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E-328

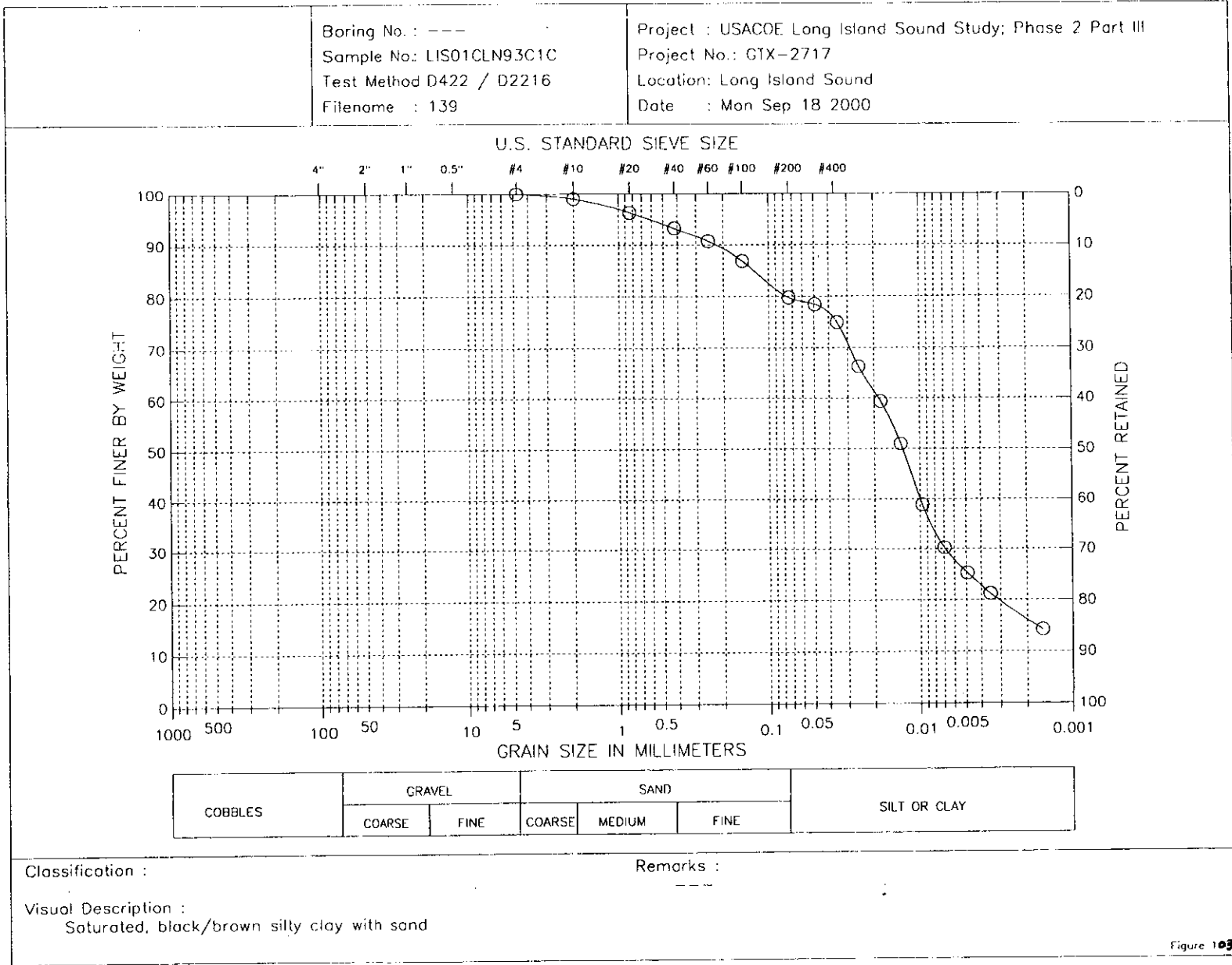


Figure 103

GEOTECHNICAL LABORATORY TEST DATA

Project : USACOE Long Island Sound Study; Phase 2 Part III  
 Project No. : GTX-2717                      Depth : ---  
 Boring No. : ---                            Test Date : 09/12/00  
 Sample No. : LIS01CLN93C1C                Test Method : D422 / D2216  
 Location : Long Island Sound  
 Soil Description : Saturated, black/brown silty clay with sand  
 Remarks : ---

Filename : 139  
 Elevation : ---  
 Tested by : KAH  
 Checked by : GTT

HYDROMETER

Hydrometer ID : 88-18231  
 Weight of air-dried soil = 30.04 gm  
 Specific Gravity                      = 2.42

Hydroscopic Moisture Content :  
 Weight of Wet Soil = 0 gm  
 Weight of Dry Soil = 0 gm  
 Moisture Content = 0

Elapsed Time (min)	Reading	Temperature (deg. C)	Corrected Reading	Particle Size (mm)	Percent Finer (%)	Adjusted Particle Size
1.00	28.50	21.00	22.67	0.050	78	0.050
2.00	27.50	21.00	21.67	0.035	75	0.035
4.00	25.00	21.00	19.17	0.025	66	0.025
8.00	23.00	21.00	17.17	0.018	59	0.018
15.00	20.50	21.50	14.73	0.013	51	0.013
30.00	17.00	21.50	11.23	0.010	39	0.010
60.00	14.50	21.50	8.73	0.007	30	0.007
120.00	13.00	22.00	7.30	0.005	25	0.005
240.00	11.50	22.50	6.13	0.003	21	0.003
1244.00	10.00	20.50	4.10	0.002	14	0.002

Sieve Mesh	Sieve Openings		FINE SIEVE SET		Percent Finer (%)
	Inches	Millimeters	Weight Retained (gm)	Cumulative Weight Retained (gm)	
#4	0.187	4.75	0.00	0.00	100
#10	0.079	2.00	0.30	0.30	99
#20	0.033	0.84	0.83	1.13	96
#40	0.017	0.42	0.93	2.06	93
#60	0.010	0.25	0.76	2.82	91
#100	0.006	0.15	1.18	4.00	87
#200	0.003	0.07	2.15	6.15	80
Pan			24.19	30.34	0

Total Dry Weight of Sample = 135.16

D85 : 0.1245 mm  
 D60 : 0.0187 mm  
 D50 : 0.0131 mm  
 D30 : 0.0069 mm  
 D15 : 0.0017 mm  
 D10 : 0.0010 mm

Soil Classification

ASTM Group Symbol : N/A  
 ASTM Group Name : N/A  
 AASHTO Group Symbol : A-4(0)  
 AASHTO Group Name : Silty Soils

GEOTECHNICAL LABORATORY TEST DATA

Project : USACOE Long Island Sound Study; Phase 2 Part III      Filename : 139  
Project No. : GTX-2717      Depth : ---      Elevation : ---  
Boring No. : ---      Test Date : 09/12/00      Tested by : KAH  
Sample No. : LIS01CLN93C1C      Test Method : D422 / D2216      Checked by : GTT  
Location : Long Island Sound  
Soil Description : Saturated, black/brown silty clay with sand  
Remarks : ---

Moisture Content ID	Natural Moisture Content			Moisture Content (%)
	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	
1) xx186	9.60	202.52	100.67	111.84

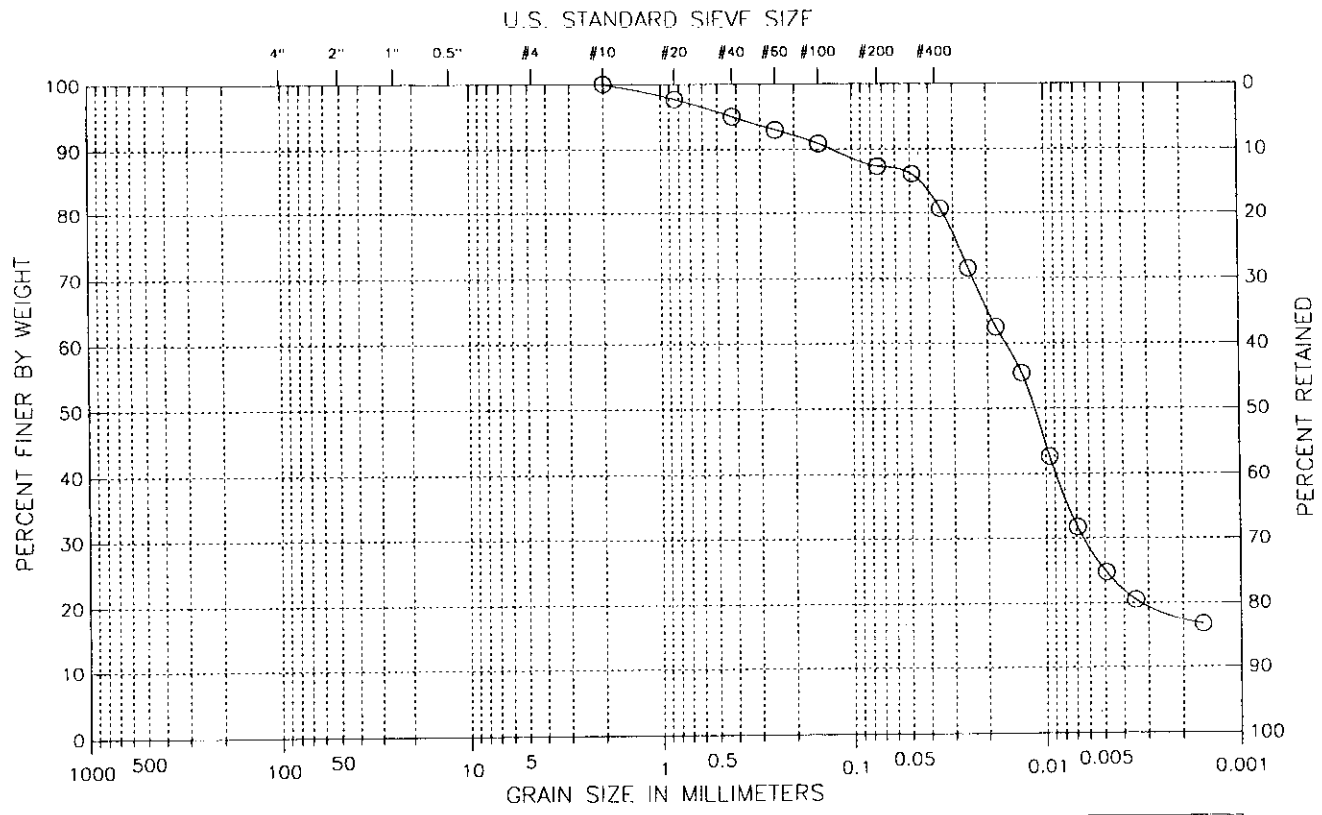
Average Moisture Content = 111.84

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Boring No. : ---  
 Sample No: LIS01CLN93C3C  
 Test Method D422 / D2216  
 Filename : 141

