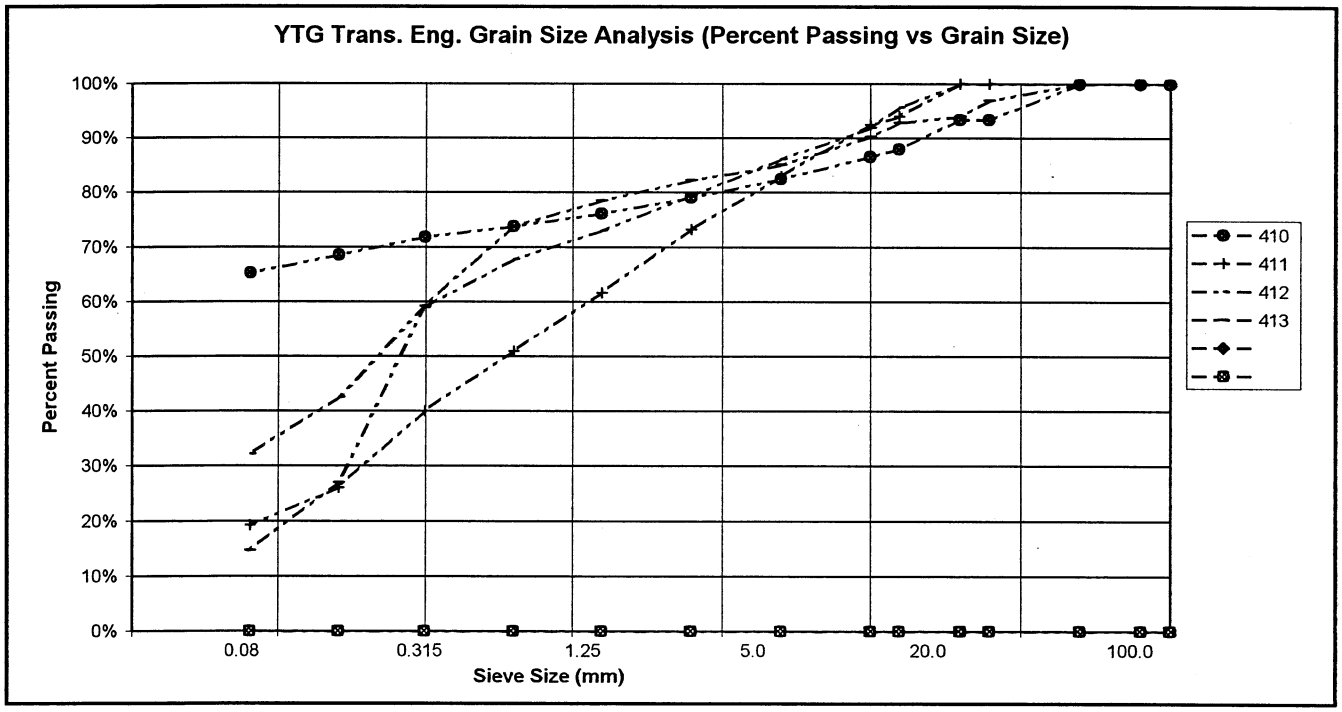
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 544-1404
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1750+600 CL		
LOGGED BY:	W.E.		DATE COMP: 2000/05/17

FIELD NO:	407	408	409			
LAB NO:	710	711	712			
DEPTH:	1.4-1.6	2.9-3.1	4.4-4.6			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	83%	67%	100%			
20.0	78%	63%	100%			
12.5	70%	54%	95%			
10.0	66%	48%	91%			
5.0	52%	38%	87%			
2.5	41%	31%	81%			
1.25	34%	25%	76%			
0.630	30%	21%	71%			
0.315	27%	14%	65%			
0.160	24%	8%	53%			
0.080	22%	5%	38%			
M.C.(%):	2%	2%	17%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	48	62	13			
% SAND:	31	33	48			
% FINES:	22	5	38			
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND (SM)			



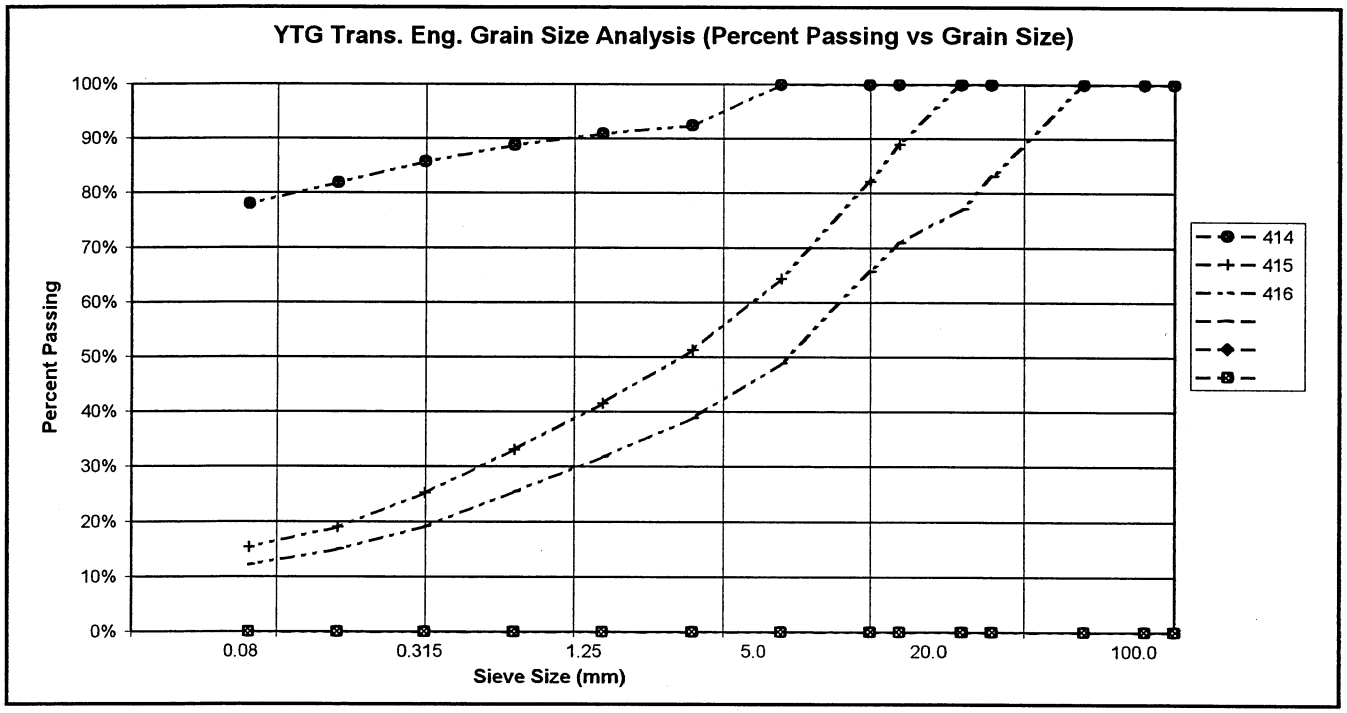
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 544-1405
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1750+700 CL		
LOGGED BY:	W.E.		DATE COMP: 2000/05/17

FIELD NO:	410	411	412	413		
LAB NO:	713	714	713	714		
DEPTH:	1.4-1.6	1.9-2.1	2.9-3.1	4.4-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	93%	100%	100%	97%		
20.0	93%	100%	100%	94%		
12.5	88%	94%	96%	93%		
10.0	87%	92%	92%	90%		
5.0	83%	83%	86%	85%		
2.5	79%	73%	79%	82%		
1.25	76%	62%	73%	79%		
0.630	74%	51%	68%	74%		
0.315	72%	40%	59%	59%		
0.160	69%	26%	43%	27%		
0.080	65%	19%	32%	15%		
M.C.(%):	11%	13%	14%	6%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	17	17	14	15		
% SAND:	17	64	54	70		
% FINES:	65	19	32	15		
CLASSIFICATION	GRAVELLY SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND (SM)	SILTY SAND (SM)		



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 544-1406
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1750+810 20M LT		
LOGGED BY:	W.E.		DATE COMP: 2000/05/17

FIELD NO:	414	415	416			
LAB NO:	717	718	719			
DEPTH:	1.4-1.6	2.9-3.1	4.4-4.6			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	83%			
20.0	100%	100%	77%			
12.5	100%	89%	71%			
10.0	100%	82%	66%			
5.0	100%	64%	49%			
2.5	92%	51%	39%			
1.25	91%	42%	32%			
0.630	89%	33%	26%			
0.315	86%	25%	19%			
0.160	82%	19%	15%			
0.080	78%	15%	12%			
M.C.(%):	46%	5%	4%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	0	36	51			
% SAND:	22	49	37			
% FINES:	78	15	12			
CLASSIFICATION	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)			

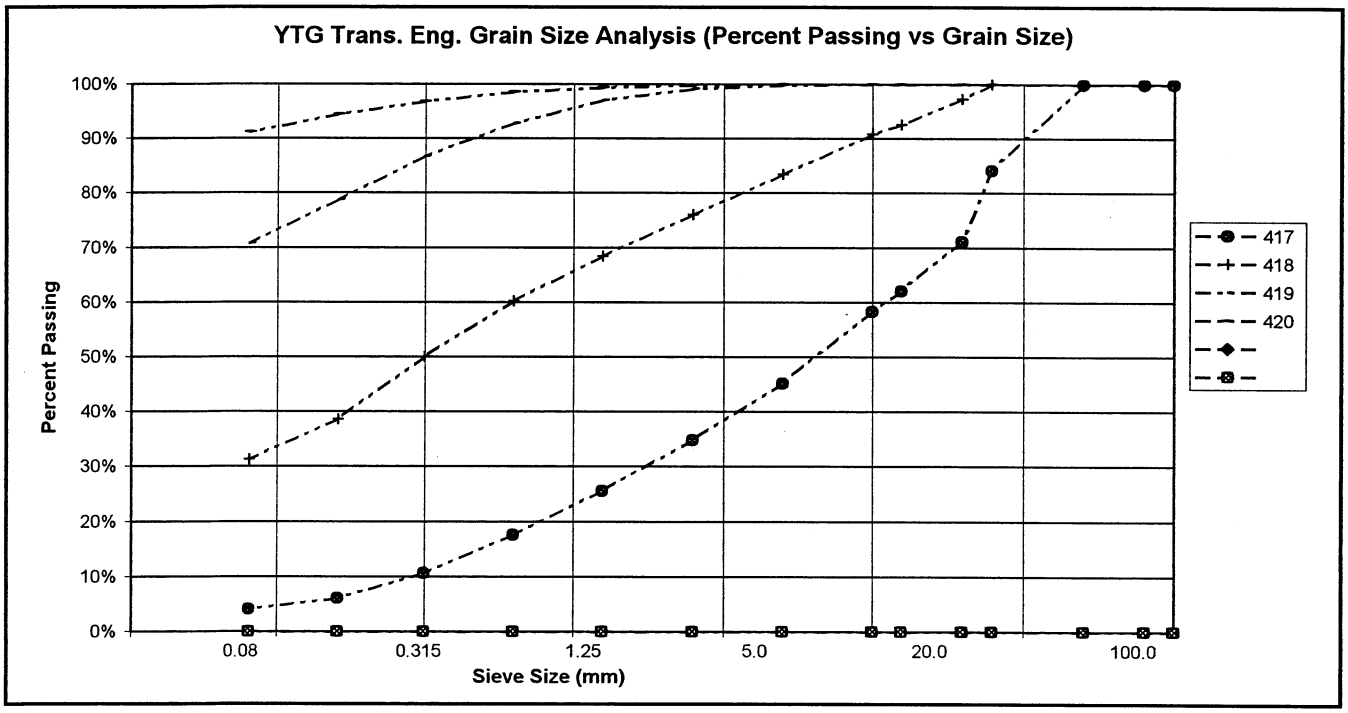


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1750+810 20M RT
LOGGED BY: W.E.

HOLE No.: 544-1407

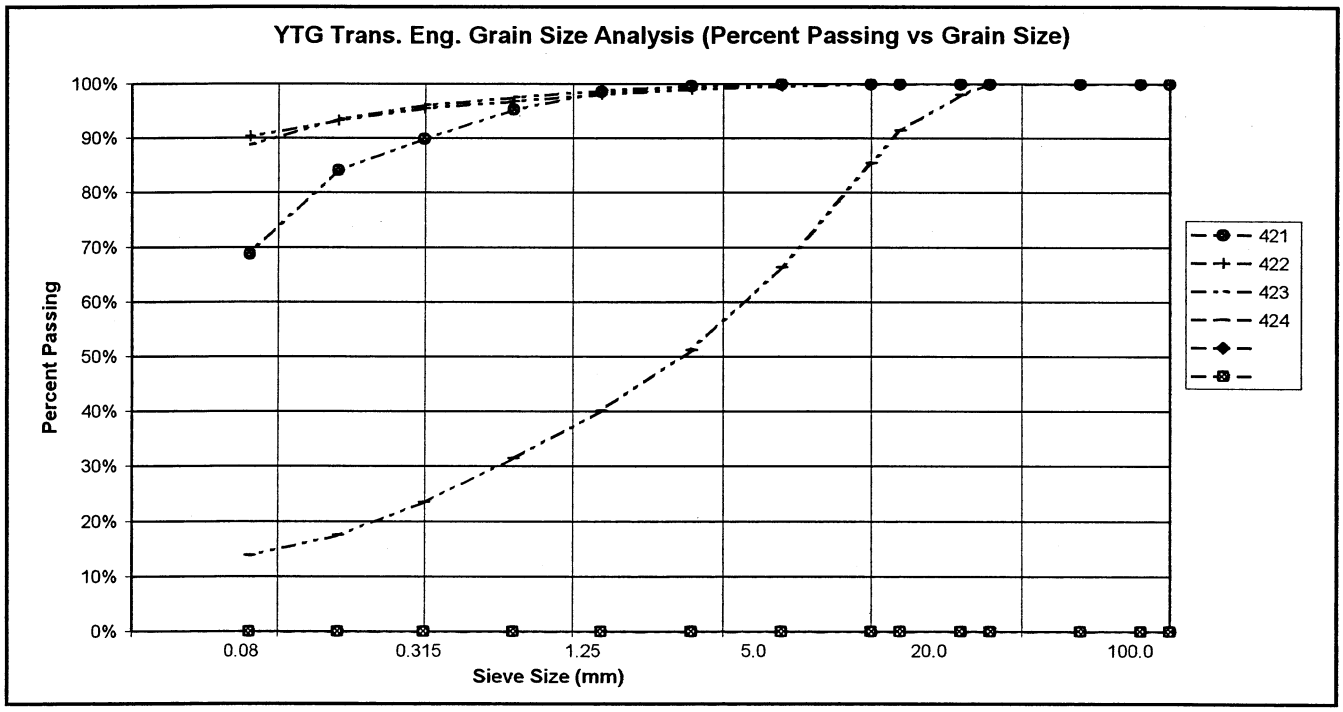
DATE COMP: 2000/05/17

FIELD NO:	417	418	419	420		
LAB NO:	720	721	722	723		
DEPTH:	1.4-1.6	2.0-2.2	3.0-3.2	4.4-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	84%	100%	100%	100%		
20.0	71%	97%	100%	100%		
12.5	62%	93%	100%	100%		
10.0	58%	91%	100%	100%		
5.0	45%	83%	100%	100%		
2.5	35%	76%	99%	100%		
1.25	26%	68%	97%	99%		
0.630	18%	60%	93%	99%		
0.315	11%	50%	87%	97%		
0.160	6%	39%	79%	94%		
0.080	4%	31%	71%	91%		
M.C.(%):	1%	10%	17%	32%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	55	17	0	0		
% SAND:	41	52	29	9		
% FINES:	4	31	71	91		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)	SILT WITH SAND (ML)	SILT (ML)		



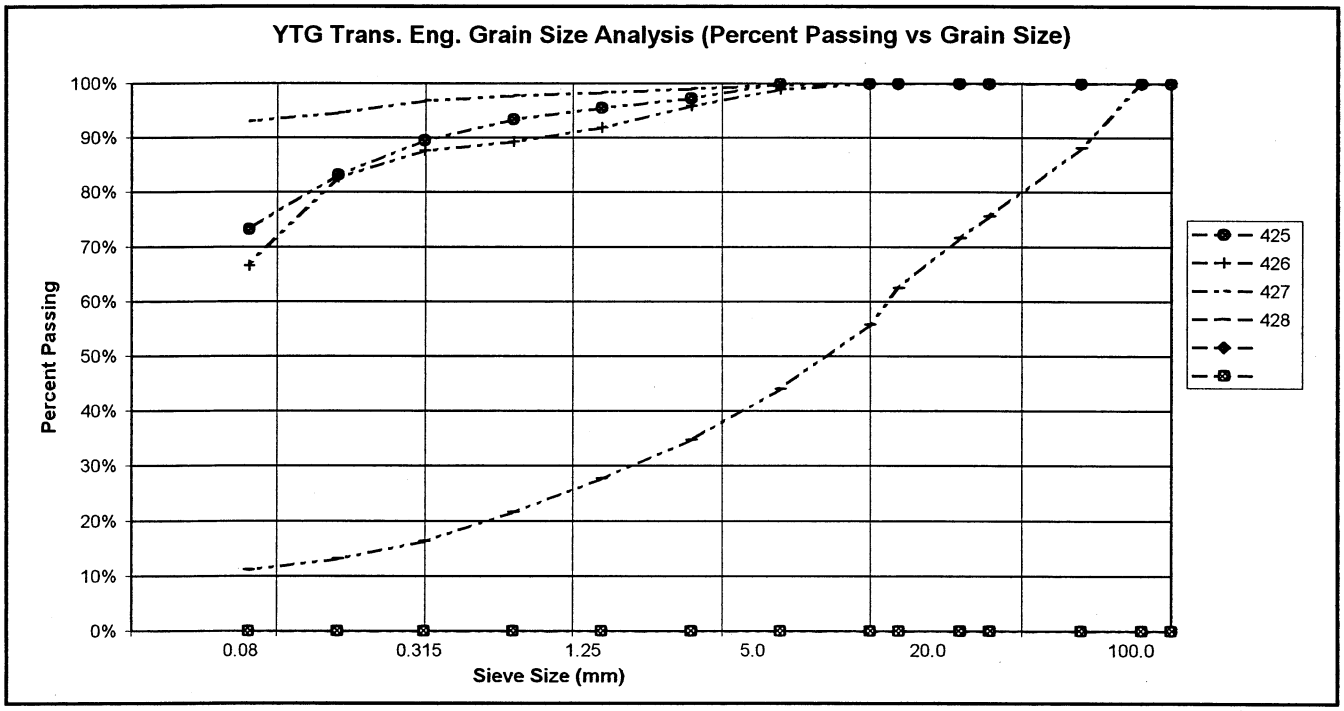
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 544-1408
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1750+900 CL		
LOGGED BY:	W.E.		DATE COMP: 2000/05/17

FIELD NO:	421	422	423	424		
LAB NO:	724	725	726	727		
DEPTH:	0.6-0.8	1.9-2.1	3.0-3.2	4.4-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	100%	100%	100%	100%		
20.0	100%	100%	100%	98%		
12.5	100%	100%	100%	91%		
10.0	100%	100%	100%	85%		
5.0	100%	100%	100%	66%		
2.5	100%	99%	100%	51%		
1.25	99%	98%	99%	40%		
0.630	95%	97%	98%	32%		
0.315	90%	96%	96%	23%		
0.160	84%	93%	94%	17%		
0.080	69%	90%	89%	14%		
M.C.(%):	6%	47%	33%	6%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	0	0	0	34		
% SAND:	31	9	11	53		
% FINES:	69	90	89	14		
CLASSIFICATION	SANDY SILT (ML)	SILT (ML)	SILT (ML)	SILTY SAND WITH GRAVEL (SM)		



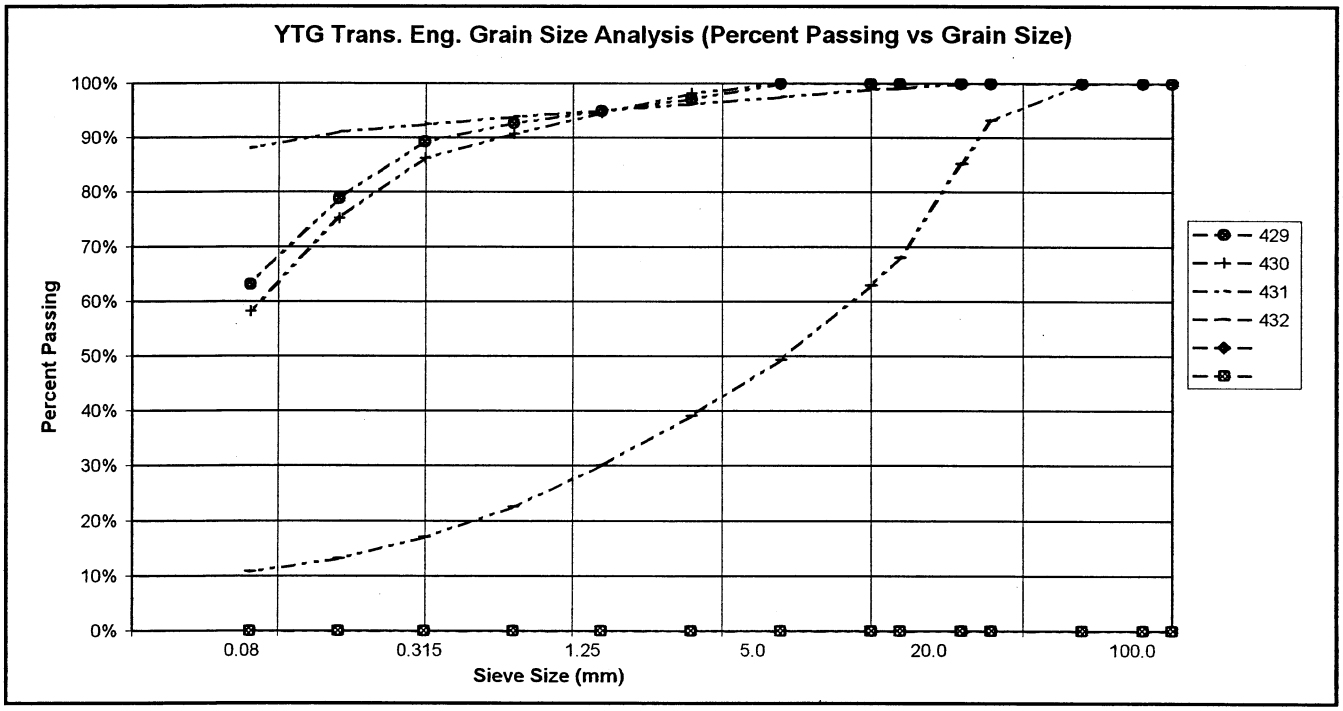
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 544-1409
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1751+000 CL		
LOGGED BY:	W.E.		DATE COMP: 2000/05/18

FIELD NO:	425	426	427	428		
LAB NO:	728	729	730	731		
DEPTH:	1.4-1.6	2.2-2.4	3.0-3.2	4.4-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	88%		
25.0	100%	100%	100%	76%		
20.0	100%	100%	100%	72%		
12.5	100%	100%	100%	62%		
10.0	100%	100%	100%	56%		
5.0	100%	99%	100%	44%		
2.5	97%	96%	99%	35%		
1.25	96%	92%	98%	28%		
0.630	93%	89%	98%	22%		
0.315	90%	88%	97%	16%		
0.160	83%	83%	95%	13%		
0.080	73%	67%	93%	11%		
M.C.(%):	19%	27%	35%	5%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	0	1	0	56		
% SAND:	27	32	7	33		
% FINES:	73	67	93	11		
CLASSIFICATION	SILT WITH SAND (ML)	SANDY SILT (ML)	SILT (ML)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 544-1410
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1751+100 CL		
LOGGED BY:	W.E.		DATE COMP: 2000/05/18

FIELD NO:	429	430	431	432		
LAB NO:	732	733	734	735		
DEPTH:	1.4-1.6	2.1-2.3	3.0-3.2	4.4-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	100%	100%	100%	93%		
20.0	100%	100%	100%	85%		
12.5	100%	100%	99%	68%		
10.0	100%	100%	99%	63%		
5.0	100%	100%	98%	49%		
2.5	97%	98%	96%	39%		
1.25	95%	95%	95%	30%		
0.630	93%	91%	94%	23%		
0.315	89%	86%	93%	17%		
0.160	79%	75%	91%	13%		
0.080	63%	58%	88%	11%		
M.C.(%):	23%	22%	26%	5%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	0	0	2	51		
% SAND:	37	42	9	39		
% FINES:	63	58	88	11		
CLASSIFICATION	SANDY SILT (ML)	SANDY SILT (ML)	SILT (ML)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		

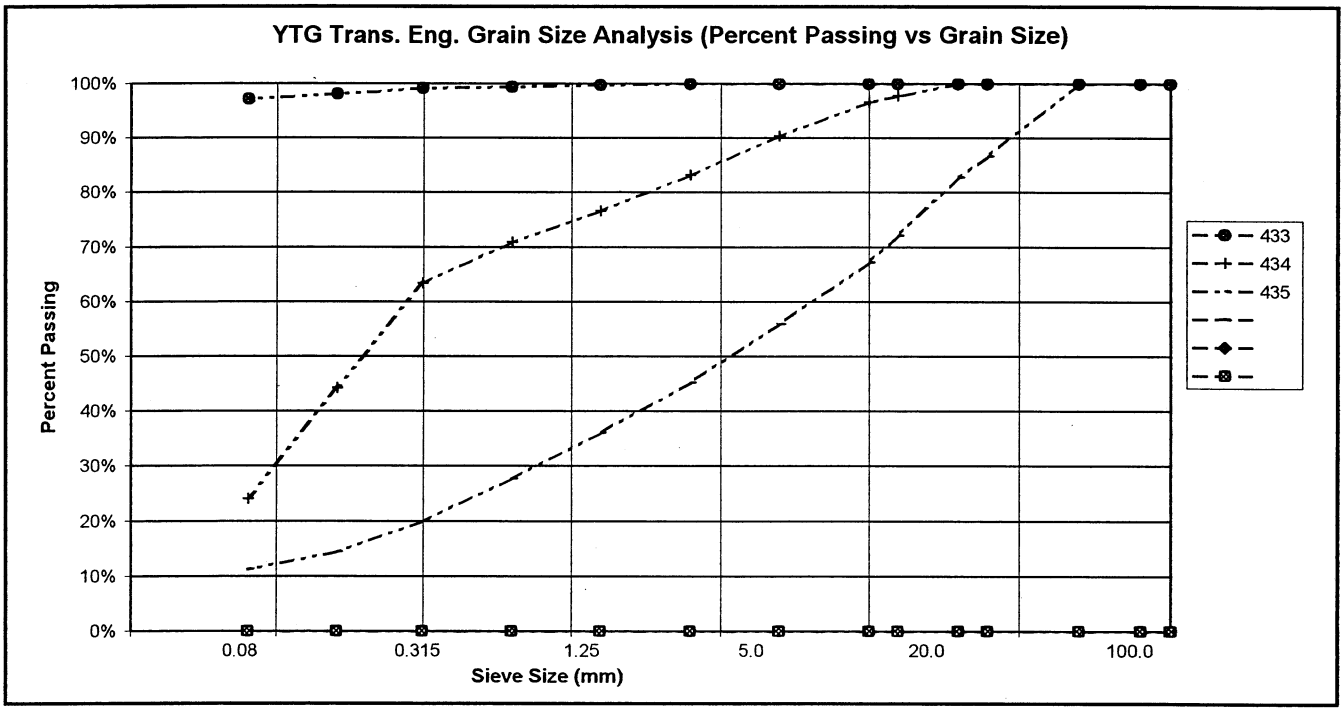


PROJECT NUMBER:	092-202101-0361-1
CLIENT:	ENGINEERING CAPITAL
PROJECT NAME:	SHAKWAK SEG 11
PROJECT LOCATION:	KM 1729.6-1787 A/H
DRILL UNIT:	MOBILE B40 L
HOLE LOCATION:	1751+210 CL
LOGGED BY:	W.E.

HOLE No.: 544-1411

DATE COMP: 2000/05/18

FIELD NO:	433	434	435			
LAB NO:	736	737	738			
DEPTH:	1.4-1.6	2.0-2.2	4.4-4.6			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	87%			
20.0	100%	100%	83%			
12.5	100%	98%	72%			
10.0	100%	97%	67%			
5.0	100%	90%	56%			
2.5	100%	83%	45%			
1.25	100%	77%	36%			
0.630	99%	71%	28%			
0.315	99%	63%	20%			
0.160	98%	44%	14%			
0.080	97%	24%	11%			
M.C.(%):	31%	6%	3%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	0	10	44			
% SAND:	3	66	45			
% FINES:	97	24	11			
CLASSIFICATION	SILT (ML)	SILTY SAND (SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)			

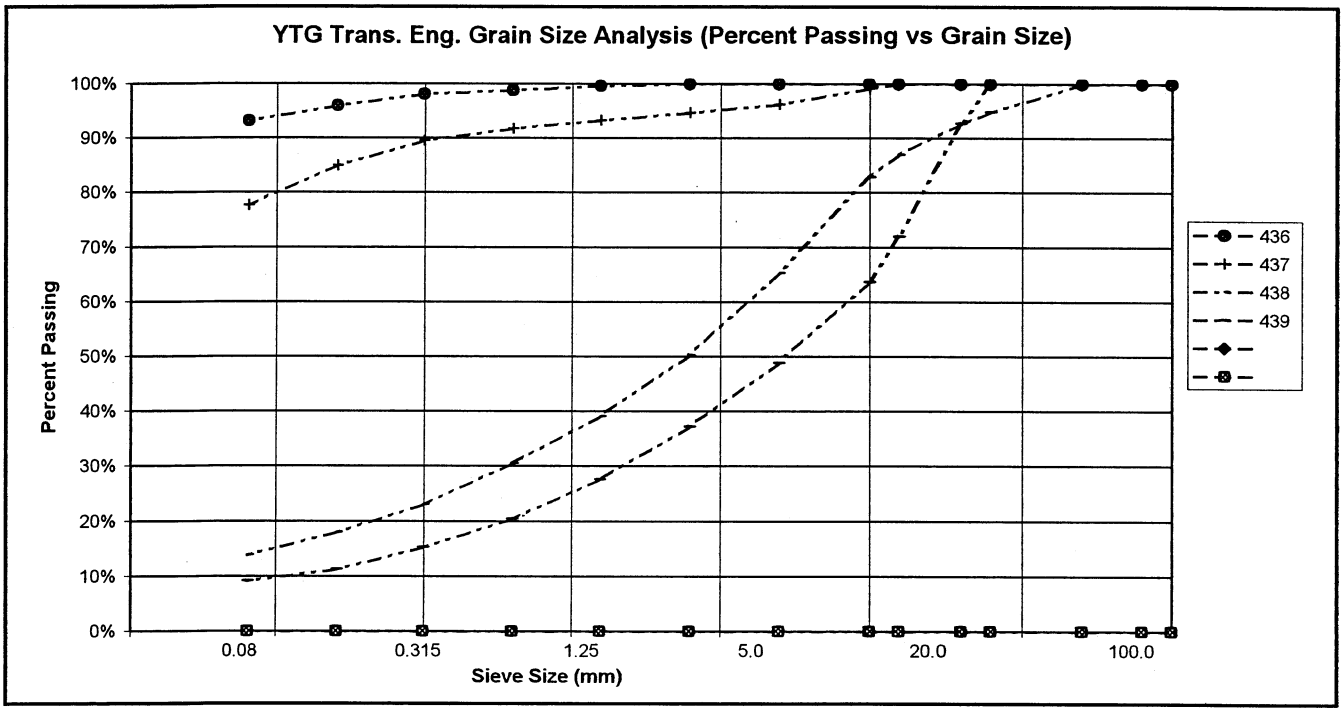


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1751+320 15M LT
LOGGED BY: W.E.

HOLE No.: 544-1412

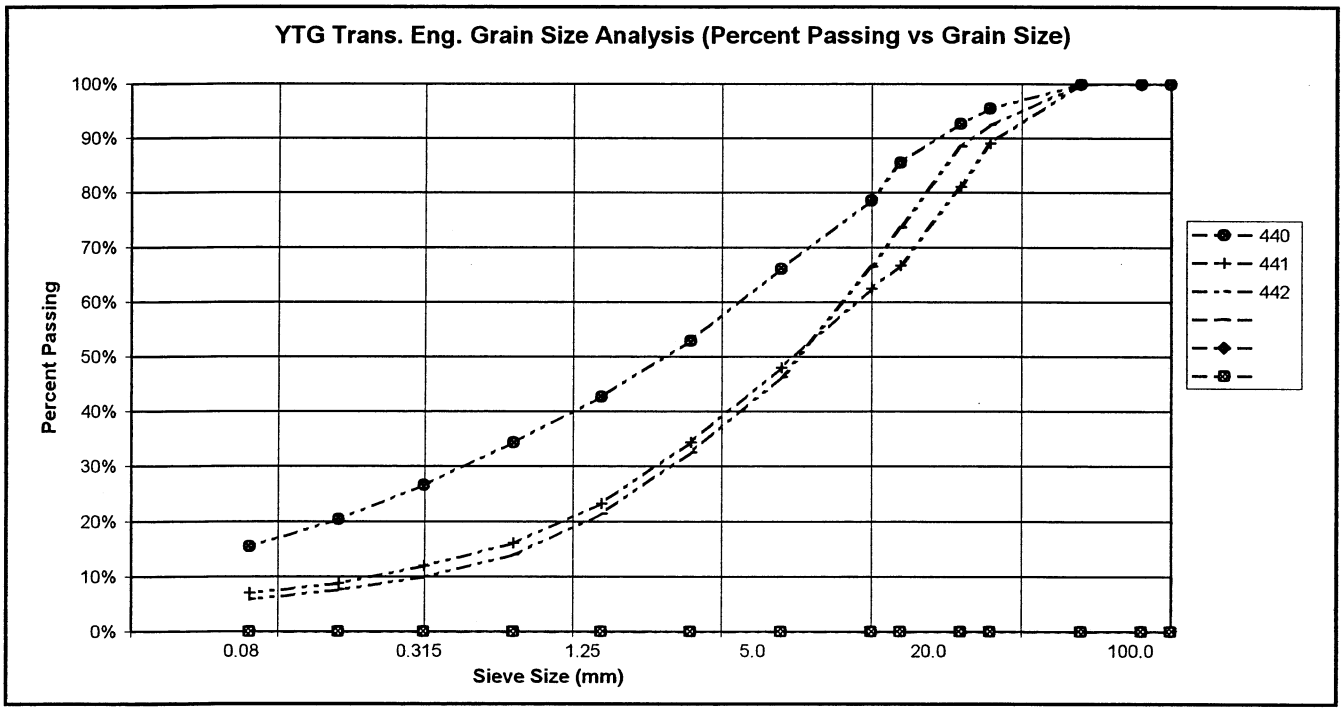
DATE COMP: 2000/05/18

FIELD NO:	436	437	438	439		
LAB NO:	739	740	741	742		
DEPTH:	1.4-1.6	1.9-2.1	2.9-3.1	4.4-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	100%	100%	100%	95%		
20.0	100%	100%	93%	93%		
12.5	100%	100%	87%	72%		
10.0	100%	99%	83%	64%		
5.0	100%	96%	65%	49%		
2.5	100%	95%	50%	37%		
1.25	100%	93%	39%	28%		
0.630	99%	92%	31%	20%		
0.315	98%	90%	23%	15%		
0.160	96%	85%	18%	11%		
0.080	93%	78%	14%	9%		
M.C.(%):	30%	28%	6%	6%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	0	4	35	51		
% SAND:	7	19	51	40		
% FINES:	93	78	14	9		
CLASSIFICATION	SILT (ML)	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



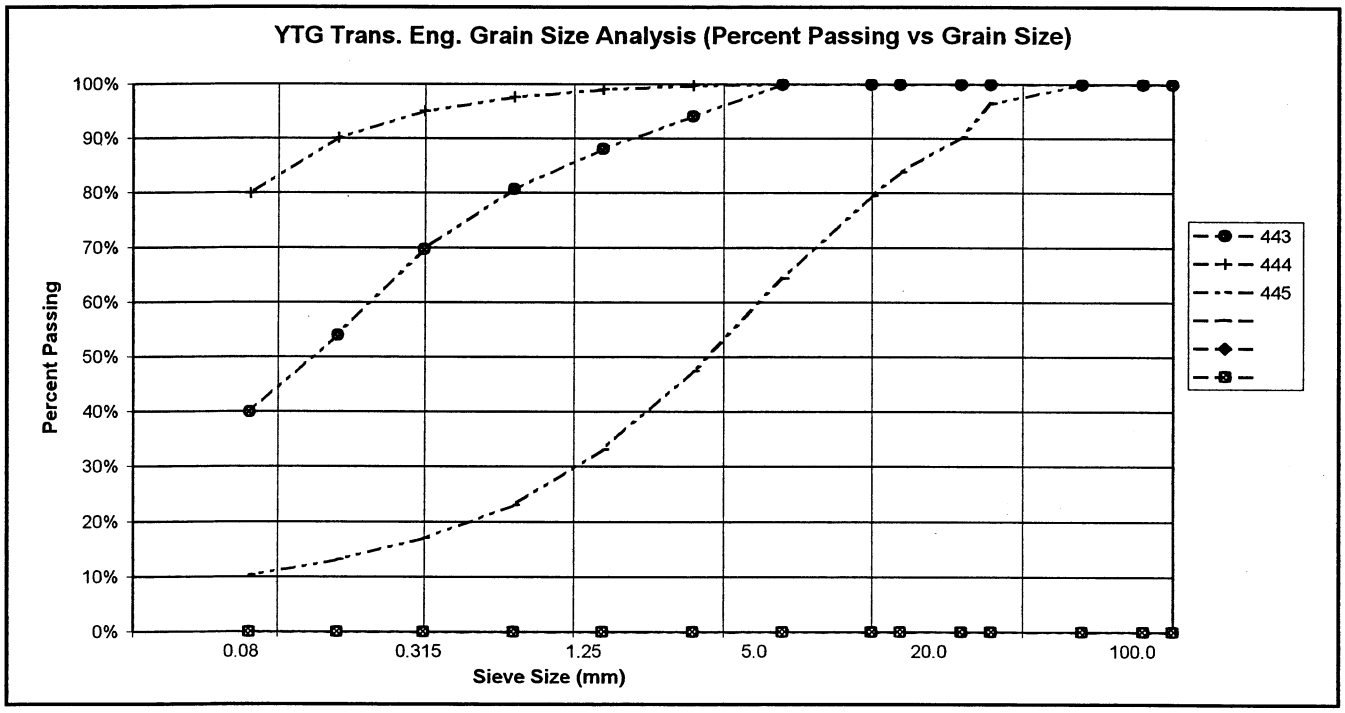
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 544-1413
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1751+325 15M RT		
LOGGED BY:	W.E.		DATE COMP: 2000/05/18

FIELD NO:	440	441	442			
LAB NO:	743	744	745			
DEPTH:	1.2-1.4	2.8-3.0	4.4-4.6			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	95%	89%	92%			
20.0	93%	81%	88%			
12.5	86%	67%	74%			
10.0	79%	62%	66%			
5.0	66%	48%	46%			
2.5	53%	34%	32%			
1.25	43%	23%	21%			
0.630	34%	16%	14%			
0.315	27%	12%	10%			
0.160	20%	9%	8%			
0.080	16%	7%	6%			
M.C.(%):	3%	6%	8%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	34	52	54			
% SAND:	51	41	40			
% FINES:	16	7	6			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 544-1414
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1751+425 5M RT		
LOGGED BY:	W.E.		DATE COMP: 2000/05/18

FIELD NO:	443	444	445			
LAB NO:	746	747	748			
DEPTH:	1.4-1.6	3.0-3.2	4.4-4.6			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	96%			
20.0	100%	100%	90%			
12.5	100%	100%	84%			
10.0	100%	100%	79%			
5.0	100%	100%	64%			
2.5	94%	100%	47%			
1.25	88%	99%	33%			
0.630	81%	98%	23%			
0.315	70%	95%	17%			
0.160	54%	90%	13%			
0.080	40%	80%	10%			
M.C.(%):	13%	32%	8%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	0	0	36			
% SAND:	60	20	54			
% FINES:	40	80	10			
CLASSIFICATION	SILTY SAND (SM)	SILT WITH SAND (ML)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)			

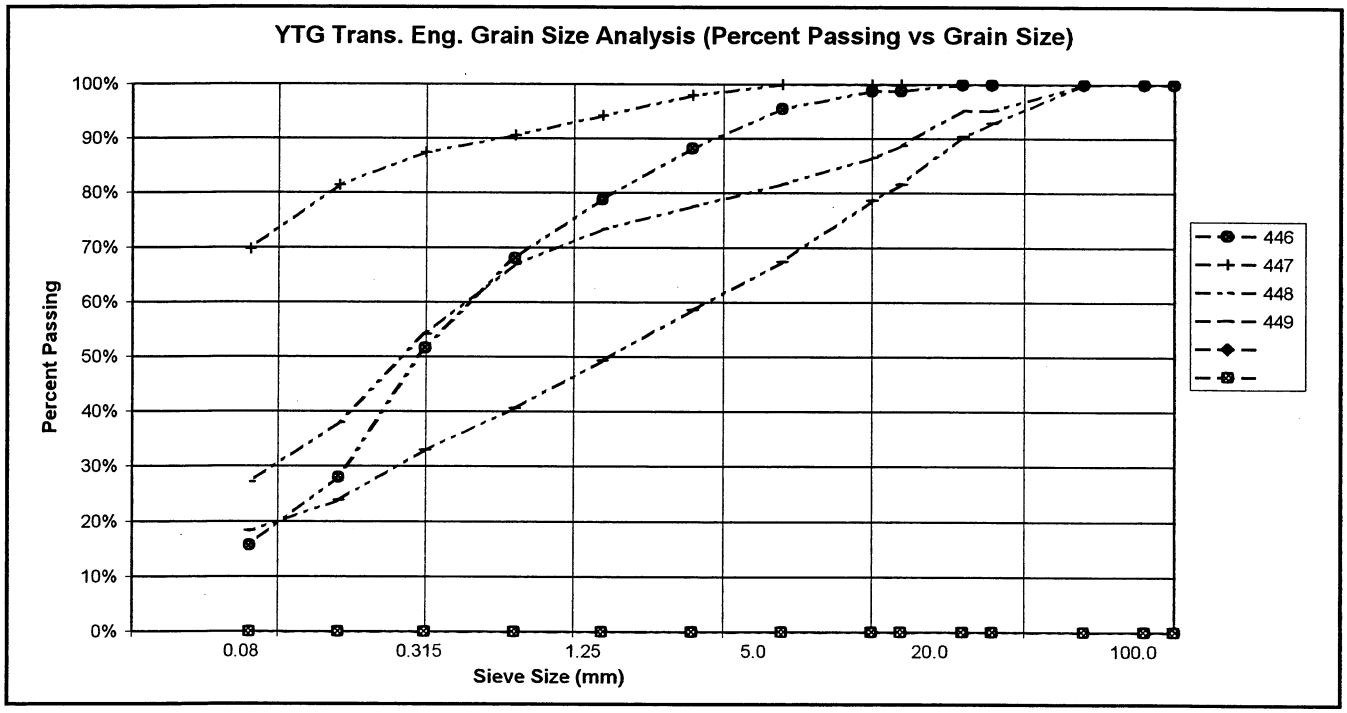


PROJECT NUMBER:	092-202101-0361-1
CLIENT:	ENGINEERING CAPITAL
PROJECT NAME:	SHAKWAK SEG 11
PROJECT LOCATION:	KM 1729.6-1787 A/H
DRILL UNIT:	MOBILE B40 L
HOLE LOCATION:	1751+525 CL
LOGGED BY:	W.E.

