

HIGHWAY CONSTRUCTION
km 1893.7 to km 1915.7
ALASKA HIGHWAY, Y.T.
VOLUME 2
GRAIN SIZE SUMMARIES
CENTRELINE TESTING

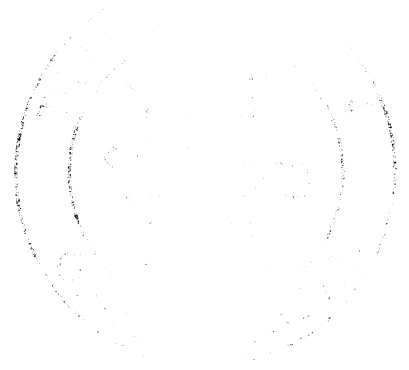
This Data Package prepared for project viewing:

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GR-01-156

GEOTECHNICAL INVESTIGATION
HIGHWAY CONSTRUCTION
km 1893.7 to km 1915.7, ALASKA HIGHWAY, Y.T.
CENTRELINE TESTING



CONTENTS

INTRODUCTION

Investigation notes, classification methods and legends.

VOLUME 1

CENTRELINE TESTING

Subsurface exploration and testing report sheets are provided. The reports for the centreline holes are arranged according to project location, starting at km 1893+700 and increasing to km 1915+625.

Auger Testing

1991	TEST HOLES 1 to 18 & 20	shown with prefix 139-
	TEST HOLES 21 to 43	shown with prefix 140-
	TEST HOLES 47 to 59	shown with prefix 141-
	TEST HOLES 143 to 157	shown with prefix 145-
1992	TEST HOLES 18 to 23	shown with prefix 174-
	TEST HOLES 24 to 48	shown with prefix 175-
	TEST HOLES 49 to 70	shown with prefix 194-
	TEST HOLES 71 to 76 & 80	shown with prefix 195-
	TEST HOLES 87 to 95	shown with prefix 195-
	TEST HOLES 96 to 110	shown with prefix 196-
	TEST HOLES 117 to 120	shown with prefix 196-
	TEST HOLES 121 to 145	shown with prefix 197-
	TEST HOLES 146 to 169	shown with prefix 198-
	TEST HOLES 182 to 183	shown with prefix 207-
1993	TEST HOLES 00 to 05	shown with prefix 244-
	TEST HOLES 12 to 13	shown with prefix 244-
	TEST HOLES 17 to 24 & 28	shown with prefix 244-
	TEST HOLES 33, 34, 41 & 42	shown with prefix 245-
	TEST HOLES 45 to 59	shown with prefix 245-

Backhoe Testing

1993	TEST HOLES 16 to 29 & 33	shown with prefix 257-
	TEST HOLES 37 to 42	shown with prefix 258-
	TEST HOLES 30 to 31	shown with prefix 274-

Air Rotary Testing

1994	TEST HOLE 6	shown with prefix 281-
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GEOTECHNICAL INVESTIGATION
HIGHWAY CONSTRUCTION
km 1893.7 to km 1915.7, ALASKA HIGHWAY, Y.T.
CENTRELINE TESTING

CONTENTS (Cont'd)

VOLUME 2
GRAIN SIZE SUMMARIES

VOLUME 3
GRANULAR AND BORROW TESTING

Km 1895.5 LHS

Testing results bound separately.

Km 1902 LHS

Auger Testing

1991 TEST HOLES 21 to 23 shown with prefix 138-

EBA Backhoe Testing

1992 TEST HOLES 30 & 31 shown with prefix EBA-

Air Rotary Testing

1994 TEST HOLES 30 to 46 shown with prefix 284-

Km 1904 LHS

EBA Backhoe Testing

1992 TEST HOLES 32 to 34 shown with prefix EBA-

Air Rotary Testing

1993 TEST HOLES 35 to 40 shown with prefix 245-

TEST HOLES 30 to 32 shown with prefix 257-

1994 TEST HOLES 13 to 29 shown with prefix 281-,
282-, & 284-

Km 1904 RHS

Backhoe Testing

1993 TEST HOLES 41 to 44 shown with prefix 274-
and 275-

Air Rotary Testing

1993 TEST HOLES 123 to 128 shown with prefix 219-

1994 TEST HOLES 7 to 12 shown with prefix 281-

Km 1907 RHS

Auger testing

1993 TEST HOLES 6 to 11 shown with prefix 244-

Backhoe Testing

1993 TEST HOLES 34 to 36 shown with prefix 257-

TEST HOLES 37 to 40 shown with prefix 274-

Km 1915.4 LHS

Backhoe Testing

1993 TEST HOLES 43 to 46 shown with prefix 258-

TEST HOLES 32 to 36 shown with prefix 274-

GEOTECHNICAL INVESTIGATION
HIGHWAY CONSTRUCTION
km 1893.7 to km 1915.7, ALASKA HIGHWAY, Y.T.
CENTRELINE TESTING

INTRODUCTION

GEOTECHNICAL INVESTIGATION
HIGHWAY CONSTRUCTION
km 1893.7 to km 1915.7, ALASKA HIGHWAY, Y.T.
CENTRELINE TESTING

GEOTECHNICAL INVESTIGATION DATA

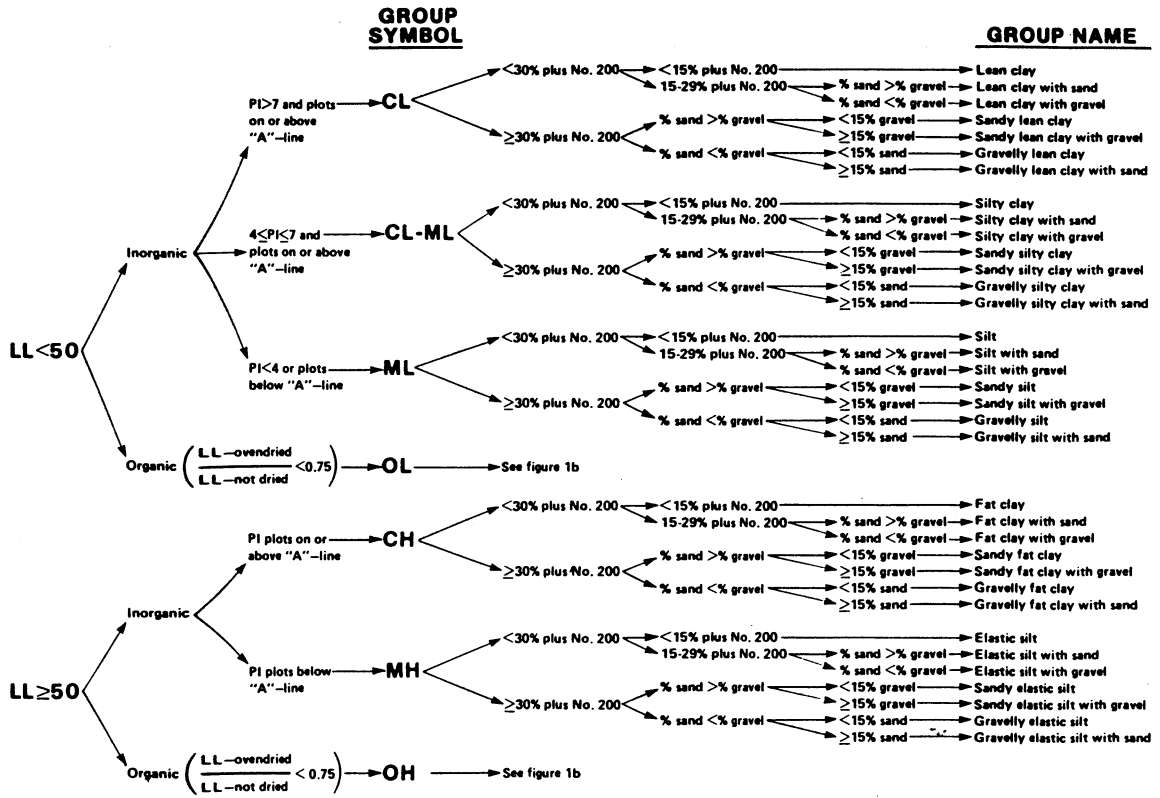
This geotechnical investigation data is provided to assist in the interpretation of soil conditions encountered within this project area. The data presented was prepared solely for Departmental designing and estimating purposes.

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

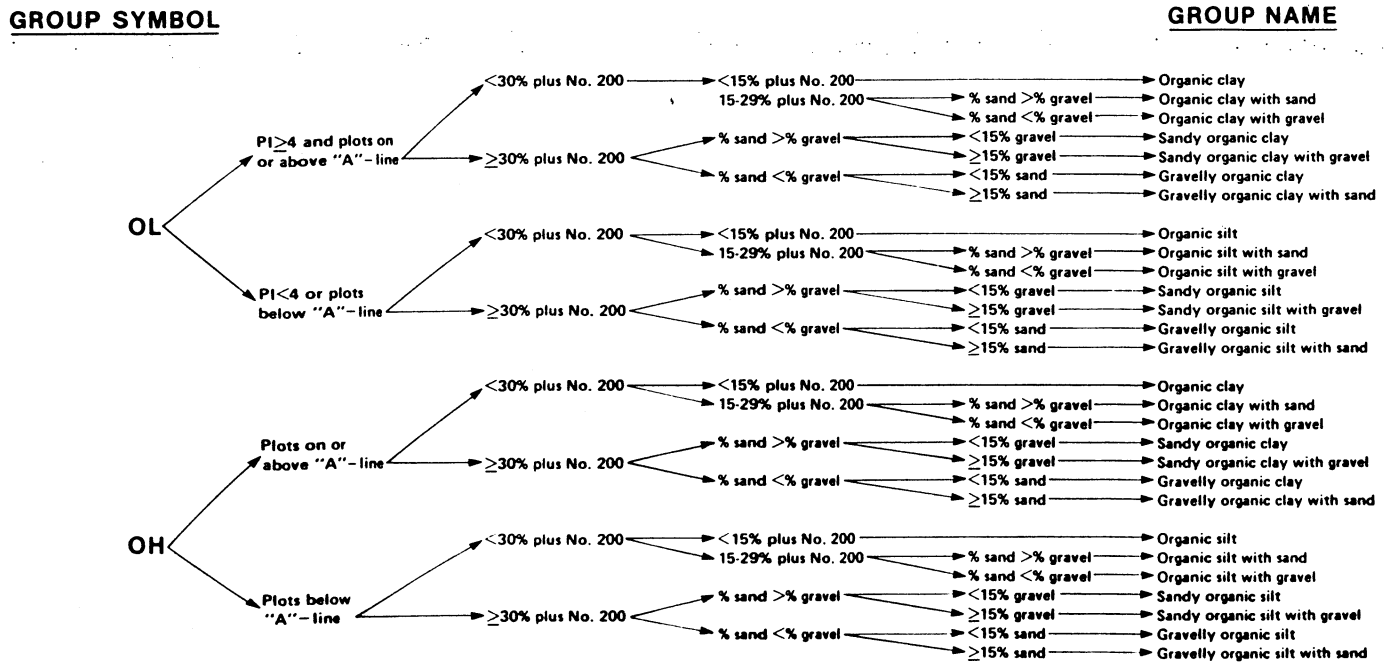
The sample identification and laboratory testing data is provided to give detailed physical properties of selected retrieved samples within the subsurface profile. *These tests may be conducted on disturbed samples and may exhibit properties different from the native materials.* The sample classification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

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

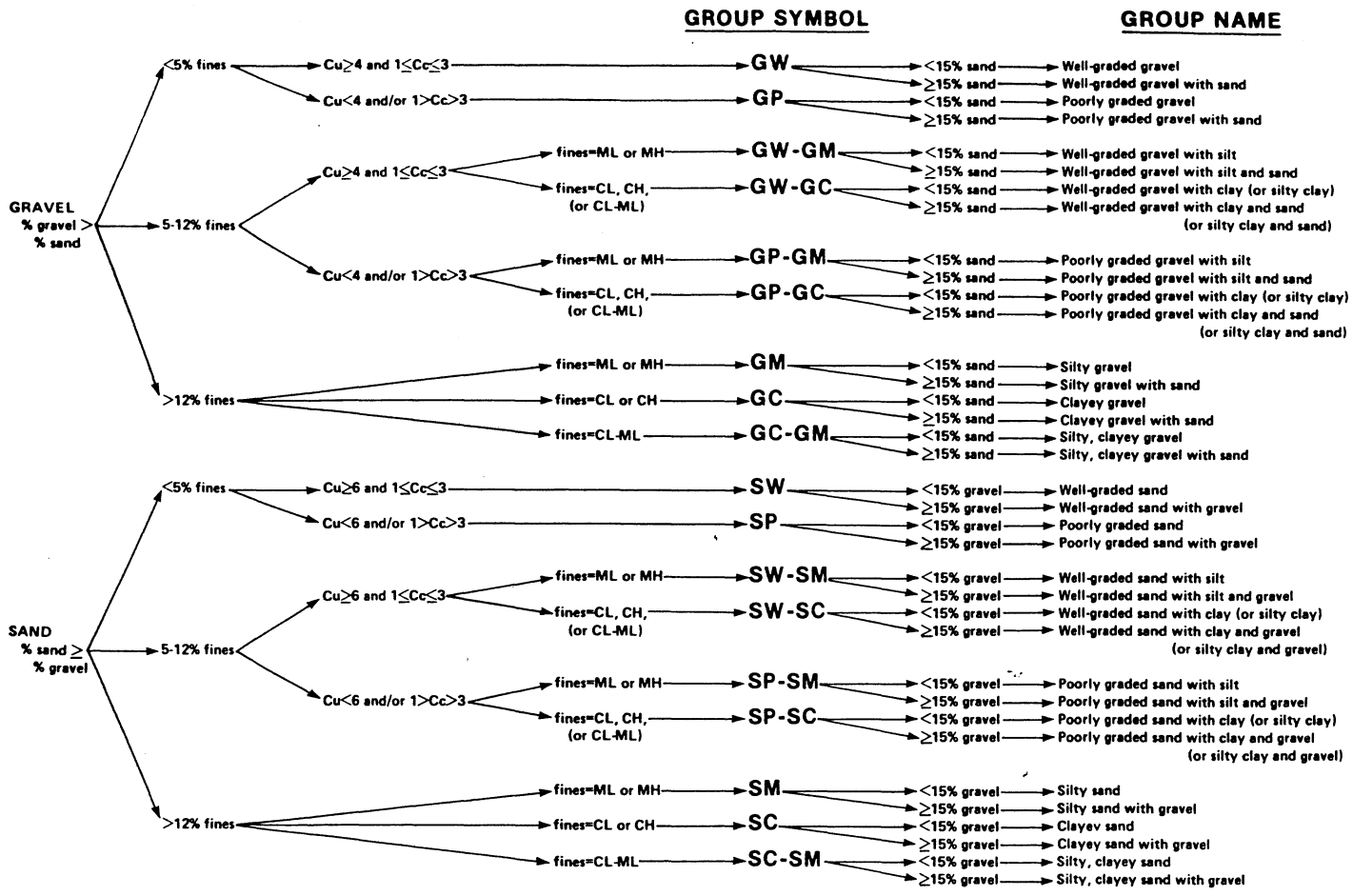
It is recommended that a site inspection, combined with consideration of the regional geology and climatic conditions be conducted. An evaluation of the investigation methods and development work done since the time of investigation should be done prior to interpreting the subsurface conditions for construction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



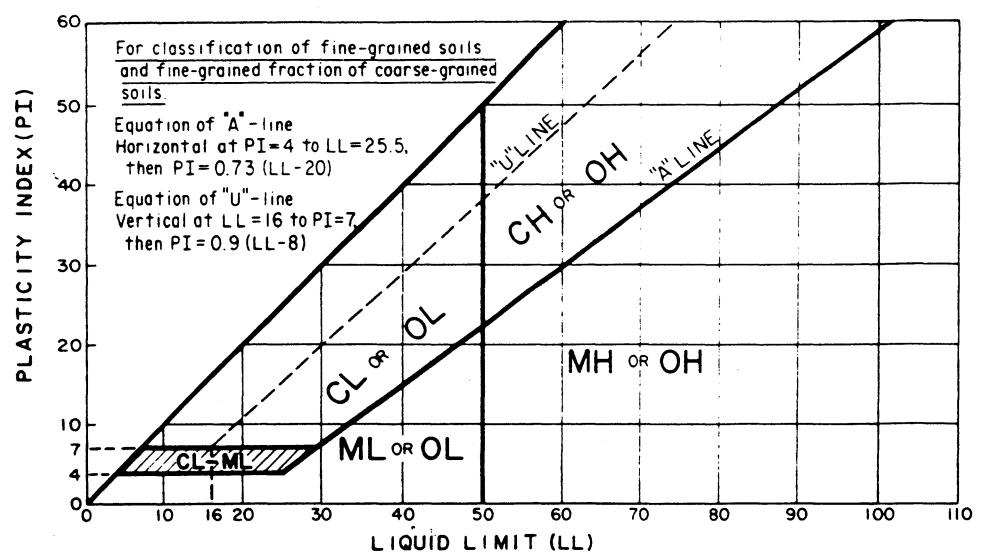
Flow chart for classifying fine-grained soil.



Flow chart for classifying organic soil.



Flow chart for classifying coarse-grained soil.



Plasticity chart.

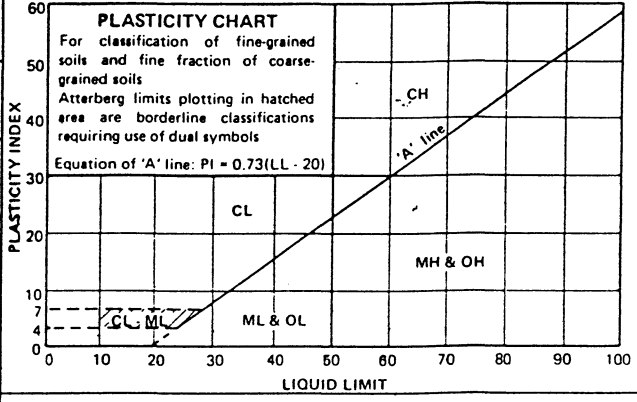
CRITERIA FOR ASSIGNING GROUP SYMBOLS AND GROUP NAMES USING LABORATORY TESTS ^a				SOIL CLASSIFICATION	
				GROUP SYMBOL	GROUP NAME ^b
COARSE-GRAINED SOILS more than 50% retained on No. 200 sieve	GRAVELS More than 50% of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS Less than 5% fines ^c	$C_u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

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

Soil classification chart

UNIFIED SOIL CLASSIFICATION†

MAJOR DIVISIONS		GROUP SYMBOLS	TYPICAL NAMES	CLASSIFICATION CRITERIA			
COARSE-GRAINED SOILS	GRAVELS 50% or more of coarse fraction retained on No. 4 sieve	GW	Well-graded gravels and gravel-sand mixtures, little or no fines	Classification on basis of percentage of fines Less than 5% pass No. 200 sieve More than 5% pass No. 200 sieve 5% to 12% pass No. 200 sieve 12% to 15% pass No. 200 sieve 15% to 20% pass No. 200 sieve 20% to 35% pass No. 200 sieve 35% to 50% pass No. 200 sieve 50% to 75% pass No. 200 sieve 75% to 100% pass No. 200 sieve	$C_u = D_{60}/D_{10}$ Greater than 4 $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ Between 1 and 3		
		GP	Poorly-graded gravels and gravel-sand mixtures, little or no fines		Not meeting both criteria for GW		
		GM	Silty gravels, gravel-sand-silt mixtures		Atterberg limits plot below 'A' line or plasticity index less than 4	Atterberg limits plotting in hatched area are borderline classifications requiring use of dual symbols	
		GC	Clayey gravels, gravel-sand clay mixtures		Atterberg limits plot above 'A' line and plasticity index greater than 7		
	SANDS More than 50% of coarse fraction passes No. 4 sieve	CLEAN SANDS	SW		Well-graded sands and gravelly sands, little or no fines	$C_u = D_{60}/D_{10}$ Greater than 6 $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ Between 1 and 3	
			SP		Poorly-graded sands and gravelly sands, little or no fines	Not meeting both criteria for SW	
		SANDS WITH FINES	SM		Silty sands, sand-silt mixtures	Atterberg limits plot below 'A' line or plasticity index less than 4	Atterberg limits plotting in hatched area are borderline classifications requiring use of dual symbols
			SC		Clayey sands, sand-clay mixtures	Atterberg limits plot above 'A' line and plasticity index greater than 7	
			ML		Inorganic silts, very fine sands, rock flour, silty or clayey fine sands	PLASTICITY CHART For classification of fine-grained soils and fine fraction of coarse-grained soils Atterberg limits plotting in hatched area are borderline classifications requiring use of dual symbols Equation of 'A' line: $PI = 0.73(LL - 20)$	
			CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays		
OL	Organic silts and organic silty clays of low plasticity						
MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts						
CH	Inorganic clay of high plasticity, fat clays						
OH	Organic clays of medium to high plasticity						
FINE-GRAINED SOILS		SILTS AND CLAYS	Liquid limit 50% or less	SILTS AND CLAYS	Liquid limit greater than 50%		
HIGHLY ORGANIC SOILS		PT	Peat, muck and other highly organic soils	*Based on the material passing the 3 in. (75 mm) sieve †ASTM Designation D 2487, for identification procedure see D 2488			



GROUND ICE DESCRIPTION

ICE NOT VISIBLE			
GROUP SYMBOLS	SYMBOLS	SUBGROUP DESCRIPTION	
N	Nf	Poorly-bonded or friable	
	Nbn	No excess ice, well-bonded	
	Nbe	Excess ice, well-bonded	

VISIBLE ICE LESS THAN 50% BY VOLUME			
GROUP SYMBOLS	SYMBOLS	SUBGROUP DESCRIPTION	
V	Vx	Individual ice crystals or inclusions	
	Vc	Ice coatings on particles	
	Vr	Random or irregularly oriented ice formations	
	Vs	Stratified or distinctly oriented ice formations	

VISIBLE ICE GREATER THAN 50% BY VOLUME			
GROUP SYMBOLS	SYMBOLS	SUBGROUP DESCRIPTION	
ICE	ICE + Soil Type	Ice with soil inclusions	
	ICE	Ice without soil inclusions (greater than 25 mm (1 in.) thick)	

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

LEGEND
 Soil Ice

		BOUNDARY LINES ON DRILL LOGS			TEST HOLE NO: 3					
ENGINEERING—CAPITAL					Project No:					
					ELEVATION: 0.00 (m)					
SAMPLE TYPE		<input type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER	<input type="checkbox"/> BULK	<input type="checkbox"/> TUBE	<input type="checkbox"/> CORE			
DEPTH (m)	SOIL DESCRIPTION			SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲	USC	SOIL SYMBOL	◆ PERCENT SAND ◆	DEPTH (m)
	20 40 60 80	PLASTIC M.C. LIQUID	20 40 60 80			20 40 60 80				
0.0	BOUNDARY LINES									0.0
	A solid line is used when a definite soil change is logged and a depth is known.									
1.0	A dashed line is used when a definite soil change is noted either by the field log or the sample test results and the depth of change is unknown.									1.0
2.0	A dotted line is used when a gradual or gradational change is noted by field notes and sample test results.									2.0
3.0										3.0
4.0										4.0
5.0										5.0
6.0										6.0
Government of Yukon Transportation Engineering				LOGGED BY:		COMPLETION DEPTH: 6.0 m				
				REVIEWED BY:		COMPLETE: / /				
				Fig. No:		Page 1 of 1				

PROJECT NUMBER: 745927 HOLE NUMBER: 139-01
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1907+504 O/S 2M LT
 LOGGED BY: DT DATE COMPLETED: 91.08.09

FIELD NO: 1
 LAB NO: 4360
 DEPTH: 1.3-1.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	90
19.0	87
12.7	80
9.5	76
4.76	67
2.38	--
2.00	59
1.19	--
0.841	52
0.595	--
0.42	46
0.297	--
0.177	--
0.149	37
0.074	27

M.C. (%): 9

LIMITS

LIQUID: 18.9
 PLASTIC: 15.7
 P.I.: 3.2

% GRAVEL: 33
 % SAND: 39
 % FINES: 27

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 139-02
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1907+600 O/S 7M LT
 LOGGED BY: DT DATE COMPLETED: 91.08.09

FIELD NO: 2
 LAB NO: 4361
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 3
 LAB NO: 4362
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 4
 LAB NO: 4363
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	90
19.0	85
12.7	79
9.5	75
4.76	70
2.38	--
2.00	65
1.19	--
0.841	60
0.595	--
0.42	56
0.297	--
0.177	--
0.149	49
0.074	39

101.6	--
76.2	--
50.8	--
38.1	100
25.4	87
19.0	81
12.7	77
9.5	73
4.76	67
2.38	--
2.00	63
1.19	--
0.841	59
0.595	--
0.42	56
0.297	--
0.177	--
0.149	50
0.074	44

101.6	--
76.2	--
50.8	100
38.1	90
25.4	90
19.0	86
12.7	77
9.5	73
4.76	63
2.38	--
2.00	54
1.19	--
0.841	48
0.595	--
0.42	43
0.297	--
0.177	--
0.149	36
0.074	31

M.C. (%) : 9

M.C. (%) : 9

M.C. (%) : 7

LIMITS
 LIQUID: 19.4
 PLASTIC: 15.0
 P.I.: 4.4

LIMITS
 LIQUID: 22.5
 PLASTIC: 15.4
 P.I.: 7.1

LIMITS
 LIQUID: 20.2
 PLASTIC: 14.6
 P.I.: 5.6

% GRAVEL: 30
 % SAND: 31
 % FINES: 39

% GRAVEL: 33
 % SAND: 24
 % FINES: 44

% GRAVEL: 37
 % SAND: 32
 % FINES: 31

CLASSIFICATION:
 SILTY, CLAYEY
 SAND WITH GRAVEL
 (SC-SM)

CLASSIFICATION:
 CLAYEY GRAVEL
 WITH SAND (GC)

CLASSIFICATION:
 SILTY, CLAYEY
 GRAVEL WITH SAND
 (GC-GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 139-03
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1907+700 O/S 7M LT
 LOGGED BY: DT DATE COMPLETED: 91.08.09

FIELD NO: 5		FIELD NO: 6		FIELD NO: 7		FIELD NO: 8	
LAB NO: 4364		LAB NO: 4365		LAB NO: 4366		LAB NO: 4367	
DEPTH: 1.3-1.5		DEPTH: 2.8-3.0		DEPTH: 4.3-4.5		DEPTH: 5.8-6.0	
TYPE: AUGER		TYPE: AUGER		TYPE: AUGER		TYPE: AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
101.6	--	101.6	--	101.6	--	101.6	--
76.2	--	76.2	--	76.2	--	76.2	--
50.8	--	50.8	--	50.8	--	50.8	100
38.1	100	38.1	--	38.1	100	38.1	90
25.4	84	25.4	100	25.4	96	25.4	90
19.0	78	19.0	98	19.0	91	19.0	90
12.7	71	12.7	93	12.7	83	12.7	87
9.5	68	9.5	88	9.5	77	9.5	83
4.76	61	4.76	76	4.76	68	4.76	74
2.38	--	2.38	--	2.38	--	2.38	--
2.00	55	2.00	66	2.00	60	2.00	66
1.19	--	1.19	--	1.19	--	1.19	--
0.841	51	0.841	58	0.841	52	0.841	58
0.595	--	0.595	--	0.595	--	0.595	--
0.42	47	0.42	52	0.42	46	0.42	52
0.297	--	0.297	--	0.297	--	0.297	--
0.177	--	0.177	--	0.177	--	0.177	--
0.149	41	0.149	43	0.149	38	0.149	45
0.074	34	0.074	34	0.074	30	0.074	35
M.C. (%) :	9	M.C. (%) :	8	M.C. (%) :	8	M.C. (%) :	10
LIMITS		LIMITS		LIMITS		LIMITS	
LIQUID:	20.4	LIQUID:	19.1	LIQUID:	17.9	LIQUID:	--
PLASTIC:	16.2	PLASTIC:	15.0	PLASTIC:	16.2	PLASTIC:	--
P.I.:	4.2	P.I.:	4.1	P.I.:	1.7	P.I.:	TRACE
% GRAVEL:	39	% GRAVEL:	24	% GRAVEL:	32	% GRAVEL:	26
% SAND:	26	% SAND:	42	% SAND:	38	% SAND:	39
% FINES:	34	% FINES:	34	% FINES:	30	% FINES:	35
CLASSIFICATION:	SILTY, CLAYEY GRAVEL WITH SAND (GC-GM)	CLASSIFICATION:	SILTY, CLAYEY SAND WITH GRAVEL (SC-SM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 139-03
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1907+700 O/S 7M LT
 LOGGED BY: DT DATE COMPLETED: 91.08.09

FIELD NO: 9
 LAB NO: 4368
 DEPTH: 7.8-8.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	100
19.0	99
12.7	96
9.5	93
4.76	84
2.38	--
2.00	74
1.19	--
0.841	65
0.595	--
0.42	58
0.297	--
0.177	--
0.149	45
0.074	37

M.C. (%) : 10

LIMITS

LIQUID: 18.5
 PLASTIC: 16.0
 P.I.: 2.5

% GRAVEL: 16
 % SAND: 47
 % FINES: 37

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 139-04
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1907+800 O/S 8M LT
 LOGGED BY: DT DATE COMPLETED: 91.08.09

FIELD NO: 10
 LAB NO: 4369
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 11
 LAB NO: 4370
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 12
 LAB NO: 4371
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	100
38.1	91
25.4	80
19.0	80
12.7	76
9.5	72
4.76	66
2.38	--
2.00	61
1.19	--
0.841	57
0.595	--
0.42	53
0.297	--
0.177	--
0.149	45
0.074	35

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	95
19.0	91
12.7	83
9.5	78
4.76	70
2.38	--
2.00	64
1.19	--
0.841	50
0.595	--
0.42	40
0.297	--
0.177	--
0.149	35
0.074	35

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	96
19.0	96
12.7	92
9.5	88
4.76	81
2.38	--
2.00	74
1.19	--
0.841	67
0.595	--
0.42	62
0.297	--
0.177	--
0.149	53
0.074	44

M.C. (%): 8

M.C. (%): 9

M.C. (%): 11

LIMITS

LIQUID: 19.9
 PLASTIC: 15.5
 P.I.: 4.4

LIMITS

LIQUID: 16.7
 PLASTIC: 13.5
 P.I.: 3.2

LIMITS

LIQUID: 18.5
 PLASTIC: 14.0
 P.I.: 4.5

% GRAVEL: 34
 % SAND: 31
 % FINES: 35

% GRAVEL: 30
 % SAND: 36
 % FINES: 35

% GRAVEL: 19
 % SAND: 37
 % FINES: 44

CLASSIFICATION:
 SILTY, CLAYEY
 GRAVEL WITH SAND
 (GC-GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY, CLAYEY
 SAND WITH GRAVEL
 (SC-SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 139-05
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1907+900 O/S 17M LT
 LOGGED BY: DT DATE COMPLETED: 91.08.09

FIELD NO: 13
 LAB NO: 4372
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 14
 LAB NO: 4373
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 15
 LAB NO: 4374
 DEPTH: 4.3-4.5
 TYPE: AUGER
 NO SEIVE

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	100
38.1	78
25.4	74
19.0	67
12.7	61
9.5	58
4.76	52
2.38	--
2.00	48
1.19	--
0.841	44
0.595	--
0.42	40
0.297	--
0.177	--
0.149	33
0.074	27

M.C. (%) : 8

LIMITS

LIQUID: 18.9
 PLASTIC: 15.3
 P.I.: 3.6

% GRAVEL: 48
 % SAND: 25
 % FINES: 27

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	100
38.1	91
25.4	91
19.0	82
12.7	73
9.5	67
4.76	57
2.38	--
2.00	49
1.19	--
0.841	43
0.595	--
0.42	38
0.297	--
0.177	--
0.149	31
0.074	25

M.C. (%) : 7

LIMITS

LIQUID: 17.5
 PLASTIC: 14.9
 P.I.: 2.6

% GRAVEL: 43
 % SAND: 32
 % FINES: 25

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	--
4.76	--
2.38	--
2.00	--
1.19	--
0.841	--
0.595	--
0.42	--
0.297	--
0.177	--
0.149	--
0.074	--

M.C. (%) : 5

LIMITS

LIQUID: 17.9
 PLASTIC: 15.2
 P.I.: 2.7

% GRAVEL: --
 % SAND: --
 % FINES: --

CLASSIFICATION:

PROJECT NUMBER: 745927 HOLE NUMBER: 139-06
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1908+000 O/S 5M LT
 LOGGED BY: DT DATE COMPLETED: 91.08.09

FIELD NO: 16
 LAB NO: 4375
 DEPTH: 1.3-1.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	86
25.4	77
19.0	74
12.7	68
9.5	64
4.76	56
2.38	--
2.00	50
1.19	--
0.841	46
0.595	--
0.42	42
0.297	--
0.177	--
0.149	32
0.074	26

M.C. (%) : 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 44
 % SAND: 30
 % FINES: 26

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 139-07
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1908+100 O/S 4M LT
 LOGGED BY: DT DATE COMPLETED: 91.08.10

FIELD NO: 17
 LAB NO: 4376
 DEPTH: 1.3-1.5
 TYPE: AUGER
 ORGANIC

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	100
4.76	100
2.38	--
2.00	98
1.19	--
0.841	64
0.595	--
0.42	49
0.297	--
0.177	--
0.149	39
0.074	30

M.C. (%) : 365

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 70
 % FINES: 30

CLASSIFICATION:
 SILTY SAND (SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 139-08
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1908+200 O/S 3M LT
 LOGGED BY: DT DATE COMPLETED: 91.08.10

FIELD NO: 18
 LAB NO: 4377
 DEPTH: 1.3-1.5
 TYPE: AUGER
 ORGANIC

FIELD NO: 19
 LAB NO: 4378
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 20
 LAB NO: 4379
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	93
19.0	84
12.7	71
9.5	62
4.76	49
2.38	--
2.00	42
1.19	--
0.841	37
0.595	--
0.42	34
0.297	--
0.177	--
0.149	31
0.074	27

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	82
25.4	60
19.0	56
12.7	51
9.5	46
4.76	39
2.38	--
2.00	36
1.19	--
0.841	35
0.595	--
0.42	32
0.297	--
0.177	--
0.149	23
0.074	15

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	100
19.0	94
12.7	92
9.5	89
4.76	82
2.38	--
2.00	76
1.19	--
0.841	71
0.595	--
0.42	66
0.297	--
0.177	--
0.149	61
0.074	49

M.C. (%) : 15

M.C. (%) : 9

M.C. (%) : 20

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 51
 % SAND: 22
 % FINES: 27

% GRAVEL: 61
 % SAND: 24
 % FINES: 15

% GRAVEL: 18
 % SAND: 33
 % FINES: 49

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 139-09
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1908+300 O/S 3M LT
 LOGGED BY: DT DATE COMPLETED: 91.08.10

FIELD NO: 21
 LAB NO: 4380
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 22
 LAB NO: 4381
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 23
 LAB NO: 4382
 DEPTH: 4.3-4.5
 TYPE: AUGER

FIELD NO: 24
 LAB NO: 4383
 DEPTH: 5.8-6.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	100
4.76	100
2.38	--
2.00	100
1.19	--
0.841	99
0.595	--
0.42	99
0.297	--
0.177	--
0.149	95
0.074	86

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	100
12.7	99
9.5	99
4.76	99
2.38	--
2.00	98
1.19	--
0.841	98
0.595	--
0.42	97
0.297	--
0.177	--
0.149	92
0.074	68

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	96
19.0	96
12.7	93
9.5	92
4.76	90
2.38	--
2.00	88
1.19	--
0.841	86
0.595	--
0.42	81
0.297	--
0.177	--
0.149	49
0.074	35

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	100
38.1	85
25.4	85
19.0	80
12.7	73
9.5	64
4.76	59
2.38	--
2.00	57
1.19	--
0.841	54
0.595	--
0.42	51
0.297	--
0.177	--
0.149	40
0.074	35

M.C. (%): 22

M.C. (%): 18

M.C. (%): 13

M.C. (%): 13

LIMITS

LIQUID: 21.6
 PLASTIC: 18.0
 P.I.: 3.6

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: 20.6
 PLASTIC: 14.5
 P.I.: 6.1

% GRAVEL: 0
 % SAND: 14
 % FINES: 86

% GRAVEL: 1
 % SAND: 31
 % FINES: 68

% GRAVEL: 10
 % SAND: 55
 % FINES: 35

% GRAVEL: 41
 % SAND: 25
 % FINES: 35

CLASSIFICATION:
 SILT (ML)

CLASSIFICATION:
 SANDY SILT (ML)

CLASSIFICATION:
 SILTY SAND (SM)

CLASSIFICATION:
 SILTY, CLAYEY
 GRAVEL WITH SAND
 (GC-GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 139-10
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1908+400 O/S 7M RT
 LOGGED BY: DT DATE COMPLETED: 91.08.10

FIELD NO: 25
 LAB NO: 4384
 DEPTH: 1.3-1.5
 TYPE: AUGER
 ORGANIC

FIELD NO: 26
 LAB NO: 4385
 DEPTH: 2.8-3.0
 TYPE: AUGER
 ORGANIC

FIELD NO: 27
 LAB NO: 4386
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	100
12.7	94
9.5	91
4.76	82
2.38	--
2.00	73
1.19	--
0.841	66
0.595	--
0.42	60
0.297	--
0.177	--
0.149	49
0.074	42

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	--
4.76	100
2.38	--
2.00	100
1.19	--
0.841	98
0.595	--
0.42	95
0.297	--
0.177	--
0.149	88
0.074	76

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	100
4.76	100
2.38	--
2.00	99
1.19	--
0.841	99
0.595	--
0.42	97
0.297	--
0.177	--
0.149	89
0.074	74

M.C. (%) : 41

M.C. (%) : 96

M.C. (%) : 63

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 18
 % SAND: 40
 % FINES: 42

% GRAVEL: 0
 % SAND: 24
 % FINES: 76

% GRAVEL: 0
 % SAND: 26
 % FINES: 74

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILT WITH SAND
 (ML)

CLASSIFICATION:
 SILT WITH SAND
 (ML)

PROJECT NUMBER: 745927 HOLE NUMBER: 139-11
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1908+500 O/S 2M LT
 LOGGED BY: DT DATE COMPLETED: 91.08.10

FIELD NO: 28
 LAB NO: 4387
 DEPTH: 1.3-1.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	93
19.0	81
12.7	76
9.5	72
4.76	62
2.38	--
2.00	53
1.19	--
0.841	46
0.595	--
0.42	41
0.297	--
0.177	--
0.149	32
0.074	27

M.C. (%) : 10

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 38
 % SAND: 36
 % FINES: 27

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 139-12
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1908+600
 LOGGED BY: DT DATE COMPLETED: 91.08.10

FIELD NO: 29
 LAB NO: 4388
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 30
 LAB NO: 4389
 DEPTH: 2.8-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	100
12.7	97
9.5	92
4.76	85
2.38	--
2.00	79
1.19	--
0.841	72
0.595	--
0.42	67
0.297	--
0.177	--
0.149	57
0.074	49

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	96
19.0	91
12.7	88
9.5	81
4.76	69
2.38	--
2.00	57
1.19	--
0.841	49
0.595	--
0.42	43
0.297	--
0.177	--
0.149	33
0.074	28

M.C. (%): 22

M.C. (%): 16

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 15
 % SAND: 36
 % FINES: 49

% GRAVEL: 31
 % SAND: 41
 % FINES: 28

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 139-13
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1908+700 O/S 2M RT
 LOGGED BY: DT DATE COMPLETED: 91.08.10

FIELD NO: 31
 LAB NO: 4390
 DEPTH: 1.3-1.5
 TYPE: AUGER
 ORGANIC

FIELD NO: 32
 LAB NO: 4391
 DEPTH: 2.8-3.0
 TYPE: AUGER
 ORGANIC

FIELD NO: 33
 LAB NO: 4392
 DEPTH: 4.3-4.5
 TYPE: AUGER
 ORGANIC

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	100
4.76	98
2.38	--
2.00	88
1.19	--
0.841	78
0.595	--
0.42	72
0.297	--
0.177	--
0.149	61
0.074	54

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	--
4.76	100
2.38	--
2.00	98
1.19	--
0.841	96
0.595	--
0.42	94
0.297	--
0.177	--
0.149	87
0.074	78

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	100
4.76	100
2.38	--
2.00	99
1.19	--
0.841	97
0.595	--
0.42	94
0.297	--
0.177	--
0.149	88
0.074	82

M.C. (%): 109

M.C. (%): 110

M.C. (%): 136

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 2
 % SAND: 44
 % FINES: 54

% GRAVEL: 0
 % SAND: 22
 % FINES: 78

% GRAVEL: 0
 % SAND: 18
 % FINES: 82

CLASSIFICATION:
 SANDY SILT (ML)

CLASSIFICATION:
 SILT WITH SAND
 (ML)

CLASSIFICATION:
 SILT WITH SAND
 (ML)

PROJECT NUMBER: 745927 HOLE NUMBER: 139-14
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1908+800 O/S 2M LT
 LOGGED BY: DT DATE COMPLETED: 91.08.10

FIELD NO: 34
 LAB NO: 4393
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 35
 LAB NO: 4394
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 36
 LAB NO: 4395
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	100
12.7	95
9.5	91
4.76	84
2.38	--
2.00	77
1.19	--
0.841	70
0.595	--
0.42	64
0.297	--
0.177	--
0.149	50
0.074	41

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	80
19.0	79
12.7	72
9.5	67
4.76	56
2.38	--
2.00	46
1.19	--
0.841	39
0.595	--
0.42	34
0.297	--
0.177	--
0.149	25
0.074	20

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	93
19.0	92
12.7	84
9.5	77
4.76	64
2.38	--
2.00	53
1.19	--
0.841	44
0.595	--
0.42	38
0.297	--
0.177	--
0.149	29
0.074	25

M.C. (%): 19

M.C. (%): 10

M.C. (%): 10

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 16
 % SAND: 43
 % FINES: 41

% GRAVEL: 44
 % SAND: 36
 % FINES: 20

% GRAVEL: 36
 % SAND: 39
 % FINES: 25

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 139-15
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1908+900
 LOGGED BY: DT DATE COMPLETED: 91.08.10

FIELD NO: 37	FIELD NO: 38	FIELD NO: 39	FIELD NO: 40
LAB NO: 4396	LAB NO: 4397	LAB NO: 4398	LAB NO: 4399
DEPTH: 1.3-1.5	DEPTH: 2.8-3.0	DEPTH: 4.3-4.5	DEPTH: 5.8-6.0
TYPE: AUGER	TYPE: AUGER	TYPE: AUGER	TYPE: AUGER

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
101.6	--	101.6	--	101.6	--	101.6	--
76.2	--	76.2	--	76.2	--	76.2	--
50.8	--	50.8	--	50.8	--	50.8	--
38.1	100	38.1	100	38.1	--	38.1	100
25.4	85	25.4	98	25.4	--	25.4	88
19.0	74	19.0	95	19.0	--	19.0	83
12.7	71	12.7	91	12.7	--	12.7	76
9.5	68	9.5	88	9.5	100	9.5	71
4.76	61	4.76	82	4.76	99	4.76	63
2.38	--	2.38	--	2.38	--	2.38	--
2.00	54	2.00	76	2.00	97	2.00	55
1.19	--	1.19	--	1.19	--	1.19	--
0.841	48	0.841	71	0.841	95	0.841	50
0.595	--	0.595	--	0.595	--	0.595	--
0.42	44	0.42	66	0.42	94	0.42	45
0.297	--	0.297	--	0.297	--	0.297	--
0.177	--	0.177	--	0.177	--	0.177	--
0.149	35	0.149	57	0.149	91	0.149	38
0.074	30	0.074	52	0.074	88	0.074	34

M.C. (%): 12 M.C. (%): 15 M.C. (%): 37 M.C. (%): 15

LIMITS		LIMITS		LIMITS		LIMITS	
LIQUID:	--	LIQUID:	21.9	LIQUID:	29.5	LIQUID:	20.3
PLASTIC:	--	PLASTIC:	16.8	PLASTIC:	21.3	PLASTIC:	13.6
P.I.:	TRACE	P.I.:	5.1	P.I.:	8.2	P.I.:	6.7

% GRAVEL:	39	% GRAVEL:	18	% GRAVEL:	1	% GRAVEL:	37
% SAND:	31	% SAND:	30	% SAND:	10	% SAND:	30
% FINES:	30	% FINES:	52	% FINES:	88	% FINES:	34

CLASSIFICATION:	CLASSIFICATION:	CLASSIFICATION:	CLASSIFICATION:
SILTY GRAVEL WITH SAND (GM)	SANDY SILTY CLAY WITH GRAVEL (CL-ML)	LEAN CLAY (CL)	SILTY, CLAYEY GRAVEL WITH SAND (GC-GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 139-16
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1909+000
 LOGGED BY: DT DATE COMPLETED: 91.08.10

FIELD NO: 41
 LAB NO: 4400
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 42
 LAB NO: 4401
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 43
 LAB NO: 4402
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	87
19.0	75
12.7	67
9.5	62
4.76	54
2.38	--
2.00	47
1.19	--
0.841	41
0.595	--
0.42	36
0.297	--
0.177	--
0.149	29
0.074	24

M.C. (%) : 6

LIMITS

LIQUID: 18.2
 PLASTIC: 14.5
 P.I.: 3.7

% GRAVEL: 46
 % SAND: 29
 % FINES: 24

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	100
12.7	97
9.5	94
4.76	87
2.38	--
2.00	78
1.19	--
0.841	71
0.595	--
0.42	65
0.297	--
0.177	--
0.149	57
0.074	49

M.C. (%) : 11

LIMITS

LIQUID: 21.9
 PLASTIC: 16.2
 P.I.: 5.7

% GRAVEL: 13
 % SAND: 38
 % FINES: 49

CLASSIFICATION:
 SILTY, CLAYEY
 SAND (SC-SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	100
38.1	84
25.4	77
19.0	70
12.7	66
9.5	64
4.76	58
2.38	--
2.00	53
1.19	--
0.841	47
0.595	--
0.42	43
0.297	--
0.177	--
0.149	37
0.074	29

M.C. (%) : 8

LIMITS

LIQUID: 19.1
 PLASTIC: 14.9
 P.I.: 4.2

% GRAVEL: 42
 % SAND: 29
 % FINES: 29

CLASSIFICATION:
 SILTY, CLAYEY
 GRAVEL WITH SAND
 (GC-GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 139-17
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1909+100
 LOGGED BY: DT DATE COMPLETED: 91.08.10

FIELD NO: 44
 LAB NO: 4403
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 45
 LAB NO: 4404
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 46
 LAB NO: 4405
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	100
38.1	90
25.4	85
19.0	85
12.7	79
9.5	76
4.76	67
2.38	--
2.00	57
1.19	--
0.841	49
0.595	--
0.42	41
0.297	--
0.177	--
0.149	30
0.074	24

M.C. (%) : 13

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 33
 % SAND: 43
 % FINES: 24

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	94
19.0	86
12.7	77
9.5	71
4.76	62
2.38	--
2.00	54
1.19	--
0.841	48
0.595	--
0.42	42
0.297	--
0.177	--
0.149	34
0.074	28

M.C. (%) : 11

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 38
 % SAND: 34
 % FINES: 28

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	90
19.0	89
12.7	83
9.5	79
4.76	71
2.38	--
2.00	63
1.19	--
0.841	55
0.595	--
0.42	49
0.297	--
0.177	--
0.149	41
0.074	34

M.C. (%) : 12

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 29
 % SAND: 37
 % FINES: 34

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 139-18
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1909+203 O/S 2M LT
 LOGGED BY: DT DATE COMPLETED: 91.08.10

FIELD NO: 47
 LAB NO: 1406
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 48
 LAB NO: 4407
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 49
 LAB NO: 4408
 DEPTH: 5.3-5.5
 TYPE: AUGER

FIELD NO: 49A
 LAB NO: 4409
 DEPTH: 6.9-7.1
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	94
19.0	81
12.7	79
9.5	75
4.76	68
2.38	--
2.00	61
1.19	--
0.841	55
0.595	--
0.42	50
0.297	--
0.177	--
0.149	40
0.074	33

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	91
19.0	87
12.7	78
9.5	74
4.76	67
2.38	--
2.00	59
1.19	--
0.841	53
0.595	--
0.42	48
0.297	--
0.177	--
0.149	38
0.074	32

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	93
19.0	86
12.7	73
9.5	68
4.76	61
2.38	--
2.00	56
1.19	--
0.841	51
0.595	--
0.42	47
0.297	--
0.177	--
0.149	38
0.074	33

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	100
12.7	98
9.5	97
4.76	92
2.38	--
2.00	84
1.19	--
0.841	75
0.595	--
0.42	66
0.297	--
0.177	--
0.149	44
0.074	33

M.C. (%): 6

M.C. (%): 7

M.C. (%): 6

M.C. (%): 7

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: 17.0
 PLASTIC: 14.2
 P.I.: 2.8

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 32
 % SAND: 34
 % FINES: 33

% GRAVEL: 33
 % SAND: 35
 % FINES: 32

% GRAVEL: 39
 % SAND: 29
 % FINES: 33

% GRAVEL: 8
 % SAND: 59
 % FINES: 33

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY SAND (SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 139-20
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1909+300 O/S 2M RT
 LOGGED BY: DT DATE COMPLETED: 91.08.11

