



SOILTECH CONSULTANTS, INC.
Geotechnical and Environmental Engineering

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July 23, 2008

Pearlington Dirt, LLC.



Project No. 1329.01

Attention: [Redacted] Vice President

Re: Geotechnical Investigation
340-Acre Proposed Surface Mine
Pearlington, Hancock County, Mississippi

Gentlemen:

Submitted herein is the report of our investigation of approximate the 340-acre proposed surface mine located in Pearlington, Hancock County, Mississippi. Soils from this site are proposed for reconstructing levees in the New Orleans area. This investigation, authorized by [Redacted], has been ongoing for approximately twenty four months.

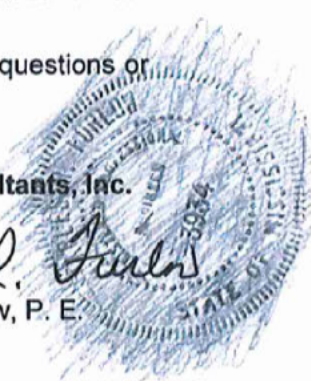
This report presents the results of an investigation made to determine engineering properties of the soils at the subject site. The investigation included performing soil borings at specified intervals on the site, obtaining representative soil samples, performing laboratory tests, comparing the results with parameters specified by the New Orleans District Corp of Engineers and computing quantities that met the required specifications. The estimated total volume of available soils on this site meeting the requirements of the New Orleans District Corps of Engineers is 22,869,320 tons (4,555,579 tons in Phase I, 12,070,300 tons in Phase II, and 6,243,441 tons in Phase III). The moisture content of some of the materials may require modification. Also, perched groundwater was encountered in seams at depths ranging from 5.5 feet to 20 feet and will require management during borrow excavation. Details of our investigation are included in the body of this report.

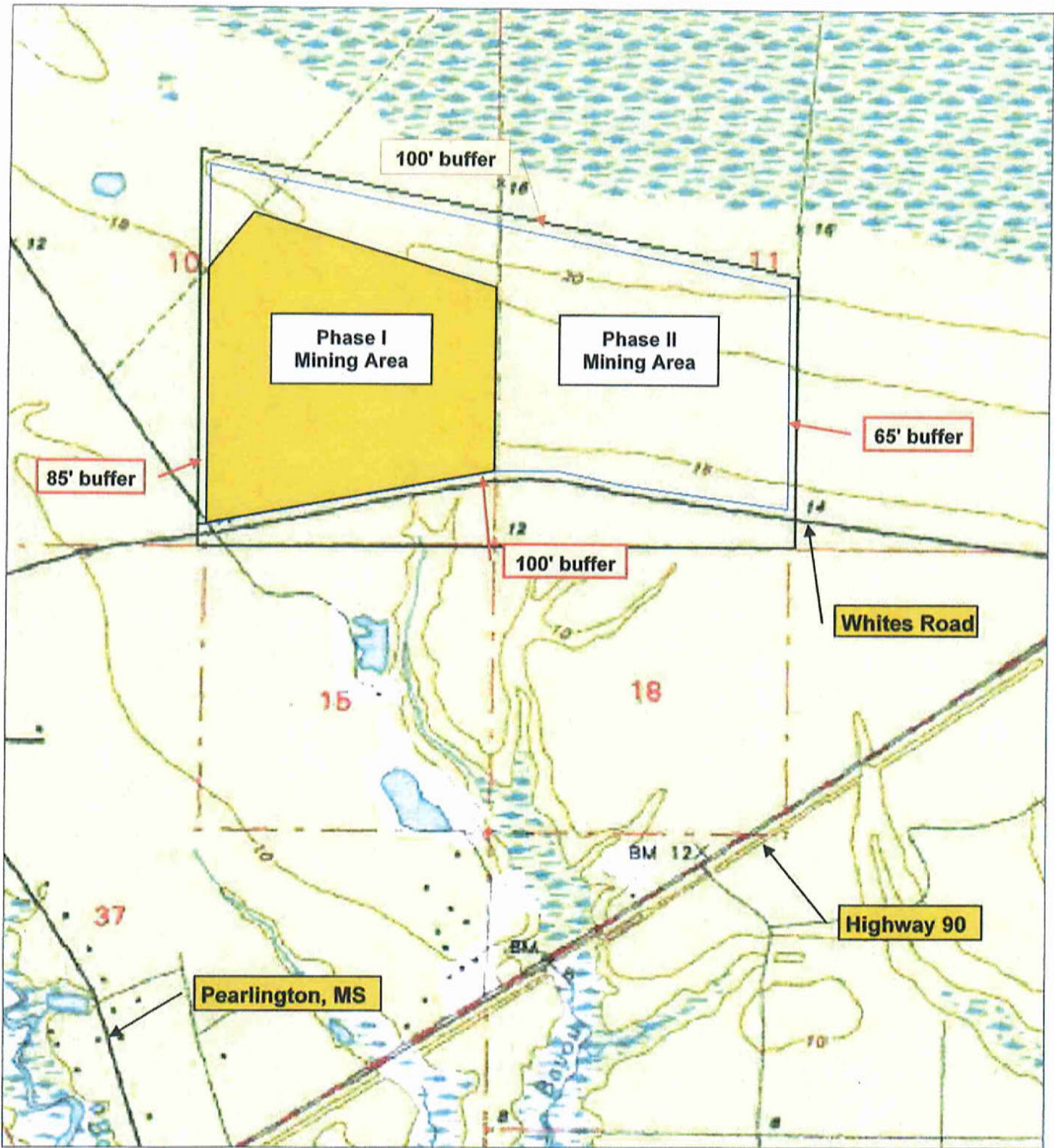
We appreciate the opportunity of providing services to you. If we can answer any questions or provide additional information, please call.

Very truly yours,

SoilTech Consultants, Inc.


Charles R. Furlow, P. E.





LEGEND

- Property Boundary ~ 370-Acres
- Limits of Excavation

Pearlington Dirt, LLC
Geotechnical Investigation
Surface Mine
Pearlington, Mississippi



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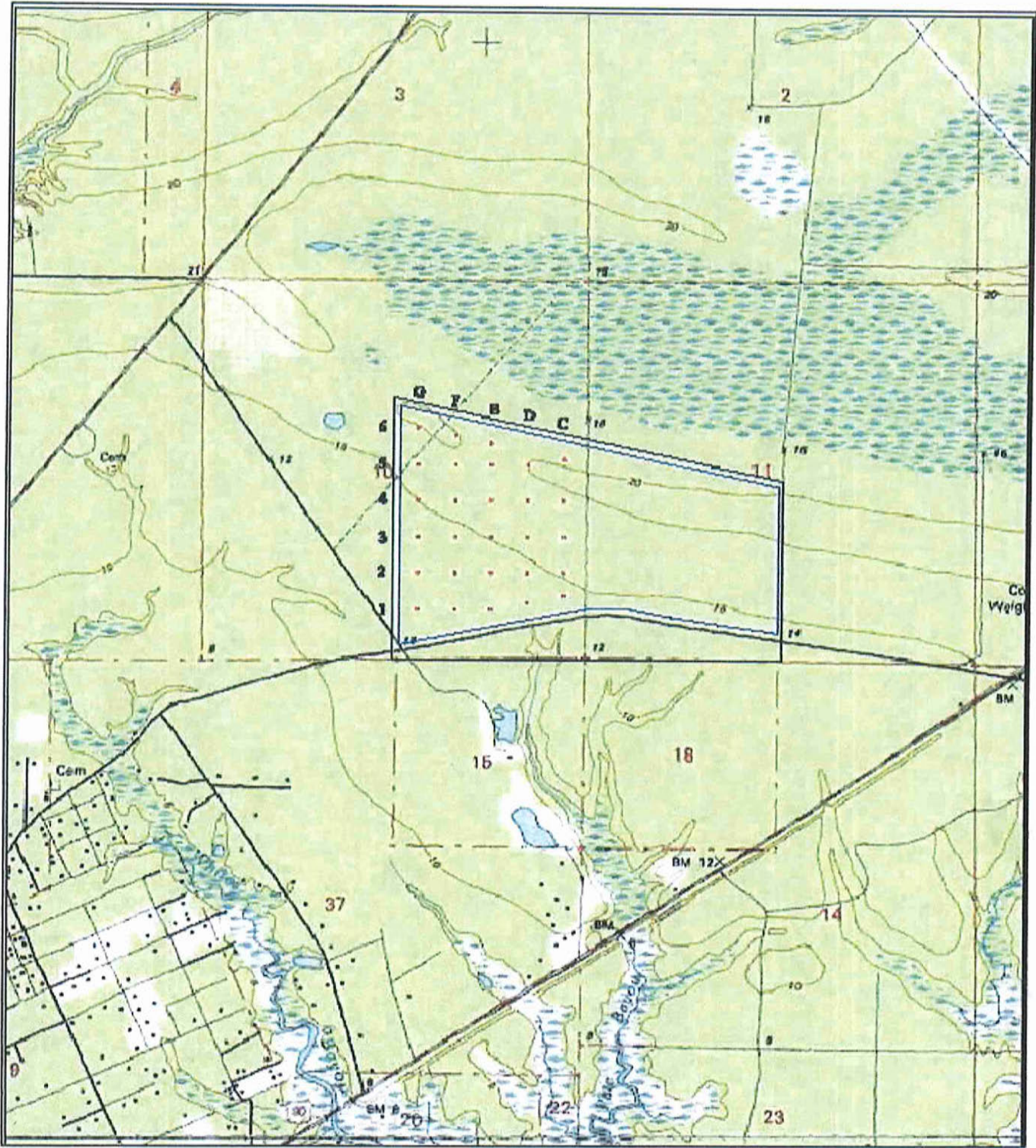
MODIFIED BY: L.B.R.
 CHECKED BY: L.B.R.