HOLE No.: 544-1415

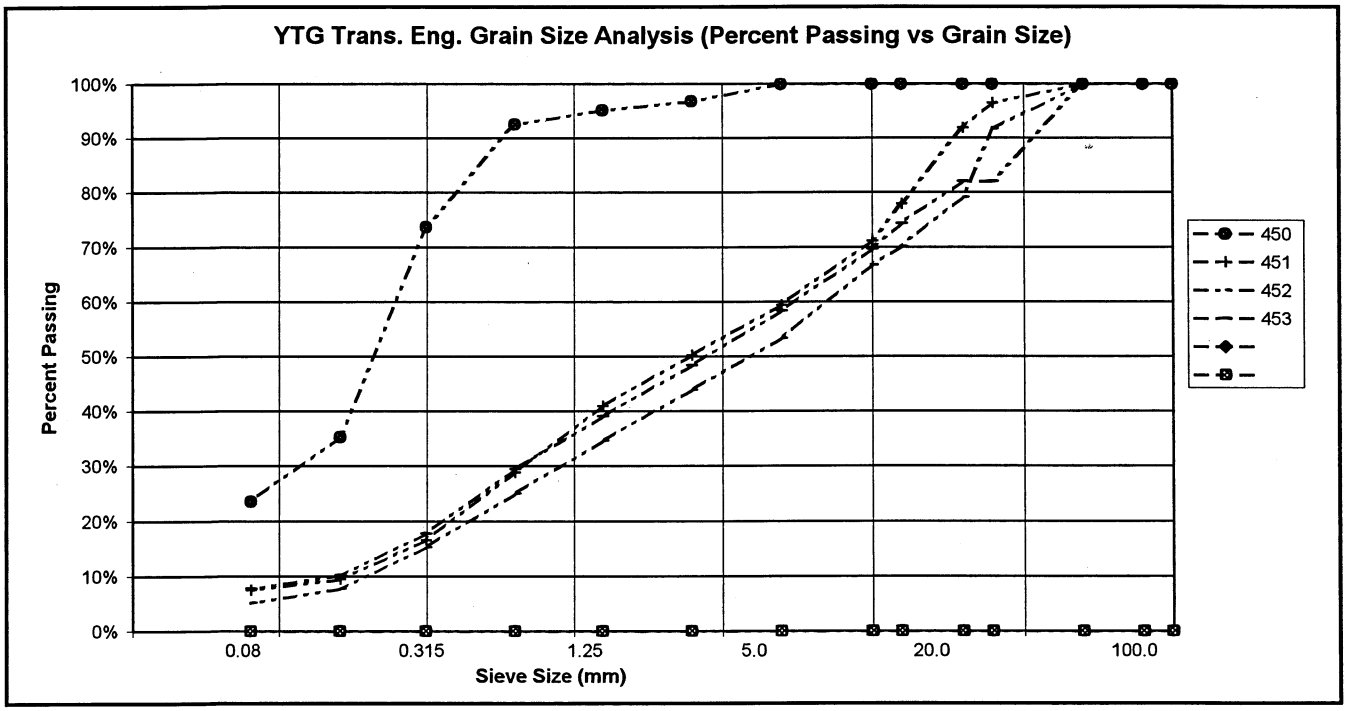
DATE COMP: 2000/05/18

FIELD NO:	446	447	448	449		
LAB NO:	749	750	751	752		
DEPTH:	0.9-1.0	1.4-1.6	2.9-3.1	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	100%	100%	95%	93%		
20.0	100%	100%	95%	90%		
12.5	99%	100%	89%	82%		
10.0	99%	100%	87%	79%		
5.0	96%	100%	82%	67%		
2.5	88%	98%	78%	59%		
1.25	79%	94%	73%	49%		
0.630	68%	91%	67%	41%		
0.315	52%	87%	54%	33%		
0.160	28%	81%	38%	24%		
0.080	16%	70%	27%	18%		
M.C.(%):	3%	21%	7%	5%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	4	0	18	33		
% SAND:	80	30	55	49		
% FINES:	16	70	27	18		
CLASSIFICATION	SILTY SAND (SM)	SANDY SILT (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 544-1416
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1751+625 CL		
LOGGED BY:	W.E.		DATE COMP: 2000/05/18

FIELD NO:	450	451	452	453		
LAB NO:	753	754	755	756		
DEPTH:	1.0-1.2	2.9-3.1	3.9-4.1	4.9-5.1		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	100%	96%	92%	82%		
20.0	100%	92%	79%	82%		
12.5	100%	78%	70%	74%		
10.0	100%	71%	67%	70%		
5.0	100%	59%	53%	58%		
2.5	97%	50%	44%	48%		
1.25	95%	41%	35%	39%		
0.630	93%	29%	25%	29%		
0.315	74%	17%	15%	18%		
0.160	35%	9%	8%	10%		
0.080	24%	7%	5%	8%		
M.C.(%):	4%	2%	1%	2%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	0	41	47	42		
% SAND:	76	52	48	51		
% FINES:	24	7	5	8		
CLASSIFICATION	SILTY SAND (SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)		

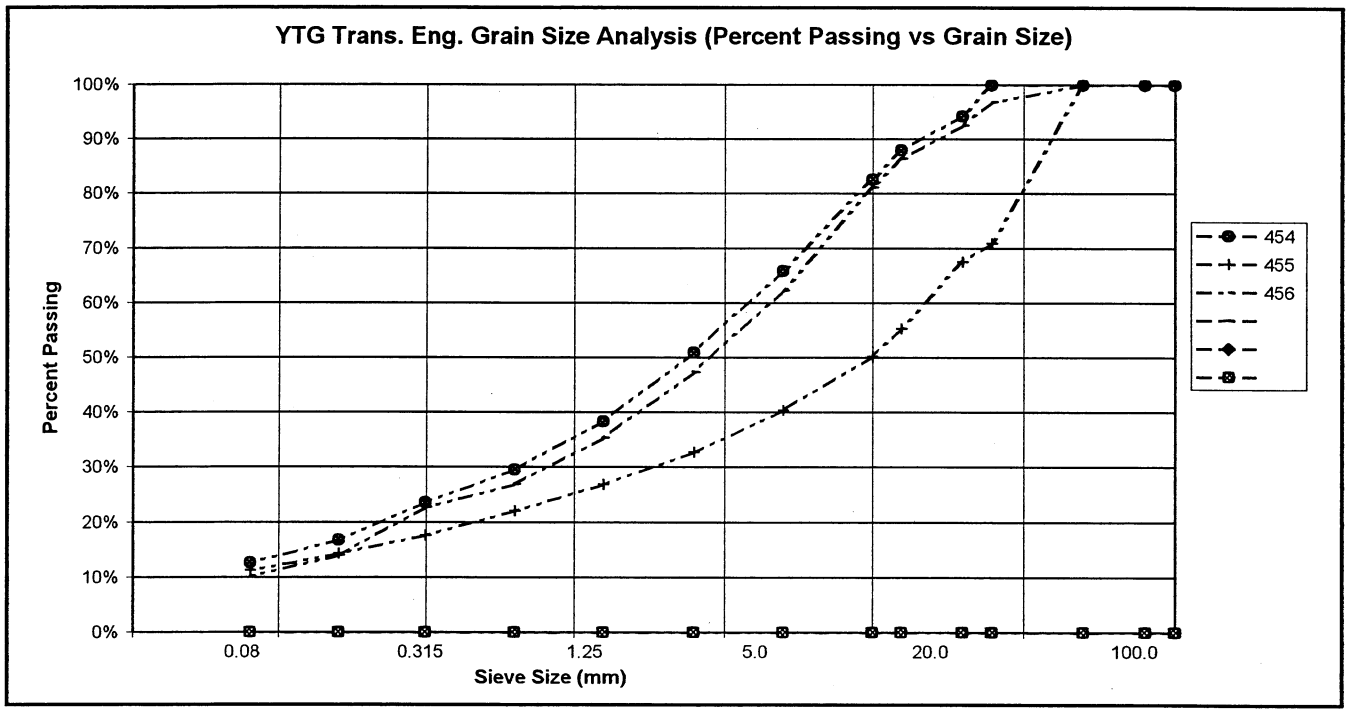


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1751+675 20M LT
LOGGED BY: W.E.

HOLE No.: 544-1417

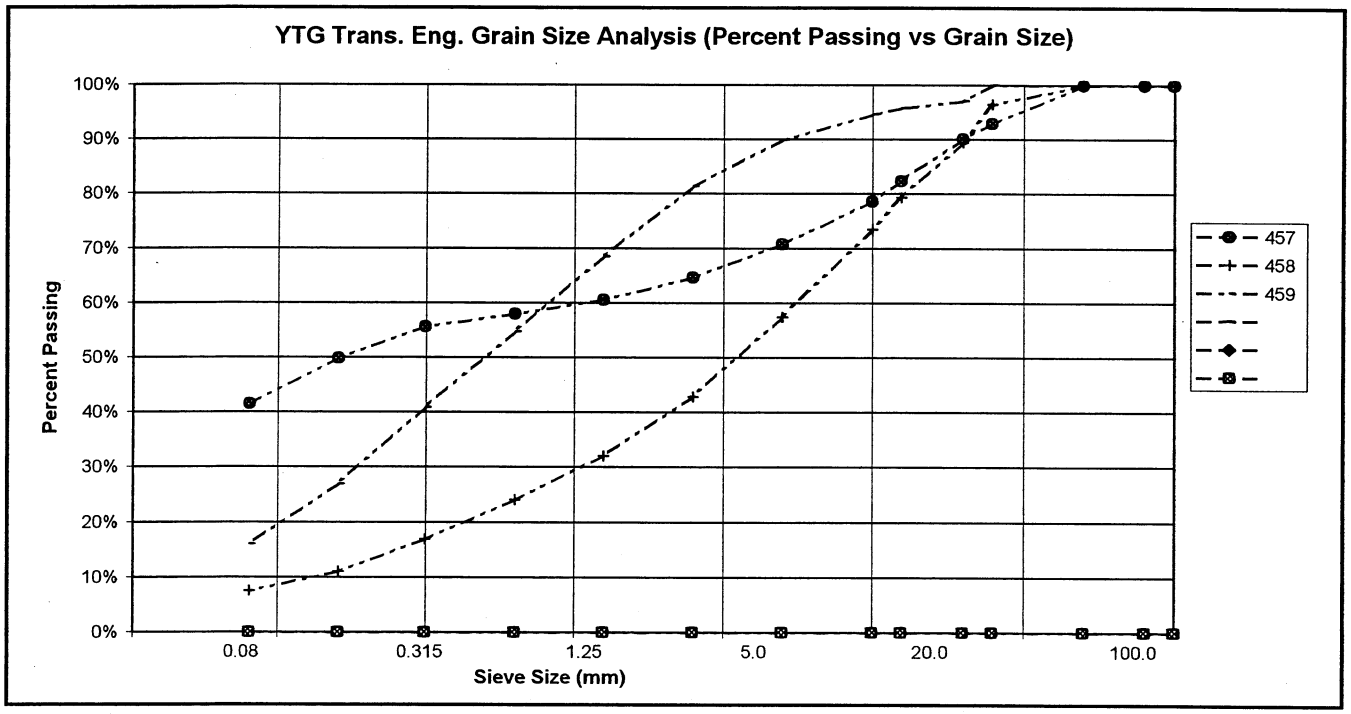
DATE COMP: 2000/05/18

FIELD NO:	454	455	456			
LAB NO:	757	758	759			
DEPTH:	0.9-1.1	1.9-2.1	3.0-3.2			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	71%	97%			
20.0	94%	67%	93%			
12.5	88%	55%	86%			
10.0	83%	50%	81%			
5.0	66%	40%	62%			
2.5	51%	33%	47%			
1.25	38%	27%	35%			
0.630	30%	22%	27%			
0.315	24%	18%	23%			
0.160	17%	14%	14%			
0.080	13%	11%	10%			
M.C.(%):	11%	9%	8%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	34	60	38			
% SAND:	53	29	52			
% FINES:	13	11	10			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)			



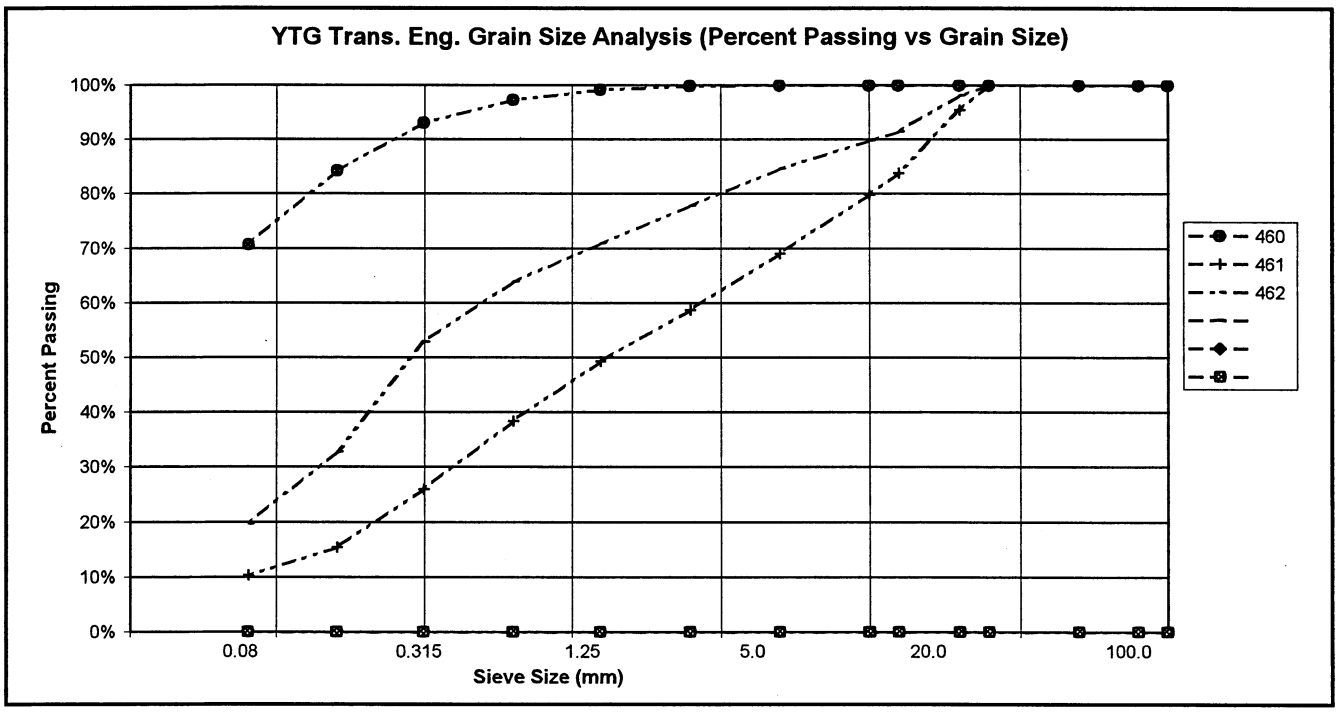
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 544-1418
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1751+690 20M RT		
LOGGED BY:	W.E.		DATE COMP: 2000/05/18

FIELD NO:	457	458	459			
LAB NO:	760	761	762			
DEPTH:	08.1.0	2.0-2.2	3.0-3.2			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	93%	96%	100%			
20.0	90%	89%	97%			
12.5	82%	79%	96%			
10.0	79%	73%	95%			
5.0	71%	57%	90%			
2.5	65%	43%	81%			
1.25	61%	32%	68%			
0.630	58%	24%	55%			
0.315	56%	17%	41%			
0.160	50%	11%	27%			
0.080	42%	7%	16%			
M.C.(%):	20%	8%	12%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	29	43	10			
% SAND:	29	50	74			
% FINES:	42	7	16			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILTY SAND (SM)			



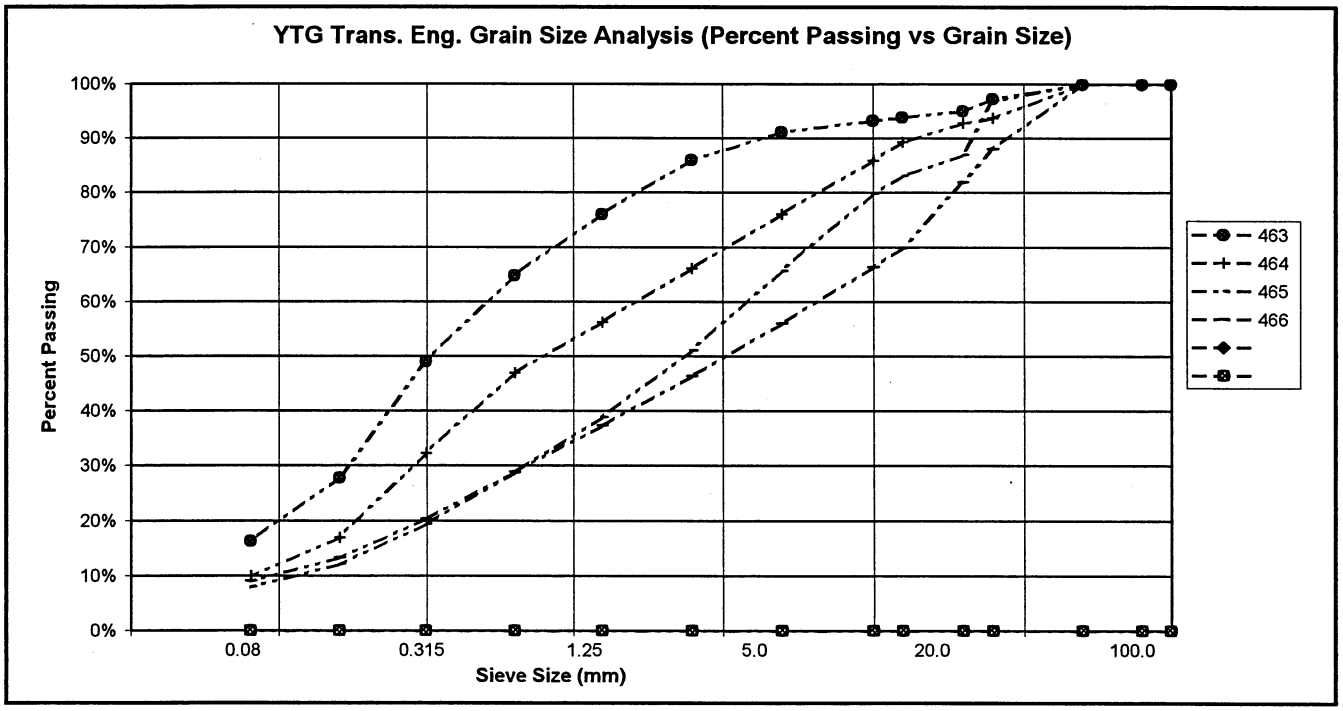
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 545-1419
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1751+795 15M LT		
LOGGED BY:	W.E.		DATE COMP: 2000/05/19

FIELD NO:	460	461	462			
LAB NO:	763	764	765			
DEPTH:	1.4-1.6	2.0-2.2	4.4-4.6			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	100%			
20.0	100%	95%	98%			
12.5	100%	84%	91%			
10.0	100%	80%	90%			
5.0	100%	69%	85%			
2.5	100%	59%	78%			
1.25	99%	49%	71%			
0.630	97%	38%	64%			
0.315	93%	26%	53%			
0.160	84%	15%	33%			
0.080	71%	10%	20%			
M.C.(%):	25%	2%	5%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	0	31	15			
% SAND:	29	59	65			
% FINES:	71	10	20			
CLASSIFICATION	SILT WITH SAND (ML)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILTY SAND WITH GRAVEL (SM)			



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 545-1420
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1751+810 20M RT		
LOGGED BY:	W.E.		DATE COMP: 2000/05/19

FIELD NO:	463	464	465	466		
LAB NO:	766	767	768	769		
DEPTH:	0.9-1.1	1.9-2.1	3.0-3.2	4.4-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	97%	94%	97%	88%		
20.0	95%	93%	87%	82%		
12.5	94%	89%	83%	70%		
10.0	93%	86%	80%	66%		
5.0	91%	76%	66%	56%		
2.5	86%	66%	51%	46%		
1.25	76%	56%	39%	37%		
0.630	65%	47%	29%	29%		
0.315	49%	32%	19%	20%		
0.160	28%	17%	12%	13%		
0.080	16%	10%	8%	9%		
M.C.(%):	9%	4%	3%	4%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	9	24	34	44		
% SAND:	75	66	58	47		
% FINES:	16	10	8	9		
CLASSIFICATION	SILTY SAND (SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)		

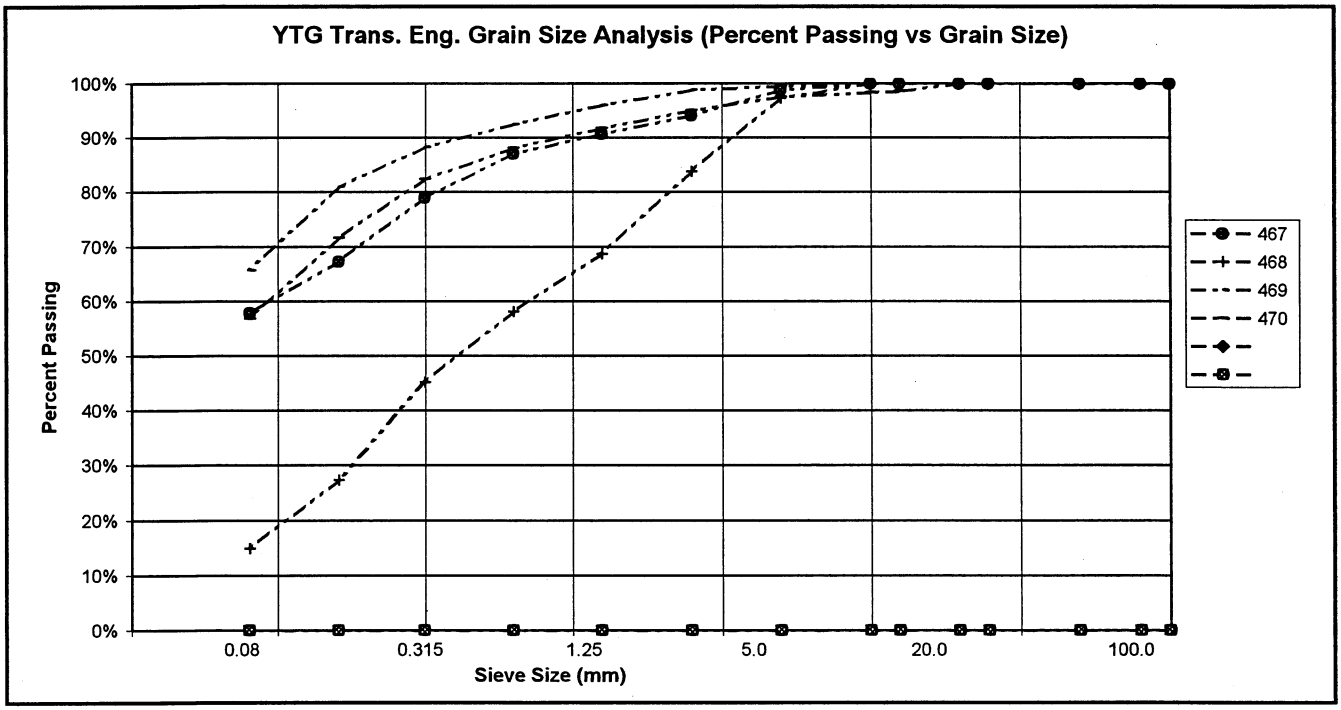


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1751+900 C/L
LOGGED BY: W.E.

HOLE No.: 545-1421

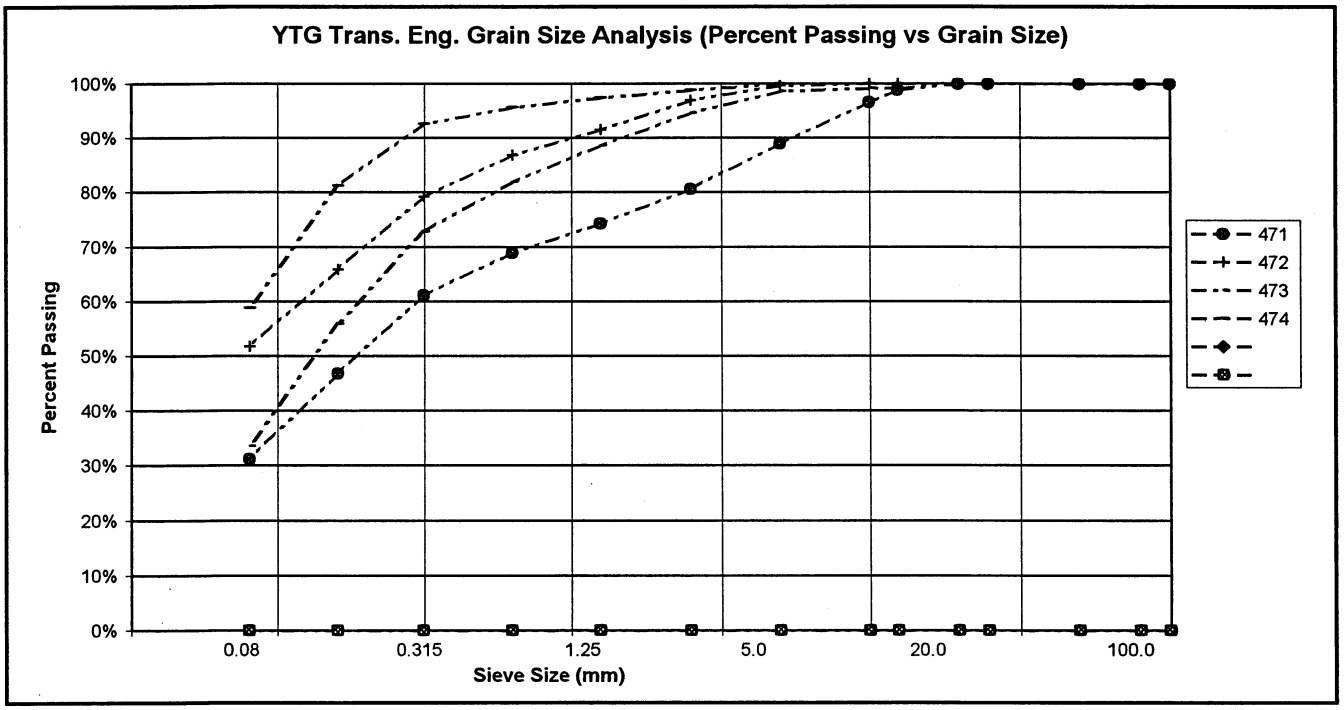
DATE COMP: 2000/05/19

FIELD NO:	467	468	469	470		
LAB NO:	770	771	772	773		
DEPTH:	0.6-0.8	1.5-1.7	2.9-3.1	4.4-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	100%	100%	100%	100%		
20.0	100%	100%	100%	100%		
12.5	100%	100%	100%	99%		
10.0	100%	100%	100%	98%		
5.0	99%	97%	99%	98%		
2.5	94%	84%	99%	95%		
1.25	91%	69%	96%	92%		
0.630	87%	58%	93%	88%		
0.315	79%	45%	88%	82%		
0.160	67%	27%	81%	72%		
0.080	58%	15%	66%	57%		
M.C.(%):	10%	3%	21%	16%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	1	3	1	2		
% SAND:	41	82	34	41		
% FINES:	58	15	66	57		
CLASSIFICATION	SANDY SILT (ML)	SILTY SAND (SM)	SANDY SILT (ML)	SANDY SILT (ML)		



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 545-1422
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1751+900 15M LT		
LOGGED BY:	W.E.		DATE COMP: 2000/05/19

FIELD NO:	471	472	473	474		
LAB NO:	774	775	776	777		
DEPTH:	0.3-0.5	1.4-1.5	2.9-3.1	4.4-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	100%	100%	100%	100%		
20.0	100%	100%	100%	100%		
12.5	99%	100%	99%	100%		
10.0	97%	100%	99%	100%		
5.0	89%	100%	99%	100%		
2.5	81%	97%	95%	99%		
1.25	74%	92%	89%	97%		
0.630	69%	87%	82%	96%		
0.315	61%	79%	73%	93%		
0.160	47%	66%	56%	81%		
0.080	31%	52%	34%	59%		
M.C.(%):	16%	12%	8%	25%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	11	0	1	0		
% SAND:	58	48	65	41		
% FINES:	31	52	34	59		
CLASSIFICATION	SILTY SAND (SM)	SANDY SILT (ML)	SILTY SAND (SM)	SANDY SILT (ML)		

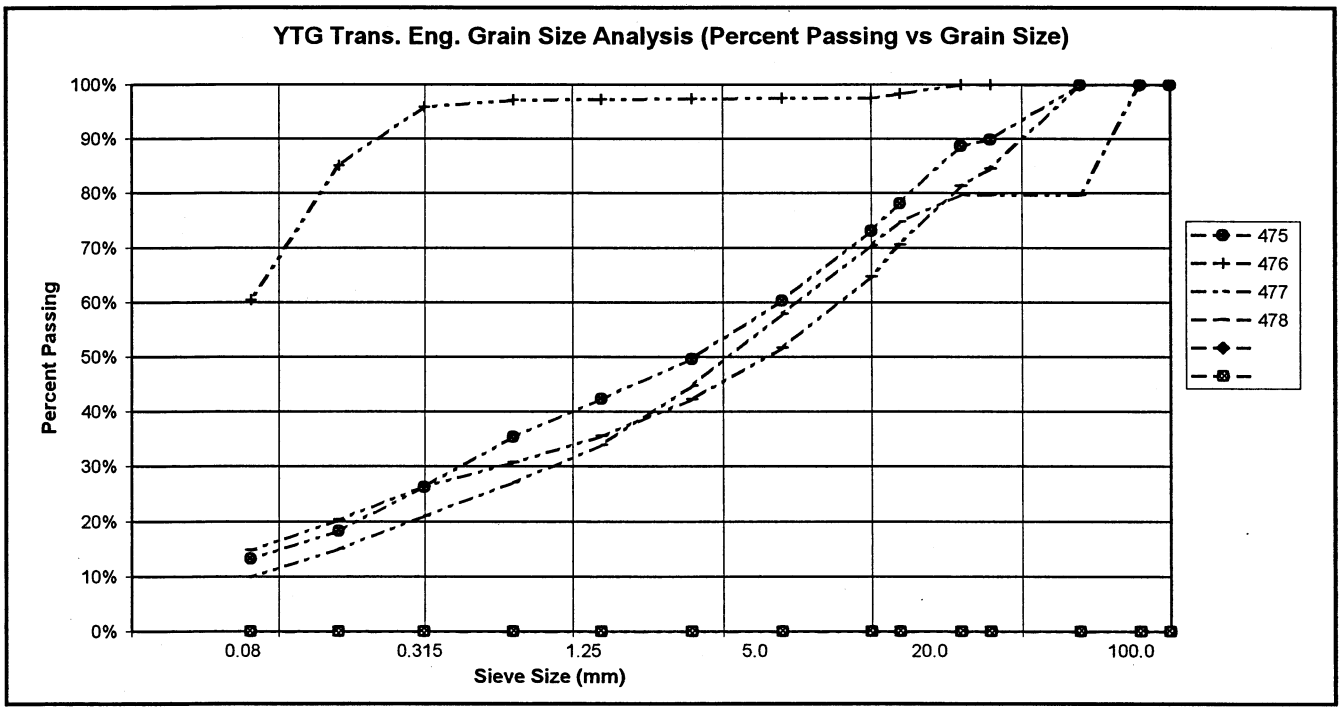


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1752+020 20M RT
LOGGED BY: W.E.

HOLE No.: 545-1423

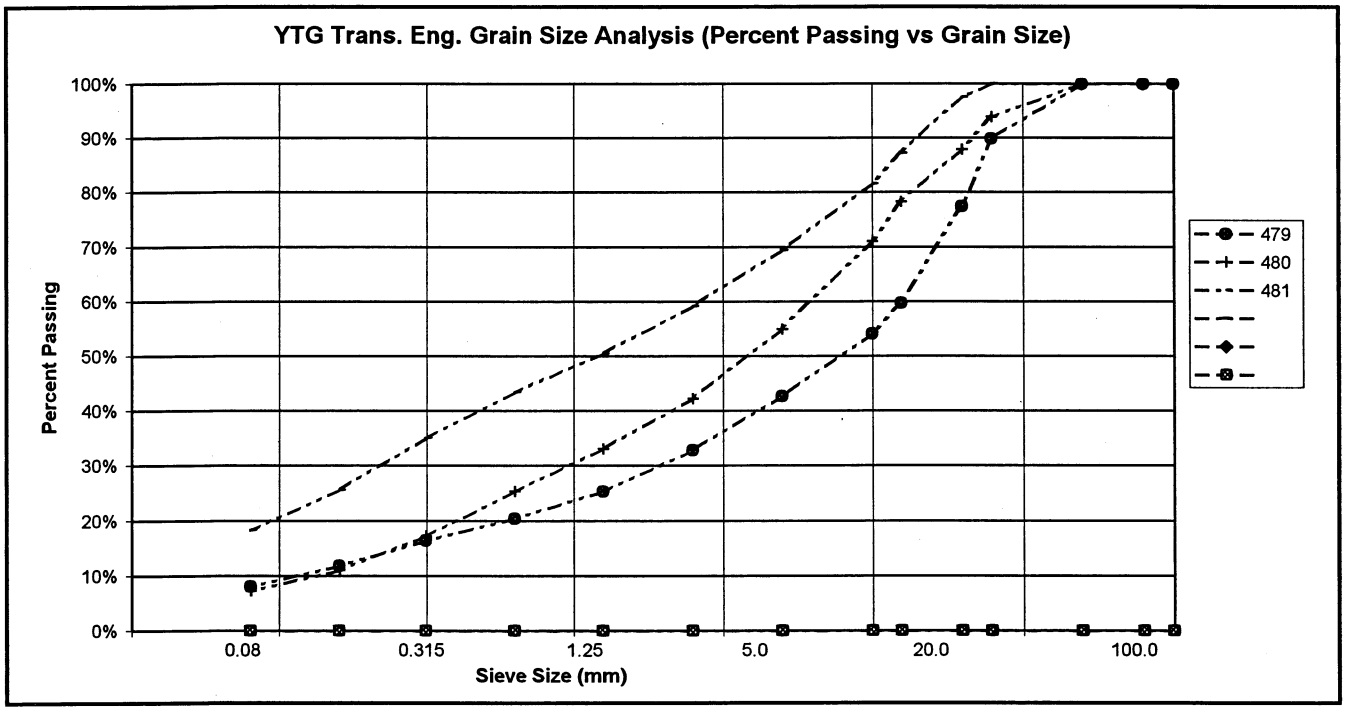
DATE COMP: 2000/05/19

FIELD NO:	475	476	477	478		
LAB NO:	778	779	780	781		
DEPTH:	0.4-0.6	1.4-1.6	2.8-3.0	4.4-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	80%	100%		
25.0	90%	100%	80%	84%		
20.0	89%	100%	80%	81%		
12.5	78%	98%	75%	71%		
10.0	73%	98%	70%	65%		
5.0	60%	98%	58%	52%		
2.5	50%	97%	45%	42%		
1.25	42%	97%	34%	36%		
0.630	35%	97%	27%	31%		
0.315	26%	96%	21%	26%		
0.160	18%	85%	15%	20%		
0.080	13%	60%	10%	15%		
M.C.(%):	7%	5%	3%	4%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	40	2	42	48		
% SAND:	47	37	48	37		
% FINES:	13	60	10	15		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILTY GRAVEL WITH SAND (GM)		



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 545-1424
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1752+125 C/L		
LOGGED BY:	W.E.		DATE COMP: 2000/05/19

FIELD NO:	479	480	481			
LAB NO:	782	783	784			
DEPTH:	1.4-1.6	2.8-3.0	4.4-4.6			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	90%	94%	100%			
20.0	77%	88%	98%			
12.5	60%	78%	87%			
10.0	54%	71%	82%			
5.0	43%	55%	69%			
2.5	33%	42%	59%			
1.25	25%	33%	51%			
0.630	20%	25%	43%			
0.315	16%	17%	35%			
0.160	12%	11%	26%			
0.080	8%	7%	18%			
M.C.(%):	2%	3%	6%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	57	45	31			
% SAND:	35	48	51			
% FINES:	8	7	18			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILTY SAND WITH GRAVEL (SM)			

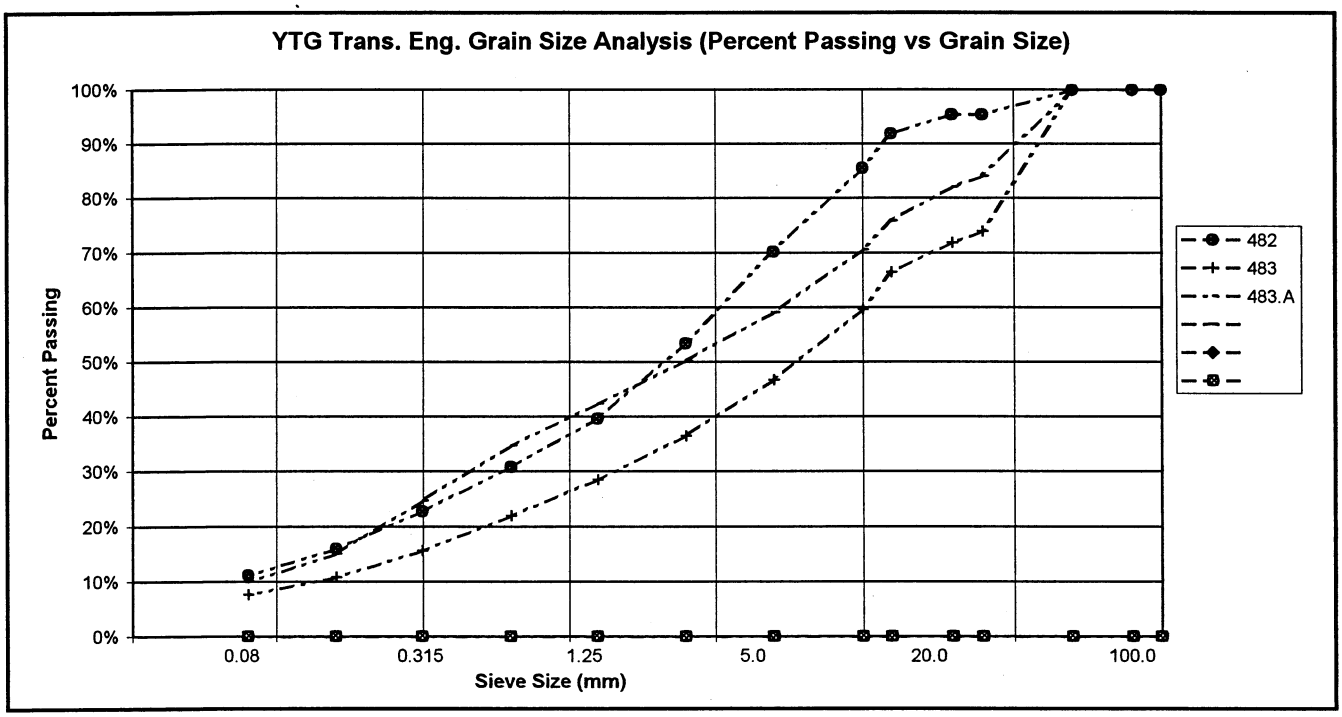


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1752+200 C/L
LOGGED BY: W.E.

HOLE No.: 545-1425

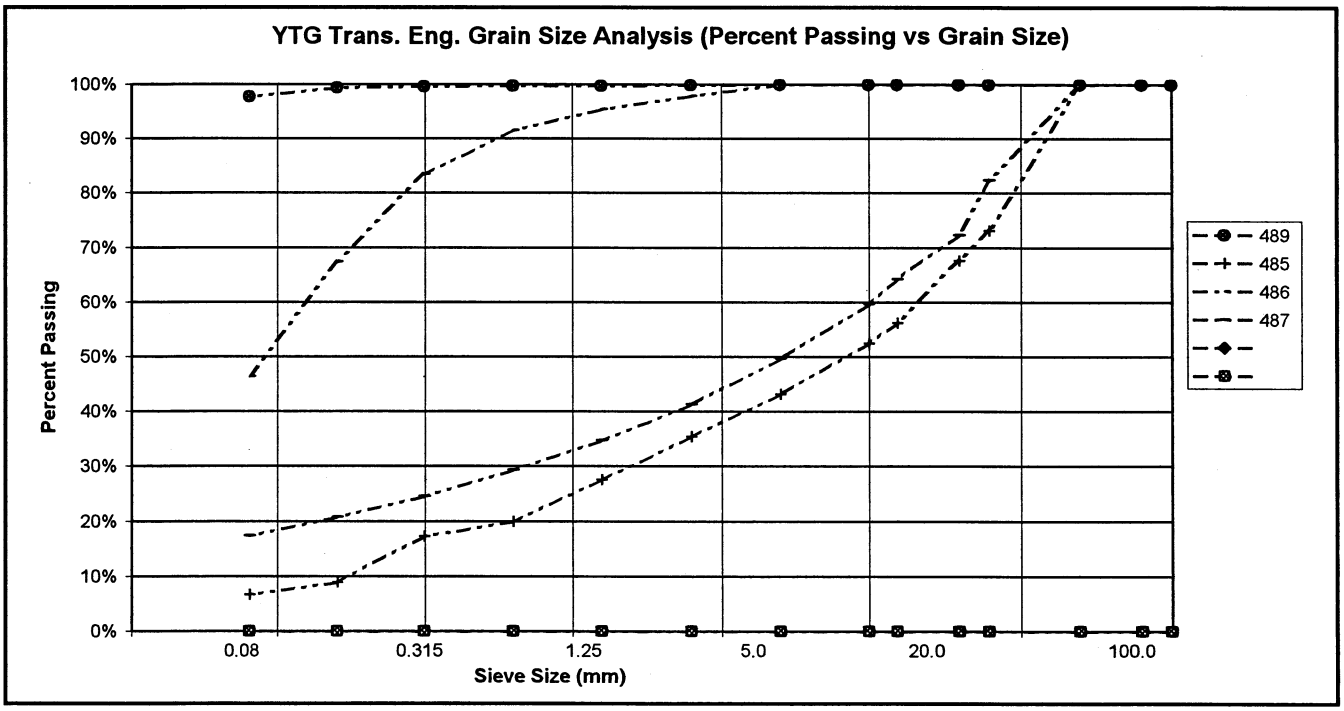
DATE COMP: 2000/05/19

FIELD NO:	482	483	483.A			
LAB NO:	785	786	787			
DEPTH:	1.4-1.6	2.8-3.0	4.4-4.6			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	95%	74%	84%			
20.0	95%	72%	82%			
12.5	92%	66%	76%			
10.0	86%	60%	71%			
5.0	70%	47%	59%			
2.5	53%	37%	50%			
1.25	40%	29%	42%			
0.630	31%	22%	35%			
0.315	23%	16%	25%			
0.160	16%	11%	15%			
0.080	11%	8%	10%			
M.C.(%):	6%	4%	4%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	30	53	41			
% SAND:	59	39	49			
% FINES:	11	8	10			
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)			



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 545-1426
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1752+310 15M RT		
LOGGED BY:	W.E.		DATE COMP: 2000/05/19

FIELD NO:	489	485	486	487		
LAB NO:	788	789	790	791		
DEPTH:	0.1-0.3	1.0-1.4	2.4-2.6	4.4-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	100%	73%	100%	82%		
20.0	100%	68%	100%	72%		
12.5	100%	56%	100%	64%		
10.0	100%	53%	100%	60%		
5.0	100%	43%	100%	50%		
2.5	100%	36%	98%	41%		
1.25	100%	28%	95%	35%		
0.630	100%	20%	92%	29%		
0.315	100%	17%	83%	25%		
0.160	99%	9%	67%	21%		
0.080	98%	7%	46%	17%		
M.C.(%):	38%	7%	24%	8%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	0	57	0	50		
% SAND:	2	37	54	32		
% FINES:	98	7	46	17		
CLASSIFICATION	SILT (ML)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND (SM)	SILTY GRAVEL WITH SAND (GM)		

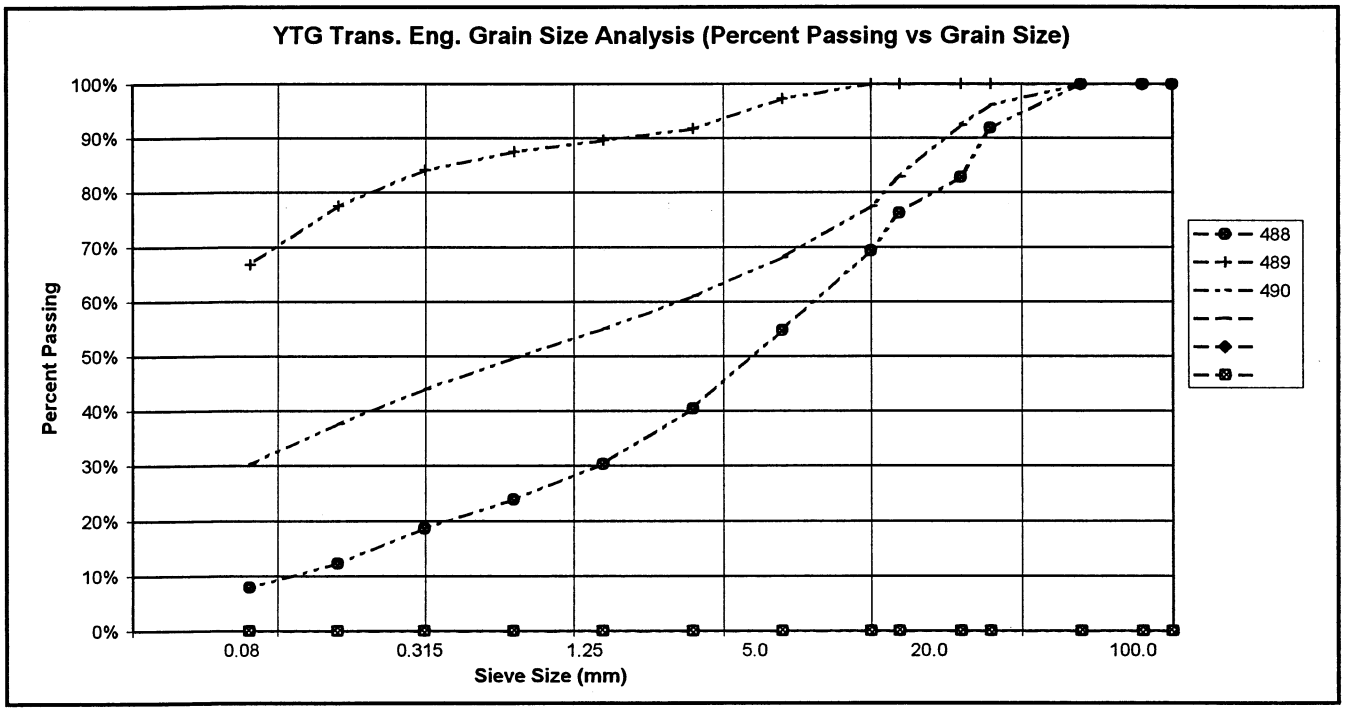


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1752+310 15M RT
LOGGED BY: W.E.