Project : USACOE Long Island Sound Study; Phase 2 Part III  
 Project No.: GTX-2717  
 Location: Long Island Sound  
 Date : Mon Sep 18 2000



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

Classification :

Remarks :

Visual Description :  
 Saturated, black/brown silty clay

Figure 104

GEOTECHNICAL LABORATORY TEST DATA

Project : USACOE Long Island Sound Study; Phase 2 Part III  
 Project No. : GTX-2717 Depth : ---  
 Boring No. : --- Test Date : 09/12/00  
 Sample No. : LIS01CLN93C3C Test Method : D422 / D2216  
 Location : Long Island Sound  
 Soil Description : Saturated, black/brown silty clay  
 Remarks : ---

Filename : 141  
 Elevation : ---  
 Tested by : KAH  
 Checked by : GTT

HYDROMETER

Hydrometer ID : 88-18231  
 Weight of air-dried soil = 28.72 gm  
 Specific Gravity = 2.44

Hydroscopic Moisture Content :  
 Weight of Wet Soil = 0 gm  
 Weight of Dry Soil = 0 gm  
 Moisture Content = 0

Elapsed Time (min)	Reading	Temperature (deg. C)	Corrected Reading	Particle Size (mm)	Percent Finer (%)	Adjusted Particle Size
1.00	29.50	21.00	23.67	0.049	86	0.049
2.00	28.00	21.00	22.17	0.035	81	0.035
4.00	25.50	21.00	19.67	0.025	72	0.025
8.00	23.00	21.00	17.17	0.018	62	0.018
15.00	21.00	21.50	15.23	0.013	55	0.013
30.00	17.50	21.50	11.73	0.010	43	0.010
60.00	14.50	21.50	8.73	0.007	32	0.007
120.00	12.50	22.00	6.80	0.005	25	0.005
240.00	11.00	22.50	5.63	0.003	21	0.003
1235.00	10.50	20.50	4.60	0.002	17	0.002

FINE SIEVE SET

Sieve Mesh	Sieve Openings Inches	Sieve Openings Millimeters	Weight Retained (gm)	Cumulative Weight Retained (gm)	Percent Finer (%)
#10	0.079	2.00	0.00	0.00	100
#20	0.033	0.84	0.67	0.67	98
#40	0.017	0.42	0.76	1.43	95
#60	0.010	0.25	0.59	2.02	93
#100	0.006	0.15	0.60	2.62	91
#200	0.003	0.07	1.01	3.63	87
Pan			25.09	28.72	0

Total Dry Weight of Sample = 130.98

D85 : 0.0455 mm  
 D60 : 0.0162 mm  
 D50 : 0.0116 mm  
 D30 : 0.0063 mm  
 D15 : N/A  
 D10 : N/A

Soil Classification

ASTM Group Symbol : N/A  
 ASTM Group Name : N/A  
 AASHTO Group Symbol : A-4(0)  
 AASHTO Group Name : Silty Soils

GEOTECHNICAL LABORATORY TEST DATA

Project : USACOE Long Island Sound Study; Phase 2 Part III  
Project No. : GTX-2717                      Depth : ---  
Boring No. : ---                            Test Date : 09/12/00  
Sample No. : LIS01CLN93C3C                Test Method : D422 / D2216  
Location : Long Island Sound  
Soil Description : Saturated, black/brown silty clay  
Remarks : ---

Filename : 141  
Elevation : ---  
Tested by : KAH  
Checked by : GTT

Moisture Content ID	Mass of Container (gm)	Natural Moisture Content		Moisture Content (%)
		Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	
1) eez	9.66	213.45	99.40	127.09

Average Moisture Content = 127.09

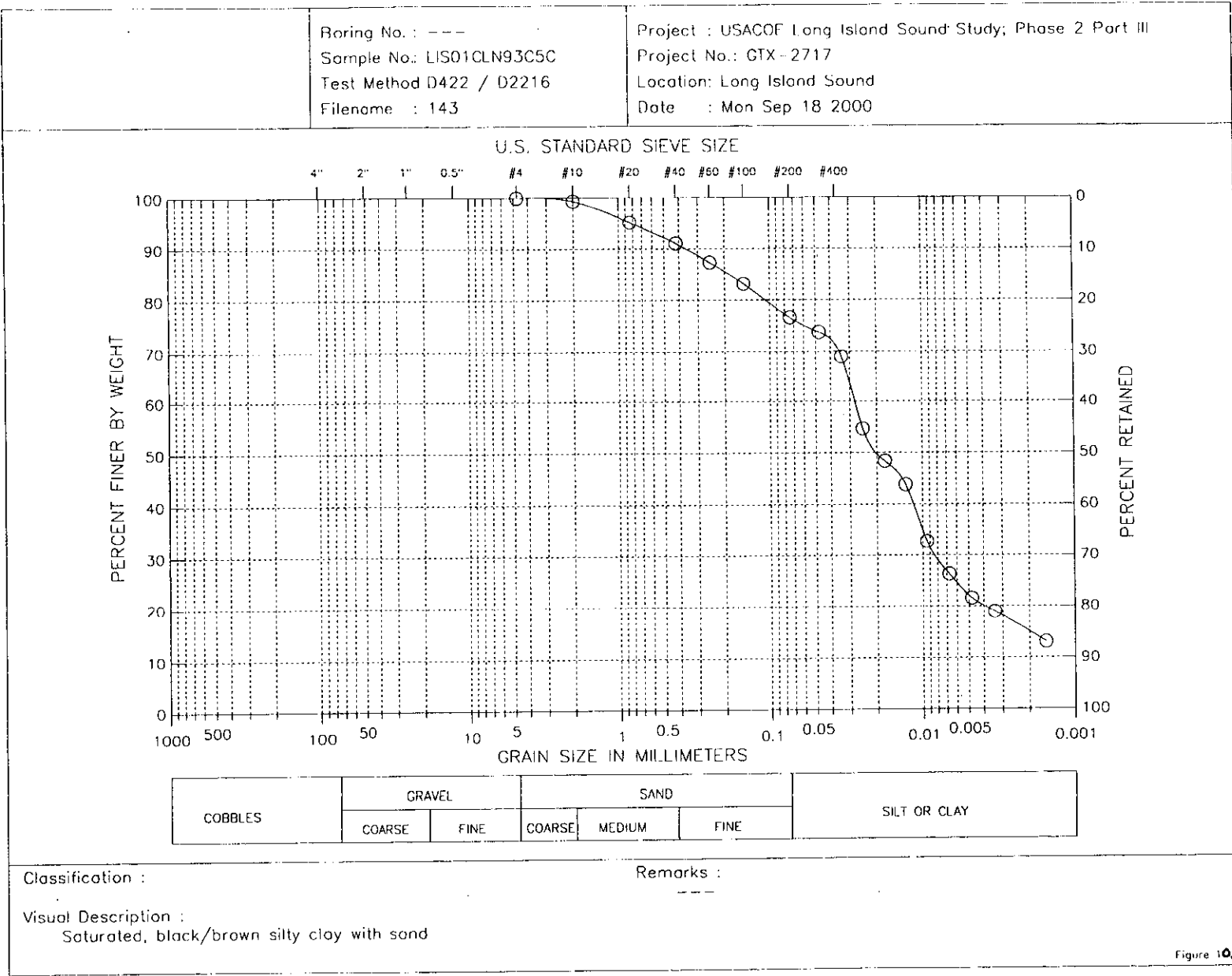


Figure 105

GEOTECHNICAL LABORATORY TEST DATA

Project : USACOE Long Island Sound Study; Phase 2 Part III  
 Project No. : GTX-2717                      Depth : ---  
 Boring No. : ---                              Test Date : 09/12/00  
 Sample No. : LIS01CLN93C5C                Test Method : D422 / D2216  
 Location : Long Island Sound  
 Soil Description : Saturated, black/brown silty clay with sand  
 Remarks : ---

Filename : 143  
 Elevation : ---  
 Tested by : KAH  
 Checked by : GIT

HYDROMETER

Hydrometer ID : 88-18231  
 Weight of air-dried soil = 32.26 gm  
 Specific Gravity = 2.51

Hydrosopic Moisture Content :  
 Weight of Wet Soil = 0 gm  
 Weight of Dry Soil = 0 gm  
 Moisture Content = 0

Elapsed Time (min)	Reading	Temperature (deg. C)	Corrected Reading	Particle Size (mm)	Percent Finer (%)	Adjusted Particle Size
1.00	29.00	21.50	23.23	0.048	74	0.048
2.00	27.50	21.50	21.73	0.034	69	0.034
4.00	23.00	21.50	17.23	0.025	55	0.025
8.00	21.00	21.50	15.23	0.018	48	0.018
15.00	19.50	22.00	13.80	0.013	44	0.013
30.00	16.00	22.00	10.30	0.009	33	0.009
60.00	14.00	22.00	8.30	0.007	26	0.007
120.00	12.50	22.00	6.80	0.005	22	0.005
240.00	11.00	23.00	5.97	0.003	19	0.003
1208.00	10.00	20.50	4.10	0.002	13	0.002

Sieve Mesh	Sieve Openings		FINE SIEVE SET		Percent Finer (%)
	Inches	Millimeters	Weight Retained (gm)	Cumulative Weight Retained (gm)	
#4	0.187	4.75	0.00	0.00	100
#10	0.079	2.00	0.22	0.22	99
#20	0.033	0.84	1.35	1.57	95
#40	0.017	0.42	1.34	2.91	91
#60	0.010	0.25	1.21	4.12	87
#100	0.006	0.15	1.35	5.47	83
#200	0.003	0.07	2.14	7.61	77
Pass			24.87	32.48	0

Total Dry Weight of Sample = 137.5

- D35 : 0.1874 mm
- D50 : 0.0279 mm
- D50 : 0.0194 mm
- D30 : 0.0082 mm
- D15 : 0.0020 mm
- D10 : 0.0011 mm

Soil Classification

ASTM Group Symbol : N/A  
 ASTM Group Name : N/A  
 AASHTO Group Symbol : A-4(0)  
 AASHTO Group Name : Silty Silts

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GEOTECHNICAL LABORATORY TEST DATA

Project : USACOE Long Island Sound Study; Phase 2 Part III  
Project No. : GTX-2717                      Depth : ---  
Boring No. : ---                              Test Date : 09/12/00  
Sample No. : LIS01CLN93C5C                  Test Method : D422 / D2216  
Location : Long Island Sound  
Soil Description : Saturated, black/brown silty clay with sand  
Remarks : ---