FIELD NO: 53
 LAB NO: 4413
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 54
 LAB NO: 4414
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 55
 LAB NO: 4415
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	100
38.1	81
25.4	77
19.0	77
12.7	65
9.5	61
4.76	53
2.38	--
2.00	46
1.19	--
0.841	41
0.595	--
0.42	37
0.297	--
0.177	--
0.149	32
0.074	27

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	97
19.0	96
12.7	92
9.5	90
4.76	84
2.38	--
2.00	79
1.19	--
0.841	73
0.595	--
0.42	69
0.297	--
0.177	--
0.149	63
0.074	57

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	97
19.0	92
12.7	76
9.5	69
4.76	56
2.38	--
2.00	45
1.19	--
0.841	38
0.595	--
0.42	33
0.297	--
0.177	--
0.149	26
0.074	23

M.C. (%) : 21

M.C. (%) : 18

M.C. (%) : 15

LIMITS

LIQUID: 19.4
 PLASTIC: 15.2
 P.I.: 4.2

LIMITS

LIQUID: 22.1
 PLASTIC: 15.5
 P.I.: 6.6

LIMITS

LIQUID: 19.2
 PLASTIC: 16.7
 P.I.: 2.5

% GRAVEL: 47
 % SAND: 26
 % FINES: 27

% GRAVEL: 16
 % SAND: 27
 % FINES: 57

% GRAVEL: 44
 % SAND: 33
 % FINES: 23

CLASSIFICATION:
 SILTY, CLAYEY
 GRAVEL WITH SAND
 (GC-GM)

CLASSIFICATION:
 SANDY SILTY CLAY
 WITH GRAVEL
 (CL-ML)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-21
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1909+400
 LOGGED BY: DT DATE COMPLETED: 91.08.11

FIELD NO: 56
 LAB NO: 4416
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 57
 LAB NO: 4417
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 58
 LAB NO: 4418
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	100
38.1	89
25.4	86
19.0	77
12.7	74
9.5	69
4.76	61
2.38	--
2.00	53
1.19	--
0.841	47
0.595	--
0.42	43
0.297	--
0.177	--
0.149	35
0.074	30

M.C. (%) : 19

LIMITS

LIQUID: 18.4
 PLASTIC: 16.4
 P.I.: 2.0

% GRAVEL: 39
 % SAND: 31
 % FINES: 30

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	87
19.0	77
12.7	71
9.5	68
4.76	59
2.38	--
2.00	52
1.19	--
0.841	47
0.595	--
0.42	43
0.297	--
0.177	--
0.149	36
0.074	32

M.C. (%) : 12

LIMITS

LIQUID: 19.5
 PLASTIC: 14.2
 P.I.: 5.3

% GRAVEL: 41
 % SAND: 27
 % FINES: 32

CLASSIFICATION:
 SILTY, CLAYEY
 GRAVEL WITH SAND
 (GC-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	--
25.4	100
19.0	98
12.7	95
9.5	92
4.76	81
2.38	--
2.00	70
1.19	--
0.841	62
0.595	--
0.42	56
0.297	--
0.177	--
0.149	46
0.074	40

M.C. (%) : 9

LIMITS

LIQUID: 18.2
 PLASTIC: 14.2
 P.I.: 4.0

% GRAVEL: 19
 % SAND: 41
 % FINES: 40

CLASSIFICATION:
 SILTY, CLAYEY
 SAND WITH GRAVEL
 (SC-SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-22
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1909+500 O/S 2M RT.
 LOGGED BY: DT DATE COMPLETED: 91.08.11

FIELD NO: 59
 LAB NO: 4419
 DEPTH: 1.5-1.7
 TYPE: AUGER
 EST. 75% ORGANIC

FIELD NO: 60
 LAB NO: 4420
 DEPTH: 2.8-3.0
 TYPE: AUGER
 EST. 65% ORGANIC

FIELD NO: 61
 LAB NO: 4421
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	100
4.76	99
2.38	--
2.00	97
1.19	--
0.841	93
0.595	--
0.42	90
0.297	--
0.177	--
0.149	73
0.074	58

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	100
4.76	97
2.38	--
2.00	93
1.19	--
0.841	87
0.595	--
0.42	79
0.297	--
0.177	--
0.149	63
0.074	55

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	91
19.0	89
12.7	80
9.5	75
4.76	66
2.38	--
2.00	59
1.19	--
0.841	53
0.595	--
0.42	48
0.297	--
0.177	--
0.149	42
0.074	35

M.C. (%): 104

M.C. (%): 171

M.C. (%): 20

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 1
 % SAND: 40
 % FINES: 58

% GRAVEL: 3
 % SAND: 42
 % FINES: 55

% GRAVEL: 34
 % SAND: 31
 % FINES: 35

CLASSIFICATION:
 SANDY SILT (ML)

CLASSIFICATION:
 SANDY SILT (ML)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-23
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1909+600 O/S 2M RT.
 LOGGED BY: DT DATE COMPLETED: 91.08.11

FIELD NO: 62
 LAB NO: 4422
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 63
 LAB NO: 4423
 DEPTH: 2.8-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	100
12.7	90
9.5	85
4.76	75
2.38	--
2.00	65
1.19	--
0.841	57
0.595	--
0.42	51
0.297	--
0.177	--
0.149	43
0.074	36

M.C. (%) : 29

LIMITS

LIQUID: 22.4
 PLASTIC: 16.9
 P.I.: 5.5

% GRAVEL: 25
 % SAND: 39
 % FINES: 36

CLASSIFICATION:
 SILTY, CLAYEY
 SAND WITH GRAVEL
 (SC-SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	100
12.7	92
9.5	88
4.76	72
2.38	--
2.00	59
1.19	--
0.841	50
0.595	--
0.42	44
0.297	--
0.177	--
0.149	37
0.074	31

M.C. (%) : 12

LIMITS

LIQUID: 19.7
 PLASTIC: 15.9
 P.I.: 3.8

% GRAVEL: 28
 % SAND: 41
 % FINES: 31

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-24
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1909+985 O/S 2M RT.
 LOGGED BY: DT DATE COMPLETED: 91.08.13

FIELD NO: 64
 LAB NO: 4441
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 65
 LAB NO: 4442
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 66
 LAB NO: 4443
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	87
25.4	87
19.0	77
12.7	69
9.5	61
4.76	49
2.38	--
2.00	38
1.19	--
0.841	31
0.595	--
0.42	25
0.297	--
0.177	--
0.149	17
0.074	11

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	97
19.0	86
12.7	73
9.5	64
4.76	48
2.38	--
2.00	37
1.19	--
0.841	30
0.595	--
0.42	25
0.297	--
0.177	--
0.149	16
0.074	12

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	86
25.4	79
19.0	75
12.7	68
9.5	63
4.76	51
2.38	--
2.00	38
1.19	--
0.841	29
0.595	--
0.42	24
0.297	--
0.177	--
0.149	14
0.074	11

M.C. (%) : 4

M.C. (%) : 3

M.C. (%) : 3

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 51
 % SAND: 38
 % FINES: 11

% GRAVEL: 52
 % SAND: 37
 % FINES: 12

% GRAVEL: 49
 % SAND: 40
 % FINES: 11

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-25
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1910+450 O/S 8M LT.
 LOGGED BY: DT DATE COMPLETED: 91.08.13

FIELD NO: 67
 LAB NO: 4444
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 68
 LAB NO: 4445
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 69
 LAB NO: 4446
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	100
38.1	93
25.4	81
19.0	73
12.7	62
9.5	55
4.76	40
2.38	--
2.00	29
1.19	--
0.841	20
0.595	--
0.42	14
0.297	--
0.177	--
0.149	9
0.074	7

M.C. (%) : 3

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 60
 % SAND: 33
 % FINES: 7

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	92
19.0	83
12.7	66
9.5	57
4.76	42
2.38	--
2.00	31
1.19	--
0.841	22
0.595	--
0.42	16
0.297	--
0.177	--
0.149	10
0.074	8

M.C. (%) : 3

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 58
 % SAND: 34
 % FINES: 8

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	85
19.0	76
12.7	67
9.5	60
4.76	47
2.38	--
2.00	32
1.19	--
0.841	22
0.595	--
0.42	16
0.297	--
0.177	--
0.149	11
0.074	9

M.C. (%) : 4

LIMITS
 LIQUID: 20.9
 PLASTIC: 15.4
 P.I.: 5.5

% GRAVEL: 53
 % SAND: 38
 % FINES: 9

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH CLAY
 & SAND (GW-GC)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-26
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1910+550 O/S 5M LT.
 LOGGED BY: DT DATE COMPLETED: 91.08.13

FIELD NO: 70
 LAB NO: 4447
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 71
 LAB NO: 4448
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	83
19.0	78
12.7	67
9.5	61
4.76	48
2.38	--
2.00	37
1.19	--
0.841	27
0.595	--
0.42	19
0.297	--
0.177	--
0.149	11
0.074	8

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	100
50.8	84
38.1	84
25.4	64
19.0	59
12.7	48
9.5	43
4.76	33
2.38	--
2.00	23
1.19	--
0.841	16
0.595	--
0.42	11
0.297	--
0.177	--
0.149	5
0.074	4

M.C. (%) : 2

M.C. (%) : 1

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 52
 % SAND: 39
 % FINES: 8

% GRAVEL: 67
 % SAND: 29
 % FINES: 4

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-27
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1910+650 O/S 5M LT.
 LOGGED BY: DT DATE COMPLETED: 91.08.13

FIELD NO: 72
 LAB NO: 4449
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 73
 LAB NO: 4450
 DEPTH: 2.8-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	89
25.4	71
19.0	63
12.7	58
9.5	54
4.76	46
2.38	--
2.00	41
1.19	--
0.841	28
0.595	--
0.42	22
0.297	--
0.177	--
0.149	16
0.074	14

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	80
19.0	70
12.7	54
9.5	44
4.76	27
2.38	--
2.00	18
1.19	--
0.841	14
0.595	--
0.42	11
0.297	--
0.177	--
0.149	7
0.074	6

M.C. (%) : 4

M.C. (%) : 2

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 54
 % SAND: 32
 % FINES: 14

% GRAVEL: 73
 % SAND: 21
 % FINES: 6

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-28
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1910+752 O/S 7M LT.
 LOGGED BY: DT DATE COMPLETED: 91.08.13

FIELD NO: 74
 LAB NO: 4451
 DEPTH: 1.3-1.5
 TYPE: AUGER
 ORGANICS

FIELD NO: 75
 LAB NO: 4452
 DEPTH: 2.8-3.0
 TYPE: AUGER
 ORGANICS

FIELD NO: 76
 LAB NO: 4453
 DEPTH: 3.5-3.7
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	100
19.0	99
12.7	98
9.5	97
4.76	94
2.38	--
2.00	91
1.19	--
0.841	88
0.595	--
0.42	86
0.297	--
0.177	--
0.149	82
0.074	78

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	84
25.4	66
19.0	58
12.7	51
9.5	47
4.76	43
2.38	--
2.00	40
1.19	--
0.841	37
0.595	--
0.42	35
0.297	--
0.177	--
0.149	33
0.074	31

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	89
19.0	87
12.7	77
9.5	71
4.76	60
2.38	--
2.00	51
1.19	--
0.841	42
0.595	--
0.42	32
0.297	--
0.177	--
0.149	25
0.074	22

M.C. (%): 29

M.C. (%): 12

M.C. (%): 9

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 6
 % SAND: 16
 % FINES: 78

% GRAVEL: 57
 % SAND: 12
 % FINES: 31

% GRAVEL: 40
 % SAND: 38
 % FINES: 22

CLASSIFICATION:
 SILT WITH SAND
 (ML)

CLASSIFICATION:
 SILTY GRAVEL (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-29
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1910+852 O/S 9M LT.
 LOGGED BY: DT DATE COMPLETED: 91.08.13

FIELD NO: 77
 LAB NO: 4454
 DEPTH: 1.3-1.5
 TYPE: AUGER
 ORGANICS

FIELD NO: 78
 LAB NO: 4455
 DEPTH: 2.8-3.0
 TYPE: AUGER
 ORGANICS

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	80
19.0	72
12.7	70
9.5	69
4.76	65
2.38	--
2.00	61
1.19	--
0.841	55
0.595	--
0.42	51
0.297	--
0.177	--
0.149	44
0.074	37

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	86
19.0	67
12.7	53
9.5	47
4.76	36
2.38	--
2.00	29
1.19	--
0.841	25
0.595	--
0.42	21
0.297	--
0.177	--
0.149	16
0.074	14

M.C. (%) : 24

M.C. (%) : 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 35
 % SAND: 28
 % FINES: 37

% GRAVEL: 64
 % SAND: 23
 % FINES: 14

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-30
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1910+975 O/S 2M LT.
 LOGGED BY: DT DATE COMPLETED: 91.08.13

FIELD NO: 79
 LAB NO: 4456
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 80
 LAB NO: 4457
 DEPTH: 2.8-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	91
25.4	72
19.0	64
12.7	59
9.5	56
4.76	47
2.38	--
2.00	40
1.19	--
0.841	35
0.595	--
0.42	30
0.297	--
0.177	--
0.149	26
0.074	22

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	86
19.0	82
12.7	74
9.5	68
4.76	52
2.38	--
2.00	38
1.19	--
0.841	26
0.595	--
0.42	17
0.297	--
0.177	--
0.149	9
0.074	8

M.C. (%) : 10

M.C. (%) : 4

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 53
 % SAND: 25
 % FINES: 22

% GRAVEL: 48
 % SAND: 44
 % FINES: 8

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-31
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1911+075
 LOGGED BY: DT DATE COMPLETED: 91.08.13

FIELD NO: 81
 LAB NO: 4458
 DEPTH: 1.3-1.5
 TYPE: AUGER
 ORGANICS

FIELD NO: 82
 LAB NO: 4459
 DEPTH: 2.8-3.0
 TYPE: AUGER
 ORGANICS

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	100
19.0	98
12.7	93
9.5	90
4.76	84
2.38	--
2.00	78
1.19	--
0.841	74
0.595	--
0.42	70
0.297	--
0.177	--
0.149	65
0.074	61

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	88
25.4	55
19.0	50
12.7	37
9.5	36
4.76	34
2.38	--
2.00	32
1.19	--
0.841	30
0.595	--
0.42	29
0.297	--
0.177	--
0.149	24
0.074	22

M.C. (%) : 20

M.C. (%) : 10

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 16
 % SAND: 24
 % FINES: 61

% GRAVEL: 66
 % SAND: 12
 % FINES: 22

CLASSIFICATION:
 SANDY SILT WITH
 GRAVEL (ML)

CLASSIFICATION:
 SILTY GRAVEL (GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-32
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1911+650
 LOGGED BY: DT DATE COMPLETED: 91.08.13

FIELD NO: 83
 LAB NO: 4460
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 84
 LAB NO: 4461
 DEPTH: 2.8-3.0
 TYPE: AUGER
 ORGANICS

FIELD NO: 85
 LAB NO: 4462
 DEPTH: 4.5-4.7
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	85
25.4	77
19.0	69
12.7	60
9.5	55
4.76	46
2.38	--
2.00	37
1.19	--
0.841	31
0.595	--
0.42	26
0.297	--
0.177	--
0.149	20
0.074	17

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	79
25.4	62
19.0	55
12.7	49
9.5	42
4.76	32
2.38	--
2.00	27
1.19	--
0.841	23
0.595	--
0.42	20
0.297	--
0.177	--
0.149	15
0.074	12

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	--
4.76	--
2.38	--
2.00	--
1.19	--
0.841	--
0.595	--
0.42	--
0.297	--
0.177	--
0.149	--
0.074	--

M.C. (%) : 5

M.C. (%) : 4

M.C. (%) : 3

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 54
 % SAND: 28
 % FINES: 17

% GRAVEL: 68
 % SAND: 20
 % FINES: 12

% GRAVEL: --
 % SAND: --
 % FINES: --

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:

PROJECT NUMBER: 745927 HOLE NUMBER: 140-33
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1911+925
 LOGGED BY: DT DATE COMPLETED: 91.08.13

FIELD NO: 86
 LAB NO: 4463
 DEPTH: 1.3-1.5
 TYPE: AUGER
 ORGANICS

FIELD NO: 87
 LAB NO: 4464
 DEPTH: 2.8-3.0
 TYPE: AUGER
 ORGANICS

FIELD NO: 88
 LAB NO: 4465
 DEPTH: 4.3-4.5
 TYPE: AUGER
 ORGANICS

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	84
25.4	78
19.0	75
12.7	69
9.5	65
4.76	56
2.38	--
2.00	47
1.19	--
0.841	39
0.595	--
0.42	33
0.297	--
0.177	--
0.149	26
0.074	22

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	93
19.0	91
12.7	84
9.5	79
4.76	73
2.38	--
2.00	65
1.19	--
0.841	58
0.595	--
0.42	53
0.297	--
0.177	--
0.149	47
0.074	42

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	92
25.4	75
19.0	71
12.7	59
9.5	55
4.76	45
2.38	--
2.00	37
1.19	--
0.841	31
0.595	--
0.42	26
0.297	--
0.177	--
0.149	22
0.074	19

M.C. (%) : 9

M.C. (%) : 19

M.C. (%) : 10

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 44
 % SAND: 34
 % FINES: 22

% GRAVEL: 27
 % SAND: 31
 % FINES: 42

% GRAVEL: 55
 % SAND: 26
 % FINES: 19

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-34
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1912+003
 LOGGED BY: DT DATE COMPLETED: 91.08.13

FIELD NO: 89
 LAB NO: 4466
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 90
 LAB NO: 4467
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 91
 LAB NO: 4468
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	90
25.4	86
19.0	78
12.7	67
9.5	61
4.76	50
2.38	--
2.00	40
1.19	--
0.841	29
0.595	--
0.42	21
0.297	--
0.177	--
0.149	12
0.074	7

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	89
25.4	83
19.0	73
12.7	51
9.5	43
4.76	31
2.38	--
2.00	24
1.19	--
0.841	17
0.595	--
0.42	11
0.297	--
0.177	--
0.149	6
0.074	3

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	93
19.0	90
12.7	86
9.5	82
4.76	75
2.38	--
2.00	69
1.19	--
0.841	61
0.595	--
0.42	52
0.297	--
0.177	--
0.149	43
0.074	40

M.C. (%) : 3

M.C. (%) : 3

M.C. (%) : 17

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 50
 % SAND: 43
 % FINES: 7

% GRAVEL: 69
 % SAND: 28
 % FINES: 3

% GRAVEL: 25
 % SAND: 35
 % FINES: 40

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-35
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1912+600 O/S 2M LT.
 LOGGED BY: DT DATE COMPLETED: 91.08.13

FIELD NO: 92
 LAB NO: 4469
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 93
 LAB NO: 4470
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 94
 LAB NO: 4471
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	90
19.0	77
12.7	64
9.5	62
4.76	44
2.38	--
2.00	33
1.19	--
0.841	23
0.595	--
0.42	17
0.297	--
0.177	--
0.149	8
0.074	6

M.C. (%) : 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 56
 % SAND: 38
 % FINES: 6

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	93
19.0	87
12.7	71
9.5	60
4.76	42
2.38	--
2.00	28
1.19	--
0.841	19
0.595	--
0.42	13
0.297	--
0.177	--
0.149	7
0.074	5

M.C. (%) : 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 58
 % SAND: 37
 % FINES: 5

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	100
12.7	84
9.5	74
4.76	57
2.38	--
2.00	40
1.19	--
0.841	26
0.595	--
0.42	16
0.297	--
0.177	--
0.149	7
0.074	6

M.C. (%) : 4

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 43
 % SAND: 52
 % FINES: 6

CLASSIFICATION:
 WELL-GRADED SAND
 WITH SILT &
 GRAVEL (SW-SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-36
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1912+700 O/S 2M LT.
 LOGGED BY: DT DATE COMPLETED: 91.08.13

FIELD NO: 95
 LAB NO: 4472
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 96
 LAB NO: 4473
 DEPTH: 2.8-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	91
19.0	81
12.7	65
9.5	59
4.76	46
2.38	--
2.00	33
1.19	--
0.841	23
0.595	--
0.42	16
0.297	--
0.177	--
0.149	11
0.074	8

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	96
19.0	82
12.7	72
9.5	64
4.76	48
2.38	--
2.00	35
1.19	--
0.841	24
0.595	--
0.42	16
0.297	--
0.177	--
0.149	9
0.074	6

M.C. (%) : 4

M.C. (%) : 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 54
 % SAND: 38
 % FINES: 8

% GRAVEL: 52
 % SAND: 42
 % FINES: 6

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-37
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1912+800
 LOGGED BY: DT DATE COMPLETED: 91.08.14

FIELD NO: 97
 LAB NO: 4474
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 98
 LAB NO: 4475
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 99
 LAB NO: 4476
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	88
19.0	83
12.7	71
9.5	62
4.76	46
2.38	--
2.00	32
1.19	--
0.841	18
0.595	--
0.42	10
0.297	--
0.177	--
0.149	4
0.074	3

M.C. (%) : 2

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 54
 % SAND: 43
 % FINES: 3

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	83
19.0	76
12.7	56
9.5	46
4.76	28
2.38	--
2.00	19
1.19	--
0.841	12
0.595	--
0.42	7
0.297	--
0.177	--
0.149	4
0.074	3

M.C. (%) : 2

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 72
 % SAND: 26
 % FINES: 3

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	93
19.0	81
12.7	74
9.5	66
4.76	52
2.38	--
2.00	40
1.19	--
0.841	26
0.595	--
0.42	14
0.297	--
0.177	--
0.149	4
0.074	2

M.C. (%) : 7

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: NP

% GRAVEL: 48
 % SAND: 50
 % FINES: 2

CLASSIFICATION:
 POORLY GRADED
 SAND WITH GRAVEL
 (SP)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-38
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1912+900 O/S 3M RT.
 LOGGED BY: DT DATE COMPLETED: 91.08.14

FIELD NO: 100
 LAB NO: 4477
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 101
 LAB NO: 4478
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 102
 LAB NO: 4479
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	88
19.0	79
12.7	70
9.5	62
4.76	50
2.38	--
2.00	38
1.19	--
0.841	27
0.595	--
0.42	18
0.297	--
0.177	--
0.149	10
0.074	8

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	90
19.0	77
12.7	56
9.5	46
4.76	28
2.38	--
2.00	19
1.19	--
0.841	14
0.595	--
0.42	10
0.297	--
0.177	--
0.149	7
0.074	6

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	78
19.0	78
12.7	70
9.5	61
4.76	46
2.38	--
2.00	33
1.19	--
0.841	20
0.595	--
0.42	11
0.297	--
0.177	--
0.149	7
0.074	5

M.C. (%): 4

M.C. (%): 3

M.C. (%): 3

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 50
 % SAND: 42
 % FINES: 8

% GRAVEL: 72
 % SAND: 23
 % FINES: 6

% GRAVEL: 54
 % SAND: 41
 % FINES: 5

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-39
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1913+000 O/S 6M RT.
 LOGGED BY: DT DATE COMPLETED: 91.08.14

FIELD NO: 103
 LAB NO: 4480
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 104
 LAB NO: 4481
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 105
 LAB NO: 4482
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	90
19.0	88
12.7	74
9.5	69
4.76	64
2.38	--
2.00	59
1.19	--
0.841	55
0.595	--
0.42	51
0.297	--
0.177	--
0.149	46
0.074	40

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	85
19.0	73
12.7	64
9.5	55
4.76	40
2.38	--
2.00	29
1.19	--
0.841	21
0.595	--
0.42	15
0.297	--
0.177	--
0.149	12
0.074	11

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	84
19.0	75
12.7	64
9.5	59
4.76	47
2.38	--
2.00	36
1.19	--
0.841	25
0.595	--
0.42	17
0.297	--
0.177	--
0.149	12
0.074	10

M.C. (%): 12

M.C. (%): 4

M.C. (%): 4

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 36
 % SAND: 23
 % FINES: 40

% GRAVEL: 60
 % SAND: 30
 % FINES: 11

% GRAVEL: 53
 % SAND: 37
 % FINES: 10

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-40
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1913+100 O/S 16M RT.
 LOGGED BY: DT DATE COMPLETED: 91.08.14

FIELD NO: 106
 LAB NO: 4483
 DEPTH: 1.3-1.5
 TYPE: AUGER
 EST. 90% ORGANICS

FIELD NO: 107
 LAB NO: 4484
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 108
 LAB NO: 4485
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	100
4.76	99
2.38	--
2.00	96
1.19	--
0.841	84
0.595	--
0.42	79
0.297	--
0.177	--
0.149	74
0.074	68

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	85
25.4	63
19.0	63
12.7	56
9.5	53
4.76	48
2.38	--
2.00	42
1.19	--
0.841	37
0.595	--
0.42	35
0.297	--
0.177	--
0.149	32
0.074	30

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	87
25.4	76
19.0	68
12.7	60
9.5	56
4.76	50
2.38	--
2.00	43
1.19	--
0.841	36
0.595	--
0.42	33
0.297	--
0.177	--
0.149	30
0.074	28

M.C. (%): 43

M.C. (%): 9

M.C. (%): 11

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 1
 % SAND: 31
 % FINES: 68

% GRAVEL: 52
 % SAND: 18
 % FINES: 30

% GRAVEL: 50
 % SAND: 22
 % FINES: 28

CLASSIFICATION:
 SANDY SILT (ML)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-41
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1913+200 O/S 4M RT.
 LOGGED BY: DT DATE COMPLETED: 91.08.14

FIELD NO: 109
 LAB NO: 4486
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 110
 LAB NO: 4487
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 111
 LAB NO: 4488
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	97
19.0	88
12.7	80
9.5	78
4.76	70
2.38	--
2.00	66
1.19	--
0.841	63
0.595	--
0.42	60
0.297	--
0.177	--
0.149	57
0.074	54

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	91
25.4	79
19.0	65
12.7	55
9.5	47
4.76	39
2.38	--
2.00	36
1.19	--
0.841	33
0.595	--
0.42	31
0.297	--
0.177	--
0.149	29
0.074	27

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	87
25.4	75
19.0	66
12.7	51
9.5	44
4.76	33
2.38	--
2.00	24
1.19	--
0.841	18
0.595	--
0.42	14
0.297	--
0.177	--
0.149	10
0.074	9

M.C. (%): 16

M.C. (%): 10

M.C. (%): 6

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 30
 % SAND: 16
 % FINES: 54

% GRAVEL: 61
 % SAND: 13
 % FINES: 27

% GRAVEL: 67
 % SAND: 25
 % FINES: 9

CLASSIFICATION:
 GRAVELLY SILT
 WITH SAND (ML)

CLASSIFICATION:
 SILTY GRAVEL (GM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-42
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1913+300
 LOGGED BY: DT DATE COMPLETED: 91.08.14

FIELD NO: 112
 LAB NO: 4489
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 113
 LAB NO: 4490
 DEPTH: 2.8-3.0
 TYPE: AUGER
 EST. 98% ORGANIC

FIELD NO: 114
 LAB NO: 4491
 DEPTH: 4.3-4.5
 TYPE: AUGER
 ORGANICS

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	--
4.76	--
2.38	--
2.00	--
1.19	--
0.841	--
0.595	--
0.42	--
0.297	--
0.177	--
0.149	--
0.074	--

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	100
4.76	96
2.38	--
2.00	93
1.19	--
0.841	80
0.595	--
0.42	74
0.297	--
0.177	--
0.149	59
0.074	52

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	84
25.4	84
19.0	84
12.7	83
9.5	82
4.76	81
2.38	--
2.00	80
1.19	--
0.841	78
0.595	--
0.42	77
0.297	--
0.177	--
0.149	75
0.074	73

M.C. (%) : 9

M.C. (%) : 58

M.C. (%) : 43

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: --

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: NP

% GRAVEL: --
 % SAND: --
 % FINES: --

% GRAVEL: 4
 % SAND: 44
 % FINES: 52

% GRAVEL: 19
 % SAND: 8
 % FINES: 73

CLASSIFICATION:

CLASSIFICATION:
SANDY SILT (ML)

CLASSIFICATION:
SILT WITH GRAVEL
(ML)

PROJECT NUMBER: 745927 HOLE NUMBER: 140-43
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1913+412 O/S 7M LT.
 LOGGED BY: DT DATE COMPLETED: 91.08.14

FIELD NO: 115
 LAB NO: 4492
 DEPTH: 1.3-1.5
 TYPE: AUGER
 ORGANICS

FIELD NO: 116
 LAB NO: 4493
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 117
 LAB NO: 4494
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	93
19.0	90
12.7	86
9.5	82
4.76	75
2.38	--
2.00	67
1.19	--
0.841	60
0.595	--
0.42	53
0.297	--
0.177	--
0.149	36
0.074	27

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	100
19.0	98
12.7	96
9.5	95
4.76	93
2.38	--
2.00	89
1.19	--
0.841	85
0.595	--
0.42	82
0.297	--
0.177	--
0.149	76
0.074	71

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	95
19.0	94
12.7	85
9.5	81
4.76	73
2.38	--
2.00	64
1.19	--
0.841	57
0.595	--
0.42	50
0.297	--
0.177	--
0.149	38
0.074	32

M.C. (%) : 21

M.C. (%) : 25

M.C. (%) : 9

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 25
 % SAND: 48
 % FINES: 27

% GRAVEL: 7
 % SAND: 22
 % FINES: 71

% GRAVEL: 27
 % SAND: 41
 % FINES: 32

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILT WITH SAND
 (ML)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 141-47
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1913+500 O/S 7M LT.
 LOGGED BY: DT DATE COMPLETED: 91.08.14

FIELD NO: 126
 LAB NO: 4503
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 127
 LAB NO: 4504
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 128
 LAB NO: 4505
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	90
25.4	81
19.0	79
12.7	72
9.5	69
4.76	62
2.38	--
2.00	56
1.19	--
0.841	50
0.595	--
0.42	45
0.297	--
0.177	--
0.149	37
0.074	29

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	95
19.0	92
12.7	85
9.5	83
4.76	75
2.38	--
2.00	67
1.19	--
0.841	61
0.595	--
0.42	54
0.297	--
0.177	--
0.149	43
0.074	35

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	92
25.4	92
19.0	92
12.7	87
9.5	83
4.76	73
2.38	--
2.00	64
1.19	--
0.841	56
0.595	--
0.42	50
0.297	--
0.177	--
0.149	39
0.074	33

M.C. (%) : 7

M.C. (%) : 8

M.C. (%) : 8

LIMITS
 LIQUID: 17.9
 PLASTIC: 14.4
 P.I.: 3.5

LIMITS
 LIQUID: 18.1
 PLASTIC: 14.6
 P.I.: 3.5

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 38
 % SAND: 33
 % FINES: 29

% GRAVEL: 25
 % SAND: 40
 % FINES: 35

% GRAVEL: 27
 % SAND: 40
 % FINES: 33

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 141-48
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1913+808 O/S 2M LT.
 LOGGED BY: DT DATE COMPLETED: 91.08.14

FIELD NO: 129
 LAB NO: 4506
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 130
 LAB NO: 4507
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 131
 LAB NO: 4508
 DEPTH: 4.3-4.5
 TYPE: AUGER
 EST. 50% ORGANIC

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	95
19.0	95
12.7	92
9.5	90
4.76	85
2.38	--
2.00	81
1.19	--
0.841	77
0.595	--
0.42	73
0.297	--
0.177	--
0.149	68
0.074	63

M.C. (%) : 26

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 15
 % SAND: 22
 % FINES: 63

CLASSIFICATION:
 SANDY SILT WITH
 GRAVEL (ML)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	94
19.0	89
12.7	85
9.5	81
4.76	77
2.38	--
2.00	73
1.19	--
0.841	69
0.595	--
0.42	66
0.297	--
0.177	--
0.149	61
0.074	58

M.C. (%) : 29

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 23
 % SAND: 19
 % FINES: 58

CLASSIFICATION:
 GRAVELLY SILT
 WITH SAND (ML)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	100
12.7	98
9.5	98
4.76	96
2.38	--
2.00	94
1.19	--
0.841	90
0.595	--
0.42	88
0.297	--
0.177	--
0.149	84
0.074	81

M.C. (%) : 48

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 4
 % SAND: 16
 % FINES: 81

CLASSIFICATION:
 SILT WITH SAND
 (ML)

PROJECT NUMBER: 745927 HOLE NUMBER: 141-49
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1914+075 O/S 8M LT.
 LOGGED BY: DT DATE COMPLETED: 91.08.14

FIELD NO: 132
 LAB NO: 4509
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 133
 LAB NO: 4510
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 134
 LAB NO: 4511
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	91
19.0	89
12.7	80
9.5	77
4.76	71
2.38	--
2.00	64
1.19	--
0.841	59
0.595	--
0.42	54
0.297	--
0.177	--
0.149	44
0.074	36

101.6	--
76.2	--
50.8	--
38.1	--
25.4	100
19.0	82
12.7	77
9.5	67
4.76	62
2.38	--
2.00	55
1.19	--
0.841	49
0.595	--
0.42	44
0.297	--
0.177	--
0.149	39
0.074	29

101.6	--
76.2	--
50.8	100
38.1	85
25.4	76
19.0	76
12.7	71
9.5	67
4.76	60
2.38	--
2.00	55
1.19	--
0.841	48
0.595	--
0.42	42
0.297	--
0.177	--
0.149	31
0.074	22

M.C. (%) : 10

M.C. (%) : 7

M.C. (%) : 7

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 29
 % SAND: 35
 % FINES: 36

% GRAVEL: 38
 % SAND: 33
 % FINES: 29

% GRAVEL: 40
 % SAND: 38
 % FINES: 22

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 141-50
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1914+275 O/S 5M RT.
 LOGGED BY: DT DATE COMPLETED: 91.08.14

FIELD NO: 135
 LAB NO: 4512
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 136
 LAB NO: 4513
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 137
 LAB NO: 4514
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	84
19.0	77
12.7	65
9.5	60
4.76	49
2.38	--
2.00	38
1.19	--
0.841	29
0.595	--
0.42	24
0.297	--
0.177	--
0.149	18
0.074	15

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	87
25.4	83
19.0	77
12.7	69
9.5	65
4.76	58
2.38	--
2.00	52
1.19	--
0.841	46
0.595	--
0.42	42
0.297	--
0.177	--
0.149	36
0.074	31

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	88
19.0	85
12.7	74
9.5	69
4.76	60
2.38	--
2.00	52
1.19	--
0.841	45
0.595	--
0.42	40
0.297	--
0.177	--
0.149	34
0.074	29

M.C. (%) : 13

M.C. (%) : 17

M.C. (%) : 13

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 51
 % SAND: 33
 % FINES: 15

% GRAVEL: 42
 % SAND: 27
 % FINES: 31

% GRAVEL: 40
 % SAND: 31
 % FINES: 29

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 141-51
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1914+375 O/S 2M RT.
 LOGGED BY: DT DATE COMPLETED: 91.08.14

FIELD NO: 138
 LAB NO: 4515
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 139
 LAB NO: 4516
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 140
 LAB NO: 4517
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	--
4.76	--
2.38	--
2.00	--
1.19	--
0.841	--
0.595	--
0.42	--
0.297	--
0.177	--
0.149	--
0.074	--

M.C. (%) : 5

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: --

% GRAVEL: --
 % SAND: --
 % FINES: --

CLASSIFICATION:

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	100
50.8	84
38.1	84
25.4	84
19.0	82
12.7	73
9.5	68
4.76	60
2.38	--
2.00	54
1.19	--
0.841	48
0.595	--
0.42	43
0.297	--
0.177	--
0.149	35
0.074	28

M.C. (%) : 10

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 40
 % SAND: 32
 % FINES: 28

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	100
50.8	83
38.1	83
25.4	79
19.0	65
12.7	56
9.5	49
4.76	41
2.38	--
2.00	34
1.19	--
0.841	29
0.595	--
0.42	25
0.297	--
0.177	--
0.149	18
0.074	15

M.C. (%) : 7

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 59
 % SAND: 26
 % FINES: 15

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 141-52
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1914+625 O/S 3M RT.
 LOGGED BY: DT DATE COMPLETED: 91.08.14

FIELD NO: 141
 LAB NO: 4518
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 142
 LAB NO: 4519
 DEPTH: 2.8-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	--
25.4	100
19.0	96
12.7	95
9.5	93
4.76	90
2.38	--
2.00	85
1.19	--
0.841	81
0.595	--
0.42	78
0.297	--
0.177	--
0.149	75
0.074	72

101.6	--
76.2	--
50.8	--
38.1	100
25.4	86
19.0	86
12.7	71
9.5	67
4.76	60
2.38	--
2.00	54
1.19	--
0.841	48
0.595	--
0.42	43
0.297	--
0.177	--
0.149	37
0.074	31

M.C. (%): 20

M.C. (%): 9

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 10
 % SAND: 18
 % FINES: 72

% GRAVEL: 40
 % SAND: 28
 % FINES: 31

CLASSIFICATION:
 SILT WITH SAND
 (ML)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 141-53
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1914+725 O/S 5M LT.
 LOGGED BY: DT DATE COMPLETED: 91.08.14

FIELD NO: 143
 LAB NO: 4520
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 144
 LAB NO: 4521
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 145
 LAB NO: 4522
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	91
19.0	89
12.7	83
9.5	82
4.76	79
2.38	--
2.00	77
1.19	--
0.841	75
0.595	--
0.42	70
0.297	--
0.177	--
0.149	53
0.074	28

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	83
25.4	66
19.0	56
12.7	50
9.5	45
4.76	39
2.38	--
2.00	34
1.19	--
0.841	30
0.595	--
0.42	26
0.297	--
0.177	--
0.149	17
0.074	10

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	90
25.4	90
19.0	75
12.7	69
9.5	65
4.76	56
2.38	--
2.00	49
1.19	--
0.841	43
0.595	--
0.42	37
0.297	--
0.177	--
0.149	18
0.074	11

M.C. (%) : 10

M.C. (%) : 4

M.C. (%) : 7

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 21
 % SAND: 51
 % FINES: 28

% GRAVEL: 61
 % SAND: 29
 % FINES: 10

% GRAVEL: 44
 % SAND: 45
 % FINES: 11

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 POORLY GRADED
 SAND WITH SILT &
 GRAVEL (SP-SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 141-54
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1914+825
 LOGGED BY: DT DATE COMPLETED: 91.08.14

FIELD NO: 146
 LAB NO: 4523
 DEPTH: 1.3-1.5
 TYPE: AUGER

ORGANIC

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	75
19.0	71
12.7	66
9.5	65
4.76	62
2.38	--
2.00	57
1.19	--
0.841	52
0.595	--
0.42	48
0.297	--
0.177	--
0.149	40
0.074	34

M.C. (%) : 59

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 38
 % SAND: 28
 % FINES: 34

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

FIELD NO: 147
 LAB NO: 4524
 DEPTH: 2.8-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	100
38.1	92
25.4	89
19.0	82
12.7	70
9.5	65
4.76	54
2.38	--
2.00	44
1.19	--
0.841	37
0.595	--
0.42	32
0.297	--
0.177	--
0.149	24
0.074	20

M.C. (%) : 11

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 46
 % SAND: 34
 % FINES: 20

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

FIELD NO: 148
 LAB NO: 4525
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	85
19.0	78
12.7	65
9.5	59
4.76	48
2.38	--
2.00	40
1.19	--
0.841	33
0.595	--
0.42	27
0.297	--
0.177	--
0.149	17
0.074	13

M.C. (%) : 6

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 52
 % SAND: 35
 % FINES: 13

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 141-55
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1914+925 O/S 2M LT.
 LOGGED BY: D DATE COMPLETED: 91.08.14

FIELD NO: 149
 LAB NO: 4526
 DEPTH: 1.3-1.5
 TYPE: AUGER
ORGANIC

FIELD NO: 150
 LAB NO: 4527
 DEPTH: 2.8-3.0
 TYPE: AUGER
 ORGANIC

FIELD NO: 151
 LAB NO: 4528
 DEPTH: 4.3-4.5
 TYPE: AUGER
ORGANIC

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	100
19.0	98
12.7	93
9.5	91
4.76	88
2.38	--
2.00	84
1.19	--
0.841	81
0.595	--
0.42	79
0.297	--
0.177	--
0.149	75
0.074	72

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	100
4.76	99
2.38	--
2.00	99
1.19	--
0.841	98
0.595	--
0.42	97
0.297	--
0.177	--
0.149	95
0.074	94

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	100
12.7	98
9.5	98
4.76	96
2.38	--
2.00	94
1.19	--
0.841	91
0.595	--
0.42	89
0.297	--
0.177	--
0.149	85
0.074	82

M.C. (%) : 27

M.C. (%) : 26

M.C. (%) : 36

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 12
 % SAND: 16
 % FINES: 72

% GRAVEL: 1
 % SAND: 5
 % FINES: 94

% GRAVEL: 4
 % SAND: 15
 % FINES: 82

CLASSIFICATION:
 SILT WITH SAND
 (ML)

CLASSIFICATION:
 SILT (ML)

CLASSIFICATION:
 SILT WITH SAND
 (ML)

PROJECT NUMBER: 745927 HOLE NUMBER: 141-56
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1915+030 O/S 1M LT.
 LOGGED BY: DT DATE COMPLETED: 91.08.15

FIELD NO: 152
 LAB NO: 4529
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 153
 LAB NO: 4530
 DEPTH: 2.8-3.0
 TYPE: AUGER
 ORGANIC

FIELD NO: 154
 LAB NO: 4531
 DEPTH: 4.3-4.5
 TYPE: AUGER

FIELD NO: 155
 LAB NO: 4532
 DEPTH: 5.7-5.9
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	--
4.76	--
2.38	--
2.00	--
1.19	--
0.841	--
0.595	--
0.42	--
0.297	--
0.177	--
0.149	--
0.074	--

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	87
19.0	81
12.7	76
9.5	75
4.76	69
2.38	--
2.00	63
1.19	--
0.841	58
0.595	--
0.42	53
0.297	--
0.177	--
0.149	43
0.074	37

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	95
19.0	87
12.7	77
9.5	72
4.76	63
2.38	--
2.00	56
1.19	--
0.841	50
0.595	--
0.42	44
0.297	--
0.177	--
0.149	34
0.074	28

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	79
25.4	74
19.0	67
12.7	63
9.5	57
4.76	50
2.38	--
2.00	42
1.19	--
0.841	36
0.595	--
0.42	31
0.297	--
0.177	--
0.149	22
0.074	18

M.C. (%) : 4

M.C. (%) : 15

M.C. (%) : 13

M.C. (%) : 9

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: --

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: --
 % SAND: --
 % FINES: --

% GRAVEL: 31
 % SAND: 31
 % FINES: 37

% GRAVEL: 37
 % SAND: 35
 % FINES: 28

% GRAVEL: 50
 % SAND: 32
 % FINES: 18

CLASSIFICATION:

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 141-57
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1915+125 O/S 6M LT.
 LOGGED BY: DT DATE COMPLETED: 91.08.15

FIELD NO: 156
 LAB NO: 4533
 DEPTH: 1.3-1.5
 TYPE: AUGER
 ORGANIC

FIELD NO: 157
 LAB NO: 4534
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 158
 LAB NO: 4535
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	84
25.4	79
19.0	74
12.7	67
9.5	61
4.76	51
2.38	--
2.00	43
1.19	--
0.841	38
0.595	--
0.42	33
0.297	--
0.177	--
0.149	25
0.074	22

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	87
19.0	81
12.7	74
9.5	69
4.76	60
2.38	--
2.00	53
1.19	--
0.841	46
0.595	--
0.42	40
0.297	--
0.177	--
0.149	33
0.074	29

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	80
25.4	76
19.0	66
12.7	61
9.5	56
4.76	46
2.38	--
2.00	39
1.19	--
0.841	33
0.595	--
0.42	28
0.297	--
0.177	--
0.149	21
0.074	19

M.C. (%) : 8

M.C. (%) : 11

M.C. (%) : 9

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 49
 % SAND: 30
 % FINES: 22

% GRAVEL: 40
 % SAND: 31
 % FINES: 29

% GRAVEL: 54
 % SAND: 28
 % FINES: 19

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 141-58
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1915+225
 LOGGED BY: DT DATE COMPLETED: 91.08.15

FIELD NO: 159
 LAB NO: 4536
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 160
 LAB NO: 4537
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 161
 LAB NO: 4538
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	79
19.0	70
12.7	57
9.5	47
4.76	35
2.38	--
2.00	25
1.19	--
0.841	17
0.595	--
0.42	10
0.297	--
0.177	--
0.149	3
0.074	2

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	84
19.0	70
12.7	56
9.5	43
4.76	30
2.38	--
2.00	22
1.19	--
0.841	16
0.595	--
0.42	12
0.297	--
0.177	--
0.149	5
0.074	3

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	85
25.4	78
19.0	67
12.7	57
9.5	50
4.76	37
2.38	--
2.00	25
1.19	--
0.841	17
0.595	--
0.42	11
0.297	--
0.177	--
0.149	4
0.074	3

M.C. (%) : 3

M.C. (%) : 2

M.C. (%) : 2

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 65
 % SAND: 32
 % FINES: 2

% GRAVEL: 70
 % SAND: 27
 % FINES: 3

% GRAVEL: 63
 % SAND: 34
 % FINES: 3

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PROJECT NUMBER: 745927 HOLE NUMBER: 141-59
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-225 & 17-174
 HOLE LOCATION: 1915+325
 LOGGED BY: DT DATE COMPLETED: 91.08.15

FIELD NO: 162
 LAB NO: 4539
 DEPTH: 1.3-1.5
 TYPE: AUGER
 ORGANIC

FIELD NO: 163
 LAB NO: 4540
 DEPTH: 2.8-3.0
 TYPE: AUGER
 ORGANIC

FIELD NO: 164
 LAB NO: 4541
 DEPTH: 4.3-4.5
 TYPE: AUGER
 ORGANIC

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	100
4.76	98
2.38	--
2.00	94
1.19	--
0.841	80
0.595	--
0.42	72
0.297	--
0.177	--
0.149	56
0.074	49

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	100
19.0	98
12.7	92
9.5	89
4.76	87
2.38	--
2.00	84
1.19	--
0.841	82
0.595	--
0.42	79
0.297	--
0.177	--
0.149	75
0.074	72

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	100
50.8	63
38.1	63
25.4	60
19.0	51
12.7	41
9.5	37
4.76	29
2.38	--
2.00	25
1.19	--
0.841	21
0.595	--
0.42	17
0.297	--
0.177	--
0.149	14
0.074	12

M.C. (%) : 83

M.C. (%) : 34

M.C. (%) : 10

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 2
 % SAND: 49
 % FINES: 49

% GRAVEL: 13
 % SAND: 14
 % FINES: 72

% GRAVEL: 71
 % SAND: 17
 % FINES: 12

CLASSIFICATION:
 SILTY SAND (SM)

CLASSIFICATION:
 SILT WITH SAND (ML)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT & SAND (GW-GM)

PROJECT NUMBER: 745927
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-132
 HOLE LOCATION: 1909+675
 LOGGED BY: DT

HOLE NUMBER: 145-143

 DATE COMPLETED: 91.08.07

FIELD NO: 398
 LAB NO: 5144
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 399
 LAB NO: 5145
 DEPTH: 2.8-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	100
19.0	89
12.7	85
9.5	83
4.76	76
2.38	--
2.00	69
1.19	--
0.841	64
0.595	--
0.42	59
0.297	--
0.177	--
0.149	49
0.074	43

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	100
19.0	97
12.7	94
9.5	86
4.76	75
2.38	--
2.00	67
1.19	--
0.841	60
0.595	--
0.42	54
0.297	--
0.177	--
0.149	44
0.074	38

M.C. (%): 30

M.C. (%): 17

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: 21.1
 PLASTIC: 15.3
 P.I.: 5.8

% GRAVEL: 24
 % SAND: 33
 % FINES: 43

% GRAVEL: 25
 % SAND: 37
 % FINES: 38

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY, CLAYEY
 SAND WITH GRAVEL
 (SC-SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 145-144
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-132
 HOLE LOCATION: 1909+775 O/S 2M LT
 LOGGED BY: DT DATE COMPLETED: 91.09.07

FIELD NO: 400
 LAB NO: 5146
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 401
 LAB NO: 5147
 DEPTH: 2.8-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	95
19.0	95
12.7	95
9.5	93
4.76	90
2.38	--
2.00	85
1.19	--
0.841	82
0.595	--
0.42	78
0.297	--
0.177	--
0.149	74
0.074	67

101.6	--
76.2	--
50.8	--
38.1	100
25.4	86
19.0	86
12.7	82
9.5	79
4.76	73
2.38	--
2.00	67
1.19	--
0.841	62
0.595	--
0.42	58
0.297	--
0.177	--
0.149	54
0.074	44

M.C. (%) : 20

M.C. (%) : 12

LIMITS

LIQUID: 24.9
 PLASTIC: 20.8
 P.I.: 4.1

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 10
 % SAND: 23
 % FINES: 67

% GRAVEL: 27
 % SAND: 30
 % FINES: 44

CLASSIFICATION:
 SANDY SILTY CLAY
 (CL-ML)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 145-145
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-132
 HOLE LOCATION: 1909+880 O/S 2M LT
 LOGGED BY: DT DATE COMPLETED: 91.09.07