HOLE No.: 545-1427

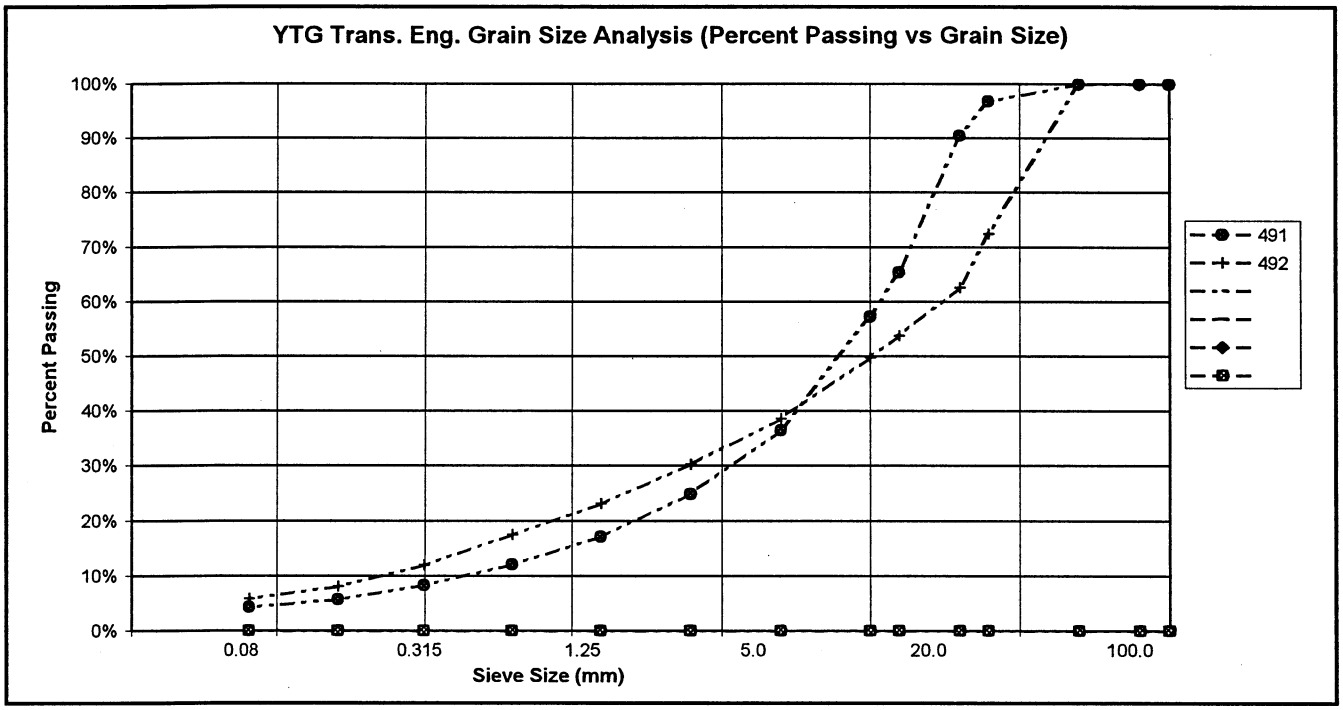
DATE COMP: 2000/05/19

FIELD NO:	488	489	490			
LAB NO:	792	793	794			
DEPTH:	1.4-1.6	2.9-3.1	4.4-4.6			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	92%	100%	96%			
20.0	83%	100%	92%			
12.5	76%	100%	83%			
10.0	69%	100%	78%			
5.0	55%	97%	68%			
2.5	41%	92%	61%			
1.25	30%	90%	55%			
0.630	24%	88%	50%			
0.315	19%	84%	44%			
0.160	12%	78%	38%			
0.080	8%	67%	30%			
M.C.(%):	7%	23%	13%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	45	3	32			
% SAND:	47	30	38			
% FINES:	8	67	30			
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SANDY SILT (ML)	SILTY SAND WITH GRAVEL (SM)			



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 549-1428
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1752+425 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/05/30

FIELD NO:	491	492				
LAB NO:	895	896				
DEPTH:	1.2-1.4	2.8-3.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	97%	72%				
20.0	91%	63%				
12.5	65%	54%				
10.0	57%	50%				
5.0	37%	39%				
2.5	25%	30%				
1.25	17%	23%				
0.630	12%	18%				
0.315	8%	12%				
0.160	6%	8%				
0.080	4%	6%				
M.C.(%):	2%	2%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	63	61				
% SAND:	32	33				
% FINES:	4	6				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)				

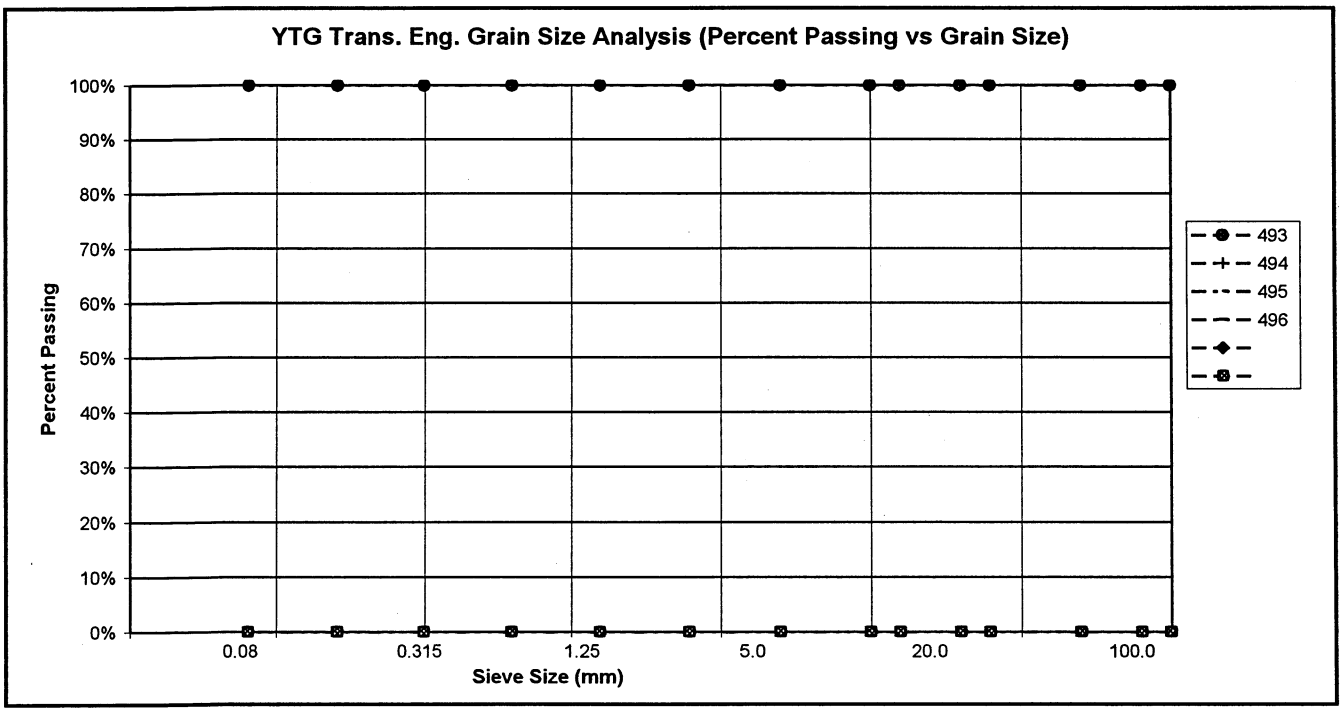


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1752+525 C/L
LOGGED BY: D.T.

HOLE No.: 549-1429

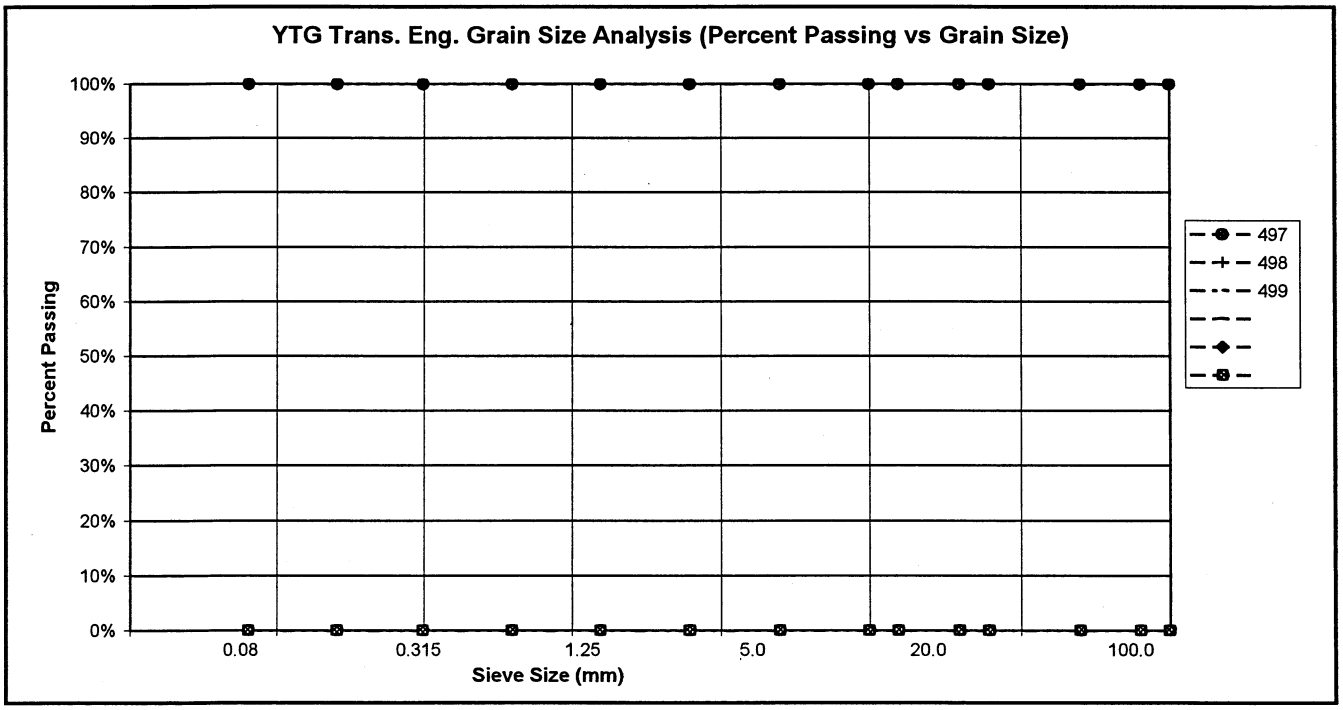
DATE COMP: 2000/005/30

FIELD NO:	493	494	495	496		
LAB NO:	LOST	LOST	LOST	LOST		
DEPTH:	0.8-1.0	1.6-1.8	2.8-3.0	4.4-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	100%	100%	100%	100%		
20.0	100%	100%	100%	100%		
12.5	100%	100%	100%	100%		
10.0	100%	100%	100%	100%		
5.0	100%	100%	100%	100%		
2.5	100%	100%	100%	100%		
1.25	100%	100%	100%	100%		
0.630	100%	100%	100%	100%		
0.315	100%	100%	100%	100%		
0.160	100%	100%	100%	100%		
0.080	100%	100%	100%	100%		
M.C.(%):	6%	3%	12%	9%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	0	0	0	0		
% SAND:	0	0	0	0		
% FINES:	100	100	100	100		
CLASSIFICATION	SILT (ML)	SILT (ML)	SILT (ML)	SILT (ML)		



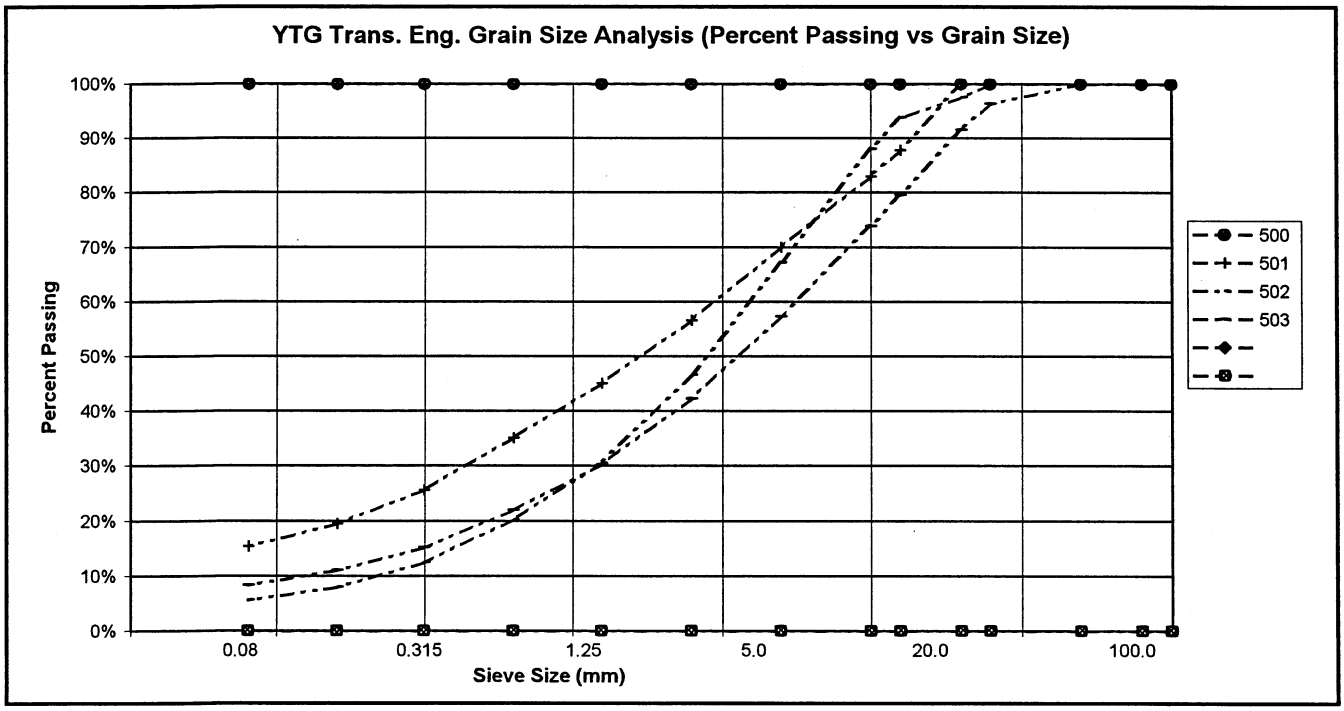
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 549-1430
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1752+625 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/006/01

FIELD NO:	497	498	499			
LAB NO:	LOST	LOST	LOST			
DEPTH:	0.6-0.8	1.8-2.0	4.4-4.6			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	100%			
20.0	100%	100%	100%			
12.5	100%	100%	100%			
10.0	100%	100%	100%			
5.0	100%	100%	100%			
2.5	100%	100%	100%			
1.25	100%	100%	100%			
0.630	100%	100%	100%			
0.315	100%	100%	100%			
0.160	100%	100%	100%			
0.080	100%	100%	100%			
M.C.(%):	4%	3%	9%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	0	0	0			
% SAND:	0	0	0			
% FINES:	100	100	100			
CLASSIFICATION	~~SILT (ML)~~	~~SILT (ML)~~	~~SILT (ML)~~			



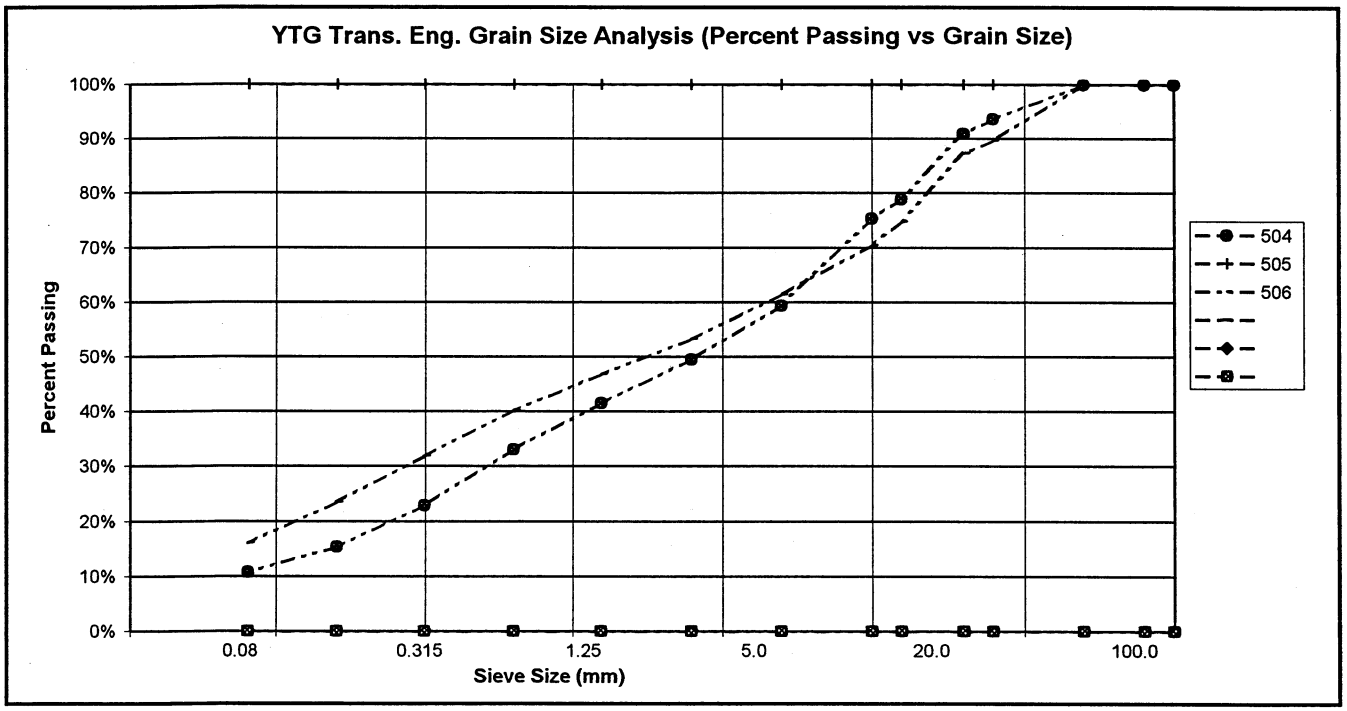
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 549-1431
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1752+775 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/05/30

FIELD NO:	500	501	502	503		
LAB NO:	LOST	905	906	907		
DEPTH:	0.7-0.9	1.8-2.0	2.8-3.0	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	100%	100%	100%	96%		
20.0	100%	100%	98%	91%		
12.5	100%	88%	94%	80%		
10.0	100%	83%	88%	74%		
5.0	100%	70%	67%	57%		
2.5	100%	57%	47%	42%		
1.25	100%	45%	31%	30%		
0.630	100%	35%	20%	22%		
0.315	100%	26%	12%	15%		
0.160	100%	19%	8%	11%		
0.080	100%	15%	6%	8%		
M.C.(%):	10%	5%	3%	3%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	0	30	33	43		
% SAND:	0	55	62	49		
% FINES:	100	15	6	8		
CLASSIFICATION	SILT (ML)	SILTY SAND WITH GRAVEL (SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)		



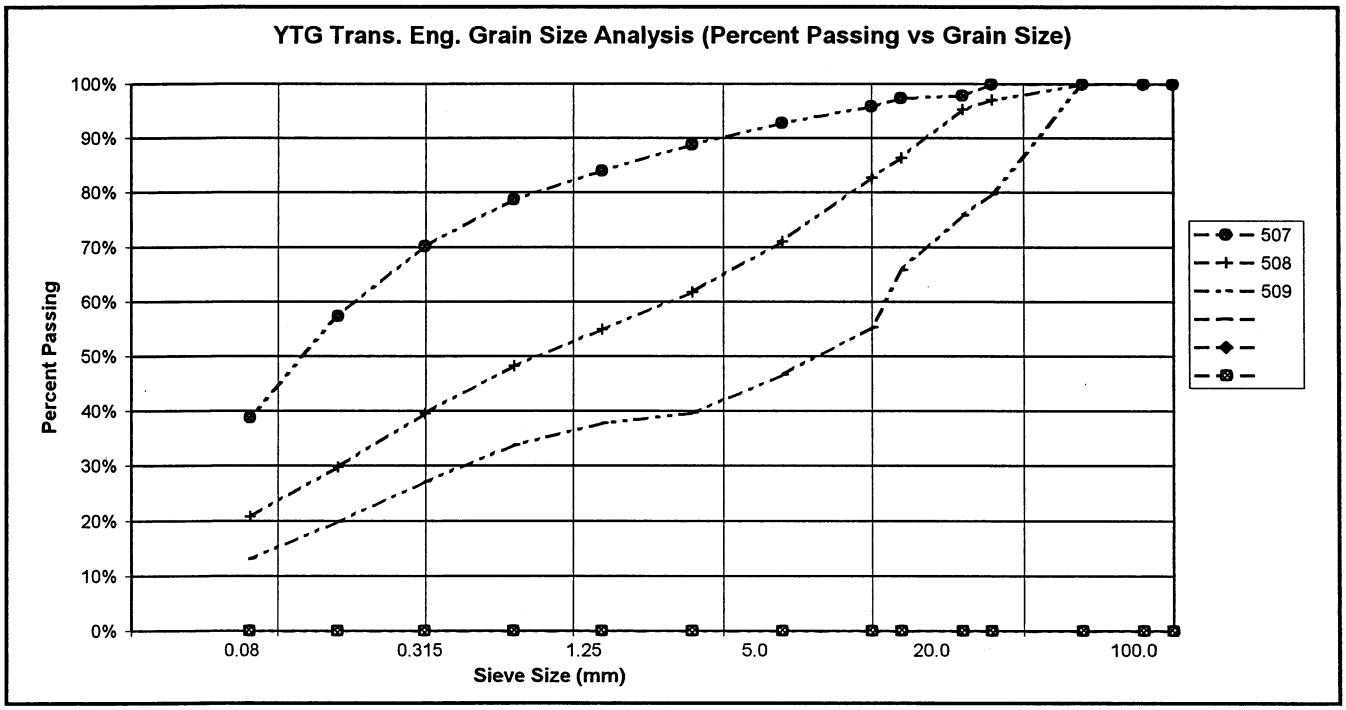
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 549-1432
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1752+810 20M LT		
LOGGED BY:	D.T.		DATE COMP: 2000/05/30

FIELD NO:	504	505	506			
LAB NO:	908	LOST	910			
DEPTH:	1.4-1.6	2.8-3.0	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	94%	100%	90%			
20.0	91%	100%	87%			
12.5	79%	100%	75%			
10.0	75%	100%	70%			
5.0	59%	100%	61%			
2.5	50%	100%	53%			
1.25	42%	100%	47%			
0.630	33%	100%	40%			
0.315	23%	100%	32%			
0.160	15%	100%	23%			
0.080	11%	100%	16%			
M.C.(%):	9%	13%	8%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	41	0	39			
% SAND:	49	0	45			
% FINES:	11	100	16			
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILT (ML)	SILTY SAND WITH GRAVEL (SM)			



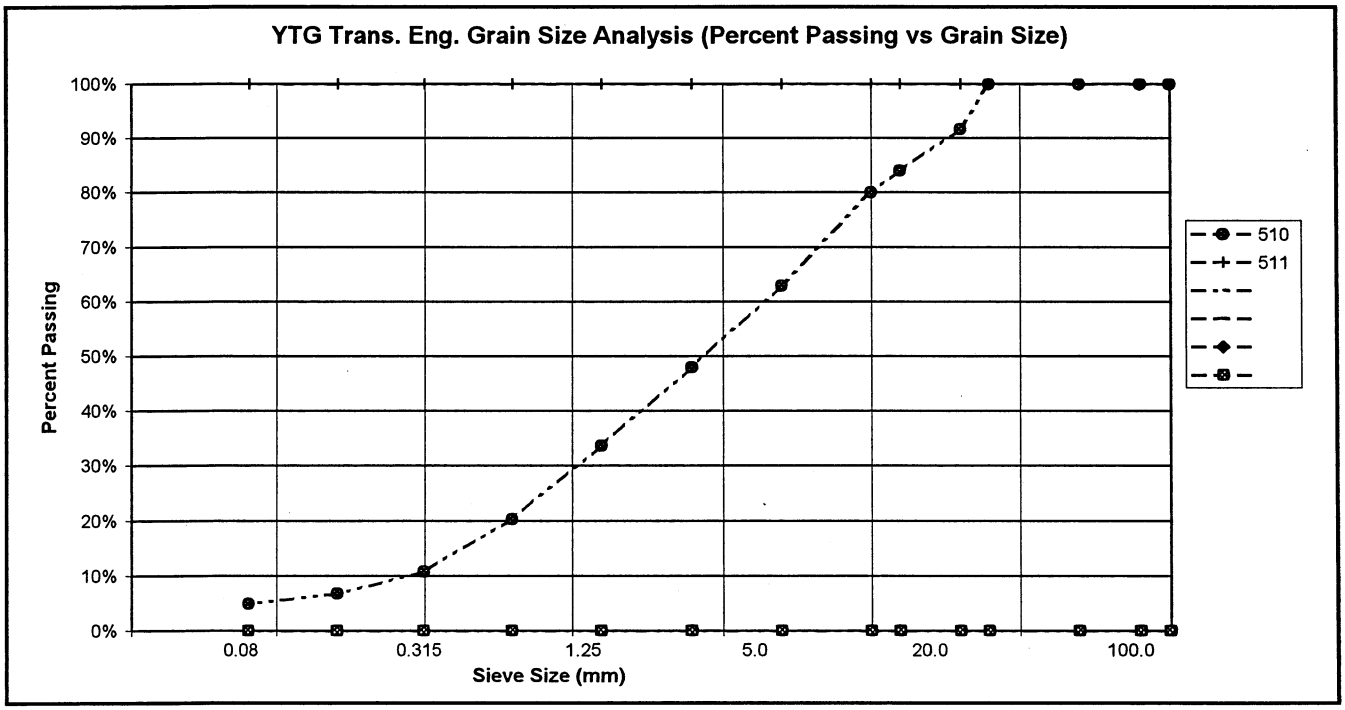
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 549-1433
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1752+820 20M RT		
LOGGED BY:	D.T.		DATE COMP: 2000/05/30

FIELD NO:	507	508	509			
LAB NO:	911	912	913			
DEPTH:	1.2-1.4	3.0-3.2	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	97%	80%			
20.0	98%	95%	76%			
12.5	97%	86%	66%			
10.0	96%	83%	55%			
5.0	93%	71%	47%			
2.5	89%	62%	40%			
1.25	84%	55%	38%			
0.630	79%	48%	34%			
0.315	70%	40%	27%			
0.160	57%	30%	20%			
0.080	39%	21%	13%			
M.C.(%):	5%	5%	4%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	7	29	53			
% SAND:	54	50	33			
% FINES:	39	21	13			
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)			



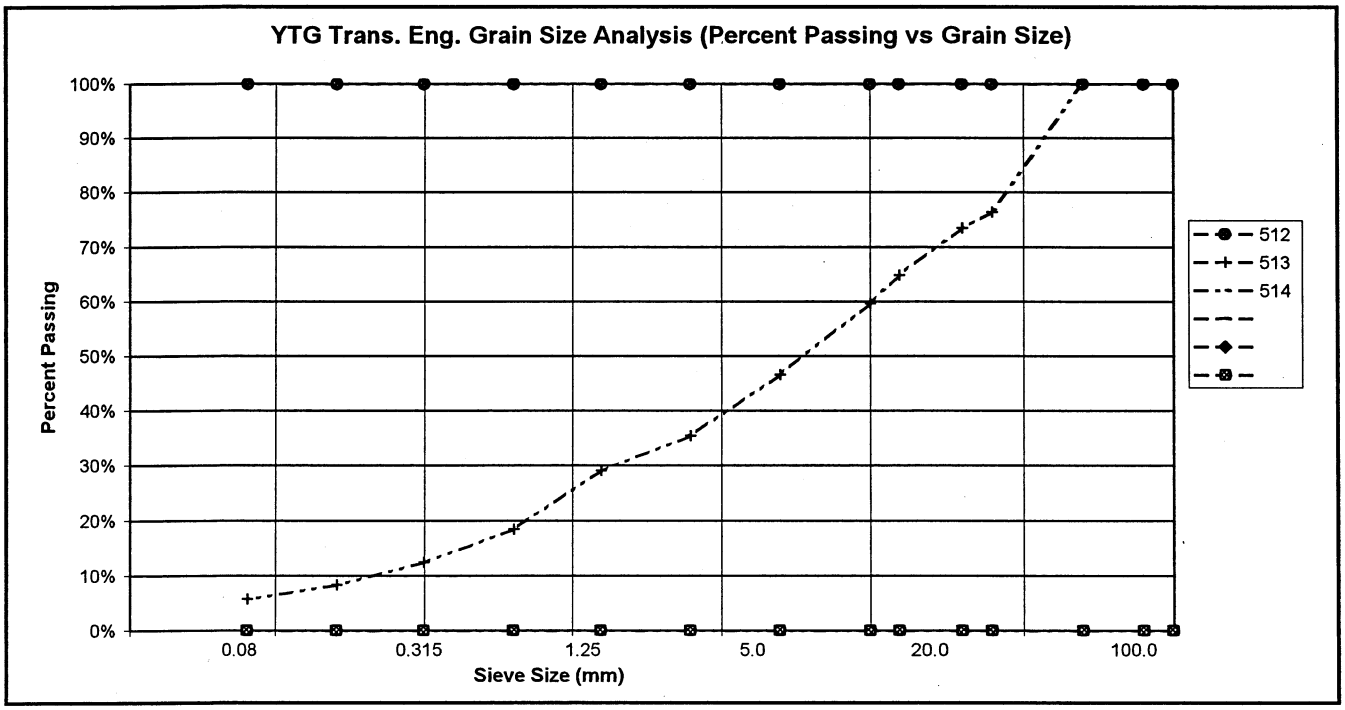
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 549-1434
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1752+915 20M RT		
LOGGED BY:	D.T.		DATE COMP: 2000/05/30

FIELD NO:	510	511				
LAB NO:	914	LOST				
DEPTH:	1.3-1.5	4.5-4.7				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	92%	100%				
12.5	84%	100%				
10.0	80%	100%				
5.0	63%	100%				
2.5	48%	100%				
1.25	34%	100%				
0.630	20%	100%				
0.315	11%	100%				
0.160	7%	100%				
0.080	5%	100%				
M.C.(%):	4%	11%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	37	0				
% SAND:	58	0				
% FINES:	5	100				
CLASSIFICATION	WELL-GRADED SAND WITH GRAVEL (SW)	~~SILT (ML)~~				



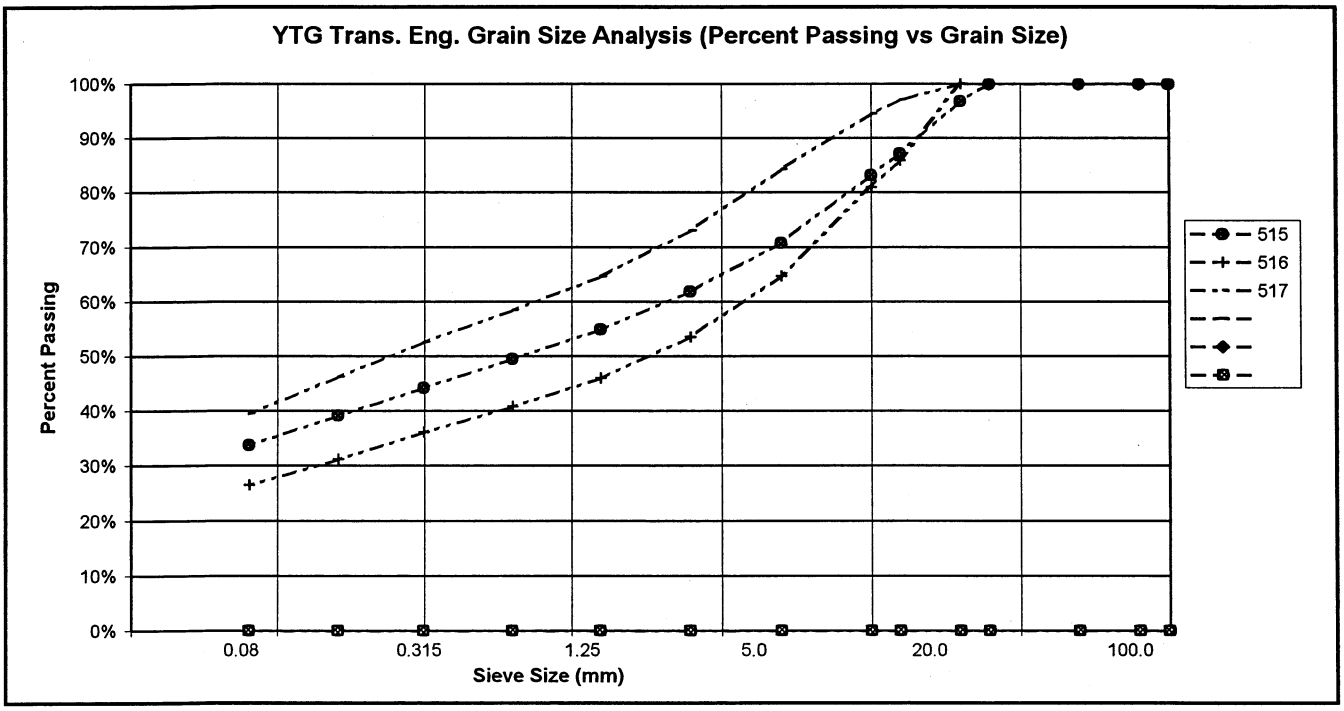
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 549-1435
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1752+915 20M LT		
LOGGED BY:	D.T.		DATE COMP: 2000/05/30

FIELD NO:	512	513	514			
LAB NO:	LOST	917	LOST			
DEPTH:	1.2-1.4	3.0-3.2	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	76%	100%			
20.0	100%	73%	100%			
12.5	100%	65%	100%			
10.0	100%	60%	100%			
5.0	100%	47%	100%			
2.5	100%	35%	100%			
1.25	100%	29%	100%			
0.630	100%	18%	100%			
0.315	100%	12%	100%			
0.160	100%	8%	100%			
0.080	100%	6%	100%			
M.C.(%):	4%	3%	9%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	0	53	0			
% SAND:	0	41	0			
% FINES:	100	6	100			
CLASSIFICATION	~~SILT (ML)~~	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	~~SILT (ML)~~			



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 549-1436
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1752+950 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/05/30

FIELD NO:	515	516	517			
LAB NO:	919	920	921			
DEPTH:	1.4-1.6	2.9-3.1	4.8-5.0			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	100%			
20.0	97%	100%	100%			
12.5	87%	86%	97%			
10.0	83%	81%	95%			
5.0	71%	65%	84%			
2.5	62%	53%	73%			
1.25	55%	46%	64%			
0.630	50%	41%	58%			
0.315	44%	36%	53%			
0.160	39%	31%	46%			
0.080	34%	27%	40%			
M.C.(%):	4%	4%	8%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	29	35	16			
% SAND:	37	38	45			
% FINES:	34	27	40			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			

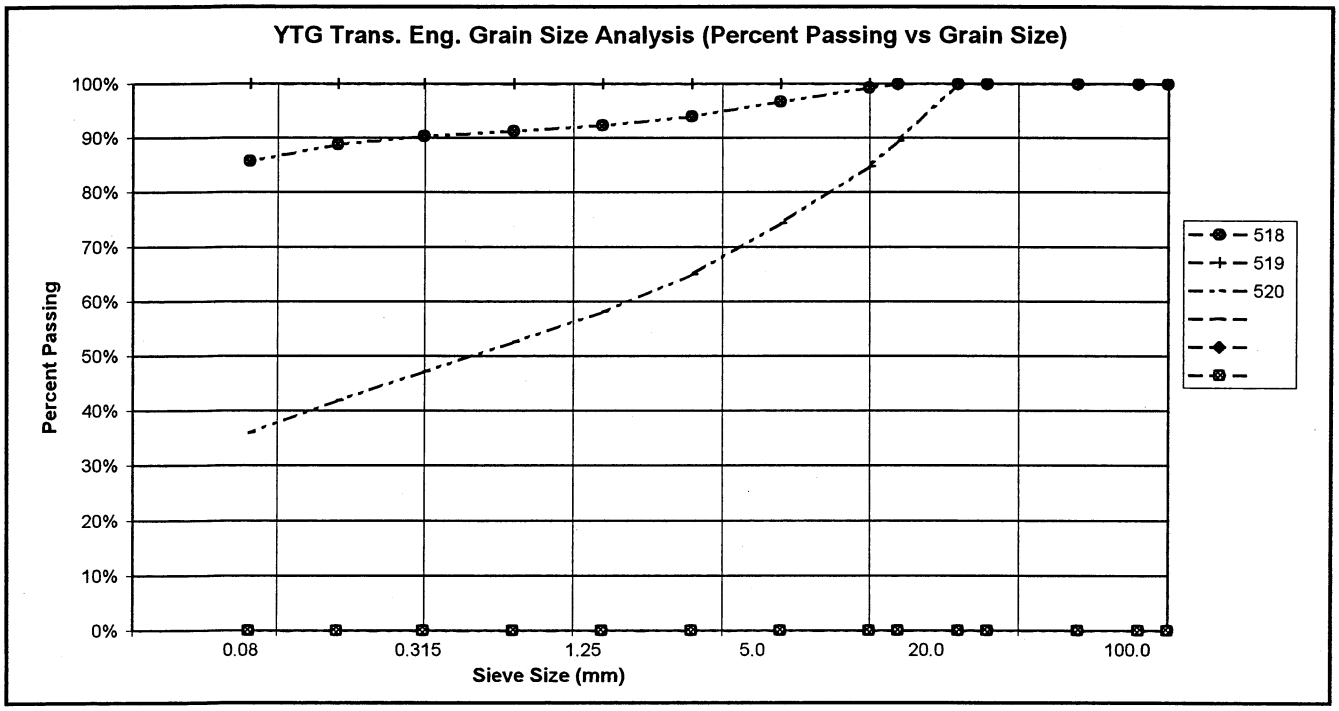


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1753+050 20M LT
LOGGED BY: D.T.

HOLE No.: 549-1437

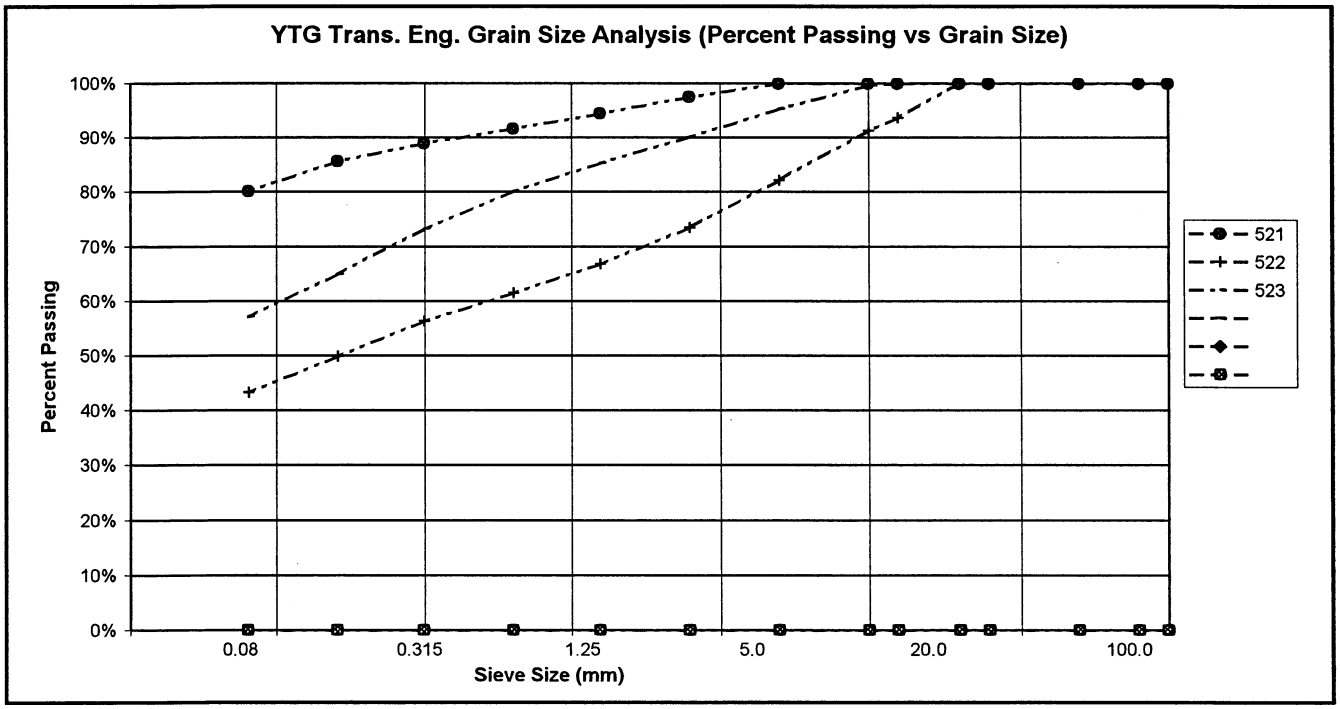
DATE COMP: 2000/05/30

FIELD NO:	518	519	520			
LAB NO:	922	LOST	520			
DEPTH:	1.9-2.1	3.0-3.2	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	100%			
20.0	100%	100%	100%			
12.5	100%	100%	89%			
10.0	99%	100%	85%			
5.0	97%	100%	74%			
2.5	94%	100%	65%			
1.25	92%	100%	58%			
0.630	91%	100%	53%			
0.315	90%	100%	47%			
0.160	89%	100%	42%			
0.080	86%	100%	36%			
M.C.(%):	56%	28%	13%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	3	0	26			
% SAND:	11	0	38			
% FINES:	86	100	36			
CLASSIFICATION	SILT (ML)	~~SILT (ML)~~	SILTY SAND WITH GRAVEL (SM)			



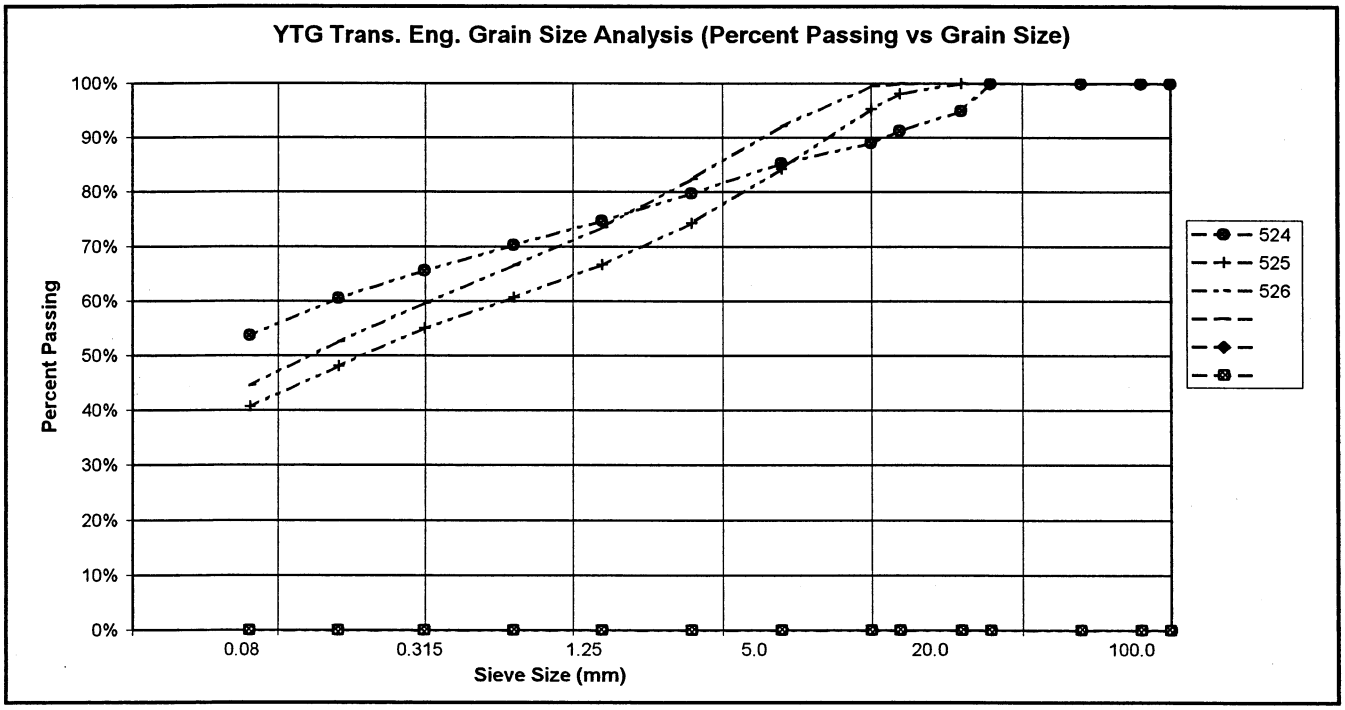
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 549-1438
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1753+100 20M RT		
LOGGED BY:	D.T.		DATE COMP: 2000/05/31

FIELD NO:	521	522	523			
LAB NO:	925	926	927			
DEPTH:	1.3-1.5	2.2-2.4	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	100%			
20.0	100%	100%	100%			
12.5	100%	94%	100%			
10.0	100%	91%	100%			
5.0	100%	82%	95%			
2.5	98%	73%	90%			
1.25	94%	67%	85%			
0.630	92%	61%	80%			
0.315	89%	56%	73%			
0.160	86%	50%	65%			
0.080	80%	43%	57%			
M.C.(%):	68%	13%	16%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	0	18	5			
% SAND:	20	39	38			
% FINES:	80	43	57			
CLASSIFICATION	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)			



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 449-1439
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1753+150 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/05/31

FIELD NO:	524	525	526			
LAB NO:	928	929	930			
DEPTH:	0.7-0.9	3.0-3.2	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	100%			
20.0	95%	100%	100%			
12.5	91%	98%	100%			
10.0	89%	95%	99%			
5.0	85%	84%	92%			
2.5	80%	74%	82%			
1.25	75%	67%	73%			
0.630	70%	61%	67%			
0.315	66%	55%	60%			
0.160	61%	48%	53%			
0.080	54%	41%	45%			
M.C.(%):	10%	7%	8%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	15	16	8			
% SAND:	32	44	47			
% FINES:	54	41	45			
CLASSIFICATION	SANDY SILT (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND (SM)			

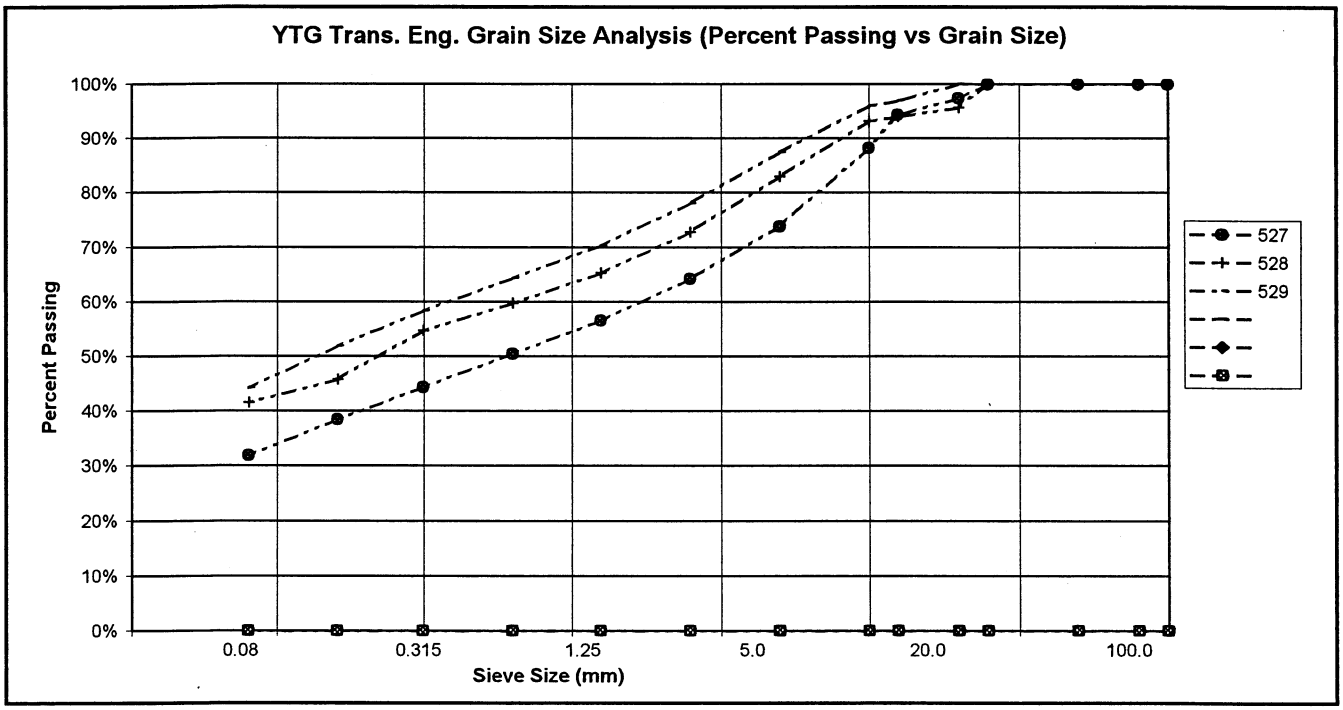


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1753+250 C/L
LOGGED BY: D.T.