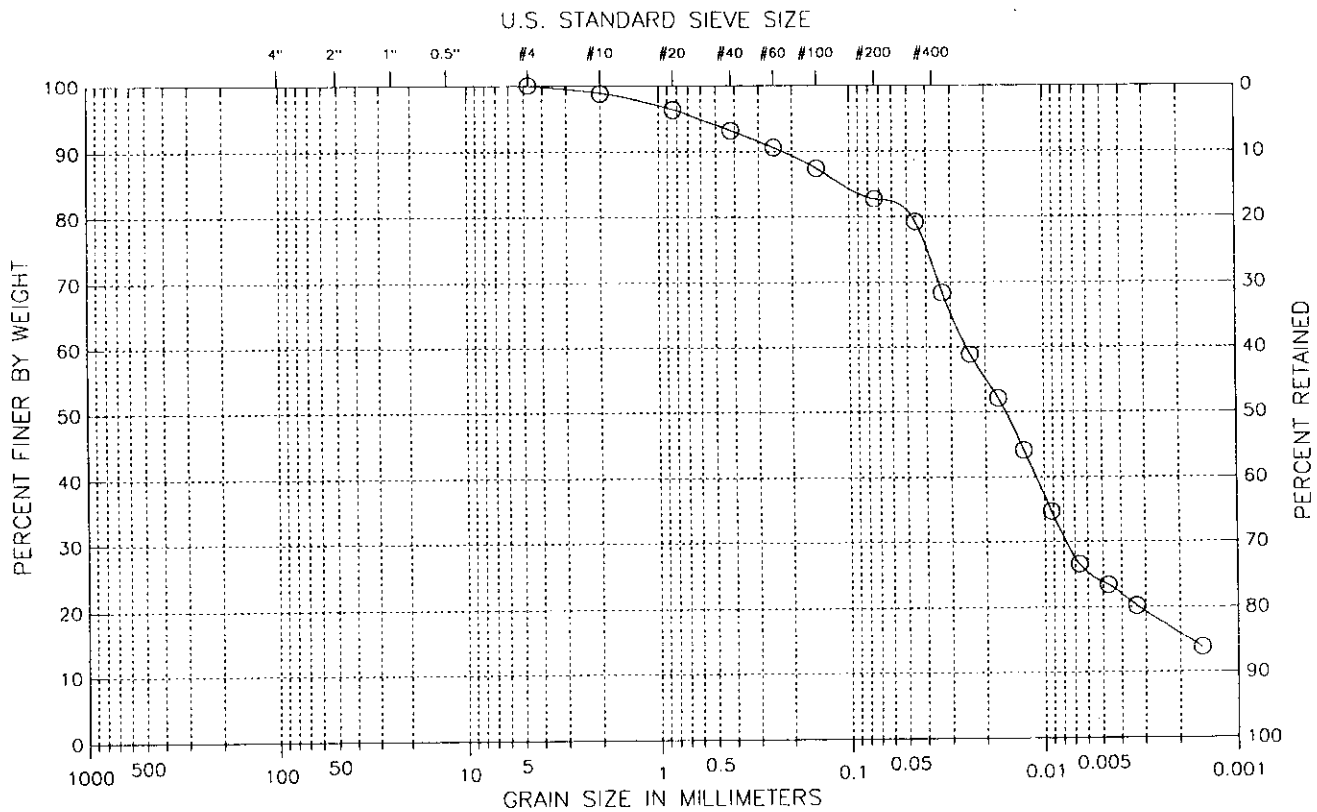
Filename : 143  
Elevation : ---  
Tested by : KAH  
Checked by : GTT

Moisture Content ID	Natural Moisture Content			Moisture Content (%)
	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	
1) rc12	9.65	209.68	97.77	127.00

Average Moisture Content = 127.00

Boring No. : ---  
 Sample No: LIS01CLN93CPC  
 Test Method D422 / D2716  
 Filename : 144

Project : USACOF Long Island Sound Study; Phase 2 Part III  
 Project No.: GTX-2717  
 Location: Long Island Sound  
 Date : Mon Sep 18 2000



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

Classification :

Remarks :

Visual Description :

Saturated, black/brown silty clay with sand

Figure 10a

GEOTECHNICAL LABORATORY TEST DATA

Project : USACOE Long Island Sound Study; Phase 2 Part III  
 Project No. : GTX-2717                      Depth : ---  
 Bring No. : ---                              Test Date : 09/12/00  
 Sample No. : LIS01CLN93CPC              Test Method : D422 / D2216  
 Location : Long Island Sound  
 Soil Description : Saturated, black/brown silty clay with sand  
 Remarks : ---

Filename : 144  
 Elevation : ---  
 Tested by : KAH  
 Checked by : GTT

HYDROMETER

Hydrometer ID : 88-18231  
 Weight of air-dried soil = 37.49 gm  
 Specific Gravity = 2.52

Hydroscopic Moisture Content :  
 Weight of Wet Soil = 0 gm  
 Weight of Dry Soil = 0 gm  
 Moisture Content = 0

Elapsed Time (min)	Reading	Temperature (deg. C)	Corrected Reading	Particle Size (mm)	Percent Finer (%)	Adjusted Particle Size
1.00	35.00	21.50	29.23	0.045	79	0.045
2.00	31.00	21.50	25.23	0.033	68	0.033
4.00	27.50	21.50	21.73	0.024	59	0.024
8.00	25.00	21.50	19.23	0.017	52	0.017
15.00	22.00	22.00	16.30	0.013	44	0.013
30.00	18.50	22.00	12.80	0.009	35	0.009
60.00	15.50	22.00	9.80	0.007	27	0.007
120.00	14.00	22.50	8.63	0.005	23	0.005
240.00	12.50	23.00	7.47	0.003	20	0.003
1217.00	11.00	20.50	5.10	0.002	14	0.002

Sieve Mesh	Sieve Openings		FINE SIEVE SET		
	Inches	Millimeters	Weight Retained (gm)	Cumulative Weight Retained (gm)	Percent Finer (%)
#4	0.187	4.75	0.00	0.00	100
#10	0.073	2.00	0.47	0.47	99
#20	0.033	0.84	0.92	1.39	96
#40	0.017	0.42	1.20	2.59	93
#60	0.010	0.25	0.97	3.56	91
#100	0.005	0.15	1.21	4.77	87
#200	0.003	0.07	1.79	6.56	83
Pan			31.40	37.96	0

Total Dry Weight of Sample = 155.15

- D85 : 0.1038 mm
- D60 : 0.0249 mm
- D50 : 0.0159 mm
- D30 : 0.0076 mm
- D15 : 0.0018 mm
- D10 : 0.0010 mm

Soil Classification  
 ASTM Group Symbol : N/A  
 ASTM Group Name : N/A  
 AASHTO Group Symbol : A-4(0)  
 AASHTO Group Name : Silty Soils

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GEOTECHNICAL LABORATORY TEST DATA

Project : USACOE Long Island Sound Study, Phase 2 Part III  
Project No. : GTX-2717                      Depth : ---  
Boring No. : ---                              Test Date : 09/12/00  
Sample No. : LIS01CLN93CPC                  Test Method : D422 / D2216  
Location : Long Island Sound  
Soil Description : Saturated, black/brown silty clay with sand  
Remarks : ---

Filename : 144  
Elevation : ---  
Tested by : KAH  
Checked by : GTT

Moisture Content ID	Natural Moisture Content			Moisture Content (%)
	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	
1) mp6	9.76	203.89	99.61	116.06

Average Moisture Content = 116.06

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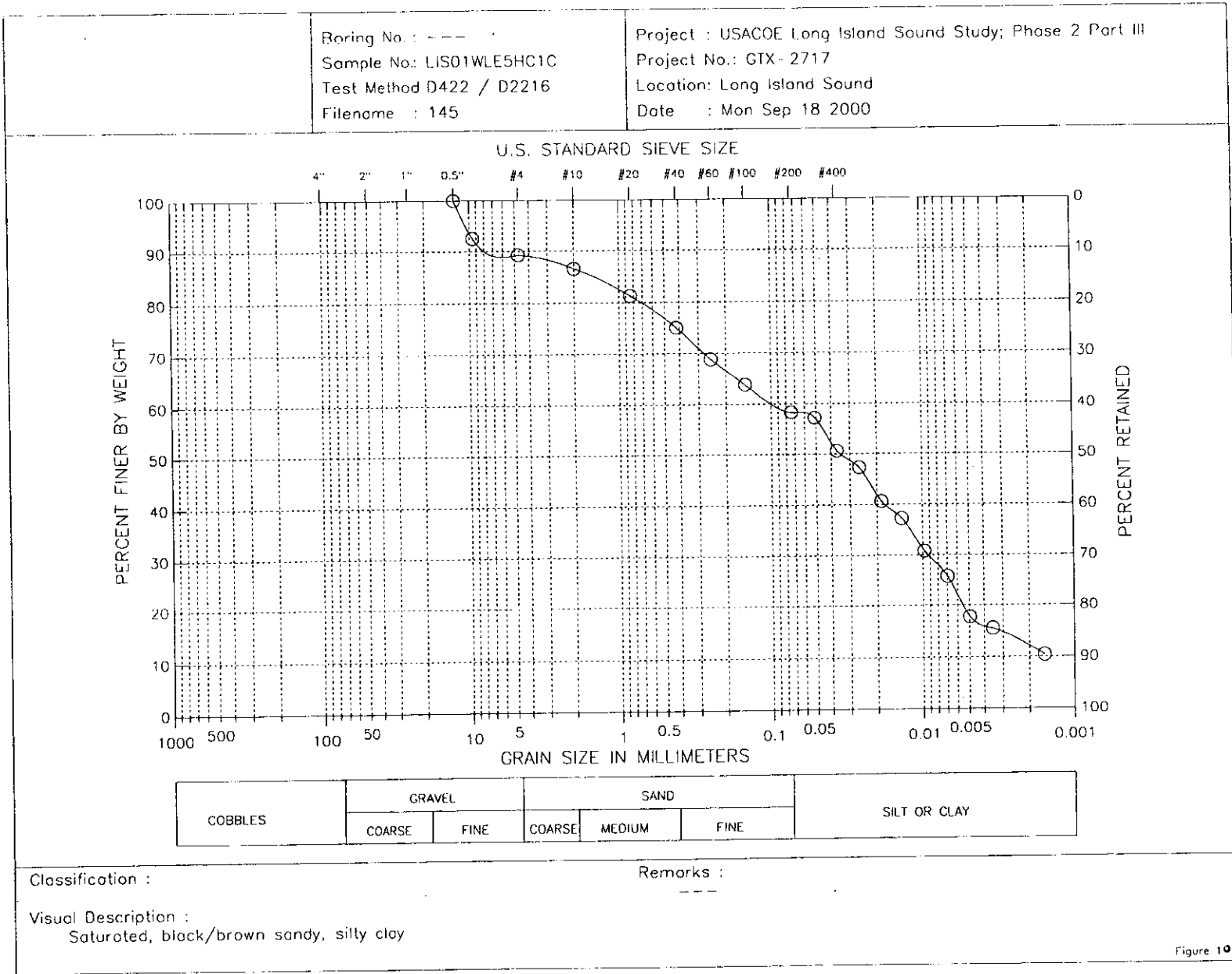


Figure 107

GEOTECHNICAL LABORATORY TEST DATA

Project : USACOE Long Island Sound Study; Phase 2 Part III  
 Project No. : GTX-2717                      Depth : ---  
 Boring No. : ---                            Test Date : 09/12/00  
 Sample No. : LIS01WLE5HC1C              Test Method : D422 / D2216  
 Location : Long Island Sound  
 Soil Description : Saturated, black/brown sandy, silty clay  
 Remarks : ---

Filename : 145  
 Elevation : ---  
 Tested by : KAH  
 Checked by : GTT

HYDROMETER

Hydrometer ID : 88-18231  
 Weight of air-dried soil = 27.16 gm  
 Specific Gravity = 2.43

Hydroscopic Moisture Content :  
 Weight of Wet Soil = 0 gm  
 Weight of Dry Soil = 0 gm  
 Moisture Content = 0

Elapsed Time (min)	Reading	Temperature (deg. C)	Corrected Reading	Particle Size (mm)	Percent Finer (%)	Adjusted Particle Size
1.00	23.00	21.00	17.17	0.051	57	0.051
2.00	21.00	21.00	15.17	0.037	51	0.037
4.00	20.00	21.00	14.17	0.026	47	0.026
8.00	18.00	21.00	12.17	0.019	41	0.019
15.00	17.00	21.00	11.17	0.014	37	0.014
30.00	15.00	21.50	9.23	0.010	31	0.010
60.00	13.50	21.50	7.73	0.007	26	0.007
120.00	11.00	22.00	5.30	0.005	18	0.005
240.00	10.00	22.50	4.63	0.004	15	0.004
1254.00	9.00	20.50	3.10	0.002	10	0.002

Sieve Mesh	Sieve Openings		FINE SIEVE SET		Percent Finer (%)
	Inches	Millimeters	Weight Retained (gm)	Cumulative Weight Retained (gm)	
0.5"	0.500	12.70	0.00	0.00	100
0.175"	0.174	9.51	1.92	1.92	93
#4	0.187	4.75	0.83	2.75	89
#10	0.079	2.00	0.70	3.45	87
#20	0.033	0.84	1.34	4.79	81
#40	0.017	0.42	1.61	6.40	75
#60	0.010	0.25	1.59	7.99	69
#100	0.006	0.15	1.26	9.25	64
#200	0.003	0.07	1.41	10.66	58
Pan			14.95	25.61	0

Total Dry Weight of Sample = 124.07

D85 : 1.5528 mm  
 D60 : 0.0910 mm  
 D50 : 0.0345 mm  
 D30 : 0.0092 mm  
 D15 : 0.0033 mm  
 D10 : 0.0015 mm

Soil Classification

ASTM Group Symbol : N/A  
 ASTM Group Name : N/A  
 AASHTO Group Symbol : A-4(0)  
 AASHTO Group Name : Silty Soils

GEOTECHNICAL LABORATORY TEST DATA

Project : USACOE Long Island Sound Study; Phase 2 Part III  
 Project No. : GTX-2717                      Depth : ---  
 Boring No. : ---                            Test Date : 09/12/00  
 Sample No. : LIS01WLE5HC1C                Test Method : D422 / D2216  
 Location : Long Island Sound  
 Soil Description : Saturated, black/brown sandy, silty clay  
 Remarks : ---

Filename : 145  
 Elevation : ---  
 Tested by : KAH  
 Checked by : GTT

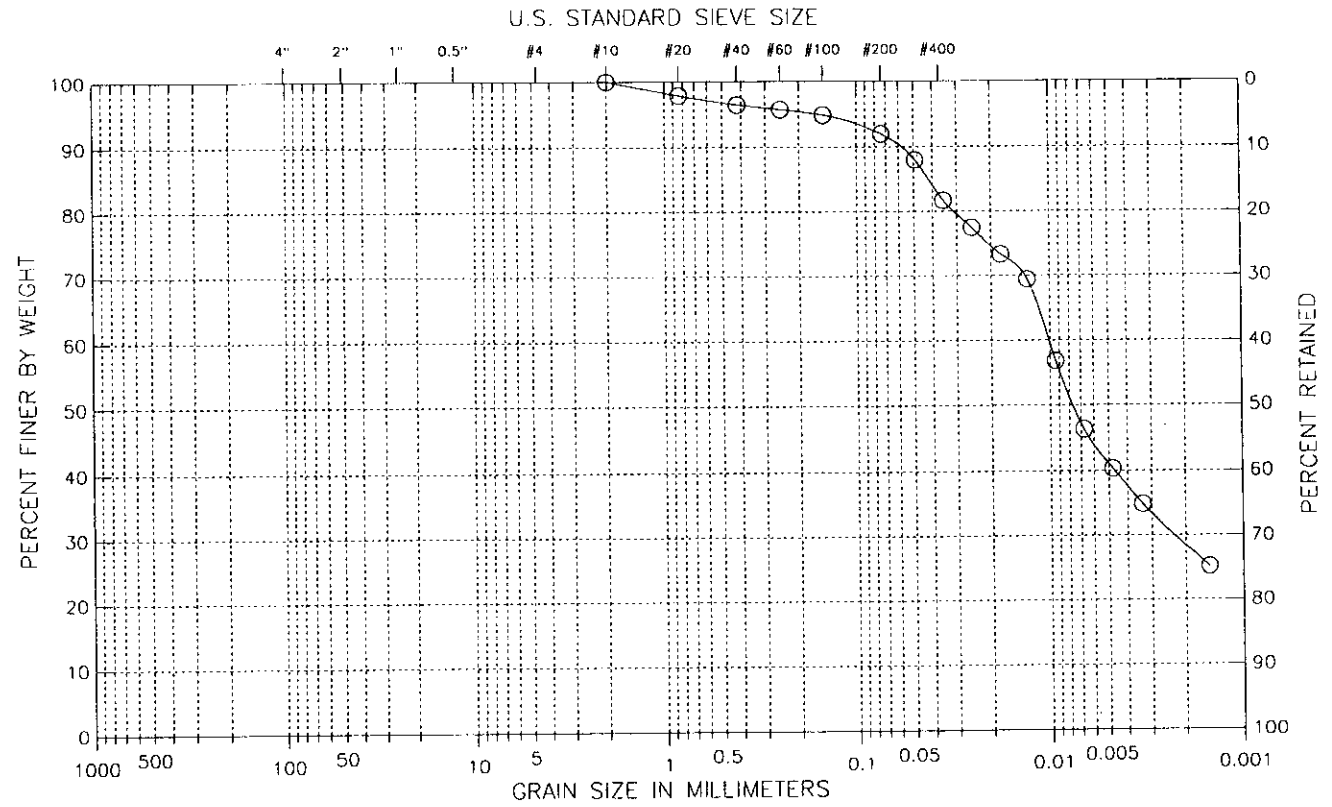
Moisture Content ID	Mass of Container (gm)	Natural Moisture Content		Moisture Content (%)
		Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	
1) rc15	9.56	206.48	97.94	122.81

Average Moisture Content = 122.81

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Boring No. : ---  
 Sample No.: LIS01WLE5HC3C  
 Test Method D422 / D2216  
 Filename : 147

Project : USACOE Long Island Sound Study; Phase 2 Part iii  
 Project No.: GTX-2717  
 Location: Long Island Sound  
 Date : Mon Sep 18 2000



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

Classification : \_\_\_\_\_  
 Visual Description : Saturated, greenish gray silty clay  
 Remarks : \_\_\_\_\_

Figure 108

GEOTECHNICAL LABORATORY TEST DATA

Project : USACOE Long Island Sound Study; Phase 2 Part III  
 Project No. : GTX-2717                      Depth : ---  
 Boring No. : ---                              Test Date : 09/11/00  
 Sample No. : LIS01WLE5HC3C                Test Method : D422 / D2216  
 Location : Long Island Sound  
 Soil Description : Saturated, greenish gray silty clay  
 Remarks : ---

Filename : 147  
 Elevation : ---  
 Tested by : KAH  
 Checked by : GTT

HYDROMETER

Hydrometer ID : 649262  
 Weight of air-dried soil = 24.61 gm  
 Specific Gravity = 2.51

Hydroscopic Moisture Content :  
 Weight of Wet Soil = 0 gm  
 Weight of Dry Soil = 0 gm  
 Moisture Content = 0

Elapsed Time (min)	Reading	Temperature (deg. C)	Corrected Reading	Particle Size (mm)	Percent Finer (%)	Adjusted Particle Size
1.00	25.50	20.50	21.00	0.049	88	0.049
2.00	24.00	20.50	19.50	0.035	82	0.035
4.00	23.00	20.50	18.50	0.025	77	0.025
8.00	22.00	20.50	17.50	0.018	73	0.018
15.00	21.00	21.00	16.57	0.013	69	0.013
30.00	18.00	21.00	13.57	0.009	57	0.009
60.00	15.50	21.00	11.07	0.007	46	0.007
120.00	14.00	21.50	9.63	0.005	40	0.005
240.00	12.50	23.00	8.33	0.003	35	0.003
1285.00	10.50	20.50	6.00	0.002	25	0.002

FINE SIEVE SET

Sieve Mesh	Sieve Openings Inches	Sieve Openings Millimeters	Weight Retained (gm.)	Cumulative Weight Retained (gm.)	Percent Finer (%)
#10	0.079	2.00	0.00	0.00	100
#20	0.033	0.84	0.53	0.53	98
#40	0.017	0.42	0.35	0.88	96
#60	0.010	0.25	0.18	1.06	96
#100	0.006	0.15	0.21	1.27	95
#200	0.003	0.07	0.70	1.97	92
Pan			22.64	24.61	0

Total Dry Weight of Sample = 127.45

D85 : 0.0421 mm  
 D60 : 0.0102 mm  
 D50 : 0.0076 mm  
 D30 : 0.0022 mm  
 D15 : N/A  
 D10 : N/A

Soil Classification  
 ASTM Group Symbol : N/A  
 ASTM Group Name : N/A  
 AASHTO Group Symbol : A-4(0)  
 AASHTO Group Name : Silty Soils

GEOTECHNICAL LABORATORY TEST DATA

Project : USACOE Long Island Sound Study; Phase 2 Part III  
Project No. : GIX-2717                      Depth : ---  
Boring No. : ---                            Test Date : 09/11/00  
Sample No. : LIS01WLESHC3C                Test Method : D422 / D2216  
Location : Long Island Sound  
Soil Description : Saturated, greenish gray silty clay  
Remarks : ---