FIELD NO: 402
 LAB NO: 5148
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 403
 LAB NO: 5149
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 404
 LAB NO: 5150
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	100
50.8	81
38.1	81
25.4	75
19.0	68
12.7	62
9.5	57
4.76	47
2.38	--
2.00	40
1.19	--
0.841	35
0.595	--
0.42	31
0.297	--
0.177	--
0.149	23
0.074	19

M.C. (%) : 12

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 53
 % SAND: 28
 % FINES: 19

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	100
12.7	99
9.5	99
4.76	98
2.38	--
2.00	95
1.19	--
0.841	90
0.595	--
0.42	83
0.297	--
0.177	--
0.149	64
0.074	46

M.C. (%) : 14

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 2
 % SAND: 52
 % FINES: 46

CLASSIFICATION:
 SILTY SAND (SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	--
25.4	100
19.0	96
12.7	94
9.5	91
4.76	86
2.38	--
2.00	80
1.19	--
0.841	70
0.595	--
0.42	60
0.297	--
0.177	--
0.149	36
0.074	26

M.C. (%) : 12

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 14
 % SAND: 60
 % FINES: 26

CLASSIFICATION:
 SILTY SAND (SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 145-146
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-132
 HOLE LOCATION: 1910+350
 LOGGED BY: DT DATE COMPLETED: 91.07.07

FIELD NO: 405
 LAB NO: 5151
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 406
 LAB NO: 5152
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 407
 LAB NO: 5153
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	80
19.0	66
12.7	49
9.5	41
4.76	28
2.38	--
2.00	19
1.19	--
0.841	14
0.595	--
0.42	10
0.297	--
0.177	--
0.149	4
0.074	2

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	92
25.4	84
19.0	78
12.7	66
9.5	60
4.76	48
2.38	--
2.00	35
1.19	--
0.841	22
0.595	--
0.42	13
0.297	--
0.177	--
0.149	10
0.074	6

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	100
19.0	89
12.7	76
9.5	67
4.76	47
2.38	--
2.00	32
1.19	--
0.841	20
0.595	--
0.42	13
0.297	--
0.177	--
0.149	7
0.074	5

M.C. (%) : 2

M.C. (%) : 3

M.C. (%) : 3

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 72
 % SAND: 25
 % FINES: 2

% GRAVEL: 52
 % SAND: 41
 % FINES: 6

% GRAVEL: 53
 % SAND: 42
 % FINES: 5

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 145-147
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-132
 HOLE LOCATION: 1910+305 O/S 2M RT
 LOGGED BY: DT DATE COMPLETED: 91.09.07

FIELD NO: 408
 LAB NO: 5154
 DEPTH: 1.3-1.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	--
4.76	100
2.38	--
2.00	100
1.19	--
0.841	100
0.595	--
0.42	98
0.297	--
0.177	--
0.149	93
0.074	78

M.C.(%) : 25

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 0
 % SAND: 22
 % FINES: 78

CLASSIFICATION:
 SILT WITH SAND
 (ML)

PROJECT NUMBER: 745927 HOLE NUMBER: 145-148
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-132
 HOLE LOCATION: 1910+240 O/S 2M LT
 LOGGED BY: DT DATE COMPLETED: 91.09.07

FIELD NO: 409
 LAB NO: 5155
 DEPTH: 1.3-1.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	100
4.76	99
2.38	--
2.00	99
1.19	--
0.841	98
0.595	--
0.42	96
0.297	--
0.177	--
0.149	93
0.074	75

M.C. (%) : 74

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 1
 % SAND: 24
 % FINES: 75

CLASSIFICATION:
 SILT WITH SAND
 (ML)

PROJECT NUMBER: 745927 HOLE NUMBER: 145-149
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-132
 HOLE LOCATION: 1910+175 O/S 2M RT
 LOGGED BY: DT DATE COMPLETED: 91.09.07

FIELD NO: 410
 LAB NO: 5156
 DEPTH: 1.3-1.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	100
4.76	100
2.38	--
2.00	98
1.19	--
0.841	96
0.595	--
0.42	93
0.297	--
0.177	--
0.149	84
0.074	79

M.C. (%) : 123

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 21
 % FINES: 79

CLASSIFICATION:
 SILT WITH SAND
 (ML)

PROJECT NUMBER: 745927 HOLE NUMBER: 145-150
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-132
 HOLE LOCATION: 1911+175 O/S 10M RT
 LOGGED BY: DT DATE COMPLETED: 91.09.07

FIELD NO: 411
 LAB NO: 5157
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 412
 LAB NO: 5158
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 413
 LAB NO: 5159
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	83
19.0	76
12.7	69
9.5	61
4.76	45
2.38	--
2.00	32
1.19	--
0.841	22
0.595	--
0.42	15
0.297	--
0.177	--
0.149	10
0.074	6

M.C. (%) : 4

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 55
 % SAND: 39
 % FINES: 6

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	100
38.1	63
25.4	56
19.0	51
12.7	41
9.5	37
4.76	27
2.38	--
2.00	19
1.19	--
0.841	12
0.595	--
0.42	8
0.297	--
0.177	--
0.149	4
0.074	3

M.C. (%) : 2

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 73
 % SAND: 24
 % FINES: 3

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	100
38.1	89
25.4	70
19.0	61
12.7	44
9.5	37
4.76	27
2.38	--
2.00	18
1.19	--
0.841	13
0.595	--
0.42	9
0.297	--
0.177	--
0.149	7
0.074	4

M.C. (%) : 3

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 73
 % SAND: 23
 % FINES: 4

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

PROJECT NUMBER: 745927 HOLE NUMBER: 145-151
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-132
 HOLE LOCATION: 1911+300 O/S 2M RT
 LOGGED BY: DT DATE COMPLETED: 91.09.07

FIELD NO: 414
 LAB NO: 5160
 DEPTH: 1.3-1.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	80
19.0	70
12.7	62
9.5	56
4.76	47
2.38	--
2.00	40
1.19	--
0.841	35
0.595	--
0.42	31
0.297	--
0.177	--
0.149	28
0.074	24

M.C. (%) : 7

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 53
 % SAND: 22
 % FINES: 24

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 145-152
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-132
 HOLE LOCATION: 1911+400 O/S 2M RT
 LOGGED BY: DT DATE COMPLETED: 91.09.07

FIELD NO: 415
 LAB NO: 5161
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 416
 LAB NO: 5162
 DEPTH: 2.8-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	84
19.0	84
12.7	76
9.5	75
4.76	71
2.38	--
2.00	68
1.19	--
0.841	66
0.595	--
0.42	65
0.297	--
0.177	--
0.149	63
0.074	62

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	89
19.0	86
12.7	68
9.5	59
4.76	47
2.38	--
2.00	35
1.19	--
0.841	27
0.595	--
0.42	21
0.297	--
0.177	--
0.149	20
0.074	15

M.C. (%) : 22

M.C. (%) : 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 29
 % SAND: 9
 % FINES: 62

% GRAVEL: 53
 % SAND: 33
 % FINES: 15

CLASSIFICATION:
 GRAVELLY SILT
 (ML)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 745927 HOLE NUMBER: 145-153
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-132
 HOLE LOCATION: 1911+500
 LOGGED BY: DT DATE COMPLETED: 91.09.07

FIELD NO: 417
 LAB NO: 5163
 DEPTH: 1.3-1.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	100
12.7	89
9.5	81
4.76	63
2.38	--
2.00	45
1.19	--
0.841	32
0.595	--
0.42	26
0.297	--
0.177	--
0.149	18
0.074	16

M.C. (%) : 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 37
 % SAND: 48
 % FINES: 16

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 745927 HOLE NUMBER: 145-154
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-132
 HOLE LOCATION: 1911+750 O/S 4M RT
 LOGGED BY: DT DATE COMPLETED: 91.09.07

FIELD NO: 418
 LAB NO: 5164
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 419
 LAB NO: 5165
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	71
25.4	71
19.0	58
12.7	49
9.5	43
4.76	32
2.38	--
2.00	22
1.19	--
0.841	15
0.595	--
0.42	9
0.297	--
0.177	--
0.149	6
0.074	3

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	95
19.0	88
12.7	67
9.5	58
4.76	42
2.38	--
2.00	28
1.19	--
0.841	19
0.595	--
0.42	12
0.297	--
0.177	--
0.149	5
0.074	4

M.C. (%) : 2

M.C. (%) : 5

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 68
 % SAND: 28
 % FINES: 3

% GRAVEL: 58
 % SAND: 38
 % FINES: 4

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PROJECT NUMBER: 745927 HOLE NUMBER: 145-155
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-132
 HOLE LOCATION: 1911+850 O/S 4M RT
 LOGGED BY: DT DATE COMPLETED: 91.09.07

FIELD NO: 420
 LAB NO: 5166
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 421
 LAB NO: 5167
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 422
 LAB NO: 5168
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	81
25.4	59
19.0	55
12.7	47
9.5	43
4.76	34
2.38	--
2.00	26
1.19	--
0.841	16
0.595	--
0.42	10
0.297	--
0.177	--
0.149	7
0.074	6

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	92
19.0	89
12.7	84
9.5	82
4.76	77
2.38	--
2.00	73
1.19	--
0.841	69
0.595	--
0.42	64
0.297	--
0.177	--
0.149	53
0.074	46

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	--
9.5	100
4.76	99
2.38	--
2.00	97
1.19	--
0.841	94
0.595	--
0.42	93
0.297	--
0.177	--
0.149	90
0.074	88

M.C. (%) : 2

M.C. (%) : 19

M.C. (%) : 28

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: 25.6
 PLASTIC: 17.1
 P.I.: 8.5

% GRAVEL: 66
 % SAND: 29
 % FINES: 6

% GRAVEL: 23
 % SAND: 31
 % FINES: 46

% GRAVEL: 1
 % SAND: 11
 % FINES: 88

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 LEAN CLAY (CL)

PROJECT NUMBER: 745927
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-132
 HOLE LOCATION: 1912+075
 LOGGED BY: DT

HOLE NUMBER: 145-156
 DATE COMPLETED: 91.09.08

FIELD NO: 423
 LAB NO: 5169
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 424
 LAB NO: 5170
 DEPTH: 2.8-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	100
25.4	73
19.0	65
12.7	53
9.5	45
4.76	33
2.38	--
2.00	22
1.19	--
0.841	13
0.595	--
0.42	7
0.297	--
0.177	--
0.149	4
0.074	3

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	--
38.1	--
25.4	--
19.0	--
12.7	100
9.5	99
4.76	98
2.38	--
2.00	95
1.19	--
0.841	92
0.595	--
0.42	90
0.297	--
0.177	--
0.149	89
0.074	88

M.C. (%): 4

M.C. (%): 57

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 67
 % SAND: 30
 % FINES: 3

% GRAVEL: 2
 % SAND: 10
 % FINES: 88

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 SILT (ML)

PROJECT NUMBER: 745927 HOLE NUMBER: 145-157
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1904-1932
 DRILL UNIT: 17-132
 HOLE LOCATION: 1912+100 O/S 55M RT
 LOGGED BY: DT DATE COMPLETED: 91.09.08

FIELD NO: 425
 LAB NO: 5171
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 426
 LAB NO: 5172
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 427
 LAB NO: 5173
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	65
19.0	59
12.7	49
9.5	43
4.76	30
2.38	--
2.00	20
1.19	--
0.841	14
0.595	--
0.42	10
0.297	--
0.177	--
0.149	5
0.074	3

M.C. (%) : 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 70
 % SAND: 27
 % FINES: 3

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	74
19.0	68
12.7	53
9.5	46
4.76	34
2.38	--
2.00	24
1.19	--
0.841	16
0.595	--
0.42	10
0.297	--
0.177	--
0.149	5
0.074	4

M.C. (%) : 4

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 66
 % SAND: 30
 % FINES: 4

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	--
38.1	100
25.4	91
19.0	86
12.7	73
9.5	63
4.76	49
2.38	--
2.00	34
1.19	--
0.841	19
0.595	--
0.42	10
0.297	--
0.177	--
0.149	4
0.074	3

M.C. (%) : 6

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 51
 % SAND: 46
 % FINES: 3

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 174-18
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 17
 DRILL UNIT: 36002
 HOLE LOCATION: 1915+625 O/S 20M LT
 LOGGED BY: AW DATE COMPLETED: 92.06.06

FIELD NO: 39
 LAB NO: 5794
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 40
 LAB NO: 5795
 DEPTH: 2.7-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	100
2.0	--
1.25	100
0.840	--
0.630	99
0.420	--
0.315	99
0.160	97
0.150	--
0.080	95

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	100
2.0	--
1.25	100
0.840	--
0.630	100
0.420	--
0.315	99
0.160	98
0.150	--
0.080	96

M.C. (%) : 48

M.C. (%) : 29

LIMITS

LIQUID: 39.4
 PLASTIC: 36.4
 P.I.: 3.0

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 5
 % FINES: 95

% GRAVEL: 0
 % SAND: 4
 % FINES: 96

CLASSIFICATION:
 SILT (ML)

CLASSIFICATION:
 SILT (ML)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 174-19
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 17
 DRILL UNIT: 36002
 HOLE LOCATION: 1915+525 O/S 15M LT
 LOGGED BY: AW DATE COMPLETED: 92.06.06

FIELD NO: 41
 LAB NO: 5796
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 42
 LAB NO: 5797
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 43
 LAB NO: 5798
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	--
2.0	--
1.25	--
0.840	--
0.630	100
0.420	--
0.315	100
0.160	99
0.150	--
0.080	98

M.C. (%) : 54

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 2
 % FINES: 98

CLASSIFICATION: SILT (ML)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	100
2.0	--
1.25	100
0.840	--
0.630	100
0.420	--
0.315	99
0.160	98
0.150	--
0.080	96

M.C. (%) : 38

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 4
 % FINES: 96

CLASSIFICATION: SILT (ML)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	100
2.0	--
1.25	100
0.840	--
0.630	99
0.420	--
0.315	99
0.160	99
0.150	--
0.080	98

M.C. (%) : 32

LIMITS

LIQUID: 32.7
 PLASTIC: 31.8
 P.I.: 0.9

% GRAVEL: 0
 % SAND: 2
 % FINES: 98

CLASSIFICATION: SILT (ML)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 174-20
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 17
 DRILL UNIT: 36002
 HOLE LOCATION: 1915+425 O/S 2M RT
 LOGGED BY: AW DATE COMPLETED: 92.06.06

FIELD NO: 44
 LAB NO: 5799
 DEPTH: 1.3-1.5
 TYPE: AUGER
 ORGANIC

FIELD NO: 45
 LAB NO: 5800
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 46
 LAB NO: 5801
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	100
2.0	--
1.25	100
0.840	--
0.630	99
0.420	--
0.315	98
0.160	97
0.150	--
0.080	93

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	99
10.0	98
5.0	94
2.5	92
2.0	--
1.25	89
0.840	--
0.630	86
0.420	--
0.315	83
0.160	80
0.150	--
0.080	77

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	99
10.0	99
5.0	99
2.5	99
2.0	--
1.25	99
0.840	--
0.630	99
0.420	--
0.315	98
0.160	97
0.150	--
0.080	92

M.C. (%) : 41

M.C. (%) : 26

M.C. (%) : 39

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: 35.1
 PLASTIC: 33.6
 P.I.: 1.5

% GRAVEL: 0
 % SAND: 7
 % FINES: 93

% GRAVEL: 6
 % SAND: 17
 % FINES: 77

% GRAVEL: 1
 % SAND: 7
 % FINES: 92

CLASSIFICATION:
 SILT (ML)

CLASSIFICATION:
 SILT WITH SAND
 (ML)

CLASSIFICATION:
 SILT (ML)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 174-21
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 17
 DRILL UNIT: 36002
 HOLE LOCATION: 1914+575 O/S 25M LT
 LOGGED BY: AW DATE COMPLETED: 92.06.08

FIELD NO: 47
 LAB NO: 5802
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 48
 LAB NO: 5803
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 49
 LAB NO: 5804
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	94
12.5	84
10.0	82
5.0	69
2.5	64
2.0	--
1.25	58
0.840	--
0.630	54
0.420	--
0.315	49
0.160	45
0.150	--
0.080	40

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	100
10.0	99
5.0	96
2.5	94
2.0	--
1.25	92
0.840	--
0.630	90
0.420	--
0.315	89
0.160	88
0.150	--
0.080	86

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	83
10.0	78
5.0	58
2.5	47
2.0	--
1.25	41
0.840	--
0.630	37
0.420	--
0.315	33
0.160	29
0.150	--
0.080	26

M.C. (%) : 14

M.C. (%) : 26

M.C. (%) : 16

LIMITS
 LIQUID: 24.0
 PLASTIC: 21.7
 P.I.: 2.3

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 31
 % SAND: 29
 % FINES: 40

% GRAVEL: 4
 % SAND: 10
 % FINES: 86

% GRAVEL: 42
 % SAND: 31
 % FINES: 26

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILT (ML)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 174-22
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 17
 DRILL UNIT: 36002
 HOLE LOCATION: 1914+475 O/S 30M LT
 LOGGED BY: AW DATE COMPLETED: 92.06.08

FIELD NO: 50	FIELD NO: 51	FIELD NO: 52	FIELD NO: 53
LAB NO: 5805	LAB NO: 5806	LAB NO: 5807	LAB NO: 5808
DEPTH: 0.8-1.0	DEPTH: 1.3-1.5	DEPTH: 2.7-3.0	DEPTH: 4.3-4.5
TYPE: AUGER	TYPE: AUGER	TYPE: AUGER	TYPE: AUGER

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	--	100.0	--	100.0	--	100.0	--
80.0	--	80.0	--	80.0	--	80.0	--
50.0	100	50.0	--	50.0	--	50.0	100
31.5	--	31.5	--	31.5	--	31.5	--
25.0	96	25.0	100	25.0	--	25.0	92
20.0	92	20.0	98	20.0	100	20.0	87
12.5	83	12.5	92	12.5	94	12.5	80
10.0	77	10.0	89	10.0	91	10.0	77
5.0	64	5.0	81	5.0	83	5.0	68
2.5	57	2.5	76	2.5	79	2.5	63
2.0	--	2.0	--	2.0	--	2.0	--
1.25	49	1.25	70	1.25	75	1.25	59
0.840	--	0.840	--	0.840	--	0.840	--
0.630	43	0.630	64	0.630	71	0.630	56
0.420	--	0.420	--	0.420	--	0.420	--
0.315	37	0.315	59	0.315	66	0.315	53
0.160	31	0.160	54	0.160	61	0.160	49
0.150	--	0.150	--	0.150	--	0.150	--
0.080	26	0.080	49	0.080	56	0.080	45

M.C. (%): 5 M.C. (%): 15 M.C. (%): 35 M.C. (%): 27

LIMITS		LIMITS		LIMITS		LIMITS	
LIQUID:	--	LIQUID:	--	LIQUID:	--	LIQUID:	--
PLASTIC:	--	PLASTIC:	--	PLASTIC:	--	PLASTIC:	--
P.I.:	N.P.	P.I.:	TRACE	P.I.:	N.P.	P.I.:	N.P.

% GRAVEL:	36	% GRAVEL:	19	% GRAVEL:	17	% GRAVEL:	32
% SAND:	38	% SAND:	32	% SAND:	27	% SAND:	23
% FINES:	26	% FINES:	49	% FINES:	56	% FINES:	45

CLASSIFICATION:	CLASSIFICATION:	CLASSIFICATION:	CLASSIFICATION:
SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SANDY SILT WITH GRAVEL (ML)	SILTY GRAVEL WITH SAND (GM)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 174-23
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 17
 DRILL UNIT: 36002
 HOLE LOCATION: 1914+125 O/S 100M LT
 LOGGED BY: AW DATE COMPLETED: 92.06.08

FIELD NO: 54
 LAB NO: 5809
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 55
 LAB NO: 5810
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 56
 LAB NO: 5811
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	70
20.0	65
12.5	63
10.0	60
5.0	54
2.5	52
2.0	--
1.25	51
0.840	--
0.630	49
0.420	--
0.315	47
0.160	45
0.150	--
0.080	42

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	96
20.0	86
12.5	75
10.0	70
5.0	59
2.5	53
2.0	--
1.25	49
0.840	--
0.630	44
0.420	--
0.315	39
0.160	35
0.150	--
0.080	32

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	93
12.5	64
10.0	56
5.0	49
2.5	47
2.0	--
1.25	47
0.840	--
0.630	45
0.420	--
0.315	44
0.160	42
0.150	--
0.080	40

M.C. (%) : 9

M.C. (%) : 9

M.C. (%) : 11

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 46
 % SAND: 12
 % FINES: 42

% GRAVEL: 41
 % SAND: 27
 % FINES: 32

% GRAVEL: 51
 % SAND: 9
 % FINES: 40

CLASSIFICATION:
 SILTY GRAVEL (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL (GM)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-24
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1914+075
 LOGGED BY: AW DATE COMPLETED: 92.06.08

FIELD NO: 57	FIELD NO: 58
LAB NO: 5812	LAB NO: 5813
DEPTH: 1.3-1.5	DEPTH: 2.7-3.0
TYPE: AUGER	TYPE: AUGER

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	--	100.0	--
80.0	--	80.0	--
50.0	100	50.0	100
31.5	--	31.5	--
25.0	69	25.0	83
20.0	61	20.0	74
12.5	50	12.5	54
10.0	49	10.0	48
5.0	45	5.0	35
2.5	43	2.5	28
2.0	--	2.0	--
1.25	41	1.25	23
0.840	--	0.840	--
0.630	39	0.630	19
0.420	--	0.420	--
0.315	37	0.315	14
0.160	35	0.160	11
0.150	--	0.150	--
0.080	33	0.080	9

M.C. (%) : 9 M.C. (%) : 3

LIMITS		LIMITS	
LIQUID:	--	LIQUID:	--
PLASTIC:	--	PLASTIC:	--
P.I.:	N.P.	P.I.:	N.P.

% GRAVEL:	55	% GRAVEL:	65
% SAND:	12	% SAND:	25
% FINES:	33	% FINES:	9

CLASSIFICATION:	SILTY GRAVEL (GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)
-----------------	-------------------	-----------------	---

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-25
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1914+000 O/S 8M LT
 LOGGED BY: AW DATE COMPLETED: 92-06-08

FIELD NO: 59
 LAB NO: 5814
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 60
 LAB NO: 5815
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 61
 LAB NO: 5816
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	90
12.5	78
10.0	75
5.0	69
2.5	65
2.0	--
1.25	61
0.840	--
0.630	57
0.420	--
0.315	52
0.160	48
0.150	--
0.080	43

M.C. (%) : 8

LIMITS

LIQUID: 20.7
 PLASTIC: 17.5
 P.I.: 3.2

% GRAVEL: 31
 % SAND: 26
 % FINES: 43

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	93
20.0	83
12.5	73
10.0	70
5.0	61
2.5	54
2.0	--
1.25	47
0.840	--
0.630	41
0.420	--
0.315	35
0.160	30
0.150	--
0.080	26

M.C. (%) : 8

LIMITS

LIQUID: 20.1
 PLASTIC: 16.6
 P.I.: 3.5

% GRAVEL: 39
 % SAND: 36
 % FINES: 26

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	96
12.5	87
10.0	83
5.0	76
2.5	69
2.0	--
1.25	62
0.840	--
0.630	56
0.420	--
0.315	50
0.160	42
0.150	--
0.080	36

M.C. (%) : 9

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 24
 % SAND: 39
 % FINES: 36

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-26
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1913+900 O/S 10M LT
 LOGGED BY: AW DATE COMPLETED: 92.06.08

FIELD NO: 62
 LAB NO: 5817
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 63
 LAB NO: 5818
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 64
 LAB NO: 5819
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	97
12.5	83
10.0	78
5.0	68
2.5	62
2.0	--
1.25	55
0.840	--
0.630	49
0.420	--
0.315	43
0.160	39
0.150	--
0.080	34

M.C. (%): 12

LIMITS

LIQUID: 20.7
 PLASTIC: 16.6
 P.I.: 4.1

% GRAVEL: 32
 % SAND: 34
 % FINES: 34

CLASSIFICATION:
 SILTY, CLAYEY
 SAND WITH GRAVEL
 (SC-SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	92
12.5	78
10.0	73
5.0	62
2.5	56
2.0	--
1.25	50
0.840	--
0.630	46
0.420	--
0.315	41
0.160	36
0.150	--
0.080	30

M.C. (%): 9

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 38
 % SAND: 32
 % FINES: 30

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	91
20.0	86
12.5	77
10.0	73
5.0	64
2.5	58
2.0	--
1.25	53
0.840	--
0.630	48
0.420	--
0.315	42
0.160	37
0.150	--
0.080	31

M.C. (%): 10

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 36
 % SAND: 32
 % FINES: 31

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-27
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1913+700 O/S 3M LT
 LOGGED BY: AW DATE COMPLETED: 92.06.08

FIELD NO: 65
 LAB NO: 5820
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 66
 LAB NO: 5821
 DEPTH: 2.8-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	100
2.0	--
1.25	100
0.840	--
0.630	99
0.420	--
0.315	99
0.160	98
0.150	--
0.080	95

M.C. (%): 25

LIMITS

LIQUID: 26.9
 PLASTIC: 25.3
 P.I.: 1.6

% GRAVEL: 0
 % SAND: 5
 % FINES: 95

CLASSIFICATION:
 SILT (ML)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	95
20.0	93
12.5	91
10.0	90
5.0	89
2.5	88
2.0	--
1.25	86
0.840	--
0.630	85
0.420	--
0.315	84
0.160	82
0.150	--
0.080	81

M.C. (%): 22

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 11
 % SAND: 8
 % FINES: 81

CLASSIFICATION:
 SILT WITH GRAVEL
 (ML)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-28
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1913+600 O/S 7M LT
 LOGGED BY: AW DATE COMPLETED: 92.06.08

FIELD NO: 68
 LAB NO: 5823
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 69
 LAB NO: 5824
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	100
2.0	--
1.25	100
0.840	--
0.630	100
0.420	--
0.315	99
0.160	99
0.150	--
0.080	96

M.C. (%) : 33

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 4
 % FINES: 96

CLASSIFICATION: SILT (ML)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	95
20.0	85
12.5	73
10.0	64
5.0	50
2.5	39
2.0	--
1.25	31
0.840	--
0.630	25
0.420	--
0.315	20
0.160	18
0.150	--
0.080	15

M.C. (%) : 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 50
 % SAND: 34
 % FINES: 15

CLASSIFICATION: SILTY GRAVEL WITH SAND (GM)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-29
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1912+400
 LOGGED BY: AW DATE COMPLETED: 92.06.08

FIELD NO: 70
 LAB NO: 5825
 DEPTH: 1.3-1.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	81
20.0	69
12.5	56
10.0	49
5.0	37
2.5	32
2.0	--
1.25	25
0.840	--
0.630	19
0.420	--
0.315	13
0.160	9
0.150	--
0.080	7

M.C. (%) : 5

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 63
 % SAND: 30
 % FINES: 7

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-30
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1912+300 O/S 3M LT
 LOGGED BY: AW DATE COMPLETED: 92.06.08

FIELD NO: 71
 LAB NO: 5826
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 72
 LAB NO: 5827
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 73
 LAB NO: 5828
 DEPTH: 4.4-4.6
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	64
31.5	--
25.0	64
20.0	62
12.5	48
10.0	42
5.0	32
2.5	26
2.0	--
1.25	20
0.840	--
0.630	14
0.420	--
0.315	8
0.160	5
0.150	--
0.080	4

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	88
31.5	--
25.0	44
20.0	40
12.5	33
10.0	30
5.0	24
2.5	20
2.0	--
1.25	16
0.840	--
0.630	12
0.420	--
0.315	8
0.160	6
0.150	--
0.080	5

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	91
20.0	91
12.5	85
10.0	80
5.0	63
2.5	48
2.0	--
1.25	35
0.840	--
0.630	23
0.420	--
0.315	14
0.160	10
0.150	--
0.080	7

M.C. (%) : 3

M.C. (%) : 3

M.C. (%) : 7

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 68
 % SAND: 28
 % FINES: 4

% GRAVEL: 76
 % SAND: 19
 % FINES: 5

% GRAVEL: 37
 % SAND: 56
 % FINES: 7

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 WELL-GRADED SAND
 WITH SILT &
 GRAVEL (SW-SM)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-31
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1912+200 O/S 21M LT
 LOGGED BY: AW DATE COMPLETED: 92.06.08

FIELD NO: 74
 LAB NO: 5829
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 75
 LAB NO: 5830
 DEPTH: 2.7-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	85
20.0	76
12.5	69
10.0	61
5.0	48
2.5	39
2.0	--
1.25	29
0.840	--
0.630	21
0.420	--
0.315	15
0.160	12
0.150	--
0.080	10

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	96
12.5	83
10.0	75
5.0	55
2.5	42
2.0	--
1.25	30
0.840	--
0.630	20
0.420	--
0.315	12
0.160	8
0.150	--
0.080	6

M.C. (%) : 6

M.C. (%) : 6

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 52
 % SAND: 38
 % FINES: 10

% GRAVEL: 45
 % SAND: 49
 % FINES: 6

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 WELL-GRADED SAND
 WITH SILT &
 GRAVEL (SW-SM)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-33
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1907+200
 LOGGED BY: AW DATE COMPLETED: 92.06.09

FIELD NO: 76
 LAB NO: 5831
 DEPTH: 1.3-1.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	79
20.0	75
12.5	67
10.0	64
5.0	59
2.5	55
2.0	--
1.25	51
0.840	--
0.630	47
0.420	--
0.315	44
0.160	39
0.150	--
0.080	35

M.C. (%) : 17

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 41
 % SAND: 24
 % FINES: 35

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-34
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1907+100 O/S 3M RT
 LOGGED BY: AW DATE COMPLETED: 92.06.09

FIELD NO: 77
 LAB NO: 5832
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 78
 LAB NO: 5833
 DEPTH: 2.7-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	78
31.5	--
25.0	78
20.0	78
12.5	73
10.0	71
5.0	66
2.5	62
2.0	--
1.25	60
0.840	--
0.630	57
0.420	--
0.315	54
0.160	50
0.150	--
0.080	46

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	98
12.5	86
10.0	80
5.0	72
2.5	66
2.0	--
1.25	62
0.840	--
0.630	57
0.420	--
0.315	52
0.160	47
0.150	--
0.080	41

M.C. (%) : 16

M.C. (%) : 11

LIMITS

LIQUID: 25.9
 PLASTIC: 20.3
 P.I.: 5.6

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 34
 % SAND: 20
 % FINES: 46

% GRAVEL: 28
 % SAND: 31
 % FINES: 41

CLASSIFICATION:
 SILTY, CLAYEY
 GRAVEL WITH SAND
 (GC-GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-35
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1907+000 O/S 14M RT
 LOGGED BY: AW DATE COMPLETED: 92.06.09

FIELD NO: 79
 LAB NO: 5834
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 80
 LAB NO: 5835
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 81
 LAB NO: 5836
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	90
20.0	83
12.5	74
10.0	69
5.0	61
2.5	57
2.0	--
1.25	53
0.840	--
0.630	50
0.420	--
0.315	47
0.160	43
0.150	--
0.080	36

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	95
20.0	95
12.5	93
10.0	93
5.0	91
2.5	90
2.0	--
1.25	89
0.840	--
0.630	88
0.420	--
0.315	86
0.160	84
0.150	--
0.080	80

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	90
10.0	89
5.0	82
2.5	77
2.0	--
1.25	73
0.840	--
0.630	70
0.420	--
0.315	66
0.160	61
0.150	--
0.080	56

M.C. (%) : 11

M.C. (%) : 20

M.C. (%) : 14

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: 21.5
 PLASTIC: 18.4
 P.I.: 3.1

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 39
 % SAND: 25
 % FINES: 36

% GRAVEL: 9
 % SAND: 11
 % FINES: 80

% GRAVEL: 18
 % SAND: 26
 % FINES: 56

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILT WITH SAND
 (ML)

CLASSIFICATION:
 SANDY SILT WITH
 GRAVEL (ML)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-36
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1906+900 O/S 7M RT
 LOGGED BY: AW DATE COMPLETED: 92.06.09

FIELD NO: 82
 LAB NO: 5837
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 83
 LAB NO: 5838
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 84
 LAB NO: 5839
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	95
10.0	92
5.0	89
2.5	86
2.0	--
1.25	84
0.840	--
0.630	81
0.420	--
0.315	79
0.160	77
0.150	--
0.080	75

M.C. (%) : 16

LIMITS

LIQUID: 26.1
 PLASTIC: 21.0
 P.I.: 5.1

% GRAVEL: 11
 % SAND: 14
 % FINES: 75

CLASSIFICATION:
 SILTY CLAY WITH
 SAND (CL-ML)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	100
25.0	88
20.0	80
12.5	77
10.0	75
5.0	66
2.5	61
2.0	--
1.25	56
0.840	--
0.630	52
0.420	--
0.315	47
0.160	43
0.150	--
0.080	40

M.C. (%) : 12

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 34
 % SAND: 26
 % FINES: 40

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	87
20.0	83
12.5	77
10.0	74
5.0	66
2.5	63
2.0	--
1.25	59
0.840	--
0.630	56
0.420	--
0.315	53
0.160	49
0.150	--
0.080	46

M.C. (%) : 22

LIMITS

LIQUID: 26.6
 PLASTIC: 19.6
 P.I.: 7.0

% GRAVEL: 34
 % SAND: 19
 % FINES: 46

CLASSIFICATION:
 SILTY, CLAYEY
 GRAVEL WITH SAND
 (GC-GM)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-37
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1906+800
 LOGGED BY: AW DATE COMPLETED: 92.06.09

FIELD NO: 85
 LAB NO: 5840
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 86
 LAB NO: 5841
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 87
 LAB NO: 5842
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	89
20.0	89
12.5	87
10.0	85
5.0	78
2.5	71
2.0	--
1.25	61
0.840	--
0.630	53
0.420	--
0.315	44
0.160	32
0.150	--
0.080	23

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	96
20.0	94
12.5	79
10.0	70
5.0	51
2.5	42
2.0	--
1.25	33
0.840	--
0.630	27
0.420	--
0.315	22
0.160	18
0.150	--
0.080	14

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	89
10.0	85
5.0	78
2.5	73
2.0	--
1.25	69
0.840	--
0.630	66
0.420	--
0.315	62
0.160	59
0.150	--
0.080	56

M.C. (%) : 29

M.C. (%) : 12

M.C. (%) : 26

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: 24.9
 PLASTIC: 17.9
 P.I.: 7.0

% GRAVEL: 22
 % SAND: 56
 % FINES: 23

% GRAVEL: 49
 % SAND: 36
 % FINES: 14

% GRAVEL: 22
 % SAND: 21
 % FINES: 56

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 GRAVELLY SILTY
 CLAY WITH SAND
 (CL-ML)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-38
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1906+700
 LOGGED BY: AW DATE COMPLETED: 92.06.09

FIELD NO: 88
 LAB NO: 5843
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 89
 LAB NO: 5844
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 90
 LAB NO: 5845
 DEPTH: 3.8-4.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	75
20.0	69
12.5	59
10.0	54
5.0	43
2.5	38
2.0	--
1.25	32
0.840	--
0.630	29
0.420	--
0.315	26
0.160	22
0.150	--
0.080	20

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	94
20.0	94
12.5	86
10.0	82
5.0	72
2.5	64
2.0	--
1.25	58
0.840	--
0.630	52
0.420	--
0.315	46
0.160	40
0.150	--
0.080	34

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	97
12.5	87
10.0	83
5.0	73
2.5	65
2.0	--
1.25	56
0.840	--
0.630	48
0.420	--
0.315	41
0.160	35
0.150	--
0.080	29

M.C. (%) : 9

M.C. (%) : 14

M.C. (%) : 15

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 57
 % SAND: 23
 % FINES: 20

% GRAVEL: 28
 % SAND: 38
 % FINES: 34

% GRAVEL: 27
 % SAND: 43
 % FINES: 29

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-39
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1906+600 O/S 3M LT
 LOGGED BY: AW DATE COMPLETED: 92.06.10

FIELD NO: 91
 LAB NO: 5846
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 92
 LAB NO: 5847
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 93
 LAB NO: 5848
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	77
20.0	70
12.5	57
10.0	55
5.0	49
2.5	45
2.0	--
1.25	41
0.840	--
0.630	38
0.420	--
0.315	35
0.160	31
0.150	--
0.080	28

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	96
12.5	84
10.0	78
5.0	66
2.5	58
2.0	--
1.25	52
0.840	--
0.630	48
0.420	--
0.315	44
0.160	40
0.150	--
0.080	36

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	89
20.0	89
12.5	84
10.0	80
5.0	72
2.5	65
2.0	--
1.25	59
0.840	--
0.630	53
0.420	--
0.315	48
0.160	41
0.150	--
0.080	36

M.C. (%) : 16

M.C. (%) : 14

M.C. (%) : 31

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 51
 % SAND: 22
 % FINES: 28

% GRAVEL: 34
 % SAND: 30
 % FINES: 36

% GRAVEL: 28
 % SAND: 36
 % FINES: 36

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-40
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1906+500 O/S 2M LT
 LOGGED BY: AW DATE COMPLETED: 92.06.10

FIELD NO: 64
 LAB NO: 5849
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 95
 LAB NO: 5850
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 96
 LAB NO: 5851
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	98
10.0	96
5.0	92
2.5	91
2.0	--
1.25	89
0.840	--
0.630	87
0.420	--
0.315	85
0.160	82
0.150	--
0.080	79

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	97
12.5	97
10.0	94
5.0	92
2.5	90
2.0	--
1.25	88
0.840	--
0.630	86
0.420	--
0.315	84
0.160	82
0.150	--
0.080	79

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	100
5.0	98
2.5	97
2.0	--
1.25	96
0.840	--
0.630	95
0.420	--
0.315	94
0.160	92
0.150	--
0.080	89

M.C. (%): 39

M.C. (%): 23

M.C. (%): 27

LIMITS

LIQUID: 33.9
 PLASTIC: 21.1
 P.I.: 12.8

LIMITS

LIQUID: 31.3
 PLASTIC: 25.2
 P.I.: 6.1

LIMITS

LIQUID: 33.1
 PLASTIC: 28.1
 P.I.: 5.0

% GRAVEL: 8
 % SAND: 13
 % FINES: 79

% GRAVEL: 8
 % SAND: 13
 % FINES: 79

% GRAVEL: 2
 % SAND: 9
 % FINES: 89

CLASSIFICATION:
 LEAN CLAY WITH
 SAND (CL)

CLASSIFICATION:
 SILT WITH SAND
 (ML)

CLASSIFICATION:
 SILT (ML)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-41
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: R 1906+400 O/S 10M LT
 LOGGED BY: AW DATE COMPLETED: 92.06.10

FIELD NO: 97
 LAB NO: 5852
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 98
 LAB NO: 5853
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 99
 LAB NO: 5854
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	87
20.0	84
12.5	74
10.0	69
5.0	55
2.5	39
2.0	--
1.25	26
0.840	--
0.630	19
0.420	--
0.315	16
0.160	14
0.150	--
0.080	11

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	92
20.0	90
12.5	89
10.0	87
5.0	81
2.5	76
2.0	--
1.25	71
0.840	--
0.630	67
0.420	--
0.315	63
0.160	56
0.150	--
0.080	46

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	97
10.0	92
5.0	88
2.5	85
2.0	--
1.25	83
0.840	--
0.630	80
0.420	--
0.315	77
0.160	73
0.150	--
0.080	65

M.C. (%) : 4

M.C. (%) : 16

M.C. (%) : 17

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: 22.1
 PLASTIC: 18.0
 P.I.: 4.1

% GRAVEL: 45
 % SAND: 44
 % FINES: 11

% GRAVEL: 19
 % SAND: 35
 % FINES: 46

% GRAVEL: 12
 % SAND: 23
 % FINES: 65

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SANDY SILTY CLAY
 (CL-ML)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-42
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: R 1906+300
 LOGGED BY: AW DATE COMPLETED: 92.06.10

FIELD NO: 100
 LAB NO: 5855
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 101
 LAB NO: 5856
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 102
 LAB NO: 5857
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	84
20.0	81
12.5	77
10.0	76
5.0	73
2.5	72
2.0	--
1.25	69
0.840	--
0.630	68
0.420	--
0.315	66
0.160	62
0.150	--
0.080	54

M.C. (%) : 12

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 27
 % SAND: 19
 % FINES: 54

CLASSIFICATION:
 GRAVELLY SILT
 WITH SAND (ML)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	93
20.0	93
12.5	84
10.0	79
5.0	66
2.5	60
2.0	--
1.25	55
0.840	--
0.630	51
0.420	--
0.315	47
0.160	42
0.150	--
0.080	37

M.C. (%) : 10

LIMITS

LIQUID: 20.1
 PLASTIC: 15.0
 P.I.: 5.1

% GRAVEL: 34
 % SAND: 29
 % FINES: 37

CLASSIFICATION:
 SILTY, CLAYEY
 GRAVEL WITH SAND
 (GC-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	99
12.5	97
10.0	95
5.0	89
2.5	85
2.0	--
1.25	82
0.840	--
0.630	80
0.420	--
0.315	77
0.160	72
0.150	--
0.080	59

M.C. (%) : 18

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 11
 % SAND: 30
 % FINES: 59

CLASSIFICATION:
 SANDY SILT (ML)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-43
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: R 1906+200
 LOGGED BY: AW DATE COMPLETED: 92.06.10

FIELD NO: 103
 LAB NO: 5858
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 104
 LAB NO: 5859
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 105
 LAB NO: 5860
 DEPTH: 4.3-4.5
 TYPE: AUGER
 SPILLED

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	92
20.0	89
12.5	82
10.0	76
5.0	58
2.5	49
2.0	--
1.25	43
0.840	--
0.630	38
0.420	--
0.315	34
0.160	30
0.150	--
0.080	25

M.C. (%) : 18

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 42
 % SAND: 32
 % FINES: 25

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	100
50.0	52
31.5	--
25.0	44
20.0	44
12.5	39
10.0	37
5.0	33
2.5	31
2.0	--
1.25	28
0.840	--
0.630	26
0.420	--
0.315	24
0.160	22
0.150	--
0.080	20

M.C. (%) : 19

LIMITS

LIQUID: 30.2
 PLASTIC: 21.2
 P.I.: 9.0

% GRAVEL: 67
 % SAND: 13
 % FINES: 20

CLASSIFICATION:
 CLAYEY GRAVEL
 (GC)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	--
2.0	--
1.25	--
0.840	--
0.630	--
0.420	--
0.315	--
0.160	--
0.150	--
0.080	--

M.C. (%) : 46

LIMITS

LIQUID: 53.7
 PLASTIC: 31.5
 P.I.: 22.2

% GRAVEL: --
 % SAND: --
 % FINES: --

CLASSIFICATION:

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-45
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: R 1906+000
 LOGGED BY: AW DATE COMPLETED: 92.06.10

FIELD NO: 106
 LAB NO: 5861
 DEPTH: 1.3-1.5
 TYPE: AUGER
 ORGANIC MATERIAL

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	--
2.0	--
1.25	--
0.840	--
0.630	--
0.420	--
0.315	--
0.160	--
0.150	--
0.080	--

M.C. (%) : 298

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: --
 % SAND: --
 % FINES: --

CLASSIFICATION:

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-46
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: R 1905+900
 LOGGED BY: AW DATE COMPLETED: 92.06.10

FIELD NO: 107	FIELD NO: 108
LAB NO: 5862	LAB NO: 5863
DEPTH: 1.3-1.5	DEPTH: 2.8-3.0
TYPE: AUGER	TYPE: AUGER

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	--	100.0	--
80.0	--	80.0	--
50.0	--	50.0	--
31.5	--	31.5	--
25.0	--	25.0	100
20.0	--	20.0	96
12.5	--	12.5	95
10.0	--	10.0	92
5.0	100	5.0	89
2.5	98	2.5	87
2.0	--	2.0	--
1.25	97	1.25	85
0.840	--	0.840	--
0.630	95	0.630	82
0.420	--	0.420	--
0.315	93	0.315	80
0.160	90	0.160	77
0.150	--	0.150	--
0.080	87	0.080	73

M.C. (%) : 76 M.C. (%) : 38

LIMITS		LIMITS	
LIQUID:	40.6	LIQUID:	--
PLASTIC:	36.3	PLASTIC:	--
P.I.:	4.3	P.I.:	N.P.

% GRAVEL:	0	% GRAVEL:	11
% SAND:	13	% SAND:	16
% FINES:	87	% FINES:	73

CLASSIFICATION: SILT (ML) CLASSIFICATION: SILT WITH SAND (ML)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-47
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: R 1905+800
 LOGGED BY: AW DATE COMPLETED: 92.06.10

FIELD NO: 109
 LAB NO: 5864
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 110
 LAB NO: 5865
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 111
 LAB NO: 5866
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	86
12.5	73
10.0	70
5.0	61
2.5	56
2.0	--
1.25	52
0.840	--
0.630	49
0.420	--
0.315	47
0.160	44
0.150	--
0.080	41

M.C. (%): 19

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 39
 % SAND: 19
 % FINES: 41

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	98
12.5	97
10.0	96
5.0	92
2.5	90
2.0	--
1.25	88
0.840	--
0.630	85
0.420	--
0.315	83
0.160	80
0.150	--
0.080	77

M.C. (%): 21

LIMITS

LIQUID: 31.6
 PLASTIC: 20.1
 P.I.: 11.5

% GRAVEL: 8
 % SAND: 16
 % FINES: 77

CLASSIFICATION:
 LEAN CLAY WITH
 SAND (CL)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	91
20.0	89
12.5	89
10.0	88
5.0	86
2.5	84
2.0	--
1.25	82
0.840	--
0.630	80
0.420	--
0.315	78
0.160	75
0.150	--
0.080	73

M.C. (%): 16

LIMITS

LIQUID: 29.3
 PLASTIC: 21.2
 P.I.: 8.1

% GRAVEL: 14
 % SAND: 13
 % FINES: 73

CLASSIFICATION:
 LEAN CLAY WITH
 GRAVEL (CL)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 175-48
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: A/H KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: R 1905+700
 LOGGED BY: AW DATE COMPLETED: 92.06.10

FIELD NO: 112
 LAB NO: 5867
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 113
 LAB NO: 5868
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 114
 LAB NO: 5869
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	--
2.0	--
1.25	--
0.840	--
0.630	--
0.420	--
0.315	--
0.160	100
0.150	--
0.080	100

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	--
2.0	--
1.25	--
0.840	--
0.630	--
0.420	--
0.315	--
0.160	100
0.150	--
0.080	100

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	94
20.0	92
12.5	87
10.0	85
5.0	81
2.5	79
2.0	--
1.25	76
0.840	--
0.630	74
0.420	--
0.315	71
0.160	68
0.150	--
0.080	65

M.C. (%): 52

M.C. (%): 31

M.C. (%): 14

LIMITS
 LIQUID: 42.4
 PLASTIC: 29.5
 P.I.: 12.9

LIMITS
 LIQUID: 47.7
 PLASTIC: 33.1
 P.I.: 14.6

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 0
 % FINES: 100

% GRAVEL: 0
 % SAND: 0
 % FINES: 100

% GRAVEL: 19
 % SAND: 16
 % FINES: 65

CLASSIFICATION:
 SILT (ML)

CLASSIFICATION:
 SILT (ML)

CLASSIFICATION:
 GRAVELLY SILT
 WITH SAND (ML)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 194-49
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: ALASKA HIGHWAY KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: R1905+600
 LOGGED BY: AW DATE COMPLETED: 92.06.22

FIELD NO: 115
 LAB NO: 6536
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 116
 LAB NO: 6537
 DEPTH: 2.7-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	83
20.0	76
12.5	62
10.0	55
5.0	37
2.5	30
2.0	--
1.25	23
0.840	--
0.630	19
0.420	--
0.315	16
0.160	14
0.150	--
0.080	12

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	87
20.0	83
12.5	64
10.0	60
5.0	46
2.5	39
2.0	--
1.25	32
0.840	--
0.630	28
0.420	--
0.315	24
0.160	21
0.150	--
0.080	19

M.C. (%) : 9

M.C. (%) : 11

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 63
 % SAND: 26
 % FINES: 12

% GRAVEL: 54
 % SAND: 27
 % FINES: 19

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 194-50
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: ALASKA HIGHWAY KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: R1905+500
 LOGGED BY: AW DATE COMPLETED: 92.08.06

FIELD NO: 117
 LAB NO: 6538
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 118
 LAB NO: 6539
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 119
 LAB NO: 6540
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	79
12.5	69
10.0	63
5.0	58
2.5	55
2.0	--
1.25	51
0.840	--
0.630	48
0.420	--
0.315	45
0.160	41
0.150	--
0.080	37

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	68
20.0	68
12.5	61
10.0	58
5.0	51
2.5	48
2.0	--
1.25	44
0.840	--
0.630	41
0.420	--
0.315	39
0.160	36
0.150	--
0.080	32

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	96
10.0	95
5.0	86
2.5	81
2.0	--
1.25	75
0.840	--
0.630	70
0.420	--
0.315	66
0.160	61
0.150	--
0.080	55

M.C. (%) : 26

M.C. (%) : 18

M.C. (%) : 29

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 42
 % SAND: 21
 % FINES: 37

% GRAVEL: 49
 % SAND: 18
 % FINES: 32

% GRAVEL: 14
 % SAND: 31
 % FINES: 55

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SANDY SILT (ML)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 194-51
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: ALASKA HIGHWAY KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1906+300
 LOGGED BY: AW DATE COMPLETED: 92.08.06

FIELD NO: 120
 LAB NO: 6541
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 121
 LAB NO: 6542
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 122
 LAB NO: 6543
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	93
20.0	82
12.5	67
10.0	60
5.0	50
2.5	45
2.0	--
1.25	38
0.840	--
0.630	34
0.420	--
0.315	30
0.160	21
0.150	--
0.080	14

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	77
20.0	66
12.5	61
10.0	57
5.0	48
2.5	44
2.0	--
1.25	40
0.840	--
0.630	37
0.420	--
0.315	34
0.160	31
0.150	--
0.080	27

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	76
31.5	--
25.0	64
20.0	59
12.5	52
10.0	50
5.0	43
2.5	40
2.0	--
1.25	35
0.840	--
0.630	32
0.420	--
0.315	29
0.160	26
0.150	--
0.080	22

M.C. (%) : 7

M.C. (%) : 12

M.C. (%) : 10

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 50
 % SAND: 36
 % FINES: 14

% GRAVEL: 52
 % SAND: 21
 % FINES: 27

% GRAVEL: 57
 % SAND: 21
 % FINES: 22

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 194-52
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: ALASKA HIGHWAY KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1906+200
 LOGGED BY: AW DATE COMPLETED: 92.08.06

FIELD NO: 123
 LAB NO: 6544
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 124
 LAB NO: 6545
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 125
 LAB NO: 6546
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	100
5.0	100
2.5	100
2.0	--
1.25	99
0.840	--
0.630	98
0.420	--
0.315	97
0.160	96
0.150	--
0.080	94

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	100
2.0	--
1.25	100
0.840	--
0.630	99
0.420	--
0.315	99
0.160	99
0.150	--
0.080	99

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	--
2.0	--
1.25	--
0.840	--
0.630	--
0.420	--
0.315	--
0.160	100
0.150	--
0.080	100

M.C. (%) : 39

M.C. (%) : 43

M.C. (%) : 38

LIMITS

LIQUID: 44.2
 PLASTIC: 27.9
 P.I.: 16.3

LIMITS

LIQUID: 48.4
 PLASTIC: 27.1
 P.I.: 21.3

LIMITS

LIQUID: 47.4
 PLASTIC: 28.2
 P.I.: 19.2

% GRAVEL: 0
 % SAND: 6
 % FINES: 94

% GRAVEL: 0
 % SAND: 1
 % FINES: 99

% GRAVEL: 0
 % SAND: 0
 % FINES: 100

CLASSIFICATION:
 SILT (ML)

CLASSIFICATION:
 LEAN CLAY (CL)

CLASSIFICATION:
 SILT (ML)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 194-53
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: ALASKA HIGHWAY KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1906+100
 LOGGED BY: AW DATE COMPLETED: 92.08.06

FIELD NO: 126
 LAB NO: 6547
 DEPTH: 1.2-1.5
 TYPE: AUGER
 ORGANICS

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	98
2.0	--
1.25	96
0.840	--
0.630	92
0.420	--
0.315	85
0.160	78
0.150	--
0.080	71

M.C. (%): 58

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 29
 % FINES: 71

CLASSIFICATION:
 SILT WITH SAND
 (ML)

FIELD NO: 127
 LAB NO: 6548
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	--
2.0	--
1.25	--
0.840	--
0.630	--
0.420	--
0.315	--
0.160	100
0.150	--
0.080	100

M.C. (%): 40

LIMITS

LIQUID: 34.9
 PLASTIC: 21.4
 P.I.: 13.5

% GRAVEL: 0
 % SAND: 0
 % FINES: 100

CLASSIFICATION:
 LEAN CLAY (CL)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 194-54
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: ALASKA HIGHWAY KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1906+000
 LOGGED BY: AW DATE COMPLETED: 92.08.06

FIELD NO: 128
 LAB NO: 6549
 DEPTH: 1.2-1.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	99
10.0	97
5.0	94
2.5	93
2.0	--
1.25	90
0.840	--
0.630	88
0.420	--
0.315	85
0.160	82
0.150	--
0.080	78

M.C. (%): 26

LIMITS

LIQUID: 31.0
 PLASTIC: 20.6
 P.I.: 10.4

% GRAVEL: 6
 % SAND: 16
 % FINES: 78

CLASSIFICATION:
 LEAN CLAY WITH
 SAND (CL)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 194-55
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: ALASKA HIGHWAY KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1905+900
 LOGGED BY: AW DATE COMPLETED: 92.08.06

FIELD NO: 129
 LAB NO: 6550
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 130
 LAB NO: 6551
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 131
 LAB NO: 6552
 DEPTH: 4.3-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	96
10.0	93
5.0	89
2.5	87
2.0	--
1.25	84
0.840	--
0.630	82
0.420	--
0.315	79
0.160	75
0.150	--
0.080	71

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	99
10.0	99
5.0	97
2.5	97
2.0	--
1.25	96
0.840	--
0.630	96
0.420	--
0.315	95
0.160	93
0.150	--
0.080	91

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	97
10.0	97
5.0	94
2.5	90
2.0	--
1.25	86
0.840	--
0.630	81
0.420	--
0.315	74
0.160	70
0.150	--
0.080	66

M.C. (%) : 19

M.C. (%) : 29

M.C. (%) : 26

LIMITS
 LIQUID: 30.1
 PLASTIC: 20.7
 P.I.: 9.4

LIMITS
 LIQUID: 45.1
 PLASTIC: 26.1
 P.I.: 19.0

LIMITS
 LIQUID: 35.9
 PLASTIC: 22.0
 P.I.: 13.9

% GRAVEL: 11
 % SAND: 18
 % FINES: 71

% GRAVEL: 3
 % SAND: 6
 % FINES: 91

% GRAVEL: 6
 % SAND: 28
 % FINES: 66

CLASSIFICATION:
 LEAN CLAY WITH
 SAND (CL)

CLASSIFICATION:
 LEAN CLAY (CL)

CLASSIFICATION:
 SANDY LEAN CLAY
 (CL)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 194-56
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: ALASKA HIGHWAY KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1905+800
 LOGGED BY: AW DATE COMPLETED: 92.08.06

FIELD NO: 132
 LAB NO: 6553
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 133
 LAB NO: 6554
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 134
 LAB NO: 6555
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	100
5.0	100
2.5	100
2.0	--
1.25	100
0.840	--
0.630	99
0.420	--
0.315	99
0.160	98
0.150	--
0.080	98

M.C. (%): 28

LIMITS

LIQUID: 45.7
 PLASTIC: 26.3
 P.I.: 19.4

% GRAVEL: 0
 % SAND: 2
 % FINES: 98

CLASSIFICATION:
 LEAN CLAY (CL)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	--
2.0	--
1.25	--
0.840	--
0.630	--
0.420	--
0.315	--
0.160	100
0.150	--
0.080	100

M.C. (%): 33

LIMITS

LIQUID: 38.5
 PLASTIC: 25.3
 P.I.: 13.2

% GRAVEL: 0
 % SAND: 0
 % FINES: 100

CLASSIFICATION:
 SILT (ML)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	100
5.0	100
2.5	99
2.0	--
1.25	99
0.840	--
0.630	99
0.420	--
0.315	98
0.160	97
0.150	--
0.080	96

M.C. (%): 45

LIMITS

LIQUID: 51.4
 PLASTIC: 27.6
 P.I.: 23.8

% GRAVEL: 0
 % SAND: 4
 % FINES: 96

CLASSIFICATION:
 FAT CLAY (CH)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 194-57
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: ALASKA HIGHWAY KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1905+700 O/S 10M LT
 LOGGED BY: AW DATE COMPLETED: 92.08.06

FIELD NO: 135
 LAB NO: 6556
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 136
 LAB NO: 6557
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 137
 LAB NO: 6558
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	95
12.5	92
10.0	90
5.0	84
2.5	81
2.0	--
1.25	77
0.840	--
0.630	73
0.420	--
0.315	70
0.160	65
0.150	--
0.080	59

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	98
10.0	97
5.0	93
2.5	91
2.0	--
1.25	87
0.840	--
0.630	84
0.420	--
0.315	80
0.160	75
0.150	--
0.080	70

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	92
20.0	90
12.5	89
10.0	88
5.0	86
2.5	84
2.0	--
1.25	81
0.840	--
0.630	79
0.420	--
0.315	77
0.160	74
0.150	--
0.080	71

M.C. (%) : 16

M.C. (%) : 18

M.C. (%) : 26

LIMITS

LIQUID: 22.9
 PLASTIC: 16.6
 P.I.: 6.3

LIMITS

LIQUID: 24.0
 PLASTIC: 17.2
 P.I.: 6.8

LIMITS

LIQUID: 35.9
 PLASTIC: 22.4
 P.I.: 13.5

% GRAVEL: 16
 % SAND: 25
 % FINES: 59

% GRAVEL: 7
 % SAND: 23
 % FINES: 70

% GRAVEL: 14
 % SAND: 15
 % FINES: 71

CLASSIFICATION:
 SANDY SILTY CLAY
 WITH GRAVEL
 (CL-ML)

CLASSIFICATION:
 SANDY SILTY CLAY
 (CL-ML)

CLASSIFICATION:
 LEAN CLAY WITH
 SAND (CL)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 194-58
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: ALASKA HIGHWAY KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1905+600 O/S 18M LT
 LOGGED BY: AW DATE COMPLETED: 92.08.06

FIELD NO: 138
 LAB NO: 6559
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 139
 LAB NO: 6560
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 140
 LAB NO: 6561
 DEPTH: 4.2-4.5
 TYPE: AUGER

FIELD NO: ERR
 LAB NO:
 DEPTH:
 TYPE: ERR

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	95
20.0	91
12.5	85
10.0	81
5.0	73
2.5	69
2.0	--
1.25	63
0.840	--
0.630	58
0.420	--
0.315	53
0.160	47
0.150	--
0.080	41

M.C. (%): 10

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 27
 % SAND: 32
 % FINES: 41

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	97
20.0	93
12.5	87
10.0	84
5.0	76
2.5	73
2.0	--
1.25	67
0.840	--
0.630	62
0.420	--
0.315	57
0.160	51
0.150	--
0.080	45

M.C. (%): 13

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 24
 % SAND: 31
 % FINES: 45

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	92
10.0	87
5.0	79
2.5	75
2.0	--
1.25	69
0.840	--
0.630	65
0.420	--
0.315	61
0.160	55
0.150	--
0.080	50

M.C. (%): 15

LIMITS
 LIQUID: 20.7
 PLASTIC: 15.7
 P.I.: 5.0

% GRAVEL: 21
 % SAND: 29
 % FINES: 50

CLASSIFICATION:
 SANDY SILTY CLAY
 WITH GRAVEL
 (CL-ML)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	--
2.0	--
1.25	--
0.840	--
0.630	--
0.420	--
0.315	--
0.160	--
0.150	--
0.080	--

M.C. (%): --

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: --

% GRAVEL: --
 % SAND: --
 % FINES: --

CLASSIFICATION:

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 194-59
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: ALASKA HIGHWAY KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1905+525 O/S 13M LT
 LOGGED BY: AW DATE COMPLETED: 92.08.06

FIELD NO: 141
 LAB NO: 6562
 DEPTH: 1.2-1.5
 TYPE: AUGER
 ORGANIC

FIELD NO: 142
 LAB NO: 6563
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 143
 LAB NO: 6564
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	98
10.0	98
5.0	93
2.5	90
2.0	--
1.25	86
0.840	--
0.630	82
0.420	--
0.315	77
0.160	69
0.150	--
0.080	62

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	87
20.0	84
12.5	82
10.0	78
5.0	70
2.5	67
2.0	--
1.25	62
0.840	--
0.630	58
0.420	--
0.315	54
0.160	50
0.150	--
0.080	45

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	98
12.5	91
10.0	89
5.0	80
2.5	74
2.0	--
1.25	67
0.840	--
0.630	61
0.420	--
0.315	56
0.160	49
0.150	--
0.080	43

M.C. (%) : 52

M.C. (%) : 13

M.C. (%) : 13

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 7
 % SAND: 31
 % FINES: 62

% GRAVEL: 30
 % SAND: 25
 % FINES: 45

% GRAVEL: 20
 % SAND: 37
 % FINES: 43

CLASSIFICATION:
 SANDY SILT (ML)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 202101 0304 HOLE NUMBER: 194-60
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 17
 PROJECT LOCATION: ALASKA HIGHWAY KM 1905-1938
 DRILL UNIT: 36002
 HOLE LOCATION: 1905+300 O/S 7M LT
 LOGGED BY: AW DATE COMPLETED: 92.08.06

FIELD NO: 144
 LAB NO: 6565
 DEPTH: 1.2-1.5
 TYPE: AUGER
 ORGANIC

FIELD NO: 145
 LAB NO: 6566
 DEPTH: 2.4-2.7
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	94
10.0	93
5.0	89
2.5	87
2.0	--
1.25	84
0.840	--
0.630	81
0.420	--
0.315	77
0.160	70
0.150	--
0.080	61

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	86
20.0	78
12.5	72
10.0	70
5.0	64
2.5	62
2.0	--
1.25	58
0.840	--
0.630	55
0.420	--
0.315	51
0.160	46
0.150	--
0.080	40

M.C. (%) : 33

M.C. (%) : 20

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 11
 % SAND: 28
 % FINES: 61

% GRAVEL: 36
 % SAND: 24
 % FINES: 40

CLASSIFICATION:
 SANDY SILT (ML)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 194-61
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1905+150
 LOGGED BY: AW DATE COMPLETED: 92.08.06

FIELD NO: 146
 LAB NO: 6567
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 147
 LAB NO: 6568
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 147
 LAB NO: 6569
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	79
20.0	76
12.5	62
10.0	56
5.0	39
2.5	31
2.0	--
1.25	25
0.840	--
0.630	20
0.420	--
0.315	15
0.160	11
0.150	--
0.080	9

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	80
31.5	--
25.0	69
20.0	66
12.5	57
10.0	52
5.0	42
2.5	35
2.0	--
1.25	29
0.840	--
0.630	23
0.420	--
0.315	18
0.160	15
0.150	--
0.080	12

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	46
31.5	--
25.0	39
20.0	38
12.5	32
10.0	30
5.0	23
2.5	19
2.0	--
1.25	16
0.840	--
0.630	12
0.420	--
0.315	9
0.160	7
0.150	--
0.080	6

M.C. (%) : 9

M.C. (%) : 9

M.C. (%) : 6

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 61
 % SAND: 30
 % FINES: 9

% GRAVEL: 58
 % SAND: 30
 % FINES: 12

% GRAVEL: 77
 % SAND: 18
 % FINES: 6

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 194-62
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1905+050
 LOGGED BY: AW DATE COMPLETED: 92.08.06

FIELD NO: 149
 LAB NO: 6570
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 150
 LAB NO: 6571
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 151
 LAB NO: 6572
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	72
20.0	65
12.5	47
10.0	40
5.0	30
2.5	24
2.0	--
1.25	18
0.840	--
0.630	12
0.420	--
0.315	8
0.160	5
0.150	--
0.080	4

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	49
20.0	46
12.5	38
10.0	37
5.0	30
2.5	26
2.0	--
1.25	22
0.840	--
0.630	18
0.420	--
0.315	15
0.160	12
0.150	--
0.080	10

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	82
31.5	--
25.0	63
20.0	58
12.5	51
10.0	48
5.0	41
2.5	37
2.0	--
1.25	33
0.840	--
0.630	30
0.420	--
0.315	26
0.160	22
0.150	--
0.080	19

M.C. (%) : 3

M.C. (%) : 9

M.C. (%) : 14

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 70
 % SAND: 26
 % FINES: 4

% GRAVEL: 70
 % SAND: 20
 % FINES: 10

% GRAVEL: 59
 % SAND: 23
 % FINES: 19

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 194-63
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1904+925
 LOGGED BY: AW DATE COMPLETED: 92.08.06

FIELD NO: 151
 LAB NO: 6573
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 152
 LAB NO: 6574
 DEPTH: 2.7-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	79
20.0	72
12.5	58
10.0	53
5.0	41
2.5	33
2.0	--
1.25	25
0.840	--
0.630	18
0.420	--
0.315	12
0.160	8
0.150	--
0.080	6

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	81
20.0	75
12.5	67
10.0	62
5.0	54
2.5	48
2.0	--
1.25	42
0.840	--
0.630	37
0.420	--
0.315	31
0.160	25
0.150	--
0.080	19

M.C. (%) : 4

M.C. (%) : 11

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 59
 % SAND: 35
 % FINES: 6

% GRAVEL: 46
 % SAND: 34
 % FINES: 19

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 194-64
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1904+825
 LOGGED BY: AW DATE COMPLETED: 92.08.07

FIELD NO: 153
 LAB NO: 6575
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 154
 LAB NO: 6576
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 155
 LAB NO: 6577
 DEPTH: 4.2-4.5
 TYPE: AUGER

FIELD NO: 156
 LAB NO: 6578
 DEPTH: 5.7-6.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	95
12.5	92
10.0	88
5.0	80
2.5	73
2.0	--
1.25	67
0.840	--
0.630	63
0.420	--
0.315	60
0.160	57
0.150	--
0.080	53

100.0	--
80.0	--
50.0	100
31.5	--
25.0	94
20.0	84
12.5	70
10.0	66
5.0	56
2.5	50
2.0	--
1.25	46
0.840	--
0.630	43
0.420	--
0.315	40
0.160	37
0.150	--
0.080	34

100.0	--
80.0	--
50.0	100
31.5	--
25.0	70
20.0	67
12.5	56
10.0	53
5.0	46
2.5	42
2.0	--
1.25	39
0.840	--
0.630	35
0.420	--
0.315	32
0.160	29
0.150	--
0.080	25

100.0	--
80.0	--
50.0	100
31.5	--
25.0	85
20.0	85
12.5	77
10.0	72
5.0	65
2.5	60
2.0	--
1.25	55
0.840	--
0.630	50
0.420	--
0.315	46
0.160	41
0.150	--
0.080	35

M.C. (%) : 25

M.C. (%) : 17

M.C. (%) : 13

M.C. (%) : 13

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 20
 % SAND: 27
 % FINES: 53

% GRAVEL: 44
 % SAND: 22
 % FINES: 34

% GRAVEL: 54
 % SAND: 21
 % FINES: 25

% GRAVEL: 35
 % SAND: 30
 % FINES: 35

CLASSIFICATION:
 SANDY SILT WITH
 GRAVEL (ML)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 194-65
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1904+725
 LOGGED BY: AW DATE COMPLETED: 92.08.07

FIELD NO: 157	FIELD NO: 158	FIELD NO: 159	FIELD NO: 160
LAB NO: 6579	LAB NO: 6580	LAB NO: 6581	LAB NO: 6582
DEPTH: 1.2-1.5	DEPTH: 207-3.0	DEPTH: 4.2-4.5	DEPTH: 5.7-6.0
TYPE: AUGER	TYPE: AUGER	TYPE: AUGER	TYPE: AUGER

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	--	100.0	--	100.0	--	100.0	--
80.0	--	80.0	--	80.0	--	80.0	--
50.0	100	50.0	--	50.0	--	50.0	--
31.5	--	31.5	--	31.5	--	31.5	--
25.0	71	25.0	--	25.0	--	25.0	100
20.0	71	20.0	--	20.0	100	20.0	97
12.5	66	12.5	100	12.5	97	12.5	96
10.0	64	10.0	98	10.0	96	10.0	95
5.0	56	5.0	97	5.0	95	5.0	94
2.5	52	2.5	96	2.5	94	2.5	93
2.0	--	2.0	--	2.0	--	2.0	--
1.25	49	1.25	95	1.25	93	1.25	92
0.840	--	0.840	--	0.840	--	0.840	--
0.630	46	0.630	94	0.630	93	0.630	91
0.420	--	0.420	--	0.420	--	0.420	--
0.315	43	0.315	93	0.315	92	0.315	90
0.160	40	0.160	92	0.160	91	0.160	89
0.150	--	0.150	--	0.150	--	0.150	--
0.080	37	0.080	90	0.080	90	0.080	88

M.C. (%) : 20 M.C. (%) : 33 M.C. (%) : 28 M.C. (%) : 24

LIMITS		LIMITS		LIMITS		LIMITS	
LIQUID:	--	LIQUID:	38.3	LIQUID:	36.4	LIQUID:	35.1
PLASTIC:	--	PLASTIC:	22.7	PLASTIC:	22.2	PLASTIC:	22.4
P.I.:	N.P.	P.I.:	15.6	P.I.:	14.2	P.I.:	12.7

% GRAVEL:	44	% GRAVEL:	3	% GRAVEL:	5	% GRAVEL:	6
% SAND:	20	% SAND:	6	% SAND:	5	% SAND:	6
% FINES:	37	% FINES:	90	% FINES:	90	% FINES:	88

CLASSIFICATION:	CLASSIFICATION:	CLASSIFICATION:	CLASSIFICATION:
SILTY GRAVEL WITH SAND (GM)	LEAN CLAY (CL)	LEAN CLAY (CL)	LEAN CLAY (CL)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 194-66
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1904+600
 LOGGED BY: AW DATE COMPLETED: 92.08.07

FIELD NO: 161
 LAB NO: 6583
 DEPTH: 1.2-1.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	58
20.0	48
12.5	28
10.0	22
5.0	8
2.5	5
2.0	--
1.25	4
0.840	--
0.630	3
0.420	--
0.315	3
0.160	2
0.150	--
0.080	2

M.C. (%) : 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 92
 % SAND: 7
 % FINES: 2

CLASSIFICATION:
 WELL-GRADED
 GRAVEL (GW)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 194-68
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1904+550
 LOGGED BY: AW DATE COMPLETED: 92.08.07

FIELD NO: 162
 LAB NO: 6584
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 163
 LAB NO: 6585
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 164
 LAB NO: 6586
 DEPTH: 4.2-4.5
 TYPE: AUGER

FIELD NO: 165
 LAB NO: 6587
 DEPTH: 5.7-6.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	91
20.0	89
12.5	81
10.0	77
5.0	70
2.5	65
2.0	--
1.25	62
0.840	--
0.630	59
0.420	--
0.315	56
0.160	52
0.150	--
0.080	46

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	94
20.0	94
12.5	89
10.0	86
5.0	77
2.5	71
2.0	--
1.25	67
0.840	--
0.630	64
0.420	--
0.315	59
0.160	53
0.150	--
0.080	46

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	71
20.0	65
12.5	56
10.0	52
5.0	46
2.5	42
2.0	--
1.25	40
0.840	--
0.630	38
0.420	--
0.315	35
0.160	31
0.150	--
0.080	27

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	88
12.5	74
10.0	70
5.0	59
2.5	54
2.0	--
1.25	51
0.840	--
0.630	48
0.420	--
0.315	45
0.160	40
0.150	--
0.080	35

M.C. (%) : 10

M.C. (%) : 11

M.C. (%) : 10

M.C. (%) : 10

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 30
 % SAND: 24
 % FINES: 46

% GRAVEL: 23
 % SAND: 31
 % FINES: 46

% GRAVEL: 54
 % SAND: 19
 % FINES: 27

% GRAVEL: 41
 % SAND: 24
 % FINES: 35

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 194-69
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1904+475
 LOGGED BY: AW DATE COMPLETED: 92.08.07

FIELD NO: 166
 LAB NO: 6588
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 167
 LAB NO: 6589
 DEPTH: 2.7-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	71
20.0	66
12.5	61
10.0	58
5.0	51
2.5	48
2.0	--
1.25	45
0.840	--
0.630	43
0.420	--
0.315	41
0.160	38
0.150	--
0.080	34

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	66
20.0	61
12.5	52
10.0	49
5.0	42
2.5	38
2.0	--
1.25	36
0.840	--
0.630	34
0.420	--
0.315	31
0.160	28
0.150	--
0.080	24

M.C. (%): 16

M.C. (%): 10

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 49
 % SAND: 17
 % FINES: 34

% GRAVEL: 58
 % SAND: 18
 % FINES: 24

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 194-70
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1904+350
 LOGGED BY: AW DATE COMPLETED: 92.08.07

FIELD NO: 168
 LAB NO: 6590
 DEPTH: 1.2-1.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	93
20.0	90
12.5	78
10.0	72
5.0	62
2.5	56
2.0	--
1.25	52
0.840	--
0.630	48
0.420	--
0.315	44
0.160	38
0.150	--
0.080	32

M.C. (%) : 15

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 38
 % SAND: 30
 % FINES: 32

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 195-71
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1904+250
 LOGGED BY: AW DATE COMPLETED: 92.08.07

FIELD NO: 169
 LAB NO: 6591
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 170
 LAB NO: 6592
 DEPTH: 2.7-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	69
20.0	62
12.5	48
10.0	42
5.0	30
2.5	22
2.0	--
1.25	16
0.840	--
0.630	10
0.420	--
0.315	5
0.160	3
0.150	--
0.080	3

M.C. (%): 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 70
 % SAND: 27
 % FINES: 3

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	84
20.0	80
12.5	71
10.0	64
5.0	44
2.5	32
2.0	--
1.25	24
0.840	--
0.630	17
0.420	--
0.315	11
0.160	6
0.150	--
0.080	3

M.C. (%): 5

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 56
 % SAND: 40
 % FINES: 3

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 195-72
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1904+150
 LOGGED BY: AW DATE COMPLETED: 92.08.07

FIELD NO: 171
 LAB NO: 6593
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 172.00
 LAB NO: 6594
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 173.00
 LAB NO: 6595
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	83
20.0	66
12.5	54
10.0	48
5.0	37
2.5	30
2.0	--
1.25	23
0.840	--
0.630	16
0.420	--
0.315	10
0.160	7
0.150	--
0.080	6

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	92
20.0	80
12.5	72
10.0	64
5.0	49
2.5	38
2.0	--
1.25	27
0.840	--
0.630	19
0.420	--
0.315	12
0.160	8
0.150	--
0.080	7

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	89
20.0	77
12.5	70
10.0	60
5.0	42
2.5	31
2.0	--
1.25	21
0.840	--
0.630	14
0.420	--
0.315	9
0.160	6
0.150	--
0.080	5

M.C. (%): 3

M.C. (%): 3.00

M.C. (%): 3.00

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 63
 % SAND: 31
 % FINES: 6

% GRAVEL: 51.00
 % SAND: 42.00
 % FINES: 7.00

% GRAVEL: 58.00
 % SAND: 38.00
 % FINES: 5.00

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 195-73
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1904+050
 LOGGED BY: AW DATE COMPLETED: 92.08.07

FIELD NO: 174
 LAB NO: 6596
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 175
 LAB NO: 6597
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 176
 LAB NO: 6598
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	62
20.0	54
12.5	43
10.0	39
5.0	30
2.5	24
2.0	--
1.25	18
0.840	--
0.630	12
0.420	--
0.315	8
0.160	6
0.150	--
0.080	4

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	81
20.0	70
12.5	58
10.0	49
5.0	31
2.5	22
2.0	--
1.25	16
0.840	--
0.630	10
0.420	--
0.315	6
0.160	4
0.150	--
0.080	4

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	58
20.0	50
12.5	37
10.0	32
5.0	23
2.5	17
2.0	--
1.25	12
0.840	--
0.630	9
0.420	--
0.315	6
0.160	4
0.150	--
0.080	3

M.C. (%) : 2

M.C. (%) : 2

M.C. (%) : 2

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 70
 % SAND: 26
 % FINES: 4

% GRAVEL: 69
 % SAND: 27
 % FINES: 4

% GRAVEL: 77
 % SAND: 20
 % FINES: 3

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 195-74
CLIENT: SHAKWAK PROJECT
PROJECT NAME: SEGMENT 16
PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
DRILL UNIT: 36002
HOLE LOCATION: 1903+950 O/S 6M RT
LOGGED BY: AW DATE COMPLETED: 92.08.07

FIELD NO: 177
LAB NO: 6599
DEPTH: 1.2-1.4
TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	78
20.0	65
12.5	41
10.0	36
5.0	25
2.5	19
2.0	--
1.25	14
0.840	--
0.630	11
0.420	--
0.315	8
0.160	6
0.150	--
0.080	5

M.C. (%): 3

LIMITS

LIQUID: --
PLASTIC: --
P.I.: N.P.

% GRAVEL: 75
% SAND: 19
% FINES: 5

CLASSIFICATION:
POORLY GRADED
GRAVEL WITH SILT
& SAND (GP-GM)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 195-75
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1903+850 O/S 5M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.07

FIELD NO: 178
 LAB NO: 6600
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 179
 LAB NO: 6601
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 180
 LAB NO: 6602
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	100
50.0	77
31.5	--
25.0	56
20.0	46
12.5	34
10.0	29
5.0	21
2.5	17
2.0	--
1.25	13
0.840	--
0.630	9
0.420	--
0.315	5
0.160	3
0.150	--
0.080	2

M.C. (%) : 2

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 79
 % SAND: 19
 % FINES: 2

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	100
50.0	78
31.5	--
25.0	64
20.0	59
12.5	48
10.0	43
5.0	31
2.5	25
2.0	--
1.25	18
0.840	--
0.630	12
0.420	--
0.315	7
0.160	5
0.150	--
0.080	3

M.C. (%) : 2

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 69
 % SAND: 28
 % FINES: 3

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	74
20.0	58
12.5	49
10.0	44
5.0	35
2.5	27
2.0	--
1.25	20
0.840	--
0.630	14
0.420	--
0.315	9
0.160	6
0.150	--
0.080	4

M.C. (%) : 2

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 65
 % SAND: 30
 % FINES: 4

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 195-76
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1903+750 O/S 6M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.07

FIELD NO: 181
 LAB NO: 6603
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 182
 LAB NO: 6604
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 183
 LAB NO: 6605
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	70
20.0	64
12.5	44
10.0	38
5.0	26
2.5	20
2.0	--
1.25	15
0.840	--
0.630	10
0.420	--
0.315	6
0.160	4
0.150	--
0.080	3

M.C. (%) : 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 74
 % SAND: 24
 % FINES: 3

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	73
20.0	59
12.5	47
10.0	42
5.0	32
2.5	25
2.0	--
1.25	18
0.840	--
0.630	12
0.420	--
0.315	8
0.160	5
0.150	--
0.080	3

M.C. (%) : 2

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 68
 % SAND: 28
 % FINES: 3

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	77
20.0	65
12.5	48
10.0	43
5.0	32
2.5	25
2.0	--
1.25	19
0.840	--
0.630	13
0.420	--
0.315	8
0.160	5
0.150	--
0.080	4

M.C. (%) : 2

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 68
 % SAND: 28
 % FINES: 4

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 195-80
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1903+650
 LOGGED BY: AW DATE COMPLETED: 92.08.07

FIELD NO: 186
 LAB NO: 6666
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 187
 LAB NO: 6667
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 188
 LAB NO: 6668
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	85
20.0	73
12.5	55
10.0	50
5.0	38
2.5	32
2.0	--
1.25	27
0.840	--
0.630	24
0.420	--
0.315	21
0.160	16
0.150	--
0.080	12

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	63
31.5	--
25.0	60
20.0	56
12.5	50
10.0	45
5.0	35
2.5	28
2.0	--
1.25	23
0.840	--
0.630	19
0.420	--
0.315	15
0.160	11
0.150	--
0.080	7

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	85
20.0	83
12.5	73
10.0	68
5.0	53
2.5	44
2.0	--
1.25	36
0.840	--
0.630	29
0.420	--
0.315	22
0.160	15
0.150	--
0.080	11

M.C. (%) : 4

M.C. (%) : 3

M.C. (%) : 5

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 62
 % SAND: 26
 % FINES: 12

% GRAVEL: 65
 % SAND: 28
 % FINES: 7

% GRAVEL: 47
 % SAND: 41
 % FINES: 11

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 195-87
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1903+550 O/S 7M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.10

FIELD NO: 194
 LAB NO: 6674
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 195
 LAB NO: 6675
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 196
 LAB NO: 6676
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	88
12.5	73
10.0	65
5.0	46
2.5	35
2.0	--
1.25	24
0.840	--
0.630	14
0.420	--
0.315	8
0.160	6
0.150	--
0.080	6

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	73
31.5	--
25.0	61
20.0	54
12.5	44
10.0	38
5.0	29
2.5	22
2.0	--
1.25	16
0.840	--
0.630	11
0.420	--
0.315	8
0.160	5
0.150	--
0.080	4

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	97
12.5	95
10.0	92
5.0	88
2.5	85
2.0	--
1.25	82
0.840	--
0.630	80
0.420	--
0.315	78
0.160	68
0.150	--
0.080	47

M.C. (%) : 2

M.C. (%) : 2

M.C. (%) : 13

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 54
 % SAND: 41
 % FINES: 6

% GRAVEL: 71
 % SAND: 25
 % FINES: 4

% GRAVEL: 12
 % SAND: 41
 % FINES: 47

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 SILTY SAND (SM)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 195-88
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1903+450 O/S 8M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.10

FIELD NO: 197
 LAB NO: 6677
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 198
 LAB NO: 6678
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 199
 LAB NO: 6679
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	88
20.0	83
12.5	66
10.0	59
5.0	46
2.5	39
2.0	--
1.25	31
0.840	--
0.630	21
0.420	--
0.315	10
0.160	5
0.150	--
0.080	3

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	88
20.0	73
12.5	55
10.0	46
5.0	25
2.5	29
2.0	--
1.25	24
0.840	--
0.630	18
0.420	--
0.315	12
0.160	8
0.150	--
0.080	6

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	80
20.0	67
12.5	52
10.0	45
5.0	32
2.5	27
2.0	--
1.25	22
0.840	--
0.630	17
0.420	--
0.315	11
0.160	8
0.150	--
0.080	6

M.C. (%): 2

M.C. (%): 3

M.C. (%): 5

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 54
 % SAND: 43
 % FINES: 3

% GRAVEL: 75
 % SAND: 19
 % FINES: 6

% GRAVEL: 68
 % SAND: 27
 % FINES: 6

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 195-89
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1903+350 O/S 10M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.10

FIELD NO: 200
 LAB NO: 6680
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 201
 LAB NO: 6681
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 202
 LAB NO: 6682
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	87
12.5	75
10.0	68
5.0	59
2.5	52
2.0	--
1.25	47
0.840	--
0.630	43
0.420	--
0.315	37
0.160	31
0.150	--
0.080	26

M.C. (%) : 9

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 41
 % SAND: 33
 % FINES: 26

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	90
20.0	86
12.5	82
10.0	78
5.0	63
2.5	56
2.0	--
1.25	50
0.840	--
0.630	44
0.420	--
0.315	38
0.160	31
0.150	--
0.080	25

M.C. (%) : 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 37
 % SAND: 39
 % FINES: 25

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	67
20.0	63
12.5	53
10.0	48
5.0	40
2.5	35
2.0	--
1.25	31
0.840	--
0.630	28
0.420	--
0.315	23
0.160	19
0.150	--
0.080	15

M.C. (%) : 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 60
 % SAND: 26
 % FINES: 15

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 195-90
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1903+250 O/S 6M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.10

FIELD NO: 203
 LAB NO: 6683
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 204
 LAB NO: 6684
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 205
 LAB NO: 6685
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	55
20.0	48
12.5	40
10.0	36
5.0	27
2.5	22
2.0	--
1.25	17
0.840	--
0.630	13
0.420	--
0.315	8
0.160	4
0.150	--
0.080	2

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	76
31.5	--
25.0	54
20.0	50
12.5	41
10.0	38
5.0	29
2.5	22
2.0	--
1.25	17
0.840	--
0.630	12
0.420	--
0.315	8
0.160	4
0.150	--
0.080	3

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	92
20.0	84
12.5	65
10.0	60
5.0	44
2.5	34
2.0	--
1.25	26
0.840	--
0.630	19
0.420	--
0.315	12
0.160	7
0.150	--
0.080	4

M.C. (%) : 2

M.C. (%) : 2

M.C. (%) : 3

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 73
 % SAND: 25
 % FINES: 2

% GRAVEL: 71
 % SAND: 26
 % FINES: 3

% GRAVEL: 56
 % SAND: 39
 % FINES: 4

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 195-91
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1903+150 O/S 2M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.10

FIELD NO: 206
 LAB NO: 6686
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 207
 LAB NO: 6687
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 208
 LAB NO: 6688
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	77
20.0	71
12.5	57
10.0	51
5.0	38
2.5	29
2.0	--
1.25	22
0.840	--
0.630	15
0.420	--
0.315	9
0.160	6
0.150	--
0.080	4

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	76
20.0	73
12.5	65
10.0	62
5.0	57
2.5	52
2.0	--
1.25	48
0.840	--
0.630	43
0.420	--
0.315	38
0.160	32
0.150	--
0.080	24

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	94
20.0	81
12.5	74
10.0	70
5.0	57
2.5	49
2.0	--
1.25	42
0.840	--
0.630	35
0.420	--
0.315	29
0.160	23
0.150	--
0.080	17

M.C. (%) : 2

M.C. (%) : 7

M.C. (%) : 5

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 62
 % SAND: 34
 % FINES: 4

% GRAVEL: 43
 % SAND: 33
 % FINES: 24

% GRAVEL: 43
 % SAND: 40
 % FINES: 17

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 195-92
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1903+050 O/S 6M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.10

FIELD NO: 209
 LAB NO: 6689
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 210
 LAB NO: 6690
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 211
 LAB NO: 6691
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	88
20.0	70
12.5	51
10.0	45
5.0	31
2.5	24
2.0	--
1.25	19
0.840	--
0.630	14
0.420	--
0.315	9
0.160	6
0.150	--
0.080	4

M.C. (%) : 2

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 69
 % SAND: 26
 % FINES: 4

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	100
50.0	81
31.5	--
25.0	69
20.0	66
12.5	53
10.0	50
5.0	39
2.5	33
2.0	--
1.25	28
0.840	--
0.630	20
0.420	--
0.315	10
0.160	6
0.150	--
0.080	5

M.C. (%) : 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 61
 % SAND: 34
 % FINES: 5

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	82
20.0	78
12.5	66
10.0	60
5.0	44
2.5	36
2.0	--
1.25	29
0.840	--
0.630	22
0.420	--
0.315	12
0.160	7
0.150	--
0.080	5

M.C. (%) : 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 56
 % SAND: 39
 % FINES: 5

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 195-93
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1902+850 O/S 7M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.10

FIELD NO: 212
 LAB NO: 6692
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 213
 LAB NO: 6693
 DEPTH: 2.7-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	61
20.0	56
12.5	45
10.0	38
5.0	27
2.5	20
2.0	--
1.25	15
0.840	--
0.630	12
0.420	--
0.315	9
0.160	6
0.150	--
0.080	4

M.C. (%) : 2

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 73
 % SAND: 23
 % FINES: 4

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	71
20.0	71
12.5	54
10.0	48
5.0	34
2.5	25
2.0	--
1.25	19
0.840	--
0.630	14
0.420	--
0.315	10
0.160	7
0.150	--
0.080	5

M.C. (%) : 2

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 66
 % SAND: 29
 % FINES: 5

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 195-94
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1902+850 O/S 8M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.10

FIELD NO: 214
 LAB NO: 6694
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 215
 LAB NO: 6695
 DEPTH: 2.7-3.0
 TYPE: AUGER
 ONE +50MM ROCK

FIELD NO: 216
 LAB NO: 6696
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	84
20.0	79
12.5	67
10.0	58
5.0	41
2.5	32
2.0	--
1.25	24
0.840	--
0.630	18
0.420	--
0.315	12
0.160	8
0.150	--
0.080	6

M.C. (%) : 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 59
 % SAND: 36
 % FINES: 6

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	93
20.0	93
12.5	84
10.0	75
5.0	55
2.5	42
2.0	--
1.25	32
0.840	--
0.630	24
0.420	--
0.315	16
0.160	12
0.150	--
0.080	9

M.C. (%) : 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 45
 % SAND: 46
 % FINES: 9

CLASSIFICATION:
 WELL-GRADED SAND
 WITH SILT &
 GRAVEL (SW-SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	51
20.0	51
12.5	43
10.0	39
5.0	28
2.5	22
2.0	--
1.25	17
0.840	--
0.630	13
0.420	--
0.315	9
0.160	7
0.150	--
0.080	5

M.C. (%) : 2

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 72
 % SAND: 23
 % FINES: 5

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

PROJECT NUMBER: 202101 0303 HOLE NUMBER: 195-95
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: ALASKA HIGHWAY KM 1882-1905
 DRILL UNIT: 36002
 HOLE LOCATION: 1902+750 O/S 5M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.10

FIELD NO: 217
 LAB NO: 6697
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 218
 LAB NO: 6698
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 219
 LAB NO: 6699
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	72
20.0	63
12.5	43
10.0	39
5.0	27
2.5	21
2.0	--
1.25	16
0.840	--
0.630	10
0.420	--
0.315	5
0.160	3
0.150	--
0.080	2

M.C. (%) : 2

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 73
 % SAND: 25
 % FINES: 2

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	91
12.5	72
10.0	65
5.0	45
2.5	33
2.0	--
1.25	24
0.840	--
0.630	16
0.420	--
0.315	10
0.160	7
0.150	--
0.080	5

M.C. (%) : 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 55
 % SAND: 40
 % FINES: 5

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	86
20.0	81
12.5	65
10.0	58
5.0	45
2.5	36
2.0	--
1.25	27
0.840	--
0.630	18
0.420	--
0.315	10
0.160	6
0.150	--
0.080	5

M.C. (%) : 2

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 55
 % SAND: 41
 % FINES: 5

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 196-96
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1902+650
 LOGGED BY: AW DATE COMPLETED: 92.08.10

FIELD NO: 220
 LAB NO: 6700
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 221
 LAB NO: 6701
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 222
 LAB NO: 6702
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	80
20.0	71
12.5	55
10.0	50
5.0	39
2.5	32
2.0	--
1.25	25
0.840	--
0.630	18
0.420	--
0.315	10
0.160	6
0.150	--
0.080	4

M.C. (%) : 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 61
 % SAND: 35
 % FINES: 4

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	79
20.0	72
12.5	56
10.0	51
5.0	40
2.5	32
2.0	--
1.25	26
0.840	--
0.630	20
0.420	--
0.315	14
0.160	9
0.150	--
0.080	7

M.C. (%) : 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 60
 % SAND: 33
 % FINES: 7

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	100
50.0	50
31.5	--
25.0	42
20.0	38
12.5	30
10.0	27
5.0	20
2.5	16
2.0	--
1.25	13
0.840	--
0.630	10
0.420	--
0.315	7
0.160	5
0.150	--
0.080	4

M.C. (%) : 2

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 80
 % SAND: 16
 % FINES: 4

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 196-101
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1902+100
 LOGGED BY: AW DATE COMPLETED: 92.08.11

FIELD NO: 230
 LAB NO: 6710
 DEPTH: 1.2-1.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	75
20.0	64
12.5	46
10.0	41
5.0	31
2.5	22
2.0	--
1.25	14
0.840	--
0.630	8
0.420	--
0.315	5
0.160	4
0.150	--
0.080	3

M.C. (%) : 7

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 69
 % SAND: 28
 % FINES: 3

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 196-102
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1902+000
 LOGGED BY: AW DATE COMPLETED: 92.08.11

FIELD NO: 231
 LAB NO: 6711
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 232
 LAB NO: 6712
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 233
 LAB NO: 6713
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	66
20.0	63
12.5	44
10.0	40
5.0	29
2.5	24
2.0	--
1.25	17
0.840	--
0.630	11
0.420	--
0.315	6
0.160	4
0.150	--
0.080	3

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	79
20.0	69
12.5	53
10.0	48
5.0	38
2.5	31
2.0	--
1.25	25
0.840	--
0.630	16
0.420	--
0.315	7
0.160	3
0.150	--
0.080	2

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	84
20.0	76
12.5	70
10.0	61
5.0	56
2.5	49
2.0	--
1.25	42
0.840	--
0.630	--
0.420	--
0.315	33
0.160	27
0.150	--
0.080	21

M.C. (%) : 4

M.C. (%) : 5

M.C. (%) : 7

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 71
 % SAND: 26
 % FINES: 3

% GRAVEL: 62
 % SAND: 36
 % FINES: 2

% GRAVEL: 44
 % SAND: 35
 % FINES: 21

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 196-103
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1901+900 O/S 3M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.11

FIELD NO: 234
 LAB NO: 6714
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 235
 LAB NO: 6715
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 236
 LAB NO: 6716
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	65
20.0	59
12.5	47
10.0	43
5.0	30
2.5	22
2.0	--
1.25	15
0.840	--
0.630	9
0.420	--
0.315	5
0.160	3
0.150	--
0.080	3

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	100
5.0	100
2.5	99
2.0	--
1.25	99
0.840	--
0.630	98
0.420	--
0.315	96
0.160	19
0.150	--
0.080	3

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	100
5.0	100
2.5	100
2.0	--
1.25	100
0.840	--
0.630	99
0.420	--
0.315	92
0.160	34
0.150	--
0.080	5

M.C. (%): 3

M.C. (%): 23

M.C. (%): 23

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 70
 % SAND: 28
 % FINES: 3

% GRAVEL: 0
 % SAND: 97
 % FINES: 3

% GRAVEL: 0
 % SAND: 95
 % FINES: 5

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 POORLY GRADED
 SAND (SP)

CLASSIFICATION:
 POORLY GRADED
 SAND WITH SILT
 (SP-SM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 196-104
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1901+800 O/S 8M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.11

FIELD NO: 237
 LAB NO: 6717
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 238
 LAB NO: 6718
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 239
 LAB NO: 6719
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	90
20.0	70
12.5	45
10.0	39
5.0	25
2.5	15
2.0	--
1.25	9
0.840	--
0.630	5
0.420	--
0.315	2
0.160	2
0.150	--
0.080	1

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	83
20.0	76
12.5	66
10.0	56
5.0	37
2.5	27
2.0	--
1.25	19
0.840	--
0.630	12
0.420	--
0.315	7
0.160	4
0.150	--
0.080	3

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	94
12.5	86
10.0	84
5.0	78
2.5	75
2.0	--
1.25	72
0.840	--
0.630	70
0.420	--
0.315	68
0.160	67
0.150	--
0.080	67

M.C. (%) : 2

M.C. (%) : 3

M.C. (%) : 15

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 75
 % SAND: 24
 % FINES: 1

% GRAVEL: 63
 % SAND: 34
 % FINES: 3

% GRAVEL: 22
 % SAND: 12
 % FINES: 67

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 GRAVELLY SILT
 (ML)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 196-105
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1901+700 O/S 7M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.11

FIELD NO: 240
 LAB NO: 6720
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 241
 LAB NO: 6721
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 242
 LAB NO: 6722
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	76
20.0	61
12.5	50
10.0	45
5.0	33
2.5	26
2.0	--
1.25	21
0.840	--
0.630	16
0.420	--
0.315	9
0.160	4
0.150	--
0.080	2

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	75
20.0	66
12.5	57
10.0	54
5.0	43
2.5	36
2.0	--
1.25	30
0.840	--
0.630	22
0.420	--
0.315	12
0.160	5
0.150	--
0.080	3

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	96
12.5	82
10.0	74
5.0	57
2.5	48
2.0	--
1.25	40
0.840	--
0.630	34
0.420	--
0.315	29
0.160	26
0.150	--
0.080	23

M.C. (%) : 3

M.C. (%) : 4

M.C. (%) : 7

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 67
 % SAND: 31
 % FINES: 2

% GRAVEL: 57
 % SAND: 40
 % FINES: 3

% GRAVEL: 43
 % SAND: 33
 % FINES: 23

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 196-106
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1901+600 O/S 6M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.11

FIELD NO: 243
 LAB NO: 6723
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 244
 LAB NO: 6724
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 245
 LAB NO: 6725
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	77
20.0	62
12.5	45
10.0	37
5.0	24
2.5	19
2.0	--
1.25	13
0.840	--
0.630	8
0.420	--
0.315	5
0.160	3
0.150	--
0.080	3

M.C. (%) : 2

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 76
 % SAND: 22
 % FINES: 3

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	92
12.5	82
10.0	73
5.0	50
2.5	39
2.0	--
1.25	31
0.840	--
0.630	22
0.420	--
0.315	13
0.160	7
0.150	--
0.080	5

M.C. (%) : 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 50
 % SAND: 45
 % FINES: 5

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	95
20.0	92
12.5	84
10.0	76
5.0	55
2.5	43
2.0	--
1.25	33
0.840	--
0.630	23
0.420	--
0.315	12
0.160	5
0.150	--
0.080	3

M.C. (%) : 6

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 45
 % SAND: 52
 % FINES: 3

CLASSIFICATION:
 POORLY GRADED
 SAND WITH GRAVEL
 (SP)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 196-107
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1901+500 O/S 8M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.11

FIELD NO: 246
 LAB NO: 6726
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 247
 LAB NO: 6727
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 248
 LAB NO: 6728
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	100
5.0	99
2.5	96
2.0	--
1.25	91
0.840	--
0.630	83
0.420	--
0.315	74
0.160	64
0.150	--
0.080	47

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	100
2.0	--
1.25	100
0.840	--
0.630	99
0.420	--
0.315	99
0.160	99
0.150	--
0.080	89

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	99
10.0	99
5.0	98
2.5	96
2.0	--
1.25	94
0.840	--
0.630	92
0.420	--
0.315	90
0.160	90
0.150	--
0.080	88

M.C. (%) : 14

M.C. (%) : 17

M.C. (%) : 21

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 1
 % SAND: 52
 % FINES: 47

% GRAVEL: 0
 % SAND: 11
 % FINES: 89

% GRAVEL: 2
 % SAND: 10
 % FINES: 88

CLASSIFICATION:
 SILTY SAND (SM)

CLASSIFICATION:
 SILT (ML)

CLASSIFICATION:
 SILT (ML)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 196-108
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1901+400 O/S 14M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.11

FIELD NO: 249
 LAB NO: 6729
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 250
 LAB NO: 6730
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 251
 LAB NO: 6731
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	91
20.0	75
12.5	60
10.0	52
5.0	37
2.5	28
2.0	--
1.25	21
0.840	--
0.630	14
0.420	--
0.315	8
0.160	4
0.150	--
0.080	3

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	84
20.0	76
12.5	64
10.0	56
5.0	40
2.5	31
2.0	--
1.25	23
0.840	--
0.630	16
0.420	--
0.315	9
0.160	5
0.150	--
0.080	3

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	97
20.0	96
12.5	93
10.0	92
5.0	89
2.5	87
2.0	--
1.25	85
0.840	--
0.630	83
0.420	--
0.315	61
0.160	8
0.150	--
0.080	3

M.C. (%) : 2

M.C. (%) : 3

M.C. (%) : 16

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 63
 % SAND: 35
 % FINES: 3

% GRAVEL: 60
 % SAND: 37
 % FINES: 3

% GRAVEL: 11
 % SAND: 86
 % FINES: 3

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 POORLY GRADED
 SAND (SP)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 196-109
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1901+300 O/S 12M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.11

FIELD NO: 252
 LAB NO: 6732
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 253
 LAB NO: 6733
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 254
 LAB NO: 6734
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	81
20.0	81
12.5	71
10.0	62
5.0	50
2.5	41
2.0	--
1.25	32
0.840	--
0.630	23
0.420	--
0.315	15
0.160	12
0.150	--
0.080	10

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	77
31.5	--
25.0	37
20.0	35
12.5	34
10.0	33
5.0	28
2.5	24
2.0	--
1.25	19
0.840	--
0.630	14
0.420	--
0.315	11
0.160	9
0.150	--
0.080	8

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	95
12.5	84
10.0	79
5.0	62
2.5	52
2.0	--
1.25	41
0.840	--
0.630	30
0.420	--
0.315	14
0.160	7
0.150	--
0.080	5

M.C. (%) : 5

M.C. (%) : 5

M.C. (%) : 8

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 50
 % SAND: 40
 % FINES: 10

% GRAVEL: 72
 % SAND: 20
 % FINES: 8

% GRAVEL: 38
 % SAND: 57
 % FINES: 5

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 POORLY GRADED
 SAND WITH SILT &
 GRAVEL (SP-SM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 196-110
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1901+200 O/S 8M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.11

FIELD NO: 254
 LAB NO: 6735
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 255
 LAB NO: 6736
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 256
 LAB NO: 6737
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	90
20.0	89
12.5	72
10.0	67
5.0	48
2.5	35
2.0	--
1.25	24
0.840	--
0.630	16
0.420	--
0.315	10
0.160	7
0.150	--
0.080	6

M.C. (%) : 4

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 52
 % SAND: 42
 % FINES: 6

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	71
20.0	59
12.5	50
10.0	46
5.0	33
2.5	25
2.0	--
1.25	17
0.840	--
0.630	12
0.420	--
0.315	8
0.160	6
0.150	--
0.080	5

M.C. (%) : 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 67
 % SAND: 28
 % FINES: 5

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	73
20.0	68
12.5	58
10.0	53
5.0	39
2.5	29
2.0	--
1.25	20
0.840	--
0.630	13
0.420	--
0.315	9
0.160	6
0.150	--
0.080	5

M.C. (%) : 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 61
 % SAND: 34
 % FINES: 5

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 196-117
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1901+100 O/S 7M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.12

FIELD NO: 259
 LAB NO: 6740
 DEPTH: 1.2-1.5
 TYPE: AUGER
 ORGANIC

FIELD NO: 260
 LAB NO: 6741
 DEPTH: 2.7-3.0
 TYPE: AUGER
 ORGANIC

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	98
10.0	98
5.0	98
2.5	96
2.0	--
1.25	95
0.840	--
0.630	94
0.420	--
0.315	91
0.160	85
0.150	--
0.080	79

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	96
2.0	--
1.25	93
0.840	--
0.630	90
0.420	--
0.315	87
0.160	82
0.150	--
0.080	79

M.C. (%): 72

M.C. (%): 97

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 2
 % SAND: 19
 % FINES: 79

% GRAVEL: 0
 % SAND: 21
 % FINES: 79

CLASSIFICATION:
 SILT WITH SAND
 (ML)

CLASSIFICATION:
 SILT WITH SAND
 (ML)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 196-118
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1901+000 O/S 5M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.12

FIELD NO: 261
 LAB NO: 6742
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 262
 LAB NO: 6743
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	95
10.0	93
5.0	88
2.5	86
2.0	--
1.25	84
0.840	--
0.630	83
0.420	--
0.315	81
0.160	76
0.150	--
0.080	70

100.0	--
80.0	--
50.0	100
31.5	--
25.0	42
20.0	36
12.5	17
10.0	14
5.0	9
2.5	8
2.0	--
1.25	7
0.840	--
0.630	7
0.420	--
0.315	6
0.160	6
0.150	--
0.080	5

M.C. (%) : 34

M.C. (%) : 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 12
 % SAND: 19
 % FINES: 70

% GRAVEL: 91
 % SAND: 4
 % FINES: 5

CLASSIFICATION:
 SANDY SILT (ML)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 (GW-GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 196-119
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1900+900 O/S 5M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.12

FIELD NO: 263
 LAB NO: 6744
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 264
 LAB NO: 6745
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 265
 LAB NO: 6746
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	100
2.0	--
1.25	99
0.840	--
0.630	97
0.420	--
0.315	95
0.160	91
0.150	--
0.080	81

M.C. (%) : 38

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	99
10.0	99
5.0	99
2.5	98
2.0	--
1.25	95
0.840	--
0.630	91
0.420	--
0.315	83
0.160	67
0.150	--
0.080	48

M.C. (%) : 20

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	100
2.0	--
1.25	99
0.840	--
0.630	98
0.420	--
0.315	96
0.160	94
0.150	--
0.080	90

M.C. (%) : 36

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 19
 % FINES: 81

CLASSIFICATION:
 SILT WITH SAND
 (ML)

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 1
 % SAND: 51
 % FINES: 48

CLASSIFICATION:
 SILTY SAND (SM)

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 10
 % FINES: 90

CLASSIFICATION:
 SILT (ML)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 196-120
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1900+800 O/S 5M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.12

FIELD NO: 266
 LAB NO: 6747
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 267
 LAB NO: 6748
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 267A
 LAB NO: 6773
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	63
20.0	59
12.5	53
10.0	50
5.0	43
2.5	38
2.0	--
1.25	34
0.840	--
0.630	31
0.420	--
0.315	27
0.160	24
0.150	--
0.080	21

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	40
20.0	40
12.5	35
10.0	32
5.0	25
2.5	20
2.0	--
1.25	17
0.840	--
0.630	13
0.420	--
0.315	10
0.160	8
0.150	--
0.080	7

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	68
20.0	63
12.5	50
10.0	44
5.0	32
2.5	25
2.0	--
1.25	20
0.840	--
0.630	16
0.420	--
0.315	13
0.160	10
0.150	--
0.080	9

M.C. (%): 9

M.C. (%): 4

M.C. (%): 5

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 57
 % SAND: 22
 % FINES: 21

% GRAVEL: 75
 % SAND: 19
 % FINES: 7

% GRAVEL: 68
 % SAND: 23
 % FINES: 9

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-121
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1900+700 O/S 4M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.12

FIELD NO: 268
 LAB NO: 6749
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 269
 LAB NO: 6750
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 270
 LAB NO: 6751
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	83
20.0	71
12.5	60
10.0	57
5.0	51
2.5	47
2.0	--
1.25	44
0.840	--
0.630	41
0.420	--
0.315	35
0.160	27
0.150	--
0.080	20

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	89
31.5	--
25.0	69
20.0	62
12.5	54
10.0	49
5.0	37
2.5	29
2.0	--
1.25	25
0.840	--
0.630	21
0.420	--
0.315	16
0.160	10
0.150	--
0.080	7

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	93
20.0	91
12.5	83
10.0	82
5.0	75
2.5	68
2.0	--
1.25	57
0.840	--
0.630	45
0.420	--
0.315	30
0.160	14
0.150	--
0.080	7

M.C. (%): 10

M.C. (%): 4

M.C. (%): 10

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 49
 % SAND: 31
 % FINES: 20

% GRAVEL: 63
 % SAND: 30
 % FINES: 7

% GRAVEL: 25
 % SAND: 67
 % FINES: 7

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 POORLY GRADED
 SAND WITH SILT &
 GRAVEL (SP-SM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 196-97
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1902+550
 LOGGED BY: AW DATE COMPLETED: 92.08.11

FIELD NO: 223
 LAB NO: 6703
 DEPTH: 1.2-1.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	80
20.0	76
12.5	64
10.0	58
5.0	44
2.5	34
2.0	--
1.25	25
0.840	--
0.630	18
0.420	--
0.315	13
0.160	9
0.150	--
0.080	7

M.C. (%) : 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 56
 % SAND: 37
 % FINES: 7

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 196-98
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1902+450
 LOGGED BY: AW DATE COMPLETED: 92.08.11

FIELD NO: 224
 LAB NO: 6704
 DEPTH: 1.2-1.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	87
20.0	80
12.5	71
10.0	65
5.0	49
2.5	38
2.0	--
1.25	30
0.840	--
0.630	22
0.420	--
0.315	16
0.160	13
0.150	--
0.080	10

M.C. (%): 9

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 51
 % SAND: 39
 % FINES: 10

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 196-99
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1902+300
 LOGGED BY: AW DATE COMPLETED: 92.08.11

FIELD NO: 225
 LAB NO: 6705
 DEPTH: 1.2-1.5
 TYPE: AUGER
 ORGANIC

FIELD NO: 226
 LAB NO: 6706
 DEPTH: 2.1-2.4
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	100
2.0	--
1.25	99
0.840	--
0.630	98
0.420	--
0.315	95
0.160	91
0.150	--
0.080	85

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	89
10.0	82
5.0	65
2.5	53
2.0	--
1.25	41
0.840	--
0.630	31
0.420	--
0.315	23
0.160	19
0.150	--
0.080	16

M.C. (%) : 81

M.C. (%) : 11

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 15
 % FINES: 85

% GRAVEL: 35
 % SAND: 49
 % FINES: 16

CLASSIFICATION:
 SILT WITH SAND
 (ML)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 196-100
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1902+200
 LOGGED BY: AW DATE COMPLETED: 92.08.11

FIELD NO: 227
 LAB NO: 6707
 DEPTH: 1.2-1.5
 TYPE: AUGER
 ORGANIC

FIELD NO: 228
 LAB NO: 6708
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 229
 LAB NO: 6709
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	95
12.5	95
10.0	94
5.0	93
2.5	91
2.0	--
1.25	89
0.840	--
0.630	86
0.420	--
0.315	82
0.160	79
0.150	--
0.080	75

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	65
20.0	62
12.5	55
10.0	51
5.0	43
2.5	36
2.0	--
1.25	28
0.840	--
0.630	18
0.420	--
0.315	10
0.160	7
0.150	--
0.080	5

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	82
20.0	80
12.5	74
10.0	71
5.0	52
2.5	41
2.0	--
1.25	31
0.840	--
0.630	21
0.420	--
0.315	12
0.160	9
0.150	--
0.080	7

M.C. (%) : 50

M.C. (%) : 6

M.C. (%) : 11

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 7
 % SAND: 18
 % FINES: 75

% GRAVEL: 57
 % SAND: 37
 % FINES: 5

% GRAVEL: 48
 % SAND: 44
 % FINES: 7

CLASSIFICATION:
 SILT WITH SAND
 (ML)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-133
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1899+500
 LOGGED BY: AW DATE COMPLETED: 92.08.13

FIELD NO: 301
 LAB NO: 6800
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 302
 LAB NO: 6801
 DEPTH: 2.7-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	60
20.0	49
12.5	40
10.0	36
5.0	27
2.5	21
2.0	--
1.25	16
0.840	--
0.630	13
0.420	--
0.315	9
0.160	6
0.150	--
0.080	5

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	56
20.0	54
12.5	41
10.0	37
5.0	28
2.5	24
2.0	--
1.25	20
0.840	--
0.630	17
0.420	--
0.315	14
0.160	12
0.150	--
0.080	9

M.C. (%) : 4

M.C. (%) : 4

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 73
 % SAND: 22
 % FINES: 5

% GRAVEL: 72
 % SAND: 18
 % FINES: 9

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-134
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1899+400
 LOGGED BY: AW DATE COMPLETED: 92.08.13

FIELD NO: 303
 LAB NO: 6802
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 304
 LAB NO: 6803
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 305
 LAB NO: 6804
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	89
12.5	82
10.0	79
5.0	74
2.5	72
2.0	--
1.25	70
0.840	--
0.630	68
0.420	--
0.315	66
0.160	63
0.150	--
0.080	58

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	80
20.0	74
12.5	61
10.0	58
5.0	50
2.5	46
2.0	--
1.25	44
0.840	--
0.630	41
0.420	--
0.315	38
0.160	34
0.150	--
0.080	30

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	84
20.0	77
12.5	69
10.0	66
5.0	57
2.5	52
2.0	--
1.25	43
0.840	--
0.630	38
0.420	--
0.315	32
0.160	29
0.150	--
0.080	26

M.C. (%) : 15

M.C. (%) : 9

M.C. (%) : 7

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 26
 % SAND: 16
 % FINES: 58

% GRAVEL: 50
 % SAND: 19
 % FINES: 30

% GRAVEL: 43
 % SAND: 31
 % FINES: 26

CLASSIFICATION:
 GRAVELLY SILT
 WITH SAND (ML)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-135
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1899+300 O/S 7M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.13

FIELD NO: 306
 LAB NO: 6805
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 307
 LAB NO: 6806
 DEPTH: 2.7-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	87
20.0	86
12.5	75
10.0	69
5.0	61
2.5	56
2.0	--
1.25	52
0.840	--
0.630	47
0.420	--
0.315	41
0.160	33
0.150	--
0.080	26

100.0	--
80.0	--
50.0	100
31.5	--
25.0	82
20.0	80
12.5	71
10.0	70
5.0	63
2.5	59
2.0	--
1.25	55
0.840	--
0.630	52
0.420	--
0.315	47
0.160	41
0.150	--
0.080	34

M.C. (%) : 7

M.C. (%) : 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 39
 % SAND: 35
 % FINES: 26

% GRAVEL: 37
 % SAND: 29
 % FINES: 34

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-136
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1899+200 O/S 10M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.13

FIELD NO: 308
 LAB NO: 6807
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 309
 LAB NO: 6808
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 310
 LAB NO: 6809
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	92
10.0	87
5.0	78
2.5	72
2.0	--
1.25	68
0.840	--
0.630	64
0.420	--
0.315	59
0.160	53
0.150	--
0.080	46

M.C. (%) : 11

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 22
 % SAND: 32
 % FINES: 46

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	89
10.0	84
5.0	75
2.5	70
2.0	--
1.25	66
0.840	--
0.630	63
0.420	--
0.315	58
0.160	53
0.150	--
0.080	45

M.C. (%) : 10

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 25
 % SAND: 30
 % FINES: 45

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	88
20.0	84
12.5	78
10.0	74
5.0	64
2.5	60
2.0	--
1.25	56
0.840	--
0.630	52
0.420	--
0.315	47
0.160	40
0.150	--
0.080	33

M.C. (%) : 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 36
 % SAND: 31
 % FINES: 33

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-137
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1899+100 O/S 10M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.13

FIELD NO: 311
 LAB NO: 6810
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 312
 LAB NO: 6811
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 313
 LAB NO: 6812
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	81
20.0	73
12.5	67
10.0	63
5.0	55
2.5	52
2.0	--
1.25	49
0.840	--
0.630	47
0.420	--
0.315	43
0.160	39
0.150	--
0.080	34

M.C. (%) : 6

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 45
 % SAND: 22
 % FINES: 34

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	92
20.0	90
12.5	81
10.0	77
5.0	68
2.5	63
2.0	--
1.25	57
0.840	--
0.630	50
0.420	--
0.315	38
0.160	26
0.150	--
0.080	19

M.C. (%) : 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 32
 % SAND: 49
 % FINES: 19

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	96
20.0	89
12.5	78
10.0	73
5.0	63
2.5	58
2.0	--
1.25	53
0.840	--
0.630	48
0.420	--
0.315	42
0.160	33
0.150	--
0.080	26

M.C. (%) : 7

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 37
 % SAND: 37
 % FINES: 26

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-138
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1899+000 O/S 10M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.13

FIELD NO: 314
 LAB NO: 6813
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 315
 LAB NO: 6814
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 316
 LAB NO: 6815
 DEPTH: 3.9-4.2
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	97
12.5	94
10.0	88
5.0	75
2.5	69
2.0	--
1.25	64
0.840	--
0.630	59
0.420	--
0.315	54
0.160	47
0.150	--
0.080	40

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	86
20.0	83
12.5	78
10.0	76
5.0	69
2.5	65
2.0	--
1.25	62
0.840	--
0.630	60
0.420	--
0.315	56
0.160	52
0.150	--
0.080	47

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	92
20.0	89
12.5	76
10.0	70
5.0	58
2.5	52
2.0	--
1.25	48
0.840	--
0.630	45
0.420	--
0.315	42
0.160	37
0.150	--
0.080	32

M.C. (%): 10

M.C. (%): 12

M.C. (%): 10

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 25
 % SAND: 35
 % FINES: 40

% GRAVEL: 31
 % SAND: 22
 % FINES: 47

% GRAVEL: 42
 % SAND: 26
 % FINES: 32

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-139
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1898+850 O/S 10M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.13

FIELD NO: 317
 LAB NO: 6816
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 318
 LAB NO: 6817
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 319
 LAB NO: 6818
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	72
31.5	--
25.0	72
20.0	69
12.5	57
10.0	55
5.0	47
2.5	42
2.0	--
1.25	38
0.840	--
0.630	35
0.420	--
0.315	32
0.160	28
0.150	--
0.080	24

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	97
12.5	85
10.0	81
5.0	71
2.5	66
2.0	--
1.25	61
0.840	--
0.630	57
0.420	--
0.315	52
0.160	45
0.150	--
0.080	38

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	98
10.0	94
5.0	88
2.5	85
2.0	--
1.25	83
0.840	--
0.630	80
0.420	--
0.315	77
0.160	73
0.150	--
0.080	67

M.C.(%) : 5

M.C.(%) : 10

M.C.(%) : 19

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 53
 % SAND: 23
 % FINES: 24

% GRAVEL: 29
 % SAND: 33
 % FINES: 38

% GRAVEL: 12
 % SAND: 21
 % FINES: 67

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SANDY SILT (ML)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-140
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1898+725 O/S 7M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.13

FIELD NO: 320
 LAB NO: 6819
 DEPTH: 1.2-1.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	82
20.0	75
12.5	68
10.0	64
5.0	53
2.5	48
2.0	--
1.25	42
0.840	--
0.630	36
0.420	--
0.315	29
0.160	22
0.150	--
0.080	17

M.C. (%) : 7

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 47
 % SAND: 36
 % FINES: 17

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-141
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1898+625 O/S 20M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.13

FIELD NO: 321
 LAB NO: 6820
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 322
 LAB NO: 6821
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 323
 LAB NO: 6822
 DEPTH: 4.2-4.5
 TYPE: AUGER
 SPILLED

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	94
20.0	87
12.5	70
10.0	66
5.0	57
2.5	51
2.0	--
1.25	47
0.840	--
0.630	42
0.420	--
0.315	37
0.160	31
0.150	--
0.080	25

M.C. (%): 7

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 43
 % SAND: 32
 % FINES: 25

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	72
20.0	59
12.5	49
10.0	46
5.0	36
2.5	30
2.0	--
1.25	25
0.840	--
0.630	21
0.420	--
0.315	18
0.160	14
0.150	--
0.080	11

M.C. (%): 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 64
 % SAND: 24
 % FINES: 11

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	--
2.0	--
1.25	--
0.840	--
0.630	--
0.420	--
0.315	--
0.160	--
0.150	--
0.080	--

M.C. (%): 7

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: --
 % SAND: --
 % FINES: --

CLASSIFICATION:

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-142
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1898+525 O/S 20M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.13

FIELD NO: 324
 LAB NO: 6823
 DEPTH: 1.2-1.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	80
20.0	77
12.5	60
10.0	55
5.0	45
2.5	38
2.0	--
1.25	33
0.840	--
0.630	29
0.420	--
0.315	25
0.160	21
0.150	--
0.080	18

M.C. (%) : 11

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 55
 % SAND: 27
 % FINES: 18

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-143
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1898+400 O/S 20M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.13

FIELD NO: 325
 LAB NO: 6824
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 326
 LAB NO: 6825
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 327
 LAB NO: 6826
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	60
20.0	52
12.5	48
10.0	45
5.0	38
2.5	33
2.0	--
1.25	29
0.840	--
0.630	25
0.420	--
0.315	21
0.160	16
0.150	--
0.080	13

M.C. (%) : 13

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 62
 % SAND: 24
 % FINES: 13

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	94
12.5	91
10.0	88
5.0	81
2.5	75
2.0	--
1.25	70
0.840	--
0.630	66
0.420	--
0.315	59
0.160	50
0.150	--
0.080	42

M.C. (%) : 20

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 19
 % SAND: 39
 % FINES: 42

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	100
50.0	75
31.5	--
25.0	68
20.0	64
12.5	56
10.0	53
5.0	47
2.5	42
2.0	--
1.25	38
0.840	--
0.630	34
0.420	--
0.315	30
0.160	26
0.150	--
0.080	23

M.C. (%) : 15

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 53
 % SAND: 24
 % FINES: 23

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-144
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1898+300 O/S 20M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.18

FIELD NO: 328
 LAB NO: 6888
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 329
 LAB NO: 6889
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 330
 LAB NO: 6890
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	96
12.5	86
10.0	80
5.0	69
2.5	62
2.0	--
1.25	55
0.840	--
0.630	50
0.420	--
0.315	44
0.160	38
0.150	--
0.080	33

M.C. (%) : 17

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 31
 % SAND: 36
 % FINES: 33

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	98
12.5	93
10.0	89
5.0	83
2.5	77
2.0	--
1.25	72
0.840	--
0.630	66
0.420	--
0.315	61
0.160	55
0.150	--
0.080	50

M.C. (%) : 25

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 17
 % SAND: 33
 % FINES: 50

CLASSIFICATION:
 SANDY SILT WITH
 GRAVEL (ML)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	95
20.0	92
12.5	89
10.0	85
5.0	80
2.5	75
2.0	--
1.25	70
0.840	--
0.630	65
0.420	--
0.315	62
0.160	58
0.150	--
0.080	52

M.C. (%) : 12

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 20
 % SAND: 28
 % FINES: 52

CLASSIFICATION:
 SANDY SILT WITH
 GRAVEL (ML)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-145
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1898+200 O/S 10M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.18

FIELD NO: 331
 LAB NO: 6891
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 332
 LAB NO: 6892
 DEPTH: 2.7-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	94
20.0	88
12.5	77
10.0	76
5.0	66
2.5	60
2.0	--
1.25	54
0.840	--
0.630	50
0.420	--
0.315	45
0.160	39
0.150	--
0.080	34

100.0	--
80.0	--
50.0	100
31.5	--
25.0	98
20.0	98
12.5	92
10.0	90
5.0	79
2.5	73
2.0	--
1.25	68
0.840	--
0.630	63
0.420	--
0.315	56
0.160	50
0.150	--
0.080	44

M.C. (%) : 12

M.C. (%) : 13

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 34
 % SAND: 33
 % FINES: 34

% GRAVEL: 21
 % SAND: 36
 % FINES: 44

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-122
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1900+600 O/S 3M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.12

FIELD NO: 271
 LAB NO: 6752
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 272
 LAB NO: 6753
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 273
 LAB NO: 6754
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	98
12.5	77
10.0	69
5.0	45
2.5	35
2.0	--
1.25	27
0.840	--
0.630	21
0.420	--
0.315	14
0.160	9
0.150	--
0.080	5

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	88
20.0	82
12.5	67
10.0	60
5.0	43
2.5	34
2.0	--
1.25	27
0.840	--
0.630	20
0.420	--
0.315	14
0.160	9
0.150	--
0.080	6

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	69
20.0	60
12.5	51
10.0	46
5.0	35
2.5	29
2.0	--
1.25	23
0.840	--
0.630	18
0.420	--
0.315	13
0.160	8
0.150	--
0.080	6

M.C. (%) : 4

M.C. (%) : 3

M.C. (%) : 4

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 55
 % SAND: 39
 % FINES: 5

% GRAVEL: 57
 % SAND: 37
 % FINES: 6

% GRAVEL: 65
 % SAND: 29
 % FINES: 6

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-123
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1900+500
 LOGGED BY: AW DATE COMPLETED: 92.08.12

FIELD NO: 274		FIELD NO: 275		FIELD NO: 276	
LAB NO: 6755		LAB NO: 6774		LAB NO: 6775	
DEPTH: 1.2-1.5		DEPTH: 2.7-3.0		DEPTH: 4.2-4.5	
TYPE: AUGER		TYPE: AUGER		TYPE: AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	--	100.0	--	100.0	--
80.0	100	80.0	--	80.0	--
50.0	82	50.0	100	50.0	100
31.5	--	31.5	--	31.5	--
25.0	76	25.0	60	25.0	65
20.0	72	20.0	54	20.0	61
12.5	54	12.5	51	12.5	54
10.0	49	10.0	45	10.0	52
5.0	37	5.0	37	5.0	44
2.5	29	2.5	31	2.5	39
2.0	--	2.0	--	2.0	--
1.25	22	1.25	25	1.25	33
0.840	--	0.840	--	0.840	--
0.630	15	0.630	19	0.630	28
0.420	--	0.420	--	0.420	--
0.315	9	0.315	14	0.315	23
0.160	6	0.160	11	0.160	18
0.150	--	0.150	--	0.150	--
0.080	5	0.080	9	0.080	14
M.C. (%) :	4	M.C. (%) :	5	M.C. (%) :	7
LIMITS		LIMITS		LIMITS	
LIQUID:	--	LIQUID:	--	LIQUID:	--
PLASTIC:	--	PLASTIC:	--	PLASTIC:	--
P.I.:	N.P.	P.I.:	N.P.	P.I.:	N.P.
% GRAVEL:	63	% GRAVEL:	63	% GRAVEL:	56
% SAND:	33	% SAND:	28	% SAND:	31
% FINES:	5	% FINES:	9	% FINES:	14
CLASSIFICATION:	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	CLASSIFICATION:	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-124
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1900+400
 LOGGED BY: AW DATE COMPLETED: 92.08.12

FIELD NO: 277
 LAB NO: 6776
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 278
 LAB NO: 6777
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 279
 LAB NO: 6778
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	73
20.0	66
12.5	62
10.0	59
5.0	53
2.5	49
2.0	--
1.25	44
0.840	--
0.630	40
0.420	--
0.315	31
0.160	17
0.150	--
0.080	9

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	76
31.5	--
25.0	63
20.0	59
12.5	48
10.0	44
5.0	35
2.5	30
2.0	--
1.25	25
0.840	--
0.630	21
0.420	--
0.315	15
0.160	9
0.150	--
0.080	6

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	99
10.0	97
5.0	95
2.5	92
2.0	--
1.25	89
0.840	--
0.630	85
0.420	--
0.315	78
0.160	61
0.150	--
0.080	41

M.C. (%) : 8

M.C. (%) : 4

M.C. (%) : 17

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 47
 % SAND: 44
 % FINES: 9

% GRAVEL: 65
 % SAND: 29
 % FINES: 6

% GRAVEL: 5
 % SAND: 54
 % FINES: 41

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 SILTY SAND (SM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-125
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1900+300
 LOGGED BY: AW DATE COMPLETED: 92.08.12

FIELD NO: 280
 LAB NO: 6779
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 281
 LAB NO: 6780
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 282
 LAB NO: 6781
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	84
12.5	77
10.0	76
5.0	75
2.5	73
2.0	--
1.25	72
0.840	--
0.630	70
0.420	--
0.315	67
0.160	62
0.150	--
0.080	51

M.C. (%) : 18

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 25
 % SAND: 23
 % FINES: 51

CLASSIFICATION:
 GRAVELLY SILT
 WITH SAND (ML)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	79
20.0	74
12.5	61
10.0	56
5.0	44
2.5	37
2.0	--
1.25	32
0.840	--
0.630	28
0.420	--
0.315	22
0.160	15
0.150	--
0.080	11

M.C. (%) : 5

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 56
 % SAND: 33
 % FINES: 11

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	51
20.0	48
12.5	41
10.0	36
5.0	27
2.5	22
2.0	--
1.25	18
0.840	--
0.630	15
0.420	--
0.315	12
0.160	9
0.150	--
0.080	7

M.C. (%) : 4

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 73
 % SAND: 21
 % FINES: 7

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-126
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1900+200
 LOGGED BY: AW DATE COMPLETED: 92.08.12

FIELD NO: 283
 LAB NO: 6782
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 284
 LAB NO: 6783
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 285
 LAB NO: 6784
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	96
10.0	96
5.0	94
2.5	93
2.0	--
1.25	90
0.840	--
0.630	87
0.420	--
0.315	82
0.160	71
0.150	--
0.080	61

M.C. (%): 32

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 6
 % SAND: 33
 % FINES: 61

CLASSIFICATION: SANDY SILT (ML)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	70
20.0	67
12.5	52
10.0	48
5.0	37
2.5	30
2.0	--
1.25	25
0.840	--
0.630	20
0.420	--
0.315	16
0.160	13
0.150	--
0.080	10

M.C. (%): 7

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 63
 % SAND: 26
 % FINES: 10

CLASSIFICATION: POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	77
20.0	68
12.5	58
10.0	53
5.0	42
2.5	37
2.0	--
1.25	33
0.840	--
0.630	29
0.420	--
0.315	25
0.160	20
0.150	--
0.080	15

M.C. (%): 9

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 58
 % SAND: 27
 % FINES: 15

CLASSIFICATION: SILTY GRAVEL WITH SAND (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-127
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1900+100
 LOGGED BY: AW DATE COMPLETED: 92.08.12

FIELD NO: 286
 LAB NO: 6785
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 287
 LAB NO: 6786
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 288
 LAB NO: 6787
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	63
20.0	56
12.5	43
10.0	40
5.0	35
2.5	32
2.0	--
1.25	29
0.840	--
0.630	25
0.420	--
0.315	20
0.160	14
0.150	--
0.080	10

M.C. (%): 5

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 65
 % SAND: 25
 % FINES: 10

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	100
50.0	69
31.5	--
25.0	54
20.0	48
12.5	42
10.0	38
5.0	29
2.5	25
2.0	--
1.25	21
0.840	--
0.630	17
0.420	--
0.315	12
0.160	9
0.150	--
0.080	7

M.C. (%): 5

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 71
 % SAND: 22
 % FINES: 7

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	91
20.0	82
12.5	65
10.0	59
5.0	46
2.5	37
2.0	--
1.25	30
0.840	--
0.630	23
0.420	--
0.315	16
0.160	11
0.150	--
0.080	8

M.C. (%): 5

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 54
 % SAND: 38
 % FINES: 8

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-128
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1900+000
 LOGGED BY: AW DATE COMPLETED: 92.08.12

FIELD NO: 289
 LAB NO: 6788
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 290
 LAB NO: 6789
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 291
 LAB NO: 6790
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	85
20.0	66
12.5	51
10.0	47
5.0	38
2.5	32
2.0	--
1.25	26
0.840	--
0.630	21
0.420	--
0.315	15
0.160	11
0.150	--
0.080	8

M.C. (%) : 5

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 62
 % SAND: 30
 % FINES: 8

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	77
20.0	68
12.5	51
10.0	47
5.0	37
2.5	30
2.0	--
1.25	23
0.840	--
0.630	17
0.420	--
0.315	11
0.160	8
0.150	--
0.080	6

M.C. (%) : 4

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 63
 % SAND: 31
 % FINES: 6

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	100
50.0	69
31.5	--
25.0	50
20.0	47
12.5	42
10.0	39
5.0	31
2.5	26
2.0	--
1.25	20
0.840	--
0.630	15
0.420	--
0.315	11
0.160	8
0.150	--
0.080	6

M.C. (%) : 5

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 69
 % SAND: 25
 % FINES: 6

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 (GW-GM) & SAND

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-129
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1899+900
 LOGGED BY: AW DATE COMPLETED: 92.08.12

FIELD NO: 292
 LAB NO: 6791
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 293
 LAB NO: 6792
 DEPTH: 2.7-3.0
 TYPE: AUGER
 ORGANIC

FIELD NO: 294
 LAB NO: 6793
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	88
20.0	76
12.5	61
10.0	57
5.0	46
2.5	39
2.0	--
1.25	34
0.840	--
0.630	31
0.420	--
0.315	27
0.160	23
0.150	--
0.080	19

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	93
20.0	93
12.5	75
10.0	71
5.0	61
2.5	56
2.0	--
1.25	50
0.840	--
0.630	45
0.420	--
0.315	39
0.160	34
0.150	--
0.080	32

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	62
20.0	58
12.5	48
10.0	45
5.0	38
2.5	35
2.0	--
1.25	32
0.840	--
0.630	30
0.420	--
0.315	27
0.160	23
0.150	--
0.080	20

M.C. (%) : 10

M.C. (%) : 60

M.C. (%) : 7

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 54
 % SAND: 27
 % FINES: 19

% GRAVEL: 39
 % SAND: 29
 % FINES: 32

% GRAVEL: 62
 % SAND: 19
 % FINES: 20

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-130
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1899+800
 LOGGED BY: AW DATE COMPLETED: 92.08.12

FIELD NO: 295
 LAB NO: 6794
 DEPTH: 1.2-1.5
 TYPE: AUGER
 ORGANIC

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	98
2.0	--
1.25	91
0.840	--
0.630	83
0.420	--
0.315	74
0.160	66
0.150	--
0.080	61

M.C. (%) : 172

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 39
 % FINES: 61

CLASSIFICATION:
 SANDY SILT (ML)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-131
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1899+700
 LOGGED BY: AW DATE COMPLETED: 92.08.12

FIELD NO: 296
 LAB NO: 6795
 DEPTH: 1.2-1.5
 TYPE: AUGER
 ORGANIC, SPILLED

FIELD NO: 297
 LAB NO: 6796
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 298
 LAB NO: 6797
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	--
2.0	--
1.25	--
0.840	--
0.630	--
0.420	--
0.315	--
0.160	--
0.150	--
0.080	--

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	80
20.0	71
12.5	59
10.0	53
5.0	37
2.5	29
2.0	--
1.25	20
0.840	--
0.630	15
0.420	--
0.315	13
0.160	11
0.150	--
0.080	10

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	86
10.0	77
5.0	57
2.5	45
2.0	--
1.25	36
0.840	--
0.630	29
0.420	--
0.315	24
0.160	20
0.150	--
0.080	17

M.C. (%): 52

M.C. (%): 10

M.C. (%): 7

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: --
 % SAND: --
 % FINES: --

% GRAVEL: 63
 % SAND: 27
 % FINES: 10

% GRAVEL: 43
 % SAND: 40
 % FINES: 17

CLASSIFICATION:

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 197-132
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1899+600
 LOGGED BY: AW DATE COMPLETED: 92.08.12

FIELD NO: 299
 LAB NO: 6798
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 300
 LAB NO: 6799
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	98
10.0	98
5.0	96
2.5	95
2.0	--
1.25	94
0.840	--
0.630	93
0.420	--
0.315	91
0.160	80
0.150	--
0.080	65

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	67
31.5	--
25.0	60
20.0	58
12.5	56
10.0	53
5.0	49
2.5	47
2.0	--
1.25	46
0.840	--
0.630	45
0.420	--
0.315	44
0.160	42
0.150	--
0.080	40

M.C. (%): 37

M.C. (%): 21

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 4
 % SAND: 32
 % FINES: 65

% GRAVEL: 51
 % SAND: 10
 % FINES: 40

CLASSIFICATION:
 SANDY SILT (ML)

CLASSIFICATION:
 SILTY GRAVEL (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-155
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1897+150
 LOGGED BY: AW DATE COMPLETED: 92.08.18

FIELD NO: 355
 LAB NO: 6915
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 536
 LAB NO: 6916
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 357
 LAB NO: 6917
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	93
12.5	79
10.0	78
5.0	68
2.5	62
2.0	--
1.25	57
0.840	--
0.630	54
0.420	--
0.315	50
0.160	45
0.150	--
0.080	40

M.C. (%) : 11

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 32
 % SAND: 28
 % FINES: 40

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	85
20.0	79
12.5	69
10.0	65
5.0	56
2.5	51
2.0	--
1.25	47
0.840	--
0.630	44
0.420	--
0.315	41
0.160	37
0.150	--
0.080	31

M.C. (%) : 8

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 44
 % SAND: 24
 % FINES: 31

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	82
20.0	81
12.5	76
10.0	73
5.0	64
2.5	58
2.0	--
1.25	54
0.840	--
0.630	50
0.420	--
0.315	47
0.160	42
0.150	--
0.080	36

M.C. (%) : 10

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 36
 % SAND: 28
 % FINES: 36

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-156
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1897+050
 LOGGED BY: AW DATE COMPLETED: 92.08.18

FIELD NO: 358
 LAB NO: 6918
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 359
 LAB NO: 6919
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 360
 LAB NO: 6920
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	96
10.0	94
5.0	84
2.5	78
2.0	--
1.25	72
0.840	--
0.630	65
0.420	--
0.315	59
0.160	53
0.150	--
0.080	47

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	72
20.0	64
12.5	59
10.0	57
5.0	48
2.5	43
2.0	--
1.25	40
0.840	--
0.630	38
0.420	--
0.315	35
0.160	33
0.150	--
0.080	29

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	92
20.0	92
12.5	81
10.0	78
5.0	69
2.5	63
2.0	--
1.25	58
0.840	--
0.630	53
0.420	--
0.315	49
0.160	42
0.150	--
0.080	35

M.C. (%) : 26

M.C. (%) : 11

M.C. (%) : 10

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 16
 % SAND: 37
 % FINES: 47

% GRAVEL: 52
 % SAND: 19
 % FINES: 29

% GRAVEL: 31
 % SAND: 34
 % FINES: 35

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-157
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1896+950
 LOGGED BY: AW DATE COMPLETED: 92.08.19

FIELD NO: 361
 LAB NO: 6943
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 362
 LAB NO: 6944
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 363
 LAB NO: 6945
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	89
12.5	83
10.0	80
5.0	74
2.5	69
2.0	--
1.25	66
0.840	--
0.630	62
0.420	--
0.315	55
0.160	47
0.150	--
0.080	41

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	97
10.0	89
5.0	78
2.5	73
2.0	--
1.25	68
0.840	--
0.630	65
0.420	--
0.315	61
0.160	56
0.150	--
0.080	48

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	85
20.0	83
12.5	80
10.0	74
5.0	67
2.5	63
2.0	--
1.25	59
0.840	--
0.630	55
0.420	--
0.315	50
0.160	45
0.150	--
0.080	43

M.C. (%) : 11

M.C. (%) : 13

M.C. (%) : 14

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 26
 % SAND: 33
 % FINES: 41

% GRAVEL: 22
 % SAND: 30
 % FINES: 48

% GRAVEL: 33
 % SAND: 24
 % FINES: 43

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-158
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1896+850 O/S 10M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.19

FIELD NO: 364
 LAB NO: 6946
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 365
 LAB NO: 6947
 DEPTH: 2.7-3.0
 TYPE: AUGER
 ORGANIC

FIELD NO: 366
 LAB NO: 6948
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	100
10.0	100
5.0	99
2.5	97
2.0	--
1.25	93
0.840	--
0.630	78
0.420	--
0.315	42
0.160	22
0.150	--
0.080	14

M.C. (%) : 15

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 1
 % SAND: 85
 % FINES: 14

CLASSIFICATION: SILTY SAND (SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	100
2.0	--
1.25	96
0.840	--
0.630	72
0.420	--
0.315	41
0.160	27
0.150	--
0.080	20

M.C. (%) : 14

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 80
 % FINES: 20

CLASSIFICATION: SILTY SAND (SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	100
2.0	--
1.25	99
0.840	--
0.630	94
0.420	--
0.315	59
0.160	36
0.150	--
0.080	23

M.C. (%) : 11

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 77
 % FINES: 23

CLASSIFICATION: SILTY SAND (SM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-159
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1896+750 O/S 7M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.19

FIELD NO: 367
 LAB NO: 6949
 DEPTH: 1.2-1.5
 TYPE: AUGER
 ORGANIC

FIELD NO: 368
 LAB NO: 6950
 DEPTH: 2.7-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	99
2.0	--
1.25	97
0.840	--
0.630	94
0.420	--
0.315	87
0.160	76
0.150	--
0.080	60

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	100
2.0	--
1.25	100
0.840	--
0.630	93
0.420	--
0.315	49
0.160	21
0.150	--
0.080	13

M.C. (%): 58

M.C. (%): 14

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 40
 % FINES: 60

% GRAVEL: 0
 % SAND: 87
 % FINES: 13

CLASSIFICATION:
 SANDY SILT (ML)

CLASSIFICATION:
 SILTY SAND (SM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-160
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1896+650 O/S 8M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.19

FIELD NO: 369
 LAB NO: 6951
 DEPTH: 1.2-1.5
 TYPE: AUGER
 ORGANIC

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	100
5.0	98
2.5	92
2.0	--
1.25	84
0.840	--
0.630	77
0.420	--
0.315	68
0.160	61
0.150	--
0.080	56

M.C. (%) : 115

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 2
 % SAND: 42
 % FINES: 56

CLASSIFICATION:
 SANDY SILT (ML)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-161
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1896+550 O/S 8M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.19

FIELD NO: 370
 LAB NO: 6952
 DEPTH: 1.2-1.5
 TYPE: AUGER
 ORGANIC

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	100
5.0	100
2.5	99
2.0	--
1.25	97
0.840	--
0.630	88
0.420	--
0.315	62
0.160	37
0.150	--
0.080	28

M.C. (%) : 32

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 72
 % FINES: 28

CLASSIFICATION:
 SILTY SAND (SM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-162
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1896+450 O/S 6M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.19

FIELD NO: 371
 LAB NO: 6953
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 372
 LAB NO: 6954
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 373
 LAB NO: 6955
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	96
20.0	90
12.5	71
10.0	64
5.0	49
2.5	41
2.0	--
1.25	35
0.840	--
0.630	29
0.420	--
0.315	18
0.160	11
0.150	--
0.080	8

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	81
20.0	71
12.5	61
10.0	53
5.0	40
2.5	33
2.0	--
1.25	28
0.840	--
0.630	24
0.420	--
0.315	19
0.160	14
0.150	--
0.080	10

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	97
12.5	92
10.0	91
5.0	85
2.5	81
2.0	--
1.25	78
0.840	--
0.630	74
0.420	--
0.315	69
0.160	66
0.150	--
0.080	62

M.C. (%) : 10

M.C. (%) : 10

M.C. (%) : 22

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: 28.8
 PLASTIC: 18.2
 P.I.: 10.6

% GRAVEL: 51
 % SAND: 41
 % FINES: 8

% GRAVEL: 60
 % SAND: 30
 % FINES: 10

% GRAVEL: 15
 % SAND: 23
 % FINES: 62

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 SANDY LEAN CLAY
 WITH GRAVEL (CL)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-163
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1896+350
 LOGGED BY: AW DATE COMPLETED: 92.08.19

FIELD NO: 374
 LAB NO: 6956
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 375
 LAB NO: 6957
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 376
 LAB NO: 6958
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	100
10.0	100
5.0	99
2.5	98
2.0	--
1.25	94
0.840	--
0.630	84
0.420	--
0.315	51
0.160	20
0.150	--
0.080	11

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	87
12.5	81
10.0	79
5.0	69
2.5	59
2.0	--
1.25	45
0.840	--
0.630	27
0.420	--
0.315	12
0.160	6
0.150	--
0.080	3

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	92
12.5	82
10.0	77
5.0	62
2.5	46
2.0	--
1.25	33
0.840	--
0.630	22
0.420	--
0.315	12
0.160	6
0.150	--
0.080	3

M.C.(%) : 11

M.C.(%) : 9

M.C.(%) : 7

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 1
 % SAND: 88
 % FINES: 11

% GRAVEL: 31
 % SAND: 66
 % FINES: 3

% GRAVEL: 38
 % SAND: 59
 % FINES: 3

CLASSIFICATION:
 POORLY GRADED
 SAND WITH SILT
 (SP-SM)

CLASSIFICATION:
 POORLY GRADED
 SAND WITH GRAVEL
 (SP)

CLASSIFICATION:
 POORLY GRADED
 SAND WITH GRAVEL
 (SP)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-164
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1896+250
 LOGGED BY: AW DATE COMPLETED: 92.08.19

FIELD NO: 377
 LAB NO: 6959
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 378
 LAB NO: 6960
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 379
 LAB NO: 6961
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	100
10.0	100
5.0	99
2.5	98
2.0	--
1.25	97
0.840	--
0.630	96
0.420	--
0.315	93
0.160	77
0.150	--
0.080	48

M.C. (%): 21

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 1
 % SAND: 51
 % FINES: 48

CLASSIFICATION: SILTY SAND (SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	95
20.0	95
12.5	90
10.0	86
5.0	75
2.5	66
2.0	--
1.25	55
0.840	--
0.630	43
0.420	--
0.315	29
0.160	14
0.150	--
0.080	7

M.C. (%): 12

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 25
 % SAND: 68
 % FINES: 7

CLASSIFICATION: POORLY GRADED SAND WITH SILT & GRAVEL (SP-SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	87
20.0	82
12.5	74
10.0	69
5.0	56
2.5	46
2.0	--
1.25	36
0.840	--
0.630	27
0.420	--
0.315	18
0.160	9
0.150	--
0.080	4

M.C. (%): 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 44
 % SAND: 51
 % FINES: 4

CLASSIFICATION: POORLY GRADED SAND WITH GRAVEL (SP)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-165
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1896+150 O/S 5M LT
 LOGGED BY: AW DATE COMPLETED: 92.08.19

FIELD NO: 380
 LAB NO: 6962
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 381
 LAB NO: 6963
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 382
 LAB NO: 6964
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	85
20.0	75
12.5	63
10.0	56
5.0	42
2.5	32
2.0	--
1.25	23
0.840	--
0.630	16
0.420	--
0.315	10
0.160	6
0.150	--
0.080	4

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	72
20.0	65
12.5	56
10.0	52
5.0	42
2.5	34
2.0	--
1.25	25
0.840	--
0.630	18
0.420	--
0.315	12
0.160	8
0.150	--
0.080	6

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	96
10.0	92
5.0	74
2.5	54
2.0	--
1.25	35
0.840	--
0.630	22
0.420	--
0.315	12
0.160	6
0.150	--
0.080	4

M.C. (%) : 4

M.C. (%) : 4

M.C. (%) : 7

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 58
 % SAND: 37
 % FINES: 4

% GRAVEL: 58
 % SAND: 36
 % FINES: 6

% GRAVEL: 26
 % SAND: 70
 % FINES: 4

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 WELL-GRADED SAND
 WITH GRAVEL (SW)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-166
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1896+050 O/S 5M LT
 LOGGED BY: AW DATE COMPLETED: 92.08.19

FIELD NO: 384
 LAB NO: 6965
 DEPTH: 1.2-1.5
 TYPE: AUGER
 ORGANIC

FIELD NO: 385
 LAB NO: 6966
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 386
 LAB NO: 6967
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	97
20.0	84
12.5	69
10.0	59
5.0	42
2.5	30
2.0	--
1.25	19
0.840	--
0.630	12
0.420	--
0.315	7
0.160	4
0.150	--
0.080	3

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	92
20.0	92
12.5	87
10.0	84
5.0	76
2.5	72
2.0	--
1.25	69
0.840	--
0.630	65
0.420	--
0.315	62
0.160	57
0.150	--
0.080	51

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	94
10.0	93
5.0	92
2.5	90
2.0	--
1.25	88
0.840	--
0.630	85
0.420	--
0.315	83
0.160	80
0.150	--
0.080	71

M.C. (%) : 4

M.C. (%) : 16

M.C. (%) : 25

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: 25.9
 PLASTIC: 16.4
 P.I.: 9.5

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 58
 % SAND: 39
 % FINES: 3

% GRAVEL: 24
 % SAND: 26
 % FINES: 51

% GRAVEL: 8
 % SAND: 20
 % FINES: 71

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 SANDY LEAN CLAY
 WITH GRAVEL (CL)

CLASSIFICATION:
 SILT WITH SAND
 (ML)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-167
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1895+950
 LOGGED BY: AW DATE COMPLETED: 92.08.19

FIELD NO: 387
 LAB NO: 6968
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 388
 LAB NO: 6969
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 389
 LAB NO: 6970
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	88
20.0	80
12.5	64
10.0	59
5.0	48
2.5	40
2.0	--
1.25	33
0.840	--
0.630	27
0.420	--
0.315	20
0.160	13
0.150	--
0.080	8

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	95
20.0	94
12.5	91
10.0	90
5.0	85
2.5	80
2.0	--
1.25	75
0.840	--
0.630	68
0.420	--
0.315	57
0.160	39
0.150	--
0.080	26

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	96
20.0	92
12.5	78
10.0	70
5.0	51
2.5	36
2.0	--
1.25	24
0.840	--
0.630	15
0.420	--
0.315	9
0.160	5
0.150	--
0.080	4

M.C. (%) : 5

M.C. (%) : 14

M.C. (%) : 5

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 52
 % SAND: 39
 % FINES: 8

% GRAVEL: 15
 % SAND: 59
 % FINES: 26

% GRAVEL: 49
 % SAND: 48
 % FINES: 4

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-146
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1898+100 O/S 6M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.18

FIELD NO: 333
 LAB NO: 6893
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 334
 LAB NO: 6894
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 335
 LAB NO: 6895
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	89
12.5	76
10.0	71
5.0	58
2.5	51
2.0	--
1.25	44
0.840	--
0.630	38
0.420	--
0.315	32
0.160	27
0.150	--
0.080	24

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	93
20.0	84
12.5	78
10.0	73
5.0	66
2.5	60
2.0	--
1.25	56
0.840	--
0.630	52
0.420	--
0.315	48
0.160	42
0.150	--
0.080	36

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	96
12.5	79
10.0	75
5.0	61
2.5	50
2.0	--
1.25	39
0.840	--
0.630	32
0.420	--
0.315	28
0.160	24
0.150	--
0.080	20

M.C. (%) : 11

M.C. (%) : 8

M.C. (%) : 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 42
 % SAND: 34
 % FINES: 24

% GRAVEL: 34
 % SAND: 29
 % FINES: 36

% GRAVEL: 39
 % SAND: 41
 % FINES: 20

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-147
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1898+000 O/S 5M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.18

FIELD NO: 336
 LAB NO: 6896
 DEPTH: 1.2-1.5
 TYPE: AUGER
 ORGANIC

FIELD NO: 337
 LAB NO: 6897
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 338
 LAB NO: 6898
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	92
20.0	92
12.5	89
10.0	87
5.0	83
2.5	80
2.0	--
1.25	75
0.840	--
0.630	69
0.420	--
0.315	64
0.160	57
0.150	--
0.080	52

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	94
10.0	91
5.0	81
2.5	73
2.0	--
1.25	68
0.840	--
0.630	63
0.420	--
0.315	57
0.160	50
0.150	--
0.080	43

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	71
20.0	71
12.5	67
10.0	63
5.0	57
2.5	52
2.0	--
1.25	48
0.840	--
0.630	45
0.420	--
0.315	41
0.160	36
0.150	--
0.080	31

M.C. (%): 88

M.C. (%): 11

M.C. (%): 11

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 17
 % SAND: 31
 % FINES: 52

% GRAVEL: 19
 % SAND: 38
 % FINES: 43

% GRAVEL: 43
 % SAND: 26
 % FINES: 31

CLASSIFICATION:
 SANDY SILT WITH
 GRAVEL (ML)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-148
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1897+900 O/S 6M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.18

FIELD NO: 339
 LAB NO: 6899
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 340
 LAB NO: 6900
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 341
 LAB NO: 6901
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	99
20.0	96
12.5	83
10.0	81
5.0	69
2.5	61
2.0	--
1.25	53
0.840	--
0.630	45
0.420	--
0.315	37
0.160	30
0.150	--
0.080	26

M.C. (%) : 9

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 31
 % SAND: 43
 % FINES: 26

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	92
20.0	81
12.5	66
10.0	61
5.0	53
2.5	48
2.0	--
1.25	44
0.840	--
0.630	38
0.420	--
0.315	30
0.160	26
0.150	--
0.080	23

M.C. (%) : 19

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 47
 % SAND: 30
 % FINES: 23

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	95
20.0	92
12.5	89
10.0	87
5.0	78
2.5	71
2.0	--
1.25	64
0.840	--
0.630	56
0.420	--
0.315	48
0.160	40
0.150	--
0.080	35

M.C. (%) : 14

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 22
 % SAND: 44
 % FINES: 35

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-149
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1897+800 O/S 8M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.18

FIELD NO: 342
 LAB NO: 6902
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 343
 LAB NO: 6903
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 344
 LAB NO: 6904
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	87
20.0	87
12.5	76
10.0	72
5.0	61
2.5	55
2.0	--
1.25	49
0.840	--
0.630	44
0.420	--
0.315	39
0.160	33
0.150	--
0.080	29

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	98
12.5	94
10.0	91
5.0	84
2.5	79
2.0	--
1.25	75
0.840	--
0.630	70
0.420	--
0.315	64
0.160	57
0.150	--
0.080	47

100.0	--
80.0	--
50.0	100
31.5	--
25.0	90
20.0	87
12.5	74
10.0	68
5.0	58
2.5	51
2.0	--
1.25	46
0.840	--
0.630	41
0.420	--
0.315	37
0.160	32
0.150	--
0.080	26

M.C. (%) : 13

M.C. (%) : 12

M.C. (%) : 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 39
 % SAND: 32
 % FINES: 29

% GRAVEL: 16
 % SAND: 37
 % FINES: 47

% GRAVEL: 42
 % SAND: 32
 % FINES: 26

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-150
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1897+675 O/S 8M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.18

FIELD NO: 345
 LAB NO: 6905
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 346
 LAB NO: 6906
 DEPTH: 2.7-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	92
20.0	88
12.5	78
10.0	75
5.0	68
2.5	62
2.0	--
1.25	56
0.840	--
0.630	51
0.420	--
0.315	46
0.160	41
0.150	--
0.080	36

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	89
12.5	80
10.0	79
5.0	70
2.5	64
2.0	--
1.25	59
0.840	--
0.630	54
0.420	--
0.315	48
0.160	42
0.150	--
0.080	36

M.C. (%): 22

M.C. (%): 10

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 32
 % SAND: 32
 % FINES: 36

% GRAVEL: 30
 % SAND: 34
 % FINES: 36

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-151
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1897+550 O/S 8M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.18

FIELD NO: 347
 LAB NO: 6907
 DEPTH: 1.2-1.5
 TYPE: AUGER
 SPILLED

FIELD NO: 348
 LAB NO: 6908
 DEPTH: 2.7-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	--
2.0	--
1.25	--
0.840	--
0.630	--
0.420	--
0.315	--
0.160	--
0.150	--
0.080	--

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	89
20.0	84
12.5	75
10.0	69
5.0	60
2.5	53
2.0	--
1.25	48
0.840	--
0.630	44
0.420	--
0.315	39
0.160	34
0.150	--
0.080	29

M.C. (%) : 13

M.C. (%) : 12

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: --
 % SAND: --
 % FINES: --

% GRAVEL: 40
 % SAND: 31
 % FINES: 29

CLASSIFICATION:

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-152
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1897+450 O/S 6M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.18

FIELD NO: 349
 LAB NO: 6909
 DEPTH: 1.2-1.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	61
20.0	38
12.5	28
10.0	24
5.0	17
2.5	13
2.0	--
1.25	11
0.840	--
0.630	9
0.420	--
0.315	8
0.160	6
0.150	--
0.080	5

M.C. (%) : 6

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 83
 % SAND: 12
 % FINES: 5

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 (GP-GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-153
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1897+350 O/S 6M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.18

FIELD NO: 350
 LAB NO: 6910
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 351
 LAB NO: 6911
 DEPTH: 2.7-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	96
12.5	90
10.0	87
5.0	81
2.5	78
2.0	--
1.25	76
0.840	--
0.630	74
0.420	--
0.315	71
0.160	67
0.150	--
0.080	62

100.0	--
80.0	--
50.0	100
31.5	--
25.0	86
20.0	81
12.5	75
10.0	70
5.0	62
2.5	58
2.0	--
1.25	55
0.840	--
0.630	52
0.420	--
0.315	49
0.160	45
0.150	--
0.080	40

M.C. (%): 15

M.C. (%): 11

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 19
 % SAND: 19
 % FINES: 62

% GRAVEL: 38
 % SAND: 22
 % FINES: 40

CLASSIFICATION:
 SANDY SILT WITH
 GRAVEL (ML)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-154
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1897+250 O/S 5M RT
 LOGGED BY: AW DATE COMPLETED: 92.08.18

FIELD NO: 352
 LAB NO: 6912
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 353
 LAB NO: 6913
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 354
 LAB NO: 6914
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	94
12.5	85
10.0	80
5.0	69
2.5	63
2.0	--
1.25	59
0.840	--
0.630	55
0.420	--
0.315	51
0.160	45
0.150	--
0.080	39

M.C. (%) : 9

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 31
 % SAND: 31
 % FINES: 39

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	93
20.0	90
12.5	84
10.0	80
5.0	71
2.5	64
2.0	--
1.25	59
0.840	--
0.630	56
0.420	--
0.315	51
0.160	46
0.150	--
0.080	39

M.C. (%) : 9

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 29
 % SAND: 32
 % FINES: 39

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	95
20.0	91
12.5	85
10.0	81
5.0	70
2.5	64
2.0	--
1.25	60
0.840	--
0.630	56
0.420	--
0.315	52
0.160	47
0.150	--
0.080	40

M.C. (%) : 11

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 30
 % SAND: 30
 % FINES: 40

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 244-02
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME
 HOLE LOCATION: 1905+750 O/S 15M LT
 LOGGED BY: TF DATE COMPLETED: 93.09.01

FIELD NO: 6
 LAB NO: 953
 DEPTH: 2.0-2.2
 TYPE: AUGER

FIELD NO: 7
 LAB NO: 954
 DEPTH: 9.0-9.2
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	74
31.5	--
25.0	53
20.0	52
12.5	48
10.0	46
5.0	45
2.5	43
2.0	--
1.25	41
0.840	--
0.630	40
0.420	--
0.315	37
0.160	35
0.150	--
0.080	33

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	100
2.0	--
1.25	99
0.840	--
0.630	98
0.420	--
0.315	97
0.160	96
0.150	--
0.080	96

M.C. (%) : 17

M.C. (%) : 31

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: 44.9
 PLASTIC: 20.8
 P.I.: 24.1

% GRAVEL: 55
 % SAND: 12
 % FINES: 33

% GRAVEL: 0
 % SAND: 4
 % FINES: 96

CLASSIFICATION:
 SILTY GRAVEL (GM)

CLASSIFICATION:
 LEAN CLAY (CL)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 244-03
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME
 HOLE LOCATION: 1905+825 O/S 15M LT
 LOGGED BY: TF DATE COMPLETED: 93.09.01

FIELD NO: 8
 LAB NO: 955
 DEPTH: 3.0-3.2
 TYPE: AUGER

FIELD NO: 9
 LAB NO: 956
 DEPTH: 6.0-6.2
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	95
12.5	94
10.0	93
5.0	92
2.5	90
2.0	--
1.25	88
0.840	--
0.630	86
0.420	--
0.315	82
0.160	78
0.150	--
0.080	74

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	97
10.0	95
5.0	94
2.5	92
2.0	--
1.25	90
0.840	--
0.630	86
0.420	--
0.315	79
0.160	74
0.150	--
0.080	70

M.C. (%) : 20

M.C. (%) : 9

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: 38.4
 PLASTIC: 21.5
 P.I.: 16.9

% GRAVEL: 8
 % SAND: 18
 % FINES: 74

% GRAVEL: 6
 % SAND: 24
 % FINES: 70

CLASSIFICATION:
 SILT WITH SAND
 (ML)

CLASSIFICATION:
 SANDY LEAN CLAY
 (CL)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 244-04
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME
 HOLE LOCATION: 1905+900 O/S 15M LT
 LOGGED BY: TF DATE COMPLETED: 93.09.01

FIELD NO: 10
 LAB NO: 957
 DEPTH: 3.0-3.2
 TYPE: AUGER

FIELD NO: 11
 LAB NO: 958
 DEPTH: 6.0-6.2
 TYPE: AUGER

FIELD NO: 12
 LAB NO: 959
 DEPTH: 9.0-9.2
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	88
20.0	84
12.5	79
10.0	77
5.0	73
2.5	72
2.0	--
1.25	70
0.840	--
0.630	68
0.420	--
0.315	66
0.160	62
0.150	--
0.080	59

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	98
10.0	97
5.0	96
2.5	95
2.0	--
1.25	93
0.840	--
0.630	91
0.420	--
0.315	88
0.160	84
0.150	--
0.080	80

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	100
2.0	--
1.25	100
0.840	--
0.630	100
0.420	--
0.315	99
0.160	99
0.150	--
0.080	99

M.C. (%) : 18

M.C. (%) : 22

M.C. (%) : 34

LIMITS
 LIQUID: 30.4
 PLASTIC: 17.9
 P.I.: 12.5

LIMITS
 LIQUID: 31.9
 PLASTIC: 19.2
 P.I.: 12.7

LIMITS
 LIQUID: 45.6
 PLASTIC: 21.3
 P.I.: 24.3

% GRAVEL: 27
 % SAND: 14
 % FINES: 59

% GRAVEL: 4
 % SAND: 15
 % FINES: 80

% GRAVEL: 0
 % SAND: 1
 % FINES: 99

CLASSIFICATION:
 GRAVELLY LEAN
 CLAY (CL)

CLASSIFICATION:
 LEAN CLAY WITH
 SAND (CL)

CLASSIFICATION:
 LEAN CLAY (CL)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 244-05
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME
 HOLE LOCATION: 1905+975 O/S 15M LT
 LOGGED BY: TF DATE COMPLETED: 93.09.01

FIELD NO: 13
 LAB NO: 960
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 14
 LAB NO: 961
 DEPTH: 3.8-4.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	100
10.0	99
5.0	99
2.5	97
2.0	--
1.25	92
0.840	--
0.630	80
0.420	--
0.315	75
0.160	69
0.150	--
0.080	63

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	100
10.0	98
5.0	96
2.5	94
2.0	--
1.25	91
0.840	--
0.630	88
0.420	--
0.315	84
0.160	79
0.150	--
0.080	74

M.C. (%) : 43

M.C. (%) : 43

LIMITS

LIQUID: 31.1
 PLASTIC: 21.7
 P.I.: 9.4

LIMITS

LIQUID: 34.0
 PLASTIC: 19.8
 P.I.: 14.2

% GRAVEL: 1
 % SAND: 36
 % FINES: 63

% GRAVEL: 4
 % SAND: 22
 % FINES: 74

CLASSIFICATION:
 SANDY LEAN CLAY
 (CL)

CLASSIFICATION:
 LEAN CLAY WITH
 SAND (CL)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 244-12
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1908+300 O/S 2M RT
 LOGGED BY: TF DATE COMPLETED: 93.09.02

FIELD NO: 30
 LAB NO: 977
 DEPTH: 1.0-1.2
 TYPE: AUGER

FIELD NO: 31
 LAB NO: 978
 DEPTH: 2.0-2.2
 TYPE: AUGER

FIELD NO: 32
 LAB NO: 979
 DEPTH: 4.0-4.2
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	56
20.0	45
12.5	39
10.0	33
5.0	25
2.5	20
2.0	--
1.25	16
0.840	--
0.630	14
0.420	--
0.315	12
0.160	10
0.150	--
0.080	8

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	83
20.0	80
12.5	72
10.0	67
5.0	57
2.5	51
2.0	--
1.25	47
0.840	--
0.630	43
0.420	--
0.315	39
0.160	34
0.150	--
0.080	28

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	93
20.0	89
12.5	78
10.0	72
5.0	63
2.5	56
2.0	--
1.25	51
0.840	--
0.630	47
0.420	--
0.315	42
0.160	37
0.150	--
0.080	32

M.C. (%) : 4

M.C. (%) : 9

M.C. (%) : 11

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 75
 % SAND: 17
 % FINES: 8

% GRAVEL: 43
 % SAND: 29
 % FINES: 28

% GRAVEL: 37
 % SAND: 31
 % FINES: 32

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 244-13
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1908+400
 LOGGED BY: TF DATE COMPLETED: 93.09.02

FIELD NO: 33
 LAB NO: 980
 DEPTH: 1.0-1.2
 TYPE: AUGER

FIELD NO: 34
 LAB NO: 981
 DEPTH: 1.8-2.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	94
10.0	92
5.0	87
2.5	81
2.0	--
1.25	76
0.840	--
0.630	71
0.420	--
0.315	64
0.160	55
0.150	--
0.080	43

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	97
10.0	95
5.0	89
2.5	83
2.0	--
1.25	77
0.840	--
0.630	72
0.420	--
0.315	66
0.160	58
0.150	--
0.080	49

M.C. (%) : 15

M.C. (%) : 15

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 13
 % SAND: 44
 % FINES: 43

% GRAVEL: 11
 % SAND: 40
 % FINES: 49

CLASSIFICATION:
 SILTY SAND (SM)

CLASSIFICATION:
 SILTY SAND (SM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 244-17
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1909+203
 LOGGED BY: TF DATE COMPLETED: 93.09.03

FIELD NO: 43
 LAB NO: 991
 DEPTH: 1.0-1.2
 TYPE: AUGER

FIELD NO: 44
 LAB NO: 992
 DEPTH: 4.0-4.2
 TYPE: AUGER

FIELD NO: 45
 LAB NO: 993
 DEPTH: 6.0-6.2
 TYPE: AUGER

FIELD NO: 46
 LAB NO: 994
 DEPTH: 7.8-8.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	88
20.0	81
12.5	73
10.0	67
5.0	51
2.5	40
2.0	--
1.25	31
0.840	--
0.630	25
0.420	--
0.315	19
0.160	14
0.150	--
0.080	10

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	91
20.0	77
12.5	50
10.0	36
5.0	25
2.5	24
2.0	--
1.25	23
0.840	--
0.630	22
0.420	--
0.315	20
0.160	18
0.150	--
0.080	16

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	97
20.0	91
12.5	88
10.0	83
5.0	70
2.5	64
2.0	--
1.25	60
0.840	--
0.630	57
0.420	--
0.315	52
0.160	46
0.150	--
0.080	40

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	98
12.5	92
10.0	88
5.0	65
2.5	53
2.0	--
1.25	47
0.840	--
0.630	44
0.420	--
0.315	40
0.160	36
0.150	--
0.080	30

M.C. (%) : 3

M.C. (%) : 5

M.C. (%) : 9

M.C. (%) : 7

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 49
 % SAND: 41
 % FINES: 10

% GRAVEL: 75
 % SAND: 9
 % FINES: 16

% GRAVEL: 30
 % SAND: 30
 % FINES: 40

% GRAVEL: 35
 % SAND: 35
 % FINES: 30

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 SILTY GRAVEL (GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 244-17
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1909+203
 LOGGED BY: TF DATE COMPLETED: 93.09.03

FIELD NO: 47
 LAB NO: 995
 DEPTH: 9.8-10.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	86
20.0	78
12.5	71
10.0	69
5.0	63
2.5	59
2.0	--
1.25	54
0.840	--
0.630	51
0.420	--
0.315	46
0.160	40
0.150	--
0.080	34

M.C. (%) : 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 37
 % SAND: 29
 % FINES: 34

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 244-18
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1905+450
 LOGGED BY: TF DATE COMPLETED: 93.09.03

FIELD NO: 48
 LAB NO: 996
 DEPTH: 1.0-1.1
 TYPE: AUGER

FIELD NO: 49
 LAB NO: 997
 DEPTH: 2.9-3.1
 TYPE: AUGER

FIELD NO: 50
 LAB NO: 998
 DEPTH: 7.9-8.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	96
12.5	89
10.0	85
5.0	75
2.5	71
2.0	--
1.25	67
0.840	--
0.630	64
0.420	--
0.315	60
0.160	55
0.150	--
0.080	50

M.C. (%) : 18

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 25
 % SAND: 25
 % FINES: 50

CLASSIFICATION:
 SANDY SILT WITH
 GRAVEL (ML)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	99
10.0	99
5.0	97
2.5	95
2.0	--
1.25	93
0.840	--
0.630	92
0.420	--
0.315	89
0.160	86
0.150	--
0.080	80

M.C. (%) : 30

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 3
 % SAND: 16
 % FINES: 80

CLASSIFICATION:
 SILT WITH SAND
 (ML)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	98
12.5	97
10.0	96
5.0	90
2.5	84
2.0	--
1.25	79
0.840	--
0.630	75
0.420	--
0.315	71
0.160	66
0.150	--
0.080	60

M.C. (%) : 25

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 10
 % SAND: 30
 % FINES: 60

CLASSIFICATION:
 SANDY SILT (ML)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 244-19
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1910+075
 LOGGED BY: TF DATE COMPLETED: 93.09.03

FIELD NO: 51
 LAB NO: 999
 DEPTH: 0.9-1.1
 TYPE: AUGER

FIELD NO: 52
 LAB NO: 1000
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 53
 LAB NO: 1001
 DEPTH: 4.8-5.0
 TYPE: AUGER

FIELD NO: 54
 LAB NO: 1002
 DEPTH: 7.9-8.1
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	72
20.0	65
12.5	55
10.0	49
5.0	35
2.5	27
2.0	--
1.25	21
0.840	--
0.630	16
0.420	--
0.315	10
0.160	6
0.150	--
0.080	5

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	86
20.0	62
12.5	31
10.0	23
5.0	9
2.5	6
2.0	--
1.25	6
0.840	--
0.630	5
0.420	--
0.315	4
0.160	3
0.150	--
0.080	2

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	81
12.5	51
10.0	38
5.0	19
2.5	13
2.0	--
1.25	10
0.840	--
0.630	9
0.420	--
0.315	7
0.160	5
0.150	--
0.080	4

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	99
10.0	96
5.0	89
2.5	83
2.0	--
1.25	78
0.840	--
0.630	74
0.420	--
0.315	68
0.160	62
0.150	--
0.080	57

M.C. (%) : 3

M.C. (%) : 2

M.C. (%) : 2

M.C. (%) : 19

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 65
 % SAND: 31
 % FINES: 5

% GRAVEL: 91
 % SAND: 7
 % FINES: 2

% GRAVEL: 81
 % SAND: 15
 % FINES: 4

% GRAVEL: 11
 % SAND: 32
 % FINES: 57

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL (GP)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

CLASSIFICATION:
 SANDY SILT (ML)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 244-19
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1910+075
 LOGGED BY: TF DATE COMPLETED: 93.09.03

FIELD NO: 55
 LAB NO: 1003
 DEPTH: 9.9-10.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	93
12.5	88
10.0	85
5.0	81
2.5	74
2.0	--
1.25	68
0.840	--
0.630	62
0.420	--
0.315	56
0.160	52
0.150	--
0.080	48

M.C. (%): 21

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 19
 % SAND: 33
 % FINES: 48

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 244-20
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1911+800
 LOGGED BY: TF DATE COMPLETED: 93.09.03

FIELD NO: 56
 LAB NO: 1004
 DEPTH: 0.9-1.1
 TYPE: AUGER

FIELD NO: 57
 LAB NO: 1005
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 58
 LAB NO: 1006
 DEPTH: 4.8-5.0
 TYPE: AUGER

FIELD NO: 59
 LAB NO: 1007
 DEPTH: 5.8-6.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	76
31.5	--
25.0	71
20.0	62
12.5	49
10.0	43
5.0	29
2.5	18
2.0	--
1.25	10
0.840	--
0.630	6
0.420	--
0.315	3
0.160	2
0.150	--
0.080	1

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	94
20.0	74
12.5	50
10.0	32
5.0	10
2.5	4
2.0	--
1.25	4
0.840	--
0.630	3
0.420	--
0.315	2
0.160	2
0.150	--
0.080	1

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	85
20.0	66
12.5	35
10.0	27
5.0	14
2.5	9
2.0	--
1.25	6
0.840	--
0.630	5
0.420	--
0.315	3
0.160	2
0.150	--
0.080	1

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	99
10.0	98
5.0	93
2.5	85
2.0	--
1.25	77
0.840	--
0.630	72
0.420	--
0.315	68
0.160	66
0.150	--
0.080	64

M.C. (%) : 2

M.C. (%) : 1

M.C. (%) : 1

M.C. (%) : 16

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: 23.3
 PLASTIC: 16.8
 P.I.: 6.5

% GRAVEL: 71
 % SAND: 28
 % FINES: 1

% GRAVEL: 90
 % SAND: 9
 % FINES: 1

% GRAVEL: 86
 % SAND: 13
 % FINES: 1

% GRAVEL: 7
 % SAND: 29
 % FINES: 64

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL (GP)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL (GW)

CLASSIFICATION:
 SANDY SILTY CLAY
 (CL-ML)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-168
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1895+850
 LOGGED BY: AW DATE COMPLETED: 92.08.19

FIELD NO: 390
 LAB NO: 6971
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 391
 LAB NO: 6972
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 392
 LAB NO: 6973
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	81
20.0	78
12.5	66
10.0	61
5.0	47
2.5	39
2.0	--
1.25	30
0.840	--
0.630	23
0.420	--
0.315	16
0.160	12
0.150	--
0.080	9

M.C. (%): 7

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 53
 % SAND: 38
 % FINES: 9

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	100
50.0	92
31.5	--
25.0	51
20.0	45
12.5	38
10.0	34
5.0	26
2.5	21
2.0	--
1.25	16
0.840	--
0.630	12
0.420	--
0.315	9
0.160	7
0.150	--
0.080	5

M.C. (%): 4

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 74
 % SAND: 21
 % FINES: 5

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	96
12.5	91
10.0	86
5.0	67
2.5	49
2.0	--
1.25	32
0.840	--
0.630	20
0.420	--
0.315	12
0.160	7
0.150	--
0.080	5

M.C. (%): 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 33
 % SAND: 62
 % FINES: 5

CLASSIFICATION:
 WELL-GRADED SAND
 WITH SILT &
 GRAVEL (SW-SM)

PROJECT NUMBER: 202101 0312 HOLE NUMBER: 198-169
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: ALASKA HIGHWAY RE-CONSTRUCTION
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: 36002
 HOLE LOCATION: 1895+750
 LOGGED BY: AW DATE COMPLETED: 92.08.19

FIELD NO: 393
 LAB NO: 6974
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 394
 LAB NO: 6975
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 395
 LAB NO: 6976
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	63
20.0	58
12.5	49
10.0	46
5.0	37
2.5	31
2.0	--
1.25	24
0.840	--
0.630	16
0.420	--
0.315	8
0.160	5
0.150	--
0.080	4

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	87
20.0	84
12.5	72
10.0	68
5.0	52
2.5	40
2.0	--
1.25	26
0.840	--
0.630	15
0.420	--
0.315	8
0.160	5
0.150	--
0.080	4

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	98
12.5	86
10.0	82
5.0	68
2.5	54
2.0	--
1.25	38
0.840	--
0.630	25
0.420	--
0.315	18
0.160	12
0.150	--
0.080	7

M.C. (%) : 5

M.C. (%) : 5

M.C. (%) : 8

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 63
 % SAND: 33
 % FINES: 4

% GRAVEL: 48
 % SAND: 48
 % FINES: 4

% GRAVEL: 32
 % SAND: 61
 % FINES: 7

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

CLASSIFICATION:
 POORLY GRADED
 SAND WITH GRAVEL
 (SP)

CLASSIFICATION:
 WELL-GRADED SAND
 WITH SILT &
 GRAVEL (SW-SM)

PROJECT NUMBER: 202101 0103 HOLE NUMBER: 207-182
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: A/H KM 1895-1916
 DRILL UNIT:
 HOLE LOCATION: 1895+650
 LOGGED BY: AW DATE COMPLETED: 92.08.21

FIELD NO: 427
 LAB NO: 7011
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 428
 LAB NO: 7012
 DEPTH: 2.7-3.0
 TYPE: AUGER
 ORGANICS

FIELD NO: 429
 LAB NO: 7013
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	87
20.0	79
12.5	71
10.0	63
5.0	52
2.5	43
2.0	--
1.25	34
0.840	--
0.630	24
0.420	--
0.315	13
0.160	6
0.150	--
0.080	3

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	100
2.0	--
1.25	99
0.840	--
0.630	98
0.420	--
0.315	90
0.160	63
0.150	--
0.080	40

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	100
5.0	98
2.5	97
2.0	--
1.25	95
0.840	--
0.630	94
0.420	--
0.315	92
0.160	89
0.150	--
0.080	87

M.C. (%): 5

M.C. (%): 28

M.C. (%): 30

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: 41.1
 PLASTIC: 24.6
 P.I.: 16.5

% GRAVEL: 48
 % SAND: 48
 % FINES: 3

% GRAVEL: 0
 % SAND: 60
 % FINES: 40

% GRAVEL: 2
 % SAND: 11
 % FINES: 87

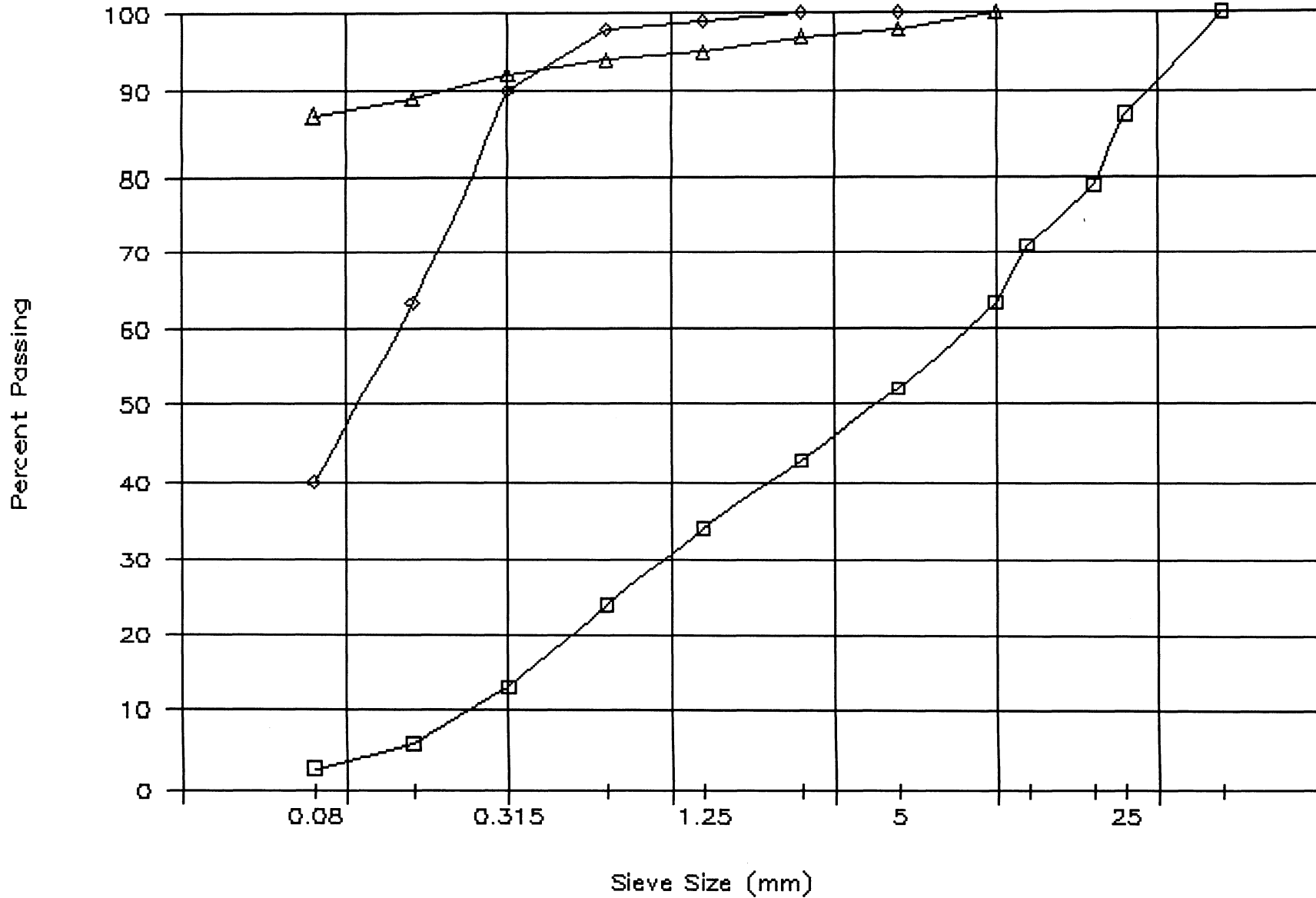
CLASSIFICATION:
 POORLY GRADED
 SAND WITH GRAVEL
 (SP)

CLASSIFICATION:
 SILTY SAND (SM)

CLASSIFICATION:
 LEAN CLAY (CL)

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 207-182



SAMP. 427

◇ SAMP. 428

△ SAMP. 429

X SAMP.

PROJECT NUMBER: 202101 0103 HOLE NUMBER: 207-183
 CLIENT: SHAKWAK PROJECT
 PROJECT NAME: SEGMENT 16
 PROJECT LOCATION: A/H KM 1895-1916
 DRILL UNIT:
 HOLE LOCATION: 1895+500
 LOGGED BY: AW DATE COMPLETED: 92.08.21

FIELD NO: 430
 LAB NO: 7014
 DEPTH: 1.2-1.5
 TYPE: AUGER

FIELD NO: 431
 LAB NO: 7015
 DEPTH: 2.7-3.0
 TYPE: AUGER

FIELD NO: 432
 LAB NO: 7016
 DEPTH: 4.2-4.5
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	88
20.0	88
12.5	87
10.0	86
5.0	80
2.5	70
2.0	--
1.25	59
0.840	--
0.630	46
0.420	--
0.315	34
0.160	24
0.150	--
0.080	17

M.C. (%) : 9

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 20
 % SAND: 62
 % FINES: 17

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	82
20.0	78
12.5	66
10.0	61
5.0	46
2.5	36
2.0	--
1.25	27
0.840	--
0.630	19
0.420	--
0.315	10
0.160	6
0.150	--
0.080	4

M.C. (%) : 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 54
 % SAND: 42
 % FINES: 4

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	95
20.0	93
12.5	82
10.0	78
5.0	70
2.5	65
2.0	--
1.25	60
0.840	--
0.630	56
0.420	--
0.315	52
0.160	46
0.150	--
0.080	40

M.C. (%) : 12

LIMITS

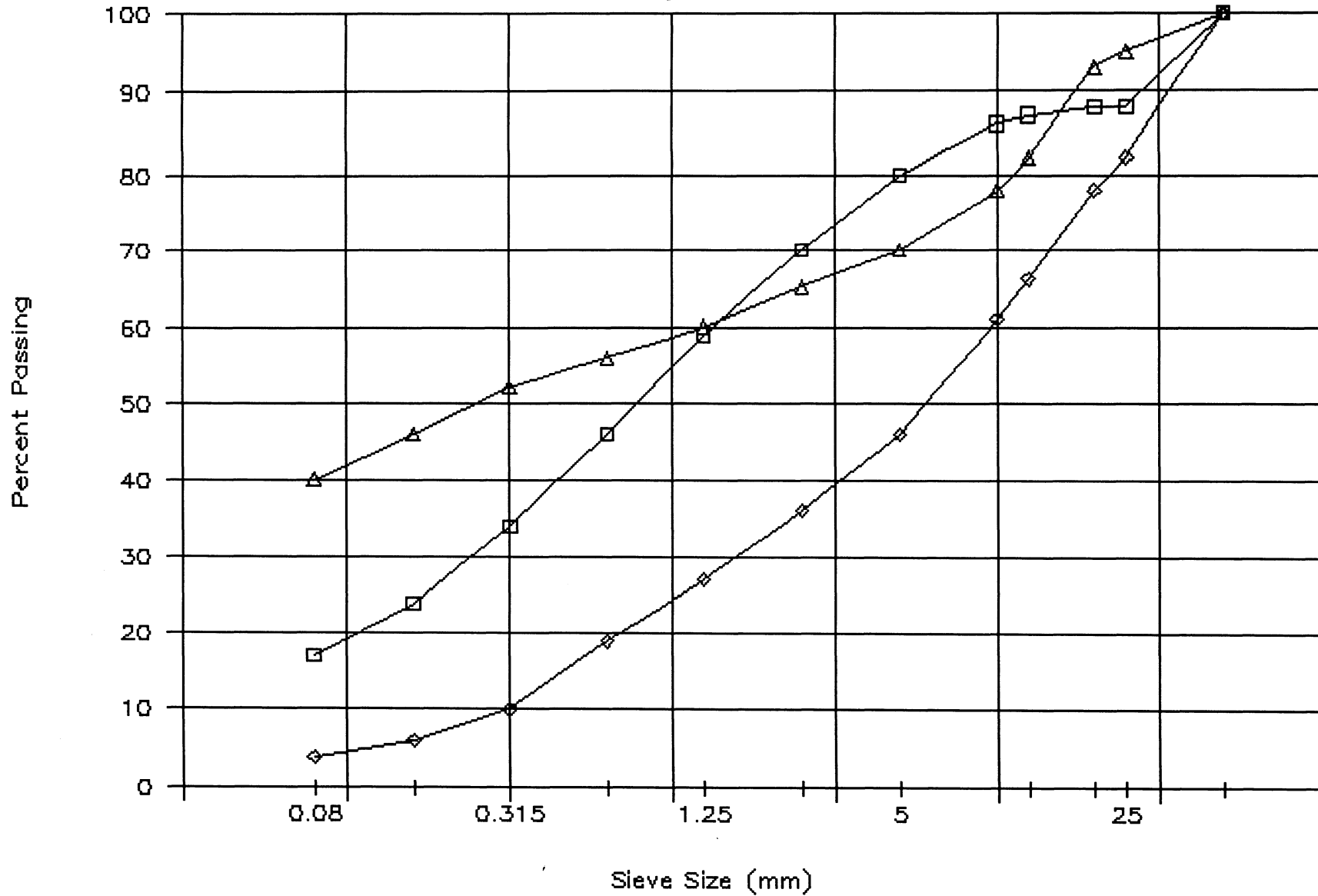
LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 30
 % SAND: 29
 % FINES: 40

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis — Hole 207-183



SAMP. 430

◇ SAMP. 431

Sieve Size (mm)

△ SAMP. 432

X SAMP.

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 244-0
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME
 HOLE LOCATION: 1905+600 O/S 15M LT
 LOGGED BY: TF DATE COMPLETED: 93.09.01

FIELD NO: 1
 LAB NO: 948
 DEPTH: 1.0-1.2
 TYPE: AUGER

FIELD NO: 2
 LAB NO: 949
 DEPTH: 3.0-3.2
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	97
2.0	--
1.25	95
0.840	--
0.630	92
0.420	--
0.315	87
0.160	82
0.150	--
0.080	76

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	99
10.0	99
5.0	99
2.5	98
2.0	--
1.25	98
0.840	--
0.630	97
0.420	--
0.315	97
0.160	95
0.150	--
0.080	94

M.C. (%) : 45

M.C. (%) : 45

LIMITS
 LIQUID: 36.1
 PLASTIC: 24.2
 P.I.: 11.9

LIMITS
 LIQUID: 35.1
 PLASTIC: 22.5
 P.I.: 12.6

% GRAVEL: 0
 % SAND: 24
 % FINES: 76

% GRAVEL: 1
 % SAND: 5
 % FINES: 94

CLASSIFICATION:
 LEAN CLAY WITH
 SAND (CL)

CLASSIFICATION:
 LEAN CLAY (CL)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 244-1
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME
 HOLE LOCATION: 1905+675 O/S 15M LT
 LOGGED BY: TF DATE COMPLETED: 93.09.01

FIELD NO: 3
 LAB NO: 950
 DEPTH: 1.4-1.6
 TYPE: AUGER

FIELD NO: 4
 LAB NO: 951
 DEPTH: 7.0-7.2
 TYPE: AUGER

FIELD NO: 5
 LAB NO: 952
 DEPTH: 11.0-11.
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	92
20.0	84
12.5	79
10.0	75
5.0	70
2.5	66
2.0	--
1.25	63
0.840	--
0.630	60
0.420	--
0.315	57
0.160	53
0.150	--
0.080	52

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	94
20.0	92
12.5	87
10.0	87
5.0	86
2.5	85
2.0	--
1.25	84
0.840	--
0.630	83
0.420	--
0.315	81
0.160	78
0.150	--
0.080	76

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	85
20.0	80
12.5	79
10.0	76
5.0	70
2.5	67
2.0	--
1.25	64
0.840	--
0.630	61
0.420	--
0.315	59
0.160	55
0.150	--
0.080	52

M.C. (%) : 26

M.C. (%) : 19

M.C. (%) : 13

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 30
 % SAND: 18
 % FINES: 52

% GRAVEL: 14
 % SAND: 11
 % FINES: 76

% GRAVEL: 30
 % SAND: 18
 % FINES: 52

CLASSIFICATION:
 GRAVELLY SILT
 WITH SAND (ML)

CLASSIFICATION:
 SILT WITH GRAVEL
 (ML)

CLASSIFICATION:
 GRAVELLY SILT
 WITH SAND (ML)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 244-20
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1911+800
 LOGGED BY: TF DATE COMPLETED: 93.09.03

FIELD NO: 60
 LAB NO: 1008
 DEPTH: 9.8-10.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	96
12.5	94
10.0	94
5.0	93
2.5	92
2.0	--
1.25	90
0.840	--
0.630	88
0.420	--
0.315	86
0.160	84
0.150	--
0.080	79

M.C. (%): 21

LIMITS

LIQUID: 20.3
 PLASTIC: 15.4
 P.I.: 4.9

% GRAVEL: 7
 % SAND: 14
 % FINES: 79

CLASSIFICATION:
 SILTY CLAY WITH
 SAND (CL-ML)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 944-21
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1913+250
 LOGGED BY: TF DATE COMPLETED: 93.09.04

FIELD NO: 60
 LAB NO: 1009
 DEPTH: 0.9-1.0
 TYPE: AUGER

FIELD NO: 61
 LAB NO: 1010
 DEPTH: 2.0-2.2
 TYPE: AUGER
 ORGANICS

FIELD NO: 62
 LAB NO: 1011
 DEPTH: 3.9-4.1
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	95
12.5	95
10.0	95
5.0	92
2.5	89
2.0	--
1.25	86
0.840	--
0.630	83
0.420	--
0.315	81
0.160	79
0.150	--
0.080	75

M.C. (%) : 25

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 8
 % SAND: 17
 % FINES: 75

CLASSIFICATION:
 SILT WITH SAND
 (ML)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	98
10.0	98
5.0	96
2.5	95
2.0	--
1.25	93
0.840	--
0.630	92
0.420	--
0.315	91
0.160	89
0.150	--
0.080	86

M.C. (%) : 25

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 4
 % SAND: 10
 % FINES: 86

CLASSIFICATION:
 SILT (ML)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	58
20.0	43
12.5	22
10.0	19
5.0	15
2.5	14
2.0	--
1.25	14
0.840	--
0.630	13
0.420	--
0.315	13
0.160	12
0.150	--
0.080	12

M.C. (%) : 6

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 85
 % SAND: 3
 % FINES: 12

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 (GP-GM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 244-22
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1913+350 O/S 9M RT
 LOGGED BY: TF DATE COMPLETED: 93.09.04

FIELD NO: 63
 LAB NO: 1012
 DEPTH: 0.9-1.0
 TYPE: AUGER
 ORGANICS

FIELD NO: 64
 LAB NO: 1013
 DEPTH: 1.9-2.1
 TYPE: AUGER
 ORGANICS

FIELD NO: 65
 LAB NO: 1014
 DEPTH: 3.9-4.1
 TYPE: AUGER

FIELD NO: 66
 LAB NO: 1015
 DEPTH: 6.8-7.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	100
5.0	99
2.5	97
2.0	--
1.25	93
0.840	--
0.630	89
0.420	--
0.315	86
0.160	83
0.150	--
0.080	79

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	100
5.0	100
2.5	99
2.0	--
1.25	97
0.840	--
0.630	95
0.420	--
0.315	94
0.160	90
0.150	--
0.080	83

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	63
20.0	63
12.5	59
10.0	58
5.0	56
2.5	55
2.0	--
1.25	53
0.840	--
0.630	52
0.420	--
0.315	50
0.160	49
0.150	--
0.080	46

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	86
20.0	52
12.5	41
10.0	37
5.0	35
2.5	34
2.0	--
1.25	32
0.840	--
0.630	31
0.420	--
0.315	30
0.160	28
0.150	--
0.080	26

M.C. (%): 39

M.C. (%): 38

M.C. (%): 18

M.C. (%): 12

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 1
 % SAND: 20
 % FINES: 79

% GRAVEL: 0
 % SAND: 17
 % FINES: 83

% GRAVEL: 44
 % SAND: 10
 % FINES: 46

% GRAVEL: 65
 % SAND: 9
 % FINES: 26

CLASSIFICATION:
 SILT WITH SAND
 (ML)

CLASSIFICATION:
 SILT WITH SAND
 (ML)

CLASSIFICATION:
 SILTY GRAVEL (GM)

CLASSIFICATION:
 SILTY GRAVEL (GM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 244-23
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1913+575 O/S 3M LT
 LOGGED BY: TF DATE COMPLETED: 93.09.04

FIELD NO: 67
 LAB NO: 1016
 DEPTH: 0.9-1.0
 TYPE: AUGER

FIELD NO: 68
 LAB NO: 1017
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 69
 LAB NO: 1018
 DEPTH: 5.9-6.1
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	93
20.0	83
12.5	70
10.0	62
5.0	49
2.5	41
2.0	--
1.25	34
0.840	--
0.630	28
0.420	--
0.315	22
0.160	18
0.150	--
0.080	15

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	94
20.0	85
12.5	58
10.0	51
5.0	36
2.5	28
2.0	--
1.25	23
0.840	--
0.630	19
0.420	--
0.315	13
0.160	10
0.150	--
0.080	8

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	90
12.5	79
10.0	73
5.0	57
2.5	46
2.0	--
1.25	43
0.840	--
0.630	32
0.420	--
0.315	25
0.160	19
0.150	--
0.080	14

M.C. (%) : 7

M.C. (%) : 4

M.C. (%) : 6

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

% GRAVEL: 51
 % SAND: 34
 % FINES: 15

% GRAVEL: 64
 % SAND: 28
 % FINES: 8

% GRAVEL: 43
 % SAND: 43
 % FINES: 14

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 244-24
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1913+850 O/S 2M LT
 LOGGED BY: TF DATE COMPLETED: 93.09.04

FIELD NO: 70
 LAB NO: 1019
 DEPTH: 0.9-1.1
 TYPE: AUGER

FIELD NO: 71
 LAB NO: 1020
 DEPTH: 2.8-3.0
 TYPE: AUGER

FIELD NO: 72
 LAB NO: 1021
 DEPTH: 4.2-4.4
 TYPE: AUGER

FIELD NO: 73
 LAB NO: 1022
 DEPTH: 6.0-6.2
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	86
20.0	77
12.5	71
10.0	68
5.0	60
2.5	52
2.0	--
1.25	45
0.840	--
0.630	40
0.420	--
0.315	35
0.160	31
0.150	--
0.080	28

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	97
12.5	97
10.0	95
5.0	90
2.5	86
2.0	--
1.25	83
0.840	--
0.630	80
0.420	--
0.315	76
0.160	74
0.150	--
0.080	71

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	100
5.0	100
2.5	99
2.0	--
1.25	98
0.840	--
0.630	96
0.420	--
0.315	95
0.160	94
0.150	--
0.080	92

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	100
10.0	100
5.0	99
2.5	99
2.0	--
1.25	97
0.840	--
0.630	96
0.420	--
0.315	95
0.160	94
0.150	--
0.080	93

M.C. (%) : 9

M.C. (%) : 30

M.C. (%) : 38

M.C. (%) : 31

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: 27.1
 PLASTIC: 24.3
 P.I.: 2.8

% GRAVEL: 40
 % SAND: 32
 % FINES: 28

% GRAVEL: 10
 % SAND: 19
 % FINES: 71

% GRAVEL: 0
 % SAND: 8
 % FINES: 92

% GRAVEL: 1
 % SAND: 7
 % FINES: 93

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILT WITH SAND
 (ML)

CLASSIFICATION:
 SILT (ML)

CLASSIFICATION:
 SILT (ML)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 244-28
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1914+850 O/S 3M LT
 LOGGED BY: TF DATE COMPLETED: 93.09.04

FIELD NO: 80
 LAB NO: 1029
 DEPTH: 0.9-1.1
 TYPE: AUGER

FIELD NO: 81
 LAB NO: 1030
 DEPTH: 2.4-2.6
 TYPE: AUGER

FIELD NO: 82
 LAB NO: 1031
 DEPTH: 4.0-4.2
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	93
20.0	93
12.5	91
10.0	84
5.0	76
2.5	71
2.0	--
1.25	68
0.840	--
0.630	64
0.420	--
0.315	60
0.160	56
0.150	--
0.080	51

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	89
10.0	87
5.0	80
2.5	72
2.0	--
1.25	66
0.840	--
0.630	60
0.420	--
0.315	51
0.160	42
0.150	--
0.080	35

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	88
20.0	85
12.5	78
10.0	75
5.0	70
2.5	66
2.0	--
1.25	62
0.840	--
0.630	58
0.420	--
0.315	52
0.160	46
0.150	--
0.080	39

M.C. (%) : 16

M.C. (%) : 12

M.C. (%) : 12

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: TRACE

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 24
 % SAND: 25
 % FINES: 51

% GRAVEL: 20
 % SAND: 45
 % FINES: 35

% GRAVEL: 30
 % SAND: 31
 % FINES: 39

CLASSIFICATION:
 SANDY SILT WITH
 GRAVEL (ML)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 245-33
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1915+375
 LOGGED BY: TF DATE COMPLETED: 93.09.07

FIELD NO: 91
 LAB NO: 1040
 DEPTH: 1.2-1.4
 TYPE: AUGER

FIELD NO: 92
 LAB NO: 1041
 DEPTH: 2.8-3.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	92
20.0	77
12.5	77
10.0	70
5.0	66
2.5	62
2.0	--
1.25	59
0.840	--
0.630	57
0.420	--
0.315	52
0.160	47
0.150	--
0.080	44

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	90
20.0	90
12.5	90
10.0	88
5.0	82
2.5	76
2.0	--
1.25	72
0.840	--
0.630	68
0.420	--
0.315	62
0.160	57
0.150	--
0.080	53

M.C. (%): 21

M.C. (%): 20

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 34
 % SAND: 22
 % FINES: 44

% GRAVEL: 18
 % SAND: 29
 % FINES: 53

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SANDY SILT WITH
 GRAVEL (ML)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 245-34
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1909+900 O/S 18M RT
 LOGGED BY: TF DATE COMPLETED: 93.09.07

FIELD NO:	LAB NO:	DEPTH:	TYPE:
93	1042	0.9-1.1	AUGER
94	1043	1.9-2.1	AUGER
95	1044	3.8-4.0	AUGER
96	1045	6.8-7.0	AUGER

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	--	100.0	--	100.0	--	100.0	--
80.0	--	80.0	100	80.0	--	80.0	--
50.0	100	50.0	84	50.0	--	50.0	--
31.5	--	31.5	--	31.5	--	31.5	--
25.0	89	25.0	70	25.0	--	25.0	--
20.0	77	20.0	59	20.0	100	20.0	100
12.5	65	12.5	46	12.5	98	12.5	99
10.0	59	10.0	33	10.0	98	10.0	97
5.0	45	5.0	19	5.0	97	5.0	89
2.5	37	2.5	15	2.5	96	2.5	81
2.0	--	2.0	--	2.0	--	2.0	--
1.25	32	1.25	14	1.25	95	1.25	75
0.840	--	0.840	--	0.840	--	0.840	--
0.630	28	0.630	13	0.630	94	0.630	69
0.420	--	0.420	--	0.420	--	0.420	--
0.315	24	0.315	11	0.315	93	0.315	63
0.160	21	0.160	9	0.160	91	0.160	57
0.150	--	0.150	--	0.150	--	0.150	--
0.080	17	0.080	8	0.080	87	0.080	52

M.C. (%): 5 M.C. (%): 4 M.C. (%): 19 M.C. (%): 19

LIMITS		LIMITS		LIMITS		LIMITS	
LIQUID:	--	LIQUID:	--	LIQUID:	--	LIQUID:	21.9
PLASTIC:	--	PLASTIC:	--	PLASTIC:	--	PLASTIC:	15.1
P.I.:	N.P.	P.I.:	N.P.	P.I.:	N.P.	P.I.:	6.8

% GRAVEL:	55	% GRAVEL:	81	% GRAVEL:	3	% GRAVEL:	11
% SAND:	28	% SAND:	11	% SAND:	11	% SAND:	36
% FINES:	17	% FINES:	8	% FINES:	87	% FINES:	52

CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT (GP-GM)	CLASSIFICATION:	SILT (ML)	CLASSIFICATION:	SANDY SILTY CLAY (CL-ML)
-----------------	-----------------------------	-----------------	--	-----------------	-----------	-----------------	--------------------------

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 245-41
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1904+600
 LOGGED BY: TF DATE COMPLETED: 93.09.08

FIELD NO: 105
 LAB NO: 1054
 DEPTH: 0.9-1.1
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	83
20.0	64
12.5	38
10.0	26
5.0	12
2.5	7
2.0	--
1.25	6
0.840	--
0.630	6
0.420	--
0.315	5
0.160	5
0.150	--
0.080	4

M.C. (%): 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 88
 % SAND: 8
 % FINES: 4

CLASSIFICATION:
 WELL-GRADED
 GRAVEL (GW)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 245-45
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1895+000 O/S 4M RT
 LOGGED BY: TF DATE COMPLETED: 93.09.10

FIELD NO: 111
 LAB NO: 1060
 DEPTH: 0.9-1.1
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	78
20.0	67
12.5	54
10.0	51
5.0	43
2.5	38
2.0	--
1.25	33
0.840	--
0.630	29
0.420	--
0.315	22
0.160	13
0.150	--
0.080	7

M.C. (%) : 6

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 57
 % SAND: 36
 % FINES: 7

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 245-46
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1895+000
 LOGGED BY: TF DATE COMPLETED: 93.09.10

FIELD NO: 112
 LAB NO: 1061
 DEPTH: 0.9-1.1
 TYPE: AUGER

FIELD NO: 113
 LAB NO: 1062
 DEPTH: 1.9-2.1
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	99
2.0	--
1.25	99
0.840	--
0.630	98
0.420	--
0.315	95
0.160	79
0.150	--
0.080	61

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	97
2.0	--
1.25	94
0.840	--
0.630	91
0.420	--
0.315	88
0.160	84
0.150	--
0.080	78

M.C. (%) : 33

M.C. (%) : 45

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 39
 % FINES: 61

% GRAVEL: 0
 % SAND: 22
 % FINES: 78

CLASSIFICATION:
 SANDY SILT (ML)

CLASSIFICATION:
 SILT WITH SAND
 (ML)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 245-47
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1894+900
 LOGGED BY: TF DATE COMPLETED: 93.09.10

FIELD NO: 114
 LAB NO: 1063
 DEPTH: 1.8-2.0
 TYPE: AUGER

FIELD NO: 115
 LAB NO: 1064
 DEPTH: 3.0-3.2
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	97
20.0	89
12.5	80
10.0	71
5.0	51
2.5	40
2.0	--
1.25	31
0.840	--
0.630	23
0.420	--
0.315	15
0.160	10
0.150	--
0.080	7

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	96
20.0	91
12.5	80
10.0	69
5.0	47
2.5	38
2.0	--
1.25	32
0.840	--
0.630	27
0.420	--
0.315	21
0.160	16
0.150	--
0.080	13

M.C. (%) : 6

M.C. (%) : 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 49
 % SAND: 44
 % FINES: 7

% GRAVEL: 53
 % SAND: 34
 % FINES: 13

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 245-48
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1894+800
 LOGGED BY: TF DATE COMPLETED: 93.09.10

FIELD NO: 116
 LAB NO: 1065
 DEPTH: 0.9-1.1
 TYPE: AUGER

FIELD NO: 117
 LAB NO: 1066
 DEPTH: 2.9-3.1
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	92
20.0	84
12.5	70
10.0	60
5.0	43
2.5	33
2.0	--
1.25	26
0.840	--
0.630	20
0.420	--
0.315	15
0.160	12
0.150	--
0.080	10

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	81
20.0	62
12.5	48
10.0	39
5.0	16
2.5	9
2.0	--
1.25	7
0.840	--
0.630	6
0.420	--
0.315	5
0.160	4
0.150	--
0.080	3

M.C. (%) : 4

M.C. (%) : 2

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 57
 % SAND: 33
 % FINES: 10

% GRAVEL: 84
 % SAND: 13
 % FINES: 3

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL (GW)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 245-49
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1894+700
 LOGGED BY: TF DATE COMPLETED: 93.09.10

FIELD NO: 118
 LAB NO: 1067
 DEPTH: 0.8-1.0
 TYPE: AUGER
 ORGANIC

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	97
2.0	--
1.25	91
0.840	--
0.630	85
0.420	--
0.315	80
0.160	74
0.150	--
0.080	69

M.C. (%) : 102

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 31
 % FINES: 69

CLASSIFICATION:
 SANDY SILT (ML)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 245-50
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1894+600
 LOGGED BY: TF DATE COMPLETED: 93.09.11

FIELD NO: 119
 LAB NO: 1068
 DEPTH: 1.2-1.4
 TYPE: AUGER

FIELD NO: 120
 LAB NO: 1069
 DEPTH: 2.0-2.2
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	100
2.0	--
1.25	99
0.840	--
0.630	98
0.420	--
0.315	97
0.160	95
0.150	--
0.080	87

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	98
2.0	--
1.25	97
0.840	--
0.630	96
0.420	--
0.315	94
0.160	89
0.150	--
0.080	75

M.C. (%) : 88

M.C. (%) : 39

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 13
 % FINES: 87

% GRAVEL: 0
 % SAND: 25
 % FINES: 75

CLASSIFICATION:
 SILT (ML)

CLASSIFICATION:
 SILT WITH SAND
 (ML)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 245-52
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1894+400 O/S 6M LT
 LOGGED BY: TF DATE COMPLETED: 93.09.11

FIELD NO: 121
 LAB NO: 1070
 DEPTH: 1.3-1.5
 TYPE: AUGER

FIELD NO: 122
 LAB NO: 1071
 DEPTH: 2.4-2.6
 TYPE: AUGER

FIELD NO: 123
 LAB NO: 1072
 DEPTH: 4.6-4.8
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	63
20.0	48
12.5	28
10.0	22
5.0	13
2.5	11
2.0	--
1.25	9
0.840	--
0.630	8
0.420	--
0.315	7
0.160	5
0.150	--
0.080	4

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	93
20.0	93
12.5	93
10.0	92
5.0	91
2.5	90
2.0	--
1.25	88
0.840	--
0.630	87
0.420	--
0.315	83
0.160	76
0.150	--
0.080	62

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	67
20.0	49
12.5	35
10.0	31
5.0	26
2.5	24
2.0	--
1.25	22
0.840	--
0.630	21
0.420	--
0.315	19
0.160	16
0.150	--
0.080	13

M.C. (%) : 3

M.C. (%) : 26

M.C. (%) : 6

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 87
 % SAND: 9
 % FINES: 4

% GRAVEL: 9
 % SAND: 29
 % FINES: 62

% GRAVEL: 74
 % SAND: 13
 % FINES: 13

CLASSIFICATION:
 POORLY GRADED
 GRAVEL (GP)

CLASSIFICATION:
 SANDY SILT (ML)

CLASSIFICATION:
 SILTY GRAVEL (GM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 245-53
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1894+300 O/S 5M RT
 LOGGED BY: TF DATE COMPLETED: 93.09.11

FIELD NO: 124
 LAB NO: 1073
 DEPTH: 0.9-1.1
 TYPE: AUGER

FIELD NO: 125
 LAB NO: 1074
 DEPTH: 2.9-3.1
 TYPE: AUGER

FIELD NO: 126
 LAB NO: 1075
 DEPTH: 4.7-4.9
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	49
20.0	35
12.5	28
10.0	24
5.0	18
2.5	15
2.0	--
1.25	13
0.840	--
0.630	12
0.420	--
0.315	10
0.160	9
0.150	--
0.080	8

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	86
20.0	71
12.5	42
10.0	32
5.0	24
2.5	23
2.0	--
1.25	22
0.840	--
0.630	21
0.420	--
0.315	19
0.160	14
0.150	--
0.080	10

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	86
20.0	77
12.5	64
10.0	58
5.0	48
2.5	41
2.0	--
1.25	37
0.840	--
0.630	33
0.420	--
0.315	27
0.160	19
0.150	--
0.080	13

M.C. (%) : 5

M.C. (%) : 7

M.C. (%) : 6

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 82
 % SAND: 10
 % FINES: 8

% GRAVEL: 76
 % SAND: 13
 % FINES: 10

% GRAVEL: 52
 % SAND: 34
 % FINES: 13

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 (GP-GM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 (GP-GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 245-54
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1894+200 O/S 5M RT
 LOGGED BY: TF DATE COMPLETED: 93.09.11

FIELD NO: 127
 LAB NO: 1076
 DEPTH: 0.8-1.0
 TYPE: AUGER

FIELD NO: 128
 LAB NO: 1077
 DEPTH: 1.9-2.1
 TYPE: AUGER

FIELD NO: 129
 LAB NO: 1078
 DEPTH: 4.6-4.8
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	92
20.0	81
12.5	75
10.0	68
5.0	55
2.5	47
2.0	--
1.25	40
0.840	--
0.630	31
0.420	--
0.315	21
0.160	14
0.150	--
0.080	11

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	98
10.0	96
5.0	89
2.5	85
2.0	--
1.25	82
0.840	--
0.630	79
0.420	--
0.315	75
0.160	66
0.150	--
0.080	46

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	65
20.0	55
12.5	41
10.0	37
5.0	30
2.5	27
2.0	--
1.25	25
0.840	--
0.630	22
0.420	--
0.315	20
0.160	17
0.150	--
0.080	13

M.C. (%) : 8

M.C. (%) : 20

M.C. (%) : 6

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 45
 % SAND: 45
 % FINES: 11

% GRAVEL: 11
 % SAND: 43
 % FINES: 46

% GRAVEL: 70
 % SAND: 17
 % FINES: 13

CLASSIFICATION:
 POORLY GRADED
 SAND WITH SILT &
 GRAVEL (SP-SM)

CLASSIFICATION:
 SILTY SAND (SM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 245-55
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1894+100
 LOGGED BY: TF DATE COMPLETED: 93.09.11

FIELD NO: 130
 LAB NO: 1079
 DEPTH: 0.8-1.0
 TYPE: AUGER

FIELD NO: 131
 LAB NO: 1080
 DEPTH: 2.9-3.1
 TYPE: AUGER

FIELD NO: 132
 LAB NO: 1081
 DEPTH: 4.8-5.0
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	61
20.0	59
12.5	52
10.0	48
5.0	37
2.5	30
2.0	--
1.25	24
0.840	--
0.630	19
0.420	--
0.315	13
0.160	9
0.150	--
0.080	7

M.C. (%) : 9

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 63
 % SAND: 30
 % FINES: 7

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	85
20.0	68
12.5	50
10.0	43
5.0	28
2.5	21
2.0	--
1.25	16
0.840	--
0.630	13
0.420	--
0.315	9
0.160	7
0.150	--
0.080	5

M.C. (%) : 4

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 72
 % SAND: 23
 % FINES: 5

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	95
20.0	85
12.5	63
10.0	55
5.0	39
2.5	31
2.0	--
1.25	25
0.840	--
0.630	20
0.420	--
0.315	16
0.160	13
0.150	--
0.080	10

M.C. (%) : 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 61
 % SAND: 29
 % FINES: 10

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 245-56
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1894+000 O/S 7M RT
 LOGGED BY: TF DATE COMPLETED: 93.09.11

FIELD NO: 133
 LAB NO: 1082
 DEPTH: 1.2-1.4
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	98
2.0	--
1.25	97
0.840	--
0.630	95
0.420	--
0.315	93
0.160	90
0.150	--
0.080	84

M.C. (%): 39

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 16
 % FINES: 84

CLASSIFICATION:
 SILT WITH SAND
 (ML)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 245-57
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: CME 750
 HOLE LOCATION: 1893+900
 LOGGED BY: TF DATE COMPLETED: 93.09.11

FIELD NO: 134
 LAB NO: 1083
 DEPTH: 0.9-1.1
 TYPE: AUGER
 ORGANIC

FIELD NO: 135
 LAB NO: 1084
 DEPTH: 4.2-4.4
 TYPE: AUGER

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	95
10.0	91
5.0	81
2.5	75
2.0	--
1.25	68
0.840	--
0.630	63
0.420	--
0.315	56
0.160	48
0.150	--
0.080	40

M.C. (%) : 43

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 19
 % SAND: 41
 % FINES: 40

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	94
10.0	88
5.0	77
2.5	71
2.0	--
1.25	65
0.840	--
0.630	61
0.420	--
0.315	56
0.160	49
0.150	--
0.080	41

M.C. (%) : 26

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 23
 % SAND: 36
 % FINES: 41

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 257-16
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1897+150 O/S 10M RT
 LOGGED BY: DT DATE COMPLETED: 93.09.30

FIELD NO: 50
 LAB NO: 1570
 DEPTH: 2.1-2.5
 TYPE: BULK

FIELD NO: 51
 LAB NO: 1569
 DEPTH: 4.6-5.0
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	81
31.5	--
25.0	67
20.0	62
12.5	56
10.0	53
5.0	42
2.5	35
2.0	--
1.25	28
0.840	--
0.630	23
0.420	--
0.315	18
0.160	14
0.150	--
0.080	9

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	97
20.0	88
12.5	78
10.0	72
5.0	61
2.5	55
2.0	--
1.25	51
0.840	--
0.630	48
0.420	--
0.315	43
0.160	34
0.150	--
0.080	25

M.C. (%) : 6

M.C. (%) : 10

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 58
 % SAND: 33
 % FINES: 9

% GRAVEL: 39
 % SAND: 36
 % FINES: 25

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 257-17
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1897+450 O/S 30M RT
 LOGGED BY: DT DATE COMPLETED: 93.09.30

FIELD NO: 52
 LAB NO: 1571
 DEPTH: 1.8-2.2
 TYPE: BULK

FIELD NO: 53
 LAB NO: 1572
 DEPTH: 4.2-4.6
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	100
50.0	78
31.5	--
25.0	72
20.0	67
12.5	59
10.0	55
5.0	46
2.5	40
2.0	--
1.25	37
0.840	--
0.630	34
0.420	--
0.315	31
0.160	27
0.150	--
0.080	23

M.C. (%) : 11

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 54
 % SAND: 23
 % FINES: 23

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	87
20.0	80
12.5	67
10.0	61
5.0	50
2.5	45
2.0	--
1.25	41
0.840	--
0.630	38
0.420	--
0.315	33
0.160	28
0.150	--
0.080	23

M.C. (%) : 7

LIMITS

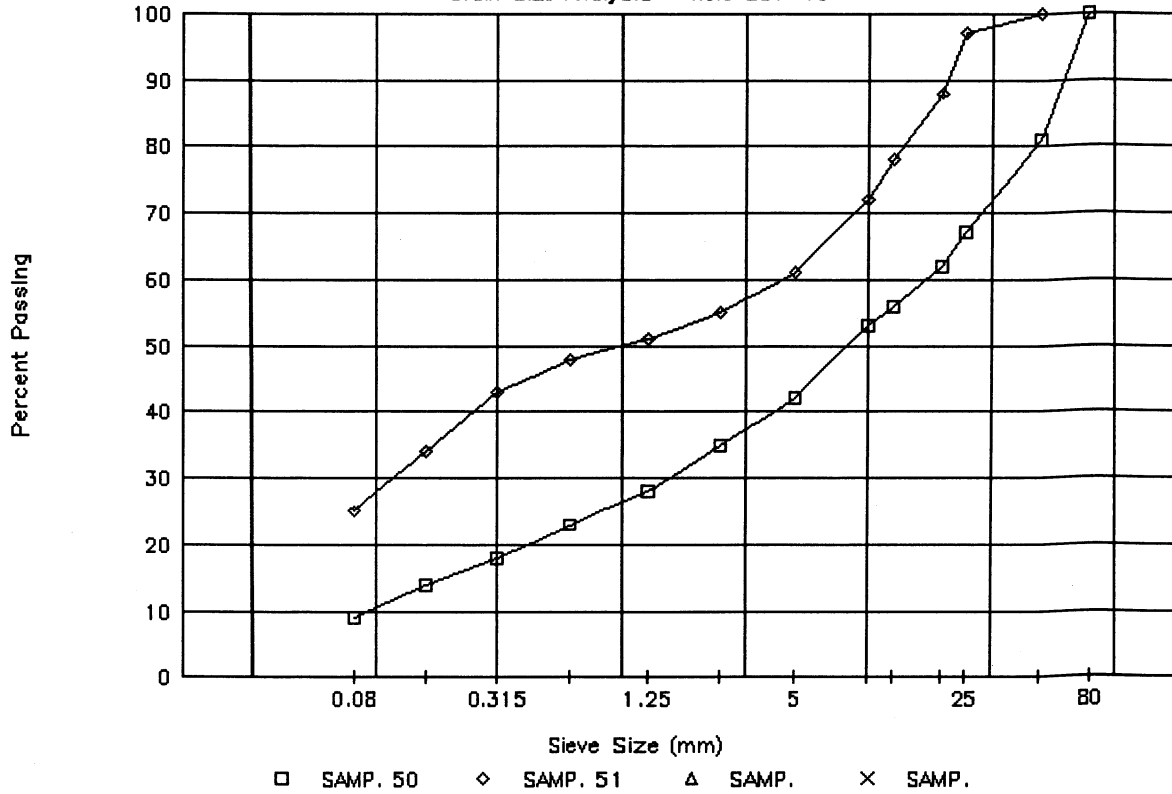
LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 50
 % SAND: 28
 % FINES: 23

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

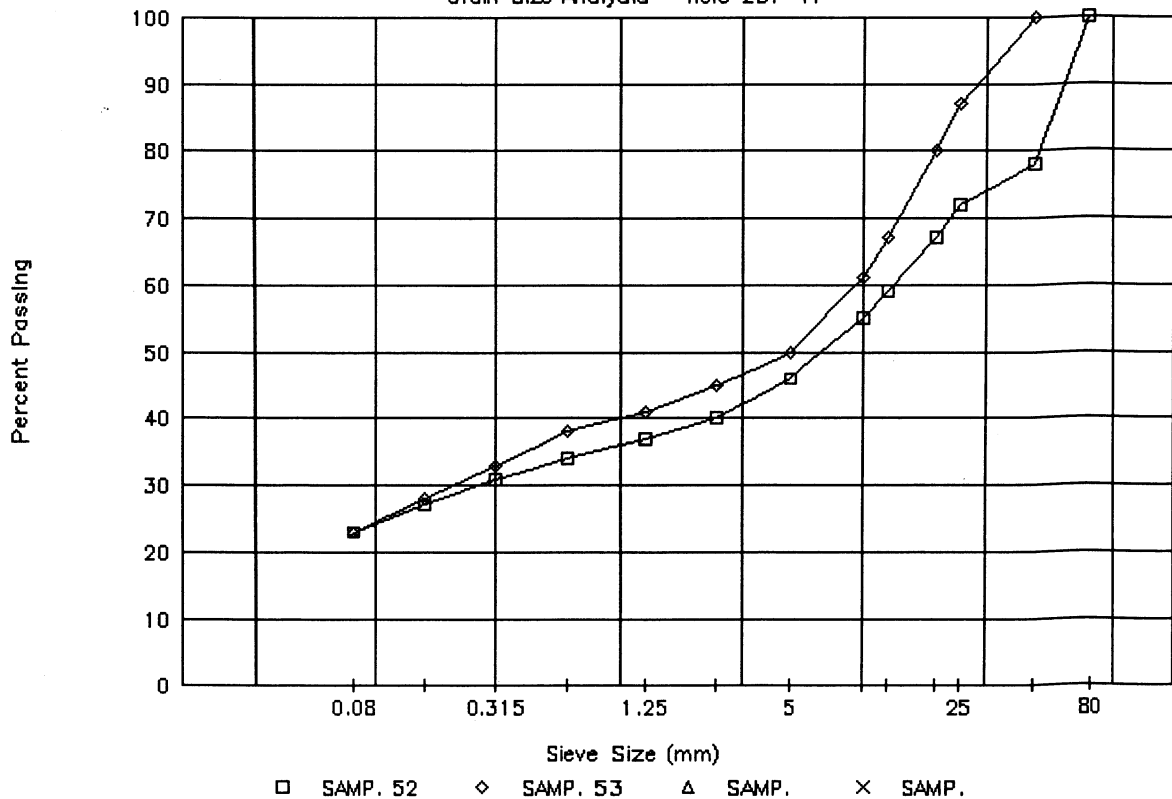
Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 257-16



Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 257-17



PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 257-18
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1897+750 O/S 20M RT
 LOGGED BY: DT DATE COMPLETED: 93.09.30

FIELD NO: 54
 LAB NO: 1573
 DEPTH: 2.8-3.2
 TYPE: BULK

FIELD NO: 55
 LAB NO: 1574
 DEPTH: 4.2-4.6
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	100
50.0	84
31.5	--
25.0	72
20.0	66
12.5	59
10.0	55
5.0	46
2.5	39
2.0	--
1.25	34
0.840	--
0.630	30
0.420	--
0.315	27
0.160	24
0.150	--
0.080	20

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	61
20.0	57
12.5	51
10.0	46
5.0	37
2.5	29
2.0	--
1.25	23
0.840	--
0.630	17
0.420	--
0.315	13
0.160	11
0.150	--
0.080	10

M.C. (%) : 9

M.C. (%) : 9

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 54
 % SAND: 26
 % FINES: 20

% GRAVEL: 63
 % SAND: 26
 % FINES: 10

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 257-19
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1898+900 O/S 20M RT
 LOGGED BY: DT DATE COMPLETED: 93.09.30

FIELD NO: 56
 LAB NO: 1575
 DEPTH: 1.9-2.3
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	89
20.0	83
12.5	70
10.0	65
5.0	57
2.5	53
2.0	--
1.25	49
0.840	--
0.630	45
0.420	--
0.315	41
0.160	35
0.150	--
0.080	29

M.C. (%): 10

LIMITS

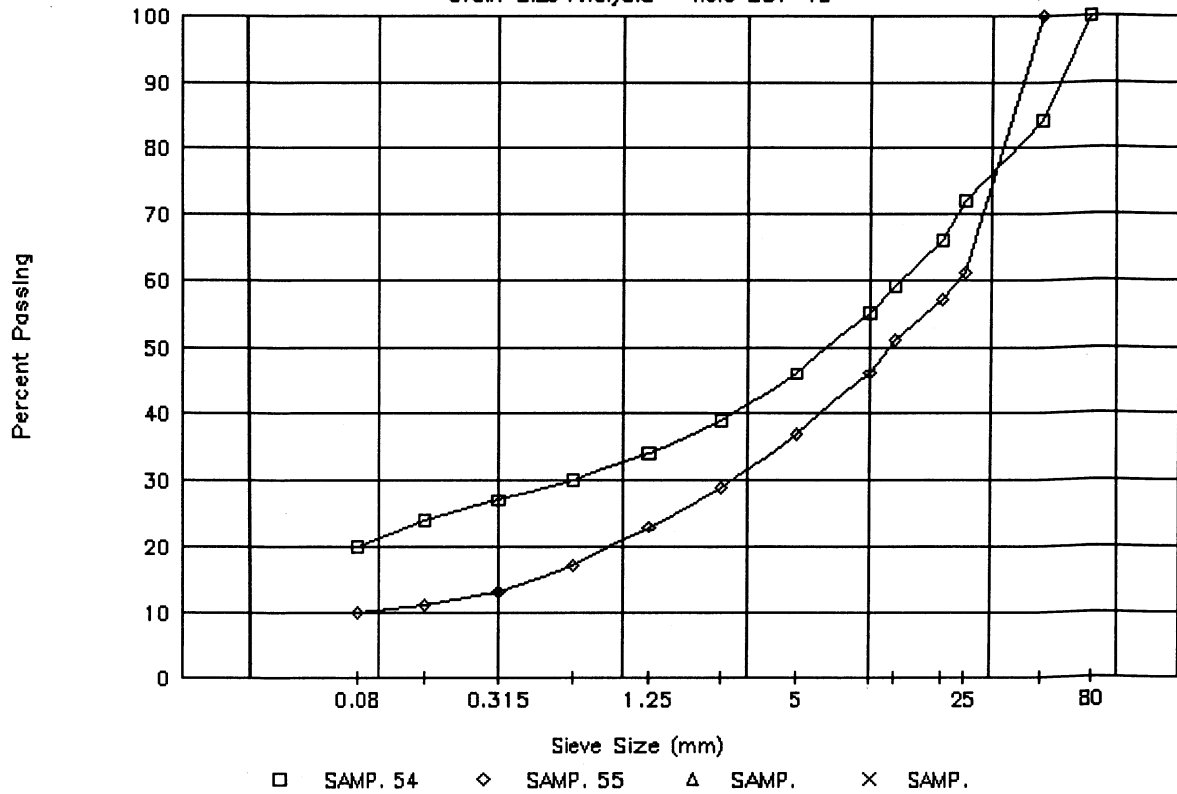
LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 43
 % SAND: 28
 % FINES: 29

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

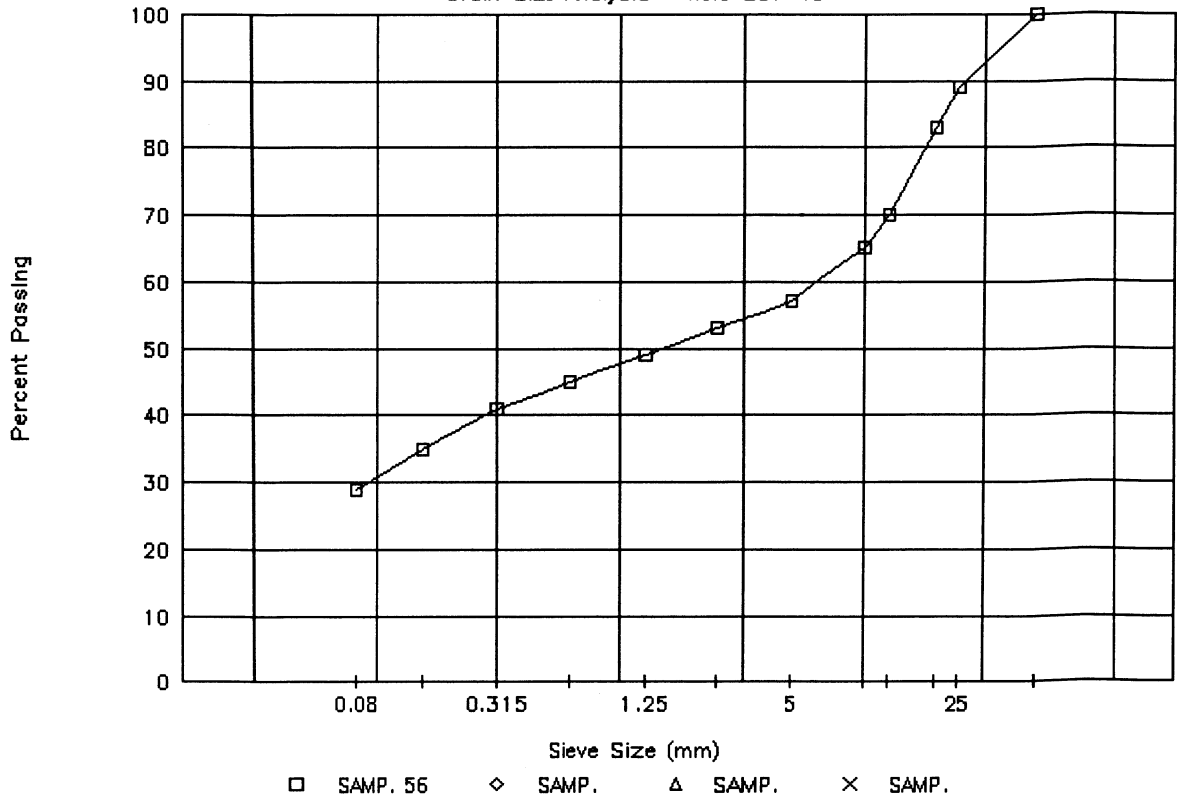
Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 257-18



Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 257-19



PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 257-20
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1899+100 O/S
 LOGGED BY: DT DATE COMPLETED: 93.09.30

FIELD NO: 57
 LAB NO: 1576
 DEPTH: 2.0-2.4
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	--
2.5	--
2.0	--
1.25	100
0.840	--
0.630	100
0.420	--
0.315	100
0.160	99
0.150	--
0.080	88

M.C.(%) : 31

LIMITS

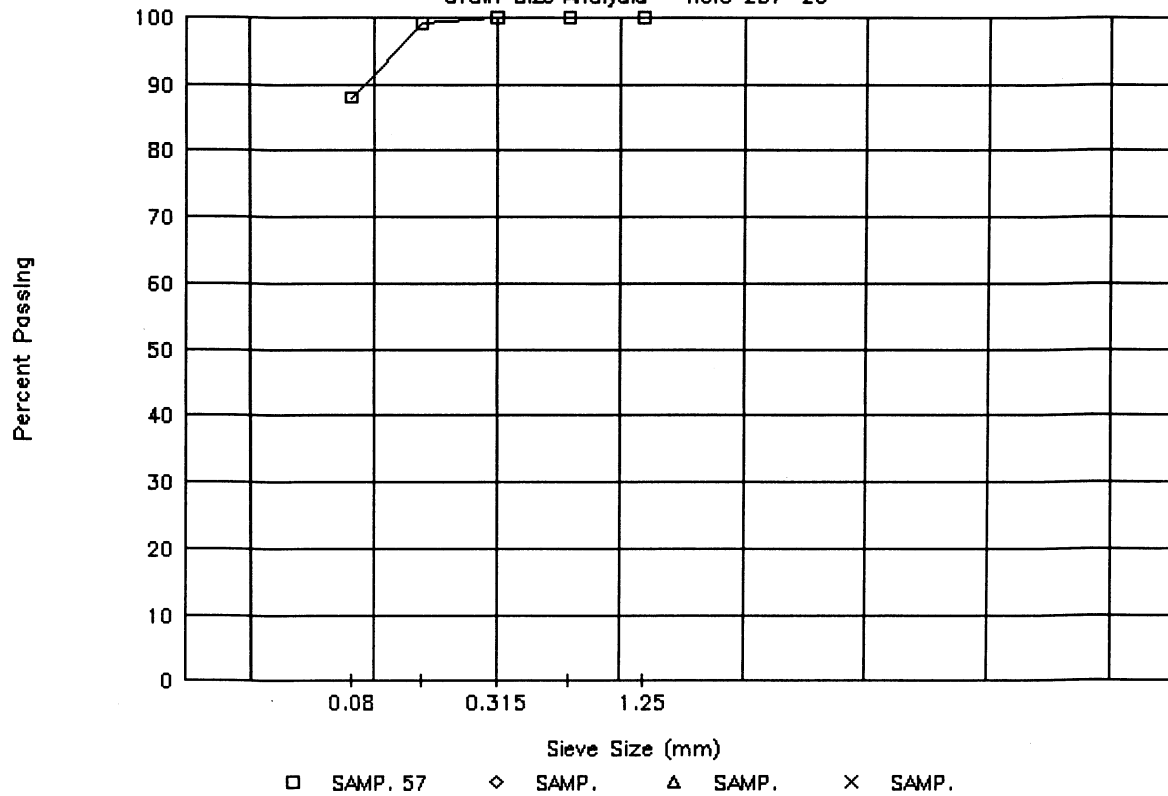
LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 12
 % FINES: 88

CLASSIFICATION:
 SILT (ML)

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 257-20



PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 257-22
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1899+500 O/S 25M RT
 LOGGED BY: DT DATE COMPLETED: 93.10.01

FIELD NO: 58
 LAB NO: 1788
 DEPTH: 1.2-1.4
 TYPE: BULK

FIELD NO: 59
 LAB NO: 1789
 DEPTH: 4.2-4.6
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	55
20.0	52
12.5	47
10.0	42
5.0	33
2.5	26
2.0	--
1.25	22
0.840	--
0.630	16
0.420	--
0.315	11
0.160	8
0.150	--
0.080	6

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	99
10.0	99
5.0	98
2.5	98
2.0	--
1.25	97
0.840	--
0.630	97
0.420	--
0.315	96
0.160	96
0.150	--
0.080	95

M.C. (%): 5

M.C. (%): 25

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 67
 % SAND: 26
 % FINES: 6

% GRAVEL: 2
 % SAND: 4
 % FINES: 95

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

CLASSIFICATION:
 SILT (ML)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 257-23
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1900+125 O/S 35M RT
 LOGGED BY: DT DATE COMPLETED: 93.10.01

FIELD NO: 60
 LAB NO: 1790
 DEPTH: 0.6-1.0
 TYPE: BULK

FIELD NO: 61
 LAB NO: 1791
 DEPTH: 4.0-4.4
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	35
20.0	33
12.5	27
10.0	24
5.0	18
2.5	13
2.0	--
1.25	9
0.840	--
0.630	6
0.420	--
0.315	5
0.160	4
0.150	--
0.080	4

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	88
31.5	--
25.0	59
20.0	51
12.5	39
10.0	35
5.0	24
2.5	17
2.0	--
1.25	11
0.840	--
0.630	8
0.420	--
0.315	4
0.160	3
0.150	--
0.080	2

M.C. (%): 4

M.C. (%): 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 82
 % SAND: 15
 % FINES: 4

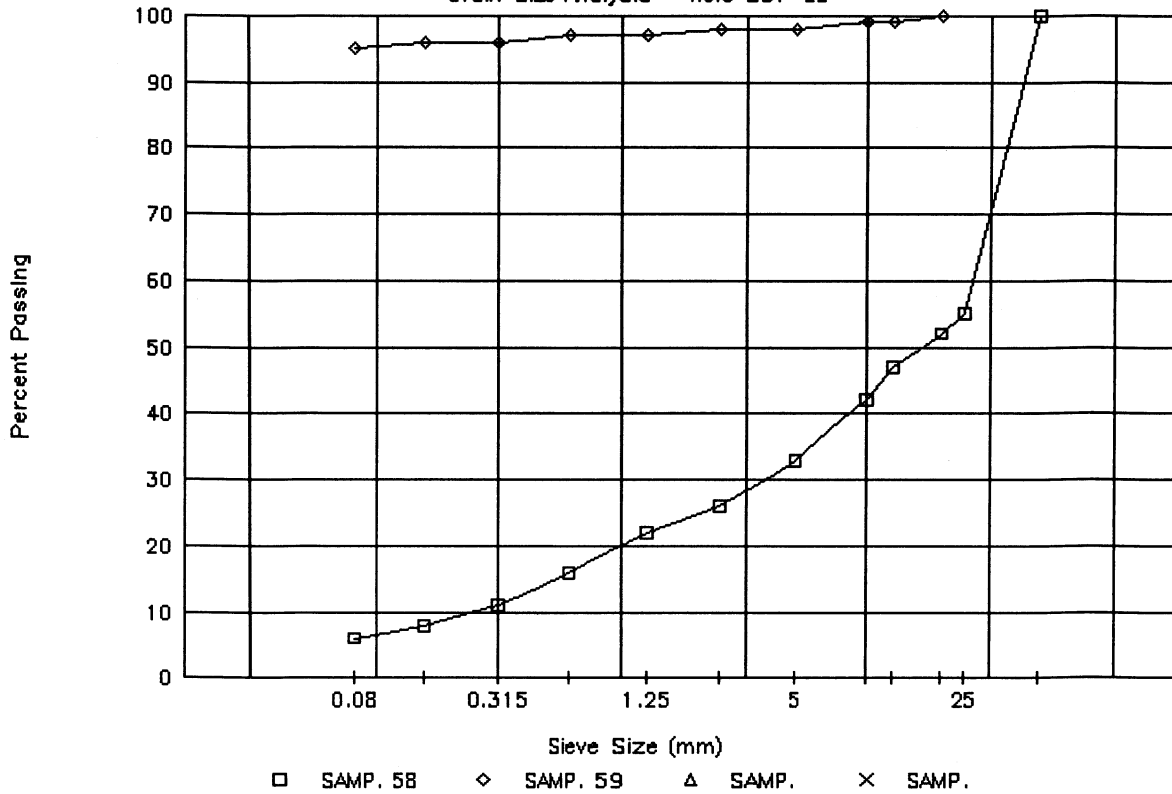
% GRAVEL: 76
 % SAND: 21
 % FINES: 2

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

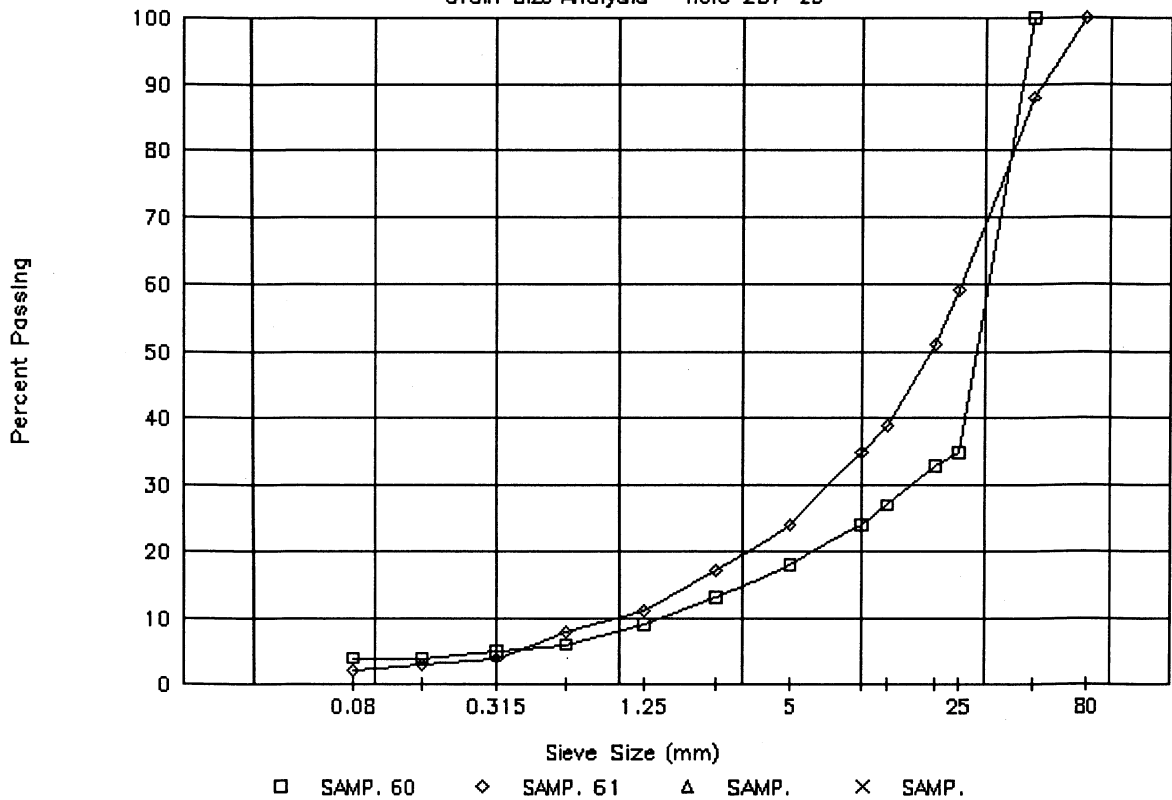
Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 257-22



Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 257-23



PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 257-24
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1900+250 O/S 15M RT
 LOGGED BY: DT DATE COMPLETED: 93.10.01

FIELD NO: 62
 LAB NO: 1792
 DEPTH: 1.6-2.0
 TYPE: BULK

FIELD NO: 63
 LAB NO: 1793
 DEPTH: 3.6-4.0
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	100
50.0	83
31.5	--
25.0	51
20.0	45
12.5	39
10.0	36
5.0	30
2.5	24
2.0	--
1.25	19
0.840	--
0.630	14
0.420	--
0.315	9
0.160	6
0.150	--
0.080	5

M.C. (%) : 5

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 70
 % SAND: 25
 % FINES: 5

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	100
50.0	81
31.5	--
25.0	67
20.0	59
12.5	47
10.0	41
5.0	29
2.5	23
2.0	--
1.25	17
0.840	--
0.630	13
0.420	--
0.315	8
0.160	5
0.150	--
0.080	4

M.C. (%) : 6

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 71
 % SAND: 26
 % FINES: 4

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 257-25
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1902+800 O/S 10M RT
 LOGGED BY: DT DATE COMPLETED: 93.10.01

FIELD NO: 64
 LAB NO: 1794
 DEPTH: 1.6-2.0
 TYPE: BULK

FIELD NO: 65
 LAB NO: 1795
 DEPTH: 4.4-4.8
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	88
20.0	80
12.5	66
10.0	59
5.0	42
2.5	30
2.0	--
1.25	21
0.840	--
0.630	15
0.420	--
0.315	9
0.160	5
0.150	--
0.080	4

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	82
20.0	76
12.5	58
10.0	50
5.0	35
2.5	25
2.0	--
1.25	17
0.840	--
0.630	12
0.420	--
0.315	7
0.160	4
0.150	--
0.080	3

M.C. (%) : 5

M.C. (%) : 3

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 58
 % SAND: 38
 % FINES: 4

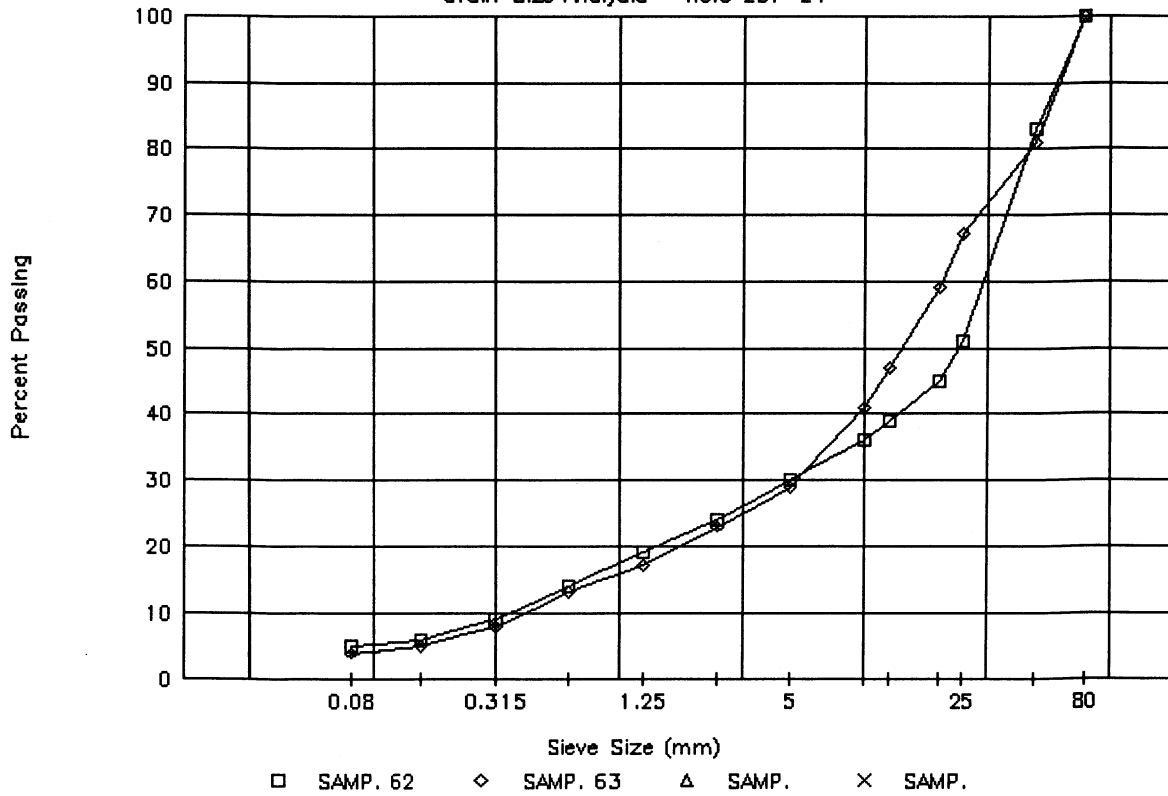
% GRAVEL: 65
 % SAND: 33
 % FINES: 3

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

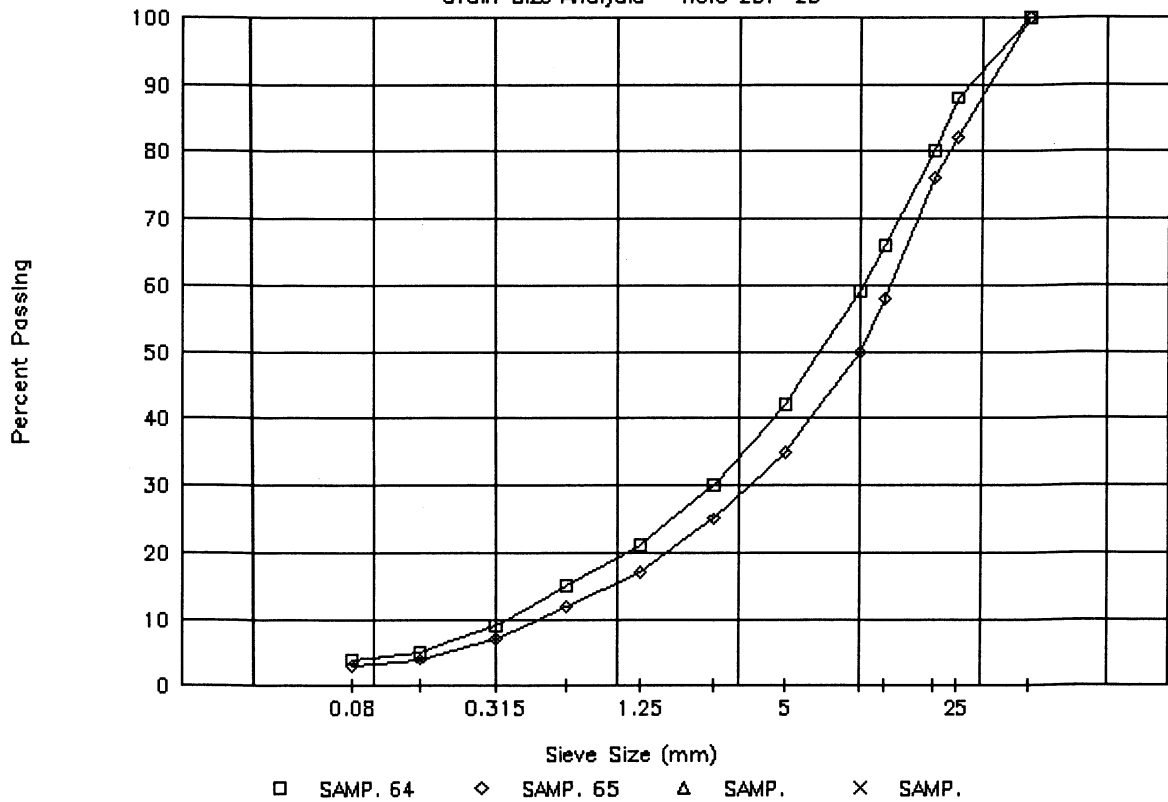
Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 257-24



Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 257-25



PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 257-26
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1902+950 O/S 10M RT
 LOGGED BY: DT DATE COMPLETED: 93.10.01

FIELD NO: 66
 LAB NO: 1796
 DEPTH: 1.1-1.5
 TYPE: BULK

FIELD NO: 67
 LAB NO: 1797
 DEPTH: 4.6-5.0
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	80
20.0	73
12.5	57
10.0	51
5.0	42
2.5	36
2.0	--
1.25	29
0.840	--
0.630	20
0.420	--
0.315	12
0.160	7
0.150	--
0.080	5

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	78
20.0	65
12.5	52
10.0	47
5.0	36
2.5	24
2.0	--
1.25	17
0.840	--
0.630	11
0.420	--
0.315	6
0.160	3
0.150	--
0.080	2

M.C. (%) : 2

M.C. (%) : 2

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 58
 % SAND: 37
 % FINES: 5

% GRAVEL: 64
 % SAND: 34
 % FINES: 2

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 257-27
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1903+050 O/S 15M RT
 LOGGED BY: DT DATE COMPLETED: 93.10.01

FIELD NO: 68
 LAB NO: 1798
 DEPTH: 0.8-1.2
 TYPE: BULK

FIELD NO: 69
 LAB NO: 1799
 DEPTH: 1.3-1.4
 TYPE: BULK

FIELD NO: 70
 LAB NO: 1800
 DEPTH: 4.3-4.7
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	100
50.0	77
31.5	--
25.0	63
20.0	62
12.5	50
10.0	45
5.0	32
2.5	25
2.0	--
1.25	18
0.840	--
0.630	13
0.420	--
0.315	10
0.160	8
0.150	--
0.080	7

M.C. (%): 6

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 68
 % SAND: 25
 % FINES: 7

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	97
12.5	95
10.0	94
5.0	92
2.5	90
2.0	--
1.25	86
0.840	--
0.630	70
0.420	--
0.315	11
0.160	3
0.150	--
0.080	2

M.C. (%): 18

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 8
 % SAND: 89
 % FINES: 2

CLASSIFICATION:
 POORLY GRADED
 SAND (SP)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	67
20.0	63
12.5	50
10.0	45
5.0	32
2.5	24
2.0	--
1.25	18
0.840	--
0.630	13
0.420	--
0.315	7
0.160	4
0.150	--
0.080	3

M.C. (%): 2

LIMITS

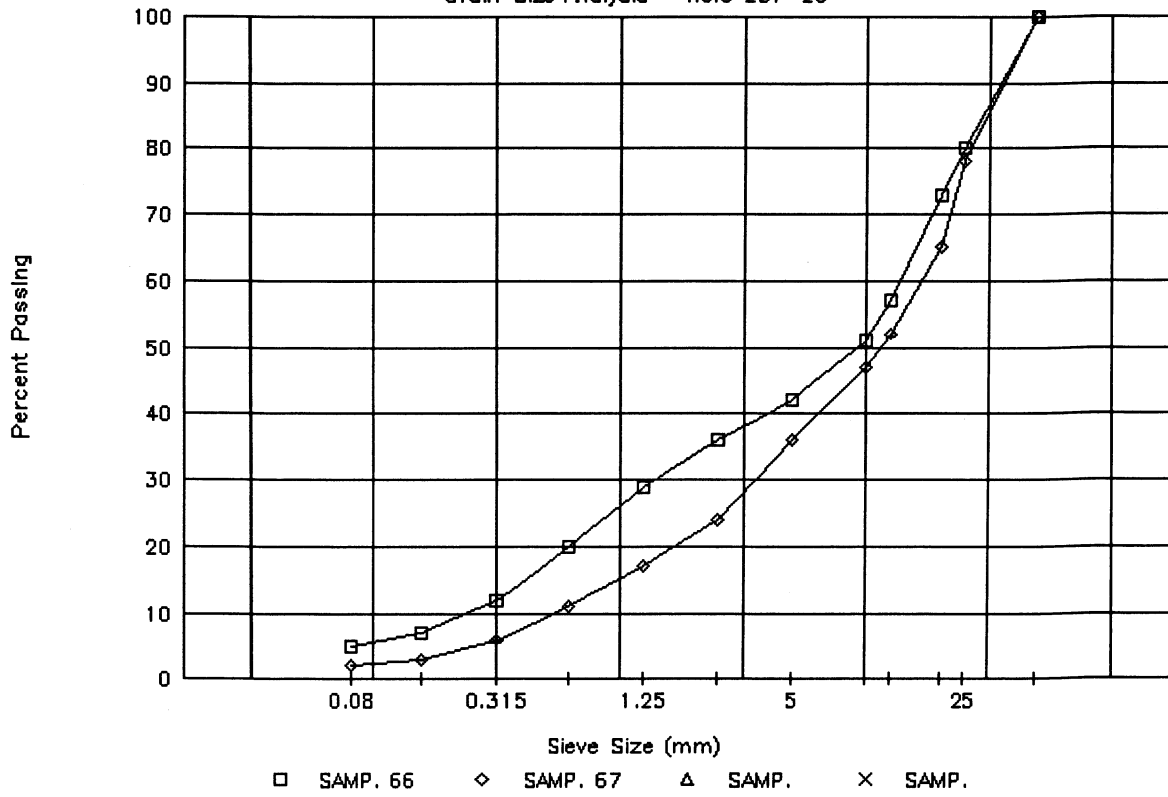
LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 68
 % SAND: 30
 % FINES: 3

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

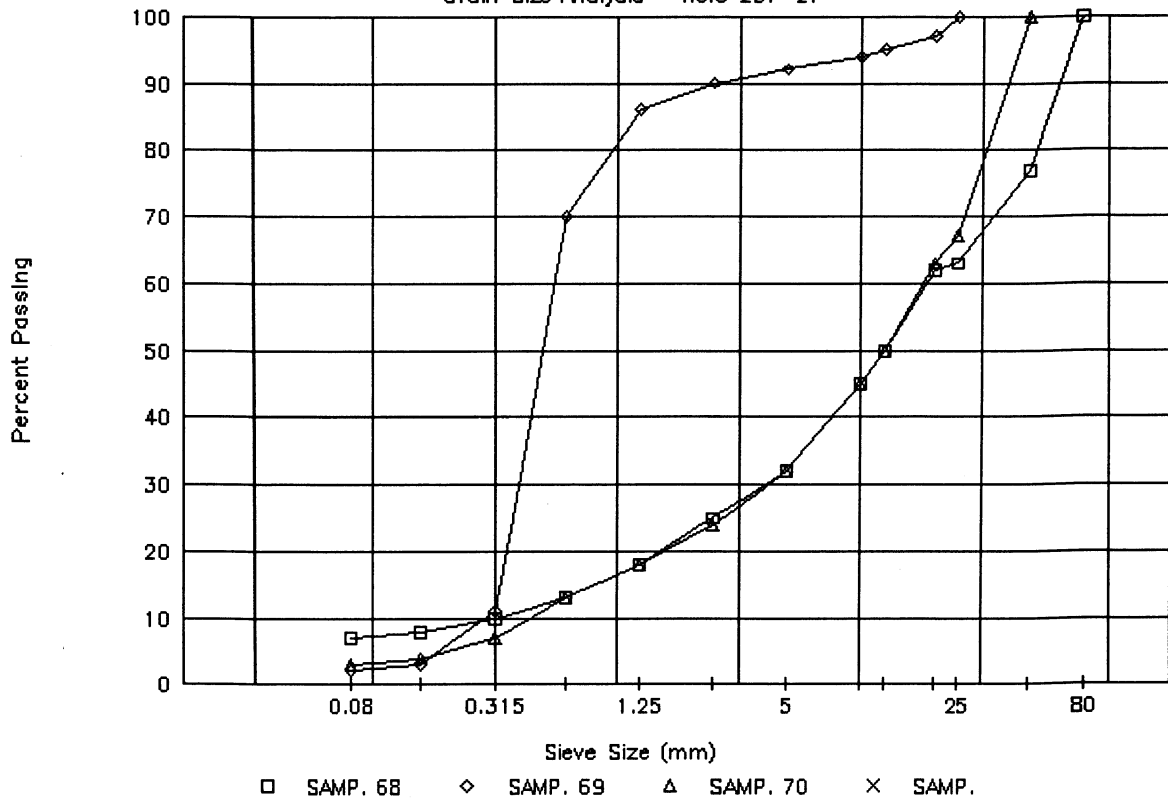
Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 257-26



Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 257-27



PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 257-28
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1903+150 O/S 15M RT
 LOGGED BY: DT DATE COMPLETED: 93.10.01

FIELD NO: 71
 LAB NO: 1801
 DEPTH: 0.6-1.0
 TYPE: BULK

FIELD NO: 72
 LAB NO: 1802
 DEPTH: 4.0-4.4
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	77
31.5	--
25.0	50
20.0	48
12.5	40
10.0	38
5.0	33
2.5	29
2.0	--
1.25	25
0.840	--
0.630	20
0.420	--
0.315	8
0.160	5
0.150	--
0.080	3

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	94
20.0	91
12.5	89
10.0	86
5.0	81
2.5	78
2.0	--
1.25	75
0.840	--
0.630	72
0.420	--
0.315	68
0.160	58
0.150	--
0.080	43

M.C. (%): 7

M.C. (%): 11

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 67
 % SAND: 30
 % FINES: 3

% GRAVEL: 19
 % SAND: 38
 % FINES: 43

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 257-29
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1903+250 O/S 10M RT
 LOGGED BY: DT DATE COMPLETED: 93.10.01

FIELD NO: 73
 LAB NO: 1803
 DEPTH: 1.0-1.4
 TYPE: BULK

FIELD NO: 74
 LAB NO: 1804
 DEPTH: 4.4-4.8
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	73
20.0	61
12.5	50
10.0	43
5.0	31
2.5	25
2.0	--
1.25	22
0.840	--
0.630	18
0.420	--
0.315	11
0.160	5
0.150	--
0.080	3

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	62
20.0	62
12.5	51
10.0	48
5.0	37
2.5	31
2.0	--
1.25	26
0.840	--
0.630	19
0.420	--
0.315	10
0.160	6
0.150	--
0.080	4

M.C. (%): 2

M.C. (%): 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 69
 % SAND: 28
 % FINES: 3

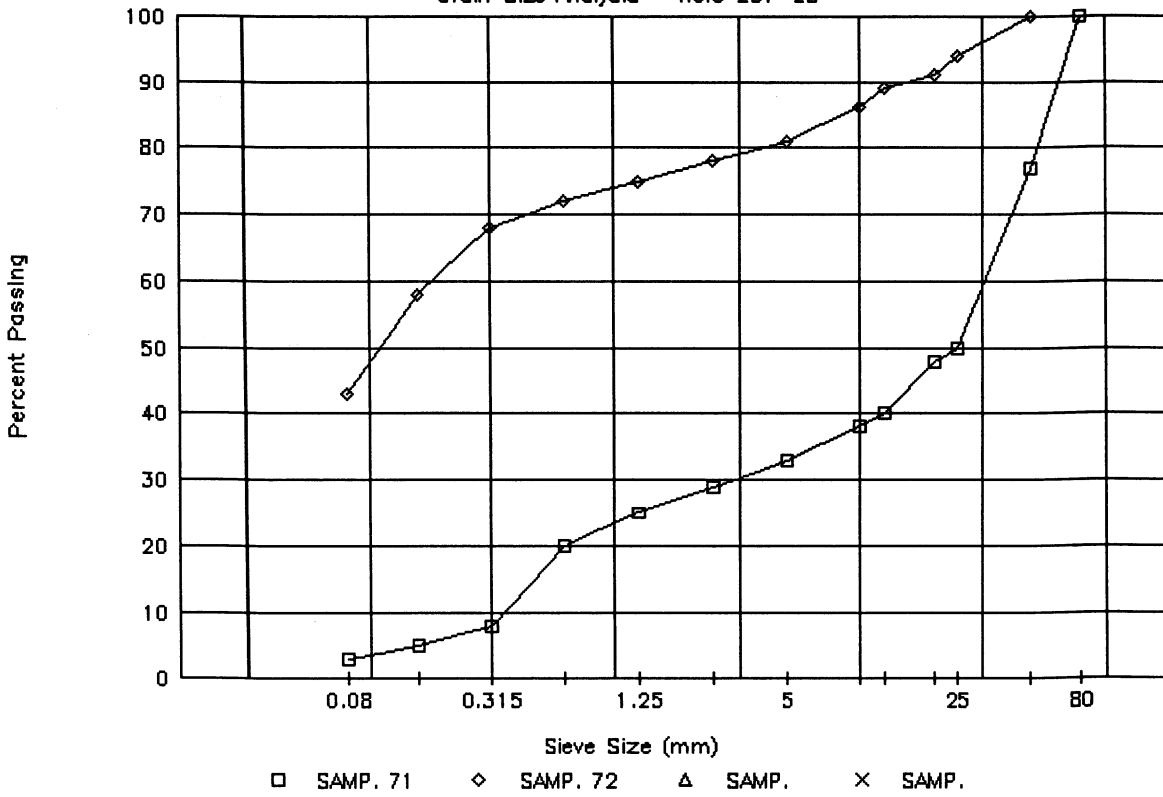
% GRAVEL: 63
 % SAND: 34
 % FINES: 4

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

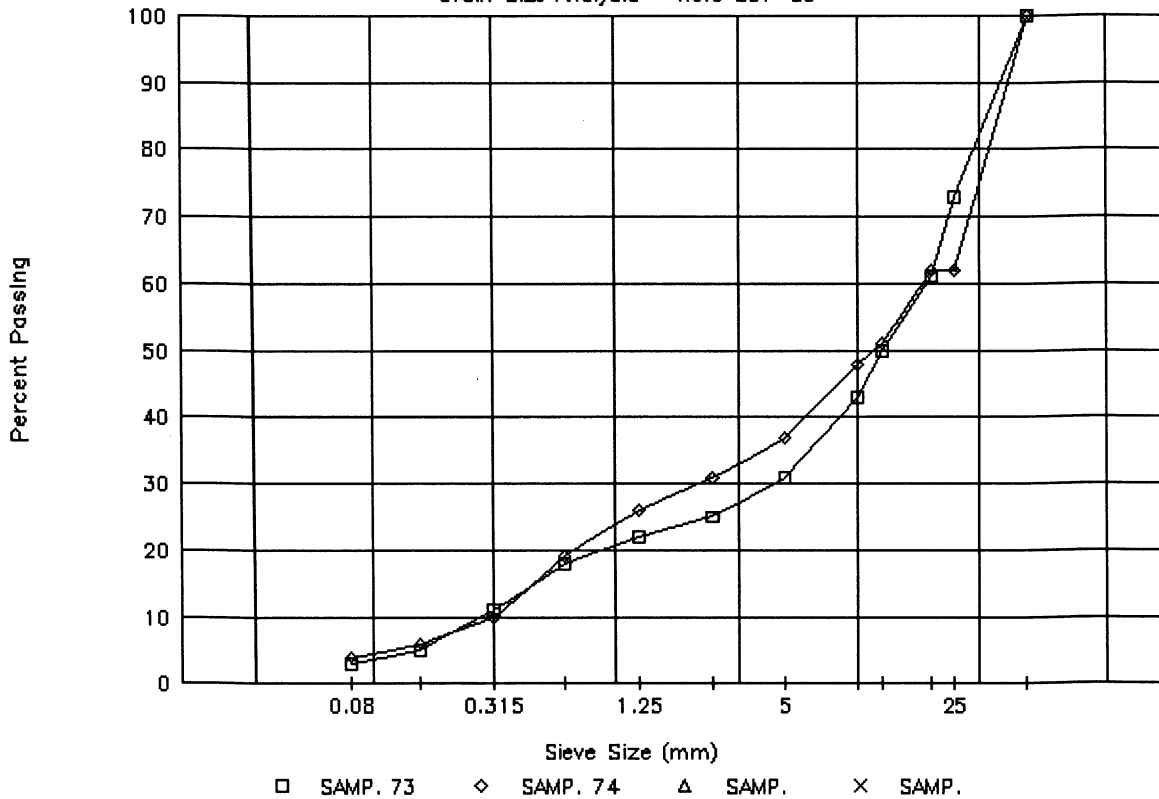
Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 257-28



Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 257-29



PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 257-33
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1904+600
 LOGGED BY: DT DATE COMPLETED: 93.10.02

FIELD NO: 80
 LAB NO: 1810
 DEPTH: 0.7-1.1
 TYPE: BULK

FIELD NO: 81
 LAB NO: 1811
 DEPTH: 3.0-3.2
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	82
31.5	--
25.0	61
20.0	54
12.5	41
10.0	32
5.0	20
2.5	15
2.0	--
1.25	12
0.840	--
0.630	11
0.420	--
0.315	10
0.160	9
0.150	--
0.080	9

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	95
10.0	91
5.0	87
2.5	84
2.0	--
1.25	82
0.840	--
0.630	79
0.420	--
0.315	72
0.160	64
0.150	--
0.080	58

M.C. (%): 6

M.C. (%): 20

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 80
 % SAND: 11
 % FINES: 9

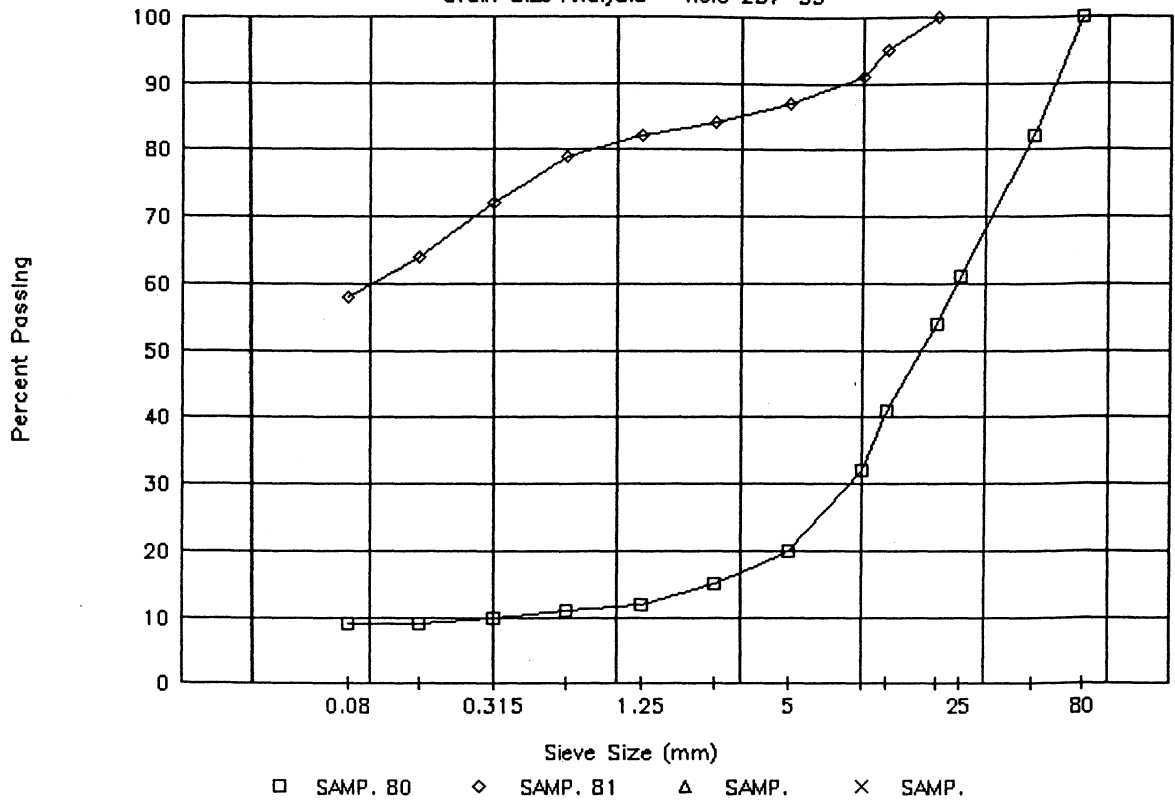
% GRAVEL: 13
 % SAND: 29
 % FINES: 58

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 (GP-GM)

CLASSIFICATION:
 SANDY SILT (ML)

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 257-33



PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 258-37
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1907+800 O/S 20M LT
 LOGGED BY: DT DATE COMPLETED: 93.10.03

FIELD NO: 88
 LAB NO: 1818
 DEPTH: 0.6-1.0
 TYPE: BULK

FIELD NO: 89
 LAB NO: 1819
 DEPTH: 4.6-5.0
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	94
20.0	85
12.5	75
10.0	71
5.0	62
2.5	57
2.0	--
1.25	53
0.840	--
0.630	49
0.420	--
0.315	44
0.160	38
0.150	--
0.080	30

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	92
20.0	88
12.5	84
10.0	82
5.0	77
2.5	73
2.0	--
1.25	69
0.840	--
0.630	65
0.420	--
0.315	60
0.160	54
0.150	--
0.080	48

M.C. (%): 7

M.C. (%): 13

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 38
 % SAND: 32
 % FINES: 30

% GRAVEL: 23
 % SAND: 29
 % FINES: 48

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY SAND WITH
 GRAVEL (SM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 258-38
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1908+100 O/S 10M LT
 LOGGED BY: DT DATE COMPLETED: 93.10.03

FIELD NO: 90
 LAB NO: 1820
 DEPTH: 0.8-1.2
 TYPE: BULK

FIELD NO: 91
 LAB NO: 1821
 DEPTH: 4.0-4.4
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	47
20.0	44
12.5	38
10.0	37
5.0	33
2.5	28
2.0	--
1.25	23
0.840	--
0.630	19
0.420	--
0.315	15
0.160	12
0.150	--
0.080	10

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	76
20.0	63
12.5	51
10.0	47
5.0	33
2.5	25
2.0	--
1.25	17
0.840	--
0.630	11
0.420	--
0.315	6
0.160	3
0.150	--
0.080	2

M.C. (%) : 5

M.C. (%) : 3

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 67
 % SAND: 23
 % FINES: 10

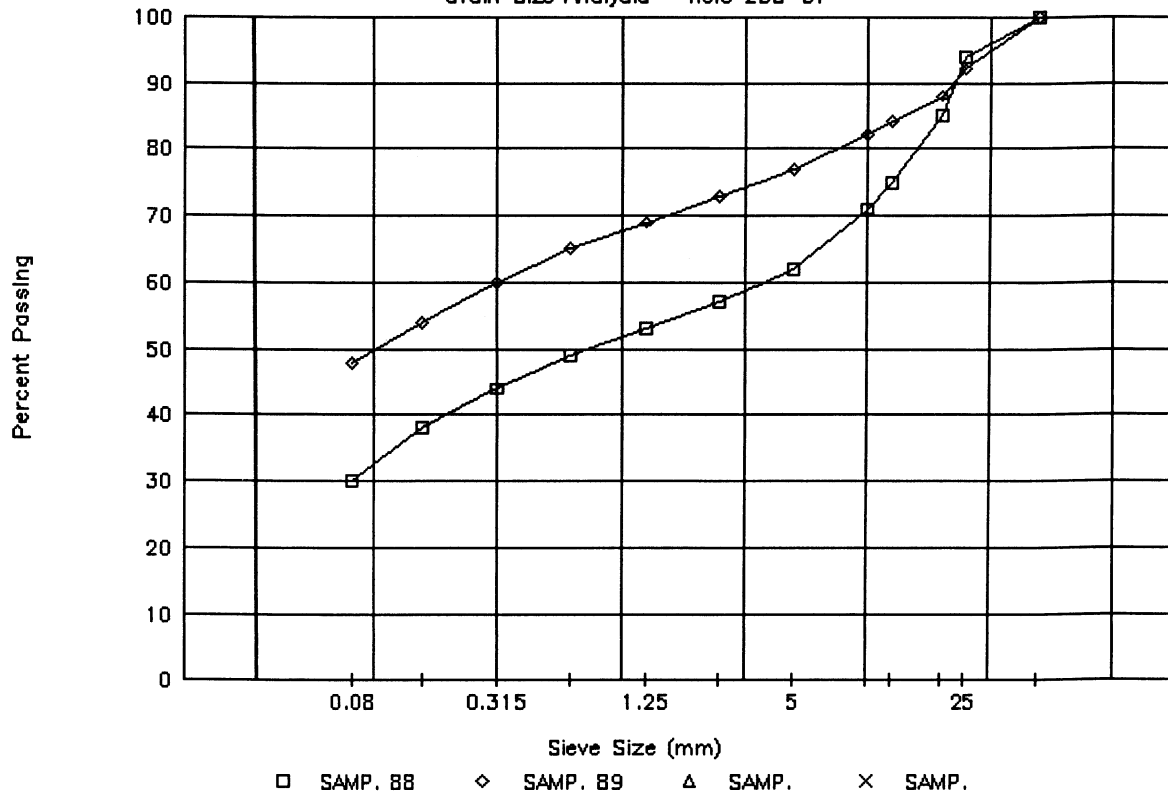
% GRAVEL: 67
 % SAND: 31
 % FINES: 2

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

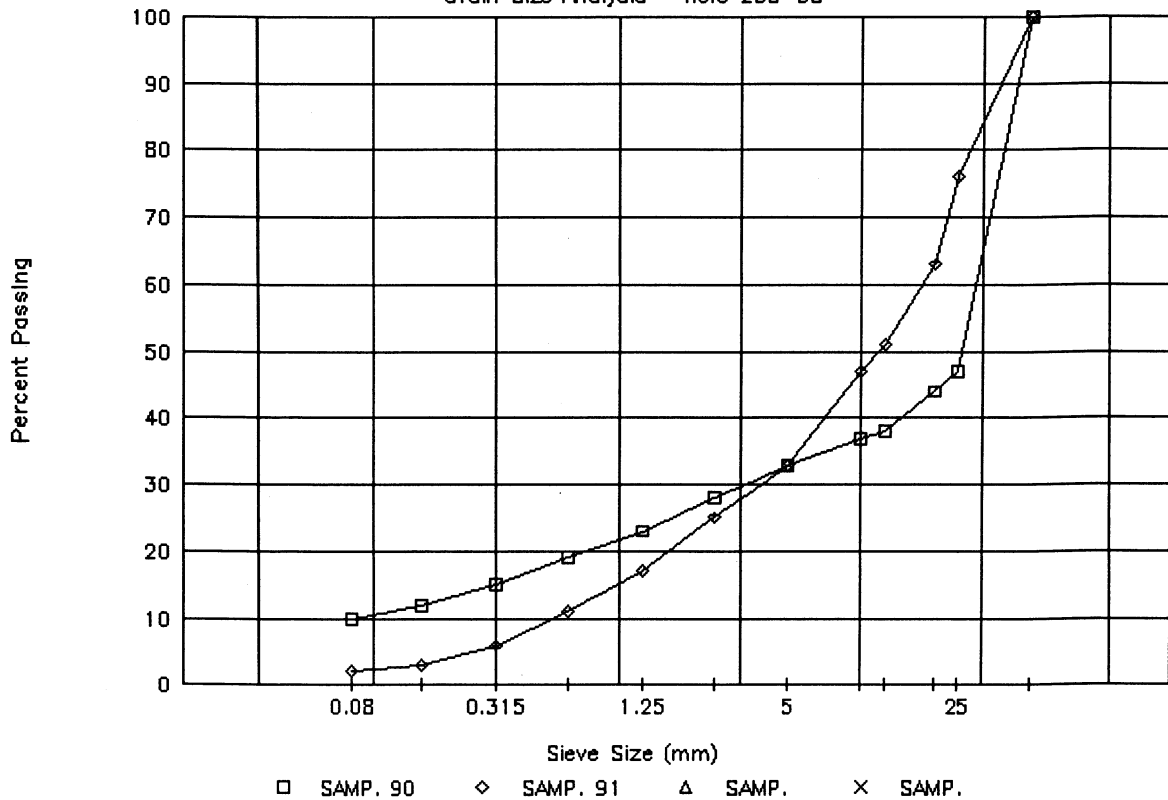
Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 258-37



Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 258-38



PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 258-39
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1909+300
 LOGGED BY: DT DATE COMPLETED: 93.10.03

FIELD NO: 92
 LAB NO: 1822
 DEPTH: 1.3-1.7
 TYPE: BULK

FIELD NO: 93
 LAB NO: 1823
 DEPTH: 2.8-3.0
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	76
20.0	71
12.5	68
10.0	65
5.0	59
2.5	55
2.0	--
1.25	52
0.840	--
0.630	48
0.420	--
0.315	44
0.160	40
0.150	--
0.080	35

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	83
20.0	79
12.5	70
10.0	68
5.0	60
2.5	55
2.0	--
1.25	51
0.840	--
0.630	47
0.420	--
0.315	41
0.160	34
0.150	--
0.080	29

M.C. (%): 11

M.C. (%): 10

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 41
 % SAND: 24
 % FINES: 35

% GRAVEL: 40
 % SAND: 32
 % FINES: 29

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 258-40
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1909+800
 LOGGED BY: DT DATE COMPLETED: 93.10.03

FIELD NO: 94
 LAB NO: 1824
 DEPTH: 1.0-1.4
 TYPE: BULK

FIELD NO: 95
 LAB NO: 1825
 DEPTH: 3.8-4
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	100
20.0	83
12.5	83
10.0	76
5.0	70
2.5	67
2.0	--
1.25	64
0.840	--
0.630	60
0.420	--
0.315	56
0.160	51
0.150	--
0.080	46

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	100
12.5	98
10.0	95
5.0	91
2.5	87
2.0	--
1.25	84
0.840	--
0.630	81
0.420	--
0.315	76
0.160	71
0.150	--
0.080	65

M.C. (%) : 11

M.C. (%) : 14

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 30
 % SAND: 24
 % FINES: 46

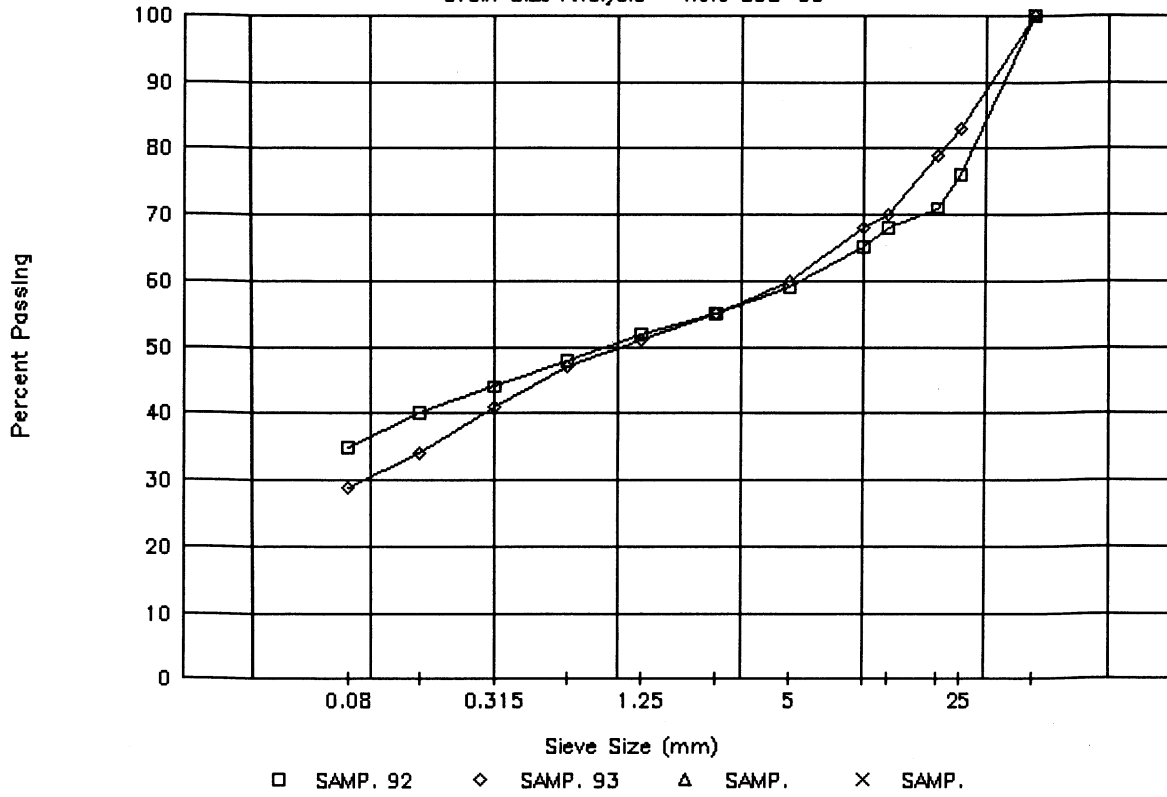
% GRAVEL: 9
 % SAND: 26
 % FINES: 65

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

CLASSIFICATION:
 SANDY SILT (ML)

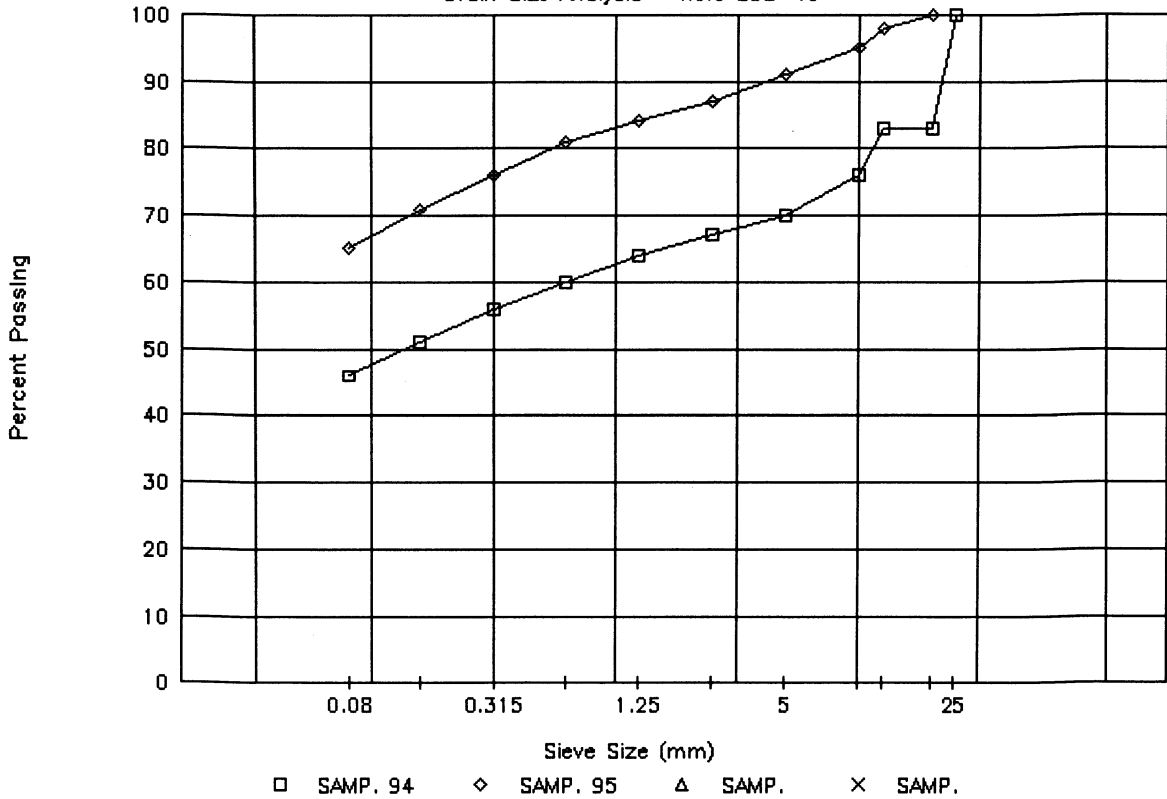
Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 258-39



Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 258-40



PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 258-41
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1910+975 O/S 5M RT
 LOGGED BY: DT DATE COMPLETED: 93.10.03

FIELD NO: 96
 LAB NO: 1826
 DEPTH: 1.2-1.6
 TYPE: BULK

FIELD NO: 97
 LAB NO: 1827
 DEPTH: 4.0-4.4
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	94
20.0	84
12.5	62
10.0	57
5.0	49
2.5	43
2.0	--
1.25	36
0.840	--
0.630	25
0.420	--
0.315	10
0.160	5
0.150	--
0.080	3

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	100
31.5	--
25.0	85
20.0	73
12.5	59
10.0	52
5.0	39
2.5	30
2.0	--
1.25	22
0.840	--
0.630	15
0.420	--
0.315	8
0.160	6
0.150	--
0.080	5

M.C. (%): 2

M.C. (%): 4

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 51
 % SAND: 46
 % FINES: 3

% GRAVEL: 61
 % SAND: 35
 % FINES: 5

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 258-42
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1911+425
 LOGGED BY: DT DATE COMPLETED: 93.10.03

FIELD NO: 98
 LAB NO: 1828
 DEPTH: 0.8-1.2
 TYPE: BULK

FIELD NO: 99
 LAB NO: 1829
 DEPTH: 2.1-2.5
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	85
20.0	72
12.5	68
10.0	62
5.0	49
2.5	42
2.0	--
1.25	35
0.840	--
0.630	27
0.420	--
0.315	20
0.160	17
0.150	--
0.080	16

M.C. (%): 8

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 51
 % SAND: 33
 % FINES: 16

CLASSIFICATION:
 SILTY GRAVEL
 WITH SAND (GM)

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	--
50.0	100
31.5	--
25.0	77
20.0	63
12.5	50
10.0	45
5.0	32
2.5	24
2.0	--
1.25	17
0.840	--
0.630	11
0.420	--
0.315	7
0.160	4
0.150	--
0.080	3

M.C. (%): 4

LIMITS

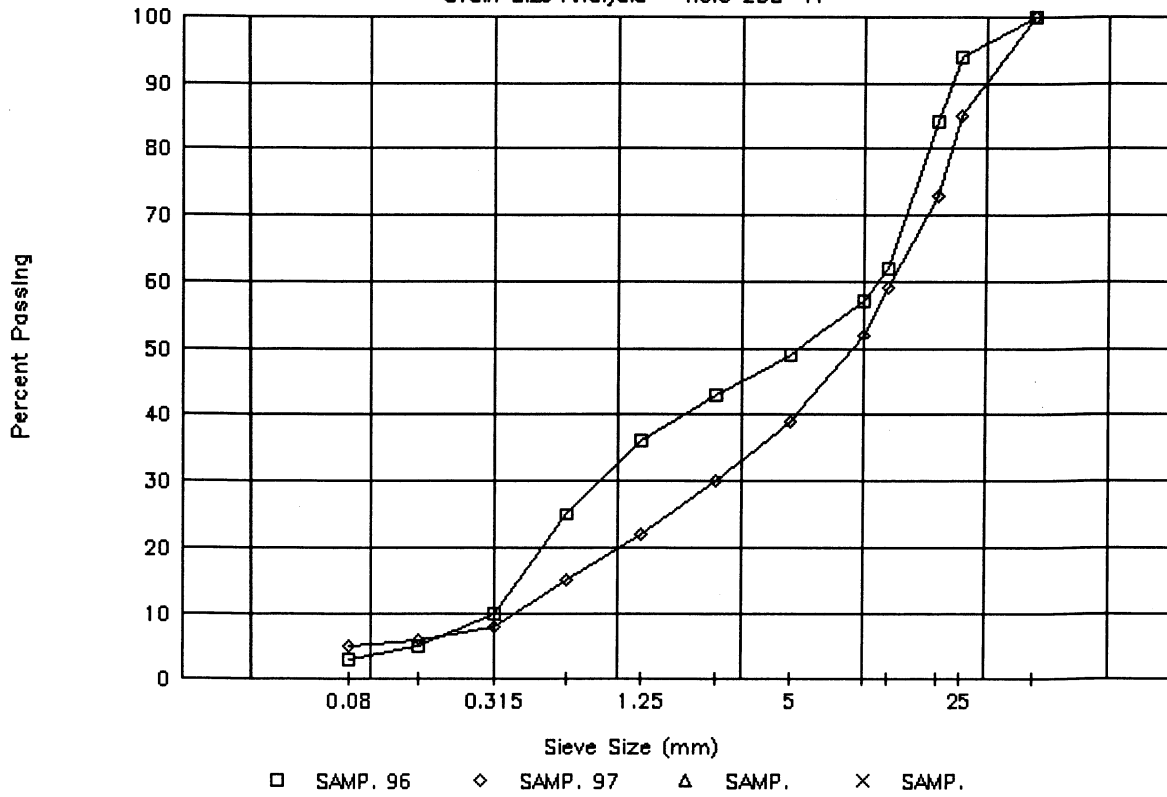
LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 68
 % SAND: 29
 % FINES: 3

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

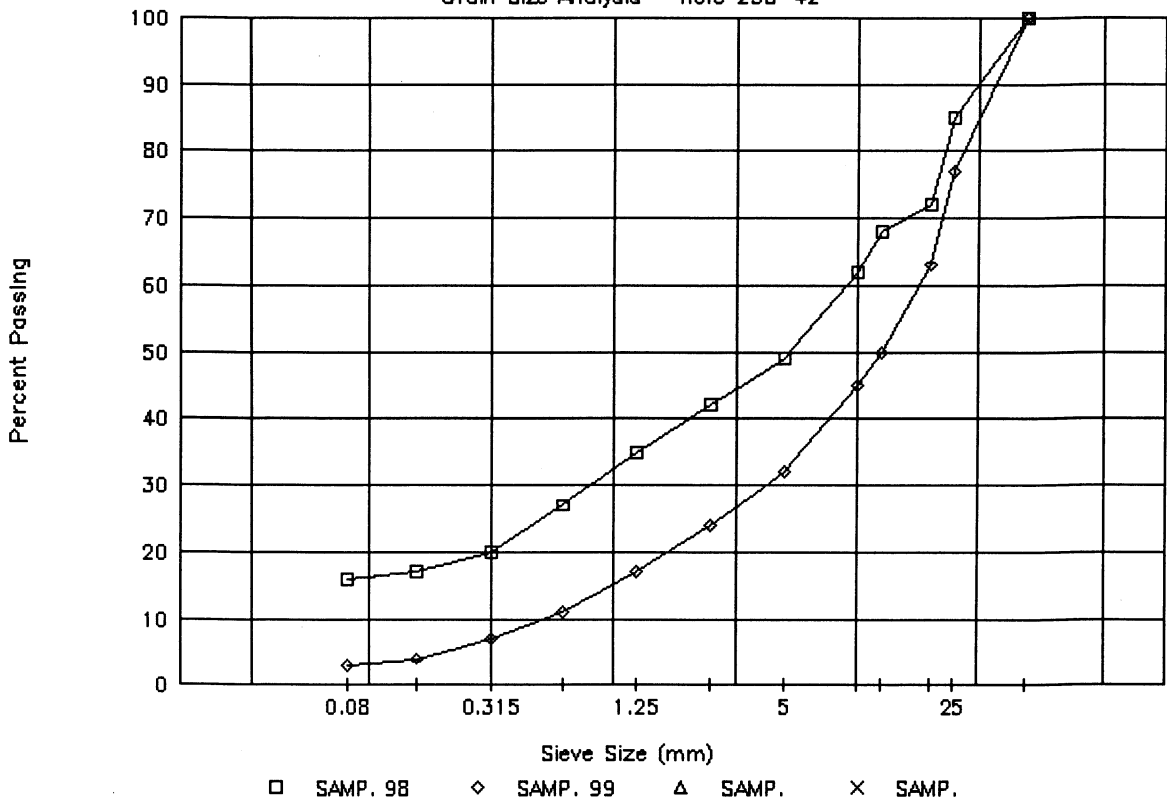
Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 258-41



Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 258-42



PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 274-30
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1895+350
 LOGGED BY: DT DATE COMPLETED: 93.11.11

FIELD NO: 36
 LAB NO: 2254
 DEPTH: 0.6-1.0
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	100
2.0	--
1.25	100
0.840	--
0.630	99
0.420	--
0.315	95
0.160	74
0.150	--
0.080	57

M.C. (%): 71

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 43
 % FINES: 57

CLASSIFICATION:
 SANDY SILT (ML)

PROJECT NUMBER: 092-202101-0312-193 HOLE NUMBER: 274-31
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: BACKHOE: CAT 235
 HOLE LOCATION: 1895+350
 LOGGED BY: DT DATE COMPLETED: 93.11.11

FIELD NO: 37
 LAB NO: 2255
 DEPTH: 0.7-1.0
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	--
50.0	--
31.5	--
25.0	--
20.0	--
12.5	--
10.0	--
5.0	100
2.5	100
2.0	--
1.25	99
0.840	--
0.630	97
0.420	--
0.315	93
0.160	84
0.150	--
0.080	66

M.C. (%): 90

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 0
 % SAND: 34
 % FINES: 66

CLASSIFICATION:
 SANDY SILT (ML)

PROJECT NUMBER: 092-202101-0312 HOLE NUMBER: 281-06
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: SCHRAMM
 HOLE LOCATION: SEE PLAN
 LOGGED BY: DT DATE COMPLETED: 94-02-28

FIELD NO: 6		FIELD NO: 7		FIELD NO: 8		FIELD NO: 9	
LAB NO: 11		LAB NO: 12		LAB NO: 13		LAB NO: 14	
DEPTH: 0.9-1.4		DEPTH: 4.0-4.3		DEPTH: 9.5-9.9		DEPTH: 11.9-12.3	
TYPE: RETURN		TYPE: RETURN		TYPE: RETURN		TYPE: RETURN	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	--	100.0	--	100.0	--	100.0	--
80.0	--	80.0	--	80.0	--	80.0	--
50.0	--	50.0	--	50.0	--	50.0	--
31.5	--	31.5	--	31.5	--	31.5	--
25.0	--	25.0	--	25.0	--	25.0	--
20.0	100	20.0	100	20.0	100	20.0	100
12.5	95	12.5	99	12.5	98	12.5	99
10.0	87	10.0	97	10.0	96	10.0	97
5.0	55	5.0	88	5.0	84	5.0	86
2.5	32	2.5	77	2.5	73	2.5	74
2.0	--	2.0	--	2.0	--	2.0	--
1.25	18	1.25	68	1.25	65	1.25	64
0.840	--	0.840	--	0.840	--	0.840	--
0.630	11	0.630	61	0.630	59	0.630	56
0.420	--	0.420	--	0.420	--	0.420	--
0.315	7	0.315	54	0.315	54	0.315	50
0.160	5	0.160	47	0.160	48	0.160	43
0.150	--	0.150	--	0.150	--	0.150	--
0.080	3	0.080	40	0.080	42	0.080	37
M.C. (%)	3	M.C. (%)	13	M.C. (%)	9	M.C. (%)	8
LIMITS		LIMITS		LIMITS		LIMITS	
LIQUID:	--	LIQUID:	--	LIQUID:	--	LIQUID:	--
PLASTIC:	--	PLASTIC:	--	PLASTIC:	--	PLASTIC:	--
P.I.:	N.P.	P.I.:	N.P.	P.I.:	N.P.	P.I.:	N.P.
% GRAVEL:	45	% GRAVEL:	12	% GRAVEL:	16	% GRAVEL:	14
% SAND:	52	% SAND:	48	% SAND:	42	% SAND:	48
% FINES:	3	% FINES:	40	% FINES:	42	% FINES:	37
CLASSIFICATION:	WELL-GRADED SAND WITH GRAVEL (SW)	CLASSIFICATION:	SILTY SAND (SM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY SAND (SM)

PROJECT NUMBER: 092-202101-0312 HOLE NUMBER: 281-06
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK PROJECT
 PROJECT LOCATION: SEGMENT 16
 DRILL UNIT: SCHRAMM
 HOLE LOCATION: SEE PLAN
 LOGGED BY: DT DATE COMPLETED: 94-02-28

FIELD NO: 10	FIELD NO: 11
LAB NO: 15	LAB NO: 16
DEPTH: 13.7-14.2	DEPTH: 14.9-15.2
TYPE: RETURN	TYPE: RETURN

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	--	100.0	--
80.0	--	80.0	--
50.0	--	50.0	--
31.5	--	31.5	--
25.0	--	25.0	--
20.0	100	20.0	100
12.5	96	12.5	97
10.0	91	10.0	92
5.0	67	5.0	72
2.5	48	2.5	55
2.0	--	2.0	--
1.25	36	1.25	39
0.840	--	0.840	--
0.630	28	0.630	24
0.420	--	0.420	--
0.315	23	0.315	17
0.160	20	0.160	14
0.150	--	0.150	--
0.080	18	0.080	12

M.C. (%) : 4 M.C. (%) : 4

LIMITS		LIMITS	
LIQUID:	--	LIQUID:	--
PLASTIC:	--	PLASTIC:	--
P.I.:	N.P.	P.I.:	N.P.

% GRAVEL:	33	% GRAVEL:	28
% SAND:	49	% SAND:	61
% FINES:	18	% FINES:	12

CLASSIFICATION:	CLASSIFICATION:
SILTY SAND WITH GRAVEL (SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)