HOLE No.: 549-1440

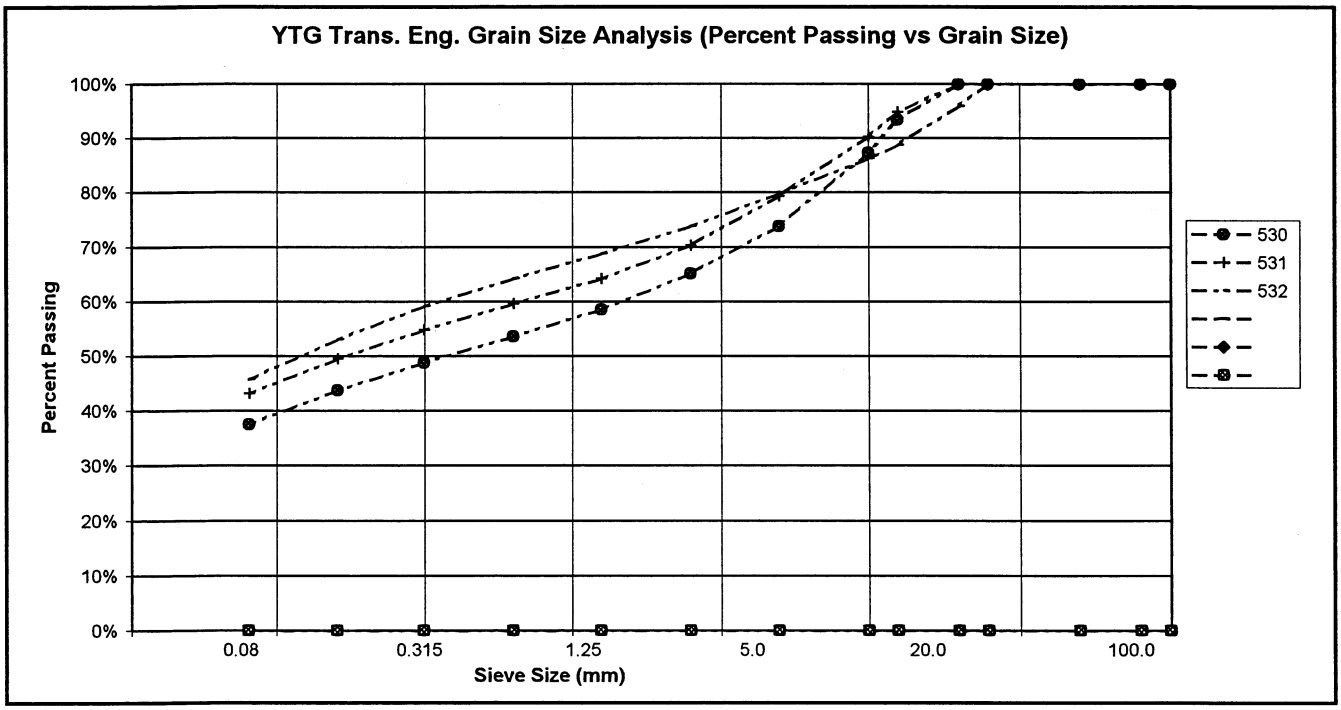
DATE COMP: 2000/05/31

FIELD NO:	527	528	529			
LAB NO:	931	932	933			
DEPTH:	1.4-1.6	2.9-3.1	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	100%			
20.0	97%	96%	100%			
12.5	94%	94%	97%			
10.0	88%	93%	96%			
5.0	74%	83%	87%			
2.5	64%	73%	78%			
1.25	57%	65%	70%			
0.630	50%	60%	64%			
0.315	44%	55%	58%			
0.160	39%	46%	52%			
0.080	32%	42%	44%			
M.C.(%):	5%	8%	9%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	26	17	13			
% SAND:	42	41	43			
% FINES:	32	42	44			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND (SM)			



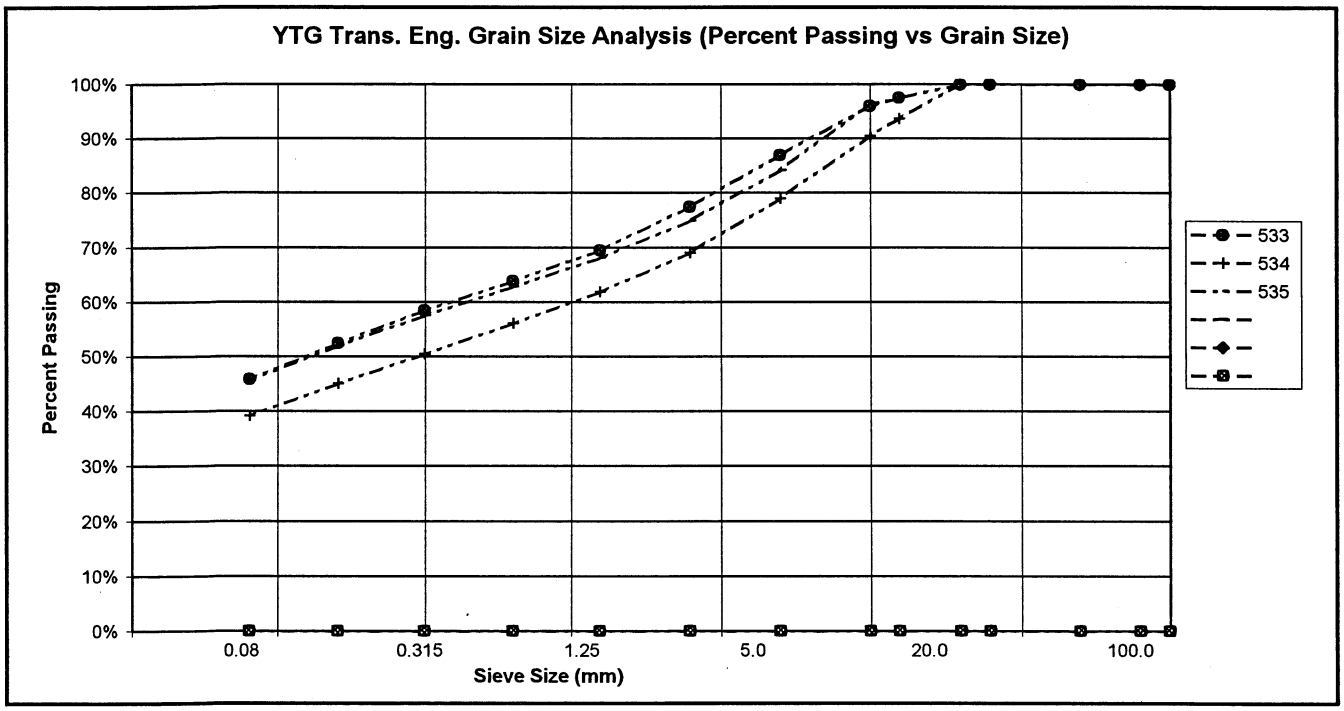
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 549-1441
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1753 350 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/05/31

FIELD NO:	530	531	532			
LAB NO:	934	935	936			
DEPTH:	1.4-1.6	3.0-3.2	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	100%			
20.0	100%	100%	96%			
12.5	93%	95%	89%			
10.0	87%	90%	86%			
5.0	74%	79%	80%			
2.5	65%	70%	74%			
1.25	59%	64%	69%			
0.630	54%	60%	64%			
0.315	49%	55%	59%			
0.160	44%	49%	53%			
0.080	38%	43%	46%			
M.C.(%):	6%	8%	9%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	26	21	20			
% SAND:	36	36	34			
% FINES:	38	43	46			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 549-1442
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1753+600 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/05/31

FIELD NO:	533	534	535			
LAB NO:	937	928	939			
DEPTH:	1.4-1.6	2.9-3.1	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	100%			
20.0	100%	100%	100%			
12.5	98%	94%	97%			
10.0	96%	90%	96%			
5.0	87%	79%	84%			
2.5	77%	69%	75%			
1.25	70%	62%	68%			
0.630	64%	56%	63%			
0.315	58%	51%	57%			
0.160	52%	45%	52%			
0.080	46%	39%	46%			
M.C.(%):	8%	9%	8%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	13	21	16			
% SAND:	41	40	38			
% FINES:	46	39	46			
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			

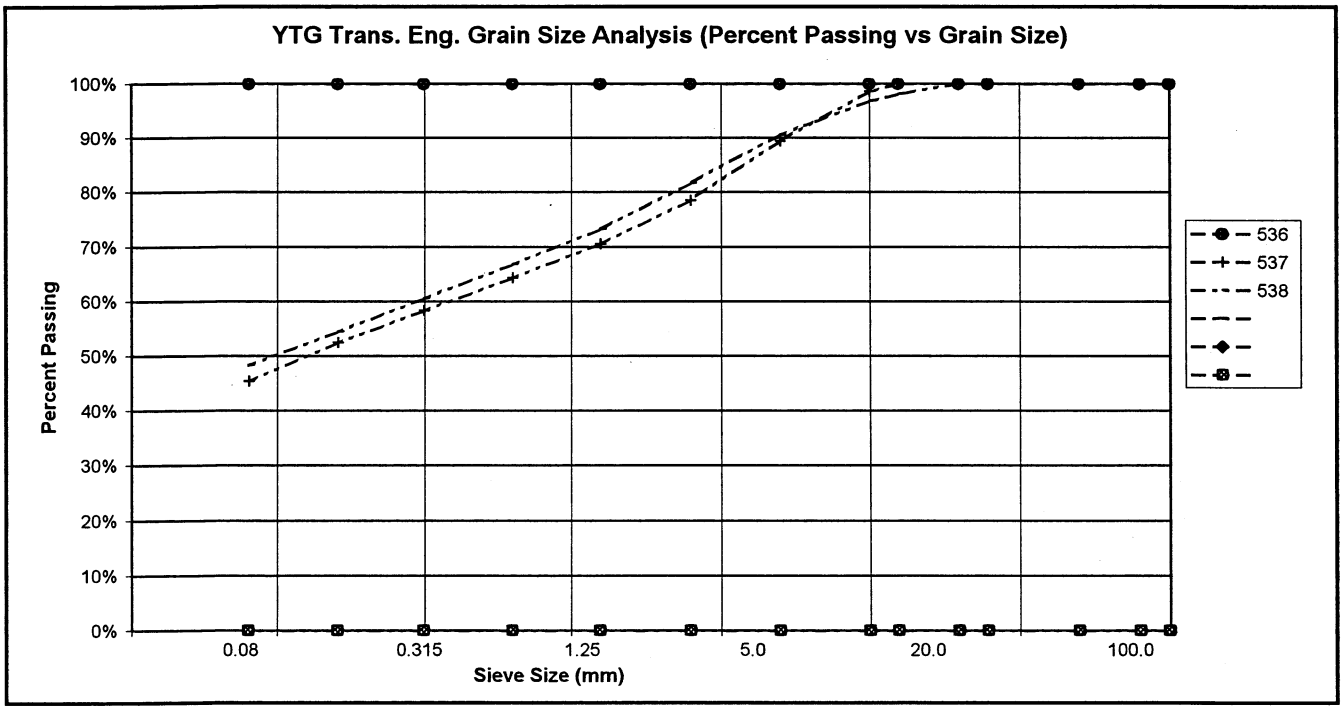


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1753+700 C/L
LOGGED BY: D.T.

HOLE No.: 549-1443

DATE COMP: 2000/05/31

FIELD NO:	536	537	538			
LAB NO:	LOST	941	942			
DEPTH:	1.3-1.5	2.8-3.0	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	100%			
20.0	100%	100%	100%			
12.5	100%	100%	98%			
10.0	100%	99%	97%			
5.0	100%	89%	91%			
2.5	100%	79%	82%			
1.25	100%	71%	73%			
0.630	100%	64%	67%			
0.315	100%	58%	61%			
0.160	100%	52%	55%			
0.080	100%	45%	48%			
M.C.(%):	11%	8%	8%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	0	11	9			
% SAND:	0	44	42			
% FINES:	100	45	48			
CLASSIFICATION	~~SILT (ML)~~	SILTY SAND (SM)	SILTY SAND (SM)			

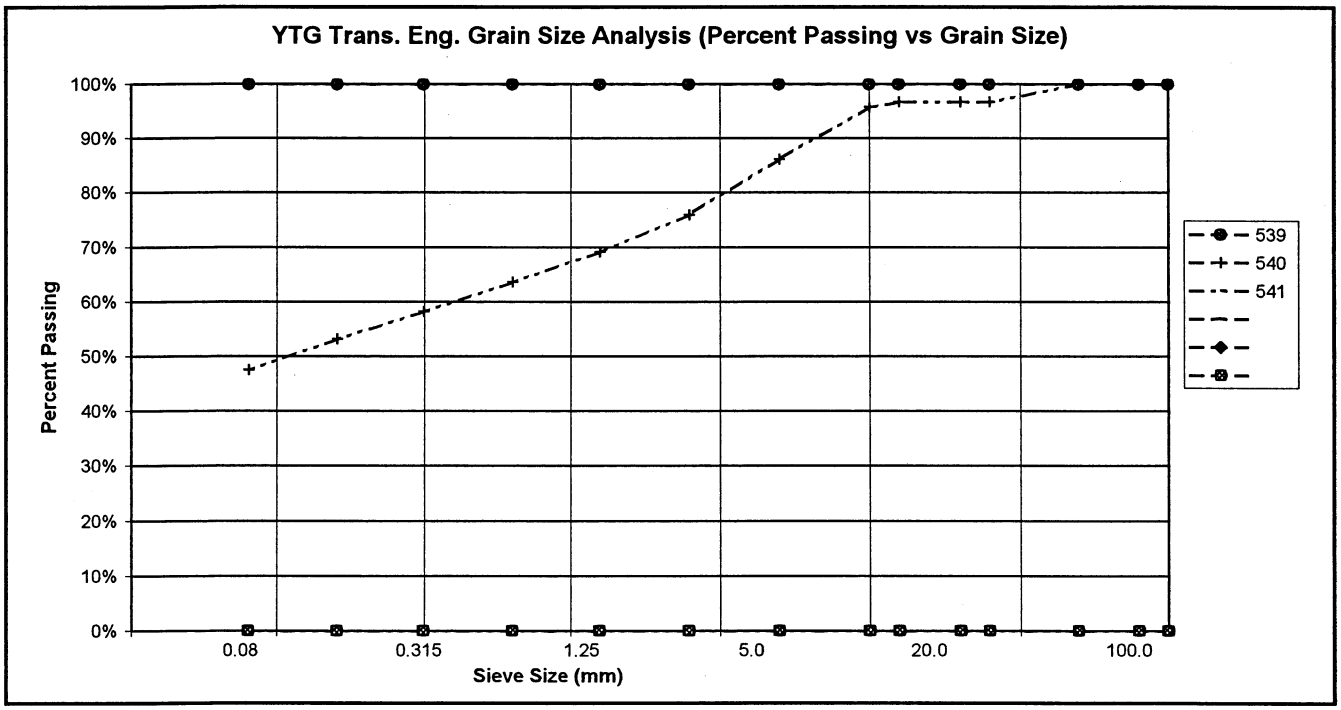


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1753+800 C/L
LOGGED BY: D.T.

HOLE No.: 549-1444

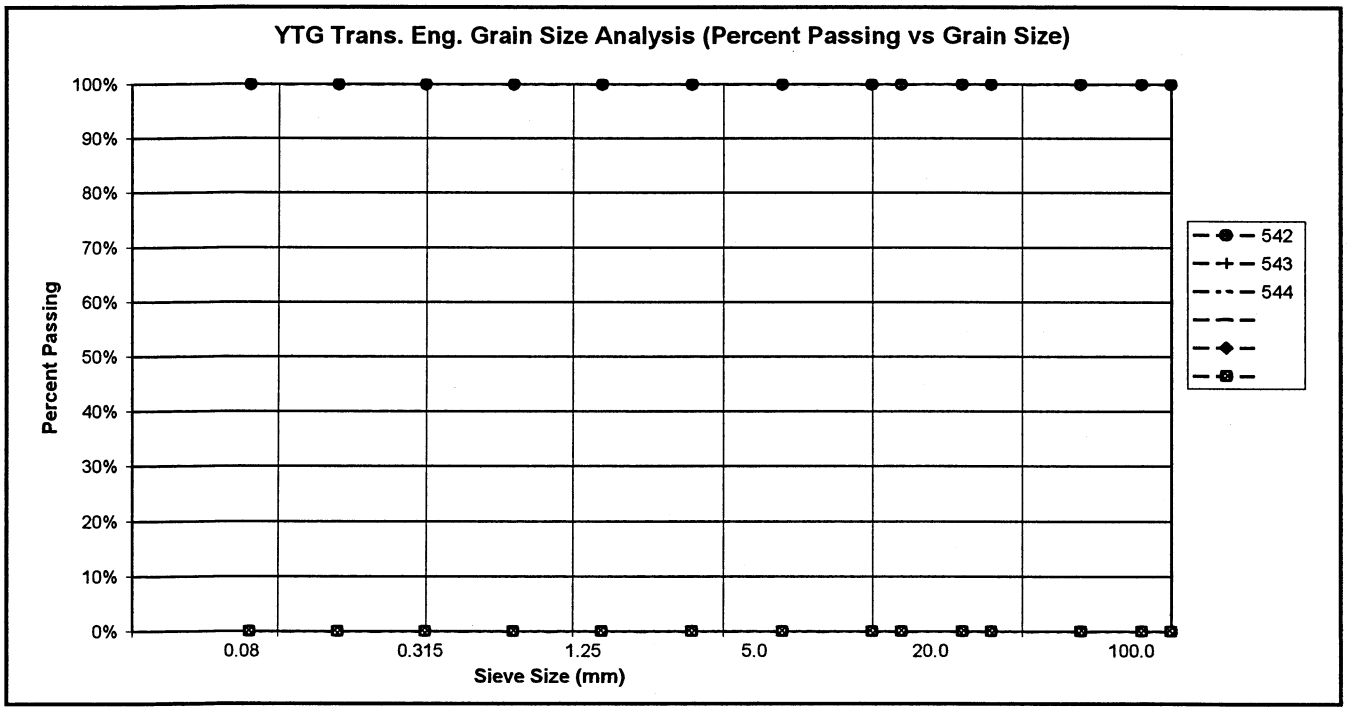
DATE COMP: 2000/05/31

FIELD NO:	539	540	541			
LAB NO:	LOST	944	LOST			
DEPTH:	1.3-1.5	2.7-2.9	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	97%	100%			
20.0	100%	97%	100%			
12.5	100%	97%	100%			
10.0	100%	96%	100%			
5.0	100%	86%	100%			
2.5	100%	76%	100%			
1.25	100%	69%	100%			
0.630	100%	64%	100%			
0.315	100%	58%	100%			
0.160	100%	53%	100%			
0.080	100%	48%	100%			
M.C.(%):	8%	8%	8%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	0	14	0			
% SAND:	0	39	0			
% FINES:	100	48	100			
CLASSIFICATION	[illegible]	SILTY SAND (SM)	[illegible]			



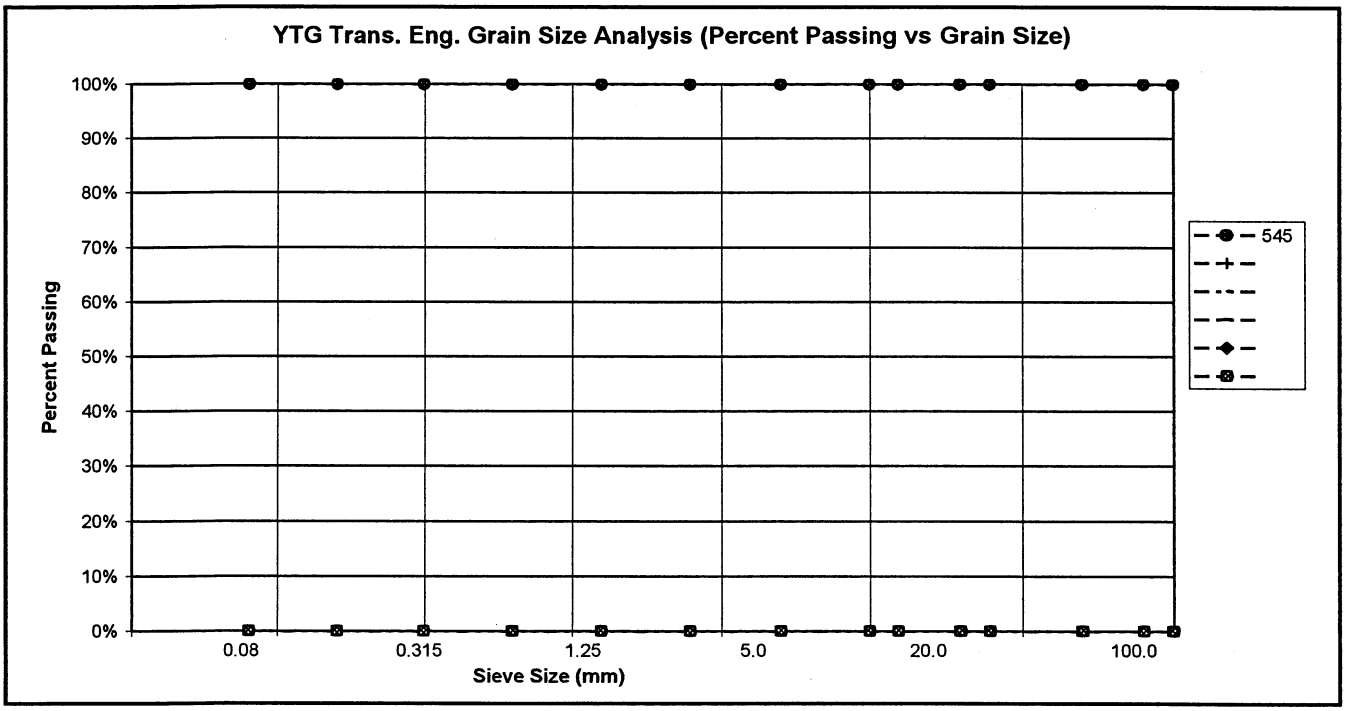
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 549-1445
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1753+900 CENTRELINE		
LOGGED BY:	D.T.		DATE COMP: 2000/05/31

FIELD NO:	542	543	544			
LAB NO:	LOST	LOST	LOST			
DEPTH:	1.4-1.6	3.0-3.2	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	100%			
20.0	100%	100%	100%			
12.5	100%	100%	100%			
10.0	100%	100%	100%			
5.0	100%	100%	100%			
2.5	100%	100%	100%			
1.25	100%	100%	100%			
0.630	100%	100%	100%			
0.315	100%	100%	100%			
0.160	100%	100%	100%			
0.080	100%	100%	100%			
M.C.(%):	8%	7%	7%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	0	0	0			
% SAND:	0	0	0			
% FINES:	100	100	100			
CLASSIFICATION	SILT (ML)	SILT (ML)	SILT (ML)			



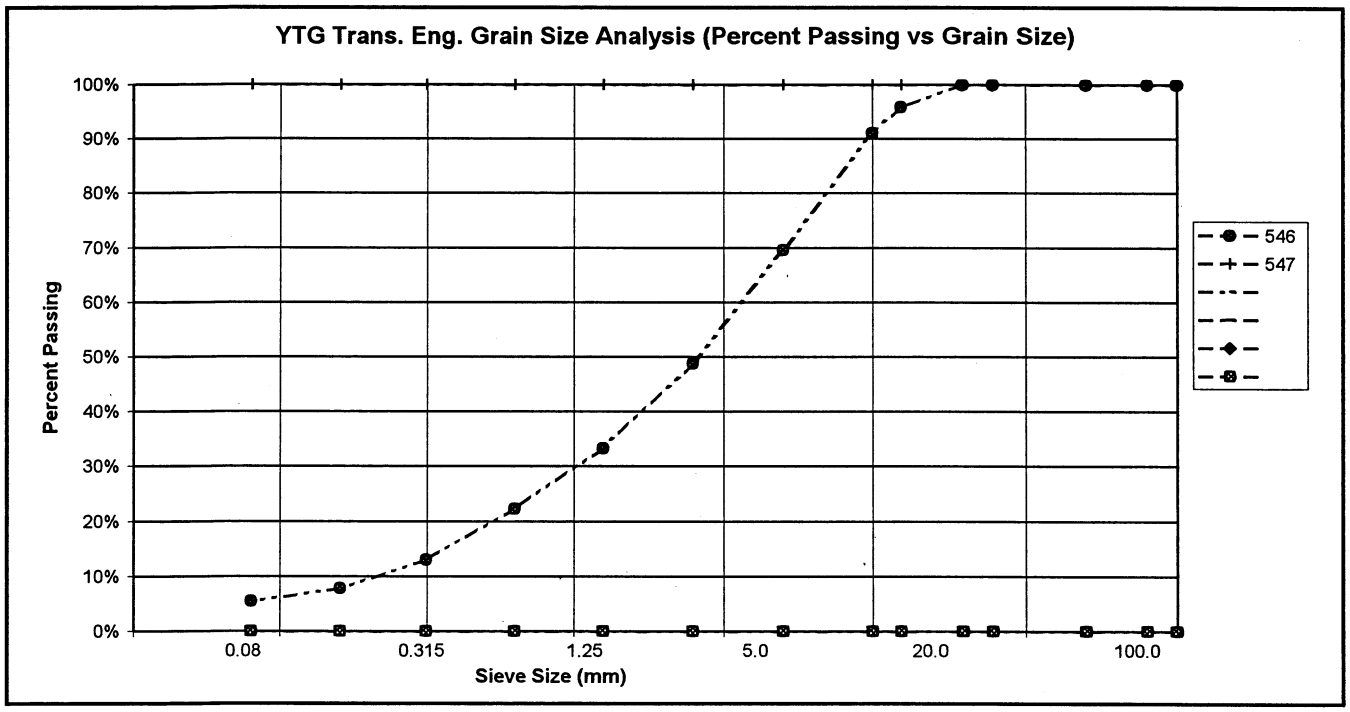
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 549-1446	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	KM 1729.6-1787 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1754+000 20M RT					
LOGGED BY:	D.T.				DATE COMP: 2000/05/31	

FIELD NO:	545					
LAB NO:	LOST					
DEPTH:	1.2-1.4					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	100%					
20.0	100%					
12.5	100%					
10.0	100%					
5.0	100%					
2.5	100%					
1.25	100%					
0.630	100%					
0.315	100%					
0.160	100%					
0.080	100%					
M.C.(%):	10%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	0					
% SAND:	0					
% FINES:	100					
CLASSIFICATION	SILT (ML)					



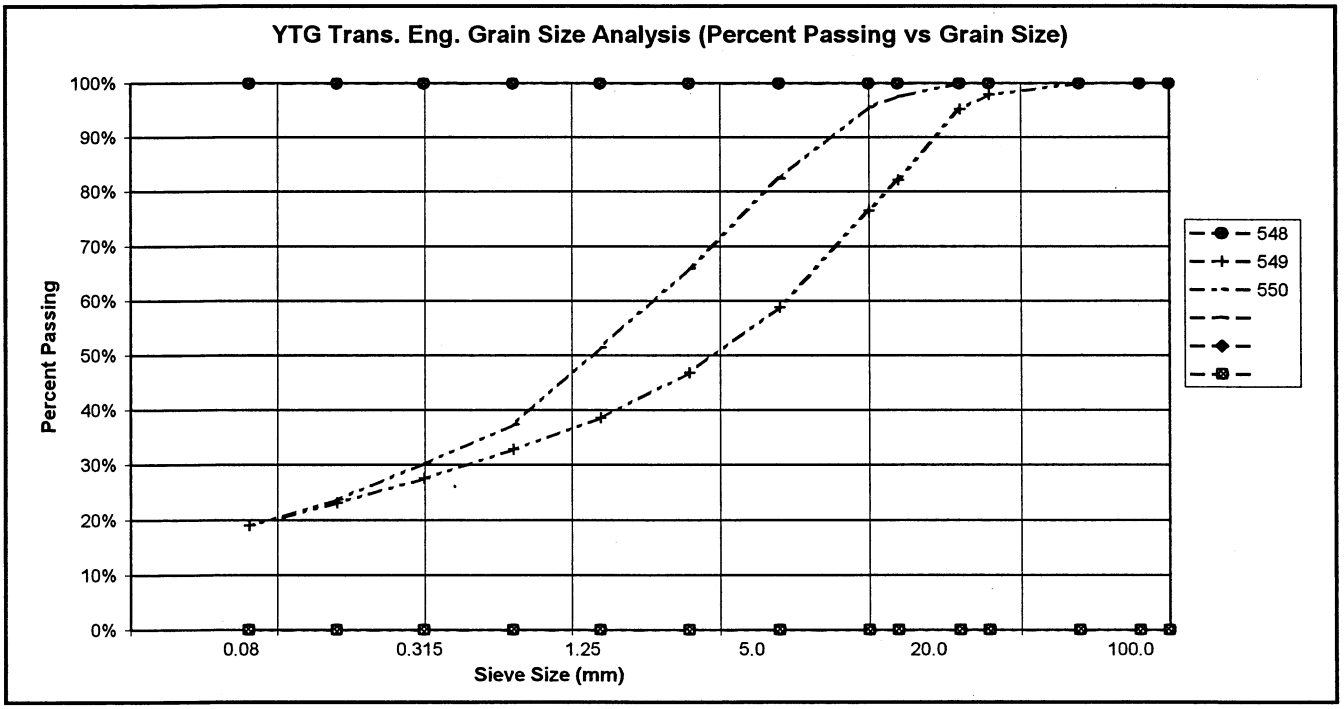
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 549-1447
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1754+000 20M LT		
LOGGED BY:	D.T.		DATE COMP: 2000/05/31

FIELD NO:	546	547				
LAB NO:	950	LOST				
DEPTH:	1.3-1.5	2.0-2.2				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	100%				
12.5	96%	100%				
10.0	91%	100%				
5.0	70%	100%				
2.5	49%	100%				
1.25	33%	100%				
0.630	22%	100%				
0.315	13%	100%				
0.160	8%	100%				
0.080	6%	100%				
M.C.(%):	9%	10%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	30	0				
% SAND:	64	0				
% FINES:	6	100				
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	~~SILT (ML)~~				



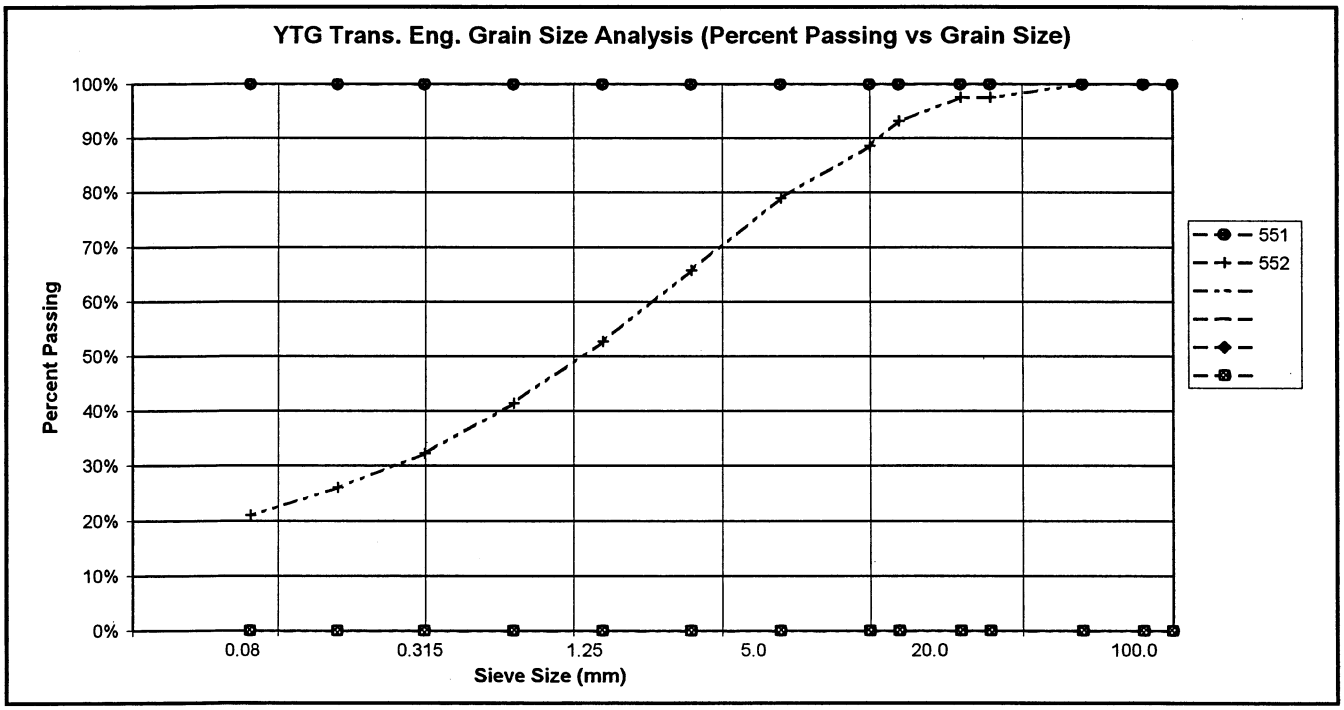
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 549-1448
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1754+050 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/05/31

FIELD NO:	548	549	550			
LAB NO:	LOST	953	954			
DEPTH:	1.4-1.6	3.0-3.2	4.3-4.5			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	98%	100%			
20.0	100%	95%	100%			
12.5	100%	82%	98%			
10.0	100%	77%	96%			
5.0	100%	59%	82%			
2.5	100%	47%	66%			
1.25	100%	39%	51%			
0.630	100%	33%	37%			
0.315	100%	28%	30%			
0.160	100%	23%	24%			
0.080	100%	19%	19%			
M.C.(%):	6%	3%	7%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	0	41	18			
% SAND:	0	40	63			
% FINES:	100	19	19			
CLASSIFICATION	~~SILT (ML)~~	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)			



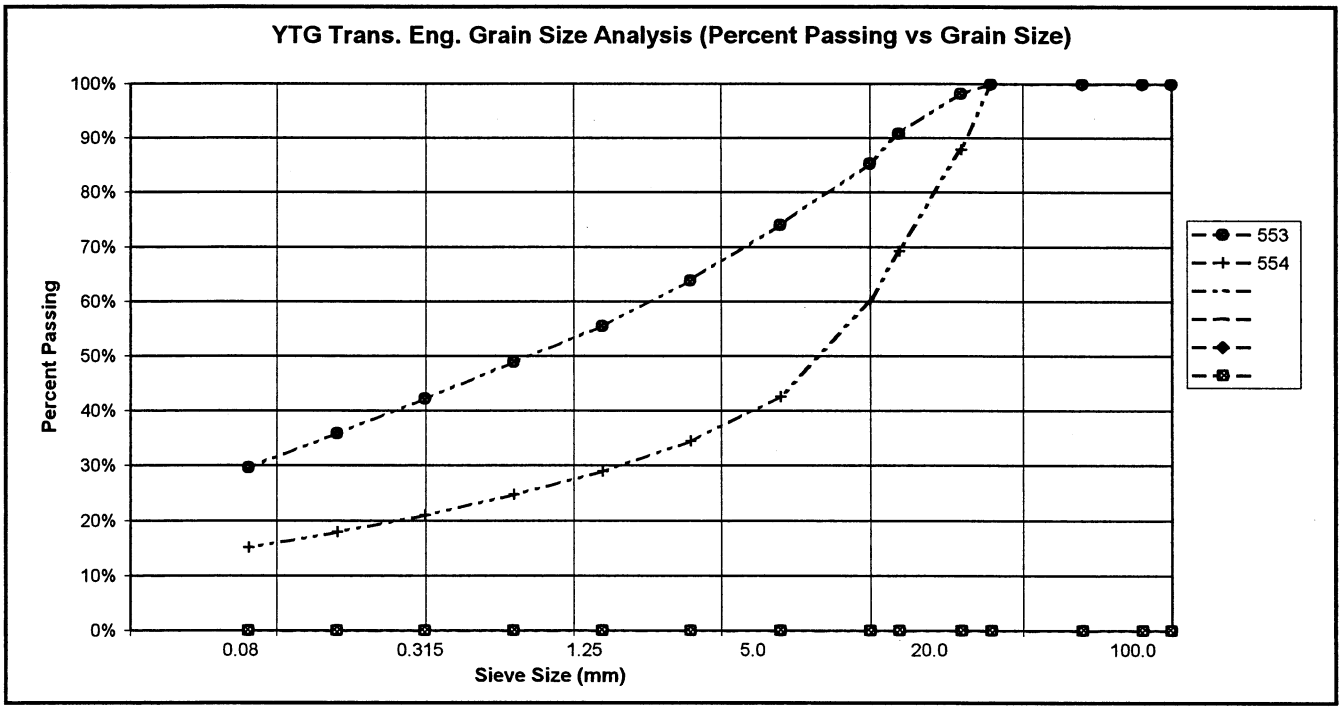
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 549-1449
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1754+150 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/05/31

FIELD NO:	551	552				
LAB NO:	LOST	956				
DEPTH:	1.4-1.6	2.8-3.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	98%				
20.0	100%	98%				
12.5	100%	93%				
10.0	100%	89%				
5.0	100%	79%				
2.5	100%	66%				
1.25	100%	53%				
0.630	100%	41%				
0.315	100%	32%				
0.160	100%	26%				
0.080	100%	21%				
M.C.(%):	4%	7%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	21				
% SAND:	0	58				
% FINES:	100	21				
CLASSIFICATION	~~SILT (ML)~~	SILTY SAND WITH GRAVEL (SM)				



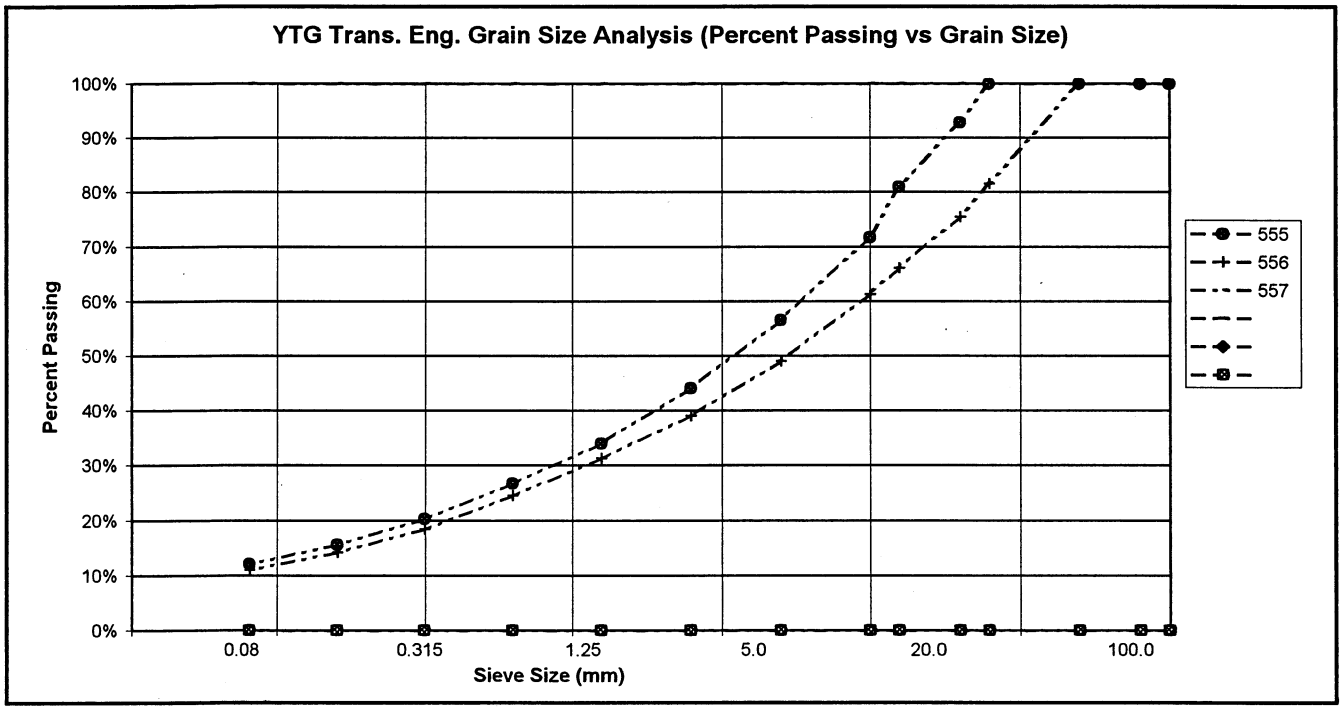
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 549-1450
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1754+250 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/006/01

FIELD NO:	553	554				
LAB NO:	957	958				
DEPTH:	1.3-1.5	2.8-3.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	98%	88%				
12.5	91%	69%				
10.0	85%	60%				
5.0	74%	43%				
2.5	64%	34%				
1.25	56%	29%				
0.630	49%	25%				
0.315	42%	21%				
0.160	36%	18%				
0.080	30%	15%				
M.C.(%):	5%	3%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	26	57				
% SAND:	44	27				
% FINES:	30	15				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)				



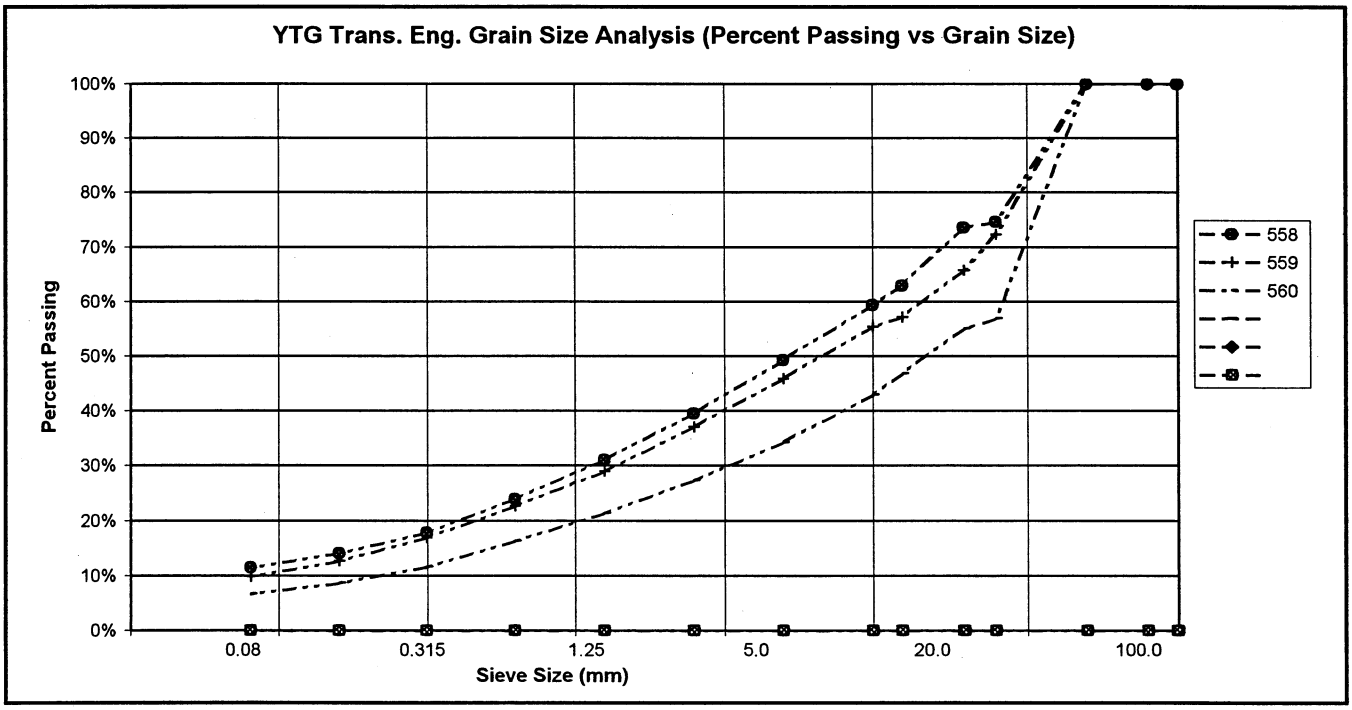
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 549-1451
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1754+325 20M LT		
LOGGED BY:	D.T.		DATE COMP: 2000/006/01

FIELD NO:	555	556	557			
LAB NO:	959	960	LOST			
DEPTH:	1.3-1.5	2.9-3.1	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	82%	100%			
20.0	93%	76%	100%			
12.5	81%	66%	100%			
10.0	72%	61%	100%			
5.0	57%	49%	100%			
2.5	44%	39%	100%			
1.25	34%	31%	100%			
0.630	27%	25%	100%			
0.315	20%	18%	100%			
0.160	16%	14%	100%			
0.080	12%	11%	100%			
M.C.(%):	4%	3%	6%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	43	51	0			
% SAND:	45	38	0			
% FINES:	12	11	100			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	~~SILT (ML)~~			



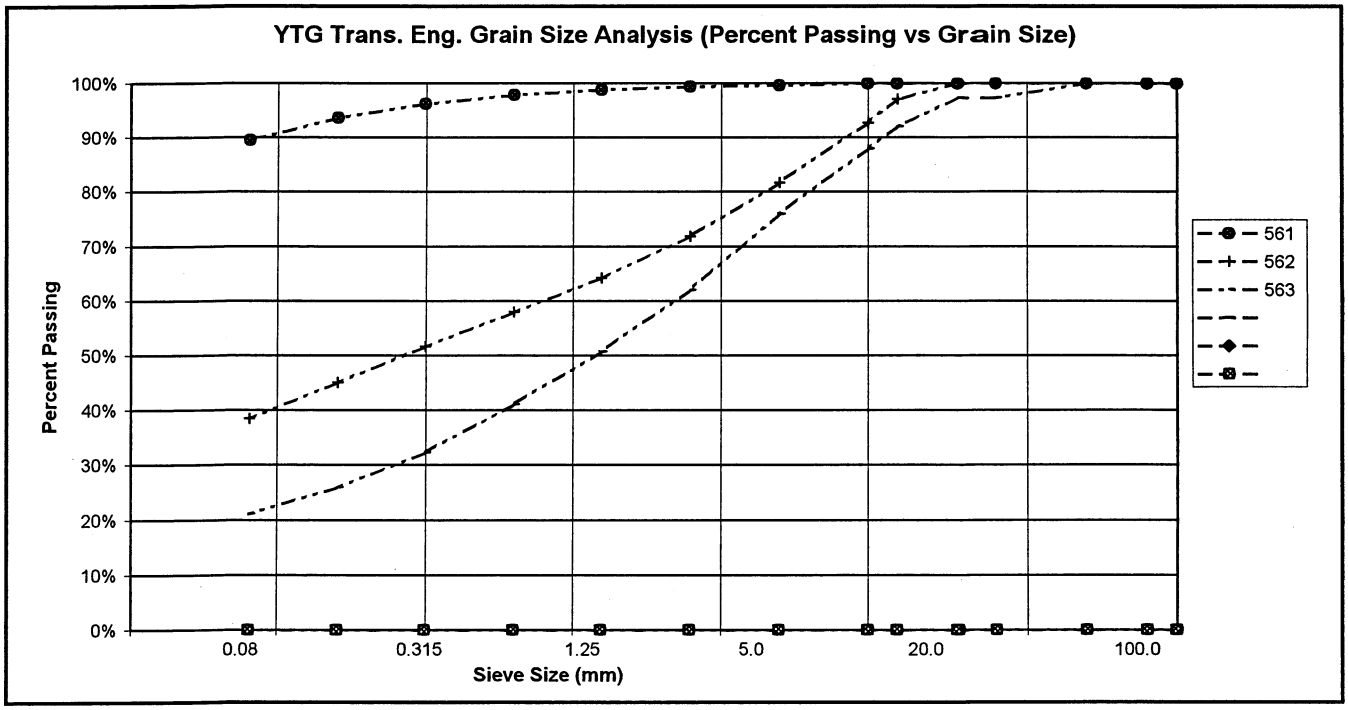
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 549-1452
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1754+315 20M RT		
LOGGED BY:	D.T.		DATE COMP: 2000/006/01

FIELD NO:	558	559	560			
LAB NO:	962	963	964			
DEPTH:	1.2-1.4	2.7-2.9	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	75%	72%	57%			
20.0	74%	66%	55%			
12.5	63%	57%	47%			
10.0	59%	55%	43%			
5.0	49%	46%	34%			
2.5	40%	37%	27%			
1.25	31%	29%	21%			
0.630	24%	23%	16%			
0.315	18%	17%	12%			
0.160	14%	13%	9%			
0.080	11%	10%	7%			
M.C.(%):	5%	6%	5%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	51	54	66			
% SAND:	38	36	28			
% FINES:	11	10	7			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			



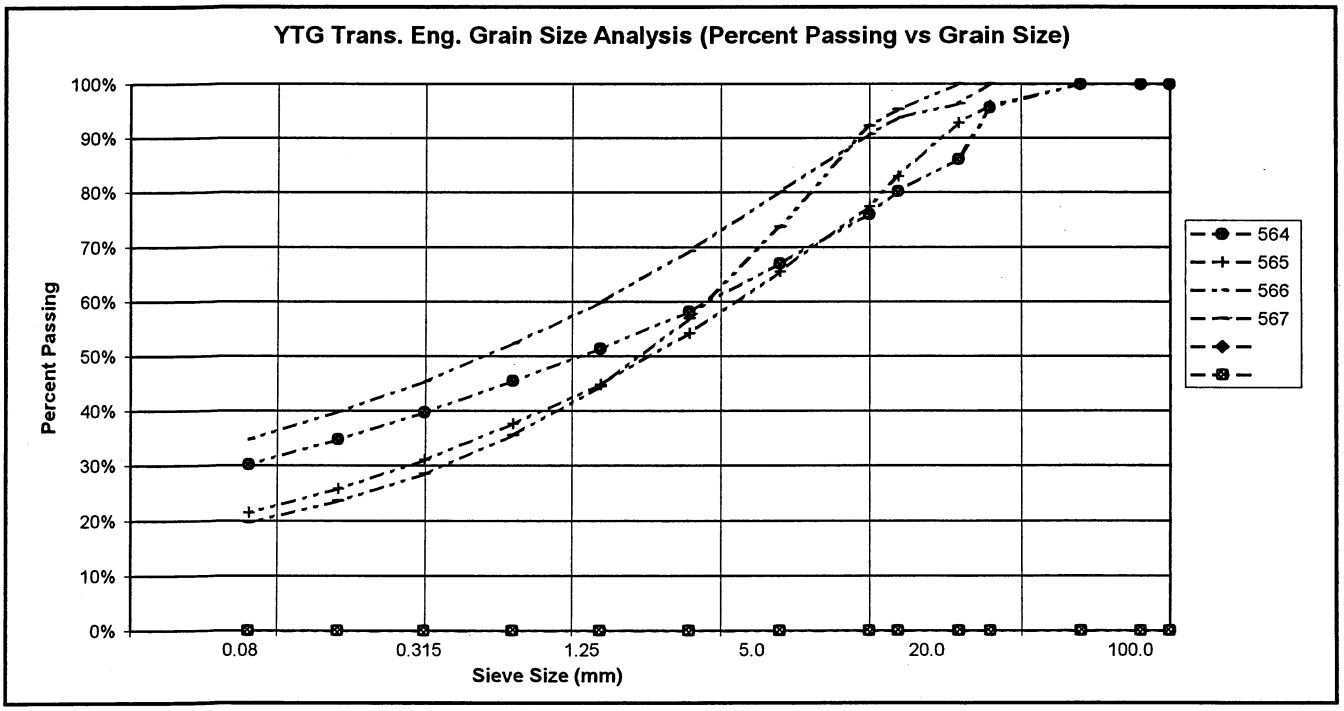
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 550-1453
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787. A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1754+350 CENTERLINE		
LOGGED BY:	D.T.		DATE COMP: 2000/06/01

FIELD NO:	561	562	563			
LAB NO:	965	966	967			
DEPTH:	0.4-0.6	1.4-1.6	2.8-3.0			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	97%			
20.0	100%	100%	97%			
12.5	100%	97%	92%			
10.0	100%	93%	88%			
5.0	100%	82%	76%			
2.5	99%	72%	62%			
1.25	99%	64%	51%			
0.630	98%	58%	41%			
0.315	96%	52%	32%			
0.160	94%	45%	26%			
0.080	90%	38%	21%			
M.C.(%):	8%	6%	7%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	0	18	24			
% SAND:	10	43	55			
% FINES:	90	38	21			
CLASSIFICATION	SILT (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			



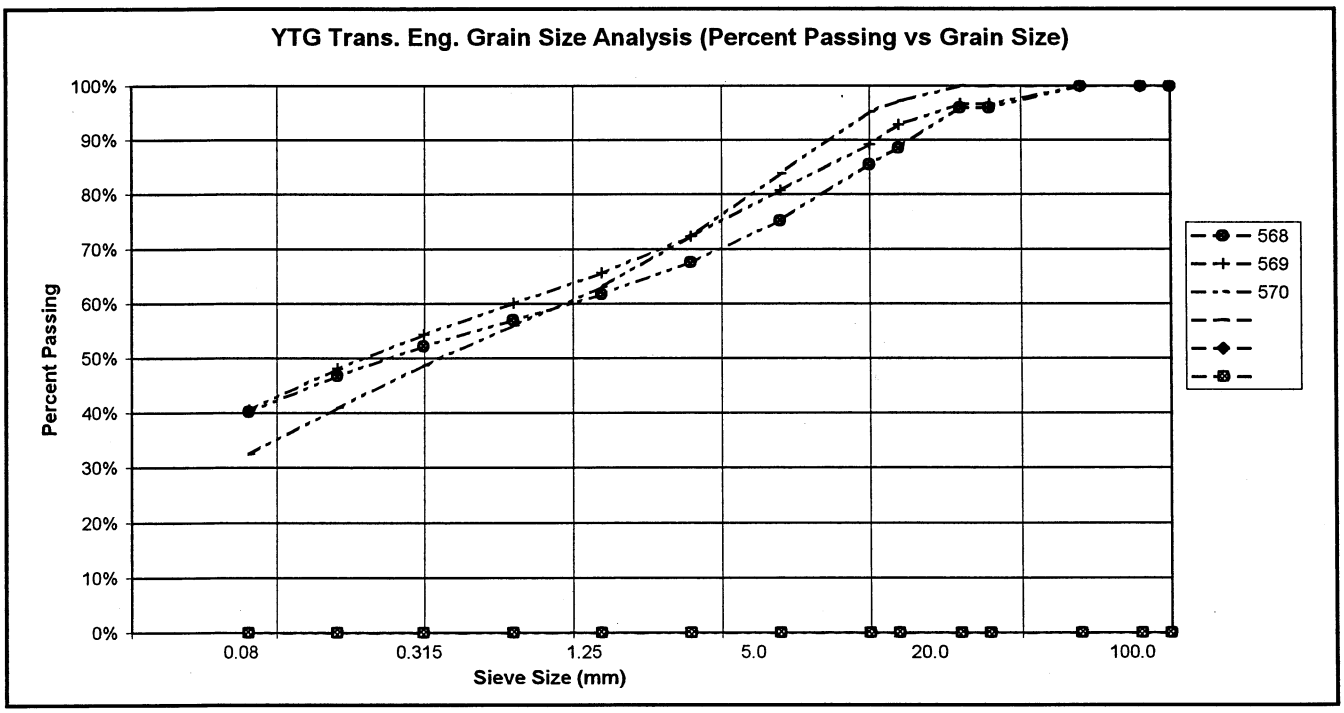
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 550-1454
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787. A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1754+450 15M LT		
LOGGED BY:	D.T.		DATE COMP: 2000/06/01

FIELD NO:	564	565	566	567		
LAB NO:	968	969	970	971		
DEPTH:	1.4-1.6	3.0-3.2	4.2-4.4	5.8-6.0		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	96%	96%	100%	100%		
20.0	86%	93%	96%	100%		
12.5	80%	83%	94%	95%		
10.0	76%	77%	91%	92%		
5.0	67%	65%	80%	74%		
2.5	58%	54%	69%	57%		
1.25	51%	45%	60%	44%		
0.630	46%	38%	52%	36%		
0.315	40%	31%	45%	29%		
0.160	35%	26%	40%	24%		
0.080	30%	21%	35%	20%		
M.C.(%):	5%	6%	9%	7%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	33	35	20	26		
% SAND:	37	44	45	54		
% FINES:	30	21	35	20		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		



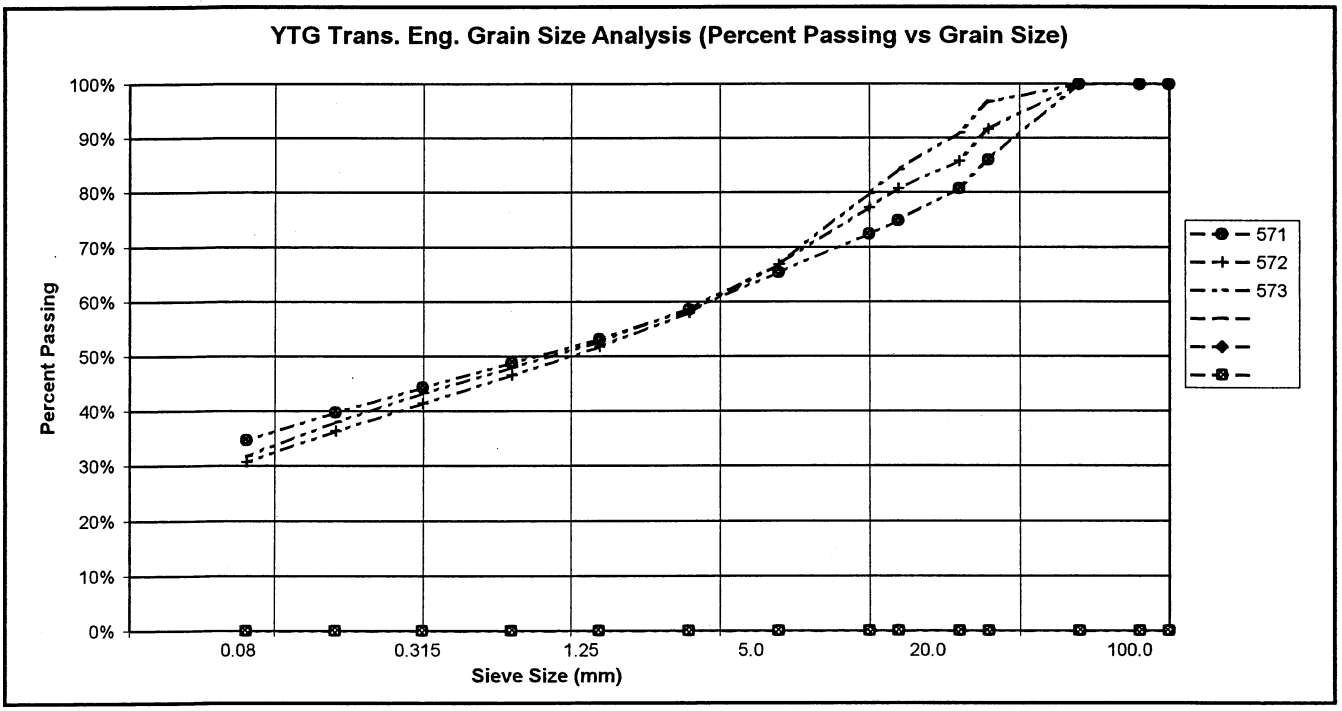
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 550-1455
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787. A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1454+550 CENTRELINE		
LOGGED BY:	D.T.		DATE COMP: 2000/06/01

FIELD NO:	568	569	570			
LAB NO:	972	973	974			
DEPTH:	1.4-1.6	2.9-3.1	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	96%	97%	100%			
20.0	96%	97%	100%			
12.5	89%	93%	97%			
10.0	86%	89%	95%			
5.0	75%	81%	84%			
2.5	68%	72%	72%			
1.25	62%	66%	63%			
0.630	57%	60%	56%			
0.315	52%	54%	49%			
0.160	47%	48%	41%			
0.080	40%	41%	33%			
M.C.(%):	6%	9%	8%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	25	19	16			
% SAND:	35	40	51			
% FINES:	40	41	33			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			



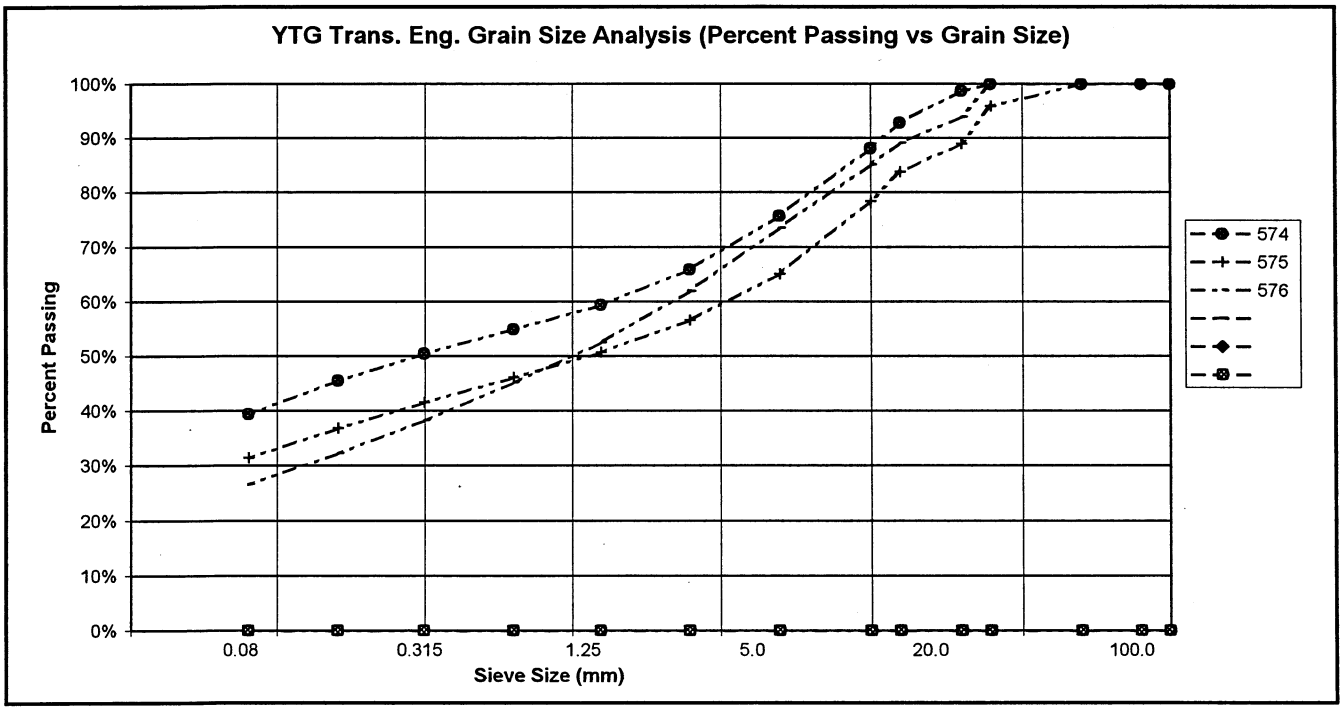
PROJECT NUMBER:	092-202101-0361-1	HOLE No.: 550-1456
CLIENT:	ENGINEERING CAPITAL	
PROJECT NAME:	SHAKWAK SEG 11	
PROJECT LOCATION:	KM 1729.6-1787. A/H	
DRILL UNIT:	MOBILE B40 L	
HOLE LOCATION:	1754+680 CENTRELINE	
LOGGED BY:	D.T.	DATE COMP: 2000/06/01

FIELD NO:	571	572	573			
LAB NO:	975	976	977			
DEPTH:	1.3-1.5	2.8-3.0	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	86%	92%	97%			
20.0	81%	86%	91%			
12.5	75%	81%	84%			
10.0	72%	77%	80%			
5.0	65%	67%	67%			
2.5	59%	58%	59%			
1.25	53%	52%	53%			
0.630	49%	47%	48%			
0.315	44%	41%	43%			
0.160	40%	36%	38%			
0.080	35%	31%	32%			
M.C.(%):	6%	5%	6%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	35	33	33			
% SAND:	31	36	35			
% FINES:	35	31	32			
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 550-1457
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787. A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1754+800 CENTRELINE		
LOGGED BY:	D.T.		DATE COMP: 2000/06/01

FIELD NO:	574	575	576			
LAB NO:	978	979	980			
DEPTH:	1.4-1.6	2.1-3.1	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	96%	100%			
20.0	99%	89%	94%			
12.5	93%	84%	89%			
10.0	88%	78%	85%			
5.0	76%	65%	74%			
2.5	66%	57%	62%			
1.25	59%	51%	52%			
0.630	55%	46%	45%			
0.315	51%	42%	38%			
0.160	46%	37%	32%			
0.080	39%	31%	27%			
M.C.(%):	7%	5%	5%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	24	35	26			
% SAND:	36	34	47			
% FINES:	39	31	27			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)			

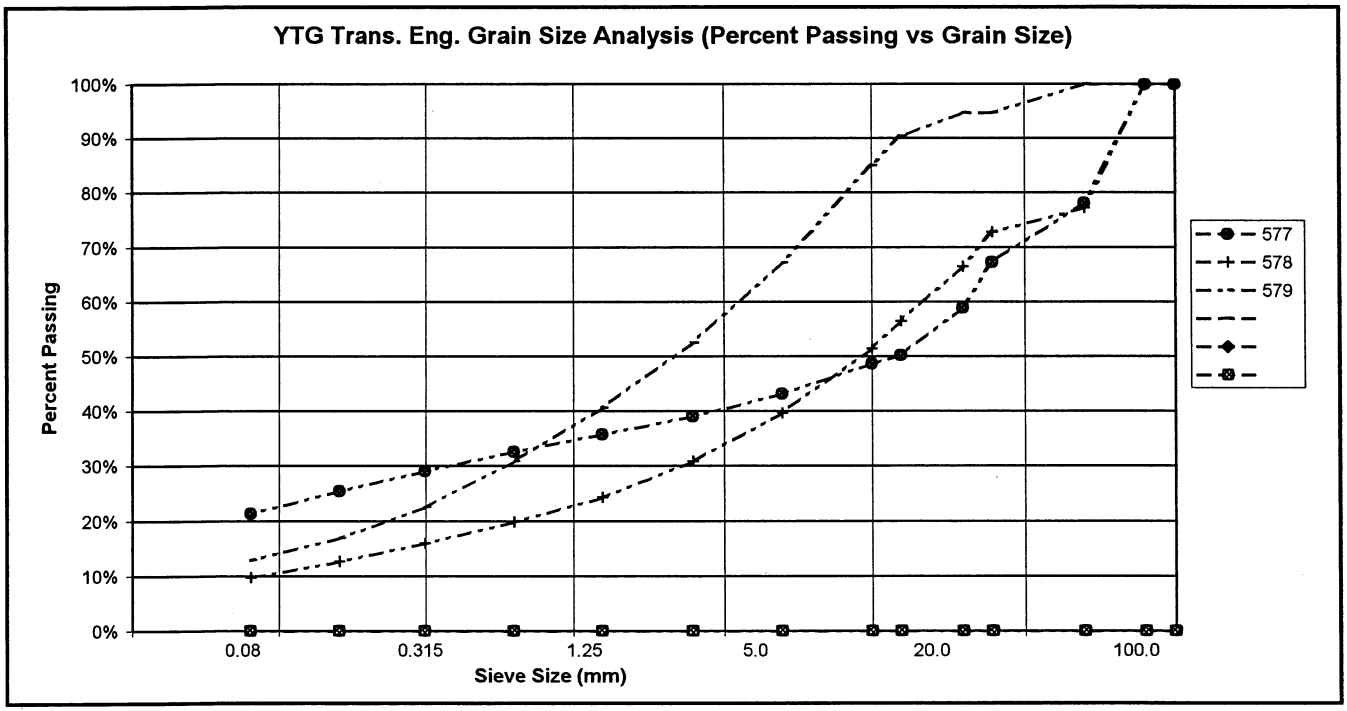


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787. A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1755+000 15M RT
LOGGED BY: D.T.

HOLE No.: 550-1458

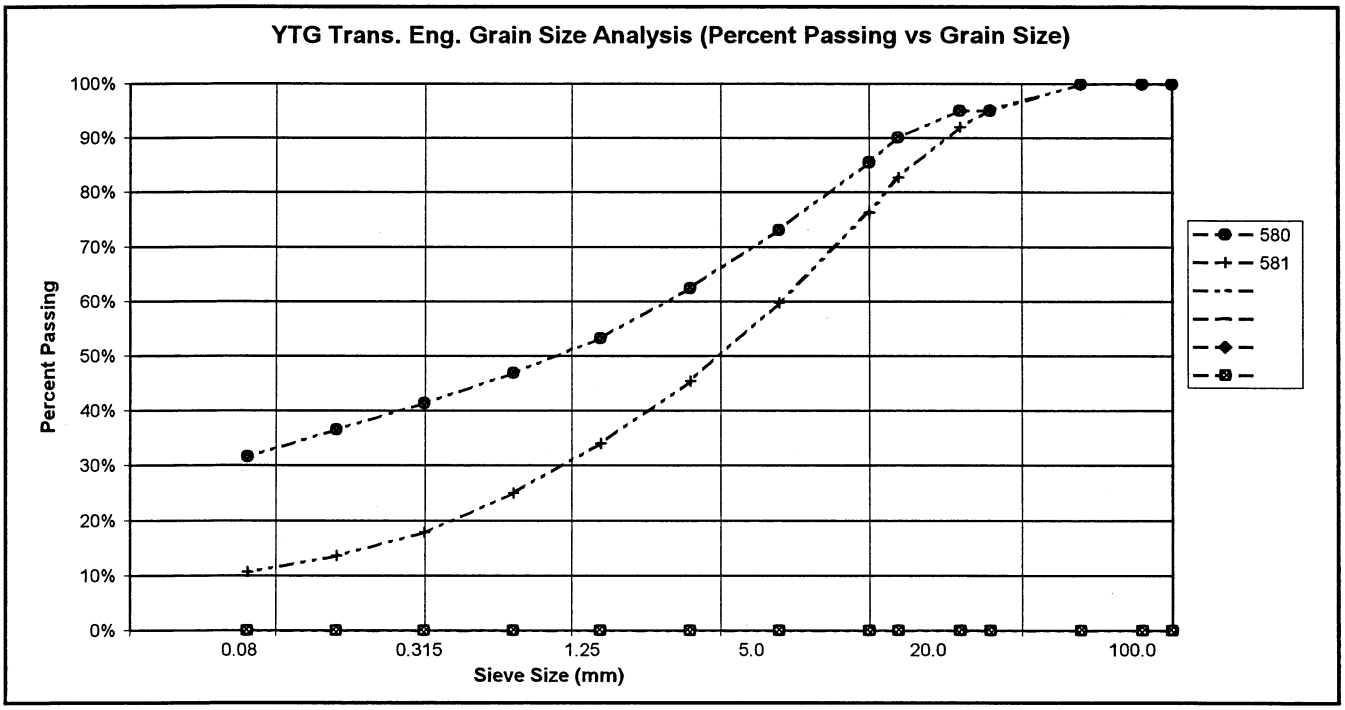
DATE COMP: 2000/06/02

FIELD NO:	577	578	579			
LAB NO:	981	982	983			
DEPTH:	1.2-1.4	2.9-3.1	4.0-4.2			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	78%	77%	100%			
25.0	67%	73%	95%			
20.0	59%	66%	95%			
12.5	50%	56%	90%			
10.0	49%	51%	85%			
5.0	43%	40%	67%			
2.5	39%	31%	52%			
1.25	36%	24%	41%			
0.630	33%	20%	31%			
0.315	29%	16%	23%			
0.160	25%	13%	17%			
0.080	21%	10%	13%			
M.C.(%):	5%	3%	6%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	57	60	33			
% SAND:	22	30	54			
% FINES:	21	10	13			
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH GRAVEL (SM)			



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 550-1459
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787. A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1755+100 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/02

FIELD NO:	580	581				
LAB NO:	984	985				
DEPTH:	1.5-1.7	2.8-3.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	95%	95%				
20.0	95%	92%				
12.5	90%	83%				
10.0	86%	76%				
5.0	73%	60%				
2.5	62%	45%				
1.25	53%	34%				
0.630	47%	25%				
0.315	41%	18%				
0.160	37%	14%				
0.080	32%	11%				
M.C.(%):	14%	7%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	27	40				
% SAND:	41	49				
% FINES:	32	11				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)				

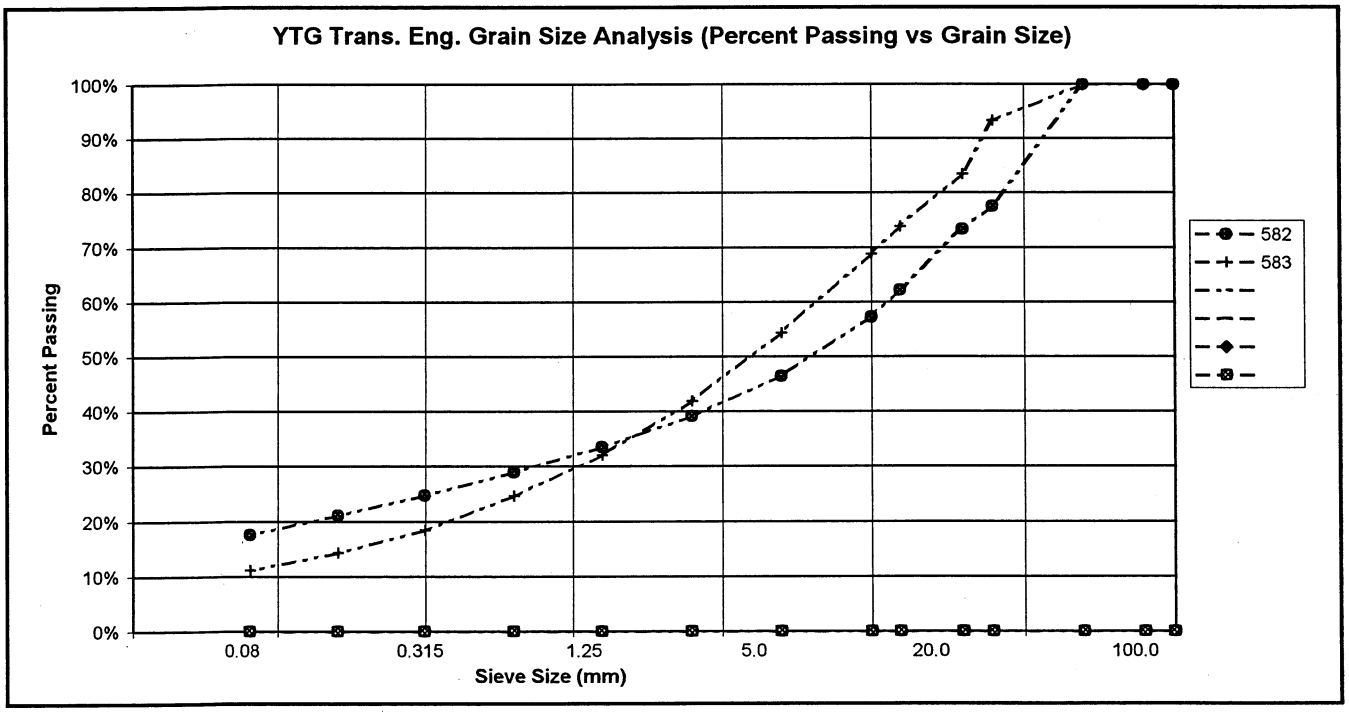


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787. A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1755+200 C/L
LOGGED BY: D.T.

HOLE No.: 550-1460

DATE COMP: 2000/06/02

FIELD NO:	582	583				
LAB NO:	986	987				
DEPTH:	1.6-1.8	2.8-3.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	78%	93%				
20.0	73%	83%				
12.5	62%	74%				
10.0	57%	69%				
5.0	46%	54%				
2.5	39%	42%				
1.25	34%	32%				
0.630	29%	25%				
0.315	25%	18%				
0.160	21%	14%				
0.080	18%	11%				
M.C.(%):	4%	5%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	54	46				
% SAND:	29	43				
% FINES:	18	11				
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)				

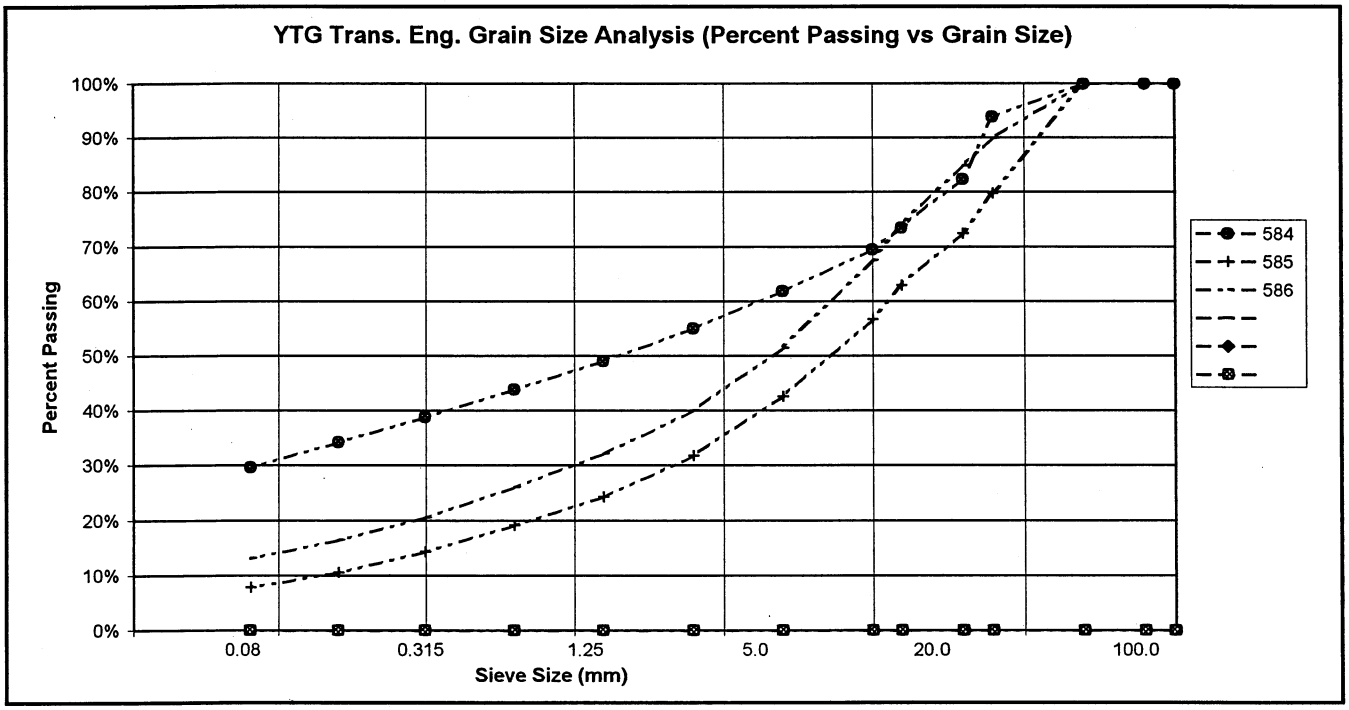


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787. A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1755+300 C/L
LOGGED BY: D.T.

HOLE No.: 550-1461

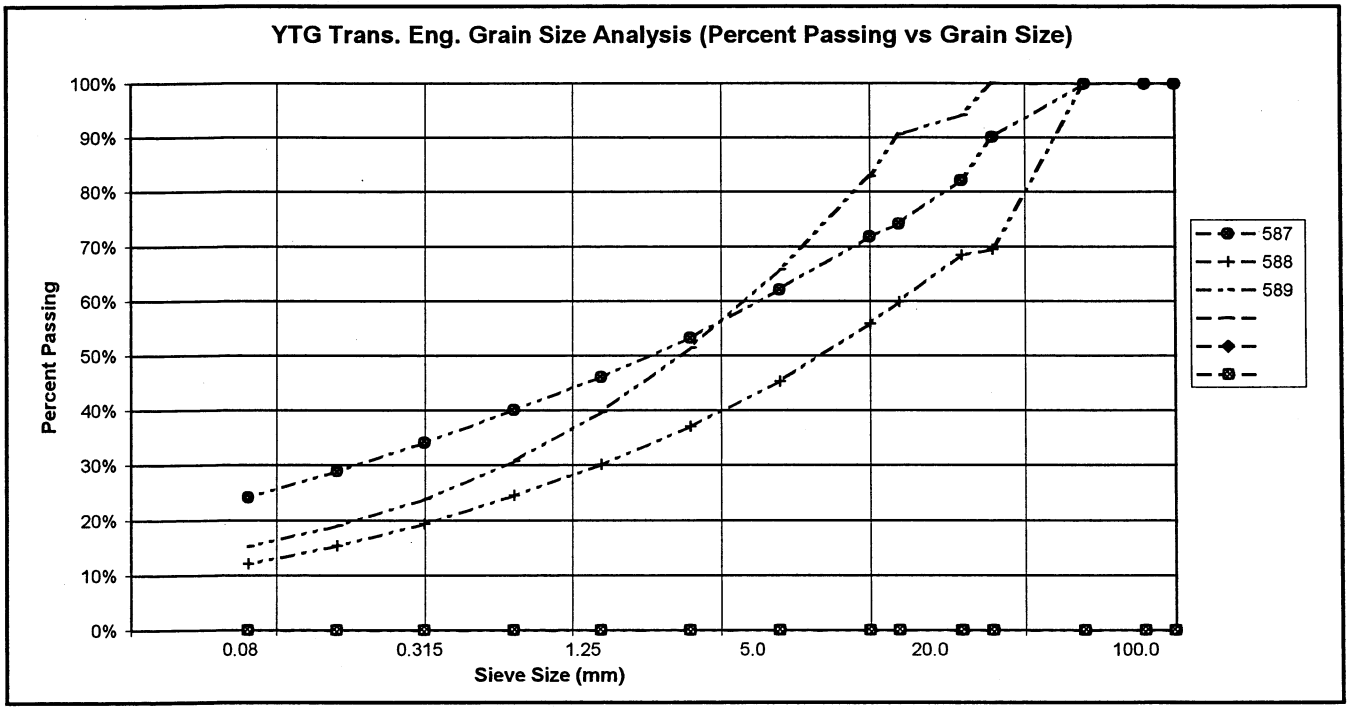
DATE COMP: 2000/06/02

FIELD NO:	584	585	586			
LAB NO:	988	989	990			
DEPTH:	1.4-1.6	2.9-3.1	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	94%	80%	90%			
20.0	82%	72%	85%			
12.5	74%	63%	74%			
10.0	69%	57%	68%			
5.0	62%	43%	51%			
2.5	55%	32%	40%			
1.25	49%	24%	32%			
0.630	44%	19%	26%			
0.315	39%	14%	21%			
0.160	34%	11%	16%			
0.080	30%	8%	13%			
M.C.(%):	5%	3%	4%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	38	57	49			
% SAND:	32	35	38			
% FINES:	30	8	13			
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)			



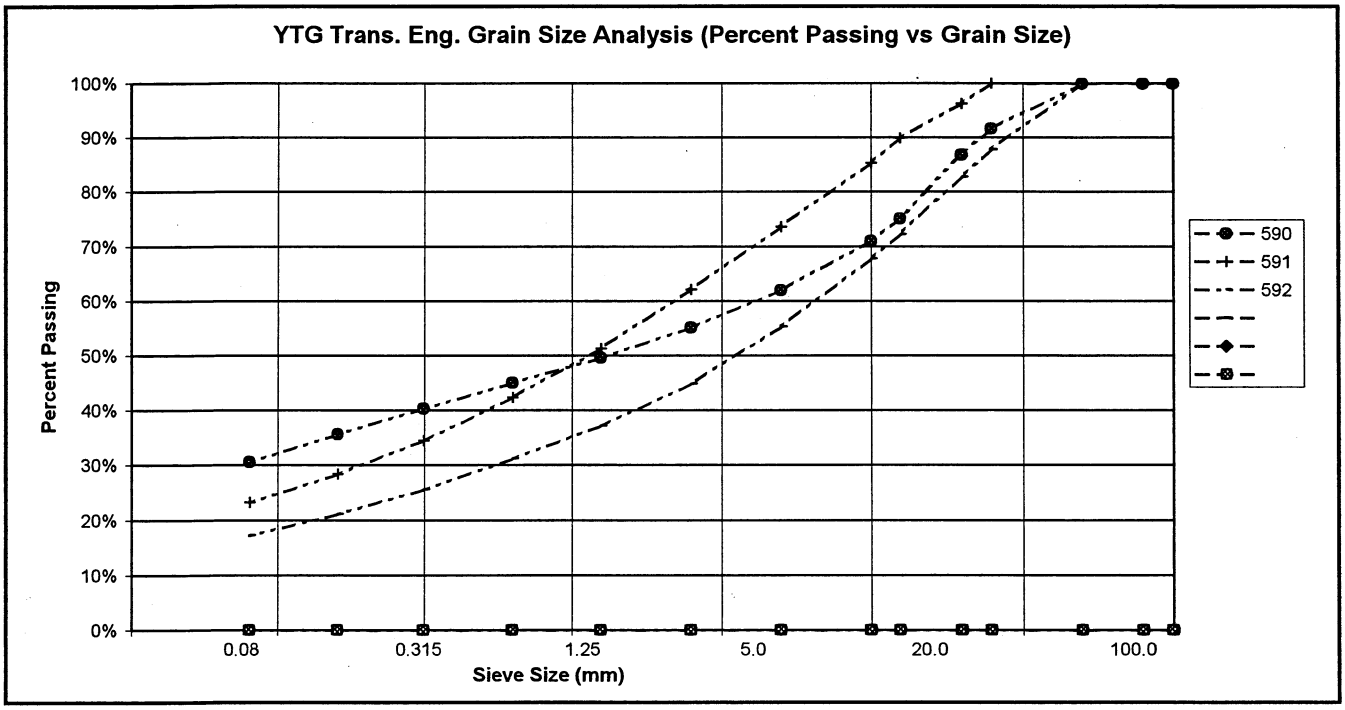
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 550-1462
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787. A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1755+400 10M RT		
LOGGED BY:	D.T.		DATE COMP: 2000/06/02

FIELD NO:	587	588	589			
LAB NO:	991	992	993			
DEPTH:	1.6-1.8	2.8-3.0	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	90%	69%	100%			
20.0	82%	68%	94%			
12.5	74%	60%	91%			
10.0	72%	56%	83%			
5.0	62%	45%	66%			
2.5	53%	37%	51%			
1.25	46%	30%	40%			
0.630	40%	25%	31%			
0.315	34%	19%	24%			
0.160	29%	15%	19%			
0.080	24%	12%	15%			
M.C.(%):	5%	3%	3%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	38	55	34			
% SAND:	38	33	50			
% FINES:	24	12	15			
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)			



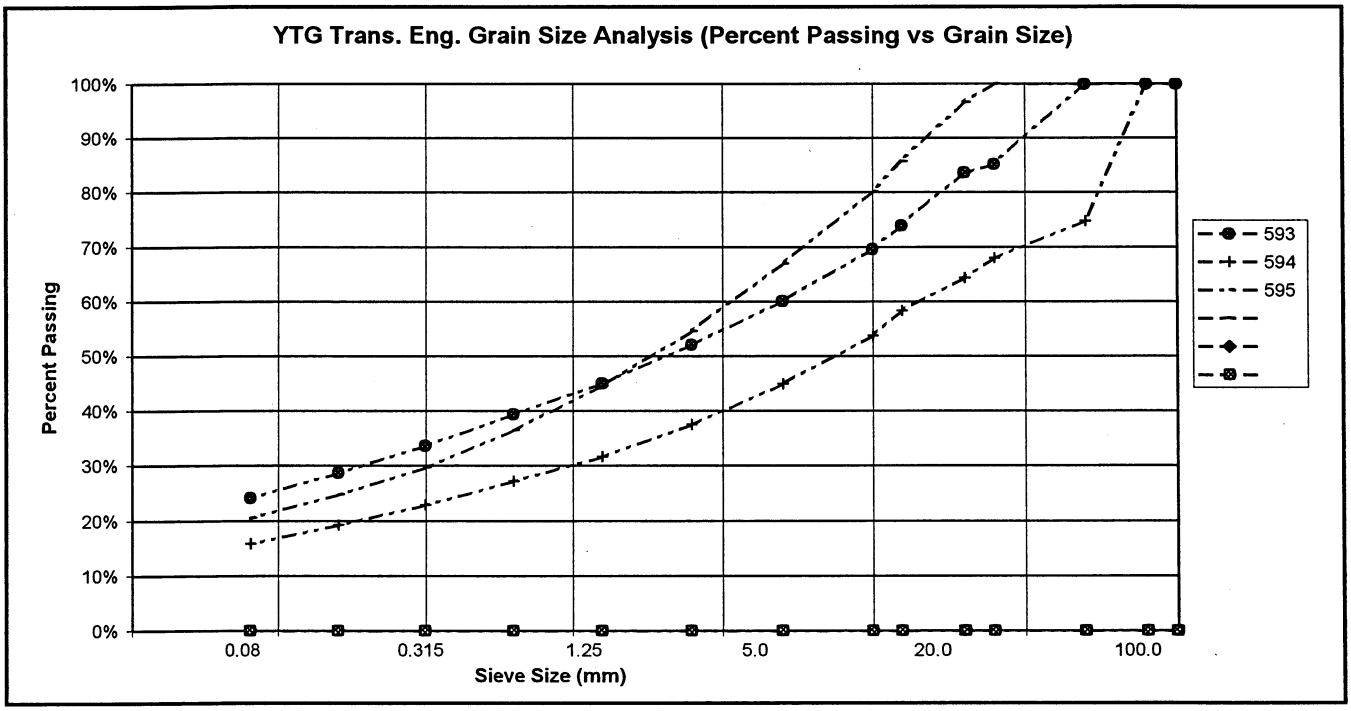
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 550-1463
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787. A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1755+500 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/02

FIELD NO:	590	591	592			
LAB NO:	994	995	996			
DEPTH:	1.3-1.5	2.9-3.1	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	92%	100%	88%			
20.0	87%	96%	83%			
12.5	75%	90%	72%			
10.0	71%	85%	68%			
5.0	62%	74%	55%			
2.5	55%	62%	45%			
1.25	50%	51%	37%			
0.630	45%	42%	31%			
0.315	40%	34%	26%			
0.160	36%	28%	21%			
0.080	31%	23%	17%			
M.C.(%):	4%	4%	3%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	38	26	45			
% SAND:	31	50	38			
% FINES:	31	23	17			
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)			



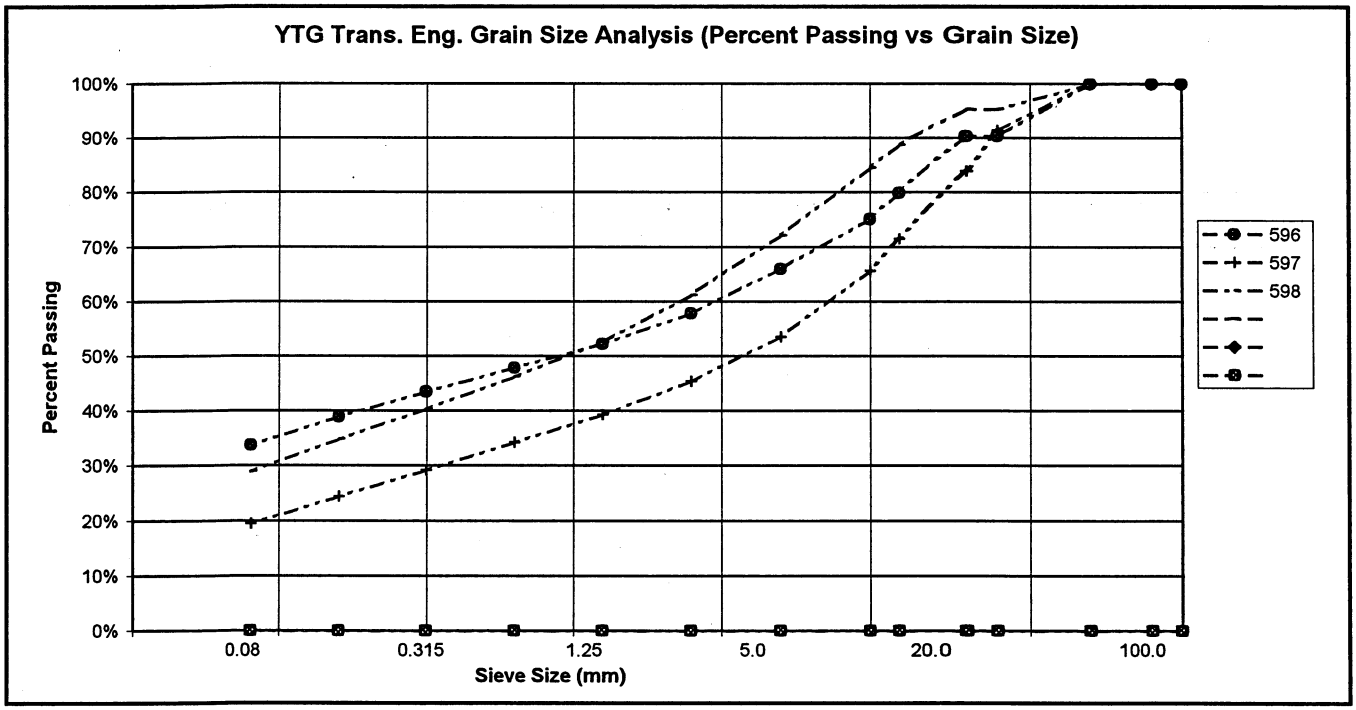
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 550-1464
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787. A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1755+600 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/02

FIELD NO:	593	594	595			
LAB NO:	997	998	999			
DEPTH:	1.4-1.6	3.0-3.2	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	75%	100%			
25.0	85%	68%	100%			
20.0	84%	64%	97%			
12.5	74%	58%	86%			
10.0	70%	54%	80%			
5.0	60%	45%	67%			
2.5	52%	38%	55%			
1.25	45%	32%	45%			
0.630	39%	27%	37%			
0.315	34%	23%	30%			
0.160	29%	19%	25%			
0.080	24%	16%	20%			
M.C.(%):	4%	3%	5%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	40	55	33			
% SAND:	36	29	46			
% FINES:	24	16	20			
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)			



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 550-1465
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787. A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1755+700 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/02

FIELD NO:	596	597	598			
LAB NO:	1000	1001	1002			
DEPTH:	1.4-1.6	2.8-3.0	4.4-4.6			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	90%	91%	95%			
20.0	90%	84%	95%			
12.5	80%	71%	89%			
10.0	75%	66%	84%			
5.0	66%	54%	72%			
2.5	58%	45%	61%			
1.25	52%	39%	53%			
0.630	48%	34%	46%			
0.315	44%	29%	40%			
0.160	39%	24%	35%			
0.080	34%	20%	29%			
M.C.(%):	6%	3%	6%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	34	46	28			
% SAND:	32	34	43			
% FINES:	34	20	29			
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)			

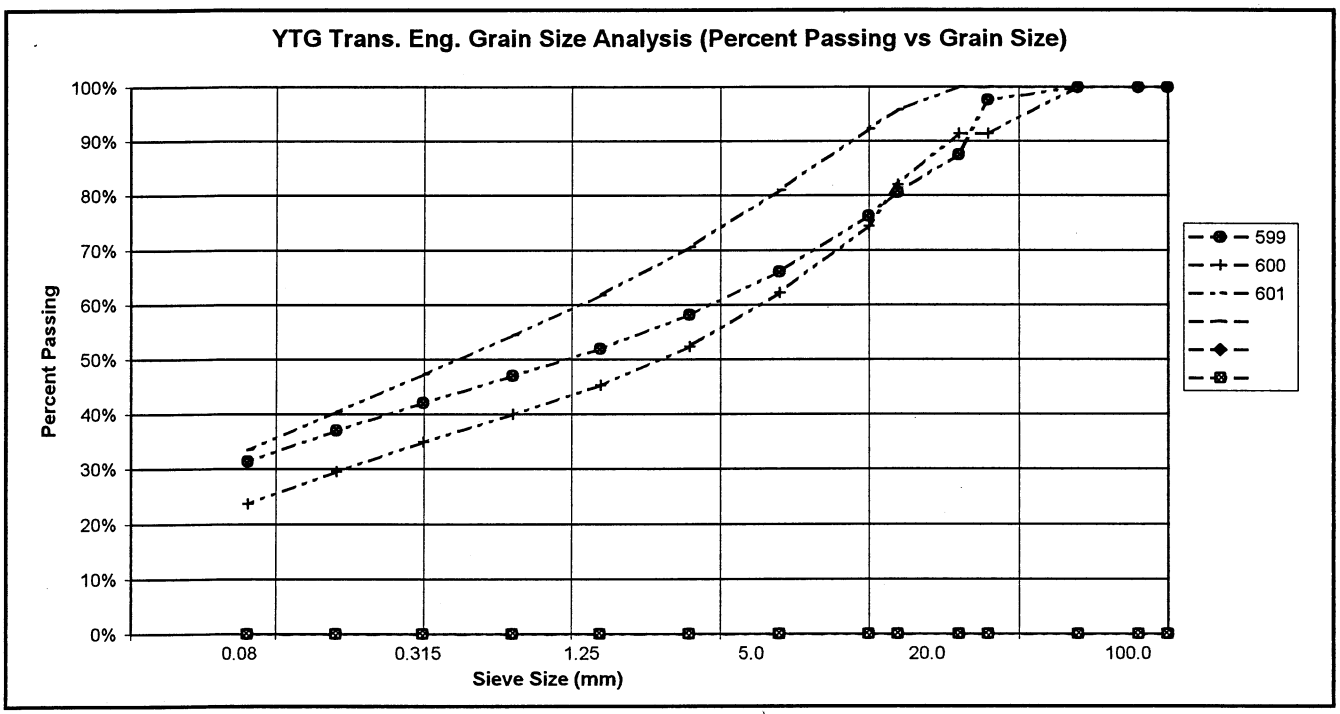


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEGMENT 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1755+800 C/L
LOGGED BY: D.T.