Filename : 147  
Elevation : ---  
Tested by : KAH  
Checked by : GIT

Moisture Content ID	Mass of Container (gm)	Natural Moisture Content		Moisture Content (%)
		Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	
1) Y1	9.73	214.58	97.22	134.14
Average Moisture Content = 134.14				

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E-346

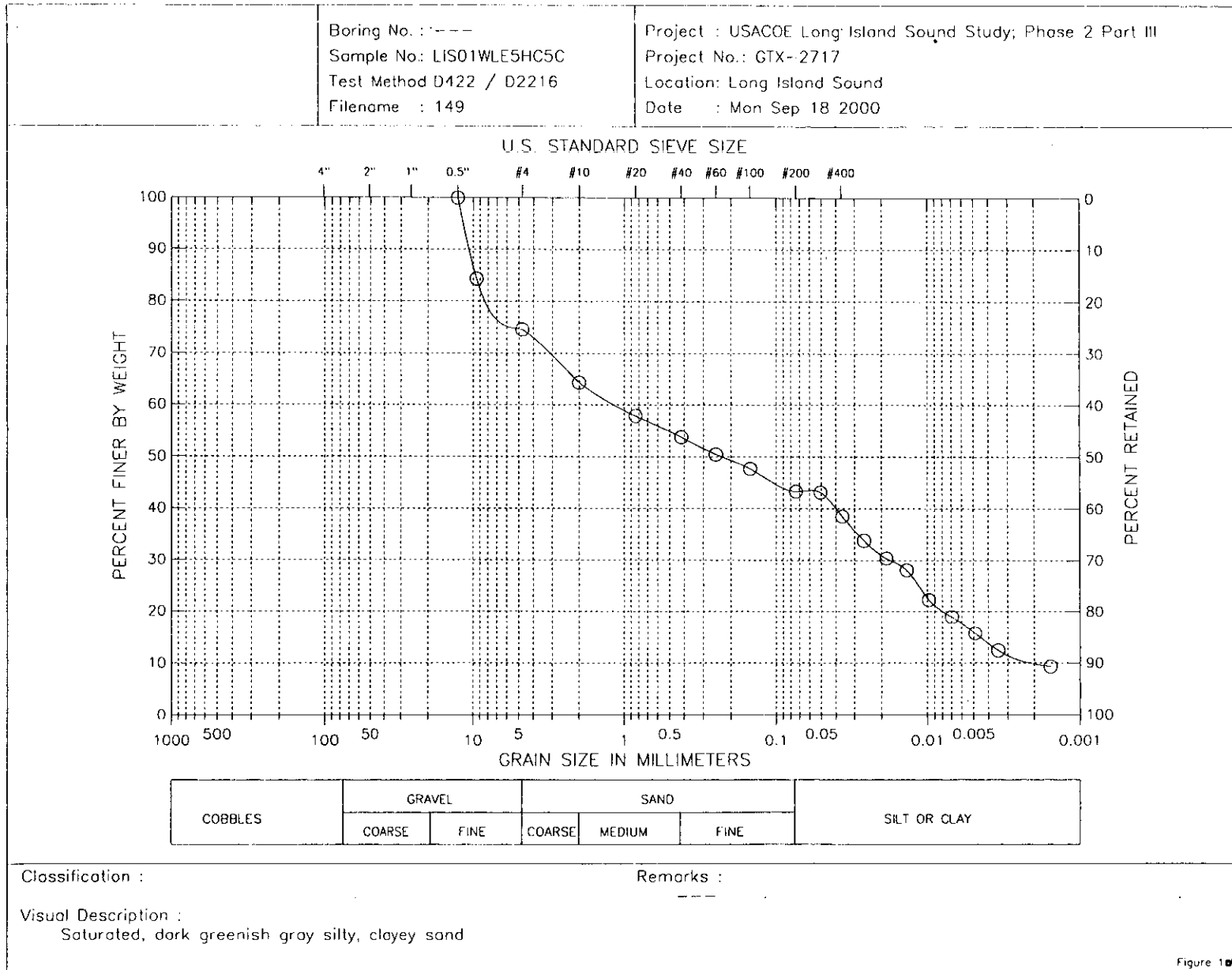


Figure 1a

GEOTECHNICAL LABORATORY TEST DATA

Project : USACOE Long Island Sound Study; Phase 2 Part III  
 Project No. : GTX-2717                      Depth : ---  
 Boring No. : ---                              Test Date : 09/11/00  
 Sample No. : LIS01WLE5HCSC                Test Method : D422 / D2216  
 Location : Long Island Sound  
 Soil Description : Saturated, dark greenish gray silty, clayey sand  
 Remarks : ---

Filename : 149  
 Elevation : ---  
 Tested by : KAH  
 Checked by : GTT

HYDROMETER

Hydrometer ID : 649262  
 Weight of air-dried soil = 28.8 gm  
 Specific Gravity = 2.46

Hydroscopic Moisture Content :  
 Weight of Wet Soil = 0 gm  
 Weight of Dry Soil = 0 gm  
 Moisture Content = 0

Elapsed Time (min)	Reading	Temperature (deg. C)	Corrected Reading	Particle Size (mm)	Percent Finer (%)	Adjusted Particle Size
1.00	23.00	21.00	18.57	0.051	43	0.051
2.00	21.00	21.00	16.57	0.036	38	0.036
4.00	19.00	21.00	14.57	0.026	34	0.026
8.00	17.50	21.00	13.07	0.019	30	0.019
15.00	16.50	21.00	12.07	0.014	28	0.014
30.00	14.00	21.00	9.57	0.010	22	0.010
60.00	12.50	21.50	8.13	0.007	19	0.007
120.00	11.00	22.50	6.77	0.005	16	0.005
240.00	9.50	23.00	5.33	0.003	12	0.003
1266.00	8.50	20.50	4.00	0.002	9	0.002

Sieve Mesh	Sieve Openings		FINE SIEVE SET		Percent Finer (%)
	Inches	Millimeters	Weight Retained (gm)	Cumulative Weight Retained (gm)	
0.5"	0.500	12.70	0.00	0.00	100
0.375"	0.374	9.51	5.09	5.09	84
#4	0.187	4.75	3.14	8.23	75
#10	0.079	2.00	3.34	11.57	64
#20	0.033	0.84	2.06	13.63	58
#40	0.017	0.42	1.32	14.95	54
#60	0.010	0.25	1.09	16.04	50
#100	0.006	0.15	0.90	16.94	48
#200	0.003	0.07	1.41	18.35	43
Pan			14.02	32.37	0

Total Dry Weight of Sample = 132.47

D85 : 9.6376 mm  
 D50 : 1.1204 mm  
 D50 : 0.2300 mm  
 D30 : 0.0177 mm  
 D15 : 0.0045 mm  
 D10 : 0.0019 mm

Soil Classification  
 ASTM Group Symbol : N/A  
 ASTM Group Name : N/A  
 AASHTO Group Symbol : A-4(0)  
 AASHTO Group Name : Silty Soils

GEOTECHNICAL LABORATORY TEST DATA

Project : USACOE Long Island Sound Study; Phase 2 Part III  
Project No. : GTX-2717  
Boring No. : ---  
Sample No. : LIS01WLE5HC5C  
Location : Long Island Sound  
Soil Description : Saturated, dark greenish gray silty, clayey sand  
Remarks : ---

Filename : 149  
Depth : ---  
Test Date : 09/11/00  
Test Method : D422 / D2216  
Elevation : ---  
Tested by : KAH  
Checked by : GTT

Moisture Content ID	Mass of Container (gm)	Natural Moisture Content		Moisture Content (%)
		Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	
1) moon	9.67	211.12	112.52	95.87

Average Moisture Content = 95.87

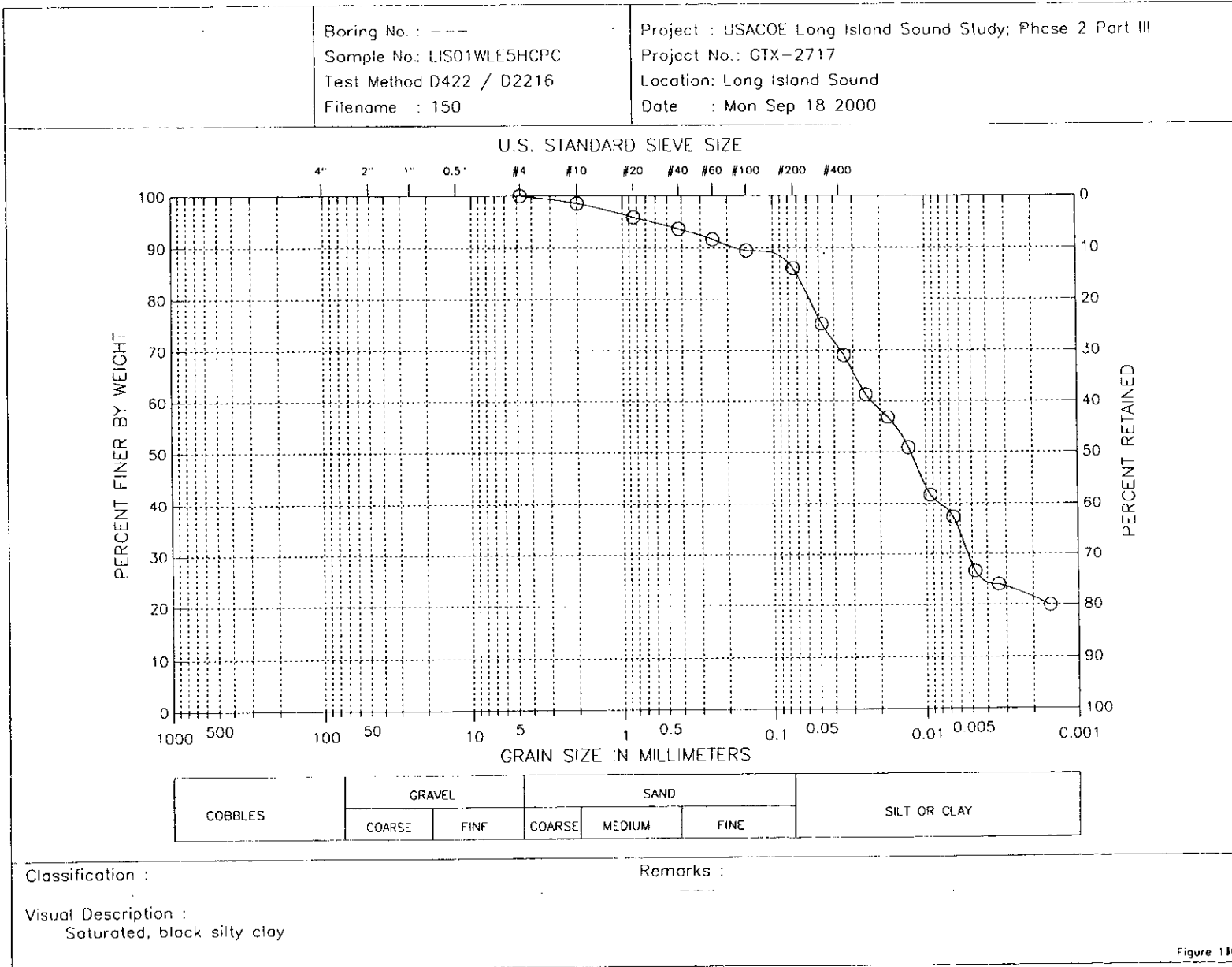


Figure 11a

GEOTECHNICAL LABORATORY TEST DATA

Project : USACOE Long Island Sound Study, Phase 2 Part III  
 Project No. : GTX-2717                      Depth : ---  
 Boring No. : ---                            Test Date : 09/11/00  
 Sample No. : LISO1WLESHCFC                Test Method : D422 / D2216  
 Location : Long Island Sound  
 Soil Description : Saturated, black silty clay  
 Remarks : ---

Filename : 150  
 Elevation : ---  
 Tested by : KAH  
 Checked by : GTT

HYDROMETER

Hydrometer ID : 649262  
 Weight of air-dried soil = 33.28 gm  
 Specific Gravity = 2.5

Hydroscopic Moisture Content :  
 Weight of Wet Soil = 0 gm  
 Weight of Dry Soil = 0 gm  
 Moisture Content = 0

Elapsed Time (min)	Reading	Temperature (deg. C)	Corrected Reading	Particle Size (mm)	Percent Finer (%)	Adjusted Particle Size
1.00	29.00	21.00	24.57	0.048	75	0.048
2.00	27.00	21.00	22.57	0.034	69	0.034
4.00	24.50	21.00	20.07	0.025	61	0.025
8.00	23.00	21.00	18.57	0.018	57	0.018
15.00	21.00	21.50	16.63	0.013	51	0.013
30.00	18.00	21.50	13.63	0.009	42	0.009
60.00	16.50	22.00	12.20	0.007	37	0.007
120.00	13.00	22.00	8.70	0.005	27	0.005
240.00	12.00	23.00	7.83	0.003	24	0.003
1228.00	11.00	20.50	6.50	0.002	20	0.002

FINE SIEVE SET

Sieve Mesh	Sieve Openings Inches	Sieve Openings Millimeters	Weight Retained (gm)	Cumulative Weight Retained (gm)	Percent Finer (%)
#4	0.187	4.75	0.00	0.00	100
#10	0.079	2.00	0.49	0.49	99
#20	0.033	0.84	0.89	1.38	96
#40	0.017	0.42	0.76	2.14	94
#50	0.010	0.25	0.69	2.83	92
#100	0.006	0.15	0.72	3.55	89
#200	0.003	0.07	1.16	4.71	86
Pan			29.06	33.77	0

Total Dry Weight of Sample = 137.2

- D85 : 0.0710 mm
- D60 : 0.0224 mm
- D50 : 0.0126 mm
- D30 : 0.0053 mm
- D15 : N/A
- D10 : N/A

Soil Classification

ASTM Group Symbol : N/A  
 ASTM Group Name : N/A  
 AASHTO Group Symbol : A-4(0)  
 AASHTO Group Name : Silty Soils

Mon Sep 18 12:43:30 2000

Page : 2

GEOTECHNICAL LABORATORY TEST DATA

Project : USACOE Long Island Sound Study; Phase 2 Part III      Filename : 150  
Project No. : GTX-2717      Depth : ---      Elevation : ---  
Boring No. : ---      Test Date : 09/11/00      Tested by : KAH  
Sample No. : LIS01WLE5HCPC      Test Method : D422 / D2216      Checked by : GIT  
Location : Long Island Sound  
Soil Description : Saturated, black silty clay  
Remarks : ---

Moisture Content ID	Natural Moisture Content			Moisture Content (%)
	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	
1) xx130	9.63	200.23	101.00	108.60
Average Moisture Content = 108.60				



## Specific Gravity of Soils by ASTM D 854

Client: ENSR  
Project Name USACOE Long Island Sound Study; Phase 2 Part III  
Project Locat Long Island Sound

GTX #: 2717  
Test Date: 08/21-09/12/00  
Tested By: KAH  
Checked By: GTT

Sample ID	Specific Gravity @ 20° C
LIS01CLREFC5C	2.47
LIS01CLREFCPC	2.45
LIS01WLSTHC1C	2.64
LIS01WLSTHC3C	2.59
LIS01WLSTHC5C	2.59
LIS01WLSTHCPC	2.62
LIS01WLSWRC1C	2.61
LIS01WLSWRC3C**	2.57
LIS01WLSWRC3C**	2.55
LIS01WLSWRC3C**	2.52
LIS01WLSWRC5C	2.50
LIS01WLSWRCPC	2.58
LIS01CLN93C1C	2.42
LIS01CLN93C3C	2.44
LIS01CLN93C5C	2.51
LIS01CLN93CPC	2.52
LIS01WLE5HC1C	2.43
LIS01WLE5HC3C	2.51
LIS01WLE5HC5C	2.46
LIS01WLE5HCPC	2.50

Notes: Specific gravity performed by using method A (oven dried specimens) of ASTM D 854  
\*\* denotes triplicate analysis



U.S. Army Corps of Engineers, New England District (NED)  
Long Island Sound EIS Sampling - February 2000

**CHAIN OF CUSTODY**

Survey LIS01 Analytical Lab ID GEOT COC\_ID 6

	Name	Signature	Affiliation	Date and Time	Fieldbook Nu
Released	D. Boye	[Signature]	ENSR	18 FEB 11:58	
Rec'd	Ed Butler	[Signature]	WHA	"	Num of Coolers 1
Released	Ed Butler	[Signature]	WHA	2/18/2000 @ 16:45	Num of Bottles
Rec'd 3°C	Dianne Janak	[Signature]	WHA	2/18/2000 @ 16:45	COC Tape No's
Released	Dianne H. Janak	[Signature]	WHA	2/21/2000 @ 14:10	
Rec'd	D. Boye	[Signature]	ENSR	21 FEB 14:10	
			ENSR	22 FEB 09:45	

Recipient's Address  
1145 Massachusetts Ave., Boxboro, MA 01719











Comments  
2/22/00

BOTTLE_ID	Bar Code	DATE/TIME	Container	Media	Analysis	Preservative	Filtered
LIS01CS2KWC1C	[Barcode]	02/17/00 19:50:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CS2KWC2C	[Barcode]	02/17/00 20:43:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CS2KWC3C	[Barcode]	02/17/00 20:59:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CS2KWC4C	[Barcode]	02/17/00 21:25:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CS2KWC5C	[Barcode]	02/17/00 21:50:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CS2KWCPC	[Barcode]	02/17/00 22:06:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CS4KWC1C	[Barcode]	02/17/00 17:28:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CS4KWC2C	[Barcode]	02/17/00 17:40:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CS4KWC3C	[Barcode]	02/17/00 18:04:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CS4KWC4C	[Barcode]	02/17/00 18:44:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CS4KWC5C	[Barcode]	02/17/00 19:22:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CS4KWCPC	[Barcode]	02/17/00 19:44:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSS94C1C	[Barcode]	02/17/00 22:28:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSS94C2C	[Barcode]	02/17/00 22:40:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO



U.S. Army Corps of Engineers, New England District (NED)  
Long Island Sound EIS Sampling - February 2000

### CHAIN OF CUSTODY

LIS01CSS94C3C		02/17/00 23:00:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSS94C4C		02/17/00 23:15:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSS94C5C		02/17/00 23:34:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSS94CPC		02/17/00 23:55:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLR LCC1C		02/17/00 9:03:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLR LCC2C		02/17/00 9:36:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLR LCC3C		02/17/00 10:22:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLR LCC4C		02/17/00 10:50:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLR LCC5C		02/17/00 11:33:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLR LCCPC		02/17/00 11:49:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO



U.S. Army Corps of Engineers, New England District (NED)  
Long Island Sound EIS Sampling - February 2000

**CHAIN OF CUSTODY**

Survey LIS01 Analytical Lab ID GEOT COC\_ID 71

	Name	Signature	Affiliation	Date and Time	Fieldbook Nu
Released	D. Boyle	[Signature]	ENSR	18 Feb 12:00	
Rec'd	E. Butler	[Signature]	WH	18 Feb 12:00	Num of Coolers
Released	E. Butler	[Signature]	WH	16 Feb 16:41	1
Rec'd 2°C	Diane Dinal	[Signature]	WHG	2/18/2000 16:45	Num of Bottles
Released	Diane H. Jank	[Signature]	WHG	2/18/2000 14:10	
Rec'd	D. Boyle	[Signature]	ENSR	21 Feb 14:00	COC Tape No's

Recipient's Address: 1145 Massachusetts Ave., Boxboro, MA 01719











Comments: ENSR 22 Feb 0945 2/22/00

BOTTLE_ID	Bar Code	DATE/TIME	Container	Media	Analysis	Preservative	Filtered
LIS01CSB92C1C	[Barcode]	02/18/00 7:06:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSB92C2C	[Barcode]	02/18/00 7:26:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSB92C3C	[Barcode]	02/18/00 7:41:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSB92C4C	[Barcode]	02/18/00 8:08:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSB92C5C	[Barcode]	02/18/00 8:32:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSB92CPC	[Barcode]	02/18/00 9:05:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSRF3C1C	[Barcode]	02/17/00 15:03:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSRF3C2C	[Barcode]	02/17/00 15:26:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSRF3C3C	[Barcode]	02/17/00 15:49:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSRF3C4C	[Barcode]	02/17/00 16:09:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSRF3C5C	[Barcode]	02/17/00 16:25:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSRF3CPC	[Barcode]	02/17/00 17:01:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSRF4C1C	[Barcode]	02/17/00 13:05:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSRF4C2C	[Barcode]	02/17/00 13:23:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO



U.S. Army Corps of Engineers, New England District (NED)  
Long Island Sound EIS Sampling - February 2000

**CHAIN OF CUSTODY**

LIS01CSRF4C3C		02/17/00 13:40:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSRF4C4C		02/17/00 13:58:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSRF4C5C		02/17/00 14:07:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CSRF4CPC		02/17/00 14:35:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLSEAC1C		02/17/00 6:41:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLSEAC2C		02/17/00 7:11:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLSEAC3C		02/17/00 7:36:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLSEAC4C		02/17/00 8:03:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLSEAC5C		02/17/00 8:35:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLSEACPC		02/17/00 9:11:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO



U.S. Army Corps of Engineers, New England District (NED)  
Long Island Sound EIS Sampling - February 2000

