GEOTECHNICAL INVESTIGATIONS

Highway Construction
Km 1723.2 to 1734.6 Alaska Highway #1
Yukon, 2003-2004
Volume 3 of 3

Yukon
Infrastructure

Transportation Engineering Branch
Geotechnical Services

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ORIGINAL - Do Not Remove From File

Highway Construction
Km 1723.2 to 1734.6
Alaska Highway #1
Yukon 2003-2004
Volume 3 of 3

This Data Package prepared for project viewing:

January, 2003

Transportation Engineering Branch
Geotechnical Services
461 Range Road
Whitehorse, Yukon

CONTENTS

Volume 1 of 3

INTRODUCTION

Investigation notes, classification methods and legends.

CENTRELINE TESTING ALASKA HIGHWAY

Subsurface Exploration and Testing Report Sheets are provided.
The reports for the centreline holes are arranged according to project location, starting at Km 1723+140 and increasing to Km 1734+776.

TEST HOLES 343 to 379	shown with prefix 612-
TEST HOLES 380 to 384	shown with prefix 613-
TEST HOLES 385 to 409	shown with prefix 615-
TEST HOLES 410 to 434	shown with prefix 616-
TEST HOLES 435 to 459	shown with prefix 617-
TEST HOLES 460 to 484	shown with prefix 618-
TEST HOLES 485 to 500	shown with prefix 619-

NOTE:

Centreline Test Hole locations indicated on the Subsurface Exploration and Testing Report Sheets are approximate. Actual Test Hole locations, located by GPS survey or field survey, are as shown on project plans.

CONTENTS (continued)

Volume 2 of 3

CENTRELINE TESTING ALASKA HIGHWAY

Laboratory Testing Result Sheets are provided.
The reports for the centreline holes are arranged according to test hole number, starting at 612-343 and increasing to 619-500.

TEST HOLES 343 to 379	shown with prefix 612-
TEST HOLES 380 to 384	shown with prefix 613-
TEST HOLES 385 to 409	shown with prefix 615-
TEST HOLES 410 to 434	shown with prefix 616-
TEST HOLES 435 to 459	shown with prefix 617-
TEST HOLES 460 to 484	shown with prefix 618-
TEST HOLES 485 to 500	shown with prefix 619-

NOTE:
Centreline Test Hole locations indicated on the Subsurface Exploration and Testing Report Sheets are approximate. Actual Test Hole locations, located by GPS survey or field survey, are as shown on project plans.

CONTENTS (continued)

Volume 3 of 3

GRANULAR SOURCE Km 1730.2 LHS (Nines Creek) ALASKA HIGHWAY

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

Auger Testing

2001	TEST HOLES 1926 to 1928	shown with prefix 623-
2001	TEST HOLES 1938 to 1941	shown with prefix 624-

Backhoe Testing

2002	TEST PITS 2460 to 2520	shown with prefix 638-

GRANULAR SOURCE Km 1732.0 RHS (Mines Creek) ALASKA HIGHWAY

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

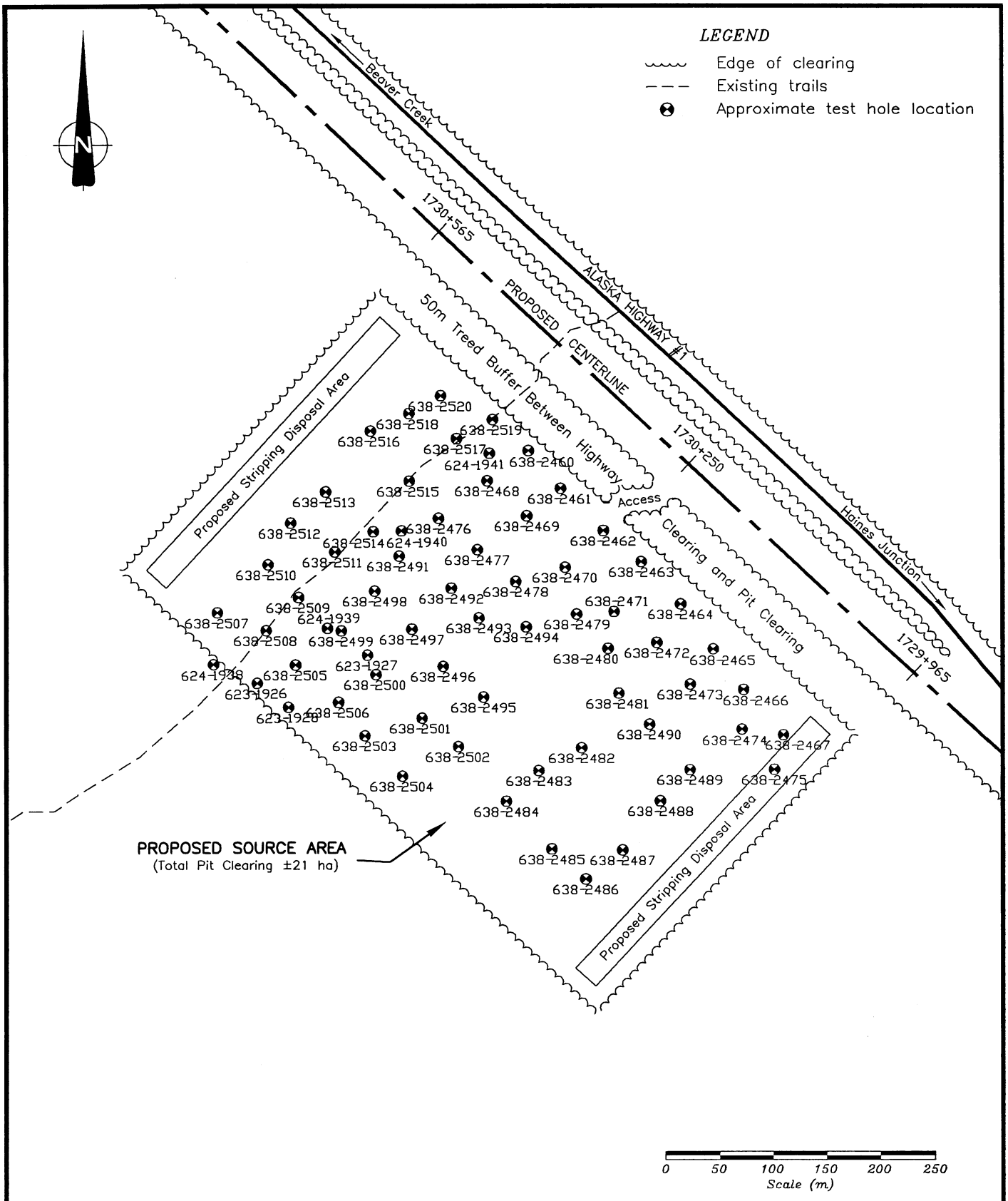
History of Aggregate Production

1986	20 mm B.S.T. Aggregate
1994	20 mm B.S.T. Aggregate
1994	20 mm Granular "A" Base Course
2000	10 mm Crushed Sanding Aggregate

Backhoe Testing

2002	TEST PITS 2451 to 2459	shown with prefix 637-

GRANULAR SOURCE TESTING
Km 1730.2 LHS
(Nines Creek)
ALASKA HIGHWAY



Yukon
Infrastructure
Transportation Division

Transportation Engineering Branch

SITE PLAN
GRANULAR PIT
Km 1730.2 L.H.S.
(Nines Creek)
ALASKA HWY. YUKON

pit file:	115 G-21
revision:	03-Proposed
drawn:	JJM
date:	03-01-02
scale:	1: 5000
drwg:	115g-21S

Km 1734.4 LHS Alaska Highway #1
Pit Ident. 115 G-21
(Nines Creek)

September 2001
Book # 623
Auger Hole Logs

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 623-1926
ENGINEERING CAPITAL	NINES CREEK FAN LHS	Project No: 092-202101-0361
MOBILE B40L 6" AUGER	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID / 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)–(GP-GM) –brown –damp –rough drilling from surface to 4.5m							0.0
1.0								1.0
			1384		GP			
2.0								2.0
3.0								3.0
4.0			1385		GP-GM			4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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Transportation Engineering

LOGGED BY: G.C.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/09/20
Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 623-1927
ENGINEERING CAPITAL	NINES CREEK FAN LHS	Project No: 092-202101-0361
MOBILE B40L 6" AUGER	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM) -brown -damp -rough drilling from surface to 4.5m							0.0
1.0		X	1386		GP			1.0
2.0		X						2.0
3.0		X						3.0
4.0		X	1387		GP-GM			4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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Transportation Engineering

LOGGED BY: G.C.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/09/20
Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 623-1928
ENGINEERING CAPITAL	NINES CREEK FAN LHS	Project No: 092-202101-0361
MOBILE B40L 6" AUGER	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM) -brown -damp -rough drilling from surface to 4.5m							0.0
1.0		⊠	1388		GP			1.0
2.0								2.0
3.0								3.0
4.0		⊠	1389		GP-GM			4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/09/20
Fig. No:	Page 1 of 1

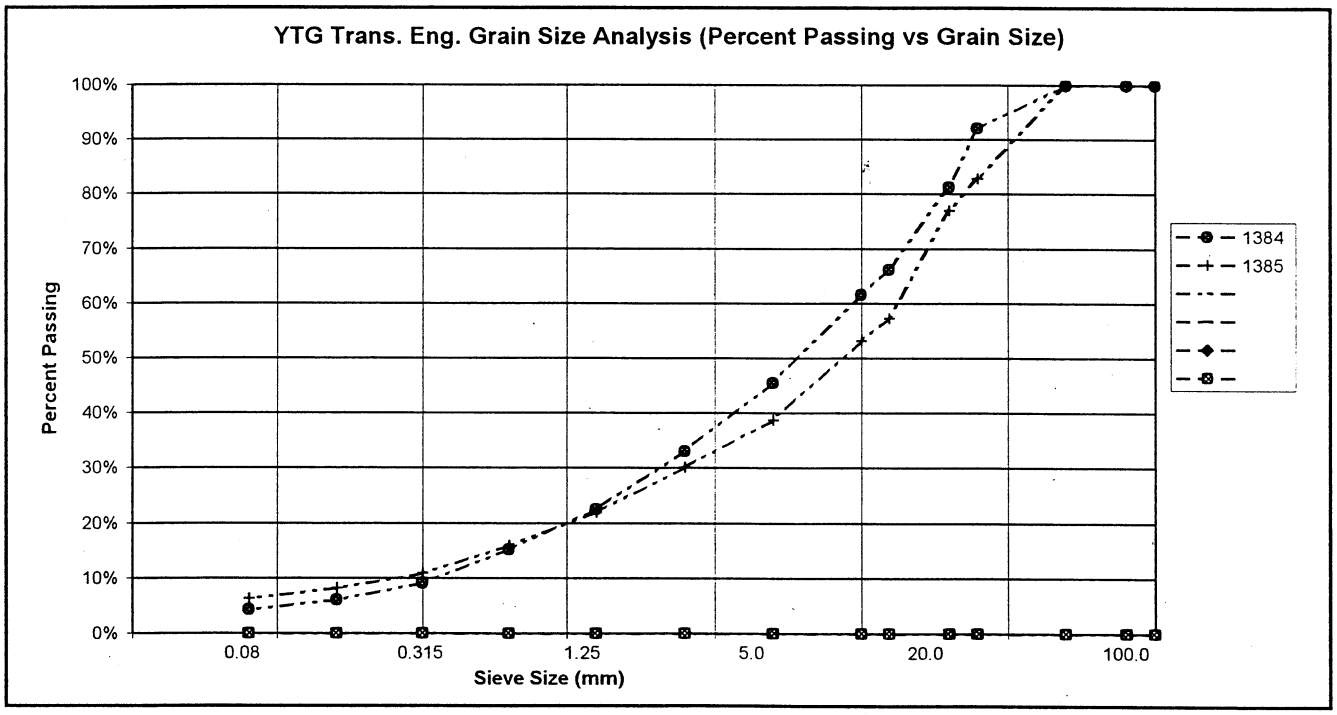
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Km 1734.4 LHS Alaska Highway #1
Pit Ident. 115 G-21
(Nines Creek)

September 2001
Book # 623
Auger Sample Results

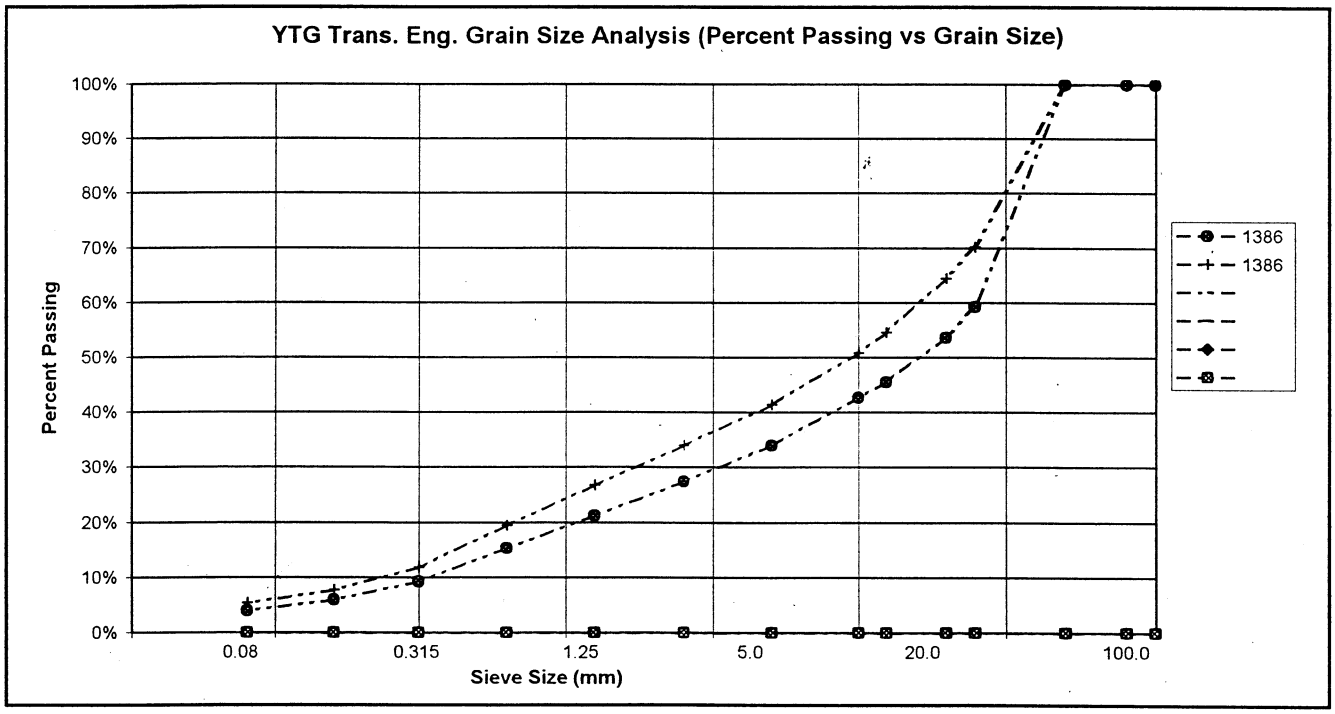
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CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	NINES CREEK CHANNEL		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Test Hole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/20

FIELD NO:	1384	1385				
LAB NO:	2161	2162				
DEPTH:	1.0-2.0	3.5-4.5				
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%	83%				
20.0	81%	77%				
12.5	66%	57%				
10.0	62%	53%				
5.0	46%	39%				
2.5	33%	30%				
1.25	23%	22%				
0.630	15%	16%				
0.315	9%	11%				
0.160	6%	8%				
0.080	4%	6%				
M.C.(%):	3%	3%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	54	61				
% SAND:	41	32				
% FINES:	4	6				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)				



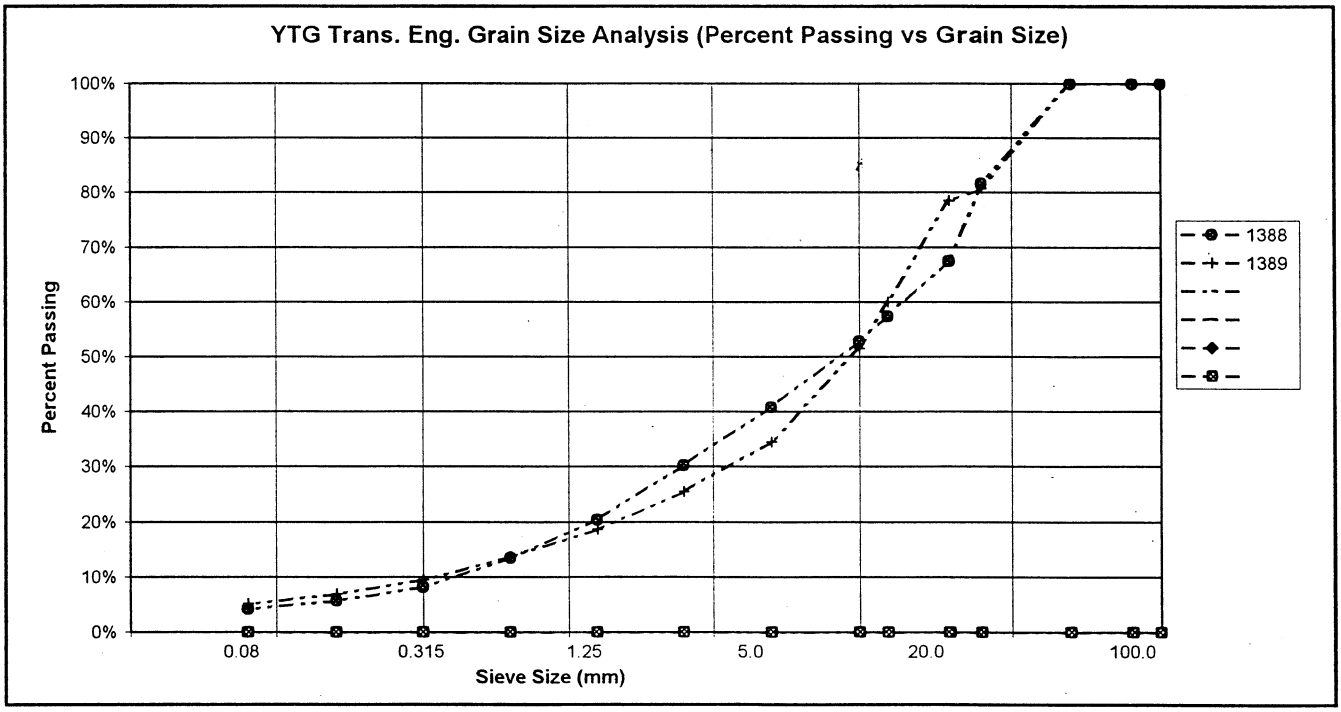
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 623-1927
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	NINES CREEK CHANNEL		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Test Hole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/20

FIELD NO:	1386	1386				
LAB NO:	2163	2164				
DEPTH:	1.0-2.0	3.5-4.5				
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	59%	70%				
20.0	54%	64%				
12.5	46%	55%				
10.0	43%	51%				
5.0	34%	41%				
2.5	28%	34%				
1.25	21%	27%				
0.630	15%	19%				
0.315	9%	12%				
0.160	6%	8%				
0.080	4%	5%				
M.C.(%):	4%	3%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	66	59				
% SAND:	30	36				
% FINES:	4	5				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)				



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 623-1928
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	NINES CREEK CHANNEL		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Test Hole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/20

FIELD NO:	1388	1389				
LAB NO:	2165	2166				
DEPTH:	1.0-2.0	3.5-4.5				
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	82%	81%				
20.0	67%	78%				
12.5	57%	60%				
10.0	53%	51%				
5.0	41%	35%				
2.5	30%	25%				
1.25	20%	19%				
0.630	14%	14%				
0.315	8%	9%				
0.160	6%	7%				
0.080	4%	5%				
M.C.(%):	4%	3%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	59	65				
% SAND:	37	29				
% FINES:	4	5				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)				



Km 1734.4 LHS Alaska Highway #1
Pit Ident. 115 G-21
(Nines Creek)

September 2001
Book # 624
Auger Hole Logs

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 624-1938
ENGINEERING CAPITAL	NINES CREEK LHS	Project No: 092-202101-0361
MOBILE B40L 6" AUGER	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	POORLY TO WELL GRADED GRAVEL WITH SILT & SAMD (GP-GM)-(GW-GM) -brown -moist -rough drilling from surface.							0.0
1.0			1408	▲	GP-GM		◆ ■	1.0
2.0	-extremely rough & tight drilling @ 2.5							2.0
3.0			1409	▲	GW-GM		◆ ■	3.0
4.0	END HOLE @ 4.0m -refusal Note: No organics at surface							4.0
5.0								5.0
6.0								6.0

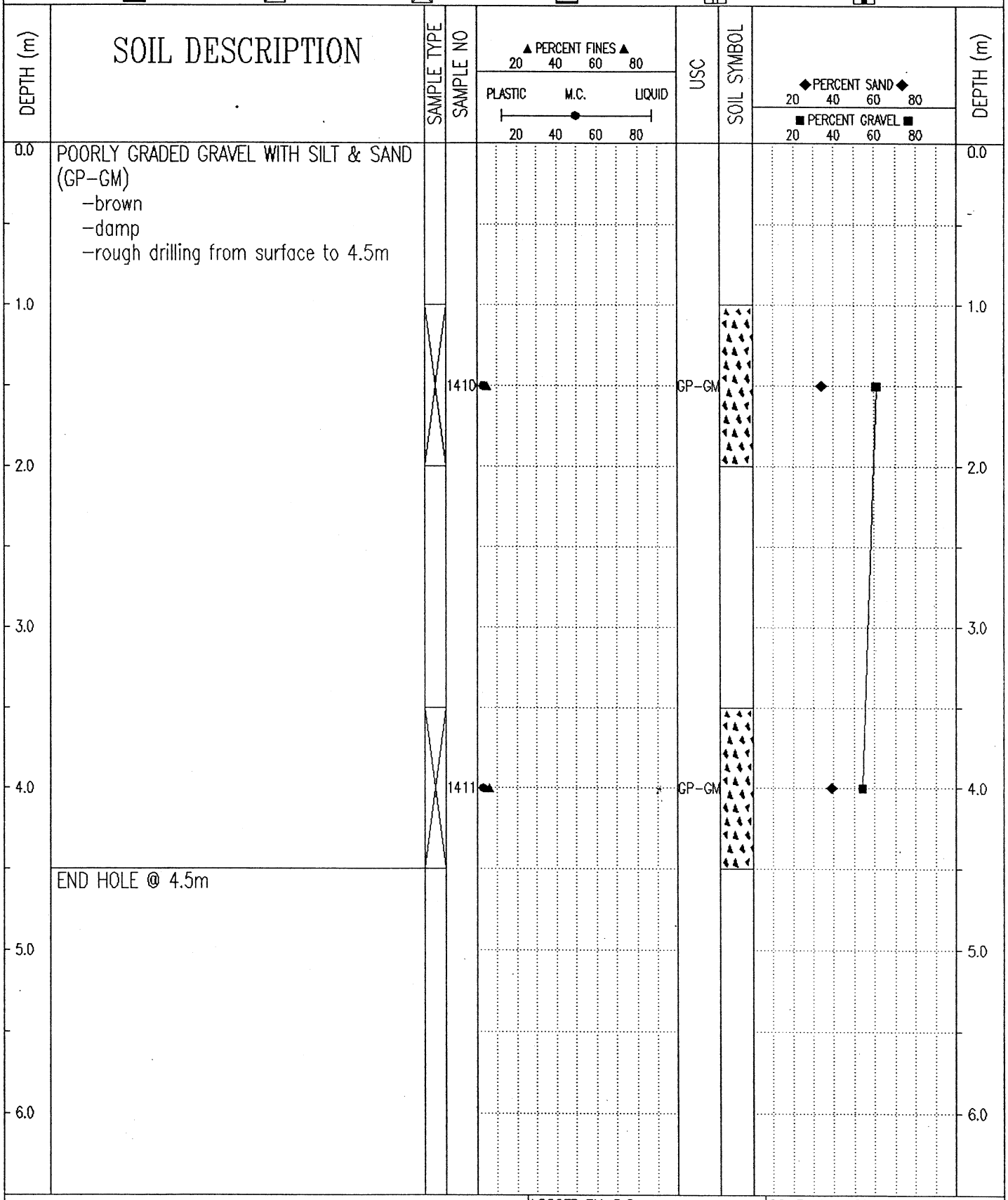
Government of Yukon
Transportation Engineering

LOGGED BY: G.C.	COMPLETION DEPTH: 4.0 m
REVIEWED BY:	COMPLETE: 01/09/21
Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 624-1939
ENGINEERING CAPITAL	NINES CREEK LHS	Project No: 092-202101-0361
MOBILE B40L 6" AUGER	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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



Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/09/21
	Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 624-1940
ENGINEERING CAPITAL	NINES CREEK LHS	Project No: 092-202101-0361
MOBILE B40L 6" AUGER	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	WELL-GRADED GRAVEL WITH SAND (GW) -brown -damp -rough drilling from surface to 4.5m							0.0
1.0		⊠	1412		GW			1.0
2.0								2.0
3.0								3.0
4.0		⊠	1413		GW			4.0
	END HOLE @ 4.5							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/09/21
Fig. No:	Page 1 of 1

02/02/06 11:02AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 624-1941
ENGINEERING CAPITAL	NINES CREEK LHS	Project No: 092-202101-0361
MOBILE B40L 6" AUGER	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	POORLY TO WELL-GRADED GRAVEL WITH SAND (GP)-(GM) -brown -damp -rough drilling from surface to 4.5m							0.0
1.0								1.0
			1414		GP			
2.0								2.0
3.0								3.0
4.0			1415		GW			4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/09/21
Fig. No:	Page 1 of 1

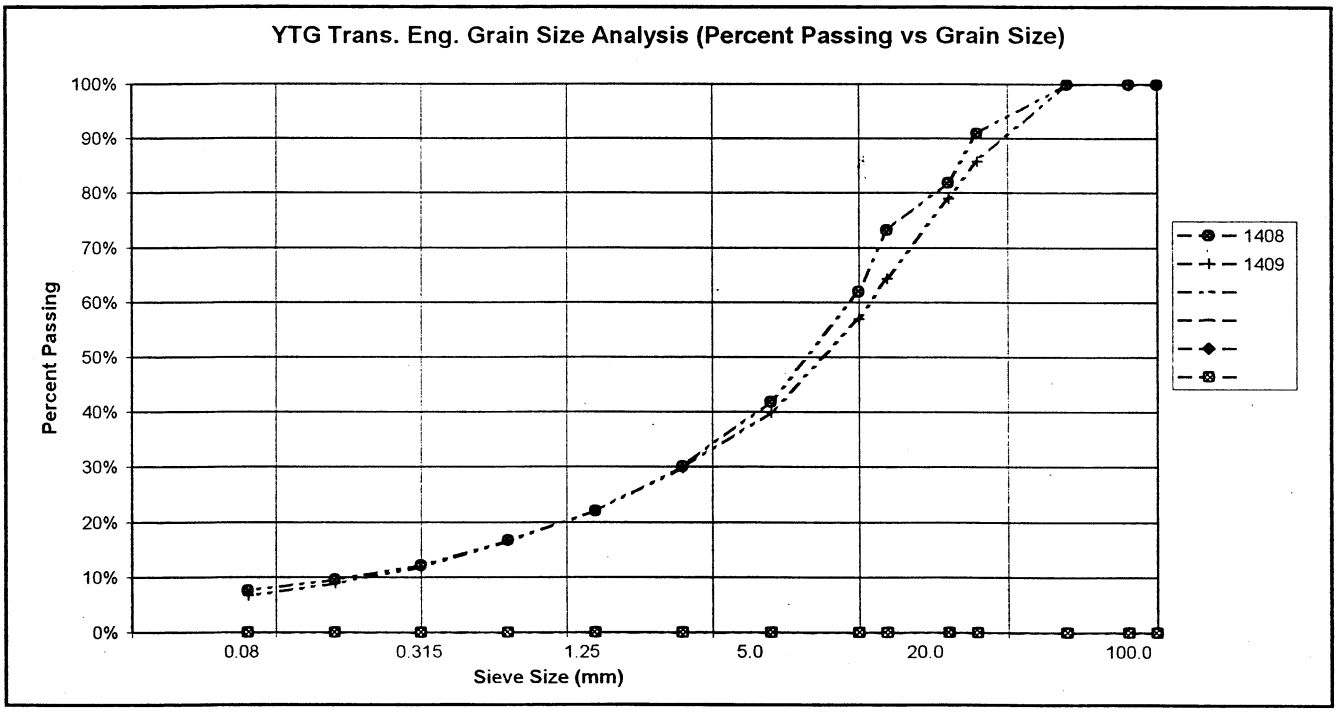
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Km 1734.4 LHS Alaska Highway #1
Pit Ident. 115 G-21
(Nines Creek)

September 2001
Book # 624
Auger Sample Results

PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 624-1938
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/20

FIELD NO:	1408	1409				
LAB NO:	2185	2189				
DEPTH:	1.0-2.0	3.0-4.0				
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	91%	86%				
20.0	82%	79%				
12.5	73%	64%				
10.0	62%	57%				
5.0	42%	40%				
2.5	30%	30%				
1.25	22%	22%				
0.630	17%	17%				
0.315	12%	12%				
0.160	10%	9%				
0.080	8%	7%				
M.C.(%):	4%	3%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	58	60				
% SAND:	34	33				
% FINES:	8	7				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)				

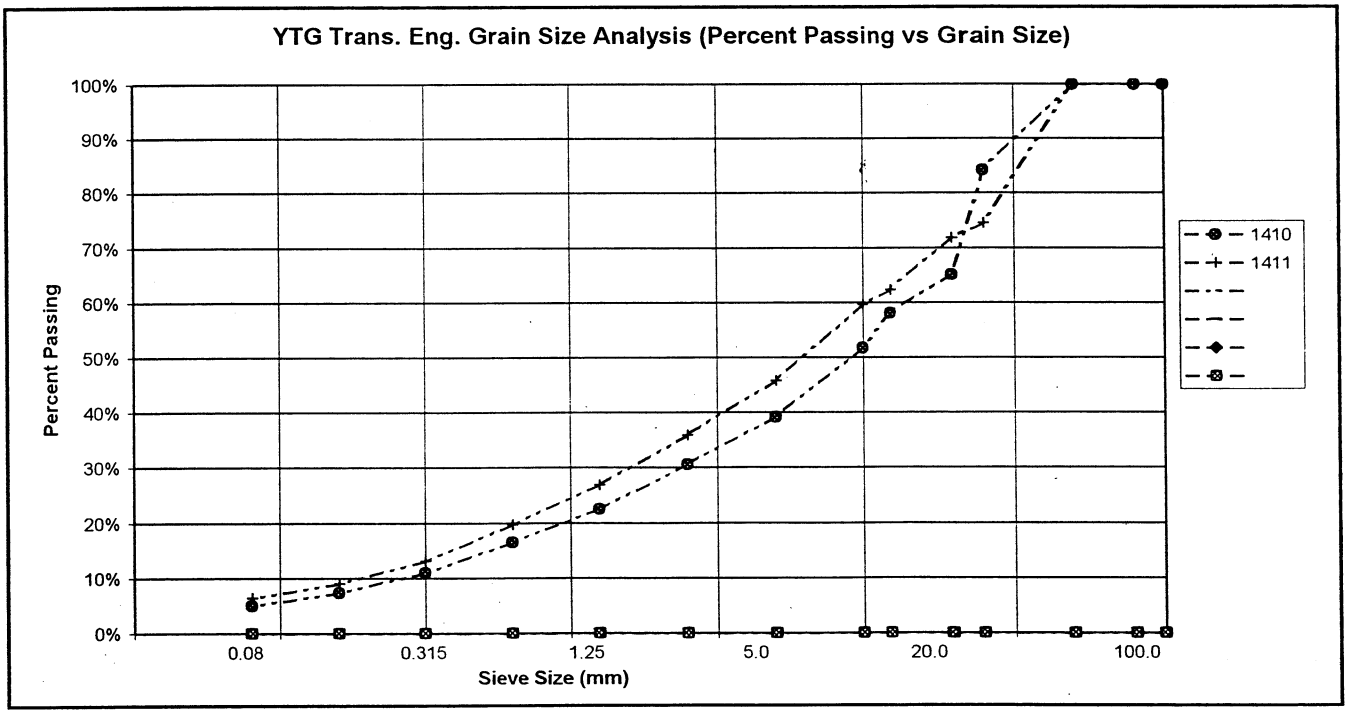


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 624-1939

DATE COMP: 2001/09/20

FIELD NO:	1410	1411				
LAB NO:	2190	2191				
DEPTH:	1.0-2.0	3.5-4.5				
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	84%	74%				
20.0	65%	72%				
12.5	58%	62%				
10.0	52%	60%				
5.0	39%	46%				
2.5	31%	36%				
1.25	23%	27%				
0.630	17%	20%				
0.315	11%	13%				
0.160	7%	9%				
0.080	5%	6%				
M.C.(%):	3%	3%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	61	54				
% SAND:	34	39				
% FINES:	5	6				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)				

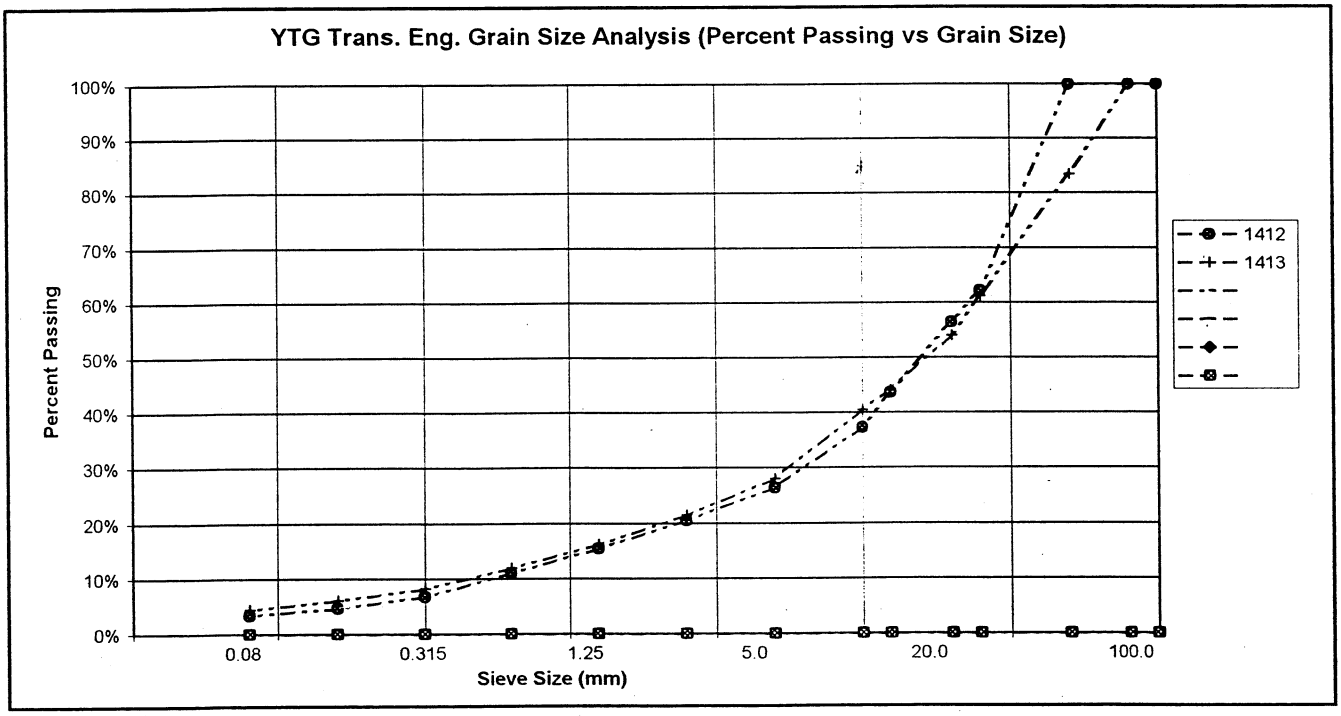


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 624-1940

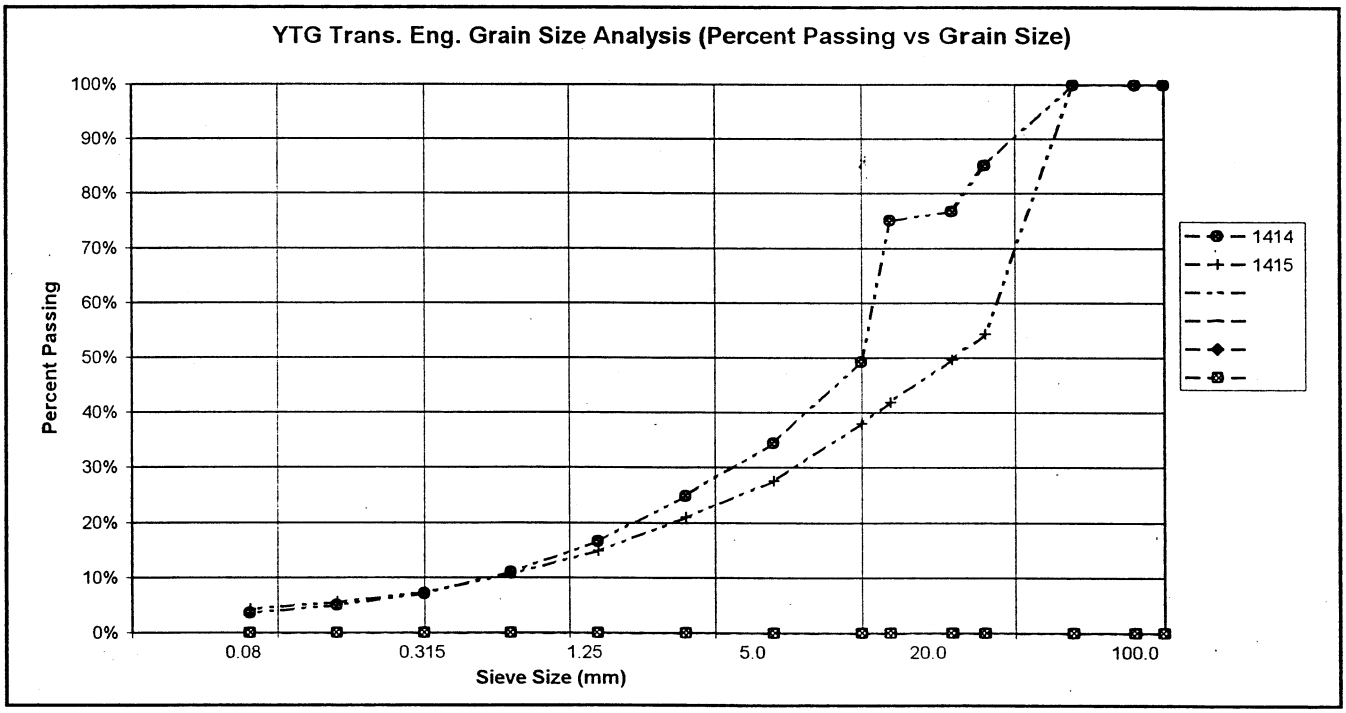
DATE COMP: 2001/09/20

FIELD NO:	1412	1413				
LAB NO:	2192	2193				
DEPTH:	1.0-2.0	3.5-4.5				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	83%				
25.0	62%	61%				
20.0	56%	54%				
12.5	44%	44%				
10.0	37%	40%				
5.0	26%	28%				
2.5	21%	21%				
1.25	15%	16%				
0.630	11%	12%				
0.315	7%	8%				
0.160	5%	6%				
0.080	3%	4%				
M.C.(%):	2%	3%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	74	72				
% SAND:	23	24				
% FINES:	3	4				
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	WELL-GRADED GRAVEL WITH SAND (GW)				



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 624-1941
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/20

FIELD NO:	1414	1415				
LAB NO:	2194	2195				
DEPTH:	1.0-2.0	3.5-4.5				
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%	54%				
20.0	77%	50%				
12.5	75%	42%				
10.0	49%	38%				
5.0	34%	28%				
2.5	25%	21%				
1.25	17%	15%				
0.630	11%	11%				
0.315	7%	7%				
0.160	5%	6%				
0.080	4%	4%				
M.C.(%):	2%	2%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	66	72				
% SAND:	31	23				
% FINES:	4	4				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)				



Km 1734.4 LHS Alaska Highway #1
Pit Ident. 115 G-21
(Nines Creek)

September 2002
Book # 638
Test Pit Logs

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2460
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANIC							0.0
	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND TO POORLY GRADED GRAVEL WITH SAND (GP)-(GP-GM)-(GP) -dry to damp -loose -estimate 5-15% +75mm material -maximum 300mm diameter		222		GP			
1.0								1.0
2.0	-odd silt seam between 2.0-2.8m -moist below 2.0m		223		GP-GM			2.0
3.0			224		GP			3.0
4.0			225		GP			4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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Transportation Engineering

LOGGED BY: JRP	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 02/09/23
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02/11/28 10:29AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2461
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANICS				
	POORLY GRADED GRAVEL WITH SAND (GP) –brown –damp, loose –estimate 5–15% +75mm material –maximum 200mm diameter		226	GP	
1.0					
	–estimate 0–10% +75mm material below 1.5m –maximum 200mm diameter below 1.5m		227	GP	
2.0					
3.0			228	GP	
4.0	SANDY SILT (ML) –brown –damp, firm –organic silts		229	ML	
	END HOLE @ 4.5m				
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)

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Transportation Engineering

LOGGED BY: JRP	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 02/09/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2462
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL	DEPTH (m)
0.0	SURFICAL ORGANICS					0.0
	POORLY TO WELL TO POORLY GRADED GRAVEL WITH SAND (GP)-(GW)-(GP) -brown -damp, loose -estimate 5-15% +75mm material -maximum 200mm diameter -moist below 1.0m		230	GP		
1.0						1.0
2.0			231	GP		2.0
3.0	-silty sand seam noted @ 3.2m (+/- 200mm thick) -some organic noted (trees)		232	GW		3.0
4.0			233	GP		4.0
	END HOLE @ 4.5m					
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: JRP	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 02/09/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2463
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANIC / SILTS				
	POORLY TO WELL TO POORLY GRADED GRAVEL WITH SAND (GP)-(GW)-(GP) -brown -damp, loose -estimate 5-15% +75mm material -maximum 300mm diameter		234	GP	
1.0					
2.0	-moist below 2.0 -organic silt seam noted @ 3.2m (200mm thick)		235	GW	
3.0			236	GP	
4.0			237	GP	
	END HOLE @ 4.5m				
5.0					
6.0					

▲ PERCENT FINES ▲ 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

◆ PERCENT SAND ◆ 20 40 60 80

■ PERCENT GRAVEL ■ 20 40 60 80

DEPTH (m)

Government of Yukon Transportation Engineering	LOGGED BY: JRP	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 02/09/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2464
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANIC							0.0
	POORLY TO WELL-GRADED GRAVEL WITH SAND -brown -dry to damp, loose -estimate 5-15% +75mm material -maximum 300mm diameter		238		GP			
1.0	-moist below 1.5m							1.0
2.0			239		GP			2.0
3.0			240		GP			3.0
			241		GW			
4.0	END HOLE @ 4.0m							4.0
5.0								5.0
6.0								6.0

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REVIEWED BY:	COMPLETE: 02/09/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2465
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL	DEPTH (m)
0.0	SURFICAL ORGANICS					0.0
	SILTY SAND WITH GRAVEL (SM) –brown –damp, loose –estimate 5–15% +75mm material –maximum 300mm diameter –organics noted to 1.0m (rootlets)		242	SM		
1.0	–silt seam +/– 200mm thick @ 1.4m					1.0
	POORLY GRADED GRAVEL WITH SILT & SAND TO POORLY GRADED GRAVEL WITH SAND (GP–GM)–(GP) –brown –damp, loose –maximum 300mm diameter –estimate 5–15% +75mm material		246	GP–GM		
2.0						2.0
3.0						3.0
			244	GP		
4.0			245	GP		4.0
	END HOLE @ 4.5m					
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 & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2466
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANICS				
	POORLY TO WELL TO POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH WITH SILT & SAND (GP)-(GW)-(GP)-(GP-GM) -brown -damp, loose -estimate 5-15% +75mm material -maximum 300mm diameter -organics noted to 1.3m depth (rootlets)		246	GP	
1.0					
2.0			247	GW	
3.0			248	GP	
4.0			249	GP-GM	
	END HOLE @ 4.5m				
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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LOGGED BY: JRP	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 02/09/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2467
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANICS				
	SANDY GRAVEL (some silt) –brown –damp, loose				
1.0	SANDY SILT (ML) –brown –damp, loose –organics noted throughout		250	ML	
2.0	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)–(GP-GM) –brown –damp, loose –estimate 5–15% +75mm material –maximum 300mm diameter –organic noted (trees, odd organic silt seam)		251	GP	
3.0			252	GP-GM	
4.0			253	GP-GM	
	END HOLE @ 4.5m				
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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LOGGED BY: JRP	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2468
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANICS							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) –brown –dry to damp, loose –estimate 5–15% +75mm material –maximum 300mm diameter –moist below 0.8m		254		GP			
1.0								1.0
2.0			255		GP			2.0
	–moist to wet below 2.8m							
3.0			256		GP			3.0
4.0			257		GP			4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: JRP	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 02/09/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2469
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANICS				
	SANDY GRAVEL -trace silt -brown -damp, loose -estimate 5-15% +75mm material -maximum 200mm diameter				
1.0					
2.0	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -brown -damp, loose		258	SW-SM	
	POORLY GRADED GRAVEL WITH SAND TO SILTY GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SAND (GP)-(GM)-(GP) -brown -damp, loose -estimate 5-15% +75mm material -maximum 200mm diameter		259	GP	
3.0					
	-organic silt seam @ 3.6m 300mm thick -tree encountered		260	GM	
4.0					
			261	GP	
5.0	END HOLE @ 5.0m				
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)

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LOGGED BY: JRP	COMPLETION DEPTH: 5.0 m
REVIEWED BY:	COMPLETE: 02/09/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2470
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANIC				
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 5-15% +75mm material -maximum 200mm diameter -organic noted to 1.0m (rootlets)		262	GP	
1.0					
2.0			263	GP	
3.0	SILT WITH SAND (ML) -brown -moist, firm -some organic (organic silty rootlets)		264	ML	
4.0	WELL-GRADED GRAVEL WITH SAND (GW) -brown -damp, loose -estimate 5-15% +75mm material -maximum 300mm diameter		265	GW	
	END HOLE @ 4.5m				
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)

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LOGGED BY: JRP	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 02/09/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2471
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANICS				
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estiamte 5-15% +75mm material -maximum 200mm diameter		266	GP	
1.0					
2.0	SILTY SAND TO SAND WITH SILT -brown -damp, loose				
	POORLY GRADED GRAVEL WITH SILT & SAND TO WELL-GRADED GRAVEL WITH SAND (GP-GM)-(GW) -brown -damp, loose -estimate 5-15% +75mm material -maximum 200mm diameter		267	GP-GM	
3.0					
			268	GW	
4.0					
	END HOLE @ 4.5m -No sample taken @ depth due to excessive sloughage.				
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)

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LOGGED BY: JRP	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 02/09/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2472
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANICS							0.0
	POORLY TO WELL TO POORLY GRADED GRAVEL WITH SAND (GP)-(GW)-(GP) -brown -dry to damp, loose -estimate 5-15% +75mm material -maximum 200mm diameter		269		GP			
1.0	-moist below 1.4m							1.0
2.0			270		GW			2.0
3.0			271		GP			3.0
4.0			272		GP			4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: JF	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 02/09/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2473
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANICS							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 5-15% +75mm material -maximum 300mm diameter -moist below 1.0m		273		GP			1.0
2.0			274		GP			2.0
3.0			275		GP			3.0
4.0			276		GP			4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: JRP	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 02/09/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2474
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANIC							0.0
	WELL TO POORLY GRADED GRAVEL WITH SAND (GW)-(GP) -brown -damp, loose -estimate 5-15% +75mm material -maximum 300mm diameter -organics noted to 1.4m depth (rootlets)		277		GW			
1.0								1.0
2.0			278		GP			2.0
3.0	-boulder (400mm) noted @ 3.3m		279		GP			3.0
4.0			280		GP			4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: JRP	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 02/09/23
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02/11/28 10:30AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2475
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANIC				
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -dry to damp, loose -estimate 5-15% +75mm material -maximum 300mm diameter		281	GP	
1.0	SILTY SAND -brown -damp, loose				
2.0	POORLY GRADED GRAVEL WITH SILT & SAND TO WELL-GRADED GRAVEL WITH SAND (GP-GM)-(GW) -brown -damp, loose -estimate 5-15% +75mm material -maximum 300mm diameter		282	GP-GM	
3.0	-moist below 3.0m		283	GP-GM	
4.0			284	GW	
	END HOLE @ 4.5m				
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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LOGGED BY: JRP	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 02/09/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2476
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL	DEPTH (m)
0.0	SURFICAL ORGANIC					0.0
	POORLY TO WELL-GRADED GRAVEL WITH SAND (GP)-(GW) -brown -dry to damp, loose -estimate 5-15% +75mm material -maximum 300mm +75mm material -organics noted to 1.0m (rootlets) -moist below 1.0m		285	GP		
1.0						1.0
2.0			286	GP		2.0
3.0			287	GP		3.0
4.0	-wet below 4.0m		288	GW		4.0
	END HOLE @ 4.8m					
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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Transportation Engineering

LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
REVIEWED BY:	COMPLETE: 02/09/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2477
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANIC				
	WELL-GRADED SAND WITH SILT & GRAVEL TO POORLY TO WELL-GRADED GRAVEL WITH SAND (SW-SM)-(GP)-(GW) -brown -dry to damp, loose -estimate 5-15% +75mm material -maximum 300mm cobbles -silty sand seam @ 1.0m (300mm thick) -organics noted to 1.2m -damp to moist below 1.2m		289	SW-SM	
1.0					
2.0			290	GP	
3.0			291	GP	
4.0	-organic silt seam @ 4.0m (200mm thick)		292	GW	
	END HOLE @ 4.8m				
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)

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REVIEWED BY:	COMPLETE: 02/09/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2478
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANIC				
	POORLY GRADED GRAVEL WITH SAND TO POORLY -brown -damp, loose -estimate 5-15% +75mm material -maximum 300mm diameters -organics noted to 0.8m (rootlets)		293	GP	
1.0	GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM)				
2.0			294	GP	
3.0			295	GP	
4.0			296	GP-GM	
	END HOLE @ 4.8m				
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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LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
REVIEWED BY:	COMPLETE: 02/09/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2479
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANIC				
	WELL-GRADED SAND WITH GRAVEL (SW) -brown -damp, loose -estimate 5-15% +75mm material -maximum 200mm diameters		297	SW	
1.0					
	SILTY SAND / SILTY SAND -brown -dry to damp, loose				
2.0	POORLY GRADED GRAVEL WITH SILT & SAND TO POORLY GRADED GRAVEL WITH SAND (GP-GM)-(GP) -brown -damp, loose -estimate 5-15% +75mm material -some organic throughout (trees)		298	GP-GM	
3.0			299	GP	
4.0			300	GP	
	END HOLE @ 4.8m				
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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LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
REVIEWED BY:	COMPLETE: 02/09/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2480
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANIC				
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -maximum 300mm diameters -silty sand seam @ 1.2m +/- 300mm thick		301	GP	
1.0					
	SILTY SAND (SM) -frozen (permafrost)		302	SM	
2.0	-moved 2m north				
	WELL-GRADED GRAVEL WITH SAND (GW) -frozen		303	GW	
	END HOLE @ 2.4m -permafrost Note: moved 20m north, material was sandy gravel with trace silt 0.5m to 2.4m				
3.0					
4.0					
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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Transportation Engineering

LOGGED BY: JRP	COMPLETION DEPTH: 2.4 m
REVIEWED BY:	COMPLETE: 02/09/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2481
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANIC							0.0
	WELL TO POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL (GW)-(GP) -brown -damp, loose -estimate 5-15% +75mm material -maximum 300mm diameter -organics noted to 1.0m		304		GW			
1.0								1.0
2.0	-moist below 2.0m		305		GP			2.0
3.0	-frozen (permafrost) below 3.2		306		GP			3.0
			307		GP			
	END HOLE @ 3.6 -refusal							
4.0								4.0
5.0								5.0
6.0								6.0

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Transportation Engineering

LOGGED BY: JRP	COMPLETION DEPTH: 3.6 m
REVIEWED BY:	COMPLETE: 02/09/24
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2482
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANIC				
	POORLY TO WELL GRADED GRAVEL WITH SAND (GP)-(GW) -brown -damp, loose -maximum 300mm diameter		308	GP	
1.0	-moist below 1.5m				
2.0			309	GP	
	-frozen below 2.7m (permafrost)		310	GW	
3.0	END HOLE @ 2.9m				
4.0					
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)

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REVIEWED BY:	COMPLETE: 02/09/24
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2483
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANICS							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 5-15% +75mm material -maximum 300mm diameter		311		GP			
1.0								1.0
2.0	-frozen below 2.1m		312		GP			2.0
	END HOLE @ 2.3m							
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: JRP	COMPLETION DEPTH: 2.3 m
	REVIEWED BY:	COMPLETE: 02/09/24
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2484
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANICS							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) -frozen (permafrost)		313	▲ ●	GP		◆ ■	
1.0								1.0
	END HOLE @ 1.6m -refusal							
2.0								2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: JRP	COMPLETION DEPTH: 1.6 m
	REVIEWED BY:	COMPLETE: 02/09/24
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2485
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANICS				
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 5-15% +75mm material -maximum 300mm diameter		314	GP	
2.0			315	GP	
	POORLY GRADED SAND WITH GRAVEL (SP) -frozen (permafrost)				
3.0			316	SP	
	END HOLE @ 3.1m -refusal				
4.0					
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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Transportation Engineering

LOGGED BY: JRP	COMPLETION DEPTH: 3.1 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2486
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL	DEPTH (m)
0.0	SURFICAL ORGANIC					0.0
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 10-20% +75mm material -maximum 300mm diameter		317	GP		
1.0						1.0
			318	GP		
2.0	-frozen below 2.4m (permafrost)					2.0
			319	GP		
3.0	END HOLE @ 3.0M -refusal					3.0
4.0						4.0
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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	REVIEWED BY:	COMPLETE: 02/09/24
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2487
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANIC							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 5-15% +75mm material -maximum 300mm diameter -moist below 1.2m		320		GP			
1.0								1.0
2.0			321		GP			2.0
3.0	WELL-GRADED GRAVEL (GW) -frozen (permafrost)		322		GW			3.0
	END HOLE @ 3.4m							
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: JRP	COMPLETION DEPTH: 3.4 m
REVIEWED BY:	COMPLETE: 02/09/24
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2488
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANICS / SILTS							0.0
1.0	POORLY GRADED GRAVEL WITH SAND (GP) –frozen (permafrost)		323		GP			1.0
2.0	END HOLE @ 1.6m –refusal							2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: JRP	COMPLETION DEPTH: 1.6 m
REVIEWED BY:	COMPLETE: 02/09/24
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02/11 5" 01:17PM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2489
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANIC							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 5-15% +75mm material -maximum 200mm diameter		324		GP			
1.0	SANDY SILT / SILTY SAND -brown -damp, loose -fine grained							1.0
			325		GP			
2.0	POORLY GRADED GRAVEL WITH SAND (GP) -frozen (permafrost							2.0
	END HOLE @ 2.0m -refusal							
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

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Transportation Engineering

LOGGED BY: JRP	COMPLETION DEPTH: 2.0 m
REVIEWED BY:	COMPLETE: 02/09/24
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2490
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANIC							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 10-20% +75mm material -maximum 300mm diameter -frozen below 1.4m		326		GP			
1.0								1.0
2.0			327		GP			2.0
	END HOLE @ 2.1m -refusal							
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: JRP	COMPLETION DEPTH: 2.1 m
	REVIEWED BY:	COMPLETE: 02/09/24
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2491
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANIC			
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 5-15% +75mm material -maximum 250mm diameter	588	GP	
1.0				
2.0		589	GP	
3.0	-moist below 3.0m	330	GP	
4.0		331	GP	
5.0	END HOLE @ 4.8m			
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)

Government of Yukon Transportation Engineering	LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
	REVIEWED BY:	COMPLETE: 02/09/24
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02/11/28 10:38AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2492
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANIC							0.0
	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND TO WELL-GRADED GRAVEL WITH SAND (GP)-(GP-GM)-(GW) -brown -damp, loose -estimate 10-20% +75mm material -maximum 250mm diameter -organics noted to 1.0m (rootlets) -moist below 1.2m		332		GP			
1.0								1.0
2.0			333		GP-GM			2.0
3.0	-lost sample #334		334					3.0
4.0	-organic silt seam @ 3.8m (200mm thick)		335		GW			4.0
	END HOLE @ 4.8m							
5.0								5.0
6.0								6.0

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LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
REVIEWED BY:	COMPLETE: 02/09/24
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02/12/31 01:20PM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2493
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANICS				
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -dry to damp, loose -estimate 5-15% +75mm material -maximum 250mm material		336	GP	
1.0					
2.0	SILTY SAND (SM) -brown -damp, firm -organic silts / wood		337	SM	
3.0					
	POORLY GRADED GRAVEL WITH SAND (GP)		338	GP	
4.0					
			339	GP	
5.0	END HOLE @ 5.0m				
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)

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LOGGED BY: JRP	COMPLETION DEPTH: 5.0 m
REVIEWED BY:	COMPLETE: 02/09/25
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2494
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANICS							0.0
	SANDY SILT (ML) -brown -dry, loose -organic (rootlet/organic silts) throughout		340		ML			
1.0								1.0
2.0	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM) -brown -dry to damp, loose -estimate 10-20% +75mm material -maximum 300mm diameter		341		GP			2.0
3.0								3.0
			342		GP			
4.0								4.0
			343		GP-GM			
	END HOLE @ 4.8m							
5.0								5.0
6.0								6.0

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LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
REVIEWED BY:	COMPLETE: 02/09/25
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2495
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANICS				
	SANDY SILT / SILTY SAND -brown -dry to damp, firm -organic (rootlet, organdic, silts) throughout				
1.0					
	SILTY GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SAND (GM)-(GP) -brown -damp, loose -estimate 5-15% +75mm material -maximum 300mm diameter		344	GM	
2.0					
3.0			345	GP	
4.0			346	GP	
	END HOLE @ 4.8m				
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)

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LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2496
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID / 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANIC							0.0
	POORLY GRADED GRAVEL WITH SILT & SAND TO POORLY GRADED GRAVEL WITH SAND (GP-GM)-(GP) -brown -damp, loose -estimate 5-15% +75mm material -maximum 250mm diameter -organics (rootlets) noted to 1.7m		347	▲	GP-GM		◆ ■	
1.0	-wood noted @ 1.5m							1.0
2.0								2.0
	-organic silt seam @ 2.4 (300mm thick)		348	● ▲	GP-GM		◆ ■	
3.0	-moist below 3.0m							3.0
			349	●	GP		◆ ■	
4.0								4.0
			350	●	GP		◆ ■	
5.0	END HOLE @ 4.8m							5.0
6.0								6.0

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	REVIEWED BY:	COMPLETE: 02/09/25
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2497
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆PERCENT SAND◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANICS							0.0
	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND TO POORLY GRADED GRAVEL WITH SAND (GP)-(GP-GM)-(GP) -brown -dry to damp, loose -estimate 10-20% +75mm material -estimate 300mm diameter -organic (rootlets) noted to 1.0m		351		GP			
1.0	-moist below 1.5m							1.0
2.0	-organic silt seam noted @ 2.1m 200mm thick		352		GP-GM			2.0
3.0			353		GP			3.0
4.0			354		GP			4.0
5.0	END HOLE @ 4.8m							5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2498
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANICS				
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 10-20% +75mm material -maximum 300mm diameter -organic (rootlets) noted to 1.0m		355	GP	
1.0	-moist below 1.5m -boulder to 400mm noted				
2.0			356	GP	
3.0	-wet below 3.0m		357	GP	
4.0					
5.0	END HOLE @ 4.8m				
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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LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
REVIEWED BY:	COMPLETE: 02/09/25
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2499
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANIC							0.0
	POORLY TO WELL-GRADED GRAVEL WITH SAND (GP)-(GW) -brown -damp, loose -estimate 5-15% +75mm material -maximum 250mm diameter -organics (rootlets) to 0.8m		359		GP			
1.0								1.0
	-moist below 1.5m -silty sand seam noted @ 2.6m (300mm thick)							
2.0			360		GP			2.0
3.0								3.0
			361		GP			
4.0								4.0
			362		GW			
	END HOLE @ 4.8m							
5.0								5.0
6.0								6.0

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LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
REVIEWED BY:	COMPLETE: 02/08/22
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2500
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANIC							0.0
	WELL TO POORLY GRADED GRAVEL WITH SAND (GW)-(GP) -brown -damp, loose -estimate 10-20% +75mm material -maximum 300mm diameter -organics (rootlets) noted to 1.5m -moist below 1.2m		363	▲	GW		◆ ■	
1.0								1.0
2.0			364	▲	GP		◆ ■	2.0
	-wood (tree) @ 2.8m							
3.0								3.0
			365	▲	GP		◆ ■	
4.0								4.0
			366	▲	GP		◆ ■	
	END HOLE @ 4.8m							
5.0								5.0
6.0								6.0

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LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
REVIEWED BY:	COMPLETE: 02/09/25
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2501
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANIC				
	POORLY GRADED GRAVEL WITH SAND (GP) –brown –damp, loose –estimate 5–15% +75mm material –maximum 200mm diameter		367	GP	
1.0					
	SILTY SAND / SANDY SILT –brown –damp, loose –organics (roots, organic silts) throughout				
2.0					
	POORLY GRADED GRAVEL WITH SILT & SAND TO POORLY GRADED GRAVEL WITH SAND (GP-GM)-(GP) –brown –damp, loose –estimate 10–20% +75mm material –maximum 250mm diameter		368	GP-GM	
3.0					
	–medium dense below 3.5m		369	GP-GM	
4.0					
5.0			370	GP	
	END HOLE @ 5.3m				
6.0					

▲ PERCENT FINES ▲ 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

◆ PERCENT SAND ◆ 20 40 60 80

■ PERCENT GRAVEL ■ 20 40 60 80

DEPTH (m) 0.0 1.0 2.0 3.0 4.0 5.0 6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2502
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANICS				
	POORLY GRADED GRAVEL WITH SAND (GP) –brown –damp, loose –estimate 10–20% +75mm material –maximum 300mm material –frozen below 1.0m		371	GP	
1.0					
2.0	SILTY SAND / SANDY SILT –frozen				
	WELL–GRADED SAND WITH SILT & GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND (SW–SM)–(GP–GM) –frozen		372	SW–SM	
3.0			373	GP–GM	
	END HOLE @ 3.3m –refusal				
4.0					
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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LOGGED BY: JRP	COMPLETION DEPTH: 3.3 m
REVIEWED BY:	COMPLETE: 02/09/25
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2503
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANIC							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -dry to damp, loose -estimate 5-15% +75mm material -maximum 300mm diameter		374		GP			
1.0	SILTY SAND, -some gravel -brown -damp, loose -gravel is in seams -organic throughout (rootlets, organic silts, wood)							1.0
2.0	POORLY TO WELL TO POORLY GRADED GRAVEL WITH SAND (GP)-(GW)-(GP) -brown -damp, medium dense -estimate 10-20% +75mm material -maximum 300mm diameter		375		GP			2.0
3.0			376		GW			3.0
4.0								4.0
5.0			377		GP			5.0
	END HOLE @ 5.3m							
6.0								6.0

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REVIEWED BY:	COMPLETE: 02/09/25
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2504
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANICS				
	SANDY SILT (ML) –brown –damp, loose –organics (rootlets, organic silts) noted throughout		378	ML	
1.0	POORLY TO WELL TO POORLY GRADED GRAVEL WITH SAND (GP)–(GW)–(GP) –brown –moist, medium dense		379	GP	
2.0					
3.0			380	GW	
4.0			381	GP	
	END HOLE @ 4.8m				
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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LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
REVIEWED BY:	COMPLETE: 02/09/25
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2505
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANICS							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) -dry to damp, loose -brown -estimate 10-20% +75mm material -maximum 300mm diameter -organics (rootlets) noted to 0.8m -moist below 0.8m		382		GP			
1.0								1.0
2.0			383		GP			2.0
3.0			383		GP			3.0
4.0			384		GP			4.0
	END HOLE @ 4.8m							
5.0								5.0
6.0								6.0

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LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
REVIEWED BY:	COMPLETE: 02/09/26
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2506
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANICS							0.0
	POORLY GRADED GRAVEL WITH SILT & SAND TO POORLY TO WELL-GRADED GRAVEL WITH SAND (GP-GM)-(GP)-(GW) -brown -dry to damp, loose -estimate 10-20% +75mm material -maximum 300mm diameter -organics to 0.8m (rootlets) -moist below 1.0m		386	▲ ▲	GP-GM		◆ ■	
1.0								1.0
2.0			387	●	GP		◆ ■	2.0
	-organic silt seam noted @ 2.5m (+/- 200mm thick)							
3.0			388	●	GP		◆ ■	3.0
	-silty seam noted @ 3.8m +/-300mm thick							
4.0			389	●	GW		◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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REVIEWED BY:	COMPLETE: 02/09/26
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2507
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANICS							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 10-20% +75mm material -maximum 300mm diameter		390		GP			
1.0								1.0
	-medimum dense below 1.5m -estimate 15-25% +75mm material							
2.0			391		GP			2.0
3.0	-moist below 3.0m							3.0
			392		GP			
4.0								4.0
			393		GP			
	END HOLE @ 4.8m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
	REVIEWED BY:	COMPLETE: 02/09/26
	Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2508
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANICS							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -dry to damp, loose -estimate 5-10% +75mm material -maximum 200mm diameter		394		GP			
1.0	SILTY SAND / SANDY SILT -brown -damp, loose -organic noted throughout (rootlets, organic silts)							1.0
2.0	WELL TO POORLY GRADED GRAVEL WITH SAND (GW)-(GP) -brown -damp, loose -estimate 15-25% +75mm material -maximum 300mm diameter		395		GW			2.0
3.0			396		GP			3.0
4.0	-one 0.4m boulder noted at 4.2m		397		GP			4.0
5.0	END HOLE @ 4.8m							5.0
6.0								6.0

Government of Yukon
Transportation Engineering

LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
REVIEWED BY:	COMPLETE: 02/09/26
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02/12/17 02:41PM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2509
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANICS				
	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND TO POORLY GRADED GRAVEL WITH SAND (GP)-(GP-GM)-(GP) -brown -damp, loose -estimate 10-20% +75mm material -maximum 200mm diameter -organics (rootlets) noted to 0.8m -moist below 1.2m -maximum 300mm diameter below 1.20		398	GP	
1.0					
2.0			399	GP	
3.0	-estimate 15-25% +75mm material below 3.0m -maximum 300mm diameter below 3.0m		400	GP-GM	
4.0	-one 0.4m boulder noted at 4.0m		401	GP	
	END HOLE @ 4.8m				
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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Transportation Engineering

LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
REVIEWED BY:	COMPLETE: 02/09/26
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02/12/31 01:28PM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2510
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANICS				
	POORLY GRADED GRAVEL WITH SAND TO WELL-GRADED SAND WITH SILT & GRAVEL TO POORLY GRADED GRAVEL WITH SAND (GP)-(SW-SM)-(GP) -dry to damp, loose -brown -estimate 5-10% +75mm material -maximum 200mm diameter -silty sand seam noted @ 0.8m (+/- 200mm thick) -organic noted to 1.2m (rootlets) -moist below 1.2m -estimate 20-30% +75mm material (very boney) -maximum 300mm diameter below 1.2m		402	GP	
1.0					
2.0			403	SW-SM	
3.0			404	GP	
4.0			405	GP	
	END HOLE @ 4.8m				
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)

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LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
REVIEWED BY:	COMPLETE: 02/09/26
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02/12/31 01:30PM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2511
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANICS				
	POORLY TO WELL-GRADED GRAVEL WITH SAND (GP)-(GW) -brown -dry to damp, loose -estimate 10-20% +75mm material -maximum 300mm diameter -organic noted to 1.0m (rootlets) -moist, medium dense below 1.2m -estimate 15-25% +75mm material below 1.2m -maximum 300mm diameter below 1.2m		406 407 408 409	GP GP GP GW	
4.8	END HOLE @ 4.8m				

▲ 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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LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
REVIEWED BY:	COMPLETE: 02/09/28
Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2512
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANICS							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) –brown –damp, loose –estimate 10–20% +75mm material –maximum 300mm diameter –silty sand seam @ 0.5m (300mm thick) –organic to 1.0m (rootlets) –moist, medium dense below 1.2m –estimate 15–25% +75mm material below 1.2m –maximum 300mm diameter below 1.2m		410		GP			
1.0								1.0
2.0			411		GP			2.0
3.0			412		GP			3.0
4.0	SILTY SAND WITH GRAVEL (SM) –brown –damp, loose		413		SM			4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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REVIEWED BY:	COMPLETE: 02/09/26
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2513
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANICS							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 15-25% +75mm material -maximum 200mm diameter -silty sand seam @ 1.0m (300mm thick) -organic to 1.2m (roots) -moist, medium dense below 1.2m -estimate 20-30% +75mm material below 1.2m -maximum 300mm diameter below 1.2m		414		GP			
1.0								1.0
2.0			415		GP			2.0
3.0	-sandy silt seam @ 3.4m (300mm thick) (organic silts / roots)		416		GP			3.0
4.0			417		GP			4.0
	END HOLE @ 4.8m							
5.0								5.0
6.0								6.0

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REVIEWED BY:	COMPLETE: 02/09/26
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2514
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANICS				
	POORLY TO WELL TO POORLY GRADED GRAVEL WITH SAND (GP)-(GW)-(GP) -brown -damp, loose -estimate 20-30% +75mm material -maximum 300mm diameter -organics to 1.0m (rootlets) -moist, medium dense below 1.0m		418	GP	
1.0					
2.0			419	GP	
3.0	-moist to wet below 3.0m		420	GW	
4.0			421	GP	
5.0	END HOLE @ 4.8m				
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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REVIEWED BY:	COMPLETE: 02/09/26
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2515
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANICS							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate, 20-30% +75mm material -maximum 300mm diameter -organics to 1.0m (rootlets) -moist, medium dense below 1.0m		422		GP			
1.0								1.0
2.0			423		GP			2.0
3.0	-wet below 3.0m		424		GP			3.0
4.0			425		GP			4.0
5.0	END HOLE @ 4.8m							5.0
6.0								6.0

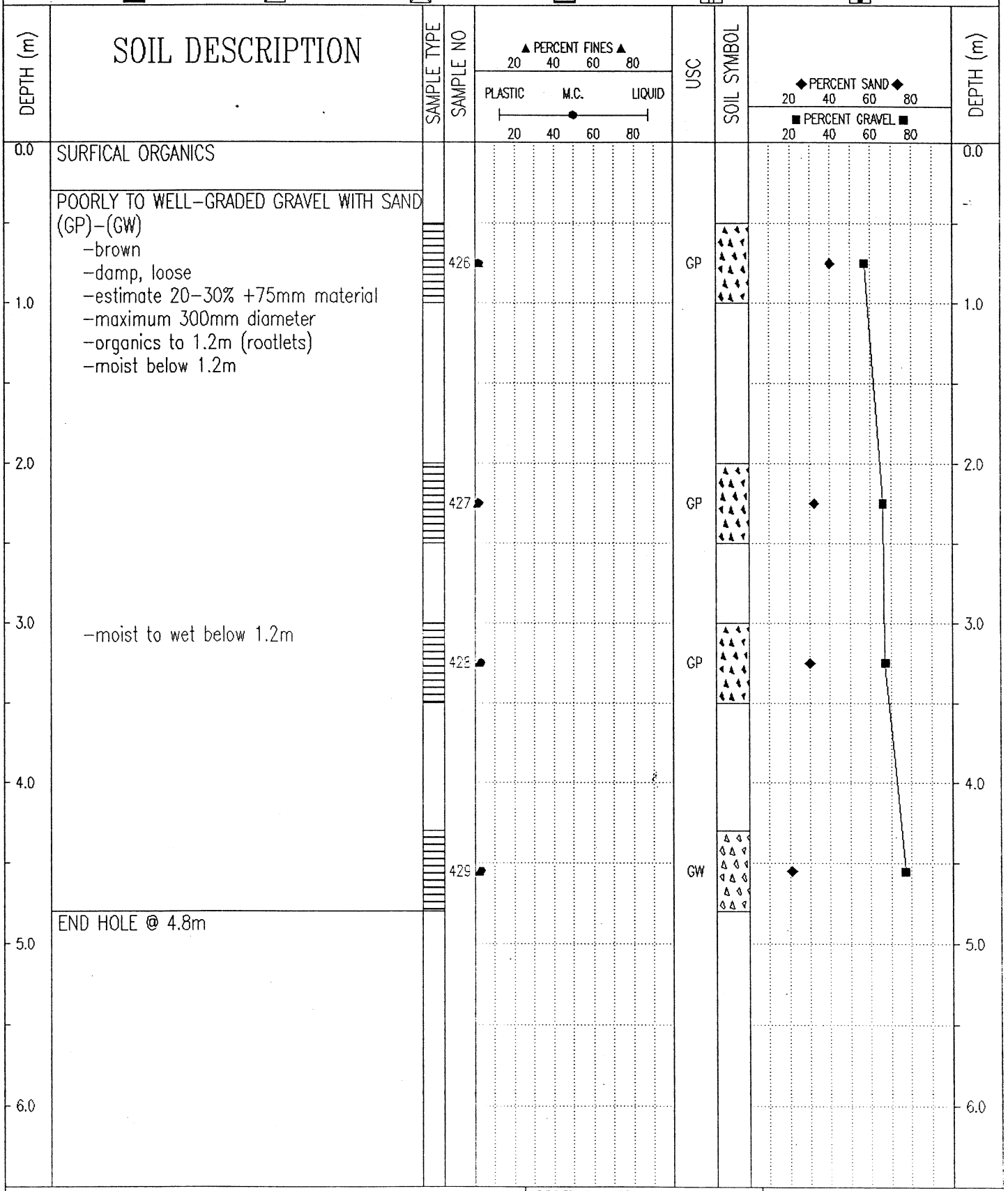
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REVIEWED BY:	COMPLETE: 02/09/26
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2516
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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



Government of Yukon Transportation Engineering	LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
	REVIEWED BY:	COMPLETE: 02/09/26
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2517
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL	DEPTH (m)
0.0	SURFICAL ORGANICS					0.0
	WELL TO POORLY GRADED GRAVEL WITH SAND (GW)-(GP) -brown -damp, loose -estimate 15-25% +75mm material -maximum 200mm diameter -organic to 0.8m (rootlets) -moist, medium dense below 1.0m -estimate 20-30% +75mm material below 1.0m -maximum 300mm diameter below 1.0m		430	GP		
1.0						1.0
2.0			431	GP		2.0
3.0			432	GP		3.0
4.0						4.0
			433	GP		
5.0	END HOLE @ 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: JRP	COMPLETION DEPTH: 5.0 m
REVIEWED BY:	COMPLETE: 02/09/26
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2518
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANICS				
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 15-25% +75mm material -maximum 250mm material -organics to 1.5m (rootlets) -moist, medium dense below 1.2m -estimate 20-30% +75mm material below 1.2m -maximum 300mm diameter below 1.2m		434	GP	
1.0					
2.0			435	GP	
3.0			436	GP	
4.0			437	GP	
5.0	END HOLE @ 5.0m				
6.0					

▲ PERCENT FINES ▲ 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

◆ PERCENT SAND ◆ 20 40 60 80

■ PERCENT GRAVEL ■ 20 40 60 80

DEPTH (m)

Government of Yukon Transportation Engineering	LOGGED BY: JRP	COMPLETION DEPTH: 5.0 m
	REVIEWED BY:	COMPLETE: 02/09/26
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2519
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SURFICAL ORGANICS							0.0
	POORLY GRADED GRAVEL WITH SAND TO SILTY GRAVEL WITH SAND (GP)-(GM) -brown -damp, loose -estimate 20-30% +75mm material -maximum 300mm diameter -organics to 1.2m (rootlets) -moist below 1.2m		438		GP			
1.0								1.0
2.0			439		GP			2.0
3.0			440		GP			3.0
4.0			441		GM			4.0
5.0	END HOLE @ 4.8m							5.0
6.0								6.0

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LOGGED BY: JFP	COMPLETION DEPTH: 4.8 m
REVIEWED BY:	COMPLETE: 02/09/26
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2520
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	SURFICAL ORGANICS				
	SILTY SAND WITH GRAVEL (SM) -brown -dry, loose -organics throughout (roots)		442	SM	
1.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 15-25% +75mm material -maximum 250mm diameter				
2.0			443	GP	
3.0	-medium dense below 3.0m		444	GP	
4.0					
			445	GP	
5.0	END HOLE @ 5.0m				
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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LOGGED BY: JRP	COMPLETION DEPTH: 5.0 m
REVIEWED BY:	COMPLETE: 02/09/26
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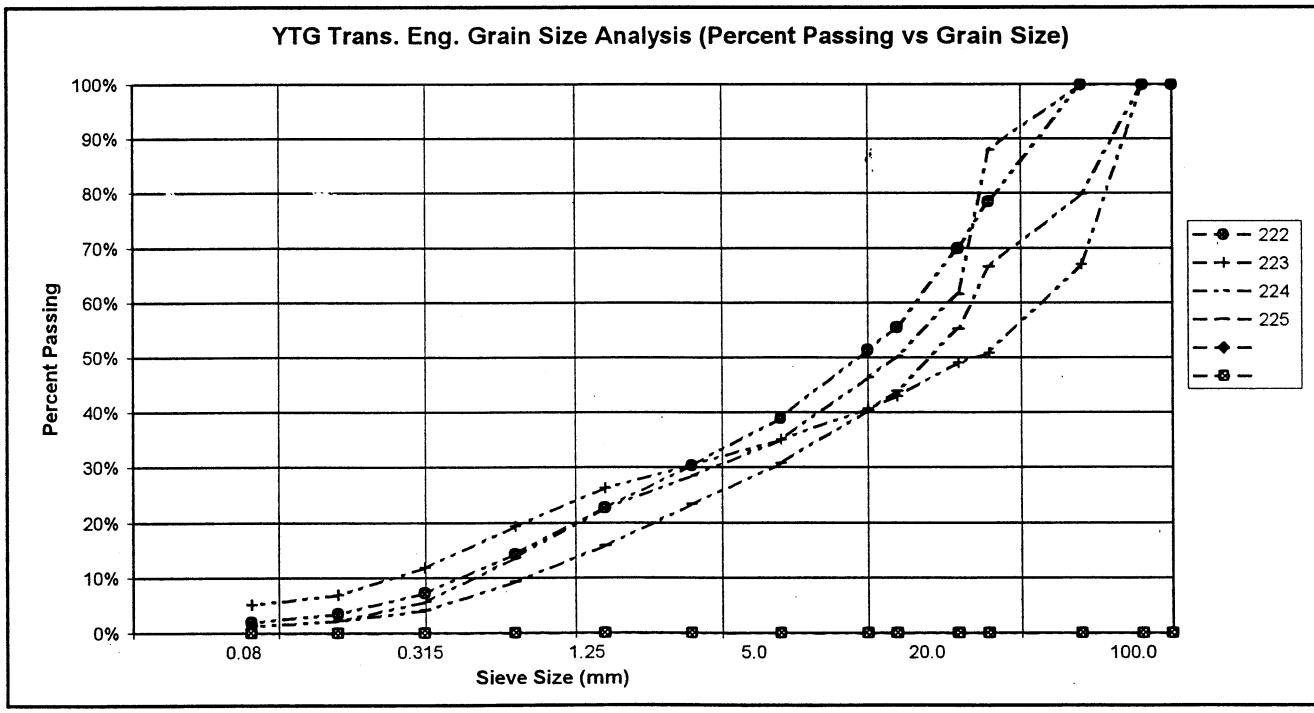
02/12/17 02:42PM

Km 1734.4 LHS Alaska Highway #1
Pit Ident. 115 G-21
(Nines Creek)

September 2002
Book # 638
Pit Run Sample Results

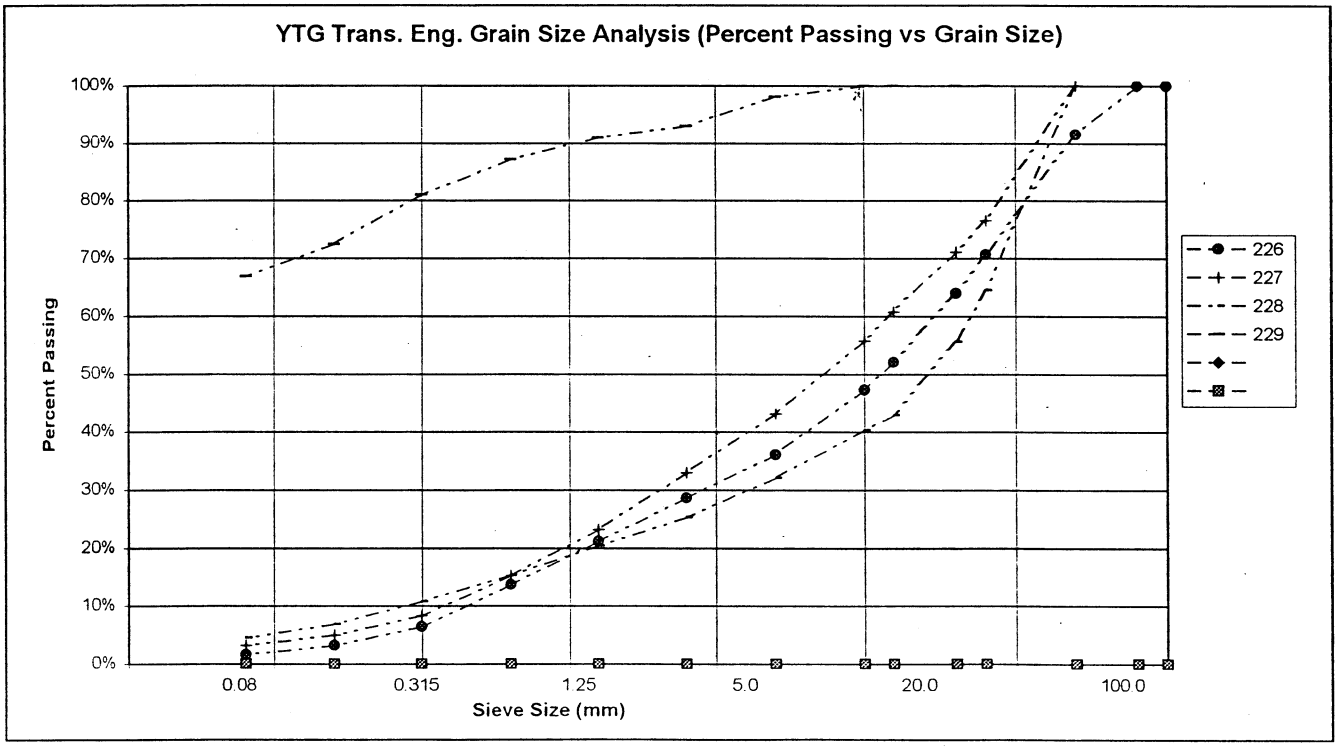
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2460
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 23/02

FIELD NO:	222	223	224	225		
LAB NO:	482	483	484	485		
DEPTH:	0.5-1.0	2.0-2.5	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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%	67%	100%	80%		
25.0	79%	51%	88%	67%		
20.0	70%	49%	62%	55%		
12.5	56%	43%	50%	44%		
10.0	51%	41%	46%	40%		
5.0	39%	35%	35%	31%		
2.5	30%	31%	29%	23%		
1.25	23%	26%	23%	16%		
0.630	14%	19%	14%	9%		
0.315	7%	12%	6%	4%		
0.160	4%	7%	2%	2%		
0.080	2%	5%	1%	1%		
M.C.(%):	2%	4%	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:	61	65	65	69		
% SAND:	37	30	34	29		
% FINES:	2	5	1	1		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		



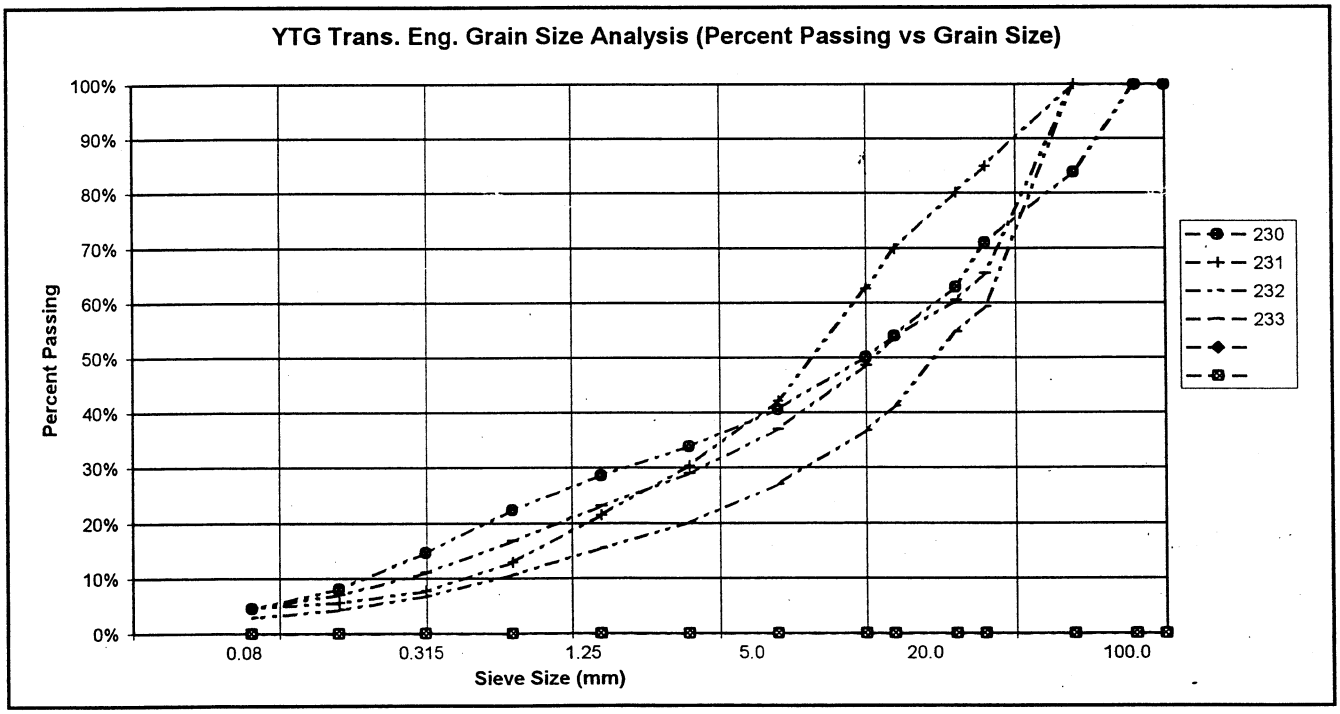
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CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 23/02

FIELD NO:	226	227	228	229		
LAB NO:	486	487	488	489		
DEPTH:	0.5-1.0	2.0-2.5	3.2-3.8	4.2-4.5		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	92%	100%	100%	100%		
25.0	71%	77%	65%	100%		
20.0	64%	71%	56%	100%		
12.5	52%	61%	43%	100%		
10.0	47%	56%	40%	100%		
5.0	36%	43%	32%	98%		
2.5	29%	33%	25%	93%		
1.25	21%	23%	20%	91%		
0.630	14%	15%	15%	87%		
0.315	7%	8%	11%	81%		
0.160	3%	5%	7%	72%		
0.080	2%	3%	5%	67%		
M.C.(%):	2%	3%	4%	50%		
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:	64	57	68	2		
% SAND:	34	40	28	31		
% FINES:	2	3	5	67		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	SANDY SILT (ML)		



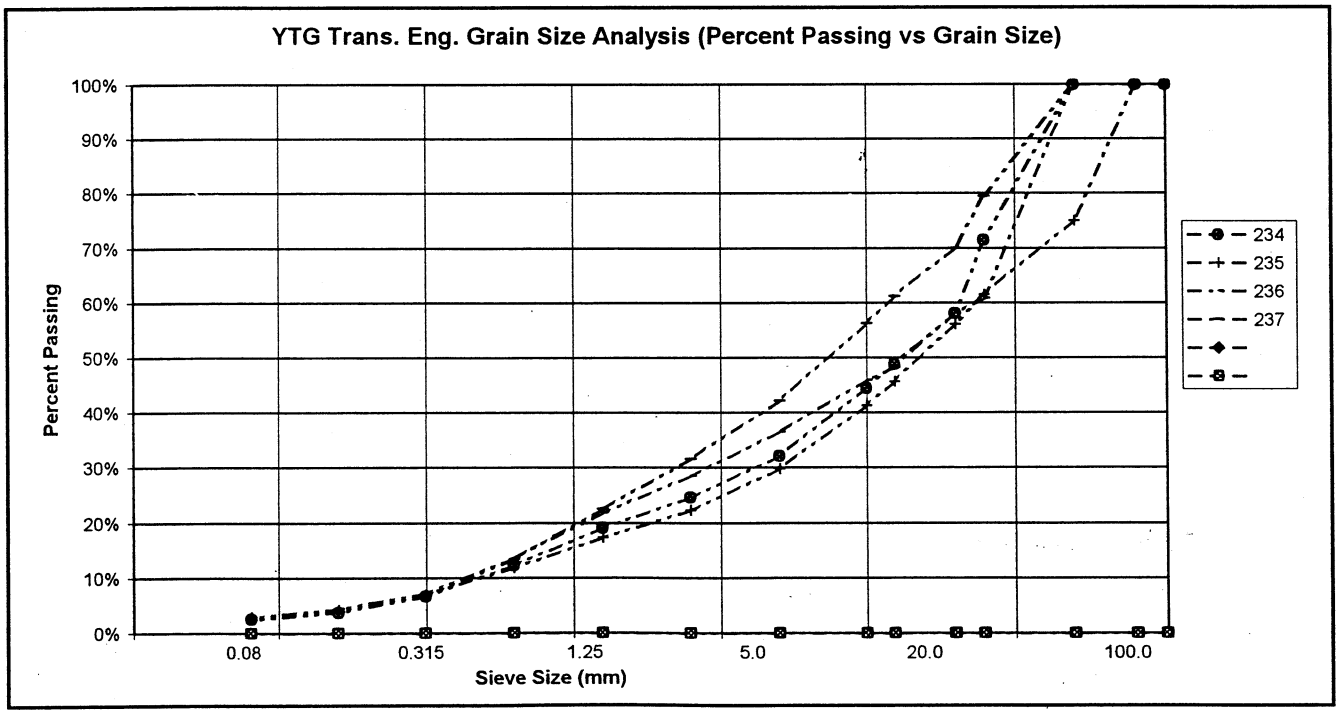
PROJECT NUMBER:	552-202101-0361-1	HOLE No.: 638-2462
CLIENT:	Engineering Capital	
PROJECT NAME:	Shakwak Granular Investigation	
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21	
DRILL UNIT:	Koehring 6625 Backhoe	
HOLE LOCATION:	SEE PLAN	
LOGGED BY:	JRP R.W.	DATE COMP: SEPT 23/02

FIELD NO:	230	231	232	233		
LAB NO:	490	491	492	493		
DEPTH:	0.5-1.0	2.0-2.5	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	84%	100%	100%	100%		
25.0	71%	85%	59%	65%		
20.0	63%	80%	55%	60%		
12.5	54%	70%	41%	54%		
10.0	50%	63%	37%	49%		
5.0	41%	42%	27%	37%		
2.5	34%	30%	20%	29%		
1.25	29%	22%	15%	23%		
0.630	22%	13%	11%	17%		
0.315	15%	8%	7%	11%		
0.160	8%	6%	4%	7%		
0.080	5%	5%	3%	5%		
M.C.(%):	2%	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:	59	58	73	63		
% SAND:	36	37	24	32		
% FINES:	5	5	3	5		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)		



PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2463
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 23/02

FIELD NO:	234	235	236	237		
LAB NO:	494	495	496	497		
DEPTH:	0.5-1.0	2.2-2.7	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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%	75%	100%	100%		
25.0	72%	61%	61%	79%		
20.0	58%	56%	58%	70%		
12.5	49%	46%	48%	61%		
10.0	44%	41%	46%	56%		
5.0	32%	30%	37%	42%		
2.5	25%	22%	28%	32%		
1.25	19%	17%	22%	23%		
0.630	12%	12%	14%	13%		
0.315	7%	7%	7%	7%		
0.160	4%	4%	4%	4%		
0.080	3%	3%	3%	3%		
M.C.(%):	2%	3%	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:	68	70	63	58		
% SAND:	30	27	34	40		
% FINES:	3	3	3	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

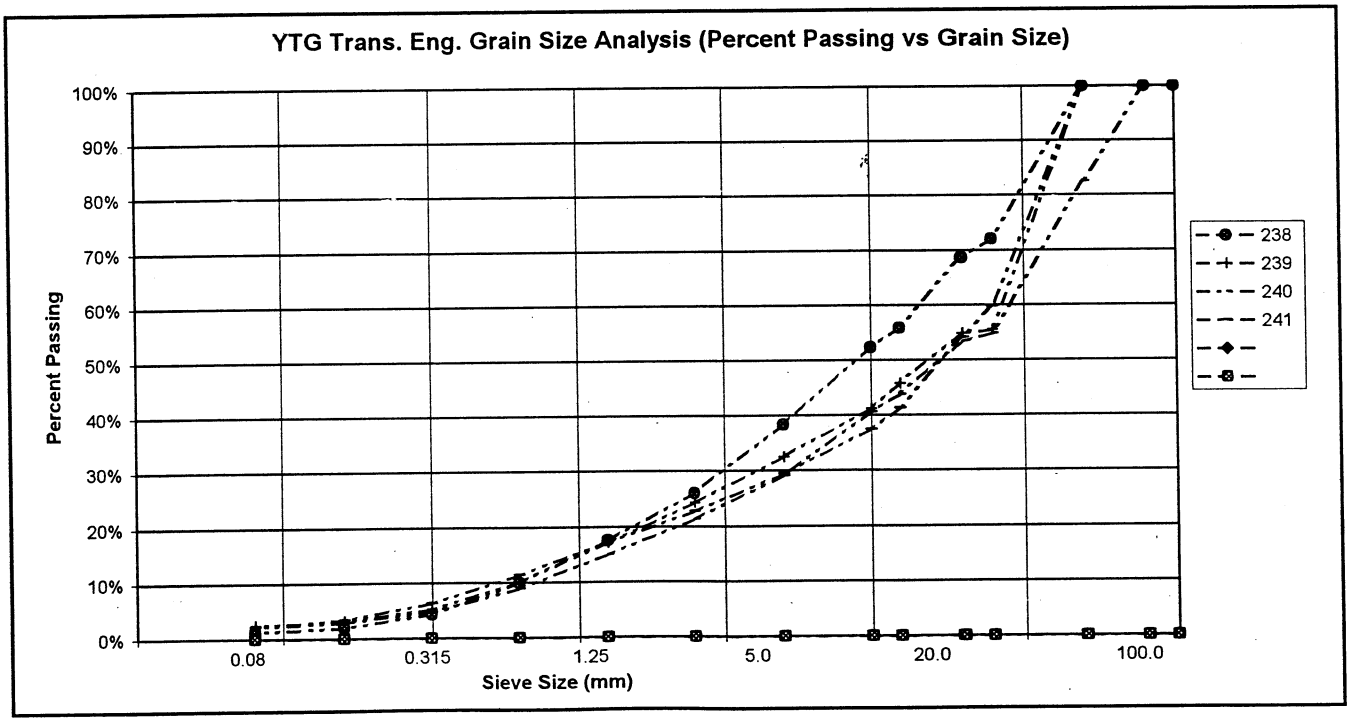


PROJECT NUMBER: 552-202101-0361-1
CLIENT: Engineering Capital
PROJECT NAME: Shakwak Granular Investigation
PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
DRILL UNIT: Koehring 6625 Backhoe
HOLE LOCATION: SEE PLAN
LOGGED BY: JRP R.W.

HOLE No.: 638-2464

DATE COMP: SEPT 23/02

FIELD NO:	238	239	240	241		
LAB NO:	498	499	500	501		
DEPTH:	0.5-1.0	2.0-2.5	3.0-3.5	3.5-4.0		
TYPE:	BULK	BULK	BULK	BULK		
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%	82%	100%		
25.0	72%	56%	55%	60%		
20.0	69%	55%	53%	54%		
12.5	56%	46%	44%	41%		
10.0	52%	41%	41%	37%		
5.0	38%	33%	29%	29%		
2.5	26%	24%	21%	23%		
1.25	18%	17%	15%	17%		
0.630	10%	10%	9%	11%		
0.315	4%	5%	5%	6%		
0.160	2%	3%	3%	3%		
0.080	1%	3%	2%	2%		
M.C.(%):	2%	3%	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:	62	67	71	71		
% SAND:	37	30	27	27		
% FINES:	1	3	2	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)		

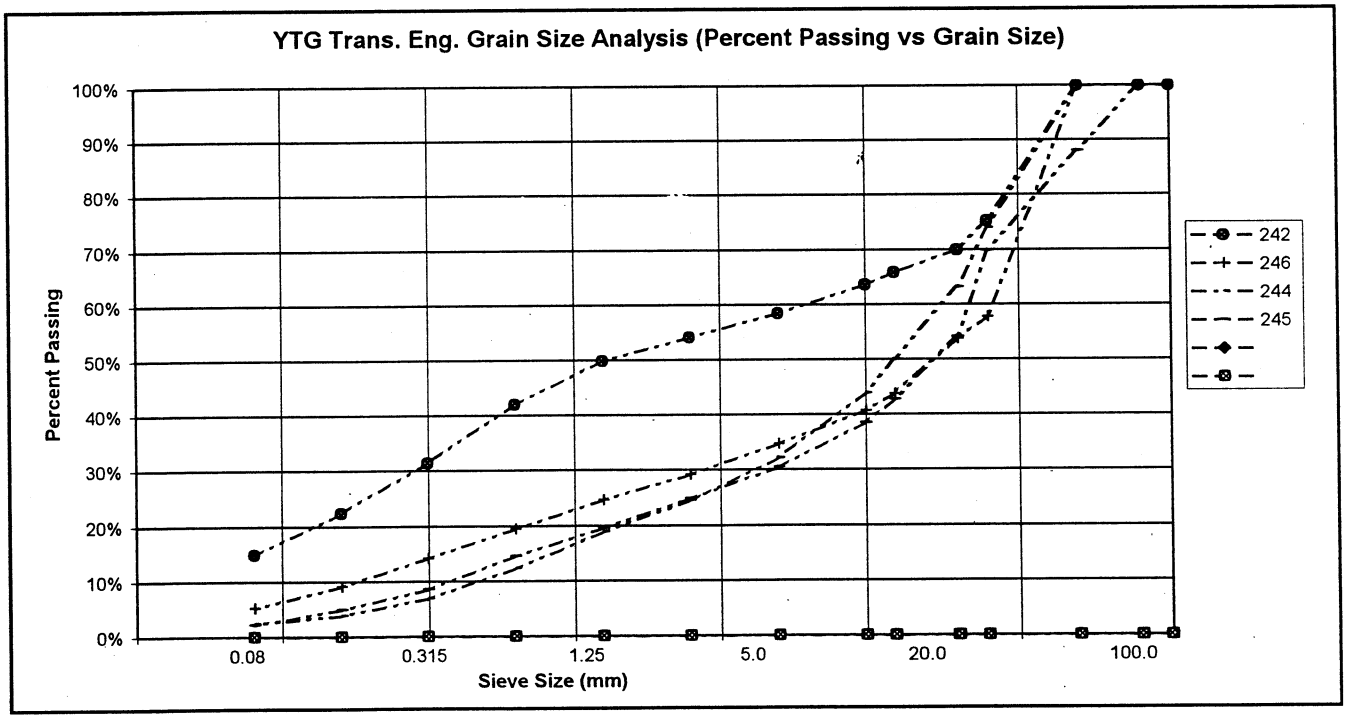


PROJECT NUMBER: 552-202101-0361-1
CLIENT: Engineering Capital
PROJECT NAME: Shakwak Granular Investigation
PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
DRILL UNIT: Koehring 6625 Backhoe
HOLE LOCATION: SEE PLAN
LOGGED BY: JRP R.W.

HOLE No.: 638-2465

DATE COMP: SEPT 23/02

FIELD NO:	242	246	244	245		
LAB NO:	502	503	504	505		
DEPTH:	0.5-1.0	2.2-2.8	3.2-3.8	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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	75%	58%	74%	70%		
20.0	70%	54%	63%	54%		
12.5	66%	44%	50%	43%		
10.0	64%	41%	44%	39%		
5.0	58%	35%	32%	30%		
2.5	54%	29%	25%	25%		
1.25	50%	25%	19%	20%		
0.630	42%	19%	12%	15%		
0.315	31%	14%	7%	9%		
0.160	22%	9%	4%	5%		
0.080	15%	5%	2%	2%		
M.C.(%):	5%	4%	2%	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	65	68	70		
% SAND:	44	29	30	28		
% FINES:	15	5	2	2		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

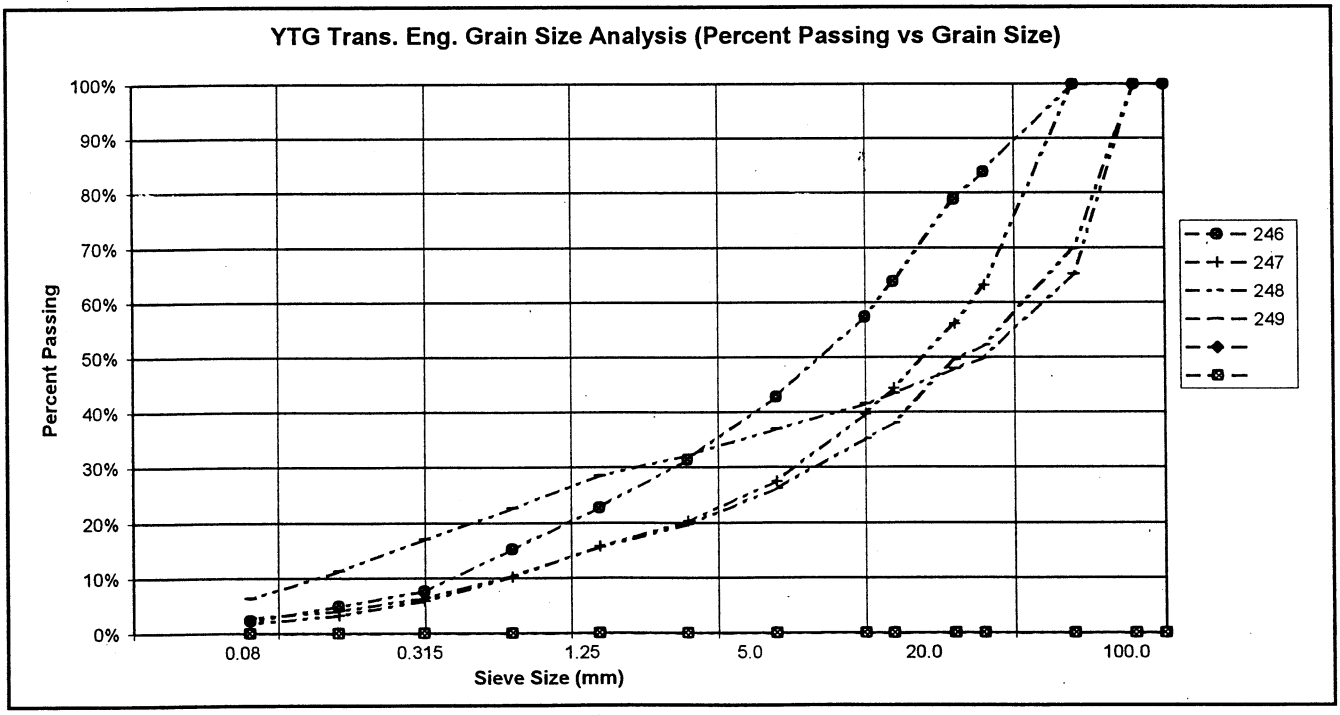


PROJECT NUMBER: 552-202101-0361-1
CLIENT: Engineering Capital
PROJECT NAME: Shakwak Granular Investigation
PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
DRILL UNIT: Koehring 6625 Backhoe
HOLE LOCATION: SEE PLAN
LOGGED BY: JRP R.W.

HOLE No.: 638-2466

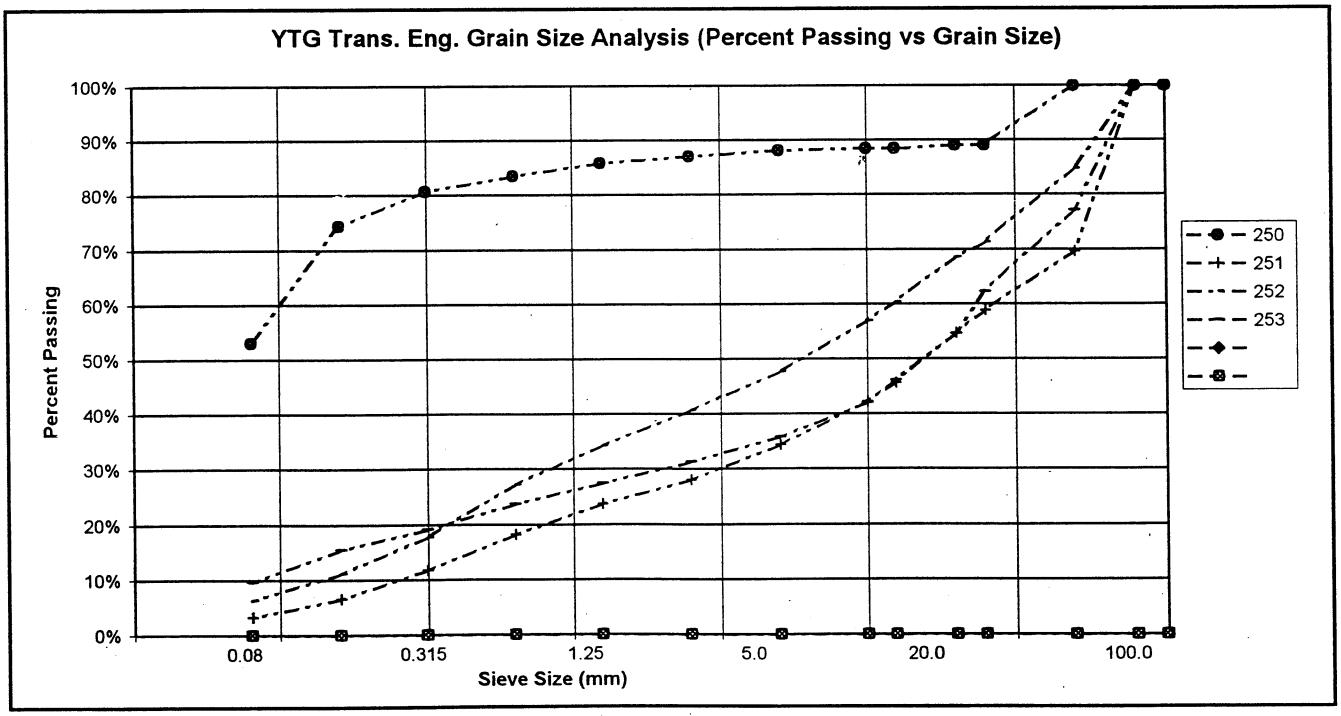
DATE COMP: SEPT 23/02

FIELD NO:	246	247	248	249		
LAB NO:	506	507	508	509		
DEPTH:	0.5-1.0	2.2-2.8	3.2-3.6	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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%	70%	65%		
25.0	84%	63%	52%	50%		
20.0	79%	56%	49%	48%		
12.5	64%	44%	38%	43%		
10.0	57%	40%	35%	42%		
5.0	43%	28%	26%	37%		
2.5	31%	20%	20%	32%		
1.25	23%	16%	16%	29%		
0.630	15%	10%	10%	23%		
0.315	8%	6%	6%	17%		
0.160	5%	3%	4%	11%		
0.080	2%	2%	3%	6%		
M.C.(%):	2%	2%	2%	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:	57	72	74	63		
% SAND:	40	26	23	31		
% FINES:	2	2	3	6		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



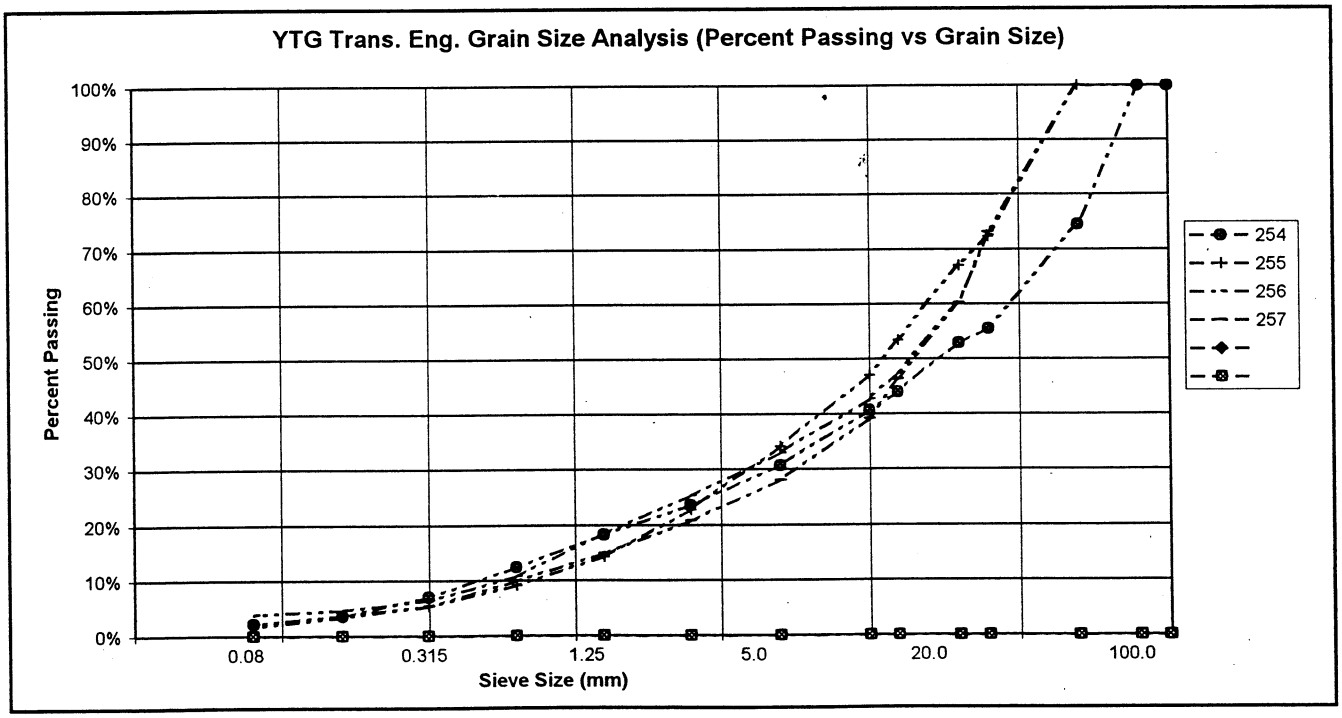
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2467
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 23/02

FIELD NO:	250	251	252	253		
LAB NO:	510	511	512	513		
DEPTH:	0.6-1.0	2.0-2.5	3.2-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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%	70%	85%	77%		
25.0	89%	59%	71%	62%		
20.0	89%	55%	69%	55%		
12.5	89%	46%	60%	46%		
10.0	89%	42%	57%	42%		
5.0	88%	34%	48%	36%		
2.5	87%	28%	41%	31%		
1.25	86%	24%	34%	27%		
0.630	84%	18%	27%	24%		
0.315	81%	12%	18%	19%		
0.160	74%	7%	11%	16%		
0.080	53%	3%	6%	10%		
M.C.(%):	9%	2%	3%	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:	12	66	52	64		
% SAND:	35	31	41	26		
% FINES:	53	3	6	10		
CLASSIFICATION	SANDY SILT (ML)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2468
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 23/02

FIELD NO:	254	255	256	257		
LAB NO:	514	515	516	517		
DEPTH:	0.5-1.0	1.8-2.4	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	75%	100%	100%	100%		
25.0	56%	72%	72%	73%		
20.0	53%	67%	60%	60%		
12.5	44%	53%	47%	46%		
10.0	41%	47%	43%	39%		
5.0	31%	34%	33%	28%		
2.5	24%	23%	25%	21%		
1.25	18%	14%	19%	15%		
0.630	12%	9%	11%	10%		
0.315	7%	5%	6%	5%		
0.160	4%	3%	5%	4%		
0.080	2%	2%	4%	2%		
M.C.(%):	2%	3%	4%	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:	69	66	67	72		
% SAND:	29	32	29	26		
% FINES:	2	2	4	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

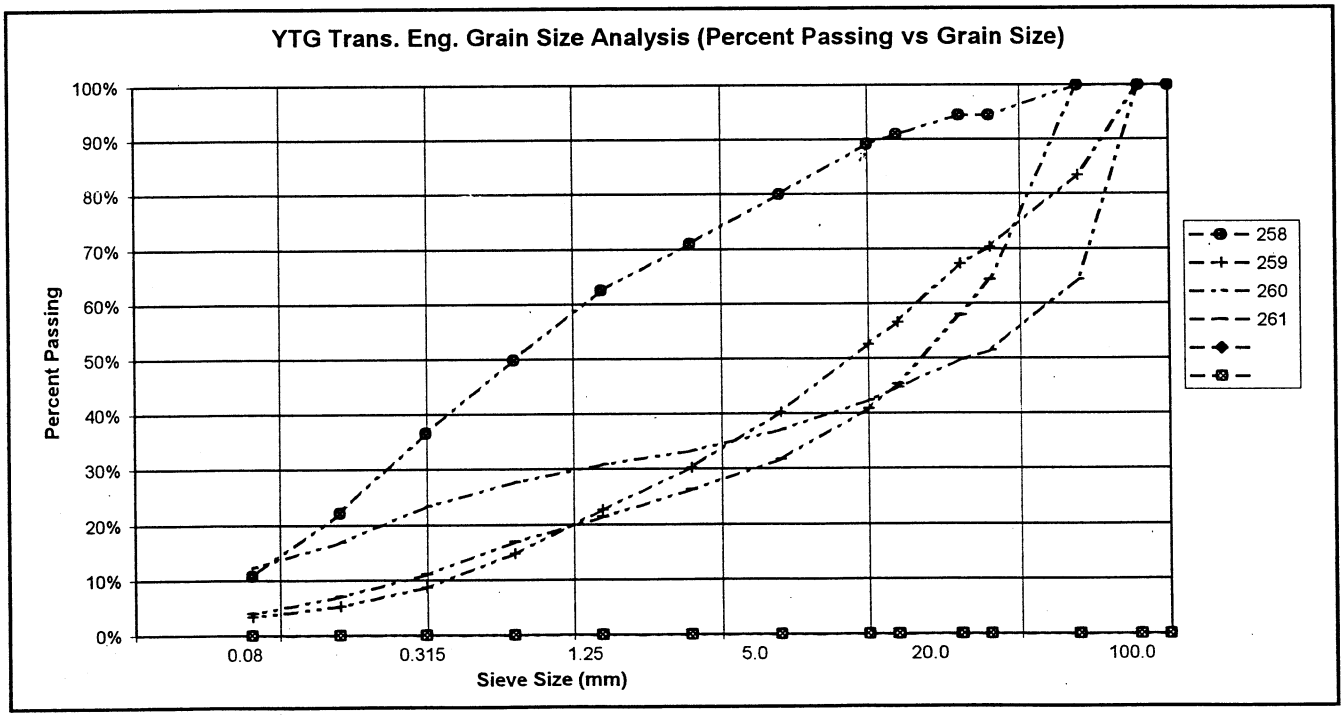


PROJECT NUMBER: 552-202101-0361-1
CLIENT: Engineering Capital
PROJECT NAME: Shakwak Granular Investigation
PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
DRILL UNIT: Koehring 6625 Backhoe
HOLE LOCATION: SEE PLAN
LOGGED BY: JRP R.W.

HOLE No.: 638-2469

DATE COMP: SEPT 23/02

FIELD NO:	258	259	260	261		
LAB NO:	518	519	520	521		
DEPTH:	1.6-2.0	2.2-2.8	3.6-4.2	4.5-5.0		
TYPE:	BULK	BULK	BULK	BULK		
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%	83%	64%	100%		
25.0	94%	70%	51%	64%		
20.0	94%	67%	50%	58%		
12.5	91%	57%	45%	45%		
10.0	89%	53%	42%	41%		
5.0	80%	40%	37%	32%		
2.5	71%	30%	33%	26%		
1.25	63%	23%	31%	21%		
0.630	50%	15%	28%	17%		
0.315	37%	9%	23%	11%		
0.160	22%	5%	17%	7%		
0.080	11%	3%	12%	4%		
M.C.(%):	4%	3%	12%	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:	20	60	63	68		
% SAND:	69	37	25	28		
% FINES:	11	3	12	4		
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY GRAVEL WITH SAND (GM)	POORLY GRADED GRAVEL WITH SAND (GP)		

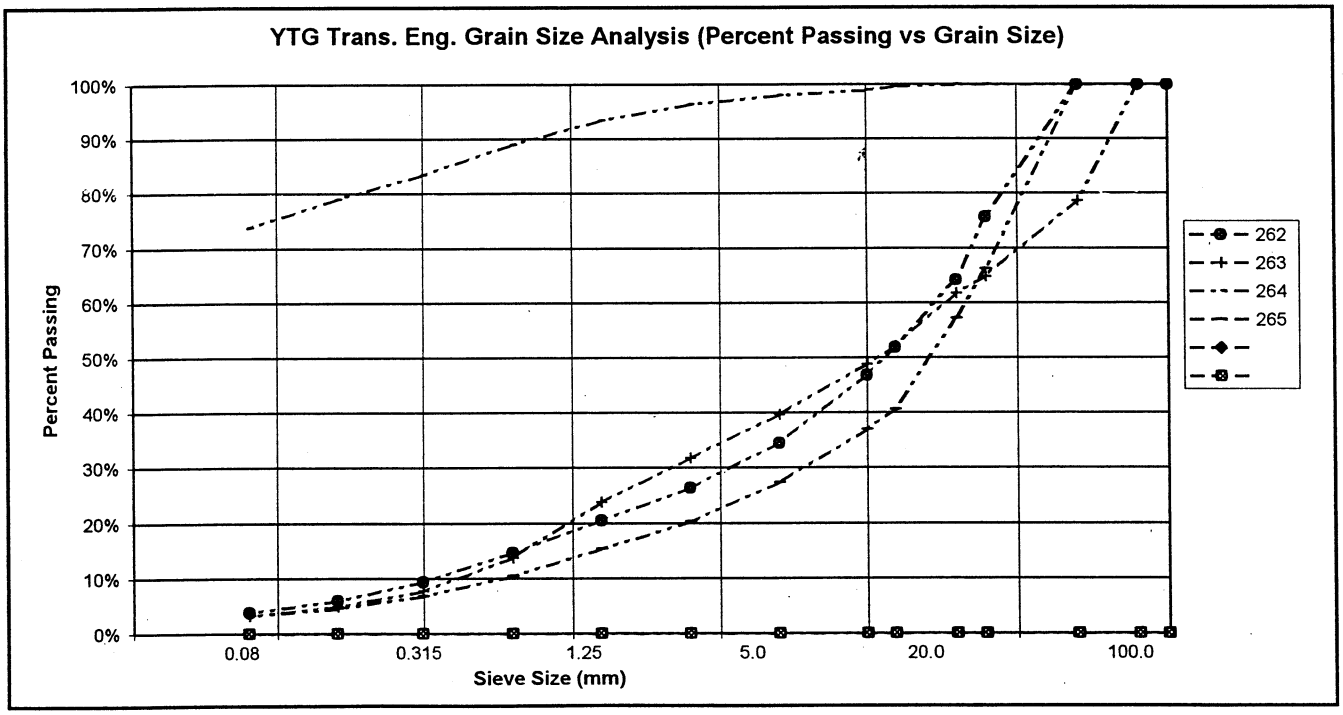


PROJECT NUMBER: 552-202101-0361-1
CLIENT: Engineering Capital
PROJECT NAME: Shakwak Granular Investigation
PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
DRILL UNIT: Koehring 6625 Backhoe
HOLE LOCATION: SEE PLAN
LOGGED BY: JRP R.W.

HOLE No.: 638-2470

DATE COMP: SEPT 23/02

FIELD NO:	262	263	264	265		
LAB NO:	522	523	524	525		
DEPTH:	0.5-1.0	1.8-2.3	2.8-3.2	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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%	79%	100%	100%		
25.0	76%	65%	100%	66%		
20.0	64%	62%	100%	57%		
12.5	52%	52%	100%	41%		
10.0	47%	49%	99%	37%		
5.0	35%	40%	98%	27%		
2.5	26%	32%	96%	20%		
1.25	21%	24%	93%	15%		
0.630	15%	14%	89%	10%		
0.315	9%	8%	83%	7%		
0.160	6%	5%	79%	5%		
0.080	4%	3%	74%	3%		
M.C.(%):	3%	3%	49%	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:	65	60	2	73		
% SAND:	31	36	24	24		
% FINES:	4	3	74	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	SILT WITH SAND (ML)	WELL-GRADED GRAVEL WITH SAND (GW)		

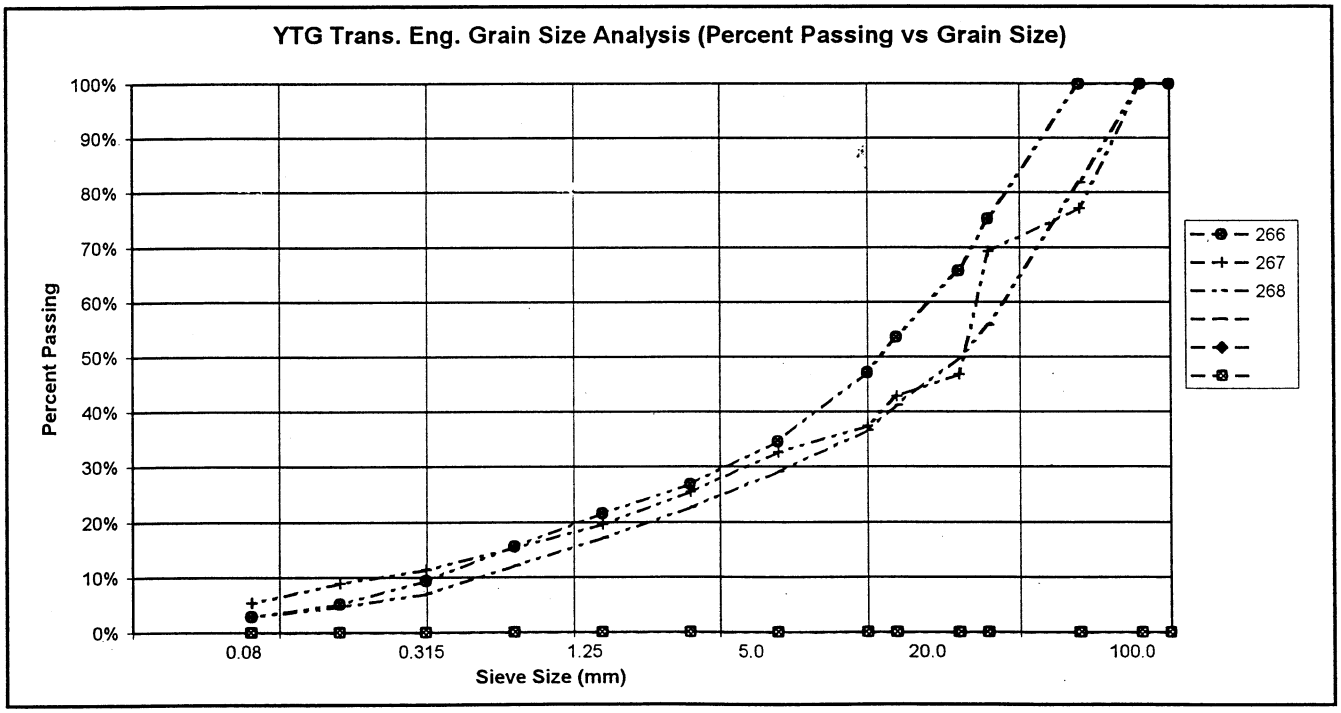


PROJECT NUMBER: 552-202101-0361-1
CLIENT: Engineering Capital
PROJECT NAME: Shakwak Granular Investigation
PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
DRILL UNIT: Koehring 6625 Backhoe
HOLE LOCATION: SEE PLAN
LOGGED BY: JRP R.W.

HOLE No.: 638-2471

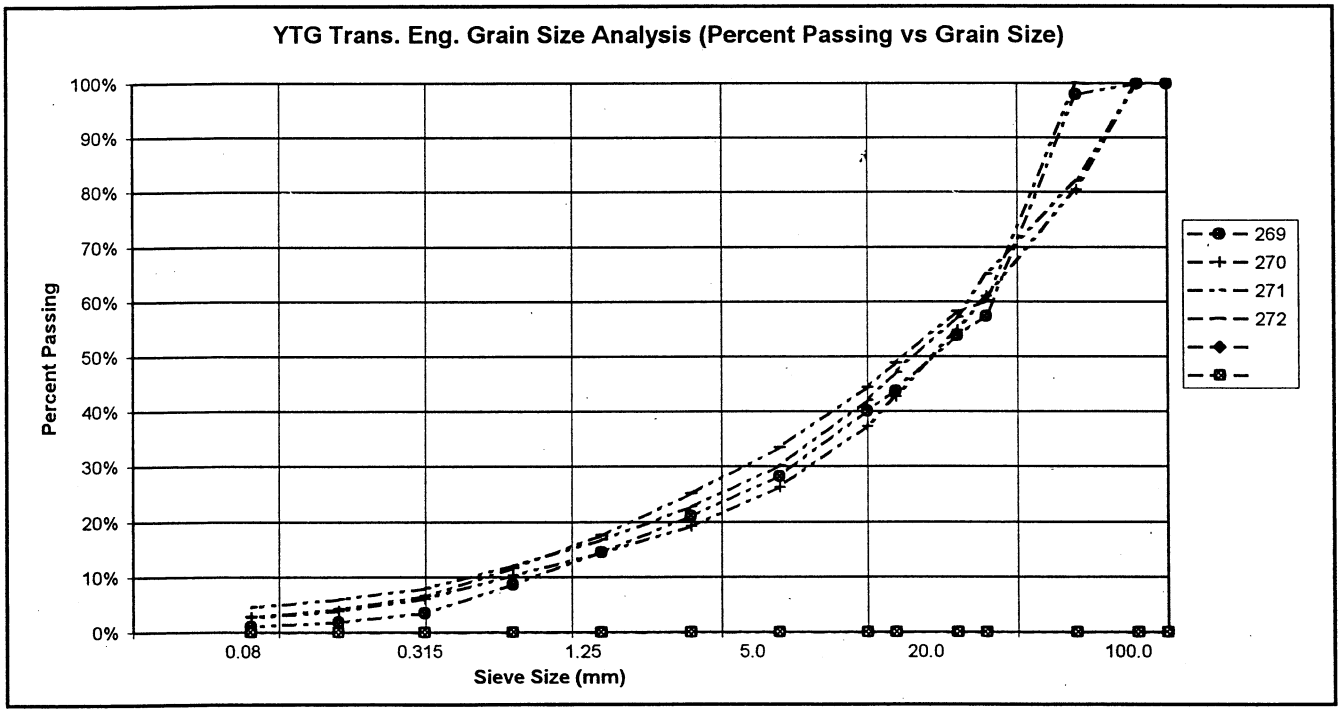
DATE COMP: SEPT 23/02

FIELD NO:	266	267	268			
LAB NO:	526	527	528			
DEPTH:	0.5-1.0	2.3-2.8	3.2-3.7			
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	77%	82%			
25.0	75%	69%	56%			
20.0	66%	47%	50%			
12.5	54%	43%	41%			
10.0	47%	37%	37%			
5.0	35%	33%	29%			
2.5	27%	26%	23%			
1.25	22%	20%	17%			
0.630	16%	15%	12%			
0.315	9%	11%	7%			
0.160	5%	9%	5%			
0.080	3%	5%	3%			
M.C.(%):	2%	4%	2%			
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:	65	67	71			
% SAND:	32	27	26			
% FINES:	3	5	3			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED GRAVEL WITH SAND (GW)			



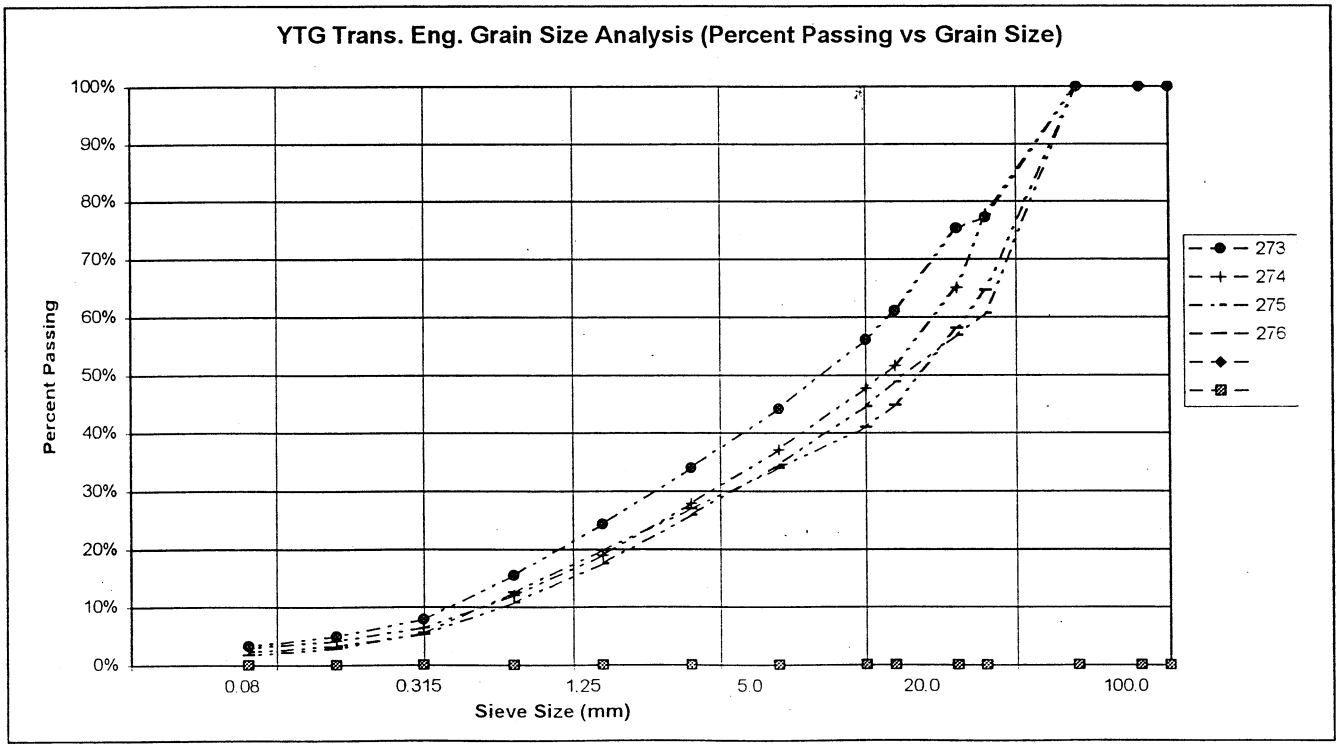
PROJECT NUMBER:	552-202101-0361-1	HOLE No.: 638-2472
CLIENT:	Engineering Capital	
PROJECT NAME:	Shakwak Granular Investigation	
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21	
DRILL UNIT:	Koehring 6625 Backhoe	
HOLE LOCATION:	SEE PLAN	
LOGGED BY:	JRP R.W.	DATE COMP: SEPT 23/02

FIELD NO:	269	270	271	272		
LAB NO:	529	230	231	532		
DEPTH:	0.8-1.3	2.0-2.5	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	98%	81%	82%	100%		
25.0	57%	61%	65%	60%		
20.0	54%	55%	57%	58%		
12.5	44%	43%	47%	49%		
10.0	40%	37%	42%	44%		
5.0	28%	26%	30%	33%		
2.5	21%	19%	23%	25%		
1.25	15%	14%	17%	18%		
0.630	9%	10%	12%	12%		
0.315	4%	6%	8%	7%		
0.160	2%	4%	6%	4%		
0.080	1%	3%	5%	3%		
M.C.(%):	2%	3%	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:	72	74	70	67		
% SAND:	27	24	26	31		
% FINES:	1	3	5	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		



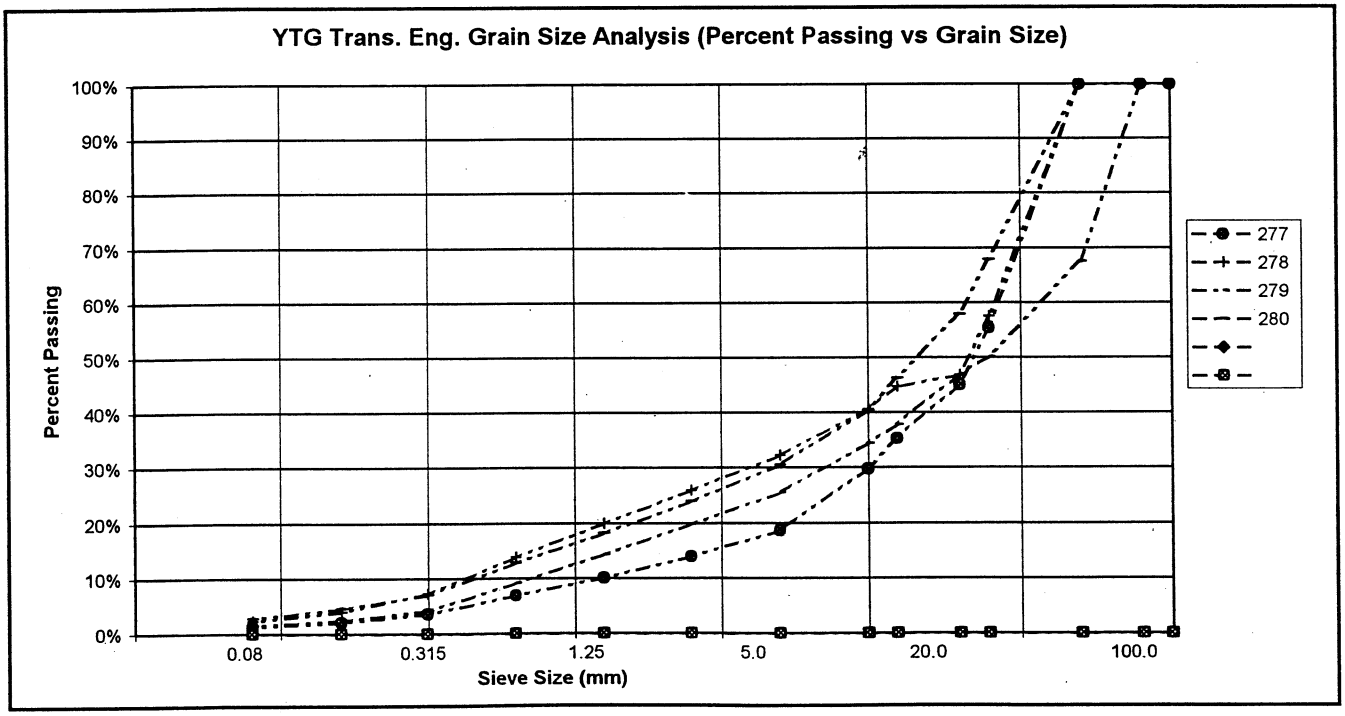
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2473
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 23/02

FIELD NO:	273	274	275	276		
LAB NO:	533	534	535	536		
DEPTH:	0.8-1.3	1.8-2.3	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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	77%	78%	61%	65%		
20.0	75%	65%	57%	58%		
12.5	61%	52%	49%	45%		
10.0	56%	48%	45%	41%		
5.0	44%	37%	35%	34%		
2.5	34%	28%	26%	27%		
1.25	24%	19%	18%	20%		
0.630	15%	12%	11%	13%		
0.315	8%	6%	5%	6%		
0.160	5%	4%	3%	3%		
0.080	3%	3%	2%	2%		
M.C.(%):	3%	3%	2%	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:	56	63	65	66		
% SAND:	41	34	32	32		
% FINES:	3	3	2	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		



PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2474
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 23/02

FIELD NO:	277	278	279	280		
LAB NO:	537	538	539	540		
DEPTH:	0.5-1.0	2.0-2.5	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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%	67%	100%		
25.0	55%	58%	50%	68%		
20.0	45%	47%	47%	58%		
12.5	35%	45%	38%	46%		
10.0	30%	41%	34%	40%		
5.0	19%	32%	26%	31%		
2.5	14%	26%	20%	24%		
1.25	10%	20%	14%	18%		
0.630	7%	14%	9%	13%		
0.315	4%	7%	4%	7%		
0.160	2%	4%	2%	5%		
0.080	1%	2%	2%	3%		
M.C.(%):	2%	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:	81	68	74	69		
% SAND:	17	30	24	28		
% FINES:	1	2	2	3		
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

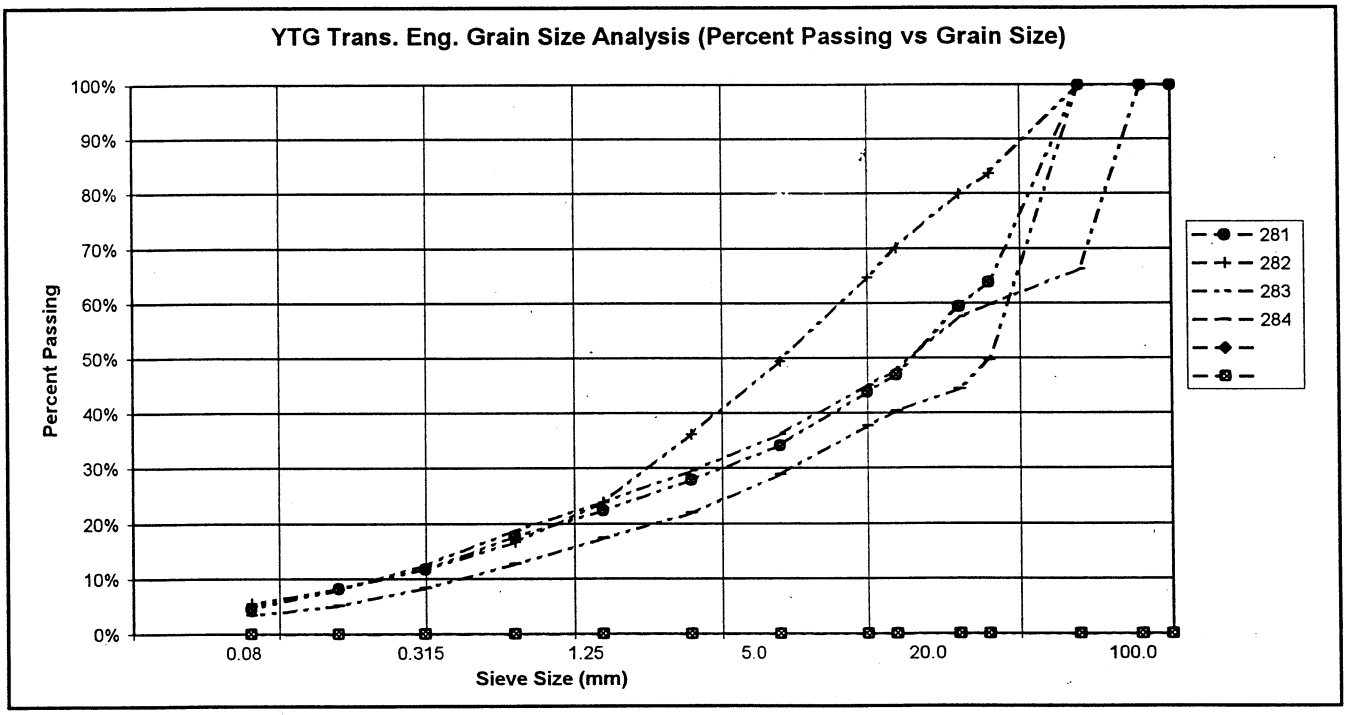


PROJECT NUMBER: 552-202101-0361-1
CLIENT: Engineering Capital
PROJECT NAME: Shakwak Granular Investigation
PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
DRILL UNIT: Koehring 6625 Backhoe
HOLE LOCATION: SEE PLAN
LOGGED BY: JRP R.W.

HOLE No.: 638-2475

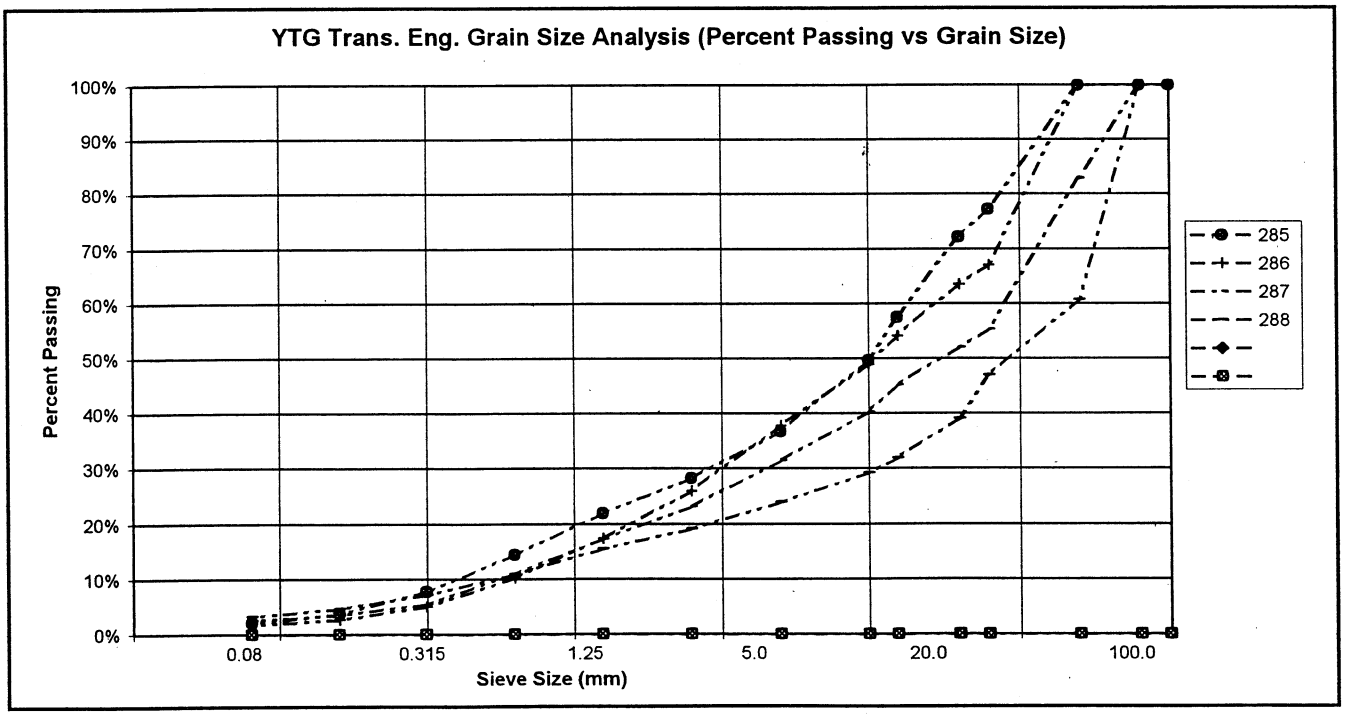
DATE COMP: SEPT 23/02

FIELD NO:	281	282	283	284		
LAB NO:	541	542	543	544		
DEPTH:	0.8-1.3	2.0-2.5	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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%	66%	100%		
25.0	64%	84%	60%	50%		
20.0	59%	80%	58%	44%		
12.5	47%	70%	48%	40%		
10.0	44%	65%	45%	38%		
5.0	34%	49%	36%	29%		
2.5	28%	36%	30%	22%		
1.25	22%	24%	24%	17%		
0.630	18%	17%	19%	13%		
0.315	12%	12%	13%	8%		
0.160	8%	8%	8%	5%		
0.080	5%	5%	5%	3%		
M.C.(%):	3%	3%	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:	66	51	64	71		
% SAND:	30	44	31	25		
% FINES:	5	5	5	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED GRAVEL WITH SAND (GW)		



PROJECT NUMBER:	552-202101-0361-1	HOLE No.: 638-2476
CLIENT:	Engineering Capital	
PROJECT NAME:	Shakwak Granular Investigation	
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21	
DRILL UNIT:	Koehring 6625 Backhoe	
HOLE LOCATION:	SEE PLAN	
LOGGED BY:	JRP R.W.	DATE COMP: SEPT 24/02

FIELD NO:	285	286	287	288		
LAB NO:	545	546	547	548		
DEPTH:	0.5-1.0	2.0-2.5	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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%	83%	61%		
25.0	77%	67%	55%	47%		
20.0	72%	63%	52%	39%		
12.5	57%	54%	45%	32%		
10.0	50%	49%	40%	29%		
5.0	37%	38%	31%	24%		
2.5	28%	26%	23%	19%		
1.25	22%	17%	17%	15%		
0.630	14%	10%	11%	11%		
0.315	8%	5%	6%	7%		
0.160	4%	3%	4%	5%		
0.080	2%	2%	3%	3%		
M.C.(%):	2%	2%	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:	63	62	69	76		
% SAND:	35	36	29	21		
% FINES:	2	2	3	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)		

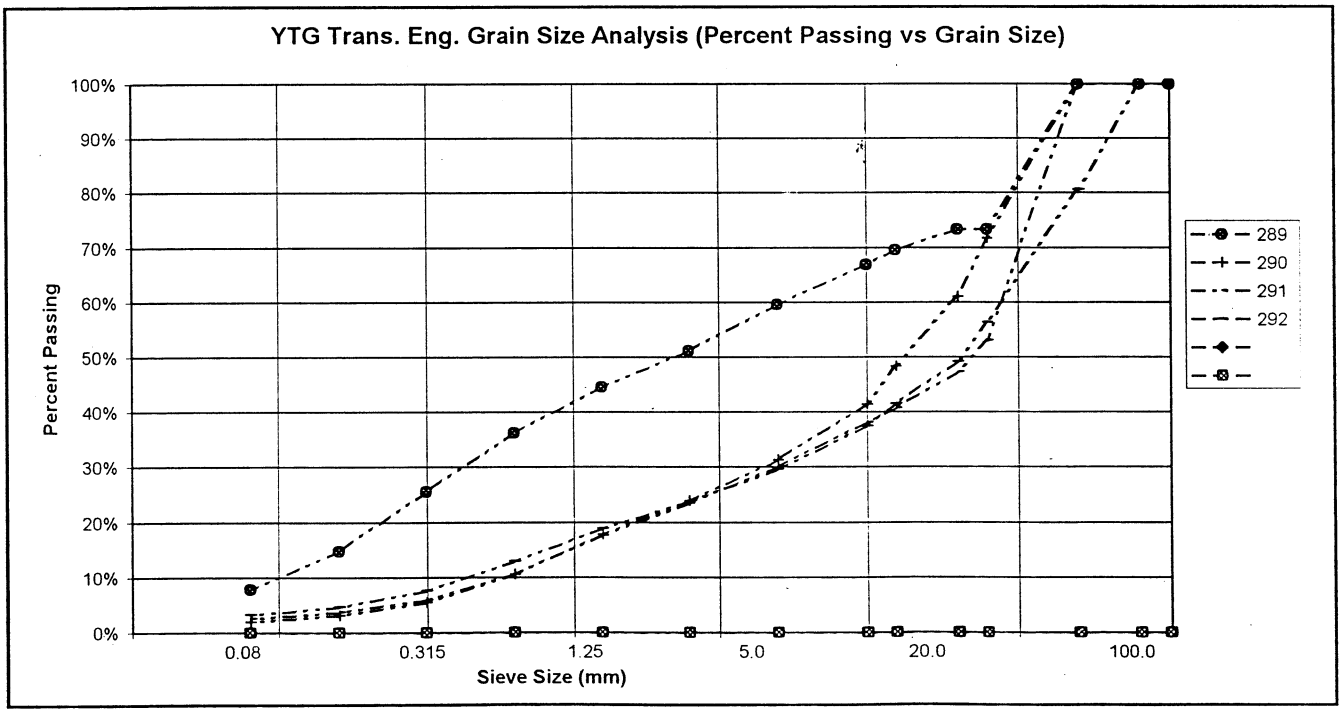


PROJECT NUMBER: 552-202101-0361-1
CLIENT: Engineering Capital
PROJECT NAME: Shakwak Granular Investigation
PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
DRILL UNIT: Koehring 6625 Backhoe
HOLE LOCATION: SEE PLAN
LOGGED BY: JRP R.W.

HOLE No.: 638-2477

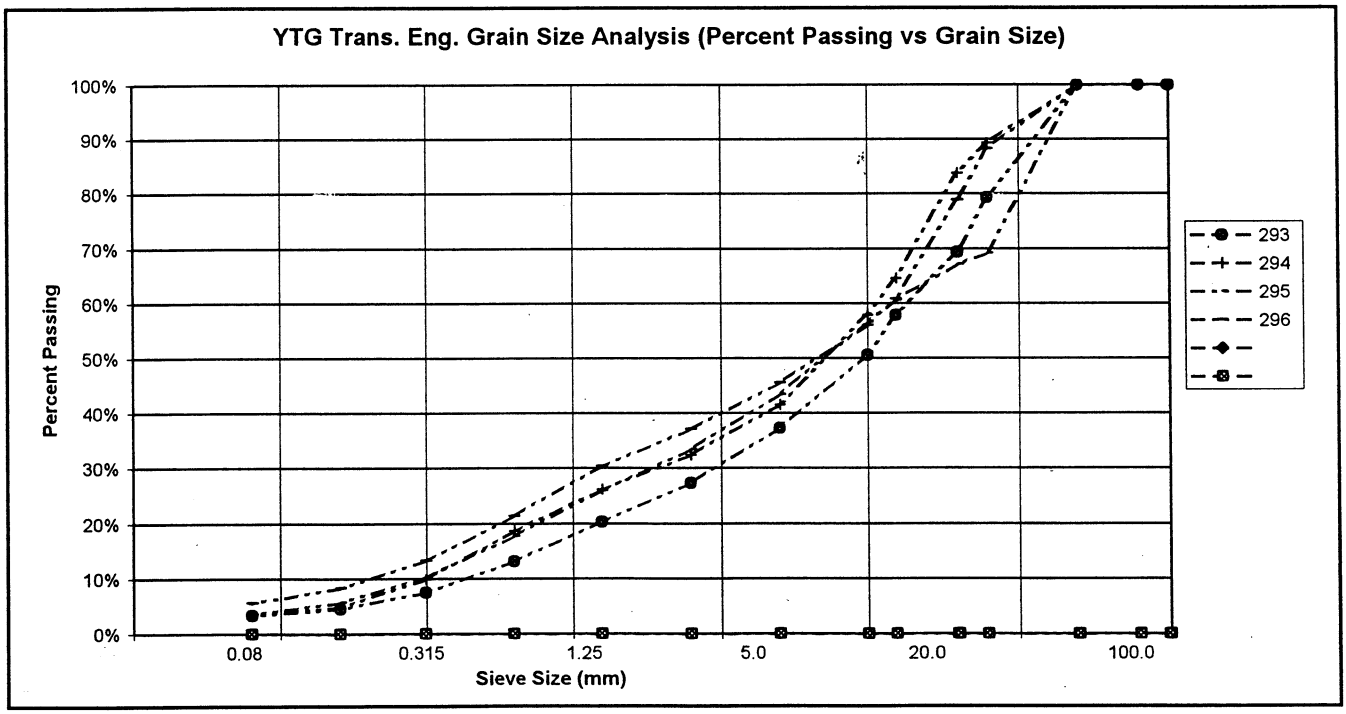
DATE COMP: SEPT 24/02

FIELD NO:	289	290	291	292		
LAB NO:	549	550	551	552		
DEPTH:	0.7-1.2	2.2-2.7	3.2-3.7	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	81%		
25.0	73%	72%	53%	56%		
20.0	73%	61%	47%	49%		
12.5	70%	48%	41%	42%		
10.0	67%	41%	38%	37%		
5.0	60%	31%	30%	30%		
2.5	51%	24%	23%	24%		
1.25	45%	18%	18%	19%		
0.630	36%	11%	11%	13%		
0.315	26%	5%	6%	8%		
0.160	15%	3%	4%	5%		
0.080	8%	2%	3%	3%		
M.C.(%):	3%	3%	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:	40	69	70	70		
% SAND:	52	29	28	26		
% FINES:	8	2	3	3		
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)		



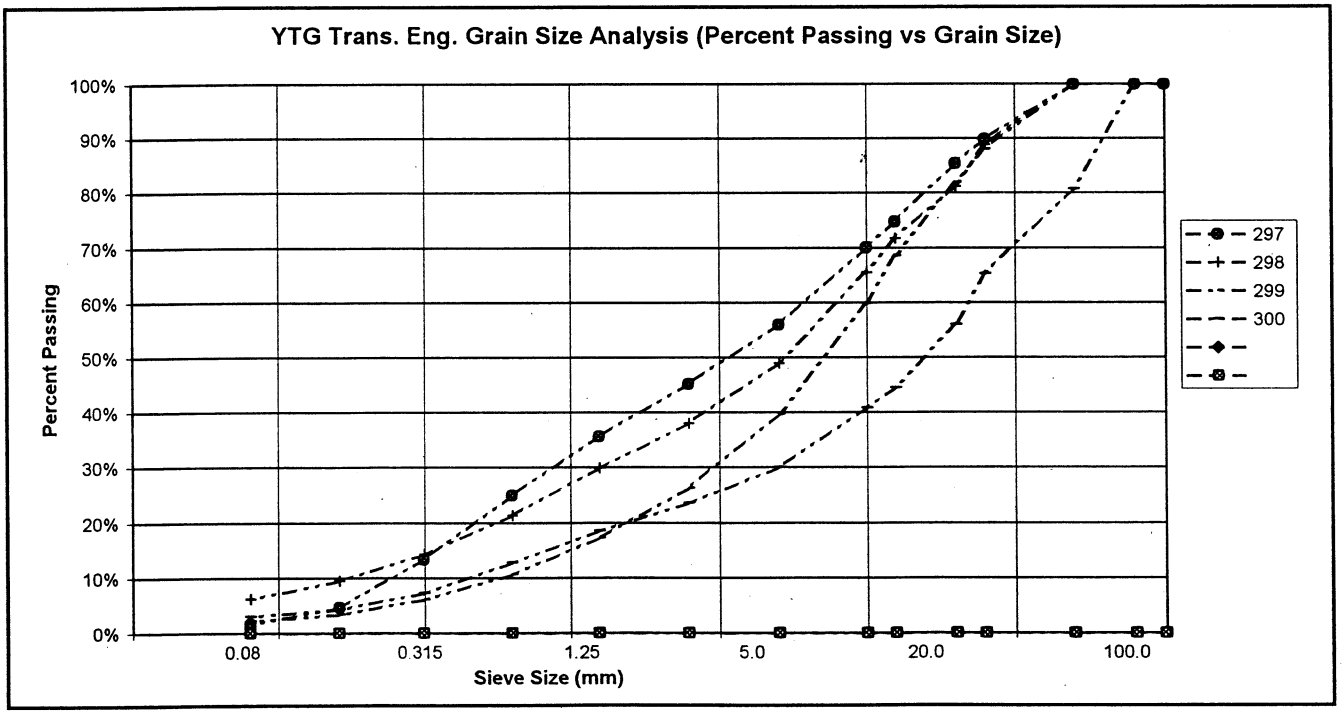
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2478
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 24/02

FIELD NO:	293	294	295	296		
LAB NO:	553	554	555	556		
DEPTH:	0.5-1.0	2.0-2.5	3.0-3.5	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	89%	69%	88%		
20.0	69%	84%	67%	79%		
12.5	58%	65%	61%	61%		
10.0	51%	58%	57%	56%		
5.0	37%	42%	43%	46%		
2.5	27%	32%	33%	37%		
1.25	20%	26%	26%	30%		
0.630	13%	19%	18%	21%		
0.315	7%	10%	10%	13%		
0.160	5%	5%	6%	8%		
0.080	3%	3%	4%	6%		
M.C.(%):	3%	3%	3%	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:	63	58	57	54		
% SAND:	34	38	40	40		
% FINES:	3	3	4	6		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2479
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 24/02

FIELD NO:	297	298	299	300		
LAB NO:	557	558	559	560		
DEPTH:	0.5-1.0	2.2-2.7	3.2-3.7	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	81%		
25.0	90%	89%	88%	65%		
20.0	85%	81%	82%	56%		
12.5	75%	72%	68%	45%		
10.0	70%	66%	60%	41%		
5.0	56%	49%	40%	30%		
2.5	45%	38%	26%	24%		
1.25	36%	30%	17%	19%		
0.630	25%	21%	11%	13%		
0.315	13%	14%	6%	7%		
0.160	5%	10%	3%	4%		
0.080	2%	6%	2%	3%		
M.C.(%):	2%	2%	2%	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:	44	51	60	70		
% SAND:	54	43	37	27		
% FINES:	2	6	2	3		
CLASSIFICATION	WELL-GRADED SAND WITH GRAVEL (SW)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

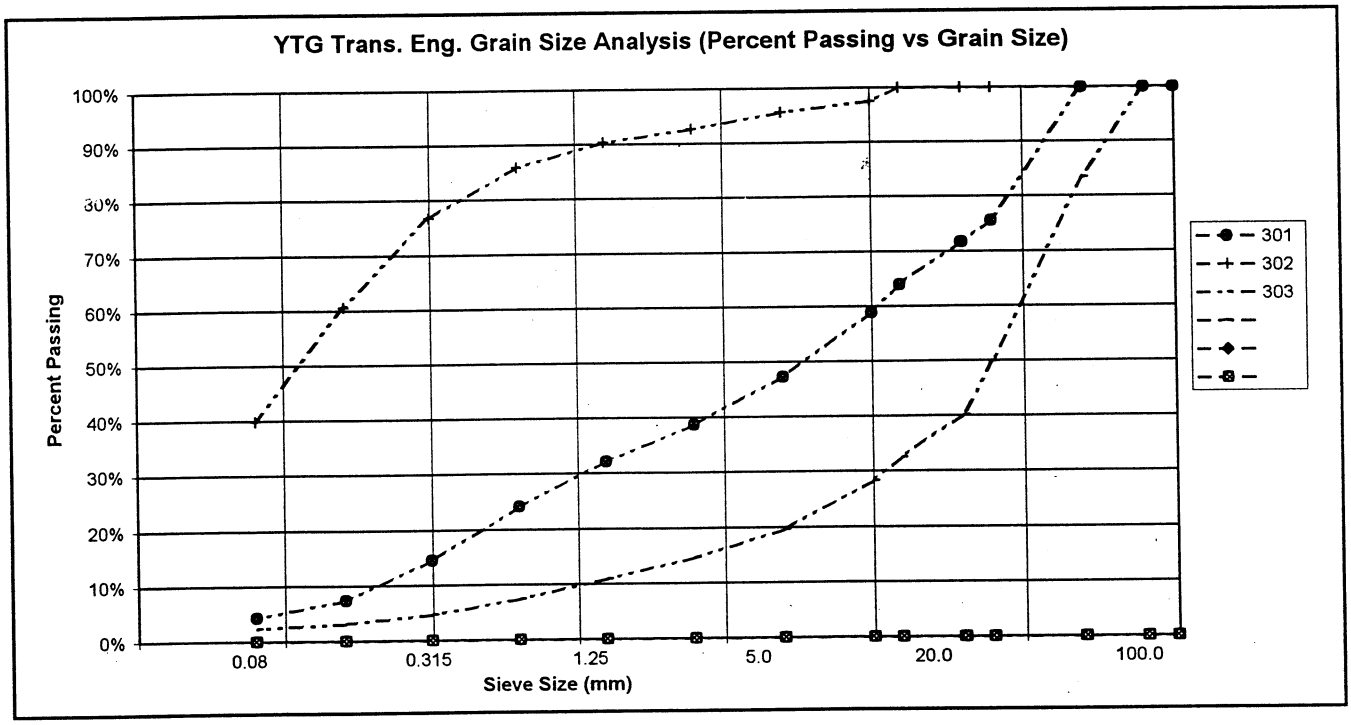


PROJECT NUMBER: 552-202101-0361-1
CLIENT: Engineering Capital
PROJECT NAME: Shakwak Granular Investigation
PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
DRILL UNIT: Koehring 6625 Backhoe
HOLE LOCATION: SEE PLAN
LOGGED BY: JRP R.W.

HOLE No.: 638-2480

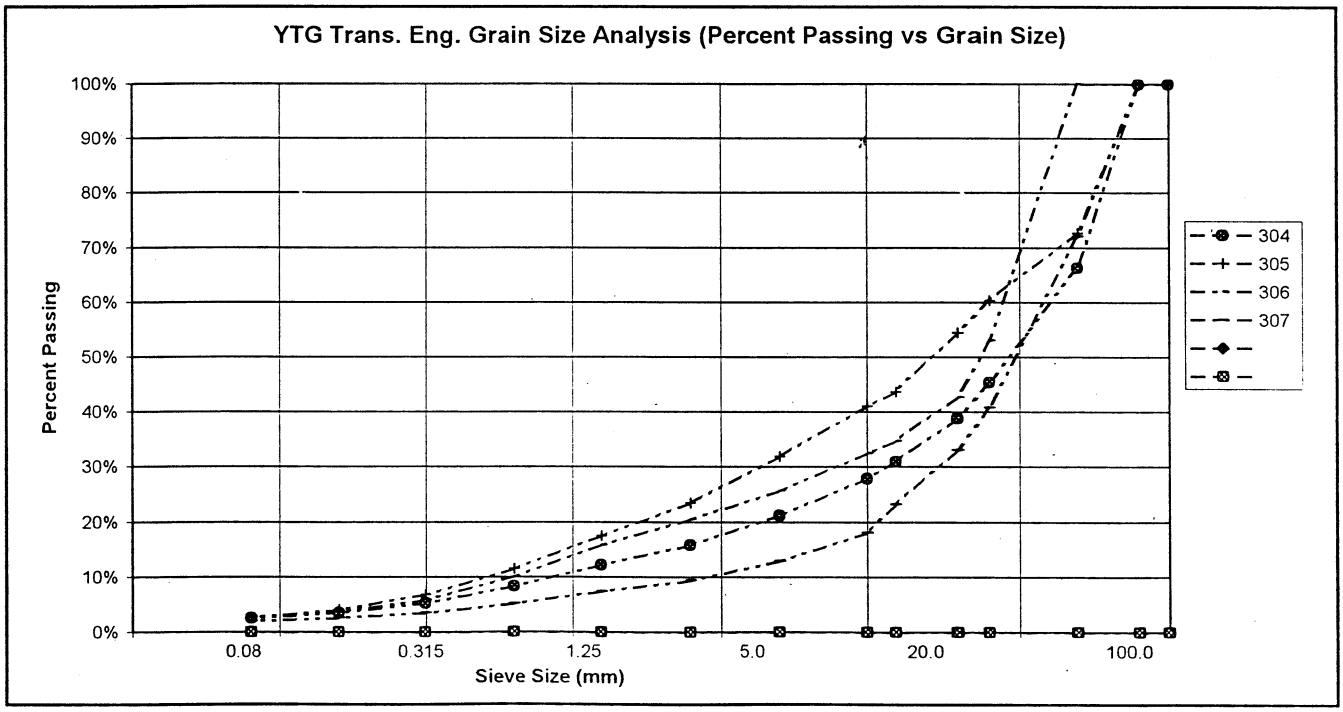
DATE COMP: SEPT 24/02

FIELD NO:	301	302	303			
LAB NO:	561	562	563			
DEPTH:	0.5-1.0	1.5-1.7	2.2-2.4			
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	83%			
25.0	76%	100%	50%			
20.0	72%	100%	40%			
12.5	64%	100%	33%			
10.0	59%	98%	28%			
5.0	47%	96%	20%			
2.5	39%	93%	15%			
1.25	32%	90%	11%			
0.630	24%	86%	7%			
0.315	15%	77%	5%			
0.160	7%	61%	3%			
0.080	4%	40%	2%			
M.C.(%):	4%	43%	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:	53	4	80			
% SAND:	43	56	17			
% FINES:	4	40	2			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND (SM)	WELL-GRADED GRAVEL WITH SAND (GW)			



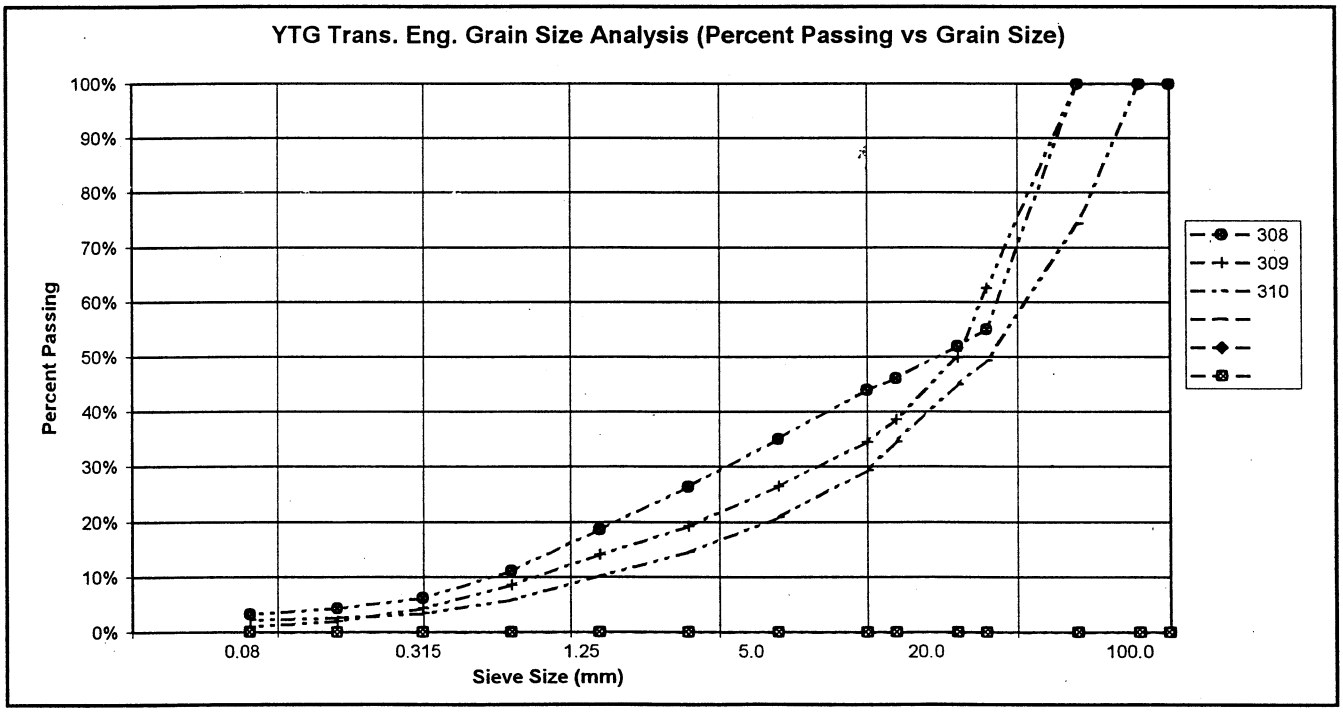
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2481
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 24/02

FIELD NO:	304	305	306	307		
LAB NO:	564	565	566	567		
DEPTH:	0.5-1.0	2.0-2.5	2.7-3.2	3.2-3.6		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	66%	73%	100%	72%		
25.0	45%	60%	53%	41%		
20.0	39%	54%	43%	33%		
12.5	31%	44%	35%	23%		
10.0	28%	41%	33%	18%		
5.0	21%	32%	26%	13%		
2.5	16%	23%	20%	9%		
1.25	12%	17%	16%	7%		
0.630	8%	12%	10%	5%		
0.315	5%	7%	6%	4%		
0.160	4%	4%	4%	3%		
0.080	3%	3%	3%	2%		
M.C.(%):	4%	3%	4%	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:	79	68	74	87		
% SAND:	19	29	23	11		
% FINES:	3	3	3	2		
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL (GP)		



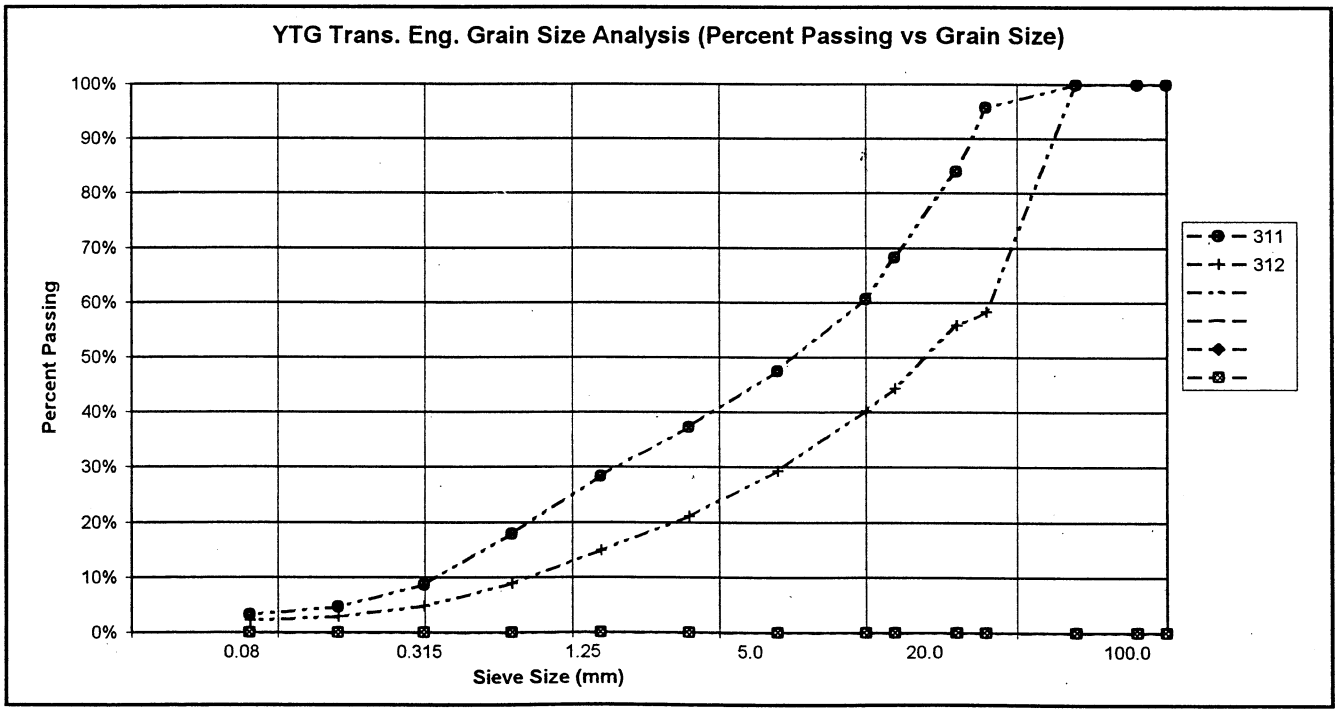
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2482
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 24/02

FIELD NO:	308	309	310			
LAB NO:	568	569	570			
DEPTH:	0.5-1.0	2.0-2.5	2.7-2.9			
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	74%			
25.0	55%	63%	49%			
20.0	52%	50%	45%			
12.5	46%	39%	35%			
10.0	44%	34%	29%			
5.0	35%	27%	21%			
2.5	26%	19%	15%			
1.25	19%	14%	10%			
0.630	11%	9%	6%			
0.315	6%	4%	3%			
0.160	4%	2%	3%			
0.080	3%	1%	2%			
M.C.(%):	3%	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:	65	73	79			
% SAND:	32	26	19			
% FINES:	3	1	2			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)			



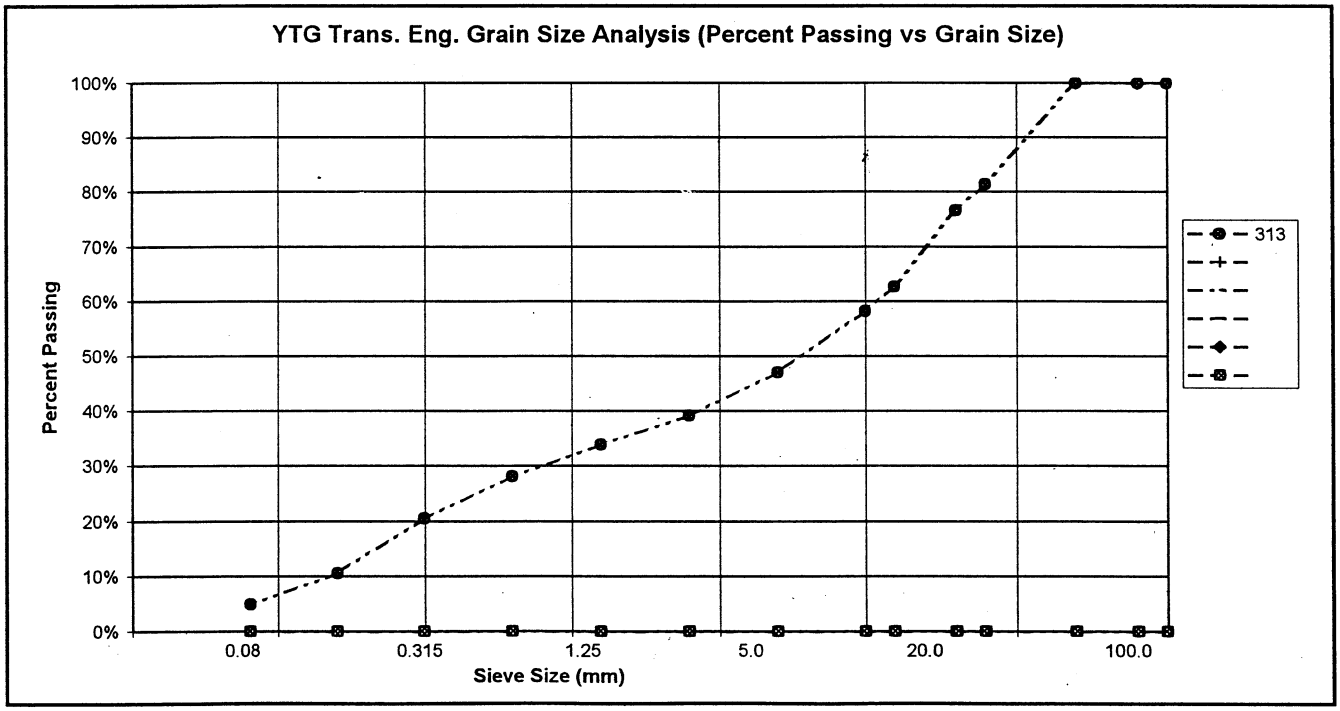
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2483
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 24/02

FIELD NO:	311	312				
LAB NO:	571	572				
DEPTH:	0.5-1.0	2.1-2.3				
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	96%	58%				
20.0	84%	56%				
12.5	68%	44%				
10.0	61%	40%				
5.0	48%	29%				
2.5	37%	21%				
1.25	28%	15%				
0.630	18%	9%				
0.315	9%	5%				
0.160	5%	3%				
0.080	3%	2%				
M.C.(%):	3%	6%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	52	71				
% SAND:	44	27				
% FINES:	3	2				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)				



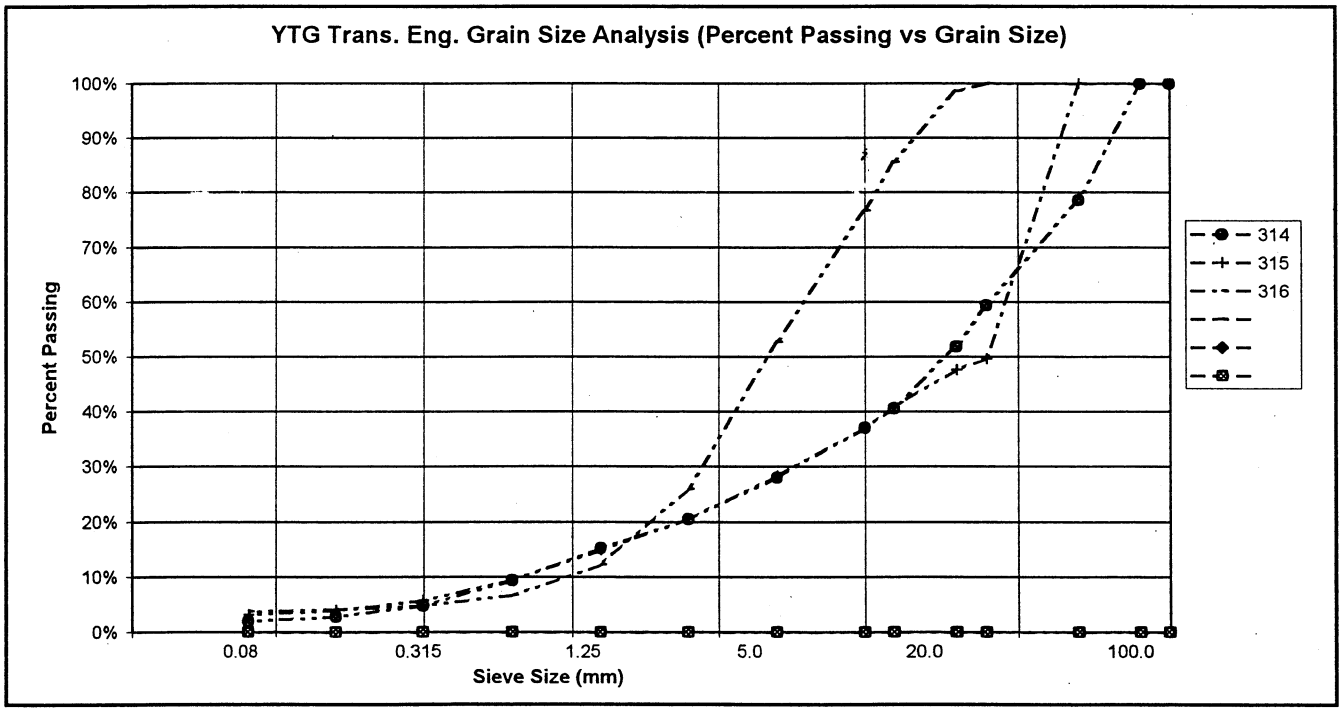
PROJECT NUMBER:	552-202101-0361-1	HOLE No.: 638-2484
CLIENT:	Engineering Capital	
PROJECT NAME:	Shakwak Granular Investigation	
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21	
DRILL UNIT:	Koehring 6625 Backhoe	
HOLE LOCATION:	SEE PLAN	
LOGGED BY:	JRP R.W.	DATE COMP: SEPT 24/02

FIELD NO:	313					
LAB NO:	573					
DEPTH:	0.5-1.0					
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	81%					
20.0	77%					
12.5	63%					
10.0	58%					
5.0	47%					
2.5	39%					
1.25	34%					
0.630	28%					
0.315	21%					
0.160	11%					
0.080	5%					
M.C.(%):	12%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	53					
% SAND:	42					
% FINES:	5					
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)					



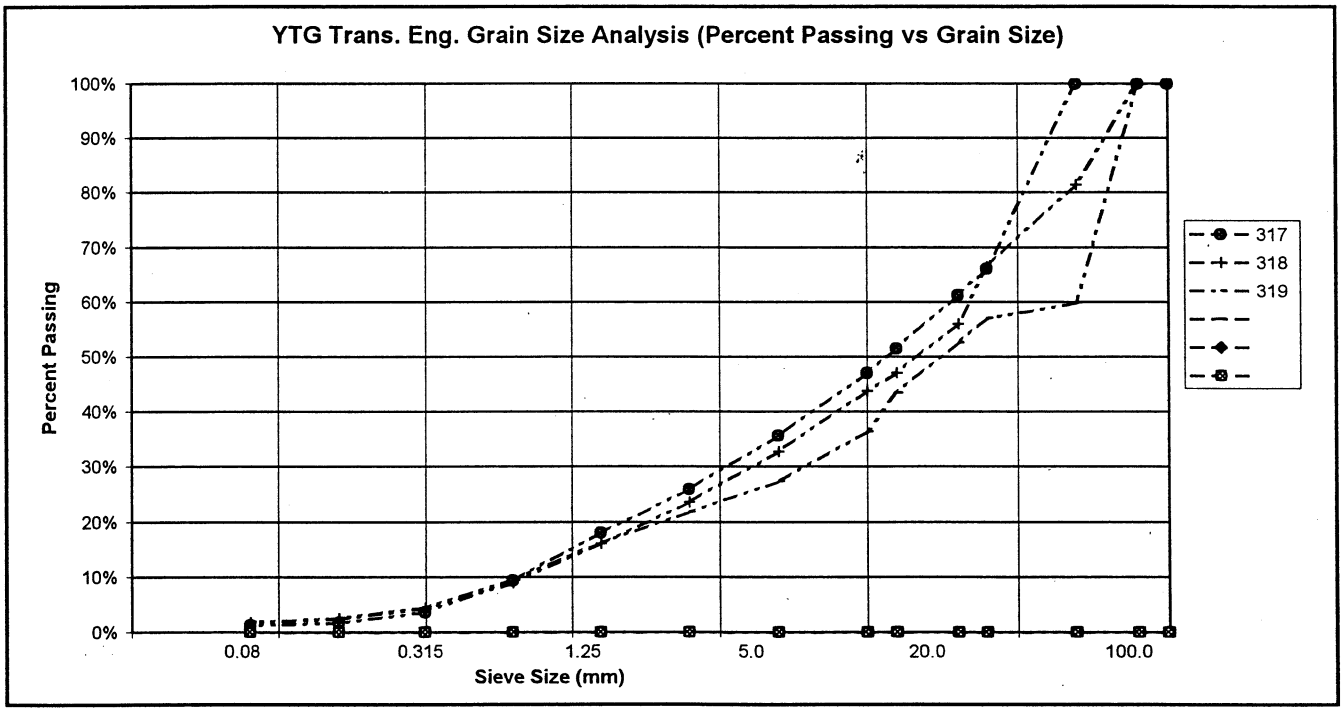
PROJECT NUMBER:	552-202101-0361-1	HOLE No.: 638-2485
CLIENT:	Engineering Capital	
PROJECT NAME:	Shakwak Granular Investigation	
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21	
DRILL UNIT:	Koehring 6625 Backhoe	
HOLE LOCATION:	SEE PLAN	
LOGGED BY:	JRP R.W.	DATE COMP: SEPT 24/02

FIELD NO:	314	315	316			
LAB NO:	574	575	576			
DEPTH:	1.0-1.5	1.8-2.3	2.9-3.1			
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	79%	100%	100%			
25.0	59%	50%	100%			
20.0	52%	48%	99%			
12.5	41%	41%	86%			
10.0	37%	37%	77%			
5.0	28%	28%	53%			
2.5	21%	21%	26%			
1.25	15%	15%	12%			
0.630	9%	9%	7%			
0.315	5%	6%	5%			
0.160	3%	4%	4%			
0.080	2%	3%	4%			
M.C.(%):	2%	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:	72	72	47			
% SAND:	26	25	49			
% FINES:	2	3	4			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED SAND WITH GRAVEL (SP)			



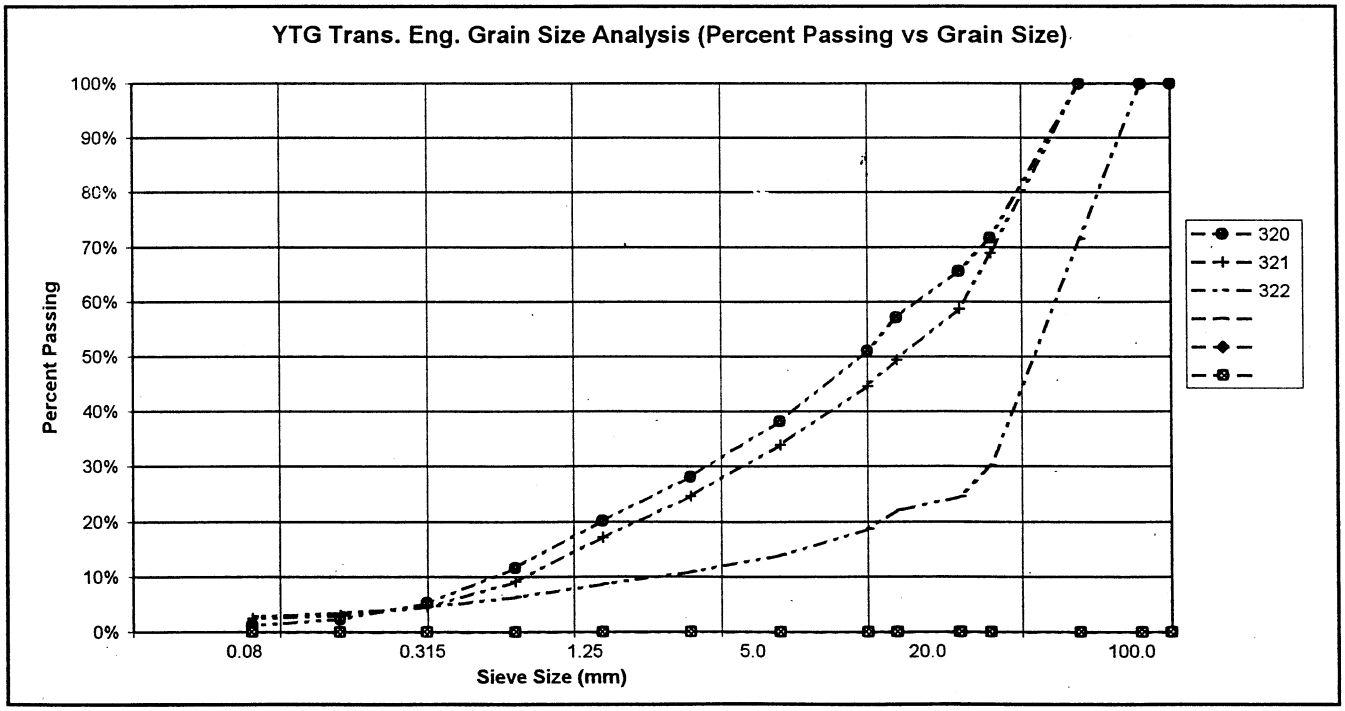
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2486
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 24/02

FIELD NO:	317	318	319			
LAB NO:	577	578	579			
DEPTH:	0.5-1.0	1.8-2.3	2.8-3.0			
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	81%	60%			
25.0	66%	66%	57%			
20.0	61%	56%	53%			
12.5	52%	47%	43%			
10.0	47%	44%	36%			
5.0	36%	33%	27%			
2.5	26%	24%	22%			
1.25	18%	16%	16%			
0.630	9%	9%	10%			
0.315	4%	4%	5%			
0.160	2%	3%	3%			
0.080	1%	2%	2%			
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:	64	67	73			
% SAND:	34	31	25			
% FINES:	1	2	2			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)			



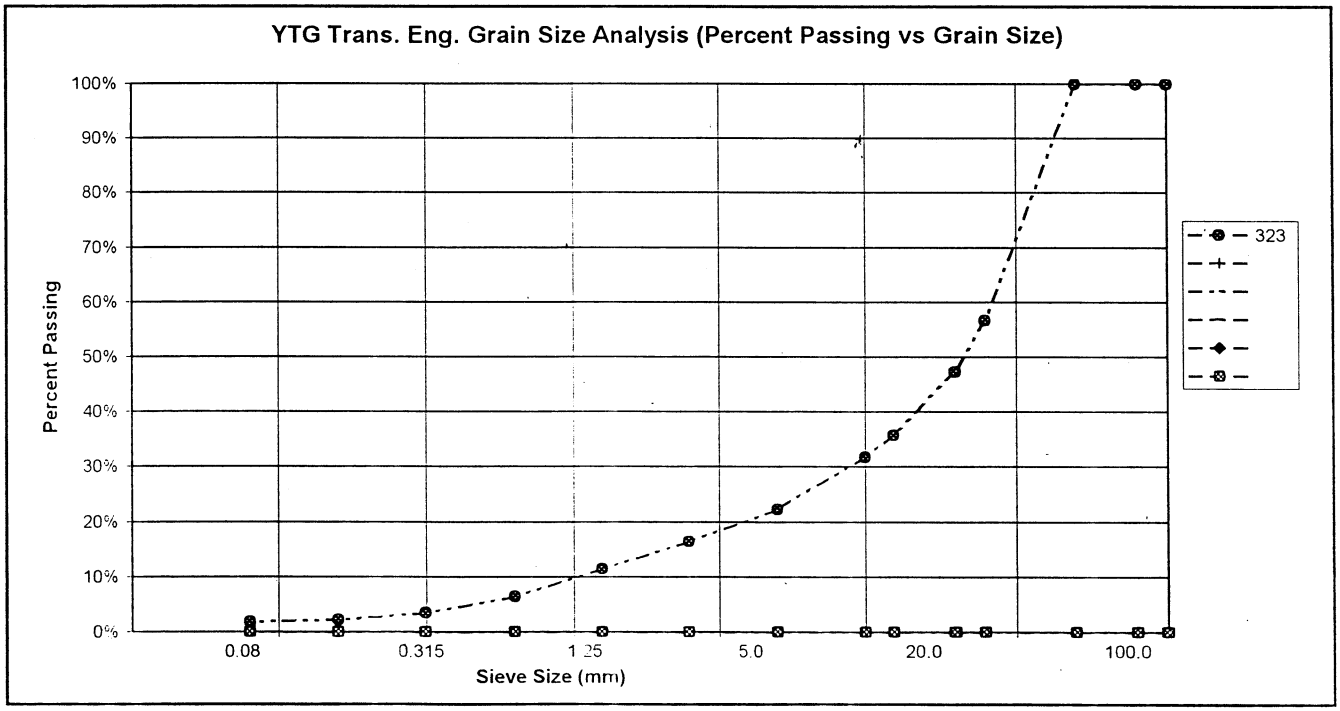
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2487
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 24/02

FIELD NO:	320	321	322			
LAB NO:	580	581	582			
DEPTH:	0.8-1.3	2.0-2.5	3.2-3.4			
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	100%	100%	72%			
25.0	72%	69%	30%			
20.0	66%	59%	25%			
12.5	57%	49%	22%			
10.0	51%	45%	19%			
5.0	38%	34%	14%			
2.5	28%	25%	11%			
1.25	20%	17%	9%			
0.630	12%	9%	6%			
0.315	5%	5%	5%			
0.160	2%	3%	3%			
0.080	1%	2%	3%			
M.C.(%):	2%	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:	62	66	86			
% SAND:	37	31	11			
% FINES:	1	2	3			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL (GW)			



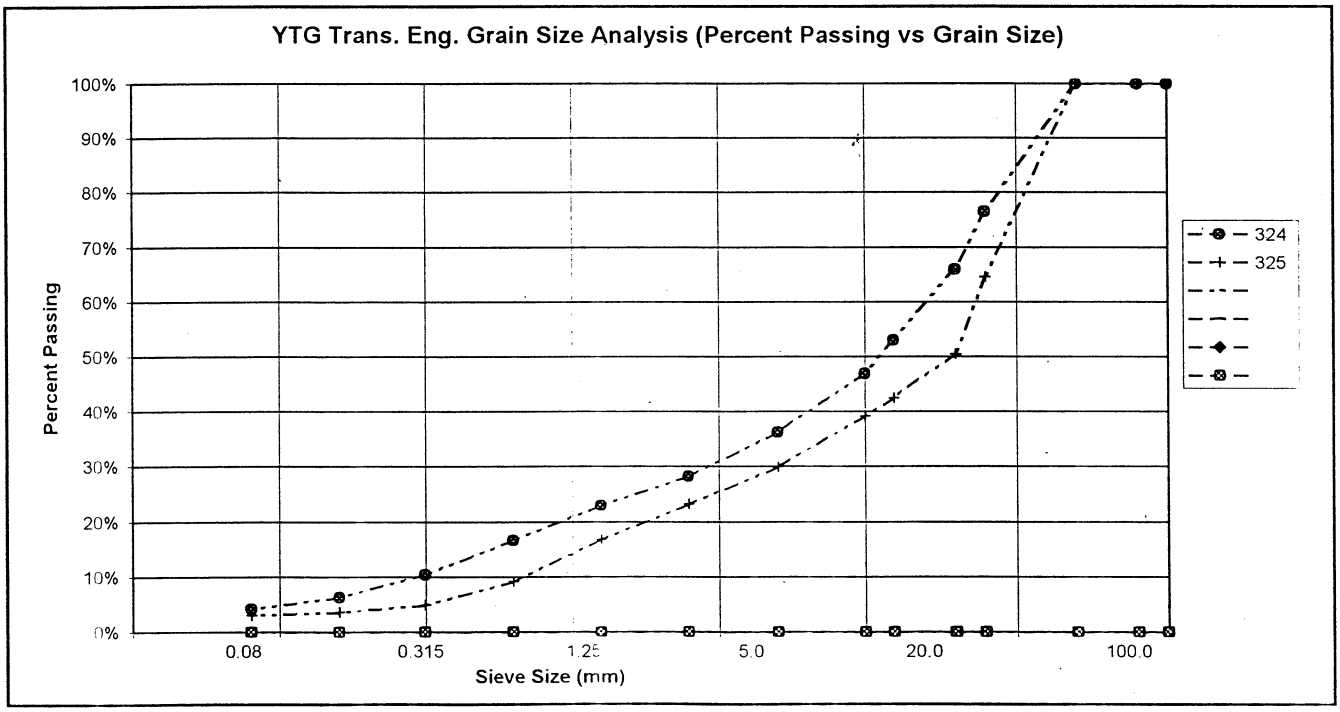
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2488
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 24/02

FIELD NO:	323					
LAB NO:	583					
DEPTH:	1.0-1.2					
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	57%					
20.0	47%					
12.5	36%					
10.0	32%					
5.0	22%					
2.5	16%					
1.25	11%					
0.630	6%					
0.315	3%					
0.160	2%					
0.080	2%					
M.C.(%):	4%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	78					
% SAND:	20					
% FINES:	2					
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)					



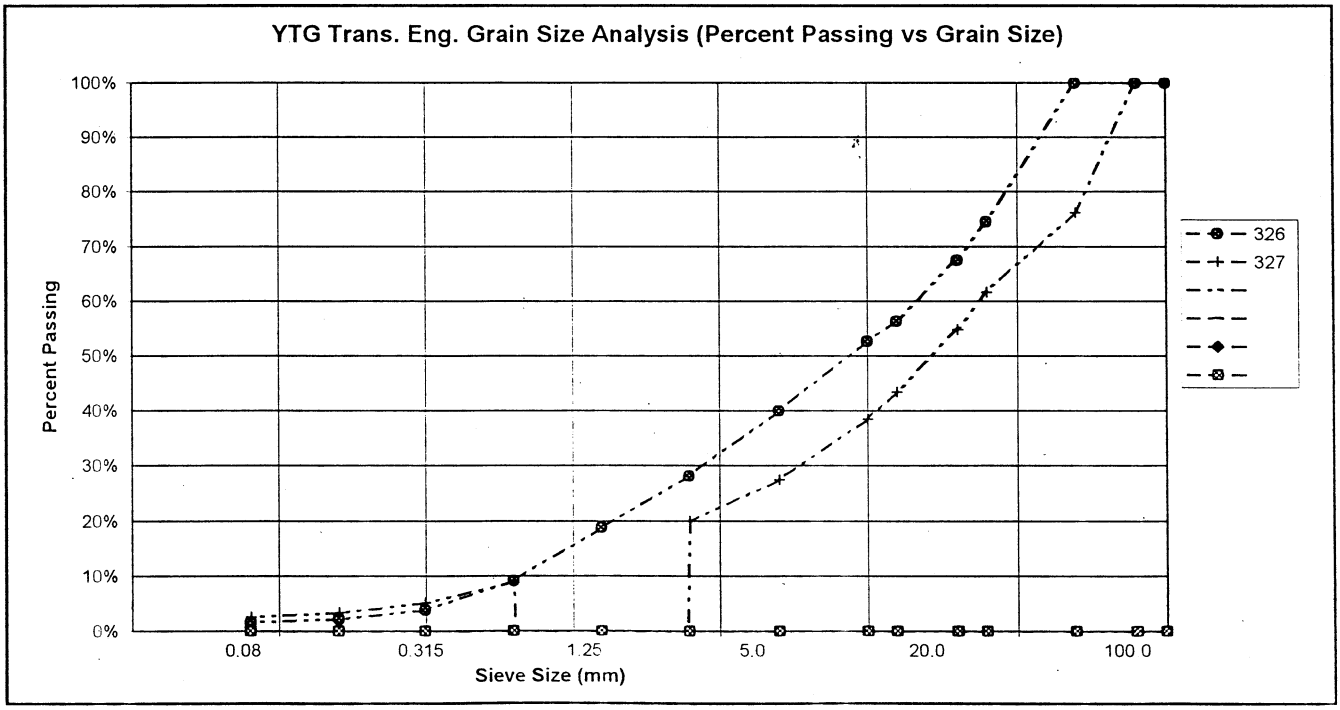
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2489
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 24/02

FIELD NO:	324	325				
LAB NO:	584	585				
DEPTH:	0.5-0.9	1.8-2.0				
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	77%	65%				
20.0	66%	50%				
12.5	53%	42%				
10.0	47%	39%				
5.0	36%	30%				
2.5	28%	23%				
1.25	23%	17%				
0.630	17%	9%				
0.315	10%	5%				
0.160	6%	4%				
0.080	4%	3%				
M.C.(%):	2%	6%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	64	70				
% SAND:	32	27				
% FINES:	4	3				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)				



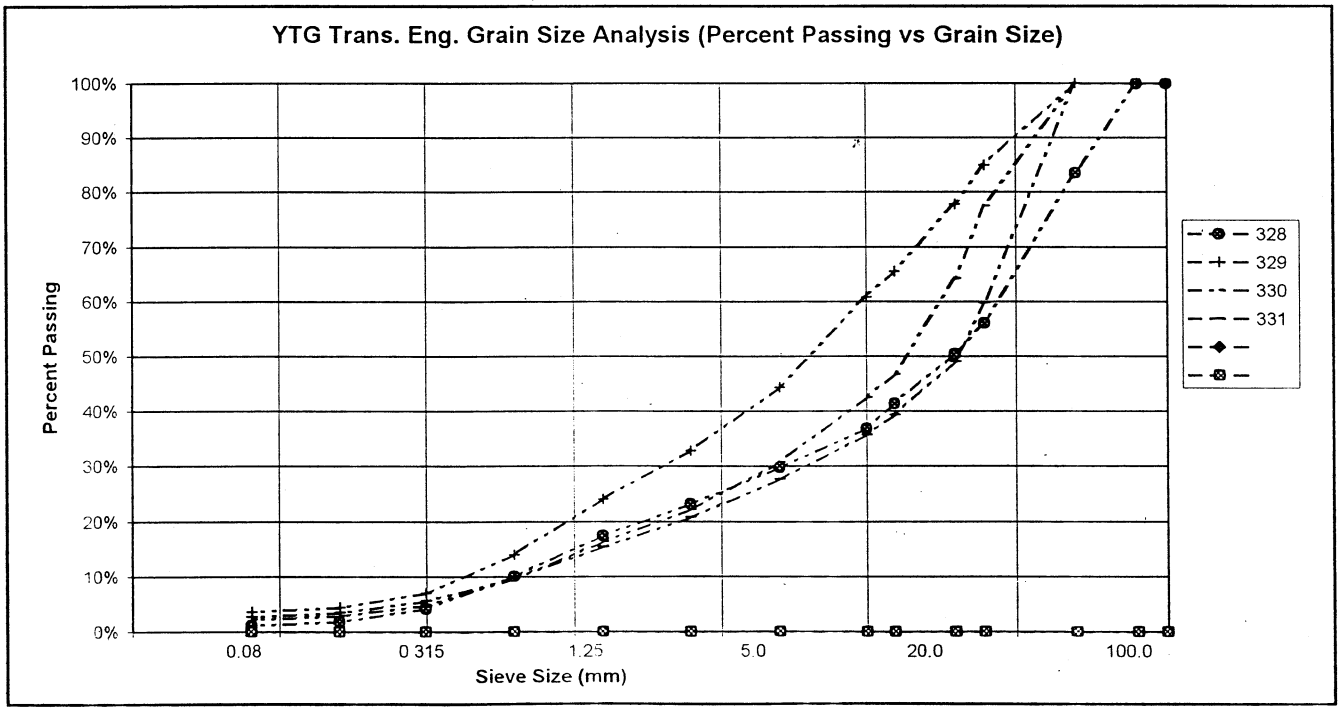
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2490
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 24/02

FIELD NO:	326	327				
LAB NO:	586	587				
DEPTH:	0.5-0.8	1.9-2.1				
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	76%				
25.0	75%	62%				
20.0	67%	55%				
12.5	56%	43%				
10.0	53%	39%				
5.0	40%	28%				
2.5	28%	20%				
1.25	19%	-759%				
0.630	9%	9%				
0.315	4%	5%				
0.160	2%	3%				
0.080	2%	3%				
M.C.(%):	2%	5%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	60	72				
% SAND:	38	25				
% FINES:	2	3				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)				



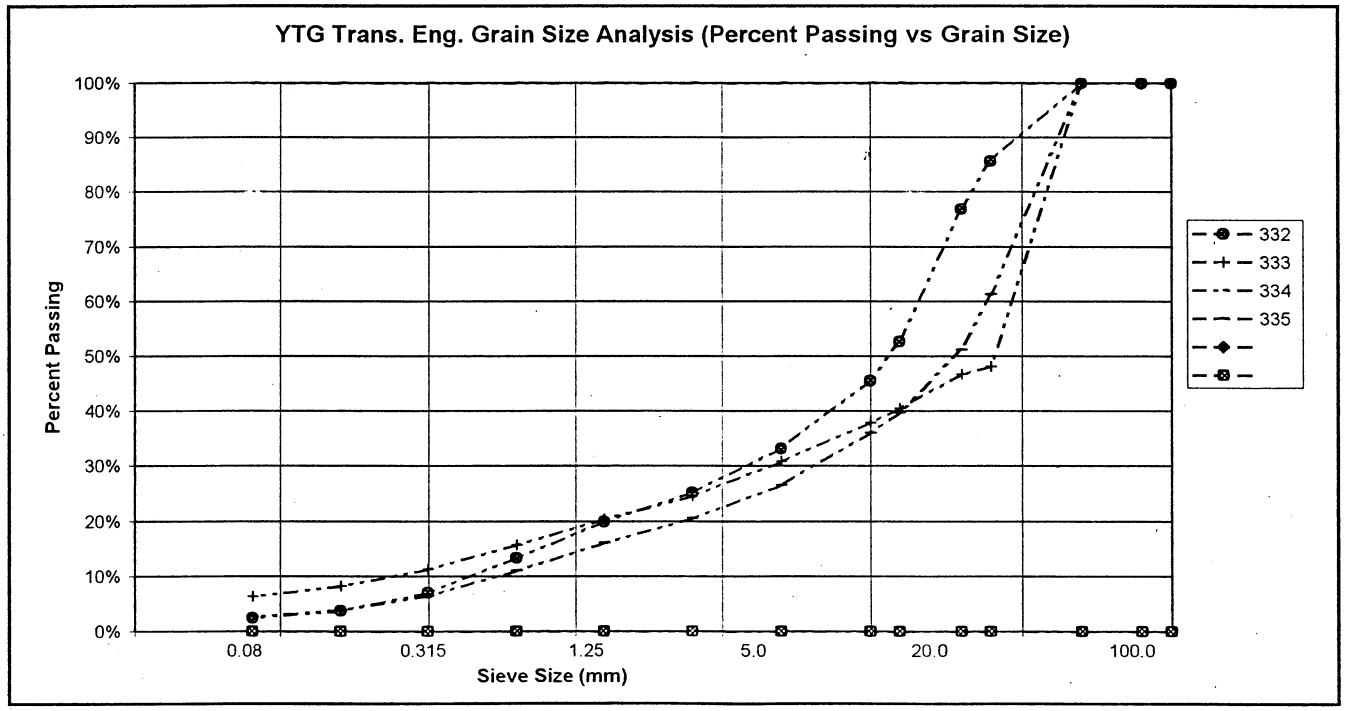
PROJECT NUMBER:	552-202101-0361-1	HOLE No.: 638-2491
CLIENT:	Engineering Capital	
PROJECT NAME:	Shakwak Granular Investigation	
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21	
DRILL UNIT:	Koehring 6625 Backhoe	
HOLE LOCATION:	SEE PLAN	
LOGGED BY:	JRP R.W.	DATE COMP: SEPT 24/02

FIELD NO:	328	329	330	331		
LAB NO:	588	589	590	591		
DEPTH:	0.5-1.0	2.2-2.7	3.0-3.5	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	84%	100%	100%	100%		
25.0	56%	85%	77%	60%		
20.0	50%	78%	64%	49%		
12.5	41%	65%	47%	39%		
10.0	37%	61%	42%	36%		
5.0	30%	44%	31%	28%		
2.5	23%	33%	22%	21%		
1.25	17%	24%	16%	15%		
0.630	10%	14%	10%	10%		
0.315	4%	7%	5%	6%		
0.160	2%	5%	3%	4%		
0.080	1%	4%	2%	3%		
M.C.(%):	2%	3%	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:	70	56	69	72		
% SAND:	29	41	29	25		
% FINES:	1	4	2	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		



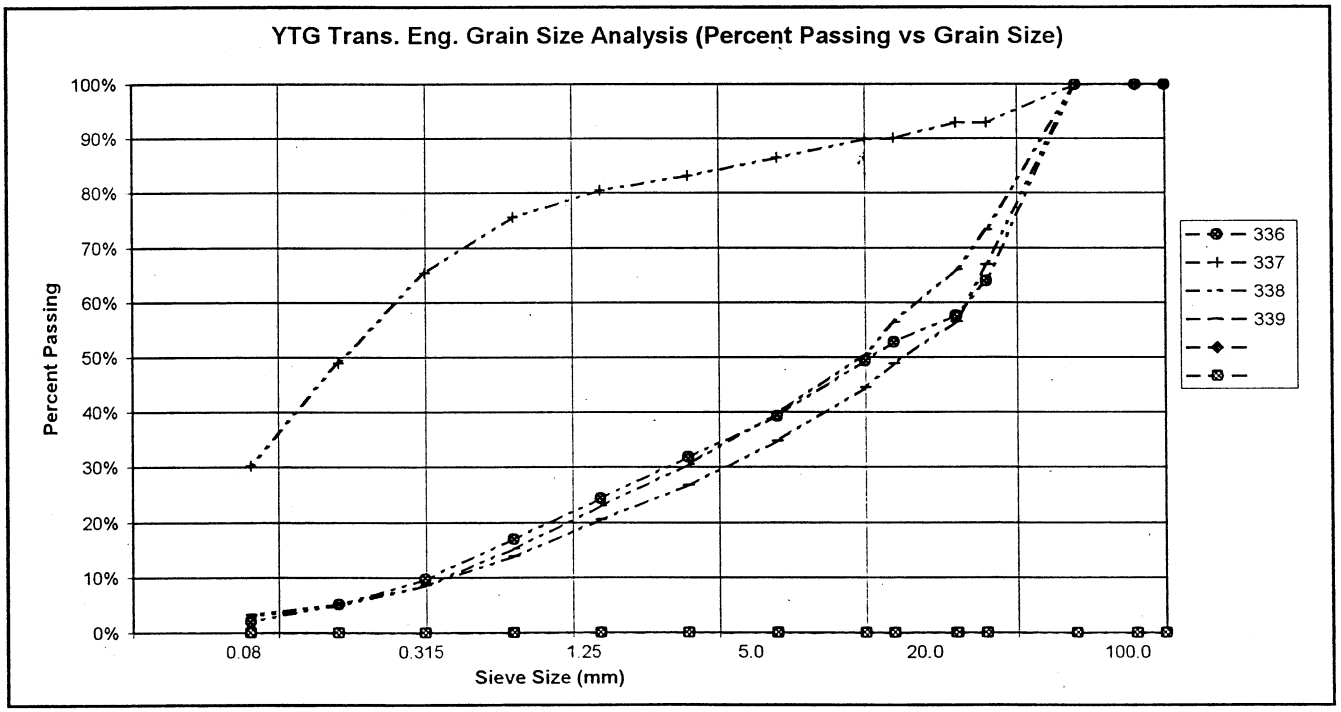
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2492
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 24/02

FIELD NO:	332	333	334	335		
LAB NO:	592	593	lost	595		
DEPTH:	0.8-1.3	2.2-2.7	3.2-3.7	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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	86%	48%	100%	61%		
20.0	77%	47%	100%	51%		
12.5	53%	41%	100%	40%		
10.0	46%	38%	100%	36%		
5.0	33%	31%	100%	27%		
2.5	25%	25%	100%	21%		
1.25	20%	20%	100%	16%		
0.630	13%	16%	100%	11%		
0.315	7%	11%	100%	6%		
0.160	4%	8%	100%	4%		
0.080	2%	6%	100%	3%		
M.C.(%):	2%	5%	2%	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:	67	69	0	73		
% SAND:	31	25	0	24		
% FINES:	2	6	100	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILT (ML)	WELL-GRADED GRAVEL WITH SAND (GW)		



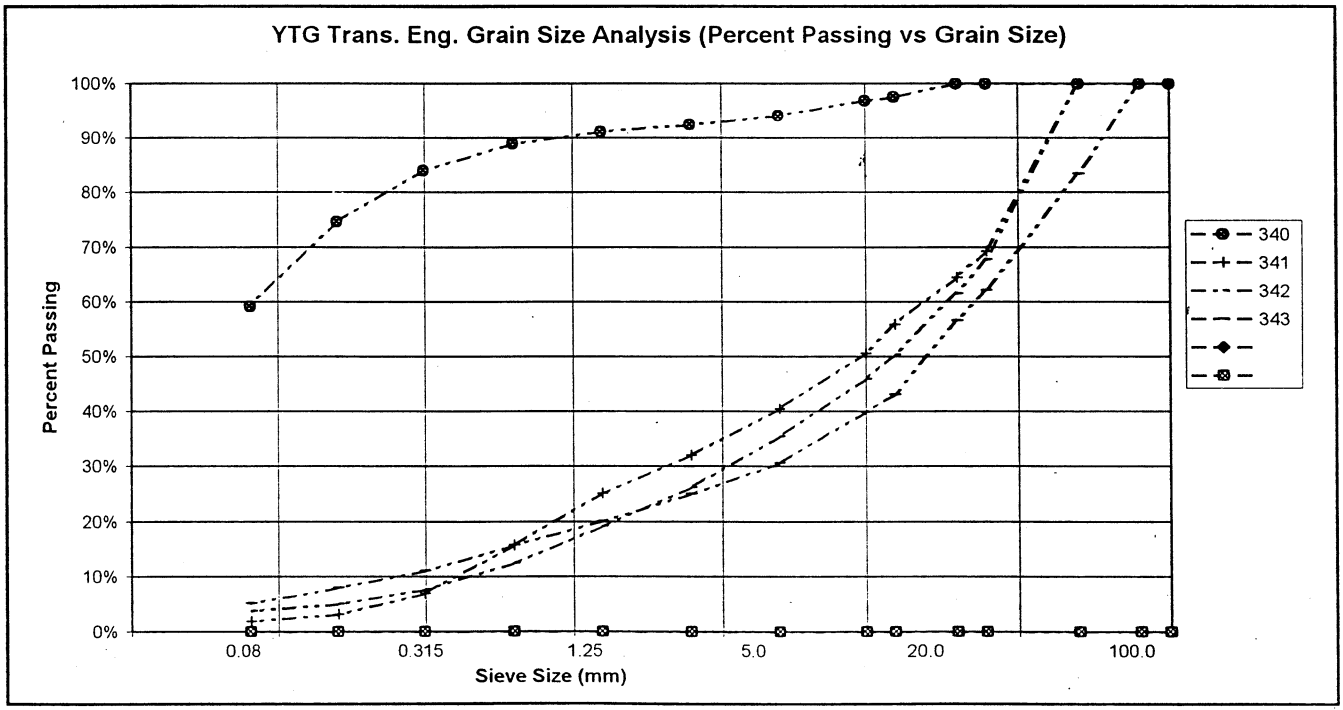
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2493
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 24/02

FIELD NO:	336	337	338	339		
LAB NO:	596	597	598	599		
DEPTH:	0.3-0.8	2.1-2.4	3.2-3.7	4.5-5.0		
TYPE:	BULK	BULK	BULK	BULK		
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	64%	93%	73%	67%		
20.0	58%	93%	66%	56%		
12.5	53%	90%	56%	49%		
10.0	49%	90%	51%	45%		
5.0	39%	86%	40%	35%		
2.5	32%	83%	31%	27%		
1.25	24%	80%	23%	20%		
0.630	17%	76%	15%	14%		
0.315	10%	65%	9%	9%		
0.160	5%	49%	5%	5%		
0.080	2%	30%	3%	3%		
M.C.(%):	1%	24%	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:	61	14	60	65		
% SAND:	37	56	37	31		
% FINES:	2	30	3	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND (SM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		



PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2494
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 25/02

FIELD NO:	340	341	342	343		
LAB NO:	600	601	602	603		
DEPTH:	0.5-1.0	2.5-3.0	3.5-4.0	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	83%		
25.0	100%	69%	68%	62%		
20.0	100%	64%	61%	57%		
12.5	98%	56%	50%	43%		
10.0	97%	51%	46%	40%		
5.0	94%	40%	35%	31%		
2.5	93%	32%	26%	25%		
1.25	91%	25%	19%	20%		
0.630	89%	16%	12%	16%		
0.315	84%	7%	8%	11%		
0.160	75%	3%	5%	8%		
0.080	59%	2%	4%	5%		
M.C.(%):	9%	2%	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:	6	60	65	69		
% SAND:	35	39	32	25		
% FINES:	59	2	4	5		
CLASSIFICATION	SANDY SILT (ML)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		

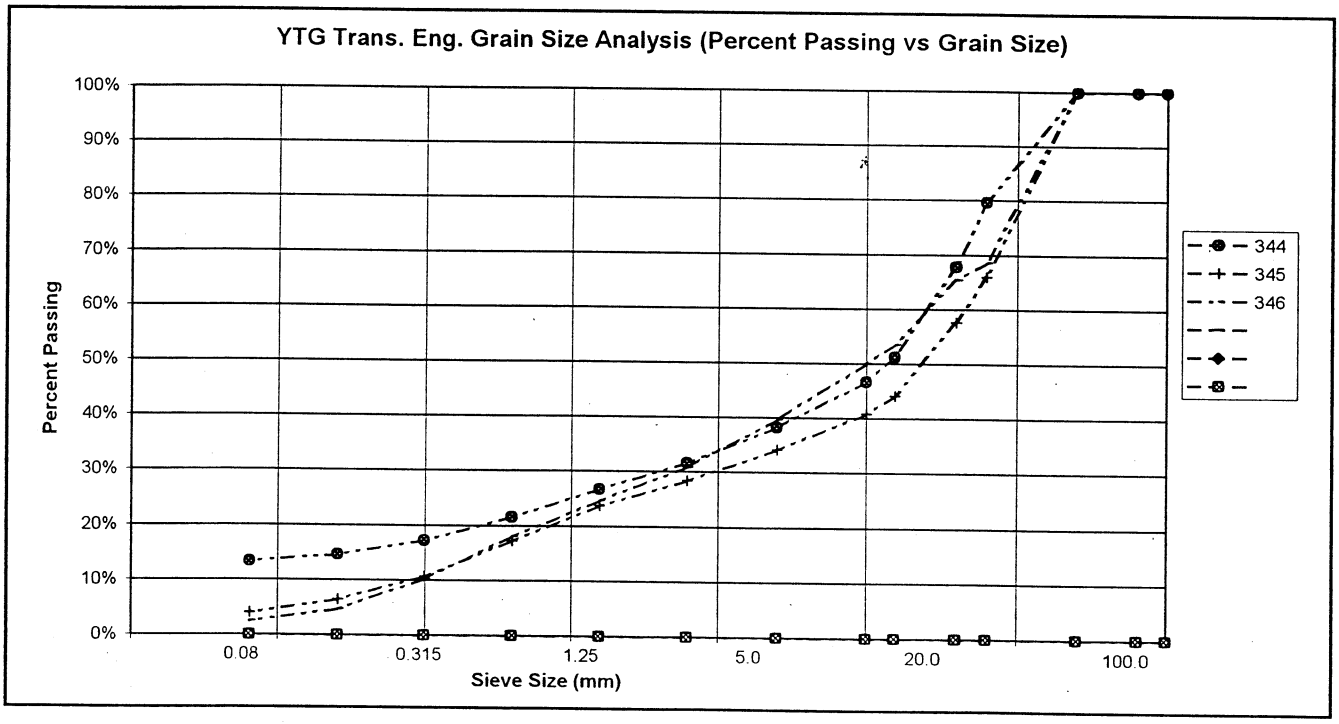


PROJECT NUMBER: 552-202101-0361-1
CLIENT: Engineering Capital
PROJECT NAME: Shakwak Granular Investigation
PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
DRILL UNIT: Koehring 6625 Backhoe
HOLE LOCATION: SEE PLAN
LOGGED BY: JRP R.W.

HOLE No.: 638-2495

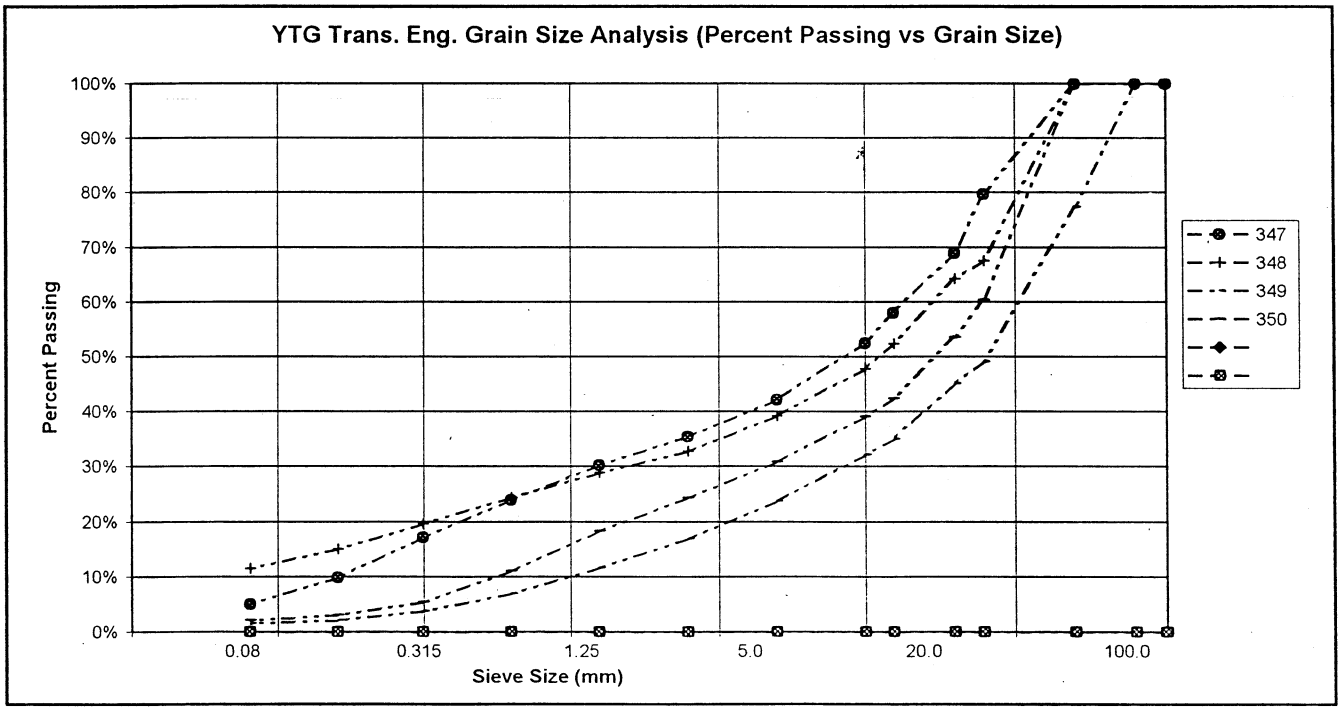
DATE COMP: SEPT 25/02

FIELD NO:	344	345	346			
LAB NO:	604	605	606			
DEPTH:	1.2-1.7	2.7-3.2	4.3-4.8			
TYPE:	BULK	BULK	BULK	BULK		
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%	66%	69%			
20.0	68%	58%	65%			
12.5	51%	44%	54%			
10.0	47%	41%	50%			
5.0	38%	34%	40%			
2.5	32%	28%	31%			
1.25	27%	24%	25%			
0.630	22%	17%	18%			
0.315	17%	11%	10%			
0.160	15%	6%	5%			
0.080	13%	4%	3%			
M.C.(%):	3%	3%	2%			
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:	62	66	60			
% SAND:	25	30	37			
% FINES:	13	4	3			
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)			



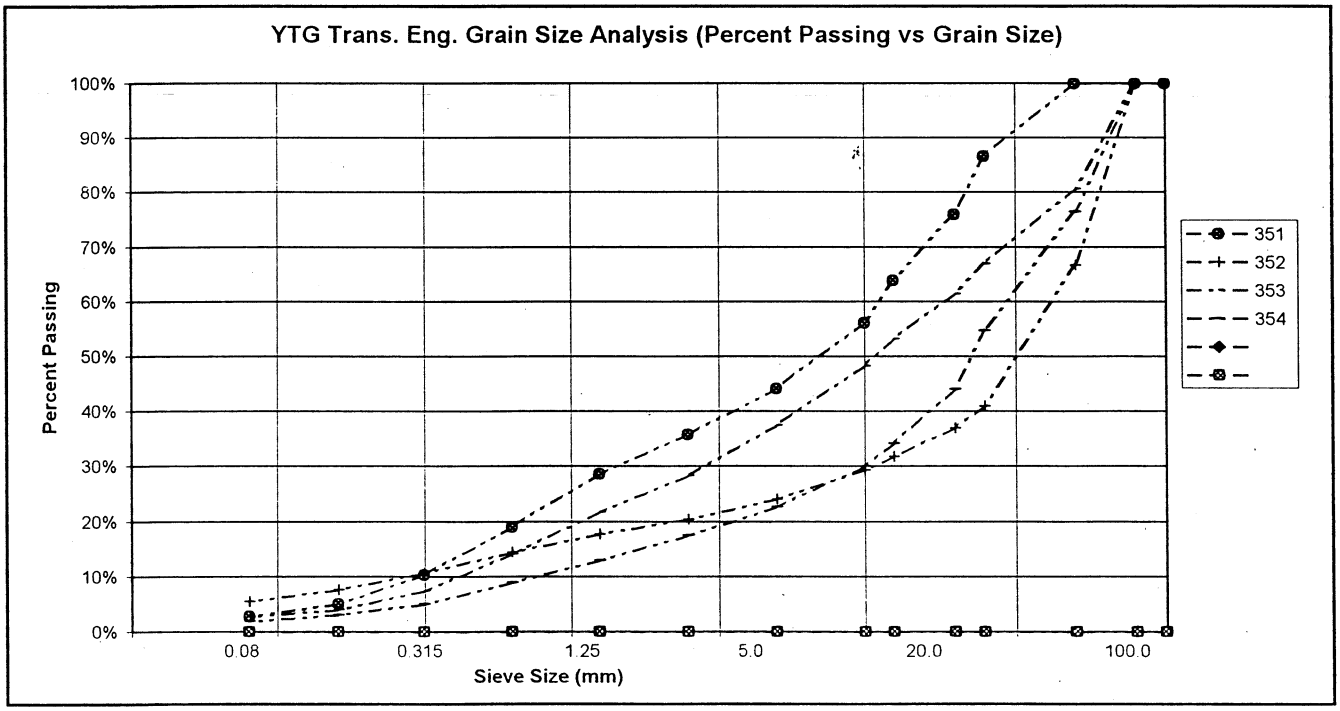
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2496
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 25/02

FIELD NO:	347	348	349	350		
LAB NO:	607	608	609	610		
DEPTH:	0.5-1.0	2.5-3.0	3.6-4.1	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	77%	100%		
25.0	80%	68%	49%	60%		
20.0	69%	64%	45%	54%		
12.5	58%	52%	35%	42%		
10.0	53%	48%	32%	39%		
5.0	42%	39%	24%	31%		
2.5	35%	33%	17%	24%		
1.25	30%	29%	12%	18%		
0.630	24%	24%	7%	11%		
0.315	17%	20%	4%	5%		
0.160	10%	15%	2%	3%		
0.080	5%	11%	1%	2%		
M.C.(%):	2%	7%	2%	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:	58	61	76	69		
% SAND:	37	28	22	29		
% FINES:	5	11	1	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		



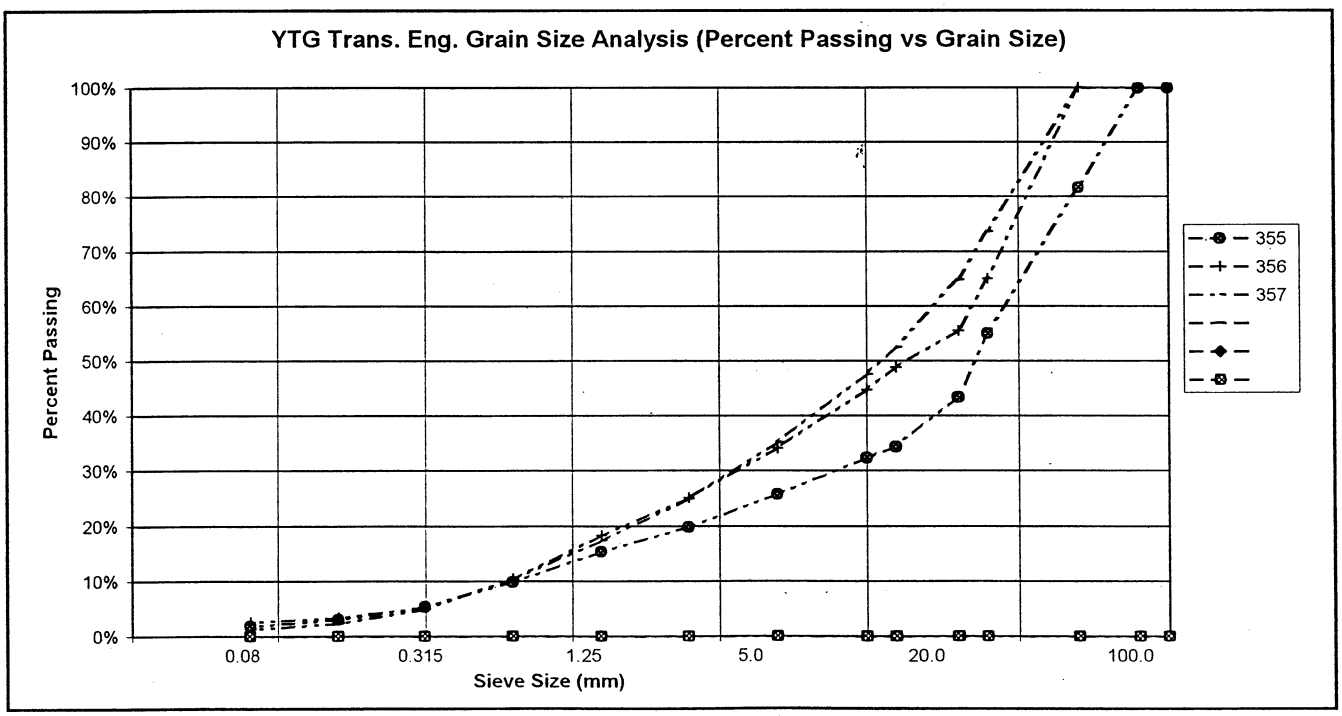
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2497
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 25/02

FIELD NO:	351	352	353	354		
LAB NO:	611	612	613	614		
DEPTH:	1.0-1.5	2.0-2.5	3.2-3.7	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	67%	81%	76%		
25.0	87%	41%	67%	55%		
20.0	76%	37%	61%	44%		
12.5	64%	32%	53%	34%		
10.0	56%	29%	48%	30%		
5.0	44%	24%	37%	23%		
2.5	36%	20%	28%	18%		
1.25	29%	18%	22%	13%		
0.630	19%	14%	14%	9%		
0.315	10%	11%	7%	5%		
0.160	5%	8%	4%	3%		
0.080	3%	6%	3%	2%		
M.C.(%):	2%	4%	2%	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:	56	76	63	77		
% SAND:	41	19	35	21		
% FINES:	3	6	3	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		



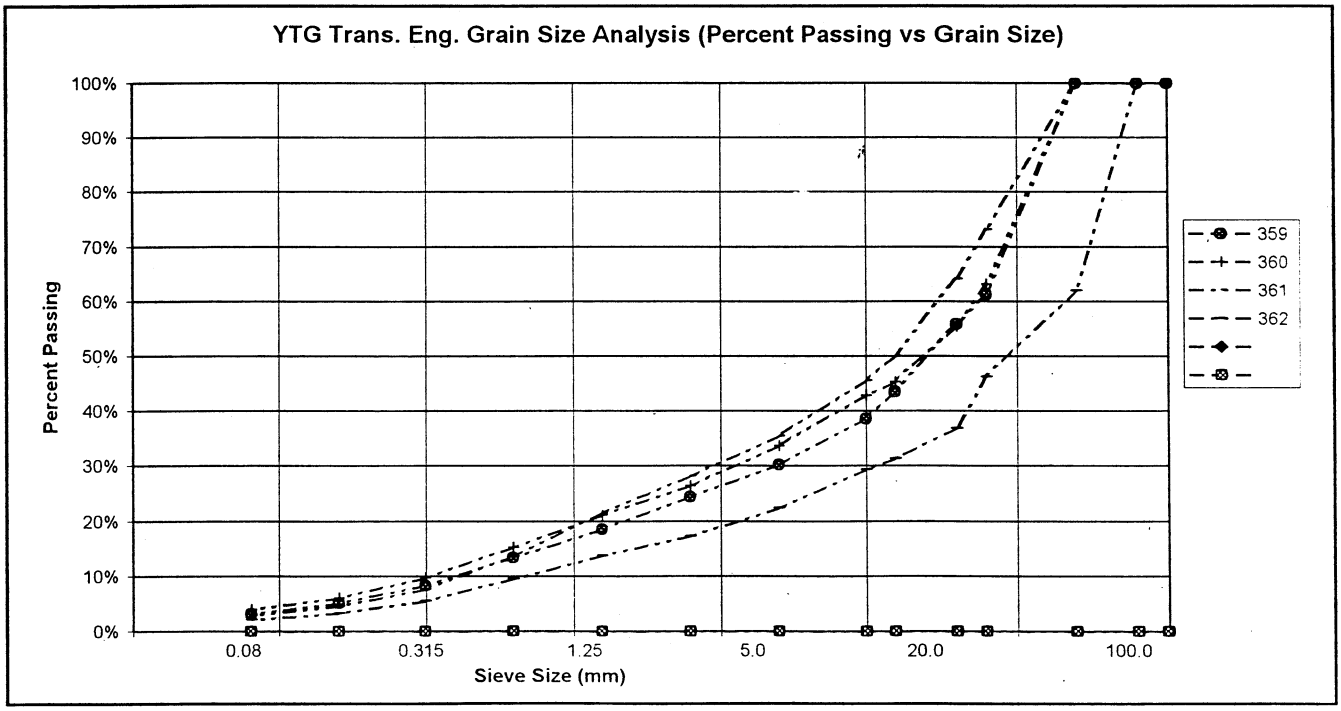
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2498
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 25/02

FIELD NO:	355	356	357			
LAB NO:	615	616	617			
DEPTH:	0.8-1.3	2.0-2.5	3.0-3.5			
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%	100%			
80.0	100%	100%	100%			
50.0	82%	100%	100%			
25.0	55%	65%	74%			
20.0	43%	56%	65%			
12.5	34%	49%	53%			
10.0	32%	45%	48%			
5.0	26%	34%	35%			
2.5	20%	25%	25%			
1.25	15%	18%	17%			
0.630	10%	10%	10%			
0.315	5%	5%	5%			
0.160	3%	3%	2%			
0.080	2%	3%	1%			
M.C.(%):	2%	3%	2%			
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:	74	66	65			
% SAND:	24	32	34			
% FINES:	2	3	1			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)			



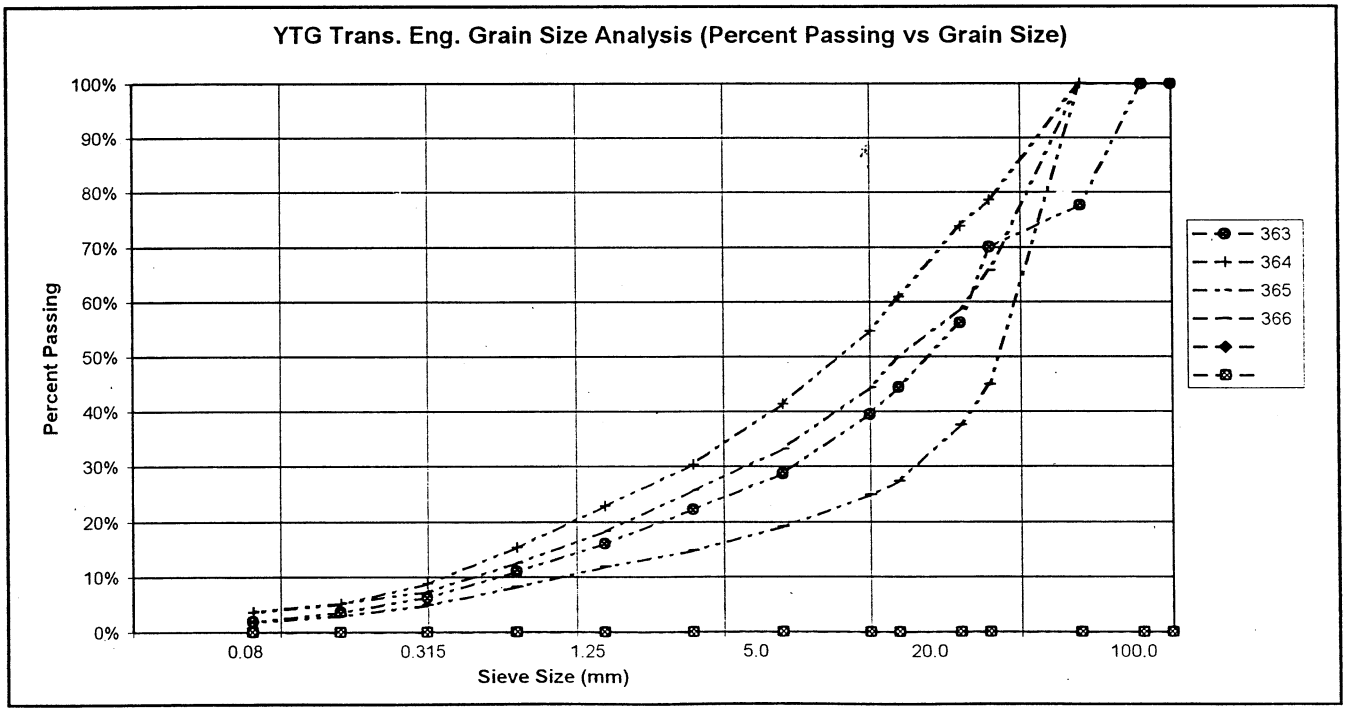
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2499
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 25/02

FIELD NO:	359	360	361	362		
LAB NO:	618	619	620	621		
DEPTH:	0.5-1.0	2.3-2.8	3.3-3.8	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	62%		
25.0	61%	63%	73%	46%		
20.0	56%	55%	64%	37%		
12.5	44%	45%	50%	31%		
10.0	39%	43%	46%	29%		
5.0	30%	34%	35%	22%		
2.5	24%	26%	28%	17%		
1.25	18%	21%	22%	14%		
0.630	13%	15%	14%	9%		
0.315	8%	10%	8%	6%		
0.160	5%	6%	5%	3%		
0.080	3%	4%	3%	2%		
M.C.(%):	3%	3%	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:	70	66	65	78		
% SAND:	27	30	33	20		
% FINES:	3	4	3	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)		



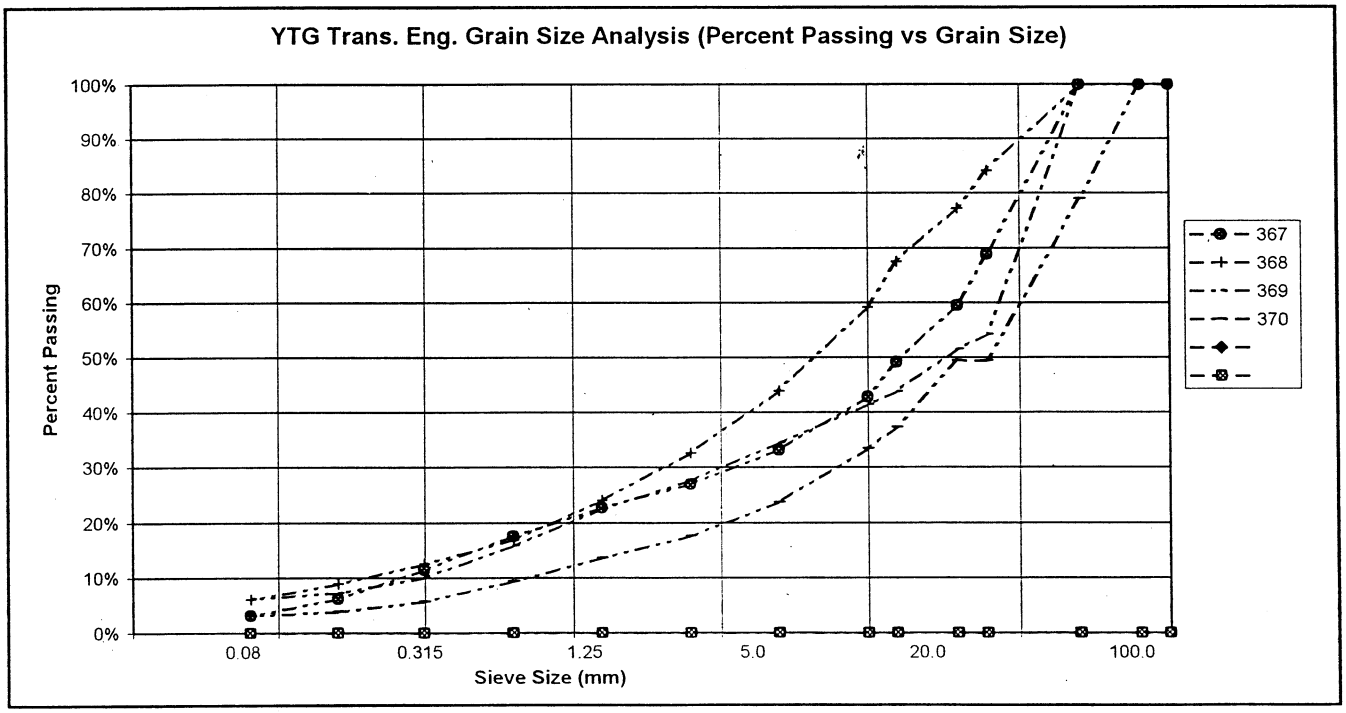
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2500
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 25/02

FIELD NO:	363	364	365	366		
LAB NO:	622	623	624	625		
DEPTH:	0.5-1.0	2.2-2.7	3.3-3.8	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	78%	100%	100%	100%		
25.0	70%	79%	66%	45%		
20.0	56%	74%	59%	38%		
12.5	45%	61%	50%	27%		
10.0	40%	55%	44%	25%		
5.0	29%	41%	33%	19%		
2.5	22%	30%	26%	15%		
1.25	16%	23%	18%	12%		
0.630	11%	15%	13%	8%		
0.315	6%	9%	7%	5%		
0.160	4%	5%	5%	3%		
0.080	2%	4%	4%	2%		
M.C.(%):	3%	3%	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:	71	59	67	81		
% SAND:	27	38	29	17		
% FINES:	2	4	4	2		
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		



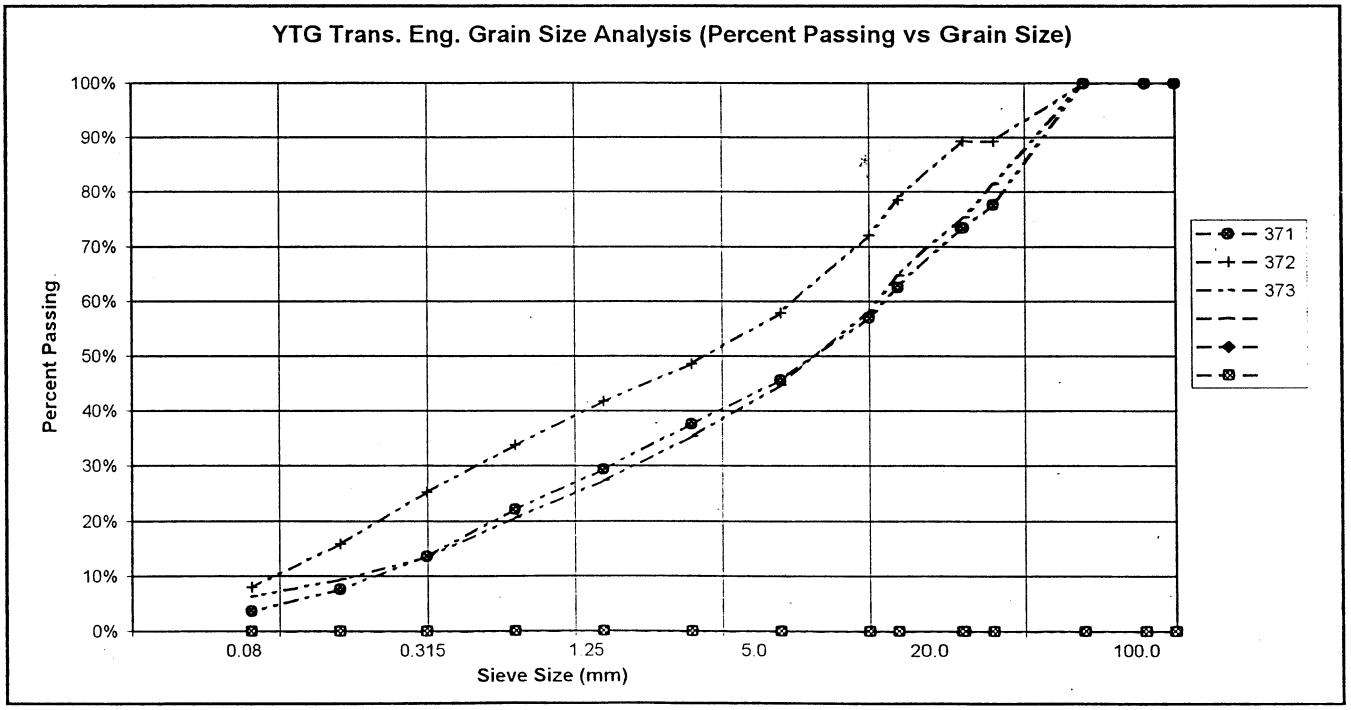
PROJECT NUMBER:	552-202101-0361-1	HOLE No.: 638-2501
CLIENT:	Engineering Capital	
PROJECT NAME:	Shakwak Granular Investigation	
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21	
DRILL UNIT:	Koehring 6625 Backhoe	
HOLE LOCATION:	SEE PLAN	
LOGGED BY:	JRP R.W.	DATE COMP: SEPT 25/02

FIELD NO:	367	368	369	370		
LAB NO:	626	627	628	629		
DEPTH:	0.8-1.3	2.2-2.7	3.6-4.1	4.8-5.3		
TYPE:	BULK	BULK	BULK	BULK		
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%	79%		
25.0	69%	84%	54%	49%		
20.0	60%	77%	52%	49%		
12.5	49%	68%	44%	37%		
10.0	43%	59%	41%	33%		
5.0	33%	44%	35%	24%		
2.5	27%	33%	28%	18%		
1.25	23%	24%	22%	14%		
0.630	18%	17%	16%	9%		
0.315	12%	13%	10%	6%		
0.160	6%	9%	7%	4%		
0.080	3%	6%	6%	3%		
M.C.(%):	2%	2%	4%	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:	67	56	65	76		
% SAND:	30	38	28	21		
% FINES:	3	6	6	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)		



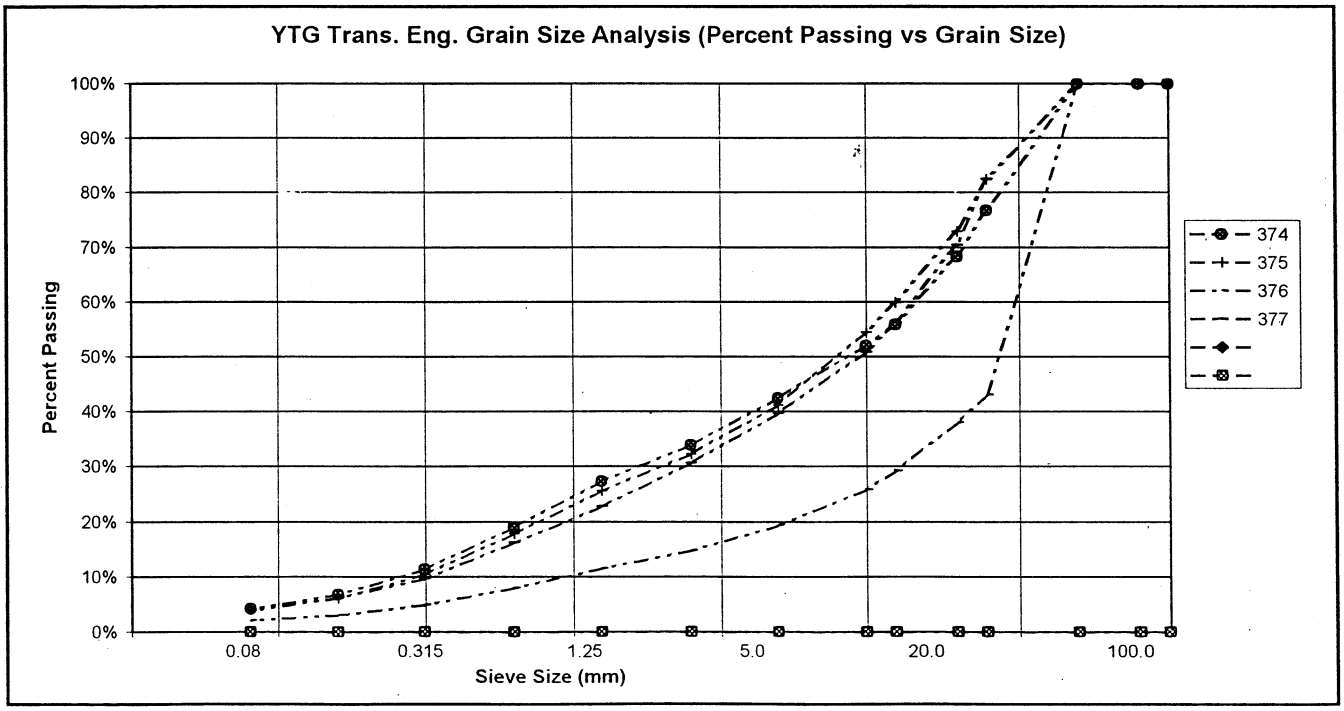
PROJECT NUMBER:	552-202101-0361-1	HOLE No.: 638-2502
CLIENT:	Engineering Capital	
PROJECT NAME:	Shakwak Granular Investigation	
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21	
DRILL UNIT:	Koehring 6625 Backhoe	
HOLE LOCATION:	SEE PLAN	
LOGGED BY:	JRP R.W.	DATE COMP: SEPT 25/02

FIELD NO:	371	372	373			
LAB NO:	630	631	632			
DEPTH:	0.5-1.0	2.4-2.6	3.1-3.3			
TYPE:	BULK	BULK	BULK	BULK		
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	78%	89%	81%			
20.0	74%	89%	75%			
12.5	63%	79%	65%			
10.0	57%	72%	58%			
5.0	46%	58%	45%			
2.5	38%	49%	35%			
1.25	29%	42%	27%			
0.630	22%	34%	21%			
0.315	14%	25%	14%			
0.160	8%	16%	9%			
0.080	4%	8%	6%			
M.C.(%):	2%	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:	54	42	55			
% SAND:	42	50	38			
% FINES:	4	8	6			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			



PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2503
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 25/02

FIELD NO:	374	375	376	377		
LAB NO:	633	634	635	636		
DEPTH:	0.3-0.6	2.4-2.9	3.1-3.6	4.8-5.3		
TYPE:	BULK	BULK	BULK	BULK		
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	77%	82%	43%	83%		
20.0	68%	73%	38%	70%		
12.5	56%	60%	29%	56%		
10.0	52%	55%	26%	51%		
5.0	42%	41%	19%	40%		
2.5	34%	32%	15%	31%		
1.25	27%	26%	11%	23%		
0.630	19%	18%	8%	16%		
0.315	11%	10%	5%	10%		
0.160	7%	6%	3%	6%		
0.080	4%	4%	2%	4%		
M.C.(%):	3%	3%	2%	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:	58	59	81	60		
% SAND:	38	37	17	36		
% FINES:	4	4	2	4		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)		

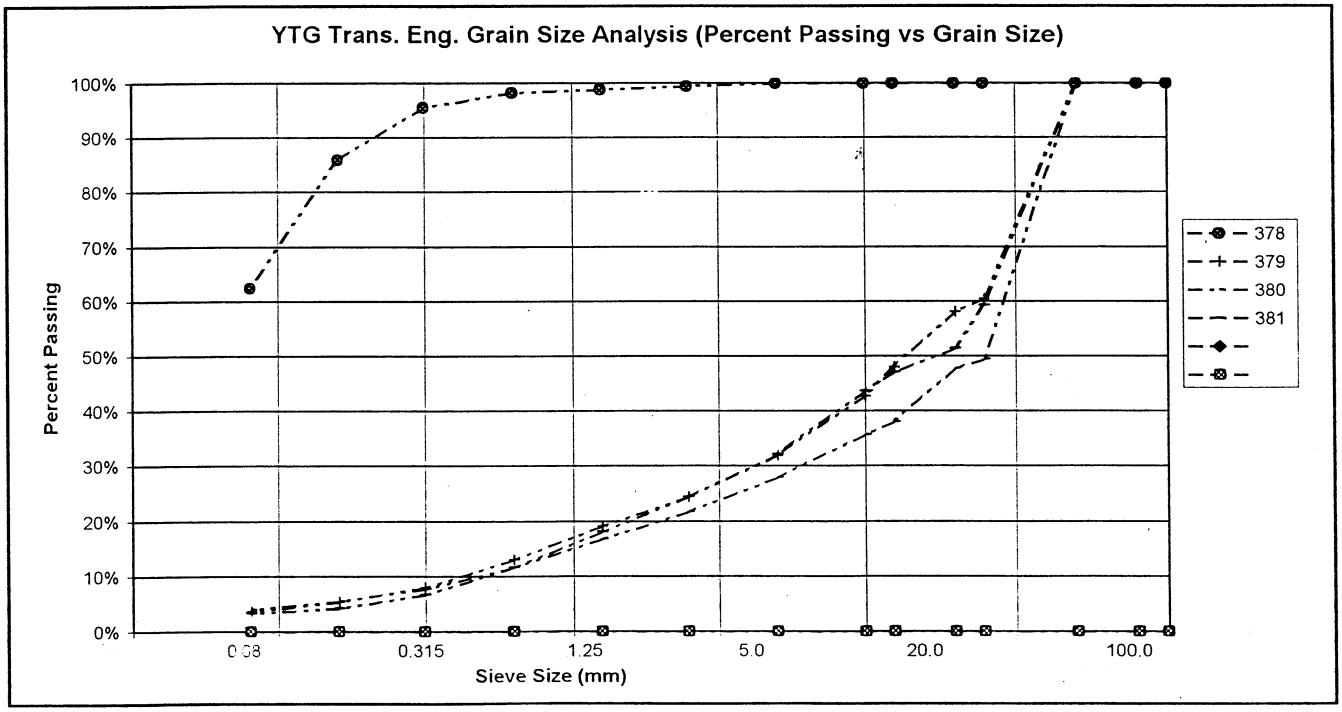


PROJECT NUMBER: 552-202101-0361-1
CLIENT: Engineering Capital
PROJECT NAME: Shakwak Granular Investigation
PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
DRILL UNIT: Koehring 6625 Backhoe
HOLE LOCATION: SEE PLAN
LOGGED BY: JRP R.W.

HOLE No.: 638-2504

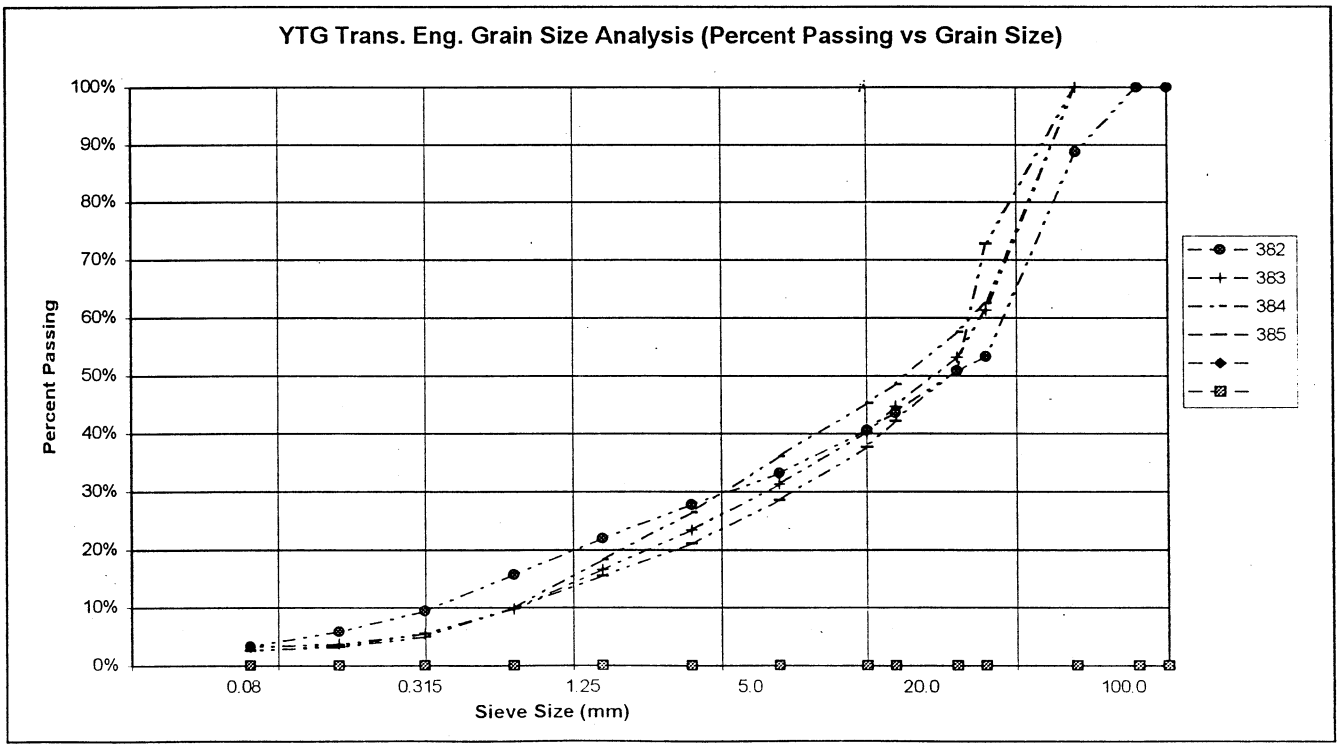
DATE COMP: SEPT 25/02

FIELD NO:	378	379	380	381		
LAB NO:	637	638	639	640		
DEPTH:	0.3-0.8	1.2-1.7	2.9-3.4	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	60%	49%	59%		
20.0	100%	58%	48%	51%		
12.5	100%	48%	38%	47%		
10.0	100%	43%	36%	44%		
5.0	100%	32%	28%	32%		
2.5	99%	24%	22%	24%		
1.25	99%	19%	17%	18%		
0.630	98%	13%	12%	12%		
0.315	96%	8%	8%	7%		
0.160	86%	5%	6%	4%		
0.080	62%	4%	4%	3%		
M.C.(%):	15%	3%	2%	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	68	72	68		
% SAND:	38	28	24	29		
% FINES:	62	4	4	3		
CLASSIFICATION	SANDY SILT (ML)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)		



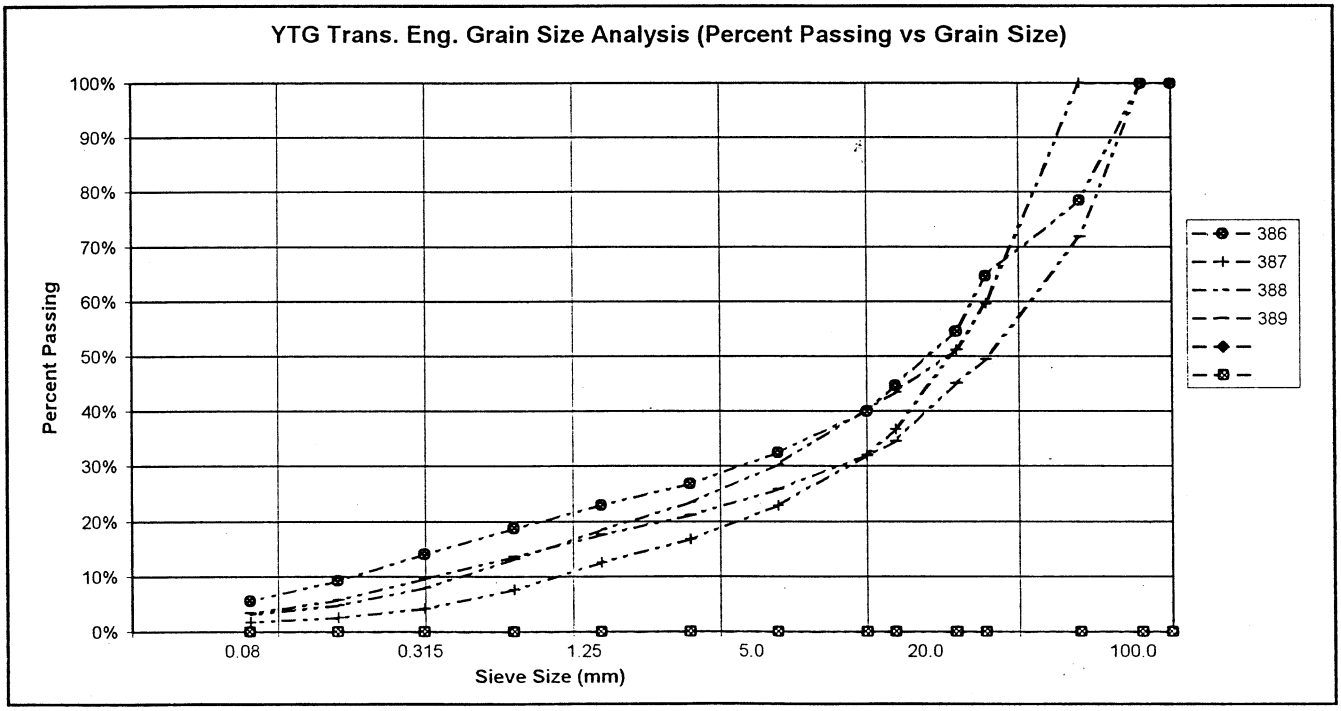
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2505
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 26/02

FIELD NO:	382	383	384	385		
LAB NO:	641	642	643	644		
DEPTH:	0.3-0.8	2.0-2.5	3.0-3.5	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	89%	100%	100%	100%		
25.0	53%	61%	63%	73%		
20.0	51%	53%	58%	51%		
12.5	44%	45%	48%	42%		
10.0	41%	40%	45%	38%		
5.0	33%	31%	36%	29%		
2.5	28%	23%	26%	21%		
1.25	22%	17%	18%	16%		
0.630	16%	10%	10%	10%		
0.315	10%	6%	5%	6%		
0.160	6%	4%	3%	3%		
0.080	3%	3%	3%	3%		
M.C.(%):	2%	2%	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:	67	69	64	71		
% SAND:	30	28	33	26		
% FINES:	3	3	3	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		



PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2506
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 26/02

FIELD NO:	386	387	388	389		
LAB NO:	645	646	647	648		
DEPTH:	0.3-0.8	2.1-2.6	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	79%	100%	100%	72%		
25.0	65%	60%	60%	49%		
20.0	55%	51%	51%	45%		
12.5	45%	37%	43%	34%		
10.0	40%	32%	40%	32%		
5.0	33%	23%	30%	26%		
2.5	27%	17%	23%	21%		
1.25	23%	13%	19%	18%		
0.630	19%	8%	13%	14%		
0.315	14%	4%	8%	10%		
0.160	9%	3%	5%	6%		
0.080	6%	2%	3%	3%		
M.C.(%):	2%	2%	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:	67	77	70	74		
% SAND:	27	21	27	22		
% FINES:	6	2	3	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)		

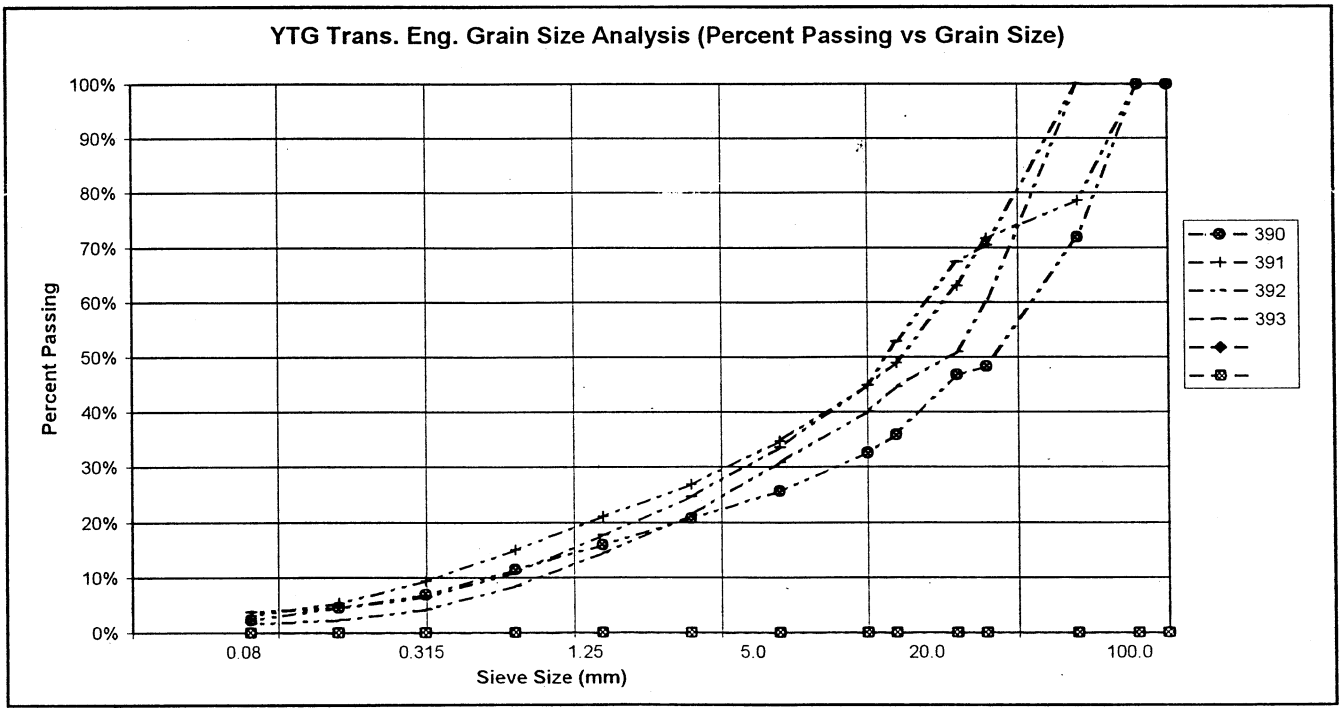


PROJECT NUMBER: 552-202101-0361-1
CLIENT: Engineering Capital
PROJECT NAME: Shakwak Granular Investigation
PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
DRILL UNIT: Koehring 6625 Backhoe
HOLE LOCATION: SEE PLAN
LOGGED BY: JRP R.W.

HOLE No.: 638-2507

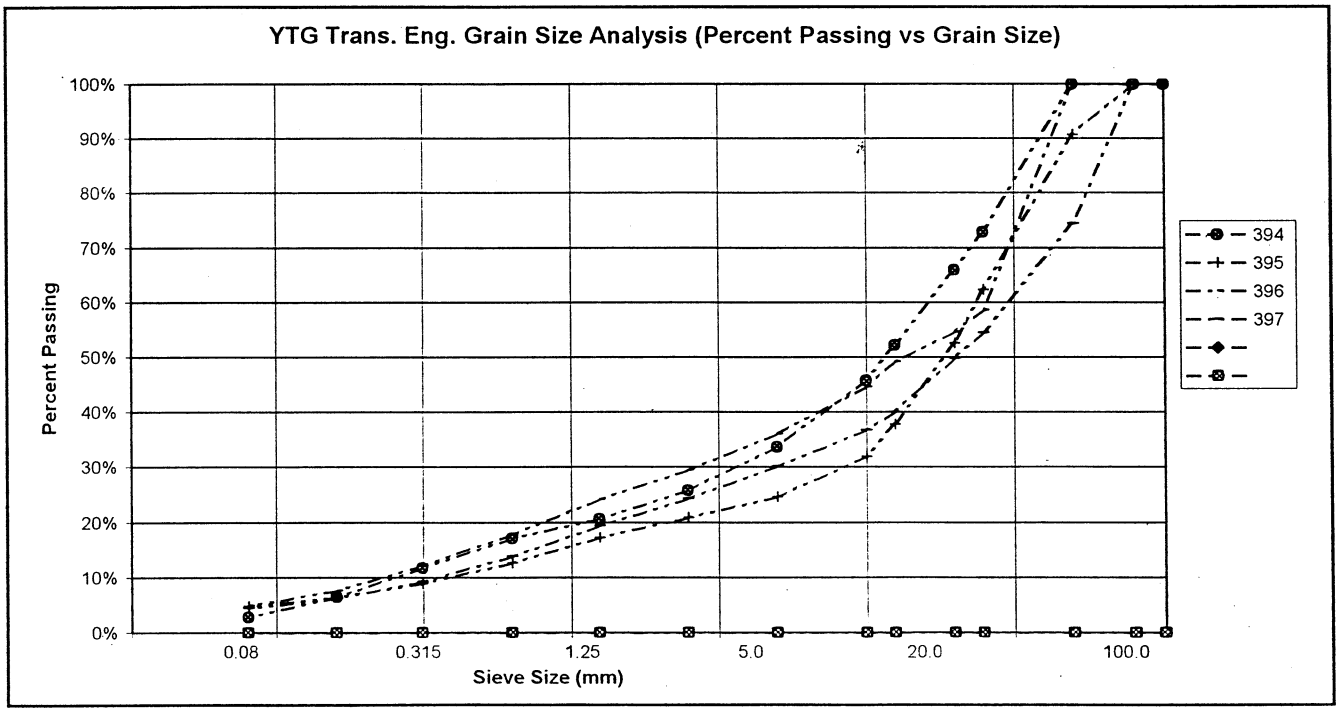
DATE COMP: SEPT 26/02

FIELD NO:	390	391	392	393		
LAB NO:	649	650	651	652		
DEPTH:	0.5-1.0	2.2-2.7	3.4-3.9	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	72%	79%	100%	100%		
25.0	48%	72%	60%	70%		
20.0	47%	63%	51%	67%		
12.5	36%	49%	45%	53%		
10.0	33%	45%	40%	45%		
5.0	26%	35%	31%	34%		
2.5	21%	27%	21%	25%		
1.25	16%	21%	14%	18%		
0.630	11%	15%	8%	11%		
0.315	7%	9%	4%	6%		
0.160	5%	5%	2%	5%		
0.080	2%	3%	2%	4%		
M.C.(%):	2%	3%	2%	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:	74	65	69	66		
% SAND:	23	32	29	30		
% FINES:	2	3	2	4		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		



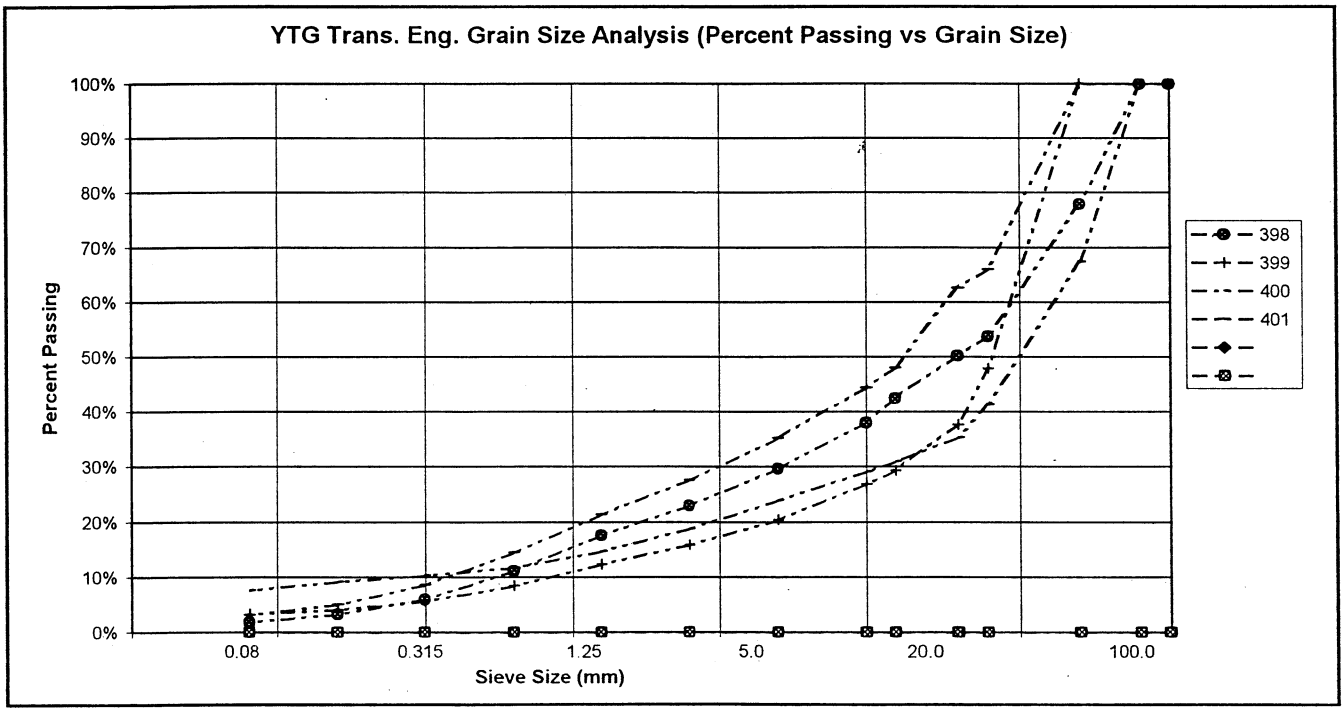
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2508
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 26/02

FIELD NO:	394	395	396	397		
LAB NO:	653	654	655	656		
DEPTH:	0.3-0.6	2.2-2.5	3.0-3.5	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	91%	100%	74%		
25.0	73%	62%	59%	54%		
20.0	66%	53%	55%	50%		
12.5	52%	38%	49%	40%		
10.0	46%	32%	45%	37%		
5.0	34%	25%	36%	30%		
2.5	26%	21%	29%	24%		
1.25	21%	17%	24%	19%		
0.630	17%	13%	18%	14%		
0.315	12%	9%	12%	9%		
0.160	6%	6%	8%	6%		
0.080	3%	5%	5%	4%		
M.C.(%):	2%	3%	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:	66	75	64	70		
% SAND:	31	20	31	26		
% FINES:	3	5	5	4		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		



PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2509
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 26/02

FIELD NO:	398	399	400	401		
LAB NO:	657	658	660	661		
DEPTH:	0.5-1.0	2.2-2.7	3.2-3.7	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	78%	100%	67%	100%		
25.0	54%	48%	41%	66%		
20.0	50%	38%	35%	63%		
12.5	43%	29%	31%	48%		
10.0	38%	27%	29%	44%		
5.0	30%	20%	24%	35%		
2.5	23%	16%	19%	28%		
1.25	18%	12%	15%	21%		
0.630	11%	8%	12%	14%		
0.315	6%	6%	10%	9%		
0.160	3%	4%	9%	5%		
0.080	2%	3%	8%	3%		
M.C.(%):	2%	3%	5%	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:	70	80	76	65		
% SAND:	28	17	16	32		
% FINES:	2	3	8	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)		

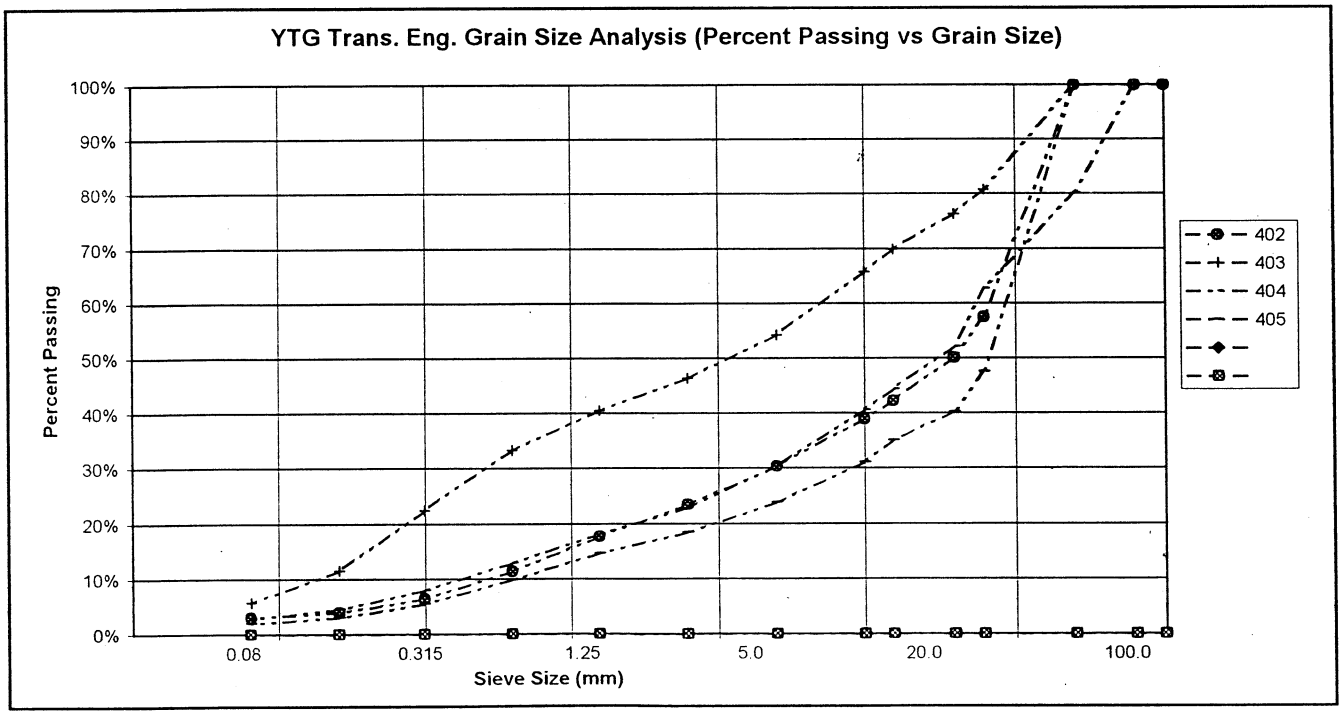


PROJECT NUMBER: 552-202101-0361-1
CLIENT: Engineering Capital
PROJECT NAME: Shakwak Granular Investigation
PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
DRILL UNIT: Koehring 6625 Backhoe
HOLE LOCATION: SEE PLAN
LOGGED BY: JRP R.W.

HOLE No.: 638-2510

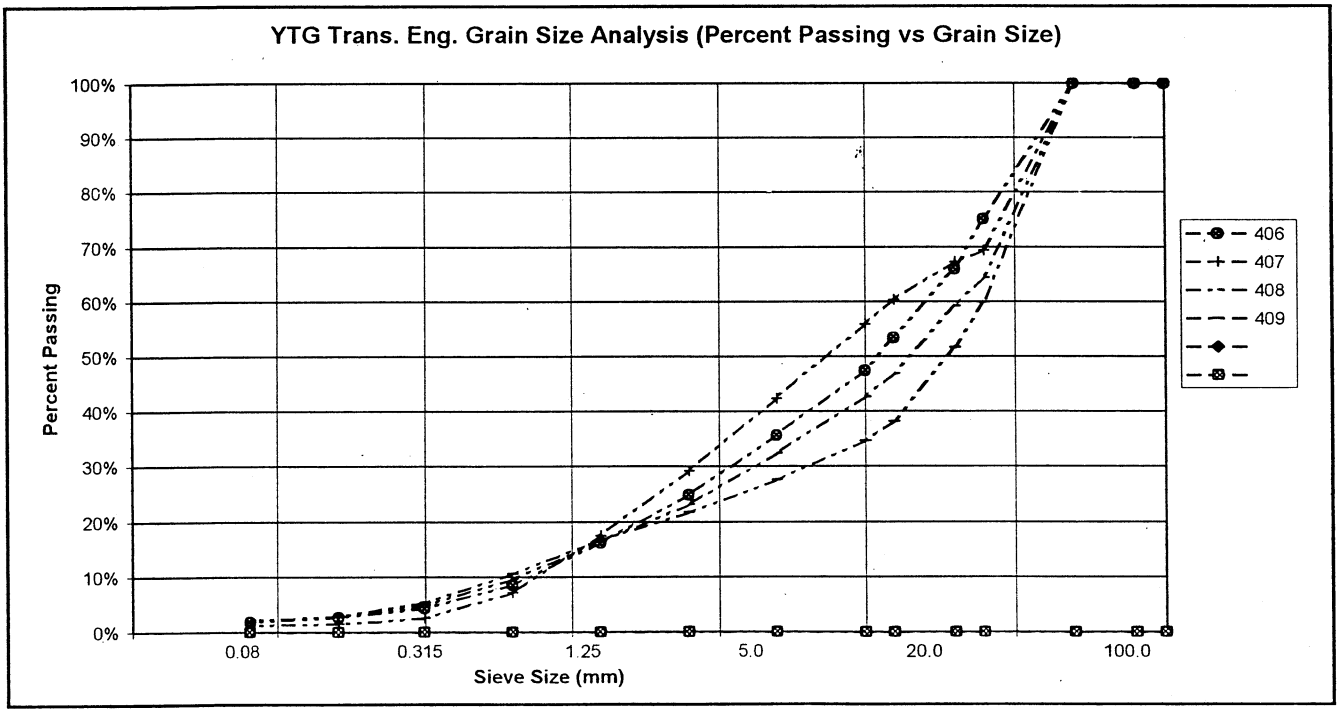
DATE COMP: SEPT 26/02

FIELD NO:	402	403	404	405		
LAB NO:	661	662	663	664		
DEPTH:	0.5-1.0	2.2-2.7	3.2-3.7	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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	58%	81%	63%	48%		
20.0	50%	76%	52%	40%		
12.5	42%	70%	44%	35%		
10.0	39%	66%	41%	31%		
5.0	30%	54%	30%	24%		
2.5	23%	46%	23%	18%		
1.25	18%	41%	18%	15%		
0.630	11%	33%	13%	10%		
0.315	6%	22%	8%	5%		
0.160	4%	11%	5%	3%		
0.080	3%	6%	3%	2%		
M.C.(%):	3%	4%	2%	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:	70	46	70	76		
% SAND:	27	48	28	22		
% FINES:	3	6	3	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		



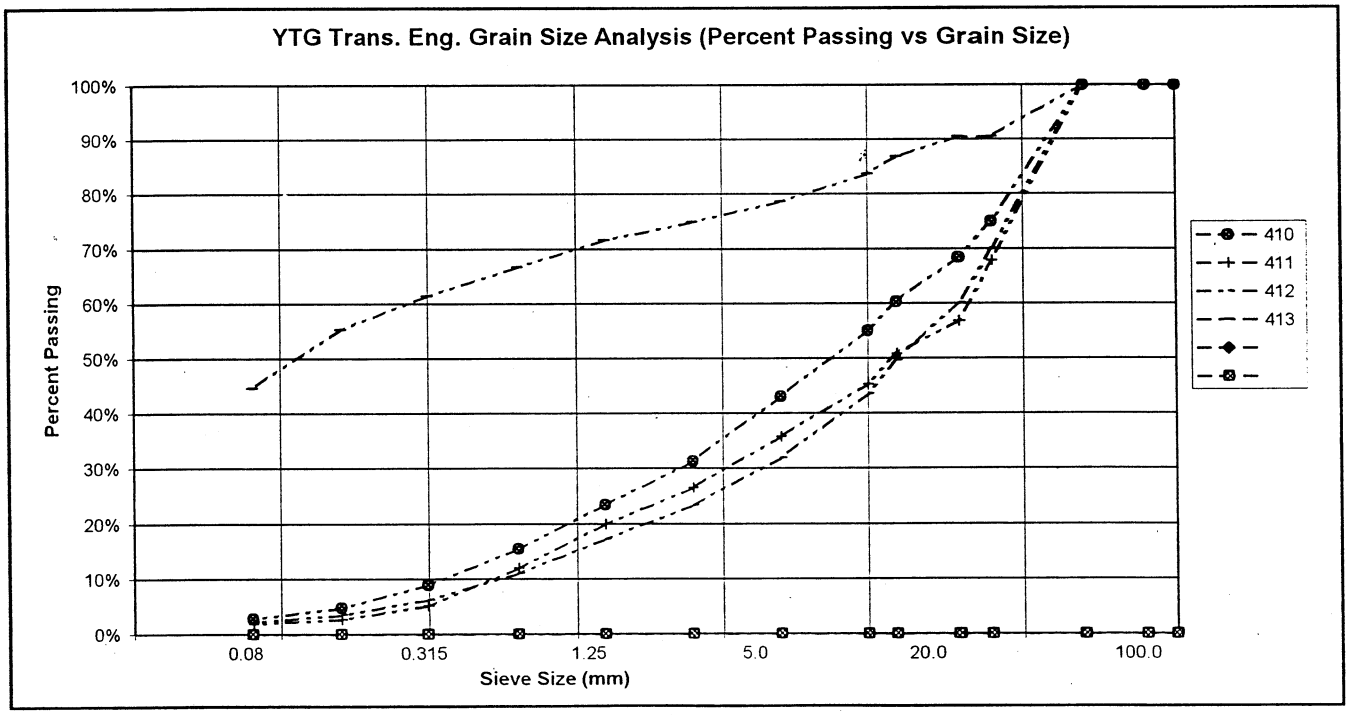
PROJECT NUMBER:	552-202101-0361-1	HOLE No.: 638-2511
CLIENT:	Engineering Capital	
PROJECT NAME:	Shakwak Granular Investigation	
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21	
DRILL UNIT:	Koehring 6625 Backhoe	
HOLE LOCATION:	SEE PLAN	
LOGGED BY:	JRP R.W.	DATE COMP: SEPT 26/02

FIELD NO:	406	407	408	409		
LAB NO:	665	666	667	668		
DEPTH:	0.5-1.0	2.2-2.7	3.0-3.5	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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	75%	69%	64%	60%		
20.0	66%	67%	59%	52%		
12.5	53%	60%	47%	38%		
10.0	47%	56%	43%	35%		
5.0	36%	42%	32%	28%		
2.5	25%	29%	23%	22%		
1.25	16%	17%	16%	17%		
0.630	9%	7%	10%	11%		
0.315	4%	3%	5%	5%		
0.160	3%	1%	3%	3%		
0.080	2%	1%	2%	2%		
M.C.(%):	2%	3%	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:	64	58	68	72		
% SAND:	34	41	30	26		
% FINES:	2	1	2	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)		



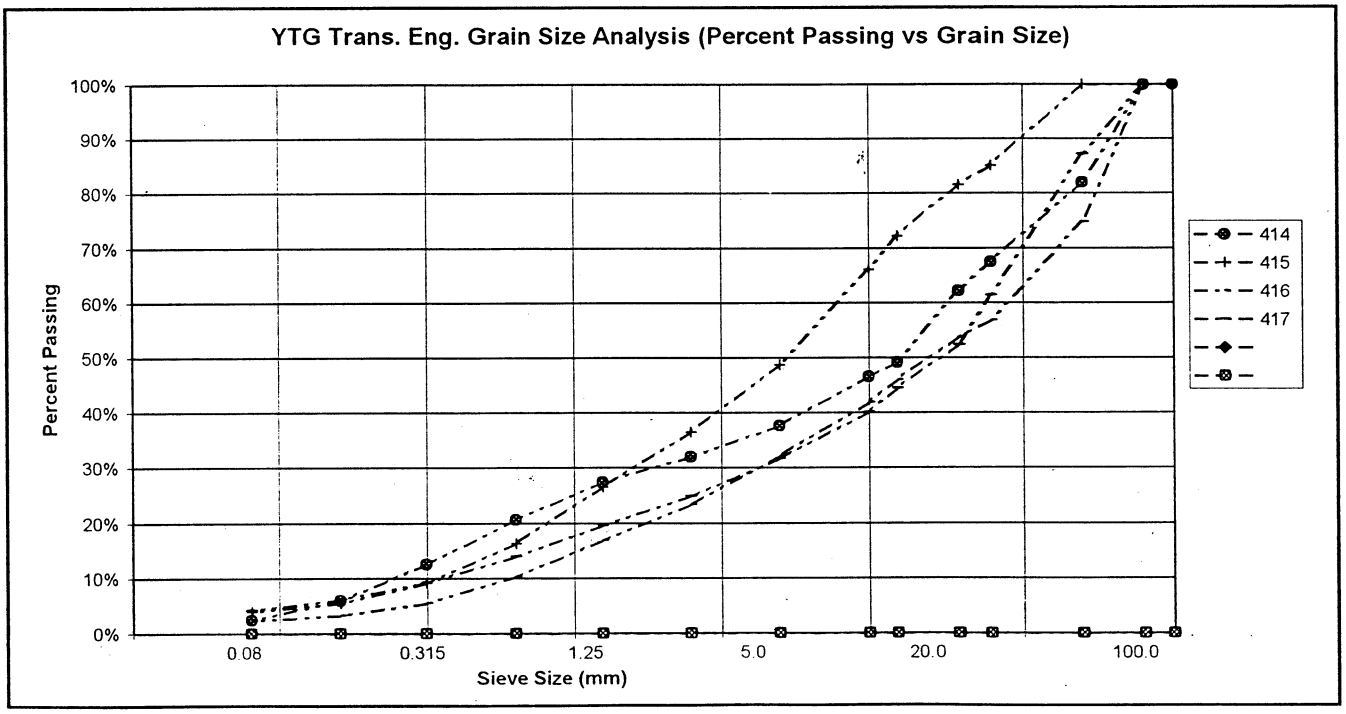
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2512
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 26/02

FIELD NO:	410	411	412	413		
LAB NO:	669	670	671	672		
DEPTH:	0.6-1.1	2.3-2.8	3.2-3.7	4.2-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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	75%	68%	70%	91%		
20.0	68%	57%	60%	91%		
12.5	60%	51%	50%	87%		
10.0	55%	45%	44%	84%		
5.0	43%	36%	32%	79%		
2.5	31%	27%	23%	75%		
1.25	23%	20%	17%	72%		
0.630	16%	12%	11%	67%		
0.315	9%	5%	6%	61%		
0.160	5%	3%	4%	55%		
0.080	3%	2%	2%	45%		
M.C.(%):	3%	2%	2%	20%		
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:	57	64	68	21		
% SAND:	40	34	30	34		
% FINES:	3	2	2	45		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)		



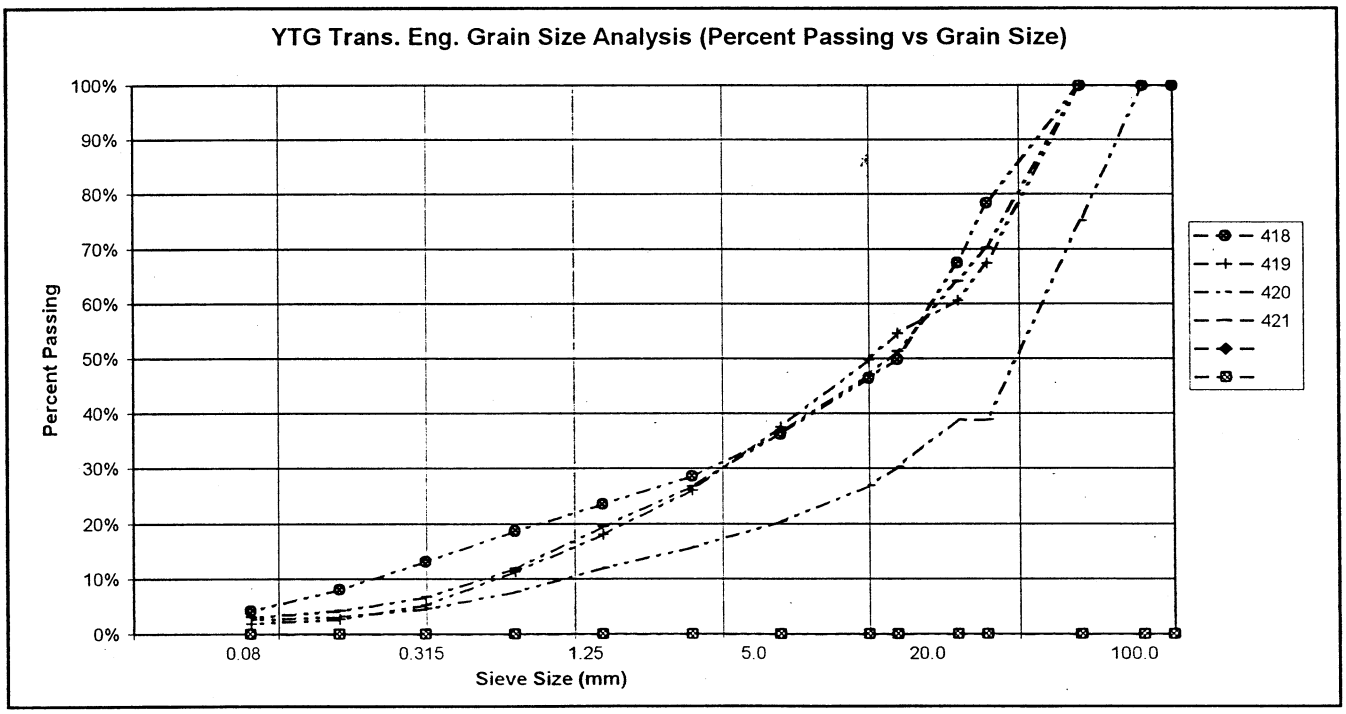
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2513
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 26/02

FIELD NO:	414	415	416	417		
LAB NO:	673	674	675	676		
DEPTH:	0.5-1.0	2.0-2.5	2.9-3.4	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	82%	100%	75%	87%		
25.0	67%	85%	57%	61%		
20.0	62%	82%	54%	52%		
12.5	49%	72%	46%	44%		
10.0	47%	66%	42%	40%		
5.0	38%	49%	32%	32%		
2.5	32%	36%	23%	25%		
1.25	27%	27%	17%	20%		
0.630	21%	16%	10%	14%		
0.315	13%	9%	6%	9%		
0.160	6%	6%	3%	6%		
0.080	2%	4%	2%	4%		
M.C.(%):	2%	3%	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:	62	51	68	68		
% SAND:	35	45	30	27		
% FINES:	2	4	2	4		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		



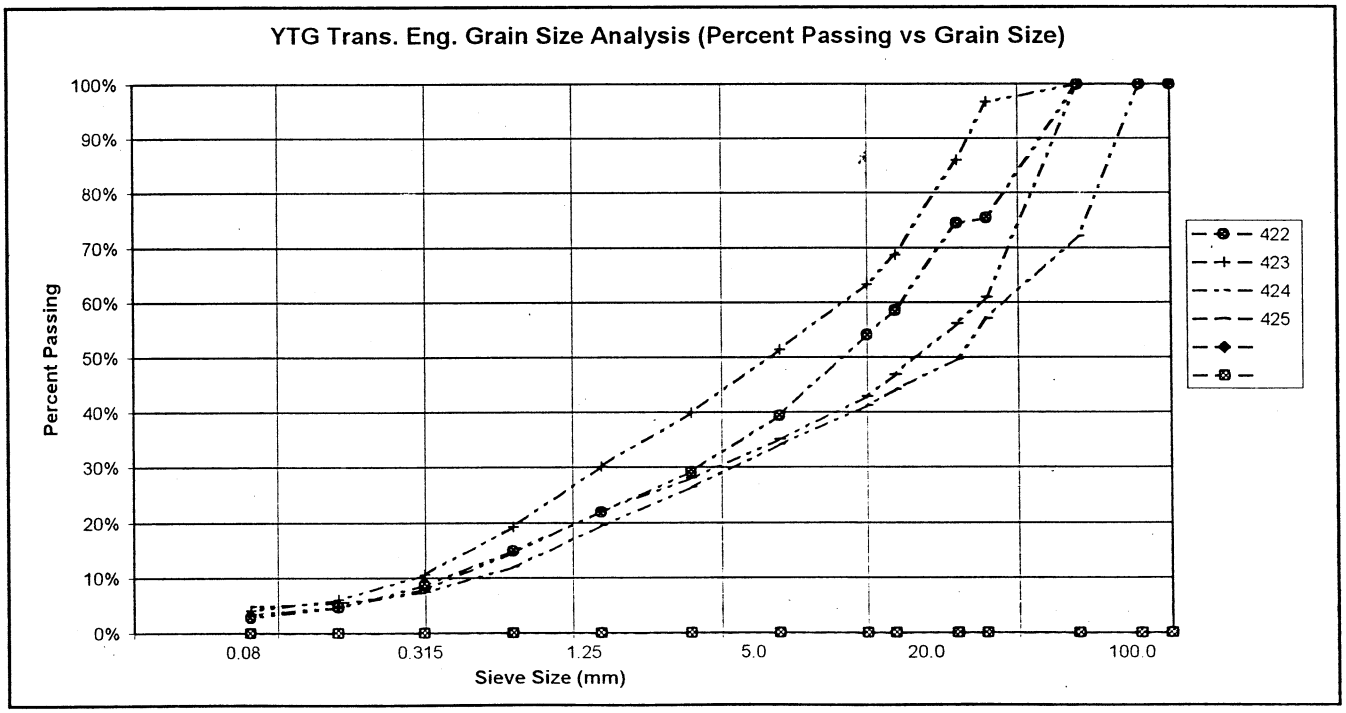
PROJECT NUMBER:	552-202101-0361-1	HOLE No.: 638-2514
CLIENT:	Engineering Capital	
PROJECT NAME:	Shakwak Granular Investigation	
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21	
DRILL UNIT:	Koehring 6625 Backhoe	
HOLE LOCATION:	SEE PLAN	
LOGGED BY:	JRP R.W.	DATE COMP: SEPT 26/02

FIELD NO:	418	419	420	421		
LAB NO:	677	678	679	680		
DEPTH:	0.5-1.0	2.0-2.5	3.2-3.7	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	75%	100%		
25.0	78%	67%	39%	70%		
20.0	67%	61%	39%	64%		
12.5	50%	55%	30%	51%		
10.0	46%	50%	27%	47%		
5.0	36%	38%	20%	37%		
2.5	29%	26%	16%	27%		
1.25	24%	18%	12%	20%		
0.630	19%	11%	8%	12%		
0.315	13%	5%	5%	7%		
0.160	8%	3%	3%	4%		
0.080	4%	2%	3%	3%		
M.C.(%):	2%	2%	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:	64	62	80	63		
% SAND:	32	36	18	33		
% FINES:	4	2	3	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)		



PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2515
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 26/02

FIELD NO:	422	423	424	425		
LAB NO:	681	682	683	684		
DEPTH:	0.5-1.0	2.0-2.5	3.0-3.5	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	72%	100%		
25.0	76%	97%	57%	61%		
20.0	75%	86%	50%	56%		
12.5	59%	69%	44%	47%		
10.0	54%	63%	41%	43%		
5.0	39%	51%	34%	35%		
2.5	29%	40%	26%	28%		
1.25	22%	30%	19%	22%		
0.630	15%	19%	12%	15%		
0.315	9%	11%	7%	8%		
0.160	5%	6%	6%	5%		
0.080	3%	4%	5%	3%		
M.C.(%):	2%	3%	4%	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:	61	49	66	65		
% SAND:	37	47	29	32		
% FINES:	3	4	5	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

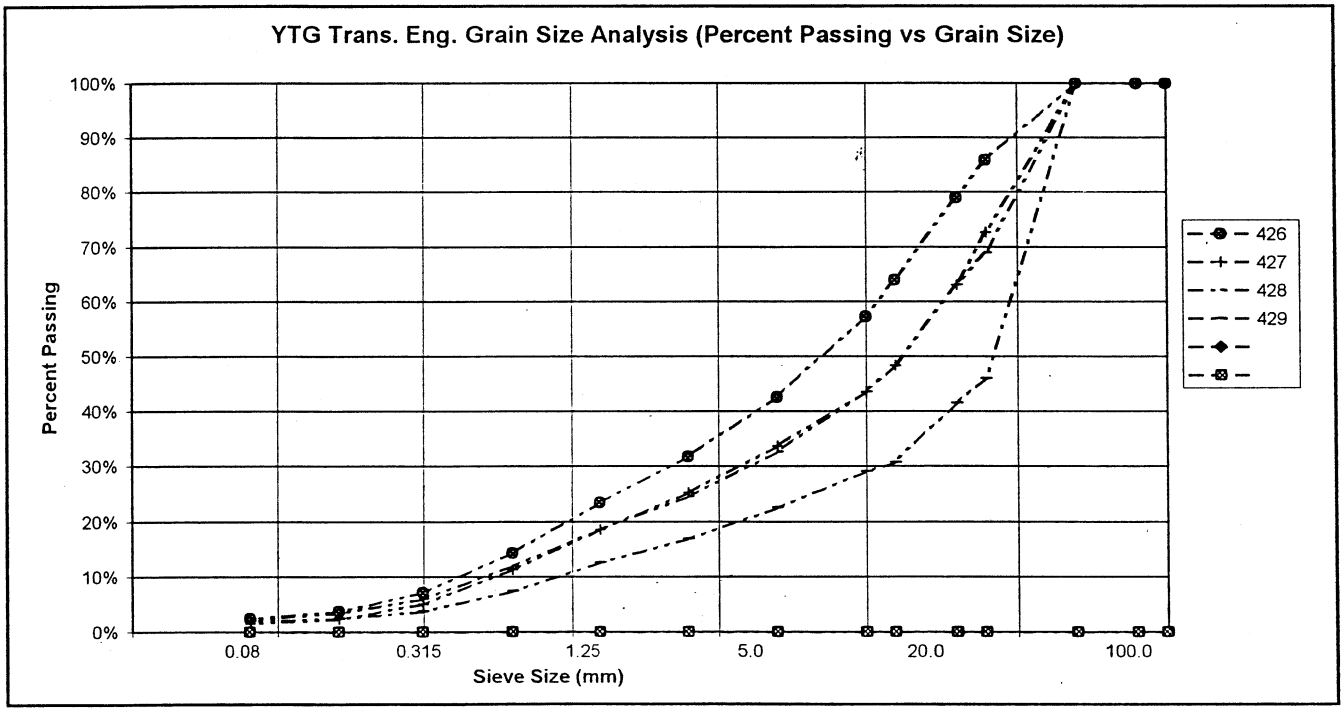


PROJECT NUMBER: 552-202101-0361-1
CLIENT: Engineering Capital
PROJECT NAME: Shakwak Granular Investigation
PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
DRILL UNIT: Koehring 6625 Backhoe
HOLE LOCATION: SEE PLAN
LOGGED BY: JRP R.W.

HOLE No.: 638-2516

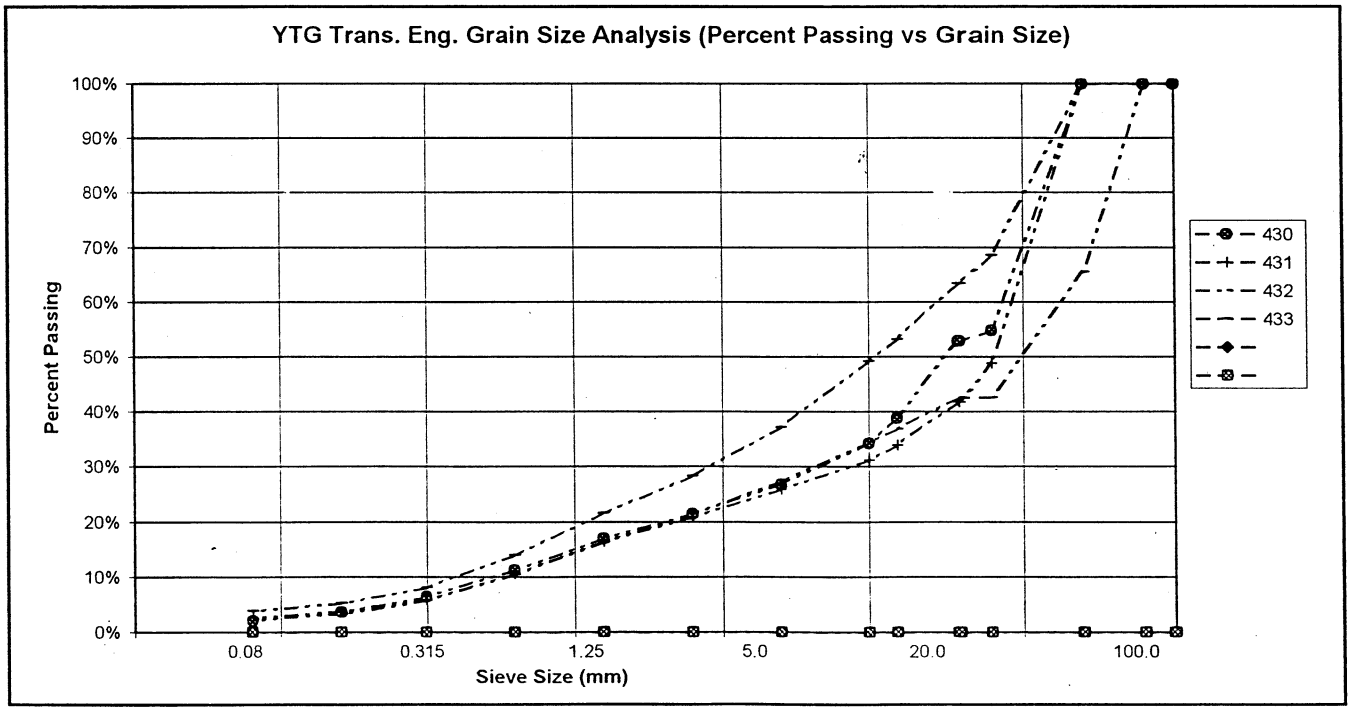
DATE COMP: SEPT 26/02

FIELD NO:	426	427	428	429		
LAB NO:	685	686	687	689		
DEPTH:	0.5-1.0	2.0-2.5	3.0-3.5	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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	86%	73%	69%	46%		
20.0	79%	63%	63%	42%		
12.5	64%	48%	48%	31%		
10.0	57%	44%	44%	29%		
5.0	43%	34%	33%	23%		
2.5	32%	25%	25%	17%		
1.25	24%	19%	19%	13%		
0.630	14%	11%	12%	7%		
0.315	7%	5%	6%	4%		
0.160	4%	2%	3%	2%		
0.080	2%	1%	2%	2%		
M.C.(%):	2%	2%	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:	57	66	67	77		
% SAND:	40	32	30	21		
% FINES:	2	1	2	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)		



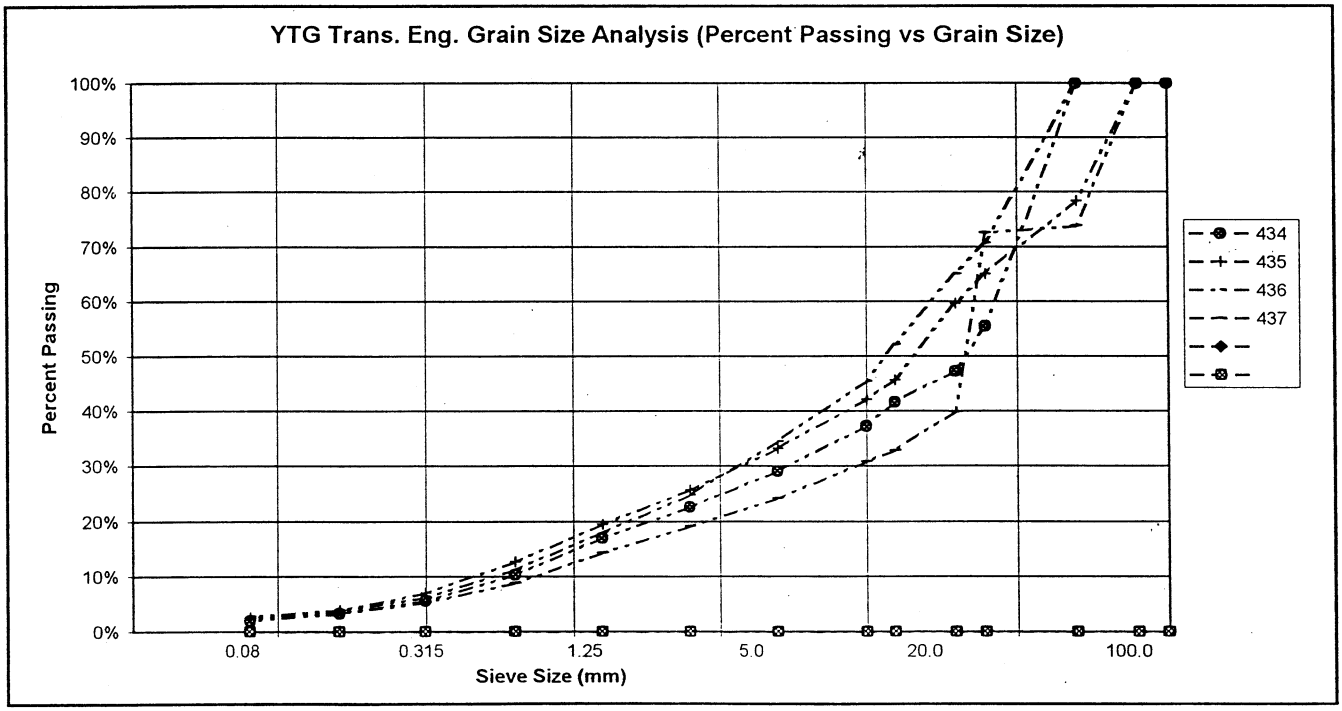
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 638-2717
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	SEE PLAN		
LOGGED BY:	JRP R.W.		DATE COMP: SEPT 26/02

FIELD NO:	430	431	432	433		
LAB NO:	689	690	691	692		
DEPTH:	0.5-1.0	2.2-2.7	3.0-3.5	4.5-5.0		
TYPE:	BULK	BULK	BULK	BULK		
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%	65%	100%		
25.0	55%	49%	43%	69%		
20.0	53%	42%	43%	63%		
12.5	39%	34%	37%	53%		
10.0	34%	31%	35%	49%		
5.0	27%	26%	27%	37%		
2.5	22%	21%	22%	28%		
1.25	17%	16%	16%	22%		
0.630	11%	11%	10%	14%		
0.315	6%	6%	6%	8%		
0.160	4%	4%	3%	5%		
0.080	2%	3%	2%	4%		
M.C.(%):	1%	3%	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:	73	74	73	63		
% SAND:	25	23	25	33		
% FINES:	2	3	2	4		
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		



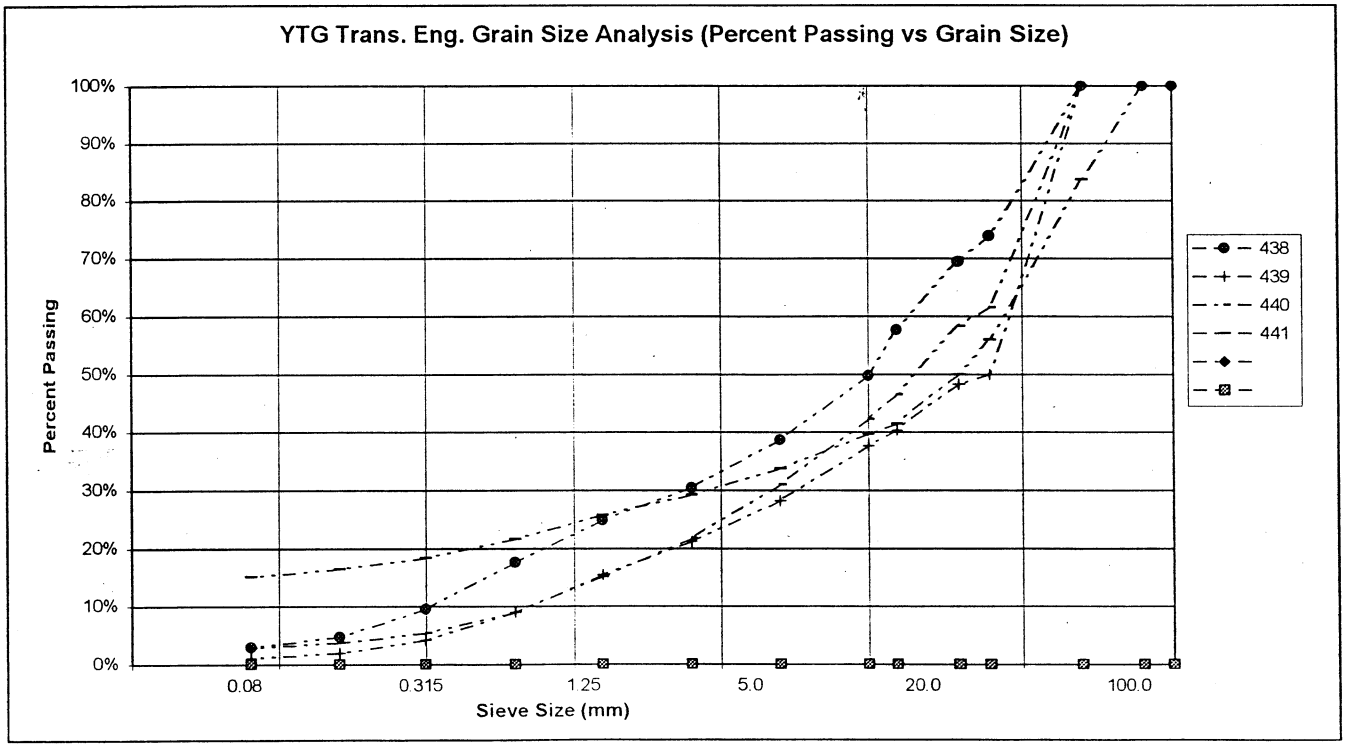
PROJECT NUMBER:	552-202101-0361-1	HOLE No.: 638-2518
CLIENT:	Engineering Capital	
PROJECT NAME:	Shakwak Granular Investigation	
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21	
DRILL UNIT:	Koehring 6625 Backhoe	
HOLE LOCATION:	SEE PLAN	
LOGGED BY:	JRP R.W.	DATE COMP: SEPT 26/02

FIELD NO:	434	435	436	437		
LAB NO:	693	694	695	696		
DEPTH:	0.5-1.0	2.2-2.7	3.2-3.7	4.5-5.0		
TYPE:	BULK	BULK	BULK	BULK		
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%	78%	100%	74%		
25.0	56%	65%	71%	73%		
20.0	47%	60%	65%	40%		
12.5	42%	46%	52%	33%		
10.0	37%	42%	45%	31%		
5.0	29%	33%	35%	24%		
2.5	23%	26%	25%	19%		
1.25	17%	20%	18%	14%		
0.630	10%	13%	11%	9%		
0.315	6%	7%	6%	5%		
0.160	3%	4%	4%	3%		
0.080	2%	3%	3%	2%		
M.C.(%):	2%	3%	4%	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:	71	67	65	76		
% SAND:	27	31	32	22		
% FINES:	2	3	3	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		



PROJECT NUMBER:	552-202101-0361-1	HOLE No.: 638-2519
CLIENT:	Engineering Capital	
PROJECT NAME:	Shakwak Granular Investigation	
PROJECT LOCATION:	Km 1734.4 LHS A/H Pit # 115-G-21	
DRILL UNIT:	Koehring 6625 Backhoe	
HOLE LOCATION:	SEE PLAN	
LOGGED BY:	JRP R.W.	DATE COMP: SEPT 26/02

FIELD NO:	438	439	440	441		
LAB NO:	697	698	699	700		
DEPTH:	0.5-1.0	1.7-2.2	3.0-3.5	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	84%		
25.0	74%	50%	62%	56%		
20.0	69%	48%	58%	50%		
12.5	58%	40%	47%	41%		
10.0	50%	38%	42%	40%		
5.0	39%	28%	31%	34%		
2.5	30%	21%	22%	29%		
1.25	25%	16%	15%	26%		
0.630	18%	9%	9%	22%		
0.315	10%	4%	5%	18%		
0.160	5%	2%	4%	16%		
0.080	3%	1%	3%	15%		
M.C.(%):	2%	2%	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:	61	72	69	66		
% SAND:	36	27	28	19		
% FINES:	3	1	3	15		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY GRAVEL WITH SAND (GM)		

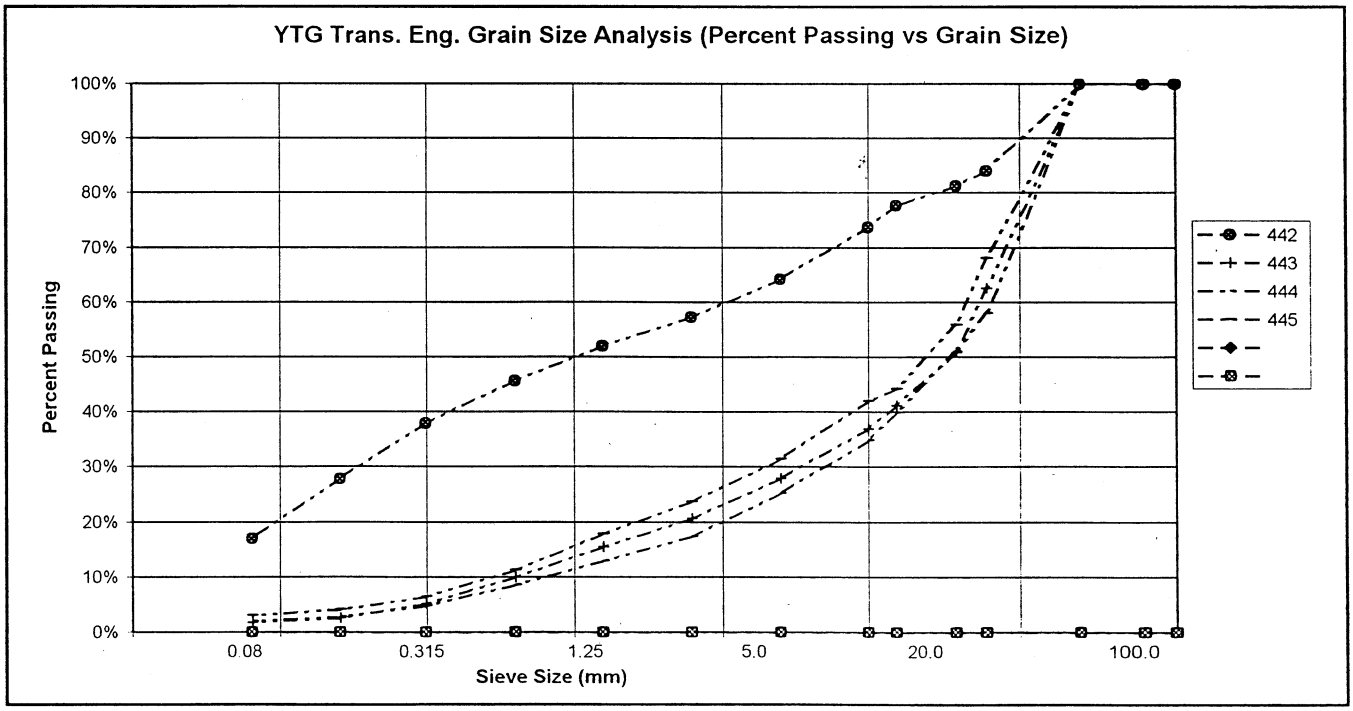


PROJECT NUMBER: 552-202101-0361-1
CLIENT: Engineering Capital
PROJECT NAME: Shakwak Granular Investigation
PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
DRILL UNIT: Koehring 6625 Backhoe
HOLE LOCATION: SEE PLAN
LOGGED BY: JRP R.W.

HOLE No.: 638-2520

DATE COMP: SEPT 26/02

FIELD NO:	442	443	444	445		
LAB NO:	701	702	703	704		
DEPTH:	0.5-1.0	2.2-2.7	3.2-3.7	4.5-5.0		
TYPE:	BULK	BULK	BULK	BULK		
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%	63%	58%	68%		
20.0	81%	51%	51%	56%		
12.5	78%	41%	40%	44%		
10.0	74%	37%	35%	42%		
5.0	64%	28%	25%	31%		
2.5	57%	21%	17%	24%		
1.25	52%	15%	13%	18%		
0.630	46%	10%	9%	11%		
0.315	38%	5%	5%	6%		
0.160	28%	3%	3%	4%		
0.080	17%	2%	2%	3%		
M.C.(%):	4%	2%	2%	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:	36	72	75	69		
% SAND:	47	26	23	28		
% FINES:	17	2	2	3		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		



GRANULAR SOURCE TESTING
Km 1732.0 RHS
(Mines Creek)
ALASKA HIGHWAY

HISTORY OF AGGREGATE PRODUCTION

Alaska Highway Km 1736.1 RHS
115 G-02

Average Crusher Run Characteristics of Material Produced

File Number --- 2142-5-47 ? Contractor --- Wayne Ent.
Commenced --- 86-05-01 Completed --- 86-05-09 No. of tests --- 31
Type of aggregate --- 20 mm B.S.T. Aggregate Type II
Amount Produced --- ? m³

Sieve Size mm	20.0	12.5	5.00	2.50	1.25	0.315	0.080
Percent Passing	100	90.0	56.5	40.7	29.4	12.7	5.2

Moisture Content - 3.5 % Standard Proctor
Fracture - 68.1 % Kg/m³ @ % moisture

==========

File Number --- 2145-4 Contractor --- Nuway
Commenced --- 94-03-30 Completed --- 94-02-02 No. of tests --- 17
Type of aggregate --- 20 mm B.S.T. Aggregate
Amount Produced --- 7,969 m³

Sieve Size mm	20.0	12.5	5.00	2.50	1.25	0.315	0.080
Percent Passing	100.0	79.8	48.0	34.6	24.6	10.4	3.6

Moisture Content - 2.5 % Standard Proctor
Fracture - 64.6 % Kg/m³ @ % moisture

==========

File Number --- 2145-4 Contractor --- Nuway
Commenced --- 94-04-01 Completed --- 94-04-03 No. of tests --- 19
Type of aggregate --- 20 mm Granular Base
Amount Produced --- 8,665 m³

Sieve Size mm	20.0	12.5	5.00	2.50	1.25	0.315	0.080
Percent Passing	100	82.9	51.0	-	26.4	11.0	3.7

Moisture Content - 2.7 % Standard Proctor
Fracture - 65.4 % Kg/m³ @ % moisture

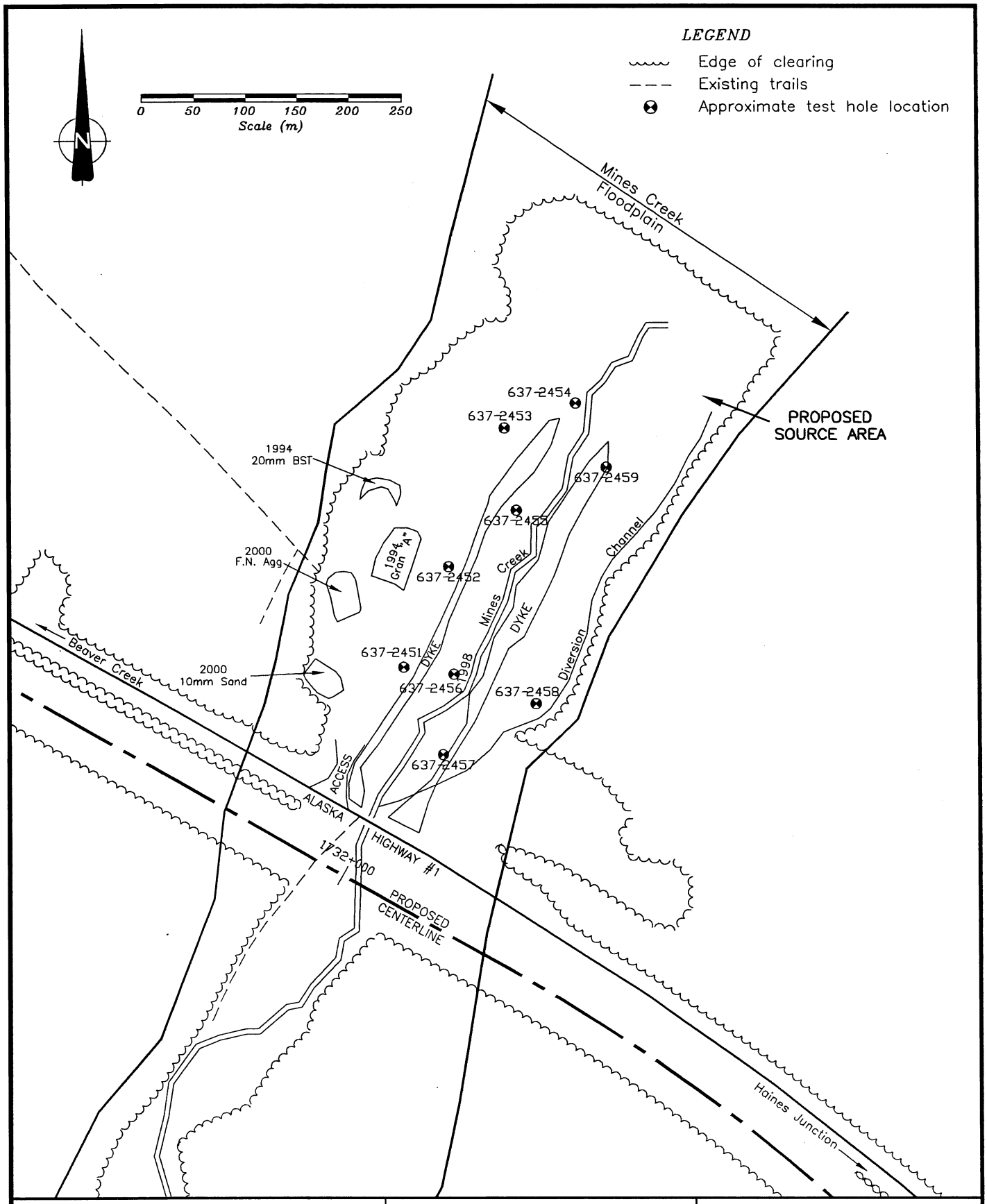
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File Number --- 4100-60-34 Contractor --- Nuway Crushing Ltd.
Commenced --- 00-09-20 Completed --- 00-09-24 No. of tests --- 38
Type of aggregate --- 10 mm Crushed Fine Sanding Aggregate
Amount Produced --- 8,869 m³

Sieve Size mm	20.0	12.5	10.0	5.00	2.50	1.25	0.315	0.080
Percent Passing	100	100	98.7	68.2	45.7	-	13.2	4.8

Moisture Content - 4.1 % Standard Proctor
Fracture - 67.7 % Kg/m³ @ % moisture

==========



Yukon
Infrastructure
Transportation Division

Transportation Engineering Branch

SITE PLAN
GRANULAR PIT
Km 1732.0 R.H.S.
(Mines Creek)
ALASKA HWY. YUKON

pit file:	115 G-02
revision:	03-Proposed
drawn:	JJM
date:	03-01-02
scale:	1: 5000
drwg:	115g-02S

Km 1732.0 RHS Alaska Highway #1
Pit Ident. 115 G-02
(Mines Creek)

September 2002
Book # 637
Test Pit Logs

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 637-2451
ENGINEERING CAPITAL	MINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	WELL TO POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GW)-(GP)-(GP-GM) -brown -damp, loose -estimate 0-10% +75mm material -maximum 200mm diameter -wood encounted @ 0.8m (tree) -odd silt seam noted (+/- 100mm thick)		186	▲	GW		◆ ■	0.0
1.0								1.0
2.0			187	▲	GP		◆ ■	2.0
	-moist to wet below 2.5m							
3.0								3.0
			188	▲	GP		◆ ■	
4.0								4.0
			189	● ▲	GP-GM		◆ ■	
5.0	END HOLE @ 5.0m							5.0
6.0								6.0

Government of Yukon
Transportation Engineering

LOGGED BY: JRP	COMPLETION DEPTH: 5.0 m
REVIEWED BY:	COMPLETE: 02/09/22
Fig. No:	Page 1 of 1

02/12/30 11:49AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 637-2452
ENGINEERING CAPITAL	MINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 0-10% +75mm material -maximum 200mm diameter -wood encountered 0.8 to 2.5m (trees / large roots)		190	SM	
2.0	SILTY SAND WITH GRAVEL (SM) -brown -damp, loose		191	SM	
3.0	SILTY SAND (SM) -brown -damp, firm		192	SM	
4.0					
5.0	SILTY GRAVEL WITH SAND (GM) -brown -damp, loose END HOLE @ 5.0m		193	GM	
6.0					

▲ PERCENT FINES ▲ 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

◆ PERCENT SAND ◆ 20 40 60 80

■ PERCENT GRAVEL ■ 20 40 60 80

DEPTH (m)

Government of Yukon
Transportation Engineering

LOGGED BY: JRP	COMPLETION DEPTH: 5.0 m
REVIEWED BY:	COMPLETE: 02/09/22
Fig. No:	Page 1 of 1

02/12/30 11:50AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 637-2453
ENGINEERING CAPITAL	MINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	POORLY GRADED GRAVEL WITH SAND (GP) –brown –damp, loose –estimate 0–10% +75mm material –maximum 200mm diameter –organics (rootlets) to 0.3m		194		GP			0.0
1.0								1.0
2.0	SILTY SAND / SANDY SILT –brown –damp, firm –organic (rootlets etc)							2.0
	POORLY GRADED GRAVEL WITH SAND (GP) –brown –damp, loose –estimate 0–10% +75mm material –maximum 200mm diameters		195		GP			
3.0	SILTY SAND (SM) –brown –damp, loose –organic (rootlets etc)		196		SM			3.0
4.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP–GM) –brown –damp, loose –estimate 0–10% +75mm material –maximum 200mm diameter		197		GP–GM			4.0
5.0	END HOLE @ 5.0m							5.0
6.0								6.0

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Transportation Engineering

LOGGED BY: JRP	COMPLETION DEPTH: 5.0 m
REVIEWED BY:	COMPLETE: 02/09/22
Fig. No:	Page 1 of 1

02/12/11 10:58AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 637-2454
ENGINEERING CAPITAL	MINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 0-10% +75mm material -maximum 200mm diameter		198	GP	
2.0	POORLY GRADED GRAVEL WITH SILT & SAND TO SILTY GRAVEL WITH SAND (GP-GM)-(GM) -brown -damp, loose -silt mostly present in seams to 400mm thick -organic (roots) noted throughout		199	GP-GM	
3.0			200	GM	
4.0	SILTY GRAVEL WITH SAND (GM) -brown -moist to wet, loose -silt present in seams -organics (rootlets) noted in silt seams		201	GM	
5.0	END HOLE @ 4.5m				
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)

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LOGGED BY: JRP	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 02/09/22
Fig. No:	Page 1 of 1

02/12/30 11:56AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 637-2455
ENGINEERING CAPITAL	MINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 0-5% +75mm material -maximum 150mm diameter		202	GP	
2.0	SILTY SAND WITH GRAVEL (SM) -brown -damp, loose		203	SM	
3.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -damp, loose -estimate 0-5% +75mm material -maximum 150mm diameter		204	GP-GM	
4.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -moist, loose -estimate 0-5% +75mm material -maximum 150mm diameter		205	GP	
5.0	END HOLE @ 5.0m				
6.0					

▲ PERCENT FINES ▲ 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

◆ PERCENT SAND ◆ 20 40 60 80

■ PERCENT GRAVEL ■ 20 40 60 80

DEPTH (m)

Government of Yukon
Transportation Engineering

LOGGED BY: JRP	COMPLETION DEPTH: 5.0 m
REVIEWED BY:	COMPLETE: 02/09/22
Fig. No:	Page 1 of 1

02/12/11 10:58AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 637-2456
ENGINEERING CAPITAL	MINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	POORLY GRADED GRAVEL WITH SAND (GP) –brown –damp, loose –estimate 0–5% +75mm material –maximum 150mm diameter		206	GP	
1.0					
	WELL–GRADED GRAVEL WITH SAND (GW) –brown –damp, loose –silt present in seams –some organic noted (roots)		207	GW	
2.0					
	SILTY SAND (SM) –brown –damp, loose		208	SM	
3.0					
4.0					
	POORLY GRADED GRAVEL WITH SAND (GP) –brown –moist, loose –sample # 209 was poor due to exessive sloughage		209	GP	
5.0	END HOLE @ 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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LOGGED BY: JRP	COMPLETION DEPTH: 5.0 m
REVIEWED BY:	COMPLETE: 02/09/22
Fig. No:	Page 1 of 1

02/12/11 12:00PM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 637-2457
ENGINEERING CAPITAL	MINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -moist, loose -estimate 0-5% +75mm material -maximum 100mm diameter -silt seam 100mm thick @ 0.6m		210		GP-GM			0.0
1.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -moist, loose -estimate 0-10% +75mm material -maximum 200mm diameter		211		GP			1.0
2.0								2.0
3.0			212		GP			3.0
4.0			213		GP			4.0
4.5	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon
Transportation Engineering

LOGGED BY: JRP	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 02/09/22
Fig. No:	Page 1 of 1

02/12/30 11:56AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 637-2458
ENGINEERING CAPITAL	MINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 0-10% +75mm material -maximum 150mm diameter		214		GP			0.0
1.0								1.0
2.0	SANDY SILT WITH GRAVEL TO SILTY SAND (ML)-(SM) -brown -damp, firm -highly organic (organic, silt rootlets etc) -sandy gravel seams		215		ML			2.0
3.0			216		SM			3.0
4.0	SILTY GRAVEL WITH SAND (GM) -brown -damp, loose -silt present in seams		217		GM			4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon
Transportation Engineering

LOGGED BY: JRP	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 02/09/22
Fig. No:	Page 1 of 1

02/12/11 10:59AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 637-2459
ENGINEERING CAPITAL	MINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	POORLY GRADED GRAVEL WITH SAND (GP) –brown –damp, loose –estimate 0–10% +75mm material –maximum 200mm diameter –some organics noted in top 1.0m		218		GP			0.0
1.0								1.0
2.0								2.0
3.0	ORGANIC SILTS (ML) –brown –damp, firm		219		ML			3.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) –brown –damp, loose –organic silt seam noted @ 3.3–3.7m		220		GP-GM			
4.0			221		GP-GM			4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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Transportation Engineering

LOGGED BY: JRP	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 02/09/22
Fig. No:	Page 1 of 1

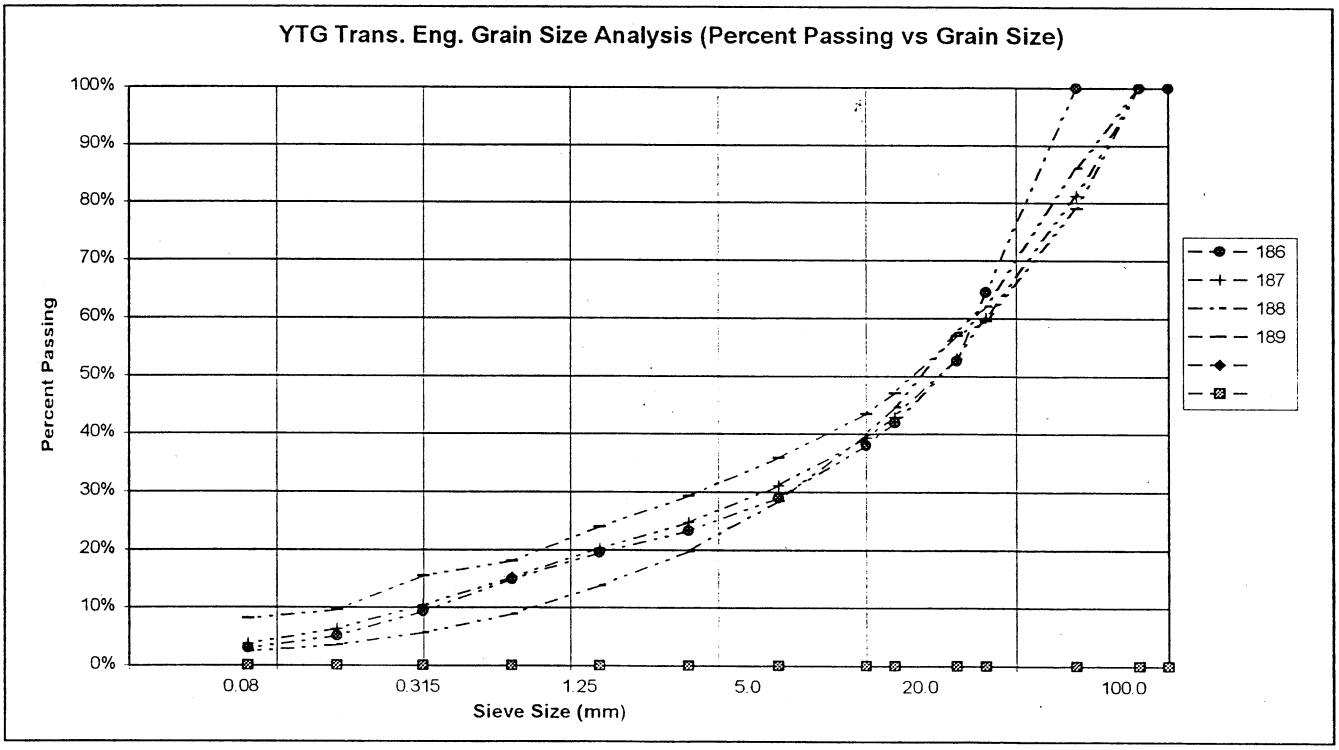
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Km 1732.0 RHS Alaska Highway #1
Pit Ident. 115 G-02
(Mines Creek)

September 2002
Book # 637
Pit Run Sample Results

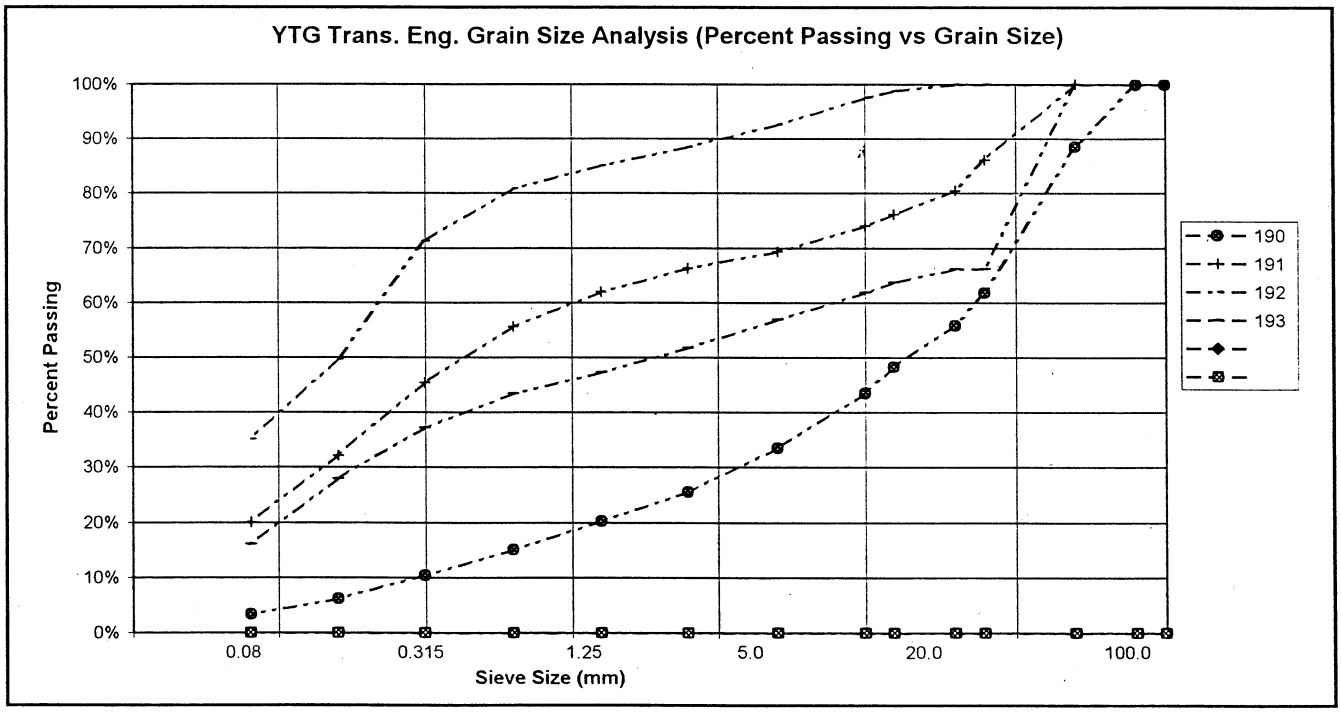
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 637-2451
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Mines Creek, Km 1736.1 RHS		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	See Plan		
LOGGED BY:	JRP R.W.		DATE COMP: Sept 22/02

FIELD NO:	186	187	188	189		
LAB NO:	446	447	448	449		
DEPTH:	1.0-1.5	2.0-2.5	3.2-3.8	4.5-5.0		
TYPE:	BULK	BULK	BULK	BULK		
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%	81%	86%	79%		
25.0	65%	60%	62%	60%		
20.0	53%	53%	57%	57%		
12.5	42%	43%	45%	47%		
10.0	38%	39%	40%	44%		
5.0	29%	31%	28%	36%		
2.5	23%	25%	20%	29%		
1.25	20%	20%	14%	24%		
0.630	15%	15%	9%	18%		
0.315	9%	10%	6%	16%		
0.160	5%	6%	4%	10%		
0.080	3%	4%	2%	8%		
M.C.(%):	3%	4%	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:	71	69	72	64		
% SAND:	26	27	26	28		
% FINES:	3	4	2	8		
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



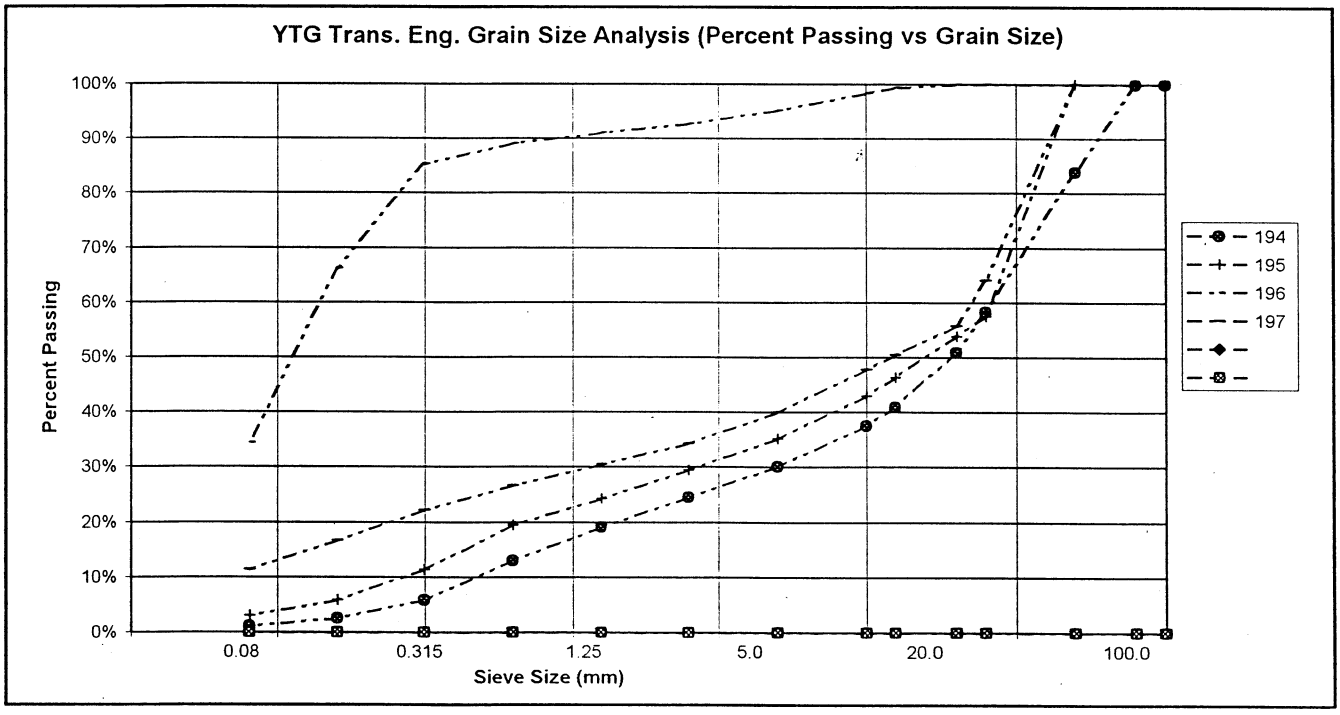
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 637-2452
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Mines Creek, Km 1736.1 RHS		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	See Plan		
LOGGED BY:	JRP R.W.		DATE COMP: Sept 22/02

FIELD NO:	190	191	192	193		
LAB NO:	450	451	452	453		
DEPTH:	1.0-1.5	2.0-2.5	3.2-3.8	4.6-5.0		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	89%	100%	100%	100%		
25.0	62%	86%	100%	66%		
20.0	56%	81%	100%	66%		
12.5	48%	76%	99%	64%		
10.0	44%	74%	98%	62%		
5.0	34%	69%	93%	57%		
2.5	26%	66%	88%	52%		
1.25	20%	62%	85%	47%		
0.630	15%	56%	81%	43%		
0.315	10%	45%	71%	37%		
0.160	6%	32%	50%	28%		
0.080	3%	20%	35%	16%		
M.C.(%):	4%	10%	18%	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:	66	31	7	43		
% SAND:	30	49	58	41		
% FINES:	3	20	35	16		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND (SM)	SILTY GRAVEL WITH SAND (GM)		



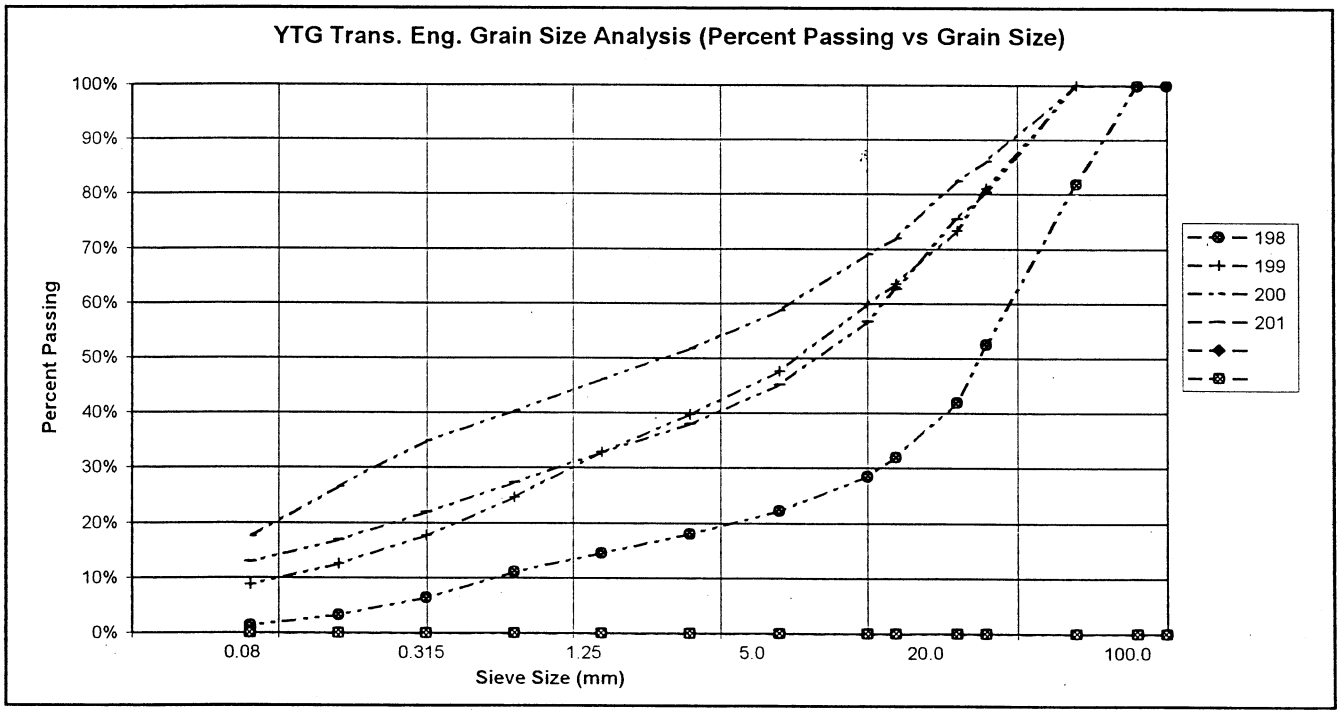
PROJECT NUMBER:	552-202101-0361-1	HOLE No.: 637-2453
CLIENT:	Engineering Capital	
PROJECT NAME:	Shakwak Granular Investigation	
PROJECT LOCATION:	Mines Creek, Km 1736.1 RHS	
DRILL UNIT:	Koehring 6625 Backhoe	
HOLE LOCATION:	See Plan	
LOGGED BY:	JRP R.W.	DATE COMP: Sept 22/02

FIELD NO:	194	195	196	197		
LAB NO:	454	455	456	457		
DEPTH:	1.0-1.5	2.0-2.8	3.0-3.6	4.5-5.0		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	84%	100%	100%	100%		
25.0	58%	58%	100%	64%		
20.0	51%	54%	100%	56%		
12.5	41%	46%	99%	50%		
10.0	38%	43%	98%	48%		
5.0	30%	35%	95%	40%		
2.5	25%	29%	93%	34%		
1.25	19%	24%	91%	31%		
0.630	13%	19%	89%	27%		
0.315	6%	11%	85%	22%		
0.160	3%	6%	66%	17%		
0.080	1%	3%	34%	11%		
M.C.(%):	2%	3%	14%	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:	70	65	5	60		
% SAND:	29	32	61	29		
% FINES:	1	3	34	11		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



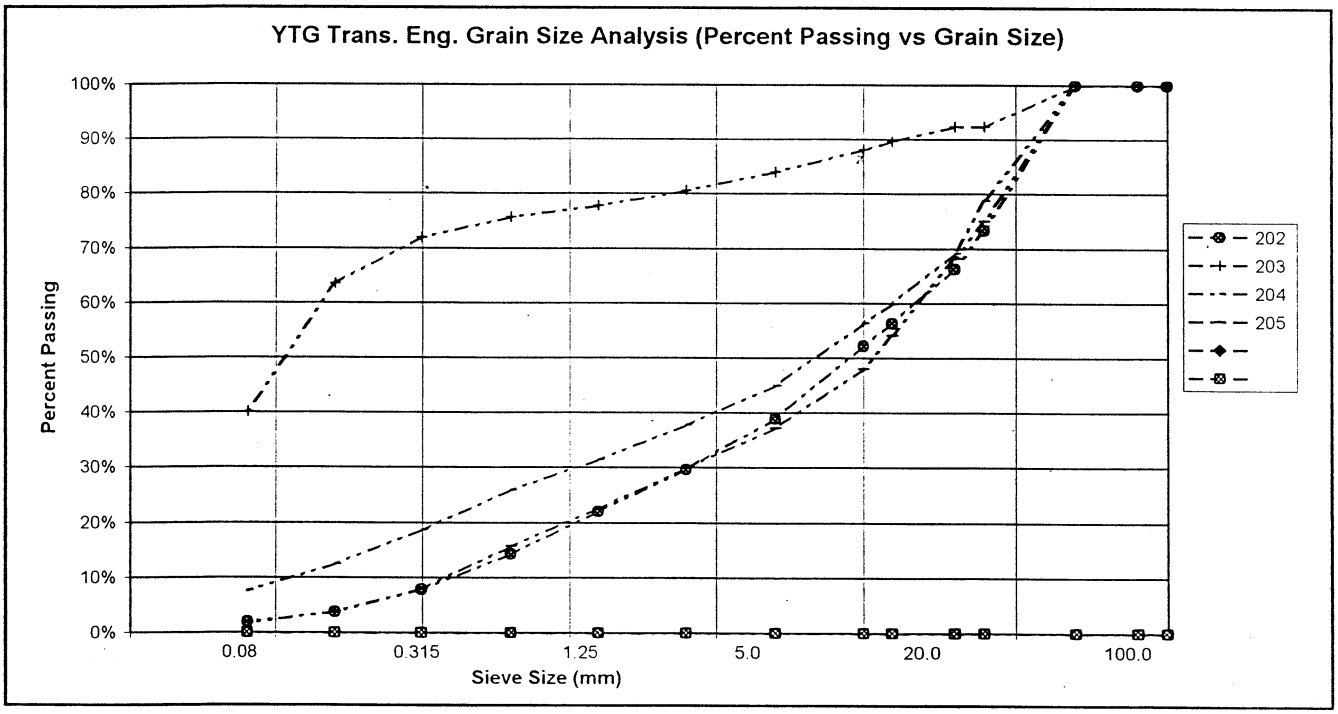
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 637-2454
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Mines Creek, Km 1736.1 RHS		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	See Plan		
LOGGED BY:	JRP R.W.		DATE COMP: Sept 22/02

FIELD NO:	198	199	200	201		
LAB NO:	458	459	460	461		
DEPTH:	1.0-1.5	2.0-2.5	2.7-3.2	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**	**PERCENT PASSING**		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	82%	100%	100%	100%		
25.0	53%	81%	86%	80%		
20.0	42%	73%	82%	75%		
12.5	32%	64%	72%	63%		
10.0	28%	60%	69%	57%		
5.0	22%	48%	59%	45%		
2.5	18%	40%	52%	38%		
1.25	15%	33%	46%	33%		
0.630	11%	25%	40%	27%		
0.315	6%	18%	35%	22%		
0.160	3%	13%	27%	17%		
0.080	1%	9%	18%	13%		
M.C.(%):	2%	7%	10%	10%		
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:	78	52	41	55		
% SAND:	21	39	41	32		
% FINES:	1	9	18	13		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)		



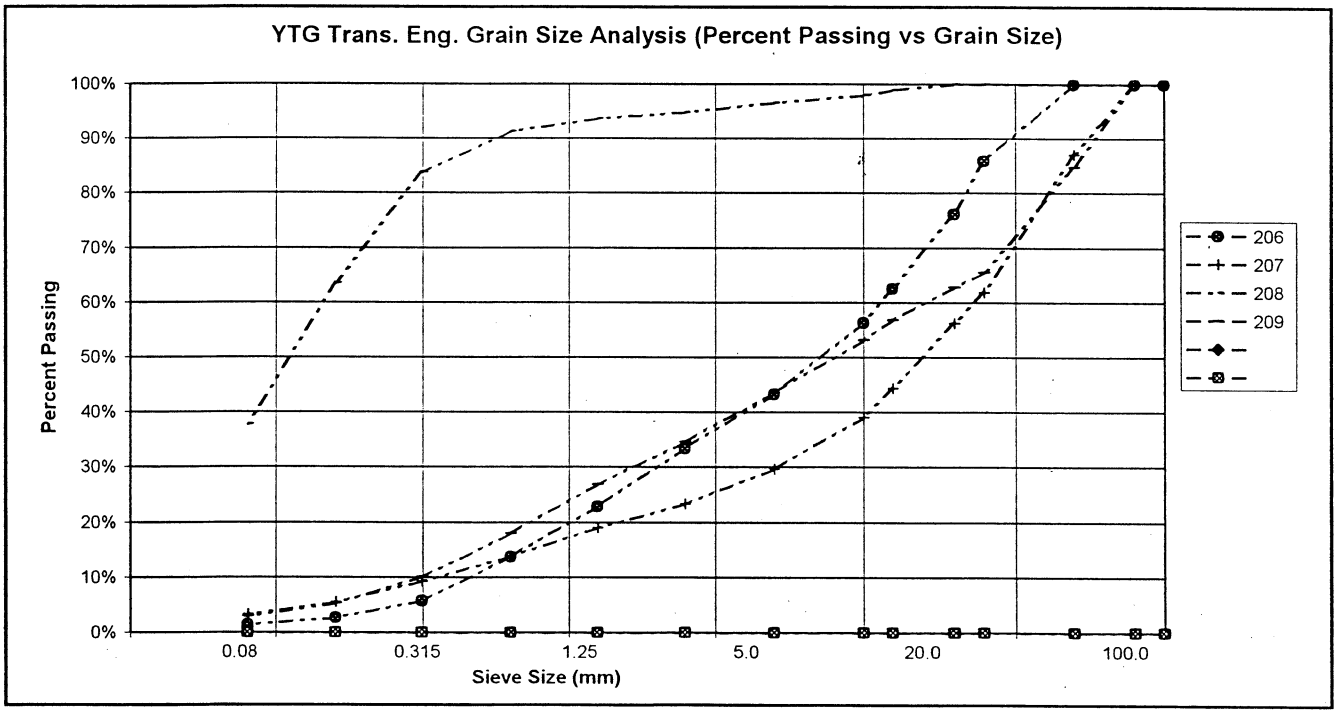
PROJECT NUMBER:	552-202101-0361-1	HOLE No.: 637-2455
CLIENT:	Engineering Capital	
PROJECT NAME:	Shakwak Granular Investigation	
PROJECT LOCATION:	Mines Creek, Km 1736.1 RHS	
DRILL UNIT:	Koehring 6625 Backhoe	
HOLE LOCATION:	See Plan	
LOGGED BY:	JRP R.W.	DATE COMP: Sept 22/02

FIELD NO:	202	203	204	205		
LAB NO:	462	463	464	465		
DEPTH:	1.0-1.5	2.5-3.0	3.5-4.0	4.5-5.0		
TYPE:	BULK	BULK	BULK	BULK		
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	73%	92%	79%	75%		
20.0	66%	92%	69%	68%		
12.5	56%	90%	60%	54%		
10.0	52%	88%	56%	48%		
5.0	39%	84%	45%	37%		
2.5	30%	81%	38%	30%		
1.25	22%	78%	31%	23%		
0.630	14%	76%	26%	16%		
0.315	8%	72%	19%	8%		
0.160	4%	63%	12%	4%		
0.080	2%	40%	8%	2%		
M.C.(%):	3%	23%	6%	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:	61	16	55	63		
% SAND:	37	44	37	35		
% FINES:	2	40	8	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)		



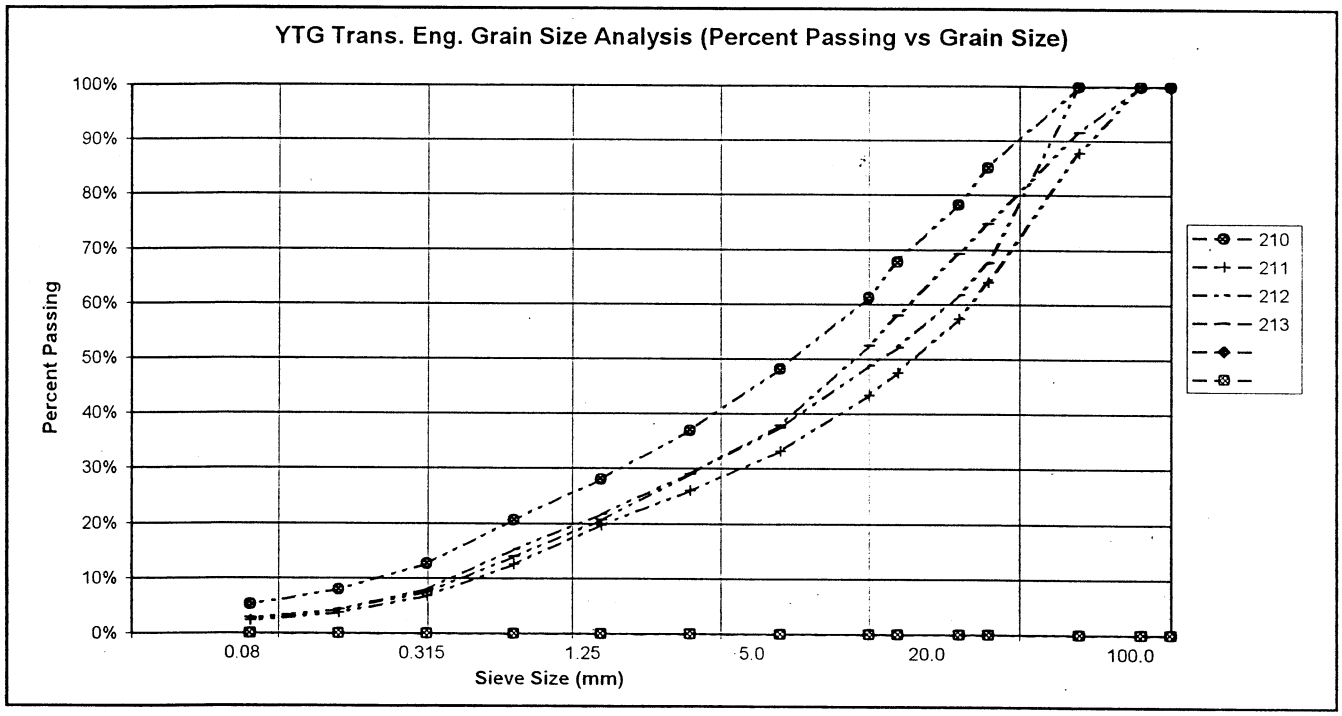
PROJECT NUMBER:	552-202101-0361-1		HOLE No.: 637-2456
CLIENT:	Engineering Capital		
PROJECT NAME:	Shakwak Granular Investigation		
PROJECT LOCATION:	Mines Creek, Km 1736.1 RHS		
DRILL UNIT:	Koehring 6625 Backhoe		
HOLE LOCATION:	See Plan		
LOGGED BY:	JRP R.W.		DATE COMP: Sept 22/02

FIELD NO:	206	207	208	209		
LAB NO:	466	467	468	469		
DEPTH:	0.5-1.0	1.5-2.0	2.8-3.4	4.5-5.0		
TYPE:	BULK	BULK	BULK	BULK		
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%	87%	100%	85%		
25.0	86%	62%	100%	66%		
20.0	76%	56%	100%	63%		
12.5	63%	44%	99%	57%		
10.0	56%	39%	98%	53%		
5.0	43%	30%	97%	44%		
2.5	33%	23%	95%	35%		
1.25	23%	19%	94%	27%		
0.630	14%	14%	91%	18%		
0.315	6%	9%	84%	10%		
0.160	3%	6%	63%	5%		
0.080	1%	3%	38%	3%		
M.C.(%):	3%	3%	22%	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:	57	70	3	56		
% SAND:	42	26	59	41		
% FINES:	1	3	38	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	SILTY SAND (SM)	POORLY GRADED GRAVEL WITH SAND (GP)		



PROJECT NUMBER:	552-202101-0361-1	HOLE No.: 637-2457
CLIENT:	Engineering Capital	
PROJECT NAME:	Shakwak Granular Investigation	
PROJECT LOCATION:	Mines Creek, Km 1736.1 RHS	
DRILL UNIT:	Koehring 6625 Backhoe	
HOLE LOCATION:	See Plan	
LOGGED BY:	JRP R.W.	DATE COMP: Sept 22/02

FIELD NO:	210	211	212	213		
LAB NO:	470	471	472	473		
DEPTH:	0.5-1.0	2.0-2.5	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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%	88%	100%	92%		
25.0	85%	64%	68%	75%		
20.0	78%	57%	62%	69%		
12.5	68%	48%	52%	58%		
10.0	61%	43%	49%	53%		
5.0	48%	33%	37%	38%		
2.5	37%	26%	29%	29%		
1.25	28%	20%	22%	21%		
0.630	21%	13%	15%	14%		
0.315	13%	7%	8%	8%		
0.160	8%	4%	4%	4%		
0.080	5%	2%	3%	3%		
M.C.(%):	4%	4%	4%	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:	52	67	63	62		
% SAND:	43	31	35	35		
% FINES:	5	2	3	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

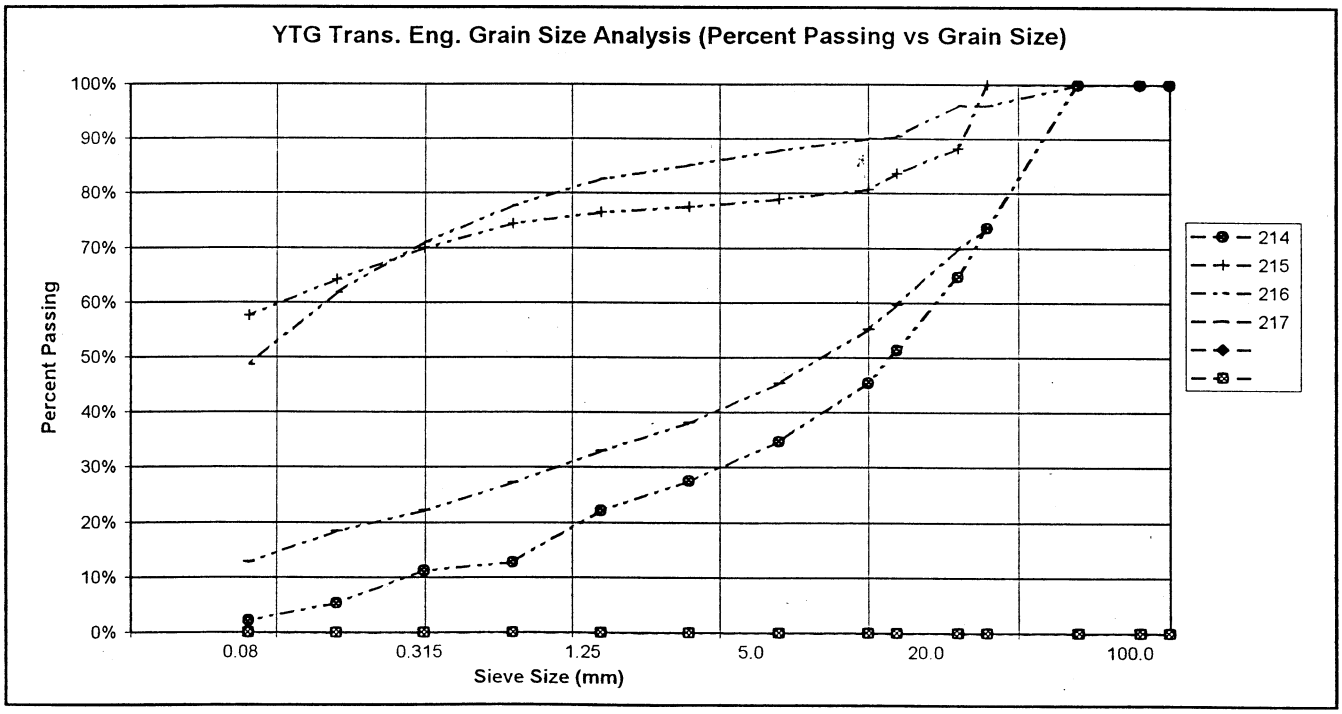


PROJECT NUMBER:	552-202101-0361-1
CLIENT:	Engineering Capital
PROJECT NAME:	Shakwak Granular Investigation
PROJECT LOCATION:	Mines Creek, Km 1736.1 RHS
DRILL UNIT:	Koehring 6625 Backhoe
HOLE LOCATION:	See Plan
LOGGED BY:	JRP R.W.

HOLE No.: 637-2458

DATE COMP: Sept 22/02

FIELD NO:	214	215	216	217		
LAB NO:	474	475	476	477		
DEPTH:	0.5-1.0	2.2-2.8	3.2-3.8	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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	74%	100%	96%	74%		
20.0	65%	88%	96%	70%		
12.5	51%	84%	90%	60%		
10.0	45%	81%	90%	55%		
5.0	35%	79%	88%	45%		
2.5	28%	78%	85%	38%		
1.25	22%	77%	83%	33%		
0.630	13%	74%	78%	27%		
0.315	11%	70%	71%	22%		
0.160	5%	64%	62%	18%		
0.080	2%	58%	49%	13%		
M.C.(%):	3%	31%	23%	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:	65	21	12	55		
% SAND:	32	21	39	32		
% FINES:	2	58	49	13		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SANDY SILT WITH GRAVEL (ML)	SILTY SAND (SM)	SILTY GRAVEL WITH SAND (GM)		

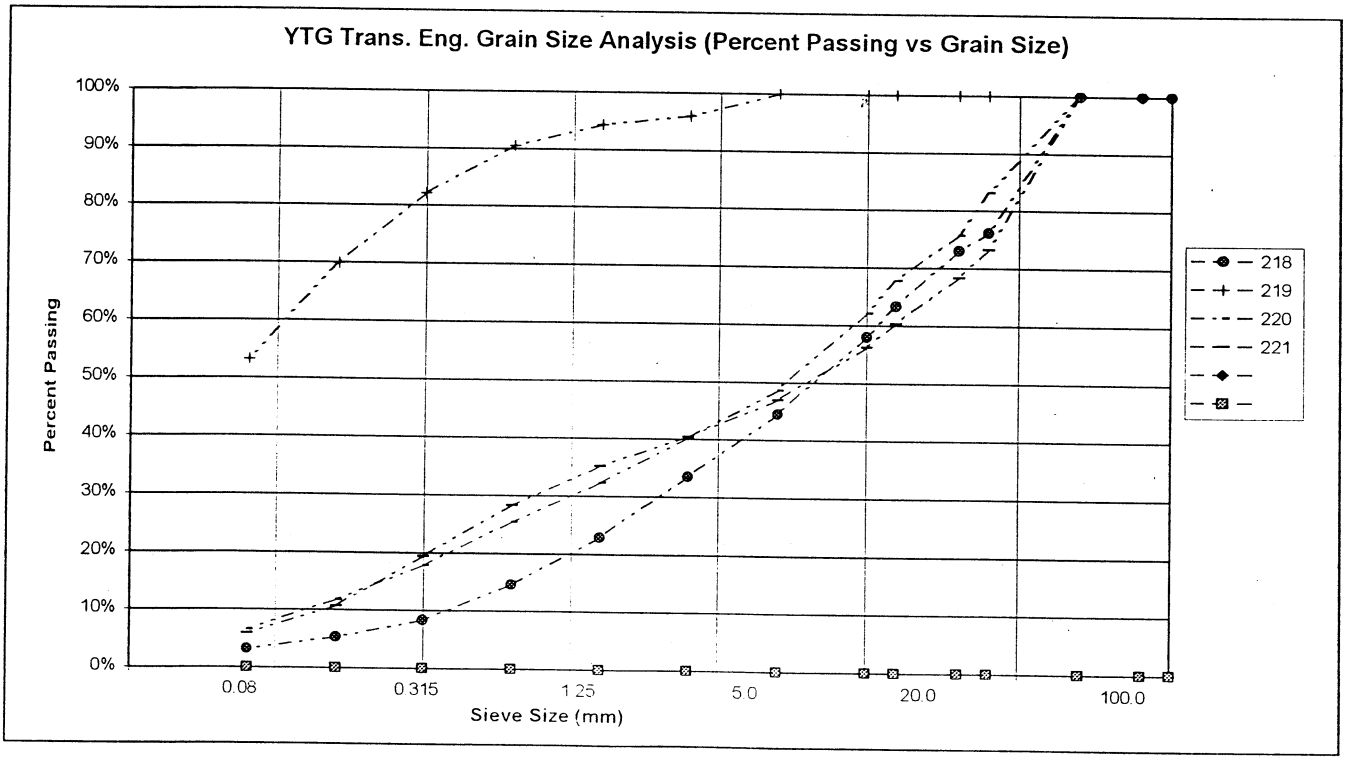


PROJECT NUMBER:	552-202101-0361-1
CLIENT:	Engineering Capital
PROJECT NAME:	Shakwak Granular Investigation
PROJECT LOCATION:	Mines Creek, Km 1736.1 RHS
DRILL UNIT:	Koehring 6625 Backhoe
HOLE LOCATION:	See Plan
LOGGED BY:	JRP R.W.

HOLE No.: 637-2459

DATE COMP: Sept 22/02

FIELD NO:	218	219	220	221		
LAB NO:	478	479	480	481		
DEPTH:	0.5-1.0	2.7-3.0	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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	76%	100%	83%	73%		
20.0	73%	100%	76%	68%		
12.5	63%	100%	68%	60%		
10.0	58%	100%	62%	56%		
5.0	44%	100%	49%	47%		
2.5	34%	96%	40%	40%		
1.25	23%	94%	32%	35%		
0.630	15%	90%	25%	28%		
0.315	8%	82%	18%	19%		
0.160	5%	70%	12%	11%		
0.080	3%	53%	7%	6%		
M.C.(%):	3%	38%	5%	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:	56	0	51	53		
% SAND:	41	47	42	41		
% FINES:	3	53	7	6		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SANDY SILT (ML)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



GEOTECHNICAL INVESTIGATIONS

Highway Construction
Km 1723.2 to 1734.6 Alaska Highway #1
Yukon, 2003-2004
Volume 1 of 3

Yukon
Infrastructure

Transportation Engineering Branch
Geotechnical Services

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

ORIGINAL - Do Not Remove From File

Highway Construction
Km 1723.2 to 1734.6
Alaska Highway #1
Yukon 2003-2004
Volume 1 of 3

This Data Package prepared for project viewing:

January, 2003

Transportation Engineering Branch
Geotechnical Services
461 Range Road
Whitehorse, Yukon

CONTENTS

Volume 1 of 3

INTRODUCTION

Investigation notes, classification methods and legends.

CENTRELINE TESTING ALASKA HIGHWAY

Subsurface Exploration and Testing Report Sheets are provided.
The reports for the centreline holes are arranged according to project location, starting at Km 1723+140 and increasing to Km 1734+776.

TEST HOLES 343 to 379	shown with prefix 612-
TEST HOLES 380 to 384	shown with prefix 613-
TEST HOLES 385 to 409	shown with prefix 615-
TEST HOLES 410 to 434	shown with prefix 616-
TEST HOLES 435 to 459	shown with prefix 617-
TEST HOLES 460 to 484	shown with prefix 618-
TEST HOLES 485 to 500	shown with prefix 619-

NOTE:
Centreline Test Hole locations indicated on the Subsurface Exploration and Testing Report Sheets are approximate. Actual Test Hole locations, located by GPS survey or field survey, are as shown on project plans.

CONTENTS (continued)

Volume 2 of 3

CENTRELINE TESTING ALASKA HIGHWAY

Laboratory Testing Result Sheets are provided.
The reports for the centreline holes are arranged according to test hole number, starting at 612-343 and increasing to 619-500.

TEST HOLES 343 to 379	shown with prefix 612-
TEST HOLES 380 to 384	shown with prefix 613-
TEST HOLES 385 to 409	shown with prefix 615-
TEST HOLES 410 to 434	shown with prefix 616-
TEST HOLES 435 to 459	shown with prefix 617-
TEST HOLES 460 to 484	shown with prefix 618-
TEST HOLES 485 to 500	shown with prefix 619-

NOTE:
Centreline Test Hole locations indicated on the Subsurface Exploration and Testing Report Sheets are approximate. Actual Test Hole locations, located by GPS survey or field survey, are as shown on project plans.

CONTENTS (continued)

Volume 3 of 3

GRANULAR SOURCE Km 1730.2 LHS (Nines Creek) ALASKA HIGHWAY

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

Auger Testing

2001	TEST HOLES 1926 to 1928	shown with prefix 623-
2001	TEST HOLES 1938 to 1941	shown with prefix 624-

Backhoe Testing

2002	TEST PITS 2460 to 2520	shown with prefix 638-

GRANULAR SOURCE Km 1732.0 RHS (Mines Creek) ALASKA HIGHWAY

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

History of Aggregate Production

1986	20 mm B.S.T. Aggregate
1994	20 mm B.S.T. Aggregate
1994	20 mm Granular "A" Base Course
2000	10 mm Crushed Sanding Aggregate

Backhoe Testing

2002	TEST PITS 2451 to 2459	shown with prefix 637-

INTRODUCTION

GEOTECHNICAL INVESTIGATION DATA

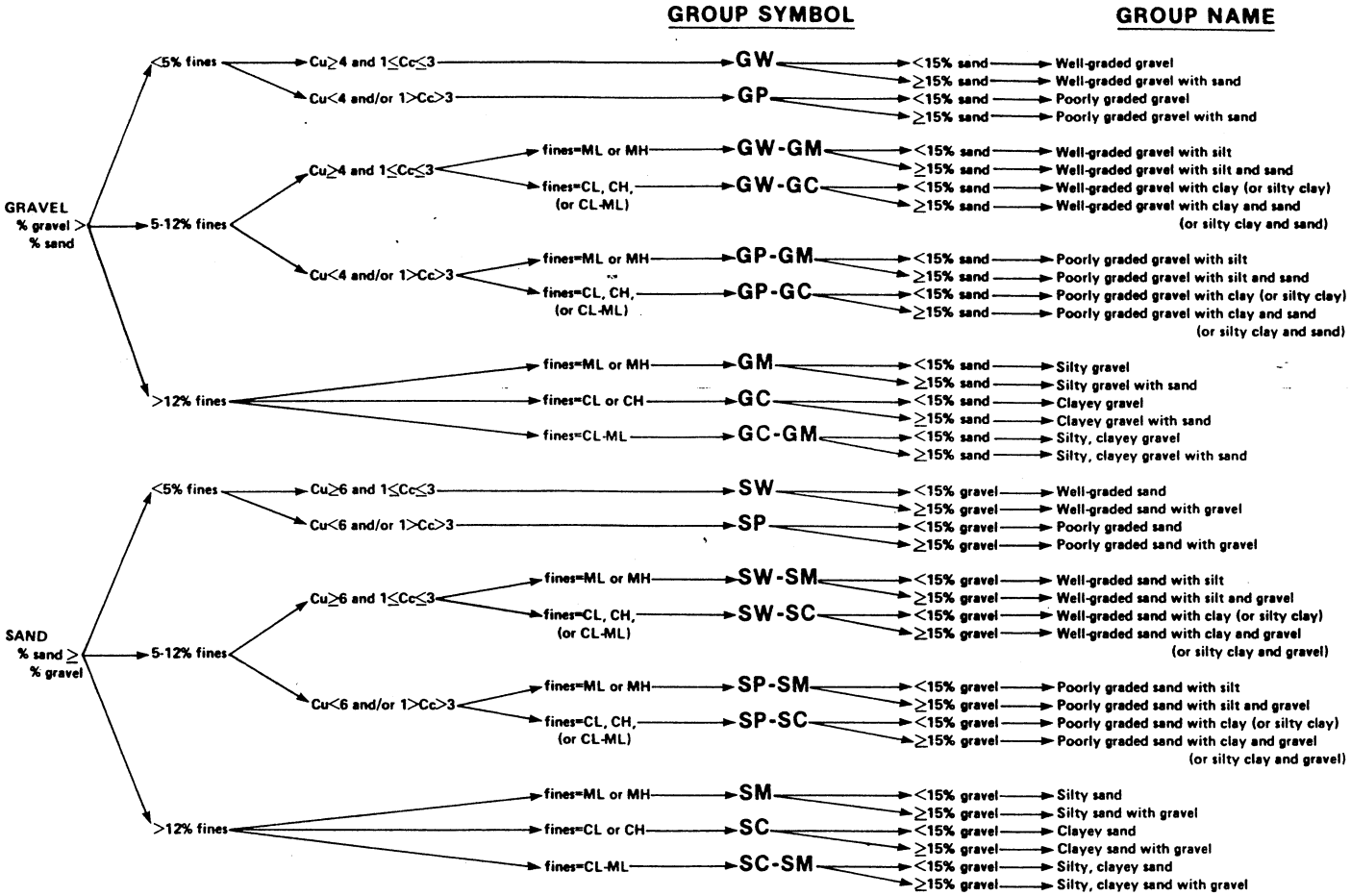
This geotechnical investigation data is provided to assist in the interpretation of soil conditions encountered within this project area. The data presented was prepared solely for Departmental designing and estimating purposes.

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

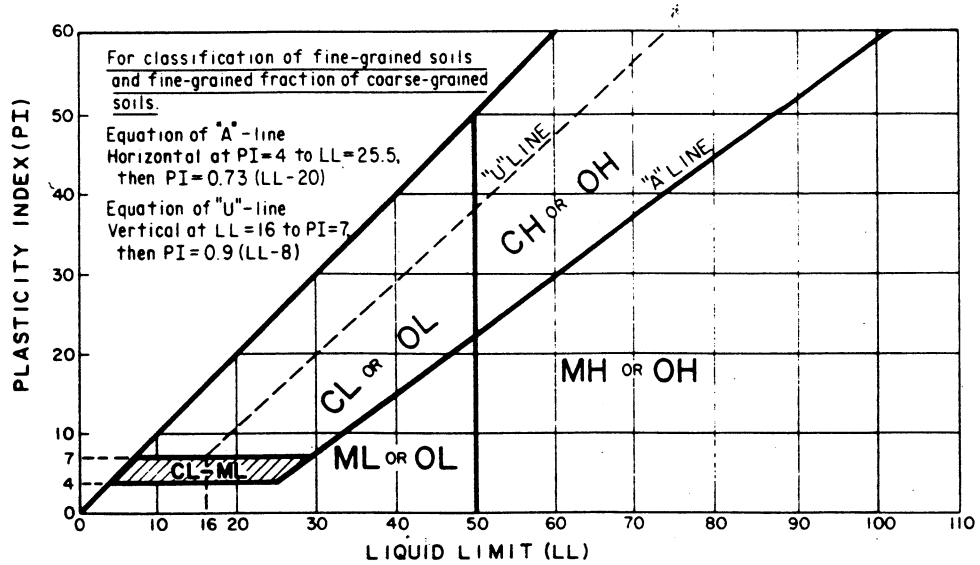
The sample identification and laboratory testing data is provided to give detailed physical properties of selected retrieved samples within the subsurface profile. ***These tests may be conducted on disturbed samples and may exhibit properties different from the native materials. The sample classification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

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

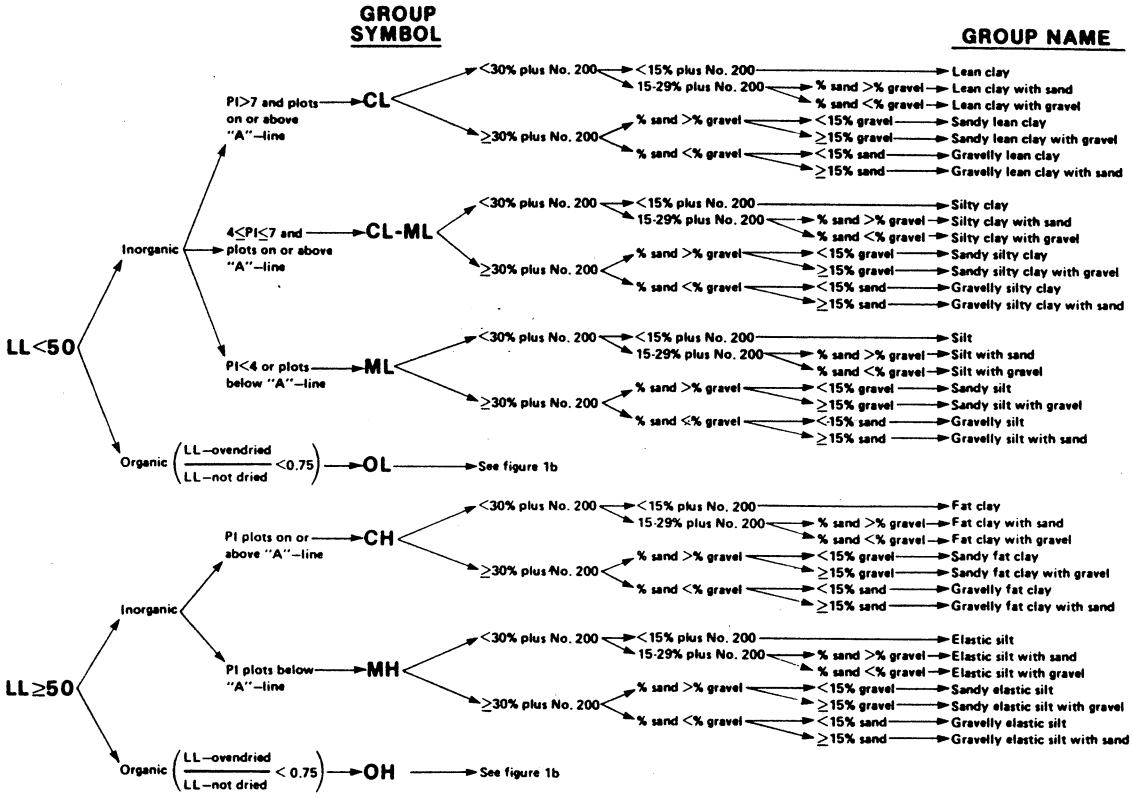
It is recommended that a site inspection, combined with consideration of the regional geology and climatic conditions be conducted. An evaluation of the investigation methods and development work done since the time of investigation should be done prior to interpreting the subsurface conditions at the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



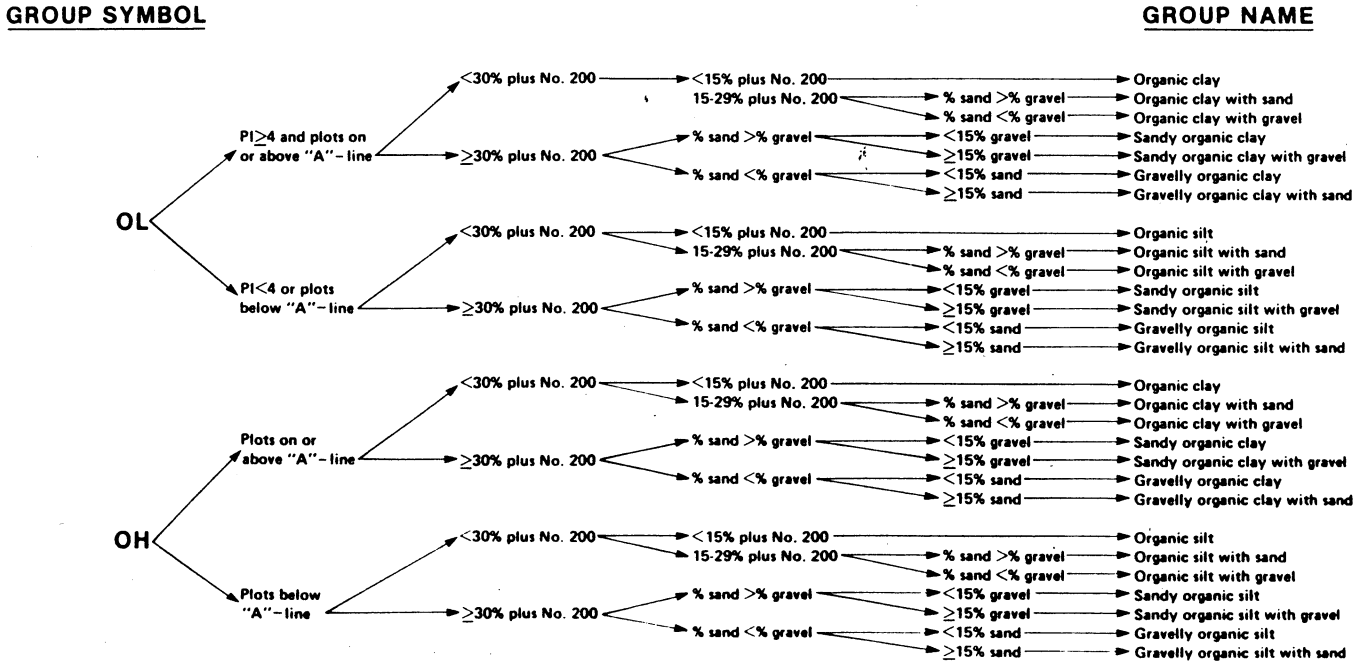
Flow chart for classifying coarse-grained soil.



Plasticity chart.



Flow chart for classifying fine-grained soil.



Flow chart for classifying organic soil.

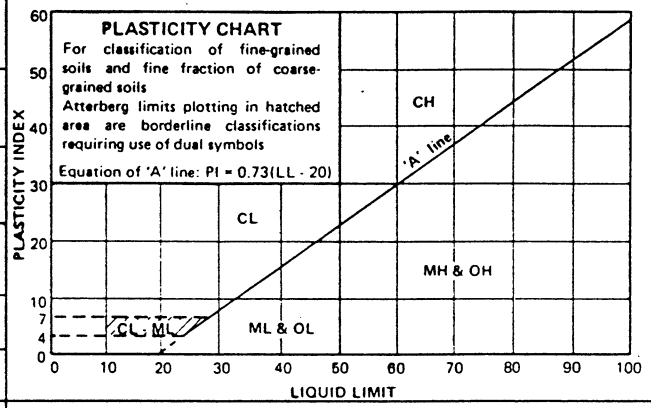
CRITERIA FOR ASSIGNING GROUP SYMBOLS AND GROUP NAMES USING LABORATORY TESTS [a]				SOIL CLASSIFICATION	
				GROUP SYMBOL	GROUP NAME [b]
COARSE-GRAINED SOILS more than 50% retained on No. 200 sieve	GRAVELS More than 50% of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS Less than 5% fines [c]	$C_u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

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

Soil classification chart

UNIFIED SOIL CLASSIFICATION†

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



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

GROUND ICE DESCRIPTION

ICE NOT VISIBLE

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

VISIBLE ICE LESS THAN 50% BY VOLUME

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

VISIBLE ICE GREATER THAN 50% BY VOLUME

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

NOTE:

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

LEGEND

Soil Ice

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

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

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

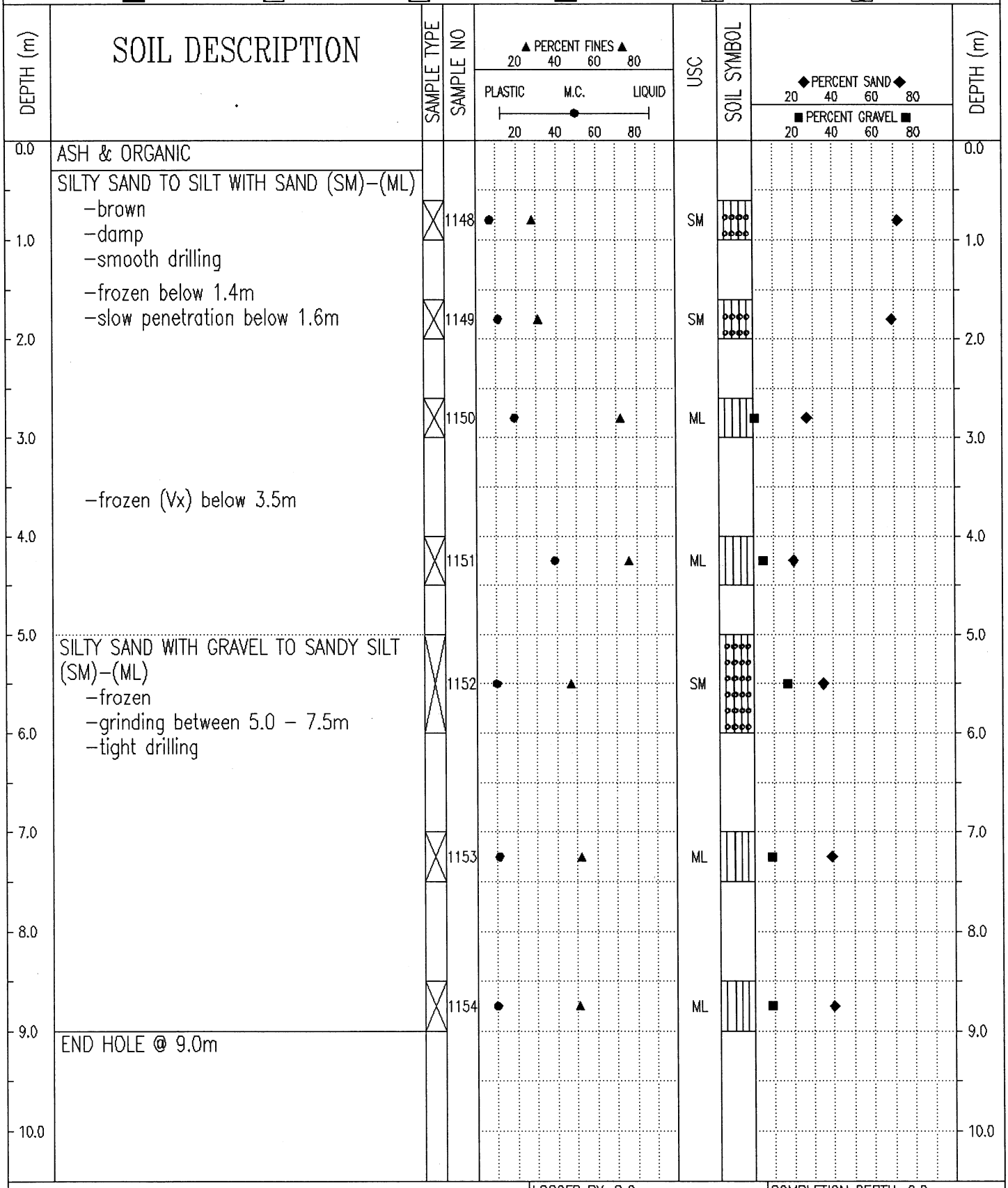
Government of Yukon Transportation Engineering	LOGGED BY:	COMPLETION DEPTH: 6.0 m
	REVIEWED BY:	COMPLETE: / /
	Fig. No:	Page 1 of 1

99/12/16 11:10AM

CENTRELINE TESTING
1723+140 to 1734+776
ALASKA HIGHWAY

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 619-500
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1723+140 3M RT	ELEVATION: 0.00 (m)

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



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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 619-499
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1723+275 C.L.	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 -damp -easy drilling	⊠	1144	▲	SW-SM		◆ ■	0.0
1.0								1.0
	POORLY GRADED GRAVEL WITH SAND TO WELL-GRADED GRAVEL WITH SILT & SAND (GP)-(GW-GM) -brown -damp -little more grinding	⊠	1145	▲	GP		◆ ■	
2.0								2.0
		⊠	1146	▲	GW-GM		◆ ■	
3.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -moist to wet -smoother drilling below 3.0m							3.0
4.0		⊠	1147	▲	GP-GM		◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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	REVIEWED BY:	COMPLETE: 01/09/10
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 619-498
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1723+350 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 SILT & SAND (GP-GM) -brown -moist -rough drilling -grinding starts @ surface (previously stripped)	⊠	1140 ▲		GP-GM		◆ ■	0.0
1.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp	⊠	1141 ▲		GP		◆ ■	1.0
2.0								2.0
3.0	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -easier penetration @ 3.0m	⊠	1142 ▲		SW-SM		◆	3.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	⊠	1143 ● ▲		GP-GM		◆ ■	
4.0	END HOLE @ 4.0m							4.0
5.0								5.0
6.0								6.0

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	REVIEWED BY:	COMPLETE: 01/09/10
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 619-497
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1723+540 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	SILT WITH ORGANICS -orange-brown -0.5m diameter boulders on slope	⊠	1136	● ▲	ML		◆	0.0
1.0	SANDY SILT TO SILTY SAND (ML)-(SM) -creamy brown -dry -smooth easy drilling	⊠	1137	● ▲	SM		◆	1.0
2.0								2.0
3.0	SILTY SAND WITH GRAVEL TO POORLY GRADED SAND WITH SILT (SM)-(SP-SM) -dry -minor grinding @ 2.6m	⊠	1138	● ▲	SM		■ ◆	3.0
4.0		⊠	1139	● ▲	SP-SM		◆	4.0
5.0	SILT WITH GRAVEL -damp -grinding between 5 & 6m -no sample recovered between 5 & 6m							5.0
6.0	END HOLE @ 6.0m -one refusal @ 6m -second refusal @ 5.5m -white rock dust on bit							6.0
7.0								7.0
8.0								8.0
9.0								9.0
10.0								10.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 6.0 m
	REVIEWED BY:	COMPLETE: 01/09/10
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 619-496
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1723+625 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	ORGANIC							0.0
	SILTY SAND (SM) -brown -moist -smooth drilling	⊠	1130	● ▲	SM		◆	
1.0								1.0
2.0	POORLY GRADED SAND WITH SILT TO SILTY SAND (SP-SM)-(SM) -brown -damp -minor grinding drilling	⊠	1131	● ▲	SP-SM		■ ◆	2.0
		⊠	1132	● ▲	SP-SM		■ ◆	
3.0								3.0
4.0		⊠	1133	● ▲	SM		■ ◆	4.0
5.0	-tight drilling, some grinding drilling below 5.0m							5.0
6.0	-smooth slow drilling below 6.0m	⊠	1134	● ▲	SM		◆	6.0
7.0								7.0
8.0		⊠	1135	● ▲	SM		■ ◆	8.0
9.0	END HOLE @ 9.0m							9.0
10.0								10.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 619-495
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1723+725 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	ORGANIC							0.0
	SANDY SILT (ML) –brown –damp –smooth	⊠	1125	● ▲	ML		◆	
1.0								1.0
	POORLY GRADED SAND WITH GRAVEL (SM) –brown –damp –smooth	⊠	1126	▲	SP		■ ◆	
2.0								2.0
	SILTY SAND WITH GRAVEL (SM) –brown –damp –minor grinding start @ 2.0m –tight drilling	⊠	1127	● ▲	SM		■ ◆	
3.0								3.0
		⊠	1128	● ▲	SM		■ ◆	
4.0								4.0
5.0	SILT WITH SAND –brown –damp –sample # 1129 possible contaminated with material from above. Test results Silty Sand with Gravel (SM) Field description Silt with Sand	⊠	1129	● ▲	SM		■ ◆	5.0
6.0								6.0
7.0								7.0
	END HOLE @ 7.5m							
8.0								8.0
9.0								9.0
10.0								10.0

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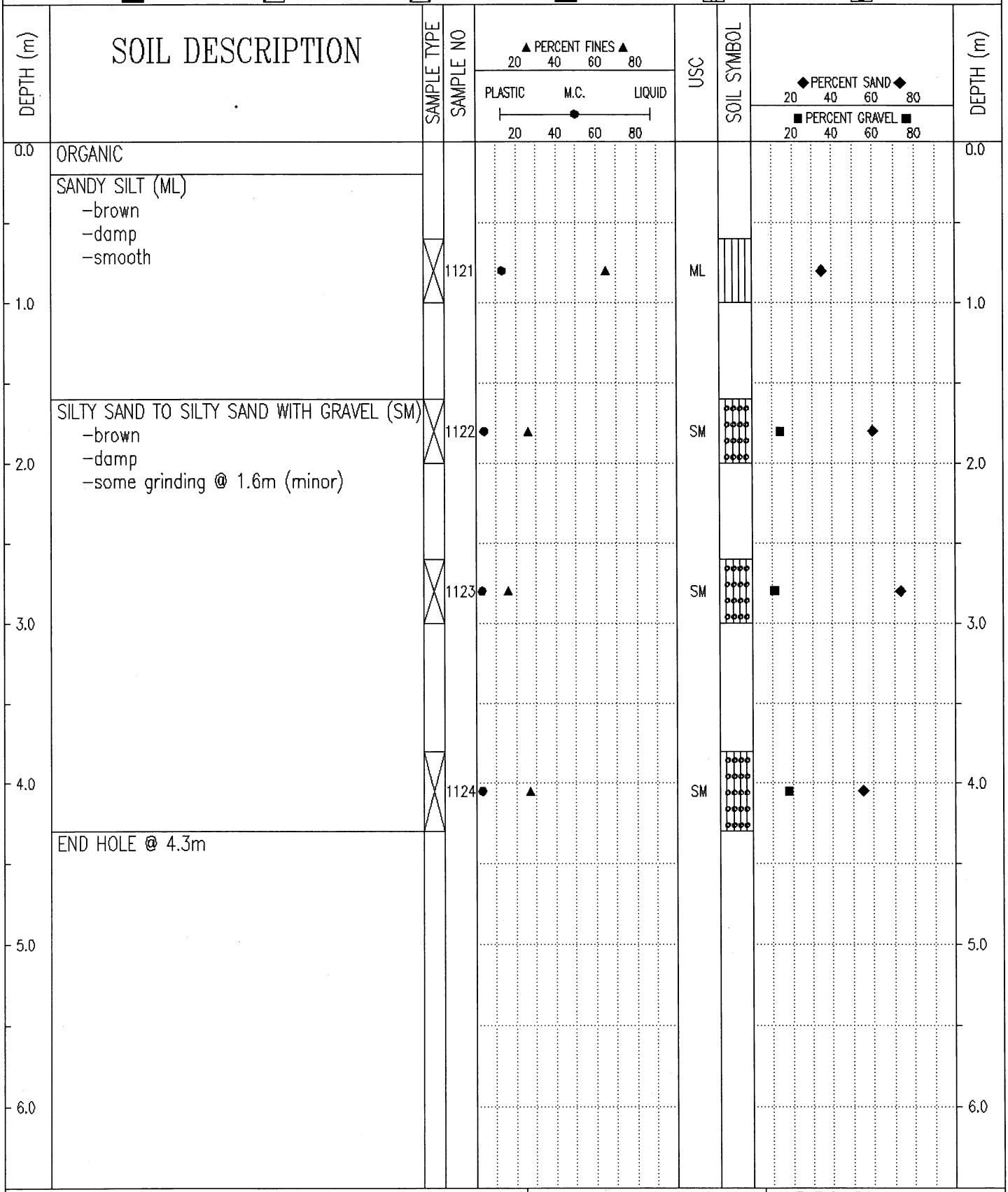
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 619-494
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1723+825 3M RT	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	ORGANIC				
	SANDY SILT (ML) -brown -damp -smooth	⊠	1121	ML	
1.0					
	SILTY SAND TO SILTY SAND WITH GRAVEL (SM) -brown -damp -some grinding @ 1.6m (minor)	⊠	1122	SM	
2.0					
		⊠	1123	SM	
3.0					
		⊠	1124	SM	
4.0	END HOLE @ 4.3m				
5.0					
6.0					

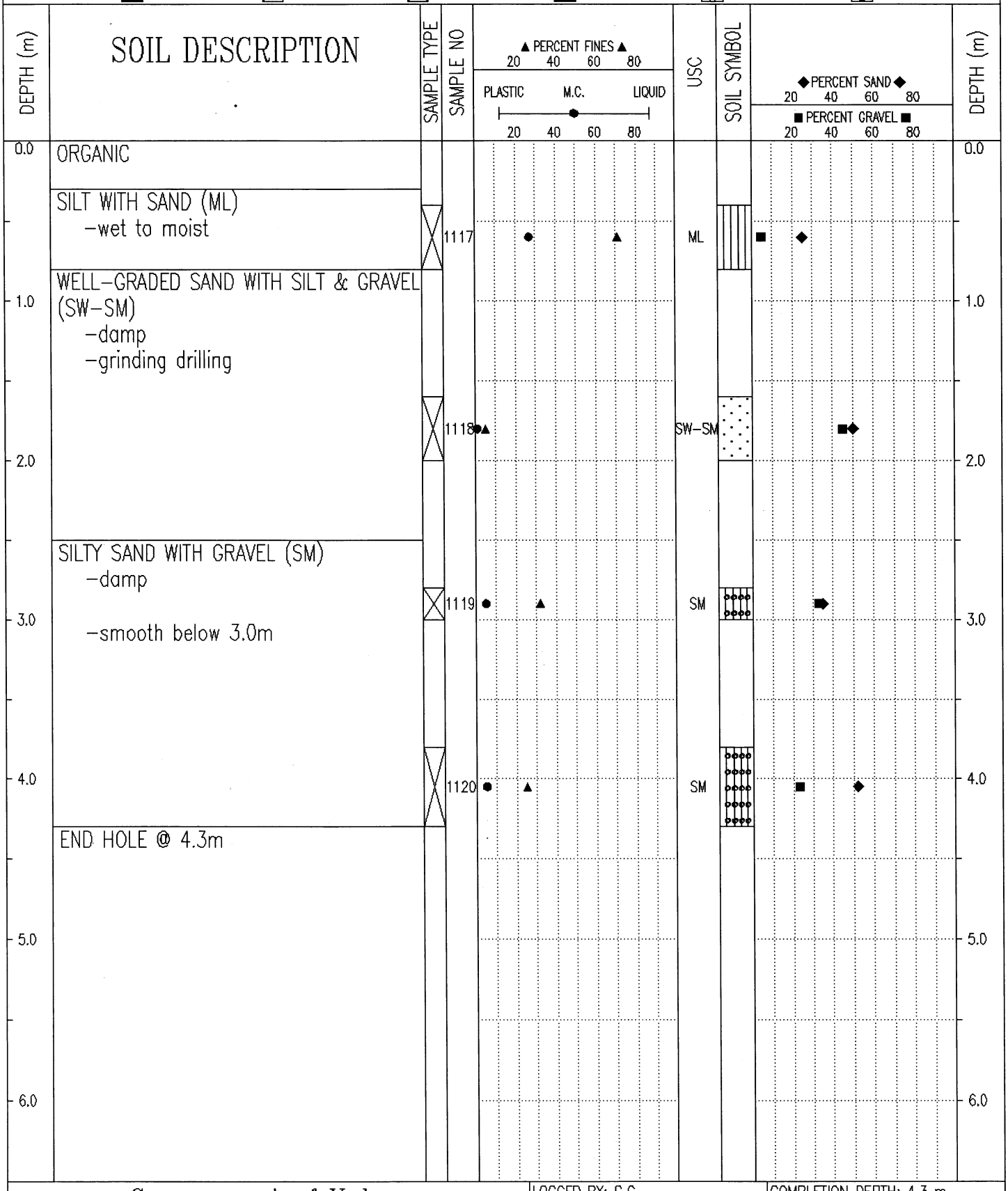


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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 619-493
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1723+925 3M RT	ELEVATION: 0.00 (m)

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



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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 619-492
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1724+025 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	ORGANIC							0.0
	SANDY SILT (ML) -brown -damp	⊠	1113	● ▲	ML		◆	
1.0	-minor grinding @ 1.2m							1.0
		⊠	1114	● ▲	ML		■ ◆	
2.0								2.0
		⊠	1115	● ▲	ML		■ ◆	
3.0	-smooth below 3.3m							3.0
		⊠	1116	● ▲	ML		■ ◆	
4.0	END HOLE @ 4.3m							4.0
5.0								5.0
6.0								6.0

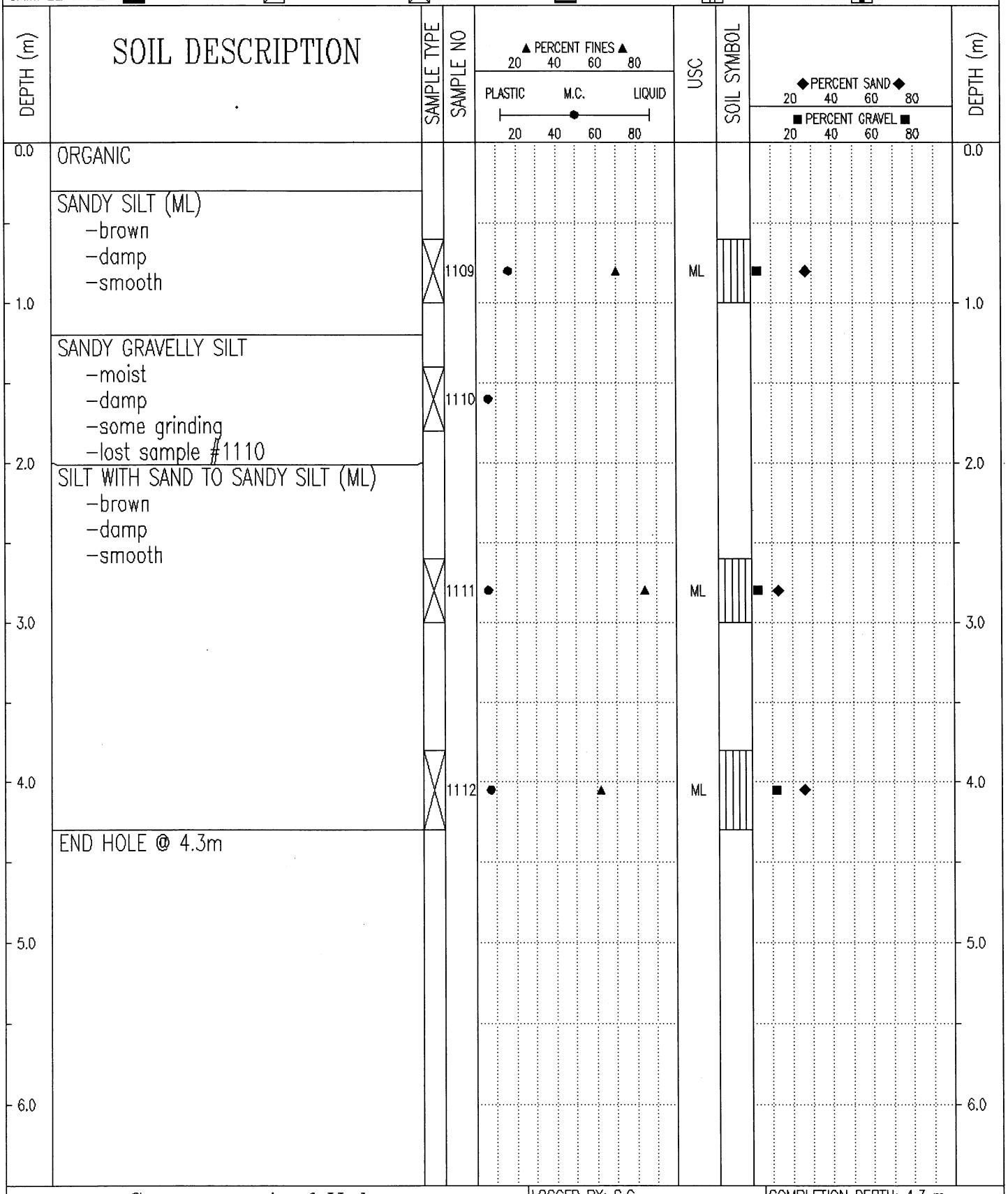
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 619-491
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1724+125 3M RT	ELEVATION: 0.00 (m)

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



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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 619-490
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1724+225 C.L.	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILT WITH SAND (ML) -brown -wet	⊠	1105	● ▲	ML		■ ◆	
1.0	POORLY GRADED GRAVEL WITH SAND (GP) -grey -damp -grinding starts @ 0.8m -rough	⊠	1106	▲	GP		◆ ■	1.0
2.0	-dry below 2.0m	⊠	1107	▲	GP		◆ ■	2.0
3.0	SILTY SAND WITH GRAVEL (SM) -damp -not as rough drilling	⊠	1108	● ▲	SM		■ ◆	3.0
4.0	END HOLE @ 4.3m							4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/09/06
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 619-489
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1724+335 C.L.	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANICS							0.0
	SILT -moist							
	WELL-GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND TO WELL-GRADED GRAVEL WITH SILT & SAND (GW)-(GP-GM)-(GW-GM) -brown -damp -grinding starts @ 0.5m		1101		GW			
1.0								1.0
			1102		GP-GM			
2.0								2.0
			1103		GW-GM			
3.0								3.0
	-not as rough drilling below 3.5m							
4.0			1104		GW-GM			4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon
Transportation Engineering

LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
REVIEWED BY:	COMPLETE: 01/09/06
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 619-488
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1724+400 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	ORGANIC							0.0
	SILT –moist							
	POORLY GRADED GRAVEL WITH SILT & SAND TO POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP–GM)–(GP)–(GP–GM) –brown –moist –grinding starts @ 0.5m –rough drilling –damp below 1.0m		1097	●▲	GP–GM		◆ ■	1.0
1.0			1098	▲	GP		◆ ■	1.0
2.0								2.0
			1099	●▲	GP–GM		◆ ■	
3.0								3.0
			1100	●▲	GP–GM		◆ ■	
4.0	END HOLE @ 4.3m							4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/09/06
	Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 619-487
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1724+495 15M RT	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT (ML) -brown -moist -smooth	⊠	1093	● ▲	ML		■ ◆	
1.0								1.0
	WELL TO POORLY GRADED GRAVEL WITH SILT & SAND (GW-GM)-(GP-GM) -brown -damp -grinding starts @ 1.3m	⊠	1094	● ▲	GW-GM		◆ ■	
2.0								2.0
		⊠	1095	● ▲	GP-GM		◆ ■	
3.0								3.0
	SILTY SAND WITH GRAVEL (SM) -smoother but grinding drilling							
4.0		⊠	1096	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/09/06
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 619-485
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1724+570 C.L.	ELEVATION: 0.00 (m)

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

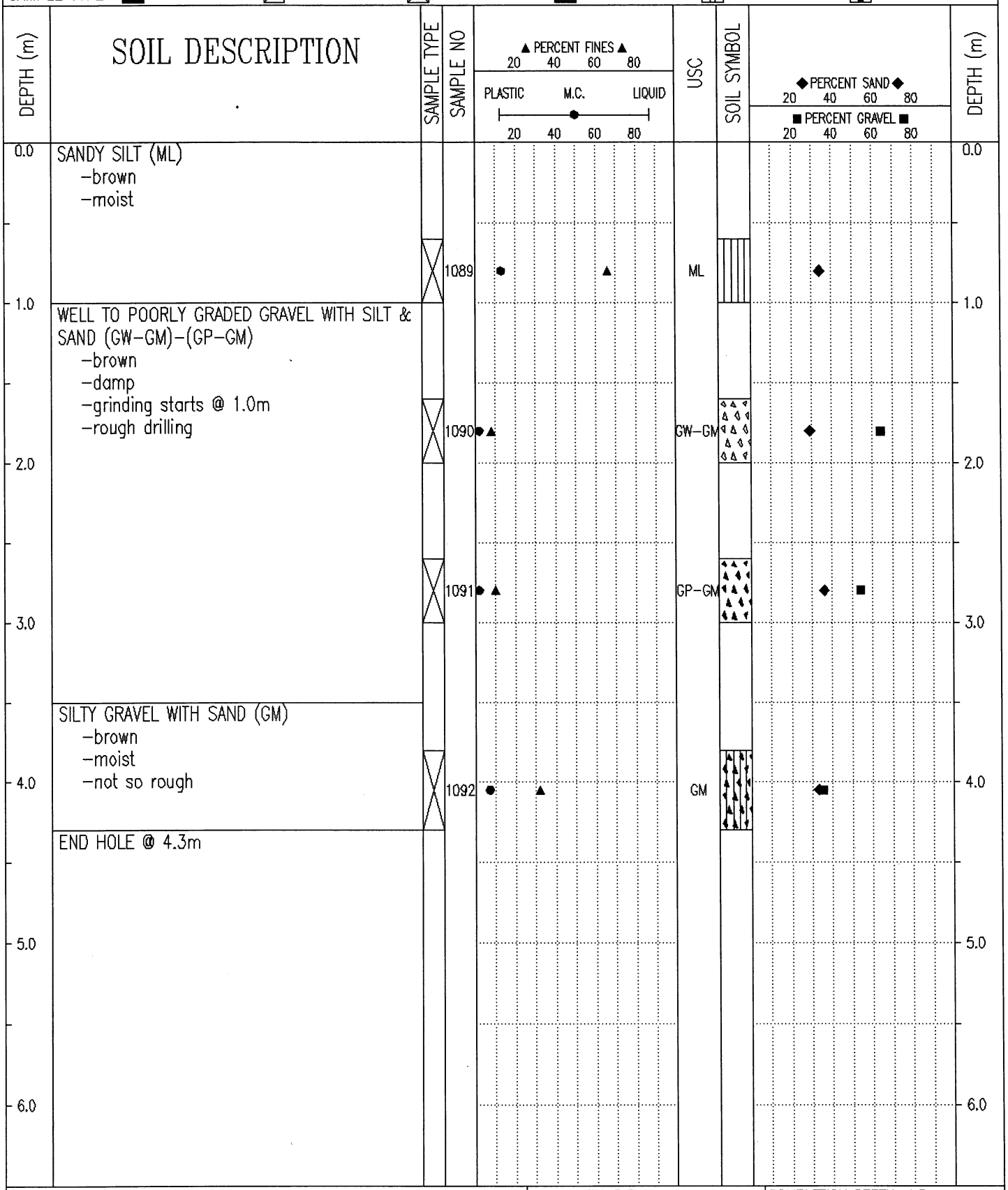
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILT WITH SAND (ML) –brown –damp –smooth tight drilling	⊠	1085	● ▲	ML		◆	
1.0								1.0
	POORLY GRADED GRAVEL WITH SILT & SAND TO SILTY GRAVEL WITH SAND (GP-GM)-(GM) –brown –damp –grinding starts @ 1.5m –rough drilling below 2.0m	⊠	1086	● ▲	GP-GM		◆ ■	
2.0								2.0
		⊠	1087	● ▲	GM		◆ ■	
3.0								3.0
	SILTY SAND WITH GRAVEL (SM) –brown –moist –smooth drilling	⊠	1088	● ▲	SM		●	
4.0								4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/09/06
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 619-486
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1724+570 20M LT	ELEVATION: 0.00 (m)

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



Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/09/06
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-484
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1724+570 25M 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							0.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -damp -grinding starts @ 0.25m	⊠	1081	● ▲	GP-GM		◆ ■	
1.0								1.0
	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -brown -damp -smooth drilling	⊠	1082	● ▲	SW-SM		■ ◆	
2.0								2.0
	WELL-GRADED SAND WITH GRAVEL TO WELL-GRADED SAND WITH SILT & GRAVEL (SW)-(SW-SM) -brown -damp -moist to wet below 3.0m -minor grinding below 3.0m	⊠	1083	▲	SW		■ ◆	
3.0								3.0
		⊠	1084	● ▲	SW-SM		■ ◆	
4.0								4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-483
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1724+650 3M 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 & SILT							0.0
	SILT							
	POORLY TO WELL-GRADED GRAVEL WITH SAND (GP)-(GW) -brown -damp -grinding starts @ 0.5m -rough drilling	⊠	1077 ▲		GP		◆ ■	
1.0								1.0
		⊠	1078 ▲		GW		◆ ■	
2.0	SILTY SAND WITH GRAVEL TO WELL-GRADED SAND WITH SILT & GRAVEL (SM)-(SW-SM) -damp -smoother drilling							2.0
		⊠	1079 ● ▲		SM		◆ ■	
3.0								3.0
		⊠	1080 ● ▲		SW-SM		◆ ■	
4.0	END HOLE @ 4.3m							4.0
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
REVIEWED BY:	COMPLETE: 01/09/06
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-482
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1724+750 4M 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
0.0	SILT -moist				
	WELL-GRADED GRAVEL WITH SAND TO POORLY GRADED SAND WITH GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND (GW)-(SP)-(GP-GM) -brown -damp -grinding starts @ 0.2m	⊠	1073	GW	
1.0					
		⊠	1074	SP	
2.0					
		⊠	1075	GP-GM	
3.0	SILTY GRAVEL WITH SAND (GM) -damp -smoother drilling				
		⊠	1076	GM	
4.0	END HOLE @ 4.3m Note: area was previously stripped				
5.0					
6.0					

▲ PERCENT FINES ▲ 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

◆ PERCENT SAND ◆ 20 40 60 80

■ PERCENT GRAVEL ■ 20 40 60 80

DEPTH (m)

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/09/06
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-481
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1724+850 4M LT	ELEVATION: 0.00 (m)

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

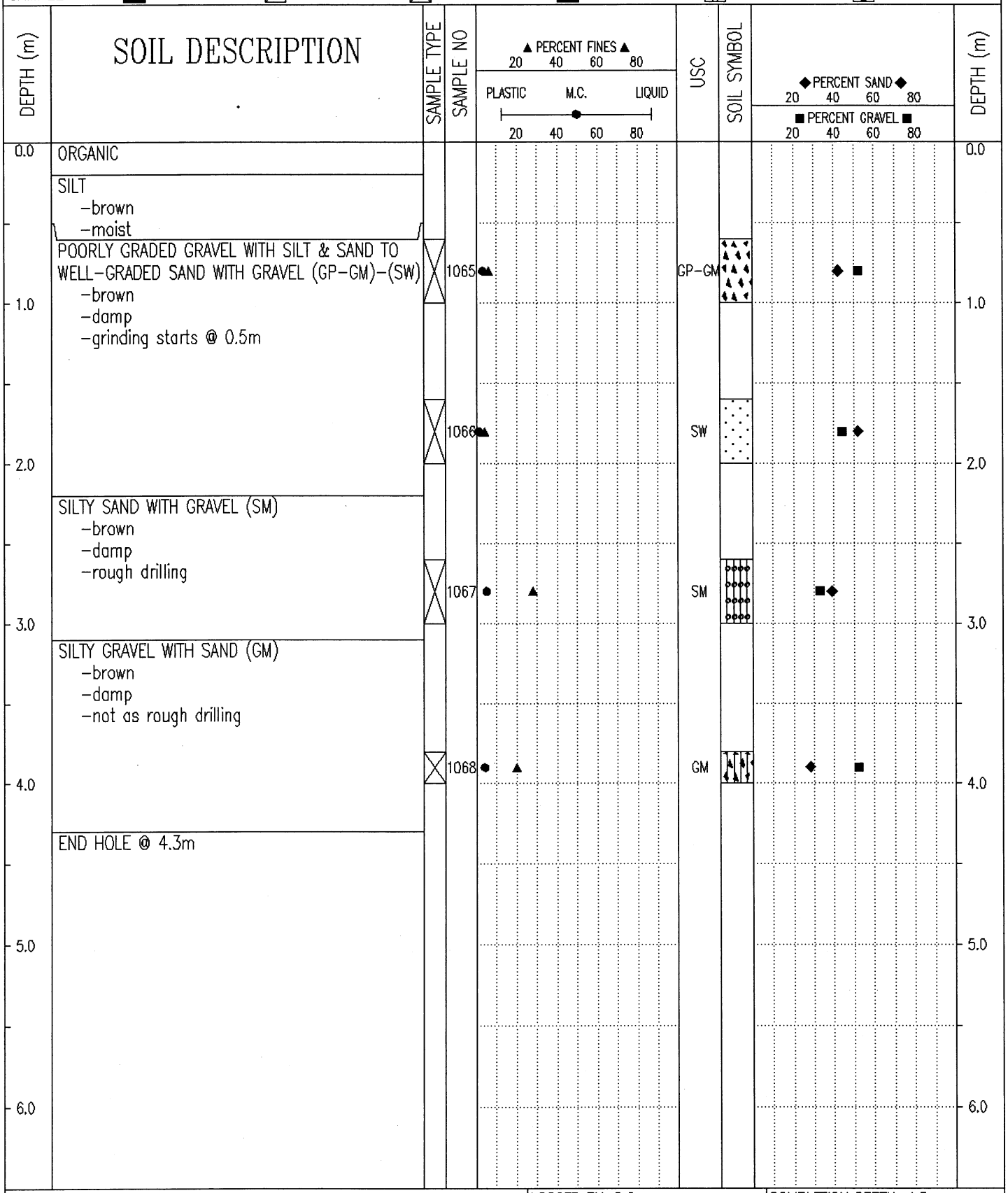
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	SILT –moist POORLY GRADED GRAVEL WITH SAND TO WELL-GRADED SAND WITH GRAVEL (GP)-(SW) –brown –damp –grinding starts @ 0.2m –rough drilling		1069		GP			0.0
1.0								1.0
			1070		GP			
2.0								2.0
			1071		SW			
3.0	SILT –wet –sample 1072 contaminated with material from above. Test results Silty Sand with Gravel (SM). Field description Wet Silt –smoother drilling –no grinding							3.0
4.0			1072		SM			4.0
	END HOLE @ 4.3m Note. Area was previously stripped							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/09/06
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-480
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1724+950 3M RT	ELEVATION: 0.00 (m)

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

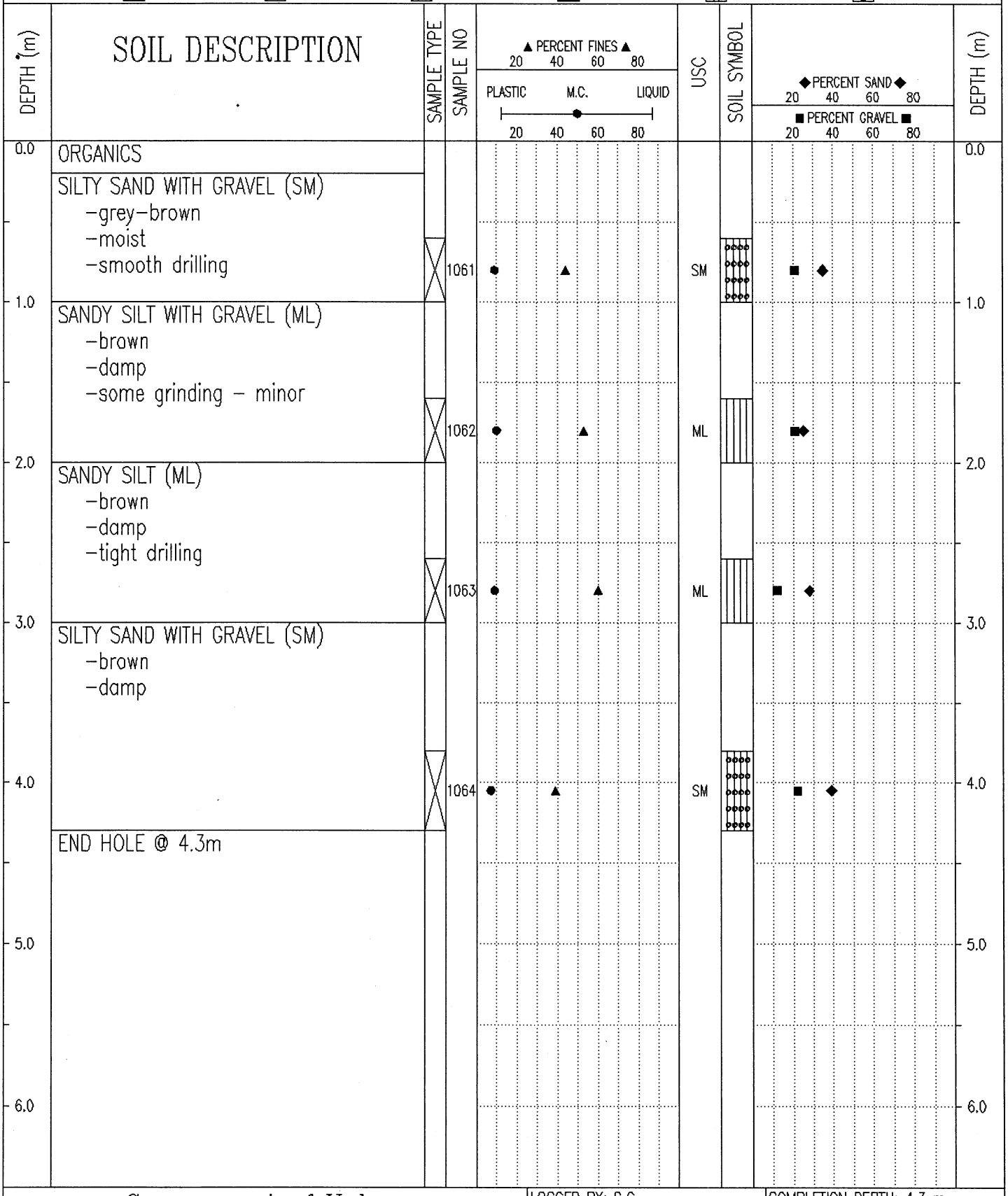


Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/09/06
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-479
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1725+050 3M RT	ELEVATION: 0.00 (m)

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



Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/09/05
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-478
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1725+100 C.L.	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANICS							0.0
	SILT -moist							
	POORLY GRADED GRAVEL WITH SILT & SAND TO POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)-(GP)-(GP-GM) -brown -damp -rough drilling	⊠	1057 ▲		GP-GM		◆ ■	
1.0								1.0
		⊠	1058 ▲		GP		◆ ■	
2.0								2.0
		⊠	1059 ▲		GP-GM		◆ ■	
3.0	SILTY GRAVEL WITH SAND (GM) -brown -damp							3.0
		⊠	1060 ● ▲		GM		◆ ■	
4.0								4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/09/05
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-477
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1725+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	ORGANICS							0.0
	SILT (ML) -brown -moist	⊠	1053	● ▲	ML		◆	
1.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp -grinding starts @ 1.0m	⊠	1054	● ▲	GP		◆ ■	1.0
2.0								2.0
	POORLY GRADED GRAVEL WITH SILT & SAND TO WELL-GRADED SAND WITH SILT & GRAVEL (GP-GM)-(SW-SM) -brown -damp -tight drilling	⊠	1055	● ▲	GP-GM		◆ ■	
3.0								3.0
4.0		⊠	1056	● ▲	SW-SM		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
REVIEWED BY:	COMPLETE: 01/09/05
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-476
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1725+100 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
	SILT –moist							
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) –brown –damp –grinding @ 0.5m –rough drilling	⊠	1050	●	GP-GM		◆ ■	
1.0								1.0
	–first refusal @ 1.75m	⊠	1051	●	GP-GM		◆ ■	
2.0								2.0
		⊠	1052	● ▲	GP-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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Transportation Engineering

LOGGED BY: G.C.	COMPLETION DEPTH: 3.4 m
REVIEWED BY:	COMPLETE: 01/09/05
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-475
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1725+150 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	ORGANIC							0.0
	SILTY GRAVEL WITH SAND (GM) –brown –moist –smooth drilling	⊠	1046	● ▲	GM		◆ ■	
1.0	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)–(GM) –brown –damp –some grinding –tight drilling	⊠	1047	● ▲	SM		◆ ■	1.0
2.0								2.0
3.0		⊠	1048	● ▲	SM		◆ ■	3.0
4.0		⊠	1049	● ▲	GM		◆ ■	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
REVIEWED BY:	COMPLETE: 01/09/05
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-474
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1725+250 2M 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 -brown -moist							0.0
	SILTY SAND (SM) -brown -moist	⊠	1042	● ▲	SM		■ ◆	
1.0								1.0
	SILTY SAND WITH GRAVEL (SM) -brown -moist -grinding starts @ 1.5m	⊠	1043	● ▲	SM		■ ◆	
2.0								2.0
	SANDY SILT (ML) -brown -damp -smooth tight drilling	⊠	1044	● ▲	ML		■ ◆	
3.0								3.0
	SILTY GRAVEL WITH SAND (GM) -brown -damp -minor grinding drilling	⊠	1045	● ▲	GM		◆ ■	
4.0								4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-472
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1725+350 C.L.	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 –wet							
	POORLY GRADED GRAVEL WITH SILT & SAND TO POORLY GRADED GRAVEL WITH SAND TO WELL-GRADED SAND WITH SILT & GRAVEL (GP-GM)-(GP)-(SW-SM) –brown –damp –grinding starts @ 0.5m	⊠	1034	▲	GP-GM	▨	◆ ■	
1.0								1.0
		⊠	1035	▲	GP	▨	◆ ■	
2.0								2.0
		⊠	1036	▲	GP	▨	◆ ■	
3.0								3.0
		⊠	1037	● ▲	SW-SM	⋱	■ ◆	
4.0	END HOLE @ 4.3m							4.0
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-473
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1725+350 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
	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM) -brown -damp -grinding starts @ 0.2m -one refusal @ 0.75m	⊠	1038	▲	GP		◆ ■	
1.0								1.0
		⊠	1039	▲	GP		◆ ■	
2.0								2.0
	-2nd refusal @ 2.5m	⊠	1040	▲	GP-GM		◆ ■	
3.0								3.0
4.0		⊠	1041	▲	GP-GM		◆ ■	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

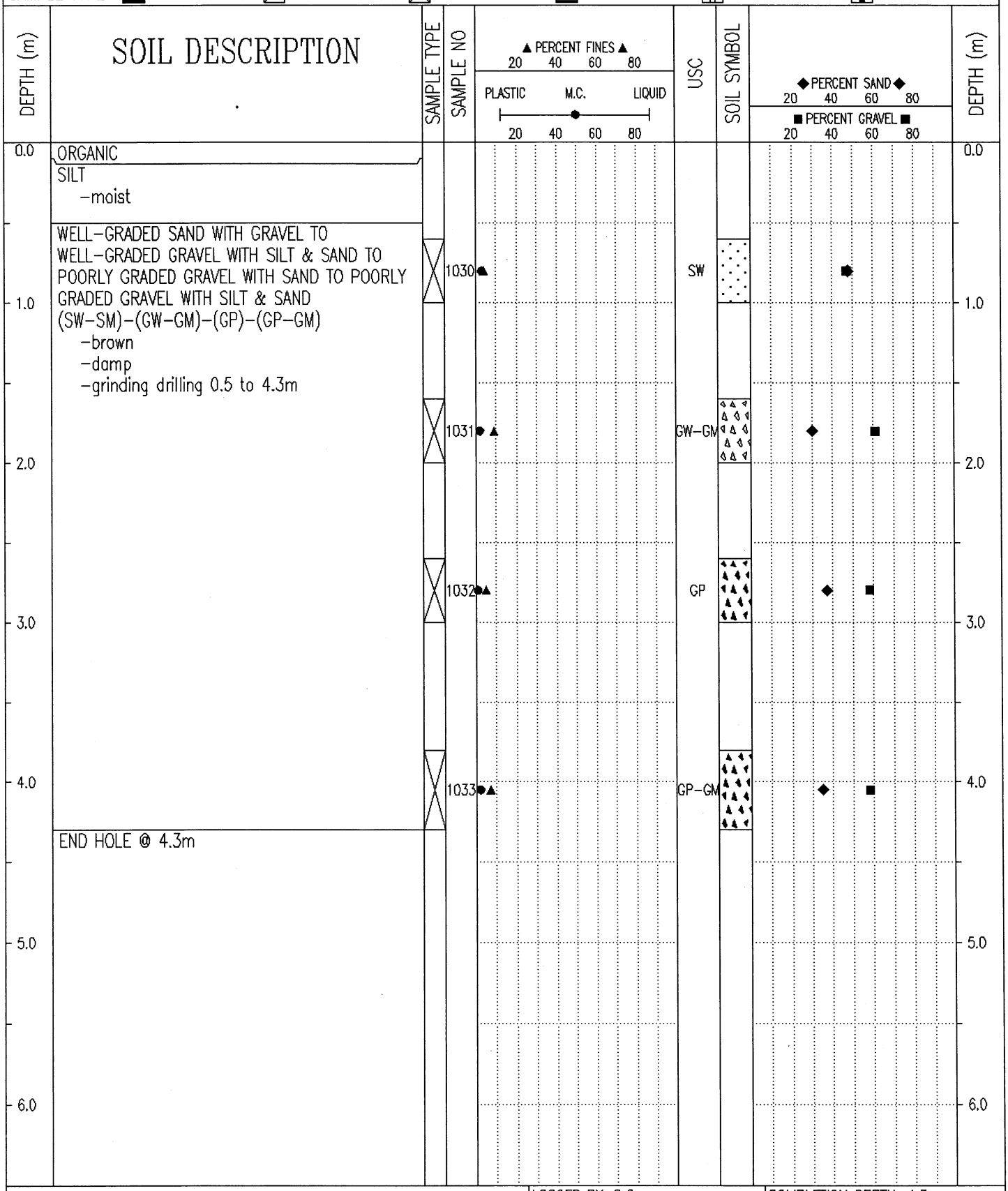
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Transportation Engineering

LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-471
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1725+350 20M LT	ELEVATION: 0.00 (m)

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



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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-470
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1725+400 5M 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 –chocolate brown							0.0
1.0	SILT (ML) –wet –smooth drilling	⊠	1026	● ▲	ML	▥	◆	1.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) –brown –moist							
2.0	–grinding starts @ 1.3m	⊠	1027	● ▲	GP-GM	▨	◆ ■	2.0
	–damp below 2.5m							
3.0		⊠	1028	● ▲	GP-GM	▨	◆ ■	3.0
4.0		⊠	1029	● ▲	GP-GM	▨	◆ ■	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

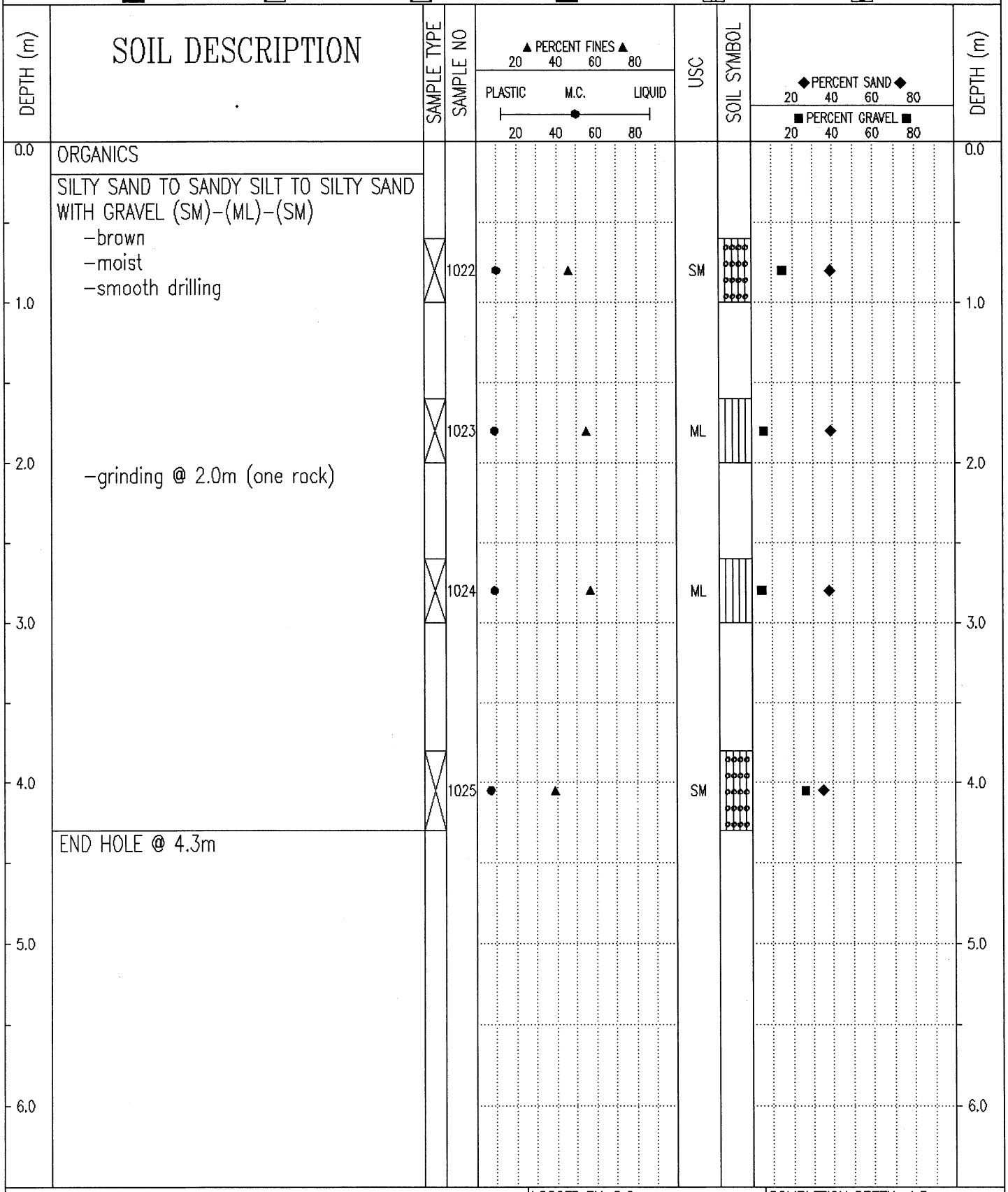
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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-469
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1725+500 2M LT	ELEVATION: 0.00 (m)

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



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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-468
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1725+625 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	WELL-GRADED GRAVEL WITH SAND (GW) -brown -damp -grinding starts @ surface -previously stripped	⊠	1018	▲●	GW		◆ ■	0.0
1.0								1.0
2.0	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) -brown -damp -less grinding - smoother tight drilling	⊠	1019	● ▲	SM		■ ◆	2.0
3.0		⊠	1020	● ▲	SM		■ ◆	3.0
4.0		⊠	1021	● ▲	GM		■	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-467
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1725+685 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	SANDY SILT WITH GRAVEL & ORGANICS (ML) –moist –smooth drilling	⊠	1014	● ▲	ML		■ ◆	0.0
1.0	SANDY SILT (ML) –brown –moist	⊠	1015	● ▲	ML		■ ◆	1.0
2.0	SANDY GRAVEL WITH SAND TO SILTY GRAVEL (GM) –brown –moist –minor grinding	⊠	1016	● ▲	GM		◆ ■	2.0
3.0		⊠	1017	● ▲	GM		◆ ■	3.0
4.0	END HOLE @ 4.3m							4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-466
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1725+753 5M 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) -previously stripped -brown -damp -grinding drilling 0 to 2.2m	⊠	1010	● ▲	SW-SM		■ ◆	0.0
1.0								1.0
2.0	SILTY SAND WITH GRAVEL (SM) -damp	⊠	1011	● ▲	SM		■ ◆	2.0
3.0	SANDY SILT TO SILTY SAND WITH GRAVEL (ML)-(SM) -damp -smoother drillling -no grinding	⊠	1012	● ▲	ML		■ ◆	3.0
4.0		⊠	1013	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-465
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1725+850 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	ORGANIC							0.0
	SILTY GRAVEL WITH SAND (GM) –brown –damp –grinding starts @ 0.3m	⊠	1006	● ▲	GM		◆ ■	
1.0								1.0
	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (SM)–(GM)–(SM) –brown –moist –smoother drilling @ 1.5m	⊠	1007	● ▲	SM		■ ◆	
2.0								2.0
		⊠	1008	● ▲	GM		◆ ■	
3.0								3.0
		⊠	1009	● ▲	SM		■ ◆	
4.0								4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-464
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1725+950 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	ORGANIC							0.0
	SILT –moist							
	SILTY GRAVEL WITH SAND TO WELL-GRADED SAND WITH SILT & GRAVEL (GM)-(SW-SM) –brown –damp –grinding starts @ 0.5m	⊠	1002	● ▲	GM		◆ ■	
1.0								1.0
		⊠	1003	● ▲	SW-SM		◆	
2.0								2.0
		⊠	1004	● ▲	SW-SM		◆ ■	
3.0								3.0
	SILTY SAND WITH GRAVEL (SM) –brown –damp –smooth drilling	⊠	1005	● ▲	SM		■ ◆	
4.0								4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-463
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0363
NODWELL B40 L 6" AUGER	LOCATION: 1726+050 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	ORGANIC							0.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -damp -grinding starts @ 0.3m	⊠	998	● ▲	GP-GM		◆ ■	
1.0								1.0
	SILTY GRAVEL WITH SAND (GM) -brown -frozen -smooth - slower drilling	⊠	999	● ▲	GM		◆ ■	
2.0								2.0
	SANDY SILT (ML) -brown -frozen -tight drilling	⊠	1000	● ▲	ML		■ ◆	
3.0								3.0
4.0		⊠	1001	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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REVIEWED BY:	COMPLETE: 01/09/04
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-461
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1726+150 C.L.	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							0.0
	SILTY SAND WITH GRAVEL TO SANDY SILT (SM)–(ML) –moist –easy drilling – very little grinding	⊠	990	● ▲	SM	▨	■ ◆	
1.0								1.0
		⊠	991	● ▲	ML	▥	■ ◆	
2.0								2.0
	–frozen below 2.5m –tight drilling – little grinding below 2.5m	⊠	992	● ▲	ML	▥	■ ◆	
3.0								3.0
		⊠	993	● ▲	ML	▥	■ ◆	
4.0	END HOLE @ 4.3m							4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-462
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1726+150 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 –black							0.0
	SANDY SILT (ML) –brown –moist	⊠	994	● ▲	ML		■ ◆	
1.0	SANDY SILT WITH GRAVEL (ML) –brown –damp to moist –some grinding – trace	⊠	995	● ▲	ML		■ ◆	1.0
2.0	SANDY SILT (ML) –frozen –tight slow drilling	⊠	996	● ▲	ML		■ ◆	2.0
3.0								3.0
4.0		⊠	997	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 618-460
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1726+150 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 –black							0.0
	SILT WITH SAND (ML) –brown –moist –frozen	⊠	936	● ▲	ML		■ ◆	
1.0	SILTY SAND WITH GRAVEL TO SANDY SILT TO SANDY SILT WITH GRAVEL (SM)–(ML) –brown –frozen –grinding (just a little) @ 1.0m	⊠	987	● ▲	SM		■ ◆	1.0
2.0	–tight drilling below 1.5m							2.0
		⊠	988	● ▲	ML		■ ◆	
3.0								3.0
4.0		⊠	989	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-459
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0360
NODWELL B40 L 6" AUGER	LOCATION: 1726+200 2M RT	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT (ML) –brown –wet	⊠	981	● ▲	ML		■ ◆	
1.0	SILTY GRAVEL WITH SAND (GM) –brown –moist –grinding starts @ 0.75m	⊠	982	● ▲	GM		◆	1.0
	SILTY SAND TO SILTY SAND WITH GRAVEL TO SANDY SILT (SM)–(ML) –damp to moist –smoother drilling – some grinding	⊠	983	● ▲	SM		■ ◆	
2.0								2.0
		⊠	984	● ▲	SM		■ ◆	
3.0	–tight drilling below 3.0m							3.0
		⊠	985	● ▲	ML		■ ◆	
4.0	END HOLE @ 3.0m							4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-458
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1726+300 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	ORGANIC -black							0.0
	SILT (ML) -brown -wet	⊠	976	● ▲	ML		◆	
1.0	SILTY SAND WITH GRAVEL (SM) -brown -moist -grinding starts @ 0.75m	⊠	977	● ▲	SM		■ ◆	1.0
	-wet below 1.6m -smooth drilling @ 1.6m	⊠	978	● ▲	SM		■ ◆	
2.0								2.0
	SANDY SILT (ML) -brown -frozen -slow tight drilling	⊠	979	● ▲	ML		■ ◆	
3.0								3.0
4.0		⊠	980	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

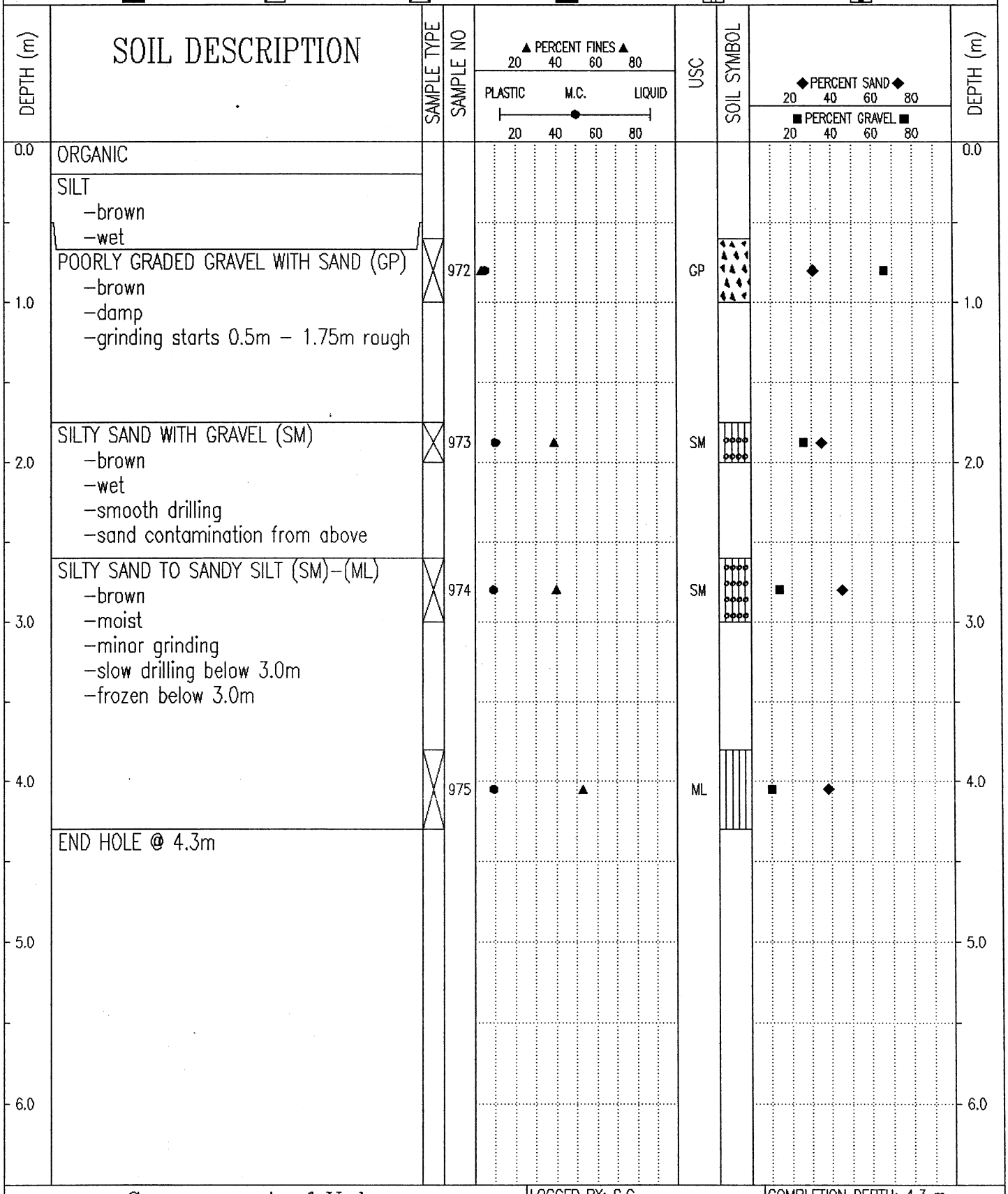
Government of Yukon
Transportation Engineering

LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
REVIEWED BY:	COMPLETE: 01/09/04
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-457
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1726+400 2M RT	ELEVATION: 0.00 (m)

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



Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/09/04
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-456
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1726+500 2M RT	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID / 20 40 60 80	USC	SOIL SYMBOL	◆PERCENT SAND◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILT (ML) –brown –wet	⊠	969	● ▲	ML		◆	
1.0	WELL–GRADED GRAVEL WITH SILT & SAND (GW–GM) –brown –damp –rough grinding drilling	⊠	970	●	GW–GM		◆ ■	1.0
2.0	SILTY SAND WITH GRAVEL (SM) –brown –moist –smooth drilling 1.5m – 3.0m							2.0
		⊠	971	● ▲	SM		■ ◆	
3.0	END HOLE @ 3.2M –refusal Note: Boulders on surface 0.5–1.5m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 3.2 m
	REVIEWED BY:	COMPLETE: 01/09/04
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-455
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1726+600 2M 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 –moist							0.0
1.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) –brown –damp –grinding @ 0.5m – rough –rough drilling below 1.0m	⊠	965	● ▲	GP-GM		◆ ■	1.0
2.0	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) –brown –damp –easier drilling – some grinding	⊠	966	● ▲	SM		◆	2.0
3.0		⊠	967	● ▲	GM		◆	3.0
4.0	SILT (ML) –grey –damp –tight drilling very little grinding	⊠	968	● ▲	ML		◆	4.0
5.0	END HOLE @ 4.3m							5.0
6.0								6.0

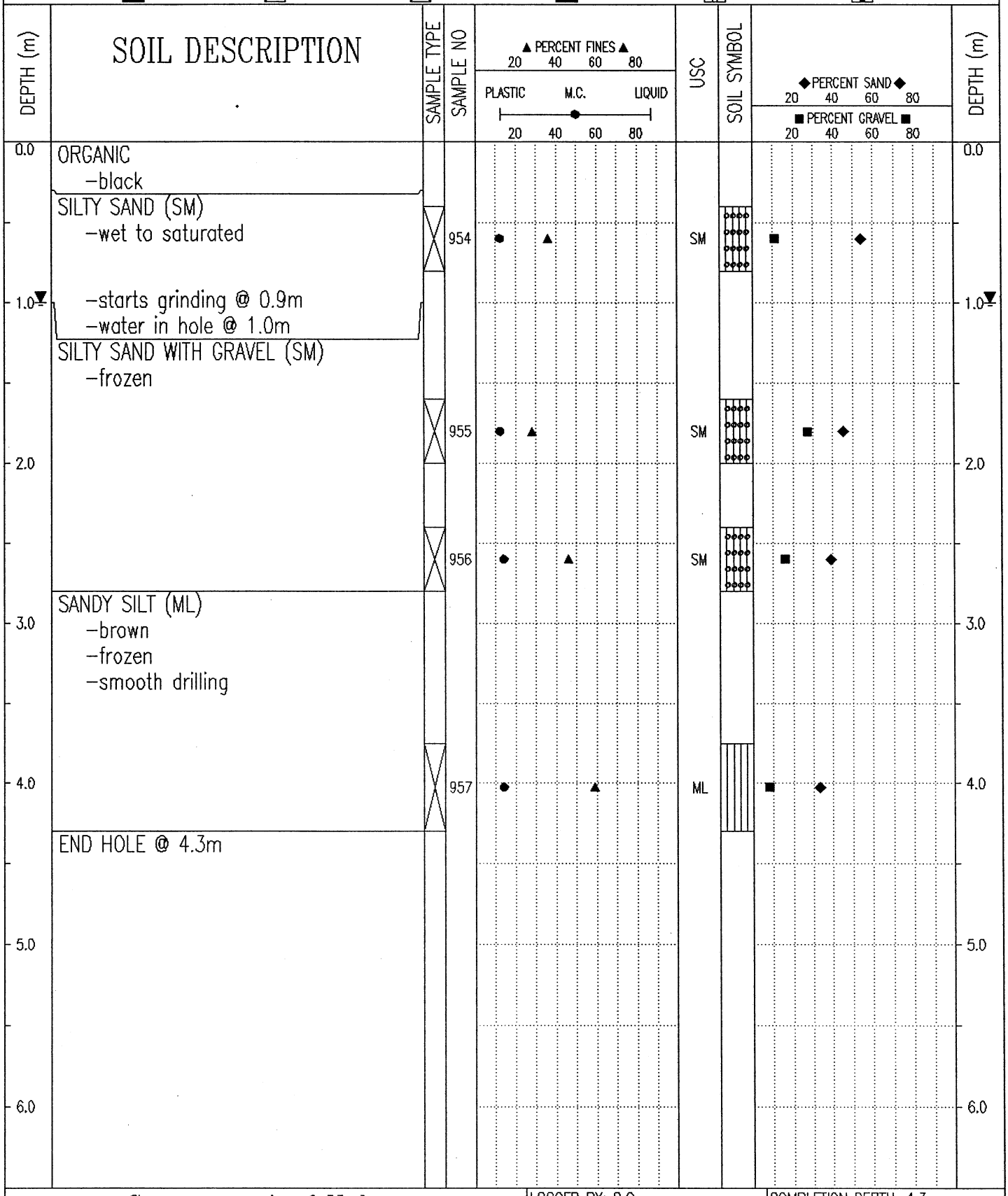
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REVIEWED BY:	COMPLETE: 01/09/04
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-452
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1726+705 C.L.	ELEVATION: 0.00 (m)

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



Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-454
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1726+705 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 (ML) –brown –wet	⊠	962	● ▲	ML		◆	
1.0	SILTY SAND WITH GRAVEL (SM) –grey brown –wet to saturated below 0.75–1.0m –grinding starts @ 0.75m –frozen 1.0–1.6m –damp to moist below 1.6–2.1m –medium to smooth grinding 1.3–2.1m	⊠	963	● ▲	SM		■ ◆	1.0
2.0	SANDY SILT (ML) –frozen –slow penetration	⊠	964	● ▲	ML		■ ◆	2.0
3.0	END HOLE @ 3.3m –refusal Note: Lots of water killed spruce LHS.							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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	REVIEWED BY:	COMPLETE: 01/09/04
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-453
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0360
NODWELL B40 L 6" AUGER	LOCATION: 1726+705 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 & SILT MIX							0.0
	SILTY GRAVEL WITH SAND (GM) –grey –saturated –start grinding @ 0.5m	⊠	958	●▲	GM		◆■	
1.0	SILTY SAND WITH GRAVEL (SM) –frozen –medium grinding							1.0
		⊠	959	● ▲	SM		■ ◆	
2.0								2.0
		⊠	960	● ▲	SM		■ ◆	
3.0	SANDY SILT (ML) –frozen –smoother drilling							3.0
		⊠	961	● ▲	ML		■ ◆	
4.0	END HOLE @ 4.3m							4.0
5.0								5.0
6.0								6.0

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REVIEWED BY:	COMPLETE: 01/09/04
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-451
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1726+800 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	ORGANIC							0.0
	SILTY SAND (SM) –brown –wet	⊠	950	● ▲	SM		■ ◆	
1.0								1.0
	SILTY SAND WITH GRAVEL (SM) –brown –frozen –grinding starts @ 1.5m	⊠	951	●▲	SM		■ ◆	
2.0								2.0
	SANDY SILT TO SANDY SILT WITH GRAVEL (ML) –brown –frozen –no grinding, smooth,tight penetration	⊠	952	● ▲	ML		■ ◆	
3.0								3.0
4.0		⊠	953	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-450
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1726+900 5M RT	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILT WITH SAND (ML) –brown –frozen below 0.3m –slow penetration	⊠	946	● ▲	ML		◆	
1.0								1.0
	SILTY SAND WITH GRAVEL TO SANDY SILT (SM)–(ML) –frozen –grinding drilling starts @ 1.3m –still slow penetration –not heavy grinding	⊠	947	● ▲	SM		■ ◆	
2.0								2.0
		⊠	948	● ▲	ML		■ ◆	
3.0	SANDY SILT (ML) –brown–grey –frozen –smoother drilling –very tight drilling							3.0
4.0		⊠	947	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.3m Note: water lying on surface in area near this testhole –Lots of dead leaning spruce L.H.S.							
5.0								5.0
6.0								6.0

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REVIEWED BY:	COMPLETE: 01/08/31
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-449
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1727+000 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	ORGANIC							0.0
	SANDY SILT WITH GRAVEL (ML) -brown -wet -smooth drilling	⊠	942	● ▲	ML		■ ◆	
1.0								1.0
	SILTY GRAVEL WITH SAND (GM) -brown -moist -some grinding drilling	⊠	943	● ▲	GM		◆ ■	
2.0								2.0
	SILTY SAND (SM) -brown -saturated -smooth drilling (slop)	⊠	944	● ▲	SM		■ ◆	
3.0								3.0
	SILTY SAND WITH GRAVEL (SM) -suspect frozen -well packed -tight drilling	⊠	945	● ▲	SM		■ ◆	
4.0								4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-448
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1727+100 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	ORGANIC							0.0
	GRAVELLY SILT WITH SAND (ML) –brown –wet	⊠	938	● ▲	ML		◆ ■	
1.0	SILT WITH SAND (SM) –brown –damp (possibly frozen) –grinding @ 0.8m	⊠	939	● ▲	SM		■ ◆	1.0
2.0	SILTY SAND (SM) –brown –damp –smoother drilling @ 1.8m	⊠	940	● ▲	SM		■ ◆	2.0
3.0								3.0
	SILTY SAND WITH GRAVEL (SM) –brown –damp	⊠	941	● ▲	SM		■ ◆	
4.0	END HOLE @ 4.3m							4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-447
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1727+200 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	ORGANICS –black						0.0
	ASH						
	SILT (ML) –brown –moist	⊠	934	● ▲	ML	◆	
1.0							1.0
	POORLY GRADED GRAVEL WITH SAND (GP) –brown –damp –grinding @ 1.3m	⊠	935	●	GP	◆ ■	
2.0							2.0
	SILTY SAND WITH GRAVEL (SM) –brown –damp –easy drilling – grinding –smoother drilling below 1.5m	⊠	936	● ▲	SM	◆	
3.0							3.0
4.0	–tight drilling below 4.0m	⊠	937	● ▲	SM	■ ◆	4.0
	END HOLE @ 4.3.m						
5.0							5.0
6.0							6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-446
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1727+325 3M RT	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	MIXTURE OF SILT & ORGANIC –moist –smooth drilling				
1.0	SANDY SILT WITH GRAVEL (ML) –brown –wet	⊠	931	ML	
2.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) –brown –damp –grinding drilling	⊠	932	GP-GM	
3.0					
4.0	SANDY SILT (ML) –brown –moist –quiet, smooth drilling	⊠	933	ML	
5.0	END HOLE @ 4.3m				
6.0					

▲ PERCENT FINES ▲ 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

◆ PERCENT SAND ◆ 20 40 60 80

■ PERCENT GRAVEL ■ 20 40 60 80

DEPTH (m)

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COMPLETION DEPTH: 4.3 m
COMPLETE: 01/08/31

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-445
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1727+400 3M RT	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	MIXURE OF ORGANIC, WOOD & SILT -wet				
1.0	SILT (ML) -brown -moist -smooth drilling	⊠	927	ML	
	-wet below 1.5m	⊠	928	ML	
2.0	POORLY GRADED GRAVEL WITH SILT & SAND TO SILTY GRAVEL WITH SAND (GP-GM)-(GM) -brown -damp -grinding @ 2.0m	⊠	929	GP-GM	
3.0	-rough drilling below 3.0m				
4.0		⊠	930	GM	
	END HOLE @ 4.3m				
5.0					
6.0					

▲ PERCENT FINES ▲ 20 40 60 80

PLASTIC M.C. LIQUID 20 40 60 80

◆ PERCENT SAND ◆ 20 40 60 80

■ PERCENT GRAVEL ■ 20 40 60 80

DEPTH (m)

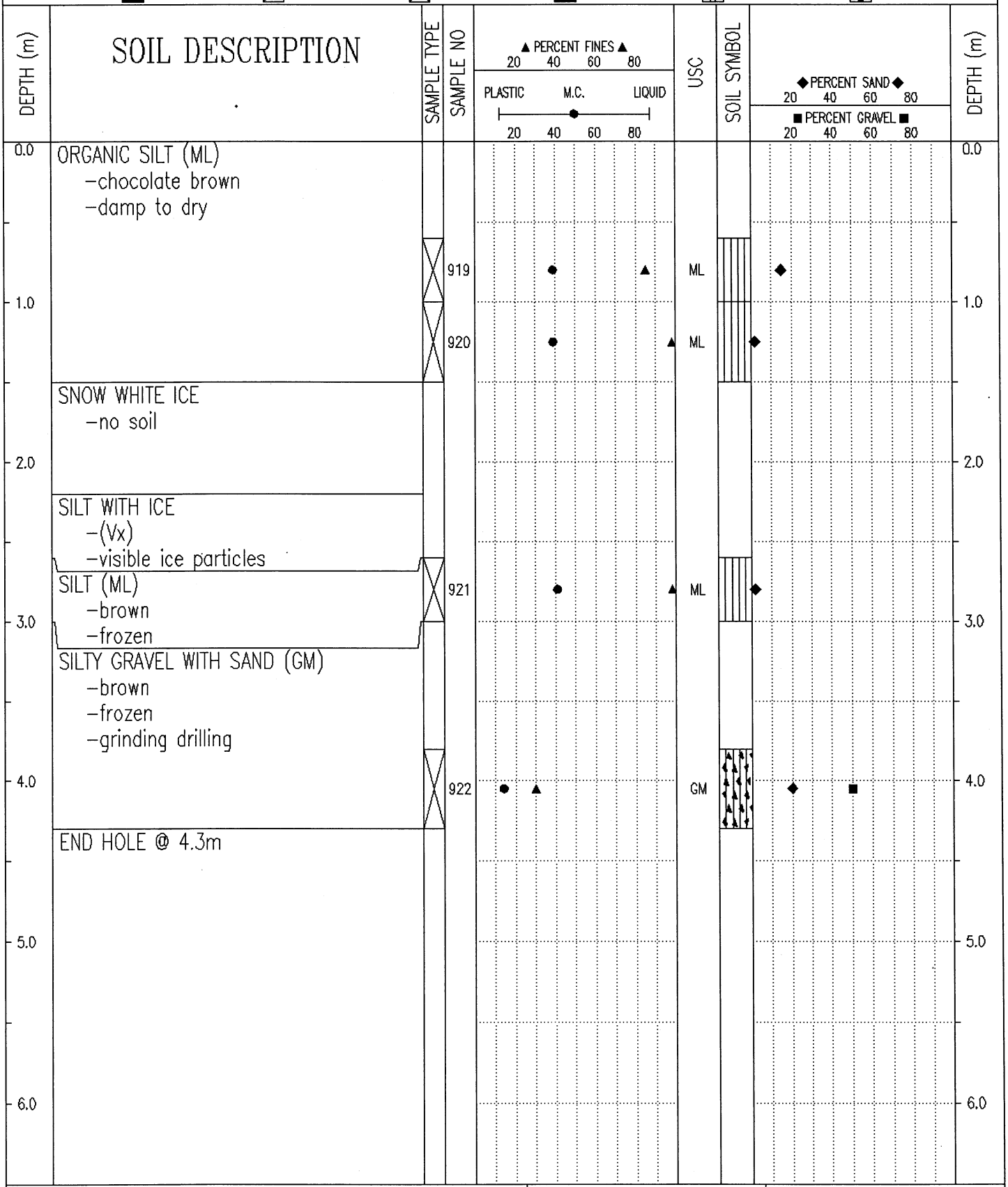
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-443
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1727+450 3M RT	ELEVATION: 0.00 (m)

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



Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-444
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1727+500 2M 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 MIXED WITH SILT (ML) -black & brown -wet							0.0
	SILT (ML) -brown -wet	⊠	923	● ▲	ML	▥	◆	
1.0								1.0
	GRAVELLY SILT (ML) -brown -wet to saturated -minor grinding drilling	⊠	924	● ▲	ML	▤	◆ ■	
2.0								2.0
	SILTY GRAVEL WITH SAND (GM) -brown -damp -silt contamination from above -average grinding drilling	⊠	925	● ▲	GM	▨	◆ ■	
3.0								3.0
4.0	-wet below 4.0m -smooth drilling below 4.0m	⊠	926	● ▲	GM	▨	◆ ■	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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02/09/30 01:51PM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-442
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1727+550 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	ORGANIC -black							0.0
1.0	SILT TO SANDY SILT WITH GRAVEL (ML) -brown -wet -possibly frozen 1.0 to 1.5m -smooth drilling	⊠	915	● ▲	ML		◆	1.0
2.0		⊠	916	● ▲	ML		■ ◆	2.0
3.0	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GM)-(SM) -brown -wet -minor grinding drilling	⊠	917	● ▲	GM		◆ ■	3.0
4.0		⊠	918	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/08/31
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-441
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1727+650 2M LT	ELEVATION: 0.00 (m)

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

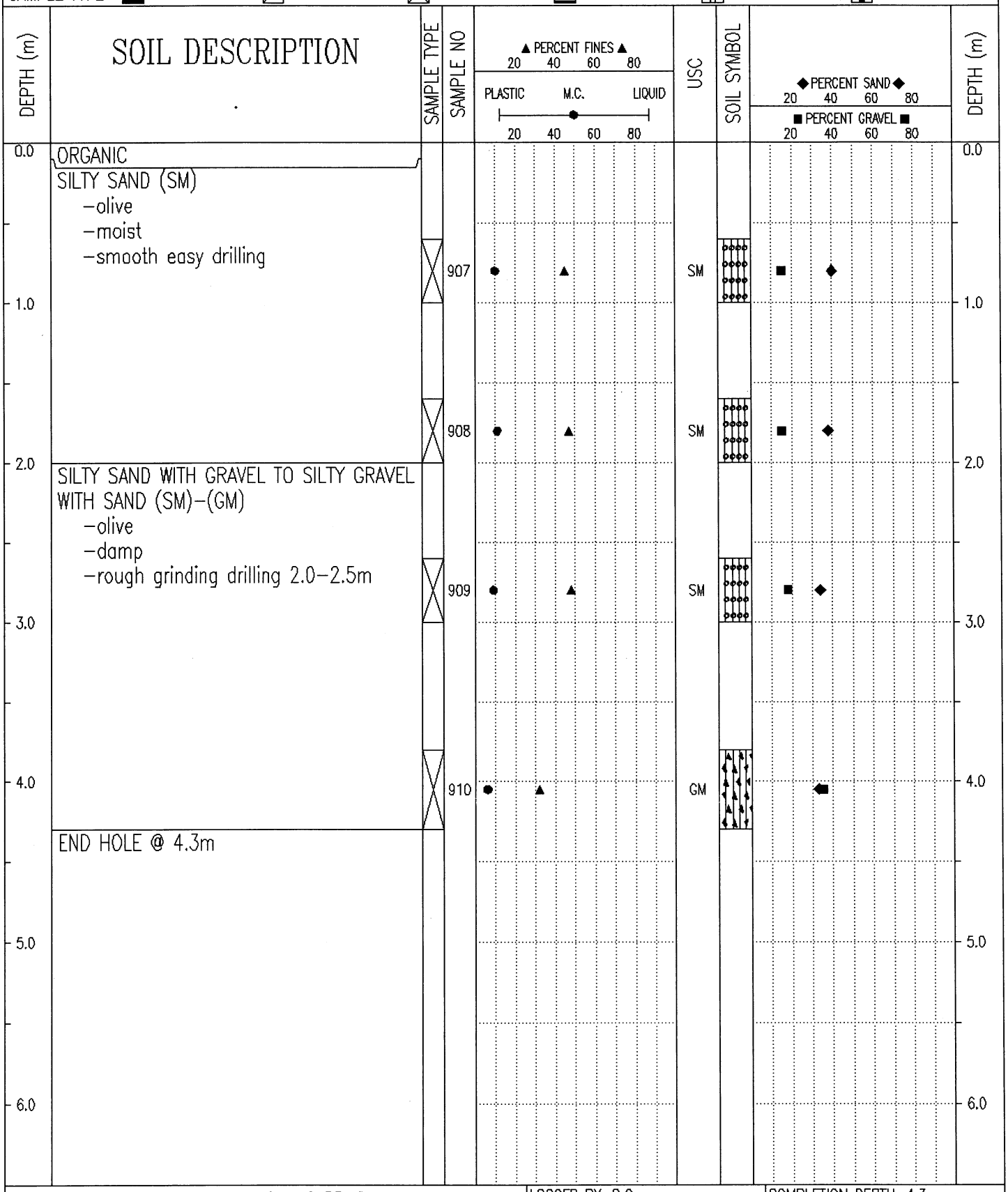
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILT WITH SAND (ML) -olive -moist -smooth drilling	⊠	911	● ▲	ML		■ ◆	
1.0								1.0
	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) -damp -some grinding drilling	⊠	912	● ▲	SM		■ ◆	
2.0								2.0
		⊠	913	● ▲	GM		◆ ■	
3.0								3.0
		⊠	914	● ▲	GM		◆ ■	
4.0	END HOLE @ 4.0m -refusal							4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-440
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1727+750 2M LT	ELEVATION: 0.00 (m)

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



Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-439
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1727+850 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							0.0
	SANDY SILT (ML) -brown -moist -smooth drilling	⊠	903	● ▲	ML		■ ◆	
1.0								1.0
	SILTY SAND WITH GRAVEL (SM) -brown -moist -minor grinding -easy drilling	⊠	904	● ▲	SM		■ ◆	
2.0								2.0
	SILTY SAND TO SILTY SAND WITH GRAVEL (SM) -damp	⊠	905	● ▲	SM		■ ◆	
3.0								3.0
4.0		⊠	906	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon
Transportation Engineering

LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-438
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1727+950 2M RT	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆PERCENT SAND◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILT WITH SAND (ML) –brown –damp –smooth easy drilling	⊠	899	● ▲	ML		◆	
1.0								1.0
		⊠	900	● ▲	ML		◆	
2.0								2.0
	SILTY SAND WITH GRAVEL (SM) –brown –moist –some grinding (little) –easy drilling	⊠	901	● ▲	SM		■ ◆	
3.0								3.0
		⊠	902	● ▲	SM		■ ◆	
4.0								4.0
	END HOLE @ 4.3m Note: this testhole in the same depression as TH # 437							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/08/30
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-437
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1728+030 5M RT	ELEVATION: 0.00 (m)

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

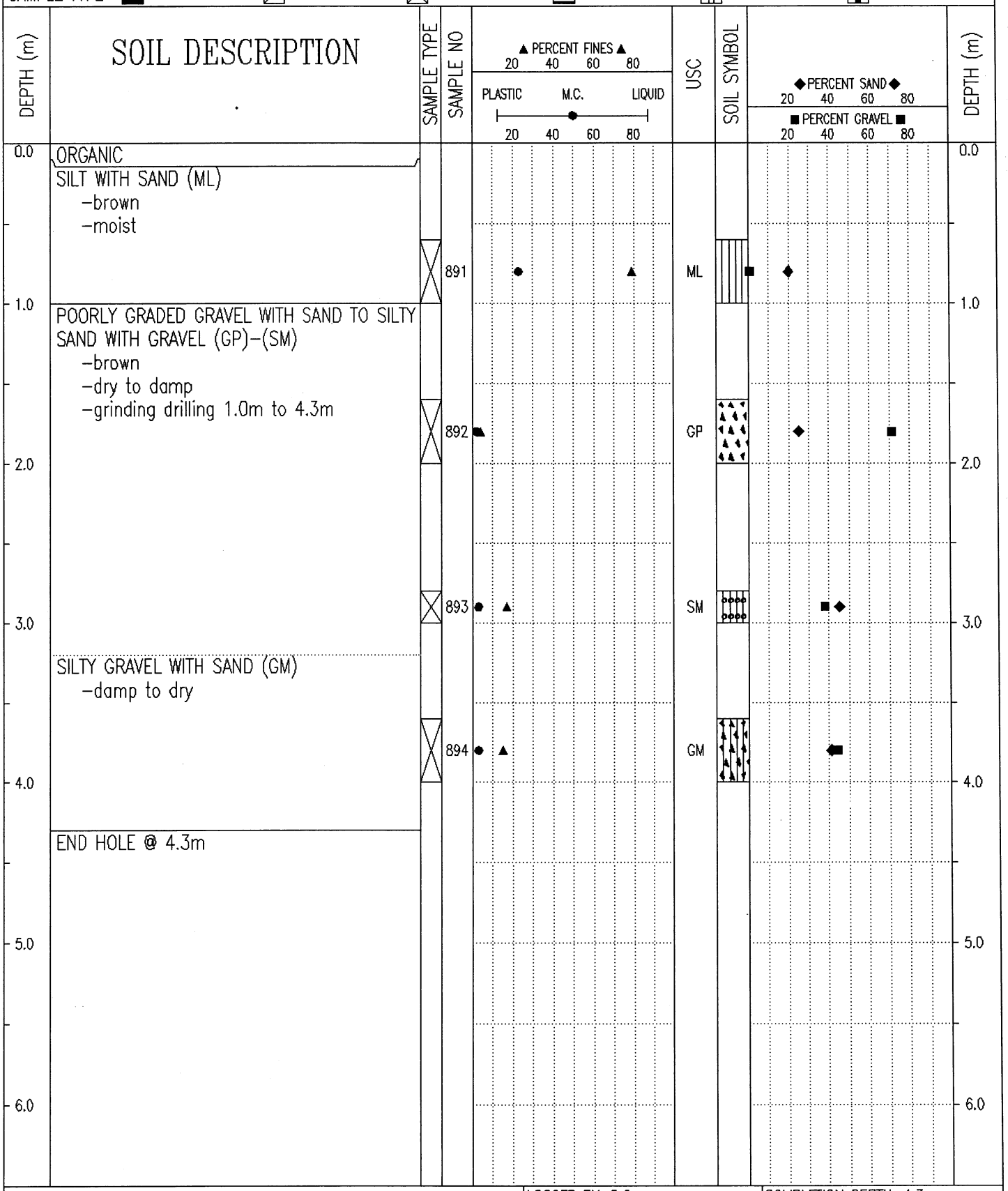
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT (ML) –brown –moist –smooth easy drilling	⊠	895	● ▲	ML		◆	
1.0								1.0
		⊠	896	● ▲	ML		◆	
2.0								2.0
	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)–(GM) –brown –wet –some grinding @ 2.6m –easy drilling below 3.0m	⊠	897	● ▲	SM		◆ ■	
3.0								3.0
4.0		⊠	898	● ▲	GM		◆ ■	4.0
	END HOLE @ 4.3m Note: drilled this site because 1.5m depression							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/08/30
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-436
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1728+075 3M LT	ELEVATION: 0.00 (m)

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



Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/08/30
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 10	TEST HOLE NO: 617-435
ENGINEERING CAPITAL	R.O.W. TESTING	Project No: 092-202101-0362
NODWELL B40 L 6" AUGER	LOCATION: 1728+120 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
	SILT –wet							
	SILT WITH ORGANICS –frozen	⊠	888	● ▲	ML		◆	
1.0								1.0
	GRAVELLY SILT TO SILTY GRAVEL WITH SAND (ML)–(GM) –frozen –grinding drilling	⊠	889	● ▲	ML		◆ ■	
2.0								2.0
		⊠	890	● ▲	GM		◆ ■	
3.0	END HOLE @ 3.0m Note: snapped off 3rd bitt in 3 hours – Culver site							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 3.0 m
	REVIEWED BY:	COMPLETE: 01/08/30
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-434
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1728+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 –black							0.0
	SILT –wet							
1.0	SILT (ML) –brown –frozen	⊠	885	● ▲	ML		◆	1.0
	SANDY SILT (ML) –brown –frozen –grinding starts @ 1.3m	⊠	886	● ▲	ML		■ ◆	
2.0	–one rock @ 1.3m							2.0
	SILTY GRAVEL WITH SAND (GM) –brown –frozen –some minor grinding	⊠	887	● ▲	GM		■	
3.0	END HOLE @ 3.2m –refusal							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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Transportation Engineering

LOGGED BY: G.C.	COMPLETION DEPTH: 3.2 m
REVIEWED BY:	COMPLETE: 01/08/30
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-433
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1728+140 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
	ASH							
	SILT (ML) –brown –moist	⊠	881	● ▲	ML		◆	
1.0								1.0
	SILTY GRAVEL WITH SAND (GM) –brown –moist –grinding starts @ 1.5m	⊠	882	● ▲	GM		◆ ■	
2.0								2.0
	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)–(GM) –brown –moist –questionable frozen	⊠	883	● ▲	SM		■	
3.0	–rough @ 3.0m	⊠	884	● ▲	GM		◆ ■	3.0
	END HOLE @ 3.4m –refusal							
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 3.4 m
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-432
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1728+200 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							0.0
	SILT (ML) –brown –wet	⊠	877	● ▲	ML		◆	
1.0	SILT WITH SAND (ML) –frozen	⊠	878	● ▲	ML		◆	1.0
2.0	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)–(GM) –frozen –grinding startes @ 2.0m –good penetration	⊠	879	● ▲	SM		■ ◆	2.0
3.0								3.0
		⊠	880	● ▲	GM		◆ ■	
4.0	END HOLE @ 4.0m Note: water ponding in depression on LHS –burls in bush –water killed trees –legs on Nodwell sinking when lifting augers from testhole							4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-429
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1728+327 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							
	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -brown -damp -grinding starts @ 0.75m	⊠	865	▲ ●	SW-SM	▥	■ ◆	
1.0								1.0
	SILTY SAND (ML) -brown -moist -no grinding	⊠	866	● ▲	ML	▤	■ ◆	
2.0								2.0
	SILTY SAND WITH GRAVEL (SM) -brown -moist -grinding @ 2.8m (minor) -actually smooth easy penetration	⊠	867	● ▲	SM	▨	■ ◆	
3.0								3.0
4.0		⊠	868	● ▲	SM	▨	■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-430
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1728+327 15M RT	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILTY GRAVEL WITH SAND (GM) –brown –moist	☒	869	● ▲	GM		◆ ■	
1.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) –brown –damp –medium grinding easy penetration to end of hole	☒	870	●	GP-GM		◆ ■	1.0
2.0	SILTY SAND WITH GRAVEL (SM) –brown –moist							2.0
		☒	871	● ▲	SM		■ ◆	
3.0								3.0
4.0		☒	872	● ▲	SM		◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-431
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1728+327 15M LT	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILTY GRAVEL WITH SAND (GM) –brown –damp –easy smooth drilling minor grinding	☒	873	● ▲	GM	▨	◆ ■	
1.0								1.0
	WELL–GRADED SAND WITH GRAVEL (SW) –brown –damp	☒	874	●	SW	▨	■ ◆	
2.0								2.0
	SANDY SILT (ML) –brown –wet –smooth easy drilling	☒	875	● ▲	ML	▨	■ ◆	
3.0								3.0
	SILTY SAND WIH GRAVEL (SM) –moist to wet	☒	876	● ▲	SM	▨	■ ◆	
4.0								4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/08/30
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-428
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1728+390 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							0.0
	POORLY TO WELL GRADED GRAVEL WITH SILT & SAND (GP-GM)-(GW-GM) -brown -damp	⊠	861	▲	GP-GM		◆ ■	
1.0	-rough grinding drilling @ 1.0m -two refusals @ 1.0m moved 2.0m each time -third refusal @ 1.5m moved 2.0m							1.0
		⊠	862	▲	GP-GM		◆ ■	
2.0								2.0
		⊠	863	▲	GP-GM		◆ ■	
3.0								3.0
		⊠	864	▲	GW-GM		◆ ■	
4.0	END HOLE @ 4.0m							4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.0 m
	REVIEWED BY:	COMPLETE: 01/08/29
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-427
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1728+500 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							0.0
	WELL TO POORLY GRADED GRAVEL WITH SILT & SAND (GW-GM)-(GP-GM) -brown -damp -grinding @ 0.5m	⊠	857	● ▲	GW-GM		◆ ■	
1.0	-rough drilling @ 1.0m							1.0
	-two refusals @ 1.5m - moved 2.0m each time	⊠	858	● ▲	GP-GM		◆ ■	
2.0								2.0
		⊠	859	● ▲	GP-GM		◆ ■	
	SILTY SAND WITH GRAVEL (SM) -damp to moist -easier penetration							
3.0								3.0
		⊠	860	● ▲	SM		■ ◆	
4.0	-more sand & slightly more H20							4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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Transportation Engineering

LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
REVIEWED BY:	COMPLETE: 01/08/29
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-426
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1728+615 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							0.0
	WELL-GRADED GRAVEL WITH SILT & SAND TO WELL TO POORLY GRADED GRAVEL WITH SAND (GW-GM)-(GW)-(GP) -brown -damp -hard grinding @ 0.5m -rough drilling	⊠	853	▲	GW-GM		◆ ■	
1.0								1.0
		⊠	854	▲	GW		◆ ■	
2.0								2.0
	-poor recovery for sample # 855	⊠	855	▲	GP		◆ ■	
3.0								3.0
	SILTY SAND WITH GRAVEL (SM) -wet -easier drilling below 3.2m							
4.0		⊠	856	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/08/29
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-425
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1728+725 5M 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
	POORLY GRADED GRAVEL WITH SAND (GP) –brown –damp	⊠	849	●	GP		◆ ■	
1.0								1.0
	–rough drilling @ 1.5m							
	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)–(GM) –moist	⊠	850	● ▲	SM		◆ ■	
2.0								2.0
		⊠	851	● ▲	GM		◆ ■	
3.0								3.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP–GM) –brown –dry	⊠	852	● ▲	GP–GM		◆ ■	
4.0								4.0
	END HOLE @ 4.4m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.4 m
	REVIEWED BY:	COMPLETE: 01/08/29
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-424
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1728+840 3M 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 –black ASH SILT –dry POORLY GRADED GRAVEL WITH SILT & SAND TO SILTY SAND WITH GRAVEL TO WELL-SAND WITH SILT & GRAVEL (GP-GM)-(SM)-(SW-SM) –grey –dry –start grinding @ 0.6m (minor) –difficult to obtain representitive sample	⊠	846	● ▲	GP-GM	▲	◆ ■	0.0
1.0								1.0
2.0	–silt contamination – poor sample	⊠	847	● ▲	SM	▲	■ ◆	2.0
3.0		⊠	848	● ▲	SW-SM	▲	■ ◆	3.0
	END HOLE @ 3.6m –refusal							
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 3.6 m
REVIEWED BY:	COMPLETE: 01/08/29
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-423
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1728+925 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							0.0
	SANDY SILT (ML) -damp to moist -smooth drilling	⊠	842	● ▲	ML		■ ◆	
1.0								1.0
	POORLY GRADED GRAVEL WITH SAND TO WELL-GRADED SAND WITH SILT & GRAVEL (GP)-(SW-SM) -silt contamination from above -brown -damp -starts grinding @ 1.6m	⊠	843	● ▲	GP		■ ◆	
2.0								2.0
	-drill sounds coarser that sample appearance	⊠	844	● ▲	SW-SM		■ ◆	
3.0								3.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -wet							
4.0		⊠	845	● ▲	GP-GM		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/08/29
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-422
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1729+025 3M LT	ELEVATION: 0.00 (m)

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

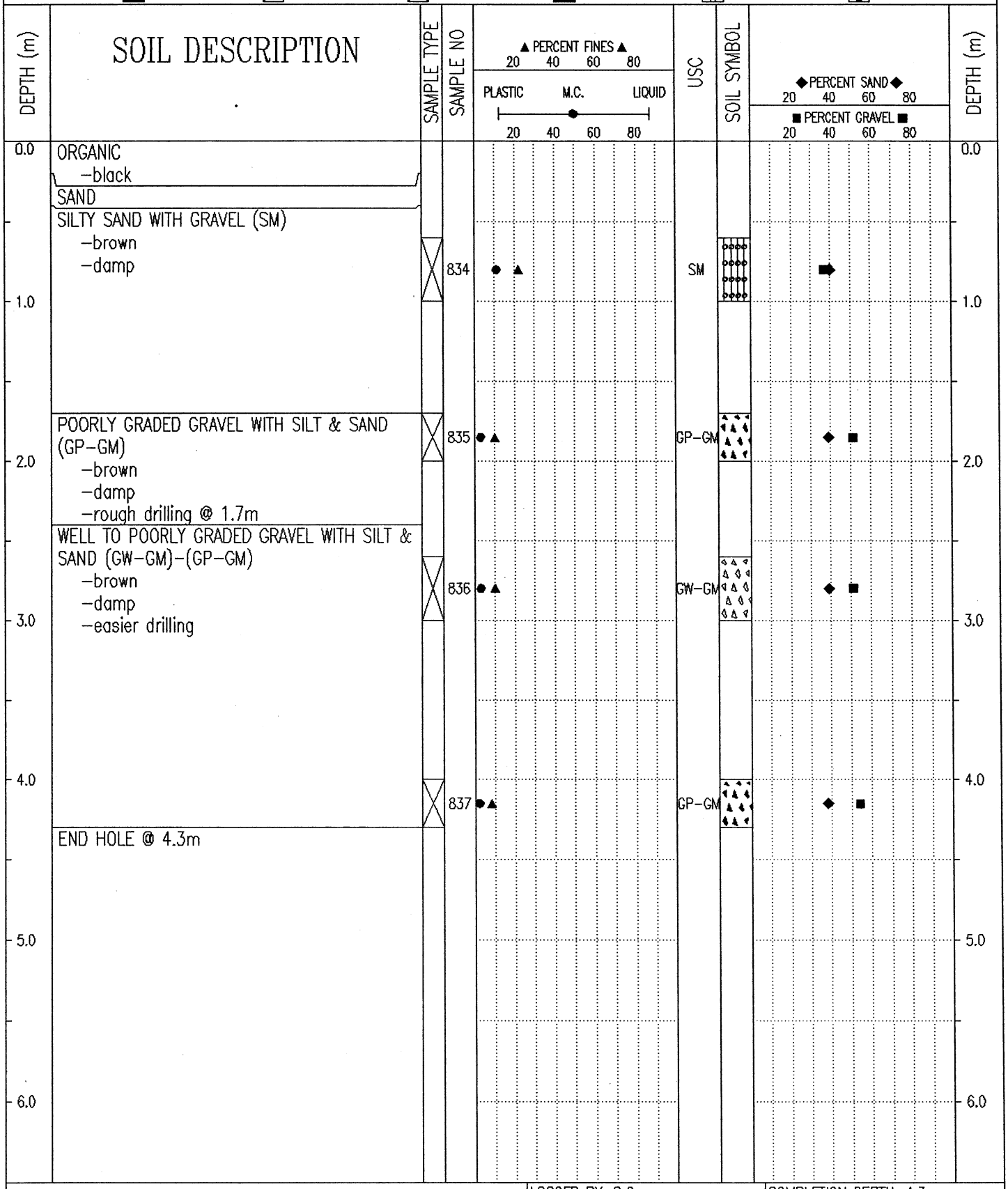
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	POORLY GRAVEL WITH SAND (GP) –brown –damp	☒	838	● ▲	GP		◆ ■	
1.0								1.0
	SILTY GRAVEL WITH SAND (GM) –brown –damp	☒	839	● ▲	GM		◆ ■	
2.0								2.0
	SILTY SAND WITH GRAVEL (SM) –damp –grinding	☒	840	● ▲	SM		■ ◆	
3.0								3.0
	SILTY SAND (SM) –brown –damp –no grinding. – smooth							
4.0		☒	841	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/08/29
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-421
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1729+125 2M LT	ELEVATION: 0.00 (m)

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



Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-420
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1729+235 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							0.0
	POORLY GRADED GRAVEL WITH SAND TO WELL-GRADED GRAVEL (GP)-(GW) -brown -damp -rough grinding drilling @ 0.2m	⊠	830	●	GP		◆ ■	
1.0								1.0
		⊠	831	●	GW		◆ ■	
2.0								2.0
	WELL TO POORLY GRADED GRAVEL WITH SILT & SAND (GW-GM)-(GP-GM) -brown -damp -smoother drilling below 2.6m	⊠	832	● ▲	GW-GM		◆ ■	
3.0								3.0
4.0		⊠	833	● ▲	GP-GM		◆ ■	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-419
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1729+325 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 -black -damp							0.0
	ASH							
	SILT -damp	⊠	826	● ▲	GM		◆ ■	
1.0	SILTY GRAVEL WITH SAND TO WELL-GRADED SAND WITH SILT & GRAVEL (GM)-(SW-SM) -brown -damp -grinding below 1.0m							1.0
		⊠	827	● ▲	GM		◆ ■	
2.0								2.0
	-poor sample recovery below 2.5m -rough	⊠	828	● ▲	SW-SM		■	
3.0								3.0
4.0		⊠	829	● ▲	SW-SM		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/08/29
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-418
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1729+474 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 –black –damp							0.0
	ASH –damp							
1.0	POORLY GRADED GRAVEL WITH SILT & SAND TO SILTY GRAVEL WITH SAND TO WELL-GRADED GRAVEL WITH SILT & SAND (GP-GM)-(GM)-(GW-GM) –brown –damp –rough drilling below 0.6m	⊠	822	●	GP-GM		◆ ■	1.0
2.0		⊠	823	● ▲	GM		◆ ■	2.0
3.0	–difficult to retrieve sample – rough withdrawal	⊠	824	●	GW-GM		◆ ■	3.0
4.0		⊠	825	● ▲	GW-GM		◆ ■	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG: 11	TEST HOLE NO: 616-415
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1729+540 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 -black -previously stripped channel							0.0
	SANDY SILT (ML) -brown -moist	⊠	812A	● ▲	ML	▥	■ ◆	
1.0								1.0
	POORY GRADED GRAVEL WITH SILT & SAND TO WELL-GRADED SAND WITH SILT & GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)-(SW-SM)-(GP-GM) -brown -moist -starts grinding @ 1.5m (rough) -damp below 2.5m	⊠	813	●	GP-GM	▨	◆ ■	
2.0								2.0
		⊠	814	● ▲	SW-SM	▨	■ ◆	
3.0								3.0
	-moist to wet below 3.5m							
4.0		⊠	815	● ▲	GP-GM	▨	◆ ■	4.0
	END HOLE @ 4.3m -culvert location							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
REVIEWED BY:	COMPLETE: 01/08/28
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-416
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1729+540 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 –black –moist							0.0
1.0	VOLCANIC ASH							1.0
	WELL-GRADED SAND WITH SILT & GRAVEL TO SILTY SAND WITH GRAVEL (SW-SM)-(SM) –saturated –grinding drilling	⊠	816	●	SW-SM		■ ◆	
2.0	–rough, slow drilling below 2.0m							2.0
		⊠	817	●	SM		■ ◆	
3.0	END HOLE @ 3.3m –refusal –culvert outlet							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 3.3 m
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-417
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1729+540 20M LT	ELEVATION: 0.00 (m)

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

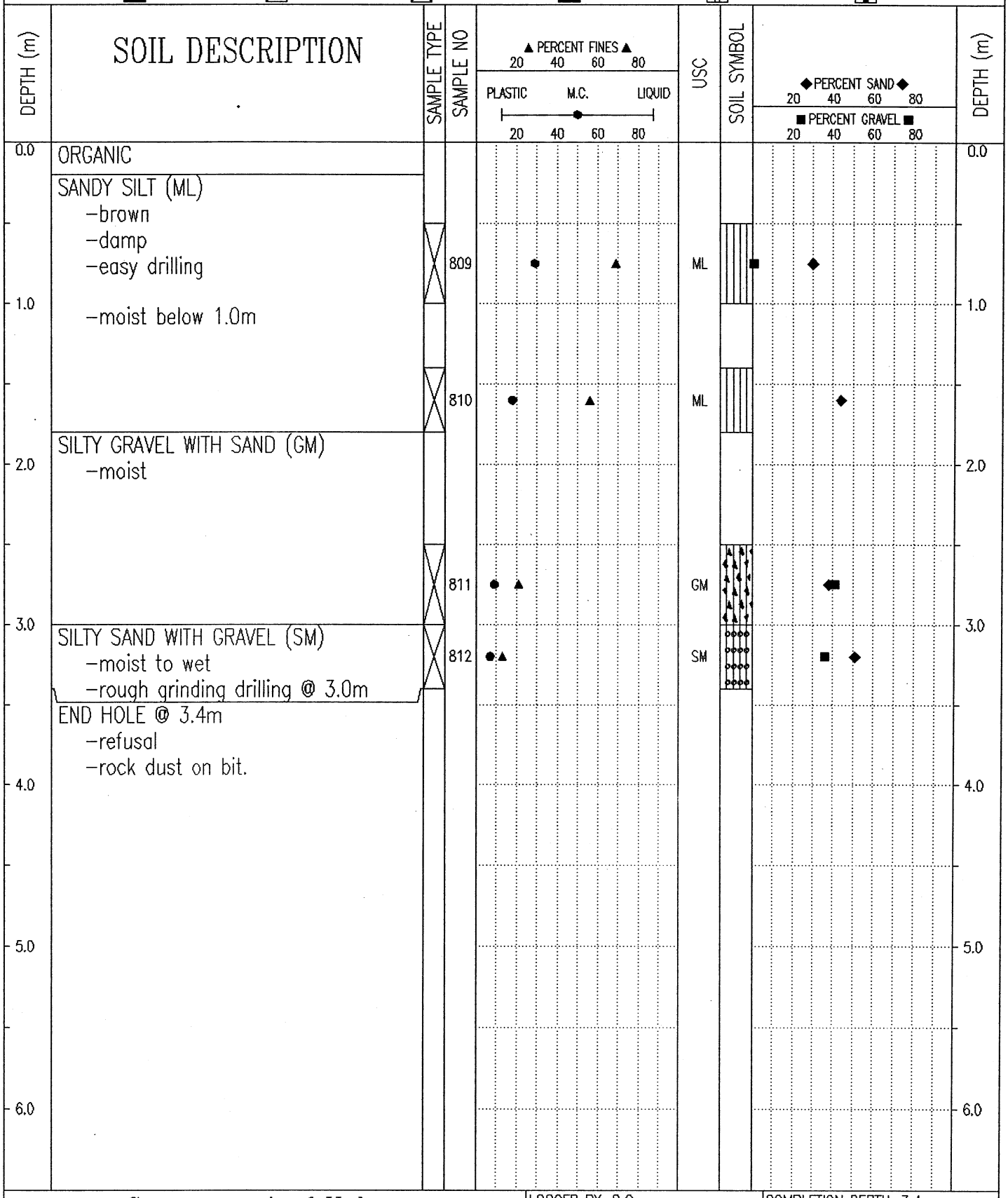
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC -black -moist							0.0
1.0	SILT WITH SAND TO SILTY SAND (ML) -damp	☒	818	● ▲	ML		■ ◆	1.0
		☒	819	● ▲	ML		■ ◆	
2.0	SILTY SAND WITH GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND (SM)-(GP-GM) -brown -damp -grinding starts @ 1.6m -slow tight drilling	☒	820	● ▲	SM		■ ◆	2.0
3.0								3.0
4.0		☒	821	● ▲	GP-GM		■ ◆	4.0
	END HOLE @ 4.3m Note: Test hole not in excavated channel. -in culvert inlet							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-414
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1729+588 2M LT	ELEVATION: 0.00 (m)

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

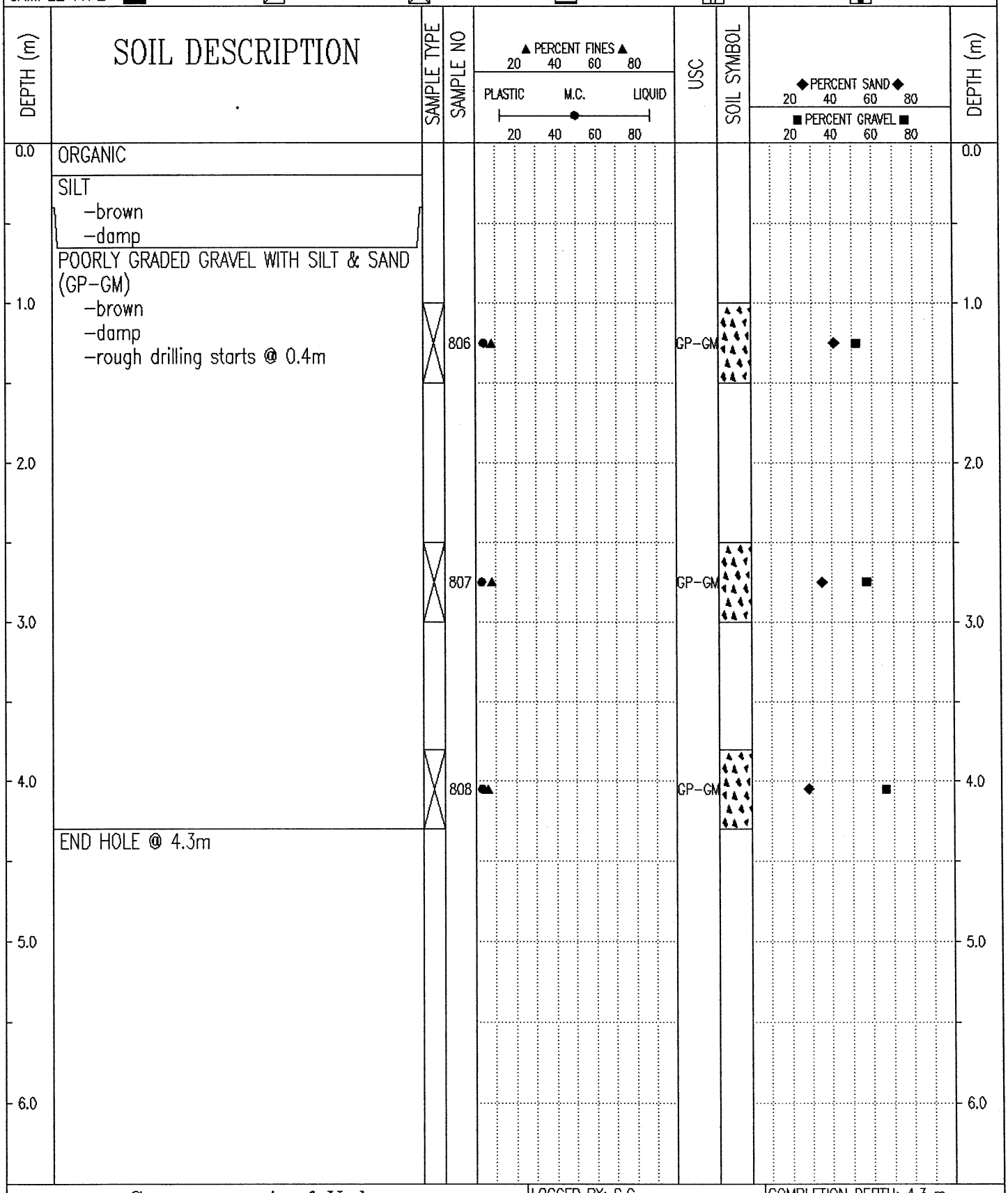


Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 3.4 m
	REVIEWED BY:	COMPLETE: 01/08/28
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-413
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1729+675 2M LT	ELEVATION: 0.00 (m)

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



Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/08/28
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-412
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1729+775 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
	SILTY SAND WITH GRAVEL (SM) –brown –damp	☒	802	● ▲	SM		■ ◆	
1.0	POORLY TO WELL–GRADED GRAVEL WITH SILT & SAND (GP–GM)–(GW–GM) –brown –damp –rough drilling 1.5 to 2.8m	☒	803	● ▲	GP–GM		◆ ■	1.0
2.0		☒	804	● ▲	GW–GM		●	2.0
3.0	SILTY SAND WITH GRAVEL (SM) –brown –moist –smooth easy penetration below 3.2m	☒	805	● ▲	SM		■ ◆	3.0
4.0	END HOLE @ 4.3m –existing culvert channel							4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/08/28
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SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-411
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1729+875 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							0.0
	POORLY TO WELL-GRADED GRAVEL WITH SAND (GP)-(GW) -brown -damp -grinding starts @ 0.3m -one refusal @ 0.75m - moved 2.0m downchain	⊠	798	●	GP		◆ ■	
1.0								1.0
		⊠	799	▲	GP		◆ ■	
2.0								2.0
		⊠	800	▲	GW		◆ ■	
3.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -moist to wet -easy penetration							3.0
		⊠	801	● ▲	GP-GM		◆ ■	
4.0	END HOLE @ 4.3m							4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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02/03/22 01:00PM

SUBSURFACE EXPLORATION & TESING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 616-410
ENGINEERING CAPITAL		Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1729+985 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
	SILTY SAND –moist							
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) –brown –damp –rough drilling below 0.5m	⊠	794	●▲	GP-GM		◆ ■	
1.0								1.0
		⊠	795	●▲	GP-GM		◆ ■	
2.0								2.0
		⊠	796	●▲	GP-GM		◆ ■	
3.0								3.0
		⊠	797	●▲	GP-GM		◆ ■	
4.0	END HOLE @ 4.3m							4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/08/28
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-409
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1730+075 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							0.0
	SILT WITH SAND (ML) –brown –damp	⊠	790	● ▲	ML		■ ◆	
1.0	SILTY SAND WITH GRAVEL (SM) –brown –damp –grinding starts @ 0.6m	⊠	791	● ▲	SM		■ ◆	1.0
2.0	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM) –brown –damp	⊠	792	▲	GW-GM		◆ ■	2.0
3.0								3.0
4.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) –brown –damp –easier penetration below 3.5m, could not see much difference in material on auger	⊠	793	▲	GP-GM		◆ ■	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-408
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1730+172 C.L.	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) -brown -damp -starts grinding @ 0.5m -rough drilling below 0.5m		786		GP			
1.0								1.0
			787		GP-GM			
2.0								2.0
			788		GP-GM			
3.0								3.0
	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM) -brown -damp -easy penetration @ 3.5m							
4.0			789		GW-GM			4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-407
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1730+222 C.L.	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 TO SILTY GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)-(GM)-(GP-GM) -brown -damp -rough drilling -easier drilling below 1.0m	⊠	782	● ▲	GP-GM		◆ ■	0.0
1.0								1.0
		⊠	783	● ▲	GM		◆ ■	
2.0	-moist below 2.0m -rougher drilling below 2.0m							2.0
		⊠	784	● ▲	GM		◆ ■	
3.0	-damp below 3.0m							3.0
4.0		⊠	785	● ▲	GP-GM		◆ ■	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-406
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1730+317 C.L.	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp -rough grindy drilling	⊠	778	▲	GP		◆ ■	0.0
1.0								1.0
2.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -damp -little smoother drilling below 1.5m	⊠	779	▲	GP-GM		◆ ■	2.0
3.0		⊠	780	▲	GP-GM		◆ ■	3.0
4.0		⊠	781	▲ ●	GP-GM		◆ ■	4.0
	END HOLE @ 4.3m Note: drainage ditch / previously stripped							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-405
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1730+425 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	ORGANIC							0.0
	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM) -brown -damp -rough drilling 0.3m to 2.8m -difficult to recover sample		774	●	GP		◆ ■	
1.0								1.0
2.0			775	● ▲	GP-GM		◆ ■	2.0
	-possible dirtier below 2.8m -still tough drilling below 2.8m		776	● ▲	GP-GM		◆ ■	
3.0								3.0
4.0			777	● ▲	GP-GM		◆ ■	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-404
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1730+525 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							0.0
	SILT –visible drainage ditch 2m upchain							
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) –brown –damp to moist –grinding starts @ 0.3m –smooth easy drilling 1.0m to 4.3m	⊠	771	▲	GP-GM	▨	◆ ■	1.0
2.0								2.0
		⊠	772	▲	GP-GM	▨	◆ ■	
3.0								3.0
4.0		⊠	773	▲	GP-GM	▨	◆ ■	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-403
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1730+625 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	ORGANIC							0.0
	SILT –damp							
1.0	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM) –brown –damp –rough drilling –3 refusal between 1.0m – 1.5m	☒	768		GW-GM			1.0
2.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) –brown –moist –smaller gravel –smooth drilling @ 1.5m	☒	769		GP-GM			2.0
3.0								3.0
4.0		☒	770		GP-GM			4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-402
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1730+695 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							0.0
	WELL-GRADED GRAVEL WITH SAND (GW) -grey -damp -rough drilling (changed bit)							
1.0		⊠	765	●	GW		◆ ■	1.0
	-refusal @ 1.5m - move 2.0m upchain							
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -moist -easier drilling below 1.8m							
2.0								2.0
		⊠	766	▲	GP-GM		◆ ■	
3.0								3.0
4.0		⊠	767	▲	GP-GM		◆ ■	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-401
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1730+800 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	ORGANICS							0.0
	WELL-GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GW)-(GP-GM)							
	-grey							
	-damp							
	-angular							
1.0	-rough drilling	⊠	762 ●		GW		◆ ■	1.0
2.0								2.0
	-moist below 2.5m							
		⊠	763 ●		GP-GM		◆ ■	
3.0								3.0
4.0		⊠	764 ●		GP-GM		◆ ■	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-398
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1730+895 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	GRAVEL -visible washed surface rock -no sample recovery on auger -rough drilling from surface, -maximum 250mm material augered up.							0.0
1.0								1.0
2.0	SILTY SAND WITH GRAVEL TO WELL-GRADED GRAVEL WITH SILT & SAND (SM)-(GW-GM) -wet -possible sand contamination from above in sample #754 -easy penetration below 1.5m -difficult to recover sample -rough drilling below 2.2m		754	● ▲	SM		■ ◆	2.0
3.0	-composite brought up with auger, gravel with sand		755	● ▲	GW-GM		◆ ■	3.0
4.0	END HOLE 4.0m							4.0
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-399
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1730+910 C.L.	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) -grey -damp -visible washed gravel on surface -maximum 250mm material augered up	⊠	756 ●		GP		◆ ■	
1.0								1.0
2.0								2.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -moist -easy penetration	⊠	757 ● ▲		GP-GM		◆ ■	
3.0								3.0
		⊠	758 ● ▲		GP-GM		◆ ■	
4.0								4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-400
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1730+922 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							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) -damp -rough drilling -difficult to recover sample	⊠	759	▲	GP		◆ ■	
1.0								1.0
2.0								2.0
	WELL-GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GW)-(GP-GM) -damp -easy penetration @ 2.5m	⊠	760	▲	GW		◆ ■	
3.0								3.0
4.0		⊠	761	▲	GP-GM		◆ ■	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-397
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1730+975 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							0.0
	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) -olive -wet	⊠	750	● ▲	SM		■ ◆	
1.0	-smooth easy drilling below 1.0m -moist below 1.0m							1.0
		⊠	751	● ▲	SM		■ ◆	
2.0								2.0
	-damp below 2.5m -grinding @ 2.5m (more Gravel)	⊠	752	● ▲	SM		■ ◆	
3.0								3.0
4.0		⊠	753	● ▲	GM		◆ ■	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-396
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1731+085 5M LT	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANICS							0.0
	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (SM)-(GM)-(SM) -olive -moist	⊠	746A	● ▲	SM		■ ◆	
1.0								1.0
	-damp below 1.5m -rough drilling - grinding below 1.5m	⊠	747	● ▲	SM		■ ◆	
2.0								2.0
		⊠	748	● ▲	GM		◆ ■	
3.0								3.0
4.0		⊠	749	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-395
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1731+175 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							0.0
	SILTY SAND (SM) -olive -moist to wet	⊠	743	● ▲	SM		■ ◆	
1.0								1.0
	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) -olive -damp -angular -grinding starts @ 1.2m -tight rough drilling below 2.0m	⊠	744	● ▲	SM		■ ◆	
2.0								2.0
		⊠	745	● ▲	GM		◆ ■	
3.0								3.0
4.0		⊠	746	● ▲	GM		◆ ■	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/08/27
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-394
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1731+275 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 SAND (GP) -grey -damp							0.0
1.0		⊠	739	●	GP		◆ ■	1.0
2.0		⊠	740	●	GP		◆ ■	2.0
3.0		⊠	741	●	GP		◆ ■	3.0
	SANDY SILT (ML) -brown -wet -auger pulled down smooth.							
4.0	-sample 742 may not be representative of material due to contamination from above. -drill responded like wet silt	⊠	742	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon
Transportation Engineering

LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
REVIEWED BY:	COMPLETE: 01/08/27
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-393
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1731+290 C.L.	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 TO WELL-GRADED SAND WITH GRAVEL TO POORLY GRADED GRAVEL WITH SAND (GP)-(SW)-(GP) -grey -damp -grinding drilling from surface	☒	735	●	GP		◆ ■	0.0
1.0								1.0
2.0		☒	736	●	SW		◆	2.0
3.0		☒	737	●	GP		◆ ■	3.0
4.0	SILTY SAND WITH GRAVEL (SM) -very smooth drilling below 3.5m -poor sample recovered. -sample 738 may not be representative of material due to contamination from above. -drill responded like wet silt.	☒	738	● ▲	SM		■ ◆	4.0
5.0	END HOLE #4.3m							5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-392
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1731+295 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	POORLY GRADED GRAVEL WITH SAND (GP) -grey -damp -easy drilling	⊠	731	●	GP	▨	◆ ■	0.0
1.0								1.0
2.0		⊠	732	●	GP	▨	◆ ■	2.0
3.0		⊠	733	●	GP	▨	◆ ■	3.0
	SANDY SILT (ML) -brown -wet -very smooth drilling							
4.0		⊠	734	● ▲	ML	▤	■ ◆	4.0
	END HOLE @ 4.2m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.2 m
REVIEWED BY:	COMPLETE: 01/08/27
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-389
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1731+320 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 SAND (GP) -grey -damp -grinding starts @ 0.3m							0.0
1.0			719		GP			1.0
	SILTY SAND WITH GRAVEL (SM) -brown -damp to dry -smooth layer @ 1.5m		720		SM			
2.0								2.0
3.0			721		SM			3.0
	SANDY SILT (ML) -brown -damp							
4.0			722		ML			4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-390
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1731+328 C.L.	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 TO WELL-GRADED SAND WITH SILT & GRAVEL (SP-SM)-(SW-SM) -grey -damp -some grinding easy drilling							0.0
1.0		⊠	723	●	SP-SM		■ ◆	1.0
2.0		⊠	724	●▲	SW-SM		■ ◆	2.0
3.0		⊠	725	●	SW-SM		■ ◆	3.0
4.0		⊠	726	●	SW-SM		●	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/08/27
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-391
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1731+345 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 SILT (ML) -brown -moist to wet -smooth drilling 0 to 1.5m	⊠	727	● ▲	ML		■ ◆	0.0
1.0								1.0
	SILTY GRAVEL WITH SAND (GM) -brown -damp to moist -grinding drilling @ 1.5m to EOH	⊠	728	● ▲	GM		◆ ■	
2.0								2.0
	SILTY SAND WITH GRAVEL (SM) -brown -damp to moist -moist below 3.5m	⊠	729	● ▲	SM		■ ◆	
3.0								3.0
4.0		⊠	730	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-388
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1731+400 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							0.0
	SILTY SAND (SM) –brown –damp –smooth easy drilling	⊠	715	● ▲	SM		■ ◆	
1.0								1.0
	–dry to damp below 1.5m	⊠	716	● ▲	SM		■ ◆	
2.0								2.0
		⊠	717	● ▲	SM		■ ◆	
3.0	SILT AND SAND LAYERS –brown –damp							3.0
4.0	–sample 718 tested Silt with Sand (ML)	⊠	718	● ▲	ML		◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-387
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1731+500 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 WITH ASH -brown -moist							0.0
	SILTY SAND WITH GRAVEL TO SILT WITH SAND (SM)-(ML) -brown (olive) -moist	⊠	711	● ▲	SM		■ ◆	
1.0								1.0
		⊠	712	● ▲	ML		■ ◆	
2.0	-tight drilling @ 2.0m							2.0
	SILTY GRAVEL WITH SAND (GM) -grey - olive -damp -grinding drilling @ 2.6m	⊠	713	● ▲	GM		◆ ■	
3.0								3.0
4.0		⊠	714	● ▲	GM		■	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
REVIEWED BY:	COMPLETE: 01/08/27
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-386
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1731+550 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 & ASH							0.0
	SILTY SAND WITH GRAVEL (SM) –damp to moist –very little grinding	⊠	707	● ▲	SM		■ ◆	
1.0								1.0
	SANDY SILT TO SANDY SILT WITH GRAVEL TO SANDY SILT (ML) –olive grey –damp –tight drilling	⊠	708	● ▲	ML		■ ◆	
2.0								2.0
		⊠	709	● ▲	ML		■◆	
3.0								3.0
4.0		⊠	710	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 615-385
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1731+605 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							0.0
	SILTY SAND WITH GRAVEL (SM) -grey -damp -grinding @ 0.5m	⊠	703	● ▲	SM		■ ◆	
1.0								1.0
		⊠	704	● ▲	SM		■ ◆	
2.0	-more gravel @ 2.0m							2.0
		⊠	705	● ▲	SM		■ ◆	
3.0								3.0
4.0		⊠	706	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
REVIEWED BY:	COMPLETE: 01/08/27
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 613-384
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1731+632 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 -brown -moist							0.0
	SILTY SAND WITH GRAVEL (SM) -brown -moist	⊠	699		SM			
1.0	-starts grinding @ 0.5m							1.0
2.0	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GM)-(SM) -brown -damp -hard grinding drilling @ 1.7m	⊠	700		GM			2.0
3.0	-easier less grindy drilling below 3.0m	⊠	701		SM			3.0
4.0		⊠	702		SM			4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
REVIEWED BY:	COMPLETE: 01/08/24
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 613-383
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1731+675 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 WITH ASH -brown -moist							0.0
	SILT WITH SOME GRAVEL -brown -moist	⊠	695	● ▲	SM		■ ◆	
1.0	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND TO SANDY SILT (SM)-(GM)-(ML) -brown -damp -grinding drilling starts @ 0.8m							1.0
		⊠	696	● ▲	GM		◆ ■	
2.0								2.0
	-still grinding @ 2.5m - less gravel augered up	⊠	697	● ▲	ML		■ ◆	
3.0	SILTY GRAVEL WITH SAND (GM) -brown -damp							3.0
		⊠	698	● ▲	GM		◆ ■	
4.0	END HOLE @ 4.3m							4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/08/24
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 613-382
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1731+728 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 & ASH							0.0
	SILTY SAND WITH GRAVEL (SM) -brown -moist	⊠	691	● ▲	SM		■ ◆	
1.0	SILTY GRAVEL WITH SAND (GM) -brown -damp -more grindy drilling							1.0
		⊠	692	● ▲	GM		◆ ■	
2.0								2.0
		⊠	693	● ▲	GM		◆ ■	
3.0								3.0
	SILTY SAND WITH GRAVEL (SM) -dry to damp -dryer sandier material - less silt							
4.0		⊠	694	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.3m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/08/24
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 613-381
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1731+825 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 ASH							0.0
	SANDY SILT TO SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (ML)-(GM)-(SM) -grey -moist	⊠	687	● ▲	ML		■ ◆	
1.0								1.0
2.0	-damp below 2.5m							2.0
3.0	-refusal @ 3.3m - moved 2m upchain	⊠	688	● ▲	GM		◆ ■	3.0
4.0								4.0
5.0	-very hard slow drilling below 5.2m	⊠	689	● ▲	SM		■ ◆	5.0
6.0								6.0
7.0		⊠	690	● ▲	SM		■ ◆	7.0
	END HOLE @ 7.5m							
8.0								8.0
9.0								9.0
10.0								10.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 7.5 m
REVIEWED BY:	COMPLETE: 01/08/08
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 613-380
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1731+925 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	SILTY SAND (SM) -brown -saturated							0.0
1.0		⊠	685	● ▲	SM		◆	1.0
2.0								2.0
3.0	-trace +5mm material below 3.0M							3.0
4.0		⊠	686	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/08/08
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-379
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION: 1732+002 4m LT	ELEVATION: 0.00 (m)

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

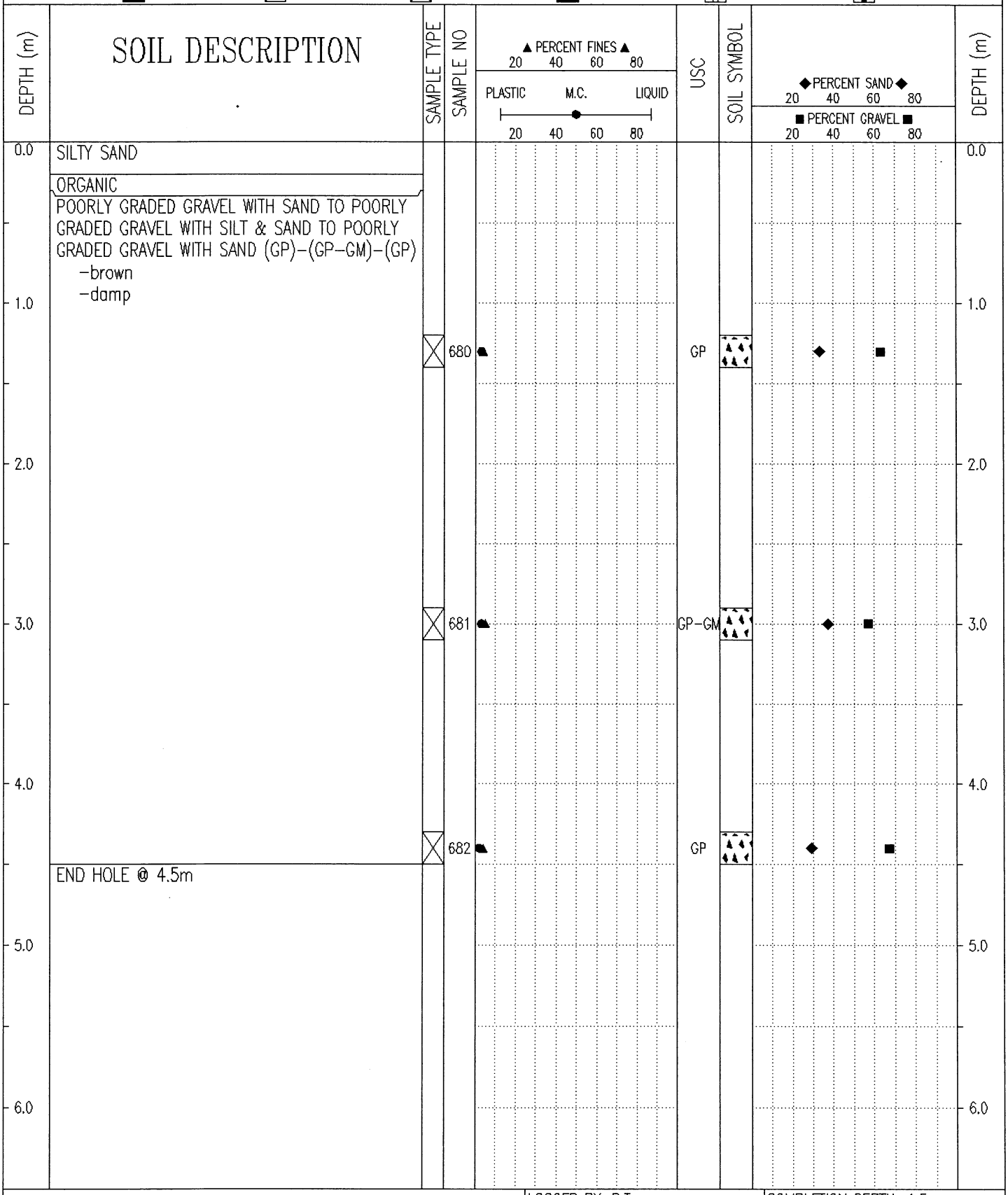
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -saturated to free water -water level @ 0.5m	⊠	683 ▲ ●		GP		◆ ■	0.0
1.0								1.0
2.0								2.0
3.0	SILTY SAND WITH GRAVEL (SM) -brown -saturated to free water -smooth easy drilling							3.0
4.0		⊠	684 ● ▲		SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/08/08
	Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-378
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1732+100	ELEVATION: 0.00 (m)

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



Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/08/08
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-377
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1732+175 5M 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 & ORGANIC							
	GRAVELLY SANDY SILT -wet							
1.0	POORLY GRADED GRAVEL WITH SAND TO WELL-GRADED SAND WITH SILT & GRAVEL (GP)-(SW-SM) -brown -moist -grindy drilling	⊠	678	●	GP		◆ ■	1.0
2.0								2.0
3.0								3.0
4.0	-damp below 4.0m	⊠	679	●▲	SW-SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/08/08
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-376
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1732+275 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 POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp							0.0
1.0		⊠	676	●	GP		◆ ■	1.0
2.0	-moist below 2.5m							2.0
3.0		⊠	677	▲	GP		◆ ■	3.0
	END HOLE @ 3.3m -refusal - rock dust on bit							
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 3.3 m
REVIEWED BY:	COMPLETE: 01/08/08
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-375
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1732+375 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							0.0
	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) -brown -moist							
1.0		⊠	673	● ▲	SM		■ ◆	1.0
2.0								2.0
	-damp below 2.5m							
3.0		⊠	674	● ▲	SM		■ ◆	3.0
4.0		⊠	675	● ▲	GM		◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

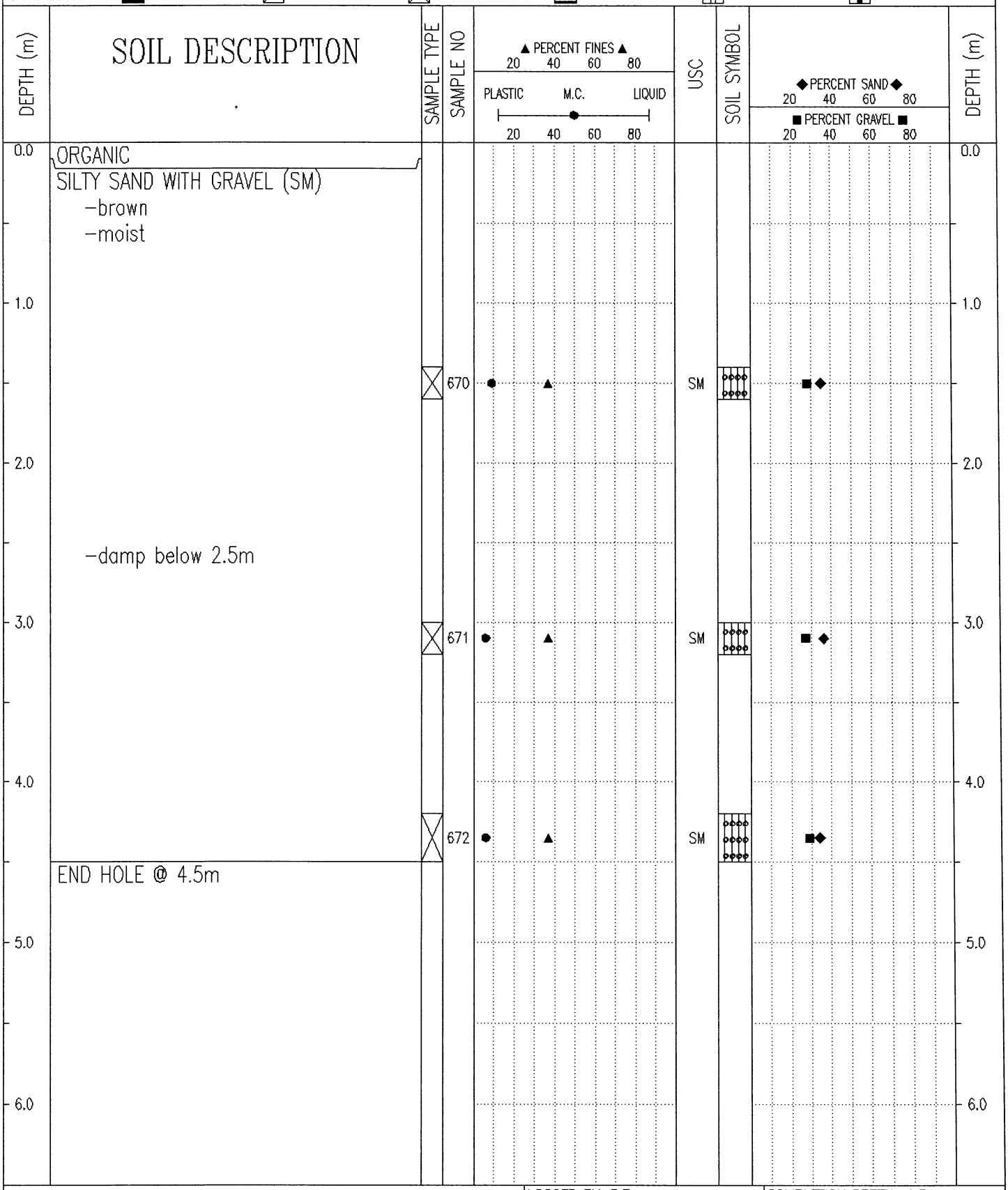
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LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/08/08
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-374
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1732+482 15M LT	ELEVATION: 0.00 (m)

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



Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-373
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1732+600 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							0.0
	SILTY SAND TO SILTY SAND WITH GRAVEL (SM) -brown -moist to wet							
1.0		⊠	668	● ▲	SM	▨	■ ◆	1.0
2.0								2.0
3.0	-damp below 3.0m							3.0
4.0		⊠	669	● ▲	SM	▨	■ ◆	4.0
	END HOLE @ 4.1m -refusal							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-372
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1732+712 15M LT	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (SM)-(GM)-(SM)							
	-brown							
	-moist to wet							
1.0								1.0
		⊠	665	● ▲	SM		■ ◆	
2.0								2.0
3.0	-damp below 3.0m							3.0
		⊠	666	● ▲	GM		◆ ■	
4.0								4.0
5.0								5.0
		⊠	667	● ▲	SM		■ ◆	
6.0	END HOLE @ 6.0m							6.0

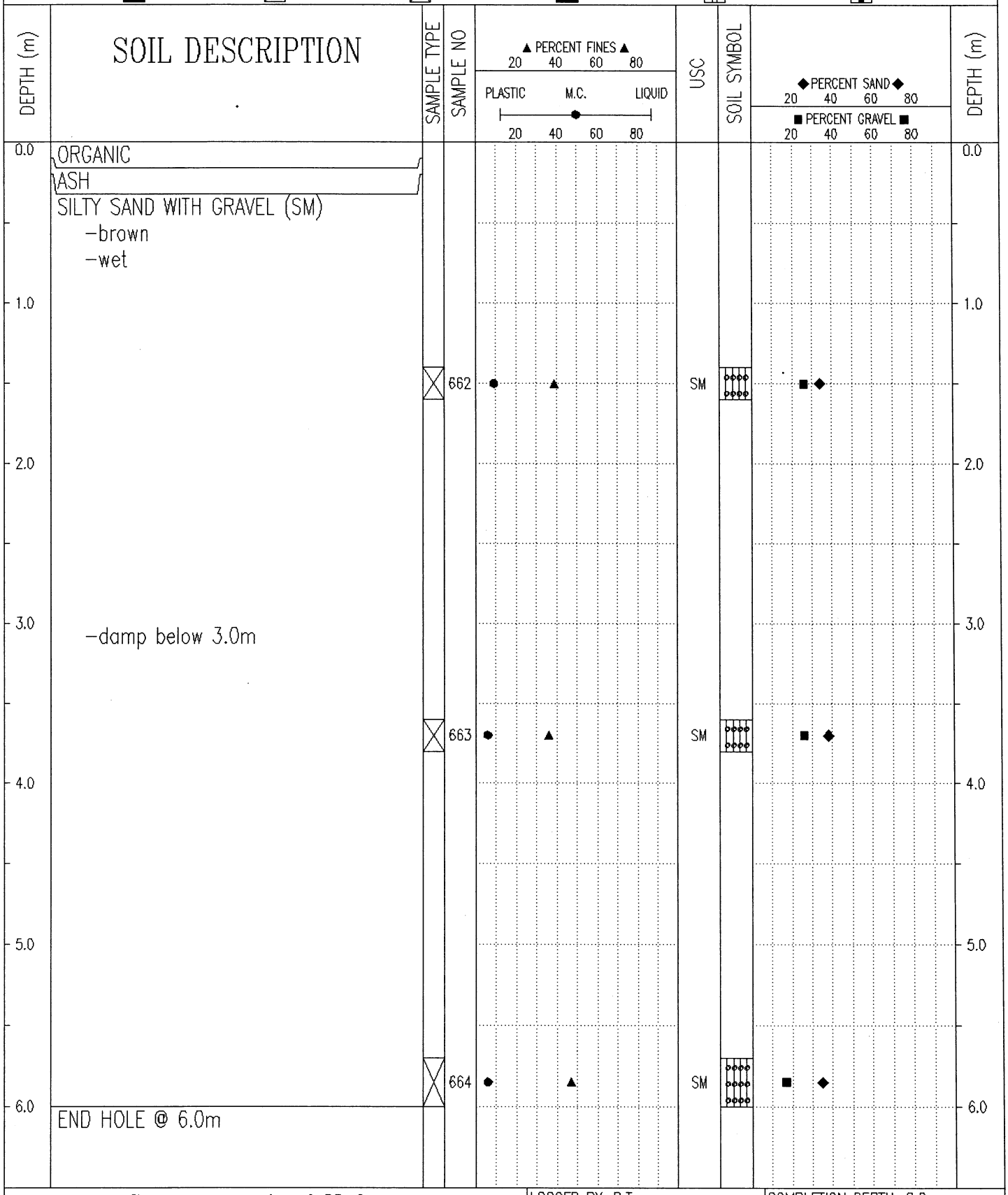
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REVIEWED BY:	COMPLETE: 01/08/08
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-371
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1732+800 2M LT	ELEVATION: 0.00 (m)

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



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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-370
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1732+900 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 ASH SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) -grey -saturated							0.0
1.0		⊠	659	● ▲	SM		■ ◆	1.0
2.0								2.0
3.0	-damp below 3.5m							3.0
4.0		⊠	660	● ▲	SM		◆	4.0
5.0								5.0
6.0	END HOLE @ 6.0m	⊠	661	● ▲	GM		◆	6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 6.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-369
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1732+996 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	ORGANIC							0.0
	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM)							
1.0	-brown							1.0
	-wet							
		⊠	656	● ▲	SM		■ ◆	
2.0								2.0
3.0								3.0
	-moist below 3.5m							
		⊠	657	● ▲	GM		◆ ■	
4.0								4.0
5.0								5.0
6.0	-damp below 6.0							6.0
7.0								7.0
		⊠	658	● ▲	GM		■	
	END HOLE @ 7.5m							
8.0								8.0
9.0								9.0
10.0								10.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 7.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-368
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1733+100	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 GRAVEL WITH SAND (ML)-(SM)-(GM)							
	-brown							
	-moist to wet							
1.0		⊠	653	● ▲	ML		■ ◆	1.0
2.0								2.0
	-moist below 2.5m							
3.0		⊠	654	● ▲	SM		■ ◆	3.0
4.0		⊠	655	● ▲	GM		◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-367
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1733+190 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							0.0
	SANDY SILT WITH GRAVEL TO SANDY SILT TO SILTY GRAVEL WITH SAND (ML)-(GM) -grey -saturated							
1.0		⊠	650	● ▲	ML		■ ◆	1.0
2.0	-frozen (Nf) below 2.1m							2.0
3.0		⊠	651	● ▲	ML		■ ◆	3.0
4.0		⊠	652	● ▲	GM		◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-366
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1733+325 2M 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 SILTY SAND TO SILTY SAND WITH GRAVEL TO SILTY SAND (SM) -frozen (Vx)							0.0
1.0		⊠	647	● ▲	SM		■ ◆	1.0
	-refusal @ 1.4m - moved 1m downchain							
2.0								2.0
	-frozen (Nb) below 2.5m							
3.0		⊠	648	● ▲	SM		■ ◆	3.0
	-moist below 3.6m							
4.0								4.0
		⊠	649	● ▲	SM		■ ◆	
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/08/07
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-365
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1733+450 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	GRAVELLY SAND & SILT							0.0
	SILTY SAND WITH GRAVEL (SM) -brown -moist -grindy drilling							
1.0		⊠	644	● ▲	SM		■ ◆	1.0
2.0								2.0
3.0		⊠	645	● ▲	SM		■ ◆	3.0
4.0								4.0
5.0								5.0
6.0		⊠	646	● ▲	SM		■ ◆	6.0
	END HOLE @ 6.0m							

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 6.0 m
	REVIEWED BY:	COMPLETE: 01/08/07
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-363
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1733+498 C.L.	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 GRAVELLY SAND & ORGANIC							0.0
1.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -moist -grindy drilling	⊠	641	●	GP-GM		◆ ■	1.0
2.0								2.0
3.0								3.0
	No sample recovered below 3.5m -material shook off auger -smooth drilling							
4.0								4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/08/07
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-362
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1733+500 15M RT	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	SANDY SILT (ML) -with organic -brown -saturated				
1.0		AUGER	638	ML	
2.0	POORLY GRADED GRAVEL WITH SILT & SAND TO SILTY GRAVEL WITH SAND (GP-GM)-(GM) -brown -wet -grindy drilling				
3.0		AUGER	639	GP-GM	
4.0	-moist below 3.5m				
		AUGER	640	GM	
5.0	END HOLE @ 4.5m				
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)

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Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
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02/01/07 01:21PM

SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-364
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1733+500 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
	GRAVELLY SAND -some silt -brown -moist							
1.0	WELL-GRADED SAND WITH SILT & GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND (SW-SM)-(GP-GM) -brown -moist -grindy drilling	⊠	642	●▲	SW-SM		■ ◆	1.0
2.0								2.0
3.0								3.0
4.0		⊠	643	▲	GP-GM		◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-361
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1733+600 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							0.0
	GRAVELLY SAND -some silt -moist							
1.0	POORLY GRADED GRAVEL WITH SILT & SAND TO SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GP-GM)-(GM)-(SM) -brown -moist -grindy drilling	⊠	635	●	GP-GM		◆ ■	1.0
2.0								2.0
3.0		⊠	636	● ▲	GM		◆ ■	3.0
4.0		⊠	637	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-359
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1733+698 C.L.	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 silt -brown -moist							
1.0	SILT TO SILTY SAND WITH GRAVEL (ML)-(SM) -some organic -trace +5mm material -smooth drilling	⊠	631	● ▲	ML	▥	◆	1.0
2.0								2.0
3.0								3.0
	-more +5mm material below 3.5m							
4.0		⊠	632	● ▲	SM	▨	■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-358
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1733+700 15M RT	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY SILT TO SILTY SAND (ML)-(SM) -brown -moist							
1.0		⊠	629	● ▲	ML	▥	■ ◆	1.0
	-grindy below 1.4m							
2.0								2.0
3.0								3.0
4.0	-more +5mm material below 1.4m							4.0
		⊠	630	● ▲	SM	▥	■ ◆	
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-360
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1733+700 15M LT	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆PERCENT SAND◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILTY SAND TO SANDY SILT (SM)-(ML)							
	-brown							
	-moist							
1.0		☒	633	● ▲	SM		■ ◆	1.0
2.0								2.0
3.0								3.0
4.0		☒	634	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-357
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1733+775 2M LT	ELEVATION: 0.00 (m)

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

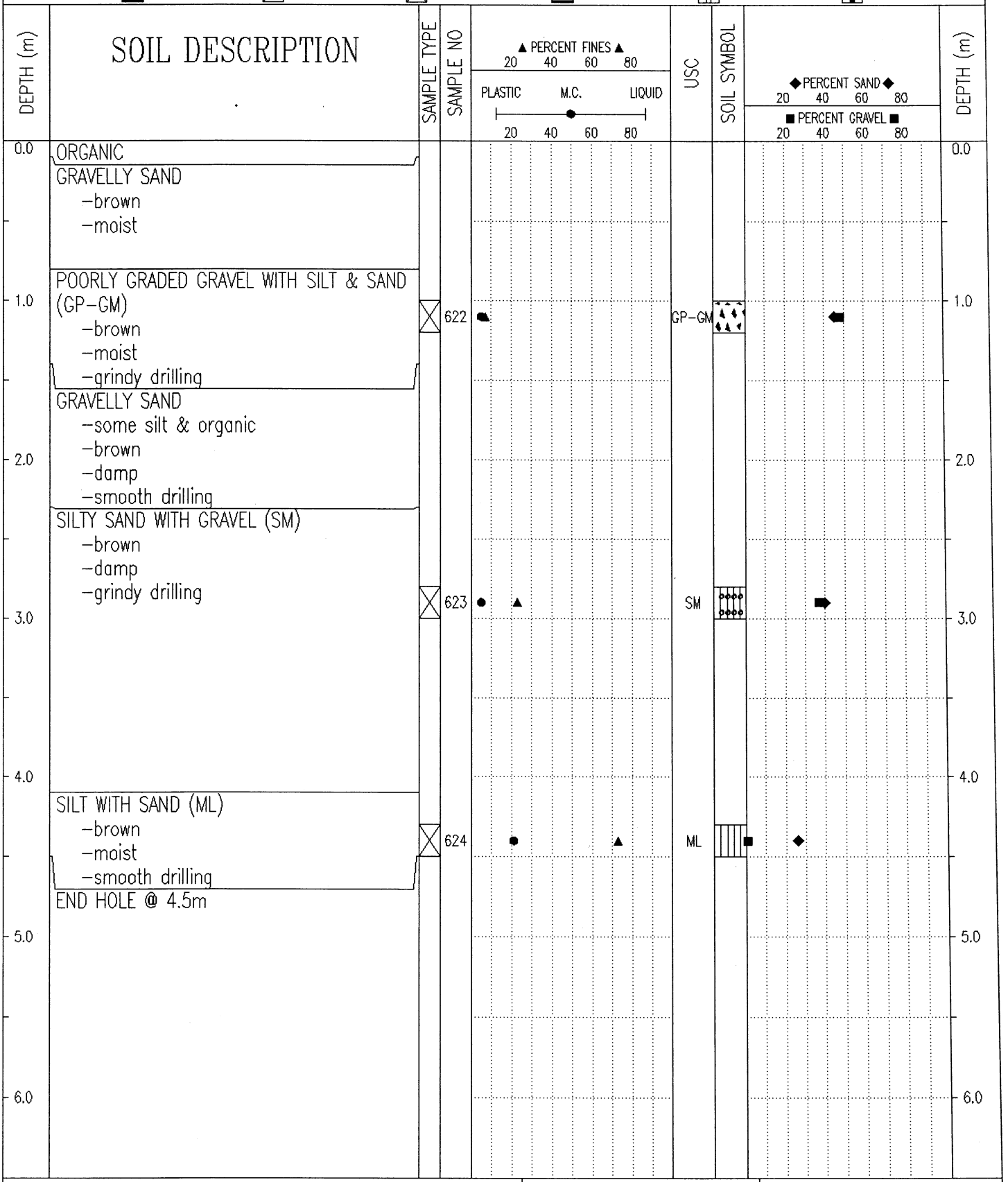
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆PERCENT SAND◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	ORGANIC / SAND -brown -moist							
1.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -moist -grindy drilling	⊠	627	●▲	GP-GM		◆■	1.0
2.0								2.0
3.0	SILT (ML) -some sand -some organic -brown -moist to wet -smooth drilling							3.0
4.0		⊠	628	● ▲	ML		◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-355
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1733+880 C.L.	ELEVATION: 0.00 (m)

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



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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-356
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1733+880 15M RT	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SANDY GRAVEL -trace silt -brown -grindy							
1.0	SANDY SILT & ORGANIC -smooth drilling							1.0
	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -brown -damp -grindy drilling	⊠	625	● ▲	SW-SM		◆	
2.0	SILTY SAND WITH GRAVEL (SM) -brown -moist -smooth drilling							2.0
3.0								3.0
4.0		⊠	626	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-354
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1733+880 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
	POORLY GRADED GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GP)-(SM)							
	-brown							
	-moist							
1.0		⊠	620	●	GP		◆ ■	1.0
2.0								2.0
3.0	-damp to moist below 3.0m							3.0
4.0		⊠	621	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-353
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1734+025 BK; 1738+163 AH 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	ORGANIC -some sand							0.0
	SANDY GRAVEL -brown -moist							
1.0	SANDY SILT & ORGANIC (ML) -brown -moist -smooth drilling	⊠	618	● ▲	ML	▥	■ ◆	1.0
2.0	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -brown -damp -grindy drilling							2.0
3.0		⊠	619	● ▲	SW-SM	⁘	■	3.0
4.0								4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-351
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1734+135 BK; 1738+273 AH C.L.	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 -brown -moist							0.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -moist -maximum 50mm material augered up -grindy drilling	⊠	614	●	GP-GM		◆ ■	
1.0								1.0
2.0	SILT & ORGANIC -smooth drilling							2.0
	SILTY GRAVEL WITH SAND (GM) -grindy drilling							
3.0								3.0
4.0		⊠	615	● ▲	GM		◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-350
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1734+135 BK; 1738+273 AH 15m LT	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC							0.0
	SILTY SAND & ORGANIC -moist							
	POORLY TO WELL-GRADED GRAVEL WITH SILT & SAND (GP-GM)-(GW-GM) -brown -moist -maximum 25mm material augered up -grindy drilling	⊠	612	●▲	GP-GM		◆ ■	
1.0								1.0
2.0								2.0
3.0								3.0
	-damp below 3.5m -maximum 75mm material augered up							
4.0		⊠	613	●▲	GW-GM		◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-352
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1734+140 BK; 1738+278 AH 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	SAND AND ORGANIC -brown -moist							0.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -moist -maximum 50mm material augered up -grindy drilling	⊠	616	●	GP-GM	▨	◆ ■	
1.0								1.0
2.0								2.0
	ORGANIC & SILT -brown -moist -smooth drilling							
3.0	SILTY GRAVEL WITH SAND (GM) -brown -moist -maximum 75mm material augered up -grindy drilling							3.0
4.0		⊠	617	● ▲	GM	▨	■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-349
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1734+202 BK; 1738+340 AH 33m 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
	SAND, SILT & ORGANIC -brown -moist							
1.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -moist -maximum 50mm material augered up -grindy drilling	⊠	609	▲	GP-GM		◆ ■	1.0
2.0								2.0
	SILT WITH SAND (ML) -some organic -brown -moist -smooth drilling	⊠	610	● ▲	ML		■ ◆	
3.0								3.0
	SILTY SAND WITH GRAVEL (SM) -grindy drilling							
4.0		⊠	611	● ▲	SM		■◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-347
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1734+303 BK; 1738+441 AH C.L.	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 ORGANIC & SILT -brown -wet							0.0
1.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -damp -grindy drilling	⊠	604	● ▲	GP-GM		◆ ■	1.0
2.0								2.0
3.0								3.0
4.0		⊠	605	● ▲	GP-GM		◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-348
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1734+306 BK; 1738+444 AH 40m 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 & ORGANIC							0.0
	SILTY SAND (SM) -light brown -damp -grindy drilling							
1.0	-smooth drilling 1.0 – 1.8m	⊠	606	● ▲	SM		■ ◆	1.0
	SILTY SANDY WITH GRAVEL TO WELL-GRADED SAND WITH SILT & GRAVEL (SM)-(SW-SM) -light brown -damp -grindy drilling							
2.0								2.0
3.0		⊠	607	● ▲	SM		■ ◆	3.0
4.0		⊠	608	● ▲	SW-SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-346
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1734+400 BK; 1738+538 AH 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	ORGANIC & SILT -brown -moist							0.0
	SILTY SAND WITH GRAVEL TO POORLY GRADED GRAVEL WITH SILTY & SAND (SM)-(GP-GM) -brown - orange -oxidized -grindy drilling	⊠	602	● ▲	SM		■ ◆	
1.0								1.0
2.0								2.0
3.0								3.0
	-no oxidation below 3.5m							
4.0		⊠	603	● ▲	GP-GM		◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/08/06
	Fig. No:	Page 1 of 1

02/02/18 04:20PM

SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-345
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1734+598 BK; 1738+736 AH 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	GRAVELLY SAND -brown -moist							0.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -grey -damp -grindy drilling	⊠	601	●▲	GP-GM		◆ ■	
1.0								1.0
2.0								2.0
	SILT AND ORGANIC -brown - black -saturated -smooth drilling							
3.0▼								3.0▼
	GRANULAR MATERIAL SUSPECTED -sample washed off auger -H20 level @ 3.0m -some grindy drilling							
4.0								4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/08/06
Fig. No:	Page 1 of 1

02/02/18 04:20PM

SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-344
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1734+661 BK; 1738+799 AH 69m 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 SAND (GP) -brown -water level @ .2m -saturated to free water -easy grindy drilling -no large rocks encountered							0.0
1.0		⊠	600	▲	GP		◆	1.0
2.0								2.0
3.0								3.0
4.0								4.0
	END HOLE @ 4.5m Note: Testhole in Bock's Creek Bed							
5.0								5.0
6.0								6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/08/06
Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION & TESTING REPORT	SEG 11	TEST HOLE NO: 612-343
ENGINEERING CAPITAL	ROW TESTING A/H	Project No: 092-202101-0361
B40-L DRILL 6"AUGERS	LOCATION:1734+776 Bk; 1738+914 AH 32m 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 WITH SAND TO SILTY SAND WITH GRAVEL (ML)-(SM) -with organic -brown -saturated							0.0
1.0								1.0
		⊠	598	● ▲	ML	▥	◆	
2.0								2.0
3.0								3.0
4.0		⊠	599	● ▲	SM	▨	■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/08/03
Fig. No:	Page 1 of 1

02/02/18 04:20PM

GEOTECHNICAL INVESTIGATIONS

Highway Construction
Km 1723.2 to 1734.6 Alaska Highway #1
Yukon, 2003-2004
Volume 2 of 3

Yukon
Infrastructure

Transportation Engineering Branch
Geotechnical Services

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

ORIGINAL - Do Not Remove From File

Highway Construction
Km 1723.2 to 1734.6
Alaska Highway #1
Yukon 2003-2004
Volume 2 of 3

This Data Package prepared for project viewing:

January, 2003

Transportation Engineering Branch
Geotechnical Services
461 Range Road
Whitehorse, Yukon

CONTENTS

Volume 1 of 3

INTRODUCTION

Investigation notes, classification methods and legends.

CENTRELINE TESTING ALASKA HIGHWAY

Subsurface Exploration and Testing Report Sheets are provided.
The reports for the centreline holes are arranged according to project location, starting at Km 1723+140 and increasing to Km 1734+776.

TEST HOLES 343 to 379	shown with prefix 612-
TEST HOLES 380 to 384	shown with prefix 613-
TEST HOLES 385 to 409	shown with prefix 615-
TEST HOLES 410 to 434	shown with prefix 616-
TEST HOLES 435 to 459	shown with prefix 617-
TEST HOLES 460 to 484	shown with prefix 618-
TEST HOLES 485 to 500	shown with prefix 619-

NOTE:
Centreline Test Hole locations indicated on the Subsurface Exploration and Testing Report Sheets are approximate. Actual Test Hole locations, located by GPS survey or field survey, are as shown on project plans.

CONTENTS (continued)

Volume 2 of 3

CENTRELINE TESTING ALASKA HIGHWAY

Laboratory Testing Result Sheets are provided.
The reports for the centreline holes are arranged according to test hole number, starting at 612-343 and increasing to 619-500.

TEST HOLES 343 to 379	shown with prefix 612-
TEST HOLES 380 to 384	shown with prefix 613-
TEST HOLES 385 to 409	shown with prefix 615-
TEST HOLES 410 to 434	shown with prefix 616-
TEST HOLES 435 to 459	shown with prefix 617-
TEST HOLES 460 to 484	shown with prefix 618-
TEST HOLES 485 to 500	shown with prefix 619-

NOTE:
Centreline Test Hole locations indicated on the Subsurface Exploration and Testing Report Sheets are approximate. Actual Test Hole locations, located by GPS survey or field survey, are as shown on project plans.

CONTENTS (continued)

Volume 3 of 3

GRANULAR SOURCE Km 1730.2 LHS (Nines Creek) ALASKA HIGHWAY

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

Auger Testing

2001	TEST HOLES 1926 to 1928	shown with prefix 623-
2001	TEST HOLES 1938 to 1941	shown with prefix 624-

Backhoe Testing

2002	TEST PITS 2460 to 2520	shown with prefix 638-

GRANULAR SOURCE Km 1732.0 RHS (Mines Creek) ALASKA HIGHWAY

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

History of Aggregate Production

1986	20 mm B.S.T. Aggregate
1994	20 mm B.S.T. Aggregate
1994	20 mm Granular "A" Base Course
2000	10 mm Crushed Sanding Aggregate

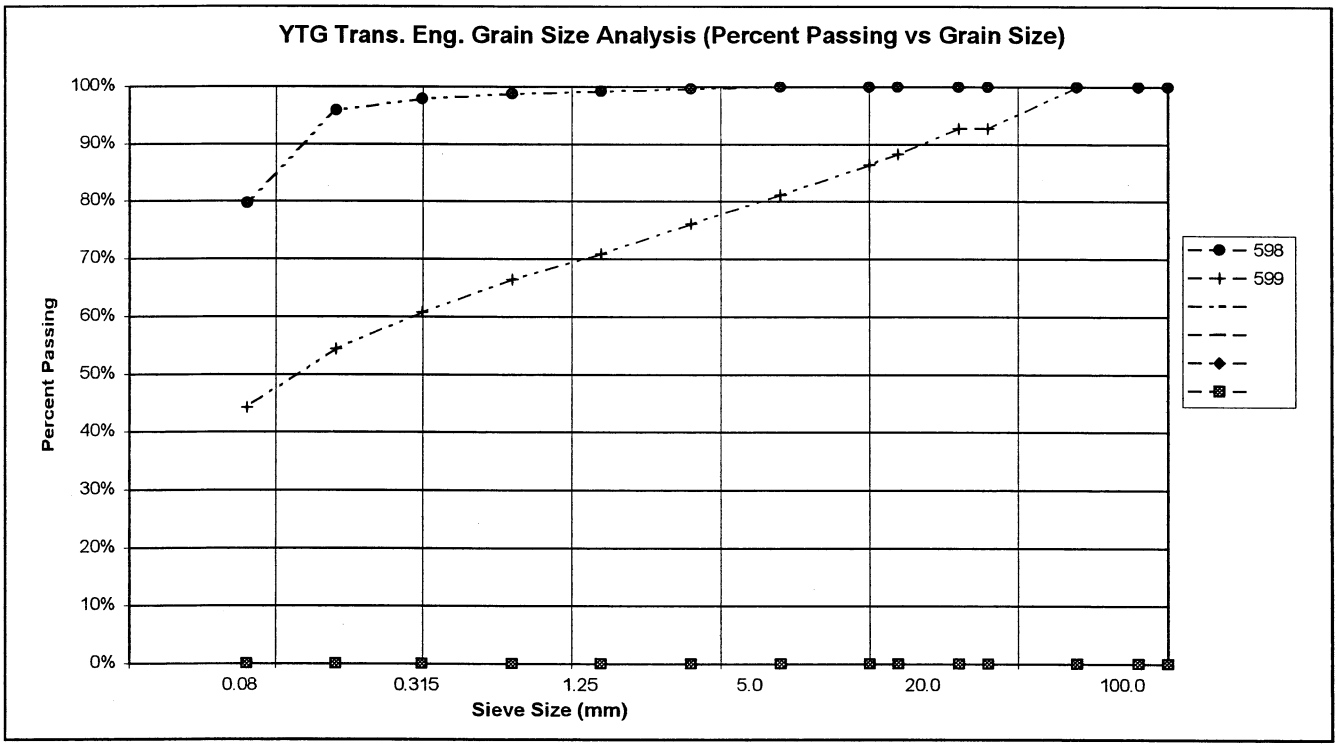
Backhoe Testing

2002	TEST PITS 2451 to 2459	shown with prefix 637-

CENTRELINE TESTING
1723+140 to 1734+776
ALASKA HIGHWAY

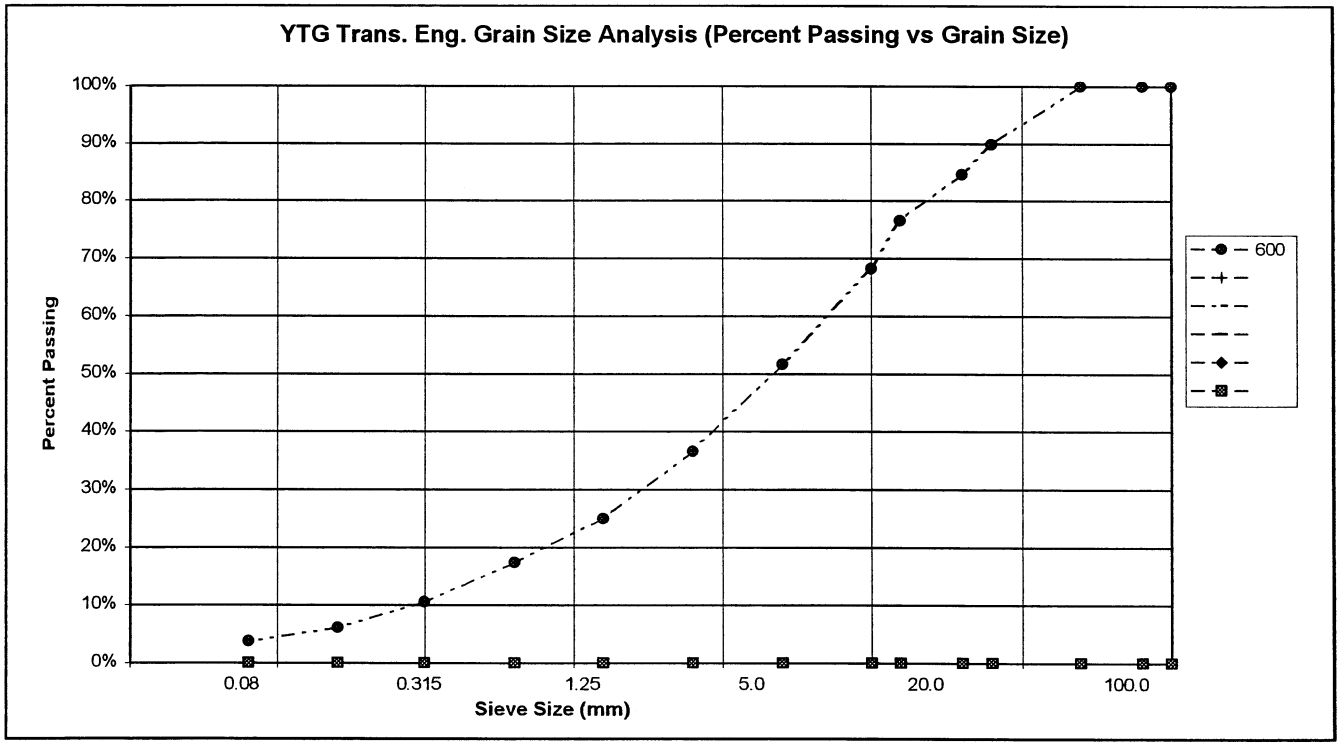
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-343
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1734+781 BK; 1738+919 AH 32m LT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/03

FIELD NO:	598	599				
LAB NO:	1345	1346				
DEPTH:	1.5-1.7	4.3-4.5				
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%	93%				
20.0	100%	93%				
12.5	100%	88%				
10.0	100%	86%				
5.0	100%	81%				
2.5	100%	76%				
1.25	99%	71%				
0.630	99%	66%				
0.315	98%	61%				
0.160	96%	54%				
0.080	80%	44%				
M.C.(%):	28%	14%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	19				
% SAND:	20	37				
% FINES:	80	44				
CLASSIFICATION	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)				



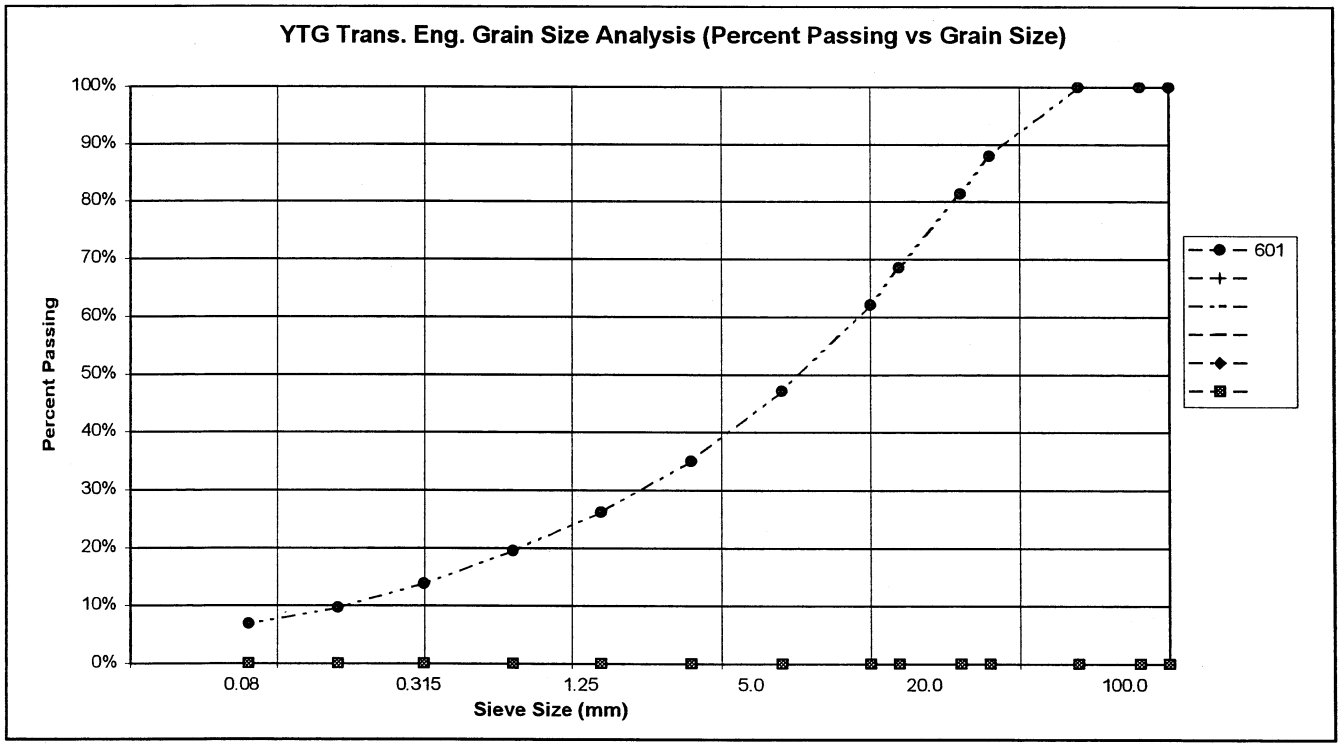
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CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1729.6-1787 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1734+666 BK; 1738+804 AH 82m LT					
LOGGED BY:	B.B.				DATE COMP: 2001/08/03	

FIELD NO:	600					
LAB NO:	1347					
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	90%					
20.0	85%					
12.5	77%					
10.0	68%					
5.0	52%					
2.5	37%					
1.25	25%					
0.630	17%					
0.315	11%					
0.160	6%					
0.080	4%					
M.C.(%):	7%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	48					
% SAND:	48					
% FINES:	4					
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)					



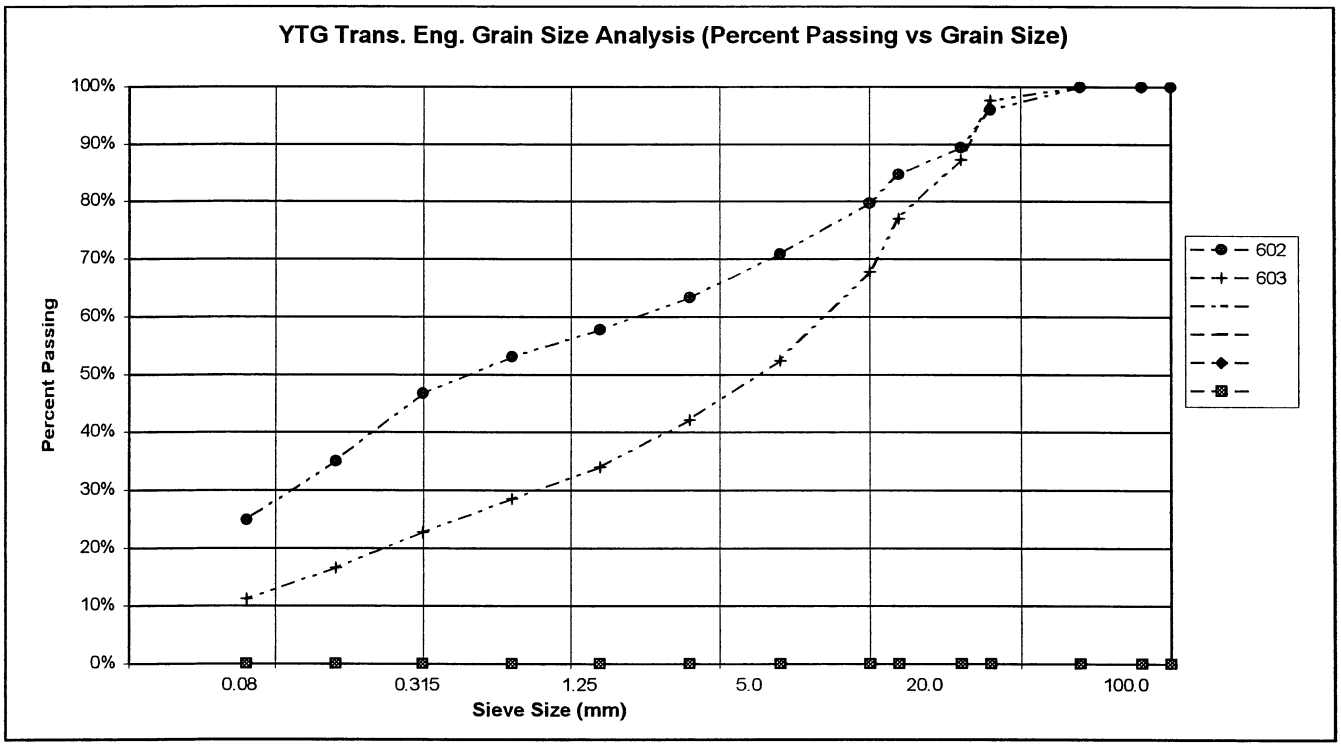
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 612-345	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1729.6-1787 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1734+603 BK; 1738+741 AH 21m LT					
LOGGED BY:	B.B.				DATE COMP: 2001/08/03	

FIELD NO:	601					
LAB NO:	1348					
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	88%					
20.0	81%					
12.5	69%					
10.0	62%					
5.0	47%					
2.5	35%					
1.25	26%					
0.630	20%					
0.315	14%					
0.160	10%					
0.080	7%					
M.C.(%):	2%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	53					
% SAND:	40					
% FINES:	7					
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)					



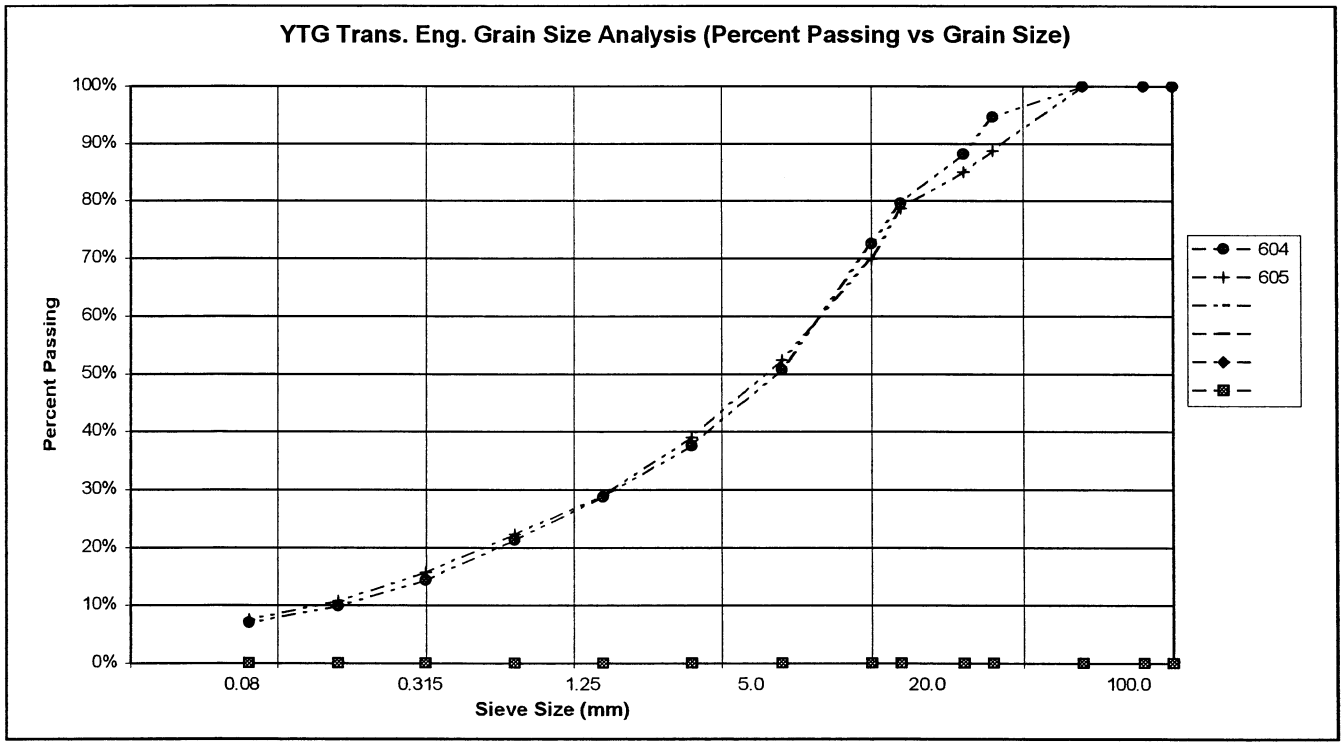
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-346
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1734+404 BK; 1738+542 AH 13m LT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/03

FIELD NO:	602	603				
LAB NO:	1349	1350				
DEPTH:	1.2-1.4	4.3-4.5				
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%	98%				
20.0	89%	87%				
12.5	85%	77%				
10.0	80%	68%				
5.0	71%	52%				
2.5	63%	42%				
1.25	58%	34%				
0.630	53%	29%				
0.315	47%	23%				
0.160	35%	17%				
0.080	25%	11%				
M.C.(%):	13%	4%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	29	48				
% SAND:	46	41				
% FINES:	25	11				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)				



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-347
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1734+303 BK; 1738+441 AH C.L.		
LOGGED BY:	B.B.		DATE COMP: 2001/08/03

FIELD NO:	604	605				
LAB NO:	1351	1352				
DEPTH:	1.4-1.6	4.3-4.5				
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%	89%				
20.0	88%	85%				
12.5	80%	79%				
10.0	73%	70%				
5.0	51%	52%				
2.5	38%	39%				
1.25	29%	29%				
0.630	21%	22%				
0.315	14%	16%				
0.160	10%	11%				
0.080	7%	8%				
M.C.(%):	3%	2%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	49	48				
% SAND:	44	45				
% FINES:	7	8				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)				

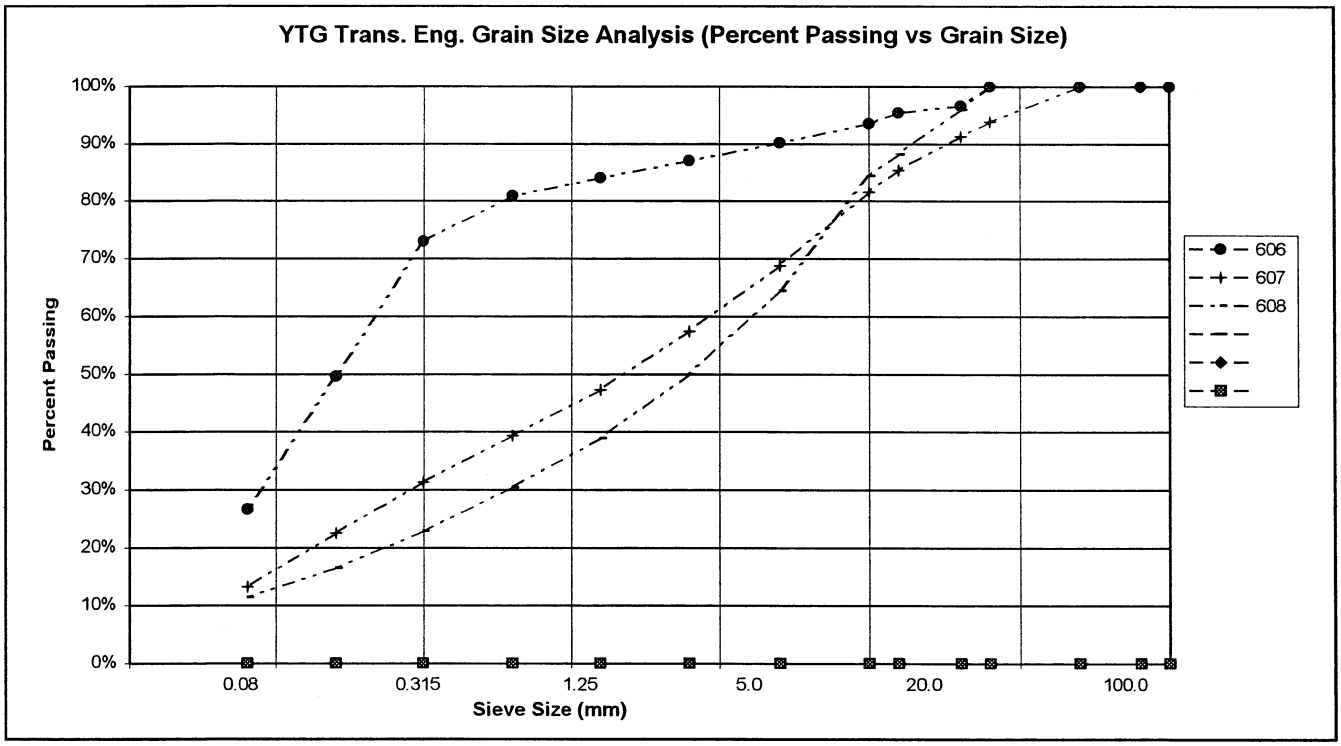


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1734+306 BK; 1738+444 AH 25m LT
LOGGED BY: B.B.

HOLE No.: 612-348

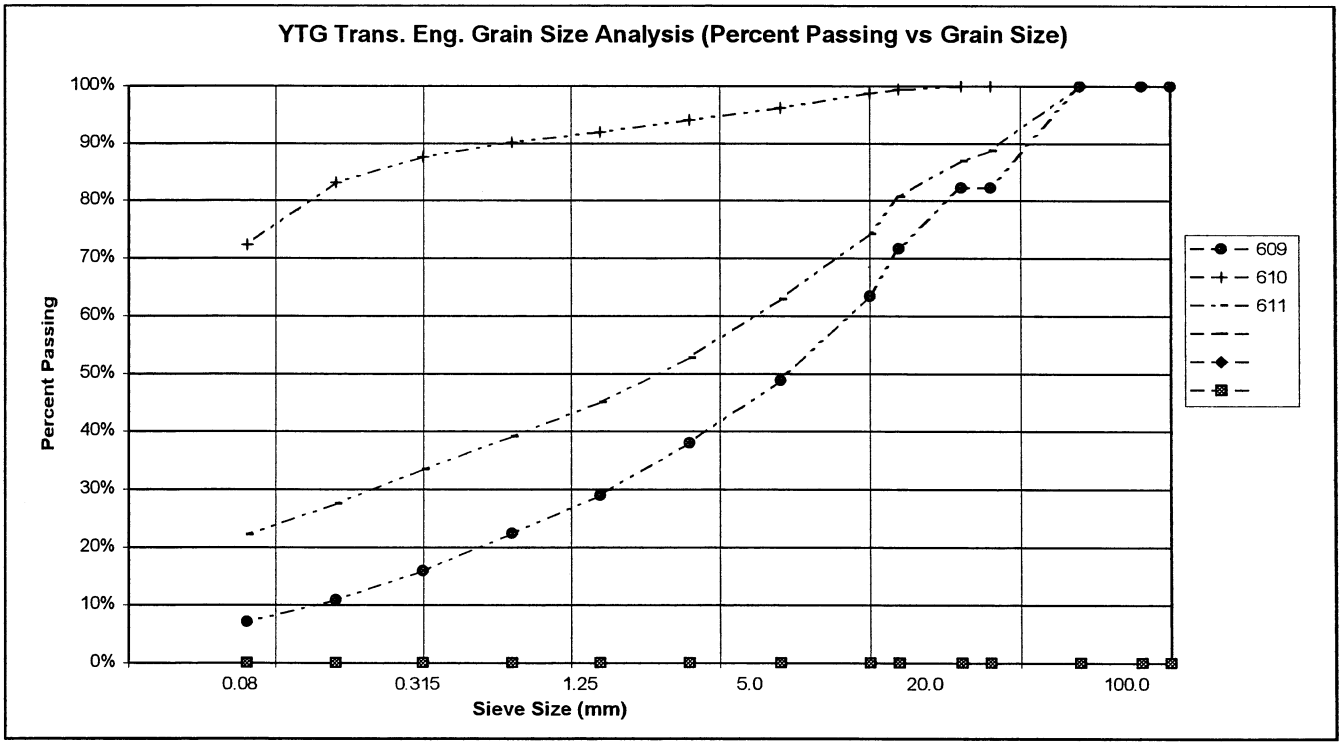
DATE COMP: 2001/08/03

FIELD NO:	606	607	608			
LAB NO:	1353	1354	1355			
DEPTH:	1.3-1.5	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%	94%	100%			
20.0	97%	91%	96%			
12.5	95%	85%	88%			
10.0	94%	82%	84%			
5.0	90%	69%	64%			
2.5	87%	57%	50%			
1.25	84%	47%	39%			
0.630	81%	39%	30%			
0.315	73%	31%	23%			
0.160	50%	23%	16%			
0.080	27%	13%	11%			
M.C.(%):	3%	2%	2%			
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	31	36			
% SAND:	64	56	53			
% FINES:	27	13	11			
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)			



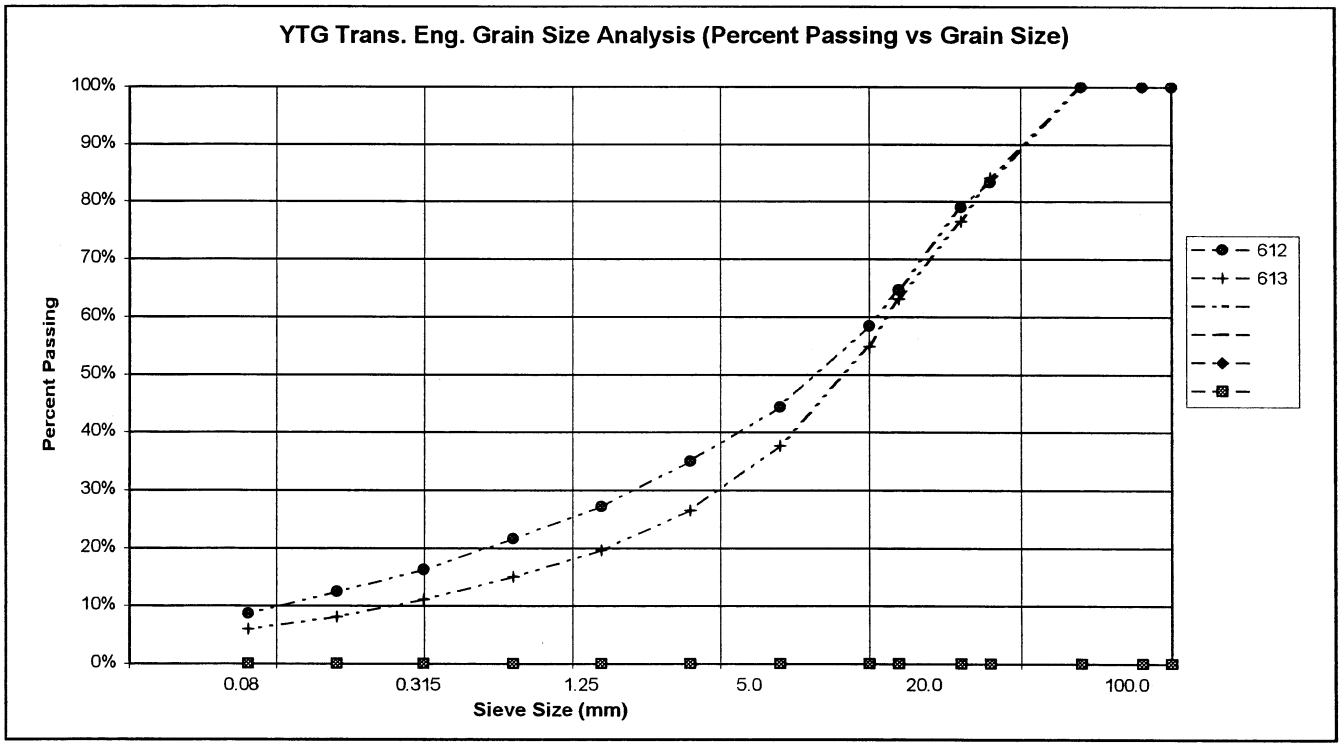
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-349
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1734+200 BK; 1738+338 AH 3m RT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/03

FIELD NO:	609	610	611			
LAB NO:	1356	1357	1358			
DEPTH:	1.3-1.5	2.9-3.1	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	82%	100%	89%			
20.0	82%	100%	87%			
12.5	72%	99%	81%			
10.0	63%	99%	74%			
5.0	49%	96%	63%			
2.5	38%	94%	53%			
1.25	29%	92%	45%			
0.630	22%	90%	39%			
0.315	16%	88%	33%			
0.160	11%	83%	28%			
0.080	7%	72%	22%			
M.C.(%):	4%	27%	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:	51	4	37			
% SAND:	42	24	41			
% FINES:	7	72	22			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)			



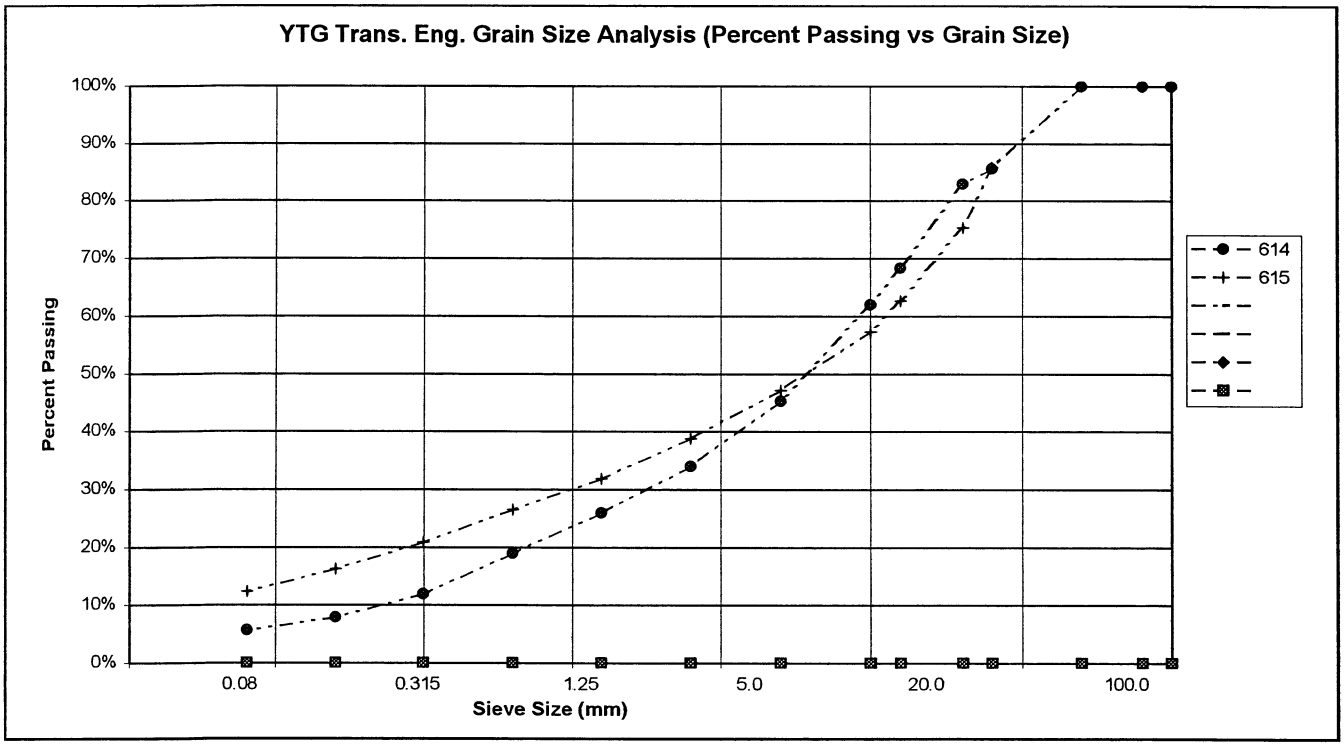
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CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1734+135 BK; 1738+273 AH 15m LT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/03

FIELD NO:	612	613				
LAB NO:	1359	1360				
DEPTH:	1.2-1.4	4.3-4.5				
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%	84%				
20.0	79%	77%				
12.5	65%	63%				
10.0	58%	55%				
5.0	44%	38%				
2.5	35%	27%				
1.25	27%	20%				
0.630	22%	15%				
0.315	16%	11%				
0.160	12%	8%				
0.080	9%	6%				
M.C.(%):	5%	2%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	56	62				
% SAND:	36	32				
% FINES:	9	6				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)				



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-351
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1734+135 BK; 1738+273 AH C.L.		
LOGGED BY:	B.B.		DATE COMP: 2001/08/03

FIELD NO:	614	615				
LAB NO:	1361	1362				
DEPTH:	1.4-1.6	4.3-4.5				
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	86%	86%				
20.0	83%	75%				
12.5	68%	63%				
10.0	62%	57%				
5.0	45%	47%				
2.5	34%	39%				
1.25	26%	32%				
0.630	19%	27%				
0.315	12%	21%				
0.160	8%	16%				
0.080	6%	12%				
M.C.(%):	4%	5%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	55	53				
% SAND:	40	35				
% FINES:	6	12				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)				

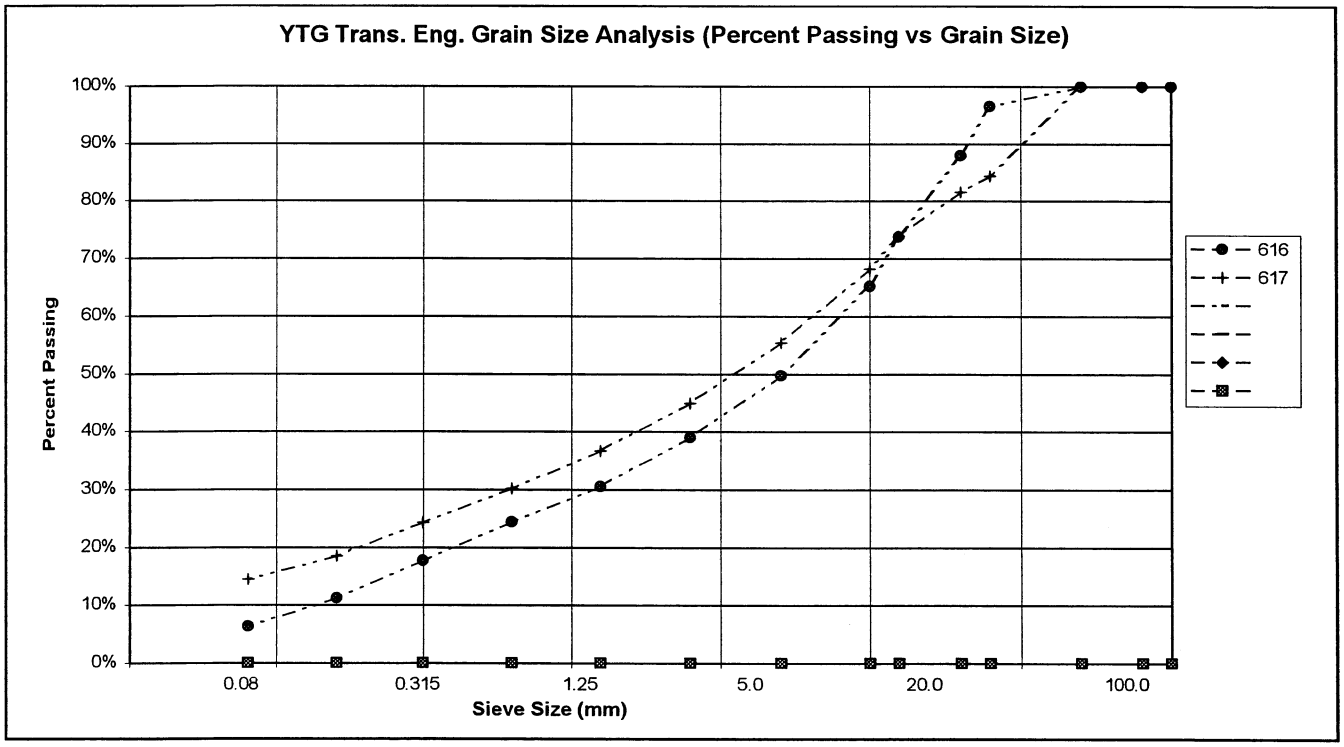


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1734+140 BK; 1738+278 AH 15m RT
LOGGED BY: B.B.