HOLE No.: 551-1466

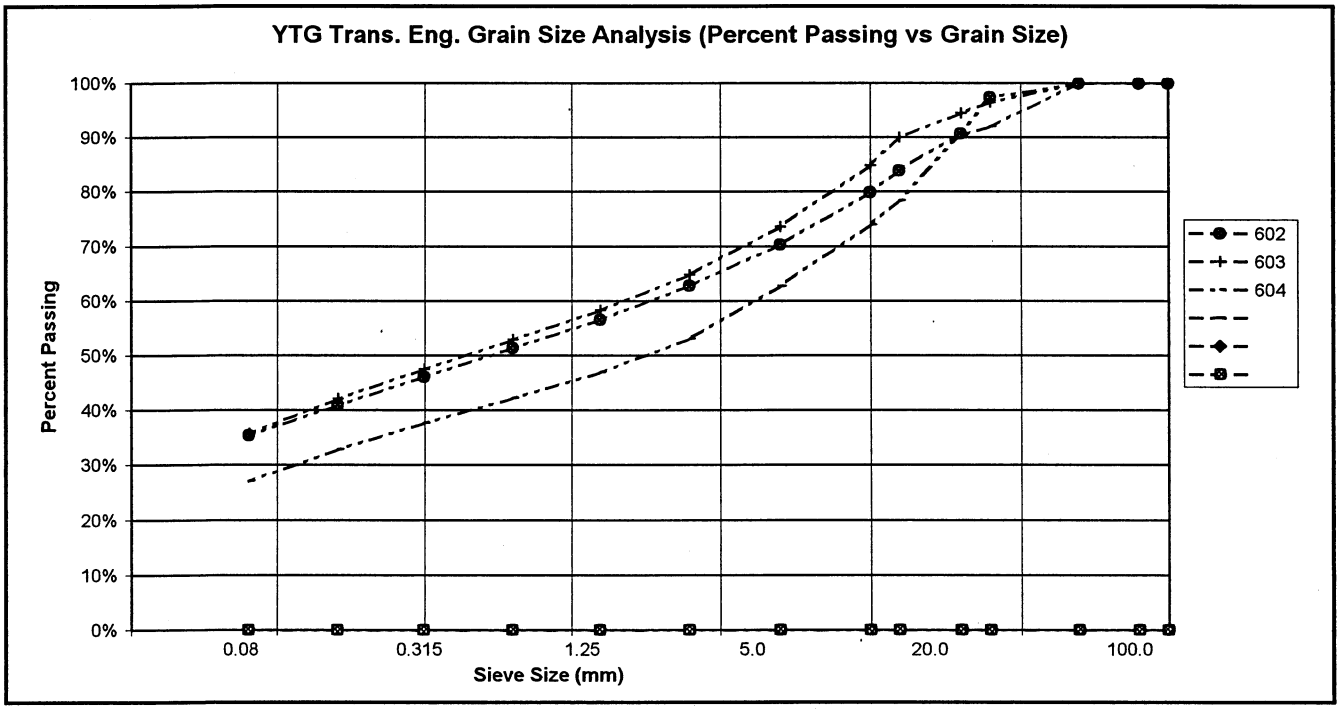
DATE COMP: 2000/06/05

FIELD NO:	599	600	601			
LAB NO:	1003	1004	1005			
DEPTH:	1.3-1.5	2.8-3.0	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	98%	91%	100%			
20.0	88%	91%	100%			
12.5	81%	82%	96%			
10.0	76%	74%	92%			
5.0	66%	62%	81%			
2.5	58%	52%	71%			
1.25	52%	45%	62%			
0.630	47%	40%	55%			
0.315	42%	35%	47%			
0.160	37%	30%	41%			
0.080	31%	24%	34%			
M.C.(%):	4%	7%	6%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	34	38	19			
% SAND:	35	39	47			
% FINES:	31	24	34			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			



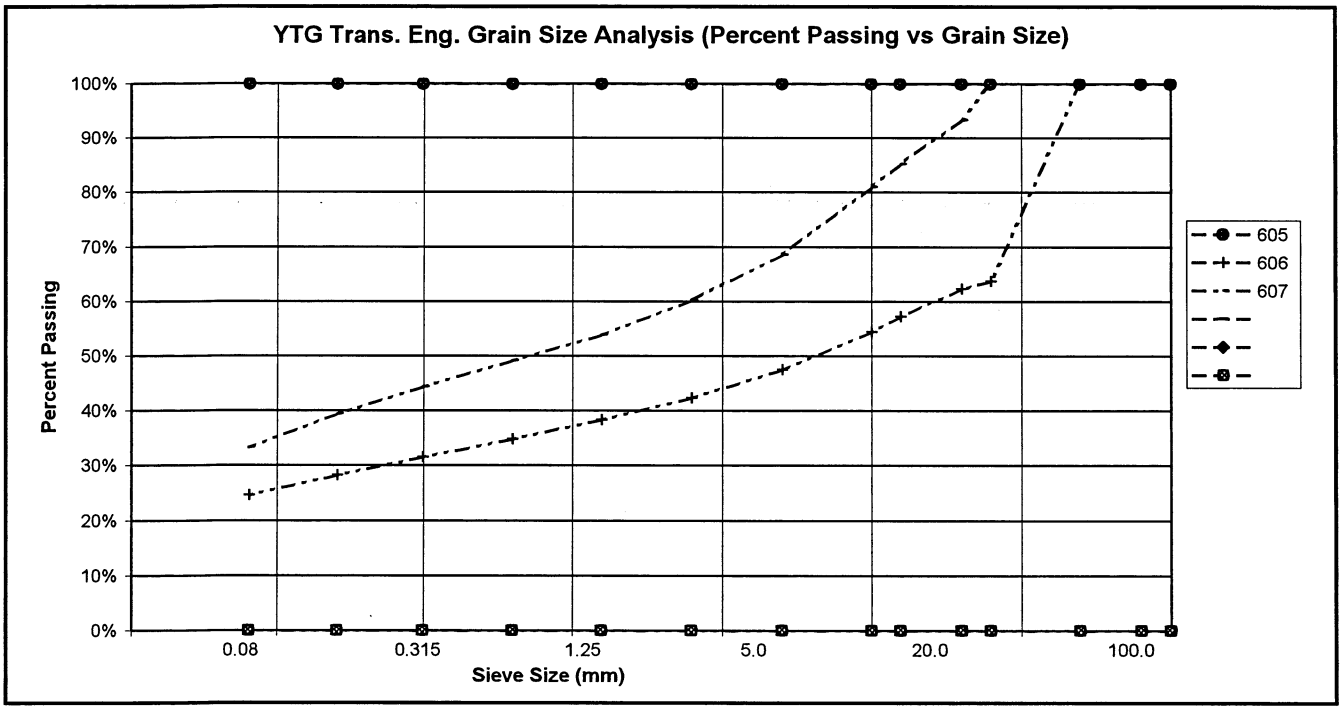
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 551-1467
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1755+900 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/05

FIELD NO:	602	603	604			
LAB NO:	1006	1007	1008			
DEPTH:	1.2-1.4	2.9-3.1	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	97%	96%	92%			
20.0	91%	95%	90%			
12.5	84%	90%	78%			
10.0	80%	85%	74%			
5.0	70%	74%	63%			
2.5	63%	65%	53%			
1.25	57%	58%	47%			
0.630	51%	53%	42%			
0.315	46%	48%	38%			
0.160	41%	42%	33%			
0.080	35%	36%	27%			
M.C.(%):	6%	8%	6%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	30	26	37			
% SAND:	35	38	36			
% FINES:	35	36	27			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)			



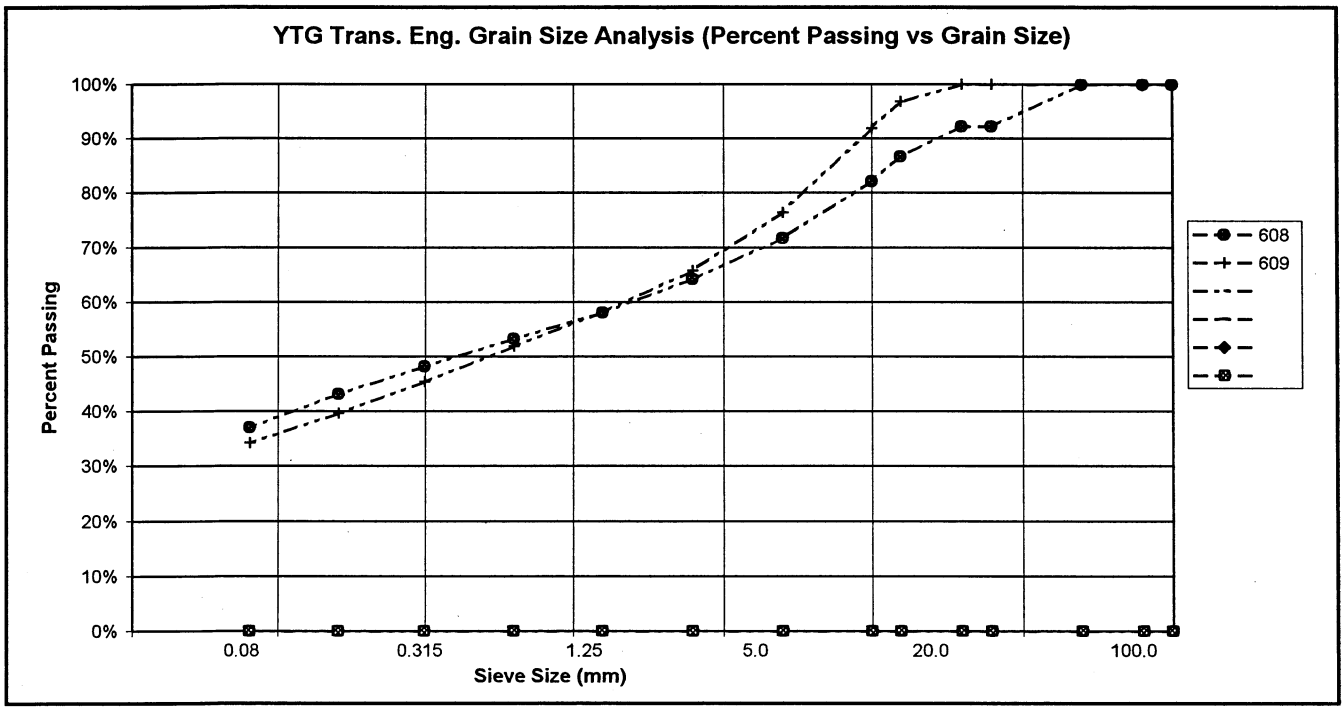
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 551-1468
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1756+000C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/05

FIELD NO:	605	606	607			
LAB NO:	LOST	1010	1011			
DEPTH:	1.2-1.4	3.0-3.2	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	64%	100%			
20.0	100%	62%	93%			
12.5	100%	57%	85%			
10.0	100%	54%	81%			
5.0	100%	48%	69%			
2.5	100%	42%	60%			
1.25	100%	38%	54%			
0.630	100%	35%	49%			
0.315	100%	32%	44%			
0.160	100%	28%	39%			
0.080	100%	25%	33%			
M.C.(%):	5%	4%	5%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	0	52	31			
% SAND:	0	23	35			
% FINES:	100	25	33			
CLASSIFICATION	[illegible](ML)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)			



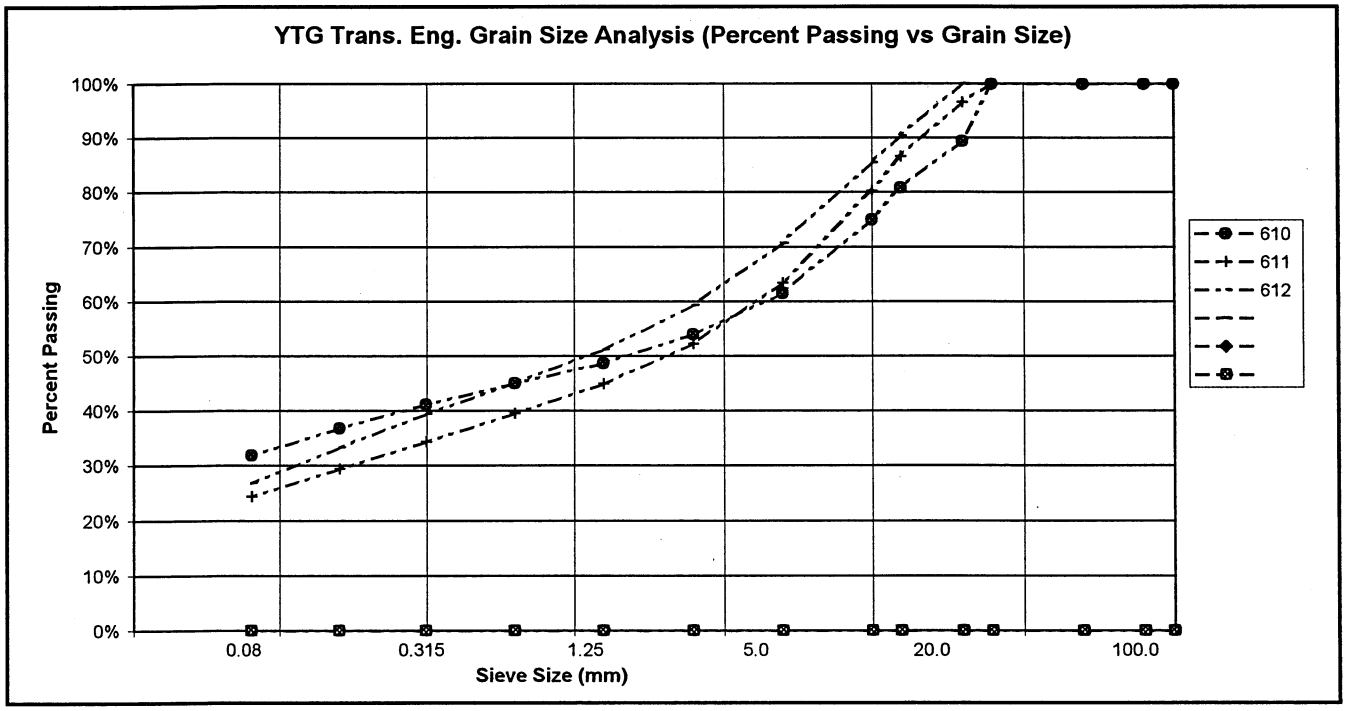
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 551-1469
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1756+100 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/05

FIELD NO:	608	609				
LAB NO:	1012	1013				
DEPTH:	1.5-1.7	2.8-3.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	92%	100%				
20.0	92%	100%				
12.5	87%	97%				
10.0	82%	92%				
5.0	72%	76%				
2.5	64%	66%				
1.25	58%	58%				
0.630	53%	52%				
0.315	48%	45%				
0.160	43%	40%				
0.080	37%	34%				
M.C.(%):	6%	8%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	28	24				
% SAND:	35	42				
% FINES:	37	34				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)				



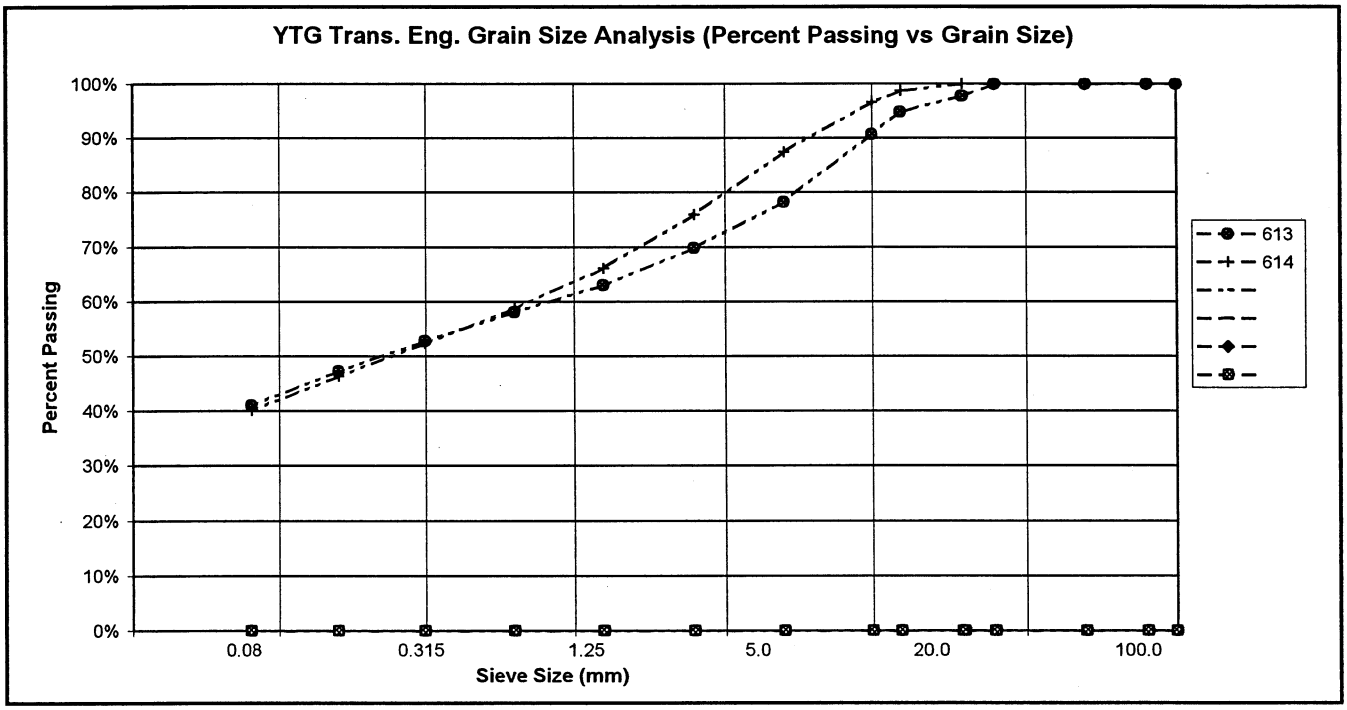
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 551-1470
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1756+200 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/05

FIELD NO:	610	611	612			
LAB NO:	1014	1015	1016			
DEPTH:	1.4-1.6	2.6-2.8	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	100%			
20.0	89%	97%	100%			
12.5	81%	87%	90%			
10.0	75%	80%	85%			
5.0	61%	63%	71%			
2.5	54%	52%	59%			
1.25	49%	45%	51%			
0.630	45%	40%	45%			
0.315	41%	34%	39%			
0.160	37%	29%	33%			
0.080	32%	24%	27%			
M.C.(%):	6%	6%	6%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	39	37	29			
% SAND:	30	39	44			
% FINES:	32	24	27			
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			



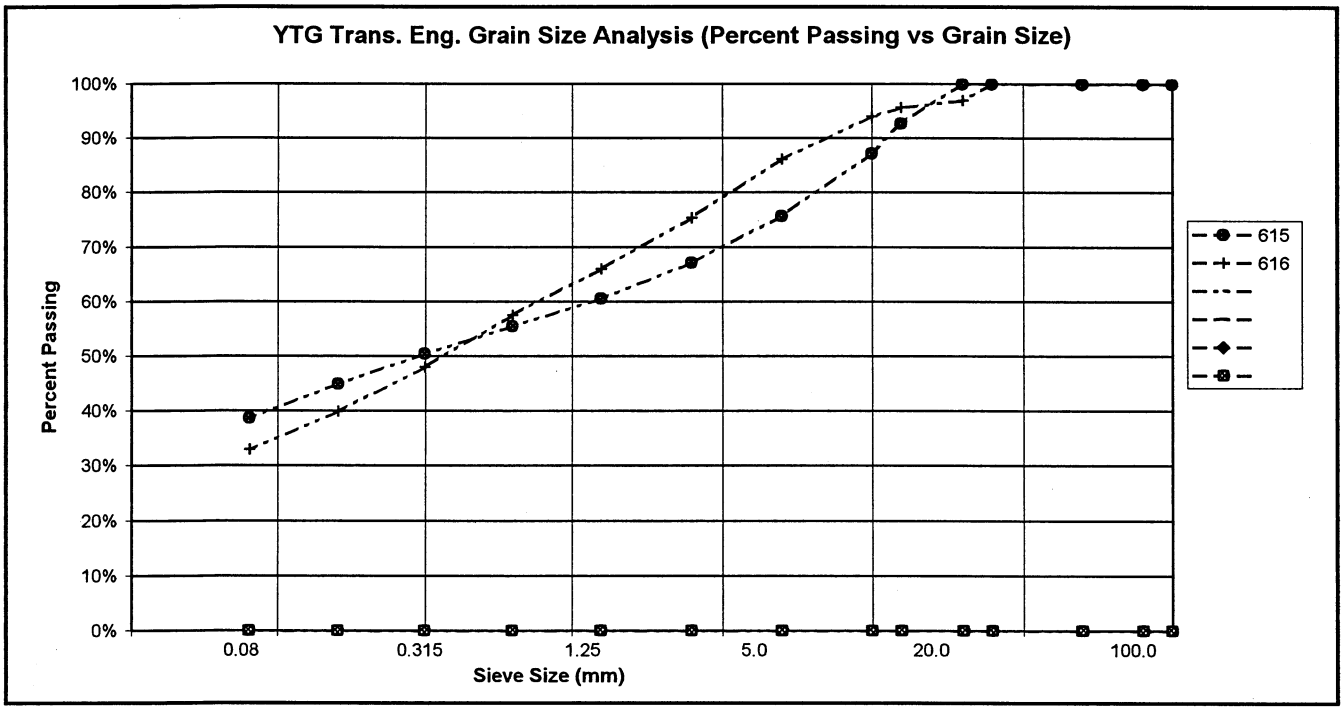
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 551-1471
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1756+300 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/05

FIELD NO:	613	614				
LAB NO:	1017	1018				
DEPTH:	1.4-1.5	2.9-3.1				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	98%	100%				
12.5	95%	99%				
10.0	91%	97%				
5.0	78%	87%				
2.5	70%	76%				
1.25	63%	66%				
0.630	58%	59%				
0.315	53%	52%				
0.160	47%	46%				
0.080	41%	40%				
M.C.(%):	14%	11%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	22	13				
% SAND:	37	47				
% FINES:	41	40				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND (SM)				



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 551-1472
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1756+400 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/05

FIELD NO:	615	616				
LAB NO:	1019	1020				
DEPTH:	1.5-1.7	2.8-3.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	97%				
12.5	93%	96%				
10.0	87%	94%				
5.0	76%	86%				
2.5	67%	75%				
1.25	61%	66%				
0.630	56%	58%				
0.315	50%	48%				
0.160	45%	40%				
0.080	39%	33%				
M.C.(%):	7%	9%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	24	14				
% SAND:	37	53				
% FINES:	39	33				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND (SM)				

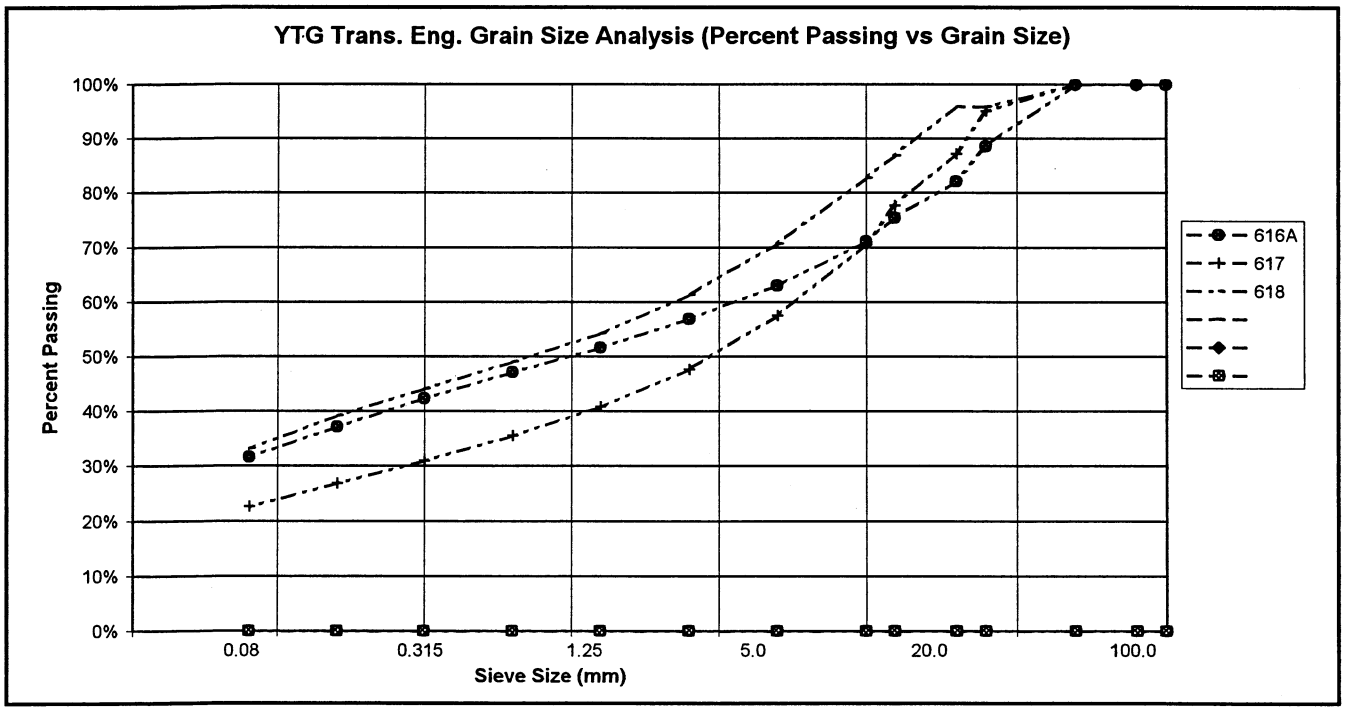


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEGMENT 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1756+542 C/L
LOGGED BY: D.T.

HOLE No.: 551-1473

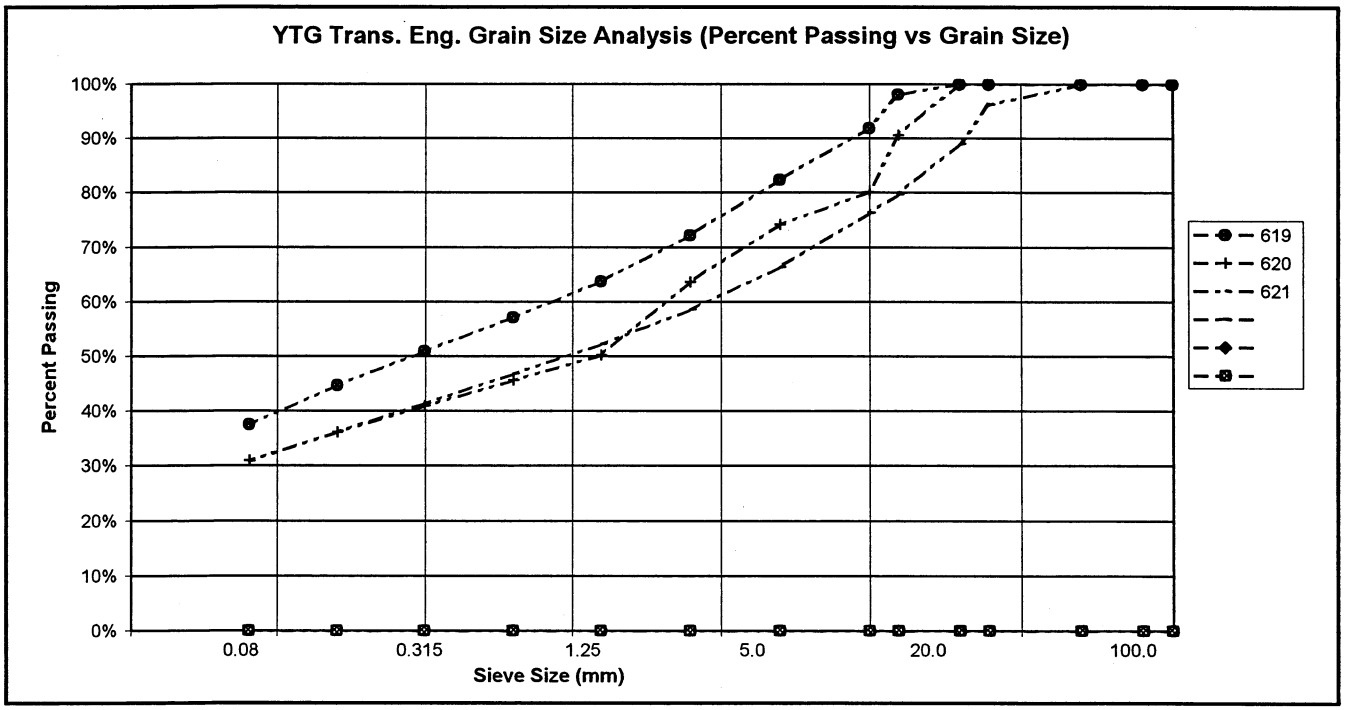
DATE COMP: 2000/06/05

FIELD NO:	616A	617	618			
LAB NO:	1021	1022	1023			
DEPTH:	1.3-1.5	2.9-3.1	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	89%	95%	96%			
20.0	82%	87%	96%			
12.5	76%	78%	87%			
10.0	71%	71%	83%			
5.0	63%	58%	71%			
2.5	57%	48%	61%			
1.25	52%	41%	54%			
0.630	47%	36%	49%			
0.315	42%	31%	44%			
0.160	37%	27%	39%			
0.080	32%	23%	33%			
M.C.(%):	5%	4%	7%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	37	42	29			
% SAND:	31	35	37			
% FINES:	32	23	33			
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)			



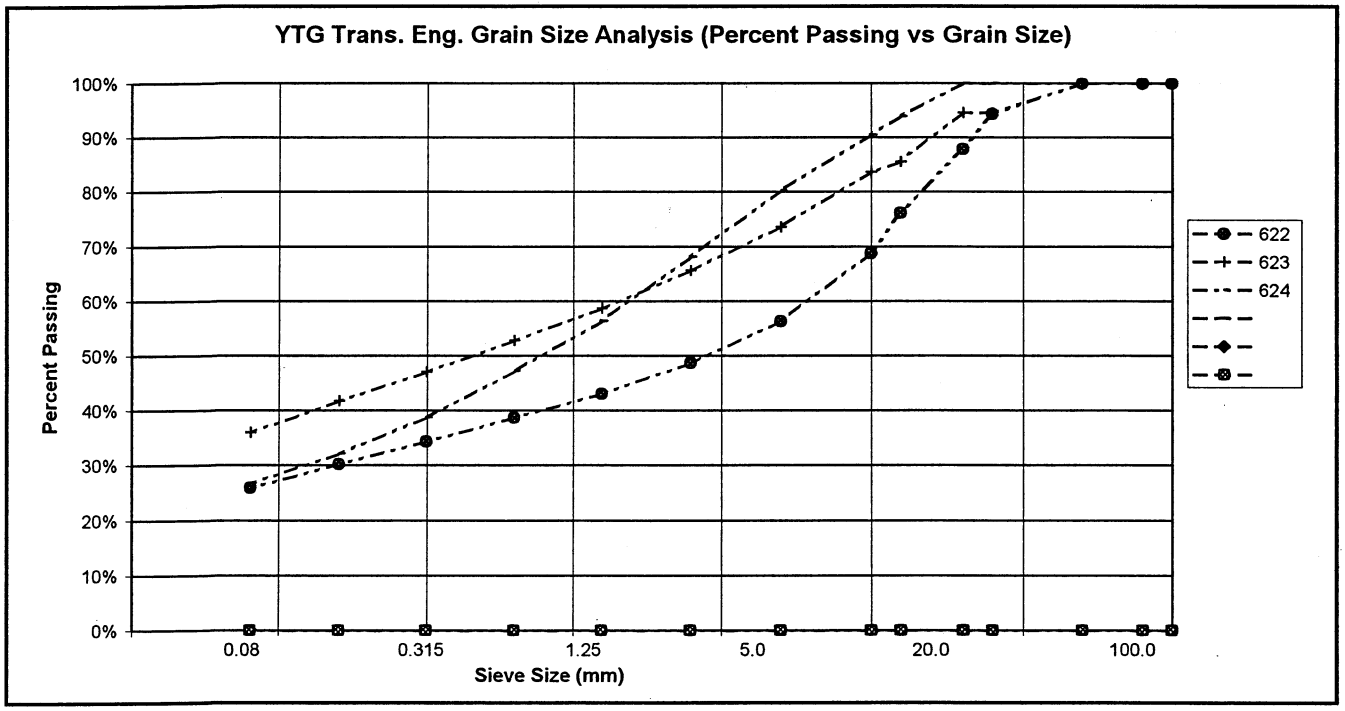
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 551-1474
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1756+650 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/05

FIELD NO:	619	620	621			
LAB NO:	1024	1025	1026			
DEPTH:	1.4-1.6	2.8-3.0	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	96%			
20.0	100%	100%	89%			
12.5	98%	91%	80%			
10.0	92%	80%	76%			
5.0	82%	74%	66%			
2.5	72%	64%	59%			
1.25	64%	50%	52%			
0.630	57%	46%	47%			
0.315	51%	41%	41%			
0.160	45%	36%	36%			
0.080	38%	31%	31%			
M.C.(%):	6%	6%	5%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	18	26	34			
% SAND:	45	43	35			
% FINES:	38	31	31			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			



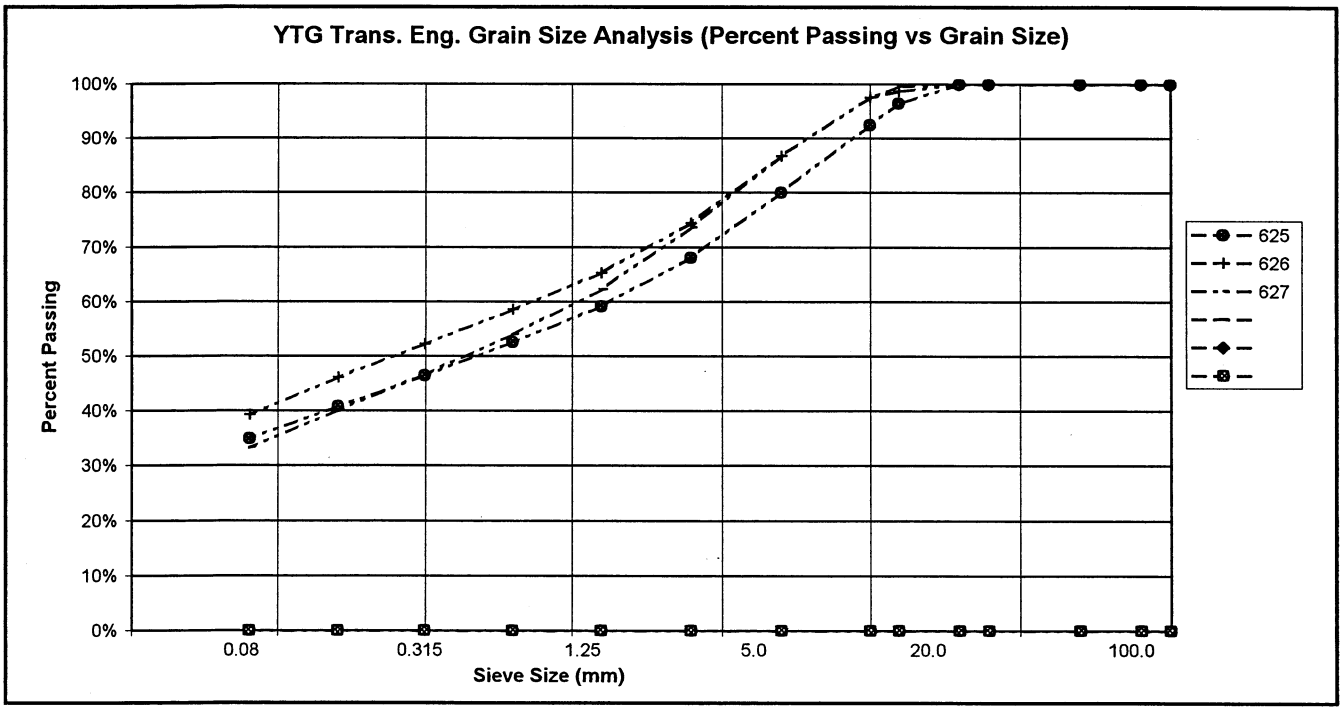
PROJECT NUMBER:	092-202101-0361-1	HOLE No.: 551-1475
CLIENT:	ENGINEERING CAPITAL	
PROJECT NAME:	SHAKWAK SEGMENT 11	
PROJECT LOCATION:	KM 1729.6-1787 A/H	
DRILL UNIT:	MOBILE B40 L	
HOLE LOCATION:	1756+750 CENTRELINE	
LOGGED BY:	D.T.	DATE COMP: 2000/06/05

FIELD NO:	622	623	624			
LAB NO:	1027	1028	1029			
DEPTH:	1.4-1.6	3.0-3.2	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	94%	95%	100%			
20.0	88%	95%	100%			
12.5	76%	86%	94%			
10.0	69%	84%	90%			
5.0	56%	74%	80%			
2.5	49%	66%	68%			
1.25	43%	59%	56%			
0.630	39%	53%	47%			
0.315	34%	47%	39%			
0.160	30%	42%	32%			
0.080	26%	36%	27%			
M.C.(%):	6%	8%	5%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	44	26	20			
% SAND:	30	38	54			
% FINES:	26	36	27			
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			



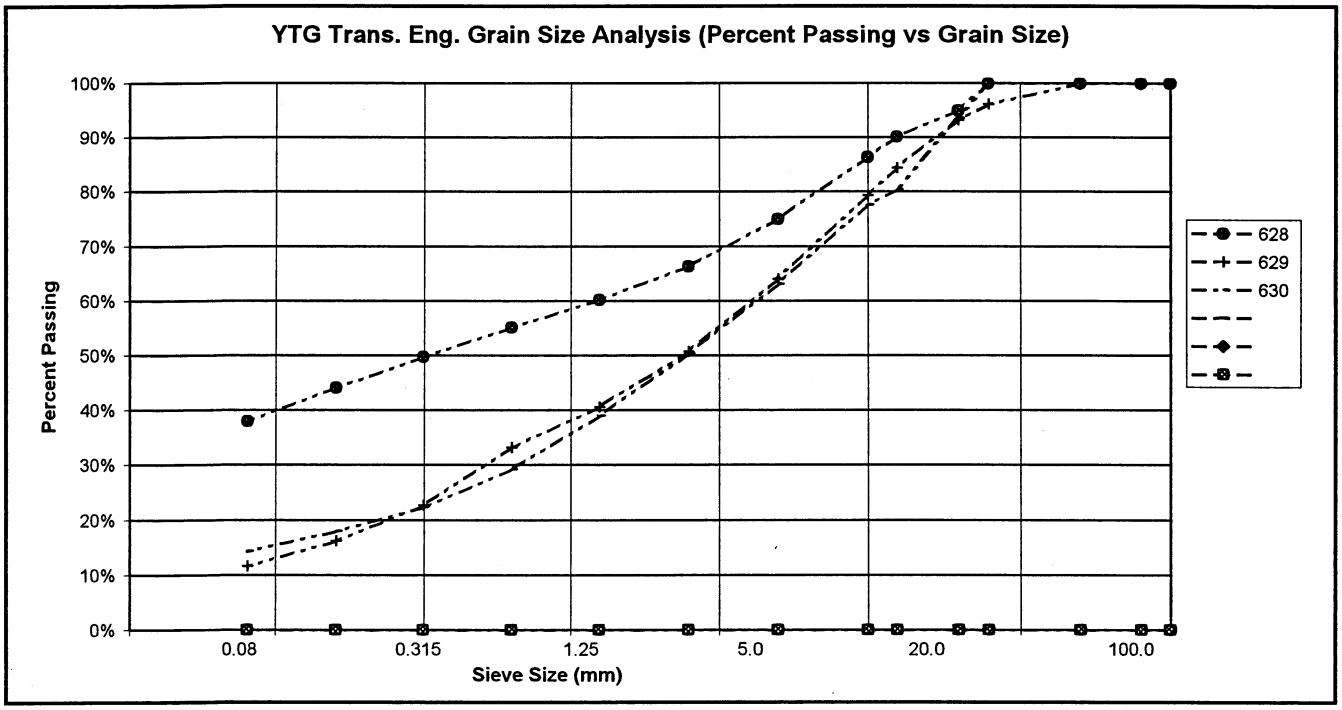
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 551-1476
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1756+850 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/05