**CHAIN OF CUSTODY**

Survey LIS01 Analytical Lab ID GEOT COC\_ID 41

	Name	Signature	Affiliation	Date and Time	Fieldbook Nu
Released	D. Boye	<i>[Signature]</i>	ENSR	22 Feb 0945	0200A380
Rec'd	J. Tubax	<i>[Signature]</i>	GT	2/22/00	Num of Coolers
Released					1
Rec'd					Num of Bottles
Released					18
Rec'd					COC Tape No's

Recipient's Address  
145 Massachusetts Ave., Boxboro, MA 01719





Comments

BOTTLE_ID	Bar Code	DATE/TIME	Container	Media	Analysis	Preservative	Filtered
LIS01CLFVPC1C		02/20/00 7:48:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLFVPC2C		02/20/00 8:00:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLFVPC3C		02/20/00 8:15:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLFVPC4C		02/20/00 8:33:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLFVPC5C		02/20/00 8:45:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLFVPCPC		02/20/00 9:02:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLEB1C1C		02/19/00 12:36:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLEB1C2C		02/19/00 12:55:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLEB1C3C		02/19/00 13:10:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLEB1C4C		02/19/00 13:57:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLEB1C5C		02/19/00 14:14:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLEB1CPC		02/19/00 14:34:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLMDIC1C		02/19/00 10:12:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLMDIC2C		02/19/00 10:28:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO



U.S. Army Corps of Engineers, New England District (NED)  
Long Island Sound EIS Sampling - February 2000

**CHAIN OF CUSTODY**

LIS01WLMDIC3C		02/19/00 10:47:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLMDIC4C		02/19/00 11:00:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLMDIC5C		02/19/00 11:32:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLMDICPC		02/19/00 11:53:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO



U.S. Army Corps of Engineers, New England District (NED)  
Long Island Sound EIS Sampling - February 2000

**CHAIN OF CUSTODY**

Survey	LIS01	Analytical Lab ID	GEOT	COC_ID	44
--------	-------	-------------------	------	--------	----

	Name	Signature	Affiliation	Date and Time	Fieldbook Nu
Released	D. Boye	<i>[Signature]</i>	ENSR	22 Feb 0945	0200A380
Rec'd	G. J. Tozian	<i>[Signature]</i>	GTR	2/22/00	1
Released					18
Rec'd					
Released					
Rec'd					

Recipient's Address

1145 Massachusetts Ave., Boxboro, MA 01719





Comments

BOTTLE_ID	Bar Code	DATE/TIME	Container	Media	Analysis	Preservative	Filtered
LIS01CLREFC1C		02/19/00 21:47:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLREFC2C		02/19/00 22:03:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLREFC3C		02/19/00 22:17:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLREFC4C		02/19/00 22:31:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLREFC5C		02/19/00 22:42:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLREFCPC		02/19/00 23:07:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLSTHC1C		02/18/00 23:00:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLSTHC2C		02/18/00 23:15:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLSTHC3C		02/18/00 23:55:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLSTHC4C		02/19/00 0:20:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLSTHC5C		02/19/00 0:39:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLSTHCPC		02/19/00 1:47:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLSWRC1C		02/19/00 6:46:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLSWRC2C		02/19/00 7:03:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO



U.S. Army Corps of Engineers, New England District (NED)  
Long Island Sound EIS Sampling - February 2000

**CHAIN OF CUSTODY**

LIS01WLSWRC3C		02/19/00 7:24:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLSWRC4C		02/19/00 7:44:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLSWRC5C		02/19/00 7:59:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLSWRCPC		02/19/00 8:25:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO



U.S. Army Corps of Engineers, New England District (NED)  
Long Island Sound EIS Sampling - February 2000

**CHAIN OF CUSTODY**

Survey LIS01 Analytical Lab ID GEOT COC\_ID 45

	Name	Signature	Affiliation	Date and Time	Fieldbook Nu
Released	D. Boye	<i>[Signature]</i>	ENSR	22 Feb 0945	0200A380
Rec'd	G.T. Johnson	<i>[Signature]</i>	GTR	2/22/00	Num of Coolers 1
Released					Num of Bottles 12
Rec'd					COC Tape No's
Released					
Rec'd					

Recipient's Address

1145 Massachusetts Ave., Boxboro, MA 01719

Comments

BCTTLE_ID	Bar Code	DATE/TIME	Container	Media	Analysis	Preservative	Filtered
LIS01CLN93C1C		02/19/00 23:24:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLN93C2C		02/19/00 23:40:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLN93C3C		02/19/00 23:57:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLN93C4C		02/20/00 0:30:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLN93C5C		02/20/00 0:40:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLN93CPC		02/20/00 1:09:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLE5HC1C		02/18/00 21:12:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLE5HC2C		02/18/00 21:45:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLE5HC3C		02/18/00 22:05:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLE5HC4C		02/18/00 22:12:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLE5HC5C		02/18/00 22:32:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLE5HCPC		02/18/00 23:13:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO

Description and Identification of Soils (Visual - Manual Procedure) by ASTM D 2488

Client: ENSR  
 Project Name USACOE Long Island Sound Study, Phase 2 Part III  
 Project Location Long Island Sound

GTX #: 2717  
 Test Date: 08/21/00-09/12/00  
 Tested By: PNP/NJH  
 Checked By: GTT

Sample ID	Group Name	Group Symbol	Cobbles, %	Gravel, %	Sand, %	Fines, %	Range		Angularity	Shape	Maximum Particle Size	Hardness	Plasticity	Dry Strength	Dilatancy	Toughness	Color	Odor	Moisture	Reaction with HCl
							Gravel	Sand												
LIS01NL1KEC1C	sandy silt	ML	0	0	33	87	---	fine	---	---	#10	---	Low	High	Rapid	Low	Dk. Brown	---	Wet	Weak
LIS01NL1KEC3C	sandy silt	ML	0	0	39	61	---	fine	---	---	#10	---	High	High	Rapid	High	Dk. Brown	---	Wet	Weak
LIS01NL1KEC5C	sandy silt	ML	0	0	36	64	---	fine	---	---	#10	---	Nonplastic	Medium	None	---	Dk. Brown/Black	---	Wet	Weak
LIS01NL1KECPC	sandy silt	ML	0	0	38	62	---	fine	---	---	#10	---	Nonplastic	High	None	---	Black	---	Wet	None
LIS01NL2KEC1C	sandy silt	ML	0	0	46	54	---	fine	---	---	#10	---	Low	Medium	Rapid	Low	Black/Olive Brown	---	Saturated	Weak
LIS01NL2KEC3C	sandy silt	ML	0	0	42	58	---	fine	---	---	#10	---	Low	Medium	Slow	Low	Black/Olive Brown	---	Saturated	Weak
LIS01NL2KEC5C	sandy silt	ML	0	0	44	56	---	fine	---	---	#10	---	Nonplastic	Medium	None	---	Black/Olive Brown	---	Saturated	Weak
LIS01NL2KECPC	sandy silt	ML	0	0	44	56	---	fine	---	---	#10	---	Nonplastic	High	None	---	Black/Olive Brown	---	Saturated	Weak
LIS01NLLRFC1C	silty sand	SM	0	1	54	40	---	fine	fine	---	3/8 inch	---	---	---	---	---	Black/Olive Brown	---	Wet	Weak
LIS01NLLRFC3C**	silty sand	SM	0	0	71	29	---	---	fine	---	#4	---	---	---	---	---	Black/Olive Brown	---	Wet	Weak
LIS01NLLRFC3C**	silty sand	SM	0	0	71	29	---	---	fine	---	#4	---	---	---	---	---	Black/Olive Brown	---	Wet	Weak
LIS01NLLRFC3C**	silty sand	SM	0	0	72	28	---	---	fine	---	#4	---	---	---	---	---	Black/Olive Brown	---	Wet	Weak
LIS01NLLRFC5C	silty sand	SM	0	0	58	42	---	---	fine	---	#10	---	---	---	---	---	Black/Olive Brown	---	Saturated	None
LIS01NLLRFCPC	silty sand	SM	0	0	64	36	---	---	fine	---	#4	---	---	---	---	---	Black/Olive Brown	---	Wet	None
LIS01NLWRFC1C	silty sand	SM	0	0	59	41	---	---	fine	---	#4	---	---	---	---	---	Black/Brown	---	Wet	Strong
LIS01NLWRFC3C	silty sand	SM	0	0	63	37	---	---	fine	---	#4	---	---	---	---	---	Black/Brown	---	Saturated	Strong
LIS01NLWRFC5C	silty sand	SM	0	1	65	34	---	fine	fine	---	3/8 inch	---	---	---	---	---	Black/Brown	---	Saturated	Strong
LIS01NLWRFCPC	silty sand	SM	0	5	60	35	---	fine	medium-fine	Subrounded	1/2 inch	Hard	---	---	---	---	Black	---	Wet	None
LIS01CL25WC1C	silty clay	CL/CH	0	0	6	94	---	---	fine	---	#4	---	High	High	Slow	High	Greenish Gray	---	Wet	None
LIS01CL25WC3C	silty clay	CL/CH	0	0	7	93	---	---	fine	---	#4	---	High	High	Slow	Medium	Greenish Gray	---	Wet	None
LIS01CL25WC5C	silty clay	CU/CH	0	0	6	94	---	---	fine	---	#10	---	High	Very High	Rapid	Medium	Greenish Gray	---	Saturated	None
LIS01CL25WCPC	silty clay	CL/CH	0	0	7	93	---	---	fine	---	#10	---	High	Very High	None	High	Dk. Greenish Gray	---	Saturated	Weak
LIS01CLN74C1C	sandy silt	ML	0	0	46	54	---	---	fine	---	#10	---	Nonplastic	Very High	None	---	Dk. Brown	---	Saturated	None
LIS01CLN74C3C	silty sand	SM	0	0	82	18	---	---	medium-fine	---	#10	---	---	---	---	---	Dk. Brown	---	Saturated	None
LIS01CLN74C5C	silty sand	SM	0	1	68	31	---	fine	medium-fine	---	3/8 inch	---	---	---	---	---	Dk. Greenish Brown	---	Saturated	Strong

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**Description and Identification of Soils (Visual - Manual Procedure) by ASTM D 2488**

Client: ENSR  
 Project Name USACOE Long Island Sound Study, Phase 2 Part III  
 Project Location Long Island Sound

GTX #: 2717  
 Test Date: 08/21/00-09/12/00  
 Tested By: PNP/NJH  
 Checked By: GTT

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Sample ID	Group Name	Group Symbol	Cobbles, %	Gravel, %	Sand, %	Fines, %	Range		Angularity	Shape	Maximum Particle Size	Hardness	Plasticity	Dry Strength	Dilatancy	Toughness	Color	Odor	Moisture	Reaction with HCl
							Gravel	Sand												
LIS01CLN74CPC	silty sand	SM	0	1	74	25	fine	medium-fine	---	---	3/8 inch	---	---	---	---	---	Black/Olive Brown	---	Saturated	Weak
LIS01WLW5HC1C	silty clay with sand	CL	0	0	19	81	---	fine	---	---	#4	---	High	High	Slow	Medium	Black/Olive Brown	---	Saturated	None
LIS01WLW5HC3C	silty clay	CL	0	0	12	88	---	fine	---	---	#10	---	Medium	Very High	Slow	Medium	Dk. Greenish Gray	---	Saturated	None
LIS01WLW5HC5C	silty clay	CL	0	0	11	89	---	fine	---	---	#10	---	Medium	Very High	Slow	Medium	Dk. Greenish Gray	---	Saturated	None
LIS01WLW5HCPC	silty clay with sand	CL	0	5	21	74	fine	medium-fine	---	---	3/8 inch	---	Medium	Very High	Slow	Medium	Dk. Greenish Gray	---	Saturated	None
LIS01CL1KWC5C	silty clay	CL	0	0	8	92	---	fine	---	---	#10	---	Medium	Very High	Slow	Medium	Dk. Greenish Gray	---	Saturated	None
LIS01CL1KWCPC**	silty clay	CL	0	0	12	88	---	fine	---	---	#4	---	Medium	High	Slow	Medium	Dk. Greenish Gray	---	Saturated	None
LIS01CL1KWCPC**	silty clay	CL	0	0	8	92	---	fine	---	---	#10	---	Medium	High	Slow	Medium	Dk. Greenish Gray	---	Saturated	None
LIS01CL1KWCPC**	silty clay	CL	0	0	9	91	---	fine	---	---	#10	---	Medium	High	Slow	Medium	Dk. Greenish Gray	---	Saturated	None
LIS01CL1KWC1C	silty clay with sand	CL	0	18	11	73	fine	fine	---	---	1/2 inch	---	Medium	Very High	None	Medium	Dk. Greenish Gray	---	Saturated	Weak
LIS01CL1KWC3C	silty clay	CL	0	1	9	90	fine	fine	---	---	3/8 inch	---	Medium	Very High	None	Low	Dk. Greenish Gray	---	Saturated	None
LIS01CL2KWC1C	silty clay	CL	0	0	7	93	---	fine	---	---	#4	---	High	Very High	Slow	Medium	Olive Brown	---	Saturated	None
LIS01CL2KWC3C	silty clay	CL	0	0	10	90	---	fine	---	---	#4	---	Medium	Very High	Slow	Low	Dk. Greenish Gray	---	Saturated	None
LIS01CL2KWC5C	silty clay with sand	CL	0	4	15	81	fine	medium-fine	---	---	3/8 inch	---	Medium	Very High	Rapid	Low	Dk. Greenish Gray	---	Saturated	None
LIS01CL2KWCPC	silty clay	CL	0	0	8	92	---	fine	---	---	#4	---	Medium	Very High	Slow	Medium	Dk. Greenish Gray	---	Saturated	None
LIS01CS2KWC1C	poorly graded sand	SP	0	5	93	2	fine	coarse-medium	Subrounded	---	3/8 inch	Hard	---	---	---	---	Dk. Brown	---	Wet	Strong
LIS01CS2KWC3C	poorly graded sand	SP	0	6	88	6	fine	coarse-medium	Subrounded	---	1/2 inch	Very Hard	---	---	---	---	Dk. Brown	---	Wet	Strong
LIS01CS2KWC5C	well graded sand	SW	0	13	82	5	fine	coarse-medium	Rounded	---	1/2 inch	Hard	---	---	---	---	Dk. Brown	---	Wet	Strong
LIS01CS2KWCPC	poorly graded sand	SP	0	4	93	3	fine	coarse-medium	Subrounded	---	3/8 inch	Hard	---	---	---	---	Dk. Brown	---	Wet	Strong
LIS01CS4KWC1C	poorly graded sand	SP	0	8	90	2	fine	coarse-medium	Subangular	---	1/2 inch	Hard	---	---	---	---	Dk. Brown	---	Wet	Strong
LIS01CS4KWC3C	poorly graded sand	SP	0	12	85	2	fine	coarse-medium	Subangular	---	1/2 inch	Hard	---	---	---	---	Dk. Brown	---	Wet	Strong
LIS01CS4KWC5C	poorly graded sand	SP	0	0	100	0	---	coarse-medium	---	---	#4	---	---	---	---	---	Dk. Brown	---	Wet	Strong
LIS01CS4KWCPC	poorly graded sand	SP	0	4	89	7	fine	medium	Subrounded	---	1/2 inch	Hard	---	---	---	---	Dk. Brown	---	Wet	Strong
LIS01CSS94C1C	poorly graded sand	SP	0	8	90	2	fine	coarse-medium	Subrounded	---	1/2 inch	Hard	---	---	---	---	Dk. Brown	---	Wet	Strong
LIS01CSS94C3C	poorly graded sand with gravel	SP	0	26	74	0	fine	coarse-medium	Subrounded	---	1/2 inch	Hard	---	---	---	---	Dk. Brown	---	Wet	Strong

Description and Identification of Soils (Visual - Manual Procedure) by ASTM D 2488

Client: ENSR  
 Project Name: USACOE Long Island Sound Study, Phase 2 Part III  
 Project Location: Long Island Sound

GTX #: 2717  
 Test Date: 08/21/00-09/12/00  
 Tested By: PNP/NJH  
 Checked By: GTT

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Sample ID	Group Name	Group Symbol	Cobbles, %	Gravel, %	Sand, %	Fines, %	Range		Angularity	Shape	Maximum Particle Size	Hardness	Plasticity	Dry Strength	Dilatancy	Toughness	Color	Odor	Moisture	Reaction with HCl
							Gravel	Sand												
LIS01CSS94C5C	poorly graded sand	SP	0	9	85	6	fine	coarse-medium	Subrounded	---	3/8 inch	Hard	---	---	---	---	Dk. Brown	---	Wet	Strong
LIS01CSS94CPC	poorly graded sand with gravel	SP	0	16	81	3	fine	coarse-medium	Subangular	---	1/2 inch	Hard	---	---	---	---	Dk. Grayish Brown	---	Wet	Strong
LIS01NLRLLCC1C	silty sand	SM	0	4	53	43	fine	medium-fine	---	---	1/2 inch	---	---	---	---	---	Dk. Brown	---	Wet	Strong
LIS01NLRLLCC3C**	silty sand	SM	0	0	70	30	---	medium-fine	---	---	#4	---	---	---	---	---	Dk. Brown	---	Saturated	Weak
LIS01NLRLLCC3C**	silty sand	SM	0	11	57	32	fine	medium-fine	Angular	---	1/2 inch	Firm	---	---	---	---	Dk. Brown	---	Saturated	Weak
LIS01NLRLLCC3C**	silty sand	SM	0	7	64	29	fine	medium-fine	Subangular	---	3/8 inch	Firm	---	---	---	---	Dk. Brown	---	Saturated	Weak
LIS01NLRLLCC5C	silty sand	SM	0	4	72	24	fine	medium-fine	---	---	3/8 inch	---	---	---	---	---	Dk. Brown	---	Saturated	Weak
LIS01NLRLLCCPC	silty sand	SM	0	4	65	31	fine	medium-fine	---	---	3/8 inch	---	---	---	---	---	Dk. Brown	---	Wet	Weak
LIS01CSB92C1C	poorly graded sand	SP	0	6	92	2	fine	coarse-medium	Subangular	---	1/2 inch	Firm	---	---	---	---	Dk. Brown	---	Wet	Strong
LIS01CSB92C3C	poorly graded sand	SP	0	13	85	2	fine	coarse-medium	Subangular	---	1/2 inch	Firm	---	---	---	---	Dk. Brown	---	Wet	Strong
LIS01CSB92C5C	poorly graded sand with gravel	SP	0	23	77	0	fine	coarse-medium	Subangular	---	1/2 inch	Soft	---	---	---	---	Dk. Brown	---	Wet	Strong
LIS01CSB92CPC	poorly graded sand	SP	0	11	86	3	fine	coarse-medium	Subangular	---	1/2 inch	Firm	---	---	---	---	Dk. Brown	---	Wet	Weak
LIS01CSR3C1C	silty sand	SM	0	2	76	22	fine	medium-fine	---	---	3/8 inch	---	---	---	---	---	Dk. Brown	---	Saturated	Strong
LIS01CSR3C3C	well graded sand	SW	0	10	79	11	fine	coarse-medium	Subangular	---	3/8 inch	Firm	---	---	---	---	Dk. Brown	---	Wet	Strong
LIS01CSR3C5C	well graded sand	SW	0	14	72	14	fine	coarse-medium	Subangular	---	3/8 inch	Firm	---	---	---	---	Dk. Brown	---	Wet	Strong
LIS01CSR3CPC	well graded sand	SW	0	20	68	12	fine	coarse-medium	Subangular	---	1/2 inch	Firm	---	---	---	---	Dk. Brown	---	Wet	Strong
LIS01CSR4C1C	poorly graded sand with gravel	SP	0	16	81	3	fine	coarse-medium	Subangular	---	1/2 inch	Firm	---	---	---	---	Dk. Brown	---	Saturated	Weak
LIS01CSR4C3C	poorly graded sand with gravel	SP	0	20	76	4	fine	coarse-medium	Subangular	---	1/2 inch	Firm	---	---	---	---	Dk. Brown	---	Wet	Strong
LIS01CSR4C5C	poorly graded sand	SP	0	2	94	4	fine	coarse-medium	---	---	3/8 inch	---	---	---	---	---	Dk. Brown	---	Saturated	None
LIS01CSR4CPC	poorly graded sand with gravel	SP	0	16	79	5	fine	coarse-medium	Subangular	---	1/2 inch	Firm	---	---	---	---	Dk. Brown	---	Saturated	Strong
LIS01NLSEAC1C	silty clay with sand	CL	0	0	22	78	---	fine	---	---	#4	---	Medium	Medium	Rapid	Medium	Dk. Brown	---	Saturated	Weak
LIS01NLSEAC3C	silty clay with sand	CL	0	1	17	82	fine	fine	---	---	3/8 inch	---	Medium	High	Rapid	Medium	Olive Brown	---	Wet	None
LIS01NLSEAC5C	silty clay with sand	CL	0	4	33	63	fine	medium-fine	---	---	3/8 inch	---	Medium	Medium	Rapid	Medium	Dk. Brown	---	Wet	None
LIS01NLSEACPC	silty clay with sand	CL	0	5	23	72	fine	medium-fine	---	---	1/2 inch	---	Medium	Medium	Rapid	Medium	Dk. Brown	---	Wet	Weak
LIS01CLFVPC1C	silty clay with sand	CL	0	1	26	73	fine	medium-fine	---	---	3/8 inch	---	Medium	High	Rapid	Medium	Black	---	Wet	None

**Description and Identification of Soils (Visual - