

GEOTECHNICAL INVESTIGATIONS

**Highway Construction
km 1691.6 to 1700.4
Alaska Highway #1
Yukon, 2006-2007
Volume 2 of 3**



**Highways and Public Works
Transportation Engineering Branch**

Geotechnical Services

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ORIGINAL - Do Not Remove From File

HIGHWAY CONSTRUCTION

GEOTECHNICAL INVESTIGATION
km 1691.6 to 1700.4
YUKON, 2006-2007

ALASKA HIGHWAY #1

Highway Construction
km 1691.6 to 1700.4
Alaska Highway #1
Yukon, 2006-2007
Volume 2 of 3

This Data Package prepared for project viewing:

May, 2006

Transportation Engineering Branch
Geotechnical Services
461 Range Road
Whitehorse, Yukon

CONTENTS

Volume 1 of 3

INTRODUCTION

Investigation notes, classification methods and legends.

CENTRELINE TESTING km 1691.6 to 1700.4 Alaska Highway

Subsurface Exploration and Test Report Sheets are provided.
The reports for the Centreline testing holes are arranged according to project location, starting at km 1691+525 and increasing to km 1700+250.

2000	TEST HOLES 1602 to 1639	shown with prefix 558-
2004	TEST HOLES 30000 to 30046	shown with no prefix
2004	TEST HOLES 30177 to 30179	shown with no prefix

CONTENTS (continued)

Volume 2 of 3

CENTRELINE TESTING km 1691.6 to 1700.4 Alaska Highway

Laboratory Testing Result Sheets are provided.

The reports for the centreline holes are arranged according to test hole number, starting at 558-1602 and increasing to 30179.

2000	TEST HOLES 1602 to 1639	shown with prefix 558-
2004	TEST HOLES 30000 to 30046	shown with no prefix
2004	TEST HOLES 30177 to 30179	shown with no prefix

CONTENTS (continued)**Volume 3 of 3****GRANULAR SOURCE km 1635.8 RHS ALASKA HIGHWAY Pit ID 115 G-07**

NOTE: There is a kilometre chainage correction at km 1636.6 back and km 1694.0 ahead. Pit 115 G-07 is located at km 1635.8 back and km 1691 ahead.

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

Auger Testing

2001	TEST HOLES 1510 to 1514	shown with prefix 581-
2001	TEST HOLES 1515, 1517, 1518	shown with prefix 582-

Test Pit Testing

1991	TEST PITS 06 to 08	shown with prefix 152-
1992	TEST PITS 19 to 23	shown with prefix EBA-
2001	TEST PITS 1524 to 1528, 1541, & 1542	shown with prefix 583-
2001	TEST PITS 1544 to 1549 & 1552	shown with prefix 584-

HIGHWAY CONSTRUCTION

GEOTECHNICAL INVESTIGATION
km 1691.6 to 1700.4
YUKON, 2006-2007

ALASKA HIGHWAY #1

**CENTRELINE TESTING
1691.6 to 1700.4
ALASKA HIGHWAY**

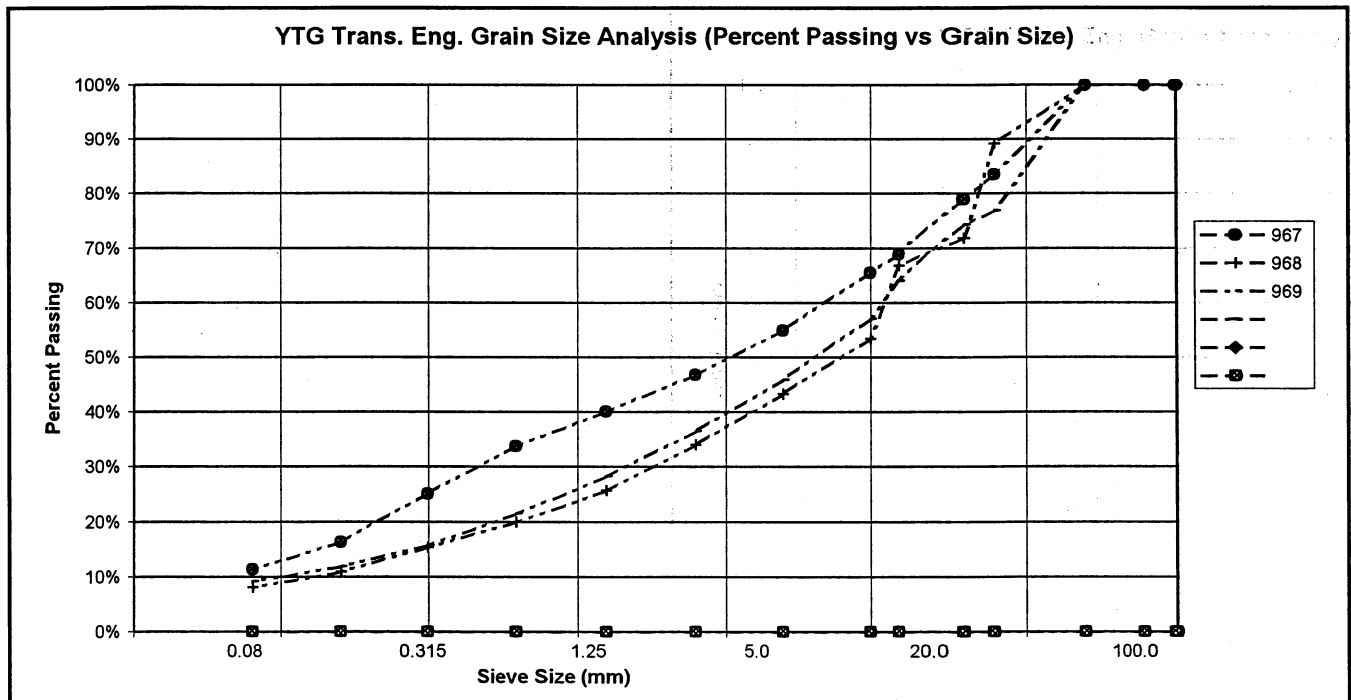
Laboratory Testing Result Sheets

PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1694+650 18M LT
 LOGGED BY: D.T.

HOLE No.: 558-1602

DATE COMP: 2000/06/26

FIELD NO:	967	968	969		
LAB NO:	1369	1370	1371		
DEPTH:	1.3-1.5	3.0-3.2	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	84%	89%	77%		
20.0	79%	72%	74%		
12.5	69%	67%	64%		
10.0	65%	53%	57%		
5.0	55%	43%	46%		
2.5	47%	34%	37%		
1.25	40%	26%	28%		
0.630	34%	20%	22%		
0.315	25%	15%	16%		
0.160	16%	11%	12%		
0.080	11%	8%	9%		
M.C.(%)	8%	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:	45	57	54		
% SAND:	44	35	37		
% FINES:	11	8	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)		

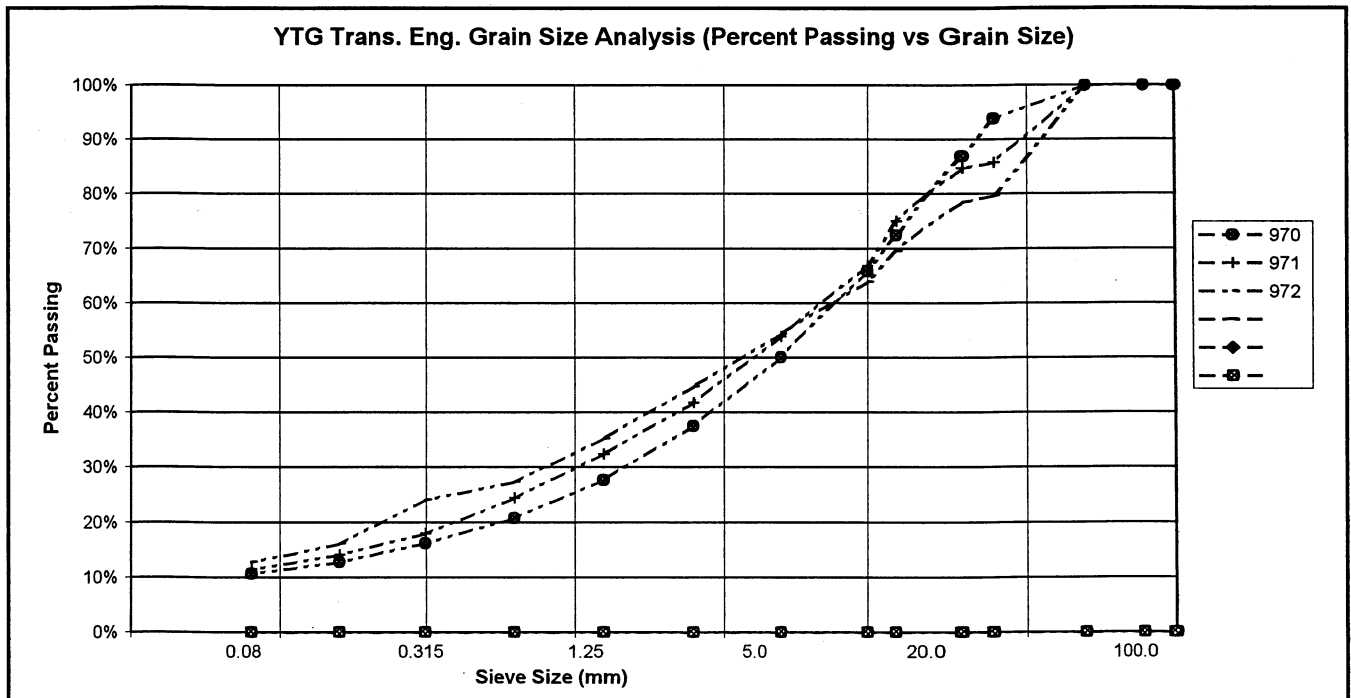


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1694+550 20M LT
 LOGGED BY: D.T.

HOLE No.: 558-1603

DATE COMP: 2000/06/26

FIELD NO.:	970	971	972		
LAB NO.:	1372	1373	1374		
DEPTH:	1.4-1.6	2.9-3.1	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE:	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	94%	86%	80%		
20.0	87%	85%	78%		
12.5	72%	75%	69%		
10.0	66%	67%	64%		
5.0	50%	54%	54%		
2.5	38%	42%	45%		
1.25	28%	32%	35%		
0.630	21%	24%	27%		
0.315	16%	18%	24%		
0.160	13%	14%	16%		
0.080	11%	11%	13%		
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:	50	46	46		
% SAND:	39	42	42		
% FINES:	11	11	13		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)		

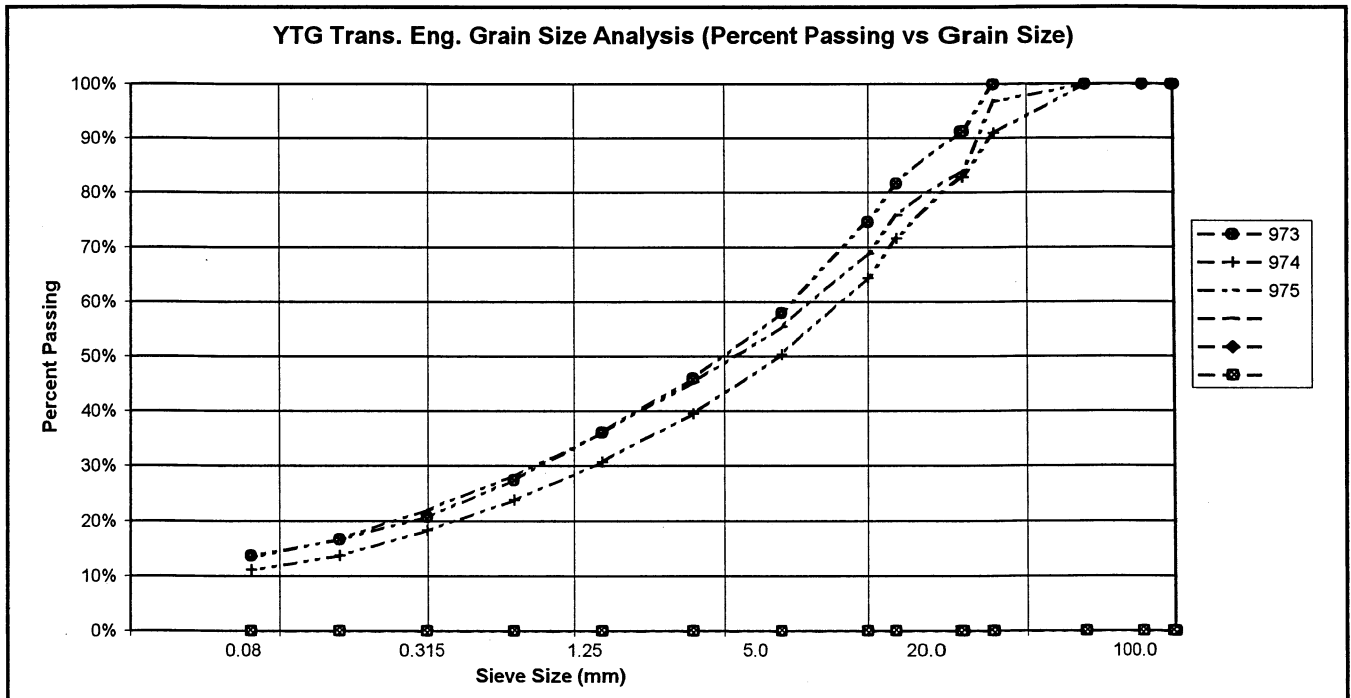


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1694+450 18M LT
 LOGGED BY: D.T.

HOLE No.: 558-1604

DATE COMP: 2000/06/26

FIELD NO:	973	974	975		
LAB NO:	1375	1376	1377		
DEPTH:	1.4-1.6	2.9-3.1	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	100%	91%	97%		
20.0	91%	83%	84%		
12.5	82%	72%	76%		
10.0	75%	64%	69%		
5.0	58%	50%	55%		
2.5	46%	40%	45%		
1.25	36%	31%	36%		
0.630	27%	24%	28%		
0.315	21%	18%	22%		
0.160	17%	14%	17%		
0.080	14%	11%	13%		
M.C.(%):	3%	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:	42	50	45		
% SAND:	44	39	42		
% FINES:	14	11	13		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)		

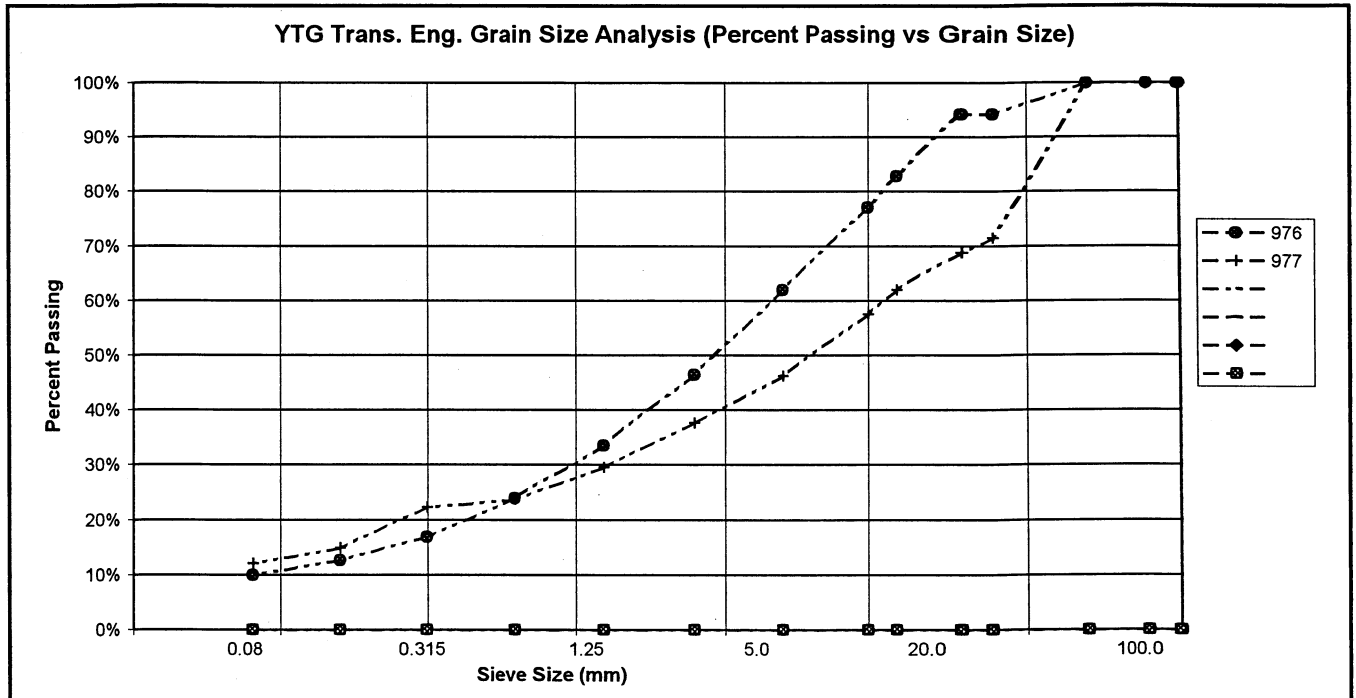


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1694+350 11M LT
 LOGGED BY: D.T.

HOLE No.: 558-1605

DATE COMP: 2000/06/26

FIELD NO:	976	977			
LAB NO:	1378	1379			
DEPTH:	1.3-1.5	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	94%	71%			
20.0	94%	69%			
12.5	83%	62%			
10.0	77%	58%			
5.0	62%	46%			
2.5	47%	38%			
1.25	34%	30%			
0.630	24%	24%			
0.315	17%	22%			
0.160	13%	15%			
0.080	10%	12%			
M.C.(%)	2%	2%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	38	54			
% SAND:	52	34			
% FINES:	10	12			
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW SM)	SILTY GRAVEL WITH SAND (GM)			

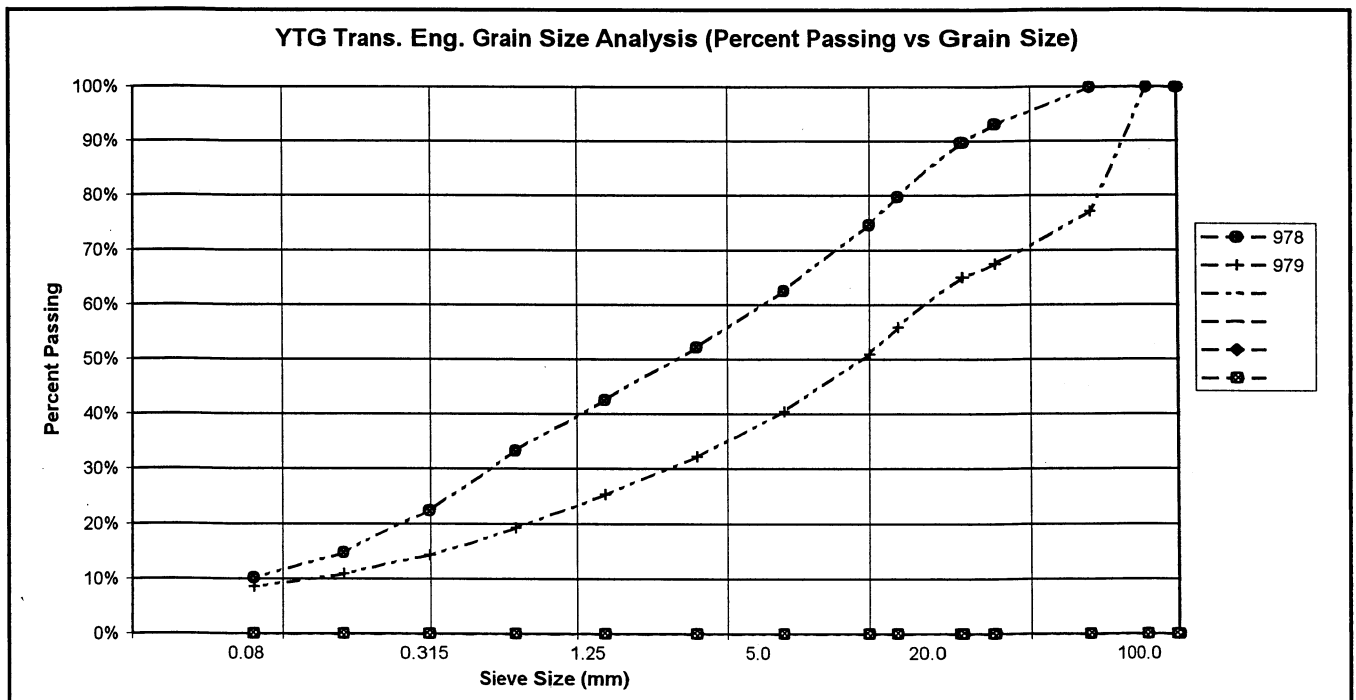


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1694+250 11M LT
 LOGGED BY: D.T.

HOLE No.: 558-1606

DATE COMP: 2000/06/26

FIELD NO.:	978	979		
LAB NO.:	1380	1381		
DEPTH:	1.5-1.7	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER
SIEVE SIZE:	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%		
80.0	100%	100%		
50.0	100%	77%		
25.0	93%	68%		
20.0	90%	65%		
12.5	80%	56%		
10.0	75%	51%		
5.0	63%	40%		
2.5	52%	32%		
1.25	43%	25%		
0.630	33%	19%		
0.315	22%	14%		
0.160	15%	11%		
0.080	10%	9%		
M.C.(%):	3%	3%		
LIQUID LIMIT:	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0		
% GRAVEL:	37	60		
% SAND:	52	32		
% FINES:	10	9		
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW/SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP/GM)		

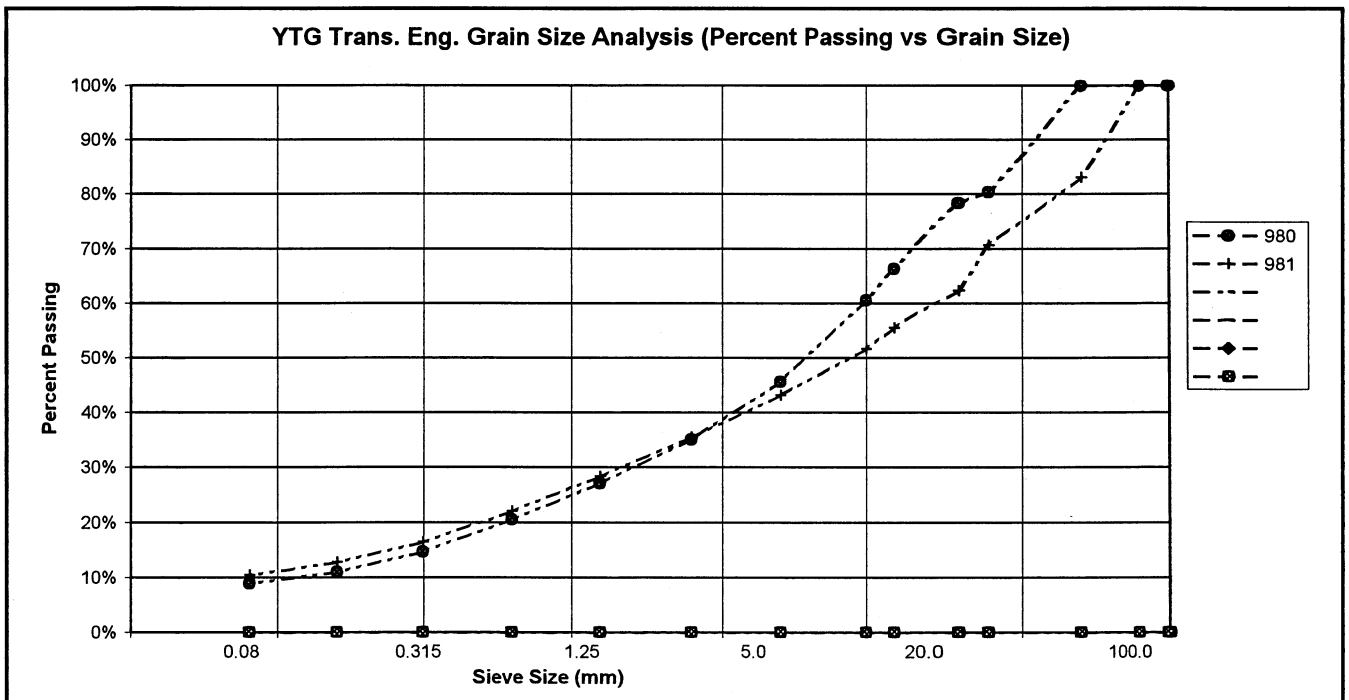


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1694+150 13M LT
 LOGGED BY: D.T.

HOLE No.: 558-1607

DATE COMP: 2000/06/26

FIELD NO:	980	981			
LAB NO:	1382	1383			
DEPTH:	1.5-1.7	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	83%			
25.0	80%	71%			
20.0	78%	62%			
12.5	66%	56%			
10.0	61%	52%			
5.0	46%	43%			
2.5	35%	36%			
1.25	27%	28%			
0.630	20%	22%			
0.315	15%	16%			
0.160	11%	13%			
0.080	9%	10%			
M.C.(%)	2%	2%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	54	57			
% SAND:	37	33			
% FINES:	9	10			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			

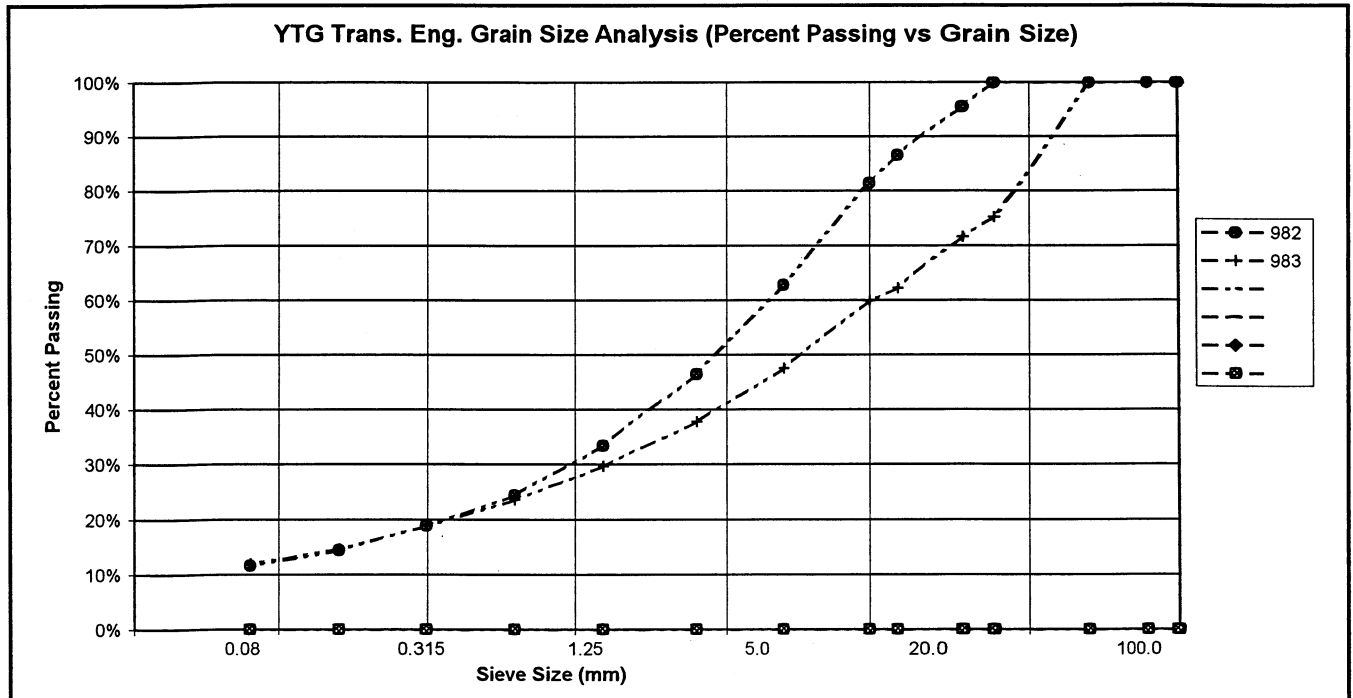


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1694+050 15M LT
 LOGGED BY: D.T.

HOLE No.: 558-1608

DATE COMP: 2000/06/26

FIELD NO:	982	983			
LAB NO:	1384	1385			
DEPTH:	1.3-1.5	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	100%	75%			
20.0	96%	72%			
12.5	87%	62%			
10.0	82%	60%			
5.0	63%	47%			
2.5	46%	38%			
1.25	33%	30%			
0.630	24%	24%			
0.315	19%	19%			
0.160	14%	15%			
0.080	12%	12%			
M.C.(%):	2%	2%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	37	53			
% SAND:	51	36			
% FINES:	12	12			
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			

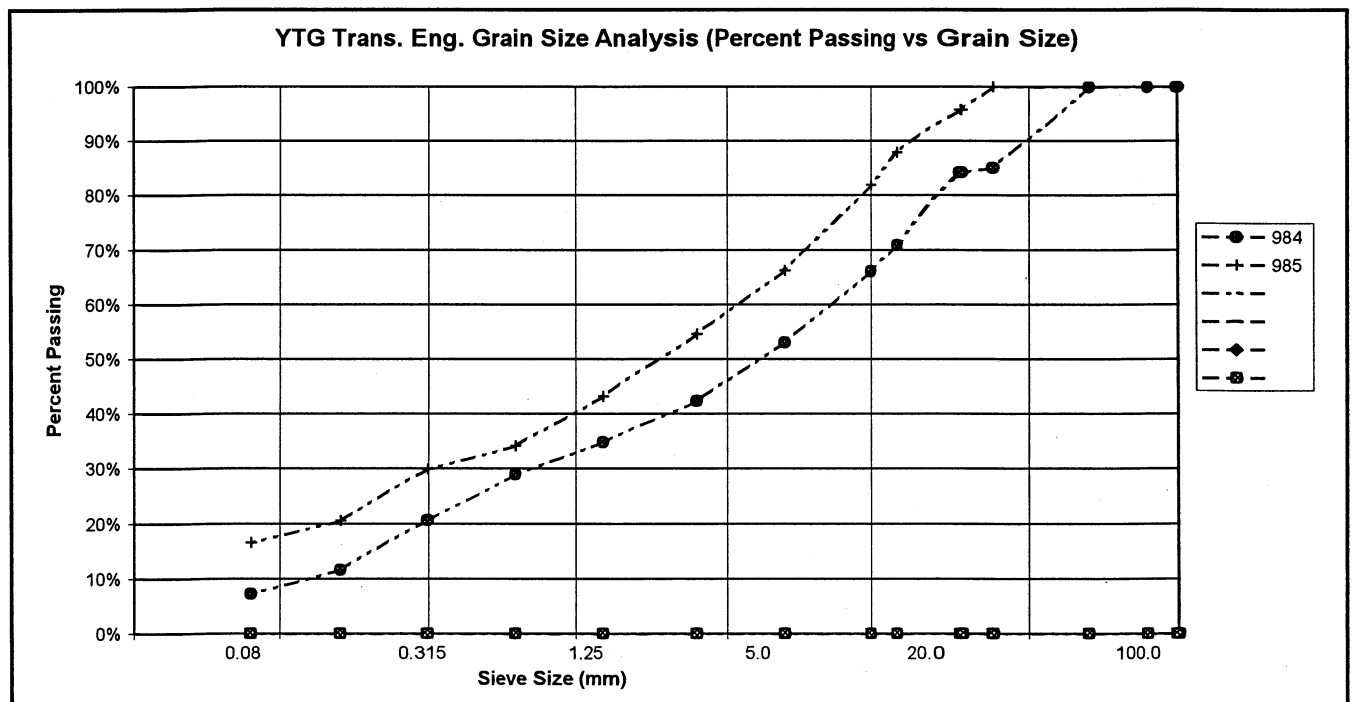


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1693+950 11M LT
 LOGGED BY: D.T.

HOLE No.: 558-1609

DATE COMP: 2000/06/26

FIELD NO:	984	985		
LAB NO:	1386	1387		
DEPTH:	1.5-1.7	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%		
80.0	100%	100%		
50.0	100%	100%		
25.0	85%	100%		
20.0	84%	96%		
12.5	71%	88%		
10.0	66%	82%		
5.0	53%	66%		
2.5	42%	55%		
1.25	35%	43%		
0.630	29%	34%		
0.315	21%	30%		
0.160	12%	21%		
0.080	7%	16%		
M.C.(%):	3%	3%		
LIQUID LIMIT:	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0		
% GRAVEL:	47	34		
% SAND:	46	50		
% FINES:	7	16		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH GRAVEL (SM)		

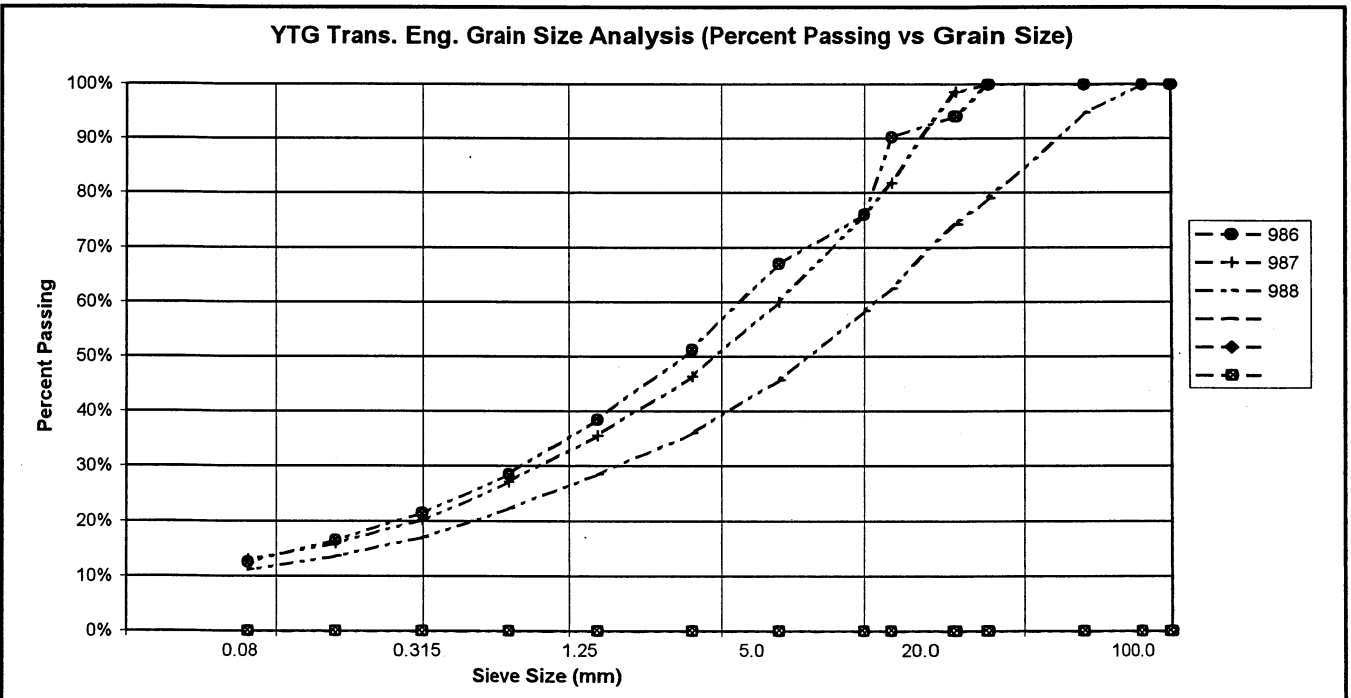


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1693+850 15M LT
 LOGGED BY: D.T.

HOLE No.: 558-1610

DATE COMP: 2000/06/26

FIELD NO:	986	987	988		
LAB NO:	1388	1389	1390		
DEPTH:	1.4-1.6	2.8-3.0	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	95%		
25.0	100%	100%	79%		
20.0	94%	99%	74%		
12.5	90%	82%	62%		
10.0	76%	76%	58%		
5.0	67%	60%	46%		
2.5	51%	46%	36%		
1.25	39%	36%	29%		
0.630	29%	27%	22%		
0.315	21%	20%	17%		
0.160	17%	16%	14%		
0.080	13%	13%	11%		
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:	33	40	54		
% SAND:	54	47	34		
% FINES:	13	13	11		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP GM)		

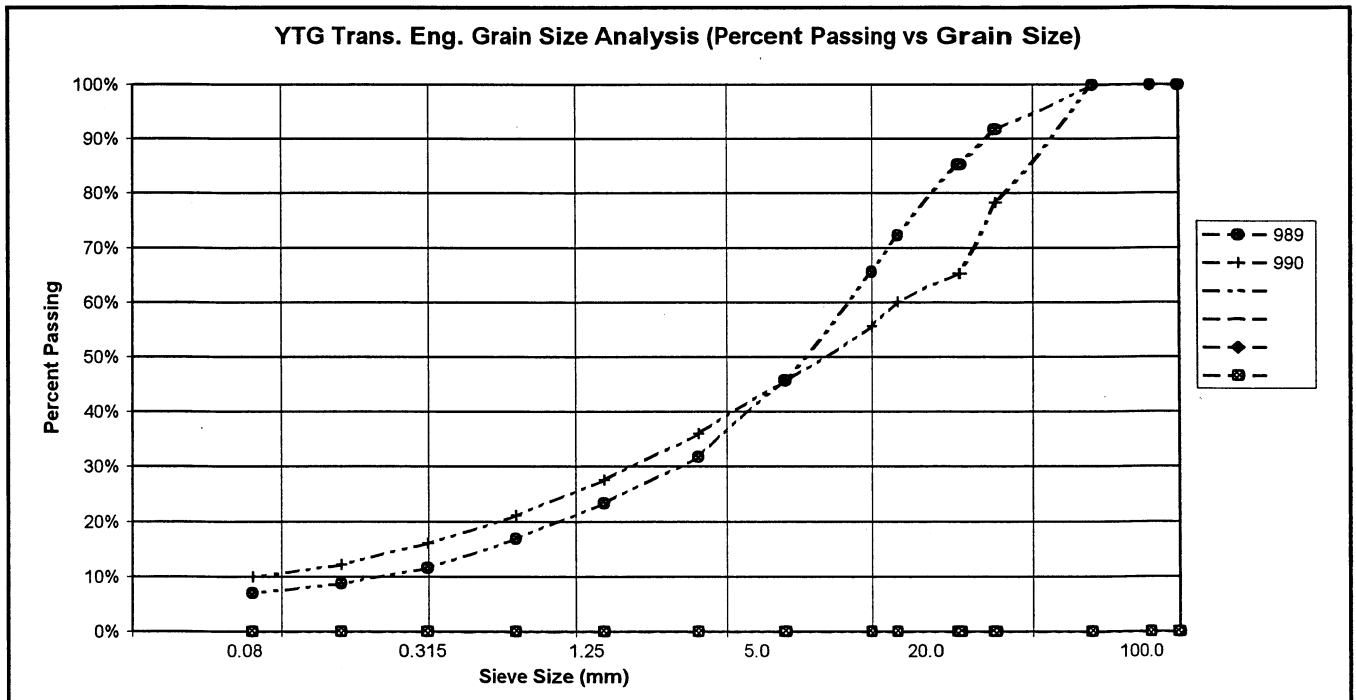


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1693+750 15M LT
 LOGGED BY: D.T.

HOLE No.: 558-1611

DATE COMP: 2000/06/26

FIELD NO:	989	990			
LAB NO:	1391	1392			
DEPTH:	1.4-1.6	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	92%	78%			
20.0	85%	65%			
12.5	72%	60%			
10.0	66%	56%			
5.0	46%	46%			
2.5	32%	36%			
1.25	23%	28%			
0.630	17%	21%			
0.315	12%	16%			
0.160	9%	12%			
0.080	7%	10%			
M.C.(%)	3%	4%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	54	54			
% SAND:	39	35			
% FINES:	7	10			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			

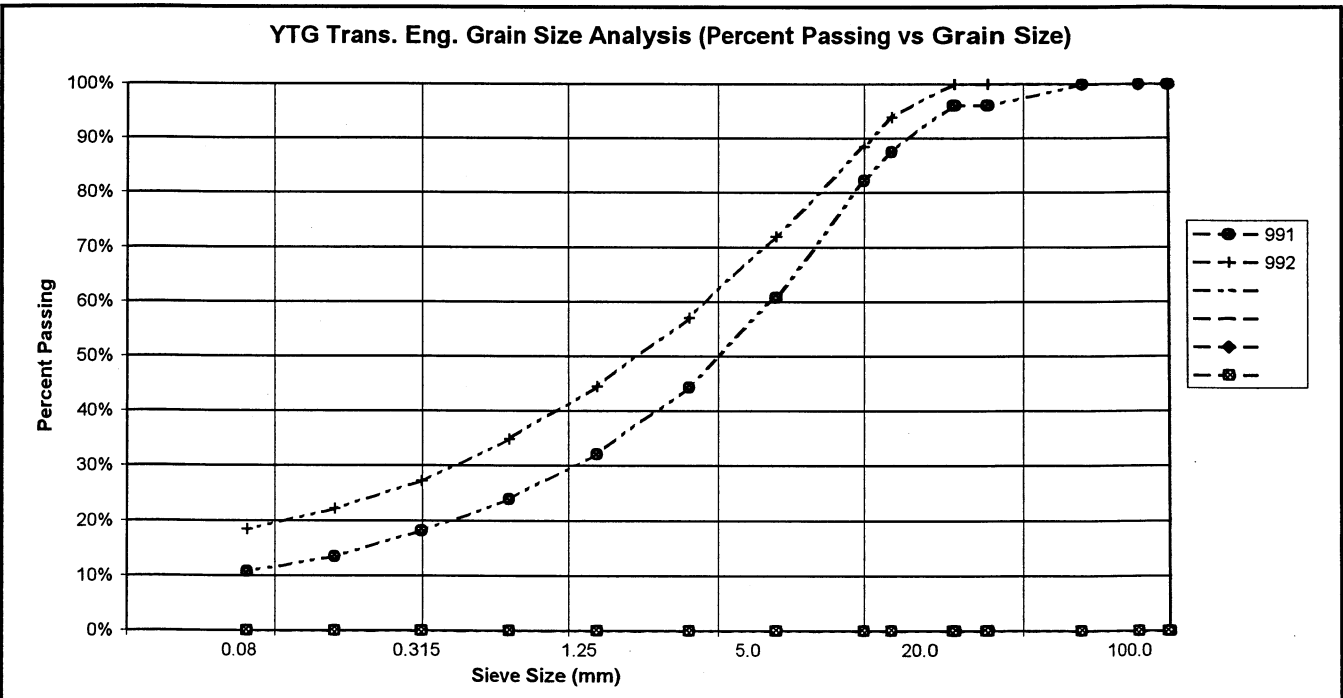


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1693+650 15M LT
 LOGGED BY: D.T.

HOLE No.: 558-1612

DATE COMP: 2000/06/26

FIELD NO:	991	992			
LAB NO:	1393	1394			
DEPTH:	1.4-1.6	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	96%	100%			
20.0	96%	100%			
12.5	88%	94%			
10.0	82%	89%			
5.0	61%	72%			
2.5	44%	57%			
1.25	32%	44%			
0.630	24%	35%			
0.315	18%	27%			
0.160	13%	22%			
0.080	11%	18%			
M.C.(%)	3%	4%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	39	28			
% SAND:	50	54			
% FINES:	11	18			
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW SM)	SILTY SAND WITH GRAVEL (SM)			

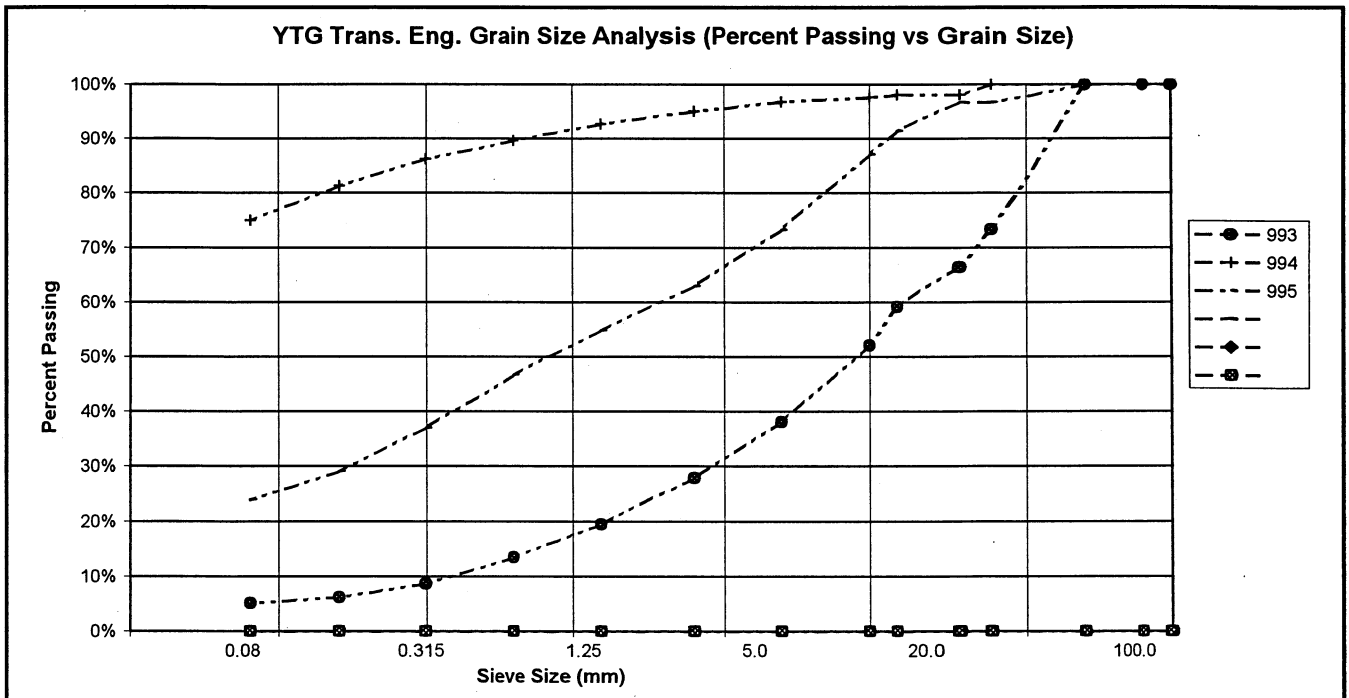


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1693+550 15M LT
 LOGGED BY: D.T.

HOLE No.: 558-1613

DATE COMP: 2000/06/26

FIELD NO:	993	994	995		
LAB NO:	1395	1396	1397		
DEPTH:	1.4-1.6	2.6-2.8	3.8-4.0		
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	73%	100%	97%		
20.0	66%	98%	97%		
12.5	59%	98%	91%		
10.0	52%	98%	87%		
5.0	38%	97%	73%		
2.5	28%	95%	63%		
1.25	20%	93%	55%		
0.630	14%	90%	47%		
0.315	9%	86%	37%		
0.160	6%	81%	29%		
0.080	5%	75%	24%		
M.C.(%)	3%	25%	12%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	62	3	27		
% SAND:	33	22	49		
% FINES:	5	75	24		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)		

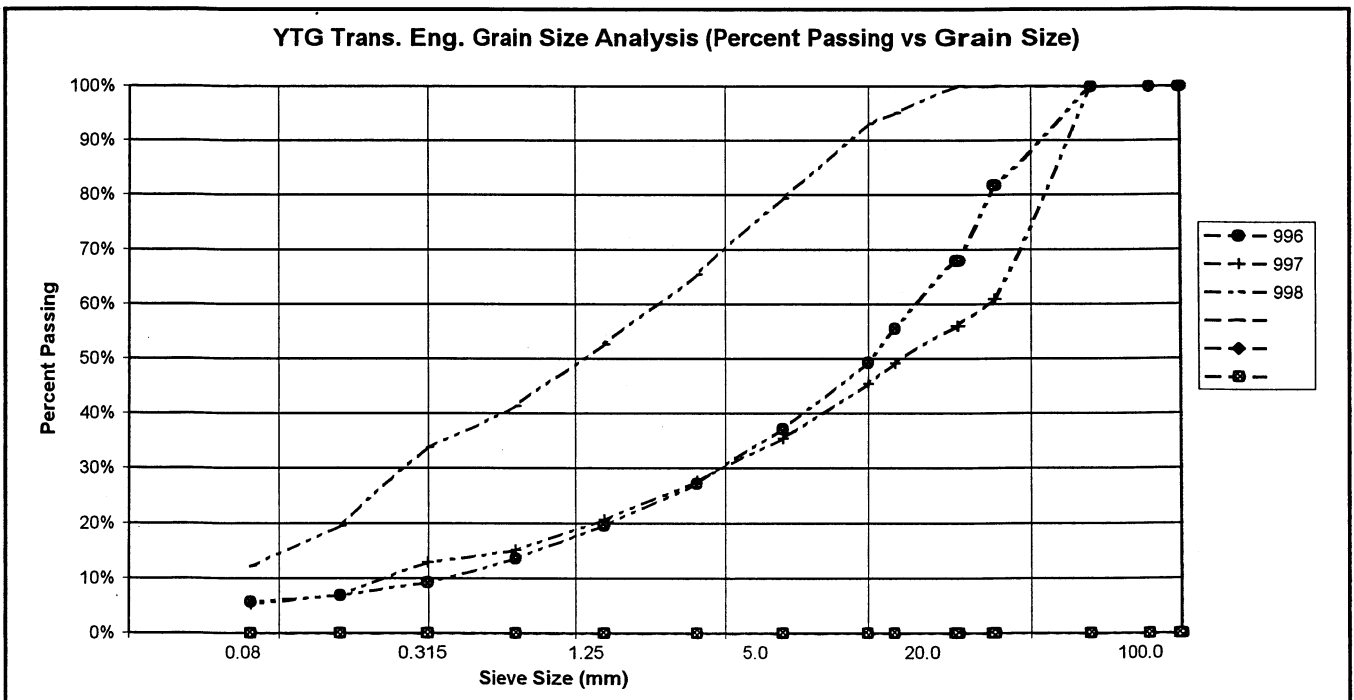


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1693+450 12M LT
 LOGGED BY: D.T.

HOLE No.: 558-1614

DATE COMP: 2000/06/26

FIELD NO:	996	997	998		
LAB NO:	1398	1399	1400		
DEPTH:	1.4-1.6	2.8-3.0	4.4-4.6		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	82%	61%	100%		
20.0	68%	56%	100%		
12.5	56%	49%	95%		
10.0	49%	45%	93%		
5.0	37%	35%	79%		
2.5	27%	28%	65%		
1.25	20%	21%	53%		
0.630	14%	15%	41%		
0.315	9%	13%	34%		
0.160	7%	7%	19%		
0.080	6%	5%	12%		
M.C.(%)	2%	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:	63	65	21		
% SAND:	32	30	67		
% FINES:	6	5	12		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH GRAVEL (SM)		

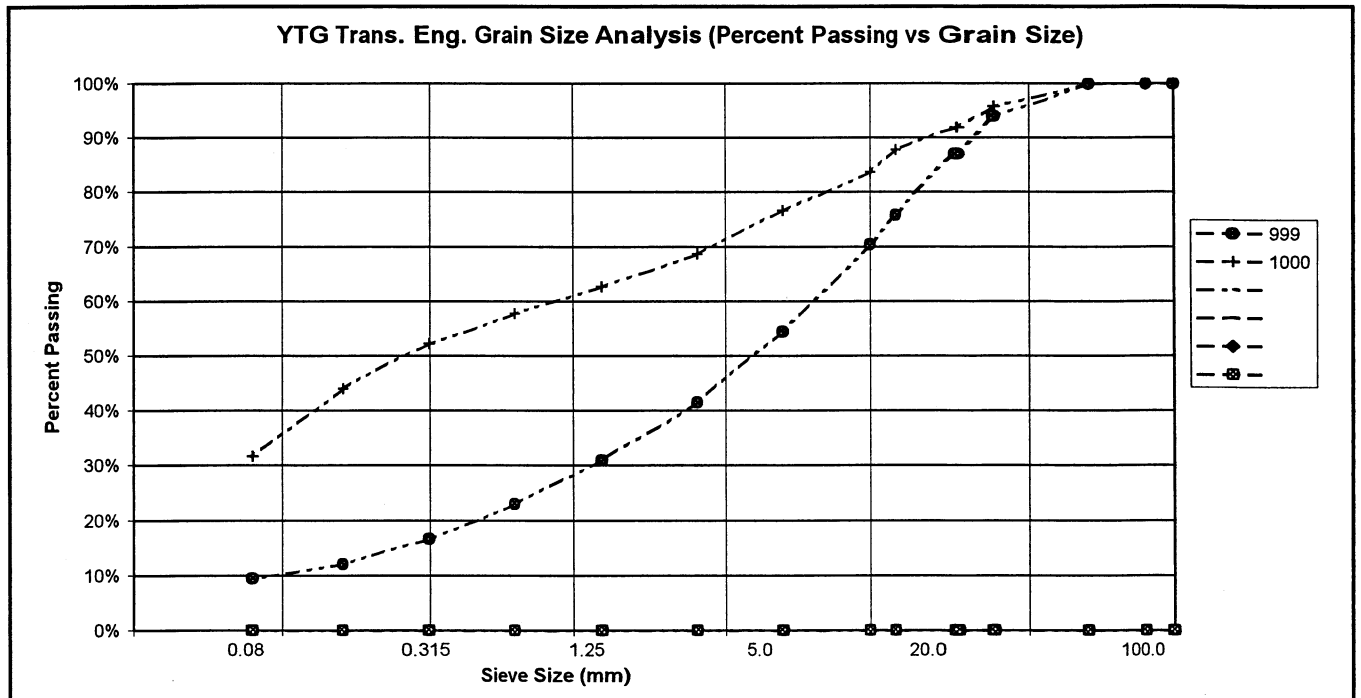


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1693+350 15M LT
 LOGGED BY: D.T.

HOLE No.: 558-1615

DATE COMP: 2000/06/26

FIELD NO:	999	1000			
LAB NO:	1401	1402			
DEPTH:	1.4-1.6	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	94%	96%			
20.0	87%	92%			
12.5	76%	88%			
10.0	70%	84%			
5.0	54%	77%			
2.5	42%	69%			
1.25	31%	63%			
0.630	23%	58%			
0.315	17%	52%			
0.160	12%	44%			
0.080	10%	32%			
M.C.(%)	3%	14%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	46	23			
% SAND:	45	45			
% FINES:	10	32			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH GRAVEL (SM)			

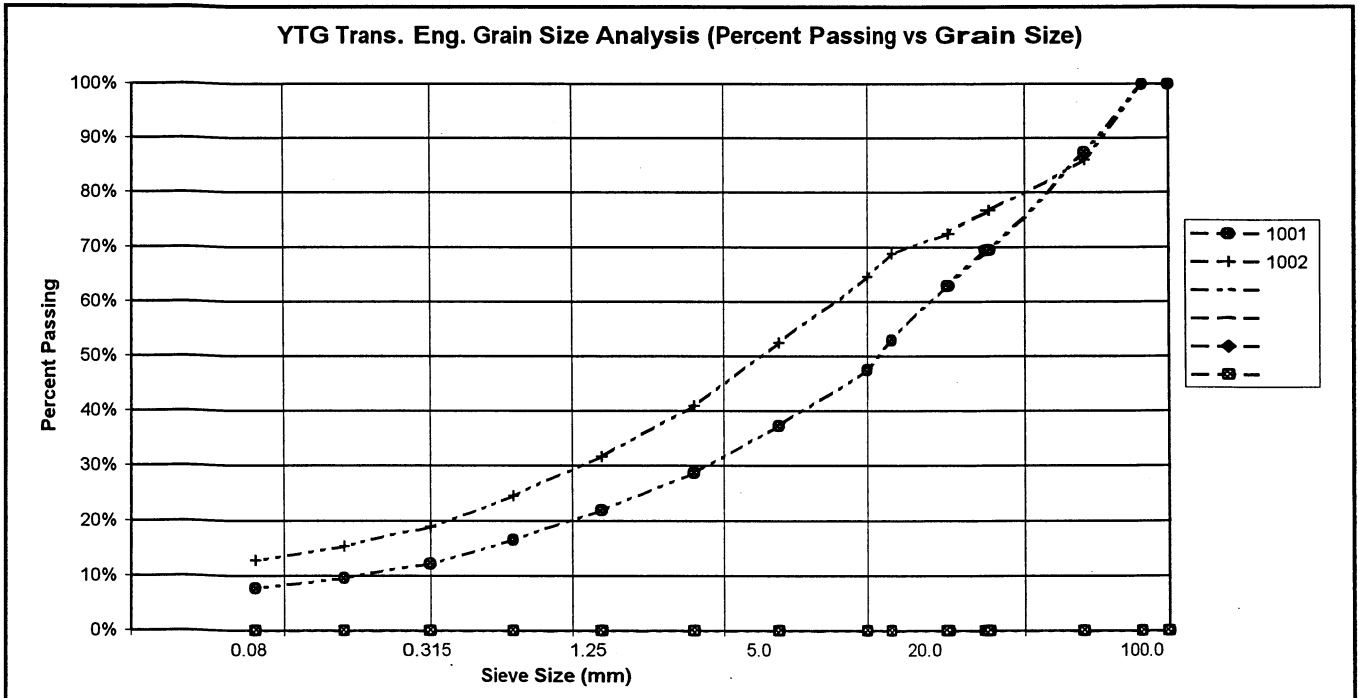


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1693+250 15M LT
 LOGGED BY: D.T.

HOLE No.: 558-1616

DATE COMP: 2000/06/26

FIELD NO:	1001	1002			
LAB NO:	1403	1404			
DEPTH:	1.5-1.7	3.4-3.6			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	87%	86%			
25.0	69%	77%			
20.0	63%	72%			
12.5	53%	69%			
10.0	48%	65%			
5.0	37%	52%			
2.5	29%	41%			
1.25	22%	32%			
0.630	17%	25%			
0.315	12%	19%			
0.160	10%	15%			
0.080	8%	13%			
M.C.(%):	2%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	63	48			
% SAND:	30	40			
% FINES:	8	13			
CLASSIFICATION	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	SILTY GRAVEL WITH SAND (GM)			

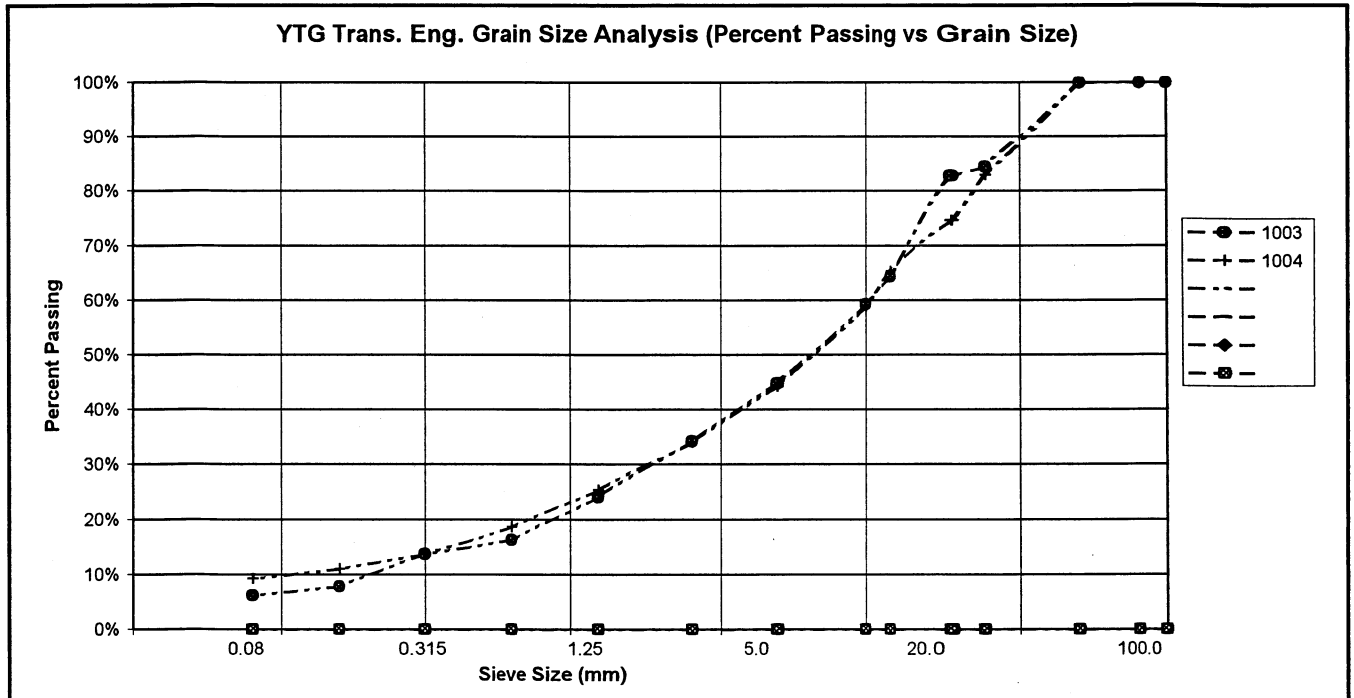


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1693+150 15M LT
 LOGGED BY: D.T.

HOLE No.: 558-1617

DATE COMP: 2000/06/27

FIELD NO:	1003	1004			
LAB NO:	1405	1406			
DEPTH:	1.5-1.7	4.2-4.4			
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	85%	83%			
20.0	83%	75%			
12.5	64%	65%			
10.0	59%	59%			
5.0	45%	44%			
2.5	34%	34%			
1.25	24%	25%			
0.630	16%	19%			
0.315	14%	14%			
0.160	8%	11%			
0.080	6%	9%			
M.C.(%)	2%	4%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	55	56			
% SAND:	39	35			
% FINES:	6	9			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GR-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GR-GM)			

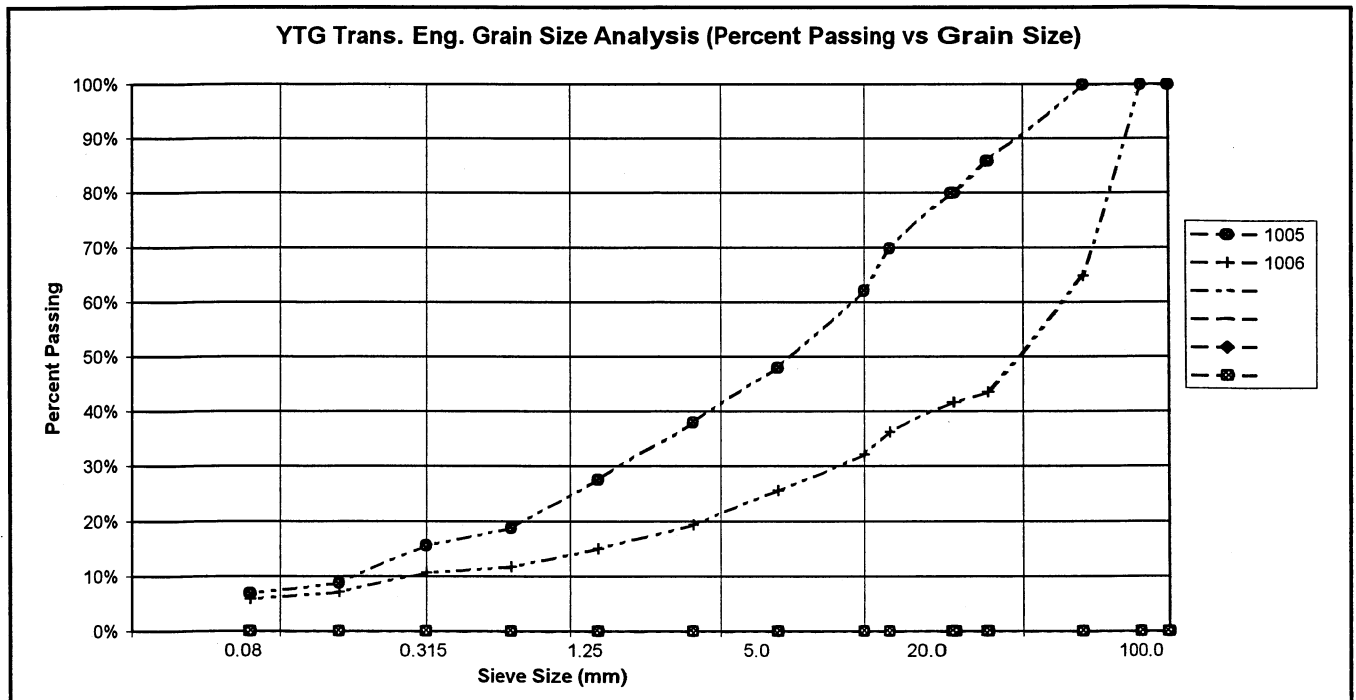


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1693+050 15M LT
 LOGGED BY: D.T.

HOLE No.: 558-1618

DATE COMP: 2000/06/27

FIELD NO:	1005	1006			
LAB NO:	1407	1408			
DEPTH:	1.3-1.5	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	65%			
25.0	86%	44%			
20.0	80%	42%			
12.5	70%	36%			
10.0	62%	32%			
5.0	48%	26%			
2.5	38%	19%			
1.25	28%	15%			
0.630	19%	12%			
0.315	16%	11%			
0.160	9%	7%			
0.080	7%	6%			
M.C.(%):	2%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	52	74			
% SAND:	41	20			
% FINES:	7	6			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)			

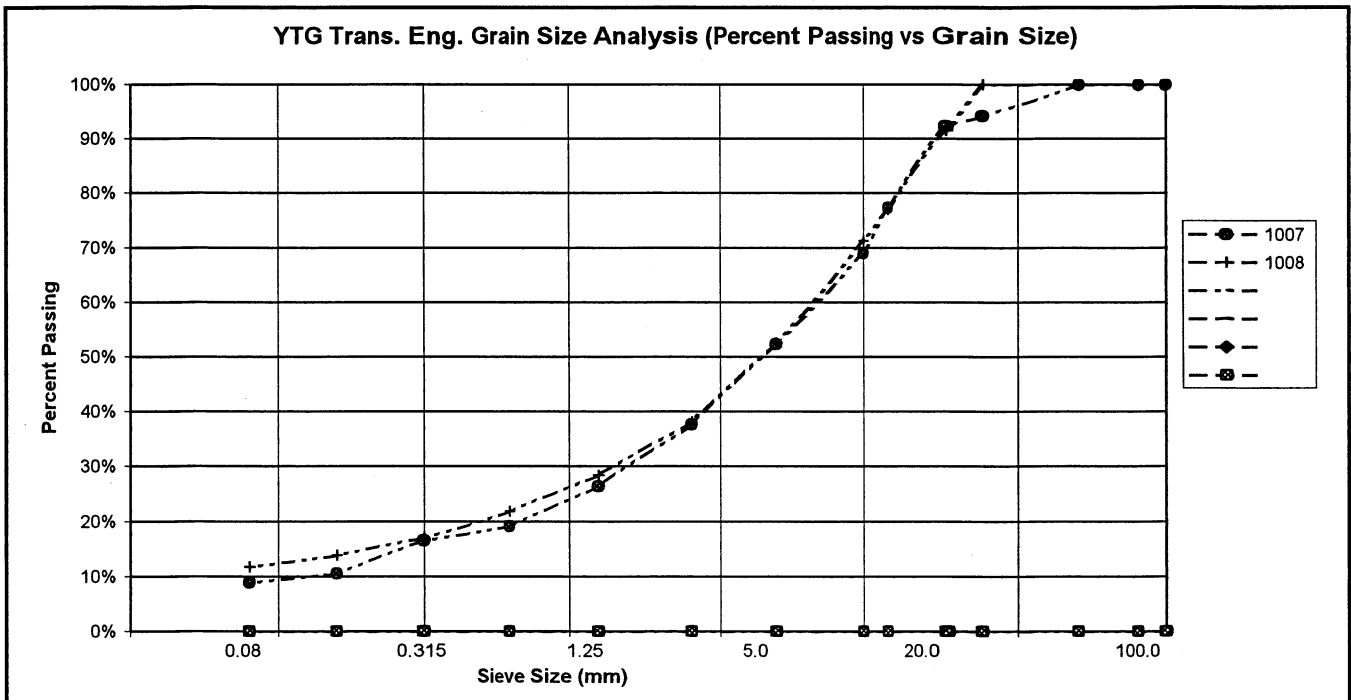


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1692+950 15M LT
 LOGGED BY: D.T.

HOLE No.: 558-1619

DATE COMP: 2000/06/27

FIELD NO:	1007	1008			
LAB NO:	1409	1410			
DEPTH:	1.4-1.6	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	94%	100%			
20.0	92%	92%			
12.5	77%	77%			
10.0	69%	71%			
5.0	52%	53%			
2.5	38%	38%			
1.25	26%	28%			
0.630	19%	22%			
0.315	17%	17%			
0.160	11%	14%			
0.080	9%	12%			
M.C.(%)	3%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	48	47			
% SAND:	43	41			
% FINES:	9	12			
CLASSIFICATION	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			

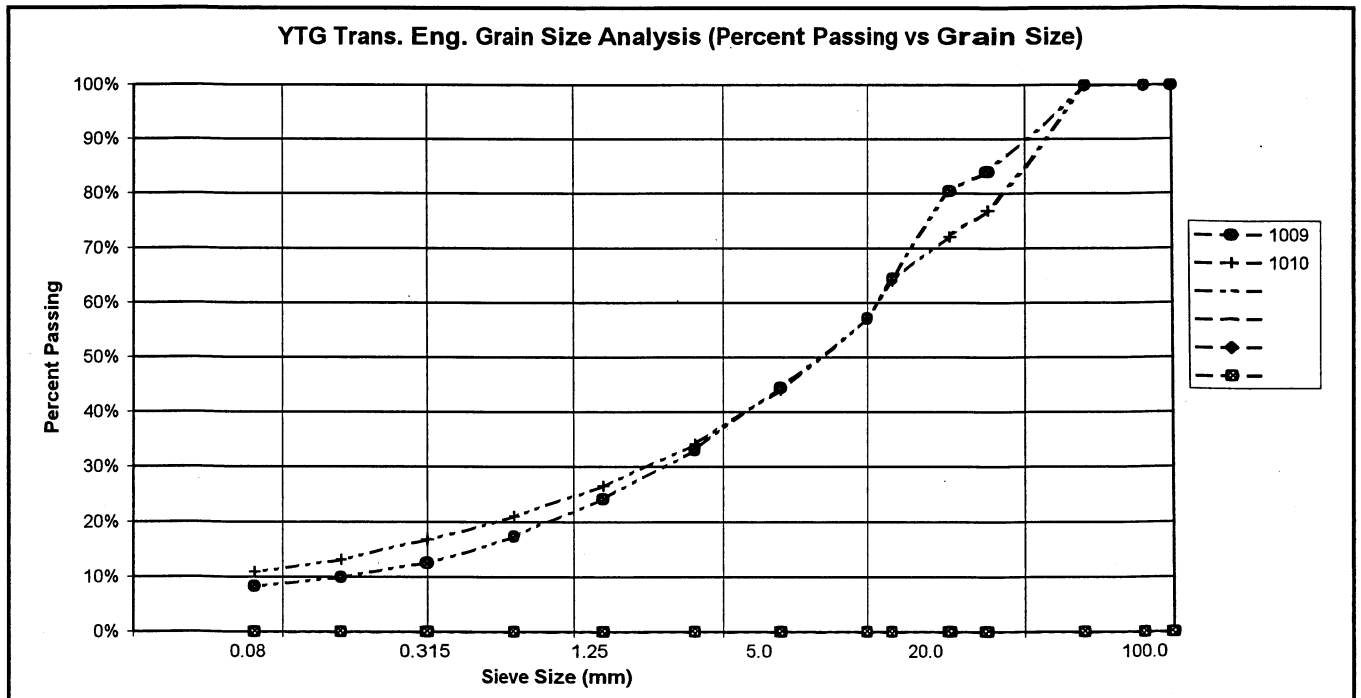


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1692+850 15M LT
 LOGGED BY: D.T.

HOLE No.: 558-1620

DATE COMP: 2000/06/27

FIELD NO:	1009	1010			
LAB NO:	1411	1412			
DEPTH:	1.5-1.7	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	84%	77%			
20.0	80%	72%			
12.5	64%	64%			
10.0	57%	57%			
5.0	44%	44%			
2.5	33%	34%			
1.25	24%	26%			
0.630	17%	21%			
0.315	13%	17%			
0.160	10%	13%			
0.080	8%	11%			
M.C.(%):	2%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	56	56			
% SAND:	36	33			
% FINES:	8	11			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			

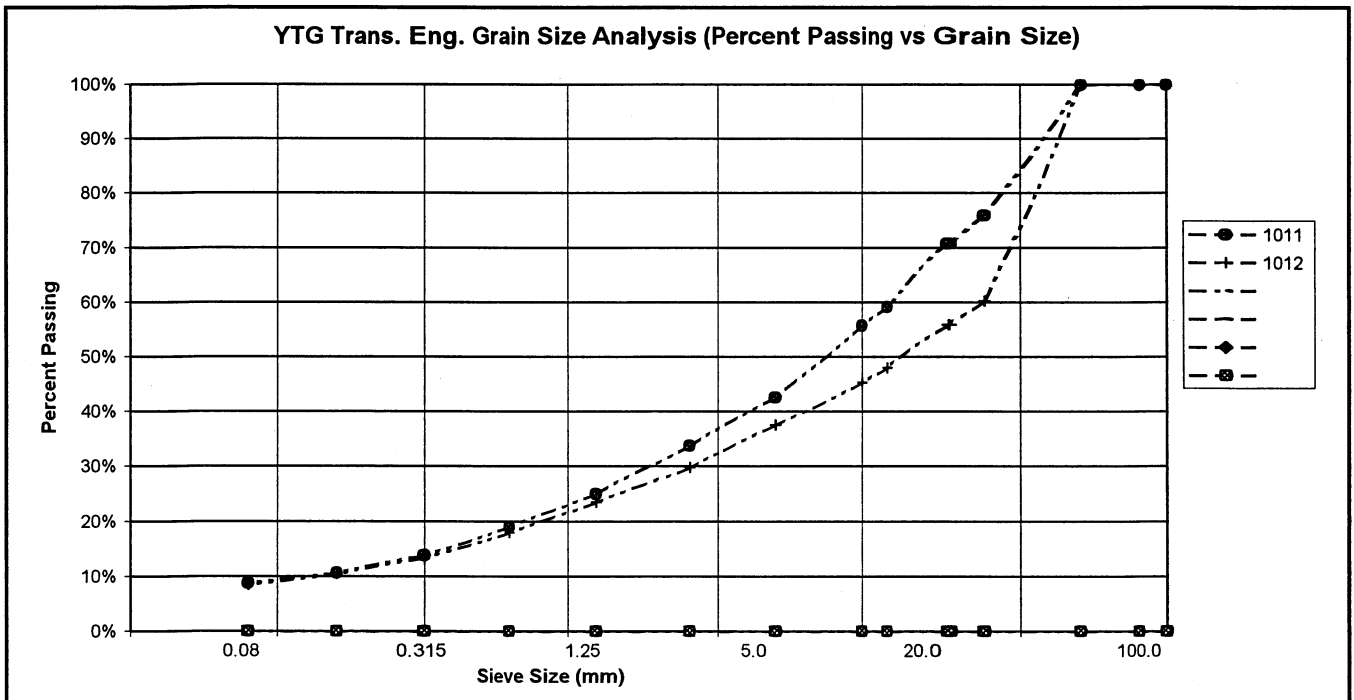


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1692+750 15M LT
 LOGGED BY: D.T.

HOLE No.: 558-1621

DATE COMP: 2000/06/27

FIELD NO:	1011	1012			
LAB NO:	1413	1414			
DEPTH:	1.6-1.8	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	76%	60%			
20.0	71%	56%			
12.5	59%	48%			
10.0	56%	45%			
5.0	43%	38%			
2.5	34%	30%			
1.25	25%	23%			
0.630	19%	18%			
0.315	14%	13%			
0.160	11%	10%			
0.080	9%	8%			
M.C.(%):	3%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	57	62			
% SAND:	34	29			
% FINES:	9	8			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)			

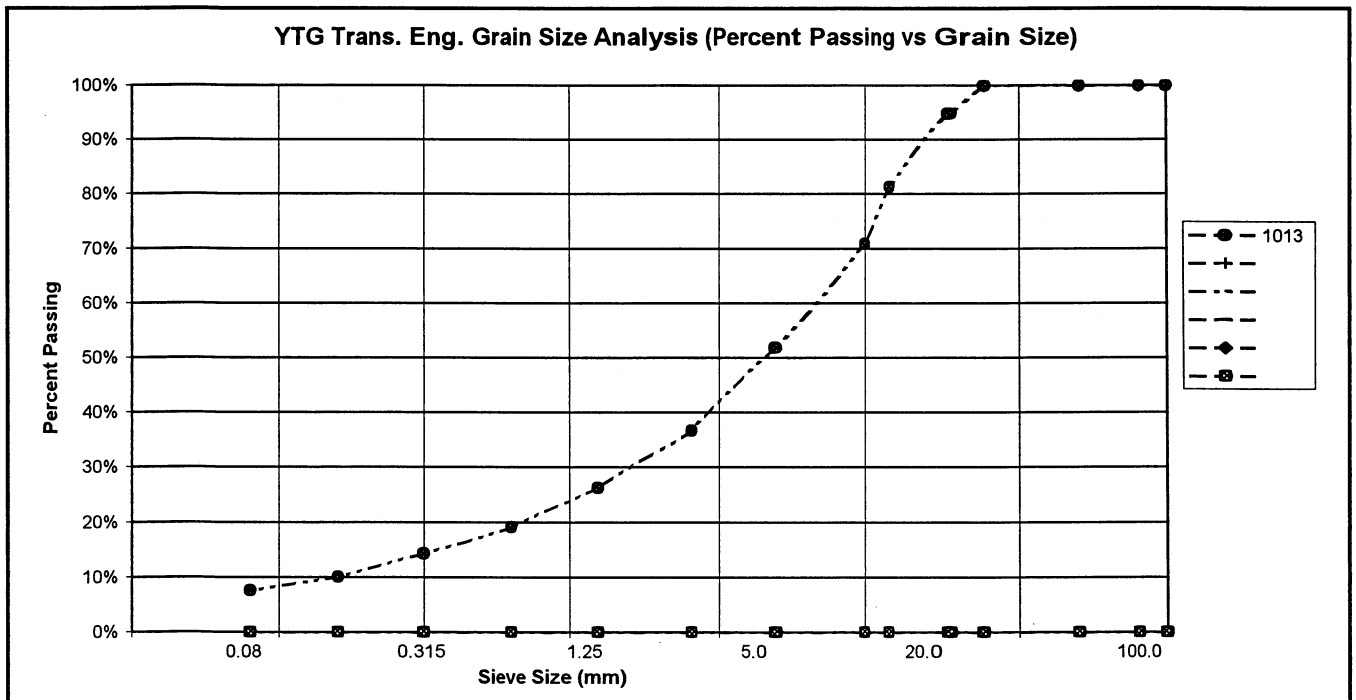


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1692+600 14M LT
 LOGGED BY: D.T.

HOLE No.: 558-1622

DATE COMP: 2000/06/27

FIELD NO:	1013				
LAB NO:	1415				
DEPTH:	1.5-1.7				
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING				
100.0	100%				
80.0	100%				
50.0	100%				
25.0	100%				
20.0	95%				
12.5	81%				
10.0	71%				
5.0	52%				
2.5	37%				
1.25	26%				
0.630	19%				
0.315	14%				
0.160	10%				
0.080	8%				
M.C.(%):	3%				
LIQUID LIMIT:	0.0				
PLASTIC LIMIT:	0.0				
PLASTIC INDEX.:	0.0				
% GRAVEL:	48				
% SAND:	44				
% FINES:	8				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GR-GM)				

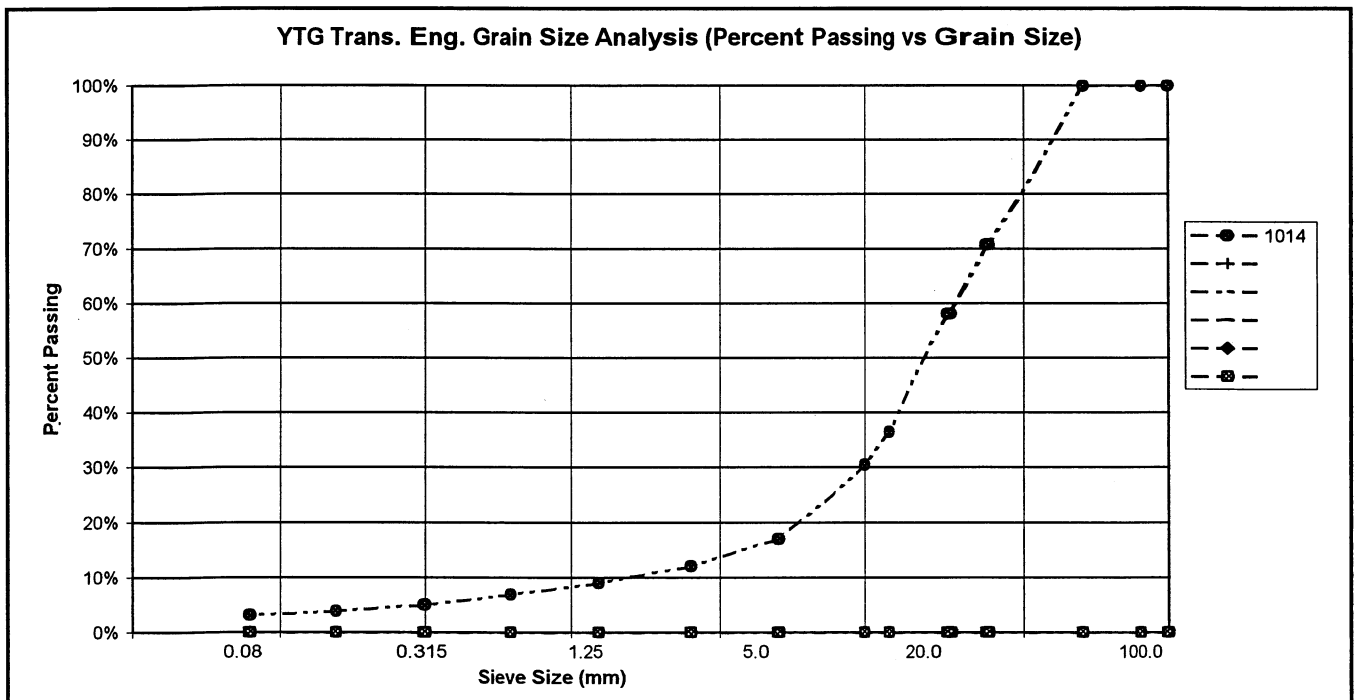


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1692+500 11M LT
 LOGGED BY: D.T.

HOLE No.: 558-1623

DATE COMP: 2000/06/28

FIELD NO:	1014				
LAB NO:	1416				
DEPTH:	2.8-3.0				
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING				
100.0	100%				
80.0	100%				
50.0	100%				
25.0	71%				
20.0	58%				
12.5	36%				
10.0	31%				
5.0	17%				
2.5	12%				
1.25	9%				
0.630	7%				
0.315	5%				
0.160	4%				
0.080	3%				
M.C.(%):	2%				
LIQUID LIMIT:	0.0				
PLASTIC LIMIT:	0.0				
PLASTIC INDEX.:	0.0				
% GRAVEL:	83				
% SAND:	14				
% FINES:	3				
CLASSIFICATION	POORLY GRADED GRAVEL (GP)				

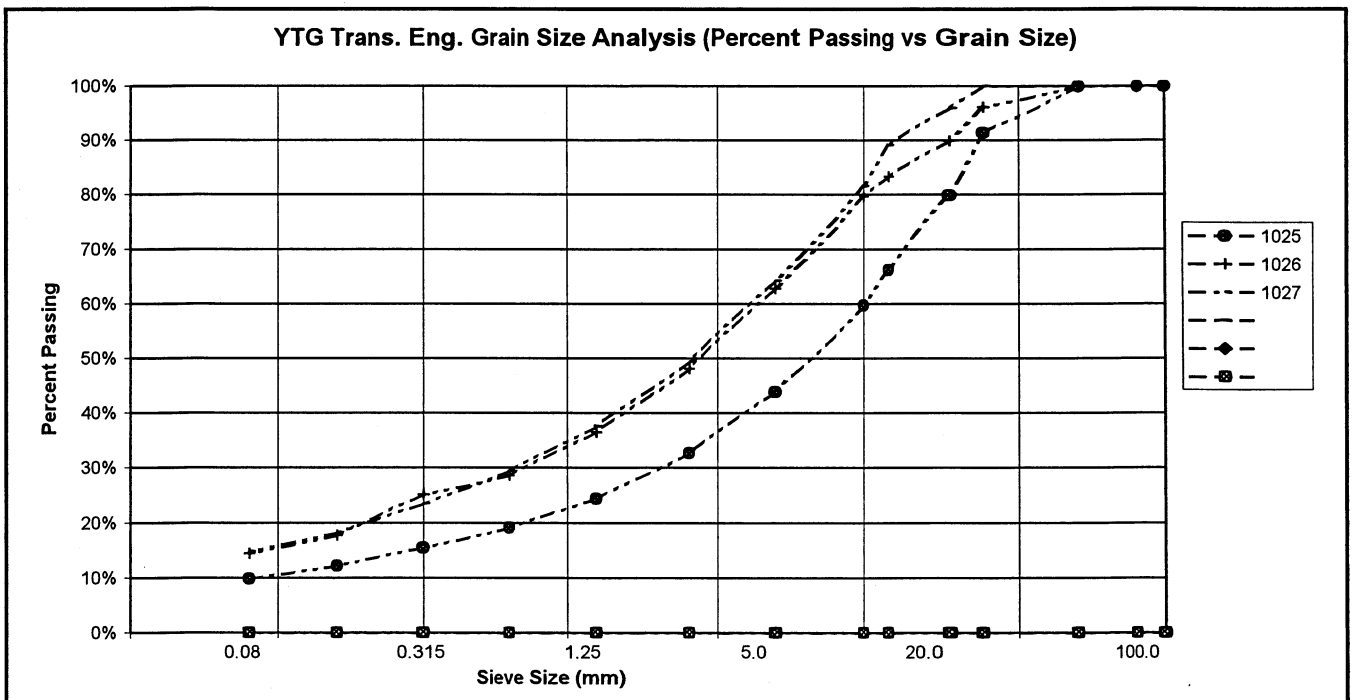


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1692+350 12M LT
 LOGGED BY: D.T.

HOLE No.: 558-1628

DATE COMP: 2000/06/29

FIELD NO:	1025	1026	1027		
LAB NO:	1427	1428	1429		
DEPTH:	1.4-1.6	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	91%	96%	100%		
20.0	80%	90%	96%		
12.5	66%	83%	89%		
10.0	60%	80%	82%		
5.0	44%	63%	64%		
2.5	33%	48%	49%		
1.25	24%	36%	38%		
0.630	19%	29%	29%		
0.315	15%	25%	23%		
0.160	12%	18%	18%		
0.080	10%	14%	15%		
M.C.(%)	3%	4%	3%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	56	37	36		
% SAND:	34	48	49		
% FINES:	10	14	15		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		

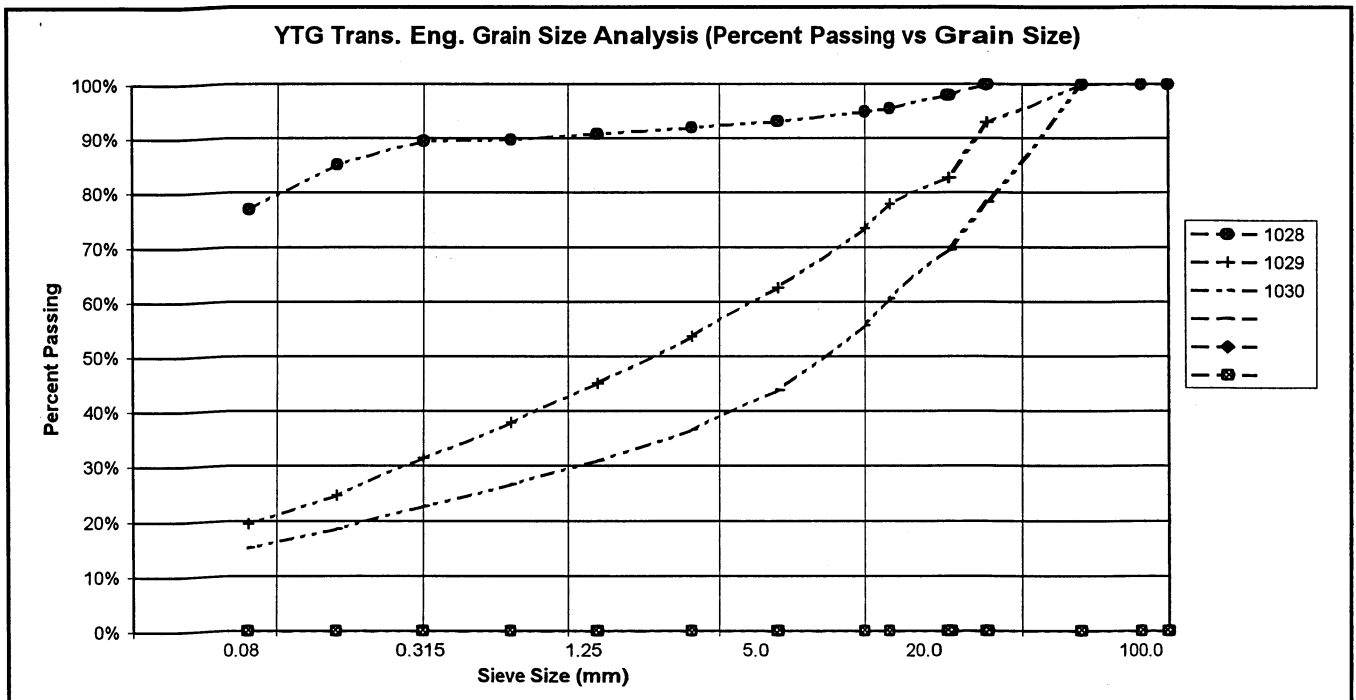


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1692+250 15M LT
 LOGGED BY: D.T.

HOLE No.: 558-1629

DATE COMP: 2000/06/29

FIELD NO:	1028	1029	1030		
LAB NO:	1430	1431	1432		
DEPTH:	1.3-1.5	3.0-3.2	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	100%	93%	78%		
20.0	98%	83%	69%		
12.5	96%	78%	61%		
10.0	95%	73%	56%		
5.0	93%	63%	44%		
2.5	92%	54%	37%		
1.25	91%	45%	31%		
0.630	90%	38%	27%		
0.315	90%	31%	23%		
0.160	85%	25%	19%		
0.080	77%	19%	15%		
M.C.(%)	30%	9%	6%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	7	37	56		
% SAND:	16	43	29		
% FINES:	77	19	15		
CLASSIFICATION	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)		

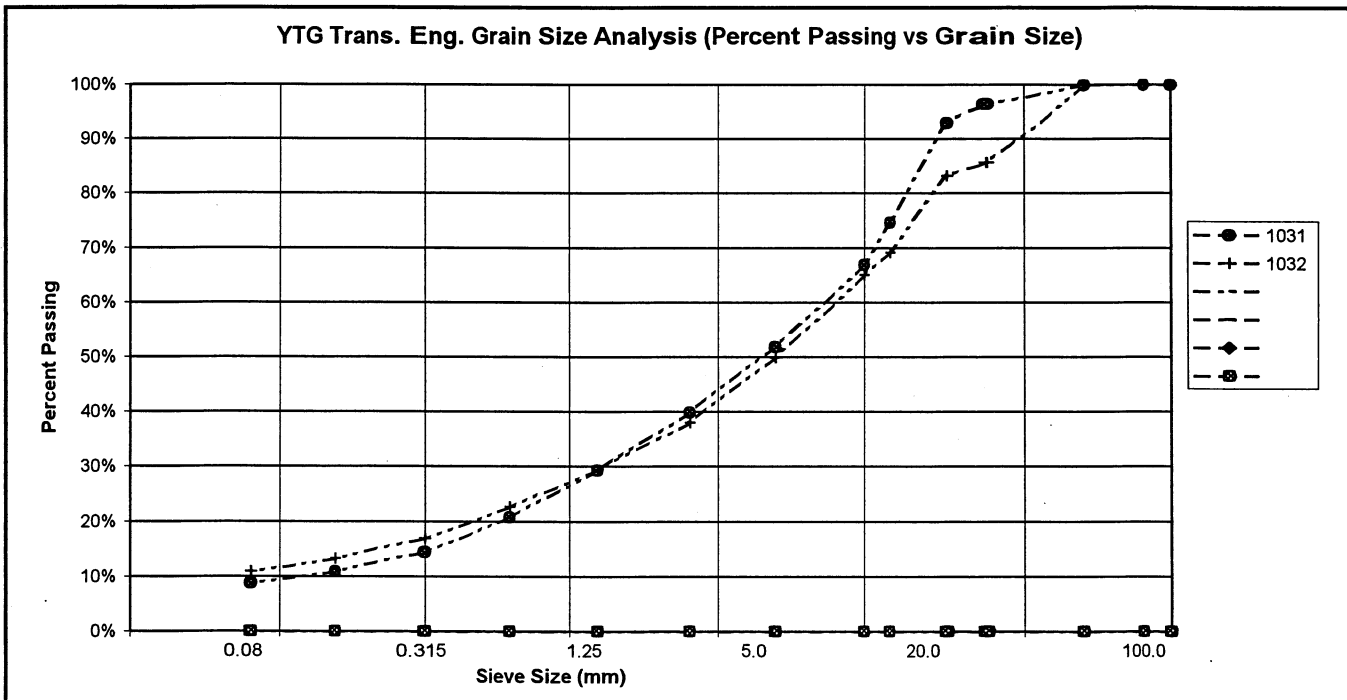


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1692+150 15M LT
 LOGGED BY: D.T.

HOLE No.: 558-1630

DATE COMP: 2000/06/29

FIELD NO:	1031	1032			
LAB NO:	1433	1434			
DEPTH:	1.4-1.6	3.0-3.2			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	96%	86%			
20.0	93%	83%			
12.5	75%	69%			
10.0	67%	65%			
5.0	52%	50%			
2.5	40%	38%			
1.25	29%	29%			
0.630	21%	23%			
0.315	14%	17%			
0.160	11%	13%			
0.080	9%	11%			
M.C.(%)	3%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	48	50			
% SAND:	43	39			
% FINES:	9	11			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			

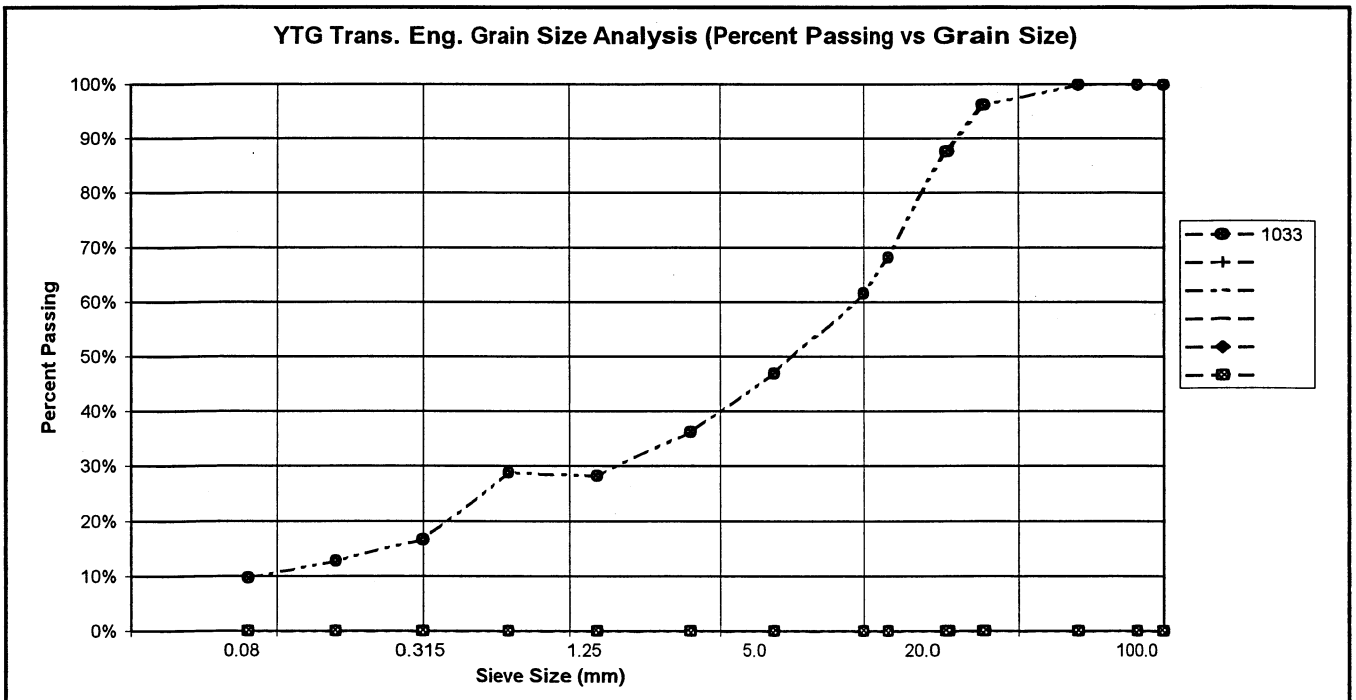


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1692+050 15M LT
 LOGGED BY: D.T.

HOLE No.: 558-1631

DATE COMP: 2000/06/29

FIELD NO:	1033				
LAB NO:	1435				
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	96%				
20.0	88%				
12.5	68%				
10.0	62%				
5.0	47%				
2.5	36%				
1.25	28%				
0.630	29%				
0.315	17%				
0.160	13%				
0.080	10%				
M.C.(%):	4%				
LIQUID LIMIT:	0.0				
PLASTIC LIMIT:	0.0				
PLASTIC INDEX:	0.0				
% GRAVEL:	53				
% SAND:	37				
% FINES:	10				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP,GM)				



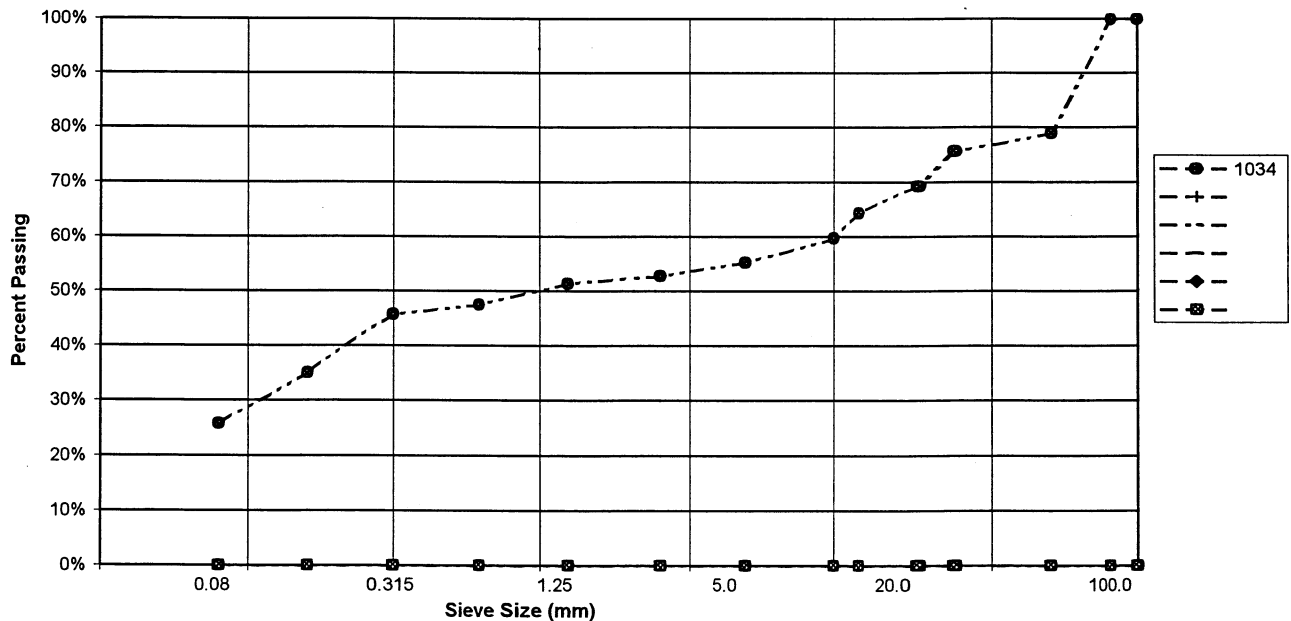
PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1691+984 17M LT
 LOGGED BY: D.T.

HOLE No.: 558-1632

DATE COMP: 2000/06/29

FIELD NO:	1034				
LAB NO:	1436				
DEPTH:	1.4-1.6				
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING				
100.0	100%				
80.0	100%				
50.0	79%				
25.0	76%				
20.0	69%				
12.5	64%				
10.0	60%				
5.0	55%				
2.5	53%				
1.25	51%				
0.630	48%				
0.315	46%				
0.160	35%				
0.080	26%				
M.C.(%):	14%				
LIQUID LIMIT:	0.0				
PLASTIC LIMIT:	0.0				
PLASTIC INDEX.:	0.0				
% GRAVEL:	45				
% SAND:	30				
% FINES:	26				
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)				

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

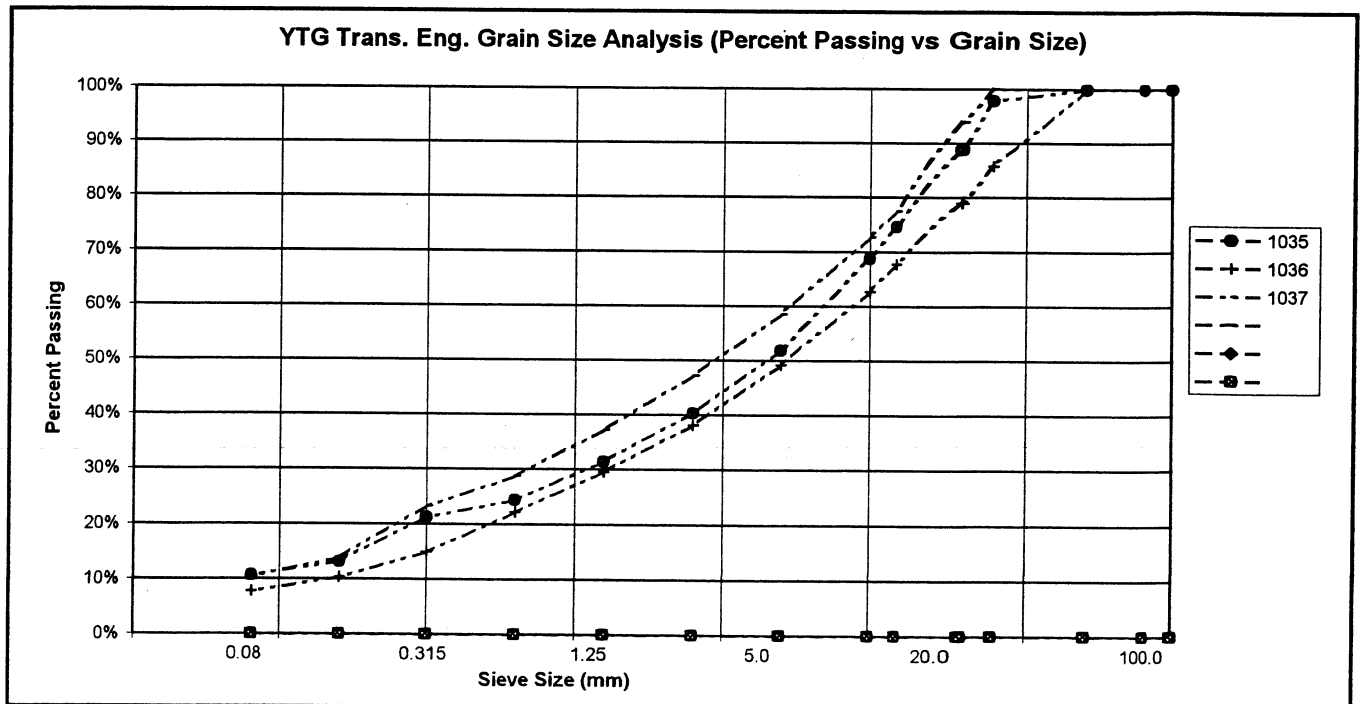


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1691+875 15M LT
 LOGGED BY: D.T.

HOLE No.: 558-1633

DATE COMP: 2000/06/29

FIELD NO:	1035	1036	1037		
LAB NO:	1437	1438	1439		
DEPTH:	1.4-1.6	3.0-3.2	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	98%	86%	100%		
20.0	89%	79%	94%		
12.5	75%	68%	77%		
10.0	69%	63%	73%		
5.0	52%	49%	59%		
2.5	40%	38%	47%		
1.25	31%	30%	37%		
0.630	24%	22%	29%		
0.315	21%	15%	23%		
0.160	13%	10%	14%		
0.080	11%	8%	10%		
M.C.(%):	4%	4%	3%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	48	51	41		
% SAND:	41	41	48		
% FINES:	11	8	10		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW SM)		

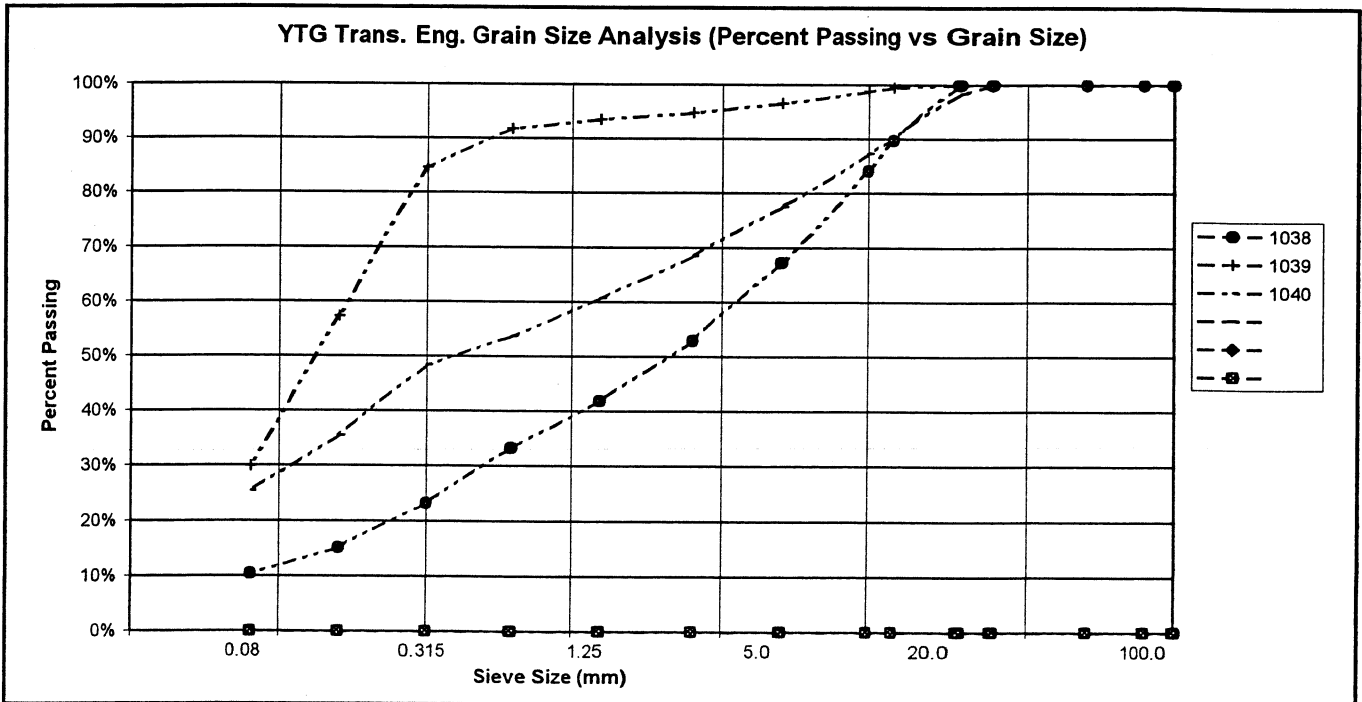


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1691+775 15M LT
 LOGGED BY: D.T.

HOLE No.: 558-1634

DATE COMP: 2000/06/29

FIELD NO:	1038	1039	1040		
LAB NO:	1440	1441	1442		
DEPTH:	1.3-1.5	2.9-3.1	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	100%	100%	100%		
20.0	100%	100%	98%		
12.5	90%	100%	90%		
10.0	84%	99%	87%		
5.0	67%	97%	77%		
2.5	53%	95%	68%		
1.25	42%	93%	61%		
0.630	33%	92%	54%		
0.315	23%	85%	48%		
0.160	15%	57%	35%		
0.080	10%	30%	25%		
M.C.(%)	3%	18%	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:	33	3	23		
% SAND:	57	67	52		
% FINES:	10	30	25		
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW SM)	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)		



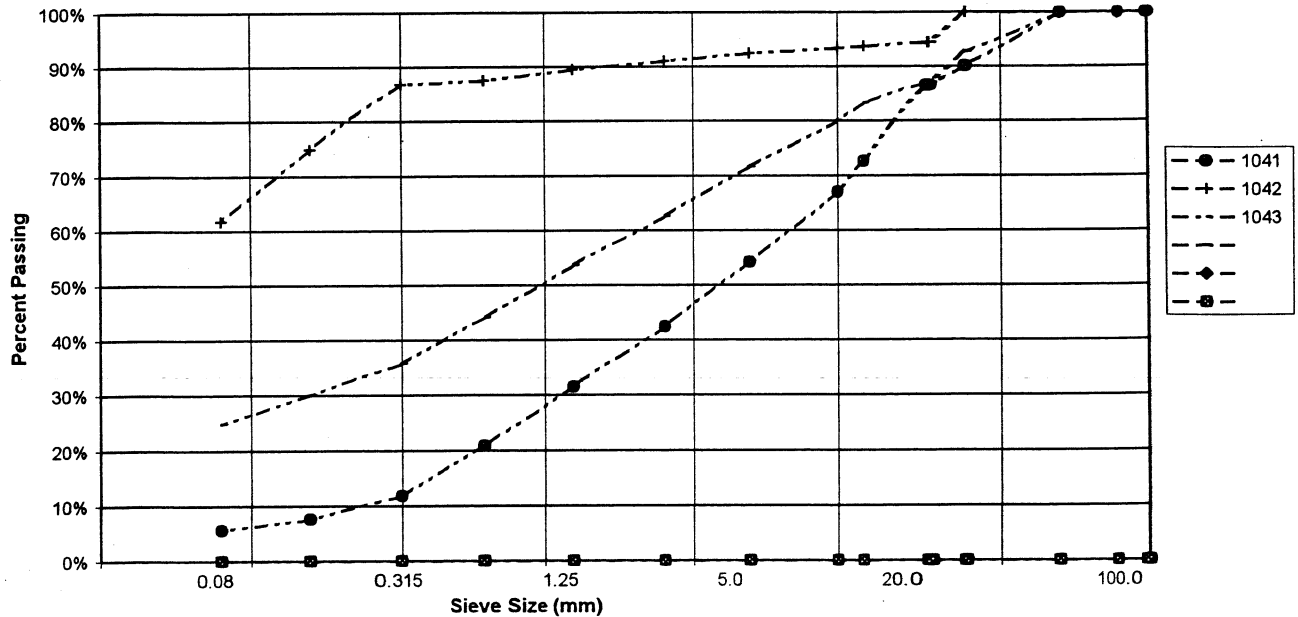
PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1691+675 11M LT
 LOGGED BY: D.T.

HOLE No.: 558-1635

DATE COMP: 2000/06/29

FIELD NO:	1041	1042	1043		
LAB NO:	1443	1444	1445		
DEPTH:	1.4-1.6	2.8-3.0	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	90%	100%	93%		
20.0	87%	95%	87%		
12.5	73%	94%	83%		
10.0	67%	93%	80%		
5.0	54%	92%	72%		
2.5	42%	91%	63%		
1.25	32%	90%	54%		
0.630	21%	88%	44%		
0.315	12%	87%	36%		
0.160	8%	75%	30%		
0.080	6%	62%	25%		
M.C.(%):	3%	16%	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:	46	8	28		
% SAND:	49	31	47		
% FINES:	6	62	25		
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW SM)	SANDY SILT (ML)	SILTY SAND WITH GRAVEL (SM)		

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



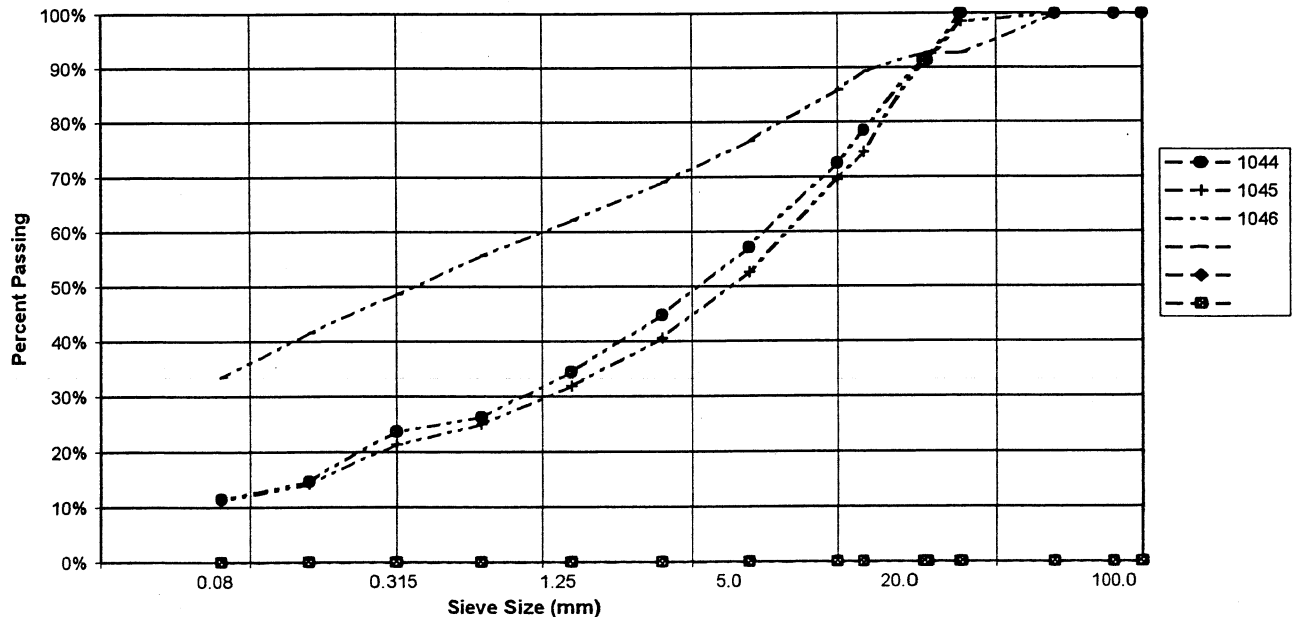
PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1691+600 15M LT
 LOGGED BY: D.T.

HOLE No.: 558-1636

DATE COMP: 2000/06/29

FIELD NO:	1044	1045	1046		
LAB NO:	1446	1447	1448		
DEPTH:	1.4-1.6	2.9-3.1	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	100%	98%	93%		
20.0	91%	91%	93%		
12.5	78%	74%	89%		
10.0	73%	70%	86%		
5.0	57%	53%	76%		
2.5	45%	41%	69%		
1.25	34%	32%	62%		
0.630	26%	25%	56%		
0.315	24%	21%	49%		
0.160	15%	14%	41%		
0.080	12%	11%	34%		
M.C.(%):	9%	8%	10%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	43	47	24		
% SAND:	46	41	43		
% FINES:	12	11	34		
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH GRAVEL (SM)		

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

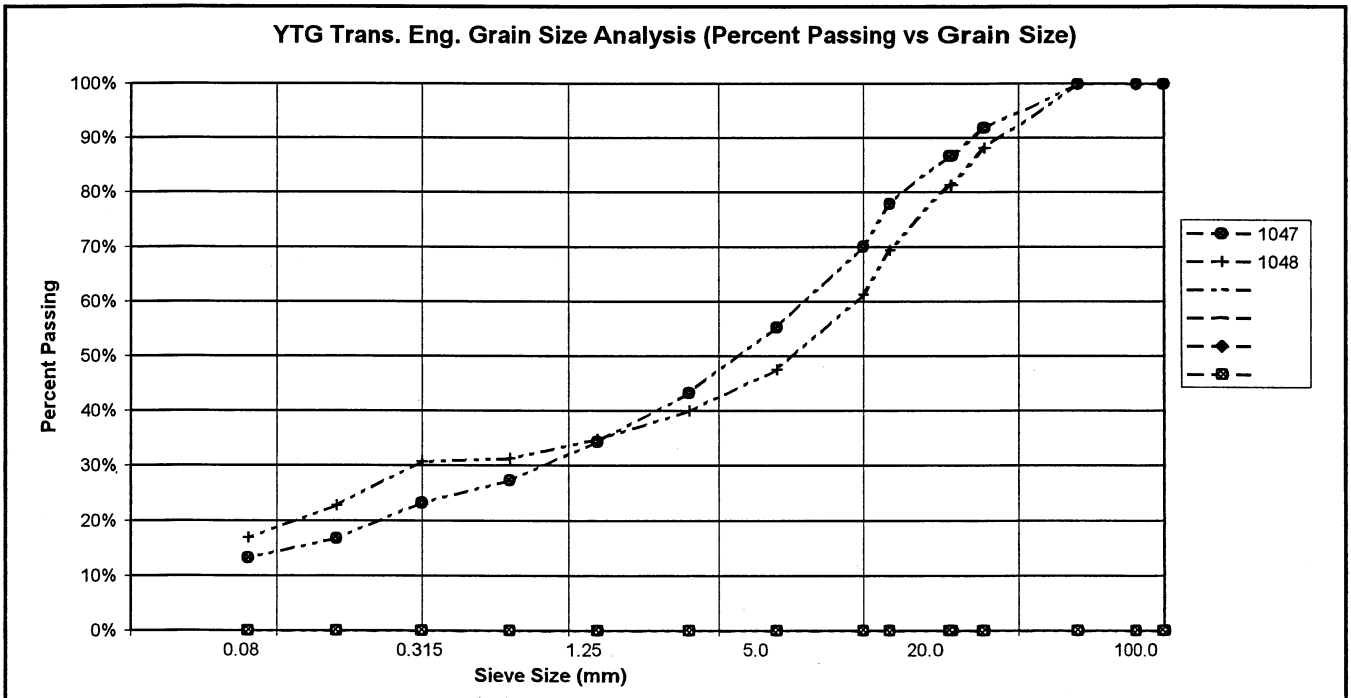


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1691+984 20M RT
 LOGGED BY: D.T.

HOLE No.: 558-1637

DATE COMP: 2000/06/29

FIELD NO:	1047	1048			
LAB NO:	1449	1450			
DEPTH:	1.9-2.1	3.8-4.0			
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	92%	88%			
20.0	87%	81%			
12.5	78%	69%			
10.0	70%	61%			
5.0	55%	48%			
2.5	43%	40%			
1.25	34%	35%			
0.630	27%	31%			
0.315	23%	31%			
0.160	17%	23%			
0.080	13%	17%			
M.C.(%):	6%	7%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	45	52			
% SAND:	42	31			
% FINES:	13	17			
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)			

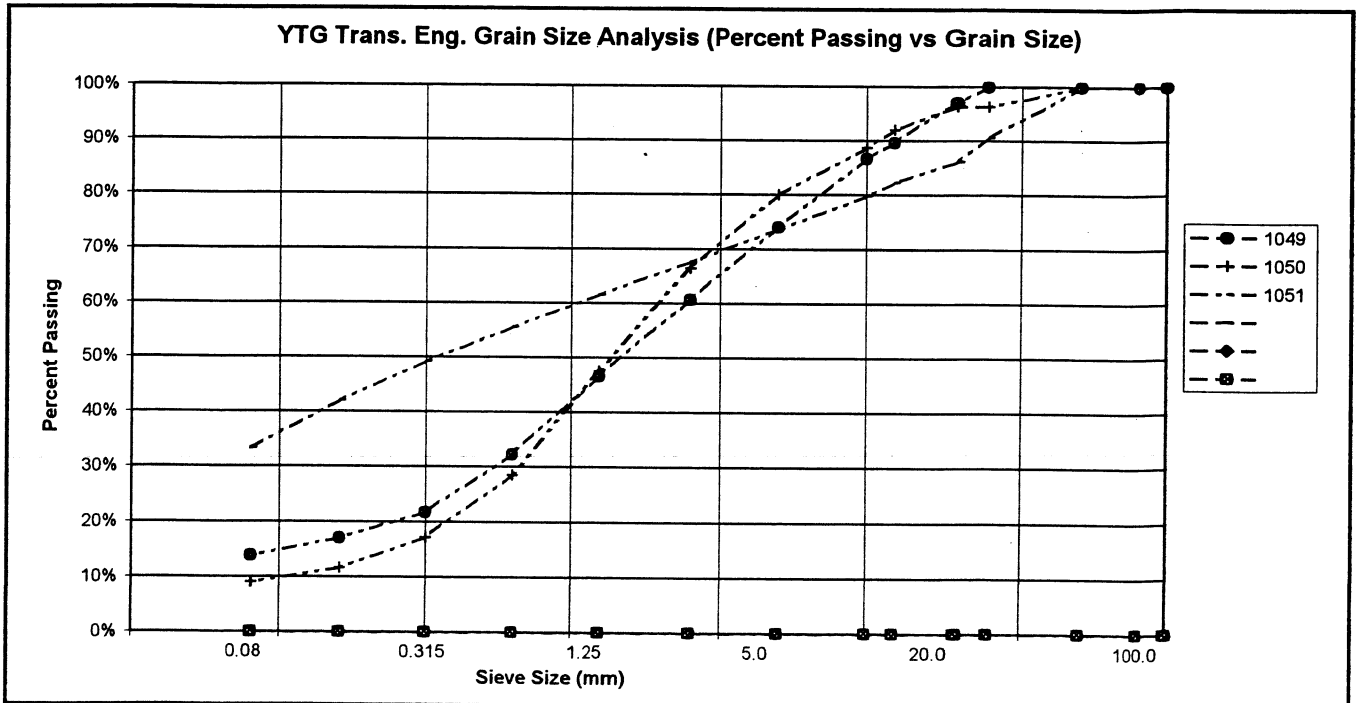


PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1691+595 20M RT
 LOGGED BY: D.T.

HOLE No.: 558-1638

DATE COMP: 2000/06/29

FIELD NO:	1049	1050	1051		
LAB NO:	1451	1452	1453		
DEPTH:	1.4-1.6	3.0-3.2	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	100%	96%	91%		
20.0	97%	96%	86%		
12.5	90%	92%	82%		
10.0	87%	89%	80%		
5.0	74%	80%	74%		
2.5	61%	66%	68%		
1.25	47%	48%	62%		
0.630	32%	28%	55%		
0.315	22%	17%	49%		
0.160	17%	12%	42%		
0.080	14%	9%	33%		
M.C.(%)	13%	10%	9%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	26	20	26		
% SAND:	60	71	40		
% FINES:	14	9	33		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW SM)	SILTY SAND WITH GRAVEL (SM)		



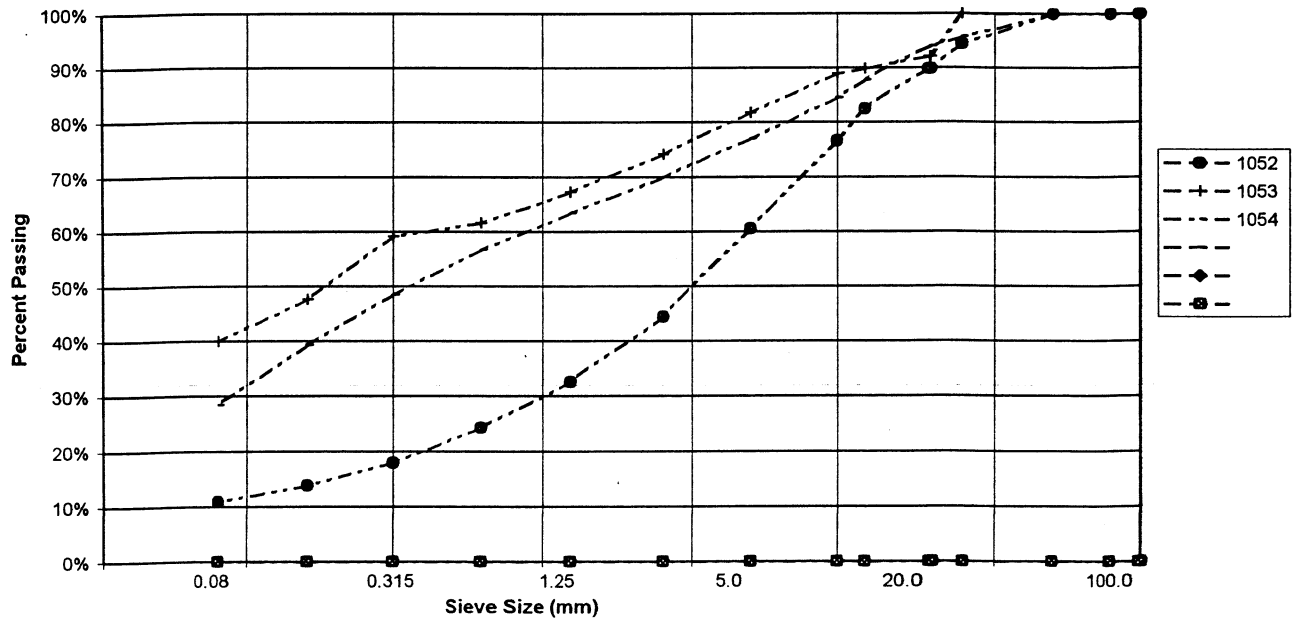
PROJECT NUMBER: 092-202101-0363
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SEGMENT 9
 PROJECT LOCATION: KM 1664-1692 A/H
 DRILL UNIT: B 40 L
 HOLE LOCATION: 1691+525 6M LT
 LOGGED BY: D.T.

HOLE No.: 558-1639

DATE COMP: 2000/06/30

FIELD NO:	1052	1053	1054		
LAB NO:	1454	1455	1456		
DEPTH:	1.3-1.5	2.8-3.0	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	95%	100%	96%		
20.0	90%	92%	94%		
12.5	83%	90%	88%		
10.0	77%	89%	84%		
5.0	61%	82%	77%		
2.5	44%	74%	70%		
1.25	33%	67%	63%		
0.630	24%	62%	57%		
0.315	18%	59%	48%		
0.160	14%	48%	39%		
0.080	11%	40%	28%		
M.C.(%):	8%	12%	10%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	39	18	23		
% SAND:	50	42	49		
% FINES:	11	40	28		
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		

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





TRANSPORTATION

ENGINEERING, S-3

HOLE No.: 30000

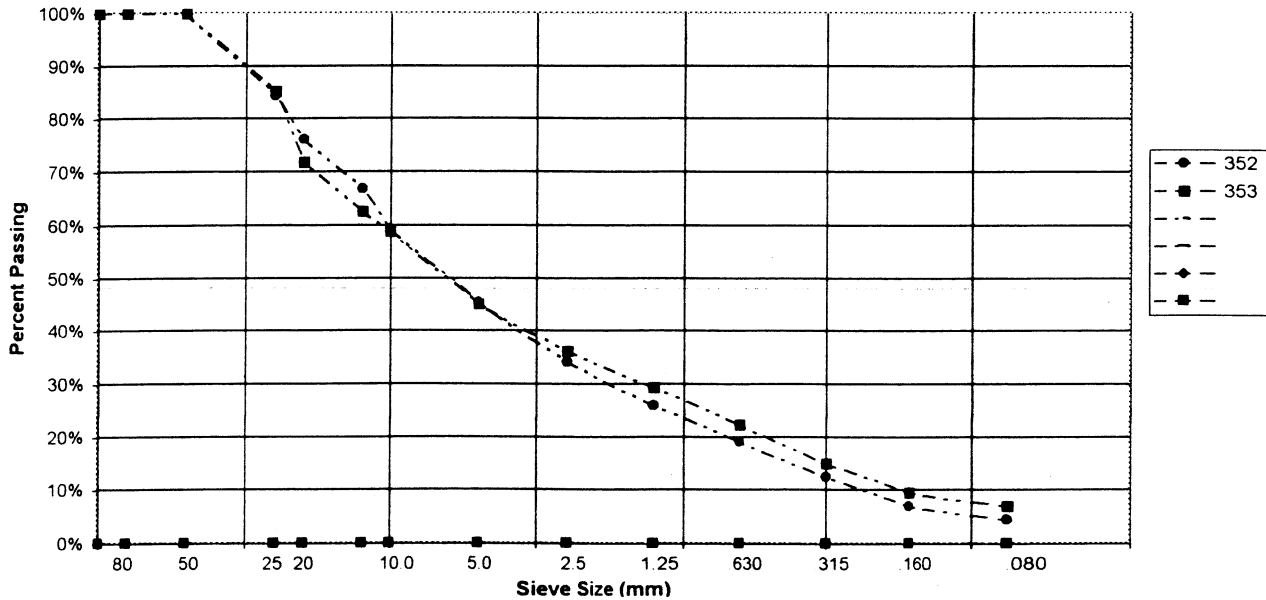
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 644064-6767988
 LOGGED BY: RW

SEP 03 2004

DATE COMP: 08/16/2004

FIELD NO:	352	353			
LAB NO:	352	353			
DEPTH:	0.3-0.9	1.8-2.4			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	84%	85%			
20.0	76%	72%			
12.5	67%	63%			
10.0	59%	59%			
5.0	45%	45%			
2.5	34%	36%			
1.25	26%	29%			
0.630	19%	22%			
0.315	12%	15%			
0.160	7%	10%			
0.080	4%	7%			
M.C.(%)	2%	2%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	55	55			
% SAND:	41	38			
% FINES:	4	7			
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)			

Grain Size Analysis (Percent Passing vs Grain Size)





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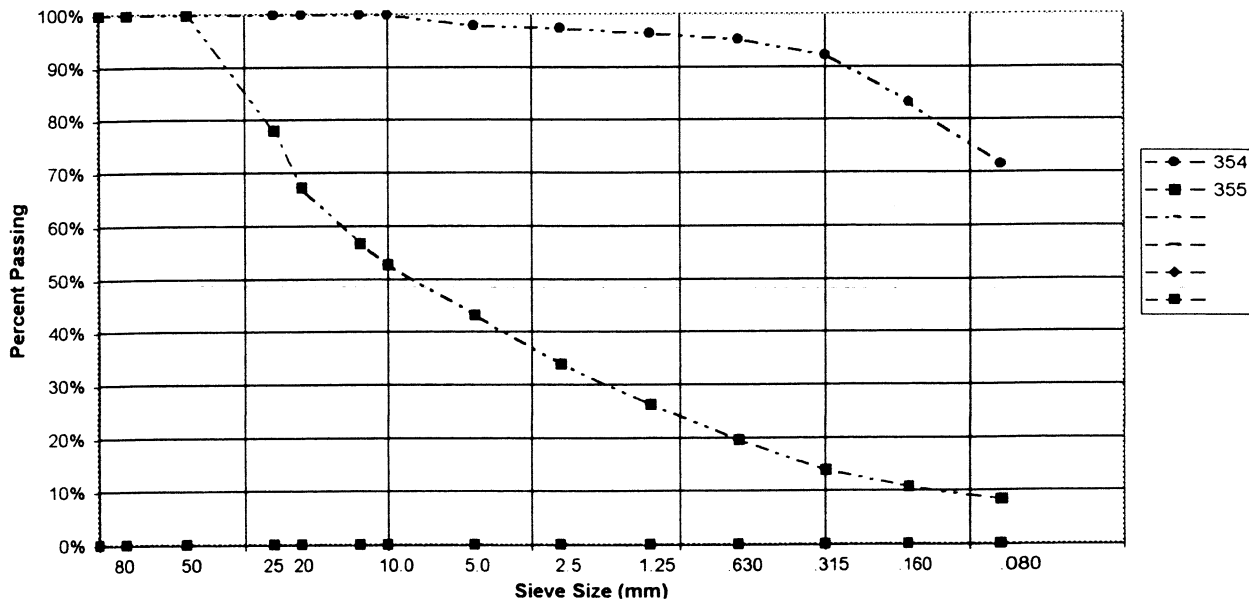
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 643863-6768004
 LOGGED BY: RW

HOLE No.: 30001

DATE COMP: 08/16/2004

FIELD NO:	354	355			
LAB NO:	354	355			
DEPTH:	0.6-1.2	1.8-2.4			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	100%	78%			
20.0	100%	67%			
12.5	100%	57%			
10.0	100%	53%			
5.0	98%	43%			
2.5	97%	34%			
1.25	97%	26%			
0.630	95%	20%			
0.315	92%	14%			
0.160	83%	11%			
0.080	72%	8%			
M.C.(%)	28%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	2	57			
% SAND:	26	35			
% FINES:	72	8			
CLASSIFICATION	SILT WITH SAND (ML)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			

Grain Size Analysis (Percent Passing vs Grain Size)





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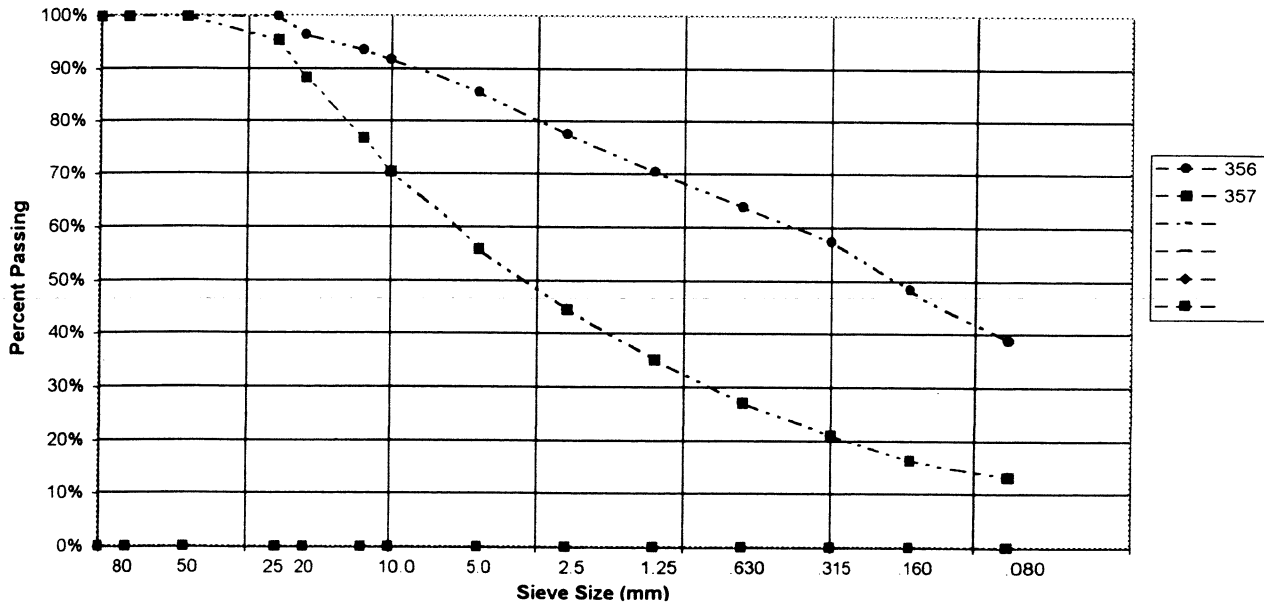
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 643667-6768001
 LOGGED BY: RW

HOLE No.: 30002

DATE COMP: 08/16/2004

FIELD NO:	356	357			
LAB NO:	356	357			
DEPTH:	0.4-0.7	2.1-2.7			
TYPE:	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	97%	88%			
12.5	94%	77%			
10.0	92%	70%			
5.0	86%	56%			
2.5	78%	45%			
1.25	71%	35%			
0.630	64%	27%			
0.315	57%	21%			
0.160	49%	16%			
0.080	39%	13%			
M.C.(%)	11%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	14	44			
% SAND:	47	43			
% FINES:	39	13			
CLASSIFICATION	SILTY SAND (SM)	SILTY GRAVEL WITH SAND (GM)			

Grain Size Analysis (Percent Passing vs Grain Size)





HOGGAN ENGINEERING & TESTING (1980) LTD.

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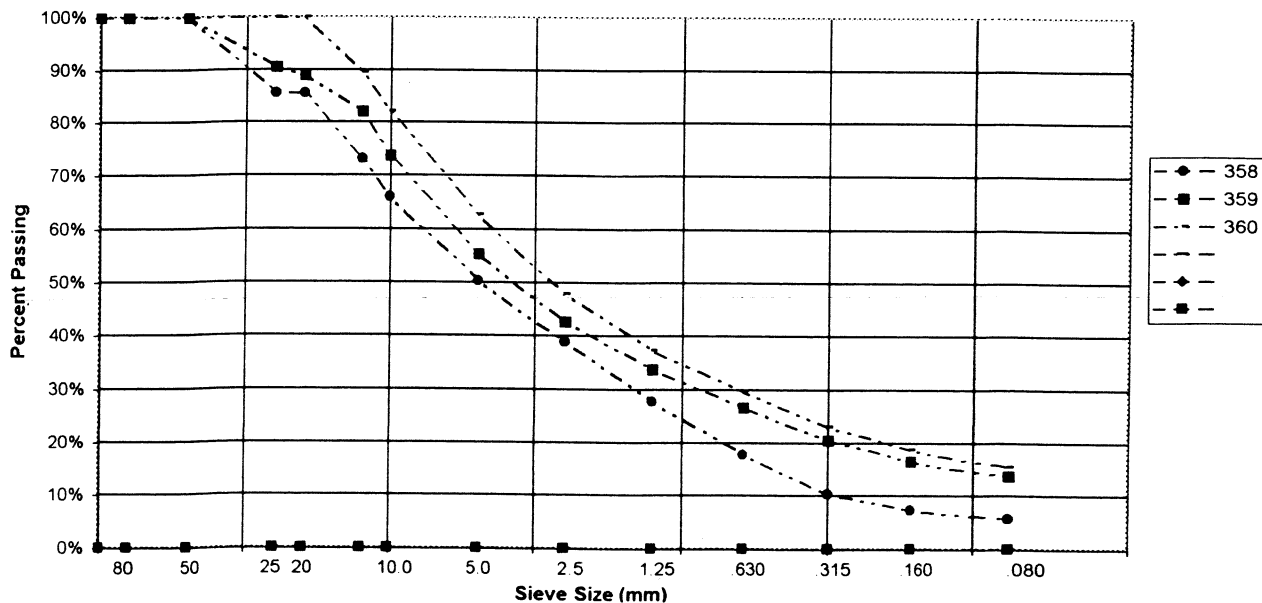
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 643448-6767987
 LOGGED BY: RW

HOLE No.: 30003

DATE COMP: 08/16/2004

FIELD NO:	358	359	360		
LAB NO:	358	359	360		
DEPTH:	0.3-0.9	1.8-2.4	3.4-4.0		
TYPE:	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%	91%	100%		
20.0	86%	89%	100%		
12.5	73%	82%	89%		
10.0	66%	74%	82%		
5.0	50%	55%	63%		
2.5	39%	43%	48%		
1.25	28%	34%	37%		
0.630	18%	27%	30%		
0.315	10%	21%	23%		
0.160	7%	17%	19%		
0.080	6%	14%	15%		
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:	50	45	37		
% SAND:	44	42	47		
% FINES:	6	14	15		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)		

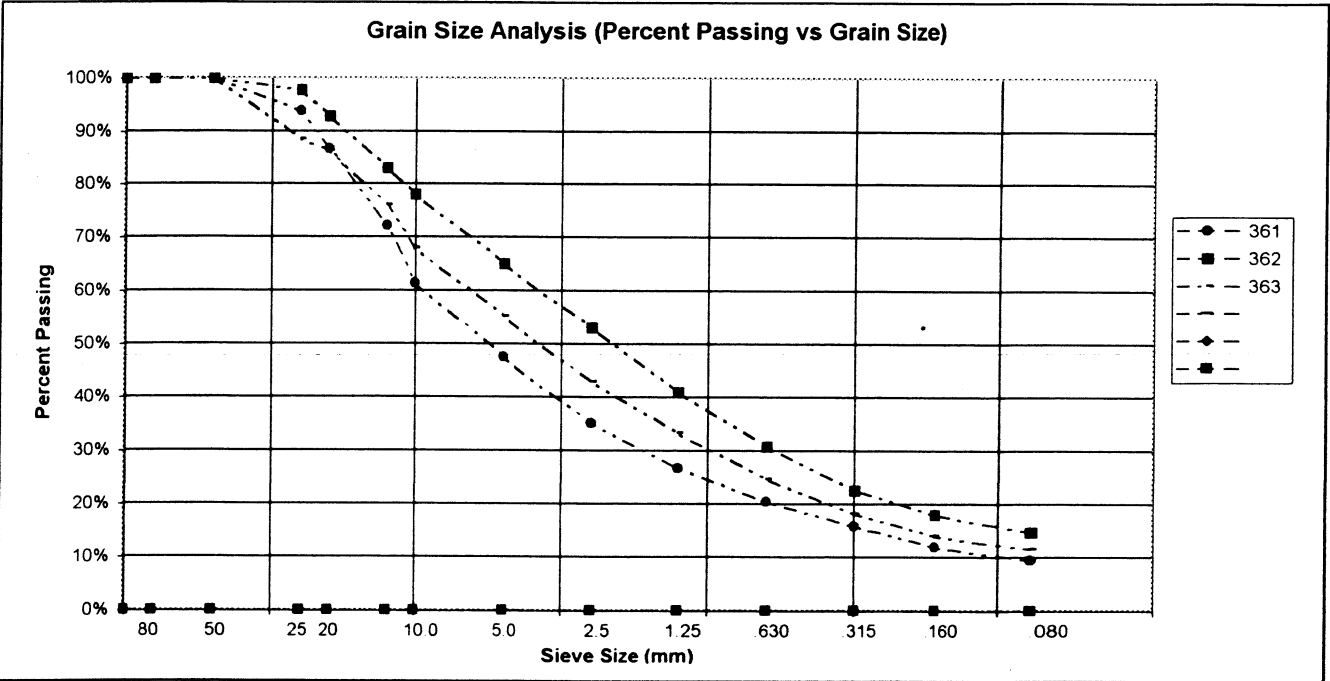
Grain Size Analysis (Percent Passing vs Grain Size)





PROJECT NUMBER: 8002-318 HOLE No.: 30004
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 643430-6768053
 LOGGED BY: RW DATE COMP: 08/16/2004

FIELD NO:	361	362	363		
LAB NO:	361	362	363		
DEPTH:	0.6-1.2	1.8-2.4	3.4-4.0		
TYPE:	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%	98%	88%		
20.0	87%	93%	86%		
12.5	72%	83%	76%		
10.0	61%	78%	68%		
5.0	47%	65%	55%		
2.5	35%	53%	43%		
1.25	27%	41%	33%		
0.630	20%	31%	25%		
0.315	16%	23%	18%		
0.160	12%	18%	14%		
0.080	10%	15%	12%		
M.C.(%)	3%	4%	3%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	53	35	45		
% SAND:	38	50	44		
% FINES:	10	15	12		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		





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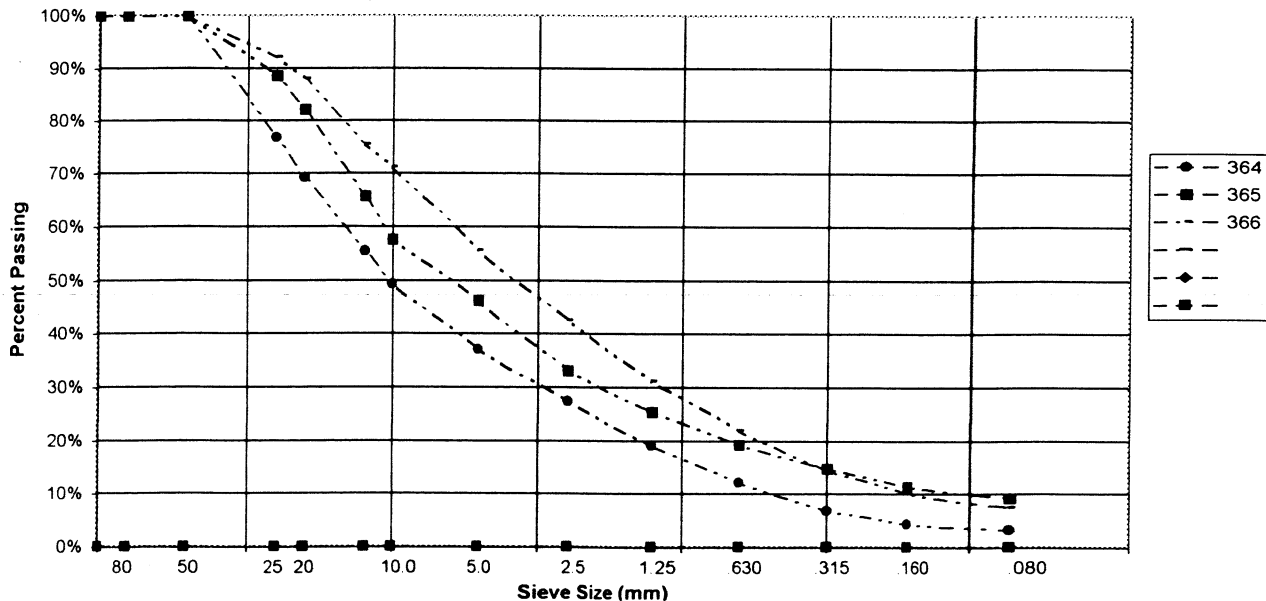
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 643267-6768019
 LOGGED BY: RW

HOLE No.: 30005

DATE COMP: 08/18/2004

FIELD NO:	364	365	366		
LAB NO:	364	365	366		
DEPTH:	0.3-0.9	1.8-2.4	3.4-4.0		
TYPE:	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	77%	89%	92%		
20.0	69%	82%	88%		
12.5	55%	66%	76%		
10.0	49%	58%	71%		
5.0	37%	46%	56%		
2.5	27%	33%	43%		
1.25	19%	26%	31%		
0.630	12%	19%	22%		
0.315	7%	15%	15%		
0.160	4%	11%	10%		
0.080	3%	9%	8%		
M.C.(%)	1%	2%	3%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	63	54	44		
% SAND:	34	37	48		
% FINES:	3	9	8		
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)		

Grain Size Analysis (Percent Passing vs Grain Size)





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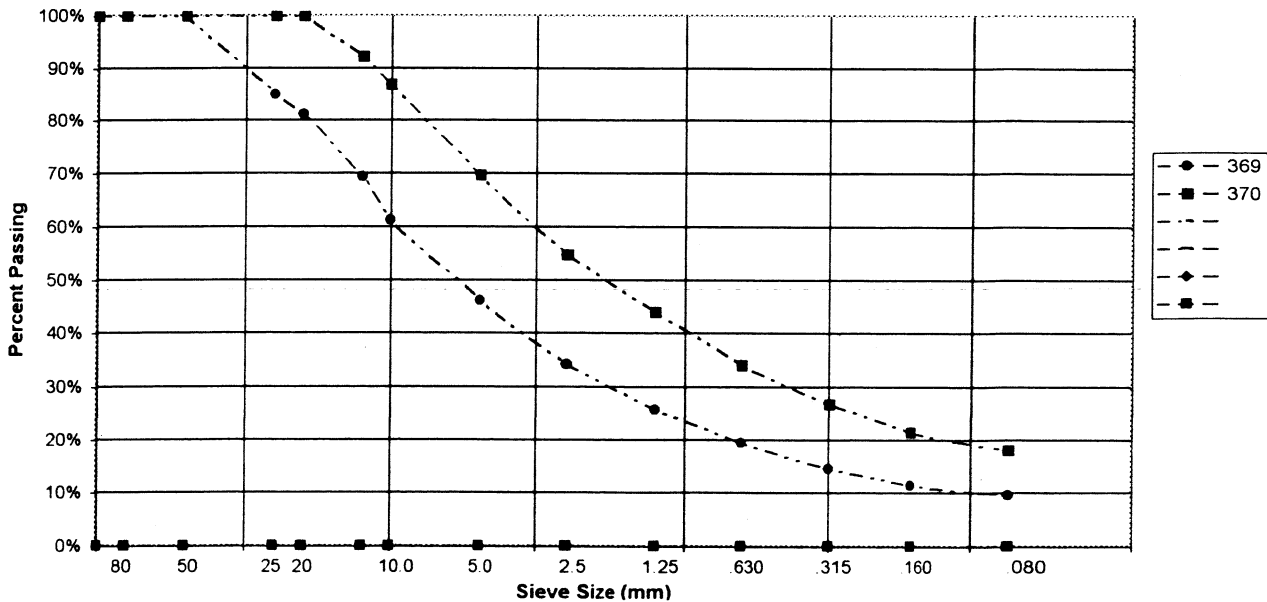
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 642866-6768025
 LOGGED BY: RW

HOLE No.: 30006

DATE COMP: 08/18/2004

FIELD NO:	369	370			
LAB NO:	369	370			
DEPTH:	0.3-0.9	1.8-2.4			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	85%	100%			
20.0	81%	100%			
12.5	69%	92%			
10.0	61%	87%			
5.0	46%	70%			
2.5	34%	55%			
1.25	26%	44%			
0.630	20%	34%			
0.315	15%	27%			
0.160	11%	22%			
0.080	10%	18%			
M.C.(%)	3%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	54	30			
% SAND:	37	52			
% FINES:	10	18			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH GRAVEL (SM)			

Grain Size Analysis (Percent Passing vs Grain Size)





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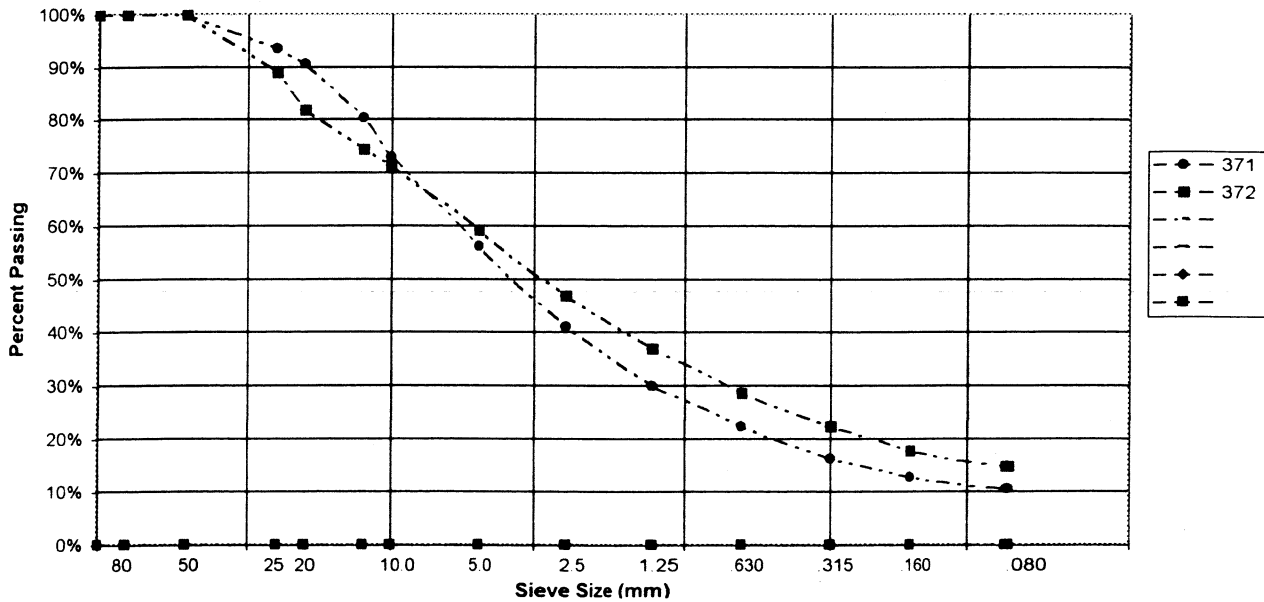
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 642664-6768030
 LOGGED BY: RW

HOLE No.: 30007

DATE COMP: 08/18/2004

FIELD NO:	371	372			
LAB NO:	371	372			
DEPTH:	0.3-0.9	1.8-2.4			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	94%	89%			
20.0	91%	82%			
12.5	80%	74%			
10.0	73%	71%			
5.0	56%	59%			
2.5	41%	47%			
1.25	30%	37%			
0.630	22%	29%			
0.315	16%	22%			
0.160	13%	18%			
0.080	11%	15%			
M.C.(%)	2%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	44	41			
% SAND:	46	44			
% FINES:	11	15			
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILTY SAND WITH GRAVEL (SM)			

Grain Size Analysis (Percent Passing vs Grain Size)





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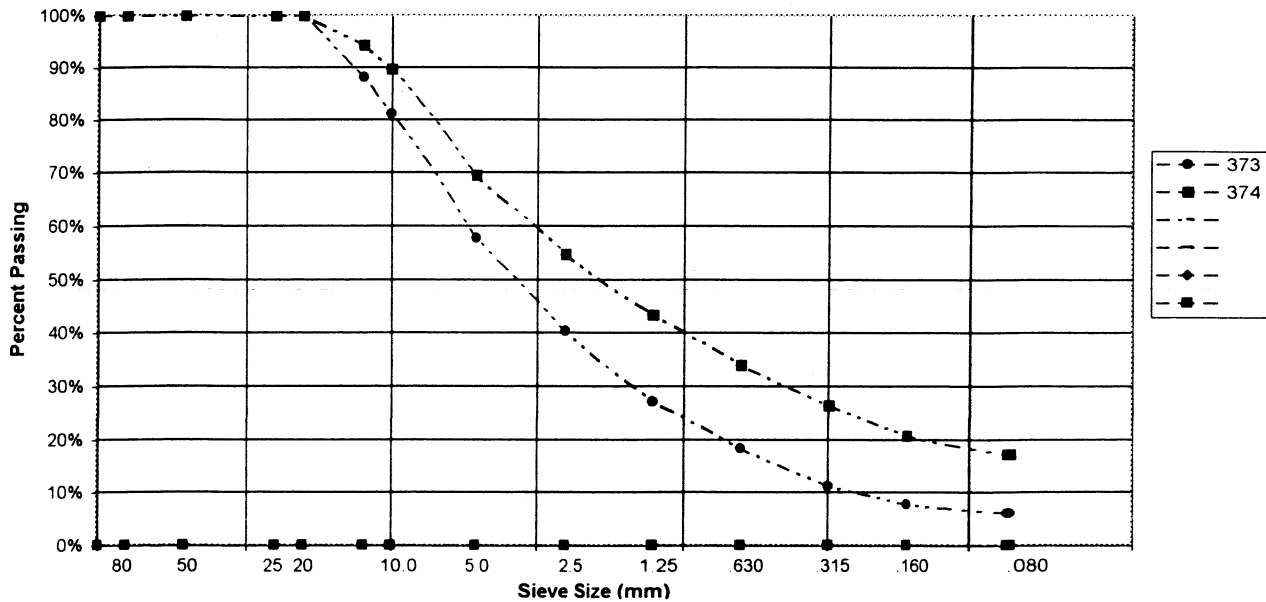
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 642463-6768033
 LOGGED BY: RW

HOLE No.: 30008

DATE COMP: 08/18/2004

FIELD NO:	373	374			
LAB NO:	373	374			
DEPTH:	0.3-0.9	1.8-2.4			
TYPE:	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	88%	94%			
10.0	81%	90%			
5.0	58%	70%			
2.5	40%	55%			
1.25	27%	43%			
0.630	18%	34%			
0.315	11%	26%			
0.160	8%	21%			
0.080	6%	17%			
M.C.(%)	2%	2%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	42	30			
% SAND:	52	52			
% FINES:	6	17			
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILTY SAND WITH GRAVEL (SM)			

Grain Size Analysis (Percent Passing vs Grain Size)



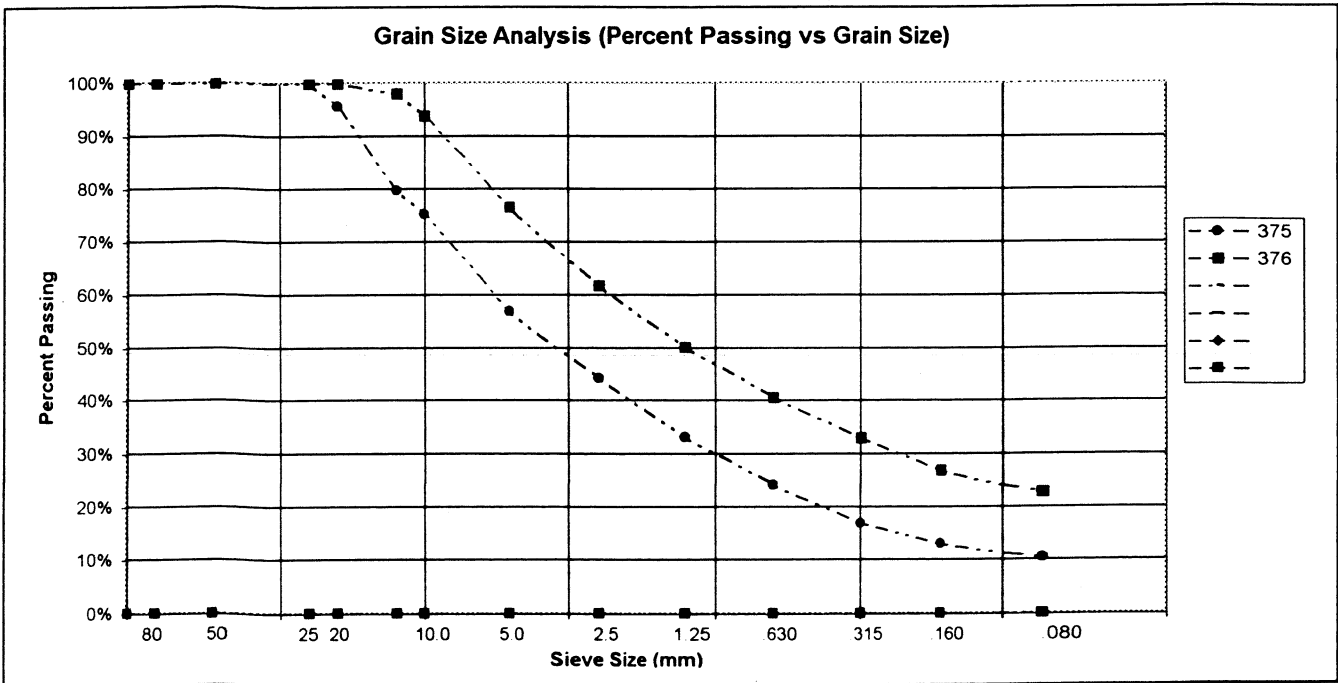


PROJECT NUMBER: 8002-318
CLIENT: YTG, Transportation & Engineering
PROJECT NAME: Geotechnical Services
PROJECT LOCATION: Km 1691.7-1717.3
DRILL UNIT: CME75
HOLE LOCATION: 642265-6768038
LOGGED BY: RW

HOLE No.: 30009

DATE COMP: 08/18/2004

Table with 7 columns: FIELD NO., LAB NO., DEPTH, TYPE, SIEVE SIZE, PERCENT PASSING, PERCENT PASSING. Rows include sieve sizes from 100.0 to 0.080, M.C.(%), LIQUID LIMIT, PLASTIC LIMIT, PLASTIC INDEX, % GRAVEL, % SAND, % FINES, and CLASSIFICATION.





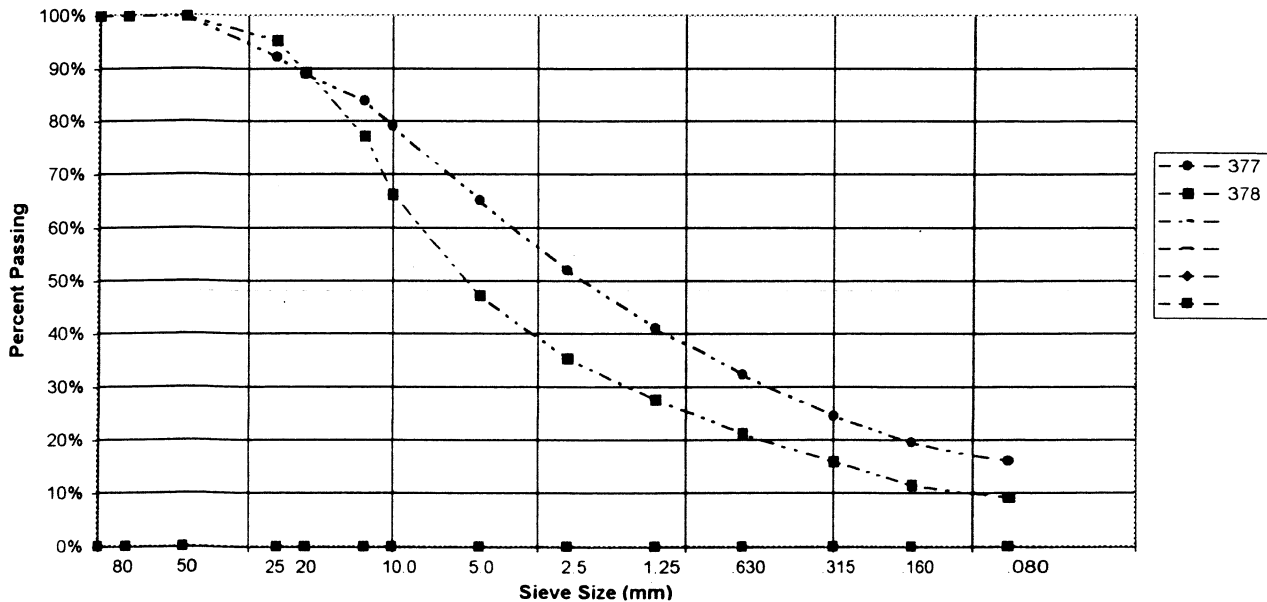
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 642066-6768040
 LOGGED BY: RW

HOLE No.: 30010

DATE COMP: 08/18/2004

FIELD NO:	377	378			
LAB NO:	377	378			
DEPTH:	0.3-0.9	2.1-2.7			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	92%	95%			
20.0	89%	89%			
12.5	84%	77%			
10.0	79%	66%			
5.0	65%	47%			
2.5	52%	35%			
1.25	41%	28%			
0.630	32%	21%			
0.315	25%	16%			
0.160	20%	12%			
0.080	16%	9%			
M.C.(%)	3%	2%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	35	53			
% SAND:	49	38			
% FINES:	16	9			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			

Grain Size Analysis (Percent Passing vs Grain Size)





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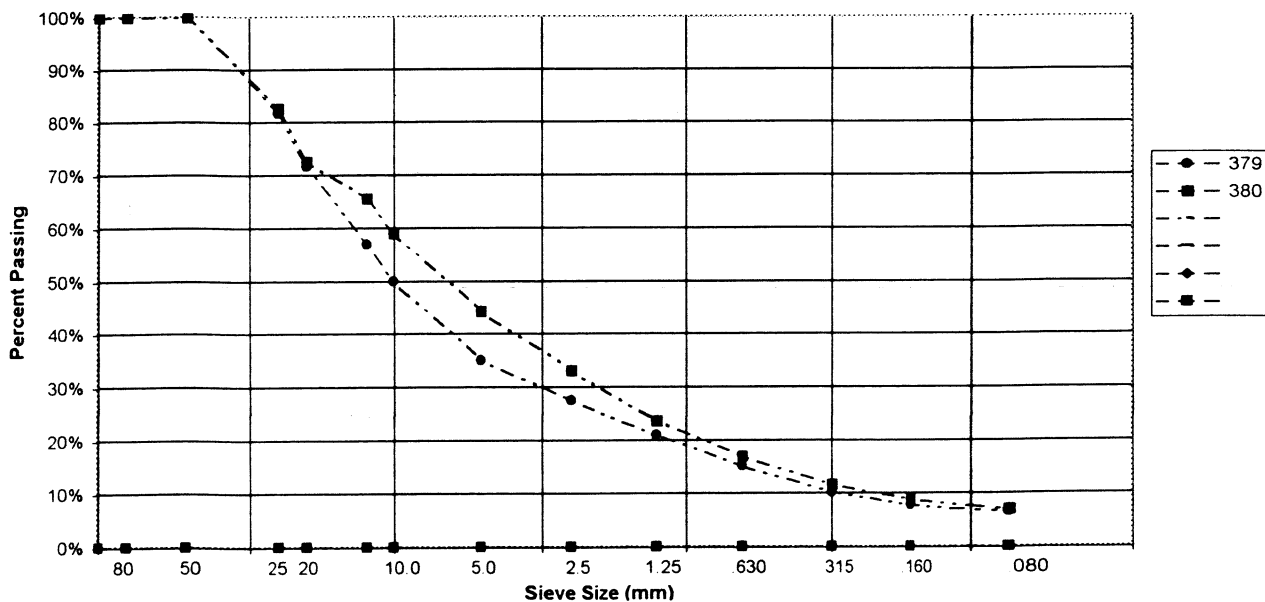
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 641865-6768044
 LOGGED BY: RW

HOLE No.: 30011

DATE COMP: 08/18/2004

FIELD NO:	379	380			
LAB NO:	379	380			
DEPTH:	0.3-0.9	2.1-2.7			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	82%	83%			
20.0	72%	73%			
12.5	57%	66%			
10.0	50%	59%			
5.0	35%	44%			
2.5	28%	33%			
1.25	21%	24%			
0.630	15%	17%			
0.315	10%	12%			
0.160	8%	9%			
0.080	7%	7%			
M.C.(%)	3%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	65	56			
% SAND:	28	37			
% FINES:	7	7			
CLASSIFICATION	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)			

Grain Size Analysis (Percent Passing vs Grain Size)





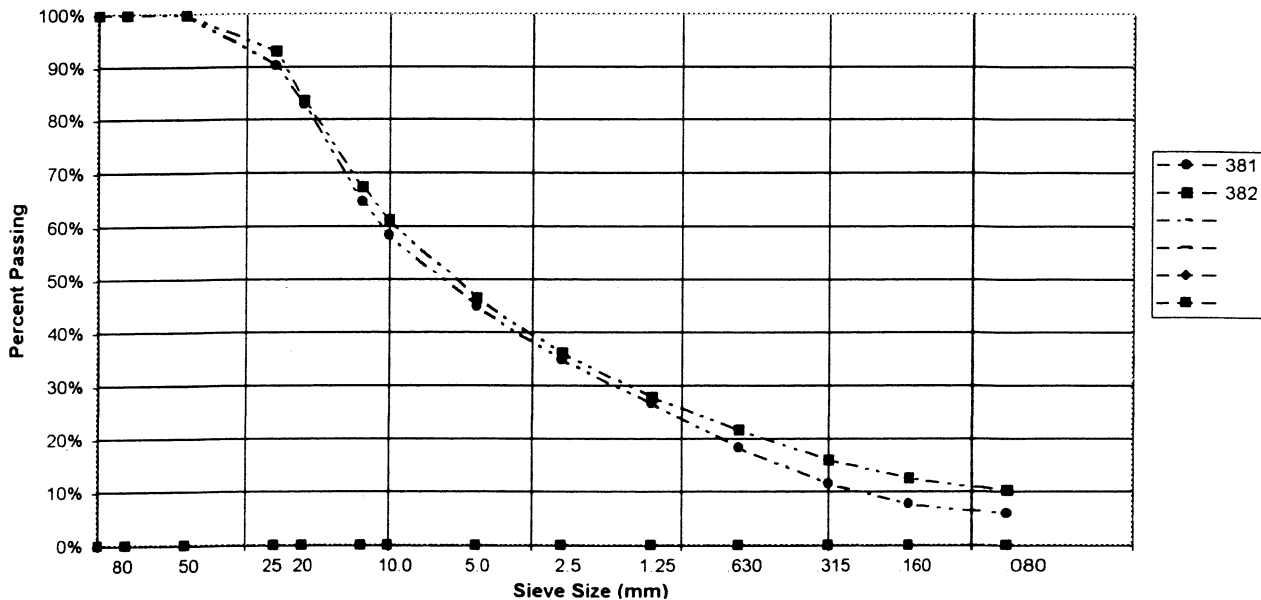
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 641666-6768049
 LOGGED BY: RW

HOLE No.: 30012

DATE COMP: 08/18/2004

FIELD NO:	381	382			
LAB NO:	381	382			
DEPTH:	0.3-0.9	1.8-2.4			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	90%	93%			
20.0	83%	84%			
12.5	65%	67%			
10.0	58%	61%			
5.0	45%	47%			
2.5	35%	36%			
1.25	27%	28%			
0.630	18%	22%			
0.315	12%	16%			
0.160	8%	13%			
0.080	6%	10%			
M.C.(%)	2%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	55	53			
% SAND:	39	36			
% FINES:	6	10			
CLASSIFICATION	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			

Grain Size Analysis (Percent Passing vs Grain Size)



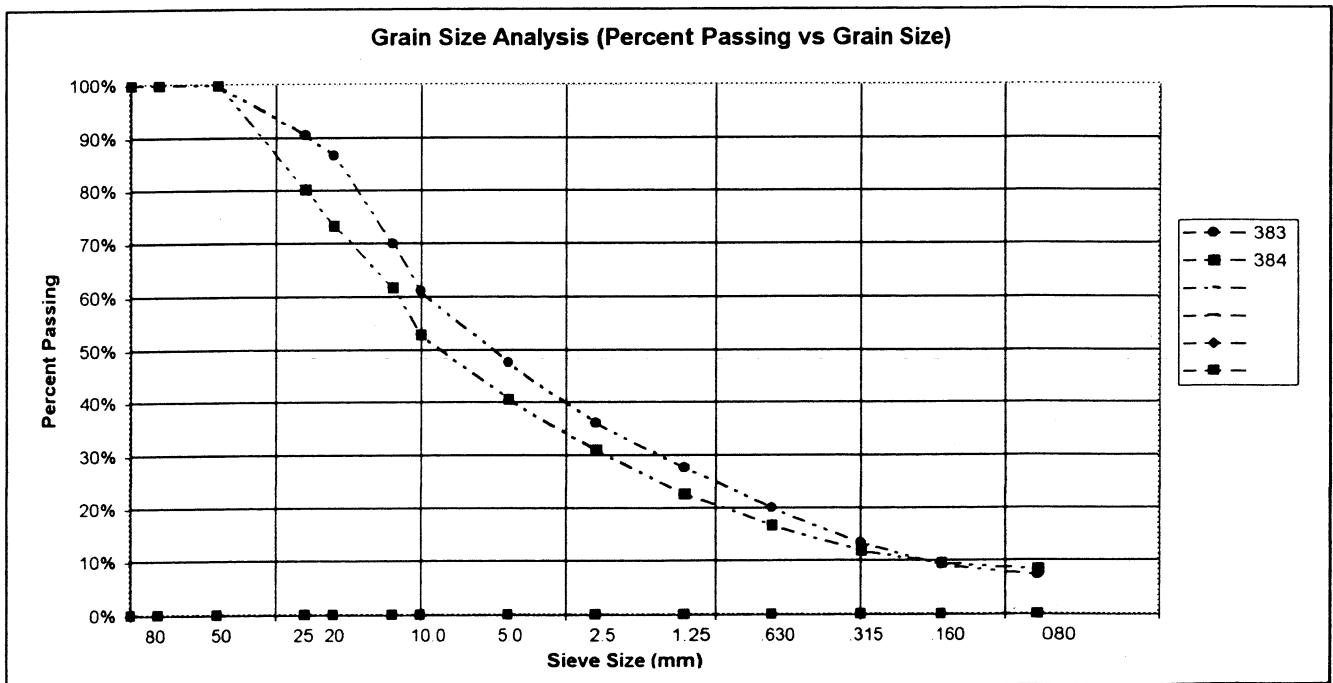


PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 641469-6768054
 LOGGED BY: RW

HOLE No.: 30013

DATE COMP: 08/18/2004

FIELD NO:	383	384			
LAB NO:	383	384			
DEPTH:	0.5-1.0	2.1-2.7			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	91%	80%			
20.0	87%	73%			
12.5	70%	62%			
10.0	61%	53%			
5.0	48%	41%			
2.5	36%	31%			
1.25	28%	23%			
0.630	20%	17%			
0.315	13%	12%			
0.160	9%	10%			
0.080	7%	8%			
M.C.(%)	2%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	52	59			
% SAND:	40	32			
% FINES:	7	8			
CLASSIFICATION	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)			





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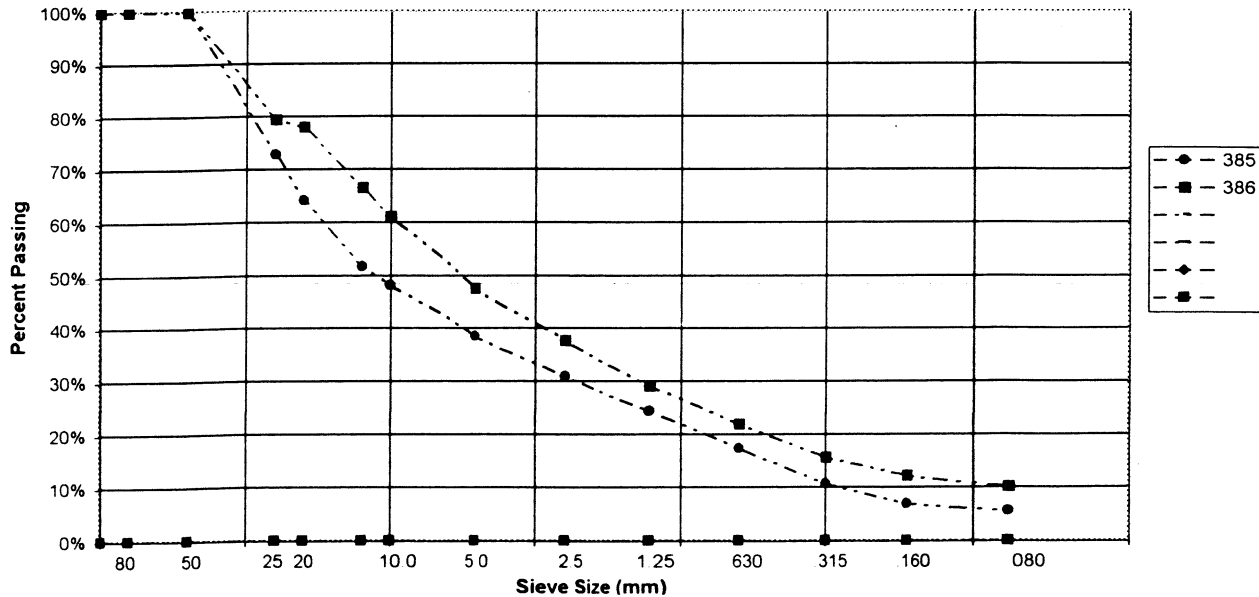
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 641287-6768036
 LOGGED BY: RW

HOLE No.: 30014

DATE COMP: 08/18/2004

FIELD NO:	385	386			
LAB NO:	385	386			
DEPTH:	0.3-0.9	1.8-2.4			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	73%	80%			
20.0	64%	78%			
12.5	52%	67%			
10.0	48%	61%			
5.0	39%	48%			
2.5	31%	38%			
1.25	24%	29%			
0.630	17%	22%			
0.315	11%	16%			
0.160	7%	12%			
0.080	6%	10%			
M.C.(%)	2%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	61	52			
% SAND:	33	37			
% FINES:	6	10			
CLASSIFICATION	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			

Grain Size Analysis (Percent Passing vs Grain Size)





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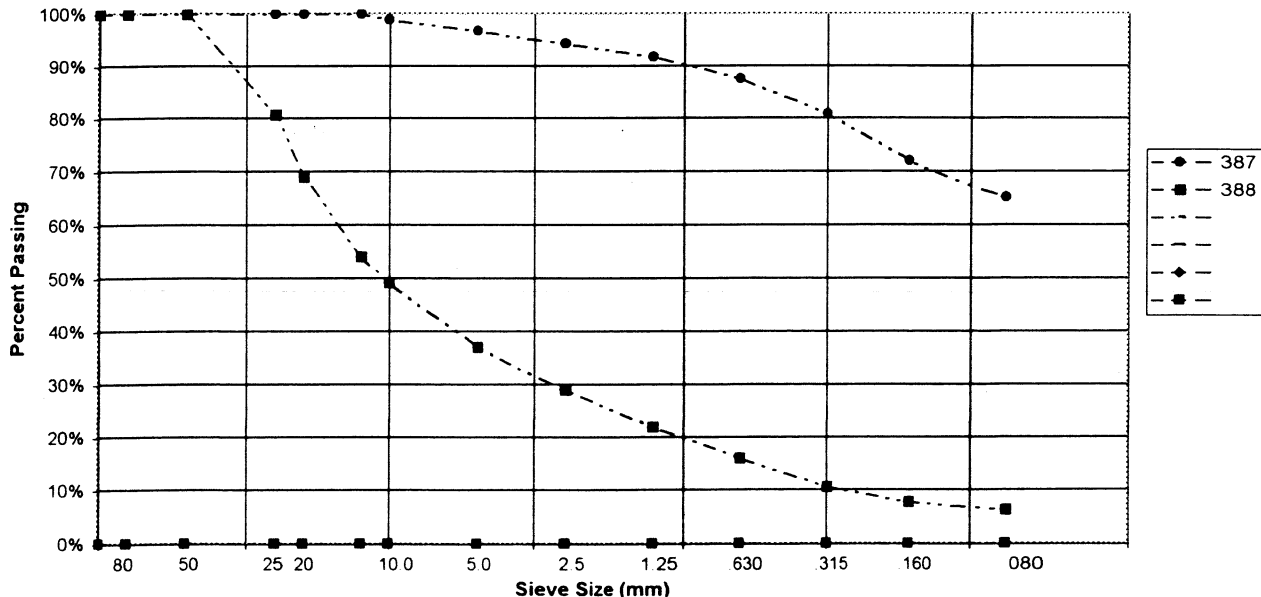
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 641051-6767939
 LOGGED BY: RW

HOLE No.: 30015

DATE COMP: 08/18/2004

FIELD NO:	387	388			
LAB NO:	387	388			
DEPTH:	0.3-0.8	1.8-2.4			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	100%	81%			
20.0	100%	69%			
12.5	100%	54%			
10.0	99%	49%			
5.0	97%	37%			
2.5	94%	29%			
1.25	92%	22%			
0.630	88%	16%			
0.315	81%	11%			
0.160	72%	8%			
0.080	65%	6%			
M.C.(%)	43%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	3	63			
% SAND:	32	31			
% FINES:	65	6			
CLASSIFICATION	SANDY SILT (ML)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)			

Grain Size Analysis (Percent Passing vs Grain Size)





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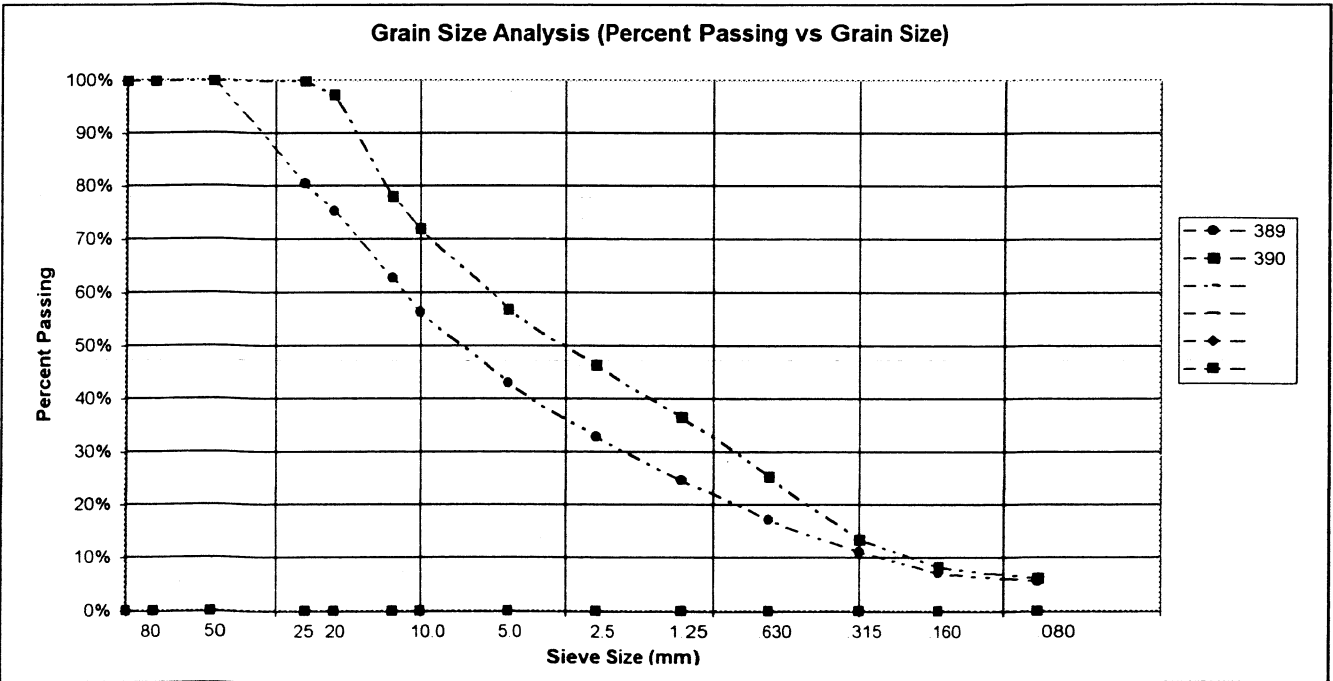


PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 641012-6767966
 LOGGED BY: RW

HOLE No.: 30016

DATE COMP: 08/18/2004

FIELD NO:	389	390			
LAB NO:	389	390			
DEPTH:	0.0-0.4	2.1-2.4			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	80%	100%			
20.0	75%	97%			
12.5	63%	78%			
10.0	56%	72%			
5.0	43%	57%			
2.5	33%	46%			
1.25	25%	37%			
0.630	17%	25%			
0.315	11%	13%			
0.160	7%	8%			
0.080	6%	6%			
M.C.(%)	3%	5%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	57	43			
% SAND:	37	50			
% FINES:	6	6			
CLASSIFICATION	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)			





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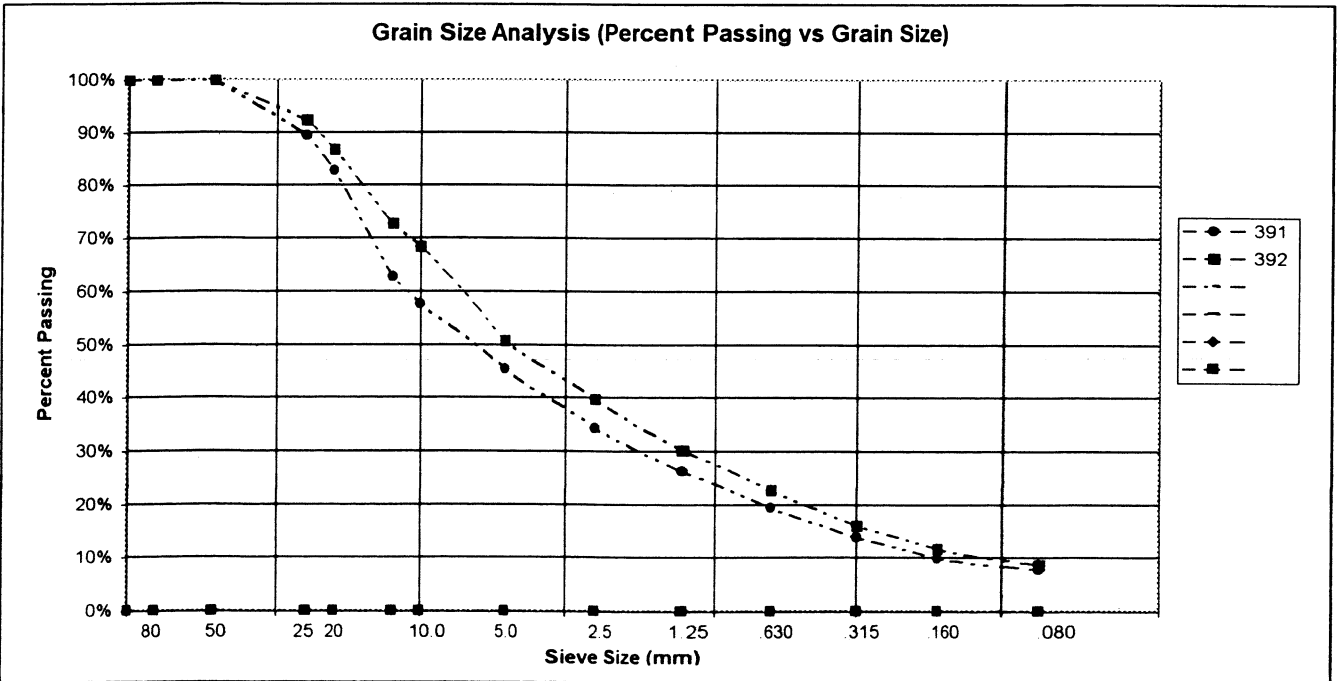


PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 640871-6767834
 LOGGED BY: RW

HOLE No.: 30017

DATE COMP: 08/18/2004

FIELD NO:	391	392			
LAB NO:	391	392			
DEPTH:	0.3-0.9	1.8-2.4			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	89%	92%			
20.0	83%	87%			
12.5	63%	73%			
10.0	58%	69%			
5.0	45%	51%			
2.5	34%	40%			
1.25	26%	30%			
0.630	19%	23%			
0.315	14%	16%			
0.160	10%	12%			
0.080	8%	9%			
M.C.(%)	2%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	55	49			
% SAND:	38	42			
% FINES:	8	9			
CLASSIFICATION	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			





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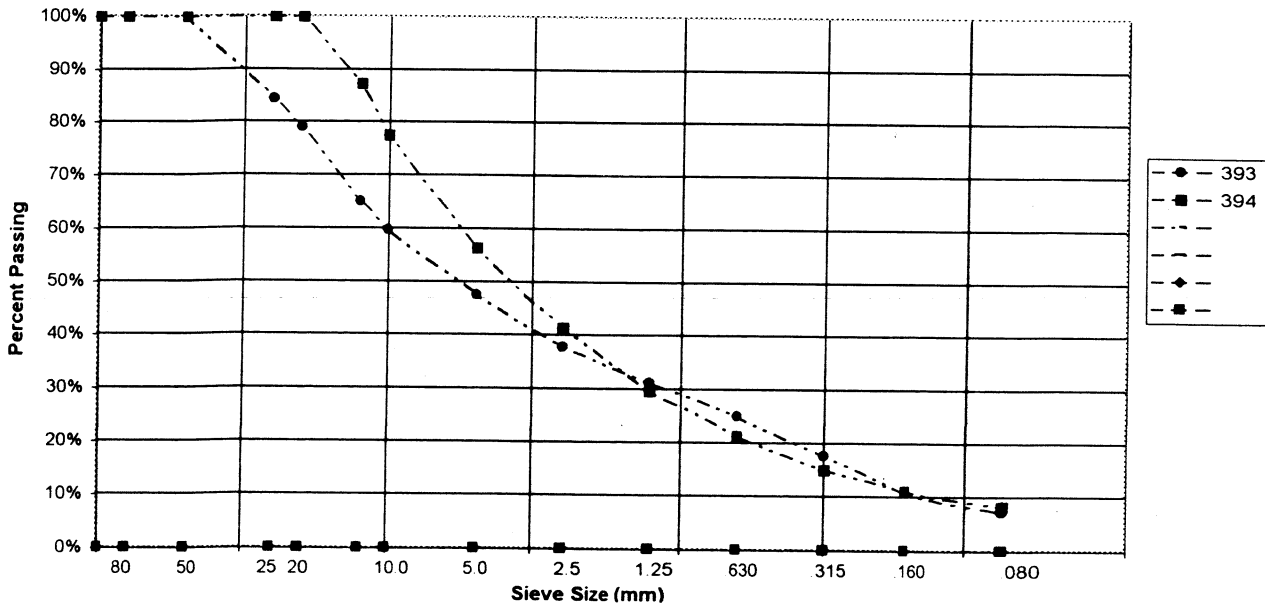
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PROJECT NUMBER: 8002-318 HOLE No.: 30018
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 640691-6767697
 LOGGED BY: RW DATE COMP: 08/18/2004

FIELD NO:	393	394			
LAB NO:	393	394			
DEPTH:	0.3-0.9	2.1-2.7			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	84%	100%			
20.0	79%	100%			
12.5	65%	87%			
10.0	60%	78%			
5.0	48%	56%			
2.5	38%	41%			
1.25	31%	30%			
0.630	25%	21%			
0.315	18%	15%			
0.160	11%	11%			
0.080	7%	8%			
M.C.(%)	1%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	52	44			
% SAND:	40	48			
% FINES:	7	8			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)			

Grain Size Analysis (Percent Passing vs Grain Size)





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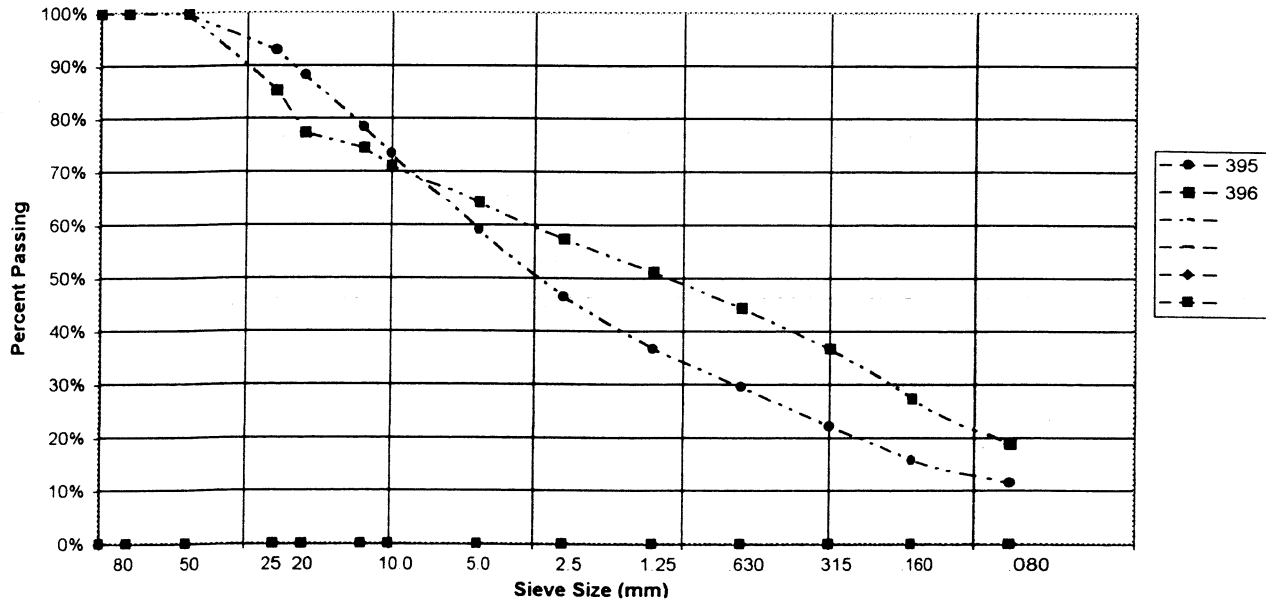
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 640524-6767579
 LOGGED BY: RW

HOLE No.: 30019

DATE COMP: 08/18/2004

FIELD NO:	395	396			
LAB NO:	395	396			
DEPTH:	0.3-0.9	2.1-2.7			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	93%	85%			
20.0	88%	77%			
12.5	78%	75%			
10.0	74%	71%			
5.0	59%	64%			
2.5	47%	57%			
1.25	37%	51%			
0.630	30%	44%			
0.315	22%	37%			
0.160	16%	27%			
0.080	12%	19%			
M.C.(%):	5%	8%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	41	36			
% SAND:	48	45			
% FINES:	12	19			
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILTY SAND WITH GRAVEL (SM)			

Grain Size Analysis (Percent Passing vs Grain Size)





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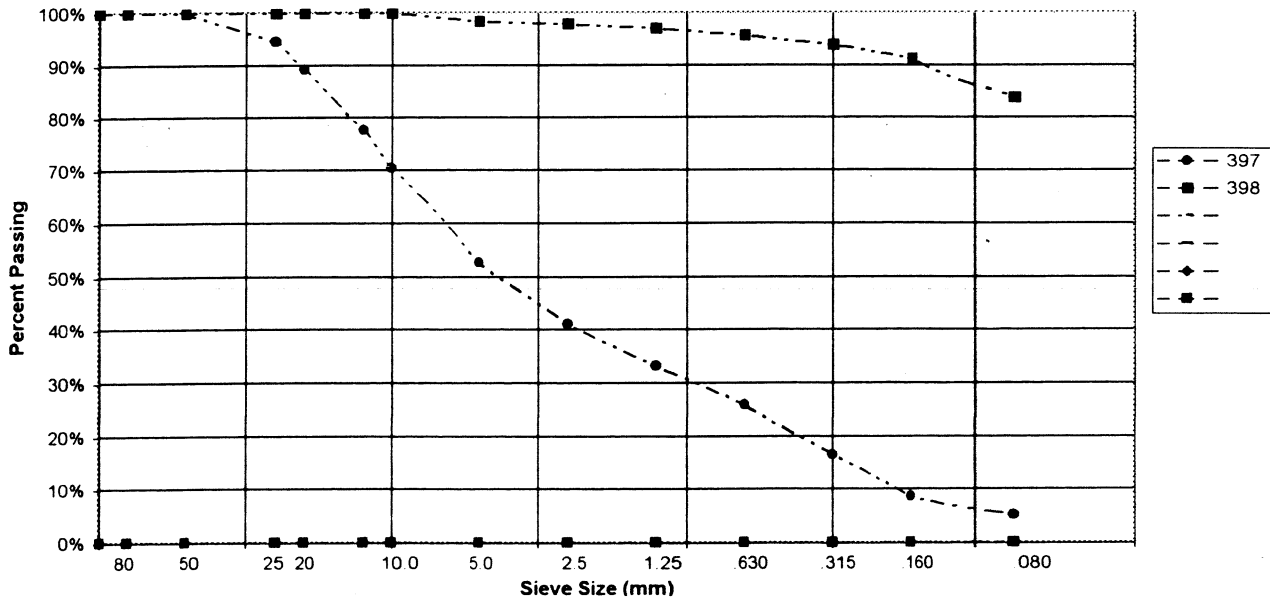
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 640351-6767452
 LOGGED BY: RW

HOLE No.: 30020

DATE COMP: 08/18/2004

FIELD NO:	397	398			
LAB NO:	397	398			
DEPTH:	0.3-0.9	1.8-2.4			
TYPE:	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	89%	100%			
12.5	78%	100%			
10.0	70%	100%			
5.0	53%	98%			
2.5	41%	98%			
1.25	33%	97%			
0.630	26%	96%			
0.315	17%	94%			
0.160	9%	91%			
0.080	5%	84%			
M.C.(%)	7%	38%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	47	2			
% SAND:	48	14			
% FINES:	5	84			
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILT WITH SAND (ML)			

Grain Size Analysis (Percent Passing vs Grain Size)



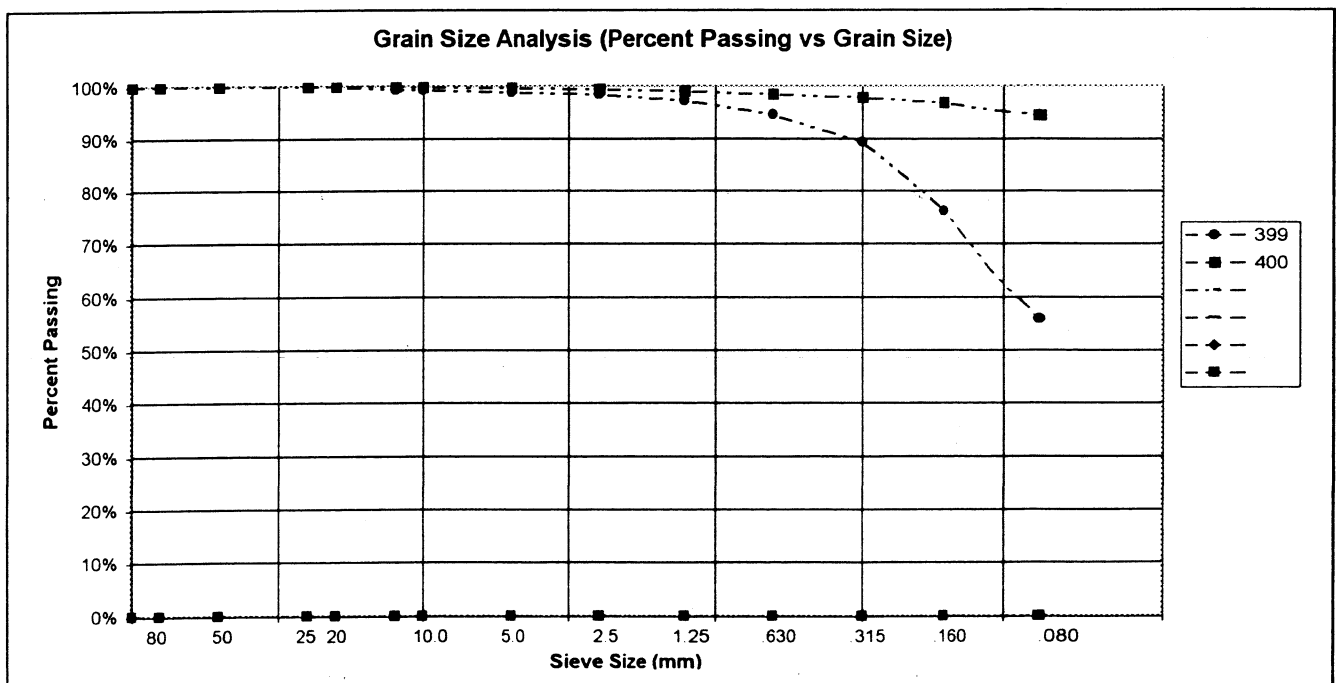


PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 640194-6767340
 LOGGED BY: RW

HOLE No.: 30021

DATE COMP: 08/18/2004

FIELD NO:	399	400			
LAB NO:	399	400			
DEPTH:	0.3-0.9	2.1-2.7			
TYPE:	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	99%	100%			
10.0	99%	100%			
5.0	99%	100%			
2.5	99%	100%			
1.25	97%	99%			
0.630	95%	99%			
0.315	89%	98%			
0.160	76%	97%			
0.080	56%	95%			
M.C.(%):	35%	38%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	1	0			
% SAND:	43	5			
% FINES:	56	95			
CLASSIFICATION	SANDY SILT (ML)	SILT (ML)			





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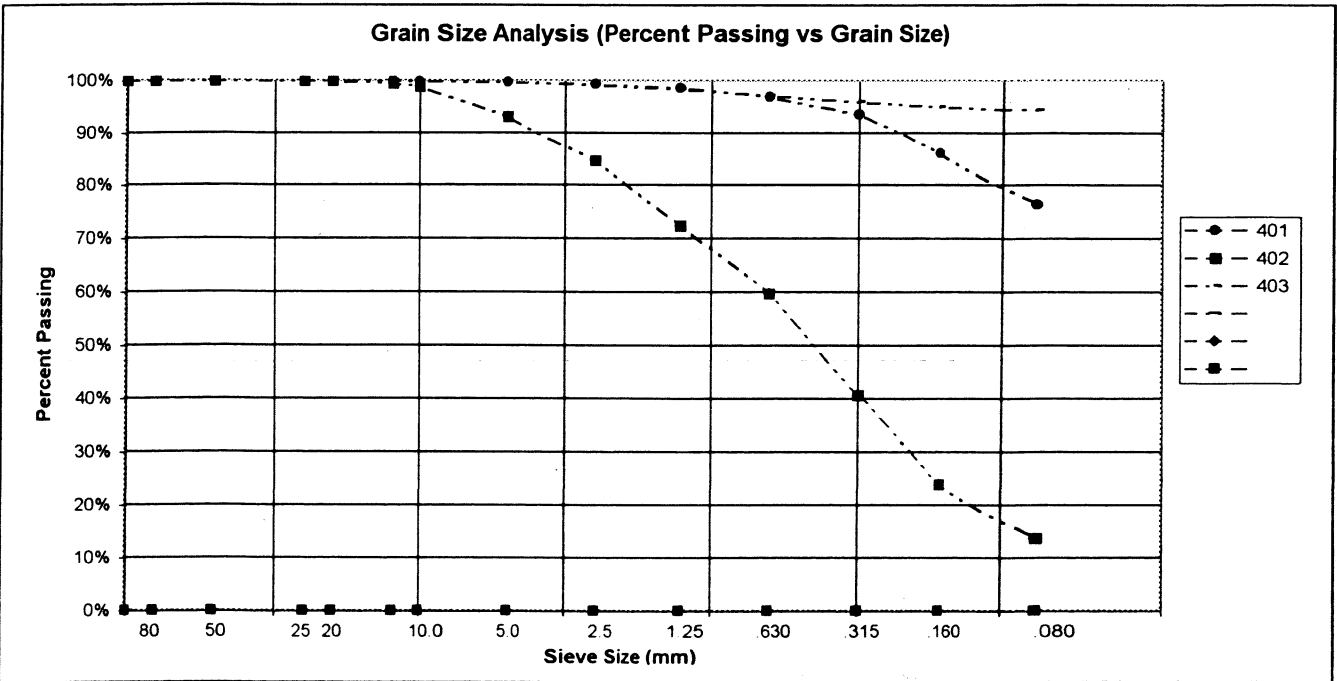


PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 640041-6767232
 LOGGED BY: RW

HOLE No.: 30022

DATE COMP: 08/18/2004

FIELD NO:	401	402	403		
LAB NO:	401	402	403		
DEPTH:	0.5-1.0	1.5-2.1	2.6-2.9		
TYPE:	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	100%	100%	100%		
20.0	100%	100%	100%		
12.5	100%	100%	100%		
10.0	100%	99%	100%		
5.0	100%	93%	100%		
2.5	99%	85%	99%		
1.25	99%	72%	98%		
0.630	97%	60%	97%		
0.315	94%	41%	96%		
0.160	86%	24%	95%		
0.080	76%	14%	94%		
M.C.(%)	30%	14%	40%		
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	7	0		
% SAND:	23	79	5		
% FINES:	76	14	94		
CLASSIFICATION	SILT WITH SAND (ML)	SILTY SAND (SM)	SILT (ML)		





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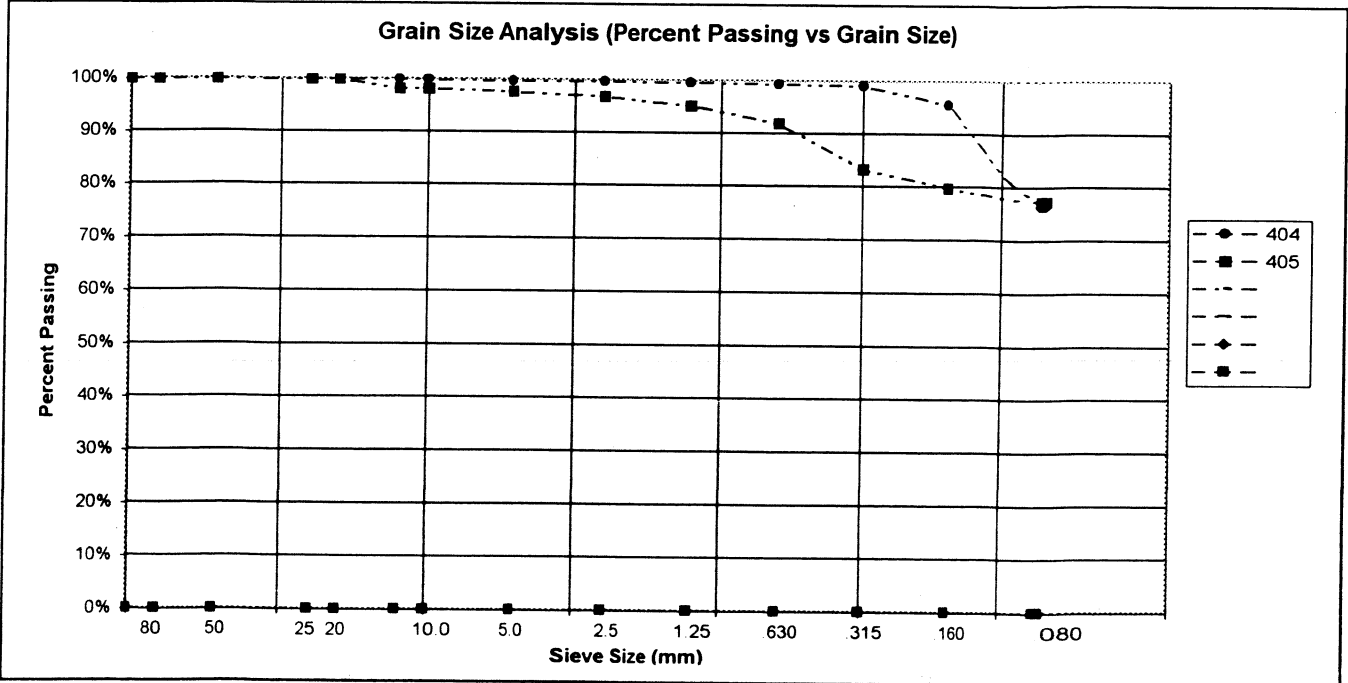


PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 639890-6767125
 LOGGED BY: RW

HOLE No.: 30023

DATE COMP: 08/18/2004

FIELD NO:	404	405			
LAB NO:	404	405			
DEPTH:	0.3-0.9	1.2-1.8			
TYPE:	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%	98%			
10.0	100%	98%			
5.0	100%	98%			
2.5	100%	97%			
1.25	100%	95%			
0.630	99%	92%			
0.315	99%	83%			
0.160	95%	80%			
0.080	76%	77%			
M.C.(%)	29%	35%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	0	2			
% SAND:	23	20			
% FINES:	76	77			
CLASSIFICATION	SILT WITH SAND (ML)	SILT WITH SAND (ML)			





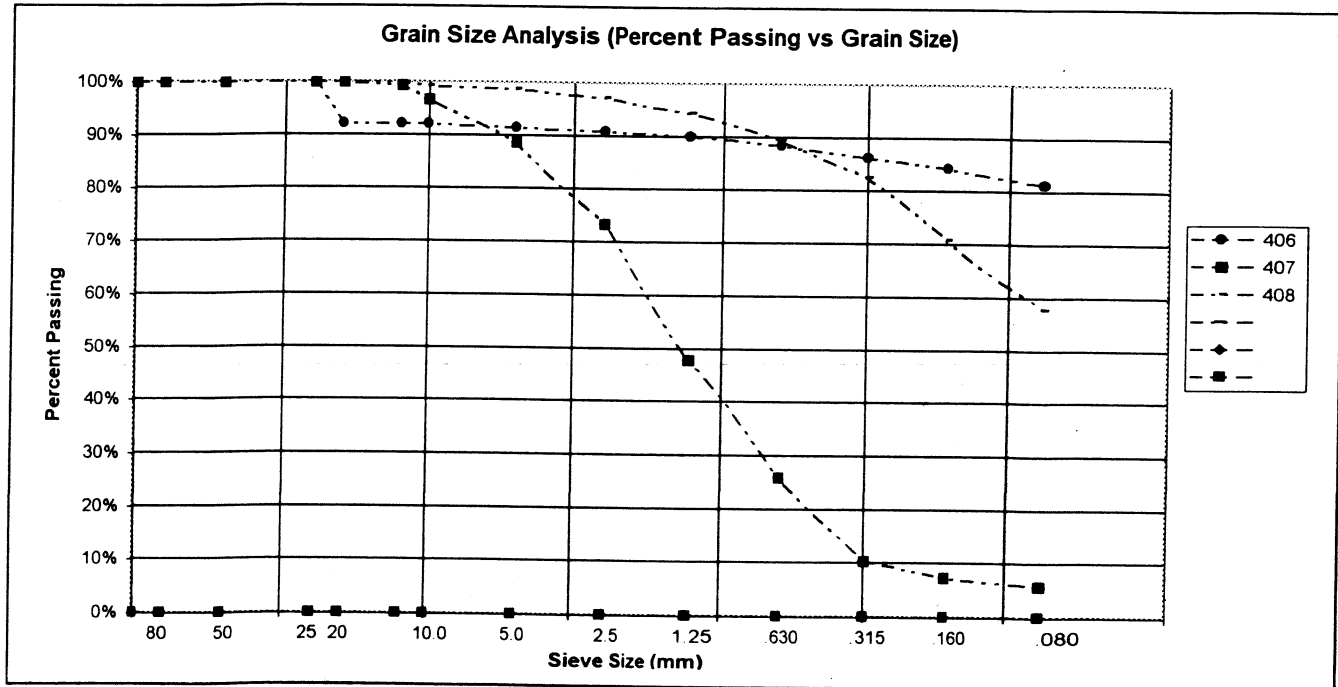
HOGGAN ENGINEERING & TESTING (1980) LTD.

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PROJECT NUMBER: 8002-318 HOLE No.: 30024
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 639688-6766983
 LOGGED BY: RW DATE COMP: 08/18/2004

FIELD NO:	406	407	408		
LAB NO:	406	407	408		
DEPTH:	0.3-0.9	1.5-2.1	2.1-2.7		
TYPE:	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	92%	100%	100%		
12.5	92%	99%	100%		
10.0	92%	97%	99%		
5.0	92%	89%	99%		
2.5	91%	73%	97%		
1.25	90%	48%	94%		
0.630	88%	26%	89%		
0.315	85%	10%	83%		
0.160	84%	7%	71%		
0.080	81%	6%	58%		
M.C.(%)	37%	13%	28%		
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:	8	11	1		
% SAND:	10	83	41		
% FINES:	81	6	58		
CLASSIFICATION	SILT WITH SAND (ML)	WELL-GRADED SAND WITH SILT (SW-SM)	SANDY SILT (ML)		





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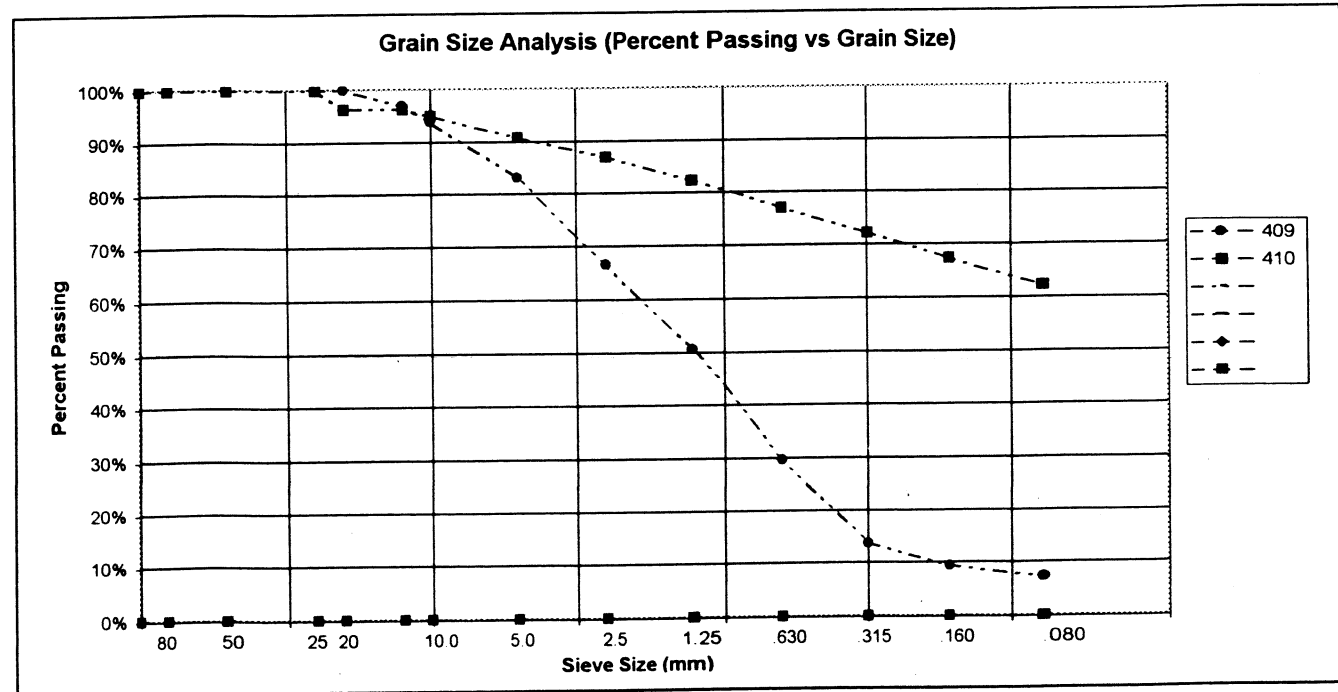


PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 639558-6766885
 LOGGED BY: RW

HOLE No.: 30025

DATE COMP: 08/18/2004

FIELD NO:	409	410			
LAB NO:	409	410			
DEPTH:	0.3-0.9	1.8-2.4			
TYPE:	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%	96%			
12.5	97%	96%			
10.0	94%	95%			
5.0	83%	91%			
2.5	67%	87%			
1.25	51%	82%			
0.630	30%	77%			
0.315	14%	72%			
0.160	9%	68%			
0.080	7%	62%			
M.C.(%):	2%	26%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	17	9			
% SAND:	76	28			
% FINES:	7	62			
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SANDY SILT (ML)			





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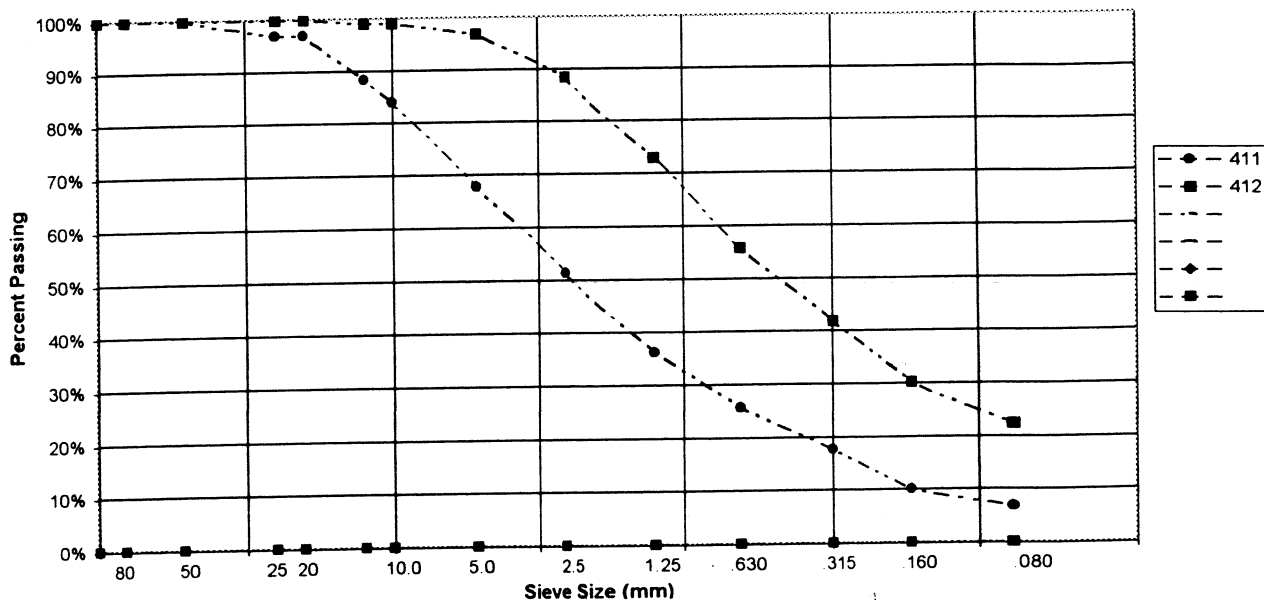
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 639356-6766769
 LOGGED BY: RW

HOLE No.: 30026

DATE COMP: 08/18/2004

FIELD NO:	411	412			
LAB NO:	411	412			
DEPTH:	0.3-0.9	2.1-2.7			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	97%	100%			
20.0	97%	100%			
12.5	88%	99%			
10.0	84%	99%			
5.0	68%	97%			
2.5	51%	89%			
1.25	36%	73%			
0.630	26%	56%			
0.315	18%	42%			
0.160	10%	30%			
0.080	7%	23%			
M.C.(%)	2%	4%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	32	3			
% SAND:	61	74			
% FINES:	7	23			
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILTY SAND (SM)			

Grain Size Analysis (Percent Passing vs Grain Size)





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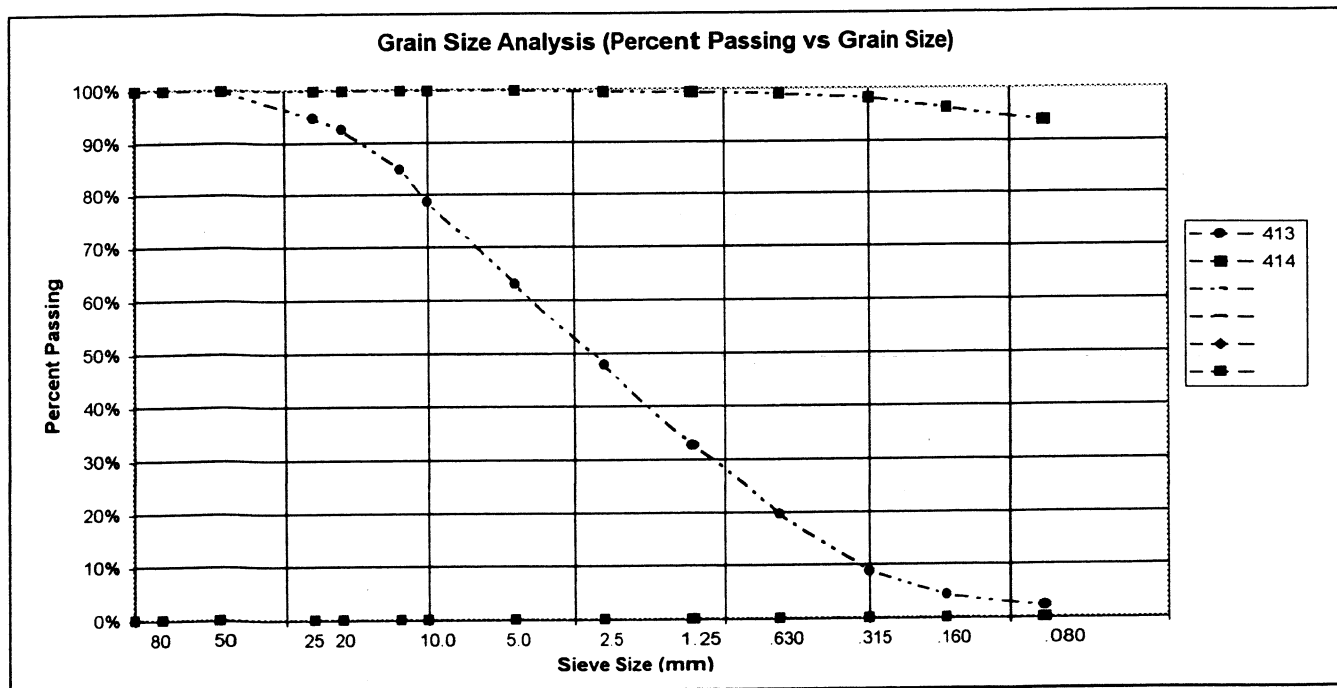


PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 639213-6766735
 LOGGED BY: RW

HOLE No.: 30027

DATE COMP: 08/19/2004

FIELD NO:	413	414			
LAB NO:	413	414			
DEPTH:	0.1-0.6	1.8-2.4			
TYPE:	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	93%	100%			
12.5	85%	100%			
10.0	79%	100%			
5.0	63%	100%			
2.5	48%	100%			
1.25	33%	99%			
0.630	20%	99%			
0.315	9%	98%			
0.160	4%	96%			
0.080	2%	94%			
M.C.(%):	9%	39%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	37	0			
% SAND:	61	6			
% FINES:	2	94			
CLASSIFICATION	WELL-GRADED SAND WITH GRAVEL (SW)	SILT (ML)			





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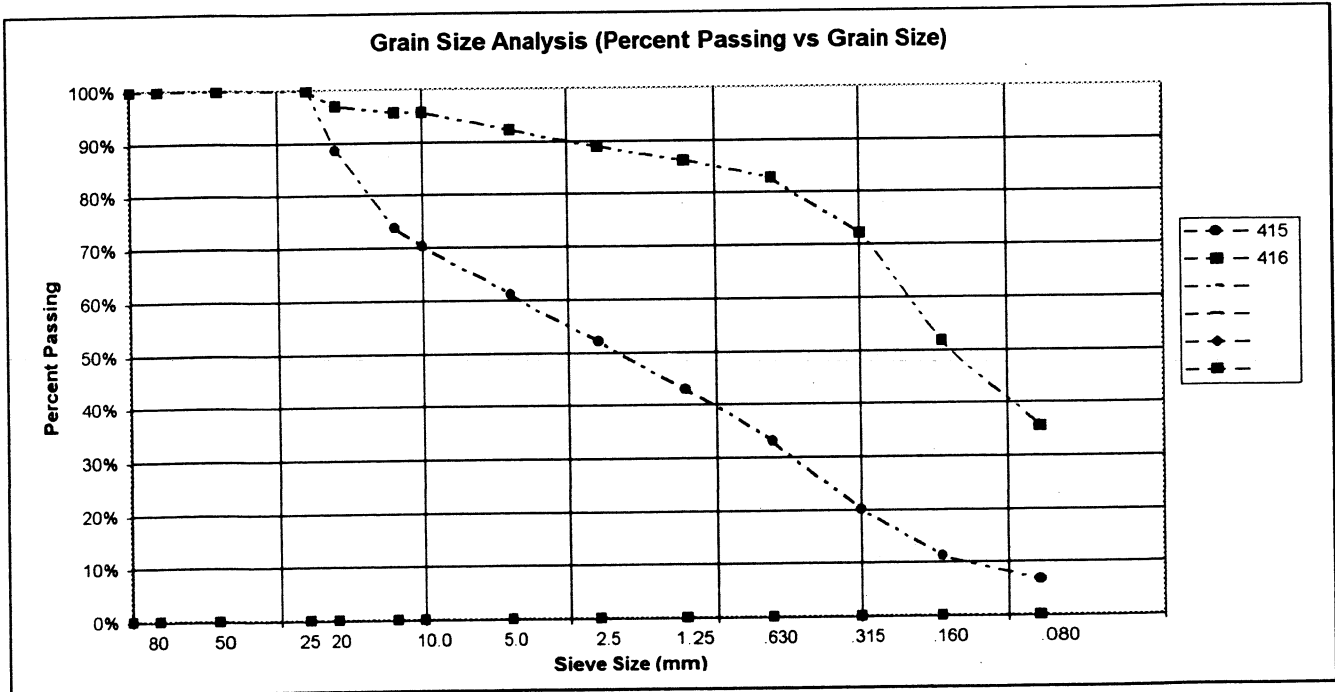


PROJECT NUMBER: 8002-318
CLIENT: YTG, Transportation & Engineering
PROJECT NAME: Geotechnical Services
PROJECT LOCATION: Km 1691.7-1717.3
DRILL UNIT: CME75
HOLE LOCATION: 639229-6766708
LOGGED BY: RW

HOLE No.: 30028

DATE COMP: 08/19/2004

FIELD NO:	415	416			
LAB NO:	415	416			
DEPTH:	0.3-0.9	2.4-3.0			
TYPE:	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	89%	97%			
12.5	74%	96%			
10.0	70%	96%			
5.0	61%	92%			
2.5	52%	89%			
1.25	43%	86%			
0.630	33%	83%			
0.315	20%	72%			
0.160	11%	52%			
0.080	7%	36%			
M.C.(%):	9%	18%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	39	8			
% SAND:	54	57			
% FINES:	7	36			
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILTY SAND (SM)			





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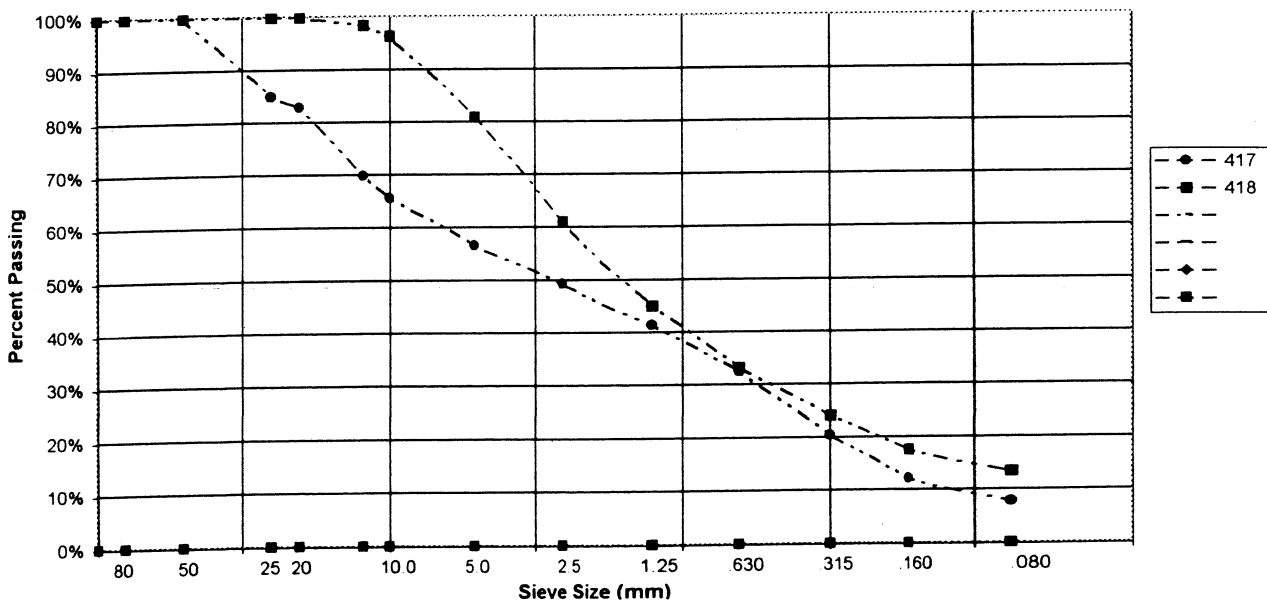
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 639106-6766653
 LOGGED BY: RW

HOLE No.: 30029

DATE COMP: 08/19/2004

FIELD NO:	417	418			
LAB NO:	417	418			
DEPTH:	0.3-0.9	2.4-2.9			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	85%	100%			
20.0	83%	100%			
12.5	70%	98%			
10.0	66%	96%			
5.0	57%	81%			
2.5	49%	61%			
1.25	41%	45%			
0.630	32%	33%			
0.315	20%	24%			
0.160	12%	18%			
0.080	8%	14%			
M.C.(%)	4%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	43	19			
% SAND:	49	67			
% FINES:	8	14			
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILTY SAND WITH GRAVEL (SM)			

Grain Size Analysis (Percent Passing vs Grain Size)





HOGGAN ENGINEERING & TESTING (1980) LTD.

An Affiliate of J. R. Payne & Associates Ltd.

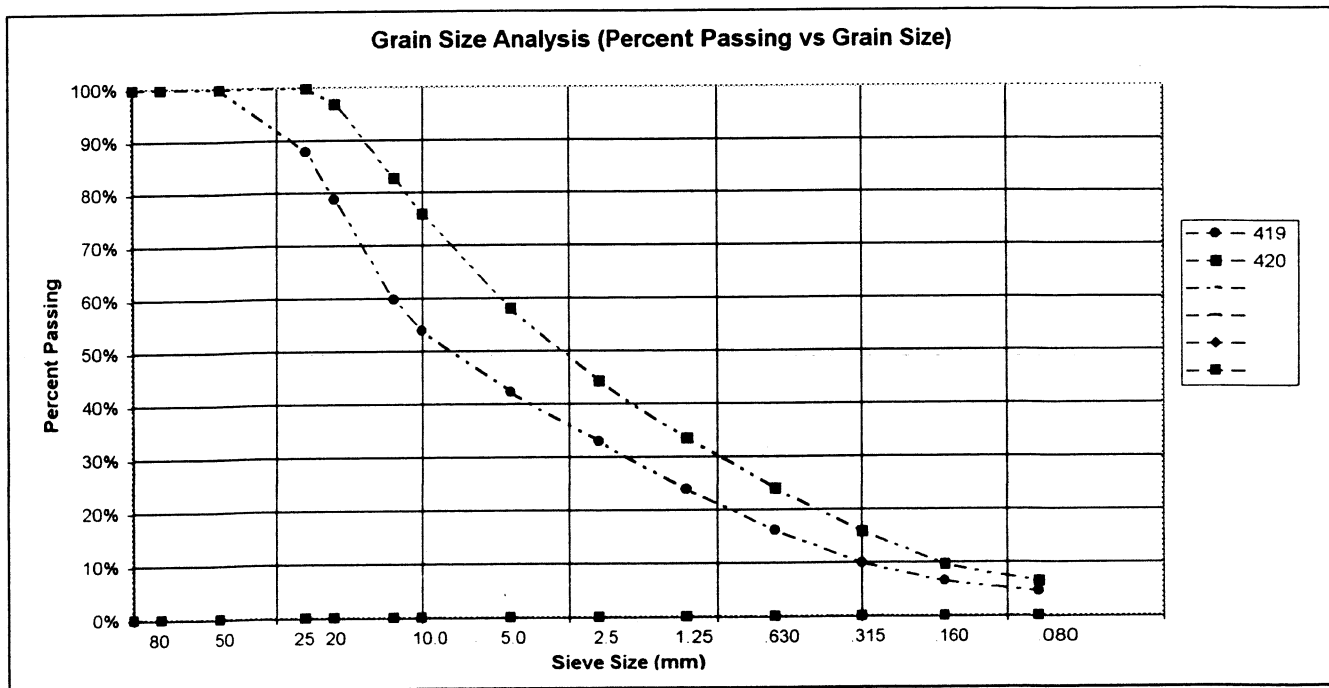


PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 638909-6766547
 LOGGED BY: RW

HOLE No.: 30030

DATE COMP: 08/19/2004

FIELD NO:	419	420			
LAB NO:	419	420			
DEPTH:	0.3-0.9	1.8-2.4			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	88%	100%			
20.0	79%	97%			
12.5	60%	83%			
10.0	54%	76%			
5.0	42%	58%			
2.5	33%	44%			
1.25	24%	34%			
0.630	16%	24%			
0.315	10%	16%			
0.160	7%	10%			
0.080	5%	7%			
M.C.(%)	4%	8%			
LIQUID LIMIT	0.0	0.0			
PLASTIC LIMIT	0.0	0.0			
PLASTIC INDEX	0.0	0.0			
% GRAVEL	58	42			
% SAND	38	52			
% FINES	5	7			
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)			





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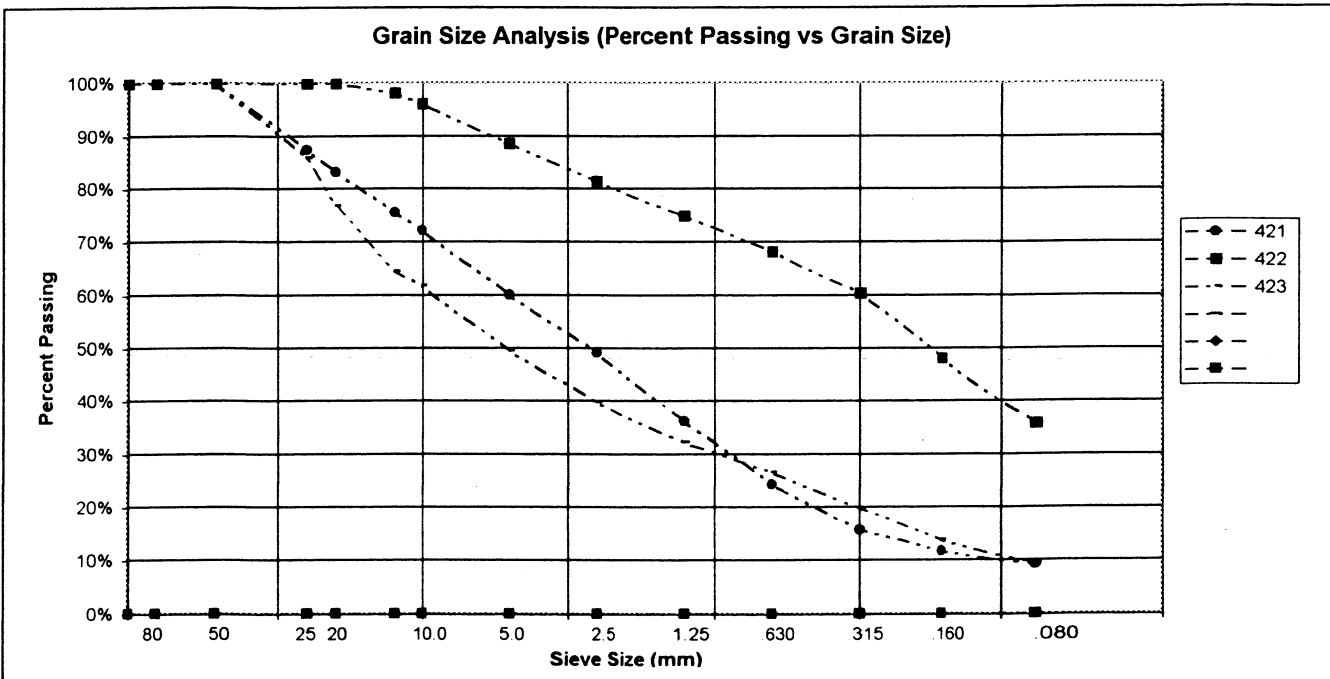


PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 638926-6766525
 LOGGED BY: RW

HOLE No.: 30031

DATE COMP: 08/19/2004

FIELD NO:	421	422	423		
LAB NO:	421	422	423		
DEPTH:	0.3-0.9	1.2-1.5	2.4-2.9		
TYPE:	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%	86%		
20.0	83%	100%	77%		
12.5	76%	98%	64%		
10.0	72%	96%	62%		
5.0	60%	89%	49%		
2.5	49%	81%	40%		
1.25	36%	75%	32%		
0.630	24%	68%	27%		
0.315	16%	60%	20%		
0.160	12%	48%	14%		
0.080	9%	36%	10%		
M.C.(%)	4%	25%	5%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	40	11	51		
% SAND:	51	53	40		
% FINES:	9	36	10		
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILTY SAND (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		





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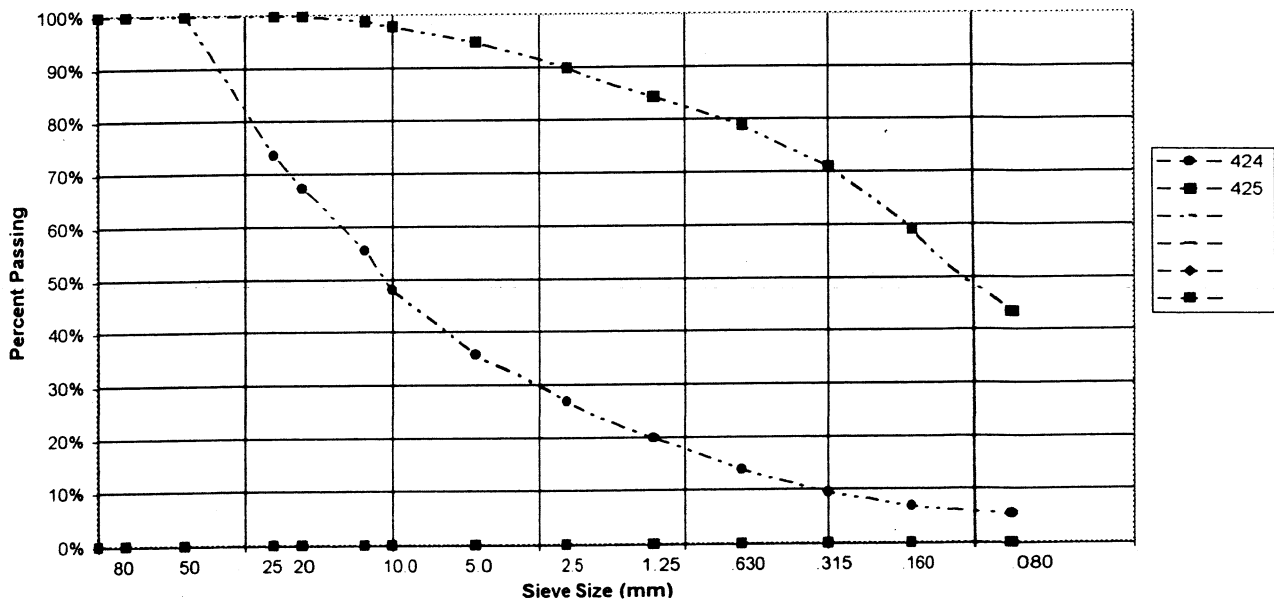
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 638808-6766403
 LOGGED BY: RW

HOLE No.: 30032

DATE COMP: 08/19/2004

FIELD NO:	424	425			
LAB NO:	424	425			
DEPTH:	0.3-0.9	2.4-3.0			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	74%	100%			
20.0	67%	100%			
12.5	56%	99%			
10.0	48%	98%			
5.0	36%	95%			
2.5	27%	90%			
1.25	20%	84%			
0.630	14%	79%			
0.315	10%	71%			
0.160	7%	59%			
0.080	5%	44%			
M.C.(%)	2%	23%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	64	5			
% SAND:	30	51			
% FINES:	5	44			
CLASSIFICATION	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	SILTY SAND (SM)			

Grain Size Analysis (Percent Passing vs Grain Size)





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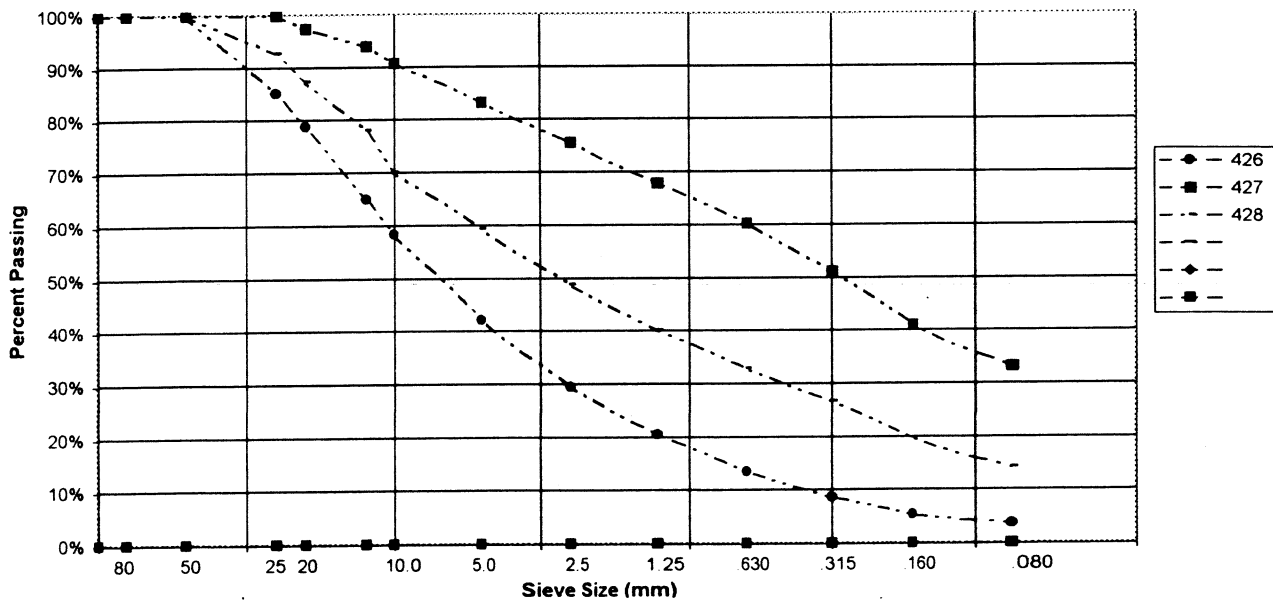
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 638653-6766235
 LOGGED BY: RW

HOLE No.: 30033

DATE COMP: 08/19/2004

FIELD NO:	426	427	428		
LAB NO:	426	427	428		
DEPTH:	0.3-0.9	1.5-2.1	2.1-2.7		
TYPE:	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%	100%	93%		
20.0	79%	97%	87%		
12.5	65%	94%	78%		
10.0	58%	91%	70%		
5.0	42%	83%	59%		
2.5	29%	76%	49%		
1.25	21%	68%	40%		
0.630	14%	60%	33%		
0.315	9%	51%	27%		
0.160	5%	41%	20%		
0.080	4%	33%	14%		
M.C.(%)	3%	23%	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:	58	17	41		
% SAND:	39	50	45		
% FINES:	4	33	14		
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		

Grain Size Analysis (Percent Passing vs Grain Size)





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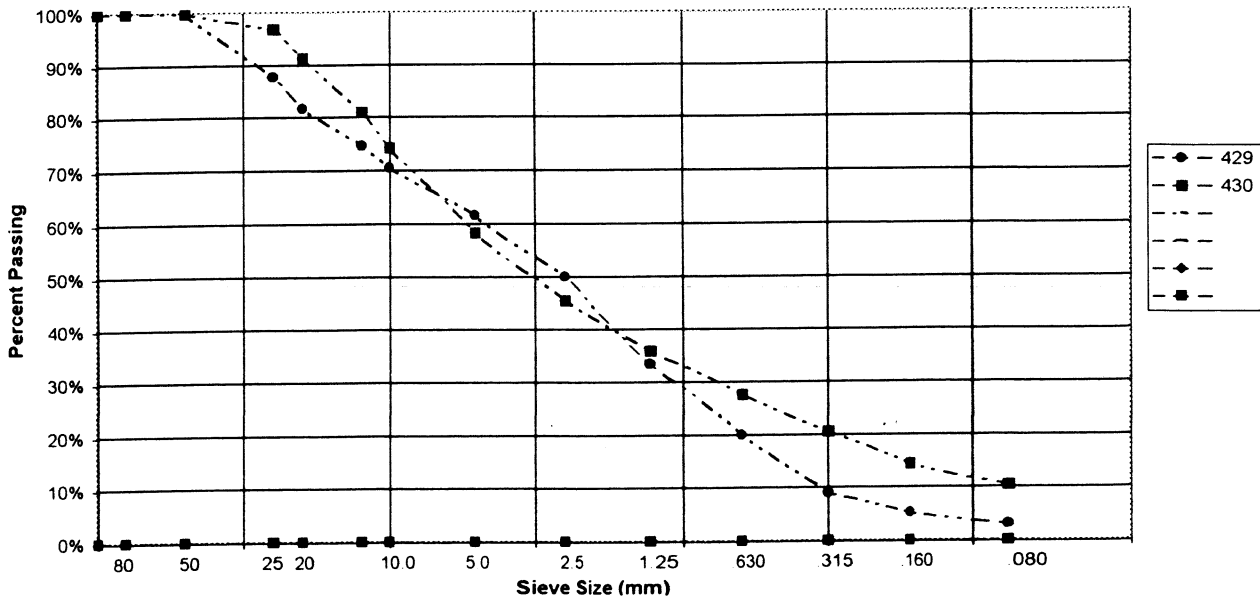
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 638452-6766172
 LOGGED BY: RW

HOLE No.: 30034

DATE COMP: 08/19/2004

FIELD NO:	429	430			
LAB NO:	429	430			
DEPTH:	0.3-0.9	1.8-2.4			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	88%	97%			
20.0	82%	91%			
12.5	75%	81%			
10.0	71%	74%			
5.0	62%	58%			
2.5	50%	46%			
1.25	33%	36%			
0.630	20%	28%			
0.315	9%	21%			
0.160	5%	15%			
0.080	3%	11%			
M.C.(%)	2%	8%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	38	42			
% SAND:	59	48			
% FINES:	3	11			
CLASSIFICATION	WELL-GRADED SAND WITH GRAVEL (SW)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)			

Grain Size Analysis (Percent Passing vs Grain Size)





HOGGAN ENGINEERING & TESTING (1980) LTD.

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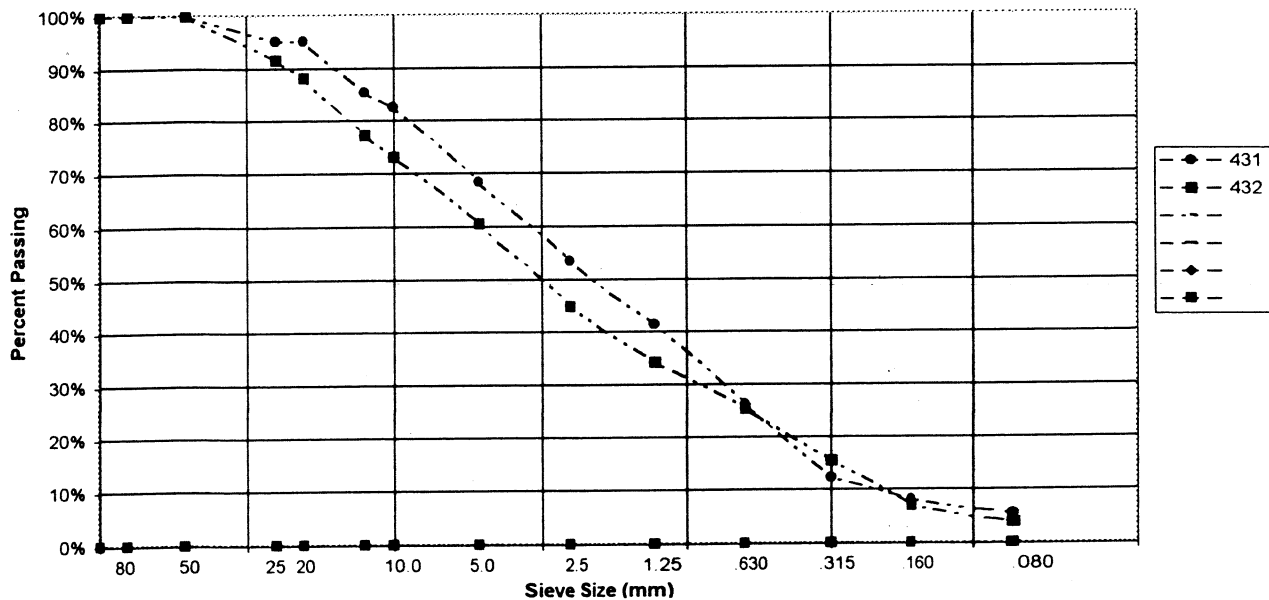
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 638287-6766094
 LOGGED BY: RW

HOLE No.: 30035

DATE COMP: 08/19/2004

FIELD NO:	431	432			
LAB NO:	431	432			
DEPTH:	0.3-0.9	2.1-2.7			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	95%	92%			
20.0	95%	88%			
12.5	85%	77%			
10.0	83%	73%			
5.0	68%	61%			
2.5	54%	45%			
1.25	41%	34%			
0.630	26%	25%			
0.315	12%	16%			
0.160	8%	7%			
0.080	6%	4%			
M.C.(%)	2%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	32	39			
% SAND:	63	57			
% FINES:	6	4			
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	WELL-GRADED SAND WITH GRAVEL (SW)			

Grain Size Analysis (Percent Passing vs Grain Size)





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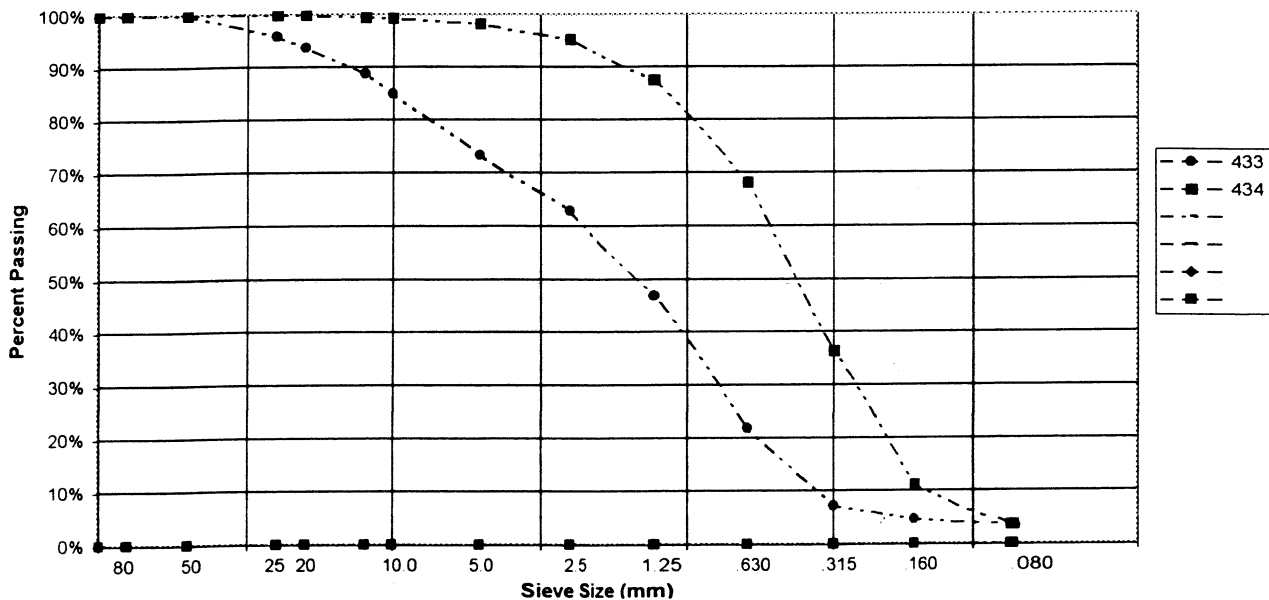
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 638094-6766043
 LOGGED BY: RW

HOLE No.: 30036

DATE COMP: 08/19/2004

FIELD NO:	433	434			
LAB NO:	433	434			
DEPTH:	0.3-0.9	2.1-2.7			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	96%	100%			
20.0	94%	100%			
12.5	89%	100%			
10.0	85%	99%			
5.0	73%	98%			
2.5	63%	95%			
1.25	47%	88%			
0.630	22%	68%			
0.315	7%	36%			
0.160	5%	11%			
0.080	4%	4%			
M.C.(%)	2%	7%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	27	2			
% SAND:	70	95			
% FINES:	4	4			
CLASSIFICATION	POORLY GRADED SAND WITH GRAVEL (SP)	WELL-GRADED SAND (SW)			

Grain Size Analysis (Percent Passing vs Grain Size)





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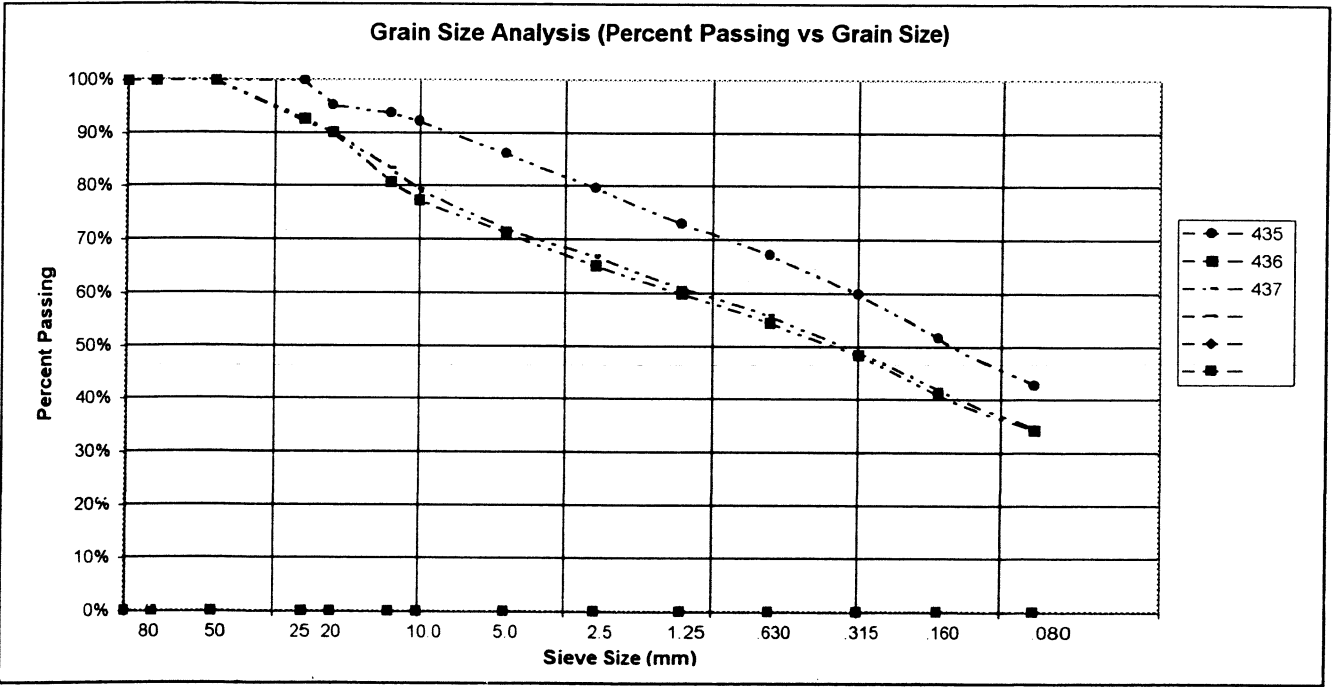


PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 637902-6765969
 LOGGED BY: RW

HOLE No.: 30037

DATE COMP: 08/19/2004

FIELD NO:	435	436	437		
LAB NO:	435	436	437		
DEPTH:	0.3-0.9	2.1-2.7	3.4-4.0		
TYPE:	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%	93%	92%		
20.0	95%	90%	90%		
12.5	94%	81%	83%		
10.0	92%	77%	79%		
5.0	86%	71%	72%		
2.5	80%	65%	67%		
1.25	73%	60%	61%		
0.630	67%	55%	56%		
0.315	60%	49%	49%		
0.160	52%	41%	42%		
0.080	43%	34%	35%		
M.C.(%)	26%	9%	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:	14	29	28		
% SAND:	43	37	37		
% FINES:	43	34	35		
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		





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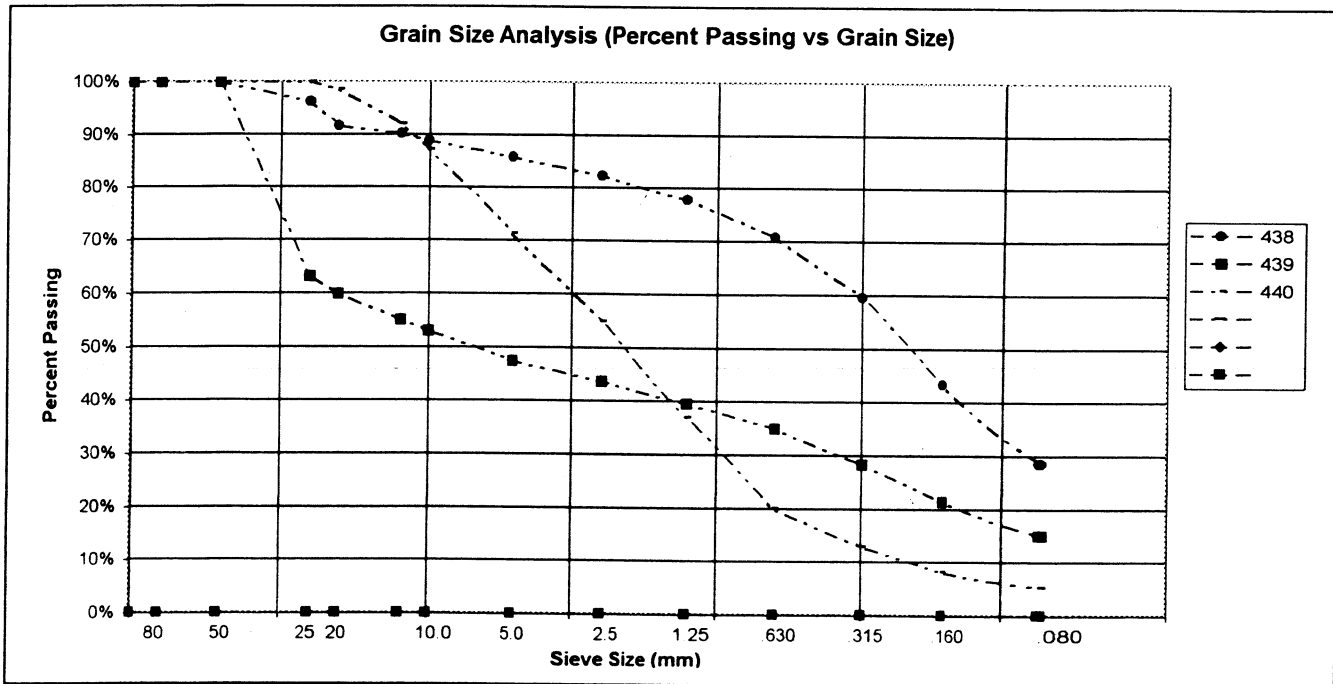


PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 637704-6765920
 LOGGED BY: RW

HOLE No.: 30038

DATE COMP: 08/19/2004

FIELD NO:	438	439	440		
LAB NO:	438	439	440		
DEPTH:	0.3-0.9	1.8-2.4	3.2-3.6		
TYPE:	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%	63%	100%		
20.0	92%	60%	99%		
12.5	90%	55%	92%		
10.0	89%	53%	87%		
5.0	86%	47%	71%		
2.5	82%	44%	55%		
1.25	78%	40%	37%		
0.630	71%	35%	20%		
0.315	60%	28%	13%		
0.160	43%	21%	8%		
0.080	29%	15%	5%		
M.C.(%):	6%	5%	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:	14	53	29		
% SAND:	57	32	66		
% FINES:	29	15	5		
CLASSIFICATION	SILTY SAND (SM)	SILTY GRAVEL WITH SAND (GM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)		





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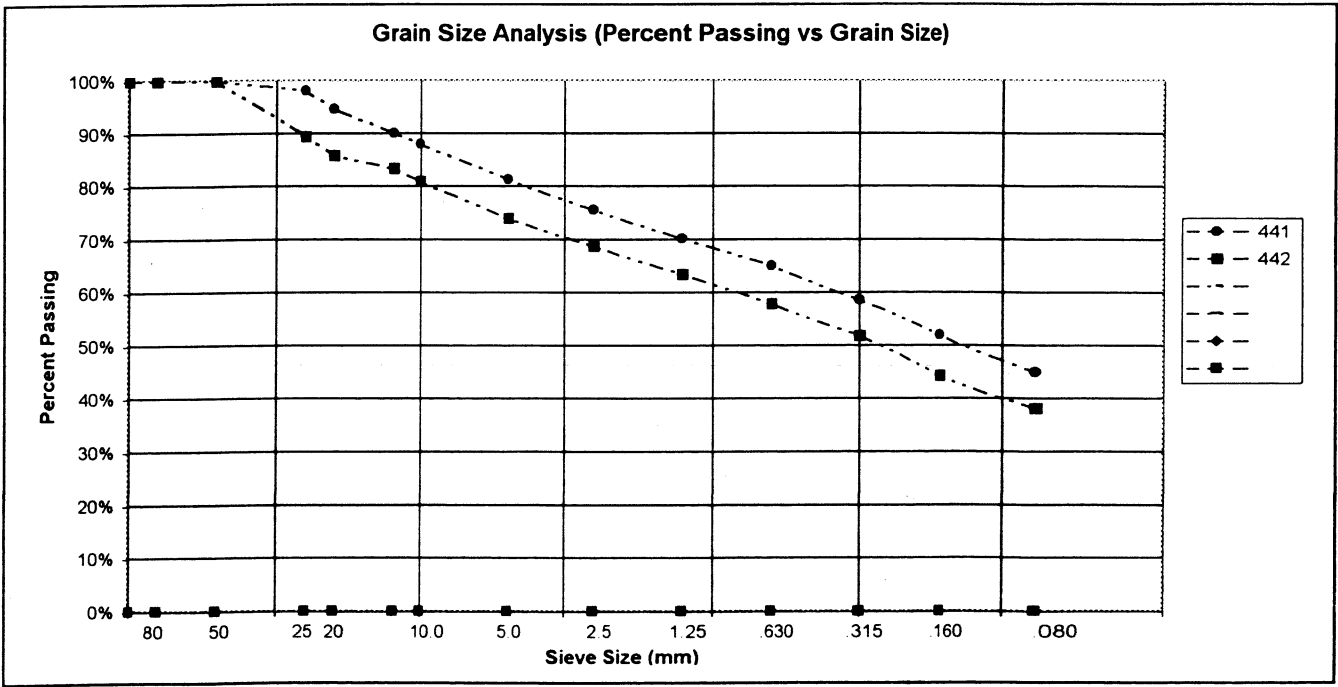


PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 637563-6765818
 LOGGED BY: RW

HOLE No.: 30039

DATE COMP: 08/19/2004

FIELD NO:	441	442			
LAB NO:	441	442			
DEPTH:	0.3-0.9	1.8-2.4			
TYPE:	AUGER	AUGER			
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	98%	89%			
20.0	95%	86%			
12.5	90%	83%			
10.0	88%	81%			
5.0	81%	74%			
2.5	76%	69%			
1.25	70%	64%			
0.630	65%	58%			
0.315	59%	52%			
0.160	52%	44%			
0.080	45%	38%			
M.C.(%)	9%	7%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	19	26			
% SAND:	36	36			
% FINES:	45	38			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			





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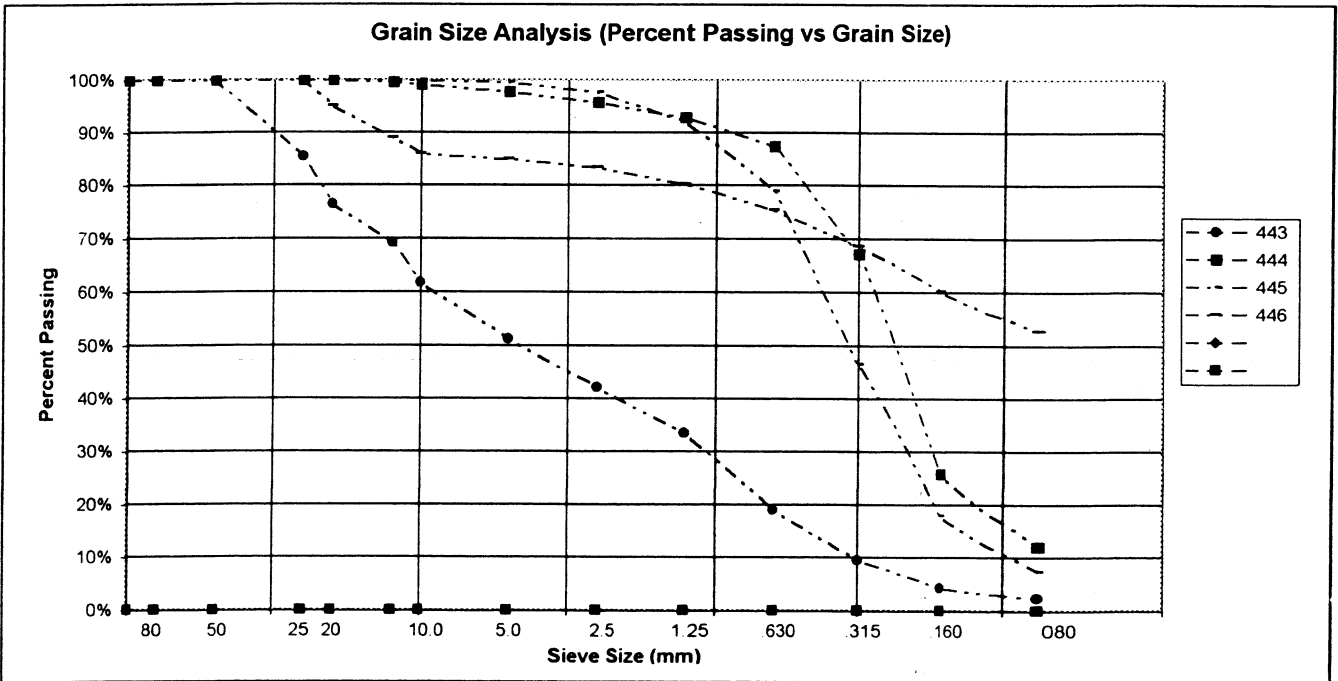


PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 637444-6765598
 LOGGED BY: RW

HOLE No.: 30040

DATE COMP: 08/19/2004

FIELD NO:	443	444	445	446		
LAB NO:	443	444	445	446		
DEPTH:	0.0-0.6	0.6-1.2	1.8-2.4	3.0-3.6		
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	85%	100%	100%	100%		
20.0	76%	100%	100%	95%		
12.5	69%	100%	100%	89%		
10.0	62%	99%	100%	86%		
5.0	51%	98%	100%	85%		
2.5	42%	96%	98%	83%		
1.25	33%	93%	92%	80%		
0.630	19%	87%	79%	75%		
0.315	10%	67%	47%	69%		
0.160	4%	26%	18%	60%		
0.080	2%	12%	7%	53%		
M.C.(%)	8%	23%	26%	91%		
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	2	0	15		
% SAND:	49	86	92	32		
% FINES:	2	12	7	53		
CLASSIFICATION	WELL-GRADED SAND WITH GRAVEL (SW)	SILTY SAND (SM)	WELL-GRADED SAND WITH SILT (SW-SM)	SANDY SILT (ML)		





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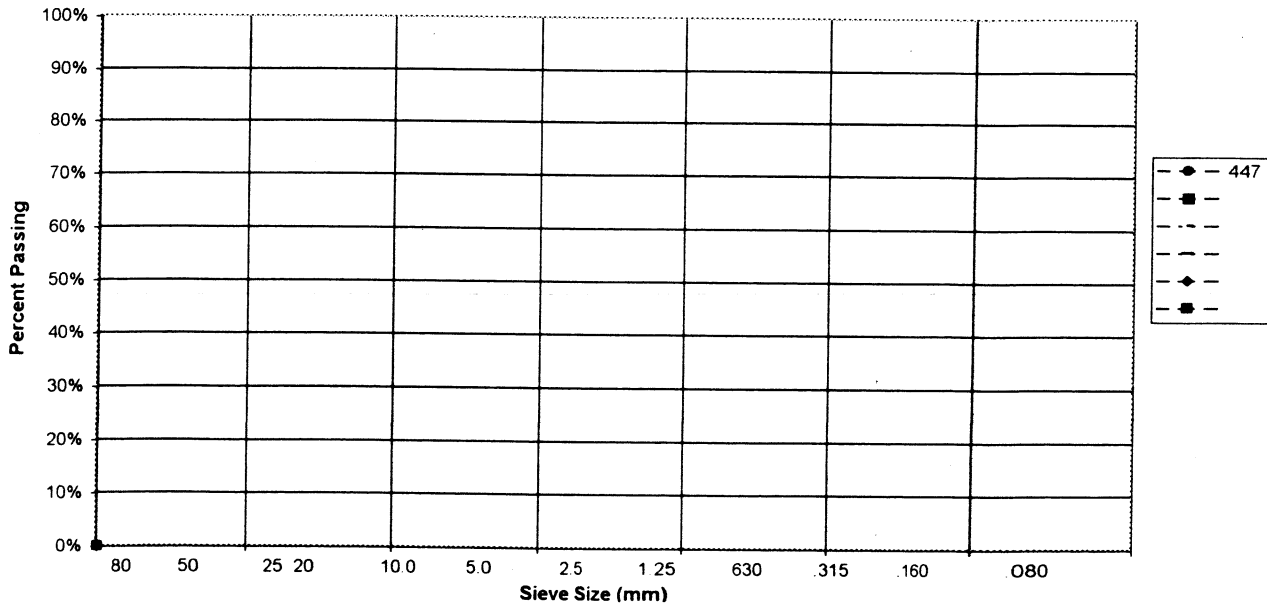
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 637429-6765452
 LOGGED BY: RW

HOLE No.: 30041

DATE COMP: 08/20/2004

FIELD NO:	447				
LAB NO:	447				
DEPTH:	1.4				
TYPE:	S.P.T.				
SIEVE SIZE	PERCENT PASSING				
100.0					
80.0					
50.0					
25.0					
20.0					
12.5					
10.0					
5.0					
2.5					
1.25					
0.630					
0.315					
0.160					
0.080					
M.C.(%):	8%				
LIQUID LIMIT:	0.0				
PLASTIC LIMIT:	0.0				
PLASTIC INDEX:	0.0				
% GRAVEL:	#VALUE!				
% SAND:	#VALUE!				
% FINES:	#VALUE!				
CLASSIFICATION	#VALUE!				

Grain Size Analysis (Percent Passing vs Grain Size)





HOGGAN ENGINEERING & TESTING (1980) LTD.

An Associate of J. R. Payne & Associates Ltd.



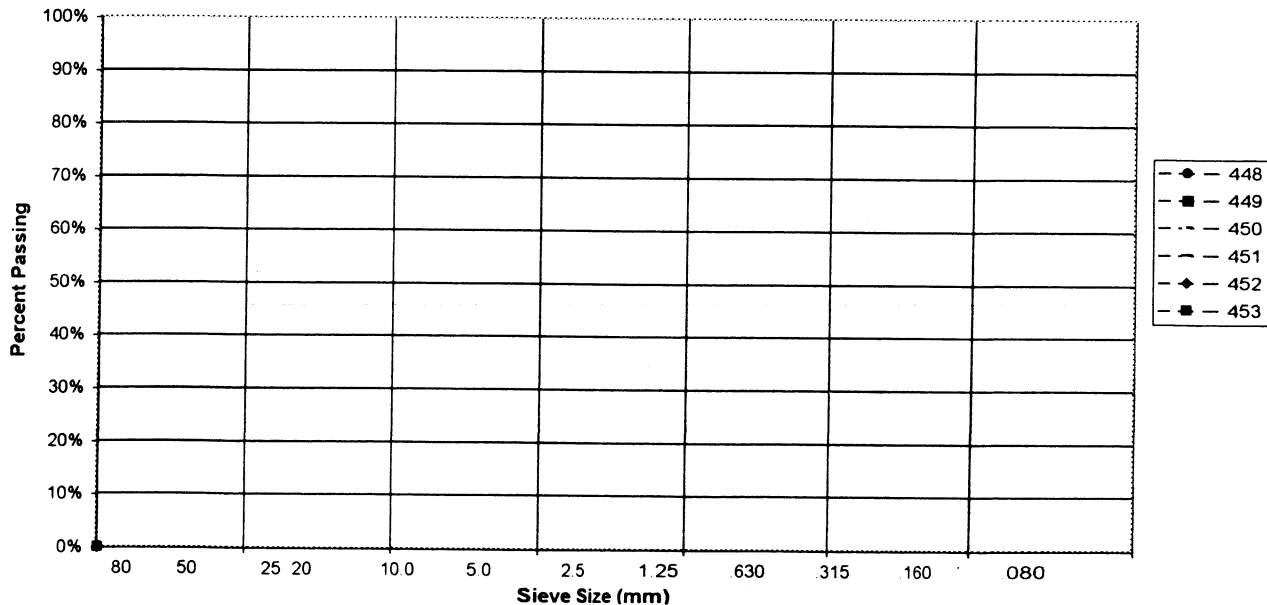
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 637411-6765198
 LOGGED BY: RW

HOLE No.: 30042

DATE COMP: 08/20/2004

FIELD NO:	448	449	450	451	452	453
LAB NO:	448	449	450	451	452	453
DEPTH:	1.4	2.9	4.4	5.9	7.5	9
TYPE:	S.P.T.	S.P.T.	S.P.T.	S.P.T.	S.P.T.	S.P.T.
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING
100.0						
80.0						
50.0						
25.0						
20.0						
12.5						
10.0						
5.0						
2.5						
1.25						
0.630						
0.315						
0.160						
0.080						
M.C.(%):	7%	22%	21%	13%	12%	9%
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:	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
% SAND:	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
% FINES:	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
CLASSIFICATION	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!

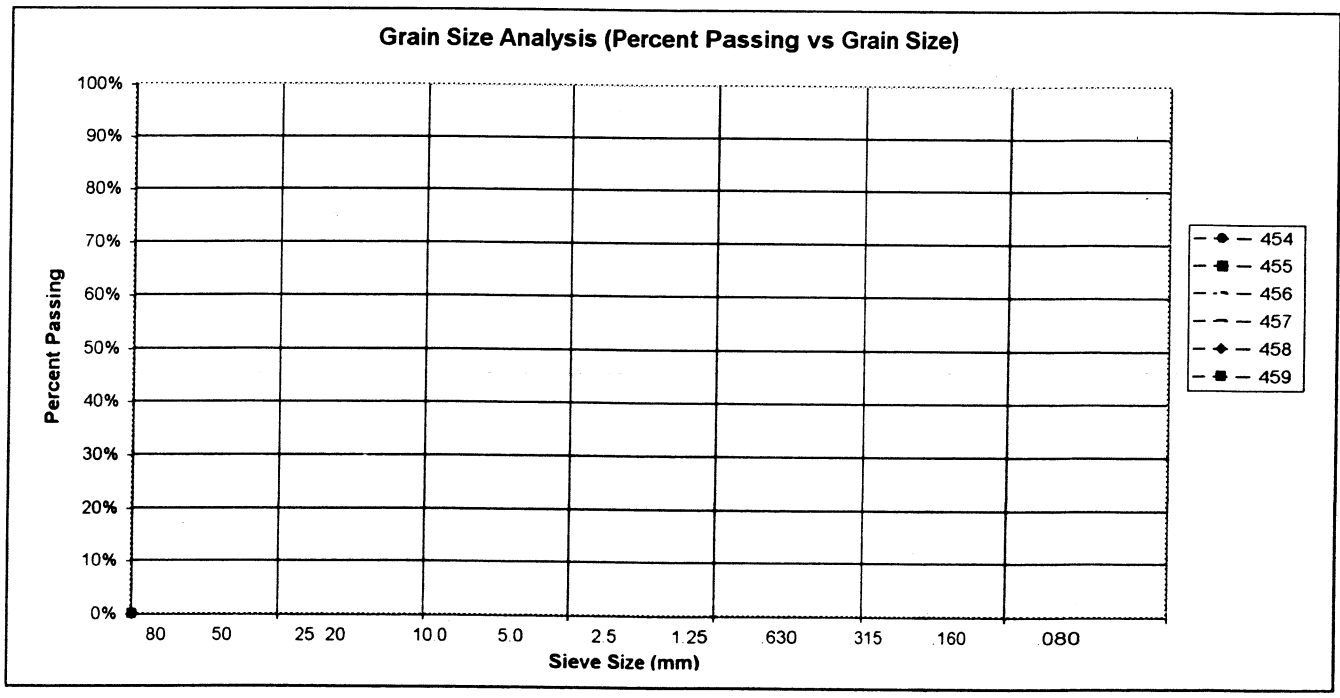
Grain Size Analysis (Percent Passing vs Grain Size)





PROJECT NUMBER: 8002-318 HOLE No.: 30043
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 636827-6764763
 LOGGED BY: RW DATE COMP: 08/20/2004

FIELD NO:	454	455	456	457	458	459
LAB NO:	454	455	456	457	458	459
DEPTH:	1.4	2.9	4.4	5.9	7.5	9
TYPE:	S.P.T.	S.P.T.	S.P.T.	S.P.T.	S.P.T.	S.P.T.
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING
100.0						
80.0						
50.0						
25.0						
20.0						
12.5						
10.0						
5.0						
2.5						
1.25						
0.630						
0.315						
0.160						
0.080						
M.C.(%):	6%	19%	23%	25%	21%	32%
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:	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
% SAND:	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
% FINES:	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
CLASSIFICATION	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!





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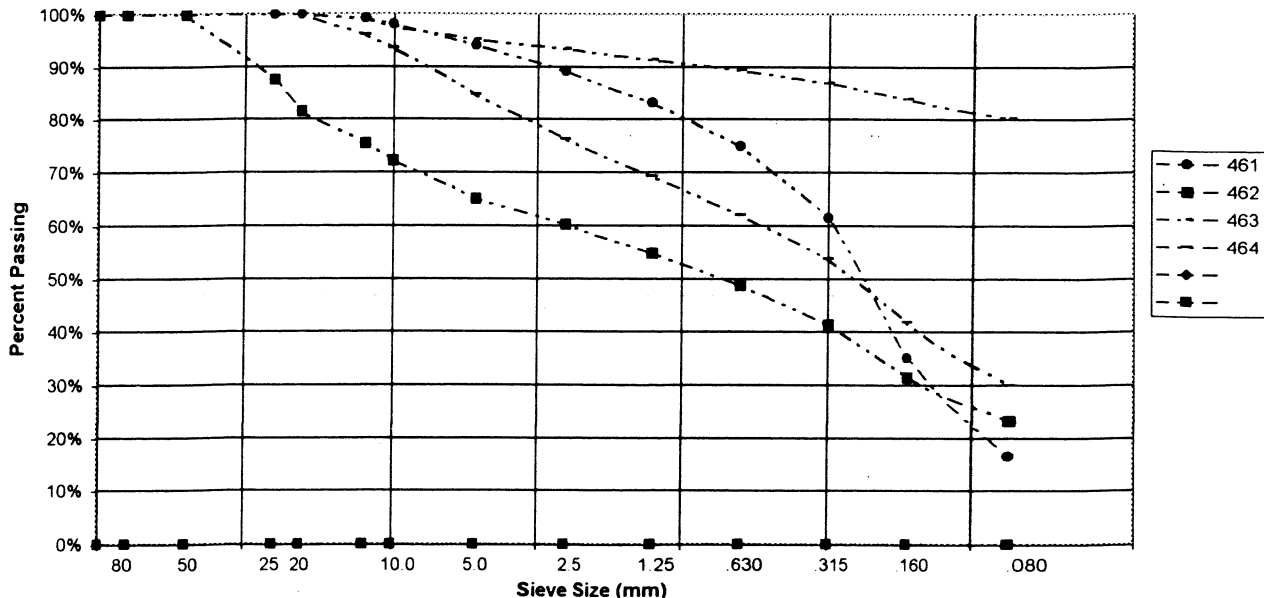
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 636668-6764727
 LOGGED BY: RW

HOLE No.: 30044

DATE COMP: 08/21/2004

FIELD NO:	461	462	463	464		
LAB NO:	461	462	463	464		
DEPTH:	0.3-0.9	1.5-2.1	2.4-2.9	4.1-4.4		
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	100%	88%	100%	100%		
20.0	100%	82%	100%	100%		
12.5	99%	76%	99%	96%		
10.0	98%	72%	98%	94%		
5.0	94%	65%	95%	85%		
2.5	89%	60%	93%	76%		
1.25	83%	55%	91%	69%		
0.630	75%	49%	89%	62%		
0.315	62%	41%	87%	54%		
0.160	35%	32%	84%	42%		
0.080	17%	23%	80%	30%		
M.C.(%)	18%	10%	20%	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:	6	35	5	15		
% SAND:	78	42	15	55		
% FINES:	17	23	80	30		
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)		

Grain Size Analysis (Percent Passing vs Grain Size)





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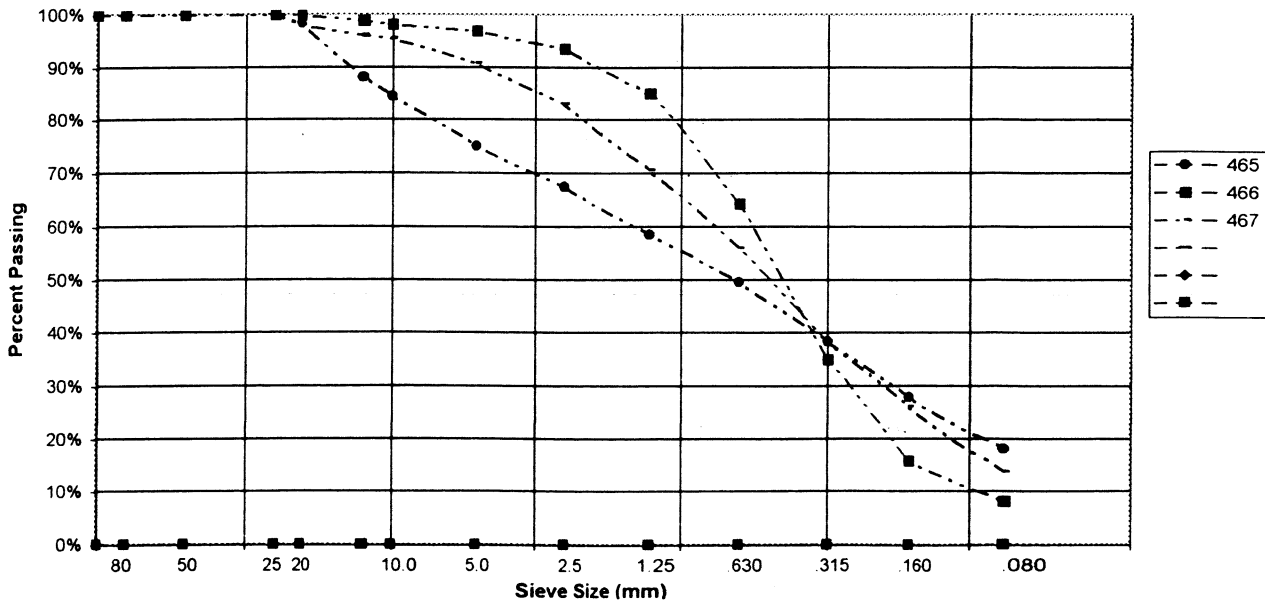
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 636398-6764640
 LOGGED BY: RW

HOLE No.: 30045

DATE COMP: 08/21/2004

FIELD NO:	465	466	467		
LAB NO:	465	466	467		
DEPTH:	0.3-0.9	2.1-2.7	4.0-4.4		
TYPE:	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%	98%		
12.5	88%	99%	96%		
10.0	85%	98%	96%		
5.0	75%	97%	91%		
2.5	68%	94%	83%		
1.25	59%	85%	71%		
0.630	50%	64%	56%		
0.315	39%	35%	38%		
0.160	28%	16%	26%		
0.080	18%	8%	14%		
M.C.(%)	10%	14%	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:	25	3	9		
% SAND:	57	89	77		
% FINES:	18	8	14		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	WELL-GRADED SAND WITH SILT (SW-SM)	SILTY SAND (SM)		

Grain Size Analysis (Percent Passing vs Grain Size)





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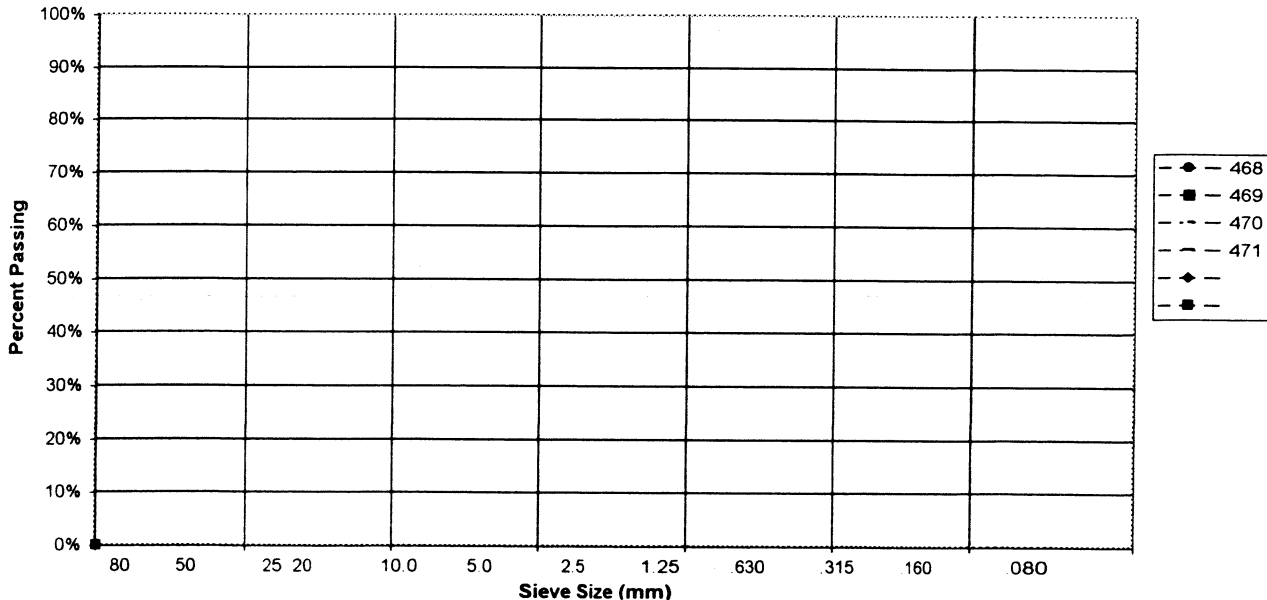
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 636230-6764571
 LOGGED BY: RW

HOLE No.: 30046

DATE COMP: 08/21/2004

FIELD NO:	468	469	470	471		
LAB NO:	468	469	470	471		
DEPTH:	1.4	2.9	4.4	5.9		
TYPE:	S.P.T.	S.P.T.	S.P.T.	S.P.T.		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0						
80.0						
50.0						
25.0						
20.0						
12.5						
10.0						
5.0						
2.5						
1.25						
0.630						
0.315						
0.160						
0.080						
M.C.(%):	9%	17%	17%	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:	#VALUE!	#VALUE!	#VALUE!	#VALUE!		
% SAND:	#VALUE!	#VALUE!	#VALUE!	#VALUE!		
% FINES:	#VALUE!	#VALUE!	#VALUE!	#VALUE!		
CLASSIFICATION	#VALUE!	#VALUE!	#VALUE!	#VALUE!		

Grain Size Analysis (Percent Passing vs Grain Size)





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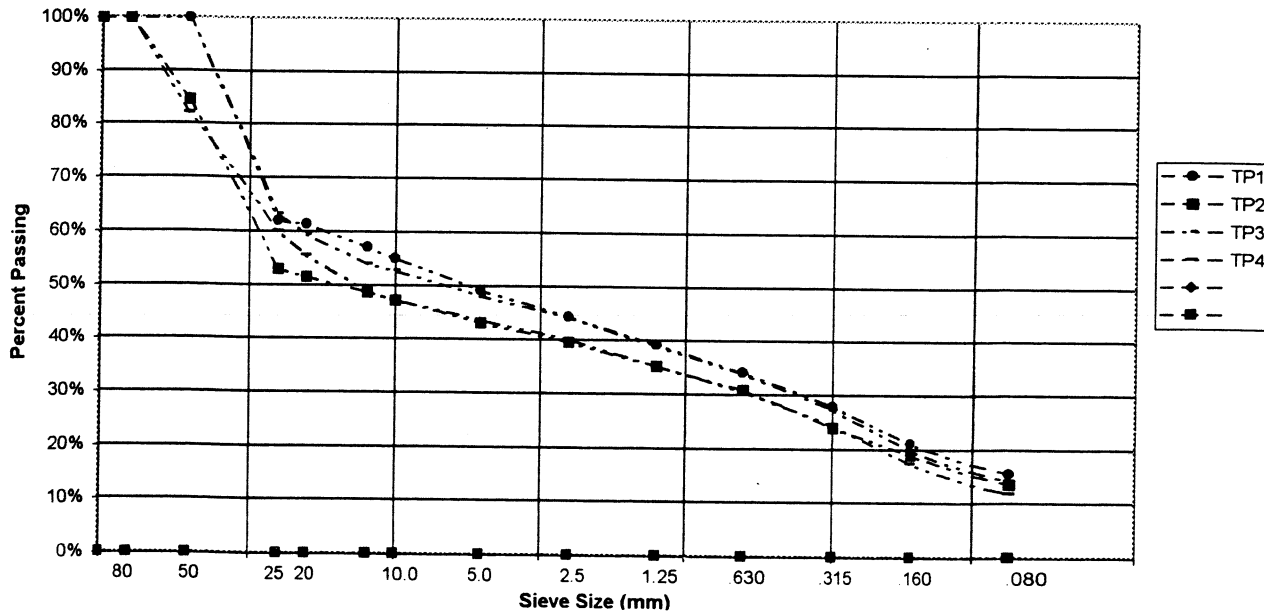
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 636646-6764614
 LOGGED BY: RW

HOLE No.: 30177

DATE COMP: 08/10/2004

FIELD NO:	TP1	TP2	TP3	TP4		
LAB NO:	TP1	TP2	TP3	TP4		
DEPTH:	0.8-1.3	2.0-2.4	3.0-3.3	4.5-4.8		
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%	85%	100%	82%		
25.0	62%	53%	63%	60%		
20.0	61%	52%	60%	56%		
12.5	57%	49%	54%	49%		
10.0	55%	47%	53%	47%		
5.0	49%	43%	48%	44%		
2.5	44%	40%	44%	40%		
1.25	39%	35%	39%	35%		
0.630	34%	31%	34%	31%		
0.315	28%	24%	27%	24%		
0.160	21%	19%	20%	17%		
0.080	16%	14%	14%	12%		
M.C.(%)	4%	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:	51	57	52	56		
% SAND:	34	29	34	32		
% FINES:	16	14	14	12		
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		

Grain Size Analysis (Percent Passing vs Grain Size)





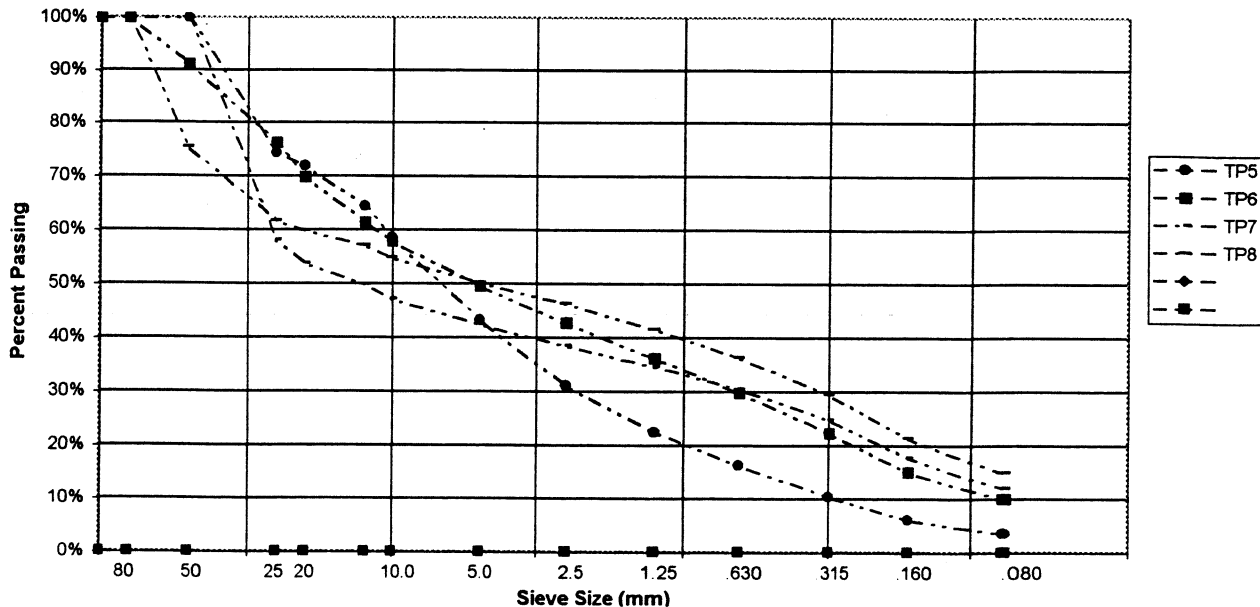
PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 636697-6764616
 LOGGED BY: RW

HOLE No.: 30178

DATE COMP: 08/10/2004

FIELD NO:	TP5	TP6	TP7	TP8		
LAB NO:	TP5	TP6	TP7	TP8		
DEPTH:	0.8-1.3	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%	75%		
25.0	74%	76%	58%	62%		
20.0	72%	70%	54%	60%		
12.5	64%	61%	50%	57%		
10.0	59%	58%	47%	55%		
5.0	43%	50%	42%	50%		
2.5	31%	43%	39%	46%		
1.25	22%	36%	35%	42%		
0.630	16%	30%	31%	36%		
0.315	11%	22%	25%	30%		
0.160	6%	15%	18%	21%		
0.080	4%	10%	12%	15%		
M.C.(%):	1%	3%	5%	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:	57	50	58	50		
% SAND:	40	39	30	35		
% FINES:	4	10	12	15		
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)		

Grain Size Analysis (Percent Passing vs Grain Size)





PROJECT NUMBER: 8002-318
 CLIENT: YTG, Transportation & Engineering
 PROJECT NAME: Geotechnical Services
 PROJECT LOCATION: Km 1691.7-1717.3
 DRILL UNIT: CME75
 HOLE LOCATION: 636749-6764619
 LOGGED BY: RW

HOLE No.: 30179

DATE COMP: 08/10/2004

FIELD NO:	TP9	TP10	TP11	TP12		
LAB NO:	TP9	TP10	TP11	TP12		
DEPTH:	0.5-1.0	1.8-2.3	3.2-3.5	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	92%	100%	92%	100%		
25.0	57%	57%	71%	61%		
20.0	50%	52%	68%	60%		
12.5	42%	48%	63%	57%		
10.0	40%	46%	60%	55%		
5.0	35%	42%	53%	50%		
2.5	31%	38%	47%	45%		
1.25	27%	34%	40%	38%		
0.630	23%	30%	36%	31%		
0.315	19%	24%	29%	23%		
0.160	14%	18%	21%	15%		
0.080	9%	13%	15%	10%		
M.C.(%):	3%	6%	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:	65	58	47	50		
% SAND:	25	29	38	40		
% FINES:	9	13	15	10		
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)		

Grain Size Analysis (Percent Passing vs Grain Size)