DATE:
 11/1/2006

Figure 1—Site Location
Logtown, MS Topographic Map

SCALE:
 1" ~ 1,265'





LEGEND

-  Mine Footprint
-  Limit of Excavation
-  Boring

Pearlington Dirt, LLC
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Pearlington, Mississippi



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MODIFIED BY: L.B.R.

DATE:

12/13/2006

CHECKED BY: L.B.R.

Figure 2—BORING LOCATIONS

Logtown, MS Topographic Map

SCALE:
 1" ~ 2,000'



SOIL BORING LOG

PROJECT: Geotechnical Investigation
 Pearlinton Dirt Surface Mine
 Pearlinton, Mississippi

No. C-1
 SHEET 1 OF 1

PROJECT NO.: 1329.01
 DATE: 11/14/06
 DRILLER: J. Ray
 TECHNICIAN: C. Woodward
 ENGINEER: C. Furlow

CLIENT: Pearlinton Dirt, LLC
 Hancock County, Mississippi

Location: Lat: N 30d 16m 15s Long: W 89d 34m 47s

LABORATORY DATA

Depth (ft)	Symbol	Samples	DESCRIPTION OF MATERIAL	Organics (%)	Undrained Shear Strength (ksf)	Moisture Content	Unit Weight (pcf)		Plasticity Index	Cohesion / Δ Triaxial (ksf)				% Passing No. 200								
							Moist			PL					MC%				LL			
							Moist	Dry		PL					MC%				LL			
Surface Elevation: 5.0 ft																						
5			Medium tan and light gray silty clay (CL) - slightly sandy with ferrous stains - stiff from 3' to 10'	1.48		19							88.4									
				1.42		21			32													
				1.72		20																
				1.42		23							96.5									
				1.72		27			22													
						29																
15			Stiff tan and light gray clay (CH) - with silt pockets and ferrous stains	2.69		37			50													
				2.78		43																
						40																
20			Medium tan and gray sandy clay (CL) - with clay pockets and seams	1.59		28			30													
				1.82		30																
				2.32		43			32				58.9									
25			Medium brown and gray clay (CH) - with peat	26.94		103																
			Loose tan and gray clayey sand (SC)	.69		27																
						23																
35			Medium gray clay (CH) - with sand seams and fossil fragments	4.71		40			46													
				2.63		34			44													
40			Terminal Depth at 40.0 ft																			

SOIL BORING LOG (WITHOUT B-VI ORGS 1329.01 PEARLINGTON DIRT SURFACE MINE GPJ NEEL SCHAFFER GDT 12/19/06)

Groundwater Observations	Advancement Method	Notes
Groundwater encountered at 12' Rose to 8'	0 - 30 ft: Machine Auger 30 - 40 ft: Rotary Wash	
	Abandonment Method	
	Boring grouted upon completion	
SoilTech Consultants, Inc.		

SOIL BORING LOG

PROJECT: Geotechnical Investigation
 Pearlinton Dirt Surface Mine
 Pearlinton, Mississippi

No. G-6
 SHEET 1 OF 1

PROJECT NO.: 1329.01
 DATE: 11/20/06
 DRILLER: Ray
 TECHNICIAN: J. Malanchak
 ENGINEER: C. Furlow

CLIENT: Pearlinton Dirt, LLC
 Hancock County, Mississippi

Location: Lat: N 30d 16m 38s Long: W 89d 35m 09s

LABORATORY DATA

Depth (ft)	Symbol	Samples	DESCRIPTION OF MATERIAL	Organics (%)	Undrained Shear Strength (ksf)	Moisture Content	Unit Weight (pcf)		Plasticity Index	O Cohesion / Δ Triaxial (ksf)				% Passing No. 200
							Moist	Dry		PL ————— MC% ————— LL				
										1	2	3	4	
			Surface Elevation: 5.0 ft											
			Medium tan and light gray very silty clay (CL)	.64		23								
			Stiff tan and light gray clay (CH)			19			45				93.5	
5				1.83		22								
						20			23				98.4	
			Stiff tan and light gray silty clay (CL)			32								
10				3.95		22			26				94.0	
				.69		28								
15						28			12				93.6	
			Stiff tan and light gray clay (CH) - with silt and fine sand pockets and seams	1.21		31								
			Medium tan and light gray silty clay (CL) - slightly sandy with fossil fragments			30			16				83.5	
20			Stiff tan and light gray clay (CH) - with silt pockets to 24'			37								
			- gray below 24'	2.07		40			66					
25				4.53		54								
			- with silt and fine sand pockets below 26'			43			58					
				1.47		48								
30			Lignite	26.49		136							>>	
			Stiff black and gray silty clay (CL)	21.9		148			17				>>	
35				6.91		45								
			Medium dense gray clayey sand (SC) - with clay partings and fossil fragments	1.35		30							35.4	
40			Terminal Depth at 40.0 ft											