HOLE No.: 612-352

DATE COMP: 2001/08/03

FIELD NO:	616	617				
LAB NO:	1363	1364				
DEPTH:	1.3-1.5	4.3-4.5				
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%	84%				
20.0	88%	82%				
12.5	74%	74%				
10.0	65%	68%				
5.0	50%	55%				
2.5	39%	45%				
1.25	31%	37%				
0.630	24%	30%				
0.315	18%	24%				
0.160	11%	19%				
0.080	6%	14%				
M.C.(%):	5%	6%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	50	45				
% SAND:	43	41				
% FINES:	6	14				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)				

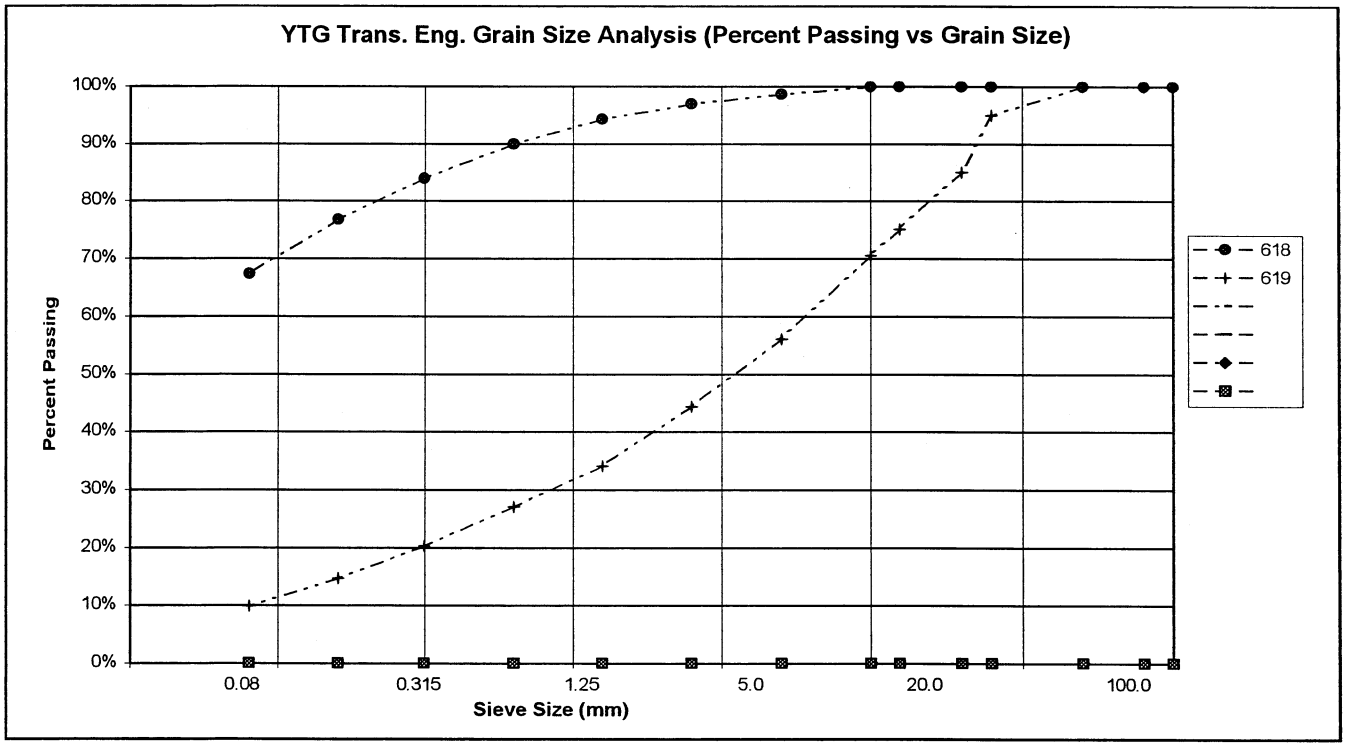


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1734+025 BK; 1738+163 AH 3m RT
LOGGED BY: B.B.

HOLE No.: 612-353

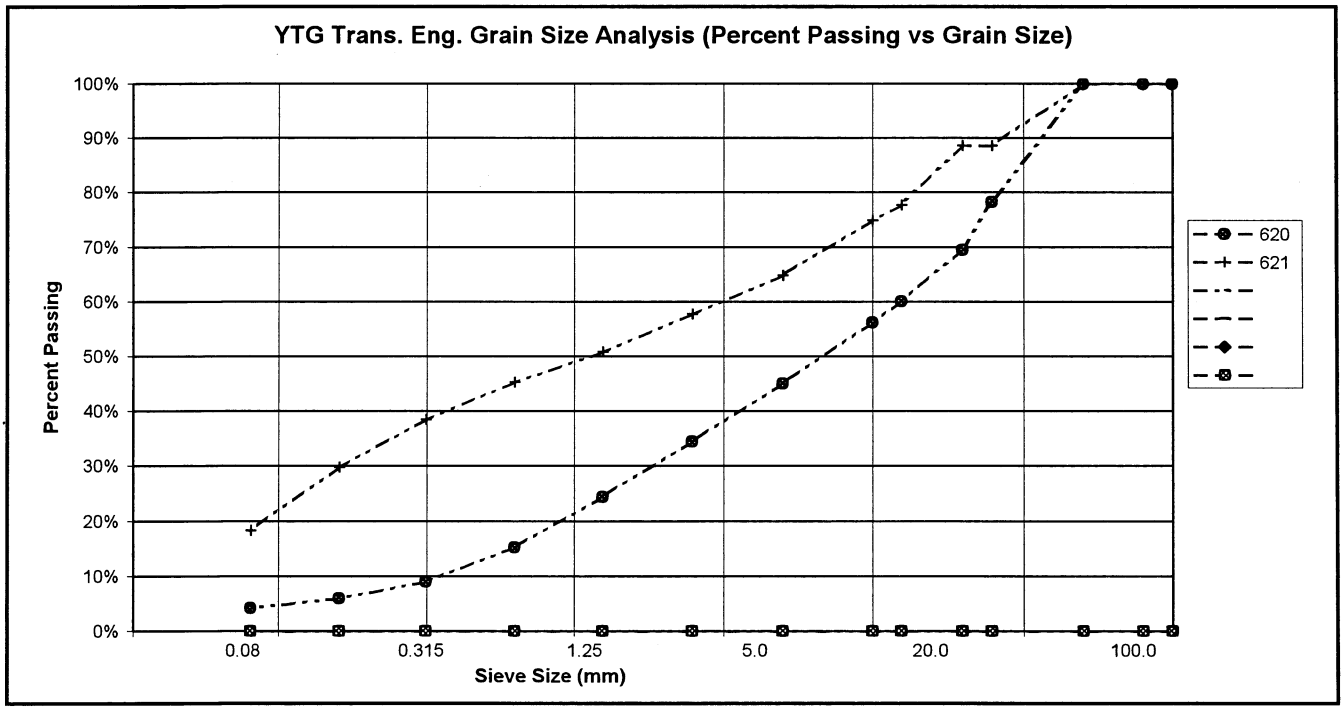
DATE COMP: 2001/08/03

FIELD NO:	618	619				
LAB NO:	1365	1366				
DEPTH:	1.3-1.5	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%	95%				
20.0	100%	85%				
12.5	100%	75%				
10.0	100%	71%				
5.0	99%	56%				
2.5	97%	44%				
1.25	94%	34%				
0.630	90%	27%				
0.315	84%	20%				
0.160	77%	15%				
0.080	67%	10%				
M.C.(%):	30%	4%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	1	44				
% SAND:	31	46				
% FINES:	67	10				
CLASSIFICATION	SANDY SILT (ML)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)				



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-354
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1733+880 15M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/03

FIELD NO:	620	621				
LAB NO:	1367	1368				
DEPTH:	1.2-1.4	4.3-4.5				
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%	89%				
20.0	70%	89%				
12.5	60%	78%				
10.0	56%	75%				
5.0	45%	65%				
2.5	35%	58%				
1.25	24%	51%				
0.630	15%	45%				
0.315	9%	39%				
0.160	6%	30%				
0.080	4%	18%				
M.C.(%):	4%	6%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	55	35				
% SAND:	41	46				
% FINES:	4	18				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)				

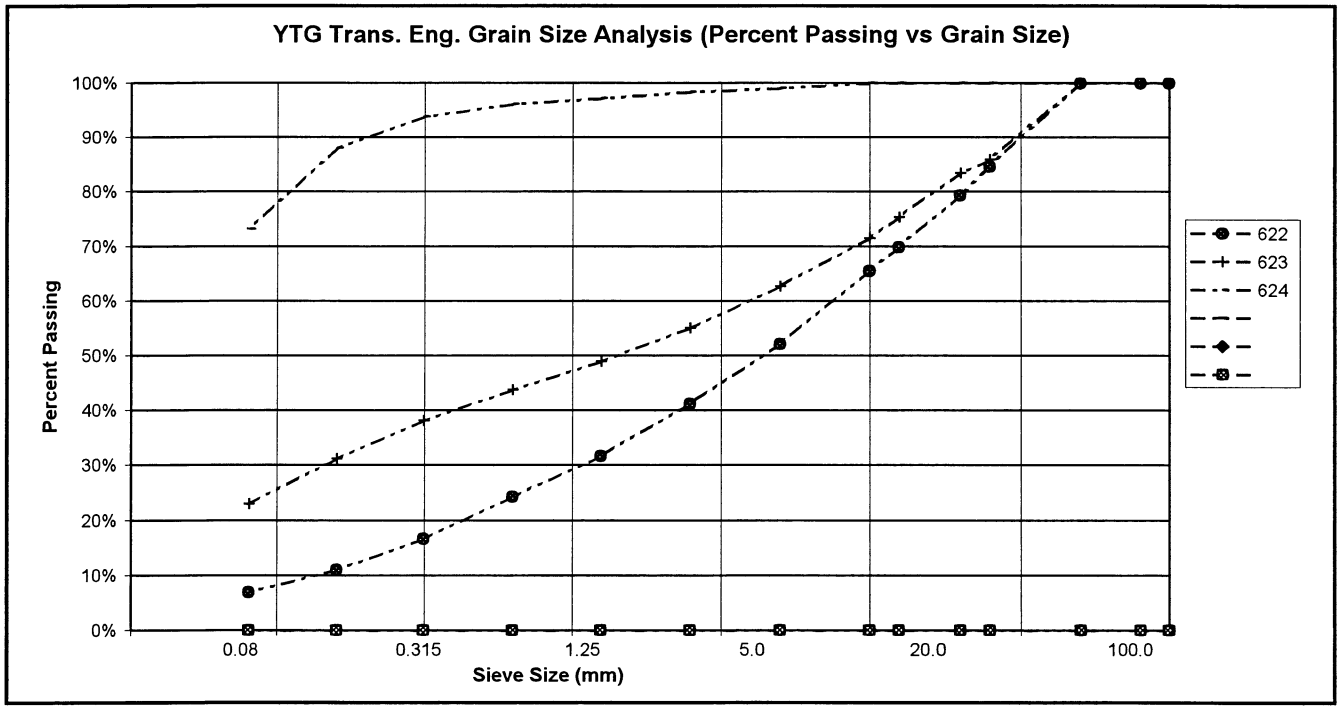


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1733+850 CENTRELINE
LOGGED BY: B.B.

HOLE No.: 612-355

DATE COMP: 2001/08/03

FIELD NO:	622	623	624			
LAB NO:	1369	1370	1371			
DEPTH:	1.0-1.2	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	85%	86%	100%			
20.0	79%	83%	100%			
12.5	70%	75%	100%			
10.0	65%	71%	100%			
5.0	52%	63%	99%			
2.5	41%	55%	98%			
1.25	32%	49%	97%			
0.630	24%	44%	96%			
0.315	17%	38%	94%			
0.160	11%	31%	88%			
0.080	7%	23%	73%			
M.C.(%):	5%	5%	21%			
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	37	1			
% SAND:	45	40	26			
% FINES:	7	23	73			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH GRAVEL (SM)	SILT WITH SAND (ML)			

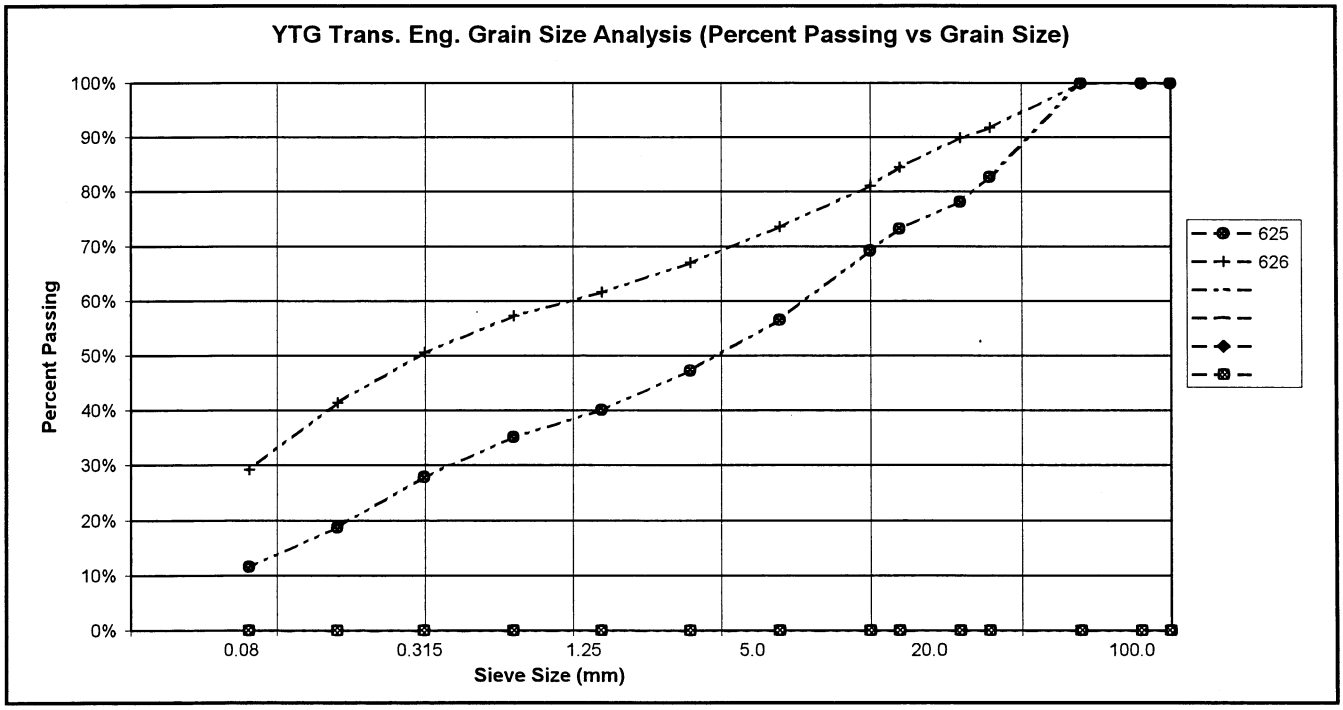


PROJECT NUMBER:	092-202101-0361-1
CLIENT:	ENGINEERING CAPITAL
PROJECT NAME:	SHAKWAK SEG 11
PROJECT LOCATION:	Km 1729.6-1787 A/H
DRILL UNIT:	MOBILE B40 L
HOLE LOCATION:	1733+880 15M RT
LOGGED BY:	B.B.

HOLE No.: 612-356

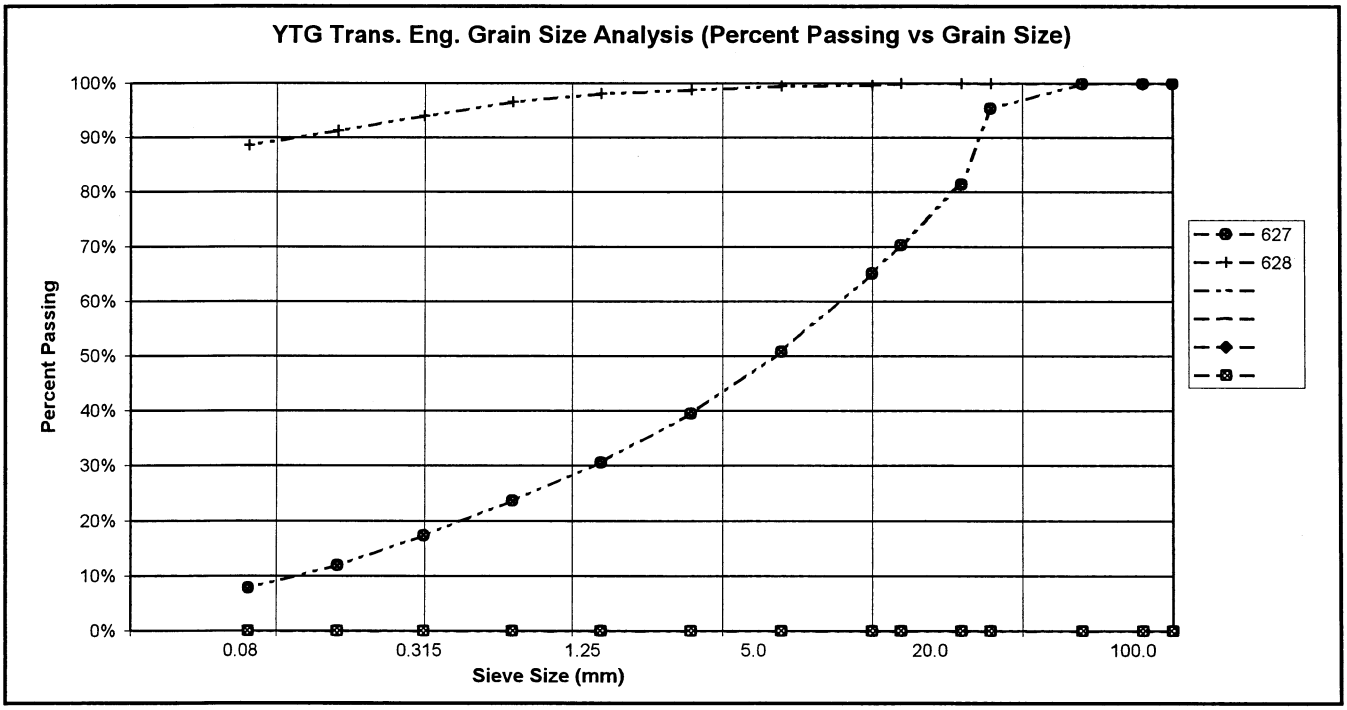
DATE COMP: 2001/08/03

FIELD NO:	625	626				
LAB NO:	1372	1373				
DEPTH:	1.4-1.6	4.3-4.4				
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%	92%				
20.0	78%	90%				
12.5	73%	84%				
10.0	69%	81%				
5.0	57%	74%				
2.5	47%	67%				
1.25	40%	62%				
0.630	35%	57%				
0.315	28%	51%				
0.160	19%	41%				
0.080	12%	29%				
M.C.(%):	4%	8%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	43	26				
% SAND:	45	44				
% FINES:	12	29				
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILTY SAND WITH GRAVEL (SM)				



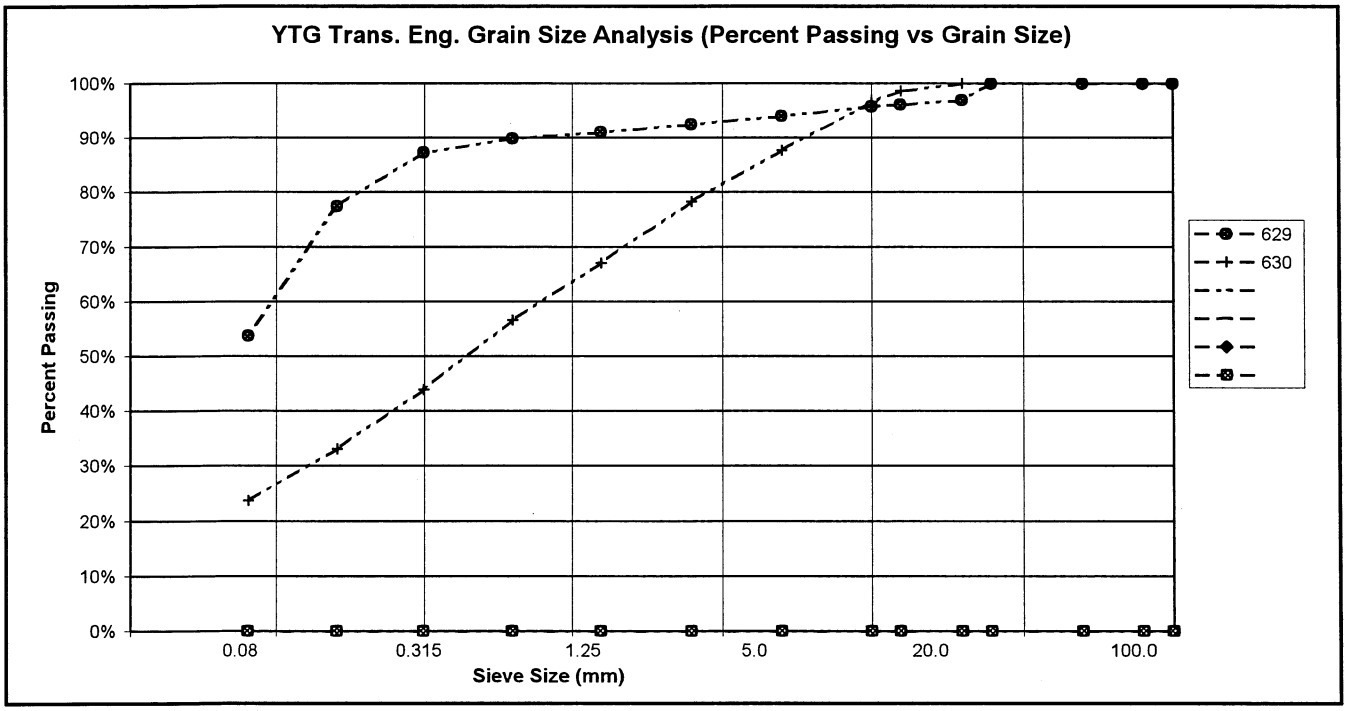
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-357
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1733+775 2m lt		
LOGGED BY:	B.B.		DATE COMP: 2001/08/03

FIELD NO:	627	628				
LAB NO:	1374	1375				
DEPTH:	1.4-1.6	4.3-4.5				
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%	100%				
20.0	82%	100%				
12.5	70%	100%				
10.0	65%	100%				
5.0	51%	100%				
2.5	40%	99%				
1.25	31%	98%				
0.630	24%	97%				
0.315	17%	94%				
0.160	12%	91%				
0.080	8%	89%				
M.C.(%):	4%	33%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	49	0				
% SAND:	43	11				
% FINES:	8	89				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILT (ML)				



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-358
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1733+700 15M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/03

FIELD NO:	629	630				
LAB NO:	1376	1377				
DEPTH:	0.9-1.1	4.3-4.5				
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	97%	100%				
12.5	96%	99%				
10.0	96%	97%				
5.0	94%	88%				
2.5	93%	78%				
1.25	91%	67%				
0.630	90%	57%				
0.315	87%	44%				
0.160	77%	33%				
0.080	54%	24%				
M.C.(%):	25%	7%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	6	12				
% SAND:	40	64				
% FINES:	54	24				
CLASSIFICATION	SANDY SILT (ML)	SILTY SAND (SM)				

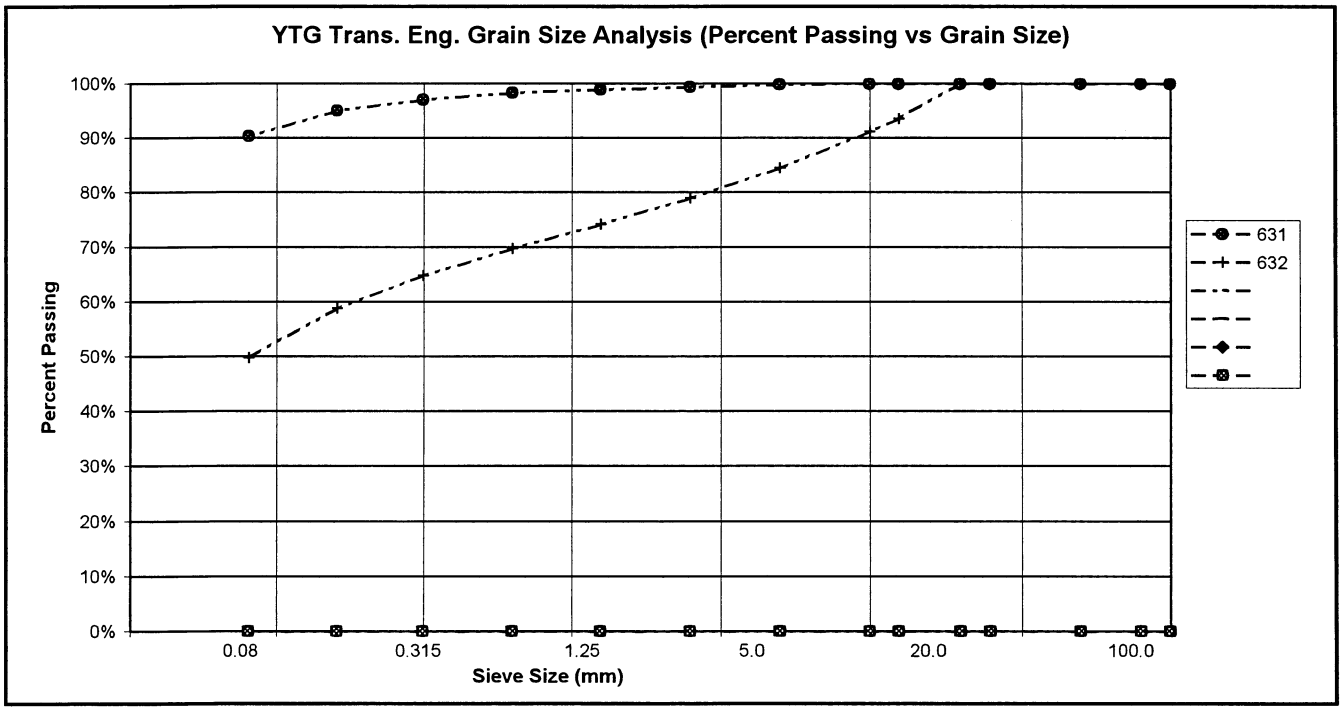


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1733+698 CENTRELINE
LOGGED BY: B.B.

HOLE No.: 612-359

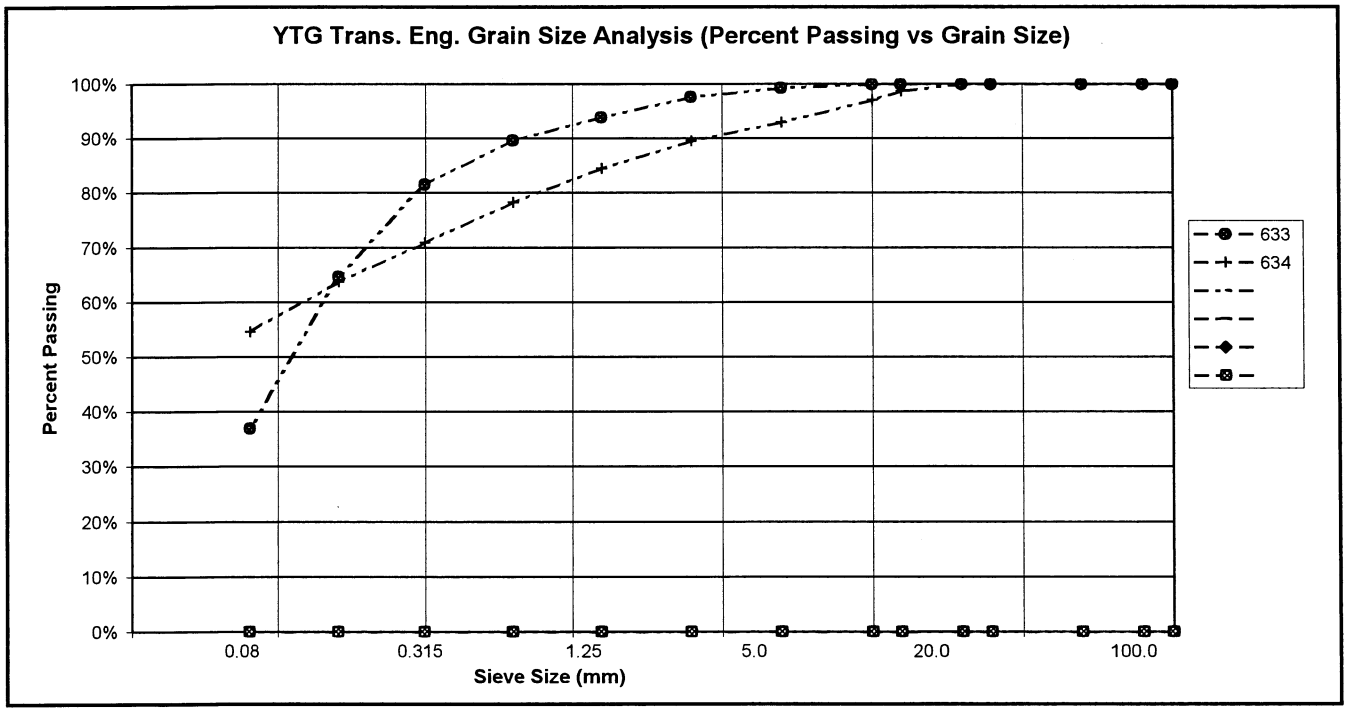
DATE COMP: 2001/08/03

FIELD NO:	631	632				
LAB NO:	1378	1379				
DEPTH:	1.4-1.6	4.3-4.5				
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	100%	94%				
10.0	100%	91%				
5.0	100%	84%				
2.5	99%	79%				
1.25	99%	74%				
0.630	98%	70%				
0.315	97%	65%				
0.160	95%	59%				
0.080	90%	50%				
M.C.(%):	32%	10%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	16				
% SAND:	10	35				
% FINES:	90	50				
CLASSIFICATION	SILT (ML)	SILTY SAND WITH GRAVEL (SM)				



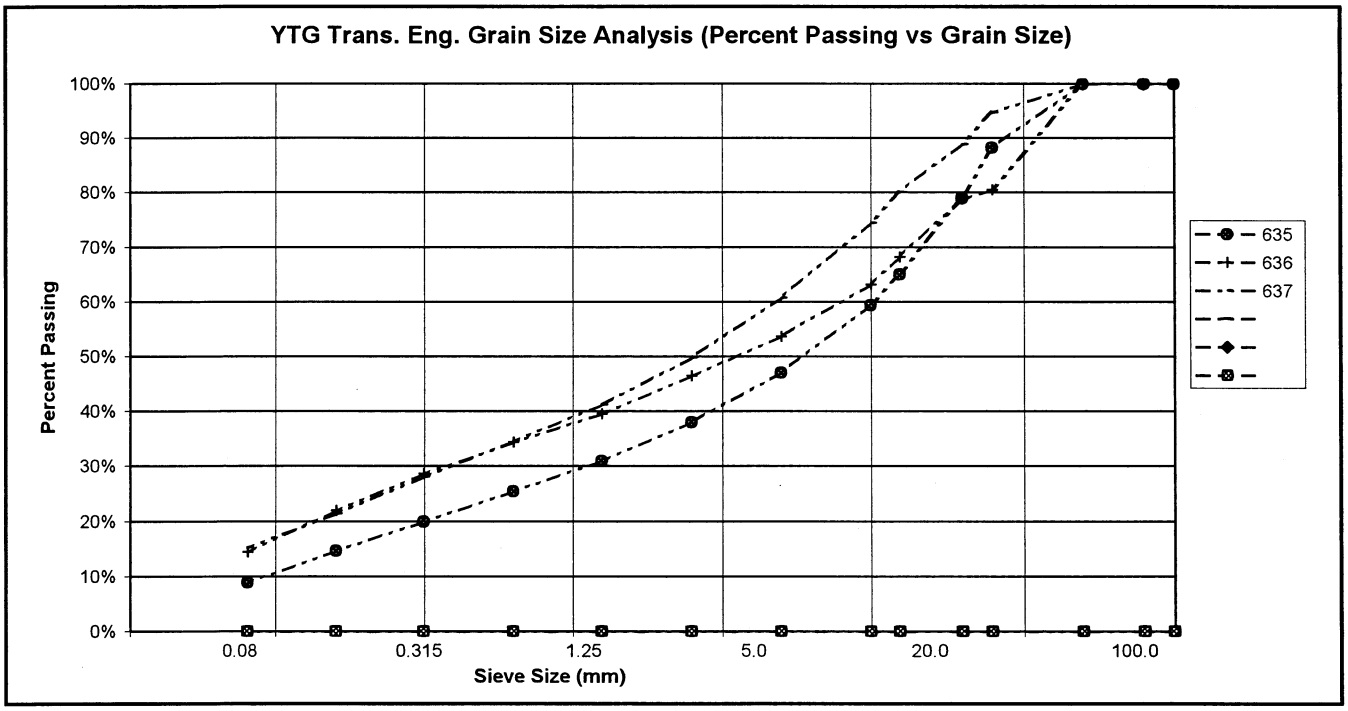
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-360
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1733+700 15M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/03

FIELD NO:	633	634				
LAB NO:	1380	1381				
DEPTH:	1.3-1.5	4.3-4.5				
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	100%	99%				
10.0	100%	97%				
5.0	99%	93%				
2.5	98%	90%				
1.25	94%	84%				
0.630	90%	78%				
0.315	82%	71%				
0.160	65%	64%				
0.080	37%	55%				
M.C.(%):	9%	12%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	1	7				
% SAND:	62	38				
% FINES:	37	55				
CLASSIFICATION	SILTY SAND (SM)	SANDY SILT (ML)				



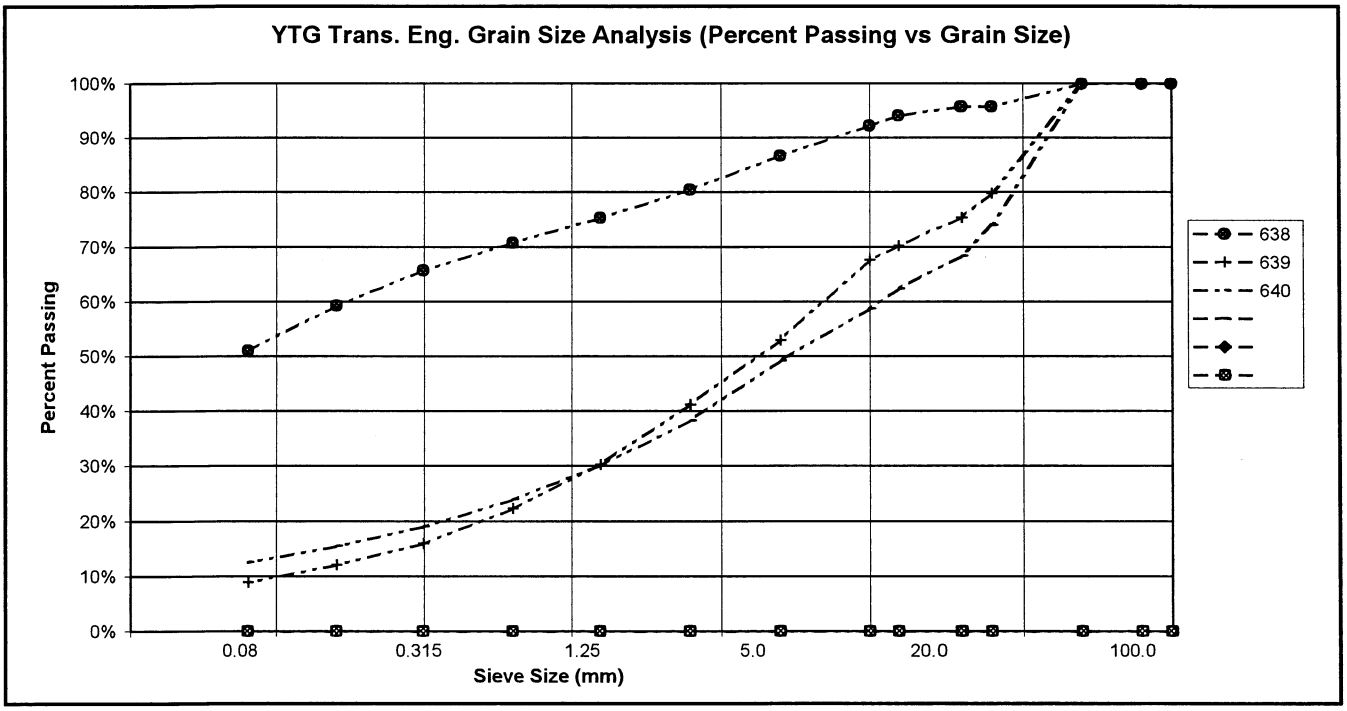
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-361
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1733+600 2M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/03

FIELD NO:	635	636	637			
LAB NO:	1382	1383	1384			
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	88%	81%	95%			
20.0	79%	79%	89%			
12.5	65%	68%	80%			
10.0	59%	63%	74%			
5.0	47%	54%	61%			
2.5	38%	46%	50%			
1.25	31%	40%	41%			
0.630	25%	34%	35%			
0.315	20%	29%	28%			
0.160	15%	22%	21%			
0.080	9%	14%	15%			
M.C.(%):	7%	8%	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:	53	46	39			
% SAND:	38	39	45			
% FINES:	9	14	15			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)			



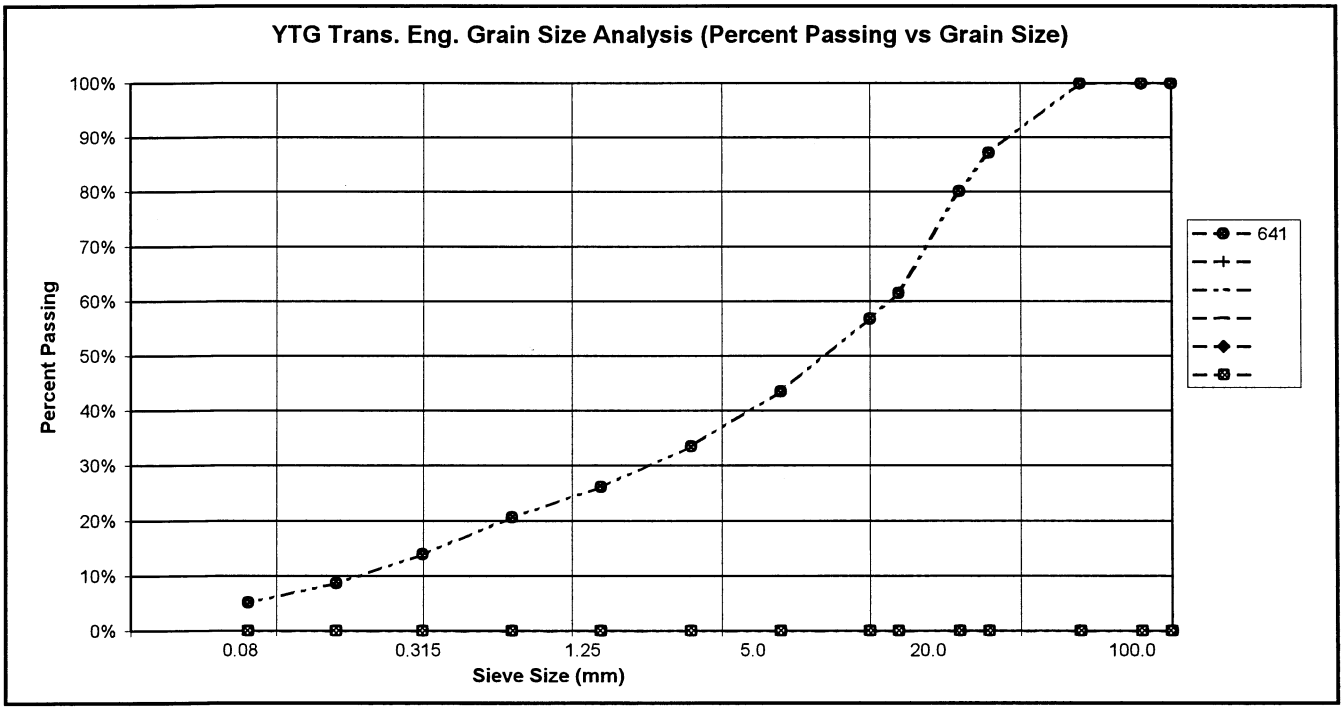
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-362
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1733+500 15M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/03

FIELD NO:	638	639	640			
LAB NO:	1385	1386	1387			
DEPTH:	1.2-1.4	2.7-2.9	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	96%	80%	74%			
20.0	96%	75%	68%			
12.5	94%	70%	62%			
10.0	92%	68%	59%			
5.0	87%	53%	49%			
2.5	80%	41%	38%			
1.25	75%	30%	30%			
0.630	71%	22%	24%			
0.315	66%	16%	19%			
0.160	59%	12%	15%			
0.080	51%	9%	13%			
M.C.(%):	16%	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:	13	47	51			
% SAND:	36	44	37			
% FINES:	51	9	13			
CLASSIFICATION	SANDY SILT (ML)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)			



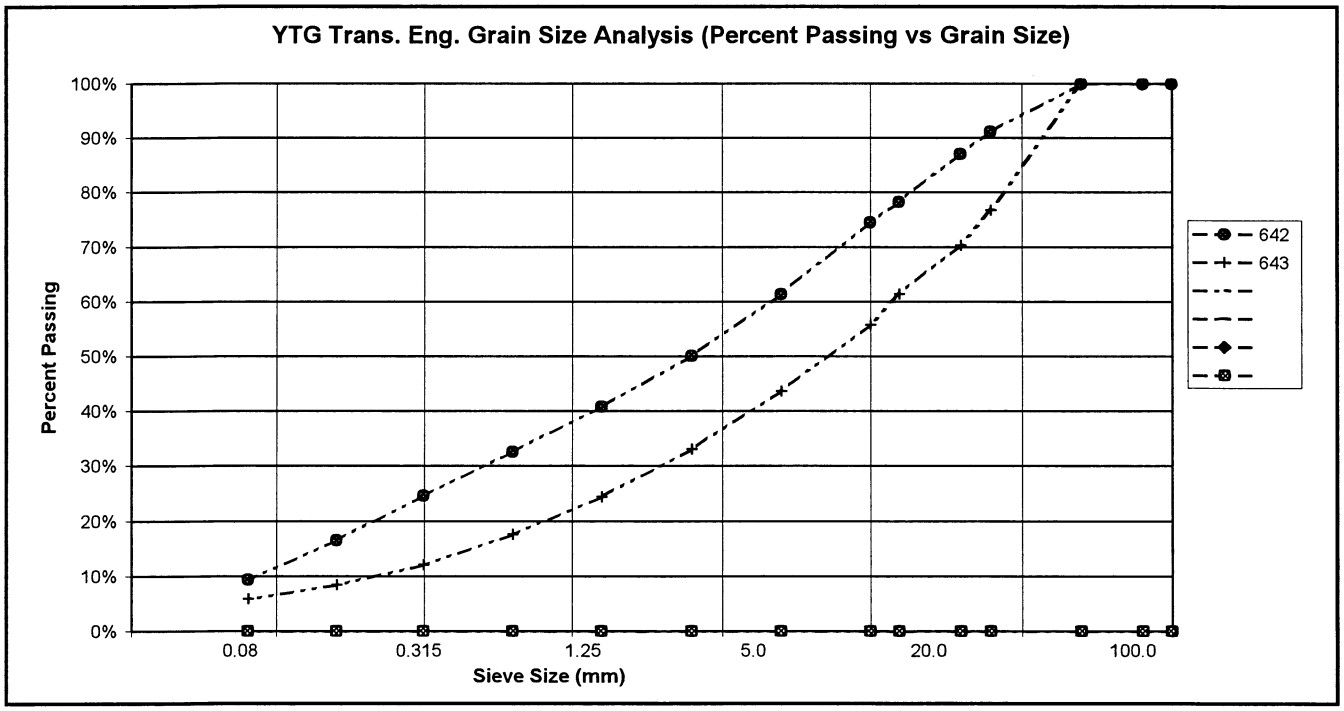
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-363
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1733+498 CENTRELINE		
LOGGED BY:	B.B.		DATE COMP: 2001/08/03

FIELD NO:	641					
LAB NO:	1388					
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	87%					
20.0	80%					
12.5	62%					
10.0	57%					
5.0	44%					
2.5	34%					
1.25	26%					
0.630	21%					
0.315	14%					
0.160	9%					
0.080	5%					
M.C.(%):	4%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	56					
% SAND:	38					
% FINES:	5					
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)					



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-364
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1733+500 15M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/03

FIELD NO:	642	643				
LAB NO:	1389	1390				
DEPTH:	1.3-1.5	4.3-4.5				
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	91%	77%				
20.0	87%	70%				
12.5	78%	61%				
10.0	74%	56%				
5.0	61%	44%				
2.5	50%	33%				
1.25	41%	24%				
0.630	33%	18%				
0.315	25%	12%				
0.160	17%	8%				
0.080	9%	6%				
M.C.(%):	5%	3%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	39	56				
% SAND:	52	38				
% FINES:	9	6				
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)				

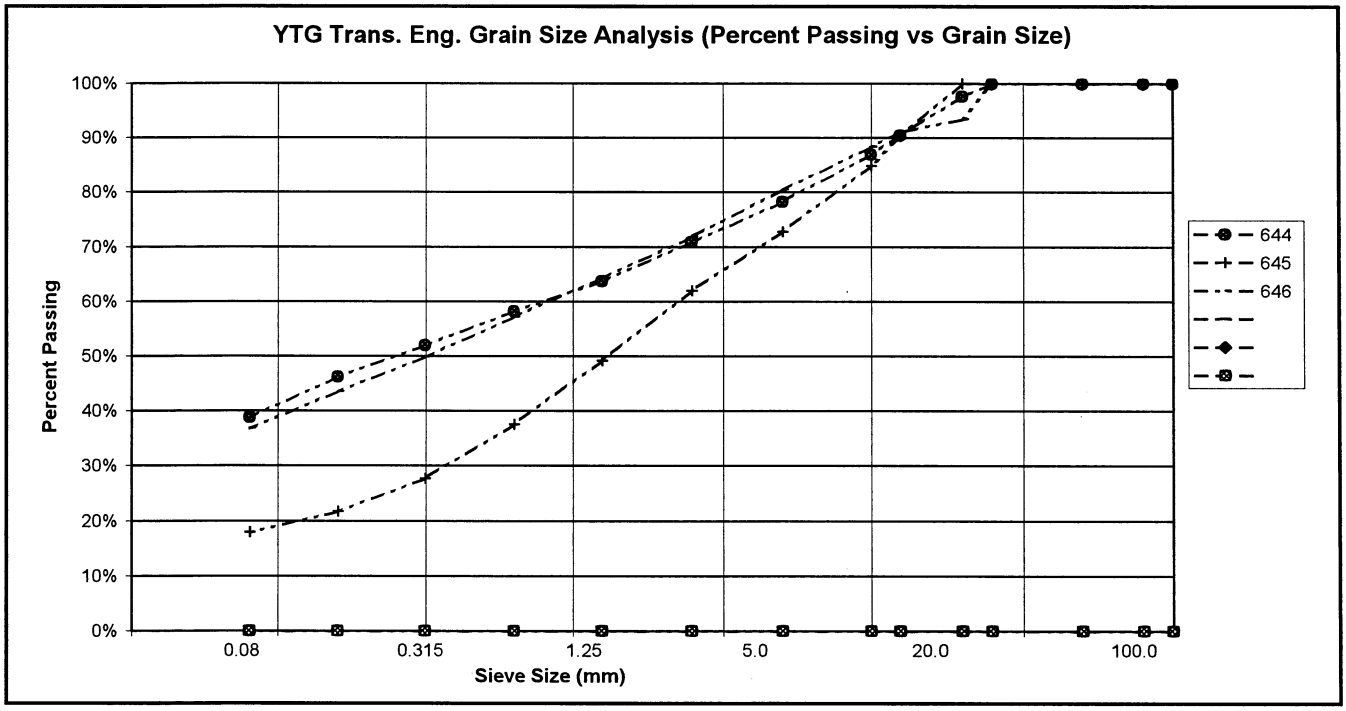


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1733+450 2M LT
LOGGED BY: B.B.

HOLE No.: 612-365

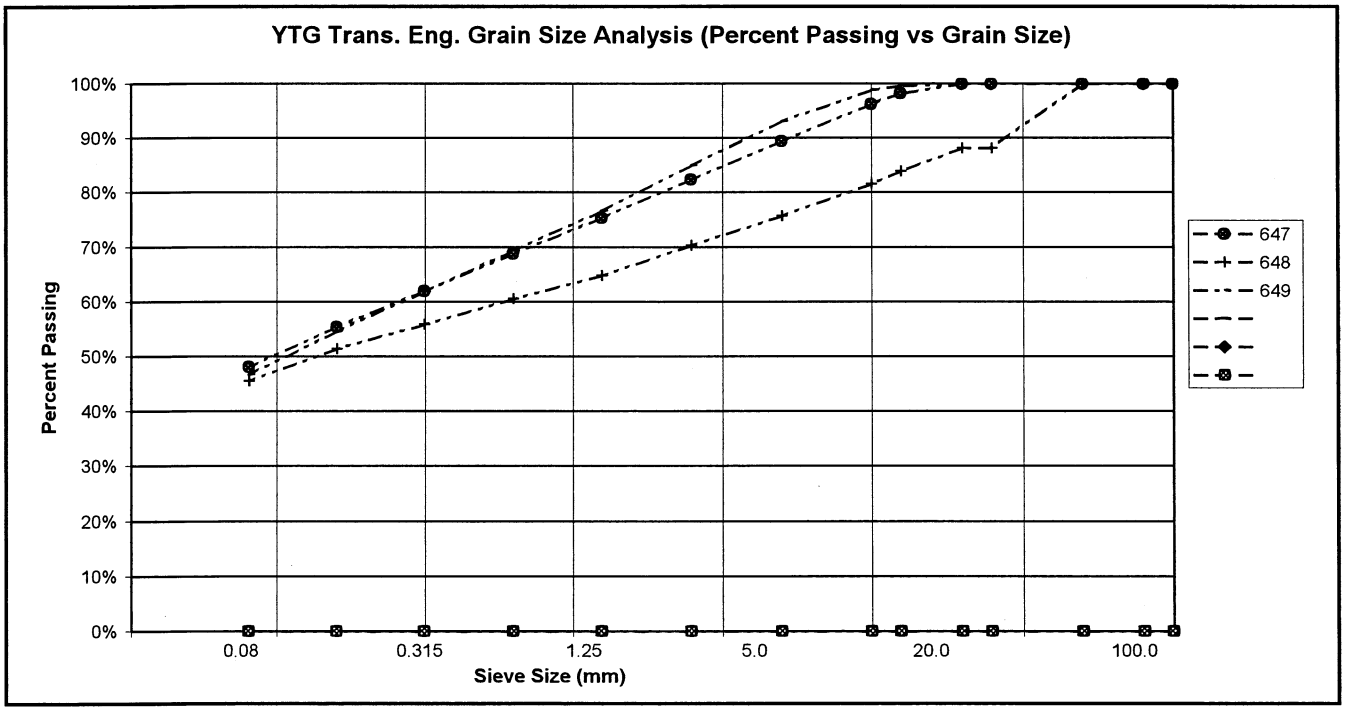
DATE COMP: 2001/08/03

FIELD NO:	644	645	646			
LAB NO:	1391	1392	1393			
DEPTH:	1.4-1.6	3.0-3.2	5.7-6.0			
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	98%	100%	93%			
12.5	91%	90%	91%			
10.0	87%	85%	88%			
5.0	78%	73%	80%			
2.5	71%	62%	72%			
1.25	64%	49%	64%			
0.630	58%	38%	57%			
0.315	52%	28%	50%			
0.160	46%	22%	44%			
0.080	39%	18%	37%			
M.C.(%):	8%	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:	22	27	20			
% SAND:	39	55	44			
% FINES:	39	18	37			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			



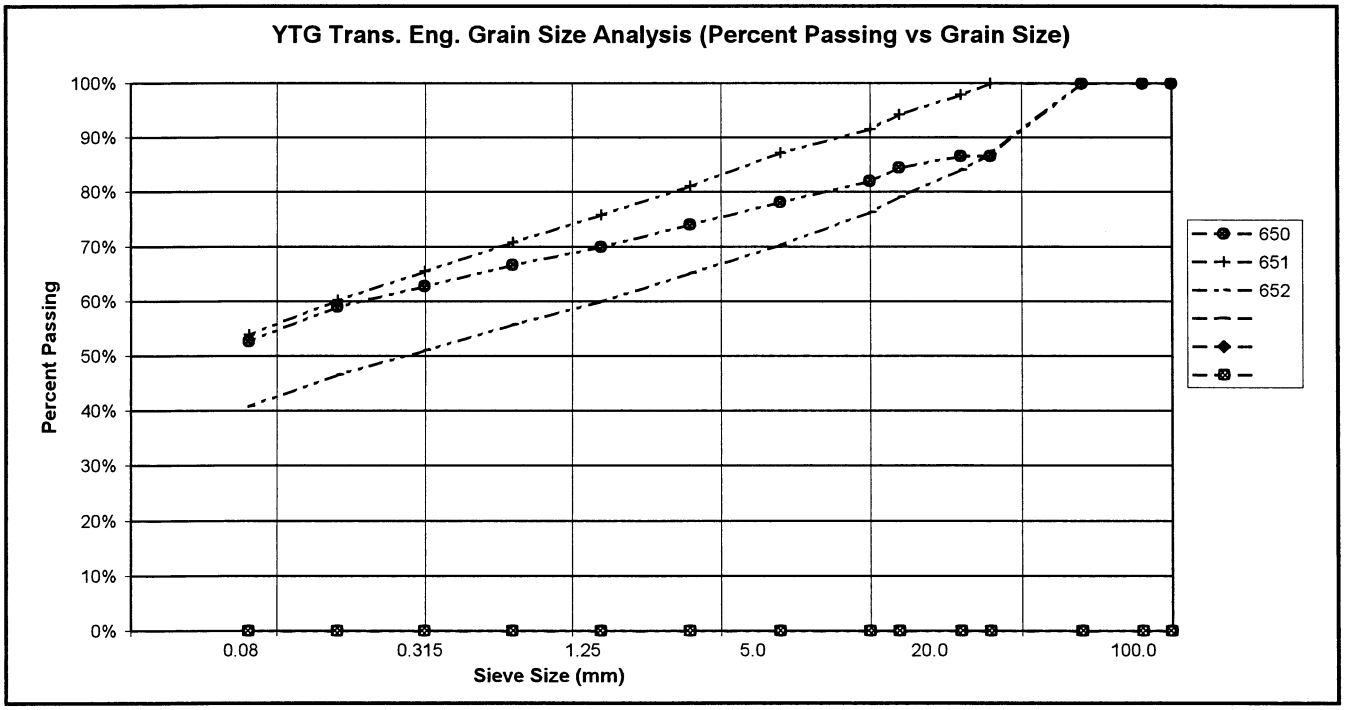
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-366
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1733+325 2M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/03

FIELD NO:	647	648	649			
LAB NO:	1394	1395	1396			
DEPTH:	0.9-1.1	2.9-3.1	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%	88%	100%			
20.0	100%	88%	100%			
12.5	98%	84%	100%			
10.0	96%	82%	99%			
5.0	89%	76%	93%			
2.5	82%	70%	85%			
1.25	75%	65%	77%			
0.630	69%	61%	69%			
0.315	62%	56%	62%			
0.160	55%	51%	55%			
0.080	48%	46%	47%			
M.C.(%):	24%	13%	14%			
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:	11	24	7			
% SAND:	41	30	46			
% FINES:	48	46	47			
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND (SM)			



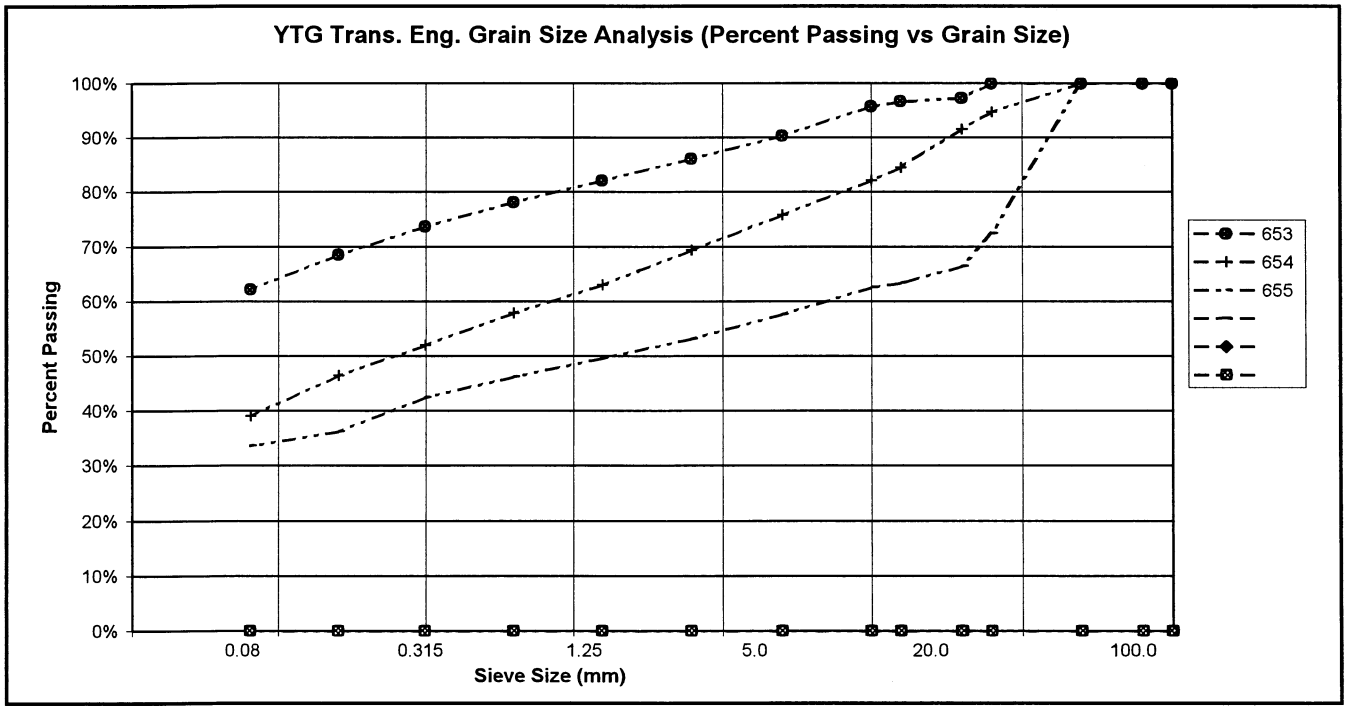
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-367
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1733+190 2M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/03

FIELD NO:	650	651	652			
LAB NO:	1397	1398	1399			
DEPTH:	1.3-1.5	2.9-3.1	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	87%	100%	87%			
20.0	87%	98%	84%			
12.5	84%	94%	79%			
10.0	82%	92%	76%			
5.0	78%	87%	70%			
2.5	74%	81%	65%			
1.25	70%	76%	60%			
0.630	67%	71%	56%			
0.315	63%	66%	51%			
0.160	59%	60%	47%			
0.080	53%	54%	41%			
M.C.(%):	12%	14%	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:	22	13	30			
% SAND:	26	33	29			
% FINES:	53	54	41			
CLASSIFICATION	SANDY SILT WITH GRAVEL (ML)	SANDY SILT (ML)	SILTY GRAVEL WITH SAND (GM)			



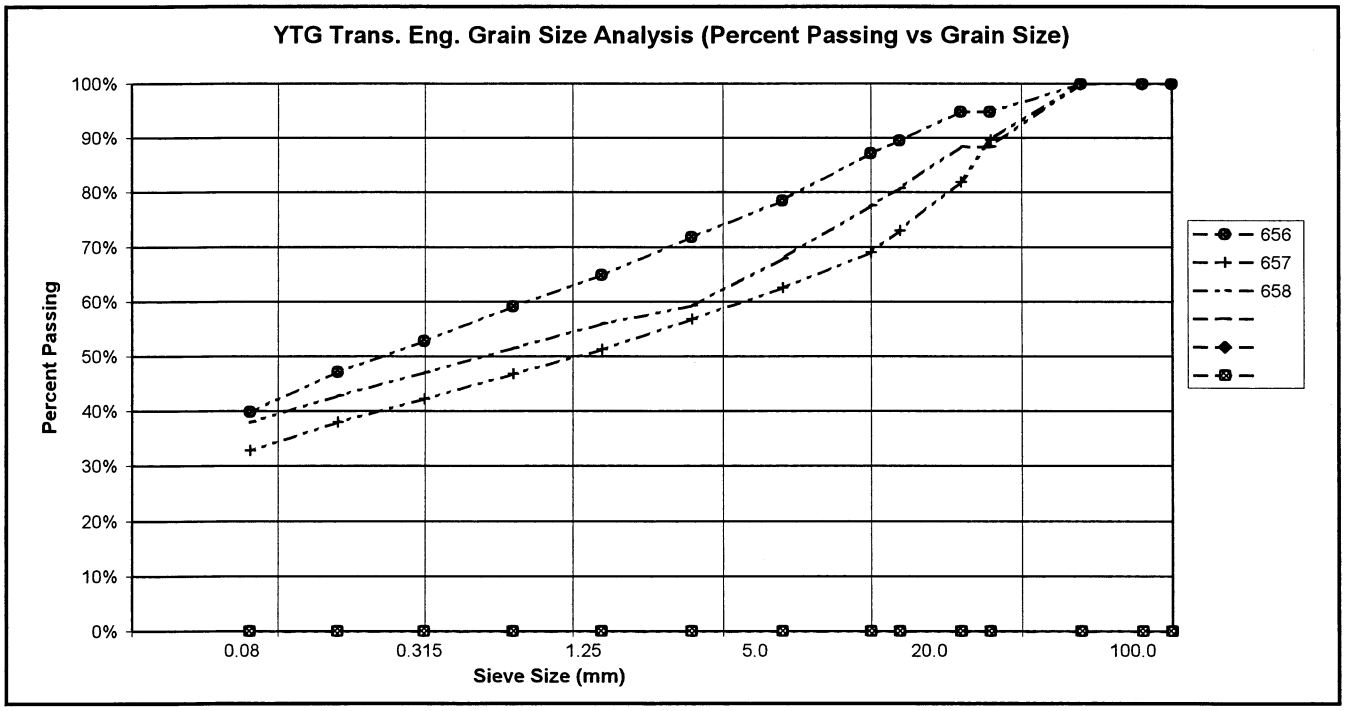
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-368
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1733+100 2M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/08

FIELD NO:	653	654	655			
LAB NO:	1400	1401	1402			
DEPTH:	1.2-1.4	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%	95%	72%			
20.0	97%	92%	66%			
12.5	97%	84%	63%			
10.0	96%	82%	63%			
5.0	90%	76%	58%			
2.5	86%	69%	53%			
1.25	82%	63%	50%			
0.630	78%	58%	46%			
0.315	74%	52%	42%			
0.160	69%	46%	36%			
0.080	62%	39%	34%			
M.C.(%):	7%	9%	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	24	42			
% SAND:	28	37	24			
% FINES:	62	39	34			
CLASSIFICATION	SANDY SILT (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)			



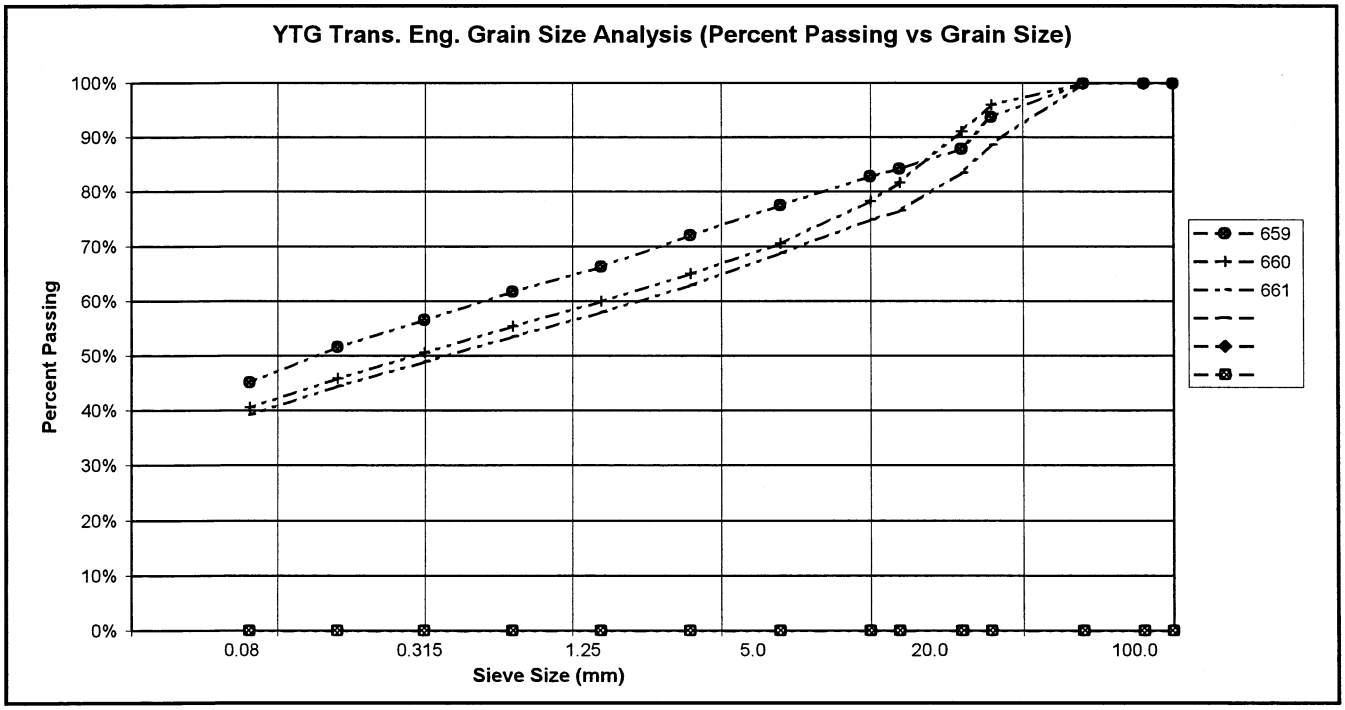
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-369
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1732+996 11M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/08

FIELD NO:	656	657	658			
LAB NO:	1403	1404	1405			
DEPTH:	1.4-1.6	3.7-3.9	7.2.-7.5			
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	95%	90%	88%			
20.0	95%	82%	88%			
12.5	90%	73%	81%			
10.0	87%	69%	78%			
5.0	79%	63%	68%			
2.5	72%	57%	59%			
1.25	65%	51%	56%			
0.630	59%	47%	51%			
0.315	53%	42%	47%			
0.160	47%	38%	43%			
0.080	40%	33%	38%			
M.C.(%):	7%	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:	21	37	32			
% SAND:	39	30	30			
% FINES:	40	33	38			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)			



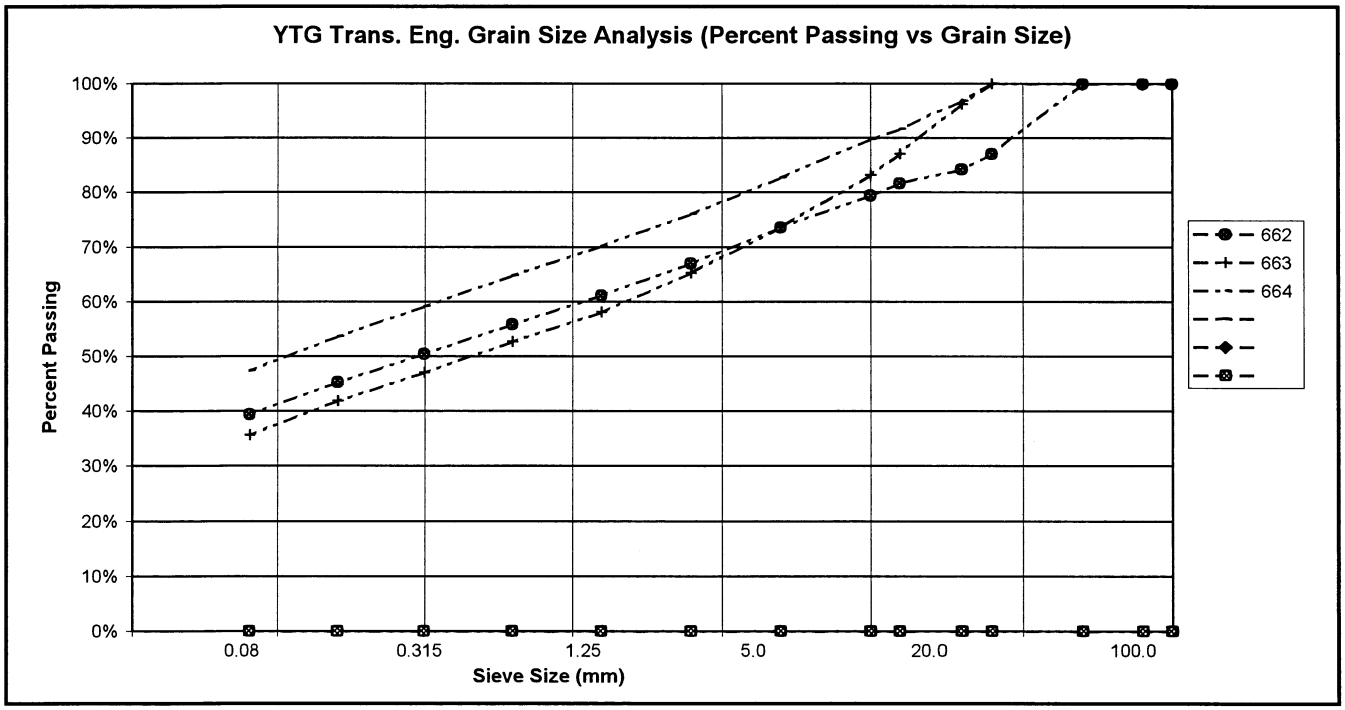
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-370
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1732+900 2M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/08

FIELD NO:	659	660	661			
LAB NO:	1406	1407	1408			
DEPTH:	1.3-1.5	3.7-3.9	5.7-6.0			
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	94%	96%	89%			
20.0	88%	91%	83%			
12.5	84%	82%	77%			
10.0	83%	78%	75%			
5.0	78%	71%	69%			
2.5	72%	65%	63%			
1.25	66%	60%	58%			
0.630	62%	55%	54%			
0.315	57%	51%	49%			
0.160	52%	46%	44%			
0.080	45%	41%	39%			
M.C.(%):	12%	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:	22	29	31			
% SAND:	32	30	29			
% FINES:	45	41	39			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)			



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-371
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1732+800 2M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/08

FIELD NO:	662	663	664			
LAB NO:	1409	1410	1411			
DEPTH:	1.4-1.6	3.6-3.8	5.7-6.0			
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	87%	100%	100%			
20.0	84%	96%	97%			
12.5	82%	87%	92%			
10.0	79%	83%	90%			
5.0	74%	74%	83%			
2.5	67%	65%	76%			
1.25	61%	58%	70%			
0.630	56%	53%	65%			
0.315	51%	47%	59%			
0.160	45%	42%	54%			
0.080	39%	36%	47%			
M.C.(%):	9%	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:	26	26	17			
% SAND:	34	38	35			
% FINES:	39	36	47			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			

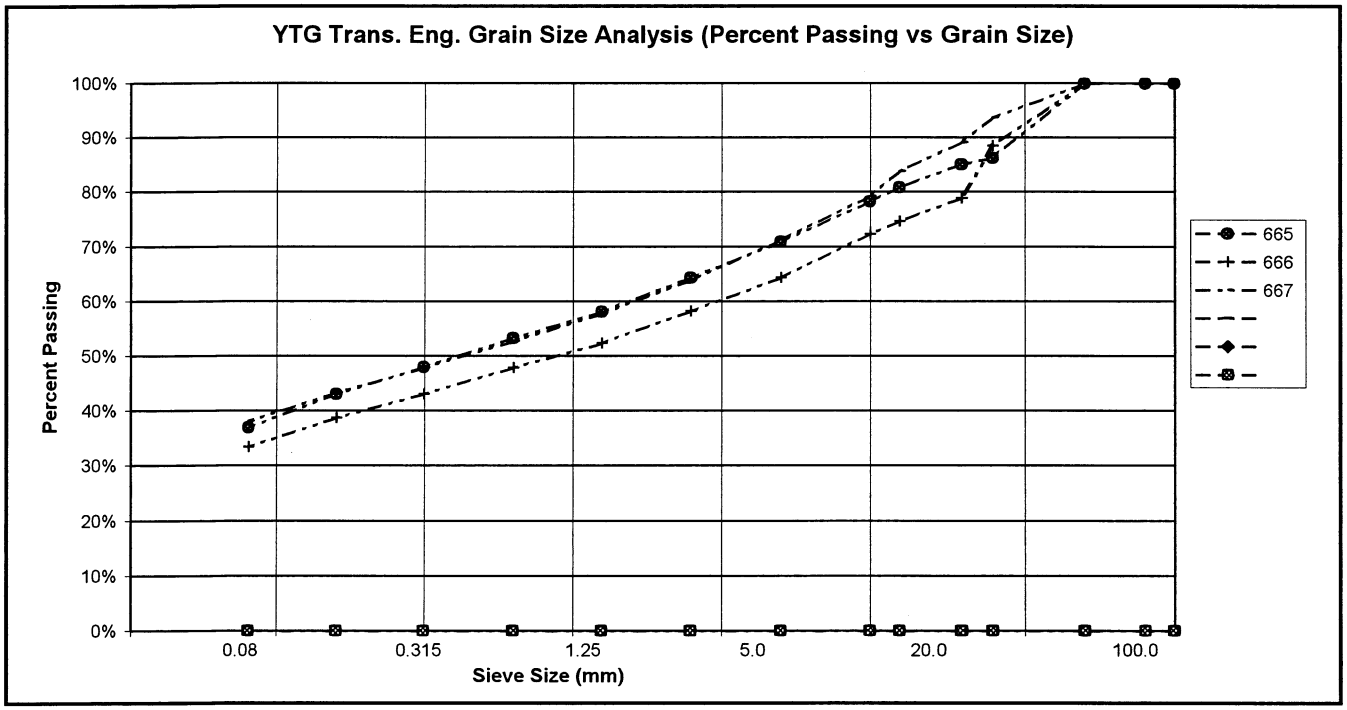


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1732+712 15M LT
LOGGED BY: B.B.

HOLE No.: 612-372

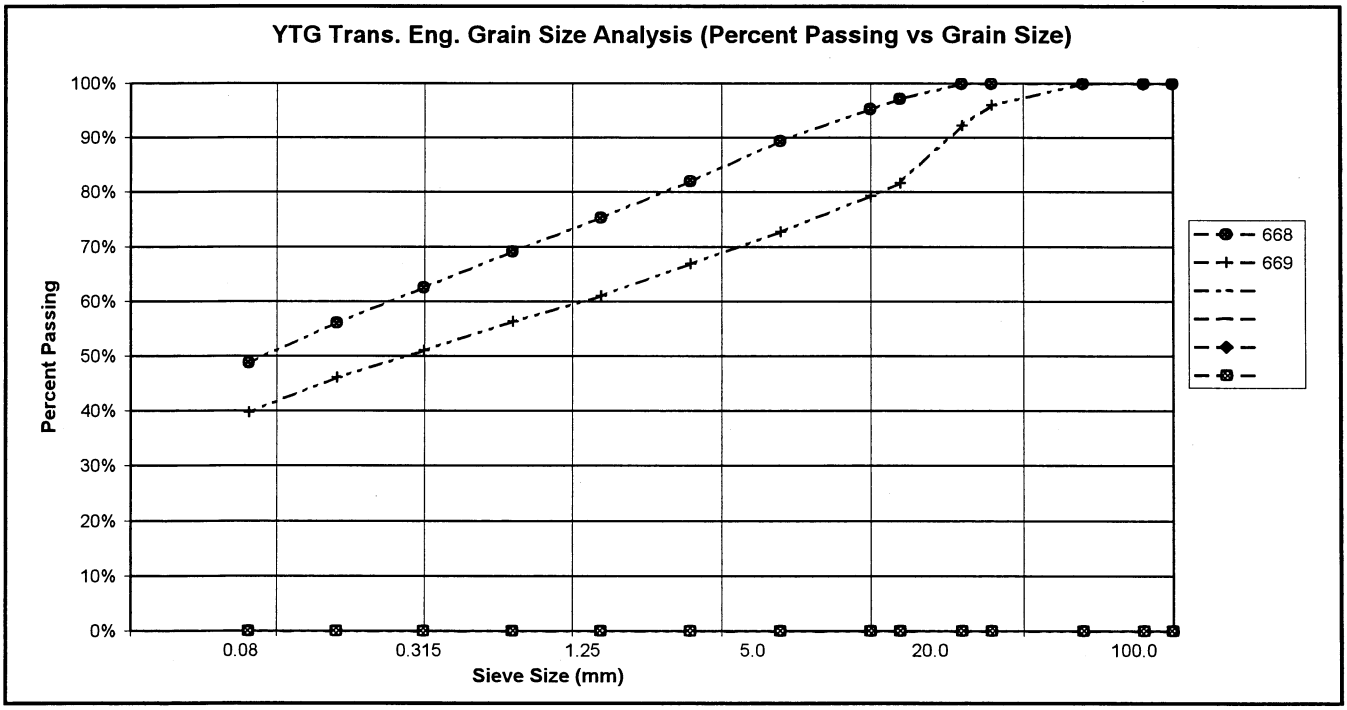
DATE COMP: 2001/08/08

FIELD NO:	665	666	667			
LAB NO:	1412	1413	1414			
DEPTH:	1.4-1.6	3.5-3.7	5.6-6.0			
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	86%	88%	94%			
20.0	85%	79%	89%			
12.5	81%	75%	84%			
10.0	78%	72%	79%			
5.0	71%	64%	71%			
2.5	64%	58%	64%			
1.25	58%	52%	58%			
0.630	53%	48%	53%			
0.315	48%	43%	48%			
0.160	43%	39%	43%			
0.080	37%	33%	38%			
M.C.(%):	8%	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:	29	36	29			
% SAND:	34	31	33			
% FINES:	37	33	38			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)			



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-373
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1732+600 2M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/08

FIELD NO:	668	669				
LAB NO:	1415	1416				
DEPTH:	1.2-1.4	3.8-4.1				
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%	96%				
20.0	100%	92%				
12.5	97%	82%				
10.0	95%	79%				
5.0	89%	73%				
2.5	82%	67%				
1.25	75%	61%				
0.630	69%	56%				
0.315	63%	51%				
0.160	56%	46%				
0.080	49%	40%				
M.C.(%):	10%	7%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	11	27				
% SAND:	41	33				
% FINES:	49	40				
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)				

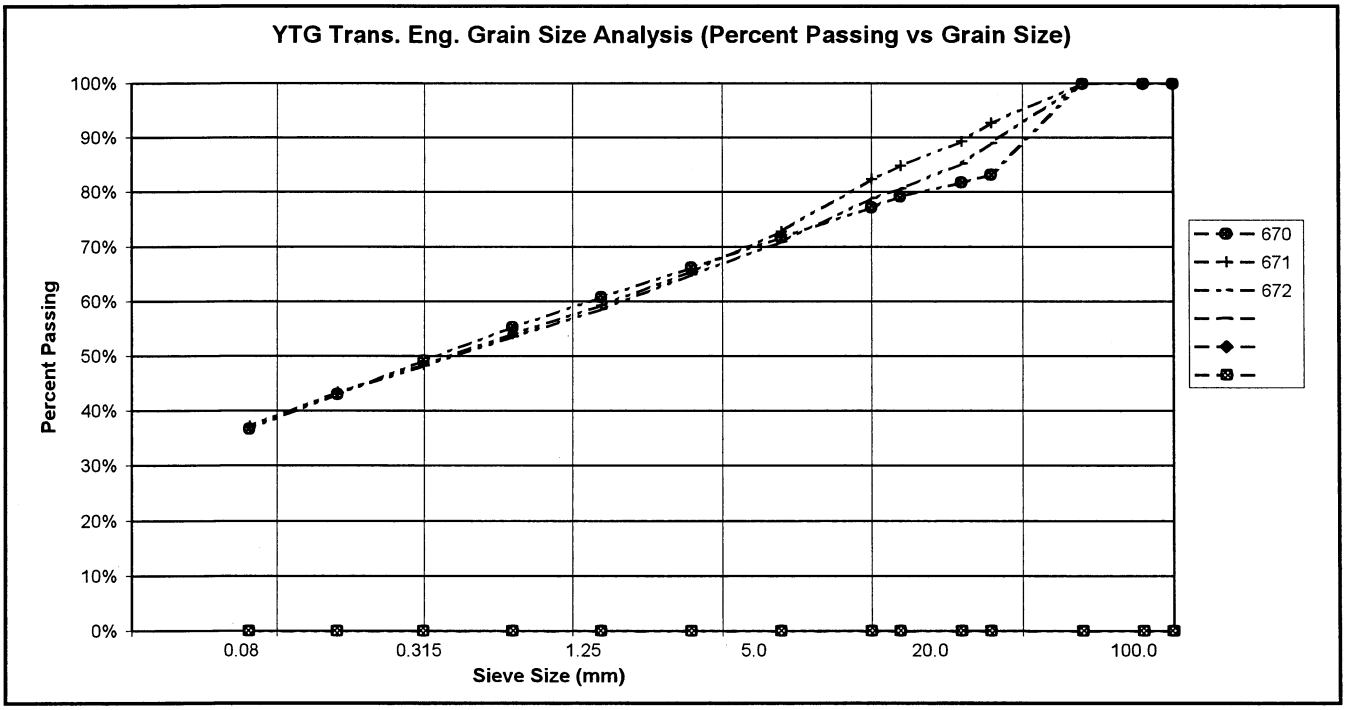


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1732+482 15M LT
LOGGED BY: B.B.

HOLE No.: 612-374

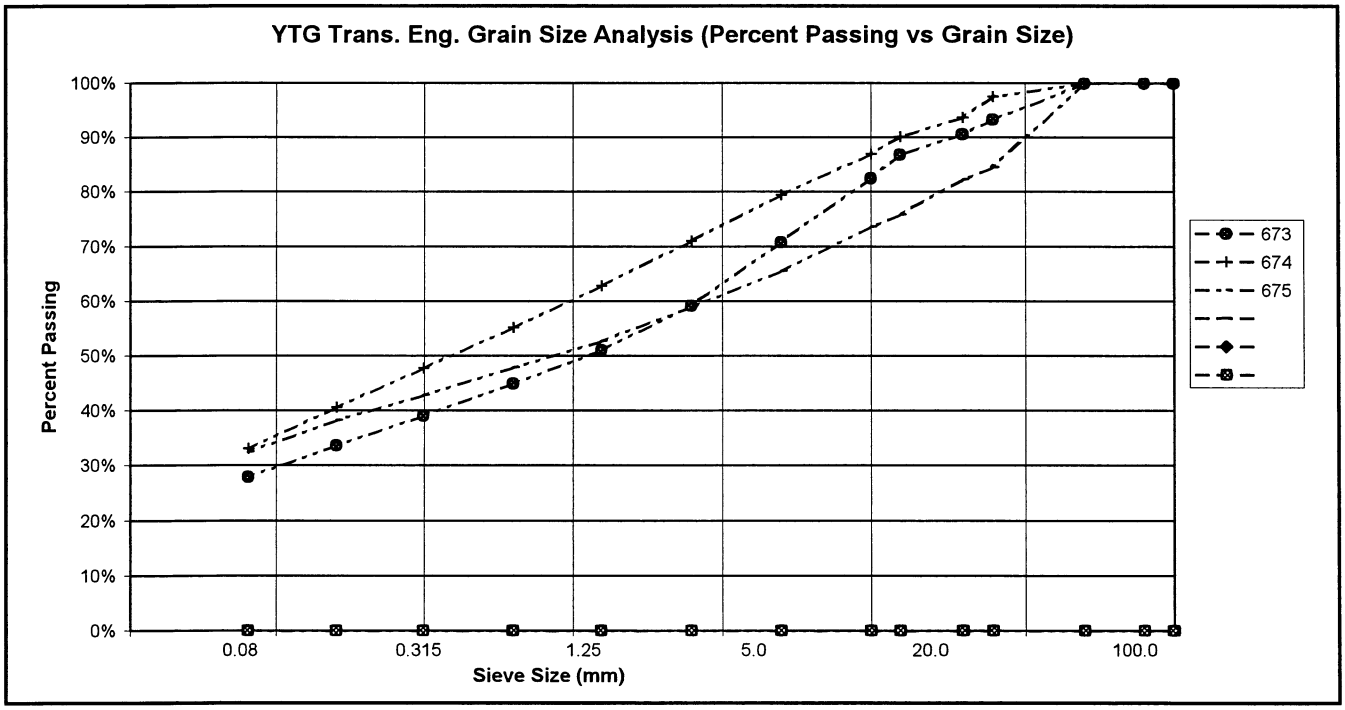
DATE COMP: 2001/08/08

FIELD NO:	670	671	672			
LAB NO:	1417	1418	1419			
DEPTH:	1.4-1.6	3.0-3.2	4.2-4.5			
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	83%	93%	89%			
20.0	82%	89%	85%			
12.5	79%	85%	81%			
10.0	77%	82%	79%			
5.0	72%	73%	71%			
2.5	66%	65%	65%			
1.25	61%	59%	59%			
0.630	55%	54%	54%			
0.315	49%	49%	48%			
0.160	43%	43%	43%			
0.080	37%	37%	37%			
M.C.(%):	9%	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:	28	27	29			
% SAND:	35	36	34			
% FINES:	37	37	37			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			



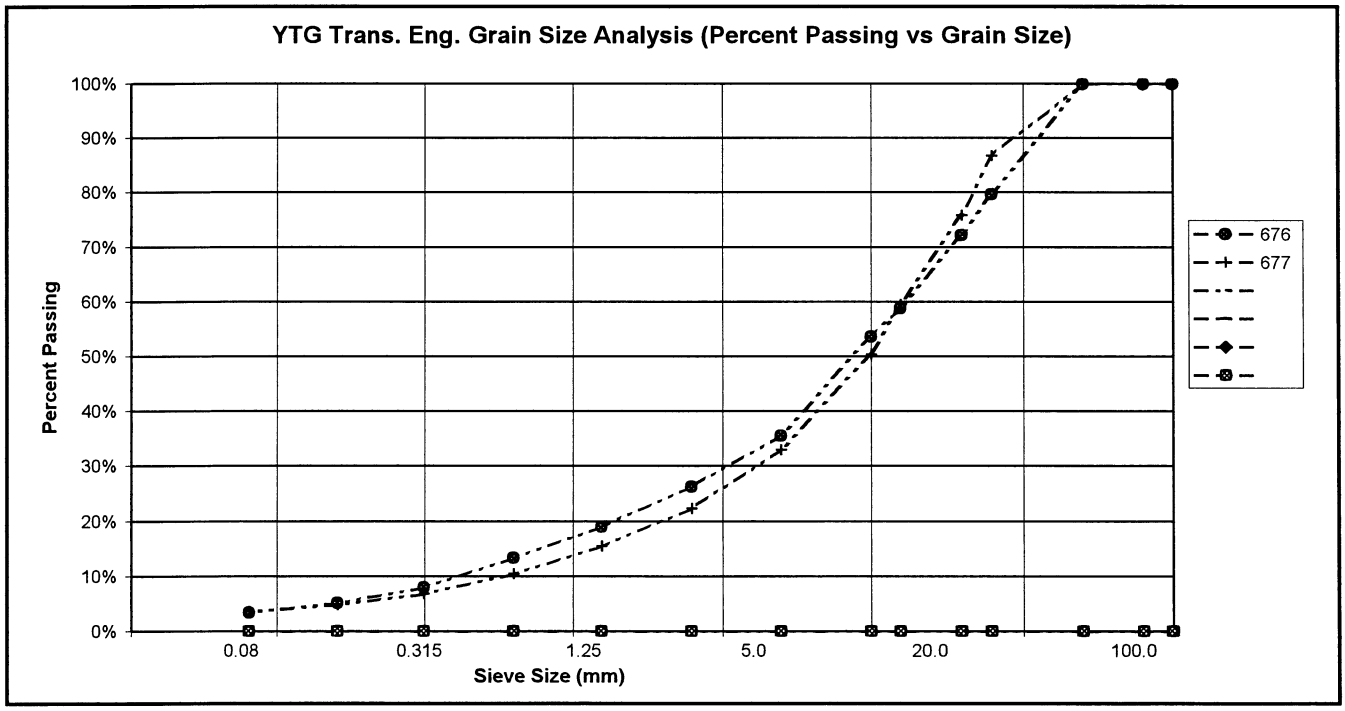
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-375
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1732+375 2M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/08

FIELD NO:	673	674	675			
LAB NO:	1420	1421	1422			
DEPTH:	1.3-1.5	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	93%	98%	84%			
20.0	91%	94%	82%			
12.5	87%	90%	76%			
10.0	83%	87%	74%			
5.0	71%	80%	66%			
2.5	59%	71%	59%			
1.25	51%	63%	53%			
0.630	45%	55%	48%			
0.315	39%	48%	43%			
0.160	34%	41%	38%			
0.080	28%	33%	32%			
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:	29	20	34			
% SAND:	43	46	33			
% FINES:	28	33	32			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)			



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-376
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1732+275 2M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/08

FIELD NO:	676	677				
LAB NO:	1423	1424				
DEPTH:	0.8-1.0	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	80%	87%				
20.0	72%	76%				
12.5	59%	60%				
10.0	54%	50%				
5.0	36%	33%				
2.5	26%	22%				
1.25	19%	16%				
0.630	13%	10%				
0.315	8%	7%				
0.160	5%	5%				
0.080	3%	4%				
M.C.(%):	3%	2%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	64	67				
% SAND:	32	29				
% FINES:	3	4				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)				

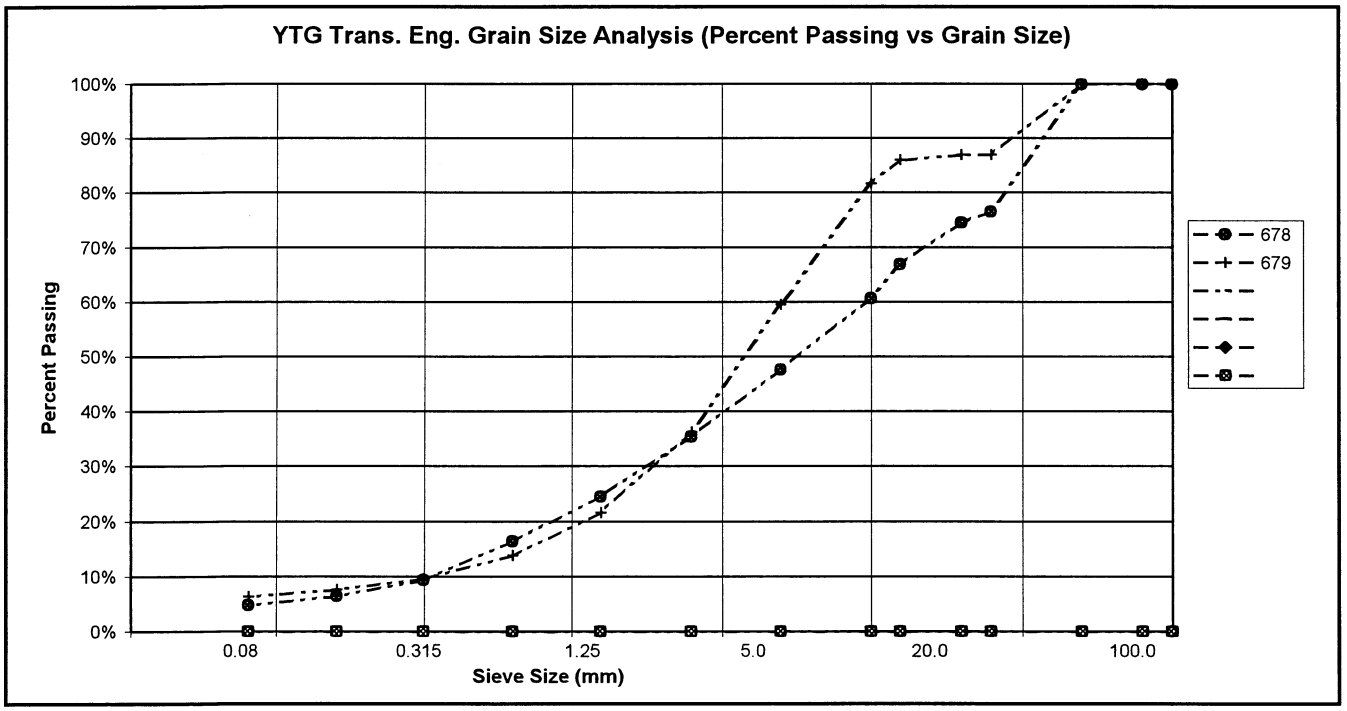


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1732+175 5M LT
LOGGED BY: B.B.

HOLE No.: 612-377

DATE COMP: 2001/08/08

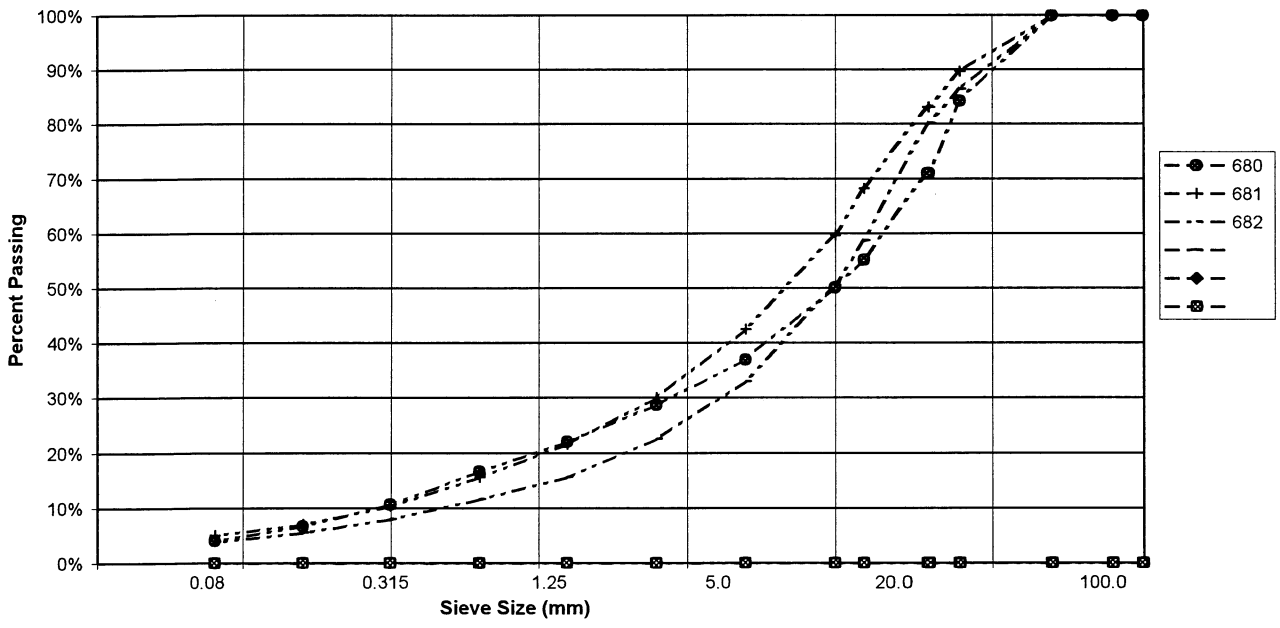
FIELD NO:	678	679				
LAB NO:	1425	1426				
DEPTH:	1.4-1.6	4.1-4.3				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	76%	87%				
20.0	74%	87%				
12.5	67%	86%				
10.0	61%	82%				
5.0	48%	60%				
2.5	35%	36%				
1.25	25%	22%				
0.630	16%	14%				
0.315	9%	10%				
0.160	6%	8%				
0.080	5%	6%				
M.C.(%):	3%	2%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	52	40				
% SAND:	43	53				
% FINES:	5	6				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)				



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 612-378
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1732+100 2M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/08/08

FIELD NO:	680	681	682			
LAB NO:	1427	1428	1429			
DEPTH:	1.2-1.4	2.9-3.1	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	84%	90%	86%			
20.0	71%	83%	80%			
12.5	55%	68%	59%			
10.0	50%	60%	51%			
5.0	37%	43%	33%			
2.5	29%	30%	23%			
1.25	22%	22%	16%			
0.630	17%	16%	12%			
0.315	11%	10%	8%			
0.160	7%	7%	6%			
0.080	4%	5%	4%			
M.C.(%):	3%	3%	2%			
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:	63	57	67			
% SAND:	33	37	29			
% FINES:	4	5	4			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)			

YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)

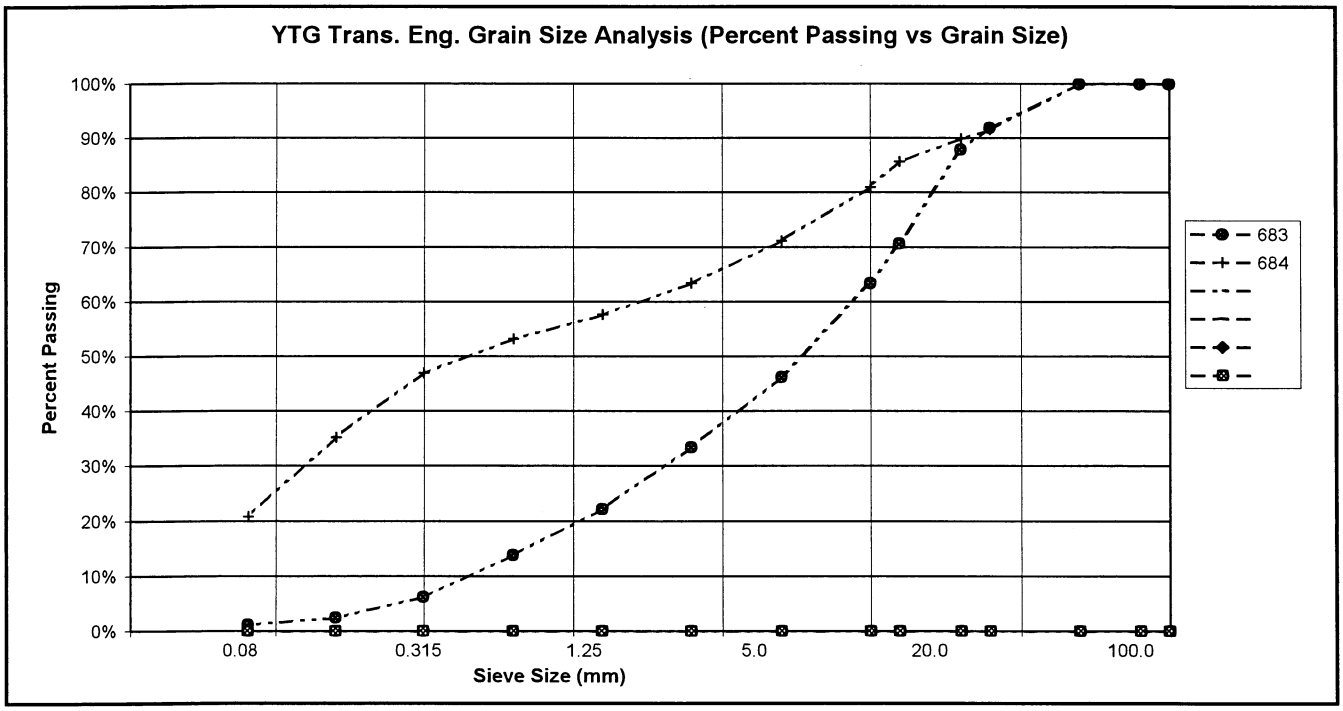


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: SEE GPS
LOGGED BY: B.B.

HOLE No.: 612-379

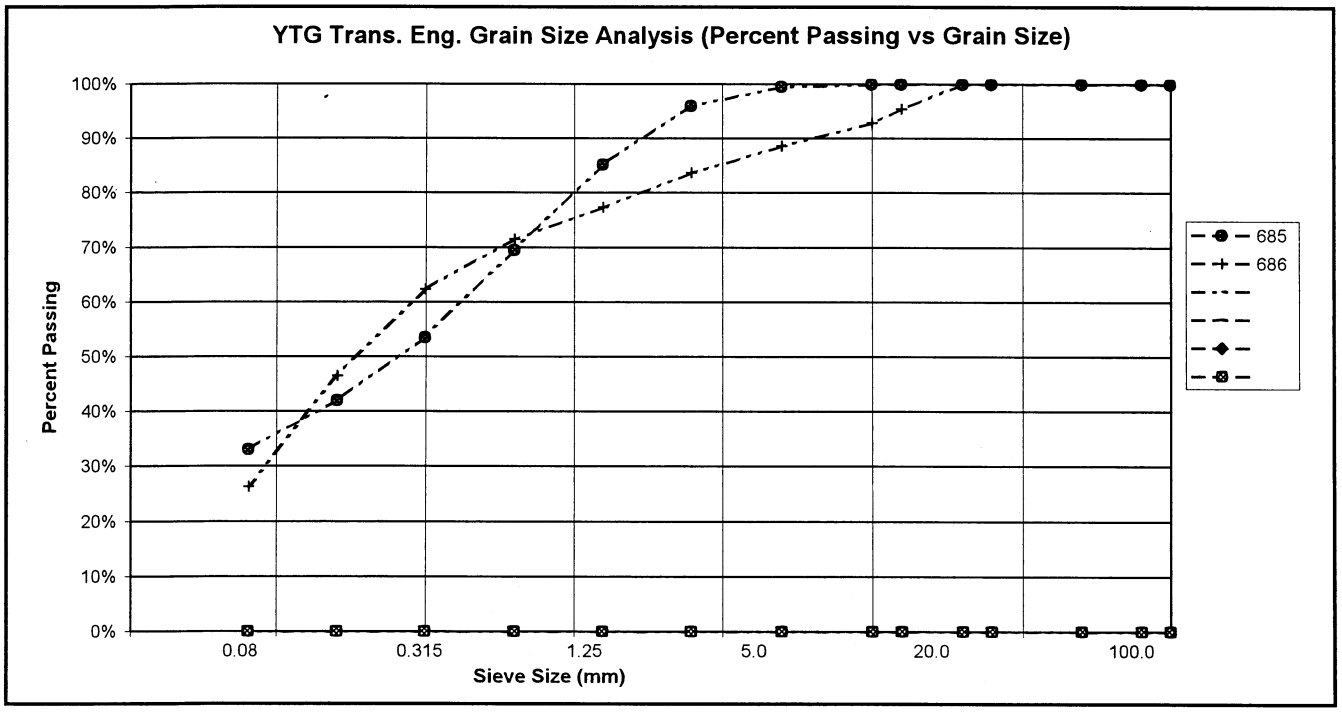
DATE COMP: 2001/08/08

FIELD NO:	683	684				
LAB NO:	1430	1431				
DEPTH:	0.6-0.8	4.2-4.5				
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%	92%				
20.0	88%	90%				
12.5	71%	86%				
10.0	63%	81%				
5.0	46%	71%				
2.5	33%	63%				
1.25	22%	58%				
0.630	14%	53%				
0.315	6%	47%				
0.160	2%	35%				
0.080	1%	21%				
M.C.(%):	8%	15%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	54	29				
% SAND:	45	50				
% FINES:	1	21				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)				



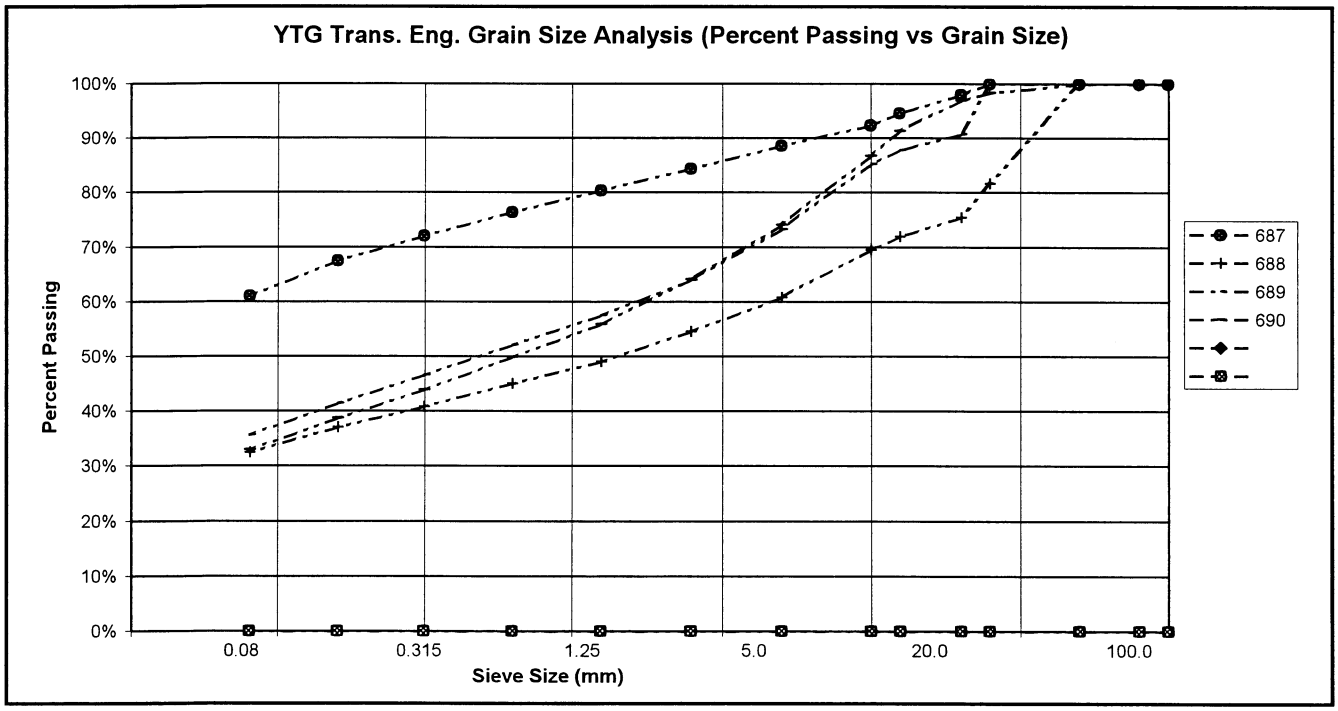
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 613-380
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1731+925 2M LT		
LOGGED BY:	G.C.		DATE COMP: 2001/08/08

FIELD NO:	685	686				
LAB NO:	1432	1433				
DEPTH:	1.3-1.5	4.2-4.5				
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	100%	95%				
10.0	100%	93%				
5.0	100%	89%				
2.5	96%	84%				
1.25	85%	77%				
0.630	69%	71%				
0.315	54%	62%				
0.160	42%	46%				
0.080	33%	26%				
M.C.(%):	16%	17%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	11				
% SAND:	66	62				
% FINES:	33	26				
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND (SM)				



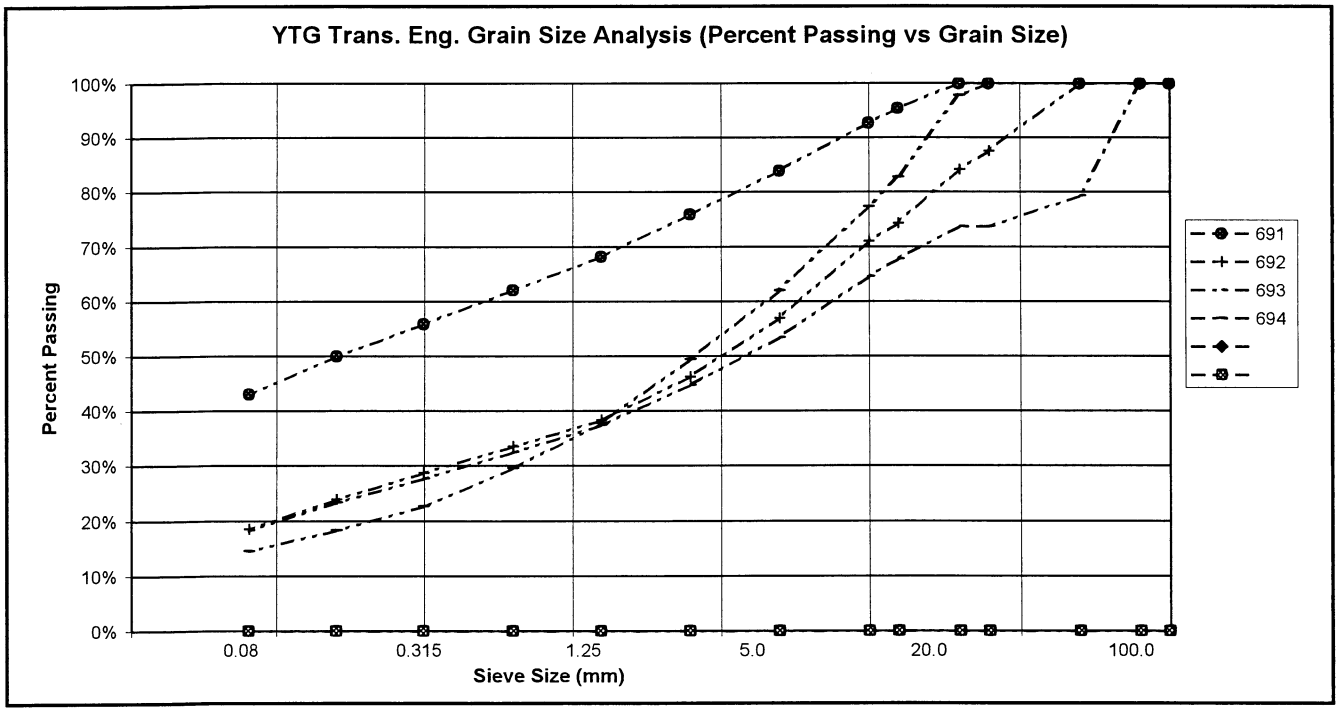
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 613-381
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1731+825 2M LT		
LOGGED BY:	G.C.		DATE COMP: 2001/08/08

FIELD NO:	687	688	689	690		
LAB NO:	1434	1435	1436	1437		
DEPTH:	1.2-1.4	2.9-3.1	5.4-5.6	7.2-7.5		
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%	82%	100%	98%		
20.0	98%	75%	91%	97%		
12.5	95%	72%	88%	91%		
10.0	92%	70%	85%	87%		
5.0	89%	61%	73%	74%		
2.5	84%	55%	64%	64%		
1.25	80%	49%	58%	56%		
0.630	76%	45%	52%	50%		
0.315	72%	41%	47%	44%		
0.160	68%	37%	41%	39%		
0.080	61%	33%	36%	33%		
M.C.(%):	11%	5%	5%	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:	11	39	27	26		
% SAND:	28	28	38	41		
% FINES:	61	33	36	33		
CLASSIFICATION	SANDY SILT (ML)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 613-382
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1731+728 2M LT		
LOGGED BY:	G.C.		DATE COMP: 2001/08/24

FIELD NO:	691	692	693	694		
LAB NO:	1466	1467	1468	1469		
DEPTH:	0.8-1.0	1.8-2.0	2.8-3.0	4.0-4.3		
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%	100%		
25.0	100%	88%	74%	100%		
20.0	100%	84%	74%	98%		
12.5	95%	74%	68%	83%		
10.0	93%	71%	65%	77%		
5.0	84%	57%	53%	62%		
2.5	76%	46%	45%	49%		
1.25	68%	38%	37%	38%		
0.630	62%	34%	32%	30%		
0.315	56%	29%	28%	23%		
0.160	50%	24%	23%	18%		
0.080	43%	19%	18%	15%		
M.C.(%):	10%	5%	5%	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:	16	43	47	38		
% SAND:	41	38	35	47		
% FINES:	43	19	18	15		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)		

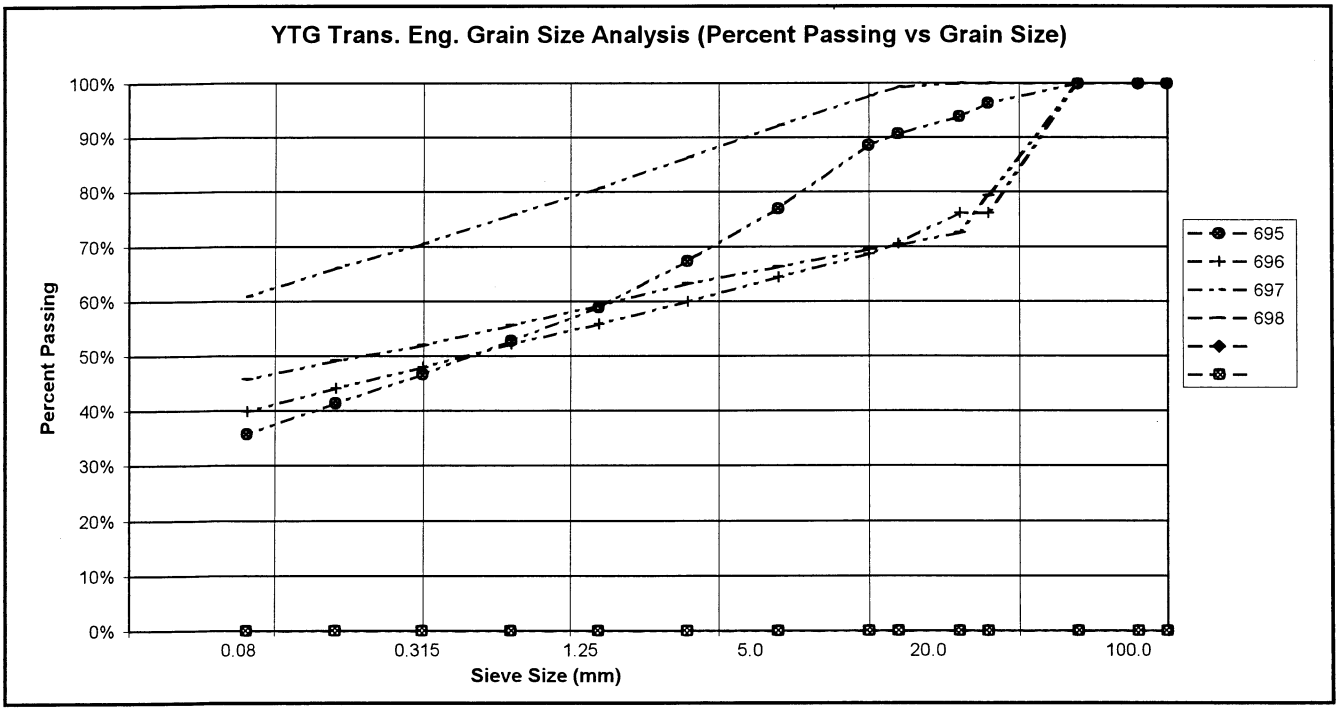


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1731+675 2m LT
LOGGED BY: G.C.

HOLE No.: 613-383

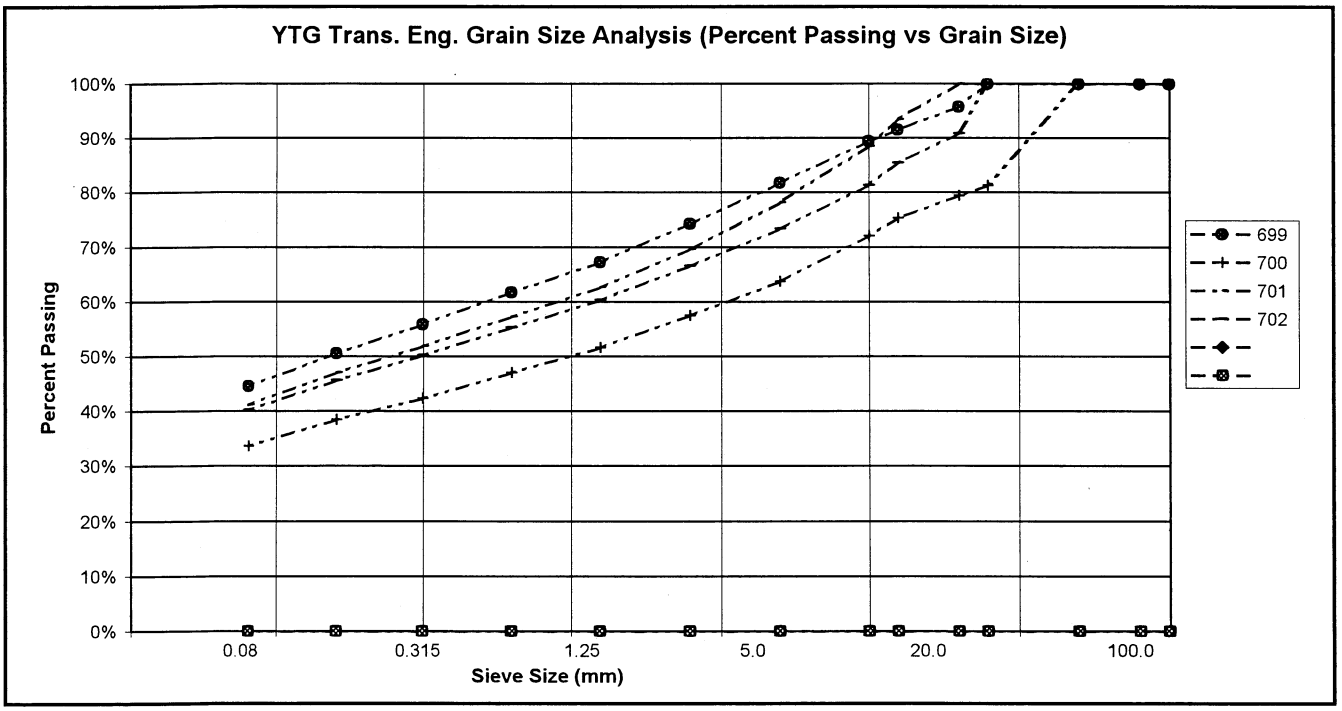
DATE COMP: 2001/08/24

FIELD NO:	695	696	697	698		
LAB NO:	1470	1471	1472	1473		
DEPTH:	0.8-1.0	1.8-2.0	2.8-3.0	4.0-4.3		
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%	76%	100%	79%		
20.0	94%	76%	100%	73%		
12.5	91%	71%	99%	70%		
10.0	89%	69%	98%	70%		
5.0	77%	64%	92%	66%		
2.5	67%	60%	86%	63%		
1.25	59%	56%	81%	59%		
0.630	53%	52%	76%	56%		
0.315	47%	48%	70%	52%		
0.160	41%	44%	66%	49%		
0.080	36%	40%	61%	46%		
M.C.(%):	8%	7%	8%	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:	23	36	8	34		
% SAND:	41	25	31	21		
% FINES:	36	40	61	46		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)	SANDY SILT (ML)	SILTY GRAVEL WITH SAND (GM)		



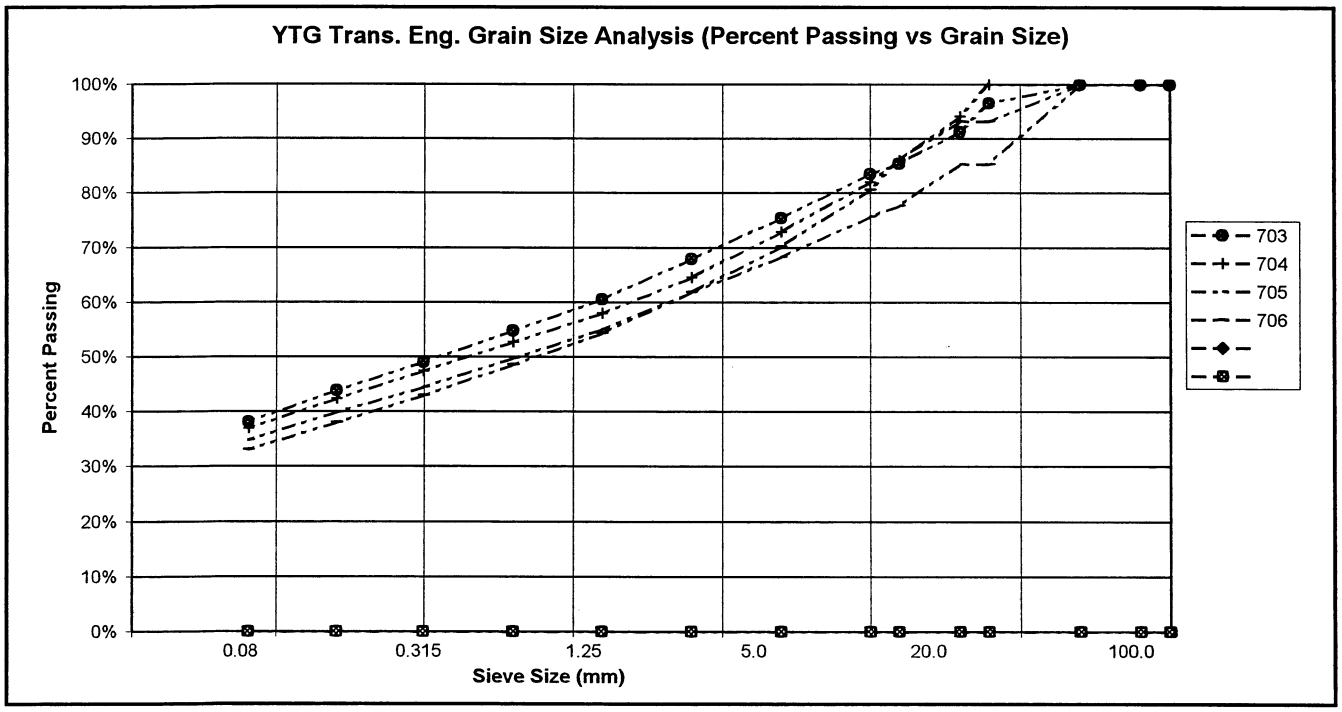
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 613-384
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1731+632 15M LT		
LOGGED BY:	G.C.		DATE COMP: 2001/08/24

FIELD NO:	699	700	701	702		
LAB NO:	1474	1475	1476	1477		
DEPTH:	0.8-1.0	1.8-2.0	2.8-3.0	4.0-4.3		
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%	81%	100%	100%		
20.0	96%	80%	100%	91%		
12.5	92%	75%	93%	85%		
10.0	89%	72%	88%	81%		
5.0	82%	64%	78%	73%		
2.5	74%	57%	70%	67%		
1.25	67%	52%	63%	60%		
0.630	62%	47%	57%	55%		
0.315	56%	42%	52%	50%		
0.160	51%	39%	47%	46%		
0.080	45%	34%	41%	40%		
M.C.(%):	9%	6%	7%	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:	18	36	22	27		
% SAND:	37	30	37	33		
% FINES:	45	34	41	40		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		



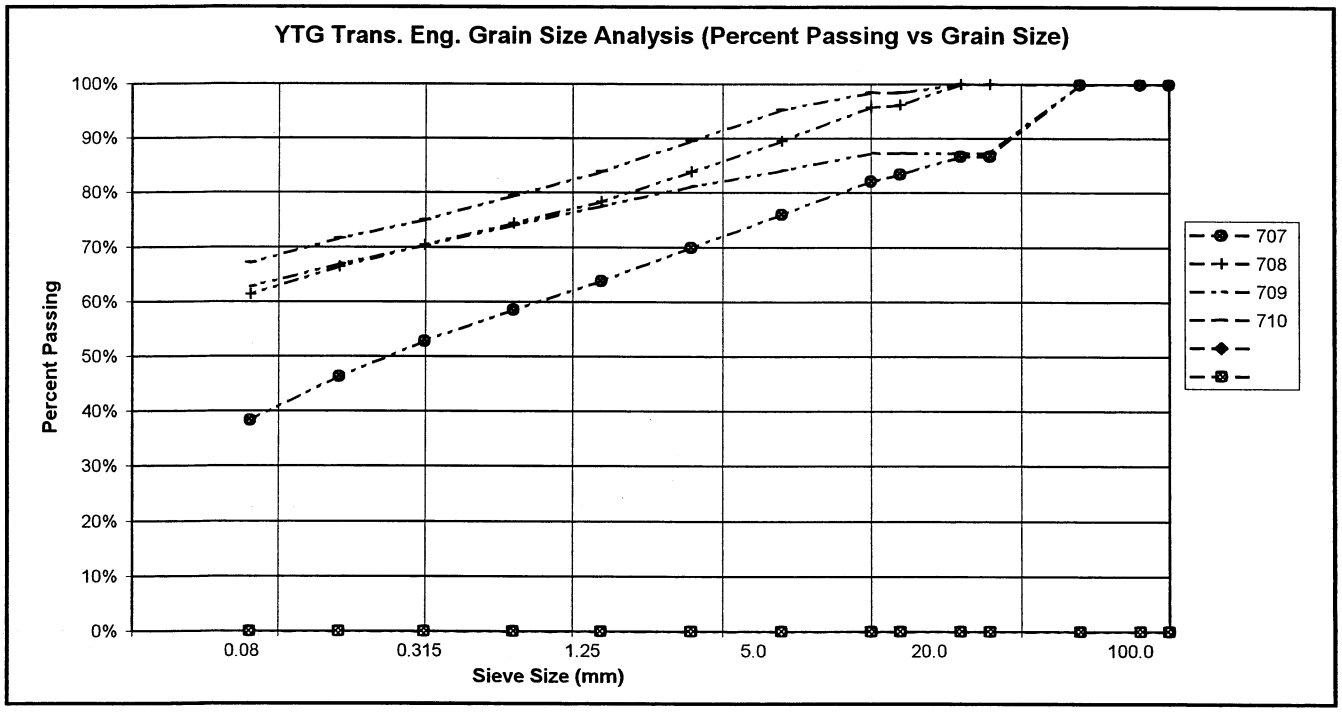
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-385
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/27

FIELD NO:	703	704	705	706		
LAB NO:	1478	1479	1480	1481		
DEPTH:	0.8-1.0	1.8-2.0	2.8-3.0	4.0-4.3		
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%	100%	85%	93%		
20.0	91%	94%	85%	93%		
12.5	85%	86%	78%	86%		
10.0	84%	82%	76%	81%		
5.0	75%	73%	68%	70%		
2.5	68%	65%	62%	62%		
1.25	61%	58%	55%	54%		
0.630	55%	53%	50%	49%		
0.315	49%	47%	45%	43%		
0.160	44%	42%	40%	38%		
0.080	38%	37%	35%	33%		
M.C.(%):	7%	5%	5%	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:	25	27	32	30		
% SAND:	37	36	33	37		
% FINES:	38	37	35	33		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		



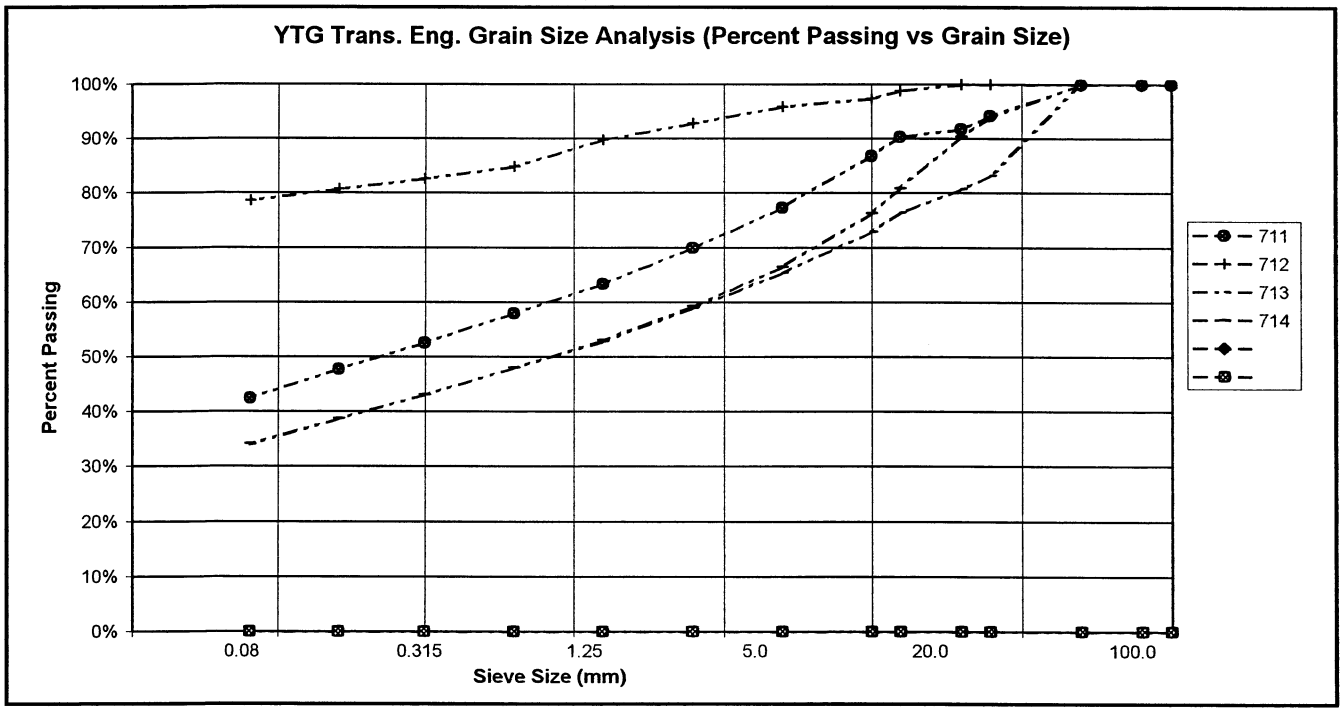
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-386
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/27

FIELD NO:	707	708	709	710		
LAB NO:	1482	1483	1484	1485		
DEPTH:	0.8-1.0	1.8-2.0	2.8-3.0	4.0-4.3		
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	87%	100%	87%	100%		
20.0	87%	100%	87%	100%		
12.5	83%	96%	87%	98%		
10.0	82%	96%	87%	98%		
5.0	76%	90%	84%	95%		
2.5	70%	84%	81%	90%		
1.25	64%	78%	78%	84%		
0.630	59%	74%	74%	79%		
0.315	53%	70%	70%	75%		
0.160	46%	66%	67%	72%		
0.080	38%	61%	63%	67%		
M.C.(%):	9%	10%	10%	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:	24	10	16	5		
% SAND:	38	28	21	28		
% FINES:	38	61	63	67		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)	SANDY SILT WITH GRAVEL (ML)	SANDY SILT (ML)		



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-387
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/27

FIELD NO:	711	712	713	714		
LAB NO:	1486	1487	1488	1489		
DEPTH:	0.8-1.0	1.8-2.0	2.8-3.0	4.0-4.3		
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	94%	100%	83%	94%		
20.0	92%	100%	81%	90%		
12.5	90%	99%	76%	81%		
10.0	87%	97%	73%	76%		
5.0	77%	96%	65%	66%		
2.5	70%	93%	59%	59%		
1.25	63%	90%	53%	53%		
0.630	58%	85%	48%	48%		
0.315	53%	83%	43%	43%		
0.160	48%	81%	39%	39%		
0.080	43%	79%	34%	34%		
M.C.(%):	10%	9%	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:	23	4	35	34		
% SAND:	35	17	31	32		
% FINES:	43	79	34	34		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILT WITH SAND (ML)	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)		

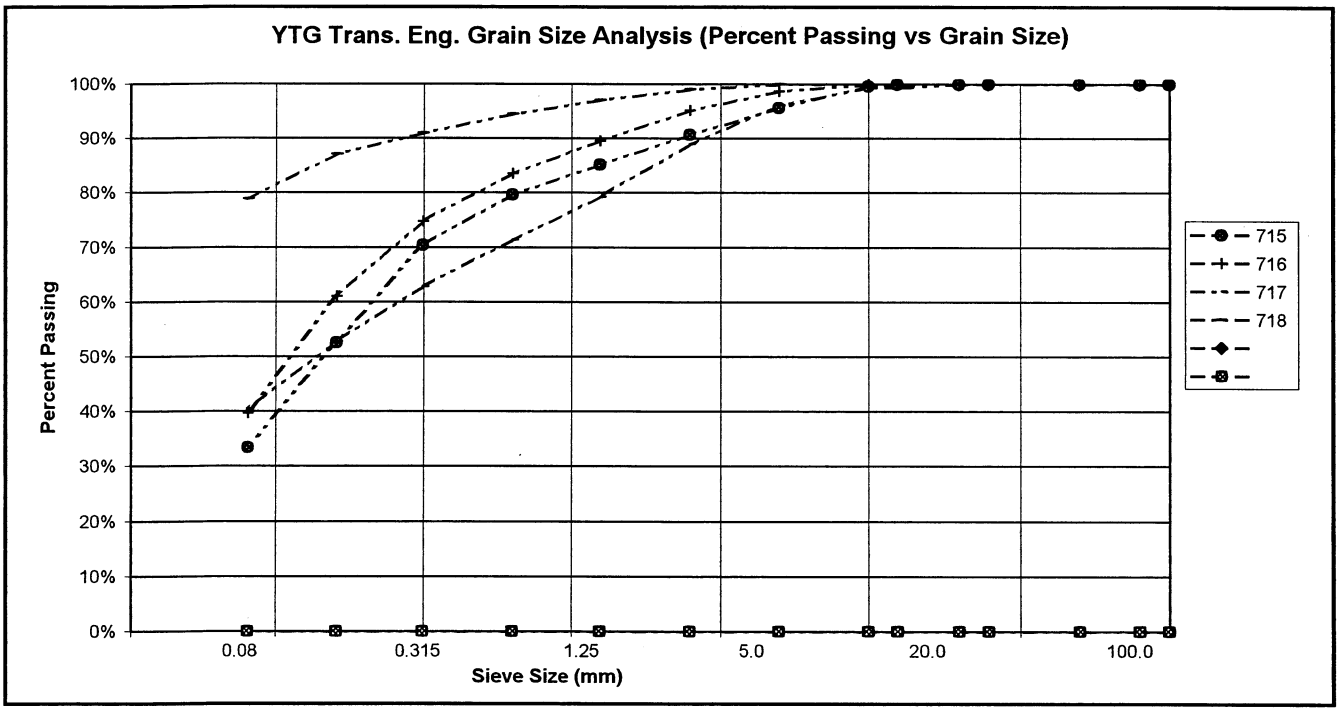


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 615-388

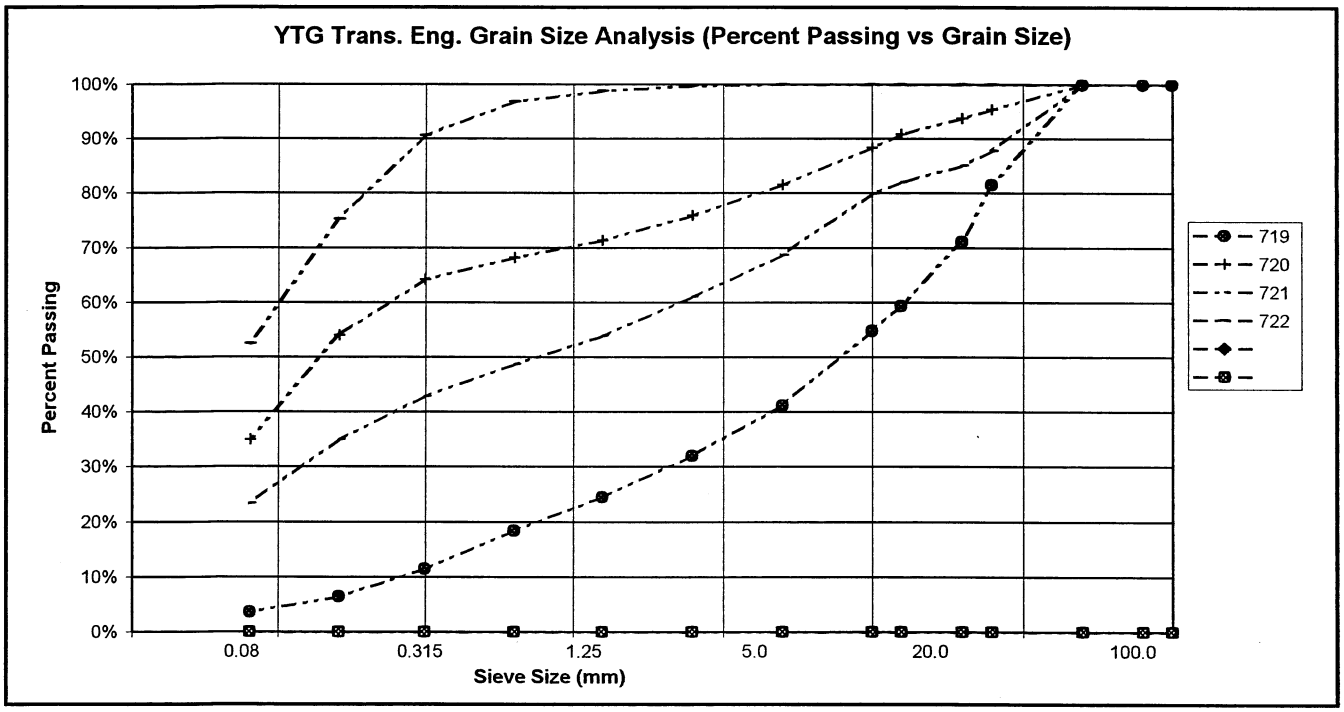
DATE COMP: 2001/08/27

FIELD NO:	715	716	717	718		
LAB NO:	1490	1491	1492	1493		
DEPTH:	0.8-1.0	1.8-2.0	2.8-3.0	4.0-4.3		
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%	99%	100%		
10.0	100%	100%	99%	100%		
5.0	96%	99%	96%	100%		
2.5	91%	95%	89%	99%		
1.25	85%	90%	79%	97%		
0.630	80%	84%	71%	95%		
0.315	70%	75%	63%	91%		
0.160	53%	61%	53%	87%		
0.080	33%	40%	40%	79%		
M.C.(%):	12%	4%	7%	23%		
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	1	4	0		
% SAND:	62	59	56	21		
% FINES:	33	40	40	79		
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND (SM)	SILTY SAND (SM)	SILT WITH SAND (ML)		



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-389
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/27

FIELD NO:	719	720	721	722		
LAB NO:	1494	1495	1496	1497		
DEPTH:	0.8-1.0	1.6-2.0	2.8-3.0	4.0-4.3		
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%	95%	88%	100%		
20.0	71%	94%	85%	100%		
12.5	59%	91%	82%	100%		
10.0	55%	88%	80%	100%		
5.0	41%	82%	69%	100%		
2.5	32%	76%	61%	100%		
1.25	24%	71%	54%	99%		
0.630	18%	68%	49%	97%		
0.315	11%	64%	43%	91%		
0.160	6%	54%	35%	75%		
0.080	4%	35%	23%	52%		
M.C.(%):	3%	5%	5%	15%		
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	18	31	0		
% SAND:	38	47	45	48		
% FINES:	4	35	23	52		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)		

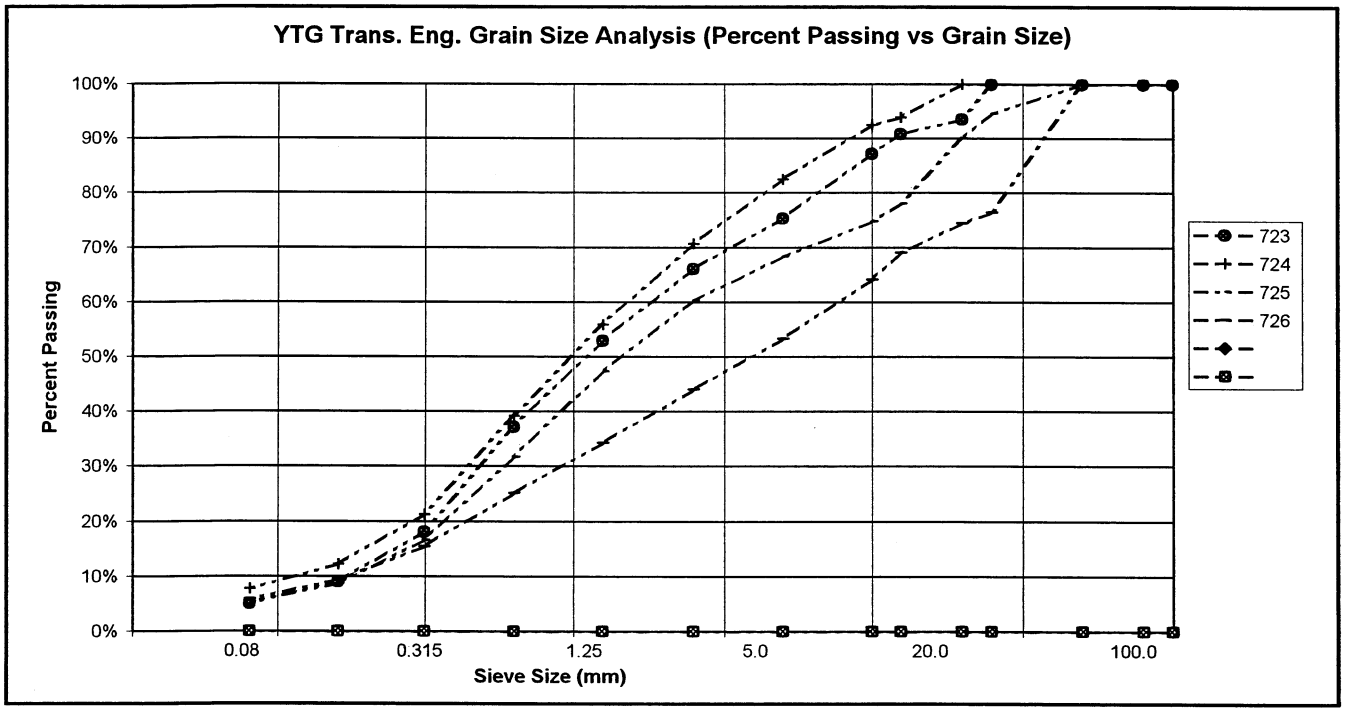


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 615-390

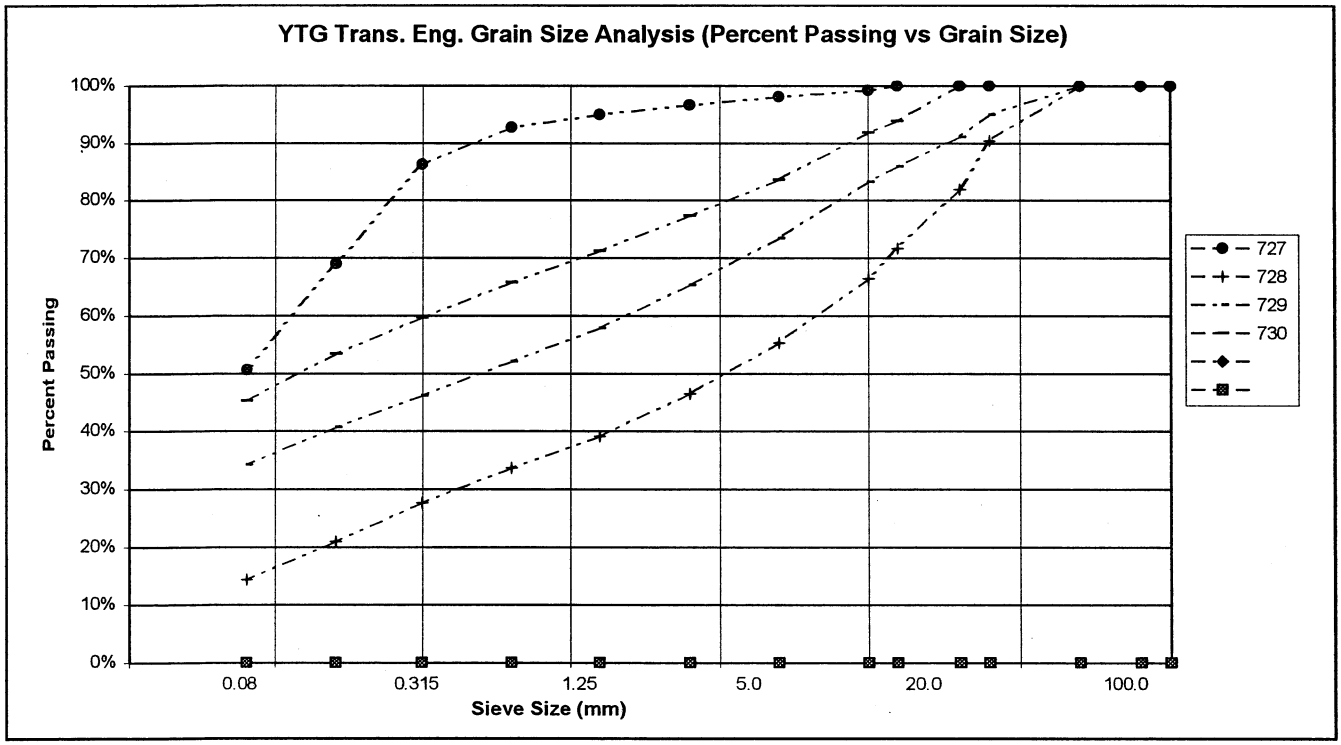
DATE COMP: 2001/08/27

FIELD NO:	723	724	725	726		
LAB NO:	1498	1499	1500	1501		
DEPTH:	0.8-1.0	1.8-2.0	2.8-3.0	4.0-4.3		
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%	76%		
20.0	94%	100%	90%	74%		
12.5	91%	94%	78%	69%		
10.0	87%	93%	75%	64%		
5.0	75%	83%	68%	53%		
2.5	66%	71%	60%	44%		
1.25	53%	56%	47%	34%		
0.630	37%	39%	32%	25%		
0.315	18%	21%	17%	15%		
0.160	9%	12%	9%	9%		
0.080	5%	8%	5%	6%		
M.C.(%):	4%	4%	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:	25	17	32	47		
% SAND:	70	75	63	47		
% FINES:	5	8	5	6		
CLASSIFICATION	POORLY GRADED SAND WITH SILT & GRAVEL (SP-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		HOLE No.: 615-391
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/27

FIELD NO:	727	728	729	730		
LAB NO:	1502	1503	1504	1505		
DEPTH:	0.8-1.0	1.8-2.0	2.8-3.2	4.0-4.3		
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%	90%	95%	100%		
20.0	100%	82%	91%	100%		
12.5	100%	72%	86%	94%		
10.0	99%	66%	83%	92%		
5.0	98%	55%	73%	84%		
2.5	97%	47%	65%	77%		
1.25	95%	39%	58%	71%		
0.630	93%	34%	52%	66%		
0.315	86%	28%	46%	60%		
0.160	69%	21%	41%	53%		
0.080	51%	14%	34%	45%		
M.C.(%):	19%	7%	8%	10%		
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:	2	45	27	16		
% SAND:	47	41	39	38		
% FINES:	51	14	34	45		
CLASSIFICATION	SANDY SILT (ML)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		

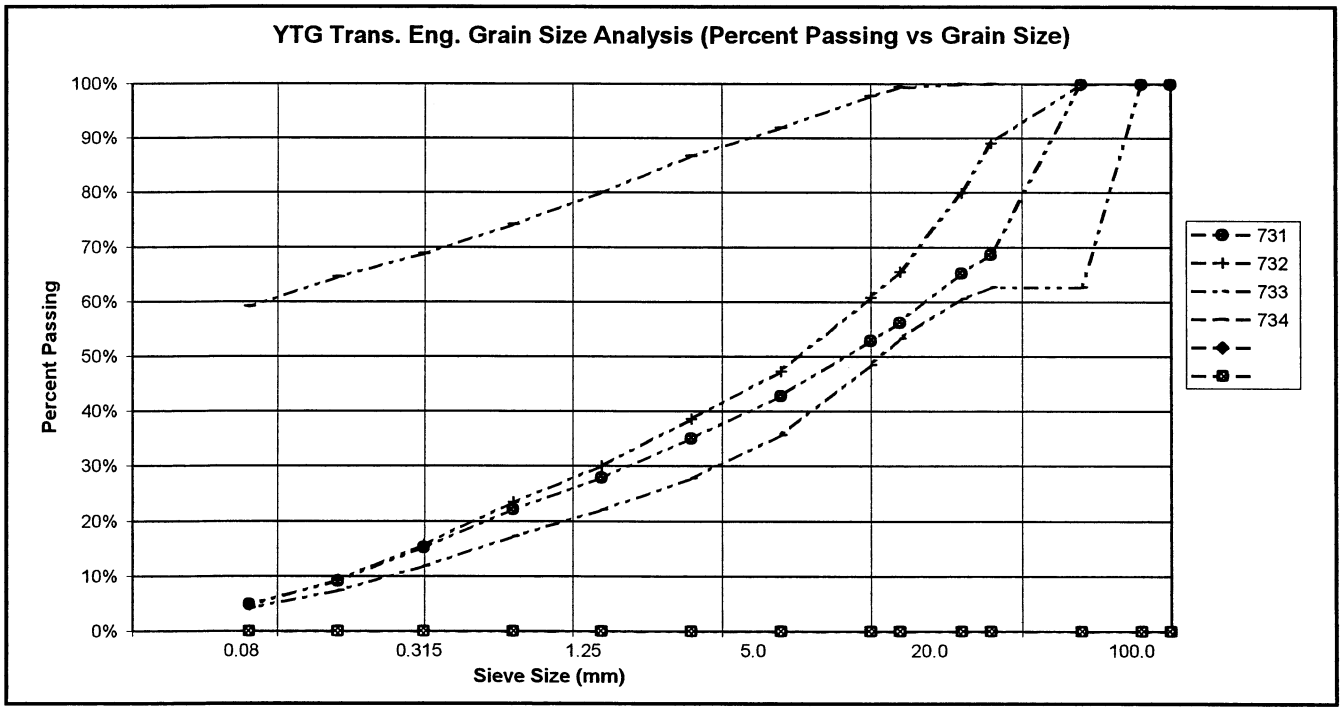


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 615-392

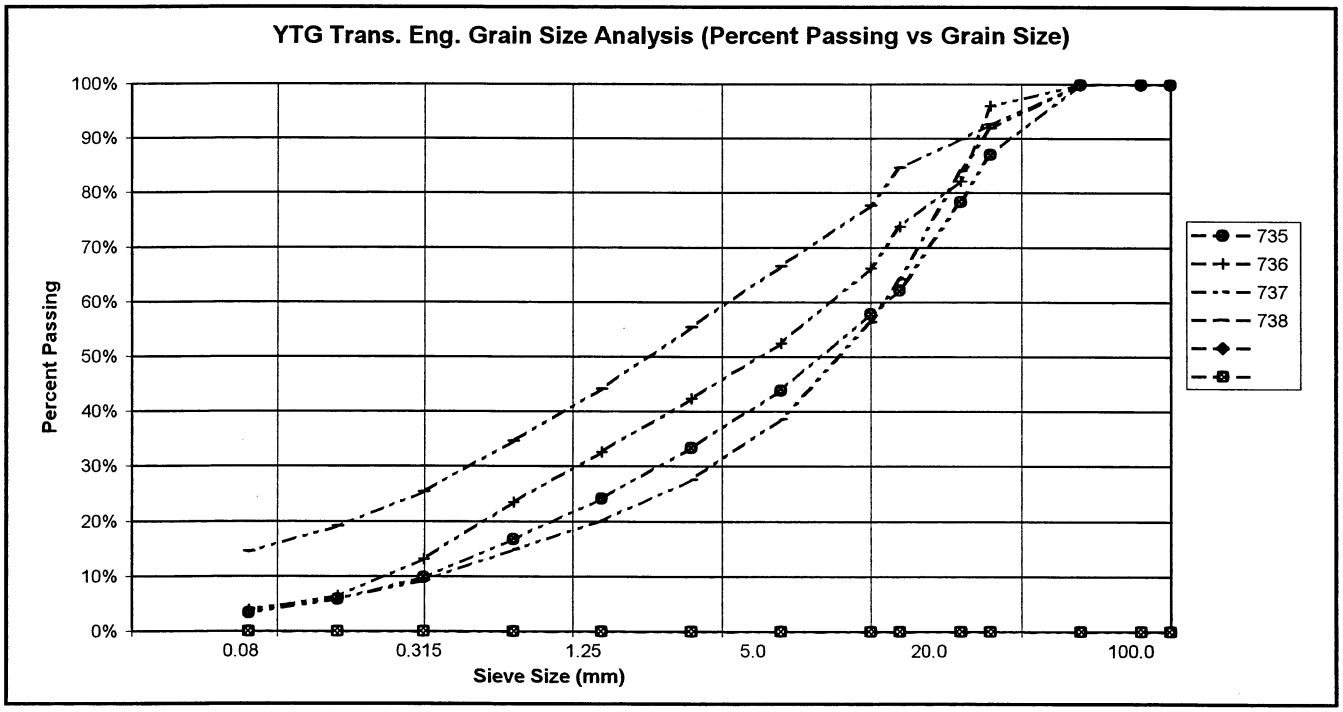
DATE COMP: 2001/08/27

FIELD NO:	731	732	733	734		
LAB NO:	1506	1507	1508	1509		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.2		
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%	63%	100%		
25.0	69%	89%	63%	100%		
20.0	65%	80%	61%	100%		
12.5	56%	66%	53%	99%		
10.0	53%	61%	48%	98%		
5.0	43%	47%	36%	92%		
2.5	35%	39%	28%	87%		
1.25	28%	30%	22%	80%		
0.630	22%	23%	17%	74%		
0.315	15%	16%	12%	69%		
0.160	9%	9%	7%	65%		
0.080	5%	5%	4%	59%		
M.C.(%):	3%	4%	3%	17%		
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:	57	53	64	8		
% SAND:	38	43	31	33		
% FINES:	5	5	4	59		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	SANDY SILT (ML)		



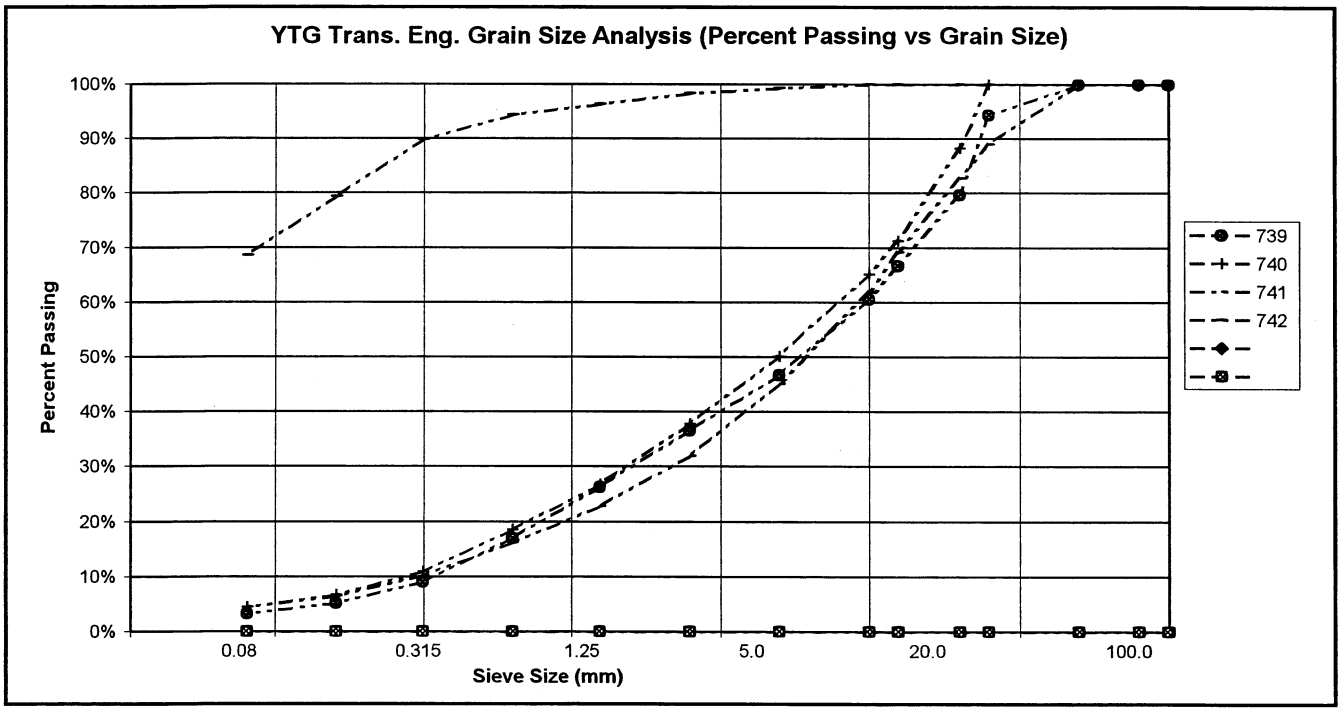
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-393
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/27

FIELD NO:	735	736	737	738		
LAB NO:	1510	1511	1512	1513		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	4.0-4.3		
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	87%	96%	92%	93%		
20.0	78%	82%	84%	90%		
12.5	62%	74%	64%	85%		
10.0	58%	66%	56%	78%		
5.0	44%	52%	39%	67%		
2.5	33%	42%	28%	55%		
1.25	24%	33%	20%	44%		
0.630	17%	23%	15%	35%		
0.315	10%	13%	9%	25%		
0.160	6%	6%	6%	19%		
0.080	3%	4%	4%	15%		
M.C.(%):	3%	4%	3%	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:	56	48	61	33		
% SAND:	40	49	34	52		
% FINES:	3	4	4	15		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED SAND WITH GRAVEL (SW)	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)		



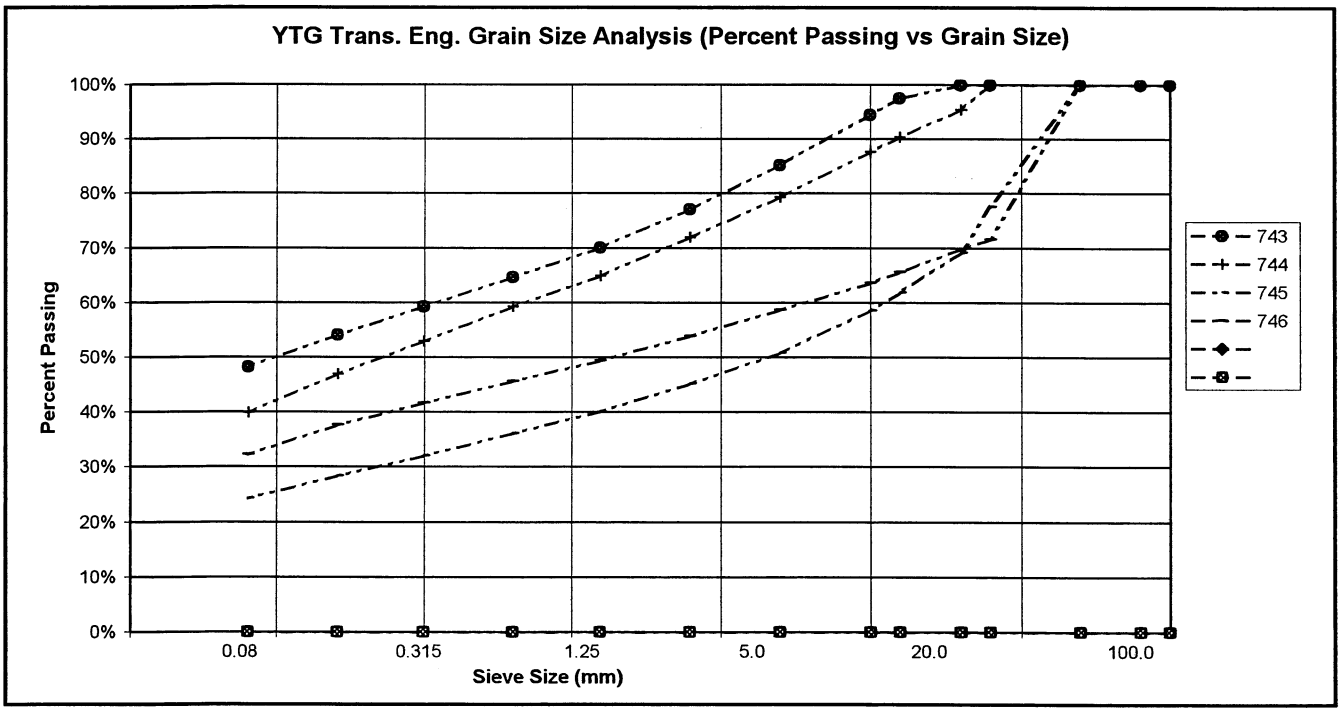
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-394
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/27

FIELD NO:	739	740	741	742		
LAB NO:	1514	1515	1516	1517		
DEPTH:	0.75-1.0	1.6-2.0	2.6-3.0	4.0-4.3		
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	94%	100%	89%	100%		
20.0	80%	88%	83%	100%		
12.5	67%	71%	69%	100%		
10.0	61%	65%	62%	100%		
5.0	47%	50%	45%	99%		
2.5	37%	38%	32%	98%		
1.25	26%	27%	23%	96%		
0.630	17%	19%	16%	94%		
0.315	9%	11%	10%	90%		
0.160	5%	7%	7%	79%		
0.080	3%	4%	5%	69%		
M.C.(%):	3%	3%	3%	30%		
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:	53	50	55	1		
% SAND:	43	46	41	31		
% FINES:	3	4	5	69		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	SANDY SILT (ML)		



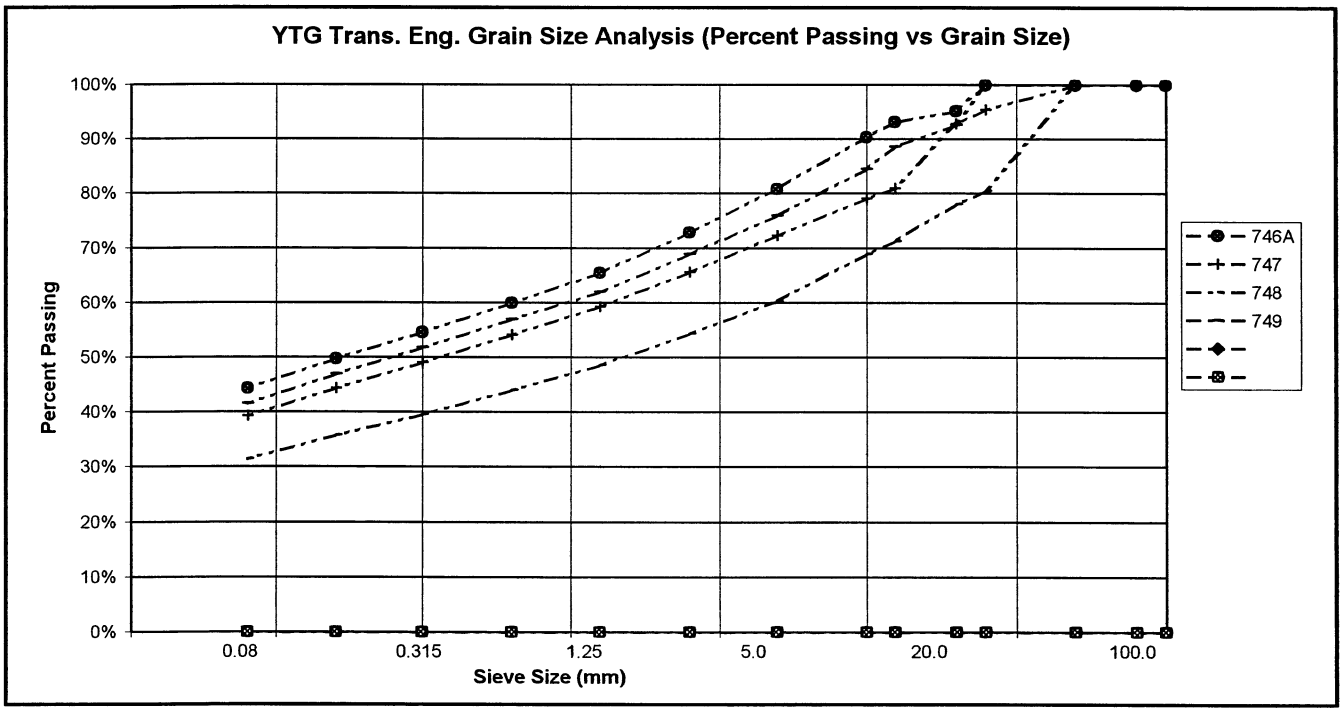
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-395
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/27

FIELD NO:	743	744	745	746		
LAB NO:	1518	1519	1520	1521		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	4.0-4.3		
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%	78%	72%		
20.0	100%	95%	69%	70%		
12.5	98%	90%	62%	66%		
10.0	94%	88%	59%	64%		
5.0	85%	79%	51%	59%		
2.5	77%	72%	45%	54%		
1.25	70%	65%	40%	49%		
0.630	65%	59%	36%	46%		
0.315	59%	53%	32%	42%		
0.160	54%	47%	28%	38%		
0.080	48%	40%	24%	32%		
M.C.(%):	10%	6%	4%	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:	15	21	49	41		
% SAND:	37	40	27	26		
% FINES:	48	40	24	32		
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)		



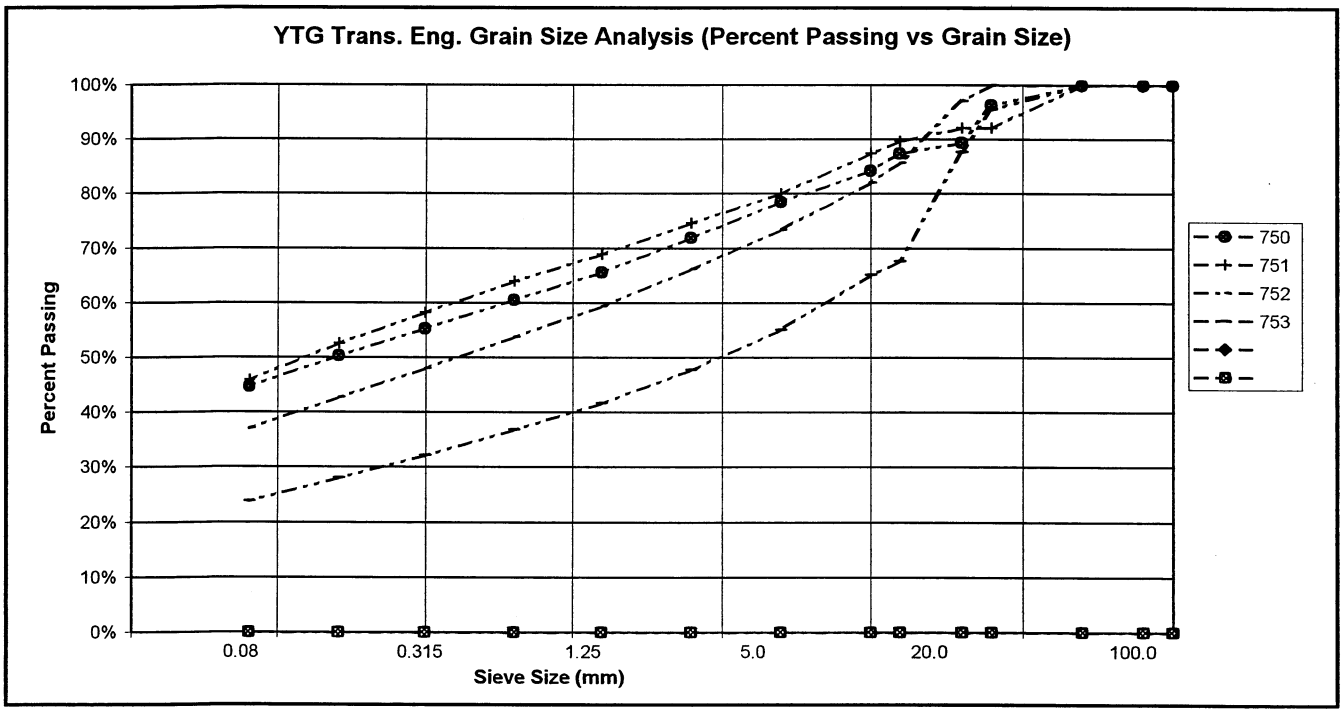
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-396
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/27

FIELD NO:	746A	747	748	749		
LAB NO:	1522	1523	1524	1525		
DEPTH:	0.8-1.0	1.6-2.0	2.6-3.0	4.0-4.3		
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%	95%	81%	100%		
20.0	95%	93%	78%	93%		
12.5	93%	81%	71%	89%		
10.0	90%	79%	69%	85%		
5.0	81%	72%	60%	76%		
2.5	73%	66%	54%	69%		
1.25	66%	59%	49%	62%		
0.630	60%	54%	44%	57%		
0.315	55%	49%	40%	52%		
0.160	50%	44%	36%	47%		
0.080	44%	39%	31%	41%		
M.C.(%):	11%	6%	5%	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:	19	28	40	24		
% SAND:	36	33	29	34		
% FINES:	44	39	31	41		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)		



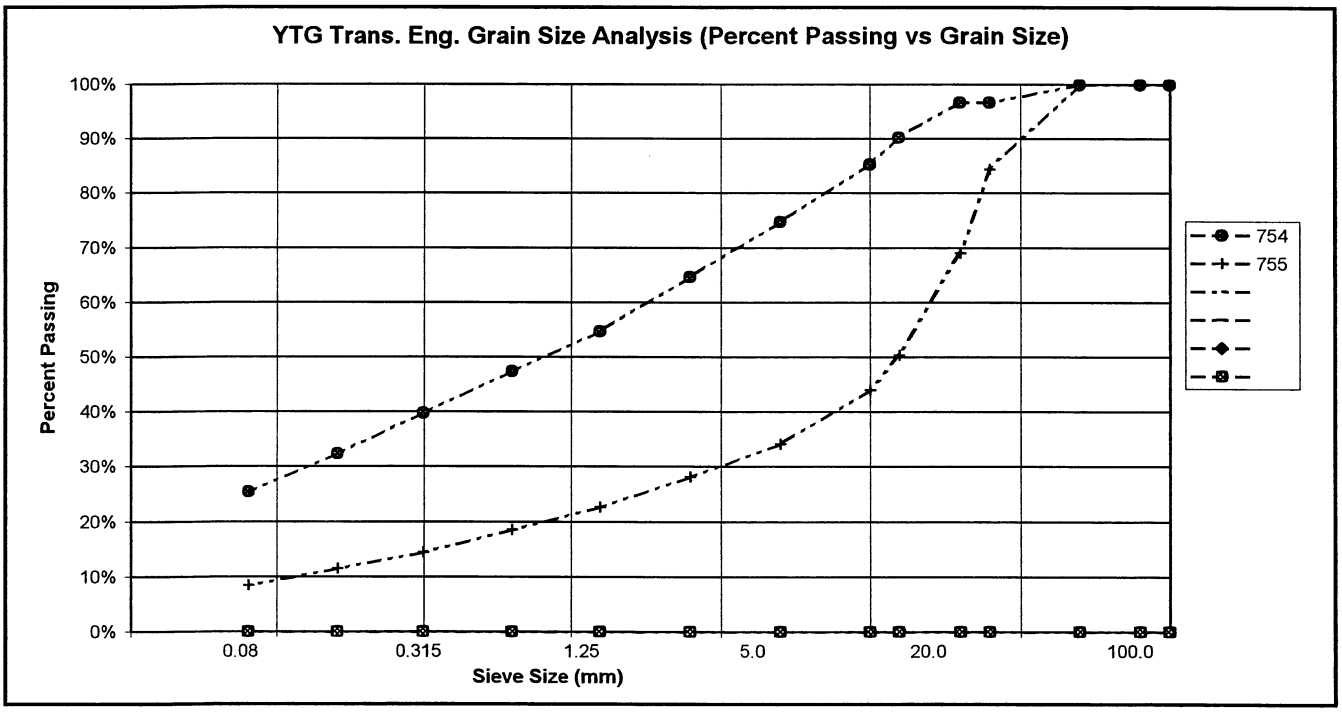
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-397
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/27

FIELD NO:	750	751	752	753		
LAB NO:	1526	1527	1528	1529		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	4.0-4.3		
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%	92%	100%	96%		
20.0	89%	92%	97%	88%		
12.5	87%	90%	86%	68%		
10.0	84%	87%	82%	65%		
5.0	79%	80%	73%	55%		
2.5	72%	75%	66%	48%		
1.25	66%	69%	59%	42%		
0.630	61%	64%	54%	37%		
0.315	55%	58%	48%	32%		
0.160	50%	53%	43%	28%		
0.080	45%	46%	37%	24%		
M.C.(%):	14%	9%	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:	21	20	27	45		
% SAND:	34	34	36	31		
% FINES:	45	46	37	24		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)		



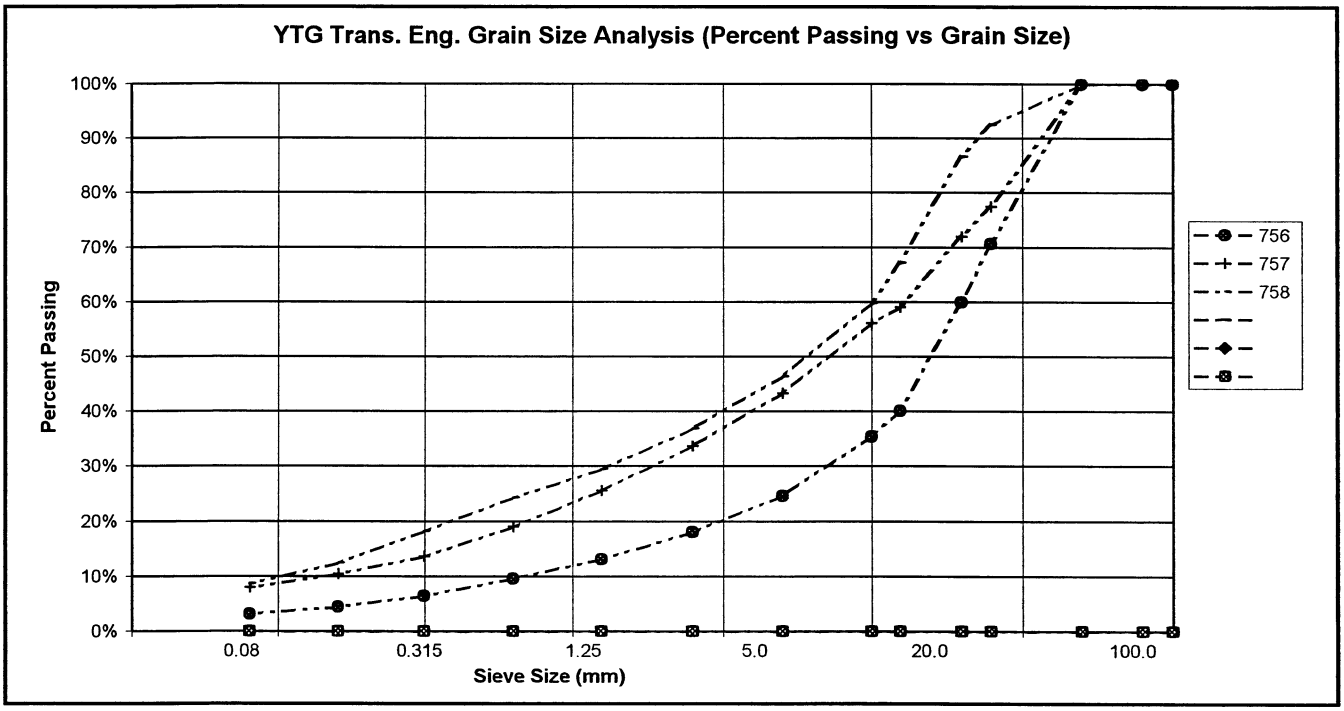
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-398
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/27

FIELD NO:	754	755				
LAB NO:	1530	1531				
DEPTH:	2.0-3.0	3.0-4.0				
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%	84%				
20.0	97%	69%				
12.5	90%	50%				
10.0	85%	44%				
5.0	75%	34%				
2.5	65%	28%				
1.25	55%	23%				
0.630	47%	19%				
0.315	40%	14%				
0.160	32%	11%				
0.080	25%	8%				
M.C.(%):	8%	4%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	25	66				
% SAND:	49	26				
% FINES:	25	8				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)				



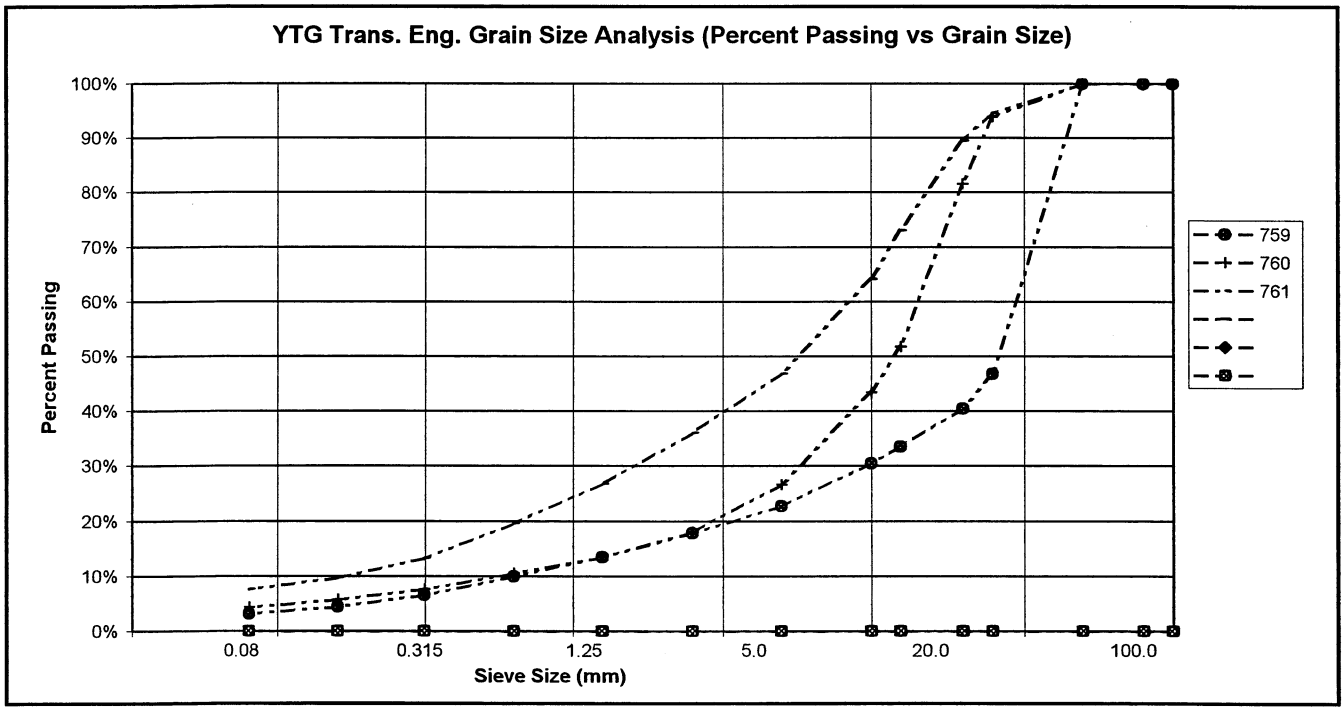
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-399
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/27

FIELD NO:	756	757	758			
LAB NO:	1532	1533	1534			
DEPTH:	1.0-1.5	2.4-3.0	3.6-4.3			
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%	77%	92%			
20.0	60%	72%	87%			
12.5	40%	59%	67%			
10.0	35%	56%	60%			
5.0	25%	43%	46%			
2.5	18%	34%	37%			
1.25	13%	26%	29%			
0.630	10%	19%	24%			
0.315	6%	14%	18%			
0.160	4%	10%	12%			
0.080	3%	8%	9%			
M.C.(%):	2%	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:	75	57	54			
% SAND:	22	35	38			
% FINES:	3	8	9			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			



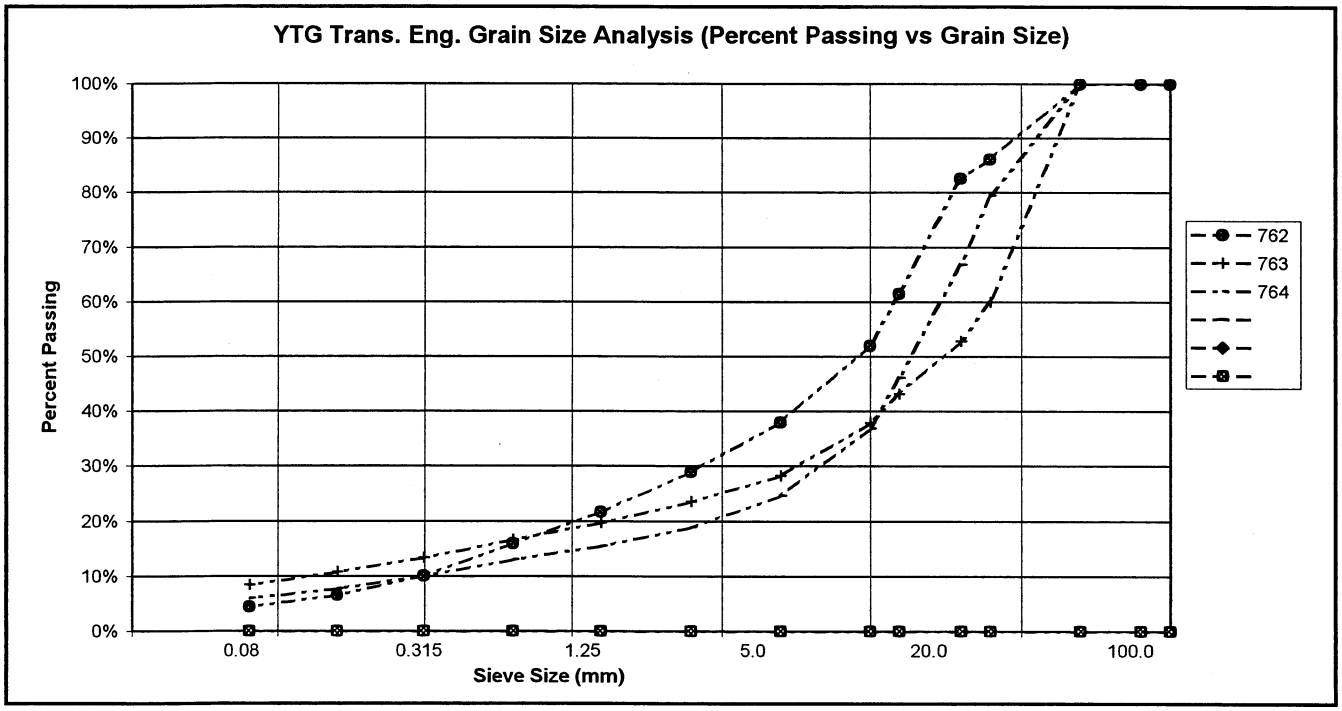
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-400
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/27

FIELD NO:	759	760	761			
LAB NO:	1535	1536	1537			
DEPTH:	1.0-1.5	2.6-3.0	4.0-4.3			
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	47%	94%	95%			
20.0	41%	82%	89%			
12.5	34%	52%	73%			
10.0	31%	43%	64%			
5.0	23%	27%	47%			
2.5	18%	18%	36%			
1.25	13%	13%	27%			
0.630	10%	11%	20%			
0.315	7%	8%	13%			
0.160	4%	6%	10%			
0.080	3%	4%	8%			
M.C.(%):	2%	2%	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:	77	73	53			
% SAND:	20	22	39			
% FINES:	3	4	8			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			



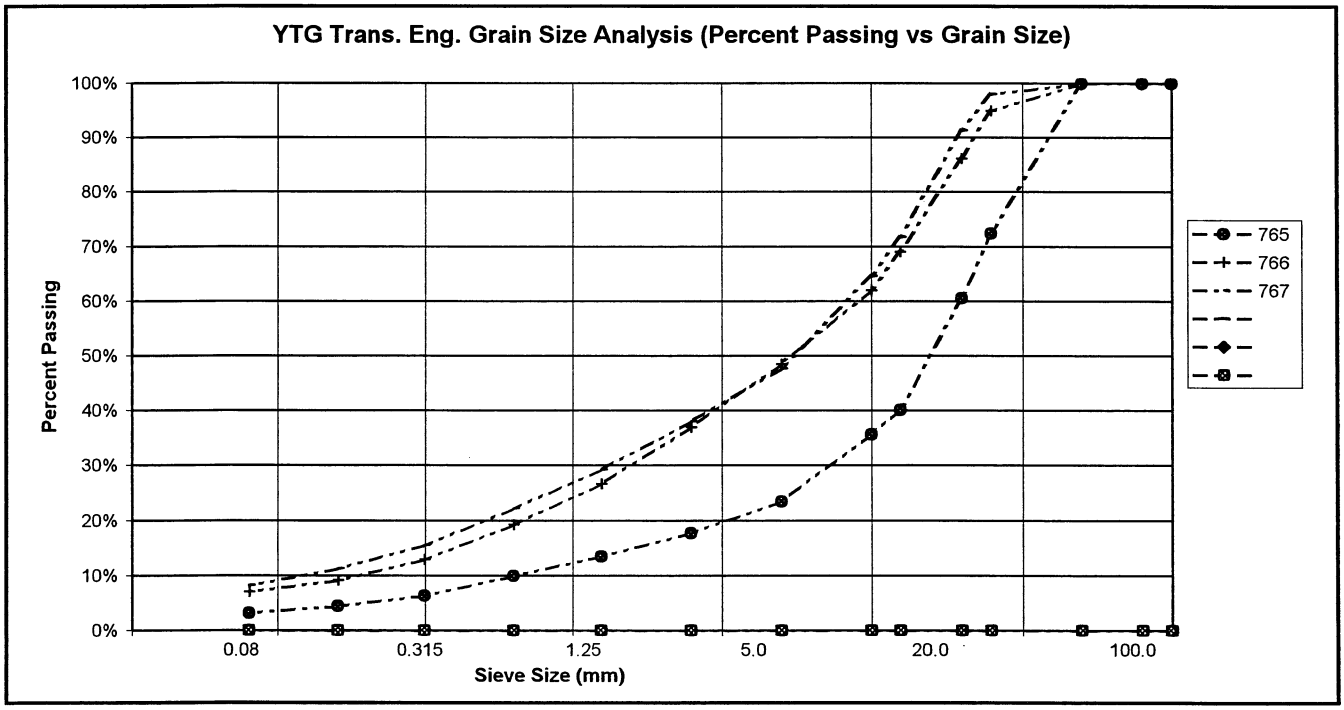
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-401
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/27

FIELD NO:	762	763	764			
LAB NO:	1538	1539	1540			
DEPTH:	1.0-1.5	2.6-3.0	4.0-4.3			
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%	60%	79%			
20.0	83%	53%	67%			
12.5	62%	43%	46%			
10.0	52%	38%	37%			
5.0	38%	28%	25%			
2.5	29%	24%	19%			
1.25	22%	20%	16%			
0.630	16%	17%	13%			
0.315	10%	13%	10%			
0.160	7%	11%	8%			
0.080	4%	8%	6%			
M.C.(%):	3%	5%	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:	62	72	75			
% SAND:	34	20	19			
% FINES:	4	8	6			
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			



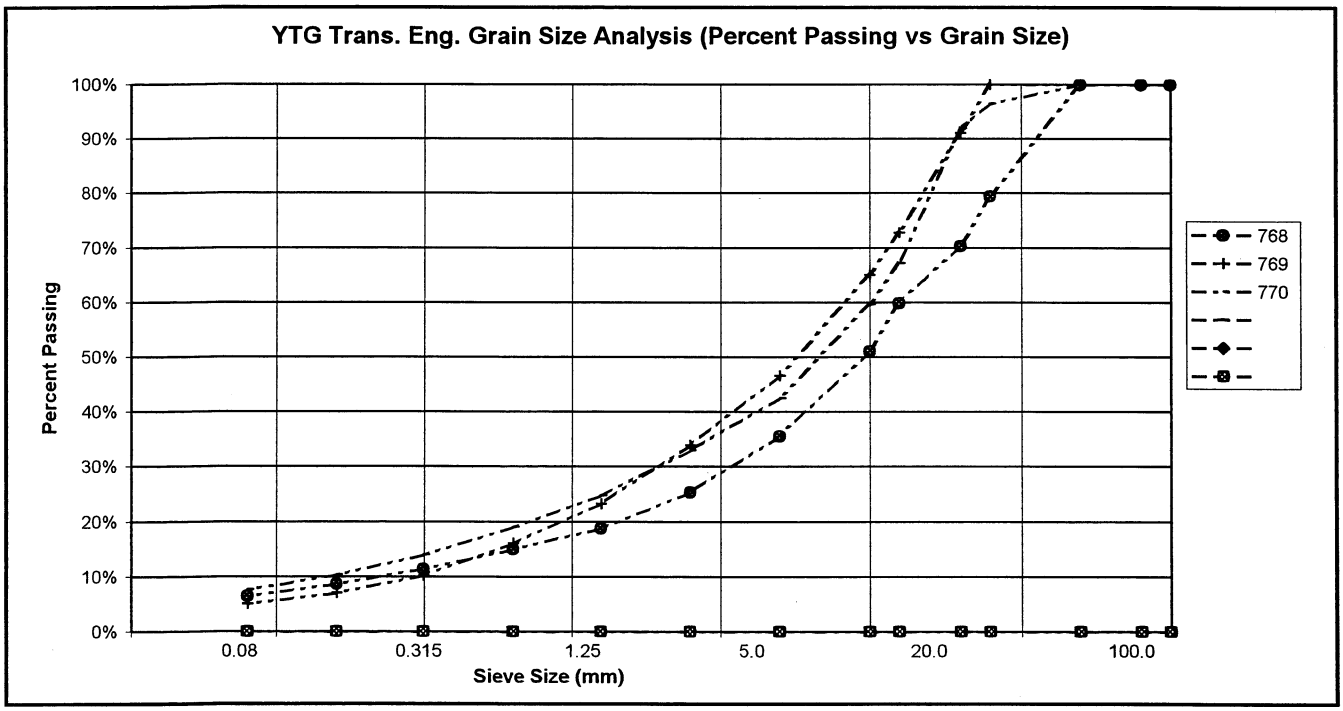
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-402
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/27

FIELD NO:	765	766	767			
LAB NO:	1541	1542	1543			
DEPTH:	1.0-1.5	2.6-3.0	3.8-4.3			
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	72%	95%	98%			
20.0	61%	86%	91%			
12.5	40%	69%	72%			
10.0	36%	62%	65%			
5.0	23%	48%	48%			
2.5	18%	37%	38%			
1.25	14%	27%	29%			
0.630	10%	19%	22%			
0.315	6%	13%	15%			
0.160	4%	9%	11%			
0.080	3%	7%	8%			
M.C.(%):	3%	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:	77	52	52			
% SAND:	20	41	39			
% FINES:	3	7	8			
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			



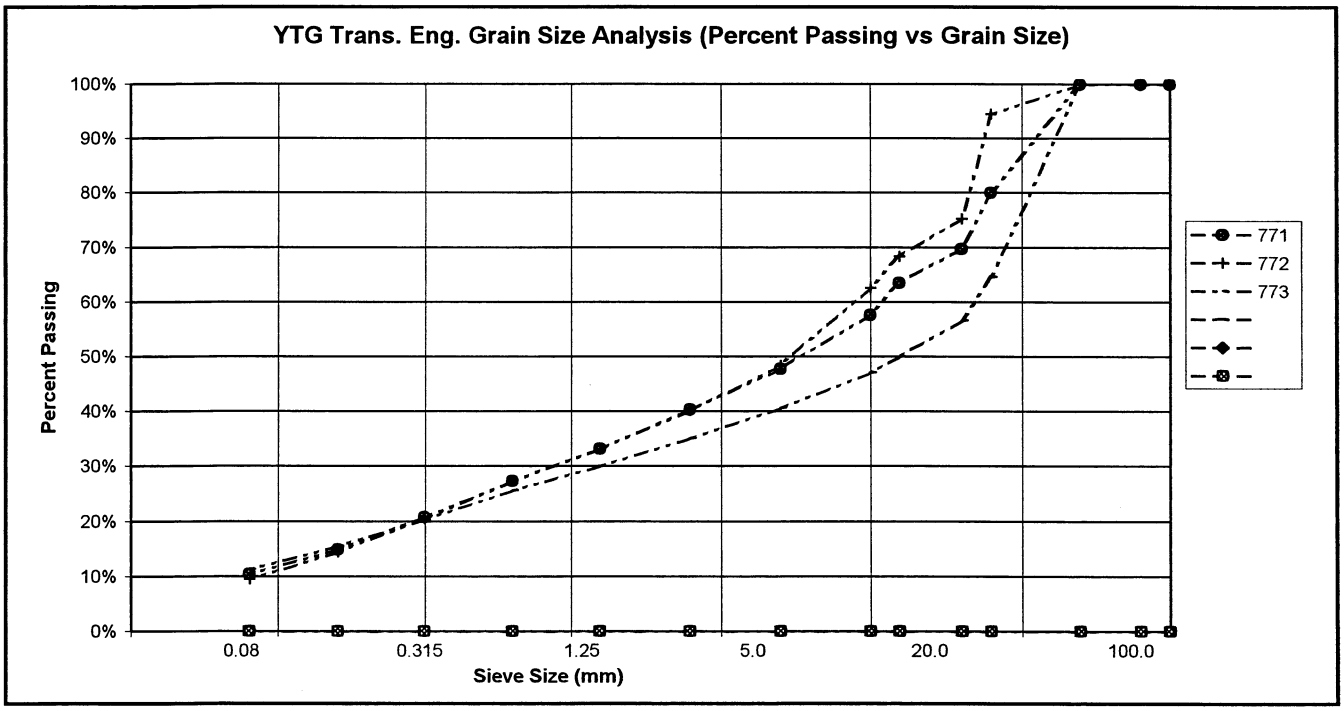
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-403
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/27

FIELD NO:	768	769	770			
LAB NO:	1544	1545	1546			
DEPTH:	1.0-1.5	2.0-2.5	4.0-4.3			
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	79%	100%	96%			
20.0	70%	91%	92%			
12.5	60%	73%	67%			
10.0	51%	65%	60%			
5.0	36%	47%	43%			
2.5	25%	34%	33%			
1.25	19%	23%	25%			
0.630	15%	16%	19%			
0.315	11%	10%	14%			
0.160	9%	7%	10%			
0.080	6%	5%	8%			
M.C.(%):	3%	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:	64	53	57			
% SAND:	29	42	35			
% FINES:	6	5	8			
CLASSIFICATION	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			



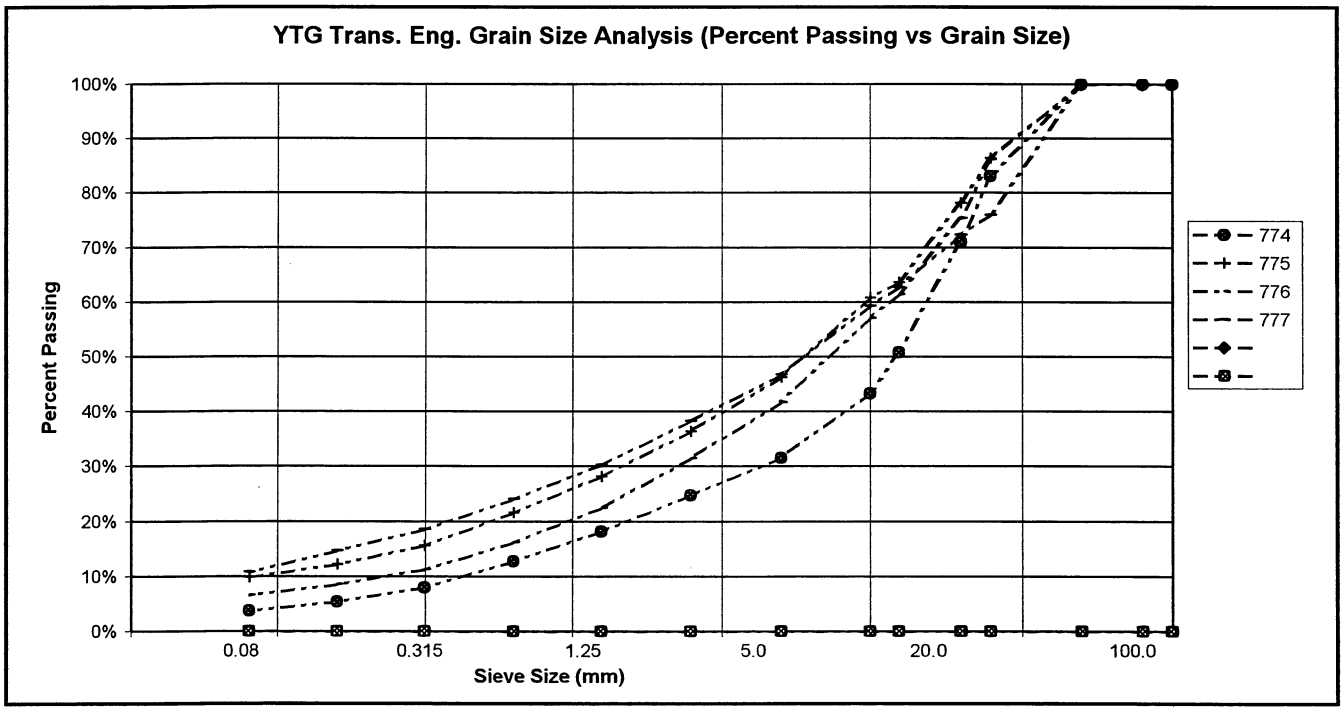
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-404
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/28

FIELD NO:	771	772	773			
LAB NO:	1547	1548	1549			
DEPTH:	1.0-1.5	2.5-3.0	4.0-4.3			
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%	94%	65%			
20.0	70%	75%	57%			
12.5	64%	68%	50%			
10.0	58%	63%	47%			
5.0	48%	48%	41%			
2.5	40%	40%	35%			
1.25	33%	33%	30%			
0.630	27%	27%	26%			
0.315	21%	20%	20%			
0.160	15%	14%	16%			
0.080	10%	10%	11%			
M.C.(%):	7%	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:	52	52	59			
% SAND:	37	39	29			
% FINES:	10	10	11			
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)			



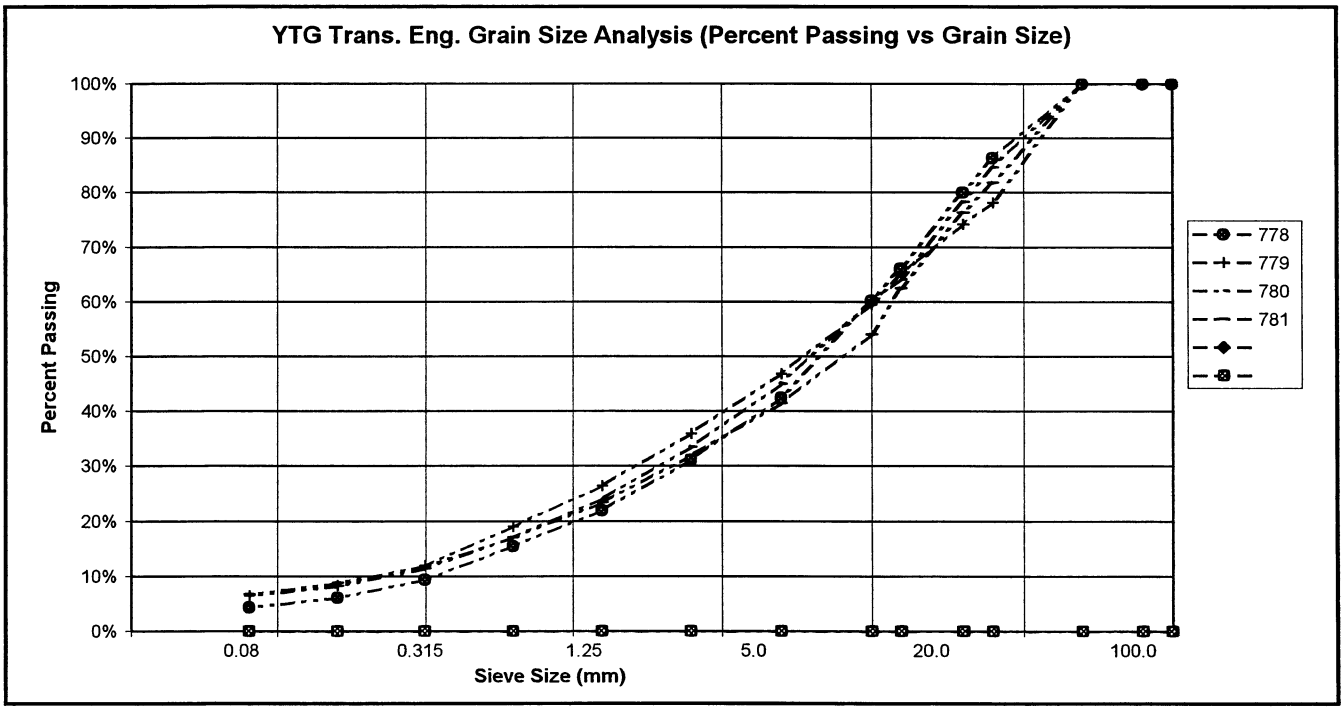
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-405
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/28

FIELD NO:	774	775	776	777		
LAB NO:	1550	1551	1552	1553		
DEPTH:	1.0-1.5	2.0-2.5	2.8-3.2	4.0-4.3		
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	83%	86%	86%	76%		
20.0	71%	78%	75%	72%		
12.5	51%	64%	61%	63%		
10.0	43%	61%	57%	59%		
5.0	32%	46%	42%	47%		
2.5	25%	36%	32%	38%		
1.25	18%	28%	22%	30%		
0.630	13%	22%	16%	24%		
0.315	8%	16%	11%	19%		
0.160	5%	12%	9%	15%		
0.080	4%	10%	7%	11%		
M.C.(%):	3%	4%	3%	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:	68	54	58	53		
% SAND:	28	36	35	36		
% FINES:	4	10	7	11		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



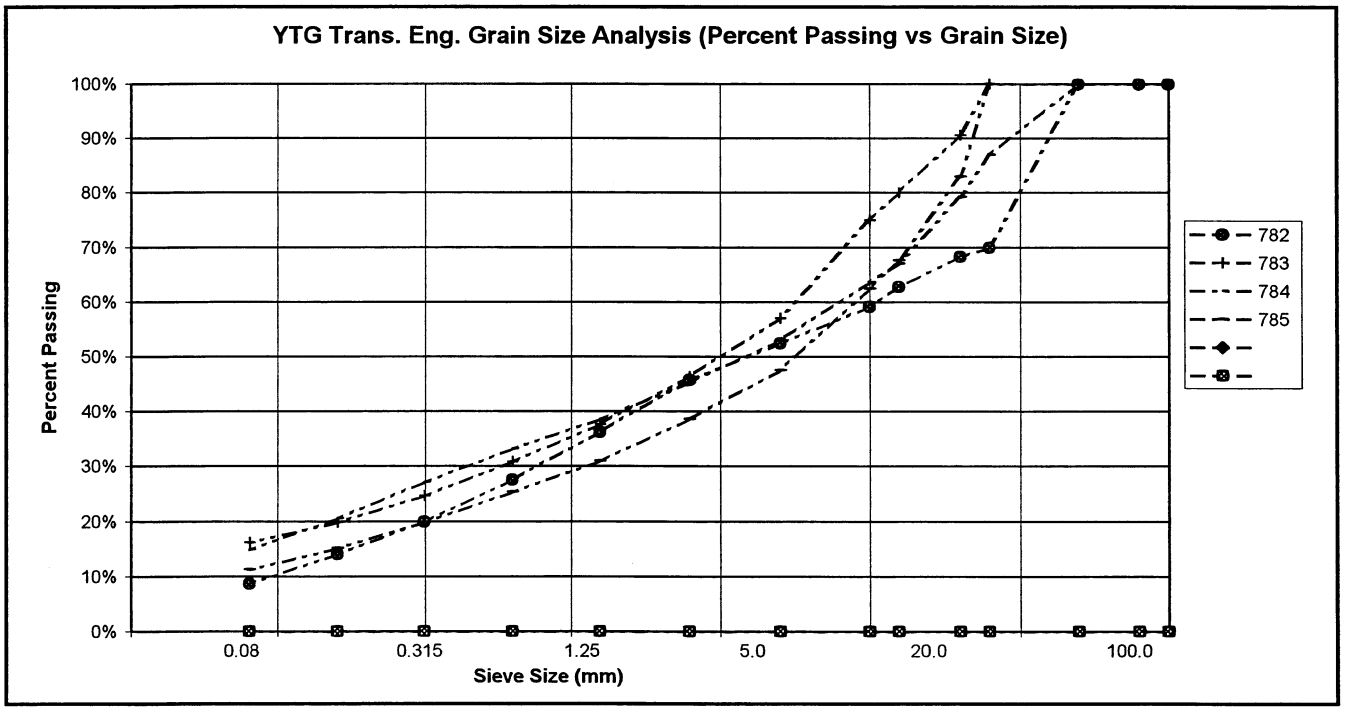
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-406
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/28

FIELD NO:	778	779	780	781		
LAB NO:	1554	1555	1556	1557		
DEPTH:	0.75-1.0	1.8-2.0	2.6-3.0	4.0-4.3		
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	86%	78%	85%	82%		
20.0	80%	74%	78%	76%		
12.5	66%	65%	64%	62%		
10.0	60%	60%	60%	54%		
5.0	43%	47%	45%	41%		
2.5	31%	36%	34%	32%		
1.25	22%	26%	24%	23%		
0.630	15%	19%	17%	17%		
0.315	9%	12%	11%	12%		
0.160	6%	8%	8%	9%		
0.080	4%	6%	6%	7%		
M.C.(%):	3%	4%	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:	57	53	55	59		
% SAND:	38	40	39	35		
% FINES:	4	6	6	7		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



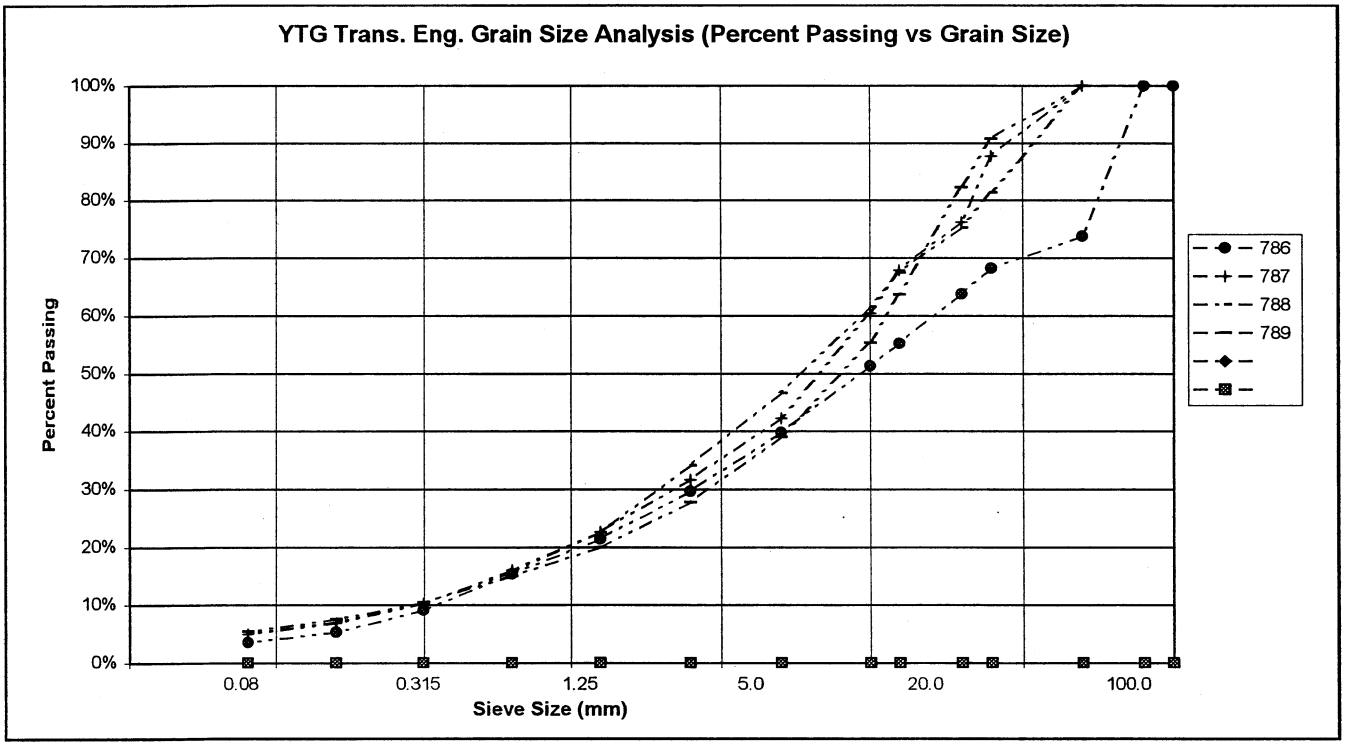
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-407
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/28

FIELD NO:	782	783	784	785		
LAB NO:	1558	1559	1560	1561		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	4.0-4.3		
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	70%	100%	87%	100%		
20.0	68%	91%	79%	83%		
12.5	63%	80%	67%	68%		
10.0	59%	75%	64%	62%		
5.0	53%	57%	53%	48%		
2.5	46%	46%	45%	39%		
1.25	36%	38%	39%	31%		
0.630	28%	31%	33%	25%		
0.315	20%	25%	27%	20%		
0.160	14%	20%	20%	15%		
0.080	9%	16%	15%	11%		
M.C.(%):	6%	9%	8%	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:	47	43	47	52		
% SAND:	44	41	38	36		
% FINES:	9	16	15	11		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



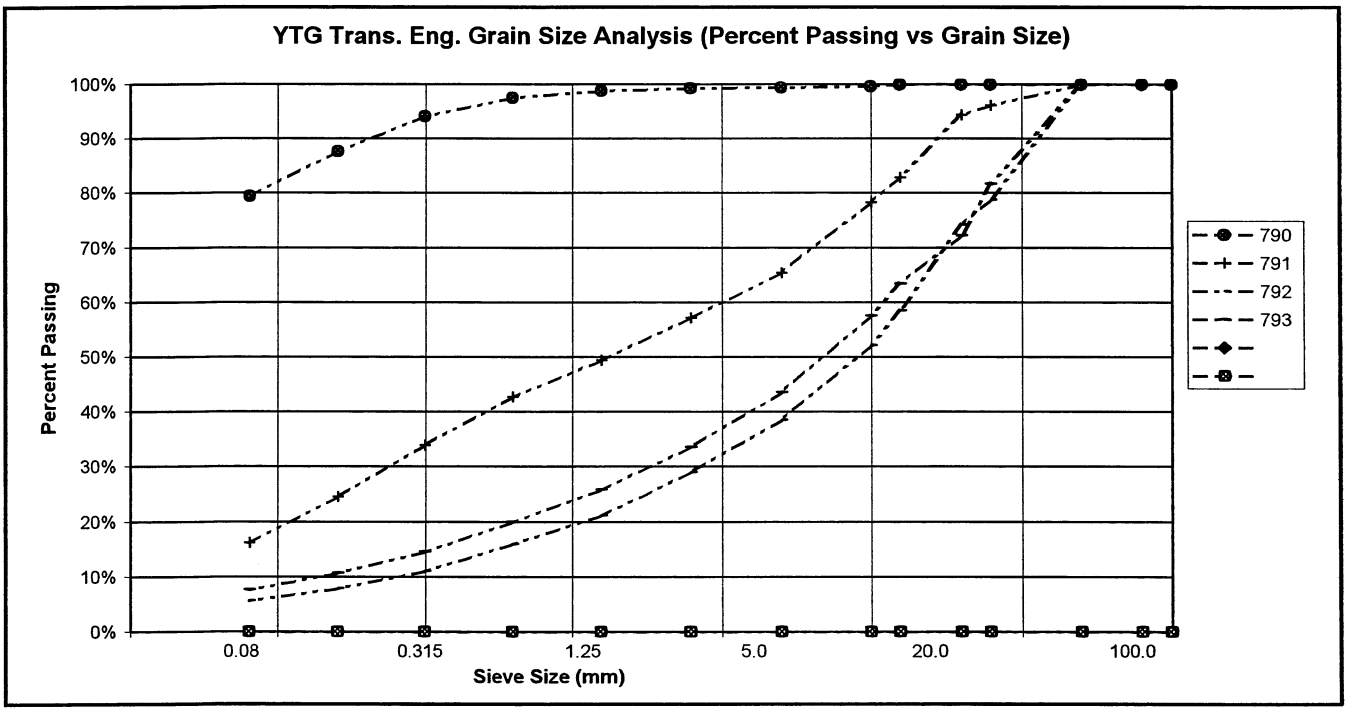
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-408
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/28

FIELD NO:	786	787	788	789		
LAB NO:	1562	1563	1564	1565		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	4.0-4.5		
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	74%	100%	100%	100%		
25.0	68%	88%	81%	91%		
20.0	64%	76%	75%	82%		
12.5	55%	68%	67%	64%		
10.0	51%	60%	62%	55%		
5.0	40%	42%	47%	39%		
2.5	30%	32%	34%	28%		
1.25	21%	23%	23%	20%		
0.630	15%	16%	16%	15%		
0.315	9%	10%	10%	11%		
0.160	5%	7%	7%	8%		
0.080	4%	5%	5%	5%		
M.C.(%):	3%	3%	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:	60	58	53	61		
% SAND:	36	37	41	34		
% FINES:	4	5	5	5		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)		



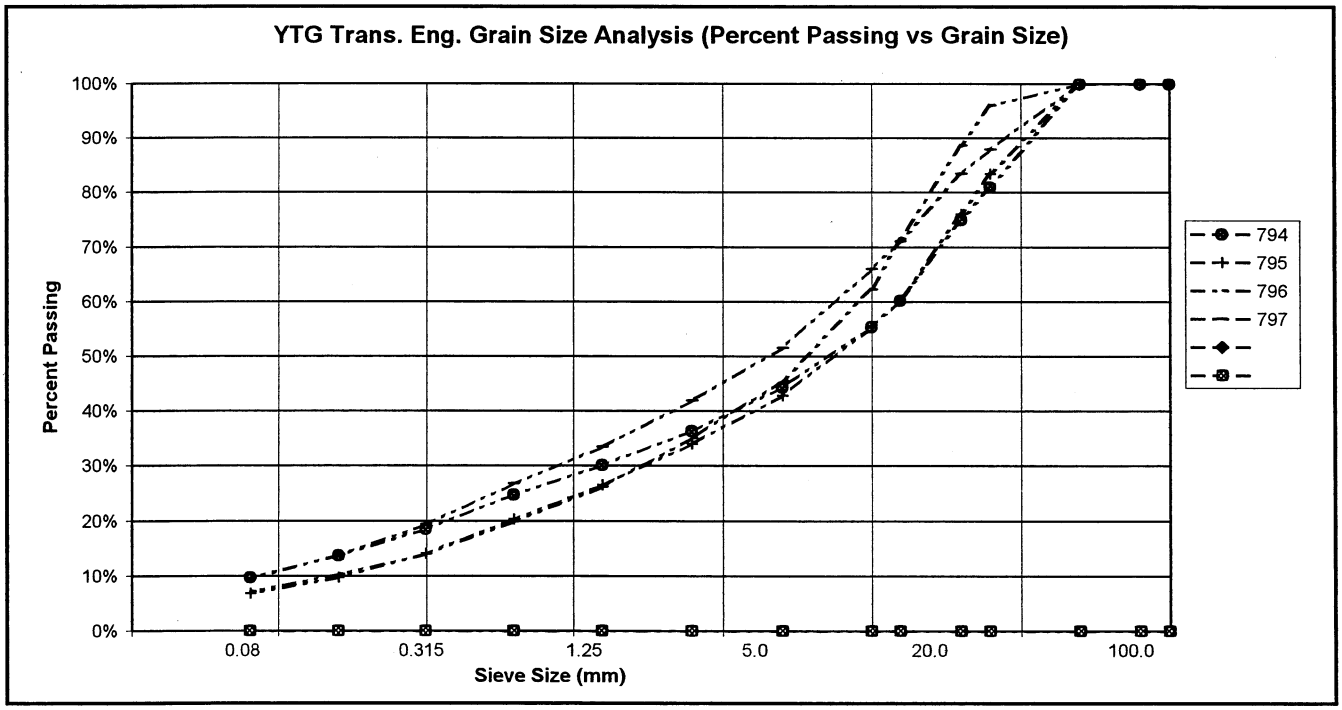
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 615-409
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/28

FIELD NO:	790	791	792	793		
LAB NO:	1566	1567	1568	1569		
DEPTH:	0.2-0.6	1.0-1.5	2.5-3.0	4.0-4.3		
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%	79%	82%		
20.0	100%	94%	74%	72%		
12.5	100%	83%	59%	63%		
10.0	100%	78%	52%	58%		
5.0	99%	65%	39%	44%		
2.5	99%	57%	29%	34%		
1.25	99%	49%	21%	26%		
0.630	98%	43%	16%	20%		
0.315	94%	34%	11%	15%		
0.160	88%	24%	8%	11%		
0.080	79%	16%	6%	8%		
M.C.(%):	17%	9%	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:	1	35	61	56		
% SAND:	20	49	33	36		
% FINES:	79	16	6	8		
CLASSIFICATION	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



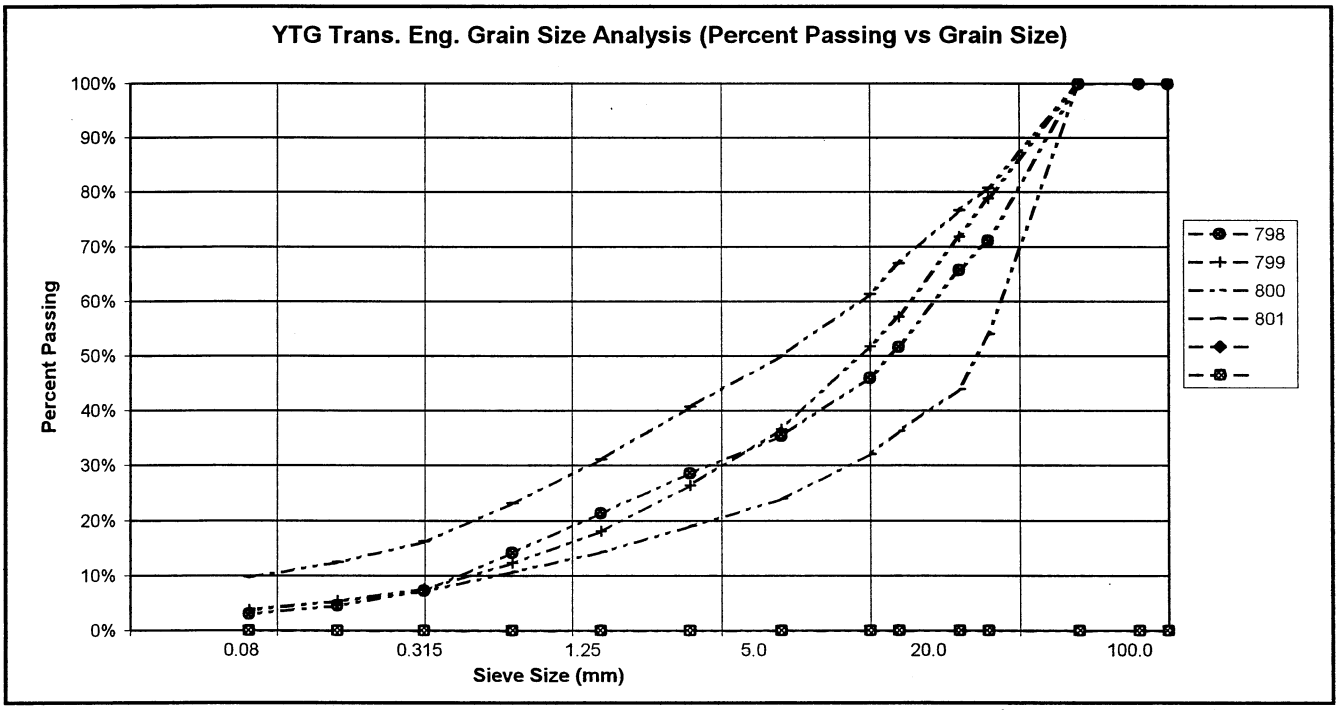
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 616-410
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/28

FIELD NO:	794	795	796	797		
LAB NO:	1570	1571	1572	1573		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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	81%	83%	96%	88%		
20.0	75%	76%	89%	83%		
12.5	60%	60%	72%	71%		
10.0	55%	55%	62%	66%		
5.0	44%	43%	46%	52%		
2.5	36%	34%	35%	42%		
1.25	30%	26%	26%	33%		
0.630	25%	20%	20%	27%		
0.315	19%	14%	14%	19%		
0.160	14%	10%	10%	14%		
0.080	10%	7%	7%	9%		
M.C.(%):	6%	3%	3%	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:	56	57	54	48		
% SAND:	35	36	38	42		
% FINES:	10	7	7	9		
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)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 616-411
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/28

FIELD NO:	798	799	800	801		
LAB NO:	1574	1575	1576	1577		
DEPTH:	0.7-1.0	1.7-2.0	2.6-2.8	3.8-4.3		
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	71%	79%	54%	81%		
20.0	66%	72%	44%	77%		
12.5	52%	57%	36%	67%		
10.0	46%	52%	32%	61%		
5.0	35%	37%	24%	50%		
2.5	29%	26%	19%	41%		
1.25	21%	18%	14%	31%		
0.630	14%	12%	11%	23%		
0.315	7%	8%	7%	16%		
0.160	5%	5%	5%	12%		
0.080	3%	4%	4%	10%		
M.C.(%):	3%	2%	2%	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:	65	63	76	50		
% SAND:	32	33	20	40		
% FINES:	3	4	4	10		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		

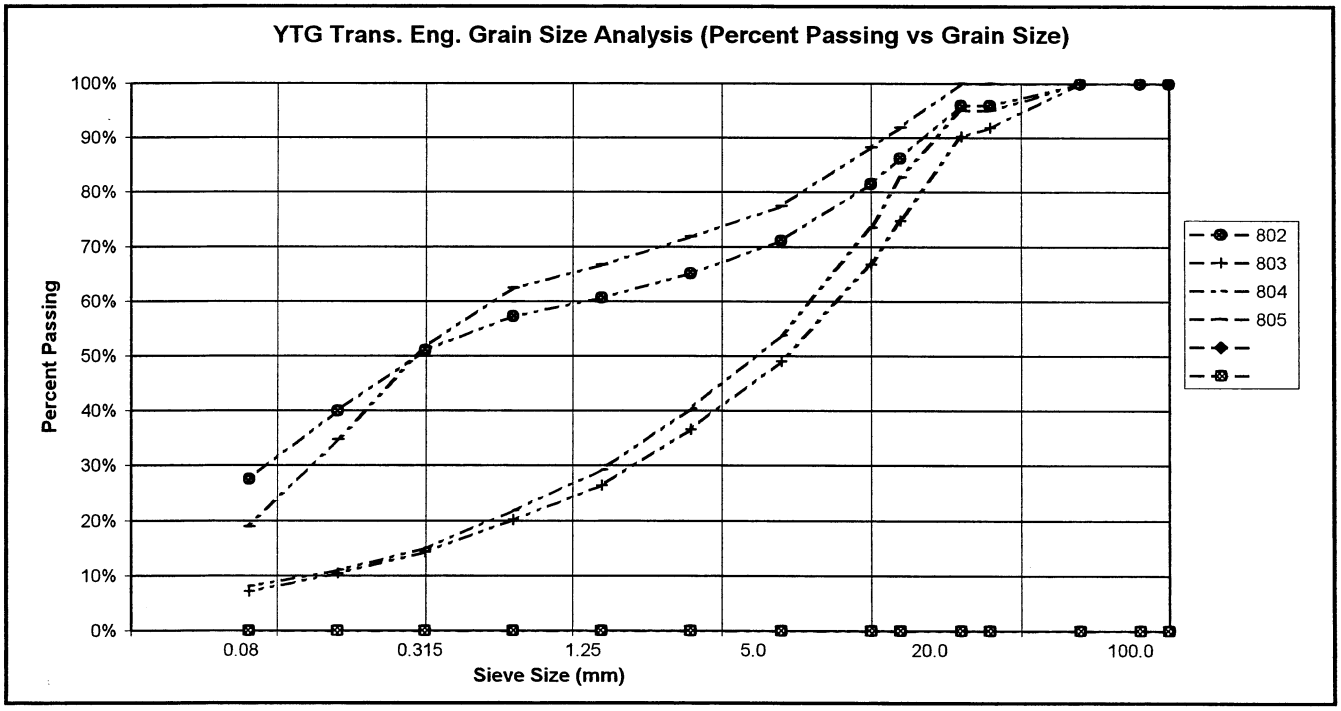


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 616-412

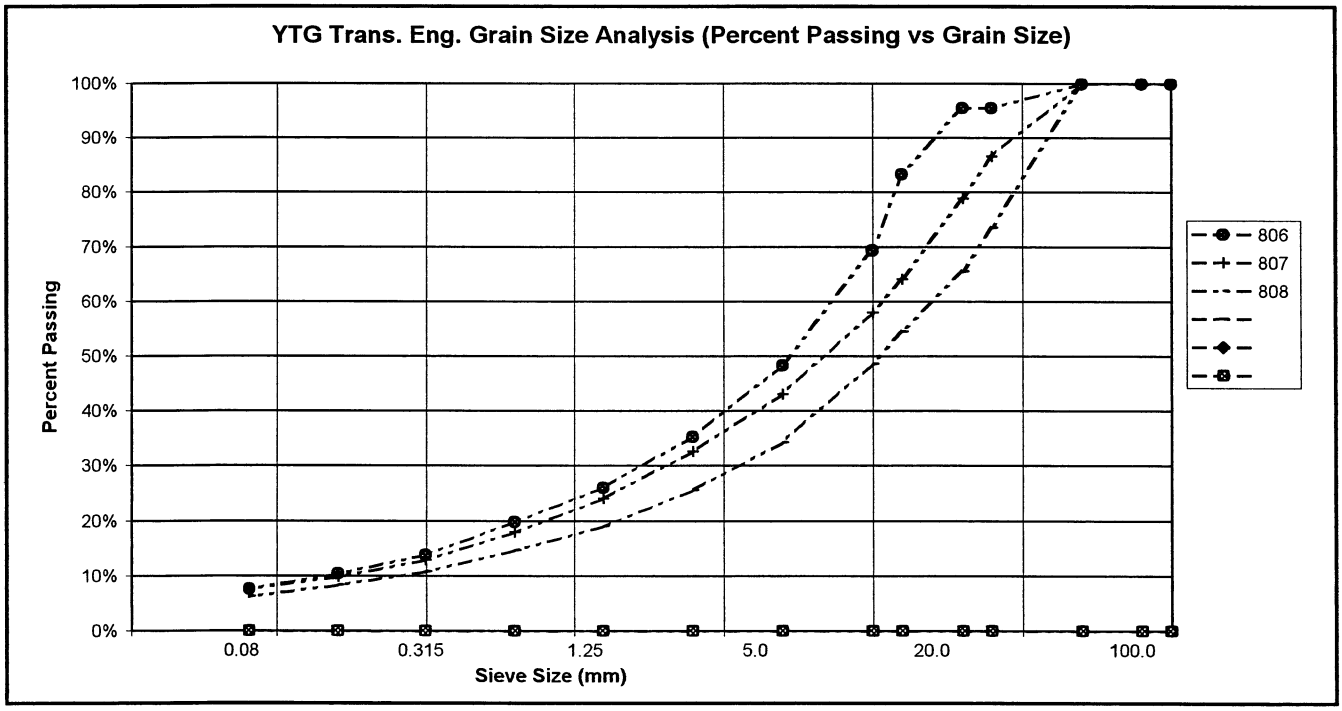
DATE COMP: 2001/08/28

FIELD NO:	802	803	804	805		
LAB NO:	1578	1759	1580	1581		
DEPTH:	0.3-0.6	1.6-2.0	2.4-2.8	3.6-4.3		
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%	92%	95%	100%		
20.0	96%	90%	95%	100%		
12.5	86%	75%	83%	92%		
10.0	82%	67%	73%	88%		
5.0	71%	49%	54%	77%		
2.5	65%	37%	40%	72%		
1.25	61%	26%	29%	67%		
0.630	57%	20%	22%	62%		
0.315	51%	14%	15%	52%		
0.160	40%	10%	11%	35%		
0.080	28%	7%	8%	19%		
M.C.(%):	12%	3%	3%	10%		
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:	29	51	46	23		
% SAND:	44	42	46	59		
% FINES:	28	7	8	19		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	SILTY SAND WITH GRAVEL (SM)		



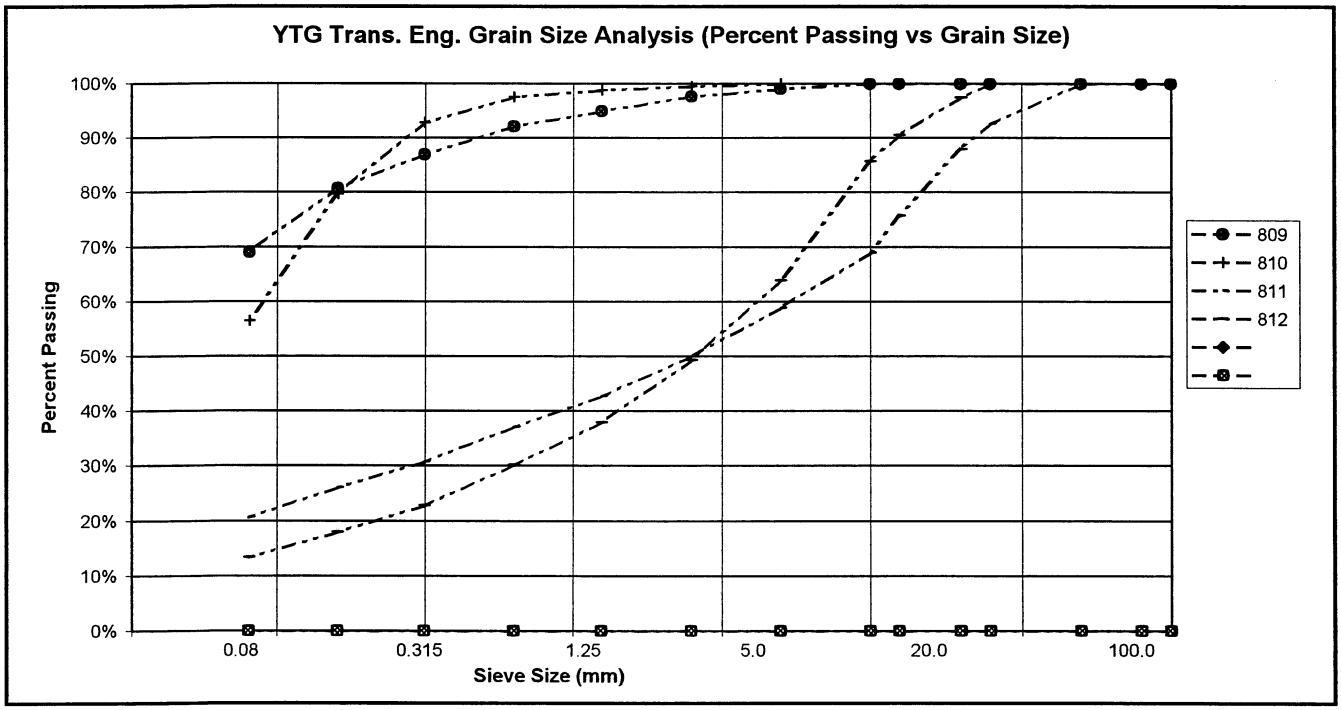
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 616-413
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/28

FIELD NO:	806	807	808			
LAB NO:	1582	1583	1584			
DEPTH:	1.0-1.5	2.5-3.0	3.8-4.3			
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%	87%	74%			
20.0	96%	79%	65%			
12.5	83%	64%	54%			
10.0	69%	58%	49%			
5.0	48%	43%	34%			
2.5	35%	33%	26%			
1.25	26%	24%	19%			
0.630	20%	18%	15%			
0.315	14%	13%	11%			
0.160	10%	10%	8%			
0.080	8%	8%	6%			
M.C.(%):	4%	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:	52	57	66			
% SAND:	41	35	28			
% FINES:	8	8	6			
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)			



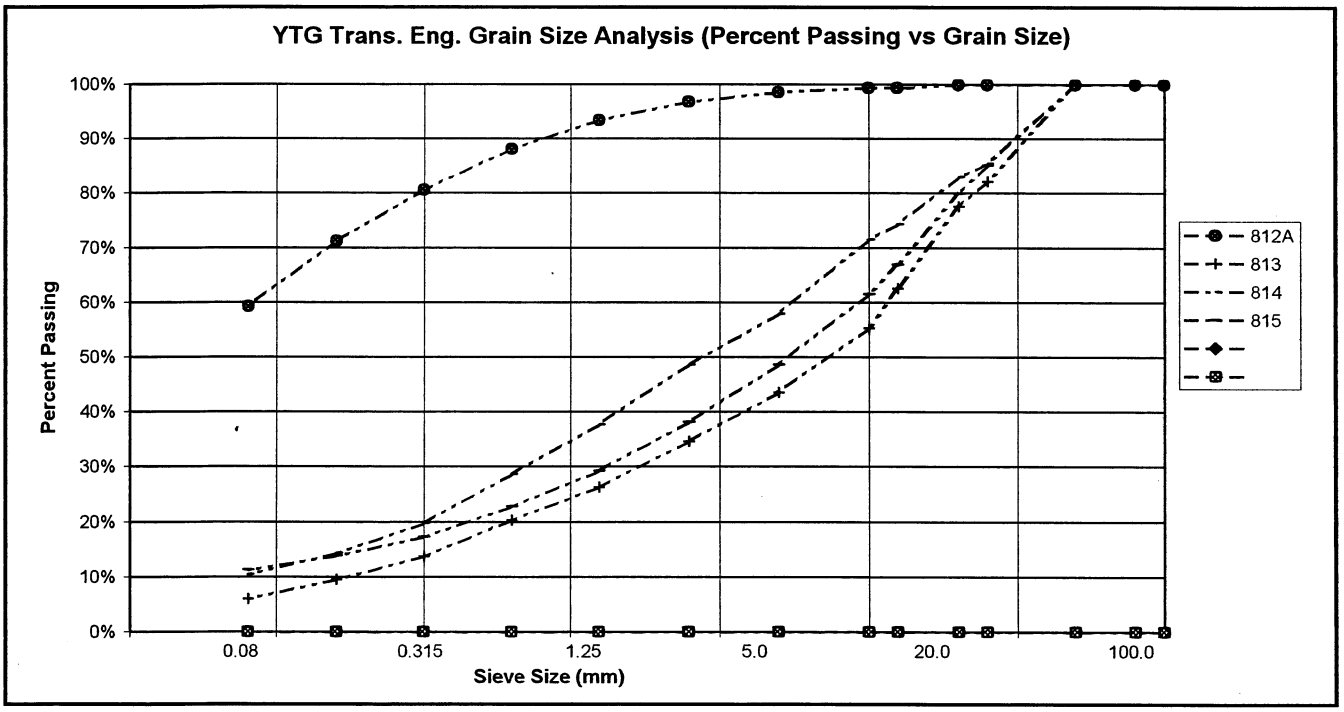
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 616-414
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/28

FIELD NO:	809	810	811	812		
LAB NO:	1585	1586	1587	1588		
DEPTH:	0.5-1.0	1.4-1.8	2.5-3.0	3.0-3.4		
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%	93%	100%		
20.0	100%	100%	88%	97%		
12.5	100%	100%	76%	91%		
10.0	100%	100%	69%	86%		
5.0	99%	100%	59%	64%		
2.5	98%	100%	50%	49%		
1.25	95%	99%	43%	38%		
0.630	92%	98%	37%	30%		
0.315	87%	93%	31%	23%		
0.160	81%	80%	26%	18%		
0.080	69%	56%	21%	13%		
M.C.(%):	29%	18%	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:	1	0	41	36		
% SAND:	30	44	38	51		
% FINES:	69	56	21	13		
CLASSIFICATION	SANDY SILT (ML)	SANDY SILT (ML)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)		



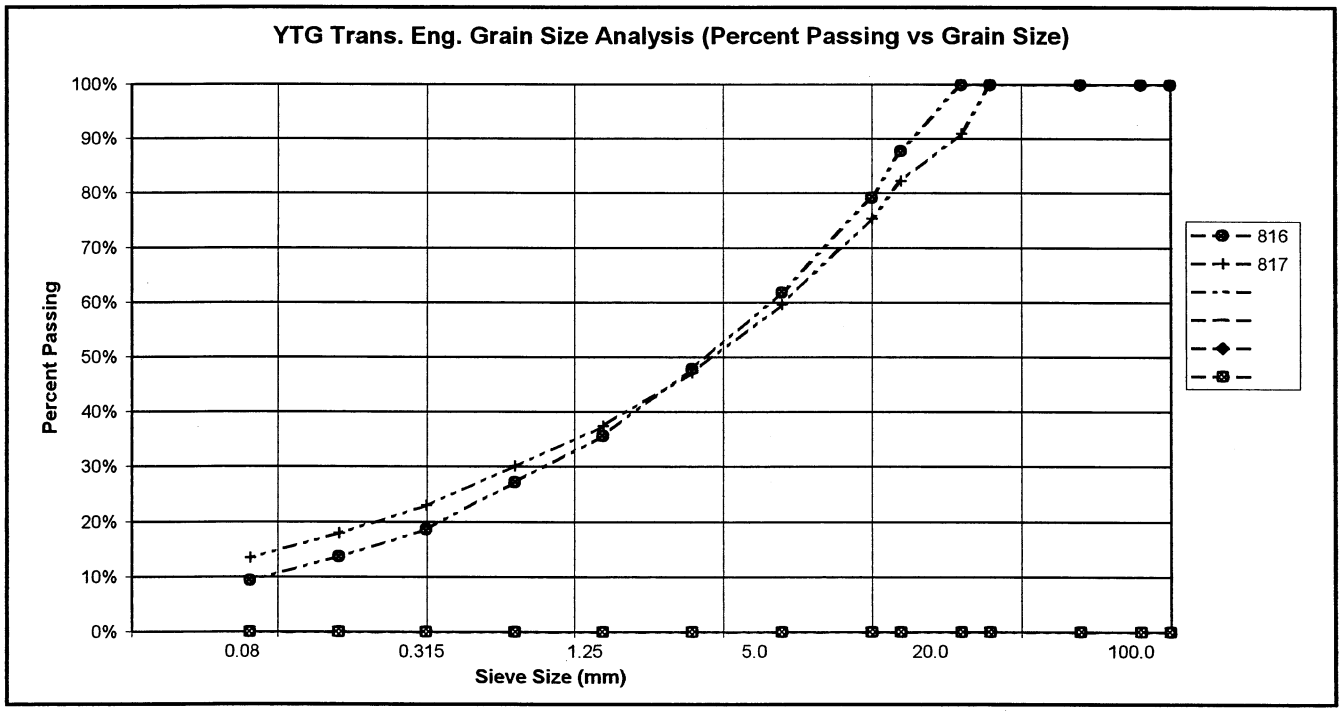
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 616-415
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/28

FIELD NO:	812A	813	814	815		
LAB NO:	1589	1590	1591	1592		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	82%	85%	85%		
20.0	100%	78%	83%	80%		
12.5	99%	63%	74%	67%		
10.0	99%	55%	71%	61%		
5.0	99%	43%	58%	49%		
2.5	97%	35%	49%	38%		
1.25	93%	26%	38%	29%		
0.630	88%	20%	29%	23%		
0.315	81%	14%	20%	17%		
0.160	71%	9%	14%	14%		
0.080	59%	6%	10%	11%		
M.C.(%):	28%	4%	5%	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:	1	57	42	51		
% SAND:	39	38	47	37		
% FINES:	59	6	10	11		
CLASSIFICATION	SANDY SILT (ML)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 616-416
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/28

FIELD NO:	816	817				
LAB NO:	1593	1594				
DEPTH:	1.5-2.0	2.5-3.0				
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%	91%				
12.5	88%	82%				
10.0	79%	75%				
5.0	62%	60%				
2.5	48%	47%				
1.25	36%	37%				
0.630	27%	30%				
0.315	19%	23%				
0.160	14%	18%				
0.080	9%	14%				
M.C.(%):	8%	13%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	38	40				
% SAND:	52	46				
% FINES:	9	14				
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILTY SAND WITH GRAVEL (SM)				

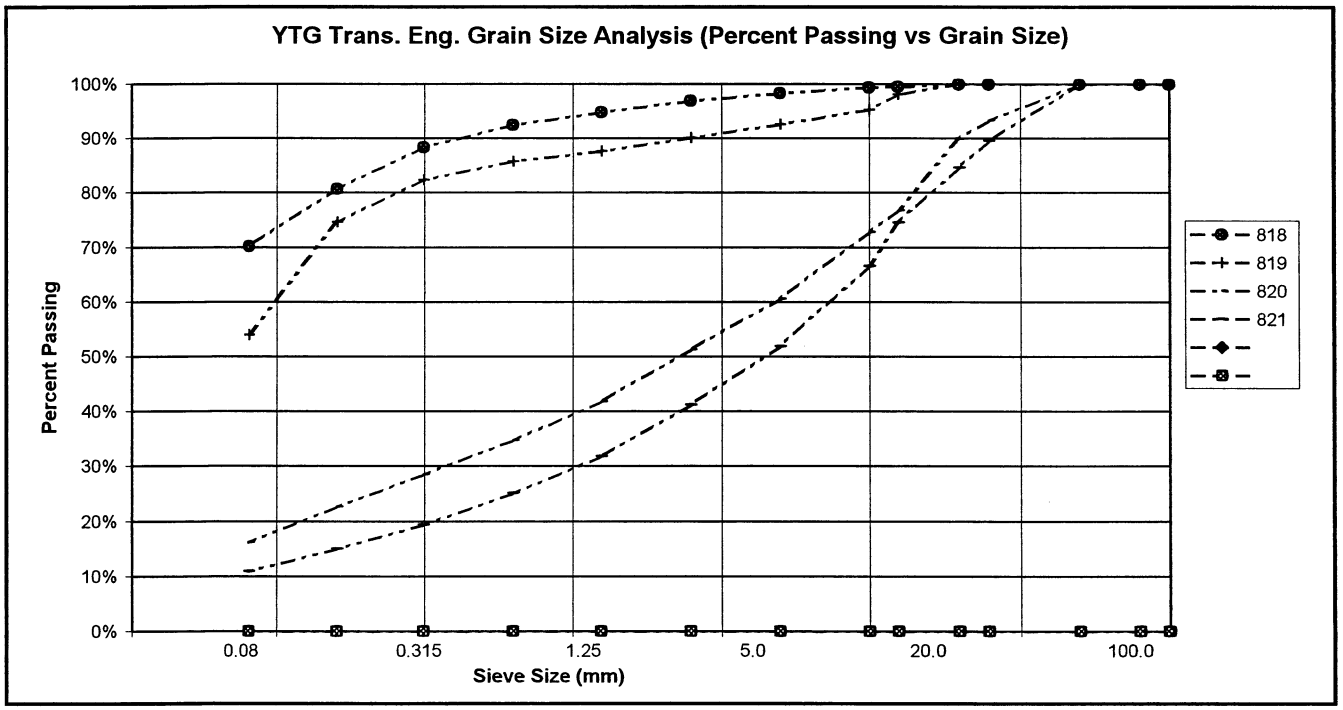


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 616-417

DATE COMP: 2001/08/29

FIELD NO:	818	819	820	821		
LAB NO:	1595	1596	1597	1598		
DEPTH:	0.75-1.0	1.2-1.4	2.5-3.0	4.0-4.3		
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%	93%	90%		
20.0	100%	100%	90%	85%		
12.5	100%	98%	77%	75%		
10.0	99%	95%	73%	67%		
5.0	98%	93%	61%	52%		
2.5	97%	90%	51%	41%		
1.25	95%	88%	42%	32%		
0.630	92%	86%	35%	25%		
0.315	88%	82%	29%	19%		
0.160	81%	75%	23%	15%		
0.080	70%	54%	16%	11%		
M.C.(%):	22%	18%	6%	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:	2	7	39	48		
% SAND:	28	39	44	41		
% FINES:	70	54	16	11		
CLASSIFICATION	SILT WITH SAND (ML)	SANDY SILT (ML)	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		

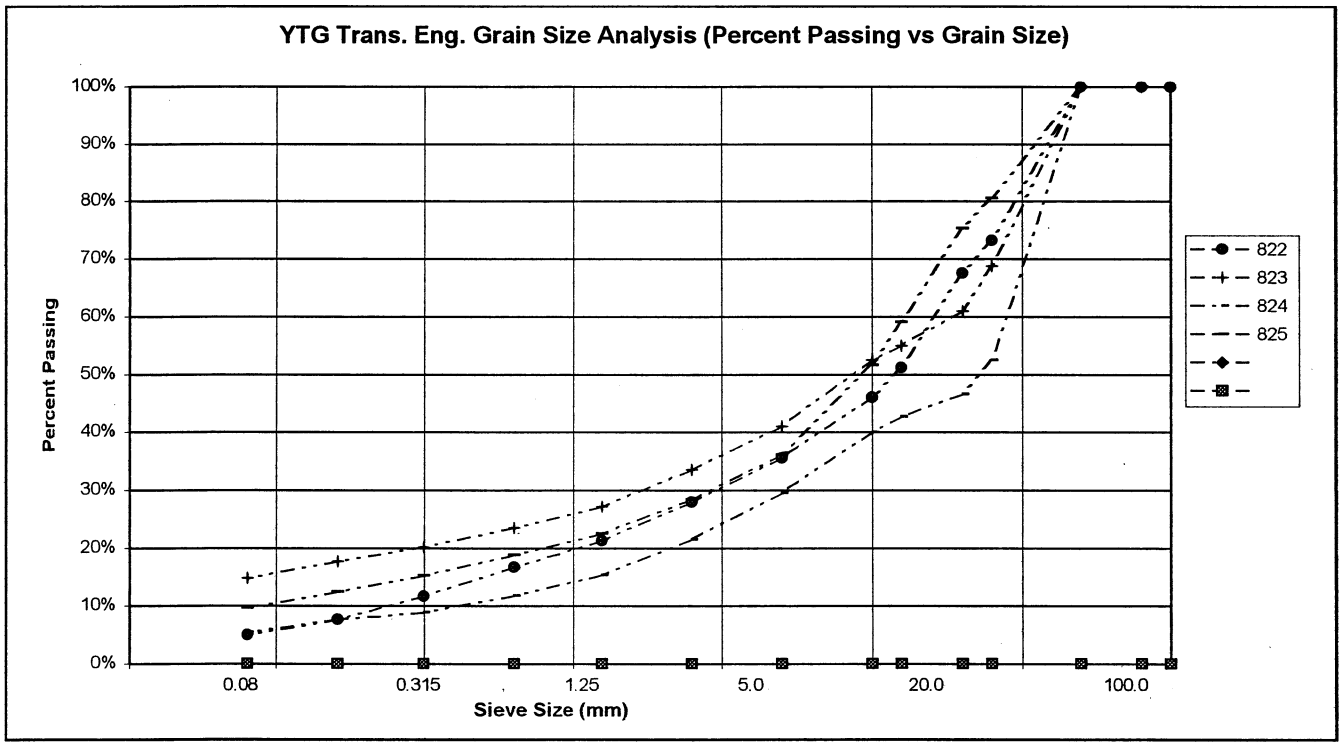


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 616-418

DATE COMP: 2001/08/29

FIELD NO:	822	823	824	825		
LAB NO:	1599	1600	1601	1602		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	4.0-4.3		
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	73%	69%	52%	81%		
20.0	68%	61%	47%	75%		
12.5	51%	55%	43%	59%		
10.0	46%	53%	40%	52%		
5.0	36%	41%	30%	36%		
2.5	28%	34%	21%	28%		
1.25	21%	27%	15%	23%		
0.630	17%	24%	12%	19%		
0.315	12%	20%	9%	15%		
0.160	8%	18%	8%	12%		
0.080	5%	15%	5%	10%		
M.C.(%):	4%	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:	64	59	70	64		
% SAND:	31	26	24	26		
% FINES:	5	15	5	10		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)		

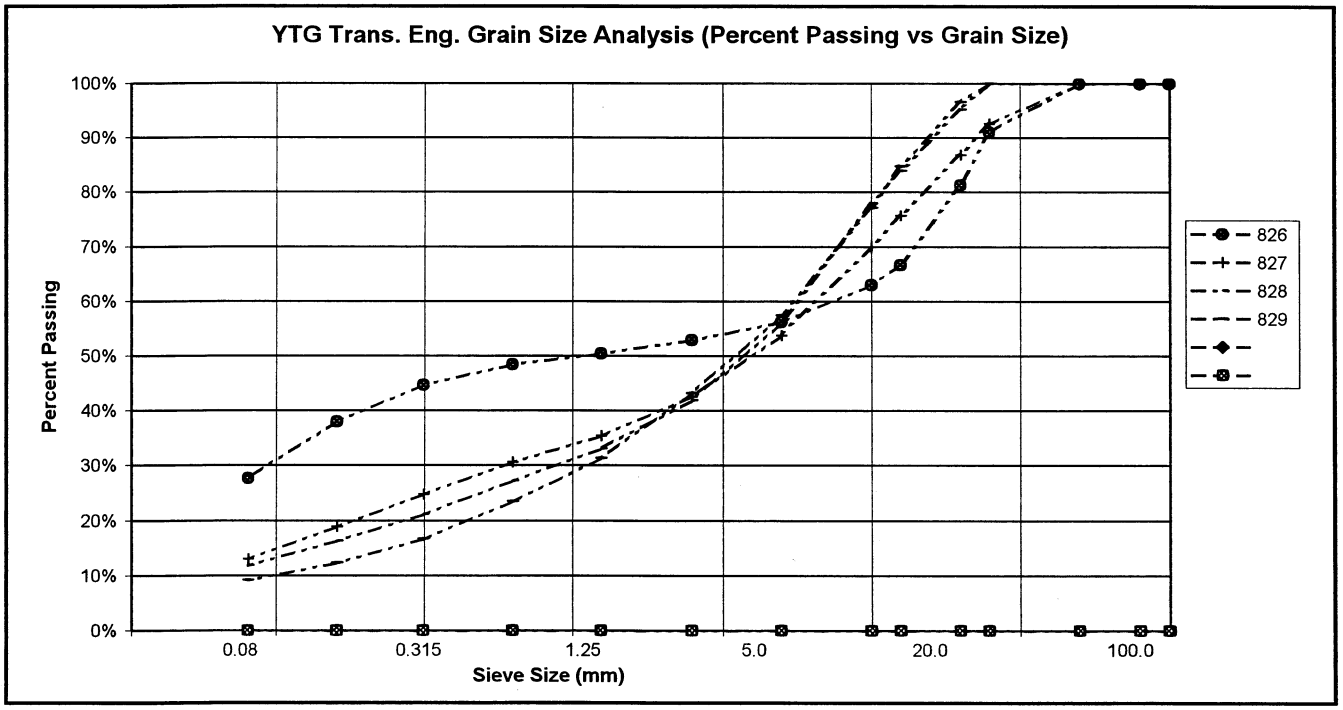


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 616-419

DATE COMP: 2001/08/29

FIELD NO:	826	827	828	829		
LAB NO:	1603	1604	1605	1606		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	4.0-4.3		
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%	93%	100%	100%		
20.0	81%	87%	95%	97%		
12.5	67%	76%	84%	85%		
10.0	63%	70%	78%	77%		
5.0	56%	54%	56%	57%		
2.5	53%	43%	42%	43%		
1.25	50%	35%	33%	31%		
0.630	48%	31%	27%	23%		
0.315	45%	25%	21%	17%		
0.160	38%	19%	16%	12%		
0.080	28%	13%	12%	9%		
M.C.(%):	6%	3%	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:	44	46	44	43		
% SAND:	29	41	44	48		
% FINES:	28	13	12	9		
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)		

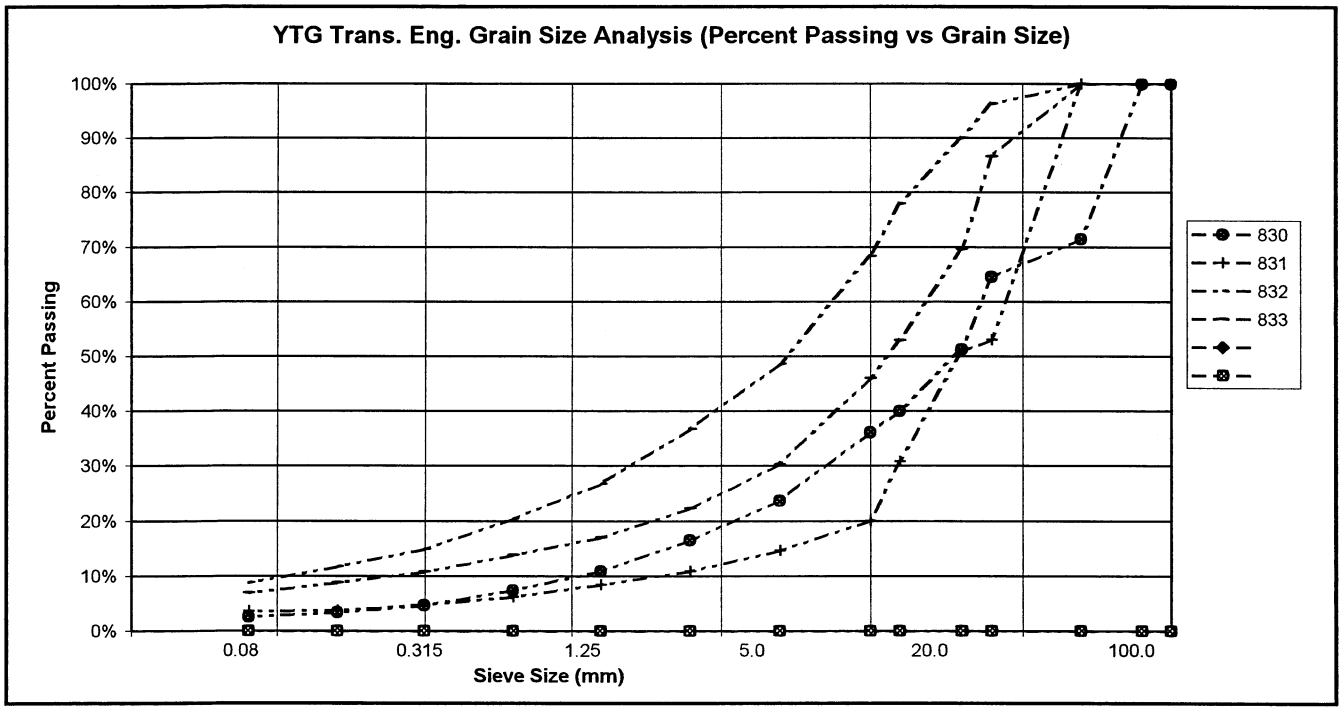


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 616-420

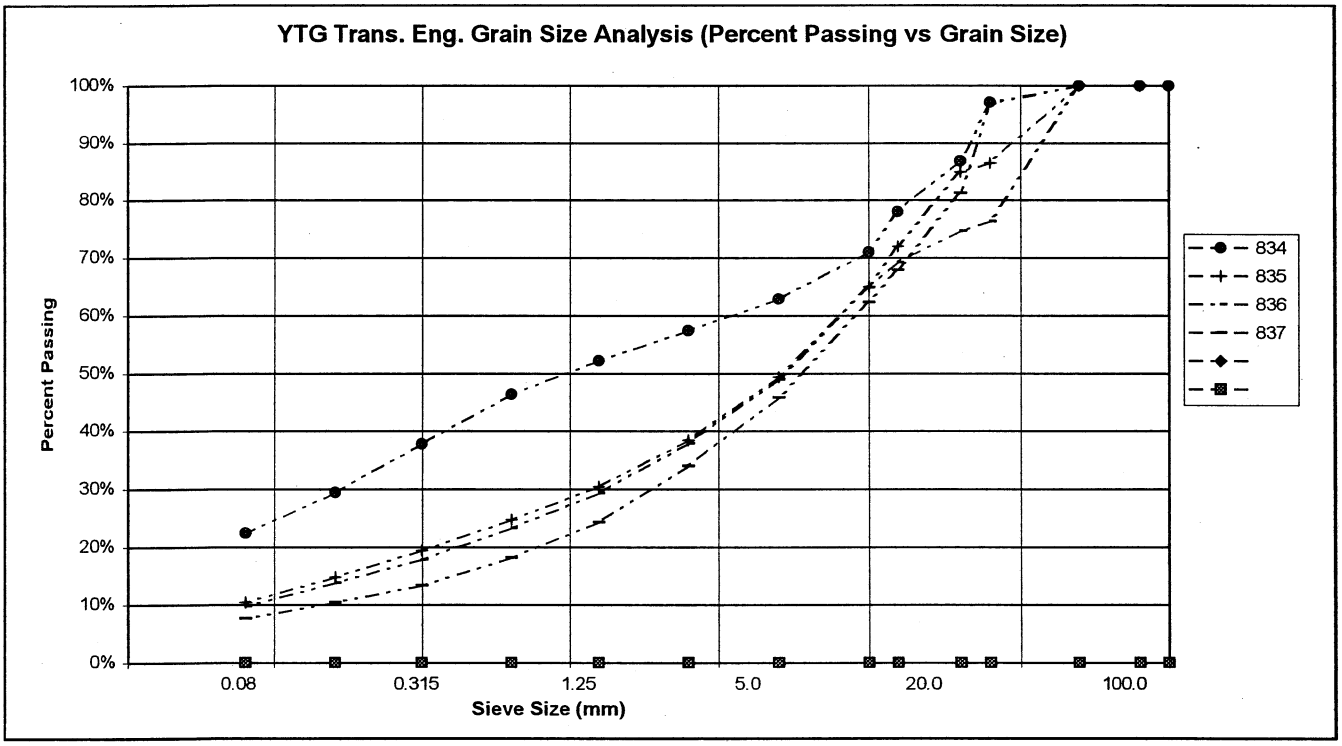
DATE COMP: 2001/08/29

FIELD NO:	830	831	832	833		
LAB NO:	1607	1608	1609	1610		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	4.0-4.3		
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	71%	100%	100%	100%		
25.0	65%	53%	96%	87%		
20.0	51%	51%	90%	70%		
12.5	40%	31%	78%	53%		
10.0	36%	20%	68%	46%		
5.0	24%	15%	49%	30%		
2.5	17%	11%	37%	22%		
1.25	11%	8%	27%	17%		
0.630	7%	6%	20%	14%		
0.315	5%	5%	15%	11%		
0.160	3%	4%	12%	9%		
0.080	3%	4%	9%	7%		
M.C.(%):	3%	3%	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:	76	85	51	70		
% SAND:	21	11	40	23		
% FINES:	3	4	9	7		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL (GW)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



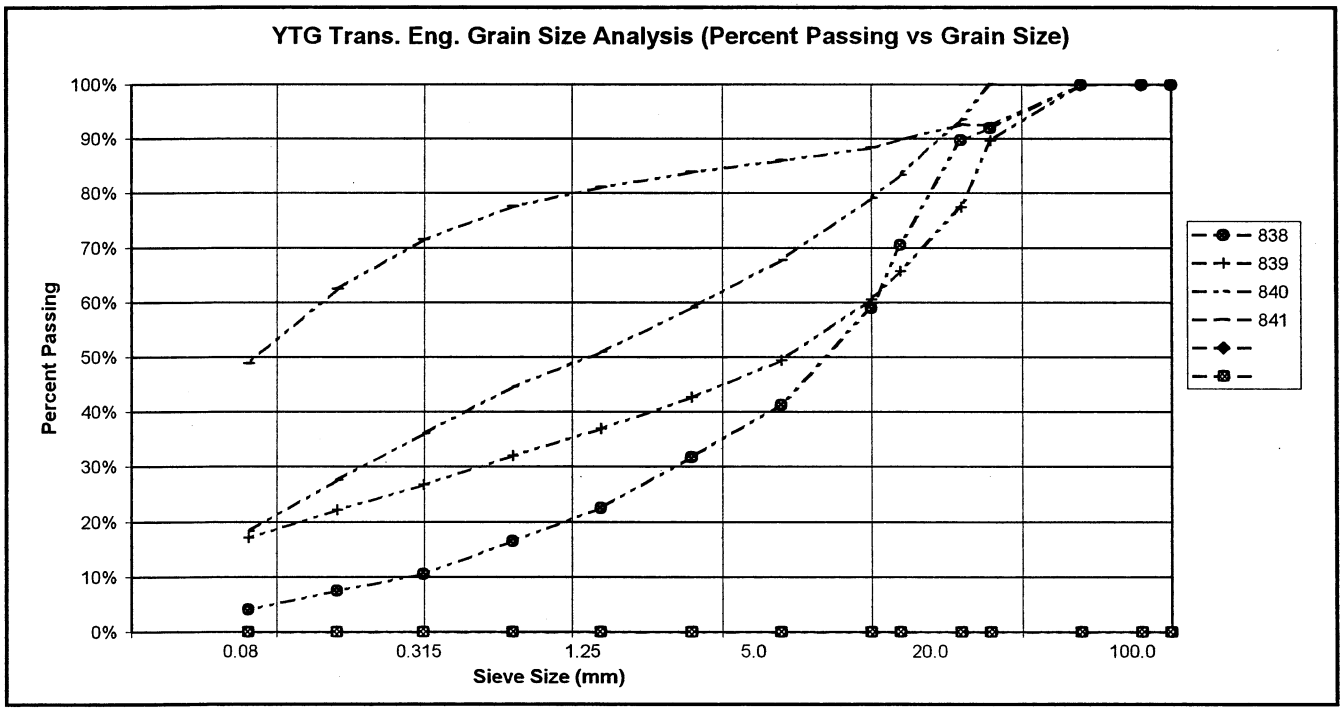
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 616-421
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/29

FIELD NO:	834	835	836	837		
LAB NO:	1611	1612	1613	1614		
DEPTH:	0.6-1.1	1.7-2.0	2.6-3.0	4.0-4.3		
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%	87%	76%	97%		
20.0	87%	85%	75%	81%		
12.5	78%	72%	69%	68%		
10.0	71%	65%	65%	62%		
5.0	63%	49%	49%	46%		
2.5	57%	39%	38%	34%		
1.25	52%	30%	29%	24%		
0.630	46%	25%	23%	18%		
0.315	38%	19%	18%	13%		
0.160	29%	15%	14%	10%		
0.080	22%	10%	10%	8%		
M.C.(%):	11%	3%	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:	37	51	51	54		
% SAND:	40	39	39	38		
% FINES:	22	10	10	8		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 616-422
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/29

FIELD NO:	838	839	840	841		
LAB NO:	1615	1616	1617	1618		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	4.0-4.3		
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%	90%	100%	93%		
20.0	90%	78%	94%	93%		
12.5	70%	66%	83%	90%		
10.0	59%	61%	79%	88%		
5.0	41%	49%	68%	86%		
2.5	32%	43%	59%	84%		
1.25	23%	37%	51%	81%		
0.630	17%	32%	45%	78%		
0.315	11%	27%	36%	71%		
0.160	8%	22%	28%	62%		
0.080	4%	17%	18%	49%		
M.C.(%):	2%	5%	5%	13%		
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	51	32	14		
% SAND:	37	32	49	37		
% FINES:	4	17	18	49		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND (SM)		

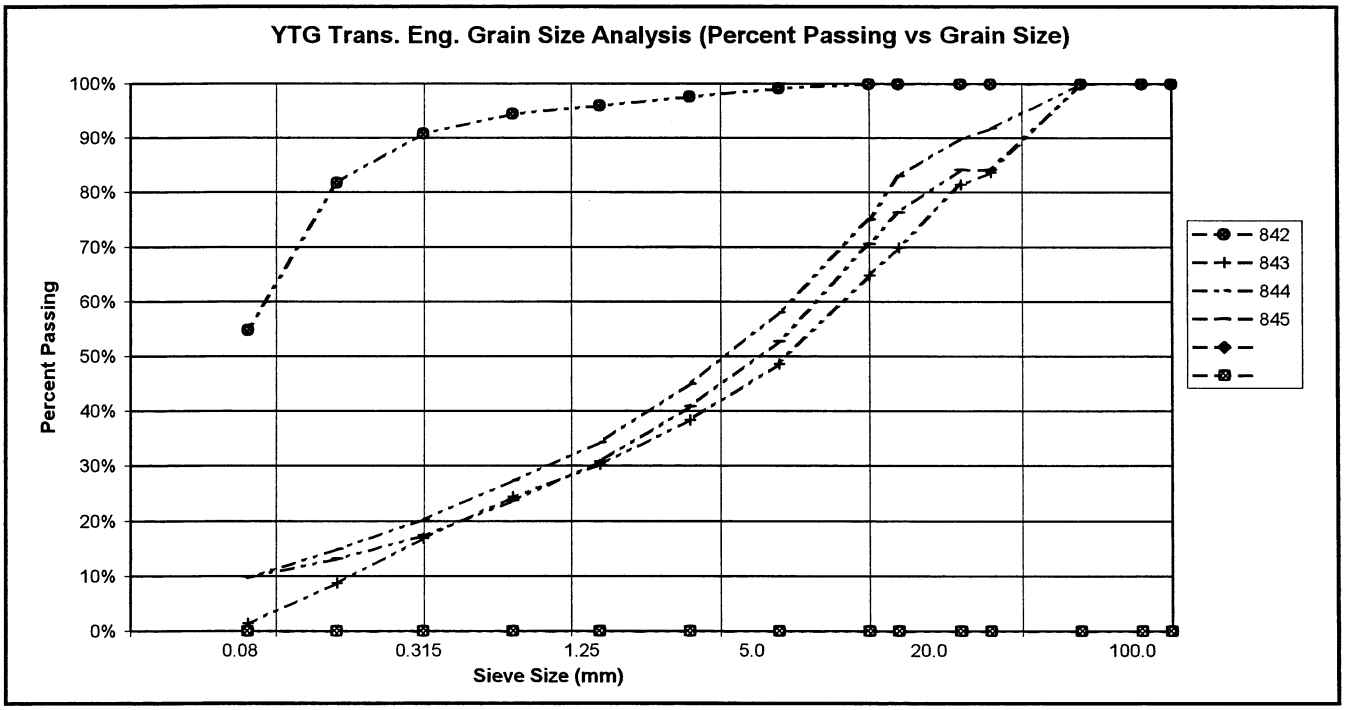


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 616-423

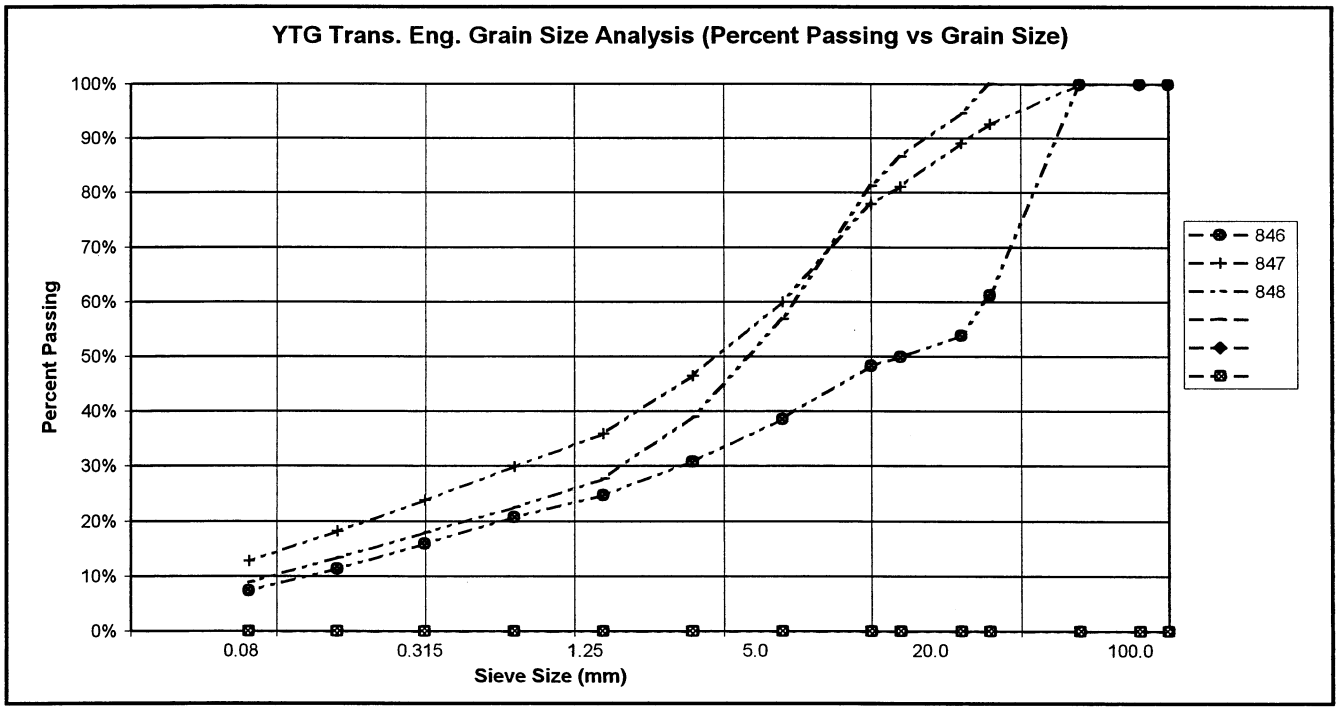
DATE COMP: 2001/08/29

FIELD NO:	842	843	844	845		
LAB NO:	1619	1620	1621	1622		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	4.0-4.3		
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%	84%	92%	84%		
20.0	100%	82%	90%	84%		
12.5	100%	70%	83%	76%		
10.0	100%	65%	75%	71%		
5.0	99%	49%	58%	53%		
2.5	98%	38%	45%	41%		
1.25	96%	30%	34%	31%		
0.630	94%	24%	27%	24%		
0.315	91%	17%	20%	17%		
0.160	82%	9%	15%	13%		
0.080	55%	1%	10%	10%		
M.C.(%):	18%	5%	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:	1	51	42	47		
% SAND:	44	47	48	43		
% FINES:	55	1	10	10		
CLASSIFICATION	SANDY SILT (ML)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 616-424
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/29

FIELD NO:	846	847	848			
LAB NO:	1623	1624	1625			
DEPTH:	1.0-1.5	2.0-2.5	3.0-3.6			
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	61%	93%	100%			
20.0	54%	89%	95%			
12.5	50%	81%	87%			
10.0	48%	78%	81%			
5.0	39%	60%	57%			
2.5	31%	46%	39%			
1.25	25%	36%	28%			
0.630	21%	30%	22%			
0.315	16%	24%	18%			
0.160	11%	18%	13%			
0.080	7%	13%	9%			
M.C.(%):	3%	5%	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:	61	40	43			
% SAND:	31	47	48			
% FINES:	7	13	9			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH GRAVEL (SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)			

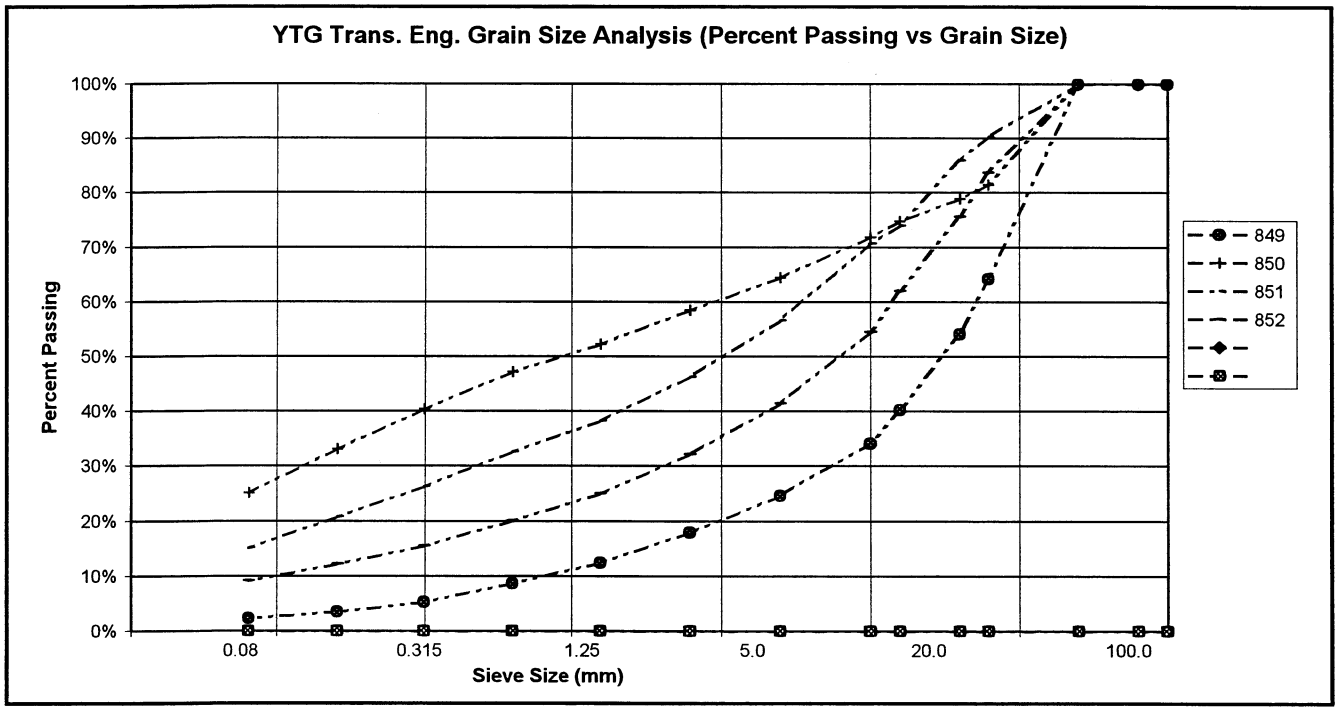


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 616-425

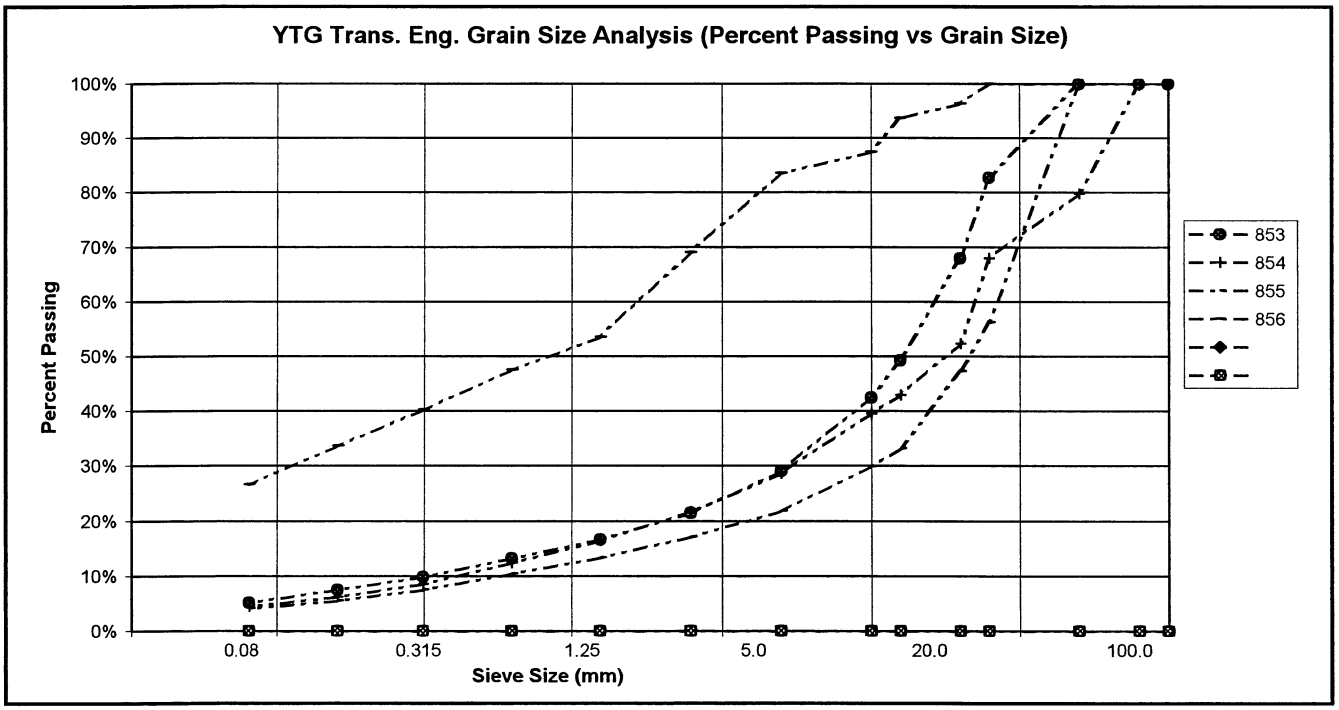
DATE COMP: 2001/08/29

FIELD NO:	849	850	851	852		
LAB NO:	1626	1627	1628	1629		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	4.0-4.4		
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	64%	81%	90%	84%		
20.0	54%	79%	86%	76%		
12.5	40%	75%	74%	62%		
10.0	34%	72%	71%	54%		
5.0	25%	64%	57%	41%		
2.5	18%	58%	46%	32%		
1.25	12%	52%	38%	25%		
0.630	9%	47%	33%	20%		
0.315	5%	40%	26%	16%		
0.160	3%	33%	21%	12%		
0.080	2%	25%	15%	9%		
M.C.(%):	2%	12%	6%	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:	75	36	43	59		
% SAND:	22	39	41	32		
% FINES:	2	25	15	9		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



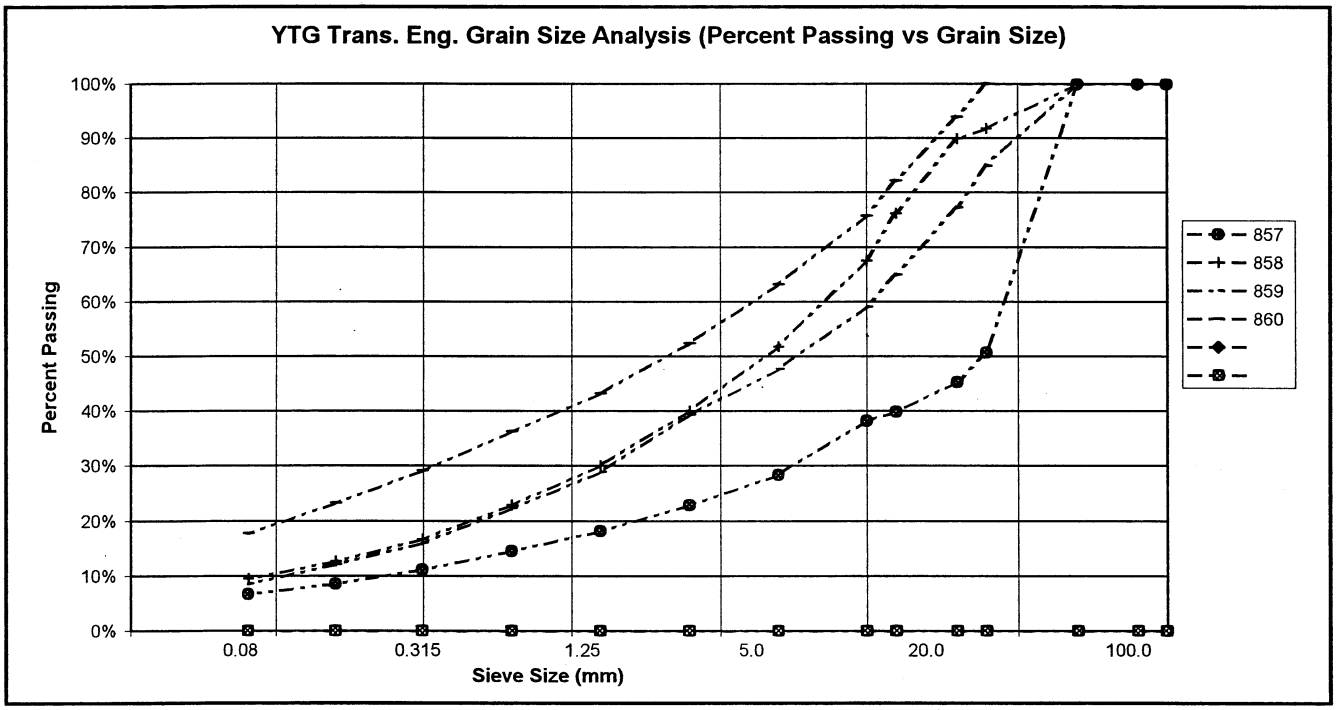
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 616-426
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/29

FIELD NO:	853	854	855	856		
LAB NO:	1630	1631	1632	1633		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	4.0-4.3		
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%	80%	100%	100%		
25.0	83%	68%	56%	100%		
20.0	68%	52%	47%	96%		
12.5	49%	43%	33%	94%		
10.0	43%	40%	30%	87%		
5.0	29%	29%	22%	84%		
2.5	22%	22%	17%	69%		
1.25	17%	16%	13%	54%		
0.630	13%	12%	10%	48%		
0.315	10%	9%	8%	40%		
0.160	8%	6%	6%	34%		
0.080	5%	5%	4%	27%		
M.C.(%):	4%	2%	3%	12%		
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:	71	71	78	16		
% SAND:	24	24	18	57		
% FINES:	5	5	4	27		
CLASSIFICATION	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)		



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 616-427
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/29

FIELD NO:	857	858	859	860		
LAB NO:	1634	1635	1636	1637		
DEPTH:	0.6-1.0	1.6-2.0	2.5-2.8	3.6-43		
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	51%	92%	85%	100%		
20.0	45%	90%	77%	94%		
12.5	40%	76%	65%	82%		
10.0	38%	68%	59%	76%		
5.0	28%	52%	48%	63%		
2.5	23%	40%	39%	52%		
1.25	18%	30%	29%	43%		
0.630	15%	23%	22%	36%		
0.315	11%	17%	16%	29%		
0.160	9%	13%	12%	23%		
0.080	7%	10%	9%	18%		
M.C.(%):	4%	3%	4%	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:	72	48	52	37		
% SAND:	22	42	39	45		
% FINES:	7	10	9	18		
CLASSIFICATION	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH -GRAVEL (SM)		

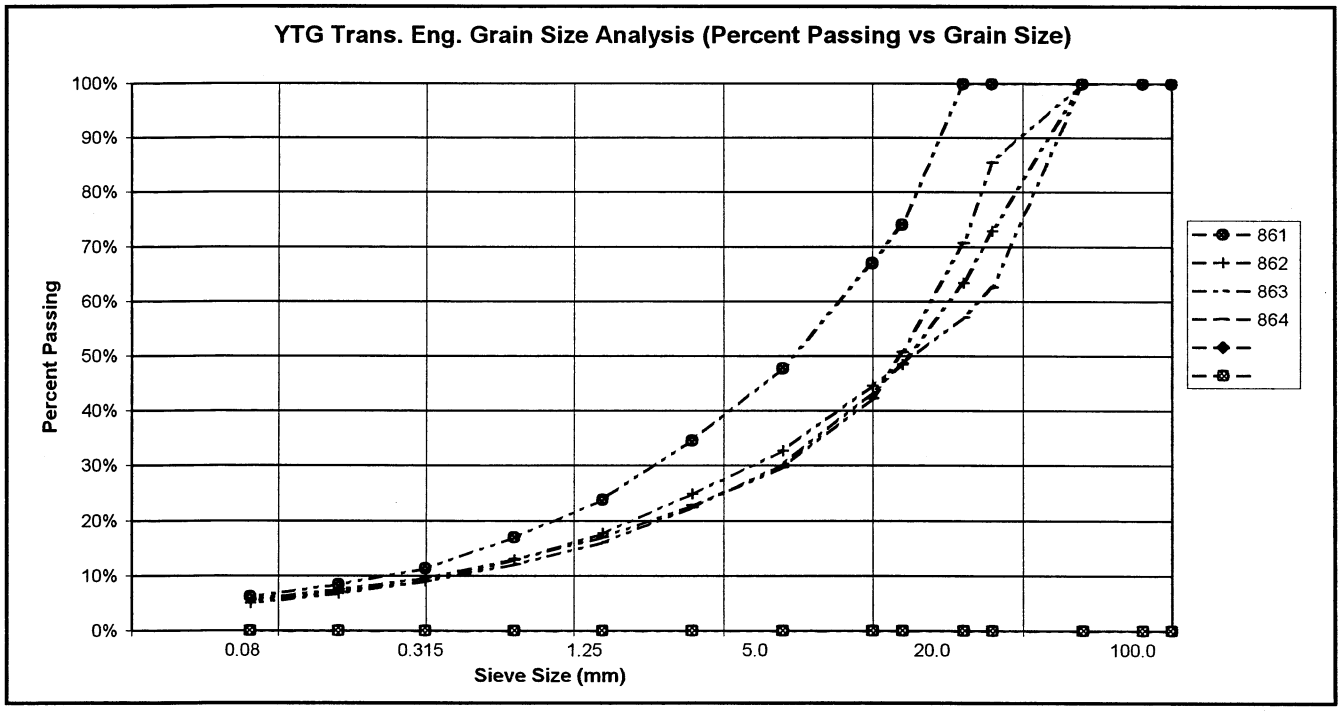


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 616-428

DATE COMP: 2001/08/29

FIELD NO:	861	862	863	864		
LAB NO:	1638	1639	1640	1641		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.6-4.0		
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	100%	73%	63%	85%		
20.0	100%	63%	57%	71%		
12.5	74%	48%	49%	51%		
10.0	67%	45%	43%	42%		
5.0	48%	33%	30%	30%		
2.5	35%	25%	22%	23%		
1.25	24%	18%	16%	17%		
0.630	17%	13%	12%	13%		
0.315	11%	9%	9%	10%		
0.160	8%	7%	7%	7%		
0.080	6%	5%	5%	6%		
M.C.(%):	4%	2%	2%	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:	52	67	70	70		
% SAND:	42	28	25	24		
% FINES:	6	5	5	6		
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)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)		

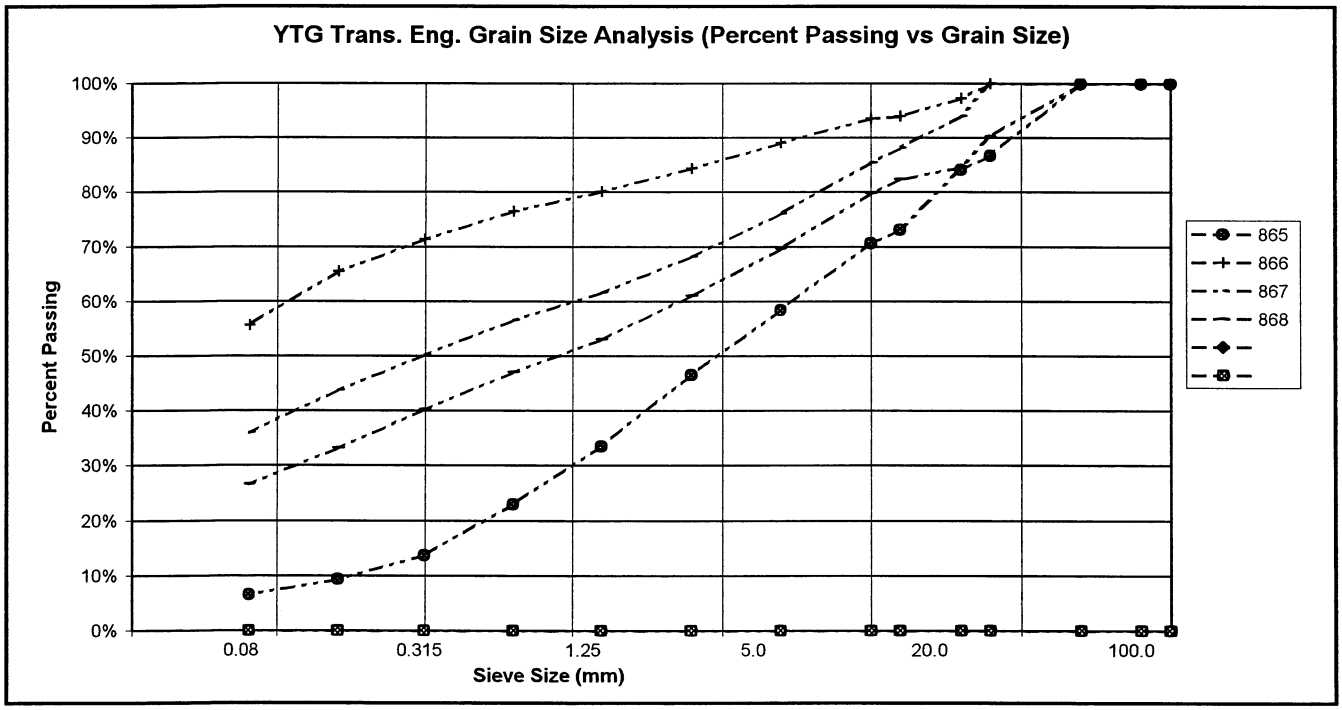


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 616-429

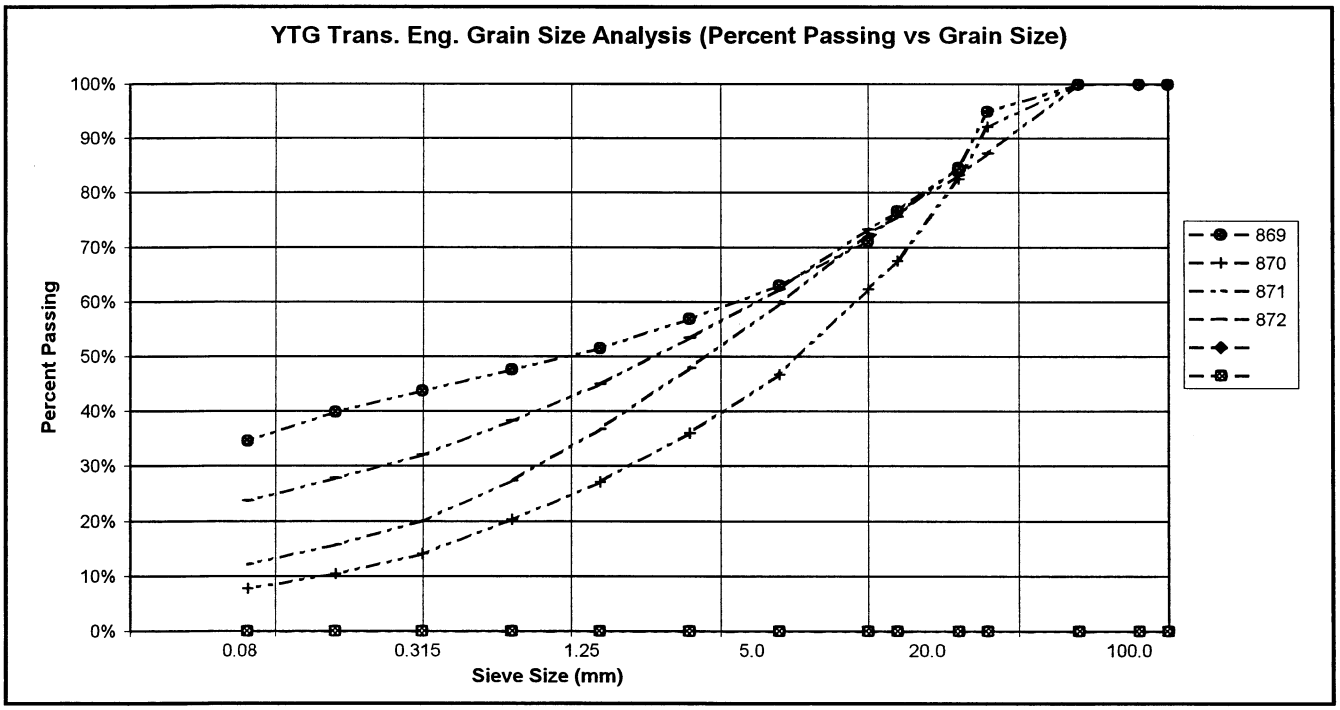
DATE COMP: 2001/08/29

FIELD NO:	865	866	867	868		
LAB NO:	1642	1643	1644	1645		
DEPTH:	0.6-1.0	1.6-2.0	2.8-3.2	4.0-4.5		
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	87%	100%	100%	90%		
20.0	84%	97%	94%	85%		
12.5	73%	94%	88%	82%		
10.0	71%	94%	85%	80%		
5.0	58%	89%	76%	70%		
2.5	47%	84%	68%	61%		
1.25	34%	80%	62%	53%		
0.630	23%	77%	57%	47%		
0.315	14%	71%	50%	40%		
0.160	9%	65%	44%	33%		
0.080	7%	56%	36%	27%		
M.C.(%):	25%	17%	18%	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:	42	11	24	30		
% SAND:	52	33	40	43		
% FINES:	7	56	36	27		
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SANDY SILT (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		



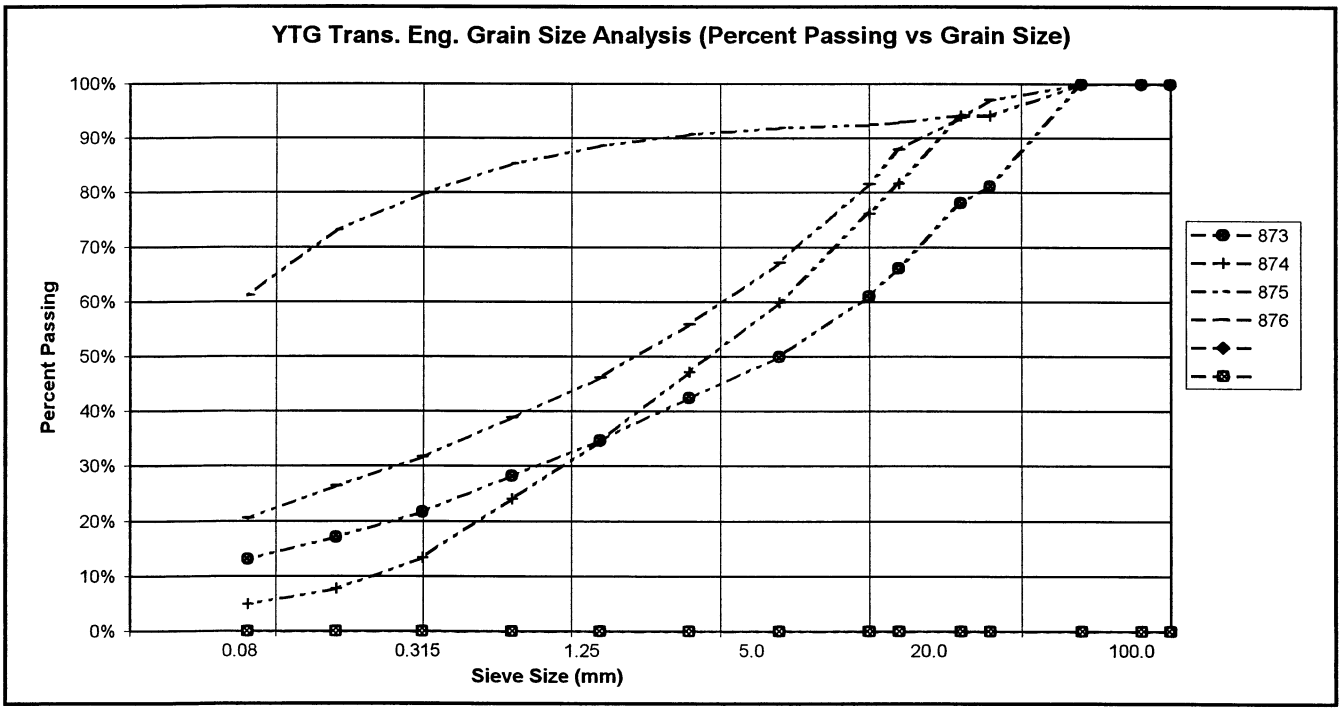
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 616-430
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/29

FIELD NO:	869	870	871	872		
LAB NO:	1646	1647	1648	1649		
DEPTH:	0.3-0.8	1.0-1.5	2.5-3.0	4.0-4.2		
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	95%	92%	95%	87%		
20.0	85%	82%	85%	83%		
12.5	77%	68%	76%	76%		
10.0	71%	62%	72%	73%		
5.0	63%	47%	60%	62%		
2.5	57%	36%	48%	53%		
1.25	52%	27%	37%	45%		
0.630	48%	20%	27%	38%		
0.315	44%	14%	20%	32%		
0.160	40%	10%	16%	28%		
0.080	35%	8%	12%	24%		
M.C.(%):	16%	5%	7%	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:	37	53	40	38		
% SAND:	28	39	47	39		
% FINES:	35	8	12	24		
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		



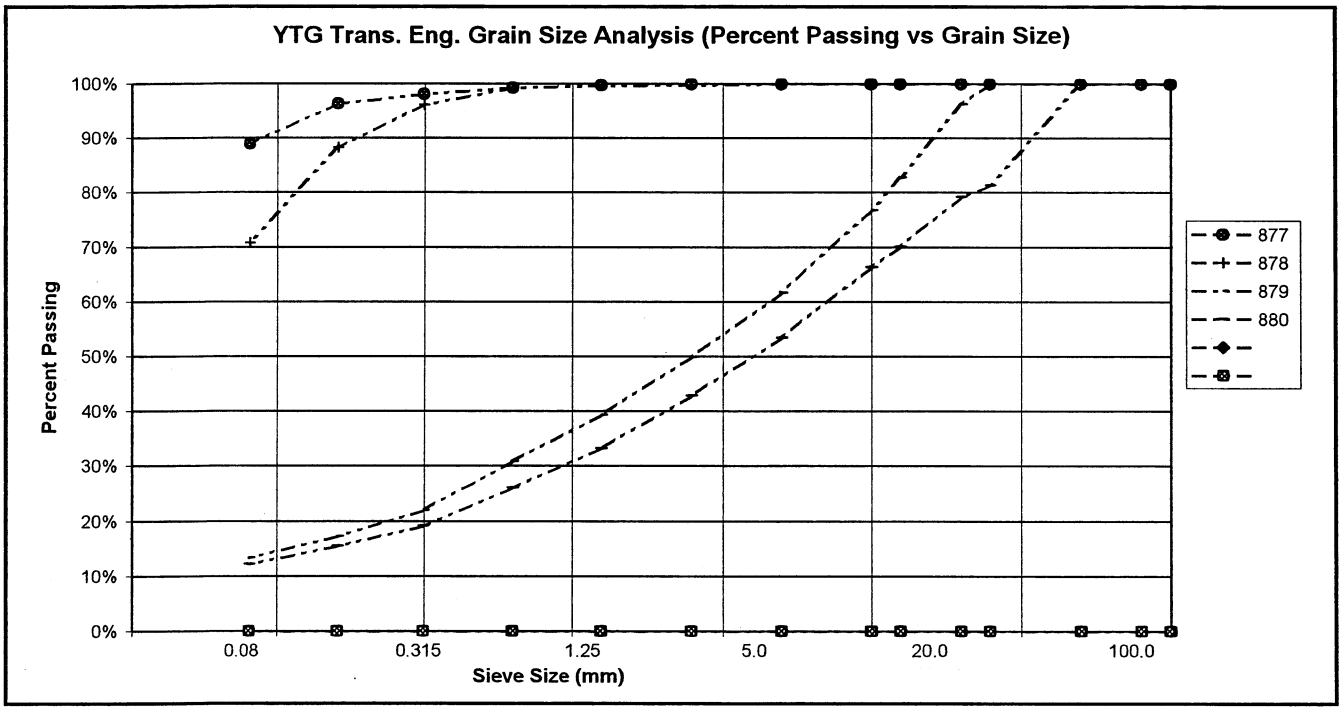
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 616-431
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/29

FIELD NO:	873	874	875	876		
LAB NO:	1650	1651	1652	1653		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	4.0-4.3		
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	81%	94%	94%	97%		
20.0	78%	94%	94%	94%		
12.5	66%	82%	93%	88%		
10.0	61%	76%	92%	82%		
5.0	50%	60%	92%	67%		
2.5	43%	47%	91%	56%		
1.25	35%	34%	89%	46%		
0.630	28%	24%	85%	39%		
0.315	22%	13%	80%	32%		
0.160	17%	8%	73%	26%		
0.080	13%	5%	61%	20%		
M.C.(%):	8%	4%	4%	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:	50	40	8	33		
% SAND:	37	55	31	47		
% FINES:	13	5	61	20		
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	WELL-GRADED SAND WITH GRAVEL (SW)	SANDY SILT (ML)	SILTY SAND WITH GRAVEL (SM)		



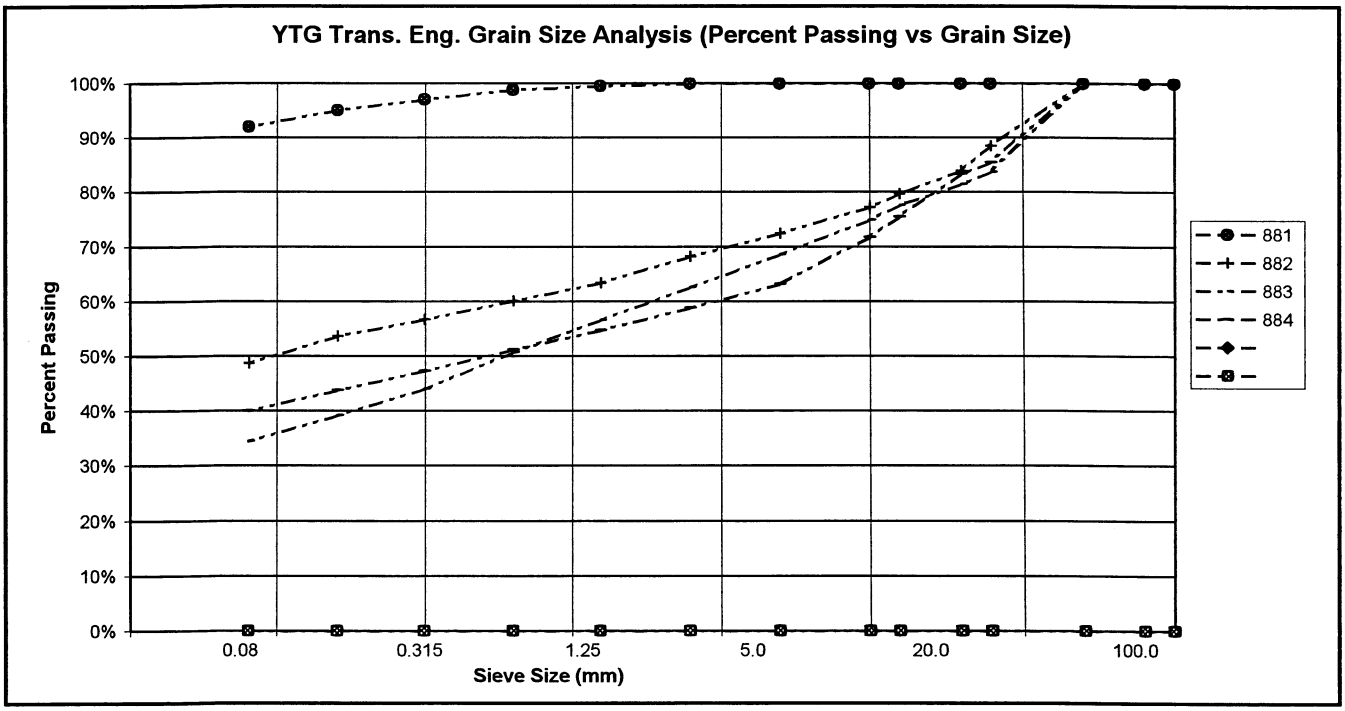
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 616-432
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/30

FIELD NO:	877	878	879	880		
LAB NO:	1654	1655	1656	1657		
DEPTH:	0.8-1.0	1.6-2.0	2.6-3.0	3.6-4.0		
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	100%	100%	100%	81%		
20.0	100%	100%	96%	79%		
12.5	100%	100%	83%	70%		
10.0	100%	100%	77%	66%		
5.0	100%	100%	62%	53%		
2.5	100%	100%	50%	43%		
1.25	100%	100%	39%	33%		
0.630	99%	99%	31%	26%		
0.315	98%	96%	22%	19%		
0.160	96%	88%	17%	16%		
0.080	89%	71%	13%	12%		
M.C.(%):	38%	27%	7%	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:	0	0	38	47		
% SAND:	11	29	48	41		
% FINES:	89	71	13	12		
CLASSIFICATION	SILT (ML)	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)		



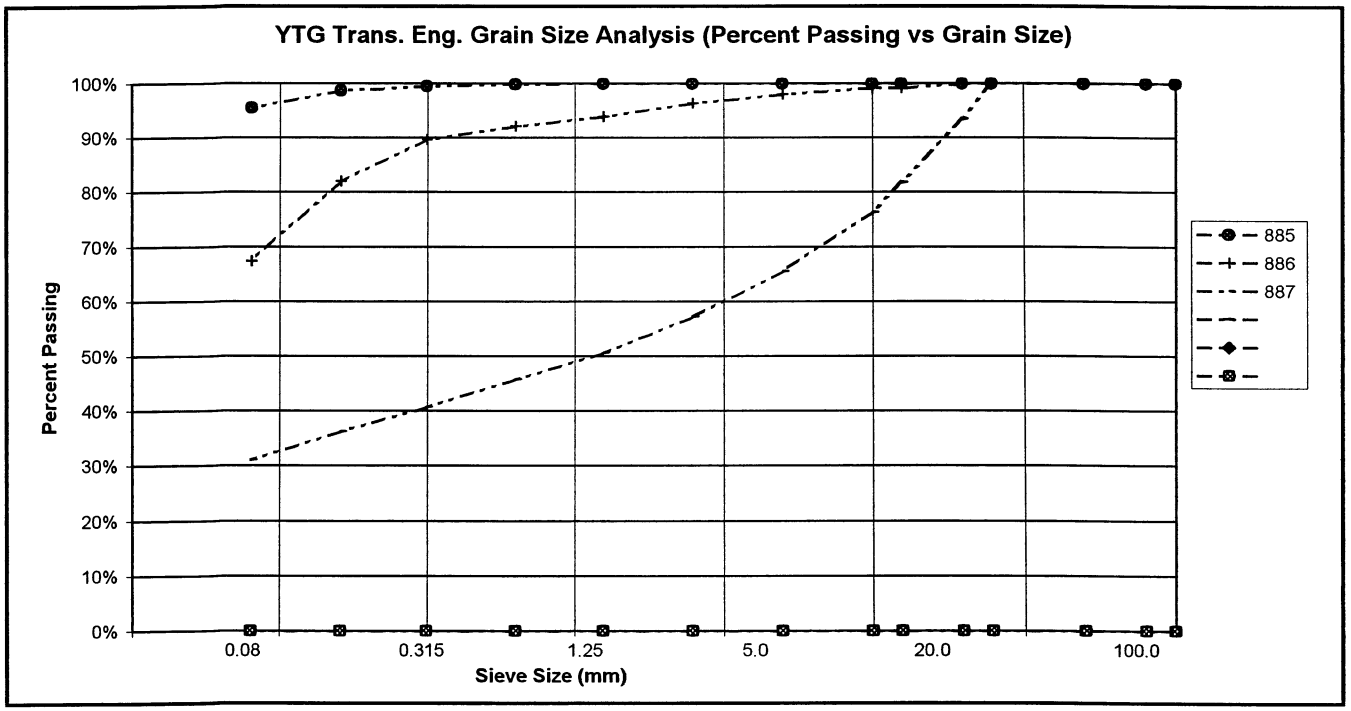
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 616-433
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/30

FIELD NO:	881	882	883	884		
LAB NO:	1658	1659	1660	1661		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.0-4.0		
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	100%	89%	84%	85%		
20.0	100%	84%	81%	83%		
12.5	100%	80%	78%	75%		
10.0	100%	77%	75%	72%		
5.0	100%	72%	69%	63%		
2.5	100%	68%	63%	59%		
1.25	100%	63%	57%	55%		
0.630	99%	60%	51%	51%		
0.315	97%	57%	44%	47%		
0.160	95%	54%	39%	44%		
0.080	92%	49%	35%	40%		
M.C.(%):	40%	18%	18%	14%		
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	28	31	37		
% SAND:	8	24	34	23		
% FINES:	92	49	35	40		
CLASSIFICATION	SILT (ML)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)		



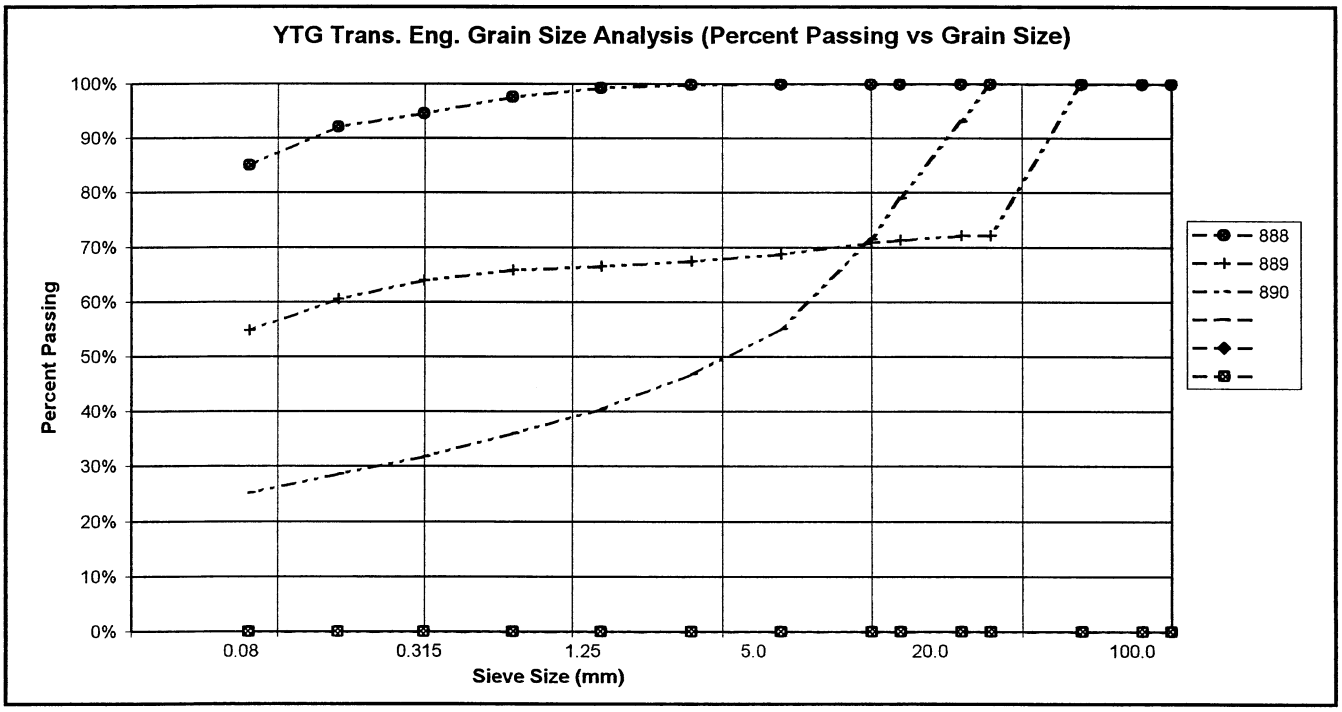
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 616-434
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/30

FIELD NO:	885	886	887			
LAB NO:	1662	1663	1664			
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0			
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%	100%			
20.0	100%	100%	93%			
12.5	100%	99%	82%			
10.0	100%	99%	76%			
5.0	100%	98%	65%			
2.5	100%	96%	57%			
1.25	100%	94%	51%			
0.630	100%	92%	46%			
0.315	99%	90%	41%			
0.160	99%	82%	36%			
0.080	96%	67%	31%			
M.C.(%):	58%	57%	15%			
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	2	35			
% SAND:	4	31	34			
% FINES:	96	67	31			
CLASSIFICATION	SILT (ML)	SANDY SILT (ML)	SILTY GRAVEL WITH SAND (GM)			



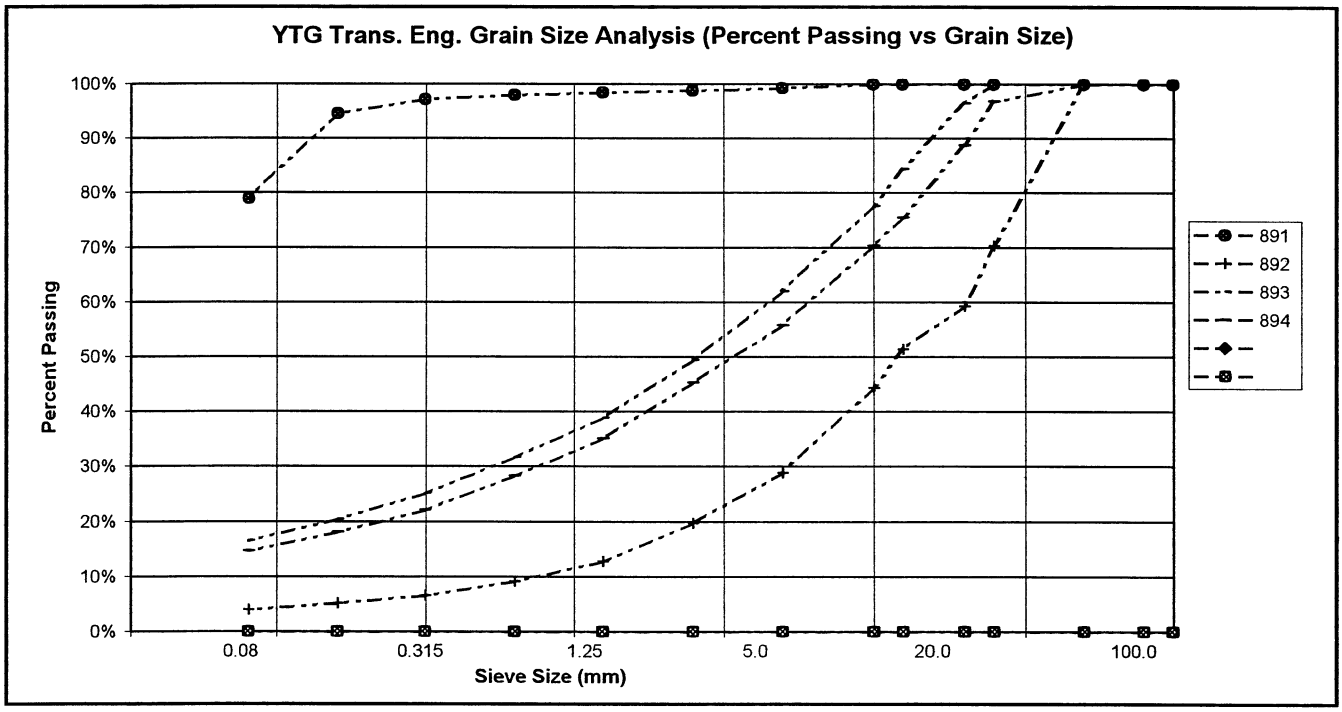
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 617-435
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/30

FIELD NO:	888	889	890			
LAB NO:	1665	1666	1667			
DEPTH:	0.7-1.0	1.6-2.0	2.6-3.0			
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%	72%	100%			
20.0	100%	72%	93%			
12.5	100%	71%	79%			
10.0	100%	71%	72%			
5.0	100%	69%	55%			
2.5	100%	67%	47%			
1.25	99%	67%	41%			
0.630	98%	66%	36%			
0.315	95%	64%	32%			
0.160	92%	61%	29%			
0.080	85%	55%	25%			
M.C.(%):	59%	27%	14%			
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	45			
% SAND:	15	14	30			
% FINES:	85	55	25			
CLASSIFICATION	SILT (ML)	GRAVELLY SILT (ML)	SILTY GRAVEL WITH SAND (GM)			



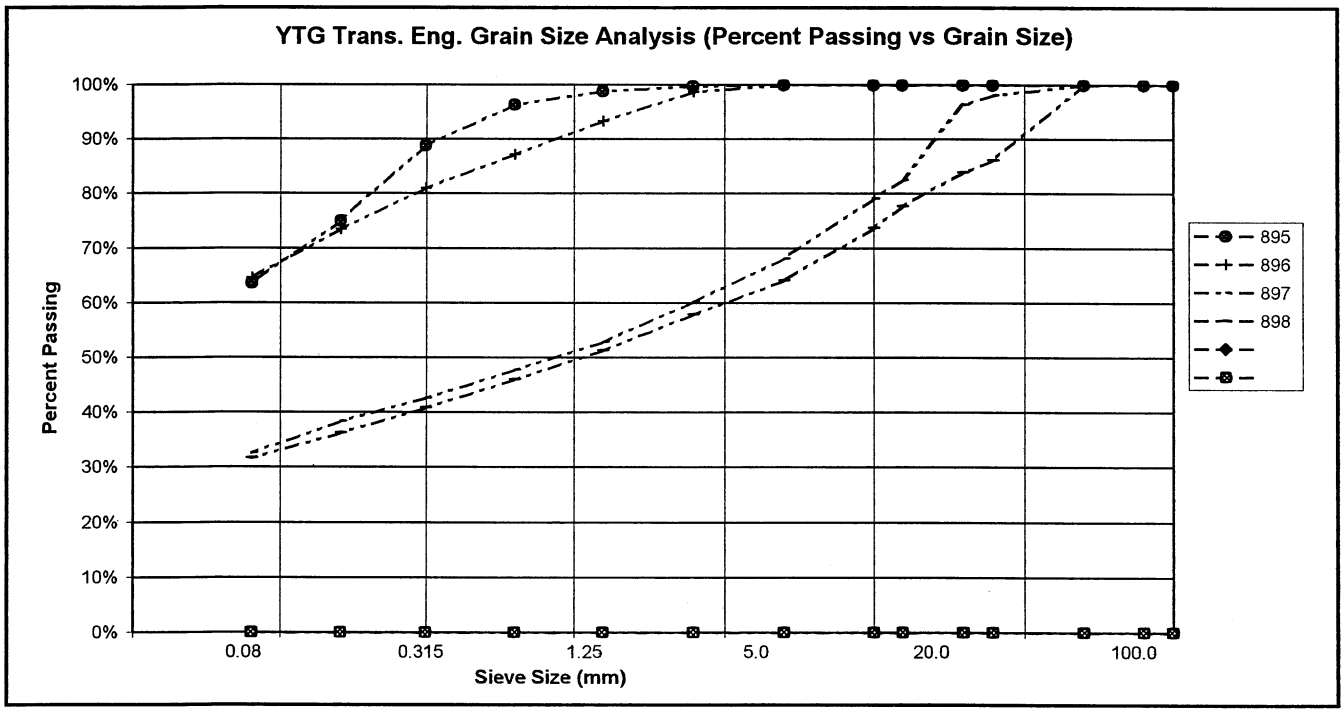
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 617-436
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/28

FIELD NO:	891	892	893	894		
LAB NO:	1668	1669	1670	1671		
DEPTH:	0.6-1.0	1.6-2.0	2.8-3.0	3.6-4.0		
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	100%	70%	100%	97%		
20.0	100%	59%	96%	89%		
12.5	100%	51%	84%	76%		
10.0	100%	44%	78%	70%		
5.0	99%	29%	62%	56%		
2.5	99%	20%	49%	45%		
1.25	98%	13%	39%	35%		
0.630	98%	9%	32%	28%		
0.315	97%	7%	25%	22%		
0.160	95%	5%	20%	18%		
0.080	79%	4%	17%	15%		
M.C.(%):	23%	2%	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:	1	71	38	44		
% SAND:	20	25	45	41		
% FINES:	79	4	17	15		
CLASSIFICATION	SILT WITH SAND (ML)	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)		



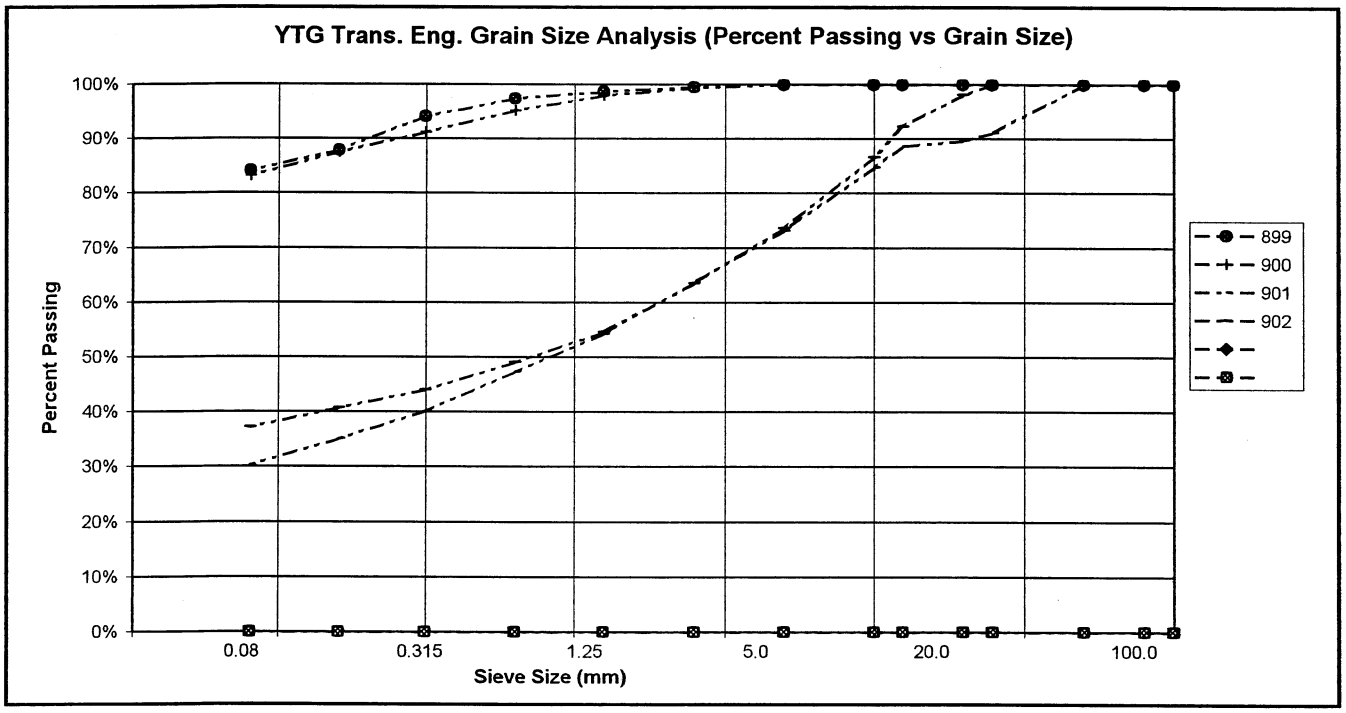
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 617-437
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/28

FIELD NO:	895	896	897	898		
LAB NO:	1672	1673	1674	1675		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	98%	86%		
20.0	100%	100%	96%	84%		
12.5	100%	100%	82%	78%		
10.0	100%	100%	79%	74%		
5.0	100%	100%	68%	64%		
2.5	100%	99%	60%	58%		
1.25	99%	93%	53%	51%		
0.630	96%	87%	48%	46%		
0.315	89%	81%	43%	41%		
0.160	75%	73%	38%	36%		
0.080	64%	65%	33%	32%		
M.C.(%):	32%	42%	16%	18%		
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	32	36		
% SAND:	36	35	35	32		
% FINES:	64	65	33	32		
CLASSIFICATION	SANDY SILT (ML)	SANDY SILT (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)		



PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 617-438
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/28

FIELD NO:	899	900	901	902		
LAB NO:	1676	1677	1678	1679		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.0		
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	100%	100%	91%	100%		
20.0	100%	100%	90%	98%		
12.5	100%	100%	89%	92%		
10.0	100%	100%	85%	87%		
5.0	100%	100%	73%	74%		
2.5	100%	99%	64%	63%		
1.25	99%	98%	54%	55%		
0.630	97%	95%	47%	49%		
0.315	94%	91%	40%	44%		
0.160	88%	88%	35%	41%		
0.080	84%	83%	30%	37%		
M.C.(%):	41%	40%	14%	17%		
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	27	26		
% SAND:	16	17	43	36		
% FINES:	84	83	30	37		
CLASSIFICATION	SILT WITH SAND (ML)	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		

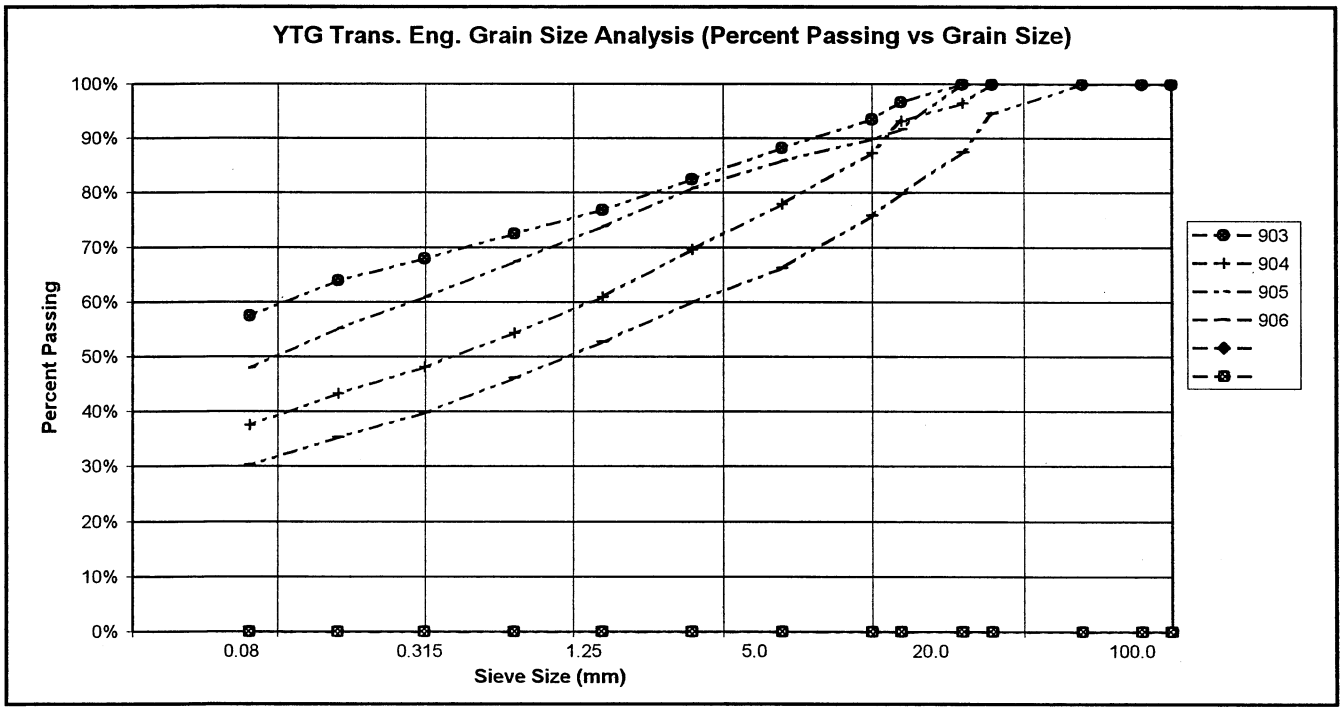


PROJECT NUMBER: 092-202101-0362-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 10
PROJECT LOCATION: Km 1692.6-1729.6 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 617-439

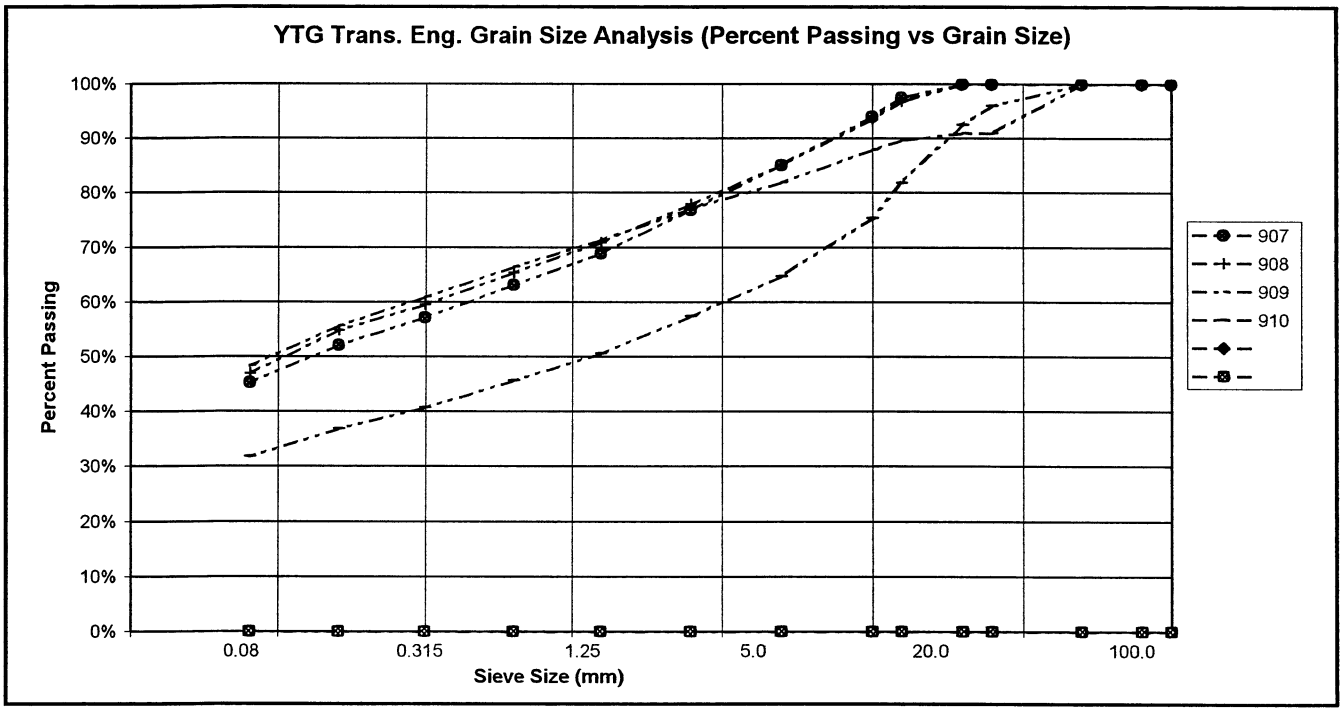
DATE COMP: 2001/08/28

FIELD NO:	903	904	905	906		
LAB NO:	1680	1681	1682	1683		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	97%	100%	87%		
12.5	97%	93%	92%	80%		
10.0	94%	87%	90%	76%		
5.0	88%	78%	86%	66%		
2.5	83%	70%	81%	60%		
1.25	77%	61%	74%	53%		
0.630	73%	54%	67%	46%		
0.315	68%	48%	61%	40%		
0.160	64%	43%	55%	35%		
0.080	58%	38%	48%	30%		
M.C.(%):	17%	8%	9%	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:	12	22	14	34		
% SAND:	31	40	38	36		
% FINES:	58	38	48	30		
CLASSIFICATION	SANDY SILT (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)		



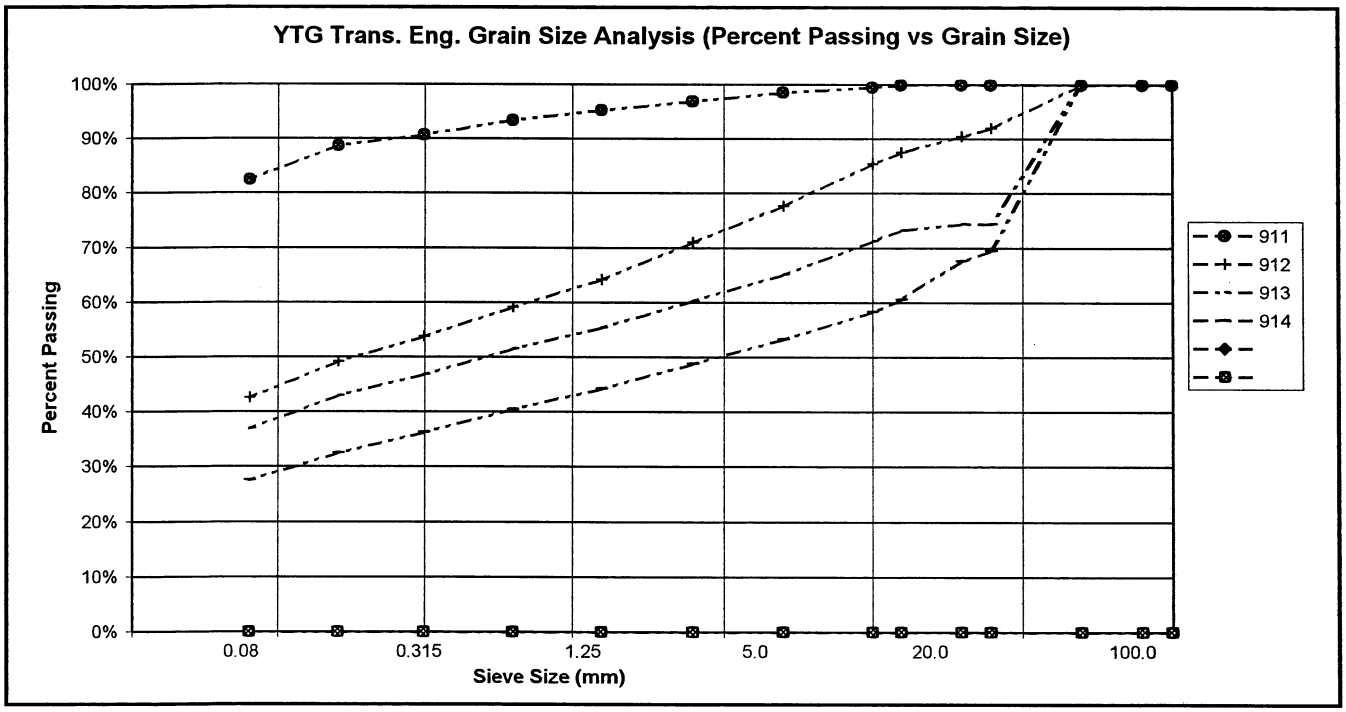
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 617-440
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/28

FIELD NO:	907	908	909	910		
LAB NO:	1684	1685	1686	1687		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	91%	96%		
20.0	100%	100%	91%	93%		
12.5	98%	97%	90%	82%		
10.0	94%	94%	88%	75%		
5.0	85%	85%	82%	65%		
2.5	77%	78%	77%	57%		
1.25	69%	71%	71%	51%		
0.630	63%	65%	66%	46%		
0.315	57%	59%	61%	41%		
0.160	52%	55%	56%	37%		
0.080	45%	47%	48%	32%		
M.C.(%):	10%	11%	9%	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:	15	15	18	35		
% SAND:	40	38	34	33		
% FINES:	45	47	48	32		
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)		



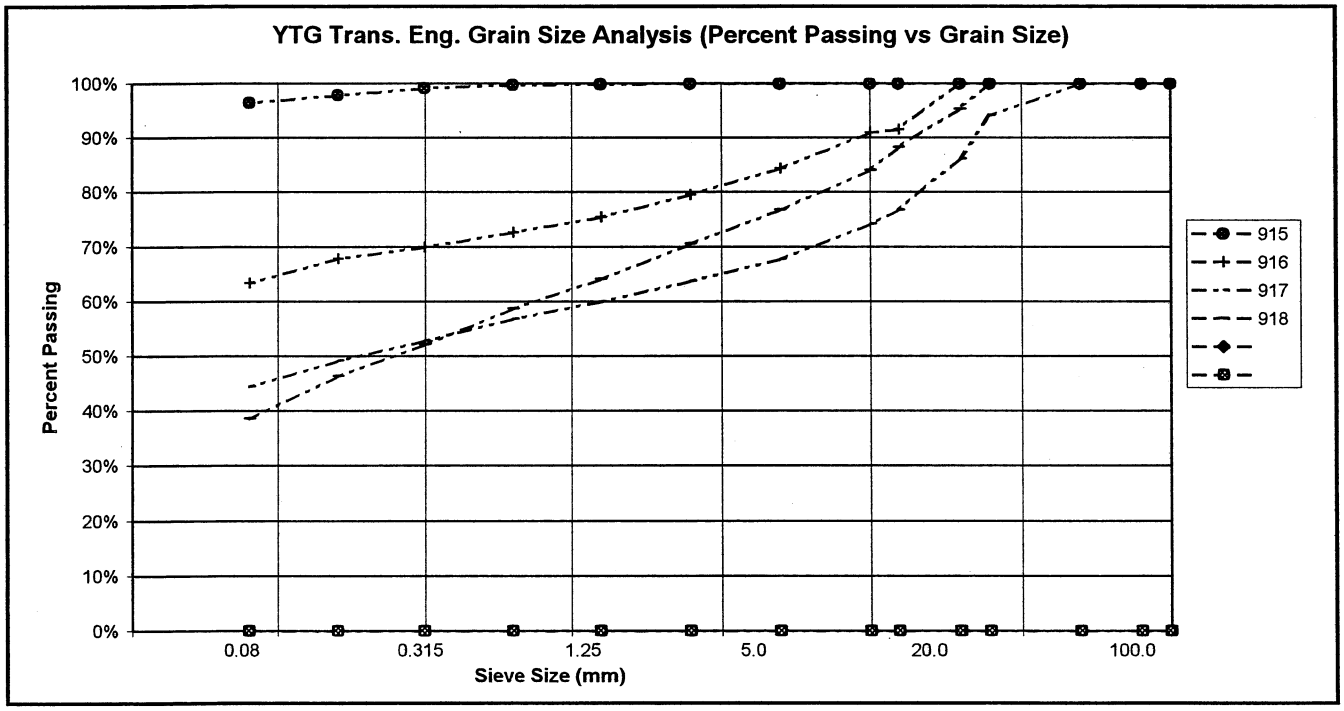
PROJECT NUMBER:	092-202101-0362-1	HOLE No.: 617-441
CLIENT:	ENGINEERING CAPITAL	
PROJECT NAME:	SHAKWAK SEG 10	
PROJECT LOCATION:	Km 1692.6-1729.6 A/H	
DRILL UNIT:	MOBILE B40 L	
HOLE LOCATION:	See Testhole Log Sheet	
LOGGED BY:	G.C.	DATE COMP: 2001/08/28

FIELD NO:	911	912	913	914		
LAB NO:	1688	1689	1690	1691		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.6-4.0		
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	100%	92%	74%	70%		
20.0	100%	90%	74%	68%		
12.5	100%	88%	73%	61%		
10.0	100%	85%	71%	58%		
5.0	99%	78%	65%	53%		
2.5	97%	71%	60%	49%		
1.25	95%	64%	55%	44%		
0.630	93%	59%	52%	40%		
0.315	91%	54%	47%	36%		
0.160	89%	49%	43%	33%		
0.080	83%	43%	37%	28%		
M.C.(%):	20%	9%	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:	1	22	35	47		
% SAND:	16	35	28	26		
% FINES:	83	43	37	28		
CLASSIFICATION	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)		



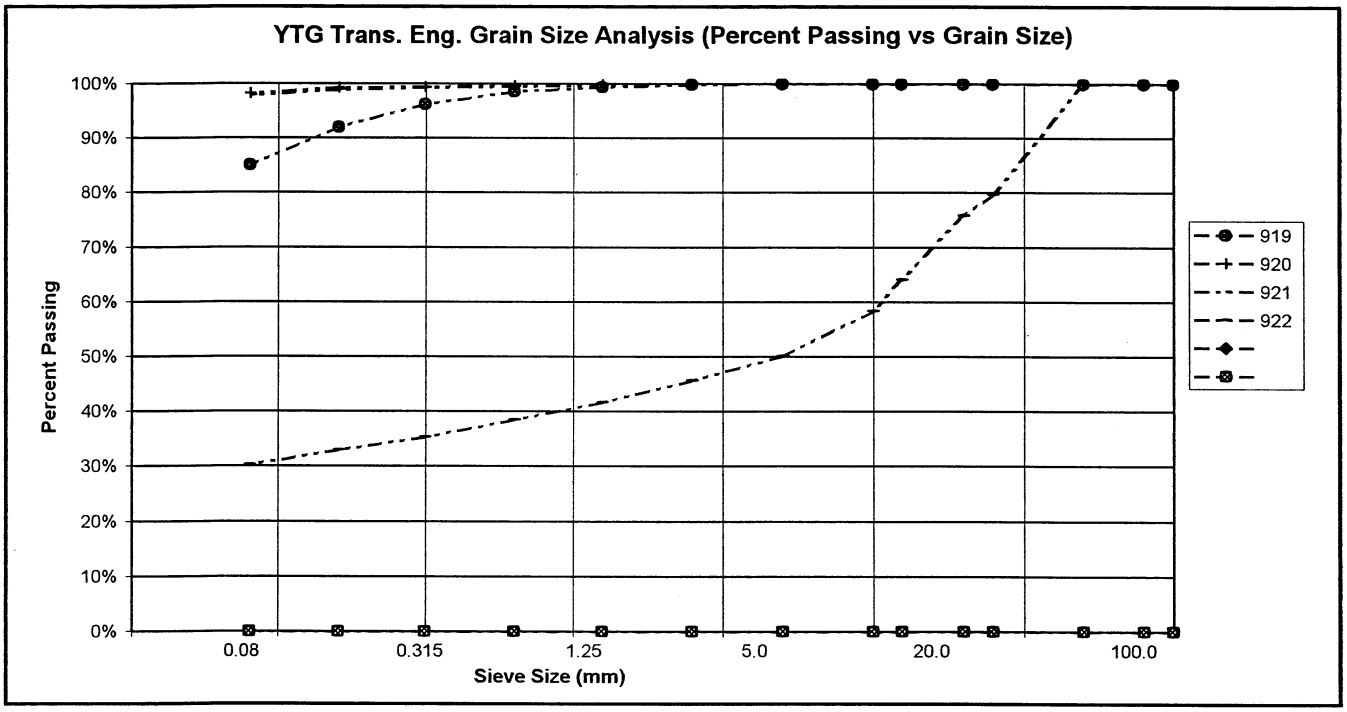
PROJECT NUMBER:	092-202101-0362-1	HOLE No.: 617-442
CLIENT:	ENGINEERING CAPITAL	
PROJECT NAME:	SHAKWAK SEG 10	
PROJECT LOCATION:	Km 1692.6-1729.6 A/H	
DRILL UNIT:	MOBILE B40 L	
HOLE LOCATION:	See Testhole Log Sheet	
LOGGED BY:	G.C.	DATE COMP: 2001/08/28

FIELD NO:	915	916	917	918		
LAB NO:	1692	1693	1694	1695		
DEPTH:	0.8-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	94%	100%		
20.0	100%	100%	86%	95%		
12.5	100%	92%	77%	88%		
10.0	100%	91%	74%	84%		
5.0	100%	84%	68%	77%		
2.5	100%	80%	64%	71%		
1.25	100%	75%	60%	64%		
0.630	100%	73%	57%	59%		
0.315	99%	70%	53%	52%		
0.160	98%	68%	49%	46%		
0.080	96%	63%	44%	39%		
M.C.(%):	46%	19%	20%	10%		
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	16	32	23		
% SAND:	3	21	23	38		
% FINES:	96	63	44	39		
CLASSIFICATION	SILT (ML)	SANDY SILT WITH GRAVEL (ML)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)		



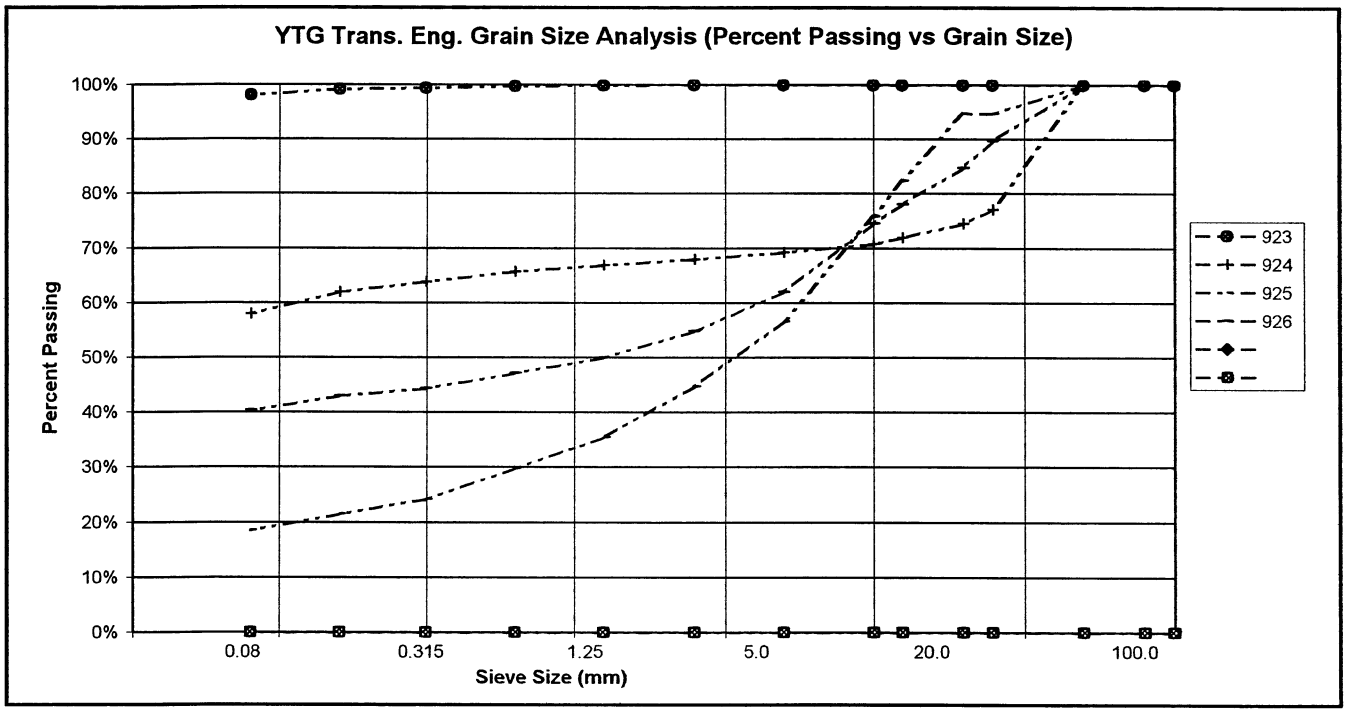
PROJECT NUMBER:	092-202101-0362-1	HOLE No.: 617-443
CLIENT:	ENGINEERING CAPITAL	
PROJECT NAME:	SHAKWAK SEG 10	
PROJECT LOCATION:	Km 1692.6-1729.6 A/H	
DRILL UNIT:	MOBILE B40 L	
HOLE LOCATION:	See Testhole Log Sheet	
LOGGED BY:	G.C.	DATE COMP: 2001/08/28

FIELD NO:	919	920	921	922		
LAB NO:	1696	1697	1698	1699		
DEPTH:	0.6-1.0	1.0-1.5	2.6-3.0	3.8-4.3		
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%	80%		
20.0	100%	100%	100%	76%		
12.5	100%	100%	100%	64%		
10.0	100%	100%	100%	58%		
5.0	100%	100%	100%	50%		
2.5	100%	100%	100%	46%		
1.25	99%	100%	100%	42%		
0.630	99%	100%	100%	38%		
0.315	96%	99%	99%	35%		
0.160	92%	99%	99%	33%		
0.080	85%	98%	98%	30%		
M.C.(%):	39%	39%	41%	14%		
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	50		
% SAND:	15	2	2	20		
% FINES:	85	98	98	30		
CLASSIFICATION	SILT (ML)	SILT (ML)	SILT (ML)	SILTY GRAVEL WITH SAND (GM)		



PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 617-444
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/28

FIELD NO:	923	924	925	926		
LAB NO:	1700	1701	1702	1703		
DEPTH:	0.6-1.0	1.75-2.0	2.6-3.0	3.8-4.3		
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%	77%	95%	90%		
20.0	100%	75%	95%	85%		
12.5	100%	72%	82%	78%		
10.0	100%	71%	76%	75%		
5.0	100%	69%	57%	62%		
2.5	100%	68%	45%	55%		
1.25	100%	67%	35%	50%		
0.630	100%	66%	30%	47%		
0.315	99%	64%	24%	44%		
0.160	99%	62%	21%	43%		
0.080	98%	58%	19%	40%		
M.C.(%):	46%	19%	7%	18%		
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	31	43	38		
% SAND:	2	11	38	22		
% FINES:	98	58	19	40		
CLASSIFICATION	SILT (ML)	GRAVELLY SILT (ML)	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)		

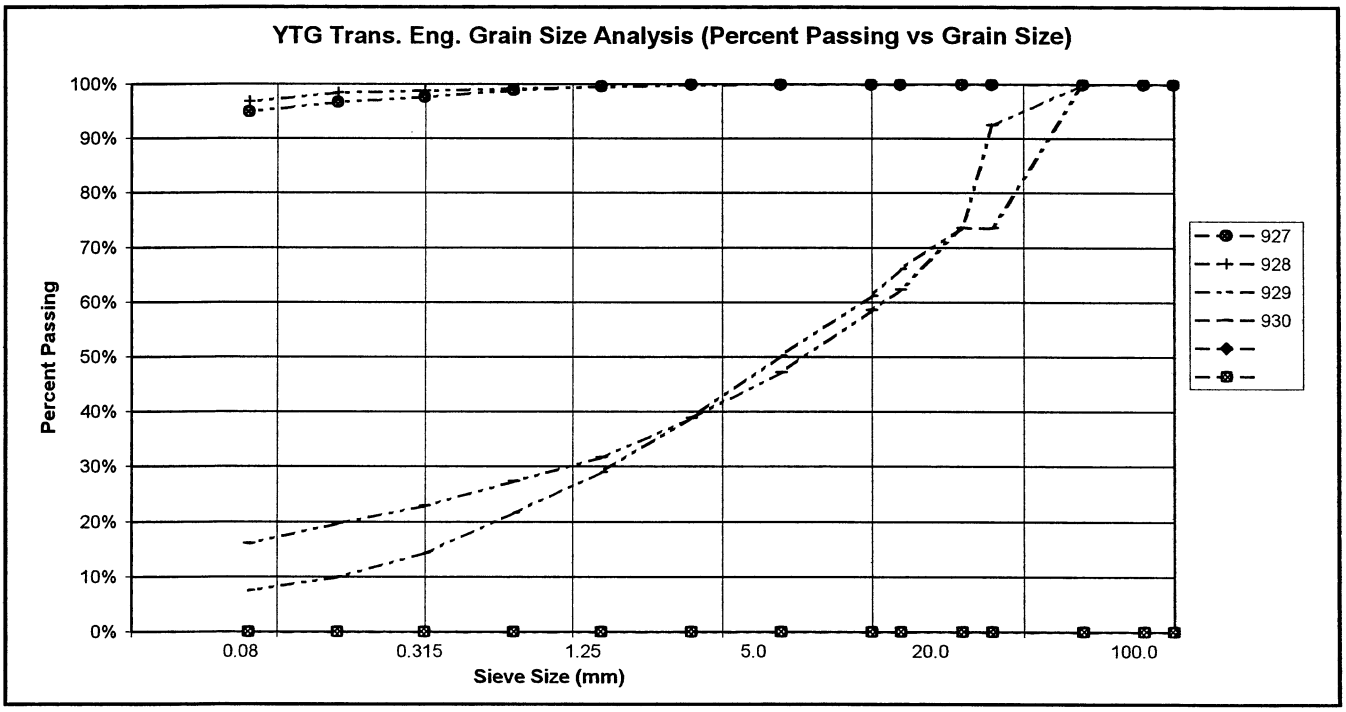


PROJECT NUMBER: 092-202101-0362-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 10
PROJECT LOCATION: Km 1692.6-1729.6 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 617-445

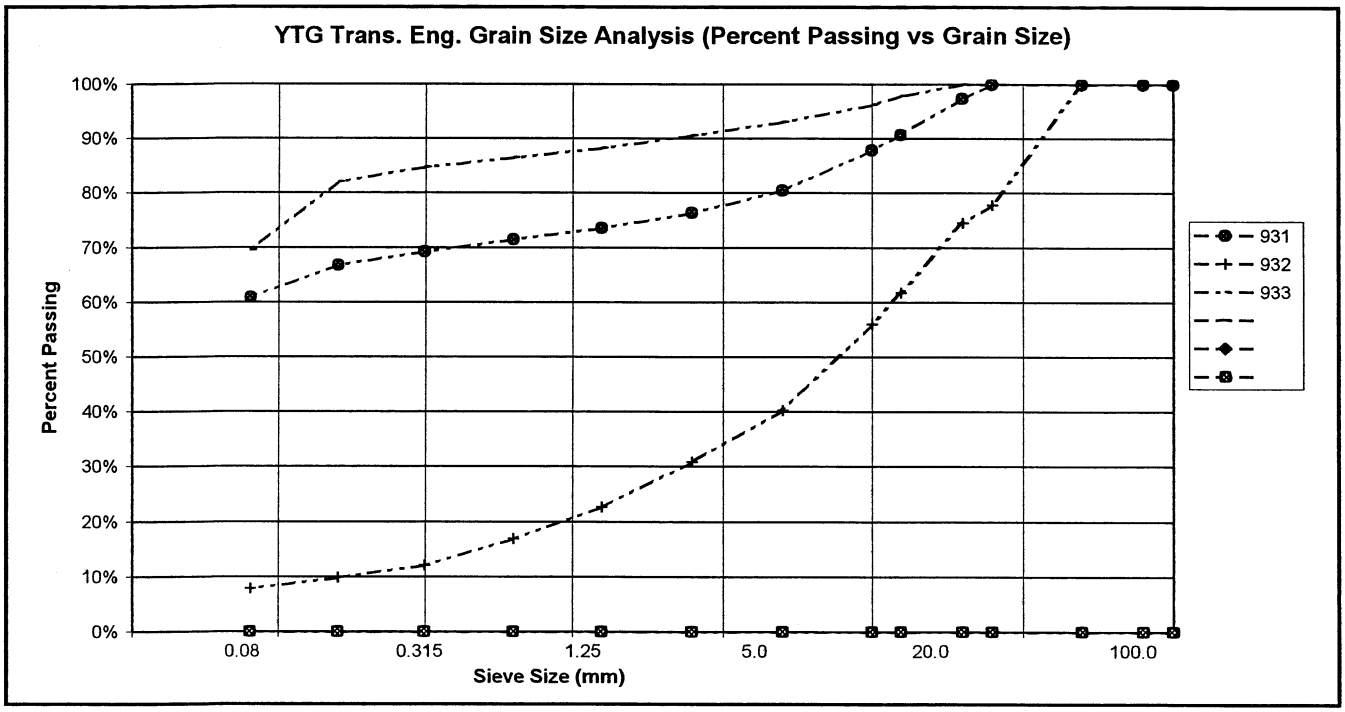
DATE COMP: 2001/08/31

FIELD NO:	927	928	929	930		
LAB NO:	1704	1705	1706	1707		
DEPTH:	0.75-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	74%	92%		
20.0	100%	100%	74%	74%		
12.5	100%	100%	66%	62%		
10.0	100%	100%	61%	59%		
5.0	100%	100%	50%	47%		
2.5	100%	100%	39%	39%		
1.25	100%	100%	29%	32%		
0.630	99%	99%	22%	27%		
0.315	98%	99%	14%	23%		
0.160	97%	98%	10%	20%		
0.080	95%	97%	7%	16%		
M.C.(%):	58%	30%	4%	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	50	53		
% SAND:	5	3	43	31		
% FINES:	95	97	7	16		
CLASSIFICATION	SILT (ML)	SILT (ML)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)		



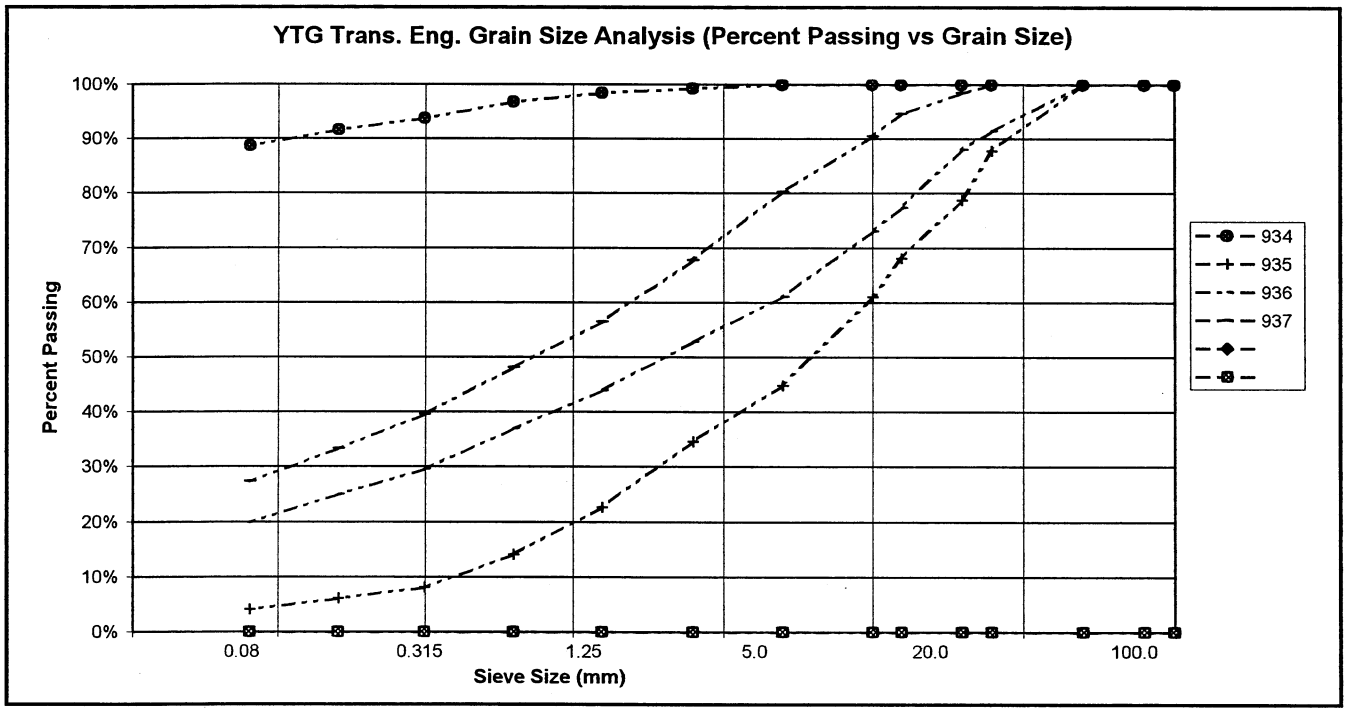
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 617-446
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/31

FIELD NO:	931	932	933			
LAB NO:	1708	1709	1710			
DEPTH:	1.2-1.75	2.5-3.0	3.8-4.3			
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%	78%	100%			
20.0	97%	74%	100%			
12.5	91%	62%	98%			
10.0	88%	56%	96%			
5.0	81%	40%	93%			
2.5	76%	31%	91%			
1.25	74%	23%	88%			
0.630	72%	17%	87%			
0.315	69%	12%	85%			
0.160	67%	10%	82%			
0.080	61%	8%	70%			
M.C.(%):	20%	3%	15%			
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	60	7			
% SAND:	20	32	24			
% FINES:	61	8	70			
CLASSIFICATION	SANDY SILT WITH GRAVEL (ML)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SANDY SILT (ML)			



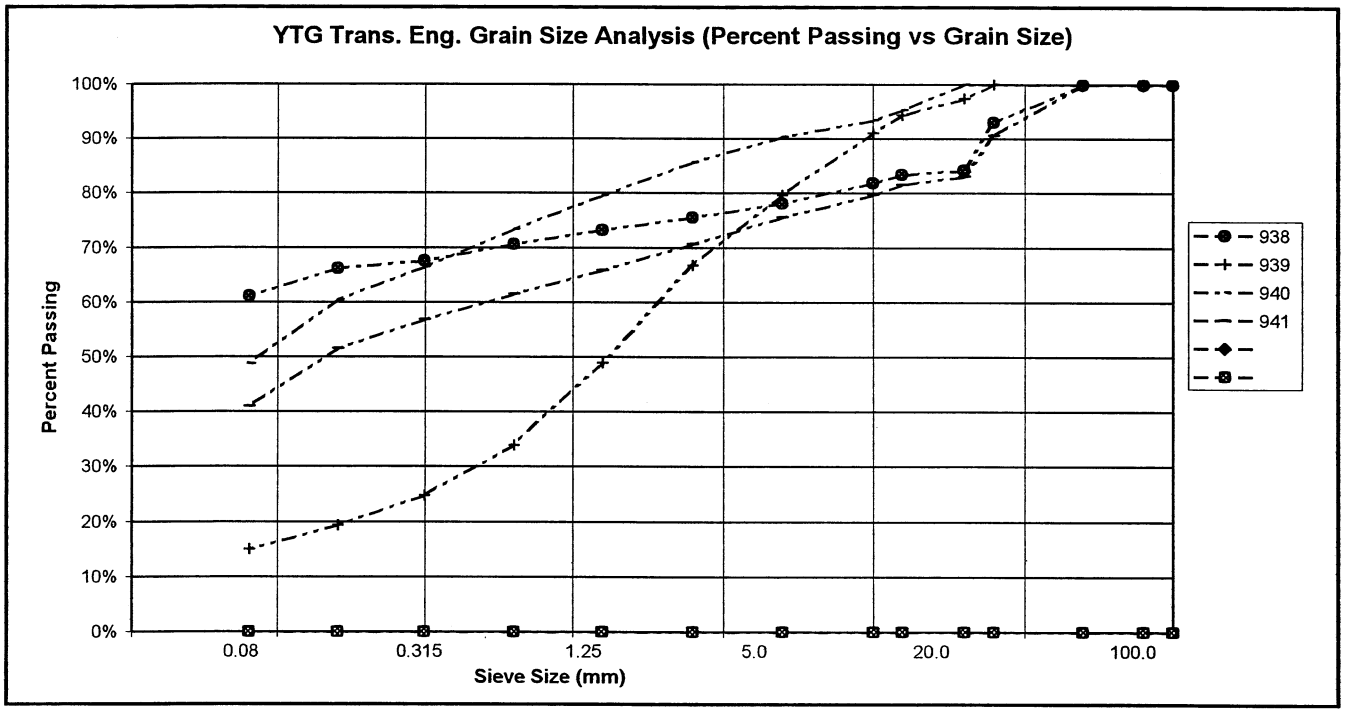
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 617-447
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/31

FIELD NO:	934	935	936	937		
LAB NO:	1711	1712	1713	1714		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	88%	91%	100%		
20.0	100%	79%	88%	98%		
12.5	100%	68%	77%	95%		
10.0	100%	61%	73%	90%		
5.0	100%	45%	61%	80%		
2.5	99%	35%	53%	68%		
1.25	98%	23%	44%	56%		
0.630	97%	14%	37%	48%		
0.315	94%	8%	30%	40%		
0.160	92%	6%	25%	33%		
0.080	89%	4%	20%	27%		
M.C.(%):	30%	2%	6%	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	55	39	20		
% SAND:	11	41	41	53		
% FINES:	89	4	20	27		
CLASSIFICATION	SILT (ML)	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		



PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 617-448
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/31

FIELD NO:	938	939	940	941		
LAB NO:	1715	1716	1717	1718		
DEPTH:	0.4-0.8	1.4-1.8	2.6-3.0	3.8-4.3		
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%	91%		
20.0	84%	97%	100%	83%		
12.5	83%	94%	95%	82%		
10.0	82%	91%	93%	80%		
5.0	78%	80%	90%	76%		
2.5	76%	67%	86%	71%		
1.25	73%	49%	80%	66%		
0.630	71%	34%	73%	61%		
0.315	68%	25%	66%	57%		
0.160	66%	19%	60%	51%		
0.080	61%	15%	49%	41%		
M.C.(%):	21%	5%	9%	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:	22	20	10	24		
% SAND:	17	65	42	35		
% FINES:	61	15	49	41		
CLASSIFICATION	GRAVELLY SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)		

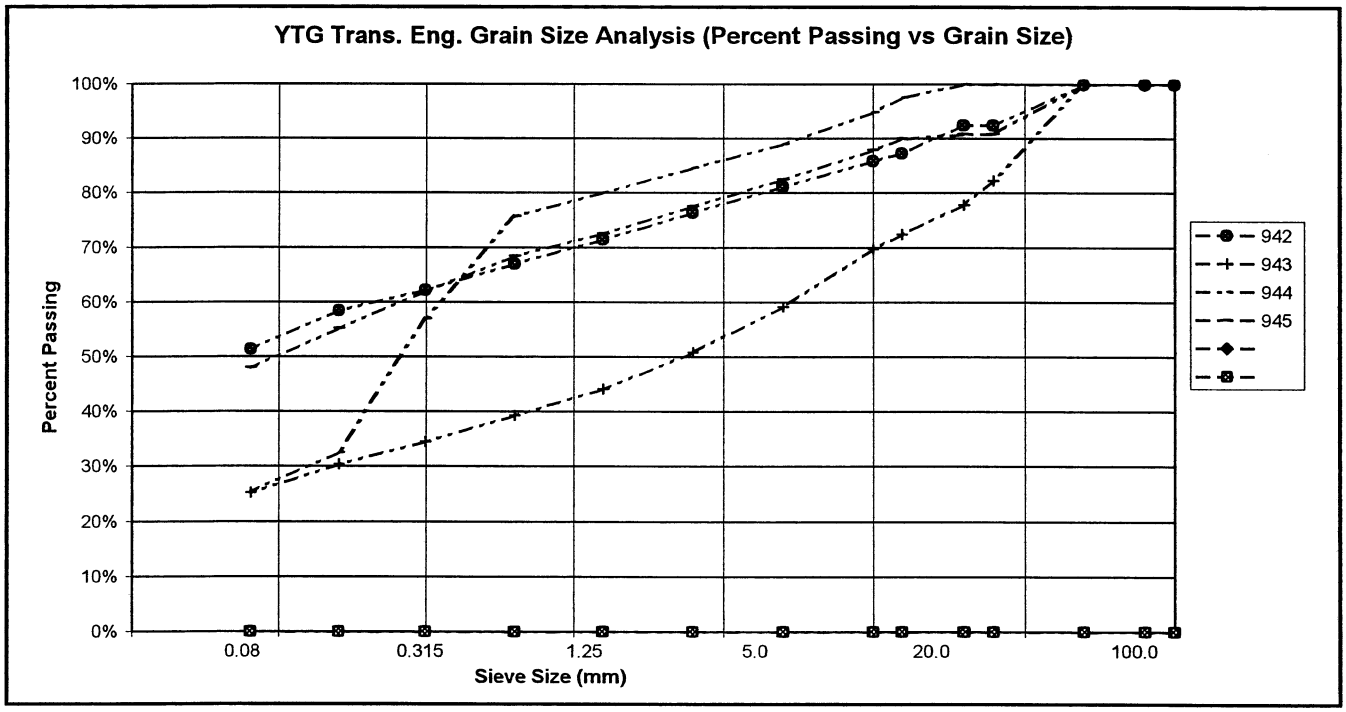


PROJECT NUMBER: 092-202101-0362-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 10
PROJECT LOCATION: Km 1692.6-1729.6 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 617-449

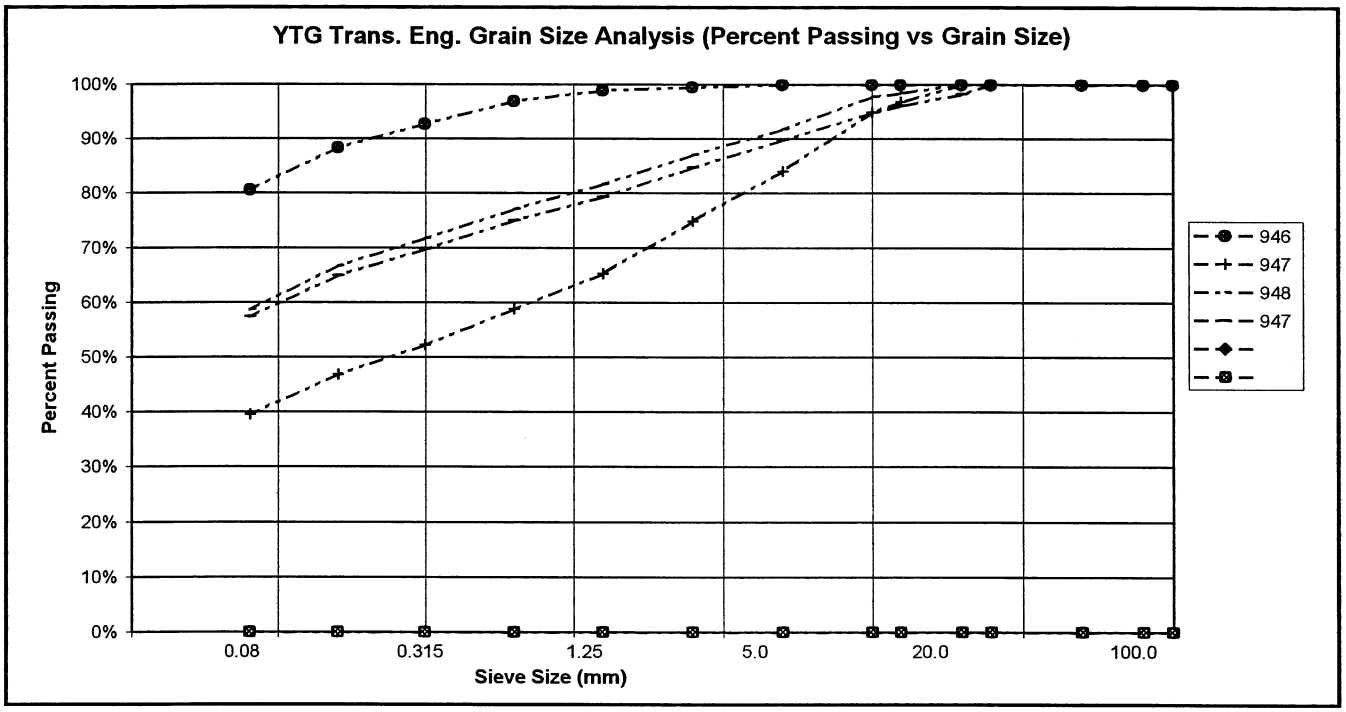
DATE COMP: 2001/08/31

FIELD NO:	942	943	944	945		
LAB NO:	1719	1720	1721	1722		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	82%	100%	91%		
20.0	93%	78%	100%	91%		
12.5	87%	72%	98%	90%		
10.0	86%	70%	95%	88%		
5.0	81%	59%	89%	83%		
2.5	76%	51%	85%	78%		
1.25	71%	44%	80%	73%		
0.630	67%	39%	76%	68%		
0.315	62%	34%	57%	62%		
0.160	58%	30%	33%	55%		
0.080	51%	25%	26%	48%		
M.C.(%):	16%	6%	14%	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:	19	41	11	17		
% SAND:	30	34	63	34		
% FINES:	51	25	26	48		
CLASSIFICATION	SANDY SILT WITH GRAVEL (ML)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)		



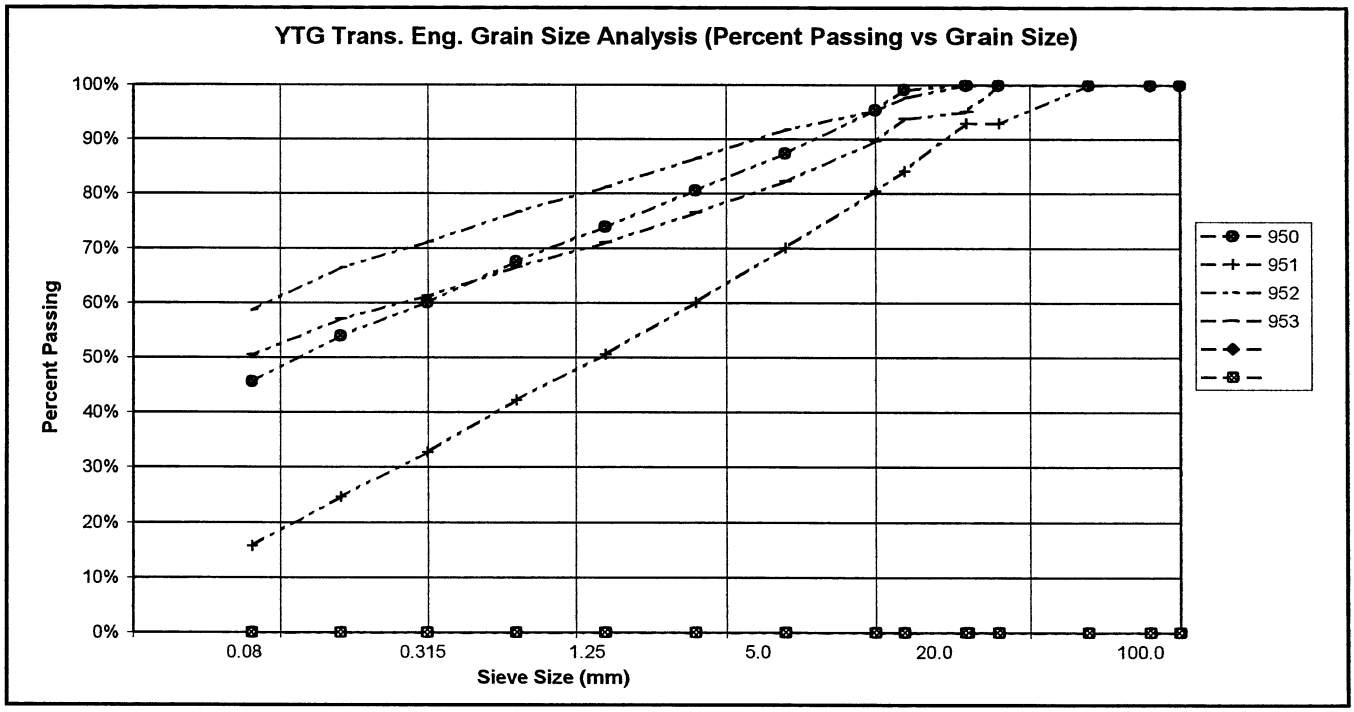
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 617-450
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/31

FIELD NO:	946	947	948	947		
LAB NO:	1723	1724	1725	1726		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	97%	98%	96%		
10.0	100%	95%	98%	95%		
5.0	100%	84%	92%	90%		
2.5	100%	75%	87%	85%		
1.25	99%	65%	82%	79%		
0.630	97%	59%	77%	75%		
0.315	93%	52%	72%	70%		
0.160	88%	47%	67%	65%		
0.080	81%	40%	59%	57%		
M.C.(%):	28%	12%	14%	14%		
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	16	8	10		
% SAND:	19	45	33	32		
% FINES:	81	40	59	57		
CLASSIFICATION	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)	SANDY SILT (ML)		



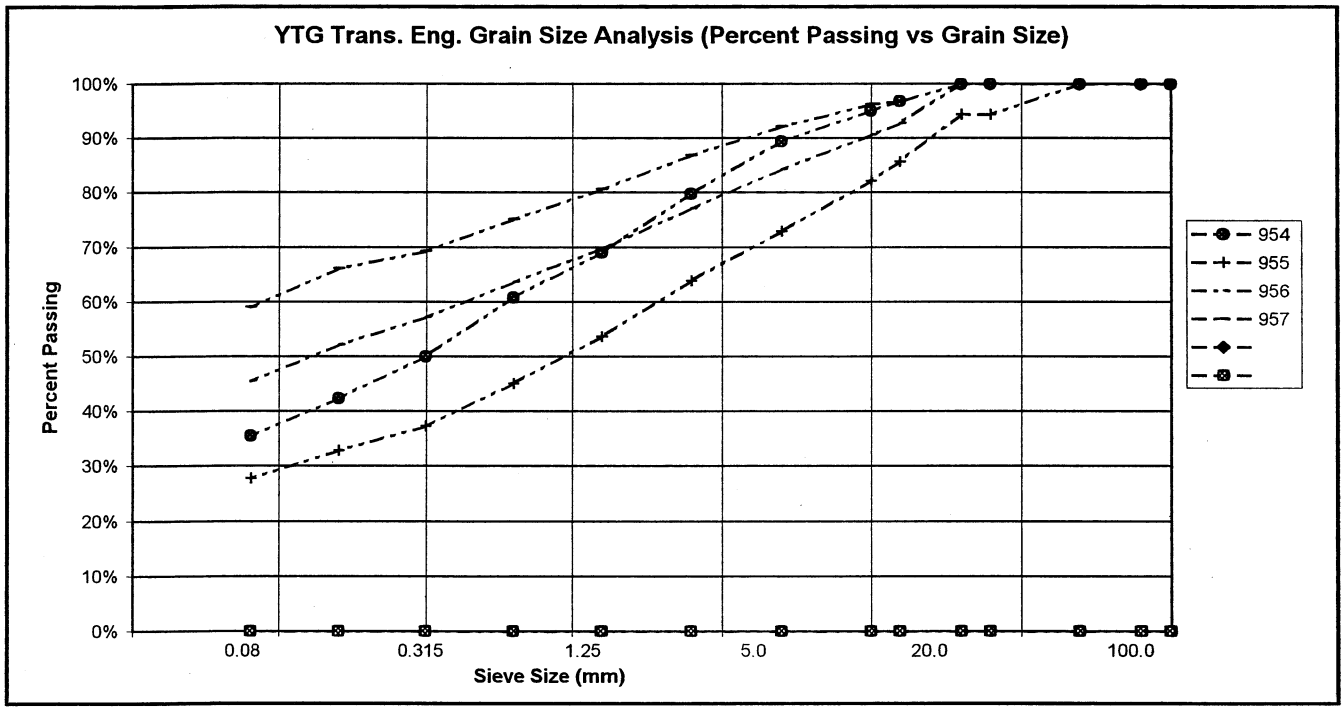
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 617-451
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/31

FIELD NO:	950	951	952	953		
LAB NO:	1727	1728	1729	1730		
DEPTH:	0.6-1.0	1.6-2.0	2.8-3.2	3.8-4.3		
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%	93%	100%	100%		
20.0	100%	93%	100%	95%		
12.5	99%	84%	98%	94%		
10.0	95%	80%	95%	90%		
5.0	87%	70%	92%	82%		
2.5	81%	60%	86%	77%		
1.25	74%	51%	81%	71%		
0.630	68%	42%	77%	66%		
0.315	60%	33%	71%	61%		
0.160	54%	25%	66%	57%		
0.080	46%	16%	59%	50%		
M.C.(%):	12%	11%	13%	12%		
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:	13	30	8	18		
% SAND:	42	54	33	32		
% FINES:	46	16	59	50		
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)	SANDY SILT WITH GRAVEL (ML)		



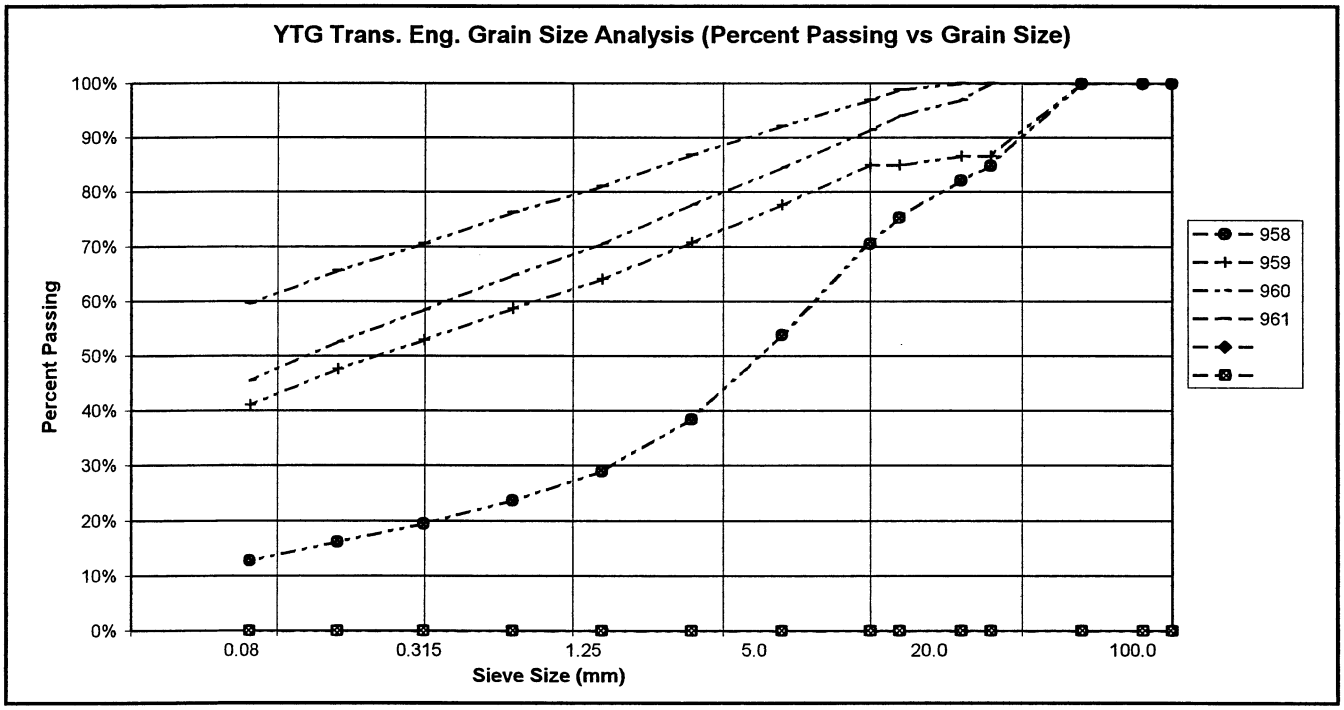
PROJECT NUMBER:	092-202101-0362-1	HOLE No.: 617-452
CLIENT:	ENGINEERING CAPITAL	
PROJECT NAME:	SHAKWAK SEG 10	
PROJECT LOCATION:	Km 1692.6-1729.6 A/H	
DRILL UNIT:	MOBILE B40 L	
HOLE LOCATION:	See Testhole Log Sheet	
LOGGED BY:	G.C.	DATE COMP: 2001/08/31

FIELD NO:	954	955	956	957		
LAB NO:	1731	1732	1733	1734		
DEPTH:	0.4-0.8	1.6-2.0	2.4-2.8	3.75-4.3		
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%	94%	100%	100%		
20.0	100%	94%	100%	100%		
12.5	97%	86%	93%	97%		
10.0	95%	82%	91%	96%		
5.0	89%	73%	84%	92%		
2.5	80%	64%	77%	87%		
1.25	69%	54%	70%	81%		
0.630	61%	45%	64%	75%		
0.315	50%	37%	57%	69%		
0.160	42%	33%	52%	66%		
0.080	36%	28%	46%	59%		
M.C.(%):	12%	12%	14%	14%		
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	27	16	8		
% SAND:	54	45	39	33		
% FINES:	36	28	46	59		
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)		



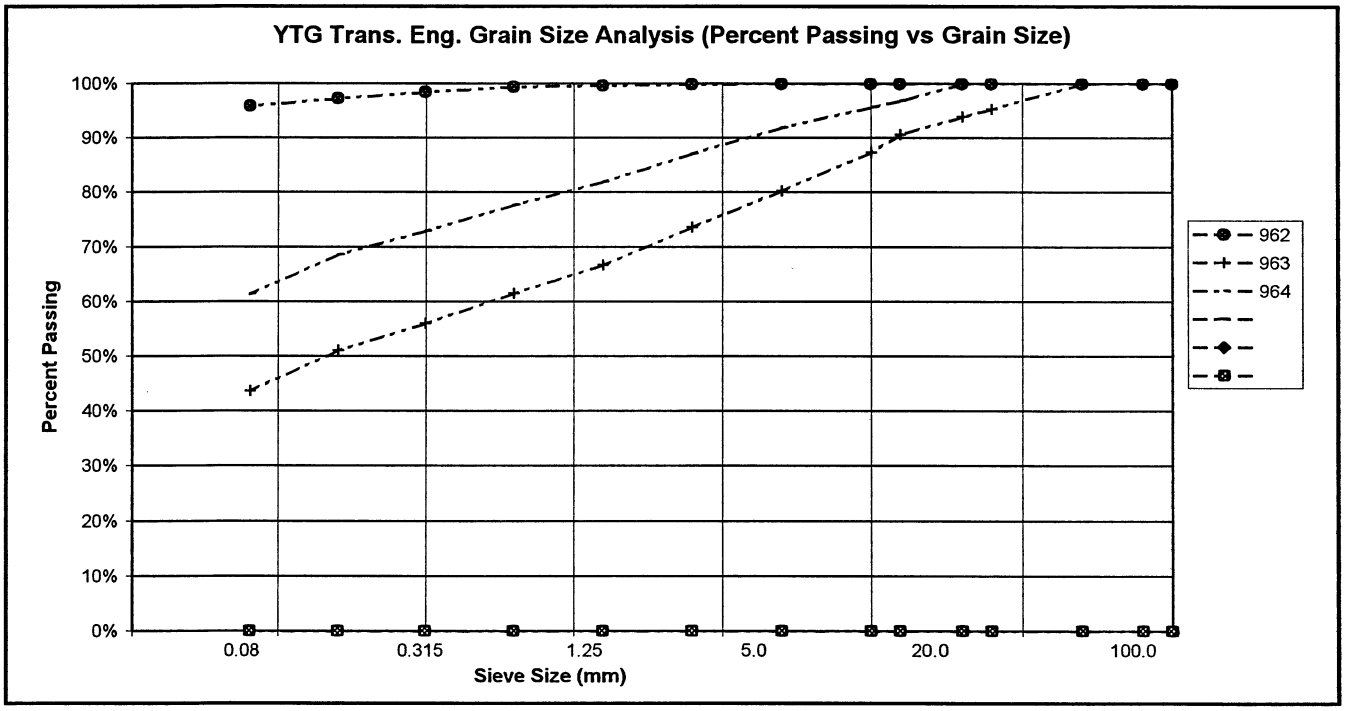
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 617-453
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/31

FIELD NO:	958	959	960	961		
LAB NO:	1735	1736	1737	1738		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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	85%	87%	100%	100%		
20.0	82%	87%	97%	100%		
12.5	75%	85%	94%	99%		
10.0	71%	85%	91%	97%		
5.0	54%	78%	84%	92%		
2.5	39%	71%	78%	87%		
1.25	29%	64%	71%	81%		
0.630	24%	59%	65%	76%		
0.315	19%	53%	58%	71%		
0.160	16%	48%	53%	66%		
0.080	13%	41%	46%	60%		
M.C.(%):	7%	13%	10%	14%		
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:	46	22	16	8		
% SAND:	41	37	39	32		
% FINES:	13	41	46	60		
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)		



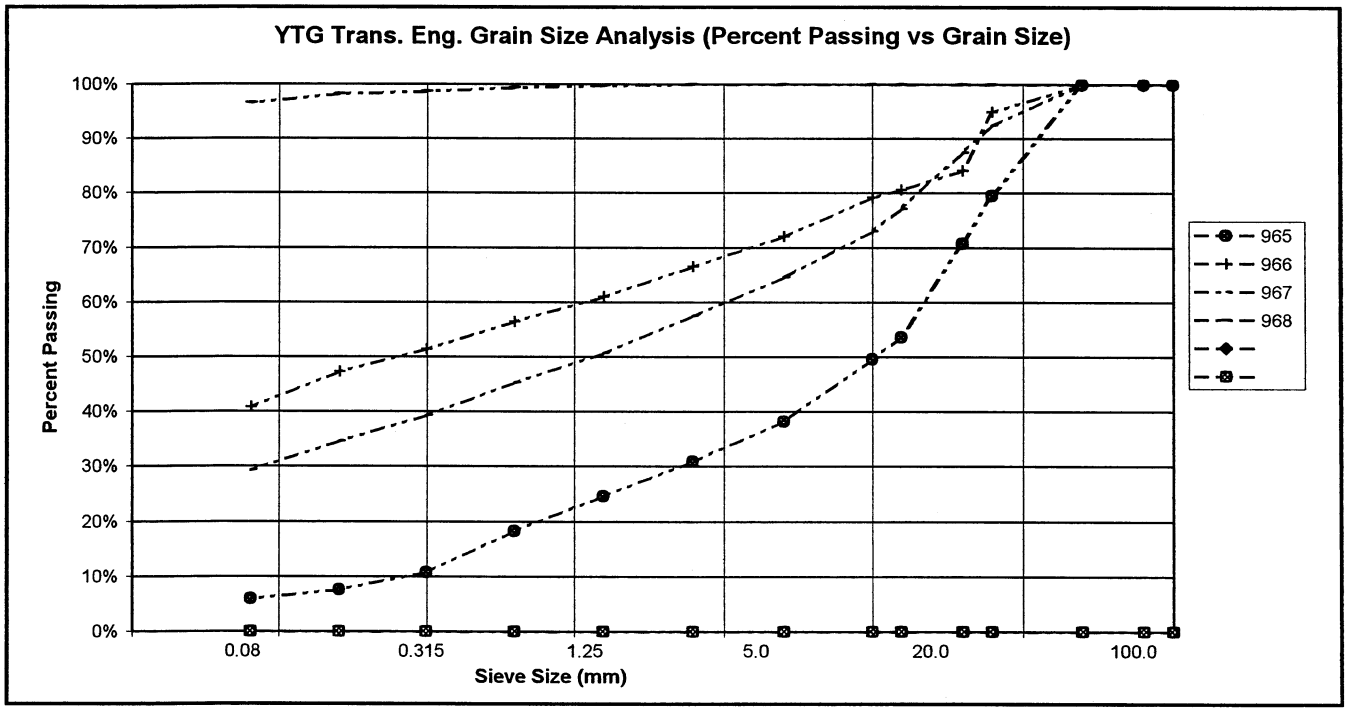
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 617-454
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/31

FIELD NO:	962	963	964			
LAB NO:	1739	1740	1741			
DEPTH:	0.5-0.75	1.6-2.0	2.6-3.0			
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%	95%	100%			
20.0	100%	94%	100%			
12.5	100%	91%	97%			
10.0	100%	87%	96%			
5.0	100%	80%	92%			
2.5	100%	74%	87%			
1.25	100%	67%	82%			
0.630	99%	62%	78%			
0.315	99%	56%	73%			
0.160	97%	51%	69%			
0.080	96%	44%	61%			
M.C.(%):	39%	11%	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:	0	20	8			
% SAND:	4	37	30			
% FINES:	96	44	61			
CLASSIFICATION	SILT (ML)	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)			



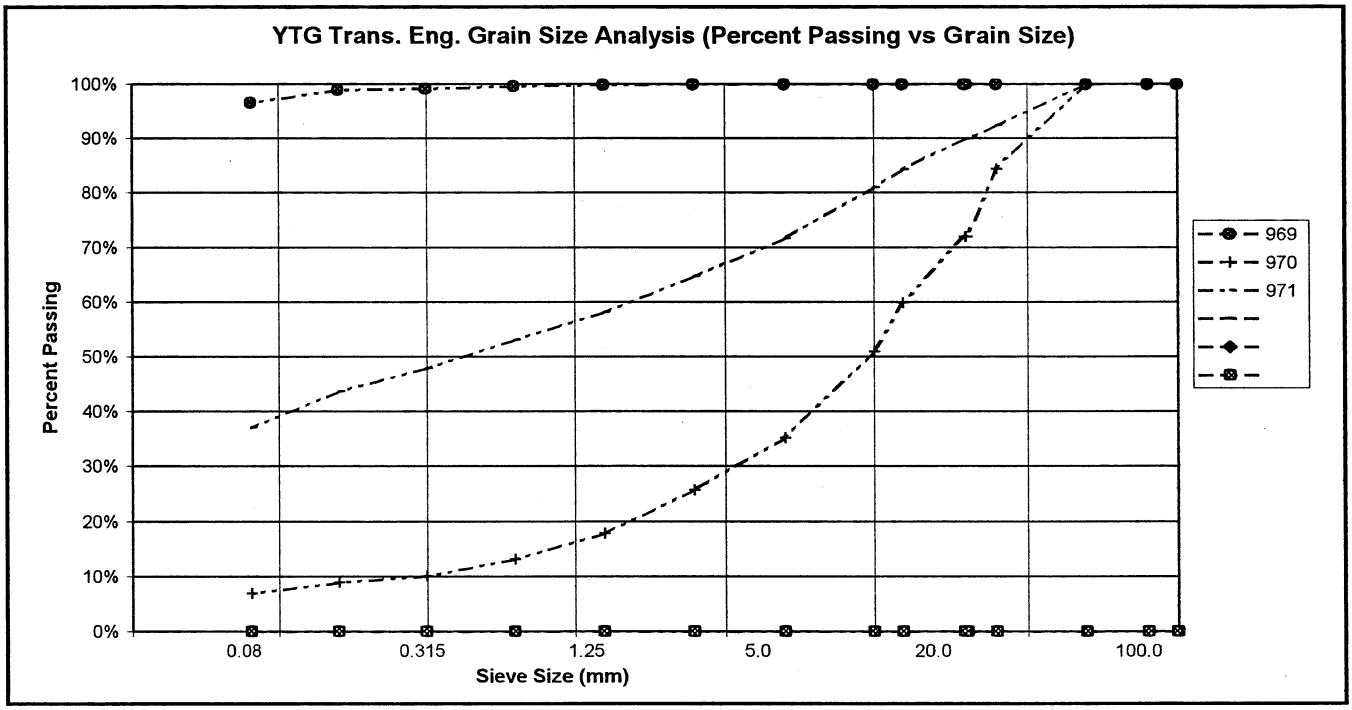
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 617-455
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/08/31

FIELD NO:	965	966	967	968		
LAB NO:	1742	1743	1744	1745		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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	80%	95%	93%	100%		
20.0	71%	84%	87%	100%		
12.5	54%	81%	77%	100%		
10.0	50%	79%	73%	100%		
5.0	38%	72%	65%	100%		
2.5	31%	67%	58%	100%		
1.25	25%	61%	51%	100%		
0.630	18%	57%	45%	99%		
0.315	11%	51%	39%	99%		
0.160	8%	47%	35%	98%		
0.080	6%	41%	29%	97%		
M.C.(%):	2%	9%	6%	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:	62	28	35	0		
% SAND:	32	31	35	3		
% FINES:	6	41	29	97		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)	SILT (ML)		



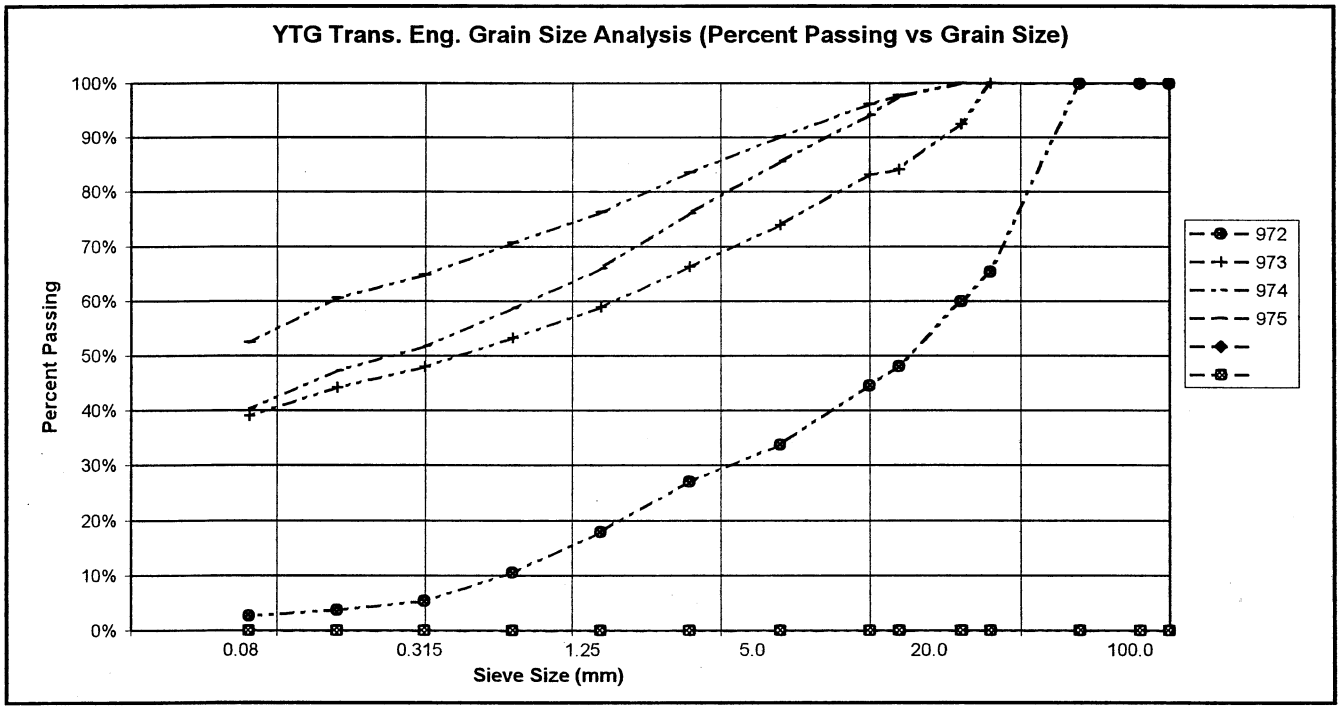
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 617-456
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/04

FIELD NO:	969	970	971			
LAB NO:	1746	1747	1748			
DEPTH:	0.6-1.0	1.0-1.5	2.5-3.0			
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%	84%	92%			
20.0	100%	72%	90%			
12.5	100%	60%	84%			
10.0	100%	51%	81%			
5.0	100%	35%	72%			
2.5	100%	26%	65%			
1.25	100%	18%	58%			
0.630	100%	13%	53%			
0.315	99%	10%	48%			
0.160	99%	9%	44%			
0.080	97%	7%	37%			
M.C.(%):	32%	4%	2%			
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	65	28			
% SAND:	3	28	35			
% FINES:	97	7	37			
CLASSIFICATION	SILT (ML)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	SILTY SAND WITH GRAVEL (SM)			



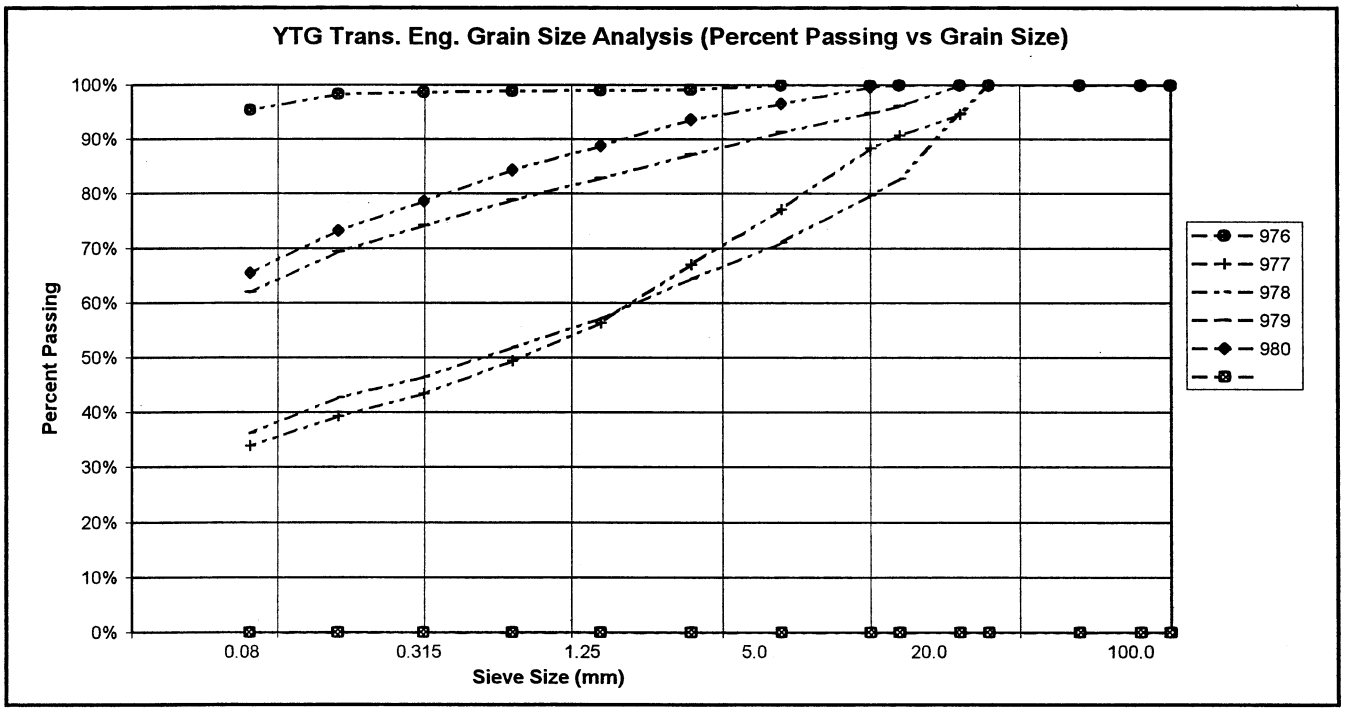
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 617-457
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/04

FIELD NO:	972	973	974	975		
LAB NO:	1749	1750	1751	1752		
DEPTH:	0.6-1.0	1.75-2.0	2.6-3.0	3.8-4.3		
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	65%	100%	100%	100%		
20.0	60%	92%	100%	100%		
12.5	48%	84%	97%	98%		
10.0	45%	83%	94%	96%		
5.0	34%	74%	86%	90%		
2.5	27%	66%	76%	84%		
1.25	18%	59%	66%	76%		
0.630	11%	53%	59%	71%		
0.315	5%	48%	52%	65%		
0.160	4%	44%	47%	61%		
0.080	3%	39%	40%	53%		
M.C.(%):	5%	10%	9%	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:	66	26	14	10		
% SAND:	31	35	45	38		
% FINES:	3	39	40	53		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND (SM)	SANDY SILT (ML)		



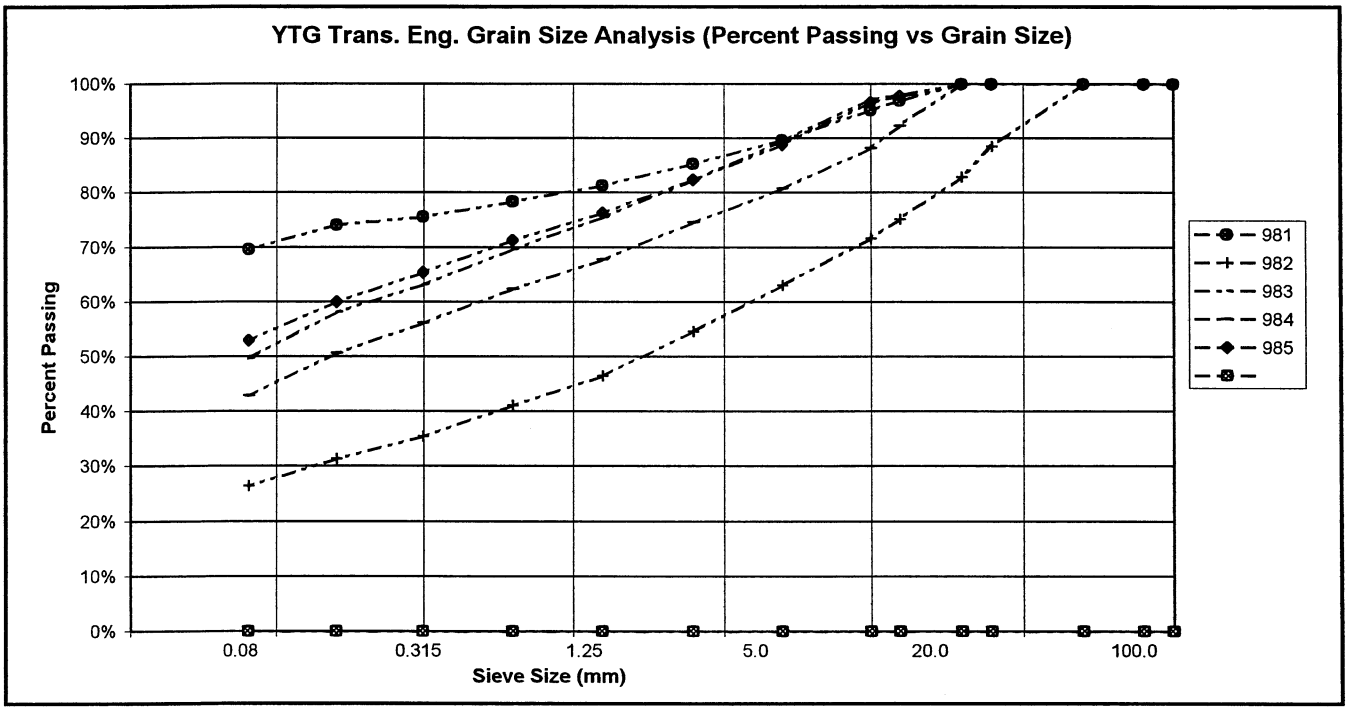
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 617-458
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/04

FIELD NO:	976	977	978	979	980	
LAB NO:	1753	1754	1755	1756	1757	
DEPTH:	0.3-0.6	1.0-1.4	1.6-2.0	2.6-3.0	3.8-4.3	
TYPE:	AUGER	AUGER	AUGER	AUGER	AUGER	AUGER
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	
100.0	100%	100%	100%	100%	100%	
80.0	100%	100%	100%	100%	100%	
50.0	100%	100%	100%	100%	100%	
25.0	100%	100%	100%	100%	100%	
20.0	100%	95%	95%	100%	100%	
12.5	100%	91%	83%	96%	100%	
10.0	100%	88%	80%	95%	100%	
5.0	100%	77%	71%	91%	97%	
2.5	99%	67%	64%	87%	94%	
1.25	99%	56%	57%	83%	89%	
0.630	99%	49%	52%	79%	84%	
0.315	99%	43%	46%	74%	79%	
0.160	98%	39%	43%	69%	73%	
0.080	95%	34%	36%	62%	66%	
M.C.(%):	26%	8%	9%	11%	11%	
LIQUID LIMIT:	0.0	0.0	0.0	0.0	0.0	
PLASTIC LIMIT:	0.0	0.0	0.0	0.0	0.0	
PLASTIC INDEX.:	0.0	0.0	0.0	0.0	0.0	
% GRAVEL:	0	23	29	9	3	
% SAND:	5	43	35	29	31	
% FINES:	95	34	36	62	66	
CLASSIFICATION	SILT (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)	SANDY SILT (ML)	



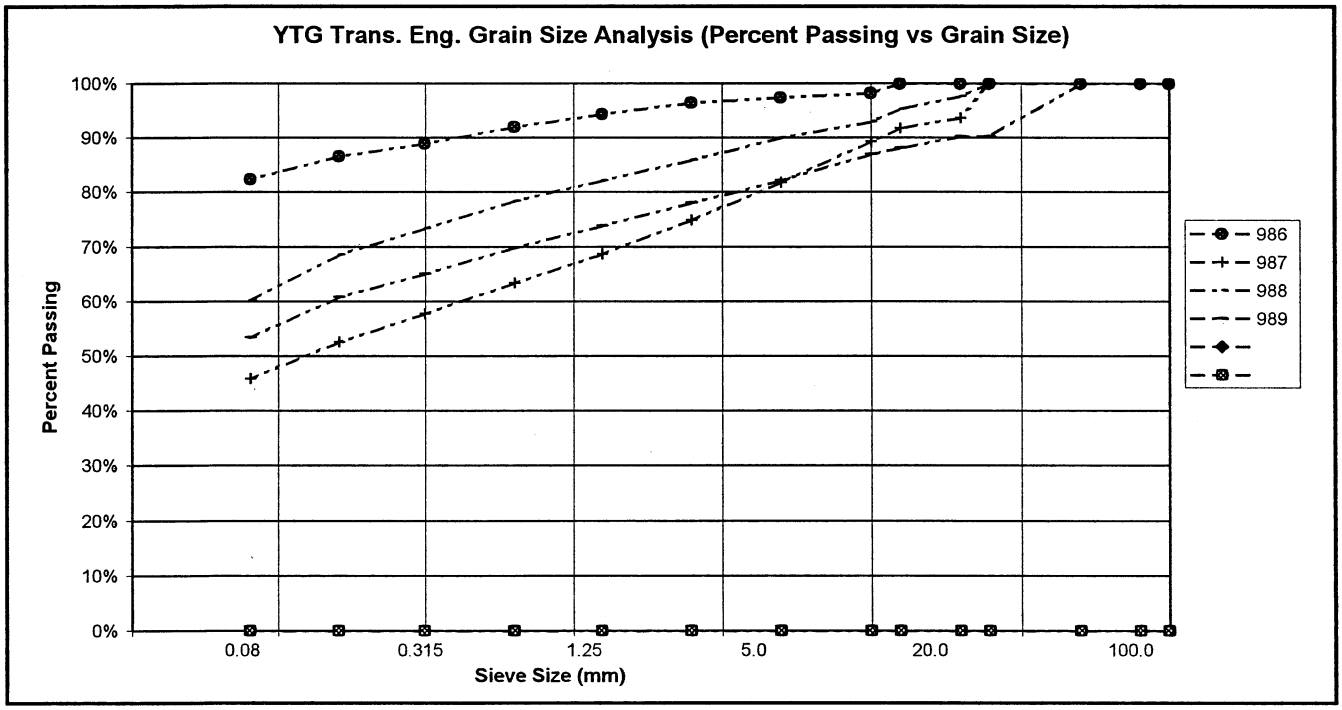
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 617-459
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/04

FIELD NO:	981	982	983	984	985	
LAB NO:	1758	1758	1760	1761	1762	
DEPTH:	0.3-0.6	1.0-1.4	1.6-2.0	2.6-3.0	3.8-4.3	
TYPE:	AUGER	AUGER	AUGER	AUGER	AUGER	AUGER
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	
100.0	100%	100%	100%	100%	100%	
80.0	100%	100%	100%	100%	100%	
50.0	100%	100%	100%	100%	100%	
25.0	100%	88%	100%	100%	100%	
20.0	100%	83%	100%	100%	100%	
12.5	97%	75%	98%	92%	98%	
10.0	95%	72%	97%	88%	97%	
5.0	90%	63%	90%	81%	89%	
2.5	85%	55%	82%	75%	82%	
1.25	81%	47%	75%	68%	76%	
0.630	78%	41%	70%	62%	71%	
0.315	76%	35%	63%	56%	65%	
0.160	74%	31%	58%	51%	60%	
0.080	70%	26%	50%	43%	53%	
M.C.(%):	20%	6%	9%	9%	8%	
LIQUID LIMIT:	0.0	0.0	0.0	0.0	0.0	
PLASTIC LIMIT:	0.0	0.0	0.0	0.0	0.0	
PLASTIC INDEX.:	0.0	0.0	0.0	0.0	0.0	
% GRAVEL:	10	37	10	19	11	
% SAND:	20	37	40	38	36	
% FINES:	70	26	50	43	53	
CLASSIFICATION	SANDY SILT (ML)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)	



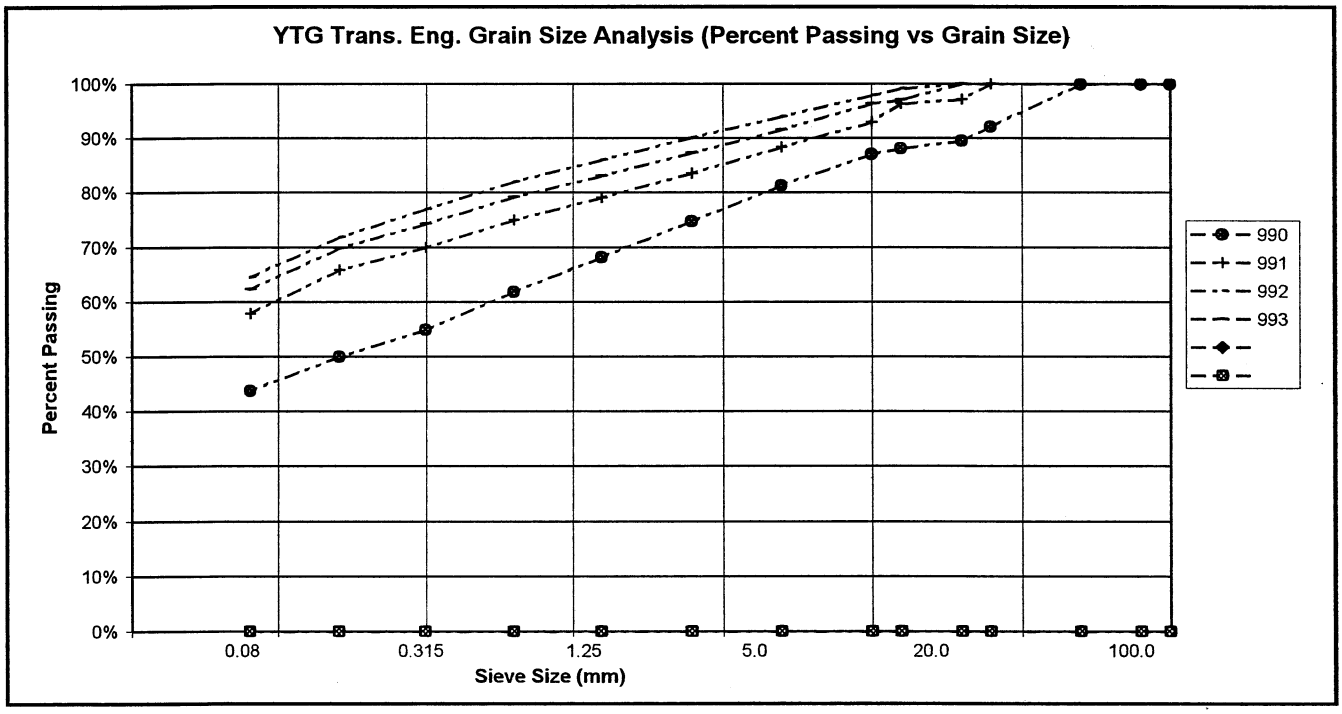
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 618-460
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/04

FIELD NO:	986	987	988	989		
LAB NO:	1763	1764	1765	1766		
DEPTH:	0.3-0.8	1.6-2.0	2.6-3.0	3.8-4.3		
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%	90%		
20.0	100%	94%	98%	90%		
12.5	100%	92%	95%	88%		
10.0	98%	89%	93%	87%		
5.0	97%	82%	90%	82%		
2.5	97%	75%	86%	78%		
1.25	94%	69%	82%	74%		
0.630	92%	63%	78%	70%		
0.315	89%	58%	73%	65%		
0.160	87%	53%	69%	61%		
0.080	82%	46%	60%	53%		
M.C.(%):	21%	10%	8%	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:	3	18	10	18		
% SAND:	15	36	30	29		
% FINES:	82	46	60	53		
CLASSIFICATION	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)	SANDY SILT WITH GRAVEL (ML)		



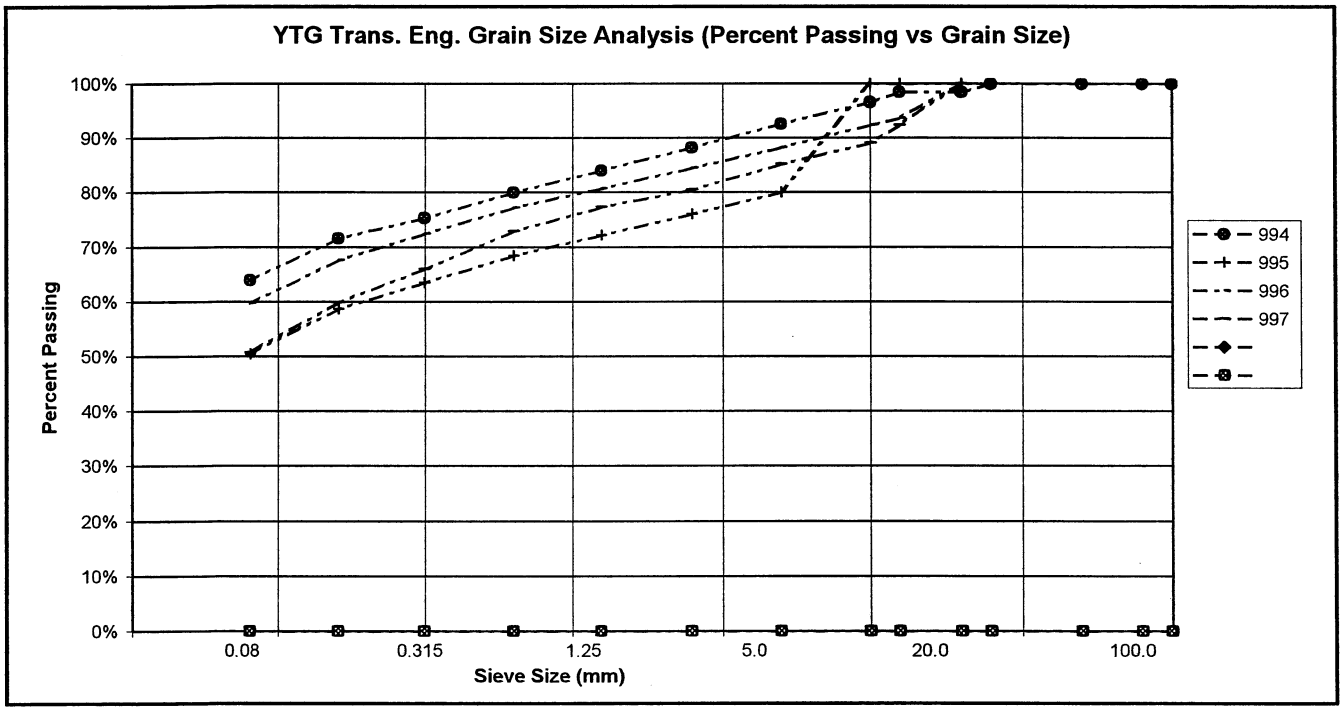
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 618-461
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/04

FIELD NO:	990	991	992	993		
LAB NO:	1767	1768	1769	1770		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	100%	100%		
20.0	90%	97%	100%	100%		
12.5	88%	96%	99%	97%		
10.0	87%	93%	98%	96%		
5.0	81%	88%	94%	92%		
2.5	75%	84%	90%	87%		
1.25	68%	79%	86%	83%		
0.630	62%	75%	82%	79%		
0.315	55%	70%	77%	74%		
0.160	50%	66%	72%	70%		
0.080	44%	58%	65%	62%		
M.C.(%):	11%	12%	10%	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:	19	12	6	8		
% SAND:	38	30	29	29		
% FINES:	44	58	65	62		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)	SANDY SILT (ML)	SANDY SILT (ML)		



PROJECT NUMBER:	092-202101-0362-1	HOLE No.: 618-462
CLIENT:	ENGINEERING CAPITAL	
PROJECT NAME:	SHAKWAK SEG 10	
PROJECT LOCATION:	Km 1692.6-1729.6 A/H	
DRILL UNIT:	MOBILE B40 L	
HOLE LOCATION:	See Testhole Log Sheet	
LOGGED BY:	G.C.	DATE COMP: 2001/09/04

FIELD NO:	994	995	996	997		
LAB NO:	1771	1772	1773	1774		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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	99%	100%	100%	100%		
12.5	99%	100%	94%	92%		
10.0	97%	100%	92%	89%		
5.0	93%	80%	88%	85%		
2.5	88%	76%	85%	80%		
1.25	84%	72%	81%	77%		
0.630	80%	68%	77%	73%		
0.315	75%	63%	72%	66%		
0.160	72%	59%	68%	60%		
0.080	64%	50%	60%	51%		
M.C.(%):	14%	10%	11%	10%		
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:	7	20	12	15		
% SAND:	29	30	29	35		
% FINES:	64	50	60	51		
CLASSIFICATION	SANDY SILT (ML)	SANDY SILT WITH GRAVEL (ML)	SANDY SILT (ML)	SANDY SILT (ML)		

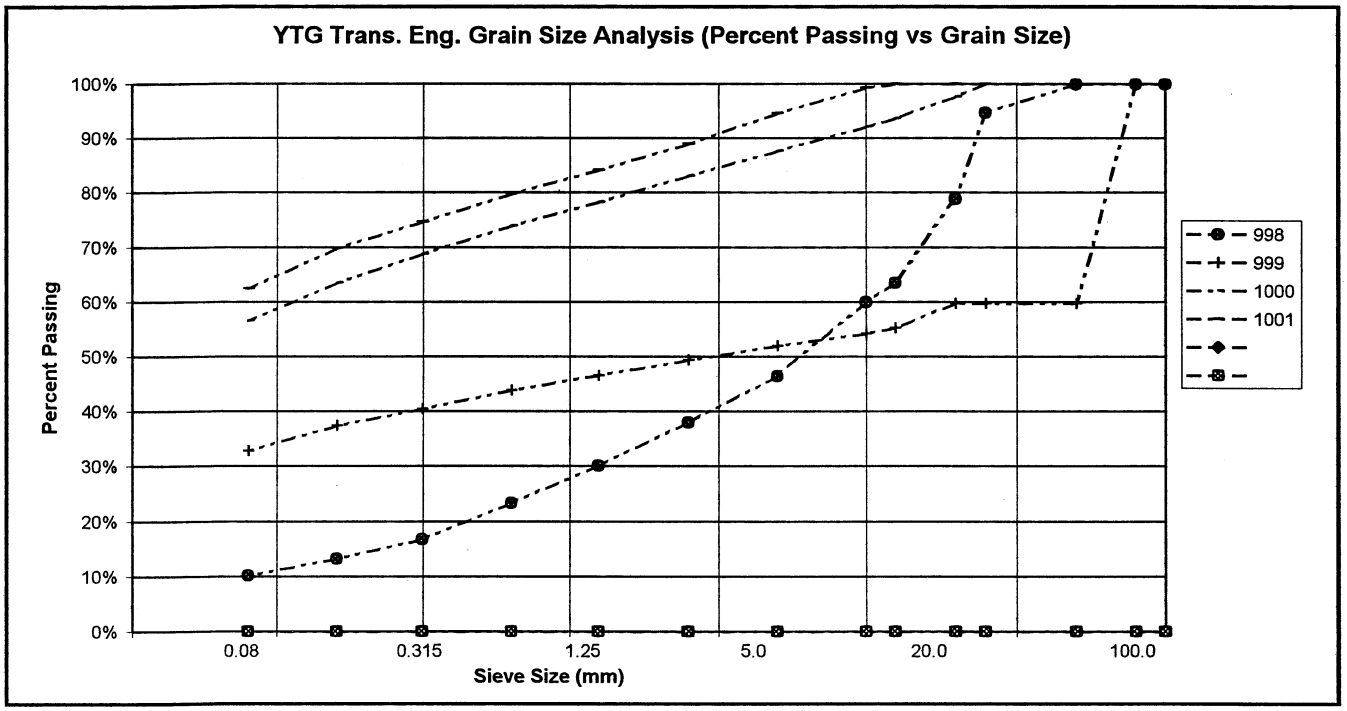


PROJECT NUMBER: 092-202101-0362-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 10
PROJECT LOCATION: Km 1692.6-1729.6 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 618-463

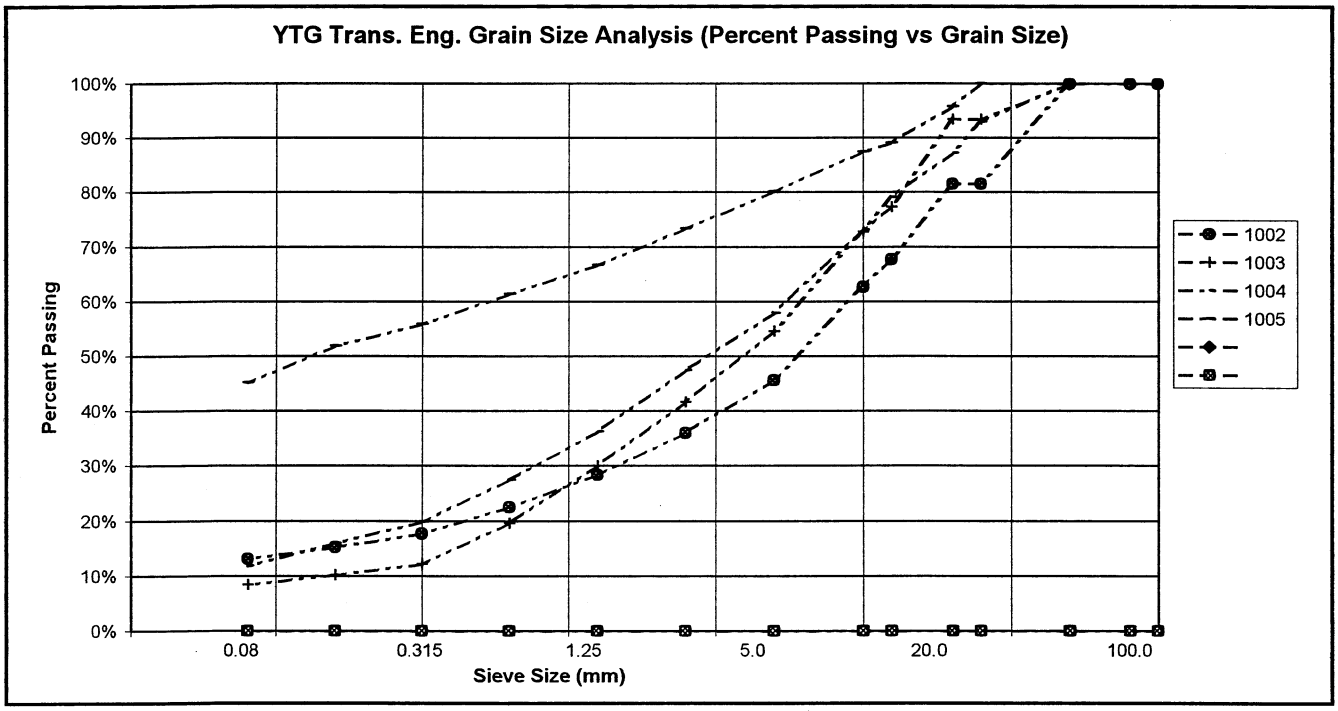
DATE COMP: 2001/09/04

FIELD NO:	998	999	1000	1001		
LAB NO:	1775	1776	1777	1778		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	60%	100%	100%		
25.0	95%	60%	100%	100%		
20.0	79%	60%	98%	100%		
12.5	64%	55%	94%	100%		
10.0	60%	54%	92%	99%		
5.0	46%	52%	88%	95%		
2.5	38%	49%	83%	89%		
1.25	30%	47%	78%	84%		
0.630	23%	44%	74%	80%		
0.315	17%	41%	69%	75%		
0.160	13%	37%	63%	70%		
0.080	10%	33%	57%	62%		
M.C.(%):	3%	8%	8%	10%		
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:	54	48	12	5		
% SAND:	36	19	31	32		
% FINES:	10	33	57	62		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)	SANDY SILT (ML)	SANDY SILT (ML)		



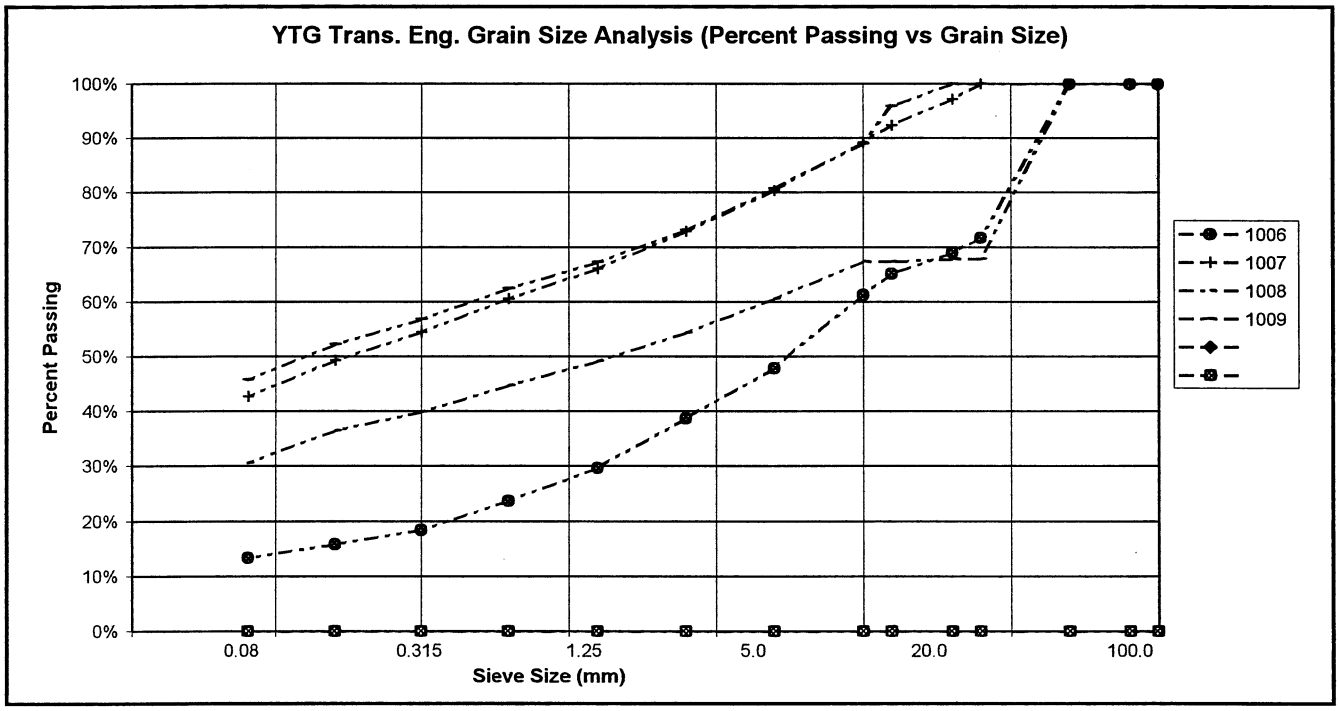
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 618-464
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/04

FIELD NO:	1002	1003	1004	1005		
LAB NO:	1779	1780	1781	1782		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.6		
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%	93%	93%	100%		
20.0	82%	93%	87%	96%		
12.5	68%	77%	79%	89%		
10.0	63%	73%	73%	87%		
5.0	46%	55%	58%	80%		
2.5	36%	42%	47%	73%		
1.25	28%	30%	36%	67%		
0.630	23%	20%	28%	61%		
0.315	18%	12%	20%	56%		
0.160	15%	10%	16%	52%		
0.080	13%	8%	12%	45%		
M.C.(%):	9%	4%	3%	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:	54	45	42	20		
% SAND:	33	46	46	35		
% FINES:	13	8	12	45		
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILTY SAND WITH GRAVEL (SM)		



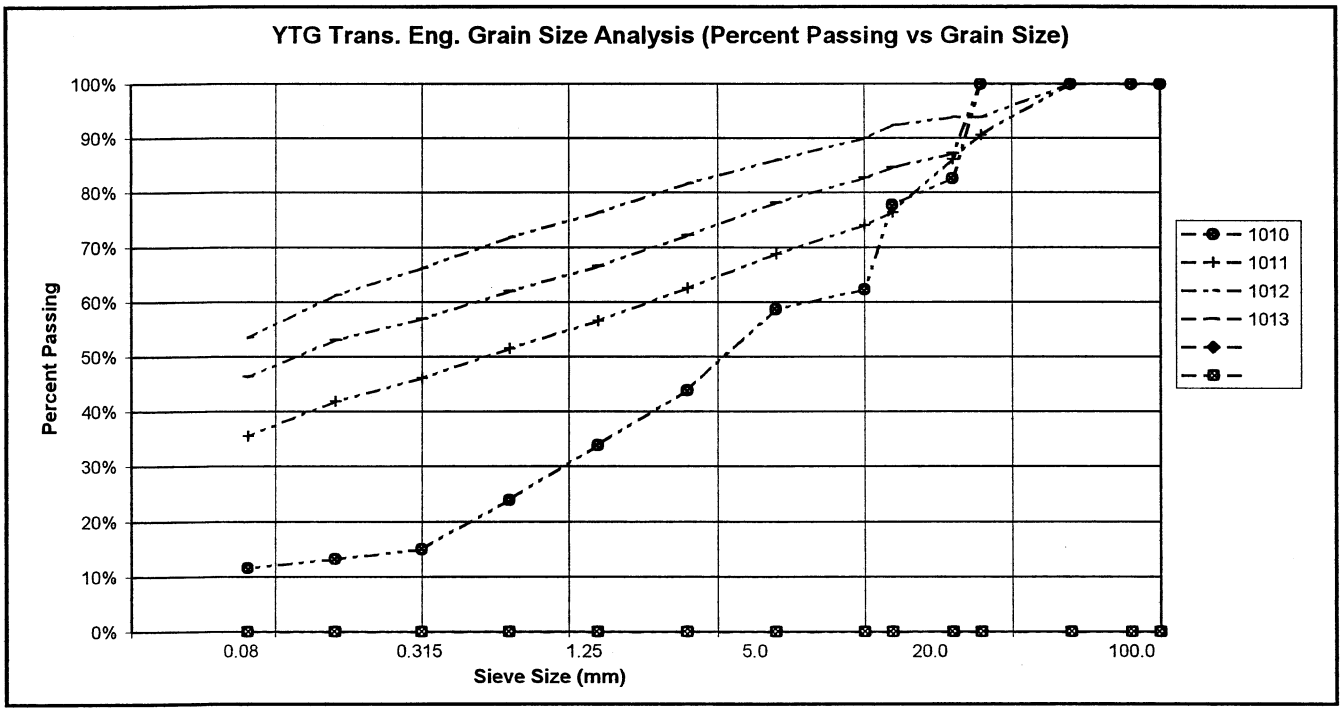
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 618-465
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/04

FIELD NO:	1006	1007	1008	1009		
LAB NO:	1783	1784	1785	1786		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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	72%	100%	68%	100%		
20.0	69%	97%	68%	100%		
12.5	65%	92%	67%	96%		
10.0	61%	89%	67%	89%		
5.0	48%	80%	61%	81%		
2.5	39%	73%	54%	73%		
1.25	30%	66%	49%	67%		
0.630	24%	61%	45%	63%		
0.315	18%	54%	40%	57%		
0.160	16%	49%	37%	52%		
0.080	13%	43%	31%	46%		
M.C.(%):	3%	8%	8%	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:	52	20	39	19		
% SAND:	34	38	30	35		
% FINES:	13	43	31	46		
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)		



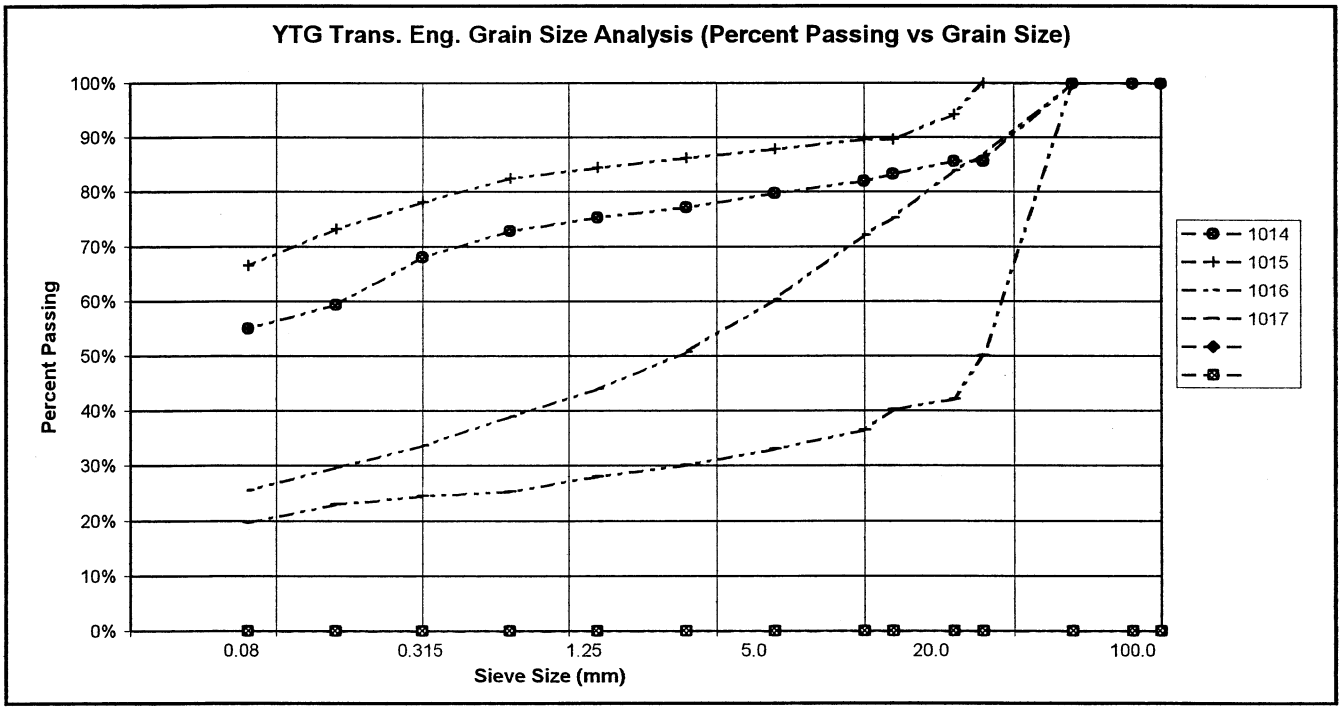
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 618-466
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/05

FIELD NO:	1010	1011	1012	1013		
LAB NO:	1787	1788	1789	1790		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	91%	94%	100%		
20.0	83%	86%	94%	87%		
12.5	78%	76%	92%	85%		
10.0	62%	74%	90%	83%		
5.0	59%	69%	86%	78%		
2.5	44%	63%	82%	72%		
1.25	34%	57%	76%	67%		
0.630	24%	52%	72%	62%		
0.315	15%	46%	66%	57%		
0.160	13%	42%	61%	53%		
0.080	12%	36%	54%	46%		
M.C.(%):	3%	7%	8%	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:	41	31	14	22		
% SAND:	47	33	33	32		
% FINES:	12	36	54	46		
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)	SILTY SAND WITH GRAVEL (SM)		



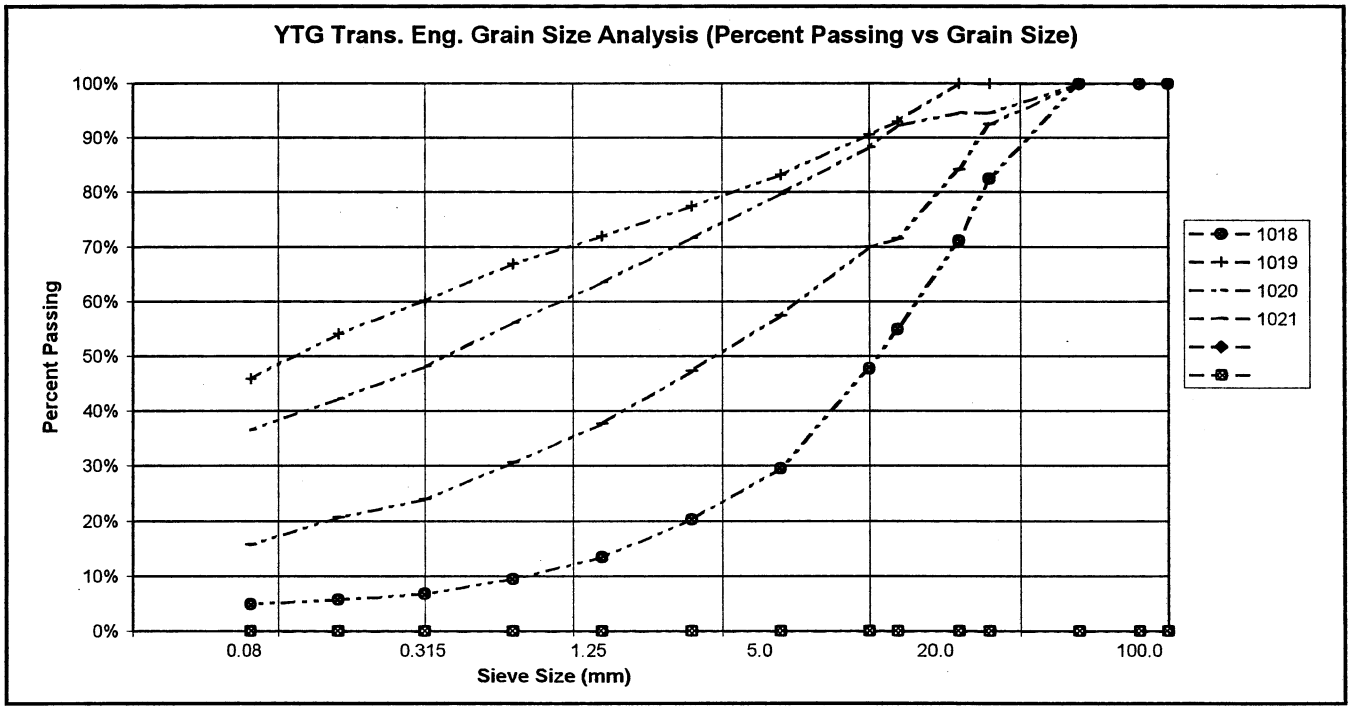
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 618-467
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/05

FIELD NO:	1014	1015	1016	1017		
LAB NO:	1791	1792	1793	1794		
DEPTH:	0.6-1.0	1.6-2.0	2.8-3.0	3.6-4.3		
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	86%	100%	87%	50%		
20.0	86%	94%	84%	42%		
12.5	83%	90%	75%	40%		
10.0	82%	90%	72%	37%		
5.0	80%	88%	60%	33%		
2.5	77%	86%	51%	30%		
1.25	75%	85%	44%	28%		
0.630	73%	82%	39%	25%		
0.315	68%	78%	34%	25%		
0.160	59%	73%	30%	23%		
0.080	55%	67%	26%	20%		
M.C.(%):	24%	24%	9%	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:	20	12	40	67		
% SAND:	25	21	35	13		
% FINES:	55	67	26	20		
CLASSIFICATION	SANDY SILT WITH GRAVEL (ML)	SANDY SILT (ML)	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL (GM)		



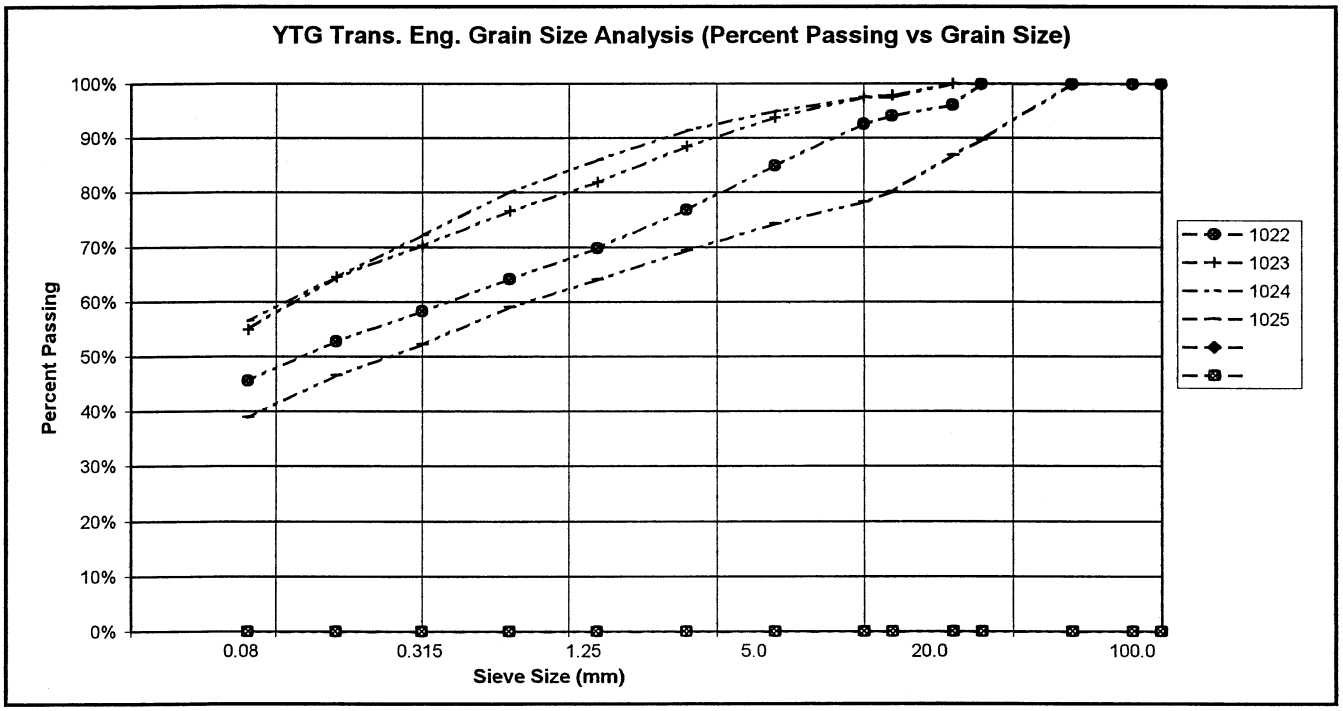
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 618-468
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/05

FIELD NO:	1018	1019	1020	1021		
LAB NO:	1795	1796	1797	1798		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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	83%	100%	95%	92%		
20.0	71%	100%	95%	84%		
12.5	55%	93%	92%	71%		
10.0	48%	91%	88%	70%		
5.0	30%	83%	80%	57%		
2.5	20%	77%	72%	47%		
1.25	13%	72%	63%	38%		
0.630	10%	67%	56%	31%		
0.315	7%	60%	48%	24%		
0.160	6%	54%	42%	21%		
0.080	5%	46%	37%	16%		
M.C.(%):	9%	8%	6%	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:	70	17	20	43		
% SAND:	25	37	43	42		
% FINES:	5	46	37	16		
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)		



PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 618-469
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/05

FIELD NO:	1022	1023	1024	1025		
LAB NO:	1799	1800	1801	1802		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	90%		
20.0	96%	100%	100%	87%		
12.5	94%	98%	98%	80%		
10.0	93%	98%	98%	78%		
5.0	85%	94%	95%	74%		
2.5	77%	88%	91%	69%		
1.25	70%	82%	86%	64%		
0.630	64%	77%	80%	59%		
0.315	58%	70%	72%	52%		
0.160	53%	65%	65%	47%		
0.080	46%	55%	57%	39%		
M.C.(%):	10%	9%	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:	15	6	5	26		
% SAND:	39	39	38	35		
% FINES:	46	55	57	39		
CLASSIFICATION	SILTY SAND (SM)	SANDY SILT (ML)	SANDY SILT (ML)	SILTY SAND WITH GRAVEL (SM)		

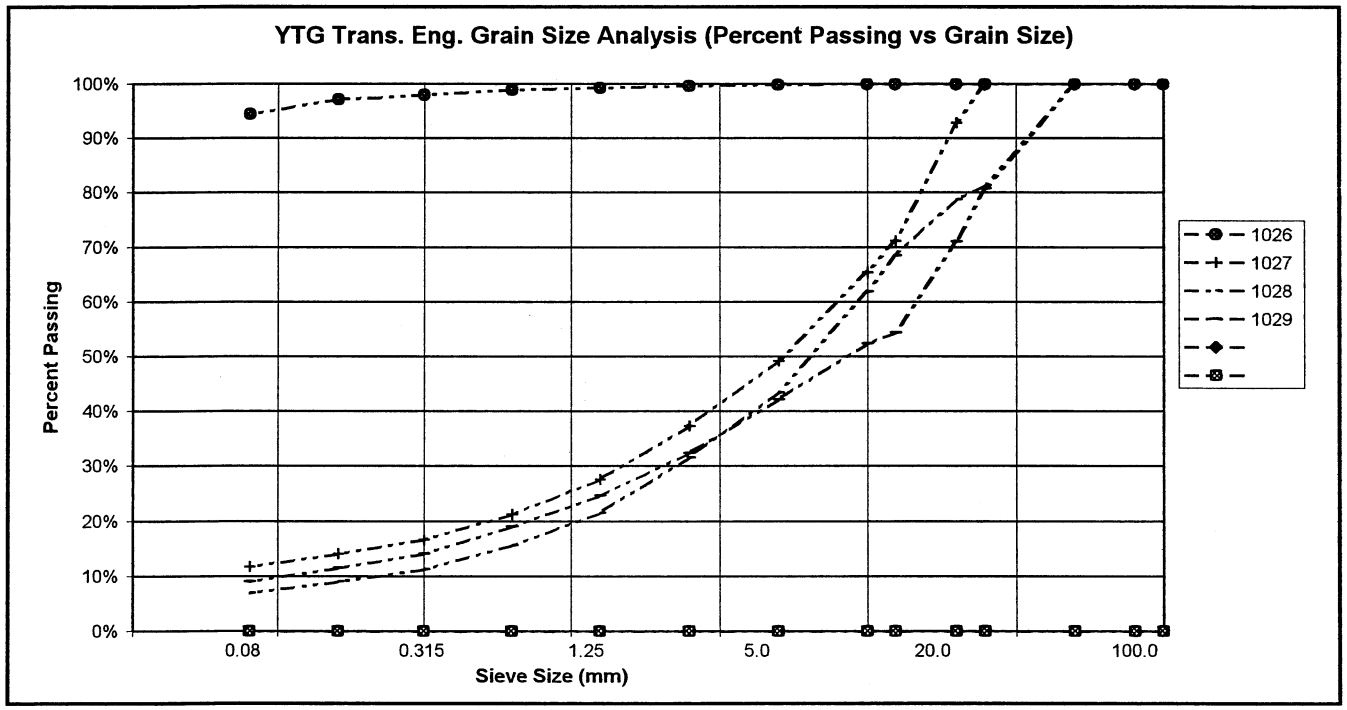


PROJECT NUMBER: 092-202101-0362-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 10
PROJECT LOCATION: Km 1692.6-1729.6 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 618-470

DATE COMP: 2001/09/05

FIELD NO:	1026	1027	1028	1029		
LAB NO:	1803	18.4	1805	1806		
DEPTH:	0.75-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	81%	81%		
20.0	100%	93%	79%	71%		
12.5	100%	71%	68%	54%		
10.0	100%	65%	62%	52%		
5.0	100%	49%	43%	42%		
2.5	100%	37%	32%	32%		
1.25	99%	28%	22%	25%		
0.630	99%	21%	16%	19%		
0.315	98%	17%	11%	14%		
0.160	97%	14%	9%	11%		
0.080	94%	12%	7%	9%		
M.C.(%):	30%	4%	2%	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	51	57	58		
% SAND:	5	37	37	33		
% FINES:	94	12	7	9		
CLASSIFICATION	SILT (ML)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		

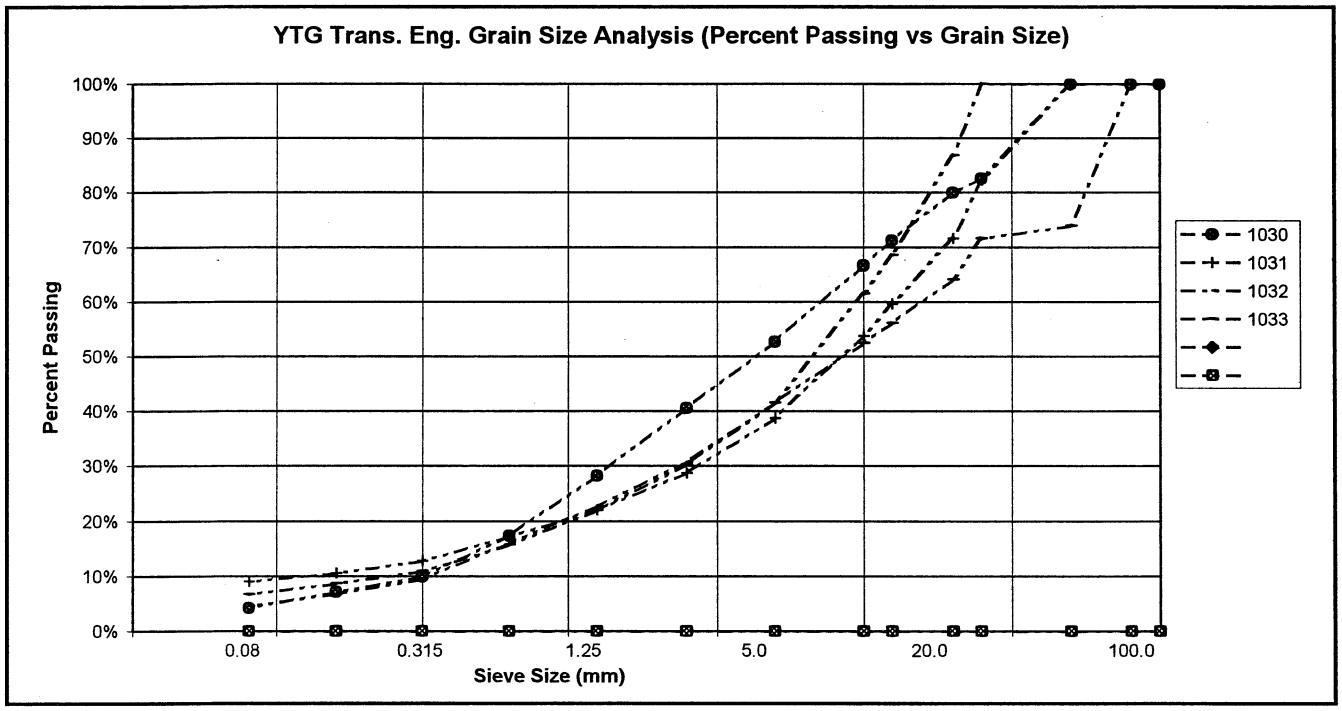


PROJECT NUMBER: 092-202101-0362-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 10
PROJECT LOCATION: Km 1692.6-1729.6 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 618-471

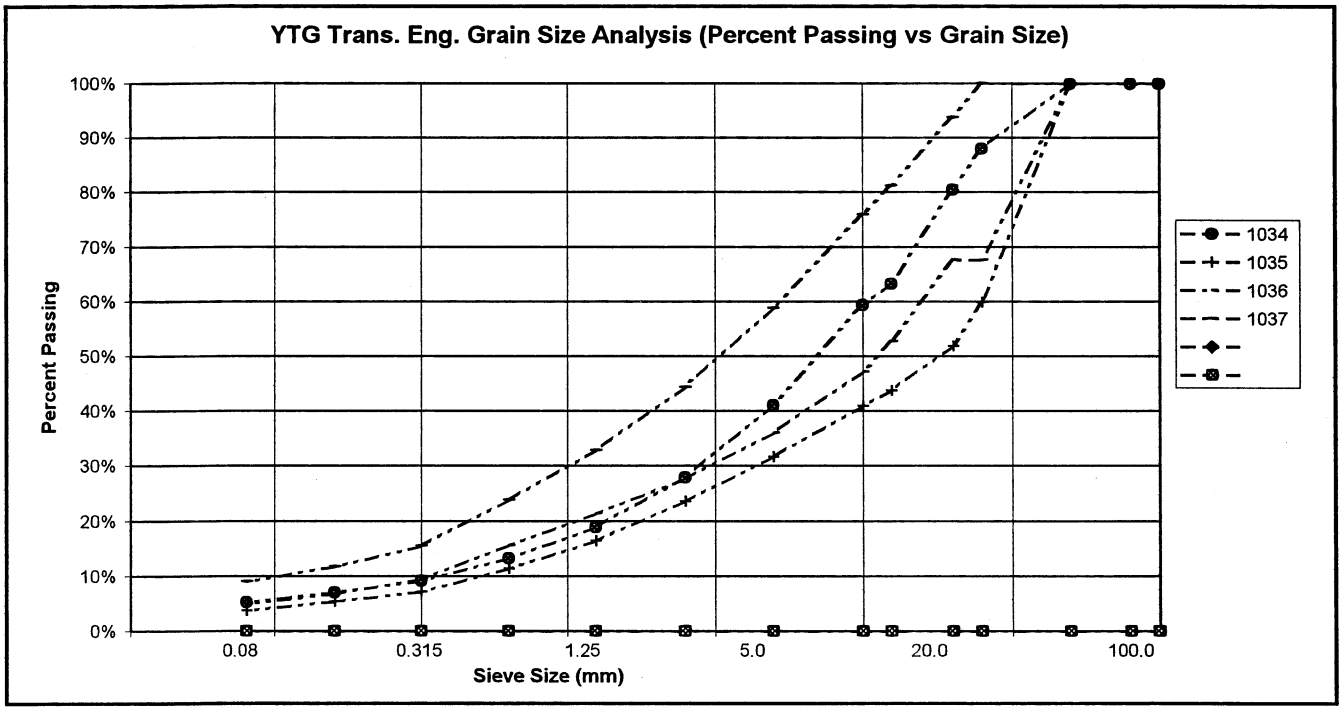
DATE COMP: 2001/09/05

FIELD NO:	1030	1031	1032	1033		
LAB NO:	1807	1808	1809	1810		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	74%		
25.0	83%	82%	100%	72%		
20.0	80%	72%	87%	64%		
12.5	71%	60%	69%	56%		
10.0	67%	54%	62%	52%		
5.0	53%	39%	42%	42%		
2.5	41%	29%	31%	30%		
1.25	28%	22%	23%	22%		
0.630	17%	17%	16%	16%		
0.315	10%	13%	10%	11%		
0.160	7%	11%	7%	9%		
0.080	4%	9%	5%	7%		
M.C.(%):	3%	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:	47	61	58	58		
% SAND:	48	30	37	35		
% FINES:	4	9	5	7		
CLASSIFICATION	WELL-GRADED SAND WITH GRAVEL (SW)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



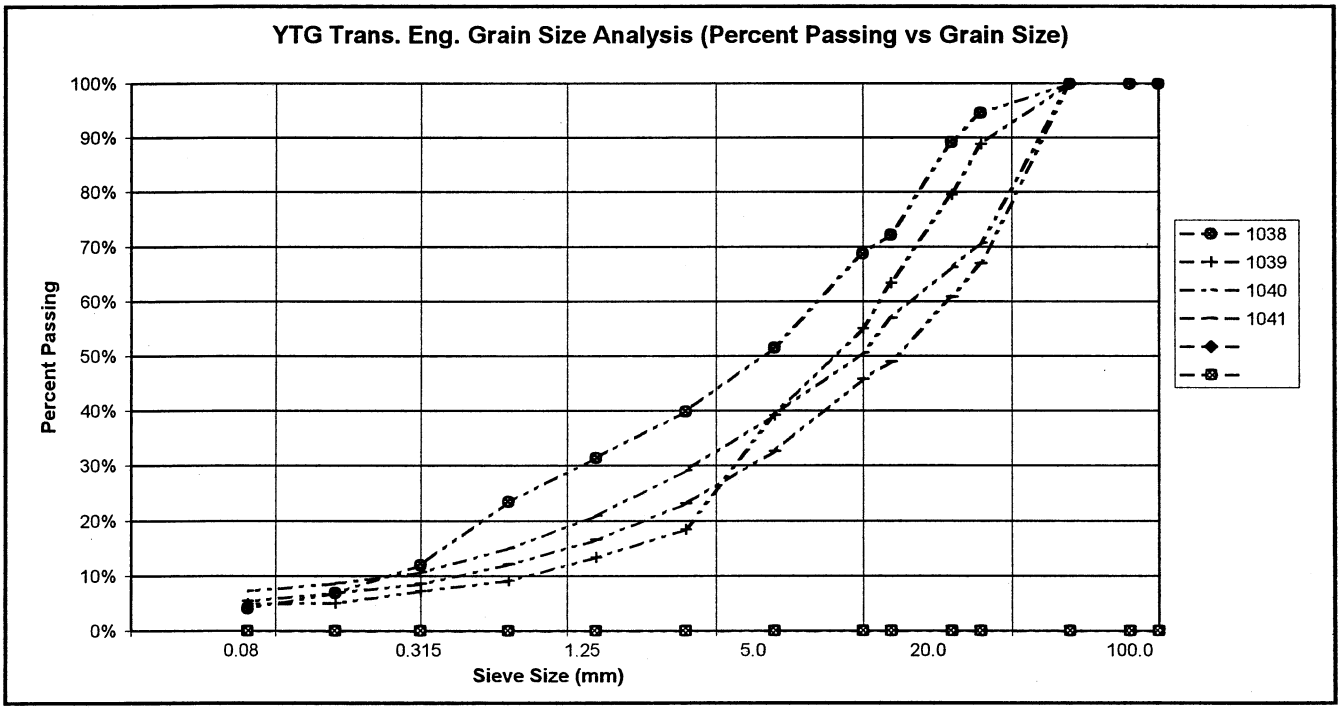
PROJECT NUMBER:	092-202101-0362-1				HOLE No.: 618-472	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 10					
PROJECT LOCATION:	Km 1692.6-1729.6 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	See Testhole Log Sheet					
LOGGED BY:	G.C.				DATE COMP: 2001/09/05	

FIELD NO:	1034	1035	1036	1037		
LAB NO:	1811	1812	1813	1814		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.0		
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	88%	60%	68%	100%		
20.0	80%	52%	68%	94%		
12.5	63%	44%	53%	81%		
10.0	59%	41%	47%	76%		
5.0	41%	32%	36%	59%		
2.5	28%	24%	28%	44%		
1.25	19%	16%	21%	33%		
0.630	13%	11%	16%	24%		
0.315	9%	7%	10%	16%		
0.160	7%	5%	7%	12%		
0.080	5%	4%	5%	9%		
M.C.(%):	3%	2%	2%	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:	59	68	64	41		
% SAND:	36	28	31	50		
% FINES:	5	4	5	9		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)		



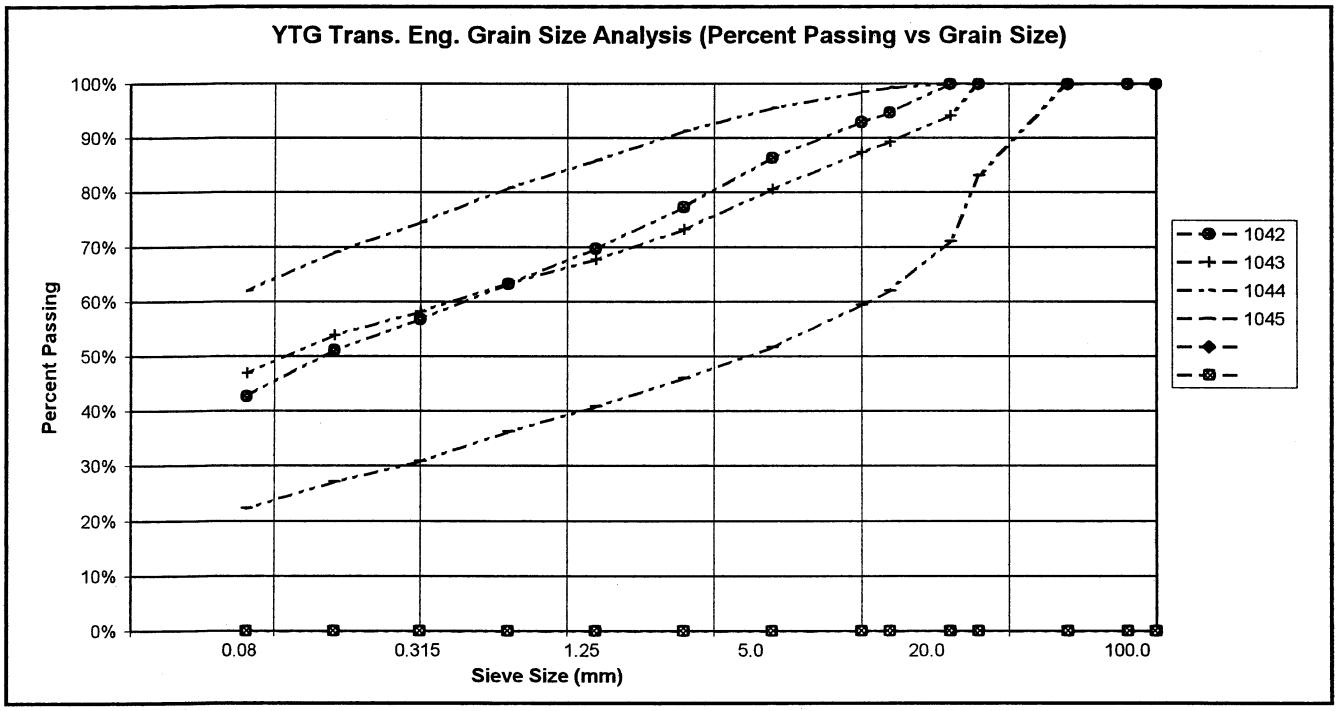
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 618-473
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/05

FIELD NO:	1038	1039	1040	1041		
LAB NO:	1815	1816	1817	1818		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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	95%	89%	71%	67%		
20.0	89%	80%	66%	61%		
12.5	72%	63%	57%	49%		
10.0	69%	55%	51%	46%		
5.0	51%	39%	39%	33%		
2.5	40%	18%	29%	23%		
1.25	31%	13%	21%	17%		
0.630	24%	9%	15%	12%		
0.315	12%	7%	11%	9%		
0.160	7%	5%	9%	7%		
0.080	4%	5%	7%	5%		
M.C.(%):	2%	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:	49	61	61	67		
% SAND:	47	34	32	27		
% FINES:	4	5	7	5		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



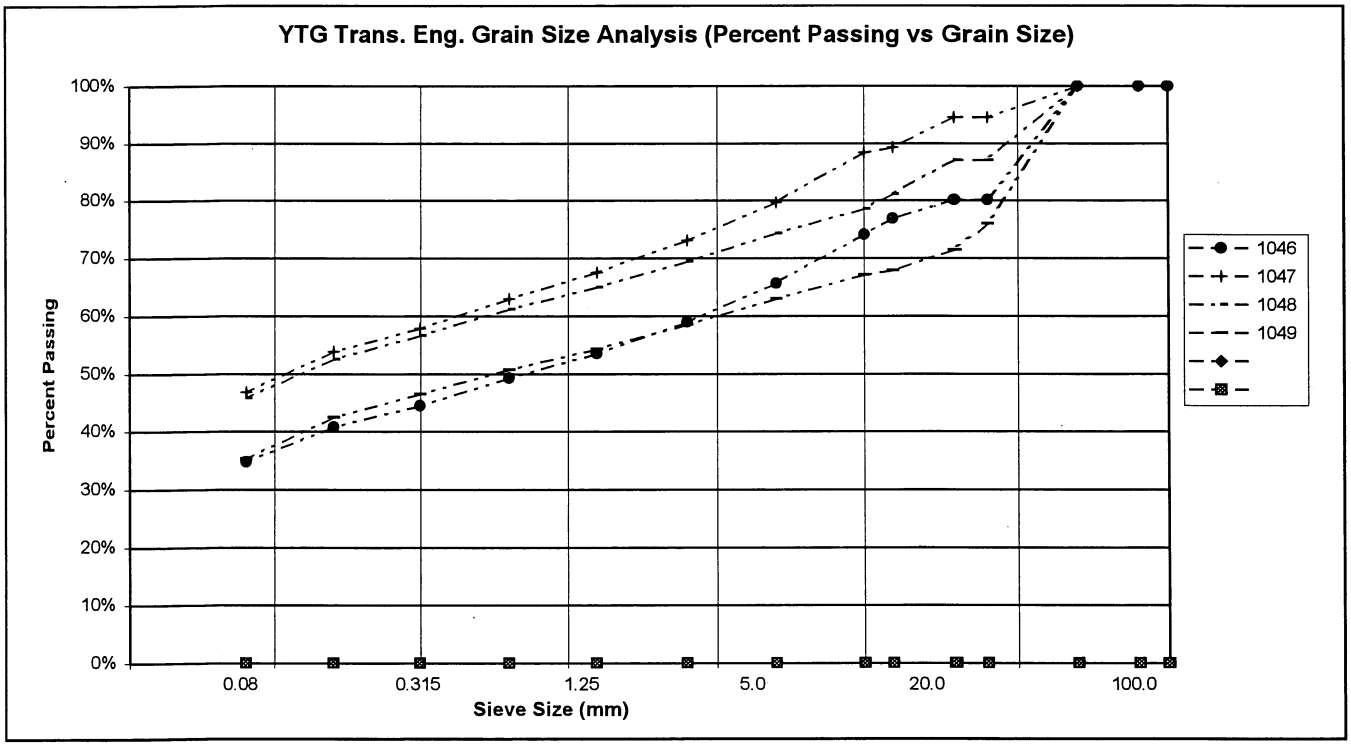
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 618-474
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/05

FIELD NO:	1042	1043	1044	1045		
LAB NO:	1819	1820	1821	1822		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	83%		
20.0	100%	94%	100%	71%		
12.5	95%	89%	99%	62%		
10.0	93%	87%	98%	59%		
5.0	86%	81%	96%	52%		
2.5	77%	73%	91%	46%		
1.25	70%	68%	86%	41%		
0.630	63%	63%	81%	36%		
0.315	57%	58%	75%	31%		
0.160	51%	54%	69%	27%		
0.080	43%	47%	62%	22%		
M.C.(%):	14%	9%	8%	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:	14	19	4	48		
% SAND:	44	34	33	29		
% FINES:	43	47	62	22		
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)	SILTY GRAVEL WITH SAND (GM)		



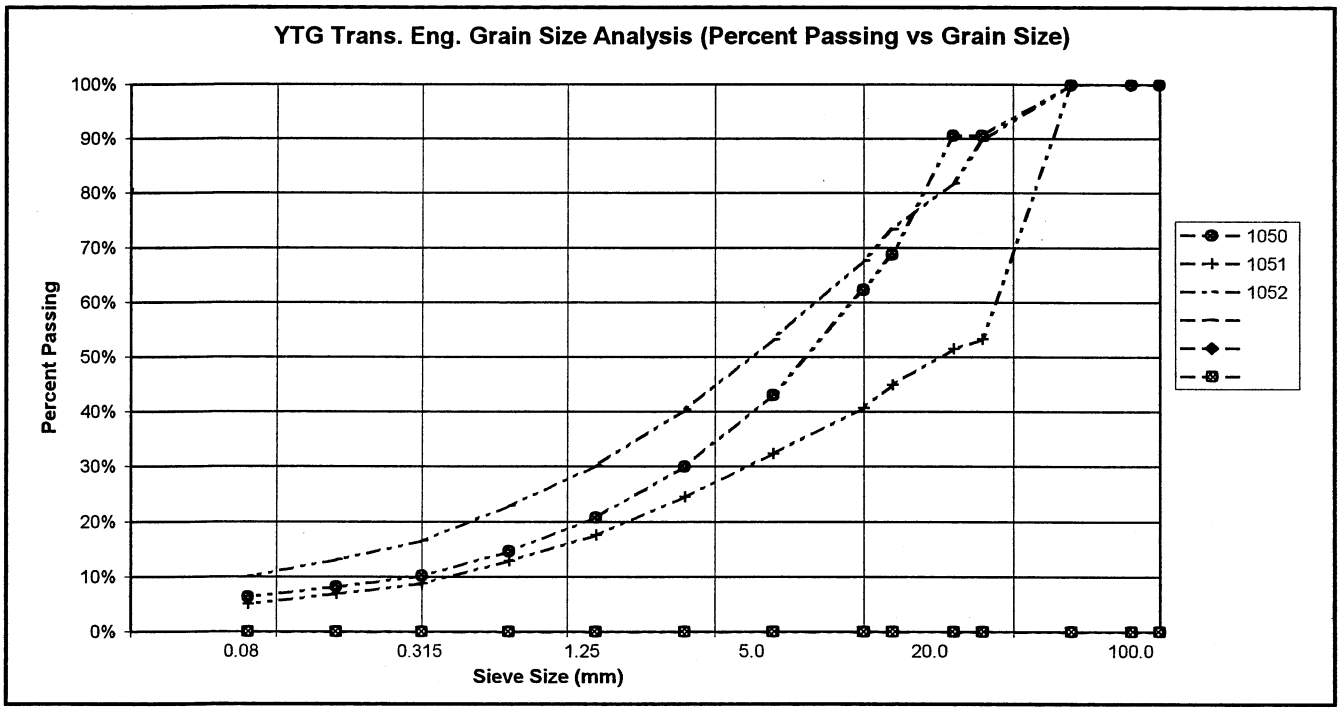
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 618-475
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/05

FIELD NO:	1046	1047	1048	1049		
LAB NO:	1823	1824	1825	1826		
DEPTH:	0.6-1.0	1.6-2.0	2.8-3.0	3.8-4.3		
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	80%	95%	87%	76%		
20.0	80%	95%	87%	71%		
12.5	77%	89%	81%	68%		
10.0	74%	88%	79%	67%		
5.0	66%	80%	74%	63%		
2.5	59%	73%	69%	59%		
1.25	54%	68%	65%	54%		
0.630	49%	63%	61%	51%		
0.315	44%	58%	57%	46%		
0.160	41%	54%	53%	42%		
0.080	35%	47%	46%	35%		
M.C.(%):	9%	8%	7%	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:	34	20	26	37		
% SAND:	31	33	29	28		
% FINES:	35	47	46	35		
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)		



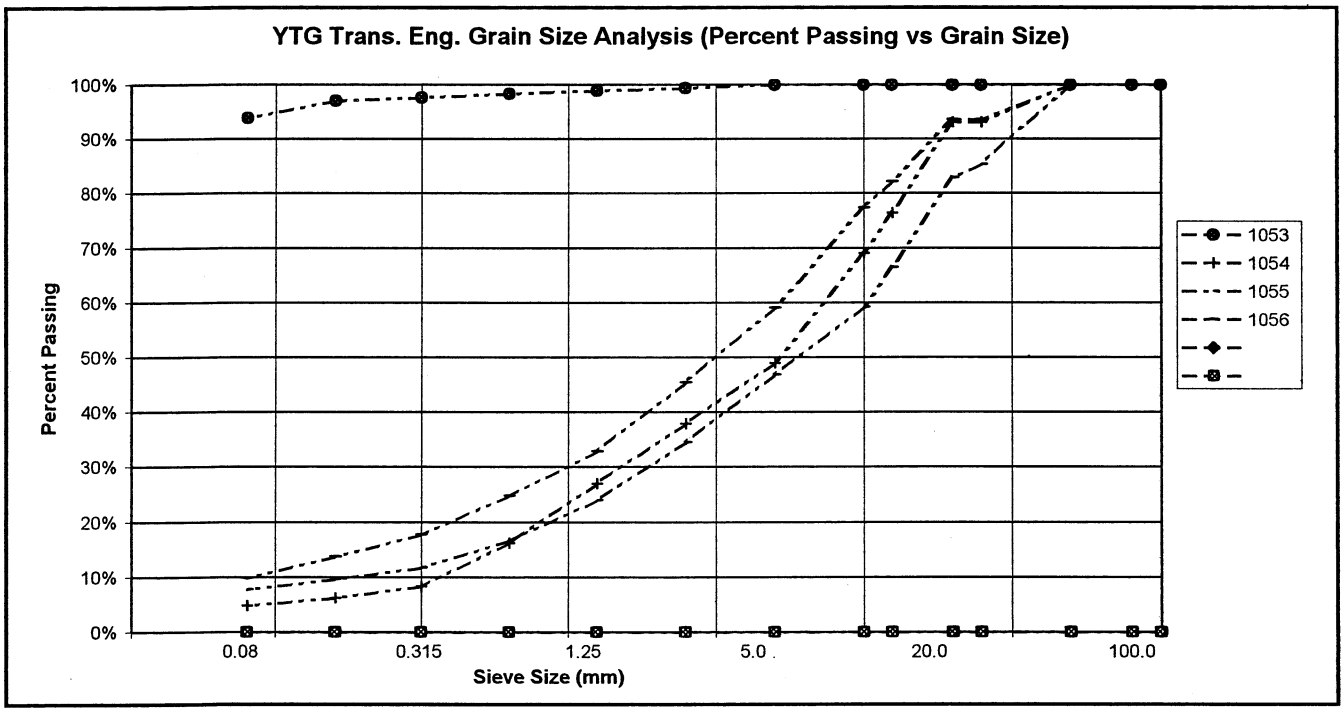
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 618-476
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/05

FIELD NO:	1050	1051	1052			
LAB NO:	1827	1828	1829			
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0			
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	91%	53%	90%			
20.0	91%	51%	82%			
12.5	69%	45%	73%			
10.0	62%	41%	68%			
5.0	43%	32%	53%			
2.5	30%	25%	40%			
1.25	21%	18%	30%			
0.630	15%	13%	23%			
0.315	10%	9%	17%			
0.160	8%	7%	13%			
0.080	6%	5%	10%			
M.C.(%):	7%	6%	2%			
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	68	47			
% SAND:	37	27	43			
% FINES:	6	5	10			
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)			



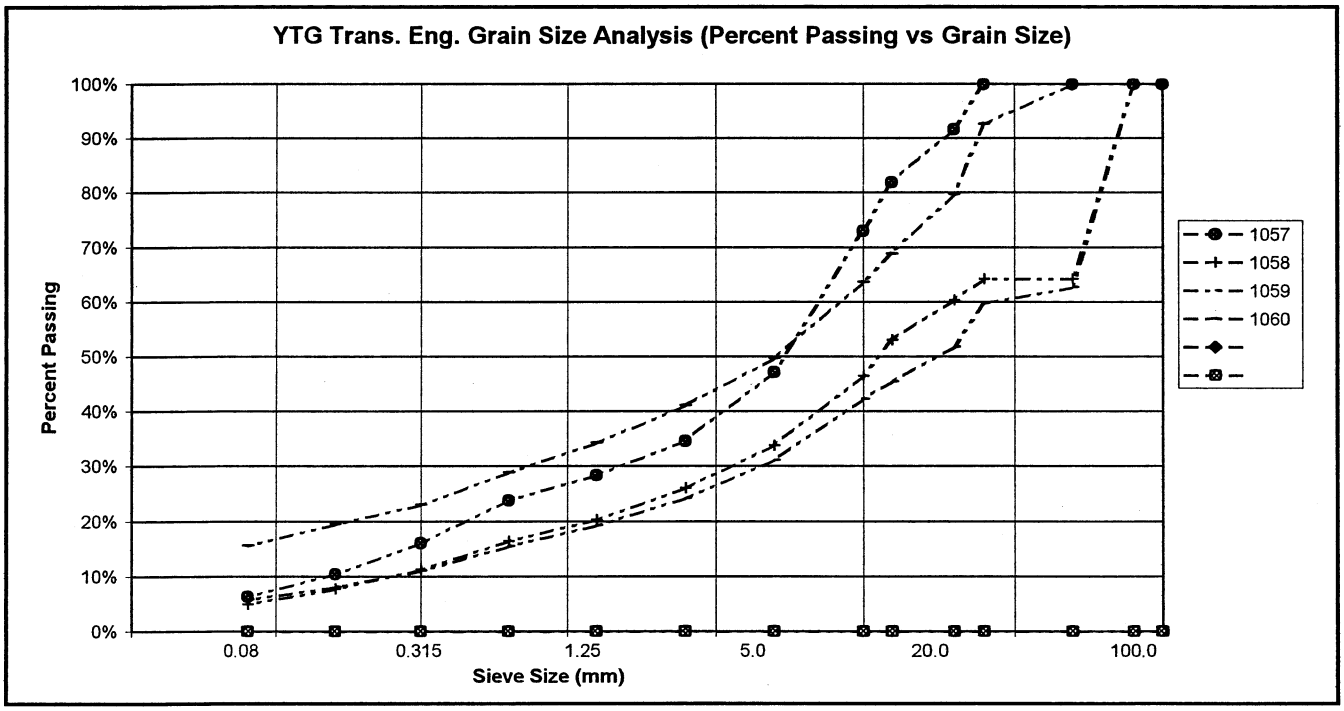
PROJECT NUMBER:	092-202101-0362-1	HOLE No.: 618-477
CLIENT:	ENGINEERING CAPITAL	
PROJECT NAME:	SHAKWAK SEG 10	
PROJECT LOCATION:	Km 1692.6-1729.6 A/H	
DRILL UNIT:	MOBILE B40 L	
HOLE LOCATION:	See Testhole Log Sheet	
LOGGED BY:	G.C.	DATE COMP: 2001/09/05

	FIELD NO:	1053	1054	1055	1056		
	LAB NO:	1830	1831	1832	1833		
	DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.6-4.3		
	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%	93%	85%	94%		
20.0		100%	93%	83%	94%		
12.5		100%	76%	66%	82%		
10.0		100%	69%	59%	77%		
5.0		100%	49%	47%	59%		
2.5		99%	38%	34%	45%		
1.25		99%	27%	24%	33%		
0.630		98%	16%	17%	25%		
0.315		98%	8%	12%	18%		
0.160		97%	6%	10%	14%		
0.080		94%	5%	8%	10%		
M.C.(%):		27%	1%	2%	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	51	53	41		
% SAND:		6	44	39	49		
% FINES:		94	5	8	10		
CLASSIFICATION		SILT (ML)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)		



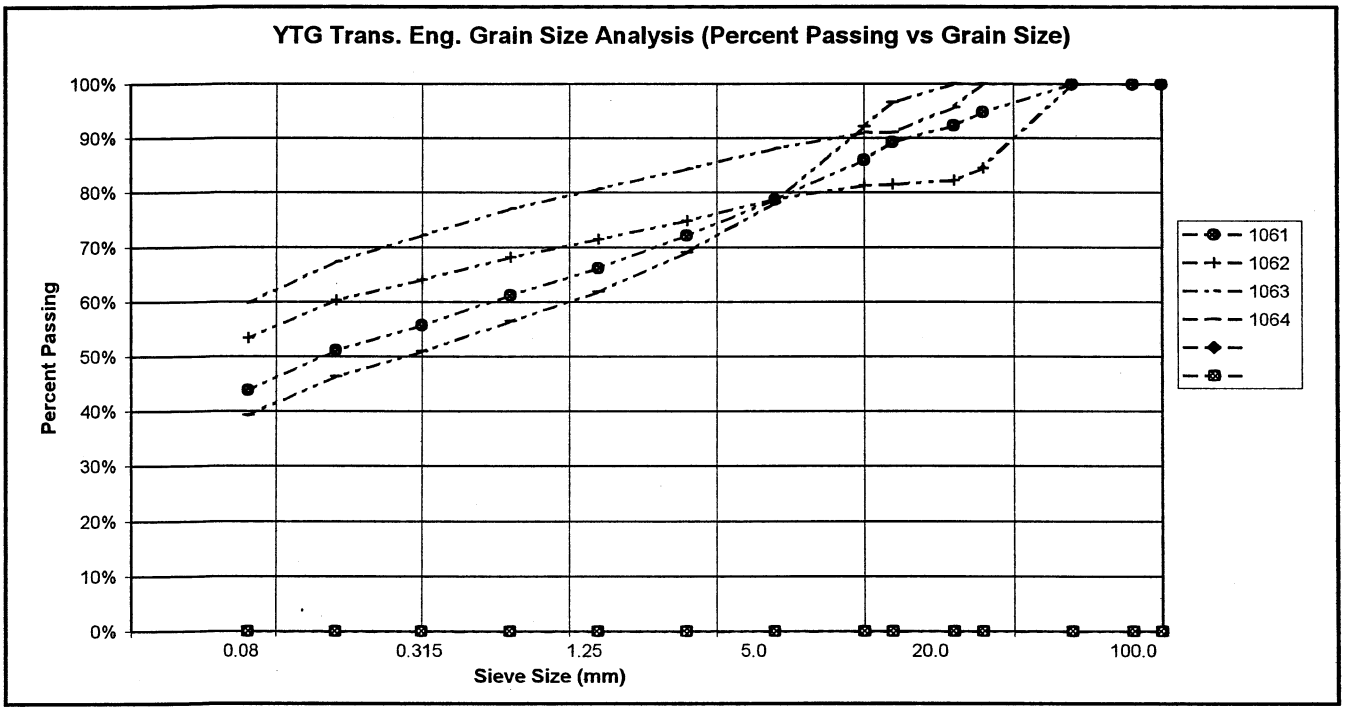
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 618-478
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/05

FIELD NO:	1057	1058	1059	1060		
LAB NO:	1834	1835	1836	1837		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.0		
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%	64%	63%	100%		
25.0	100%	64%	60%	93%		
20.0	92%	60%	52%	80%		
12.5	82%	53%	45%	69%		
10.0	73%	46%	42%	64%		
5.0	47%	34%	31%	50%		
2.5	35%	26%	24%	41%		
1.25	28%	20%	19%	34%		
0.630	24%	16%	15%	29%		
0.315	16%	11%	11%	23%		
0.160	10%	8%	8%	19%		
0.080	6%	5%	6%	16%		
M.C.(%):	2%	2%	2%	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:	53	66	69	50		
% SAND:	41	29	25	34		
% FINES:	6	5	6	16		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)		



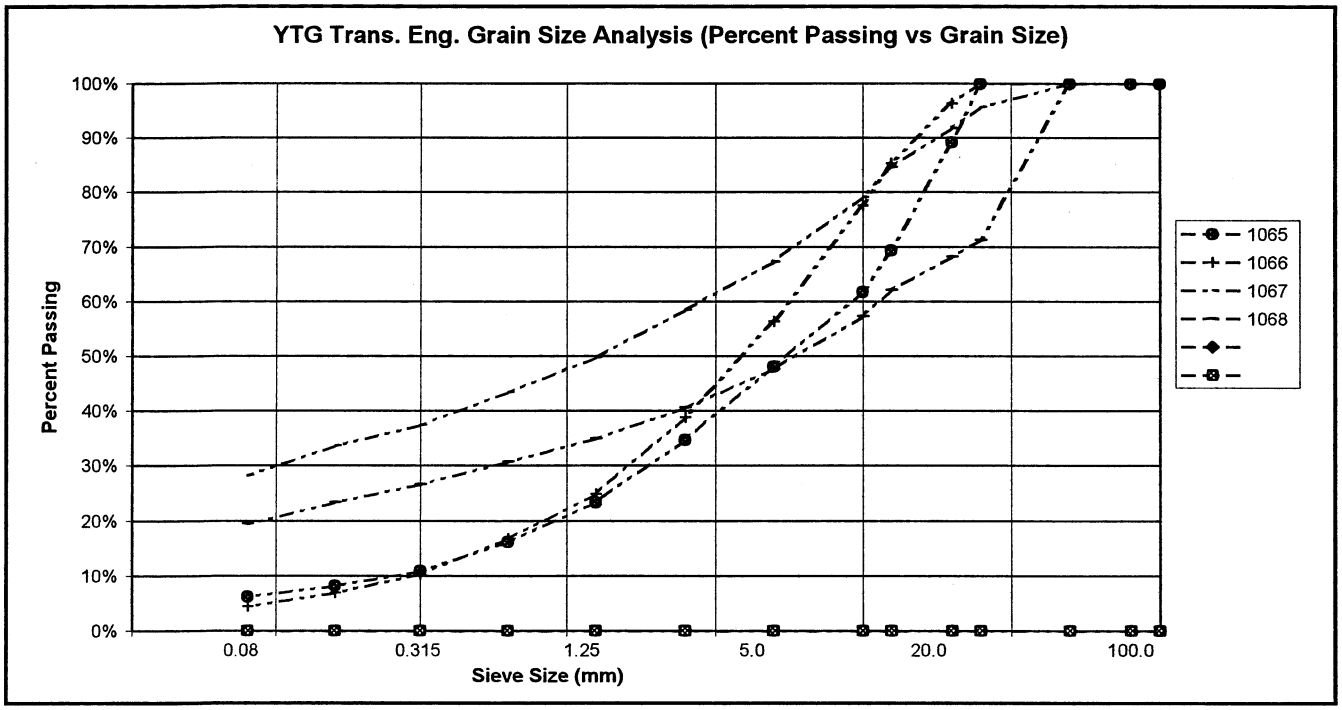
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 618-479
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/05

FIELD NO:	1061	1062	1063	1064		
LAB NO:	1838	1839	1840	1841		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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	95%	84%	100%	100%		
20.0	92%	82%	96%	100%		
12.5	89%	82%	91%	97%		
10.0	86%	81%	91%	92%		
5.0	79%	79%	88%	78%		
2.5	72%	75%	84%	69%		
1.25	66%	71%	81%	62%		
0.630	61%	68%	77%	56%		
0.315	56%	64%	72%	51%		
0.160	51%	60%	67%	46%		
0.080	44%	53%	60%	39%		
M.C.(%):	9%	10%	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:	21	21	12	22		
% SAND:	35	25	28	39		
% FINES:	44	53	60	39		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SANDY SILT WITH GRAVEL (ML)	SANDY SILT (ML)	SILTY SAND WITH GRAVEL (SM)		



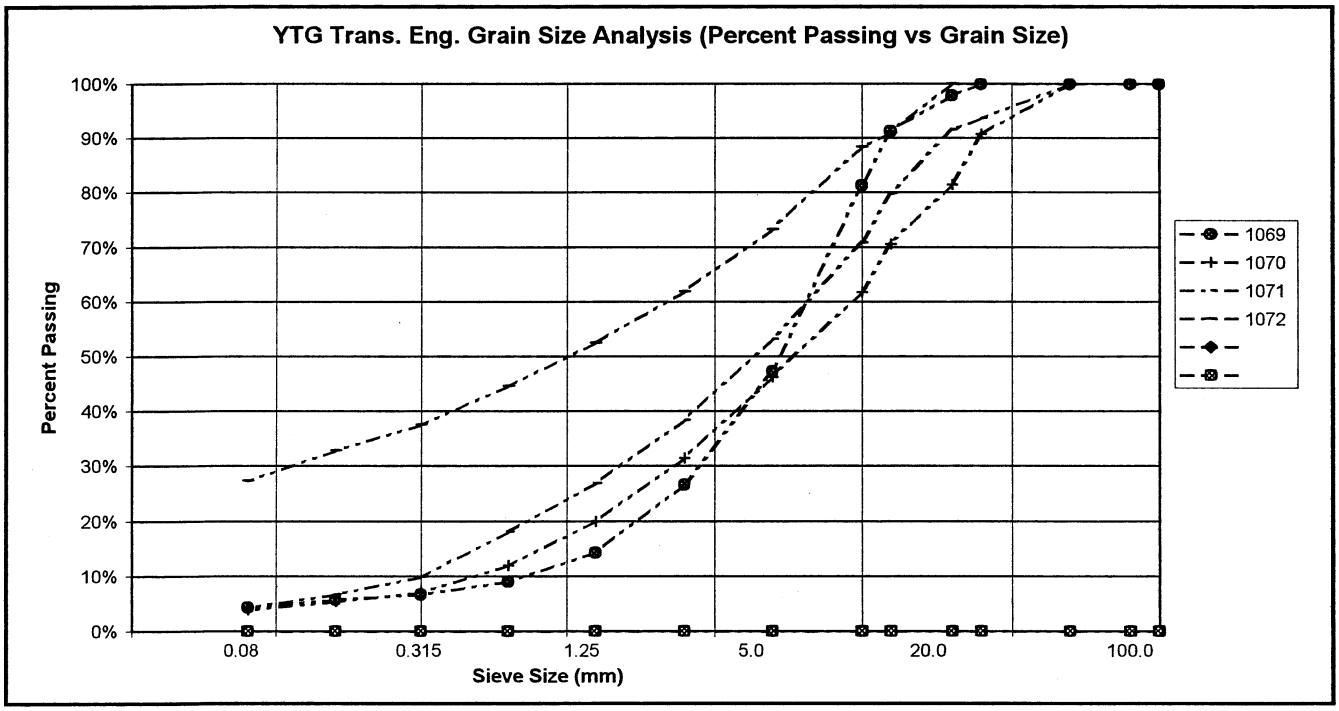
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 618-480
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/06

FIELD NO:	1065	1066	1067	1068		
LAB NO:	1842	1843	1844	1845		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.0		
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	100%	100%	96%	71%		
20.0	89%	96%	92%	68%		
12.5	69%	85%	85%	62%		
10.0	62%	78%	79%	57%		
5.0	48%	56%	67%	48%		
2.5	35%	39%	58%	41%		
1.25	23%	25%	50%	35%		
0.630	16%	17%	43%	31%		
0.315	11%	10%	37%	27%		
0.160	8%	7%	34%	23%		
0.080	6%	4%	28%	20%		
M.C.(%):	3%	1%	5%	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:	52	44	33	52		
% SAND:	42	52	39	28		
% FINES:	6	4	28	20		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED SAND WITH GRAVEL (SW)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)		



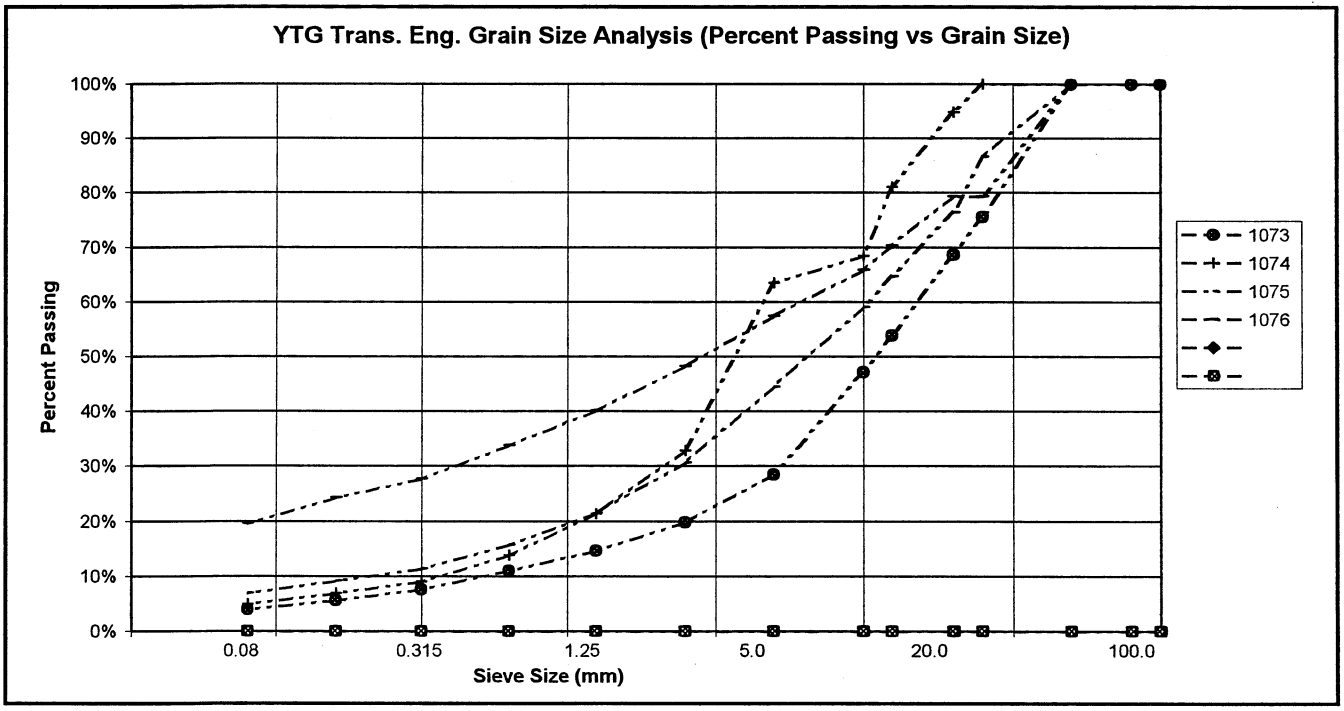
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 618-481
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/06

FIELD NO:	1069	1070	1071	1072		
LAB NO:	1846	1847	1848	1849		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	91%	94%	100%		
20.0	98%	81%	92%	100%		
12.5	91%	71%	80%	91%		
10.0	81%	62%	71%	88%		
5.0	47%	46%	53%	73%		
2.5	27%	31%	38%	62%		
1.25	14%	20%	27%	52%		
0.630	9%	12%	18%	45%		
0.315	7%	7%	10%	38%		
0.160	6%	5%	7%	33%		
0.080	4%	4%	4%	27%		
M.C.(%):	2%	2%	1%	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:	53	54	47	27		
% SAND:	43	42	49	46		
% FINES:	4	4	4	27		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED SAND WITH GRAVEL (SW)	SILTY SAND WITH GRAVEL (SM)		



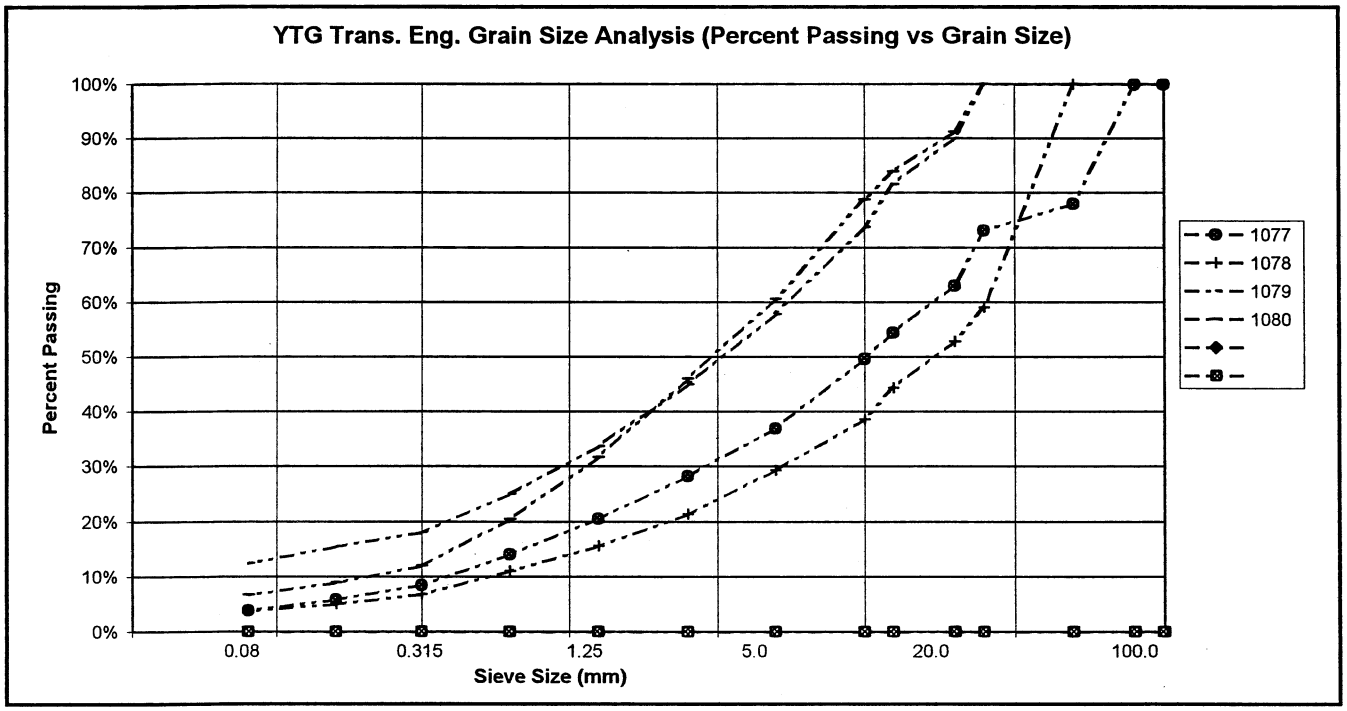
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 618-482
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/06

FIELD NO:	1073	1074	1075	1076		
LAB NO:	1850	1851	1852	1853		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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	76%	100%	87%	79%		
20.0	69%	95%	76%	79%		
12.5	54%	81%	65%	70%		
10.0	47%	68%	59%	66%		
5.0	28%	64%	45%	57%		
2.5	20%	33%	31%	48%		
1.25	15%	21%	22%	40%		
0.630	11%	14%	16%	34%		
0.315	8%	9%	11%	28%		
0.160	6%	7%	9%	24%		
0.080	4%	5%	7%	20%		
M.C.(%):	1%	1%	2%	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:	72	36	55	43		
% SAND:	24	59	38	38		
% FINES:	4	5	7	20		
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED SAND WITH GRAVEL (SP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)		



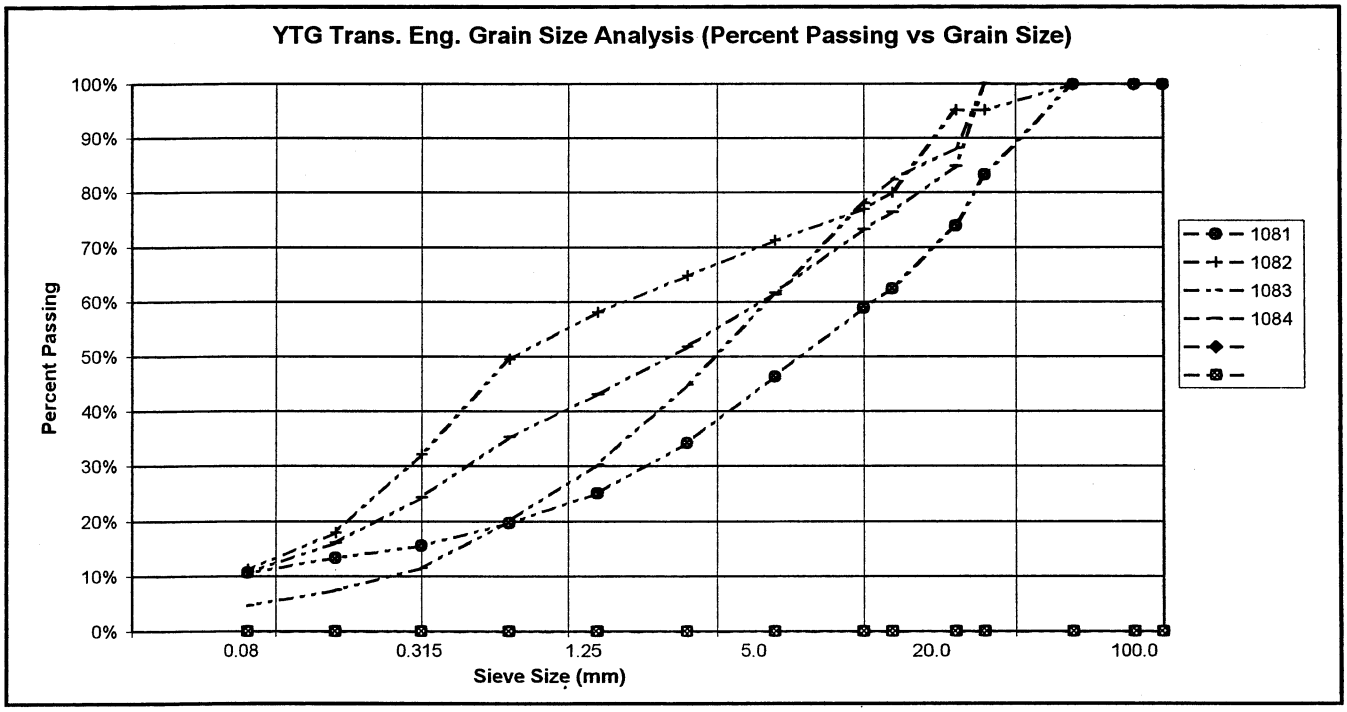
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 618-483
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/06

FIELD NO:	1077	1078	1079	1080		
LAB NO:	1854	1855	1856	1857		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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	78%	100%	100%	100%		
25.0	73%	59%	100%	100%		
20.0	63%	53%	90%	91%		
12.5	54%	44%	82%	84%		
10.0	50%	39%	74%	79%		
5.0	37%	29%	58%	61%		
2.5	28%	21%	45%	46%		
1.25	21%	16%	34%	32%		
0.630	14%	11%	25%	20%		
0.315	8%	7%	18%	12%		
0.160	6%	5%	15%	9%		
0.080	4%	4%	12%	7%		
M.C.(%):	2%	2%	4%	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:	63	71	42	39		
% SAND:	33	26	45	54		
% FINES:	4	4	12	7		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	SILTY SAND WITH GRAVEL (SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)		



PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 618-484
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/06

FIELD NO:	1081	1082	1083	1084		
LAB NO:	1858	1859	1860	1861		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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	83%	95%	100%	100%		
20.0	74%	95%	88%	85%		
12.5	62%	80%	82%	76%		
10.0	59%	77%	78%	73%		
5.0	46%	71%	61%	62%		
2.5	34%	65%	45%	52%		
1.25	25%	58%	30%	43%		
0.630	20%	50%	20%	35%		
0.315	16%	32%	12%	24%		
0.160	13%	18%	7%	16%		
0.080	11%	11%	5%	11%		
M.C.(%):	3%	4%	2%	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:	54	29	39	38		
% SAND:	36	60	57	51		
% FINES:	11	11	5	11		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	WELL-GRADED SAND WITH GRAVEL (SW)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)		

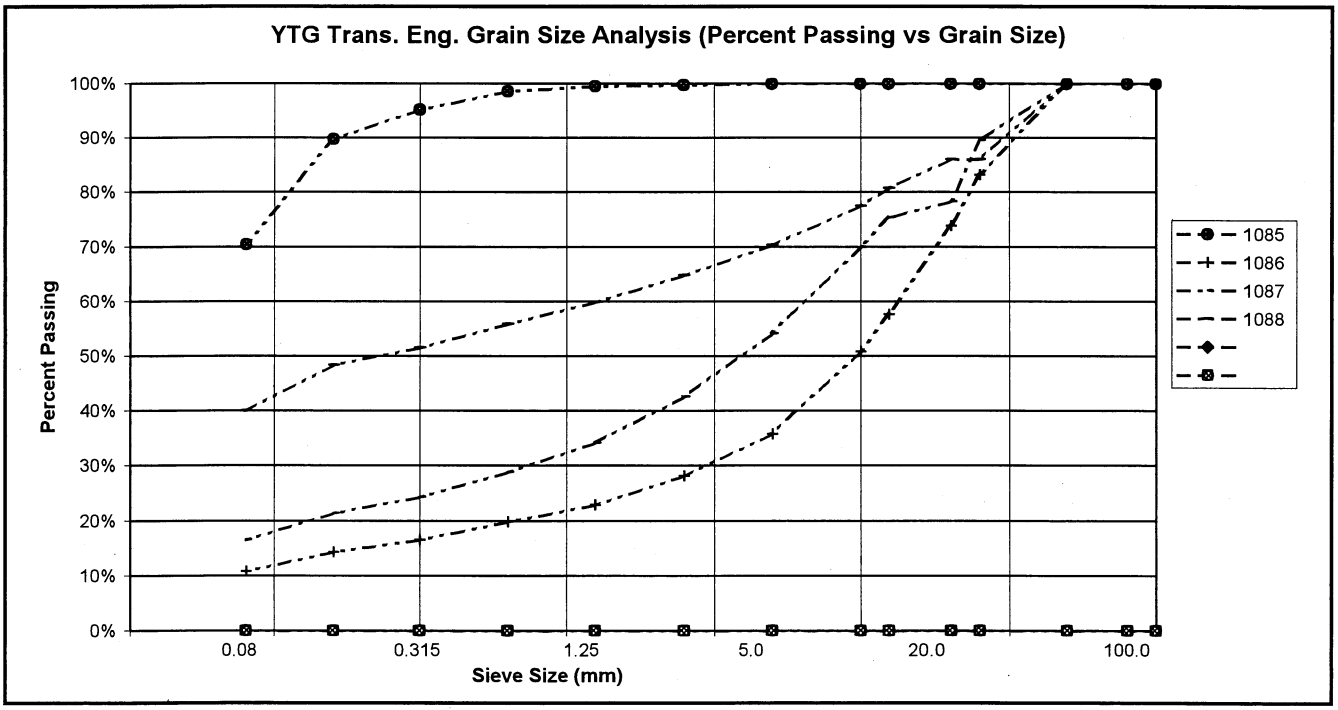


PROJECT NUMBER: 092-202101-0362-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 10
PROJECT LOCATION: Km 1692.6-1729.6 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 619-485

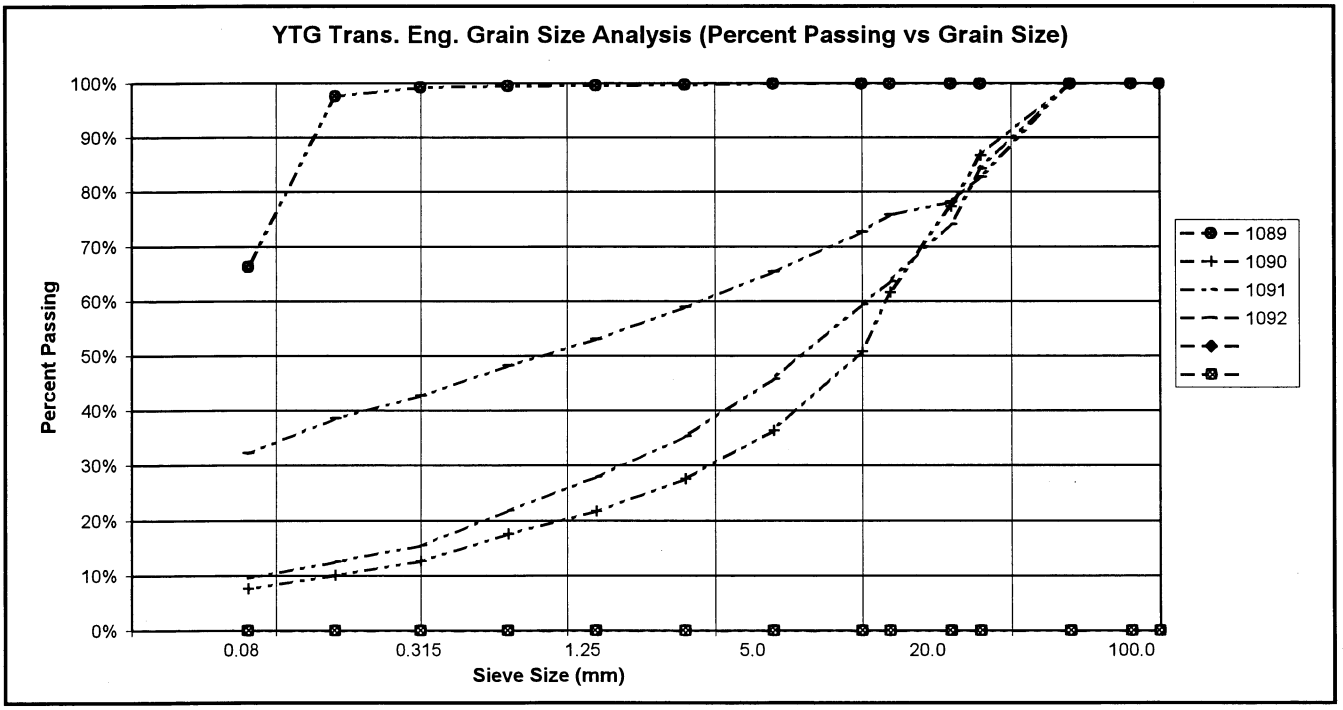
DATE COMP: 2001/09/06

FIELD NO:	1085	1086	1087	1088		
LAB NO:	1862	1863	1864	1865		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	83%	90%	86%		
20.0	100%	74%	78%	86%		
12.5	100%	58%	75%	81%		
10.0	100%	51%	70%	77%		
5.0	100%	36%	54%	70%		
2.5	100%	28%	43%	65%		
1.25	100%	23%	34%	60%		
0.630	99%	20%	29%	56%		
0.315	95%	17%	24%	52%		
0.160	90%	14%	21%	48%		
0.080	70%	11%	17%	40%		
M.C.(%):	14%	3%	4%	12%		
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	64	46	30		
% SAND:	30	25	38	30		
% FINES:	70	11	17	40		
CLASSIFICATION	SILT WITH SAND (ML)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)		



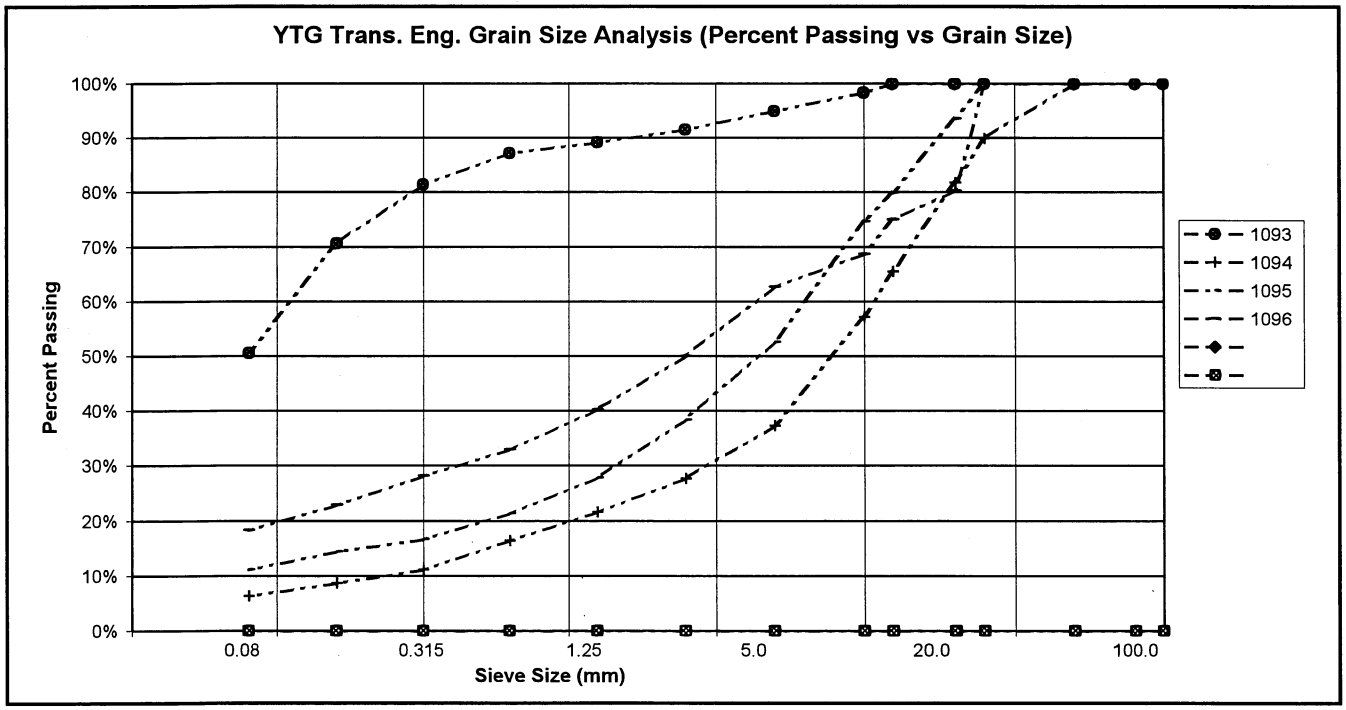
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 619-486
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/06

FIELD NO:	1089	1090	1091	1092		
LAB NO:	1866	1867	1868	1869		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	87%	84%	83%		
20.0	100%	77%	74%	78%		
12.5	100%	62%	64%	76%		
10.0	100%	51%	59%	73%		
5.0	100%	36%	46%	65%		
2.5	100%	28%	35%	59%		
1.25	100%	22%	28%	53%		
0.630	100%	18%	22%	48%		
0.315	99%	13%	15%	43%		
0.160	98%	10%	13%	39%		
0.080	66%	8%	10%	32%		
M.C.(%):	13%	2%	2%	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:	0	64	54	35		
% SAND:	34	29	36	33		
% FINES:	66	8	10	32		
CLASSIFICATION	SANDY SILT (ML)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)		



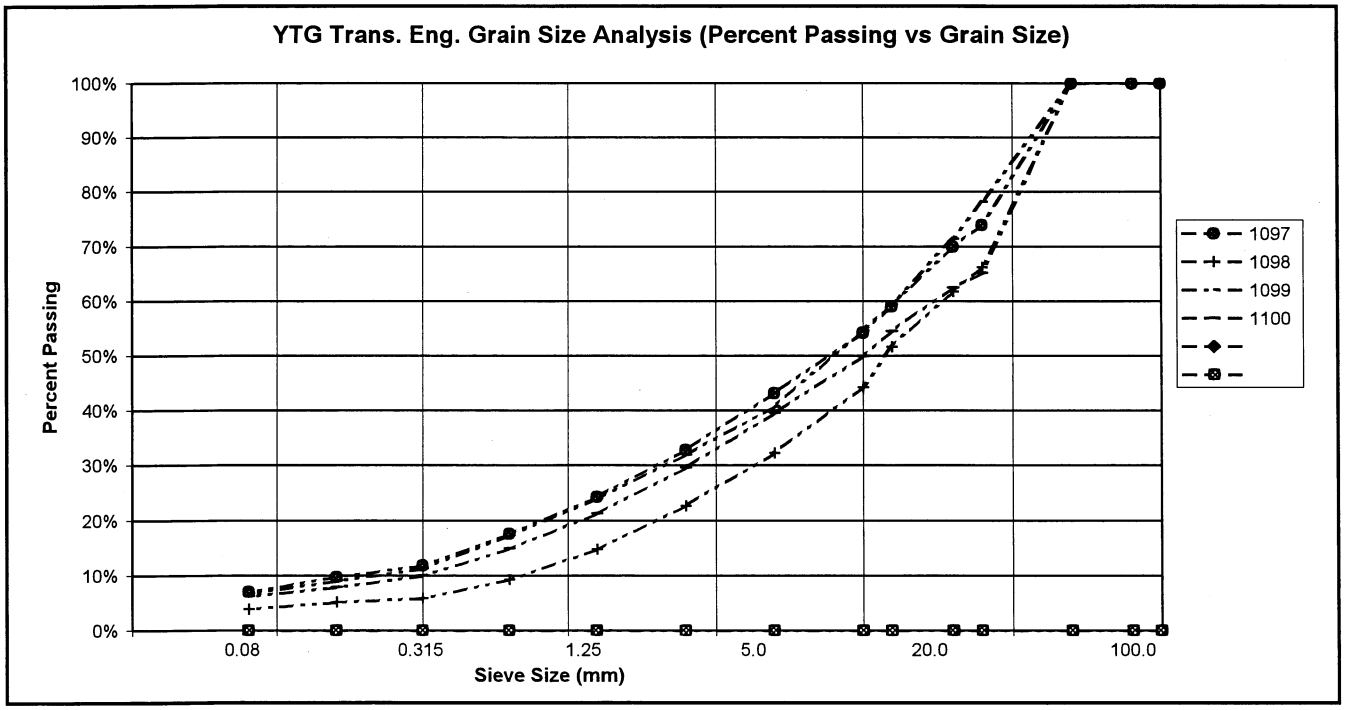
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 619-487
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/06

FIELD NO:	1093	1094	1095	1096		
LAB NO:	1870	1871	1872	1873		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	90%	100%	100%		
20.0	100%	82%	94%	80%		
12.5	100%	65%	80%	75%		
10.0	98%	57%	75%	69%		
5.0	95%	37%	53%	63%		
2.5	92%	28%	38%	50%		
1.25	89%	22%	28%	40%		
0.630	87%	16%	21%	33%		
0.315	81%	11%	17%	28%		
0.160	71%	9%	14%	23%		
0.080	51%	6%	11%	18%		
M.C.(%):	18%	3%	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:	5	63	47	37		
% SAND:	44	31	41	44		
% FINES:	51	6	11	18		
CLASSIFICATION	SANDY SILT (ML)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH GRAVEL (SM)		



PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 619-488
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/06

FIELD NO:	1097	1098	1099	1100		
LAB NO:	1874	1875	1876	1877		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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	74%	66%	78%	65%		
20.0	70%	62%	71%	62%		
12.5	59%	52%	59%	54%		
10.0	54%	44%	55%	50%		
5.0	43%	32%	41%	40%		
2.5	33%	23%	32%	30%		
1.25	24%	15%	24%	21%		
0.630	18%	9%	17%	15%		
0.315	12%	6%	11%	10%		
0.160	10%	5%	9%	8%		
0.080	7%	4%	7%	6%		
M.C.(%):	3%	1%	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:	57	68	59	60		
% SAND:	36	28	34	33		
% FINES:	7	4	7	6		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		

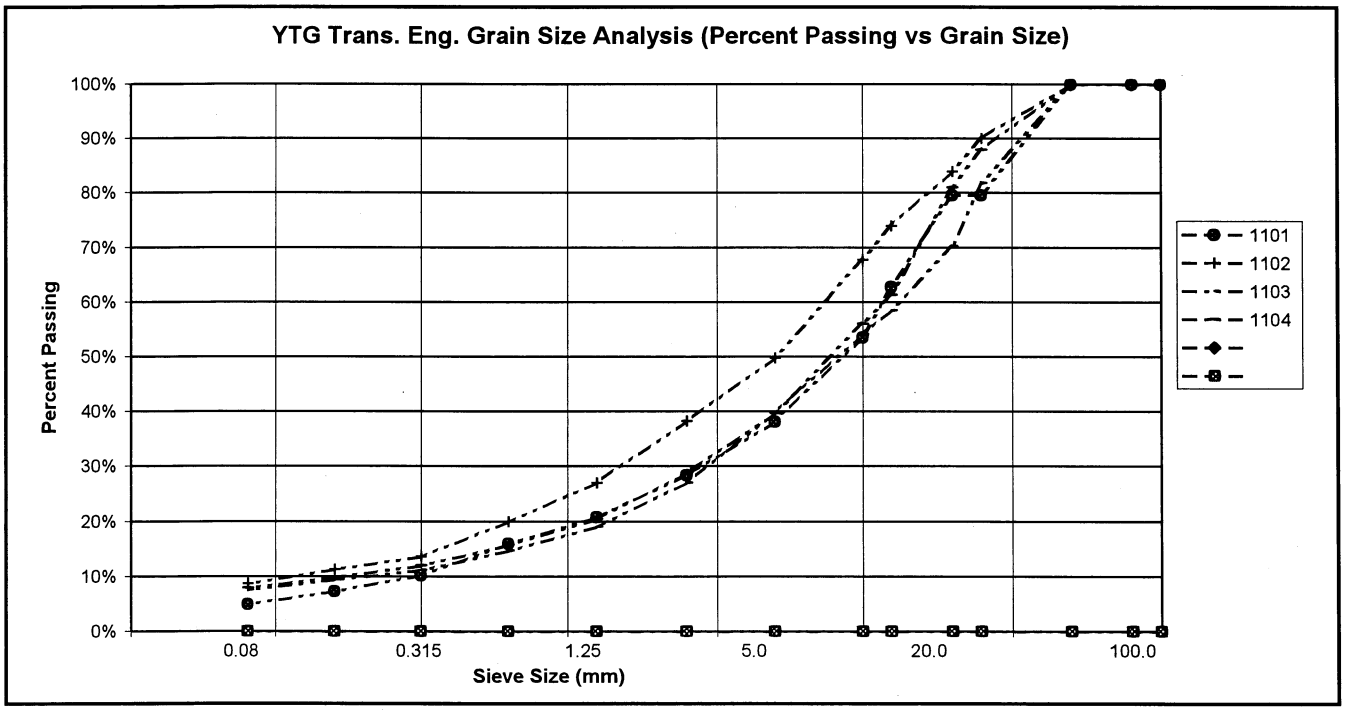


PROJECT NUMBER: 092-202101-0362-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 10
PROJECT LOCATION: Km 1692.6-1729.6 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 619-489

DATE COMP: 2001/09/06

FIELD NO:	1101	1102	1103	1104		
LAB NO:	1878	1879	1880	1881		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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	80%	90%	82%	88%		
20.0	80%	84%	70%	81%		
12.5	63%	74%	58%	61%		
10.0	54%	68%	54%	56%		
5.0	38%	50%	40%	40%		
2.5	28%	38%	27%	29%		
1.25	21%	27%	19%	20%		
0.630	16%	20%	15%	16%		
0.315	10%	14%	11%	12%		
0.160	7%	11%	9%	10%		
0.080	5%	9%	8%	8%		
M.C.(%):	2%	3%	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:	62	50	60	60		
% SAND:	33	41	32	32		
% FINES:	5	9	8	8		
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)		

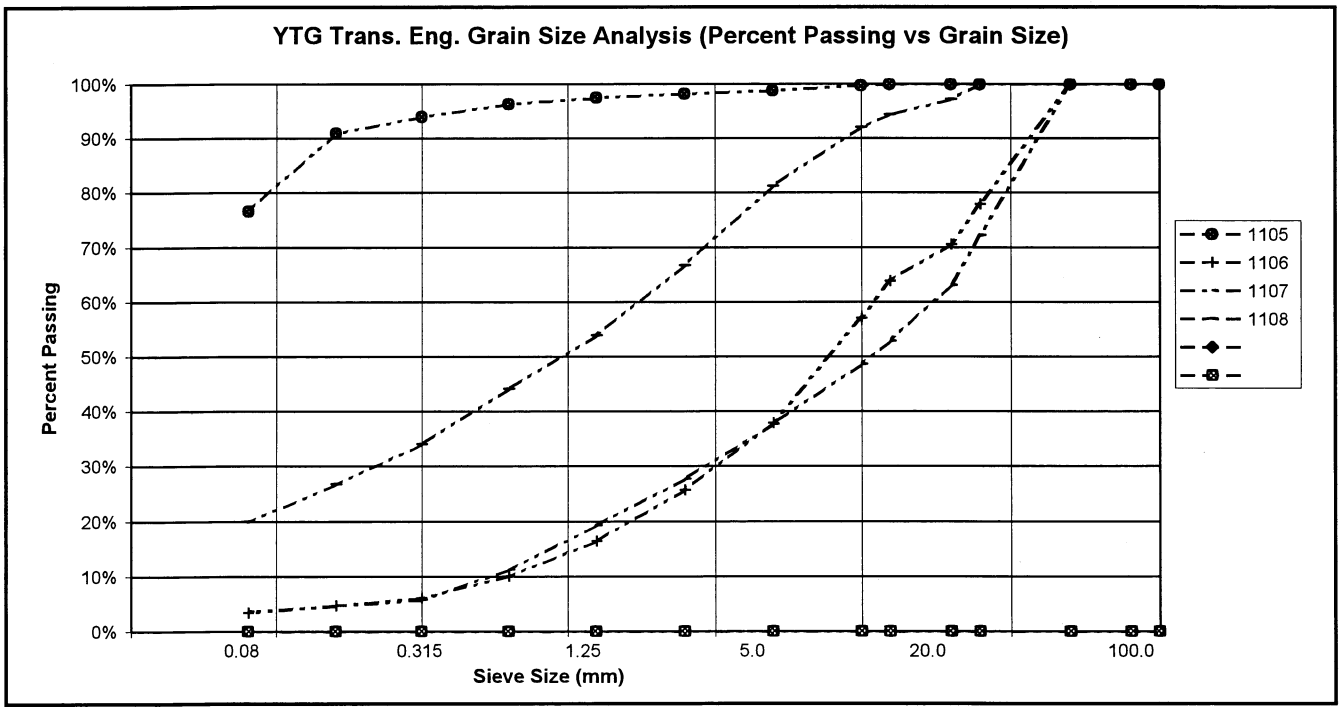


PROJECT NUMBER: 092-202101-0362-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 10
PROJECT LOCATION: Km 1692.6-1729.6 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 619-490

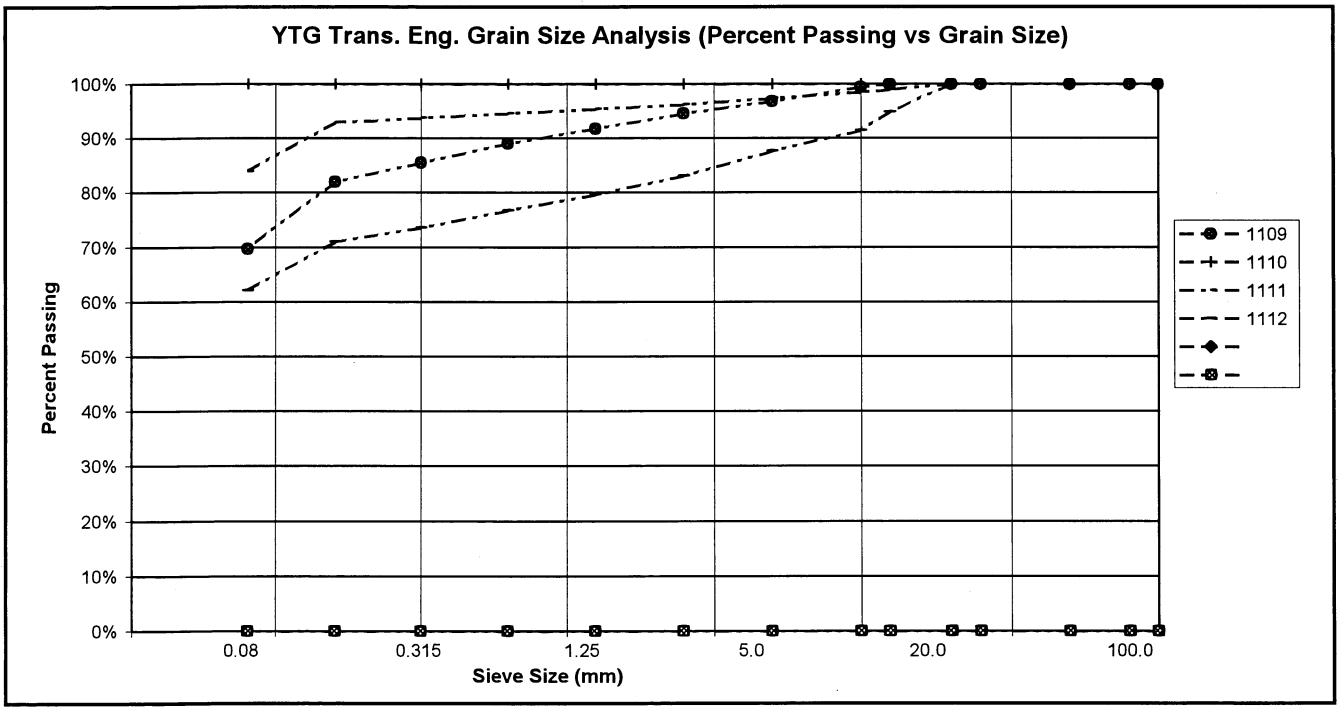
DATE COMP: 2001/09/06

FIELD NO:	1105	1106	1107	1108		
LAB NO:	1882	1883	1884	1885		
DEPTH:	0.4-0.8	1.6-2.0	2.6-3.0	3.8-4.3		
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%	78%	72%	100%		
20.0	100%	71%	63%	97%		
12.5	100%	64%	53%	94%		
10.0	100%	57%	49%	92%		
5.0	99%	38%	38%	81%		
2.5	98%	26%	28%	67%		
1.25	98%	16%	19%	54%		
0.630	96%	10%	11%	44%		
0.315	94%	6%	6%	34%		
0.160	91%	5%	5%	27%		
0.080	77%	3%	4%	20%		
M.C.(%):	24%	1%	2%	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:	1	62	62	19		
% SAND:	22	35	34	61		
% FINES:	77	3	4	20		
CLASSIFICATION	SILT WITH SAND (ML)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)		



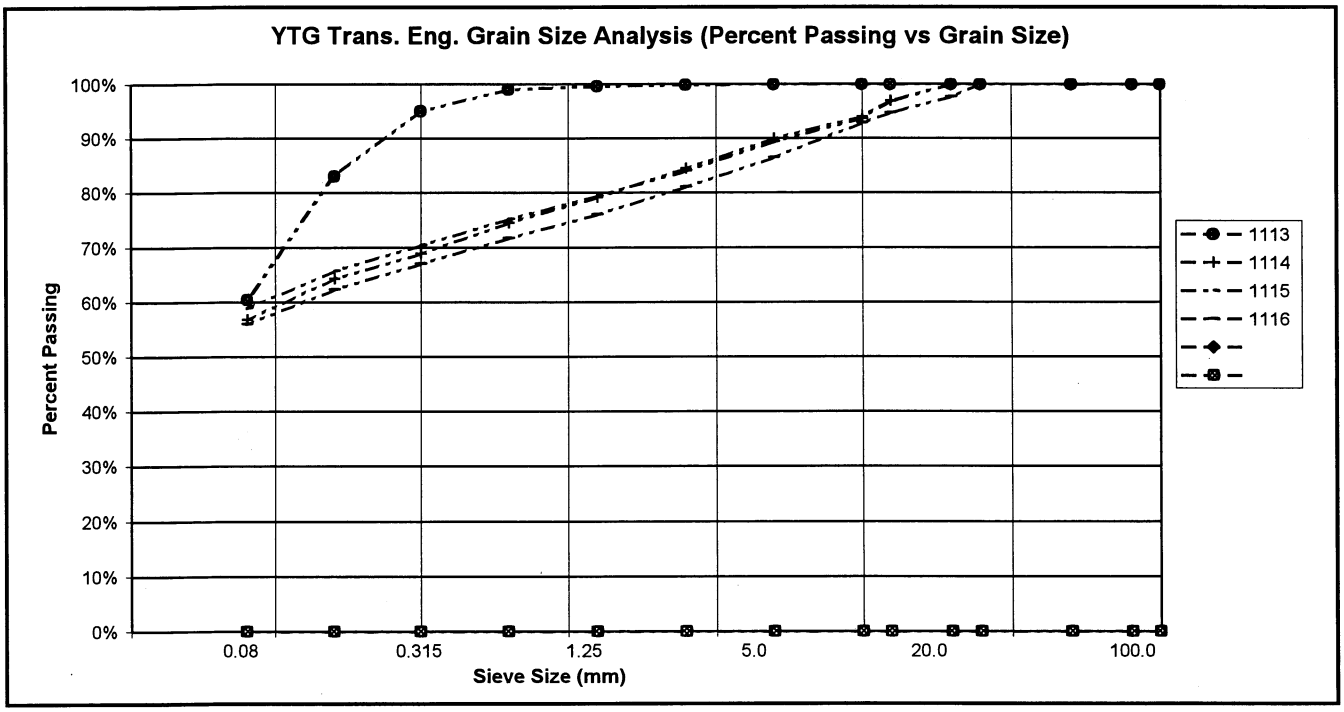
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 619-491
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/06

FIELD NO:	1109	1110	1111	1112		
LAB NO:	1886	lost	1888	1889		
DEPTH:	0.6-1.0	1.4-1.8	2.6-3.0	3.8-4.3		
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%	99%	95%		
10.0	99%	100%	98%	91%		
5.0	97%	100%	97%	88%		
2.5	95%	100%	96%	83%		
1.25	92%	100%	95%	80%		
0.630	89%	100%	95%	77%		
0.315	86%	100%	94%	74%		
0.160	82%	100%	93%	71%		
0.080	70%	100%	84%	62%		
M.C.(%):	16%	6%	6%	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:	3	0	3	12		
% SAND:	27	0	13	26		
% FINES:	70	100	84	62		
CLASSIFICATION	SANDY SILT (ML)	SILT (ML)	SILT WITH SAND (ML)	SANDY SILT (ML)		



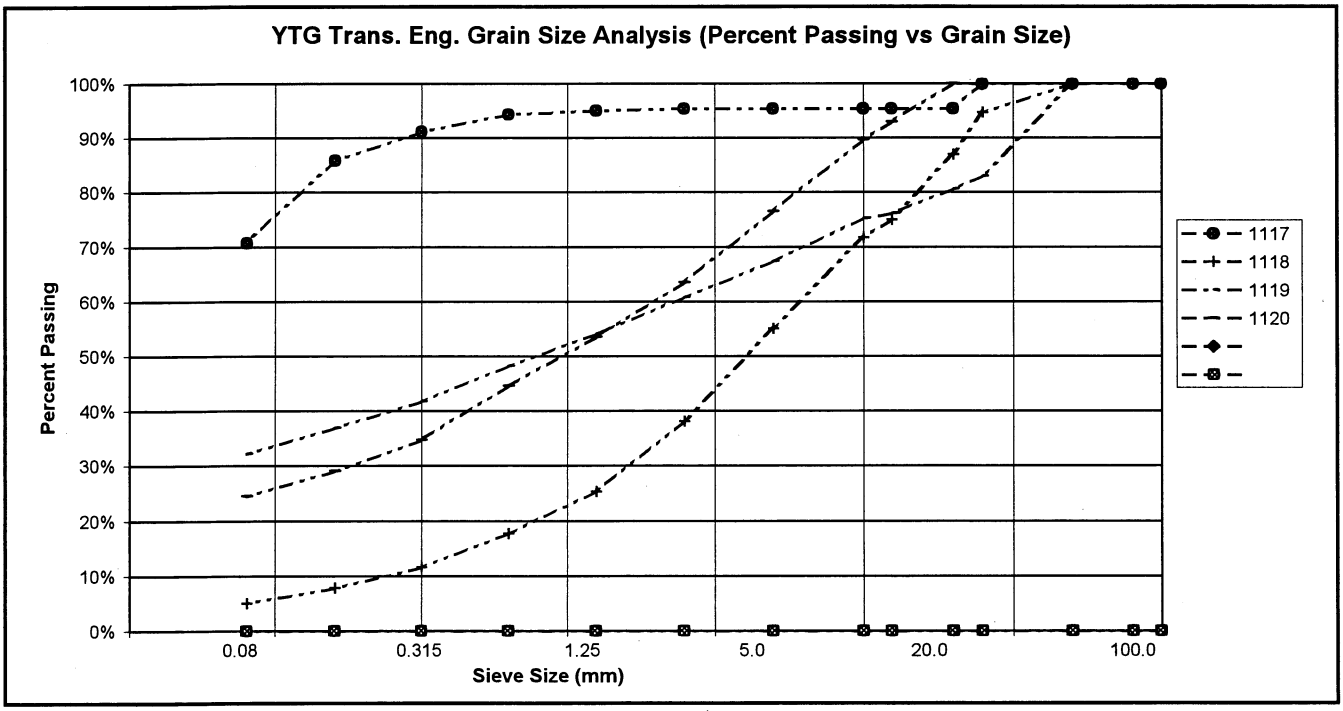
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 619-492
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/06

FIELD NO:	1113	1114	1115	1116		
LAB NO:	1890	1891	1892	1893		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	97%	97%	95%		
10.0	100%	94%	94%	93%		
5.0	100%	90%	89%	86%		
2.5	100%	85%	84%	81%		
1.25	100%	79%	79%	76%		
0.630	99%	74%	75%	72%		
0.315	95%	69%	70%	67%		
0.160	83%	64%	66%	62%		
0.080	61%	57%	59%	56%		
M.C.(%):	13%	9%	8%	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	10	11	14		
% SAND:	39	33	30	30		
% FINES:	61	57	59	56		
CLASSIFICATION	SANDY SILT (ML)	SANDY SILT (ML)	SANDY SILT (ML)	SANDY SILT (ML)		



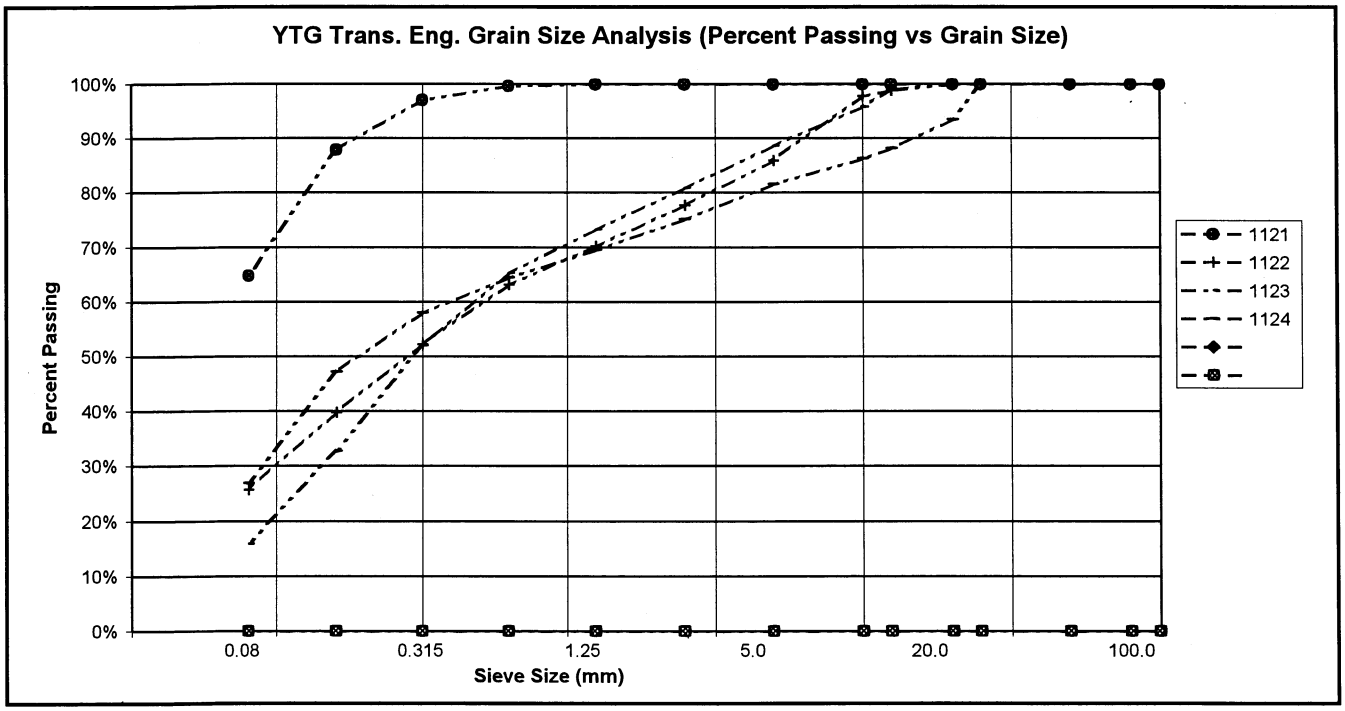
PROJECT NUMBER:	092-202101-0362-1	HOLE No.:	619-493
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.	DATE COMP:	2001/09/06

FIELD NO:	1117	1118	1119	1120		
LAB NO:	1894	1895	1896	1897		
DEPTH:	0.4-0.8	1.6-2.0	2.8-3.0	3.8-4.3		
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%	95%	83%	100%		
20.0	95%	87%	81%	100%		
12.5	95%	75%	76%	93%		
10.0	95%	72%	75%	90%		
5.0	95%	55%	67%	77%		
2.5	95%	38%	61%	63%		
1.25	95%	25%	54%	53%		
0.630	94%	18%	48%	45%		
0.315	91%	12%	42%	35%		
0.160	86%	8%	37%	29%		
0.080	71%	5%	32%	25%		
M.C.(%):	27%	1%	5%	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:	5	45	33	23		
% SAND:	25	50	35	52		
% FINES:	71	5	32	25		
CLASSIFICATION	SILT WITH SAND (ML)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		



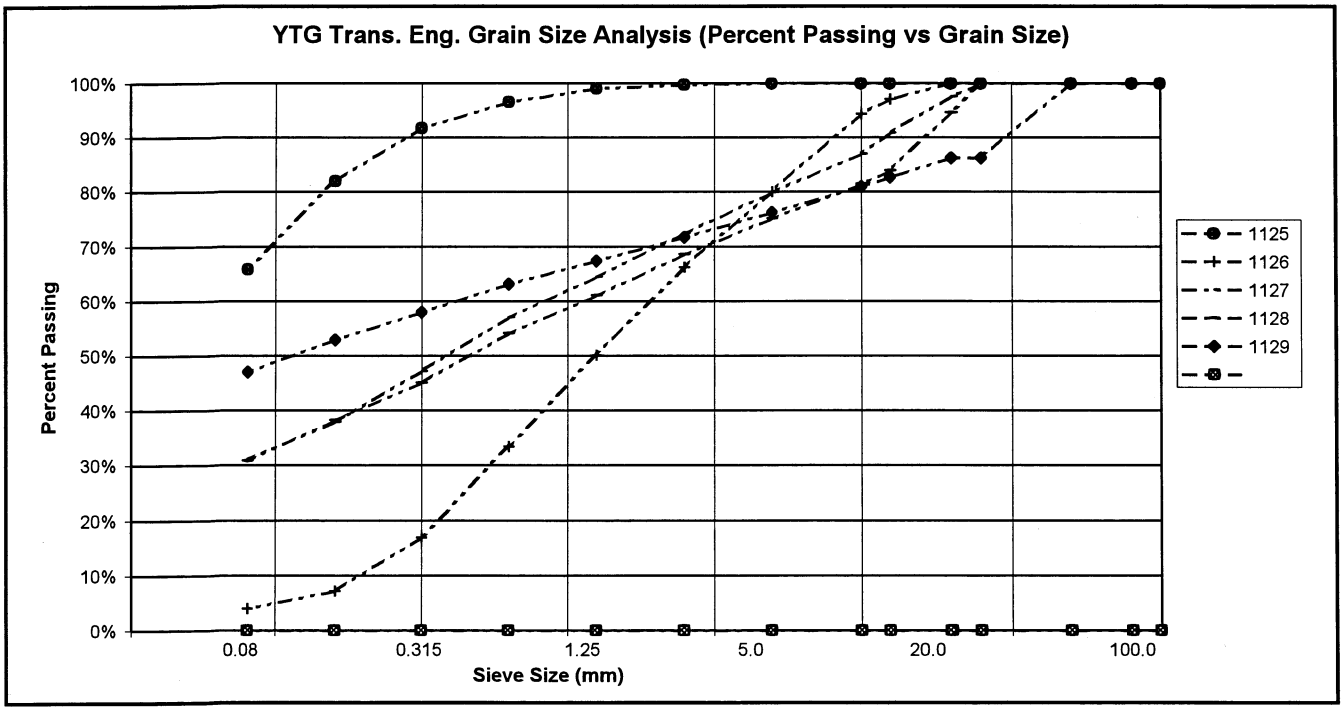
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 619-494
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/06

FIELD NO:	1121	1122	1123	1124		
LAB NO:	1898	1899	1900	1901		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.8-4.3		
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%	93%		
12.5	100%	99%	99%	88%		
10.0	100%	98%	96%	86%		
5.0	100%	86%	89%	82%		
2.5	100%	78%	81%	75%		
1.25	100%	70%	73%	69%		
0.630	100%	63%	65%	64%		
0.315	97%	52%	52%	58%		
0.160	88%	40%	33%	47%		
0.080	65%	26%	16%	27%		
M.C.(%):	13%	4%	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	14	11	18		
% SAND:	35	60	73	55		
% FINES:	65	26	16	27		
CLASSIFICATION	SANDY SILT (ML)	SILTY SAND (SM)	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)		



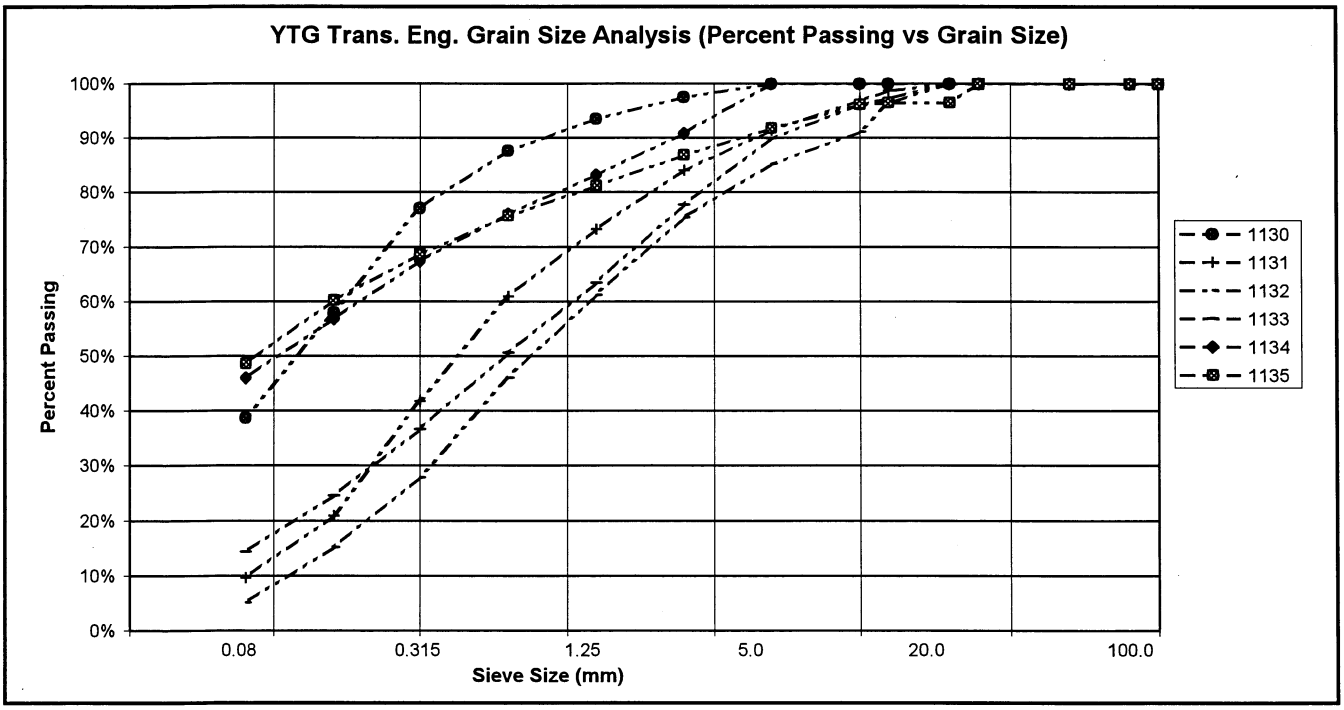
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 619-495
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/06

FIELD NO:	1125	1126	1127	1128	1129	
LAB NO:	1902	1903	1904	1905	1906	
DEPTH:	0.4-0.8	1.6-2.0	2.6-3.0	3.6-4.0	6.5-7.5	
TYPE:	AUGER	AUGER	AUGER	AUGER	AUGER	AUGER
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	
100.0	100%	100%	100%	100%	100%	
80.0	100%	100%	100%	100%	100%	
50.0	100%	100%	100%	100%	100%	
25.0	100%	100%	100%	100%	86%	
20.0	100%	100%	98%	95%	86%	
12.5	100%	97%	91%	84%	83%	
10.0	100%	94%	87%	82%	81%	
5.0	100%	80%	80%	75%	76%	
2.5	100%	66%	72%	69%	72%	
1.25	99%	50%	64%	61%	67%	
0.630	97%	34%	57%	54%	63%	
0.315	92%	17%	47%	45%	58%	
0.160	82%	7%	38%	38%	53%	
0.080	66%	4%	31%	31%	47%	
M.C.(%):	15%	1%	5%	5%	7%	
LIQUID LIMIT:	0.0	0.0	0.0	0.0	0.0	
PLASTIC LIMIT:	0.0	0.0	0.0	0.0	0.0	
PLASTIC INDEX.:	0.0	0.0	0.0	0.0	0.0	
% GRAVEL:	0	20	20	25	24	
% SAND:	34	76	49	44	29	
% FINES:	66	4	31	31	47	
CLASSIFICATION	SANDY SILT (ML)	POORLY GRADED SAND WITH GRAVEL (SP)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	



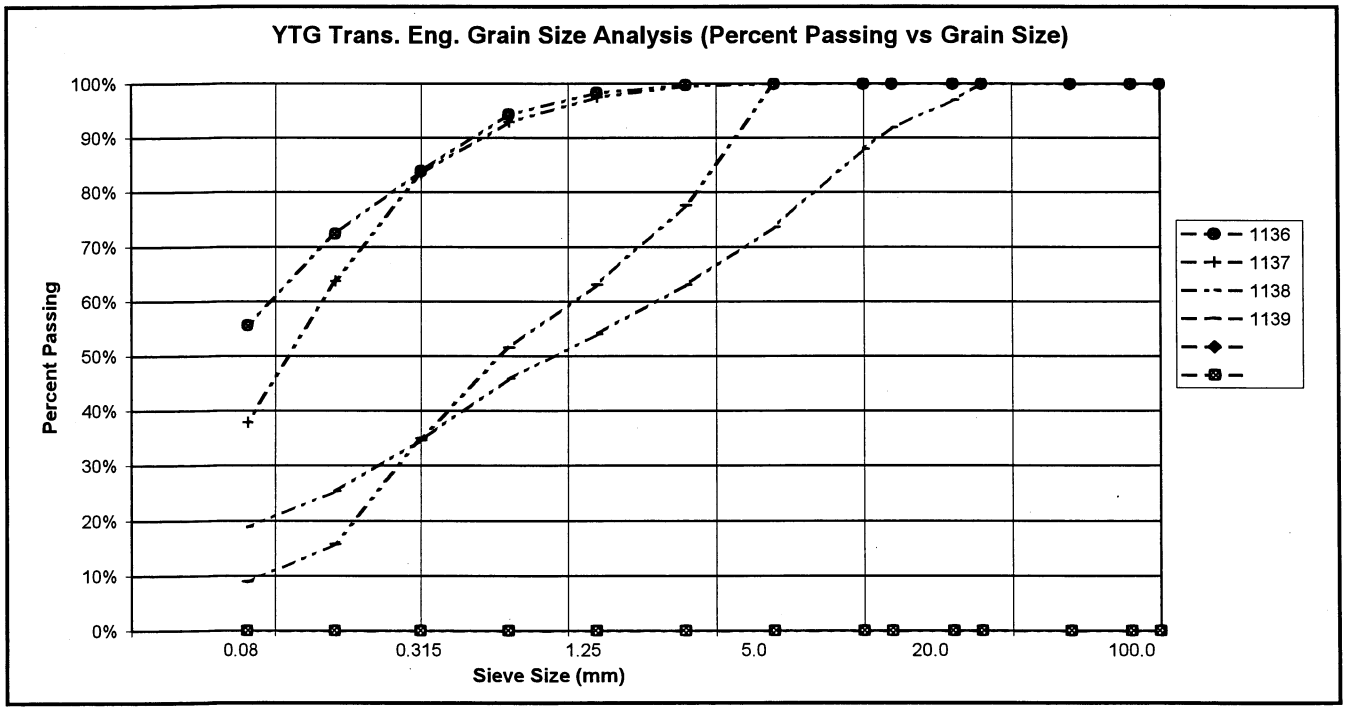
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 619-496
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/06

FIELD NO:	1130	1131	1132	1133	1134	1135
LAB NO:	1907	1908	1909	1910	1911	1912
DEPTH:	0.5-1.0	1.8-2.0	2.6-3.0	4.0-4.5	6.0-6.5	8.0-9.0
TYPE:	AUGER	AUGER	AUGER	AUGER	AUGER	AUGER
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING
100.0	100%	100%	100%	100%	100%	100%
80.0	100%	100%	100%	100%	100%	100%
50.0	100%	100%	100%	100%	100%	100%
25.0	100%	100%	100%	100%	100%	100%
20.0	100%	100%	100%	100%	100%	96%
12.5	100%	99%	97%	97%	100%	96%
10.0	100%	97%	91%	96%	100%	96%
5.0	100%	91%	85%	90%	100%	92%
2.5	98%	84%	75%	78%	91%	87%
1.25	94%	73%	61%	63%	83%	81%
0.630	88%	61%	46%	51%	76%	76%
0.315	77%	42%	28%	37%	67%	69%
0.160	58%	21%	15%	25%	57%	60%
0.080	39%	10%	5%	14%	46%	49%
M.C.(%):	11%	2%	2%	3%	7%	6%
LIQUID LIMIT:	0.0	0.0	0.0	0.0	0.0	0.0
PLASTIC LIMIT:	0.0	0.0	0.0	0.0	0.0	0.0
PLASTIC INDEX.:	0.0	0.0	0.0	0.0	0.0	0.0
% GRAVEL:	0	9	15	10	0	8
% SAND:	61	82	80	76	54	43
% FINES:	39	10	5	14	46	49
CLASSIFICATION	SILTY SAND (SM)	POORLY GRADED SAND WITH SILT (SP-SM)	POORLY GRADED SAND WITH SILT (SP-SM)	SILTY SAND (SM)	SILTY SAND (SM)	SILTY SAND (SM)



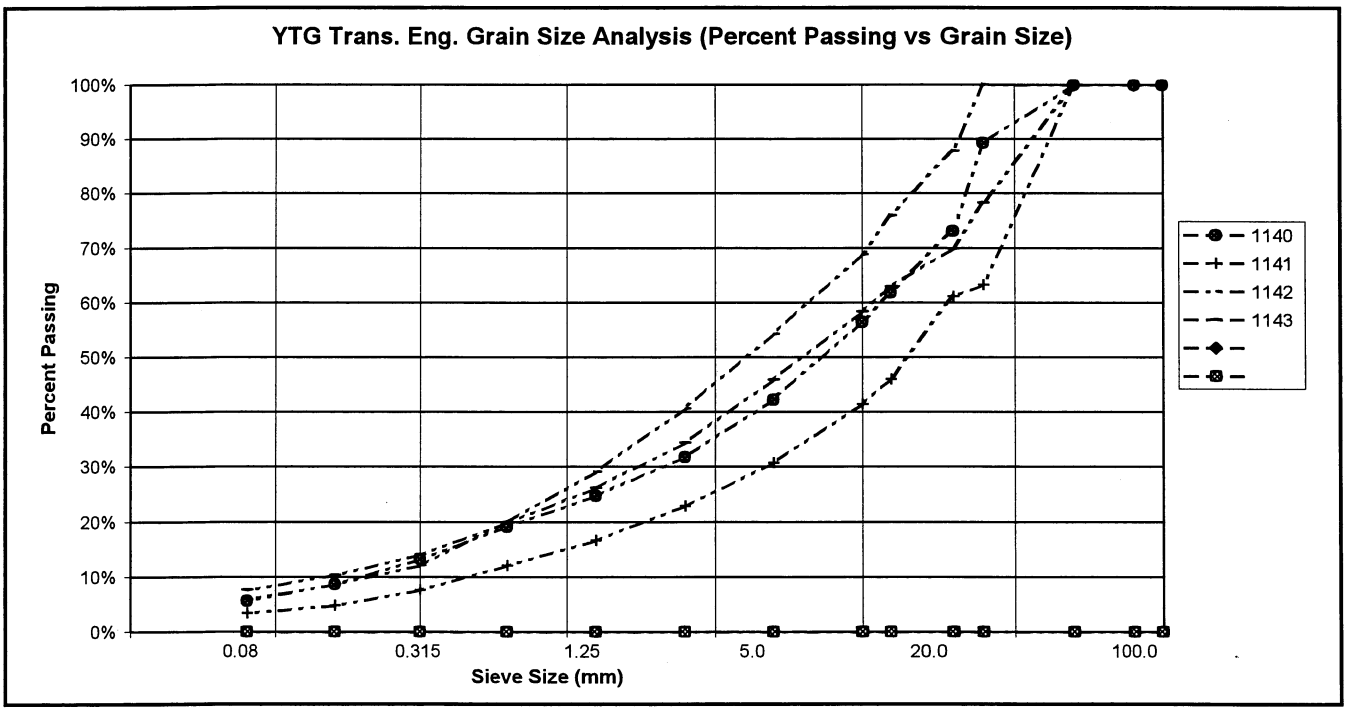
PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 619-497
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/06

FIELD NO:	1136	1137	1138	1139		
LAB NO:	1913	1914	1915	1916		
DEPTH:	0.5-1.0	1.6-2.0	2.6-3.0	4.0-4.5		
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%	97%	100%		
12.5	100%	100%	92%	100%		
10.0	100%	100%	88%	100%		
5.0	100%	100%	74%	100%		
2.5	100%	100%	63%	78%		
1.25	98%	98%	54%	63%		
0.630	94%	93%	46%	52%		
0.315	84%	83%	35%	35%		
0.160	72%	64%	25%	16%		
0.080	56%	38%	19%	9%		
M.C.(%):	5%	3%	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:	0	0	26	0		
% SAND:	44	62	55	91		
% FINES:	56	38	19	9		
CLASSIFICATION	SANDY SILT (ML)	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED SAND WITH SILT (SP-SM)		



PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 619-498
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/07

FIELD NO:	1140	1141	1142	1143		
LAB NO:	1917	1918	1919	1920		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	3.5-4.0		
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	89%	63%	100%	78%		
20.0	73%	61%	88%	70%		
12.5	62%	46%	76%	63%		
10.0	56%	41%	69%	58%		
5.0	42%	31%	54%	46%		
2.5	32%	23%	41%	34%		
1.25	25%	17%	29%	26%		
0.630	19%	12%	20%	20%		
0.315	13%	8%	12%	14%		
0.160	9%	5%	9%	10%		
0.080	6%	3%	6%	8%		
M.C.(%):	3%	2%	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:	58	69	46	54		
% SAND:	37	27	48	38		
% FINES:	6	3	6	8		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		

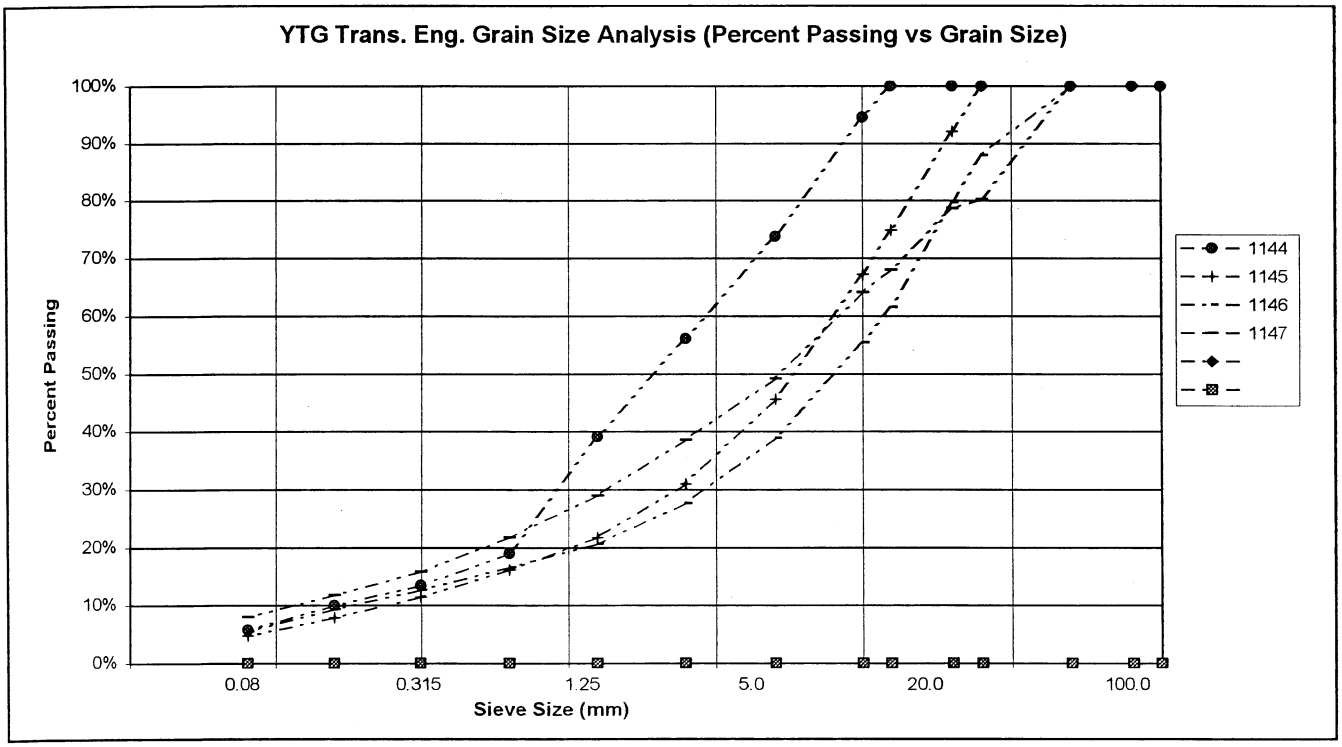


PROJECT NUMBER: 092-202101-0362-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 10
PROJECT LOCATION: Km 1692.6-1729.6 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See Testhole Log Sheet
LOGGED BY: G.C.

HOLE No.: 619-499

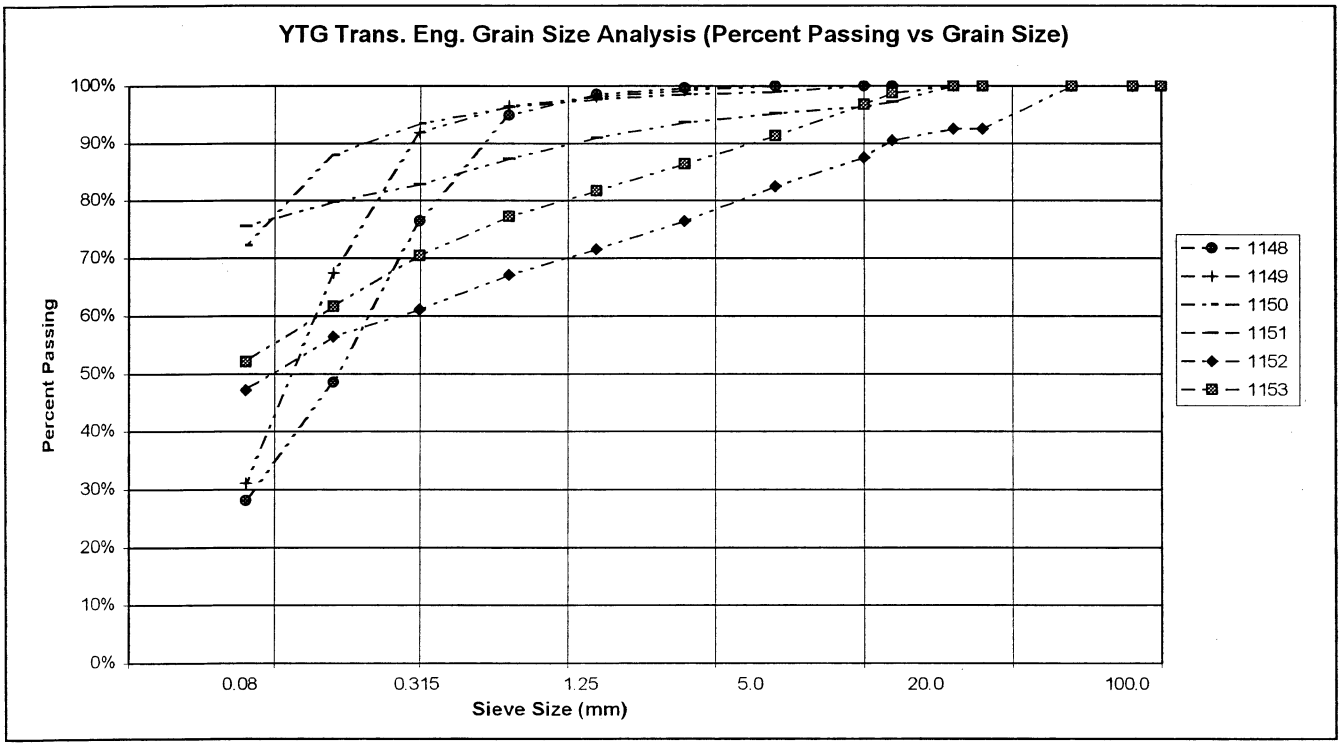
DATE COMP: 2001/09/07

FIELD NO:	1144	1145	1146	1147		
LAB NO:	1921	1922	1923	1924		
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	4.0-4.5		
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%	88%	80%		
20.0	100%	92%	80%	79%		
12.5	100%	75%	61%	68%		
10.0	95%	67%	55%	64%		
5.0	74%	46%	39%	49%		
2.5	56%	31%	28%	39%		
1.25	39%	22%	21%	29%		
0.630	19%	16%	17%	22%		
0.315	13%	11%	13%	16%		
0.160	10%	8%	9%	12%		
0.080	6%	5%	6%	8%		
M.C.(%):	4%	2%	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:	26	54	61	51		
% SAND:	68	41	33	41		
% FINES:	6	5	6	8		
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 619-500
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/07

FIELD NO:	1148	1149	1150	1151	1152	1153
LAB NO:	1925	1926	1927	1928	1929	1930
DEPTH:	0.6-1.0	1.6-2.0	2.6-3.0	4.0-4.5	5.0-6.0	7.0-7.5
TYPE:	AUGER	AUGER	AUGER	AUGER	AUGER	AUGER
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING
100.0	100%	100%	100%	100%	100%	100%
80.0	100%	100%	100%	100%	100%	100%
50.0	100%	100%	100%	100%	100%	100%
25.0	100%	100%	100%	100%	93%	100%
20.0	100%	100%	100%	100%	93%	100%
12.5	100%	100%	100%	97%	90%	99%
10.0	100%	100%	100%	96%	88%	97%
5.0	100%	100%	99%	95%	83%	91%
2.5	100%	99%	99%	94%	76%	86%
1.25	99%	98%	98%	91%	72%	82%
0.630	95%	97%	96%	87%	67%	77%
0.315	76%	92%	93%	83%	61%	70%
0.160	49%	67%	88%	80%	56%	62%
0.080	28%	31%	72%	76%	47%	52%
M.C.(%):	7%	11%	19%	39%	10%	11%
LIQUID LIMIT:	0.0	0.0	0.0	0.0	0.0	0.0
PLASTIC LIMIT:	0.0	0.0	0.0	0.0	0.0	0.0
PLASTIC INDEX.:	0.0	0.0	0.0	0.0	0.0	0.0
% GRAVEL:	0	0	1	5	17	9
% SAND:	72	69	27	20	35	39
% FINES:	28	31	72	76	47	52
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND (SM)	SILT WITH SAND (ML)	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)



PROJECT NUMBER:	092-202101-0362-1		HOLE No.: 619-500A
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 10		
PROJECT LOCATION:	Km 1692.6-1729.6 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See Testhole Log Sheet		
LOGGED BY:	G.C.		DATE COMP: 2001/09/07

FIELD NO:	1154					
LAB NO:	1931					
DEPTH:	8.5-9.0					
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	97%					
10.0	93%					
5.0	91%					
2.5	85%					
1.25	81%					
0.630	76%					
0.315	69%					
0.160	61%					
0.080	51%					
M.C.(%):	10%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	9					
% SAND:	40					
% FINES:	51					
CLASSIFICATION	SANDY SILT (ML)					