FIELD NO:	625	626	627			
LAB NO:	1030	1031	1032			
DEPTH:	1.5-1.7	2.6-2.8	4.2-4.4			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	100%			
20.0	100%	100%	100%			
12.5	96%	99%	100%			
10.0	92%	98%	98%			
5.0	80%	87%	87%			
2.5	68%	74%	74%			
1.25	59%	65%	62%			
0.630	53%	59%	54%			
0.315	47%	52%	47%			
0.160	41%	46%	40%			
0.080	35%	39%	33%			
M.C.(%):	6%	10%	6%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	20	13	13			
% SAND:	45	48	53			
% FINES:	35	39	33			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND (SM)	SILTY SAND (SM)			



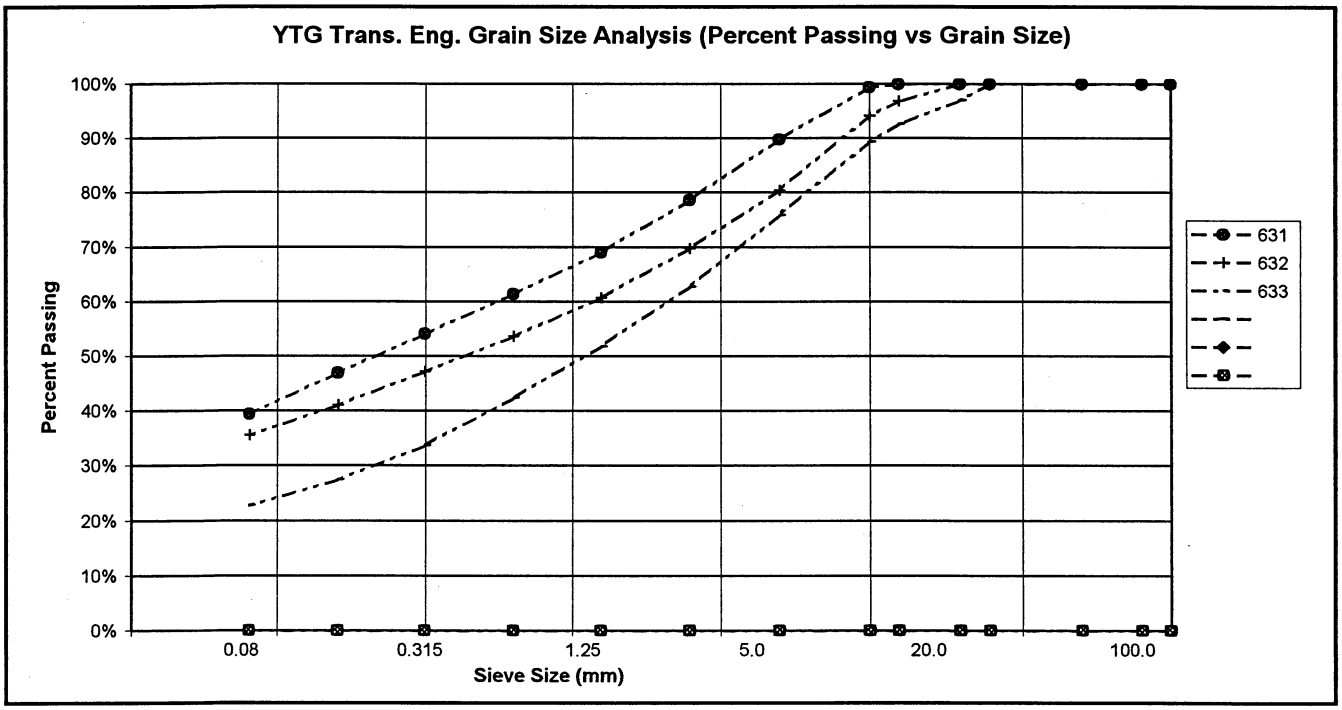
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 551-1477
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1756+950 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/05

FIELD NO:	628	629	630			
LAB NO:	1033	1034	1035			
DEPTH:	1.3-1.5	2.8-3.0	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	96%	100%			
20.0	95%	93%	93%			
12.5	90%	84%	80%			
10.0	86%	79%	78%			
5.0	75%	64%	63%			
2.5	66%	51%	50%			
1.25	60%	41%	39%			
0.630	55%	33%	29%			
0.315	50%	23%	22%			
0.160	44%	16%	18%			
0.080	38%	12%	14%			
M.C.(%):	7%	2%	3%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	25	36	37			
% SAND:	37	52	49			
% FINES:	38	12	14			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILTY SAND WITH GRAVEL (SM)			



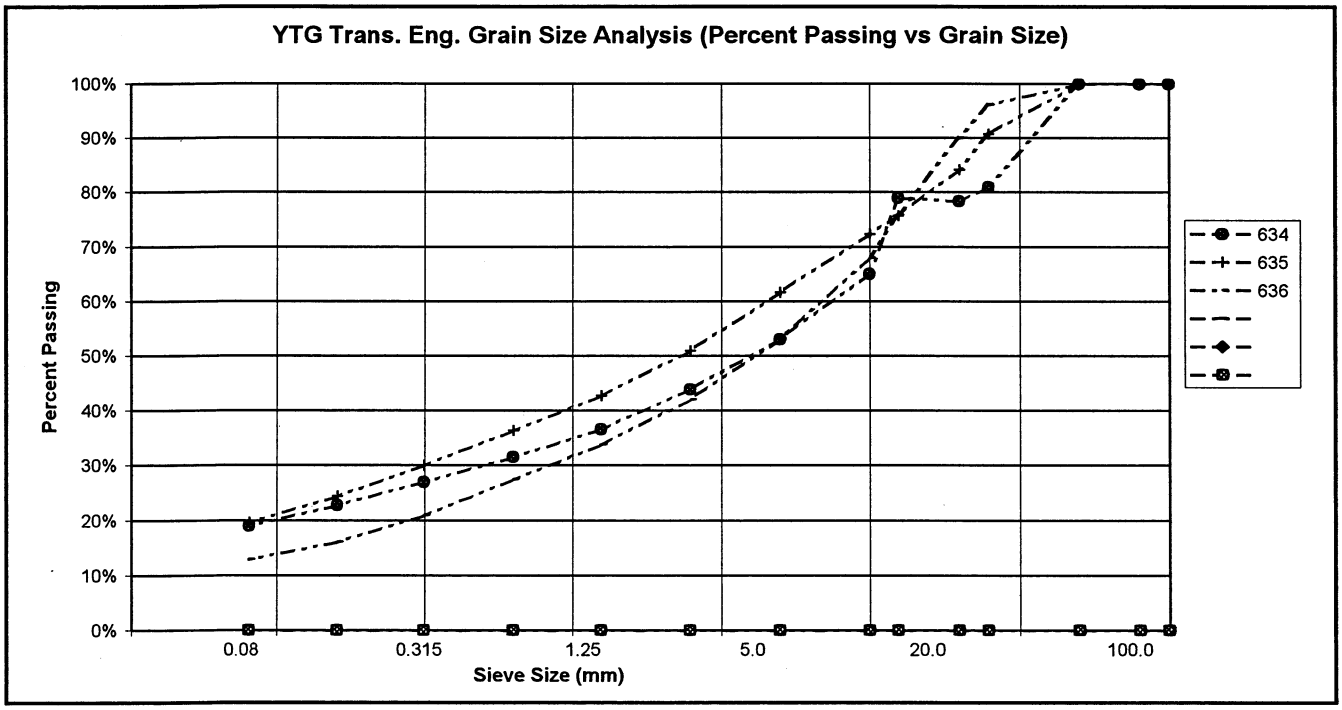
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 551-1478
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1757+050 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/05

FIELD NO:	631	632	633			
LAB NO:	1036	1037	1038			
DEPTH:	1.4-1.6	2.8-3.0	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	100%			
20.0	100%	100%	97%			
12.5	100%	97%	93%			
10.0	99%	94%	89%			
5.0	90%	80%	76%			
2.5	79%	70%	63%			
1.25	69%	61%	52%			
0.630	61%	54%	42%			
0.315	54%	47%	34%			
0.160	47%	41%	27%			
0.080	39%	36%	23%			
M.C.(%):	8%	7%	7%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	10	20	24			
% SAND:	50	45	53			
% FINES:	39	36	23			
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			



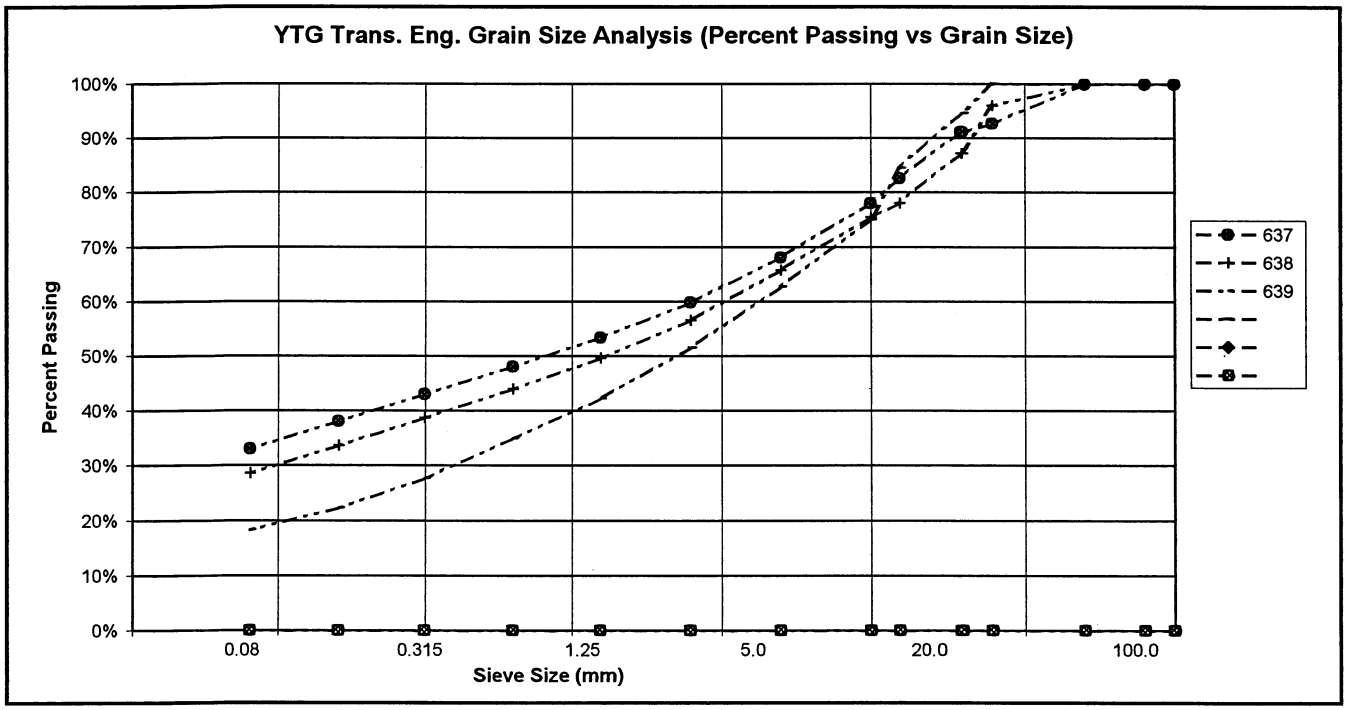
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 551-1479
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1757+150 15M LT		
LOGGED BY:	D.T.		DATE COMP: 2000/06/05

FIELD NO:	634	635	636			
LAB NO:	1039	1040	1041			
DEPTH:	1.4-1.6	2.8-3.0	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	81%	91%	96%			
20.0	78%	84%	90%			
12.5	79%	76%	76%			
10.0	65%	72%	68%			
5.0	53%	62%	53%			
2.5	44%	51%	42%			
1.25	37%	43%	34%			
0.630	32%	36%	27%			
0.315	27%	30%	21%			
0.160	23%	24%	16%			
0.080	19%	20%	13%			
M.C.(%):	5%	8%	8%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	47	38	47			
% SAND:	34	42	40			
% FINES:	19	20	13			
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)			



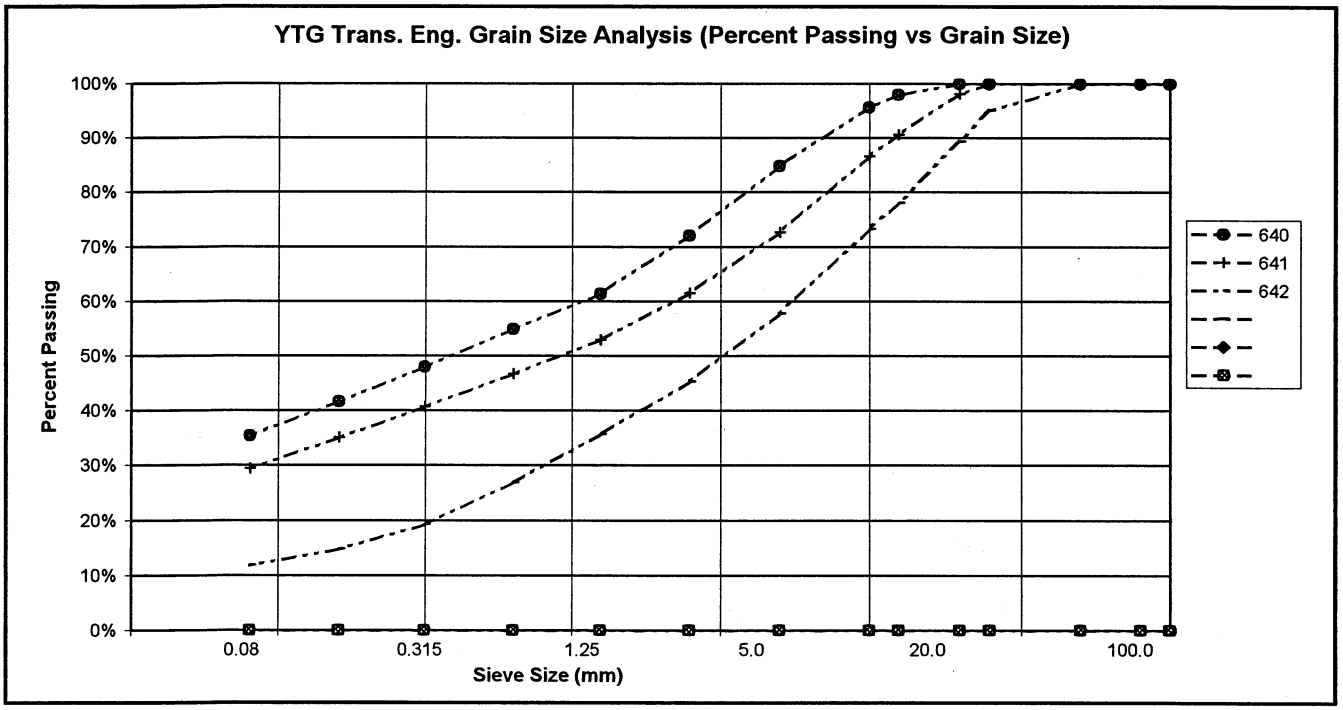
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 551-1480
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1757+250 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/05

FIELD NO:	637	638	639			
LAB NO:	1042	1043	1044			
DEPTH:	0.9-1.1	1.6-1.8	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	93%	96%	100%			
20.0	91%	87%	95%			
12.5	83%	78%	84%			
10.0	78%	75%	75%			
5.0	68%	66%	63%			
2.5	60%	57%	52%			
1.25	53%	50%	42%			
0.630	48%	44%	35%			
0.315	43%	39%	28%			
0.160	38%	34%	22%			
0.080	33%	29%	18%			
M.C.(%):	6%	5%	5%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	32	34	37			
% SAND:	35	37	44			
% FINES:	33	29	18			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			



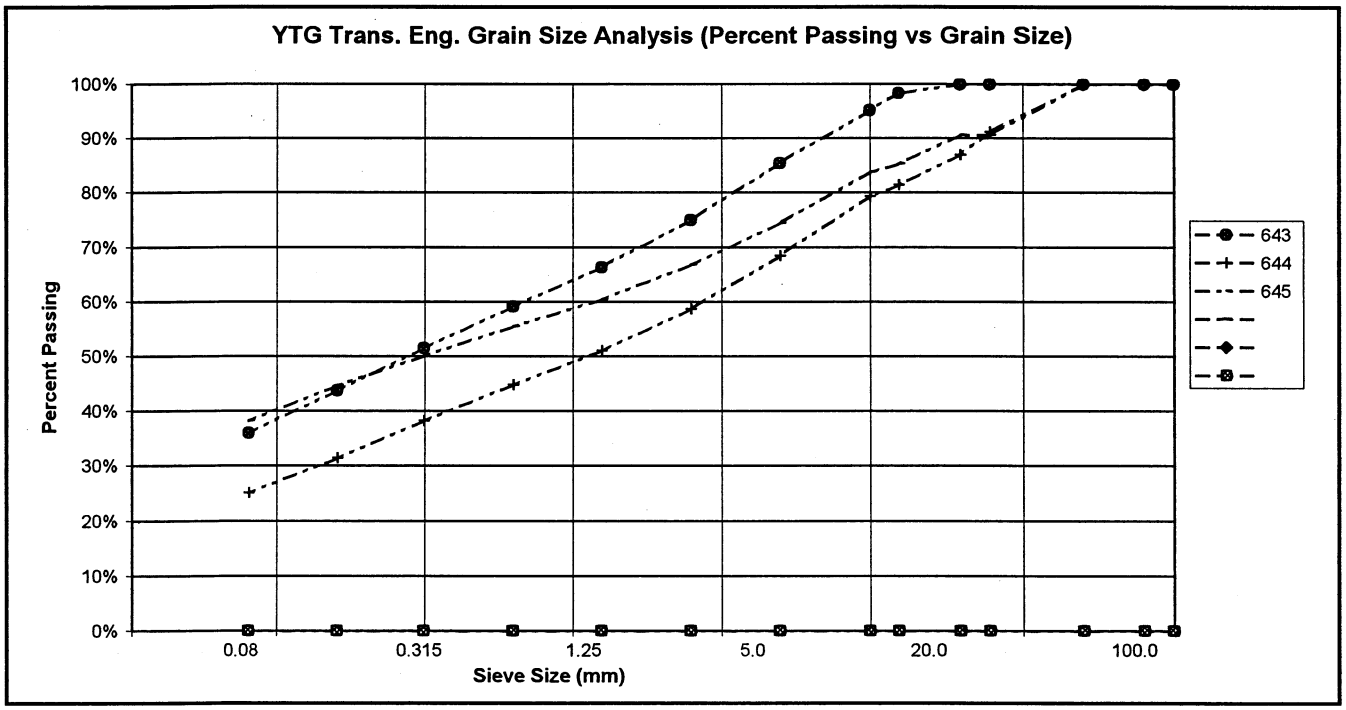
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 551-1481
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1757+350 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/06

FIELD NO:	640	641	642			
LAB NO:	1045	1046	1047			
DEPTH:	1.3-1.5	2.8-3.0	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	95%			
20.0	100%	98%	89%			
12.5	98%	91%	78%			
10.0	96%	87%	73%			
5.0	85%	73%	58%			
2.5	72%	61%	45%			
1.25	61%	53%	36%			
0.630	55%	47%	27%			
0.315	48%	41%	19%			
0.160	42%	35%	15%			
0.080	35%	29%	12%			
M.C.(%):	6%	6%	6%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	15	27	42			
% SAND:	49	43	46			
% FINES:	35	29	12			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)			



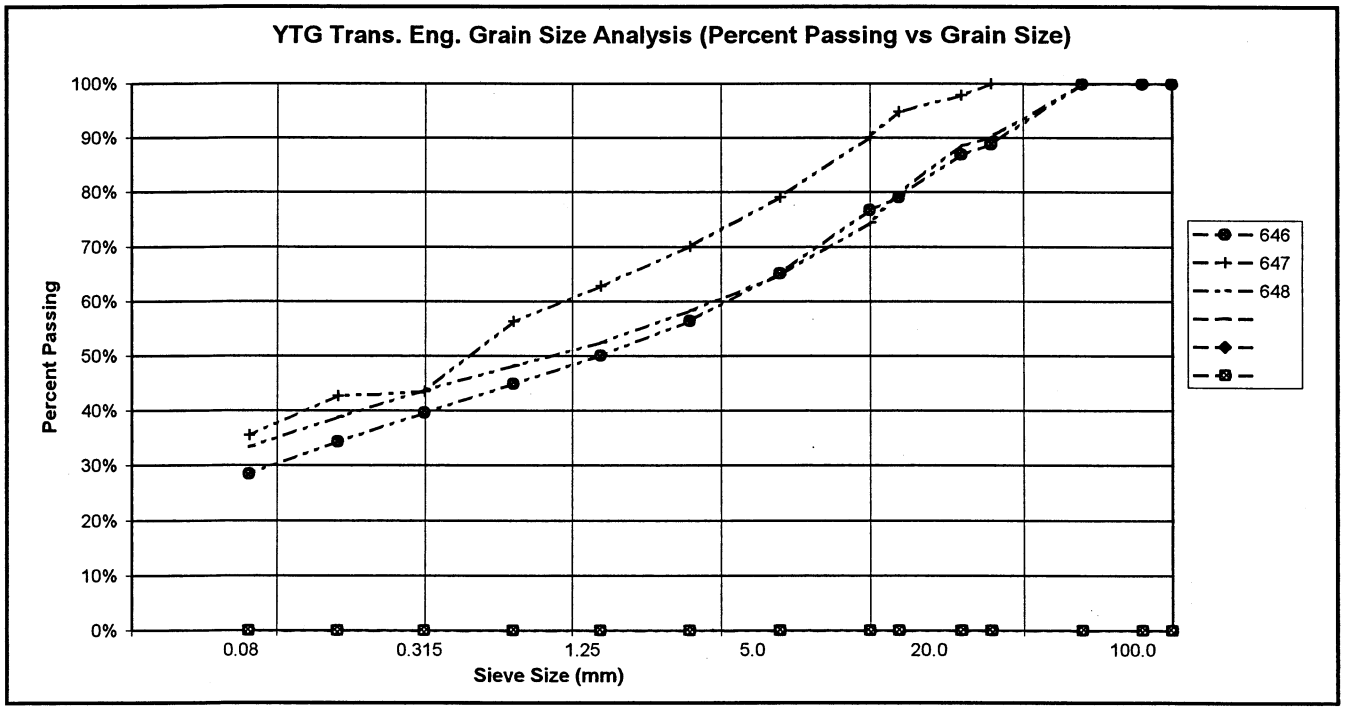
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 551-1482
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1757+450 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/06

FIELD NO:	643	644	645			
LAB NO:	1048	1049	1050			
DEPTH:	1.4-1.6	3.0-3.2	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	91%	91%			
20.0	100%	87%	91%			
12.5	98%	81%	85%			
10.0	95%	79%	84%			
5.0	85%	68%	74%			
2.5	75%	59%	67%			
1.25	66%	51%	60%			
0.630	59%	45%	56%			
0.315	51%	38%	50%			
0.160	44%	31%	45%			
0.080	36%	25%	38%			
M.C.(%):	6%	8%	6%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	15	32	26			
% SAND:	49	43	36			
% FINES:	36	25	38			
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			



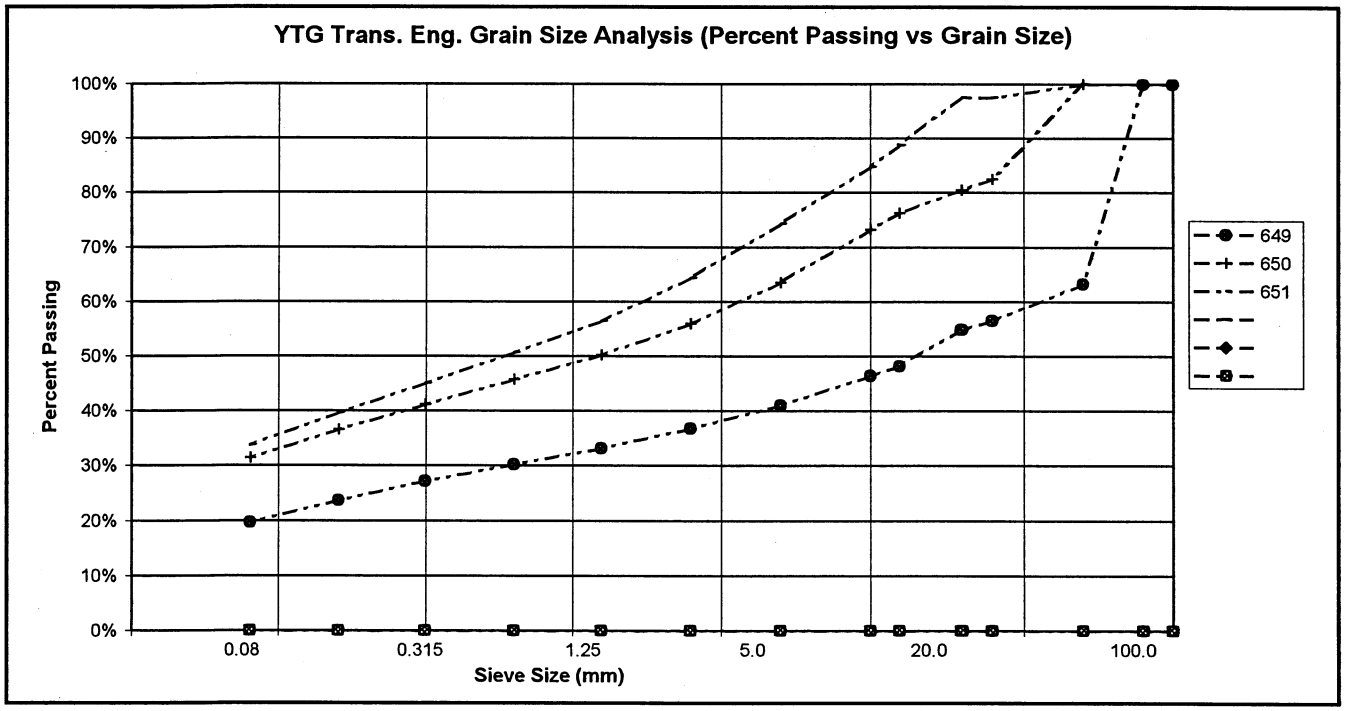
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 551-1483
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1757+550 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/06

FIELD NO:	646	647	648			
LAB NO:	1051	1052	1053			
DEPTH:	1.5-1.7	2.9-3.1	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	89%	100%	90%			
20.0	87%	98%	89%			
12.5	79%	95%	80%			
10.0	77%	90%	74%			
5.0	65%	79%	65%			
2.5	56%	70%	58%			
1.25	50%	63%	52%			
0.630	45%	56%	48%			
0.315	40%	44%	44%			
0.160	34%	43%	39%			
0.080	29%	36%	33%			
M.C.(%):	4%	7%	9%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	35	21	35			
% SAND:	37	44	31			
% FINES:	29	36	33			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)			



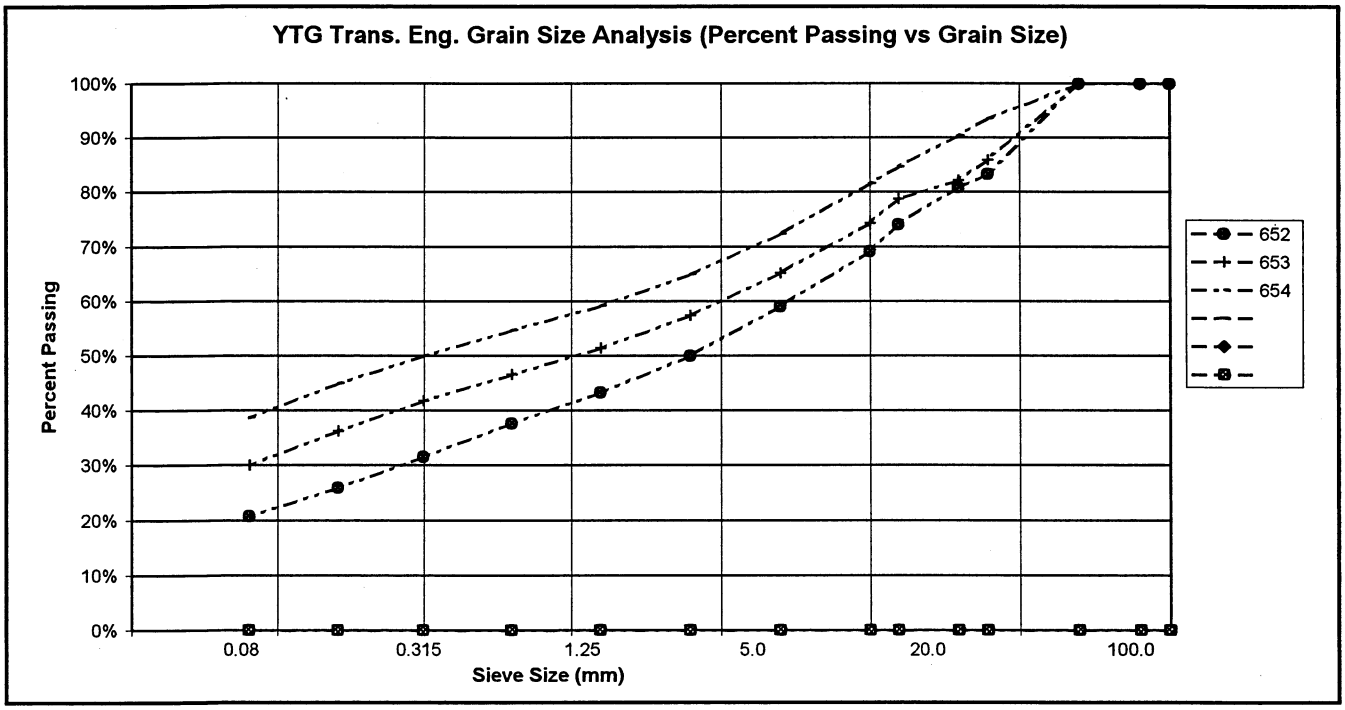
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 551-1484
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1757+650 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/06

FIELD NO:	649	650	651			
LAB NO:	1054	1055	1056			
DEPTH:	1.5-1.7	2.9-3.1	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	63%	100%	100%			
25.0	57%	82%	98%			
20.0	55%	80%	98%			
12.5	48%	76%	89%			
10.0	47%	73%	85%			
5.0	41%	63%	74%			
2.5	37%	56%	64%			
1.25	33%	50%	56%			
0.630	30%	46%	51%			
0.315	27%	41%	45%			
0.160	24%	37%	40%			
0.080	20%	31%	34%			
M.C.(%):	4%	8%	8%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	59	37	26			
% SAND:	21	32	40			
% FINES:	20	31	34			
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)			



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 551-1485
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1757+750 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/06

FIELD NO:	652	653	654			
LAB NO:	1057	1058	1059			
DEPTH:	1.4-1.6	2.9-3.1	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	83%	86%	94%			
20.0	81%	82%	90%			
12.5	74%	79%	85%			
10.0	69%	74%	82%			
5.0	59%	65%	72%			
2.5	50%	57%	65%			
1.25	43%	51%	59%			
0.630	38%	47%	55%			
0.315	32%	42%	50%			
0.160	26%	36%	45%			
0.080	21%	30%	39%			
M.C.(%):	3%	7%	7%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	41	35	28			
% SAND:	38	35	34			
% FINES:	21	30	39			
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			

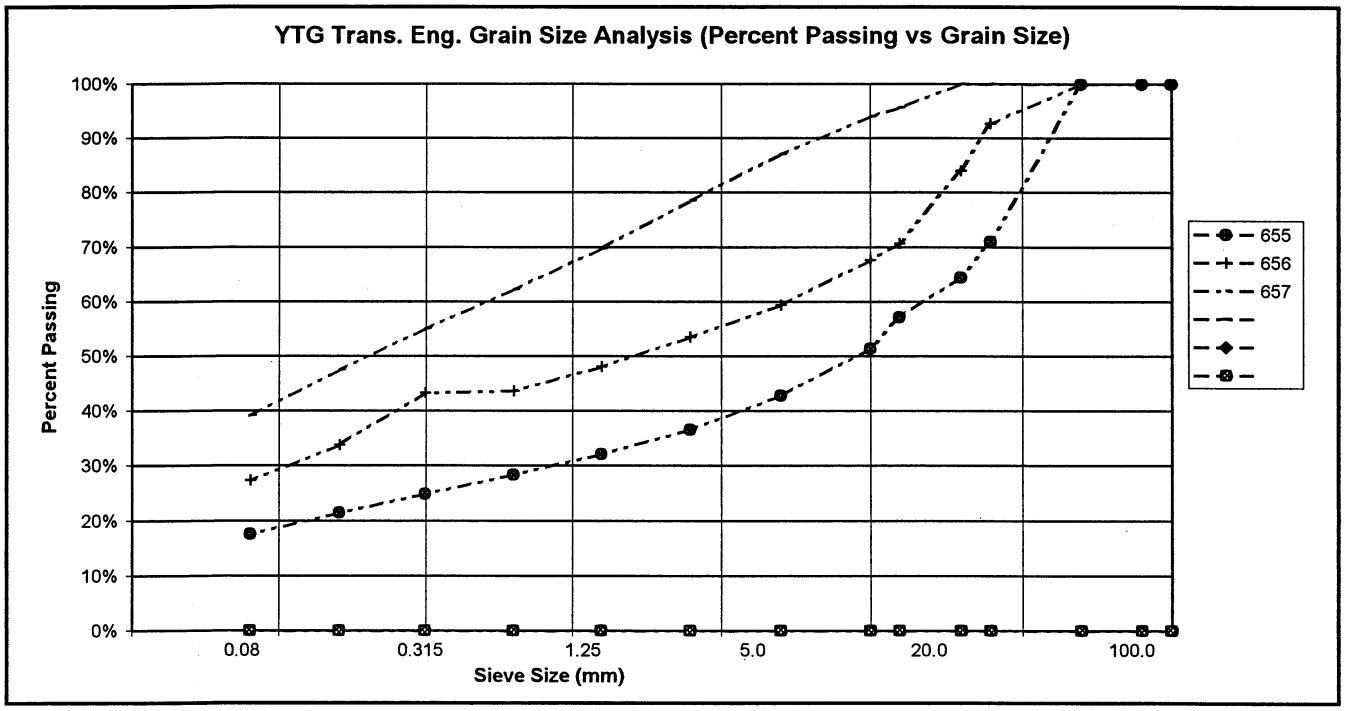


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEGMENT 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1757+850 C/L
LOGGED BY: D.T.

HOLE No.: 551-1486

DATE COMP: 2000/06/06

FIELD NO:	655	656	657			
LAB NO:	1060	1061	1062			
DEPTH:	1.4-1.6	2.8-3.0	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	71%	93%	100%			
20.0	64%	84%	100%			
12.5	57%	71%	96%			
10.0	51%	68%	94%			
5.0	43%	59%	87%			
2.5	37%	54%	78%			
1.25	32%	48%	70%			
0.630	28%	44%	62%			
0.315	25%	43%	55%			
0.160	21%	34%	48%			
0.080	18%	27%	39%			
M.C.(%):	3%	5%	7%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	57	41	13			
% SAND:	25	32	48			
% FINES:	18	27	39			
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND (SM)			

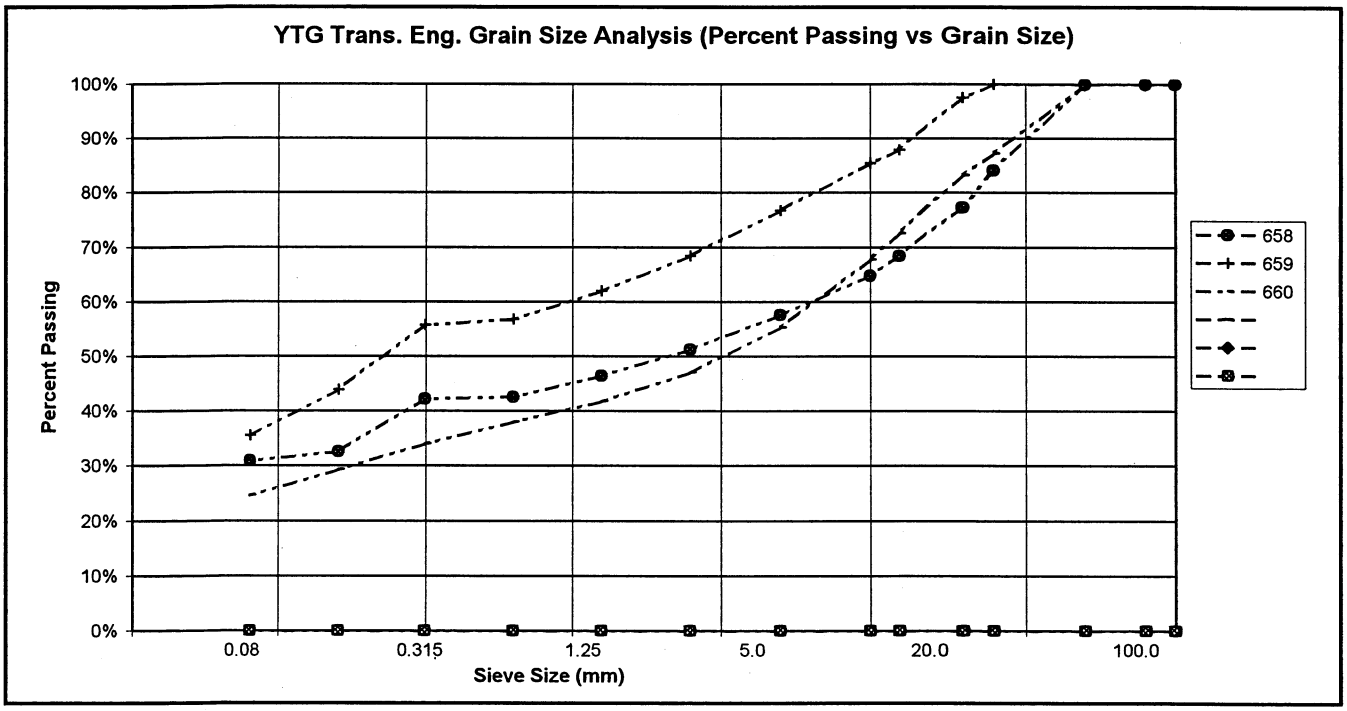


PROJECT NUMBER:	092-202101-0361-1
CLIENT:	ENGINEERING CAPITAL
PROJECT NAME:	SHAKWAK SEGMENT 11
PROJECT LOCATION:	KM 1729.6-1787 A/H
DRILL UNIT:	MOBILE B40 L
HOLE LOCATION:	1757+950 C//L
LOGGED BY:	D.T.

HOLE No.: 551-1487

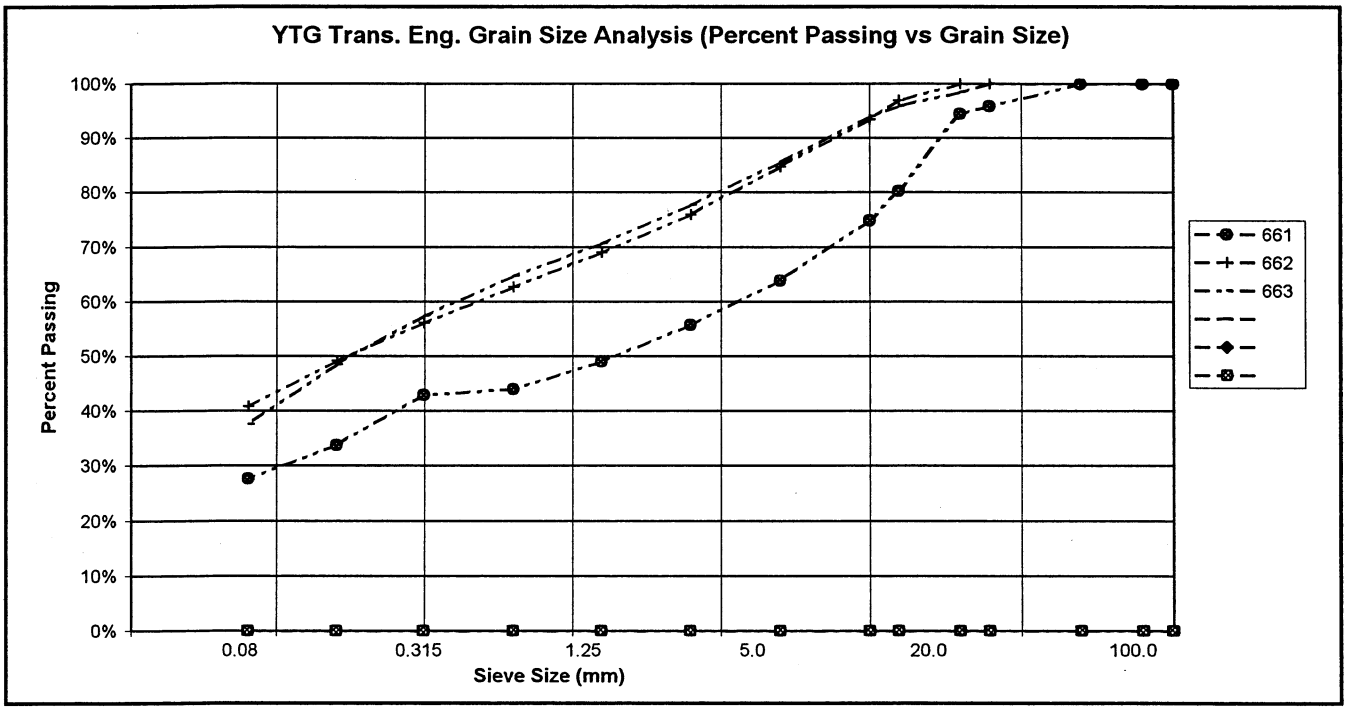
DATE COMP: 2000/06/06

FIELD NO:	658	659	660			
LAB NO:	1063	1064	1065			
DEPTH:	1.4-1.6	2.6-2.8	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	84%	100%	87%			
20.0	77%	98%	83%			
12.5	68%	88%	73%			
10.0	65%	85%	68%			
5.0	58%	77%	55%			
2.5	51%	68%	47%			
1.25	46%	62%	42%			
0.630	43%	57%	38%			
0.315	42%	56%	34%			
0.160	33%	44%	29%			
0.080	31%	36%	25%			
M.C.(%):	7%	8%	5%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	42	23	45			
% SAND:	27	41	31			
% FINES:	31	36	25			
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)			



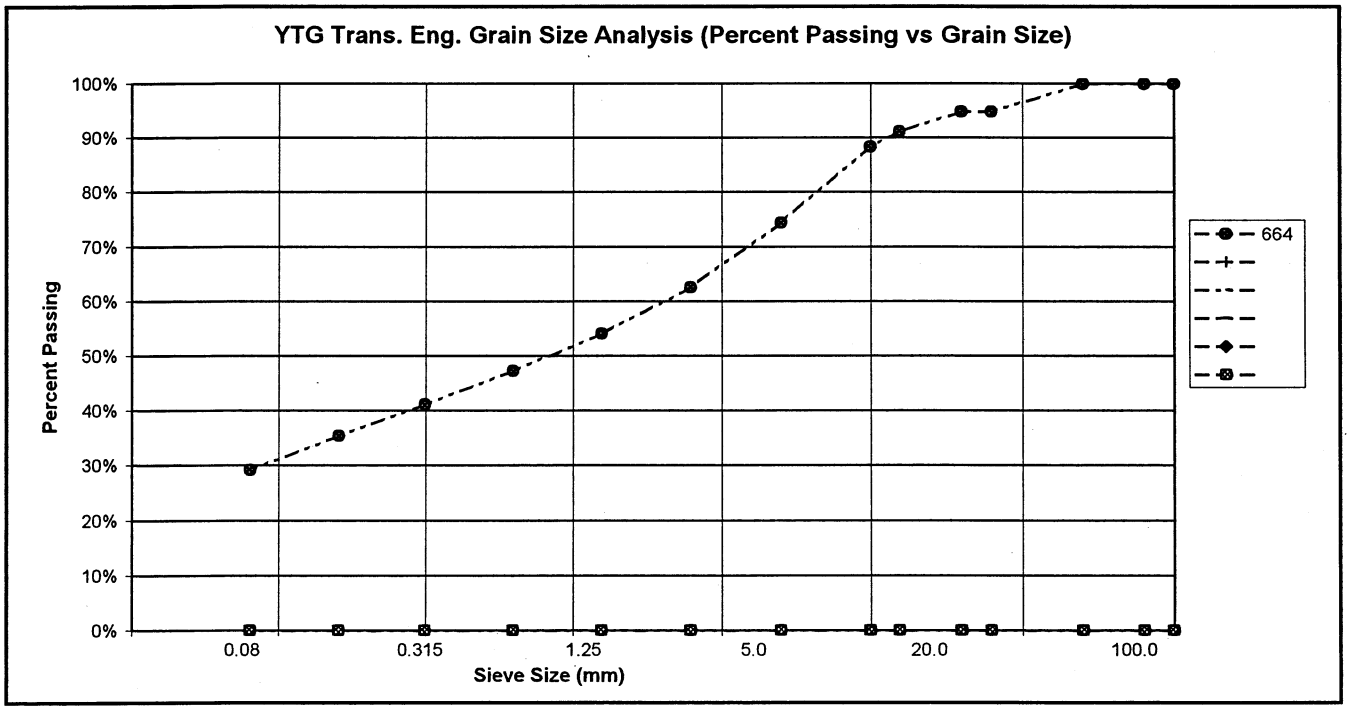
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 511-1488
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1758+050 CENTRELINE		
LOGGED BY:	D.T.		DATE COMP: 2000/06/07

FIELD NO:	661	662	663			
LAB NO:	1066	1067	1068			
DEPTH:	1.3-1.5	3.0-3.2	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	96%	100%	100%			
20.0	95%	100%	98%			
12.5	80%	97%	96%			
10.0	75%	93%	94%			
5.0	64%	85%	86%			
2.5	56%	76%	78%			
1.25	49%	69%	71%			
0.630	44%	63%	65%			
0.315	43%	56%	57%			
0.160	34%	49%	48%			
0.080	28%	41%	38%			
M.C.(%):	4%	8%	8%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	36	15	14			
% SAND:	36	44	48			
% FINES:	28	41	38			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND (SM)			



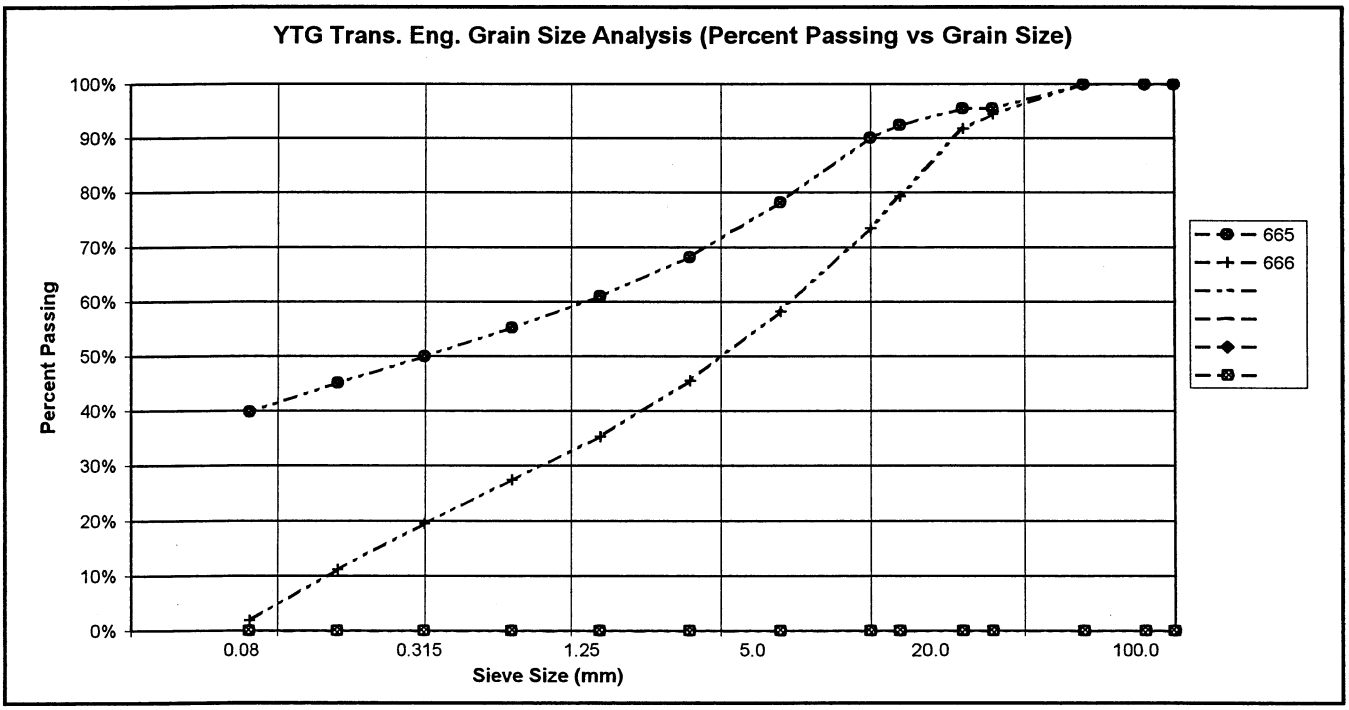
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 551-1489
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1758+150 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/0 7

FIELD NO:	664					
LAB NO:	1069					
DEPTH:	1.4-1.6					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	95%					
20.0	95%					
12.5	91%					
10.0	88%					
5.0	74%					
2.5	63%					
1.25	54%					
0.630	47%					
0.315	41%					
0.160	35%					
0.080	29%					
M.C.(%):	5%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	26					
% SAND:	45					
% FINES:	29					
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)					



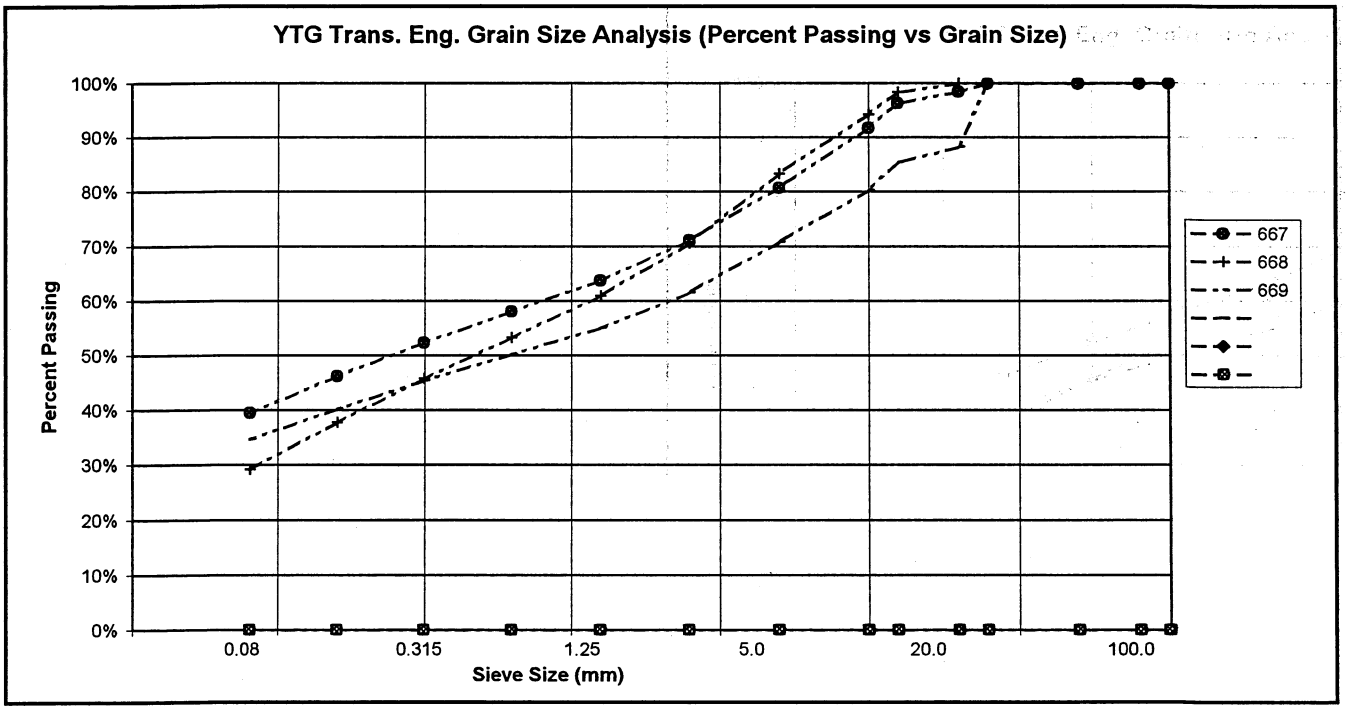
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 551-1490
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEGMENT 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1758+175 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/0 7

FIELD NO:	665	666				
LAB NO:	1070	1071				
DEPTH:	1.3-1.5	2.8-3.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	96%	94%				
20.0	96%	92%				
12.5	93%	79%				
10.0	90%	73%				
5.0	78%	58%				
2.5	68%	46%				
1.25	61%	35%				
0.630	55%	27%				
0.315	50%	20%				
0.160	45%	11%				
0.080	40%	2%				
M.C.(%):	5%	5%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	22	42				
% SAND:	38	56				
% FINES:	40	2				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	WELL-GRADED SAND WITH GRAVEL (SW)				



PROJECT NUMBER:	092-202-101-0361-1		HOLE No.: 552-1491
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1758+225 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/07

FIELD NO:	667	668	669			
LAB NO:	1072	1073	1074			
DEPTH:	1.4-1.6	2.8-3.0	4.3-4.5			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	100%			
20.0	98%	100%	88%			
12.5	96%	98%	86%			
10.0	92%	94%	80%			
5.0	81%	83%	71%			
2.5	71%	71%	62%			
1.25	64%	61%	55%			
0.630	58%	53%	50%			
0.315	52%	46%	45%			
0.160	46%	38%	40%			
0.080	40%	29%	35%			
M.C.(%):	7%	10%	9%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	19	17	29			
% SAND:	41	54	36			
% FINES:	40	29	35			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			

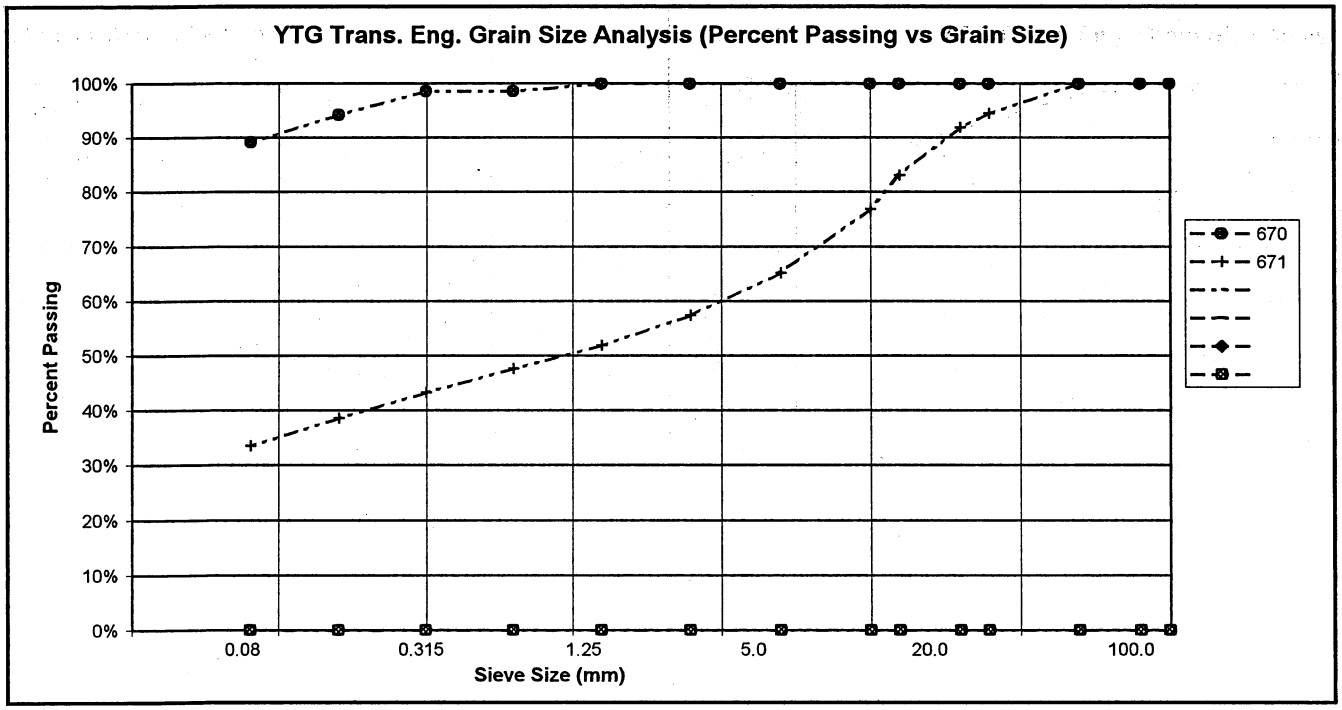


PROJECT NUMBER: 092-202-101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1758+325 C/L
LOGGED BY: D.T.

HOLE No.: 552-1492

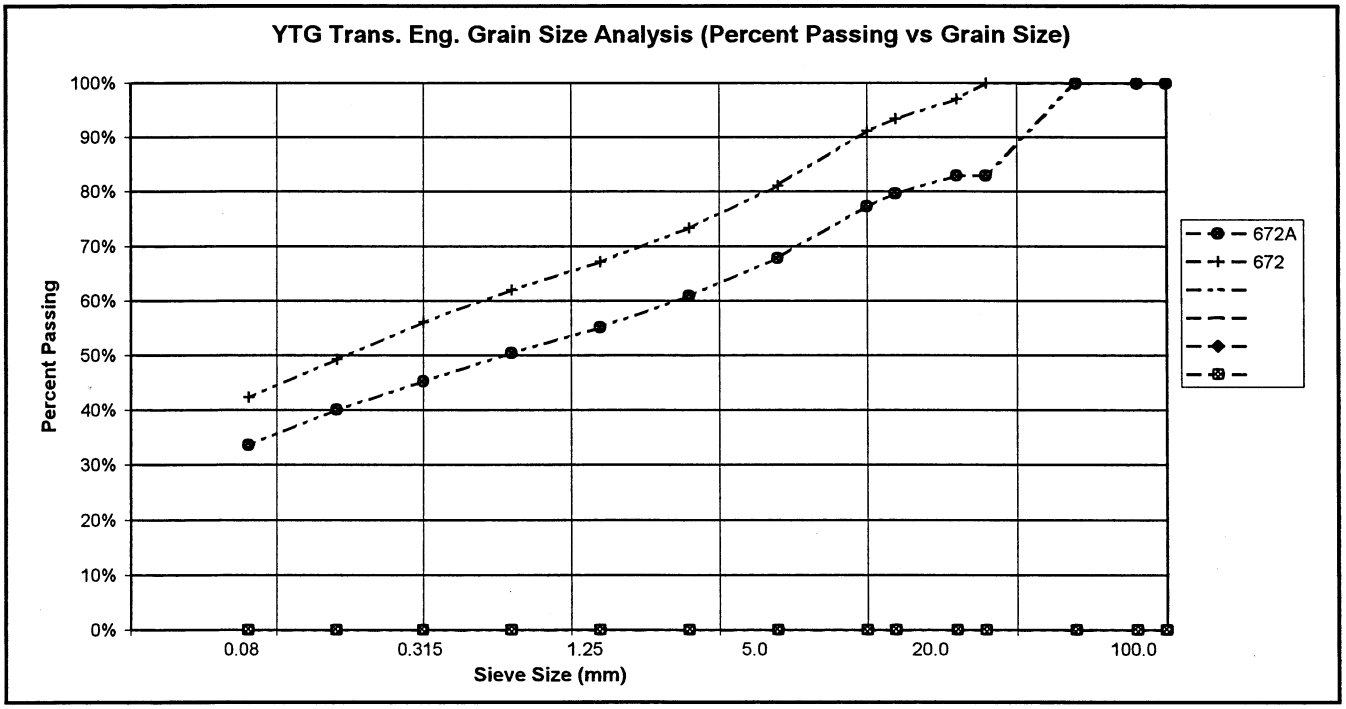
DATE COMP: 2000/06/07

FIELD NO:	670	671				
LAB NO:	1075	1076				
DEPTH:	0.7-0.9	2.8-3.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	95%				
20.0	100%	92%				
12.5	100%	83%				
10.0	100%	77%				
5.0	100%	65%				
2.5	100%	57%				
1.25	100%	52%				
0.630	99%	48%				
0.315	99%	43%				
0.160	94%	39%				
0.080	89%	34%				
M.C.(%):	15%	8%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	35				
% SAND:	11	32				
% FINES:	89	34				
CLASSIFICATION	SILT (ML)	SILTY GRAVEL WITH SAND (GM)				



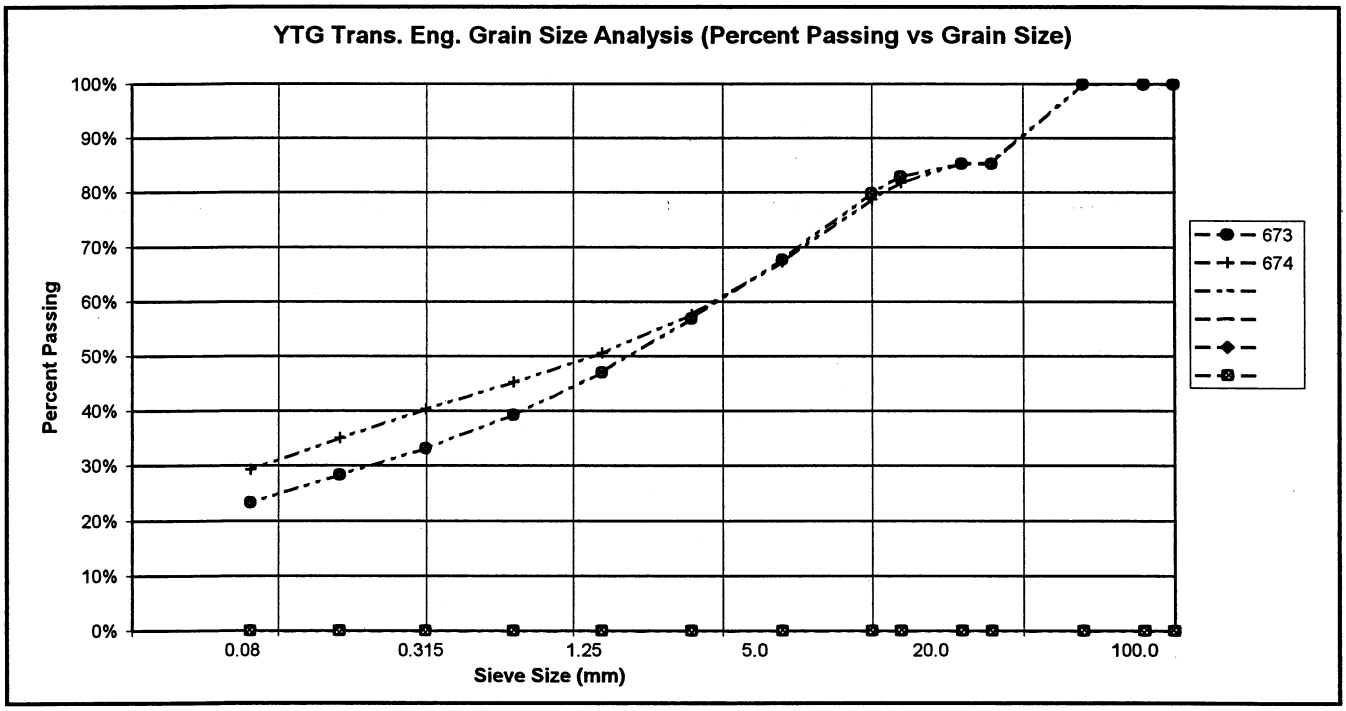
PROJECT NUMBER:	092-202-101-0361-1		HOLE No.: 552-1493
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1758+425 20M RT		
LOGGED BY:	D.T.		DATE COMP: 2000/06/07

FIELD NO:	672A	672				
LAB NO:	1077	1078				
DEPTH:	0.8-1.0	2.0-2.2				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	83%	100%				
20.0	83%	97%				
12.5	80%	93%				
10.0	77%	91%				
5.0	68%	81%				
2.5	61%	73%				
1.25	55%	67%				
0.630	50%	62%				
0.315	45%	56%				
0.160	40%	49%				
0.080	34%	42%				
M.C.(%):	6%	12%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	32	19				
% SAND:	34	39				
% FINES:	34	42				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)				



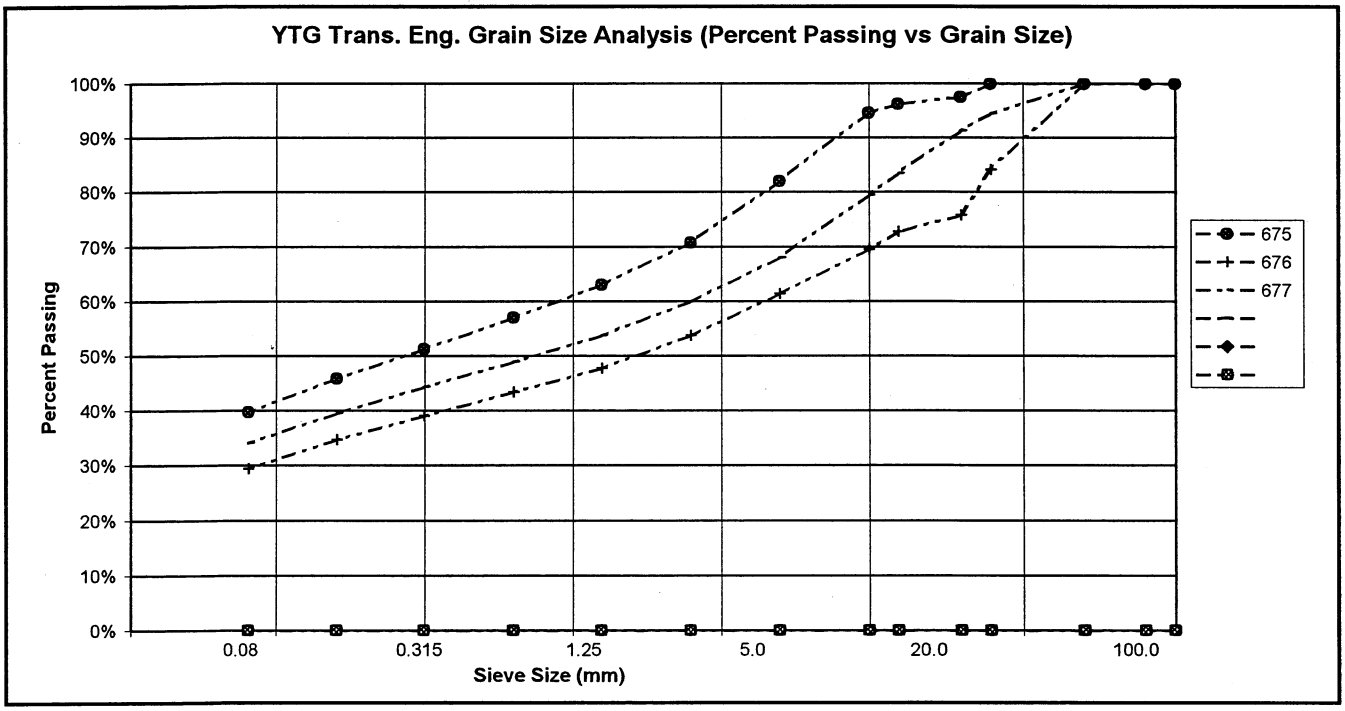
PROJECT NUMBER:	092-202-101-0361-1		HOLE No.: 552-1494
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1758+450 20M LT		
LOGGED BY:	D.T.		DATE COMP: 2000/06/07

FIELD NO:	673	674				
LAB NO:	1079	1080				
DEPTH:	1.3-1.5	2.8-3.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	85%	85%				
20.0	85%	85%				
12.5	83%	82%				
10.0	80%	79%				
5.0	68%	67%				
2.5	57%	58%				
1.25	47%	51%				
0.630	39%	45%				
0.315	33%	40%				
0.160	28%	35%				
0.080	23%	29%				
M.C.(%):	4%	9%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	32	33				
% SAND:	44	38				
% FINES:	23	29				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)				



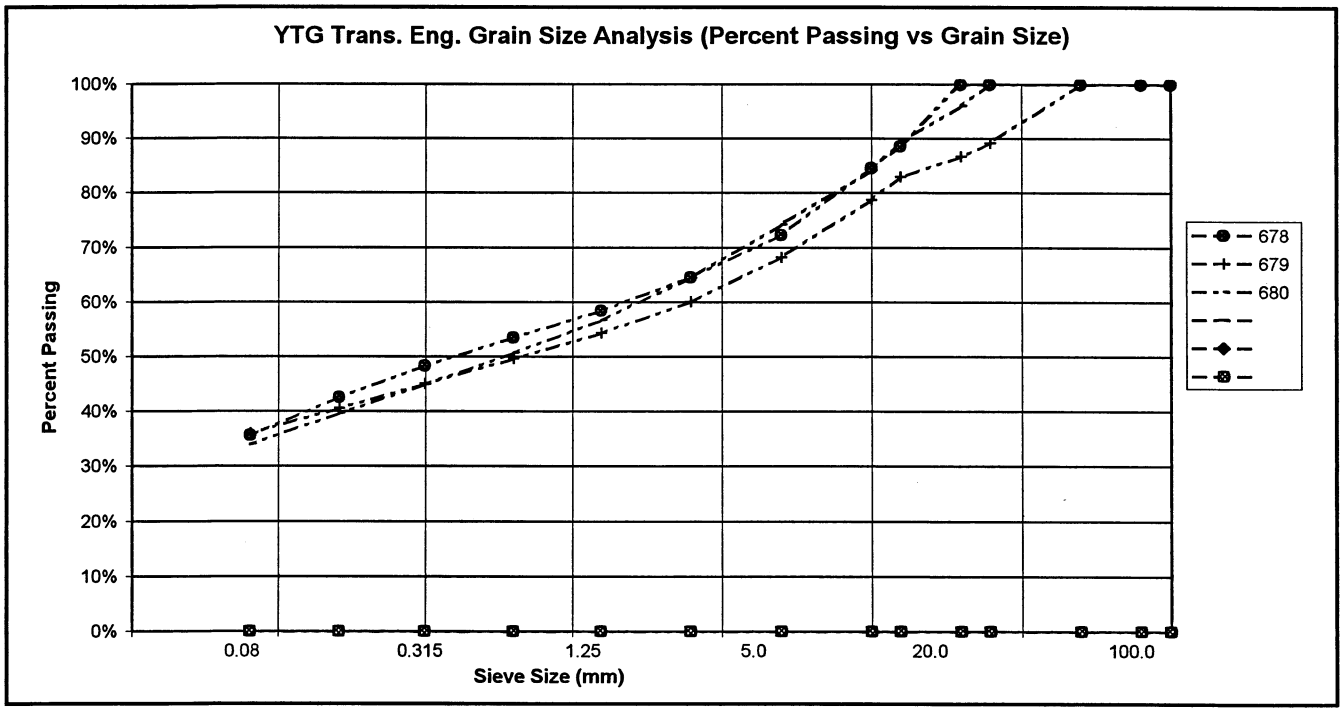
PROJECT NUMBER:	092-202-101-0361-1		HOLE No.: 552-1495
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1758+550 C/L		
LOGGED BY:	D.T.		DATE COMP: 2000/06/07

FIELD NO:	675	676	677			
LAB NO:	1081	1082	1083			
DEPTH:	1.4-1.6	2.9-3.1	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	84%	94%			
20.0	98%	76%	91%			
12.5	96%	73%	83%			
10.0	95%	69%	79%			
5.0	82%	61%	68%			
2.5	71%	54%	60%			
1.25	63%	48%	54%			
0.630	57%	43%	49%			
0.315	51%	39%	44%			
0.160	46%	35%	40%			
0.080	40%	29%	34%			
M.C.(%):	5%	7%	7%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	18	39	32			
% SAND:	42	32	34			
% FINES:	40	29	34			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)			



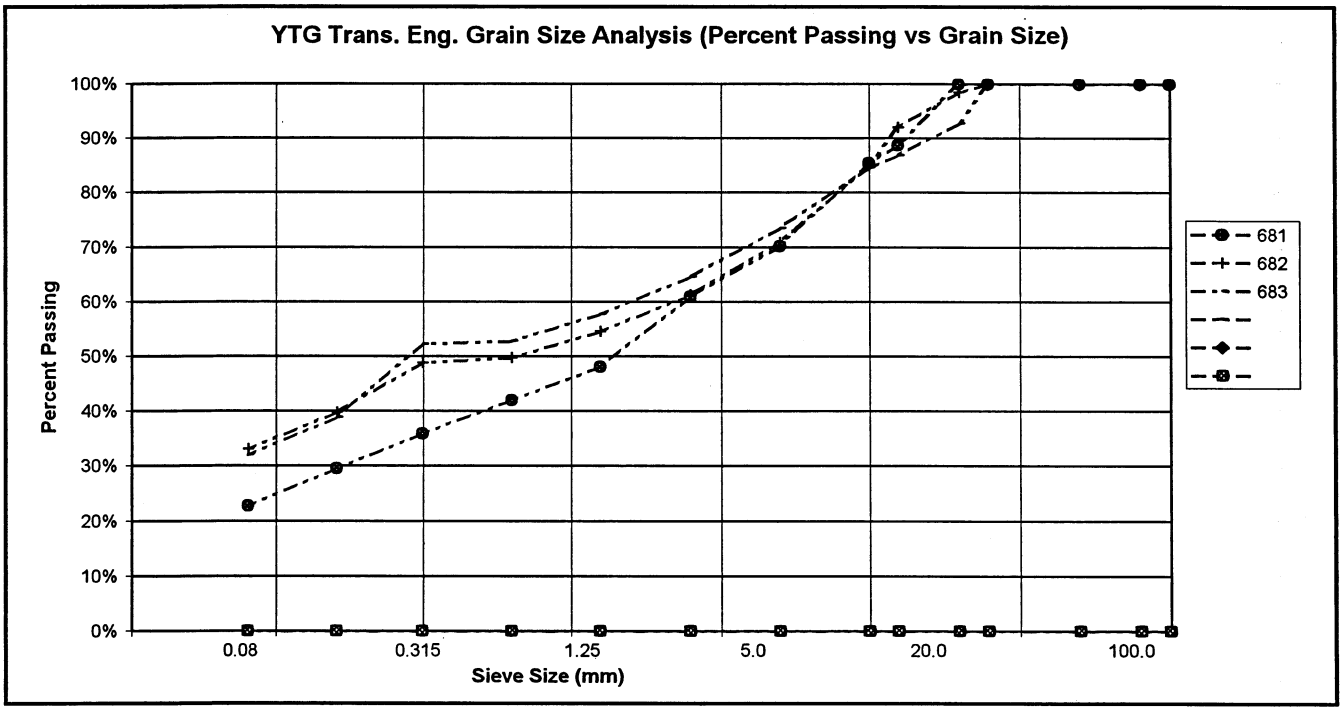
PROJECT NUMBER:	092-202-101-0361-1		HOLE No.: 552-1496
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1758+650 C/L		
LOGGED BY:	D.T.		DATE COMP: 06/07/2000

FIELD NO:	678	679	680			
LAB NO:	1084	1085	1086			
DEPTH:	1.4-1.6	2.9-3.1	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	89%	100%			
20.0	100%	87%	96%			
12.5	89%	83%	89%			
10.0	85%	79%	84%			
5.0	72%	68%	74%			
2.5	65%	60%	64%			
1.25	58%	54%	57%			
0.630	54%	50%	51%			
0.315	48%	45%	45%			
0.160	43%	41%	40%			
0.080	36%	36%	34%			
M.C.(%):	5%	9%	6%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	28	32	26			
% SAND:	37	32	40			
% FINES:	36	36	34			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			



PROJECT NUMBER:	092-202-101-0361-1		HOLE No.: 552-1497
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1758+800 C/L		
LOGGED BY:	D.T.		DATE COMP: 06/07/2000

FIELD NO:	681	682	683			
LAB NO:	1087	1088	1089			
DEPTH:	1.2-1.4	2.8-3.0	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	100%	100%			
20.0	100%	99%	93%			
12.5	89%	92%	87%			
10.0	85%	85%	85%			
5.0	70%	71%	73%			
2.5	61%	61%	65%			
1.25	48%	55%	58%			
0.630	42%	50%	53%			
0.315	36%	49%	52%			
0.160	30%	40%	39%			
0.080	23%	33%	32%			
M.C.(%):	4%	9%	12%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	30	29	27			
% SAND:	47	38	41			
% FINES:	23	33	32			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			

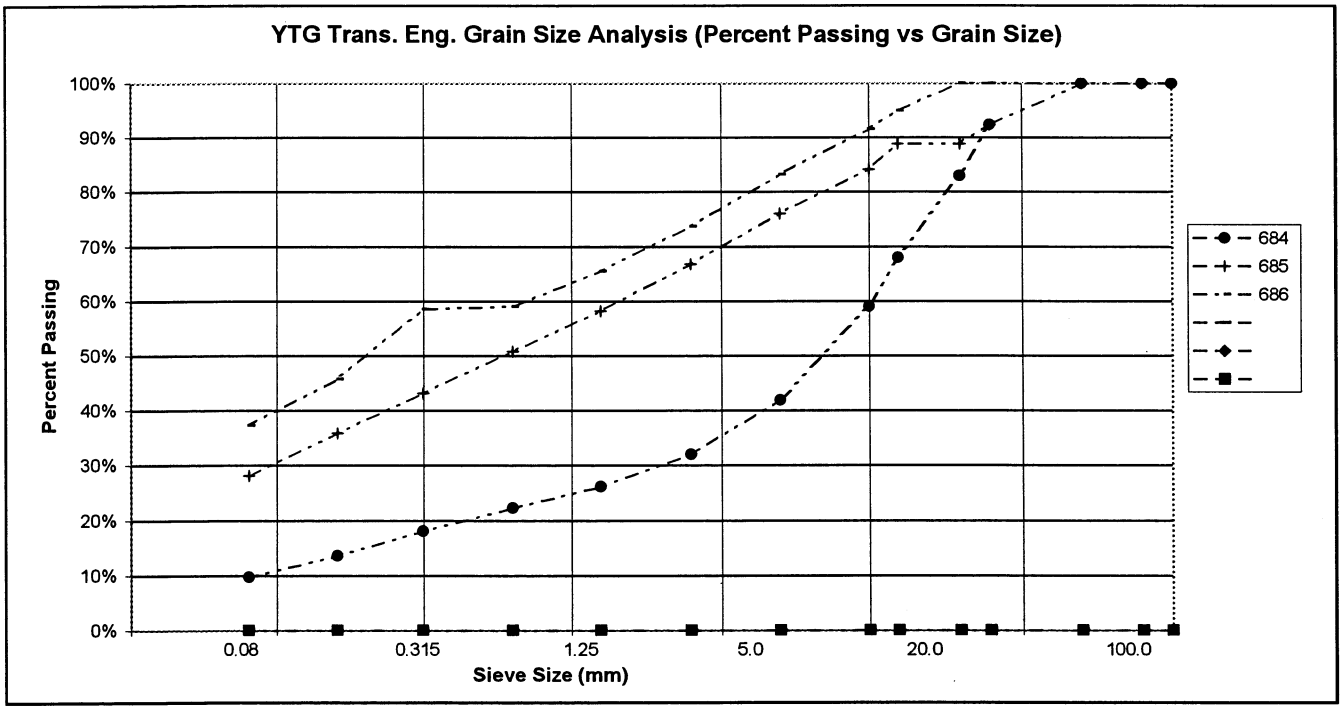


PROJECT NUMBER: 092-202-101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1758+900 14M LT
LOGGED BY: D.T.

HOLE No.: 552-1498

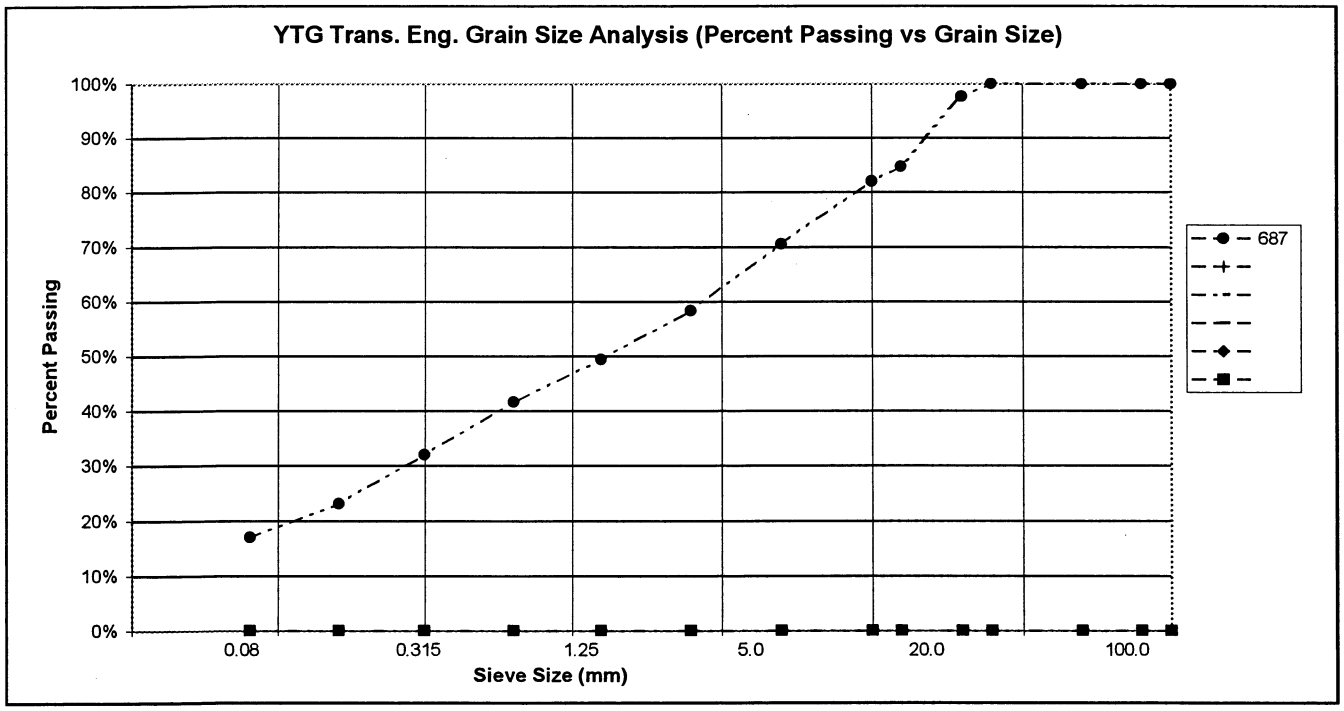
DATE COMP: 6/8/2000

FIELD NO:	684	685	686			
LAB NO:	1090	1091	1092			
DEPTH:	1.5-1.7	2.9-3.1	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	92%	92%	100%			
20.0	83%	89%	100%			
12.5	68%	89%	95%			
10.0	59%	84%	92%			
5.0	42%	76%	83%			
2.5	32%	67%	74%			
1.25	26%	58%	65%			
0.630	22%	51%	59%			
0.315	18%	43%	59%			
0.160	14%	36%	46%			
0.080	10%	28%	37%			
M.C.(%):	3%	10%	4%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	58	24	17			
% SAND:	32	48	46			
% FINES:	10	28	37			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			



PROJECT NUMBER:	092-202-101-0361-1				HOLE No.: 552-1499	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	KM 1729.6-1787 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1759+010 15M LT					
LOGGED BY:	D.T.				DATE COMP: 6/8/2000	

FIELD NO:	687					
LAB NO:	1093					
DEPTH:	1.3-1.5					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	100%					
20.0	98%					
12.5	85%					
10.0	82%					
5.0	71%					
2.5	58%					
1.25	49%					
0.630	42%					
0.315	32%					
0.160	23%					
0.080	17%					
M.C.(%):	11%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	29					
% SAND:	53					
% FINES:	17					
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)					

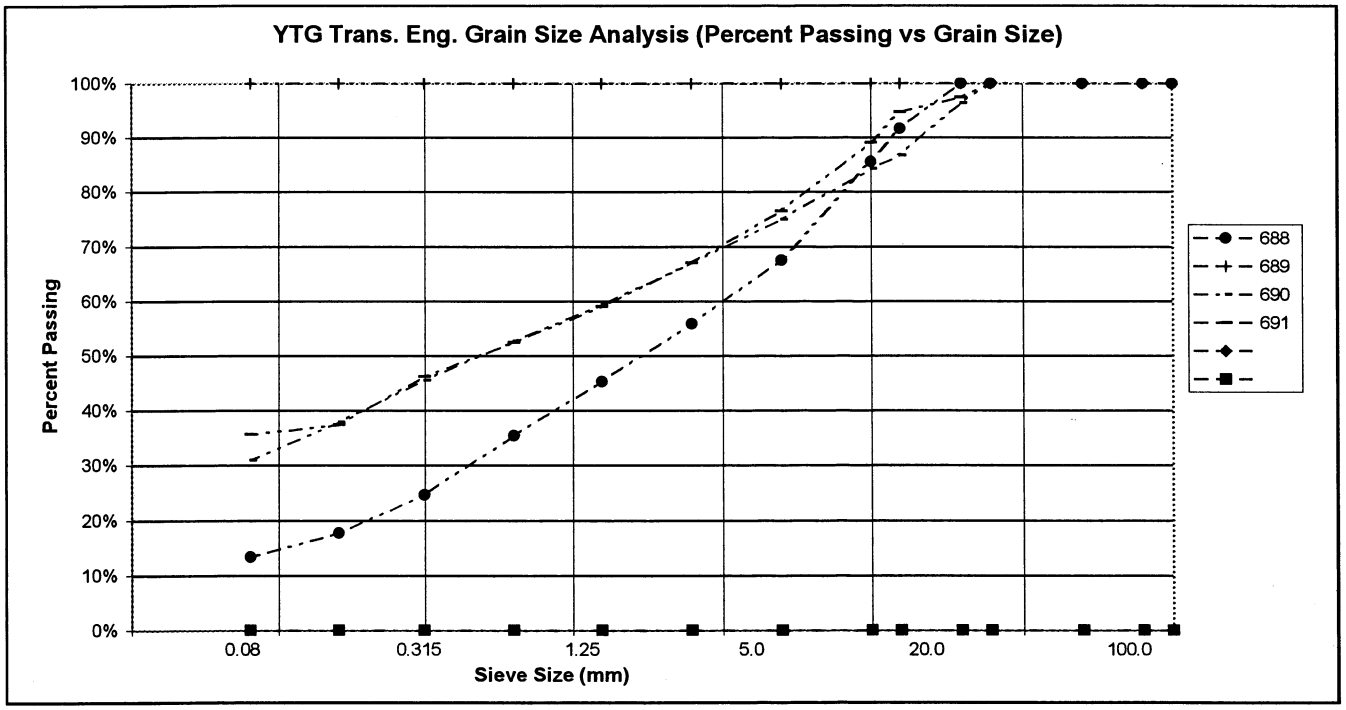


PROJECT NUMBER: 092-202-101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1759+100 13M LT
LOGGED BY: D.T.

HOLE No.: 552-1500

DATE COMP: 6/8/2000

FIELD NO:	688	689	690	691		
LAB NO:	1094	LOST	1096	1097		
DEPTH:	1.4-1.6	2.0-2.2	2.9-3.1	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	100%	100%	100%	100%		
20.0	100%	100%	96%	97%		
12.5	92%	100%	87%	95%		
10.0	86%	100%	84%	89%		
5.0	68%	100%	75%	77%		
2.5	56%	100%	67%	67%		
1.25	45%	100%	59%	59%		
0.630	35%	100%	53%	52%		
0.315	25%	100%	46%	46%		
0.160	18%	100%	38%	37%		
0.080	13%	100%	31%	36%		
M.C.(%):	2%	8%	13%	11%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	32	0	25	23		
% SAND:	54	0	44	41		
% FINES:	13	100	31	36		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILT (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		

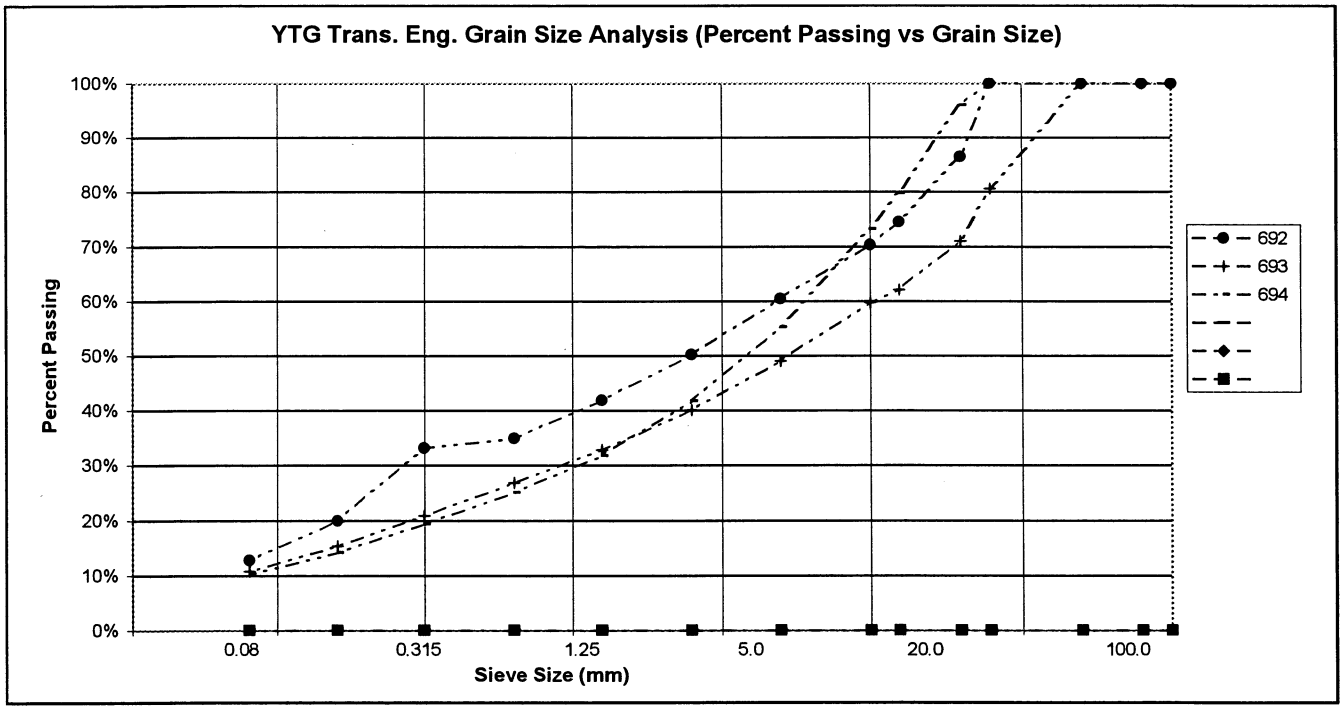


PROJECT NUMBER: 092-202-101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: KM 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1759+200 7M LT
LOGGED BY: D.T.

HOLE No.: 552-1501

DATE COMP: 6/8/2000

FIELD NO:	692	693	694			
LAB NO:	1098	1099	1100			
DEPTH:	1.5-1.7	2.9-3.0	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	100%	81%	100%			
20.0	86%	71%	96%			
12.5	75%	62%	80%			
10.0	70%	60%	73%			
5.0	60%	49%	55%			
2.5	50%	40%	42%			
1.25	42%	33%	32%			
0.630	35%	27%	25%			
0.315	33%	21%	19%			
0.160	20%	15%	14%			
0.080	13%	11%	10%			
M.C.(%):	3%	2%	5%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	40	51	45			
% SAND:	48	38	45			
% FINES:	13	11	10			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)			



PROJECT NUMBER:	092-202-101-0361-1		HOLE No.: 552-1502
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1759+300 11M LT		
LOGGED BY:	D.T.		DATE COMP: 6/8/2000

FIELD NO:	695	696	697			
LAB NO:	1101	1102	1103			
DEPTH:	1.4-1.6	2.8-3.0	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	100%			
25.0	80%	100%	100%			
20.0	80%	93%	100%			
12.5	71%	79%	91%			
10.0	61%	72%	83%			
5.0	50%	54%	73%			
2.5	41%	41%	63%			
1.25	32%	31%	57%			
0.630	24%	24%	51%			
0.315	21%	21%	45%			
0.160	10%	11%	39%			
0.080	7%	8%	33%			
M.C.(%):	2%	2%	8%			
LIQUID LIMIT:	0.0	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0	0.0			
% GRAVEL:	50	46	27			
% SAND:	43	46	40			
% FINES:	7	8	33			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH GRAVEL (SM)			