SOIL BORING LOG (WITHOUT B- W ORGS. 1329.01 PEARLINGTON DIRT SURFACE MINE GPJ, NEEL SCHAFFER GDT 12/19/06)

Groundwater Observations	Advancement Method	Notes
Groundwater encountered at 13'	0 - 40 ft: Machine Auger	
	Abandonment Method	
	Boring grouted upon completion	

SOIL BORING LOG

PROJECT: Geotechnical Investigation
 Pearlinton Dirt Surface Mine
 Pearlinton, Mississippi

No. F-4
 SHEET 1 OF 1

PROJECT NO.: 1329.01
 DATE: 11/22/06
 DRILLER: Ray
 TECHNICIAN: J. Malanchak
 ENGINEER: C. Furlow

CLIENT: Pearlinton Dirt, LLC
 Hancock County, Mississippi

Location: Lat: N 30d 16m 28s Long: W 89d 35m 05s

LABORATORY DATA

Depth (ft)	Symbol	Samples	DESCRIPTION OF MATERIAL	Organics (%)	Undrained Shear Strength (ksf)	Moisture Content	Unit Weight (pcf)		Plasticity Index	Cohesion / Δ Triaxial (ksf)				% Passing No. 200
							Moist	Dry		MC%				
										PL	MC%		LL	
			Surface Elevation: 5.0 ft											
			Soft tan and light gray silty clay (CL)	2.3		20								
			Stiff tan and light gray clay (CH) - interbedded with silty clay and clayey sand seams			27			44					
5			Stiff tan and light gray silty clay (CL) - slightly sandy	1.81		25								
			- with sand seams below 8'			28			13			94.7		
10			Loose tan and light gray clayey silt (ML) - slightly sandy	2.6		27								
						27			4			65.9		
15			Soft tan and light gray silty clay (CL) - with silt and fine sand pockets and fossil fragments	4.3		24								
						25			16					
20			Medium tan and light gray clay (CH) - with silt and fine sand pockets and seams	3.37		41								
						47			61					
			- gray below 21'	8		44								
						37			34			59.9		
25			Stiff tan and light gray fine sandy clay (CL) - slightly silty	3.4		29			20					
			Medium brown clay (CH) - with peat	24.8		124								
			Medium dense gray silty sand (SM)											
30			Medium dense tan sand (SP)											
35														

Terminal Depth at 36.0 ft

Groundwater Observations	Advancement Method	Notes
Groundwater encountered at 13'	0 - 30 ft: Machine Auger 30 - 36 ft: Rotary Wash	
	Abandonment Method	
	Boring grouted upon completion	

SOIL BORING LOG (WITHOUT B- W) ORGS. 1329.01 PEARLINGTON DIRT SURFACE MINE.GPJ NEEL SCHAFFER.GDT 12/19/06

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS	
			GRAPH	LETTER		
<p>COARSE GRAINED SOILS</p> <p>MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE</p>	<p>GRAVEL AND GRAVELLY SOILS</p>	<p>CLEAN GRAVELS</p>		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		<p>(LITTLE OR NO FINES)</p>		GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		<p>GRAVELS WITH FINES</p>		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES	
	<p>MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE</p>	<p>(APPRECIABLE AMOUNT OF FINES)</p>		GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES	
		<p>SAND AND SANDY SOILS</p>	<p>CLEAN SANDS</p>		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			<p>(LITTLE OR NO FINES)</p>		SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
	<p>MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE</p>	<p>SANDS WITH FINES</p>		SM	SILTY SANDS, SAND - SILT MIXTURES	
		<p>(APPRECIABLE AMOUNT OF FINES)</p>		SC	CLAYEY SANDS, SAND - CLAY MIXTURES	
		<p>FINE GRAINED SOILS</p>	<p>SILTS AND CLAYS</p>	<p>LIQUID LIMIT LESS THAN 50</p>		ML
	<p>(LITTLE OR NO FINES)</p>				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
<p>(APPRECIABLE AMOUNT OF FINES)</p>				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
<p>SILTS AND CLAYS</p>	<p>LIQUID LIMIT GREATER THAN 50</p>			MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS	
			<p>(LITTLE OR NO FINES)</p>		CH	INORGANIC CLAYS OF HIGH PLASTICITY
			<p>(APPRECIABLE AMOUNT OF FINES)</p>		OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
<p>HIGHLY ORGANIC SOILS</p>				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS	

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS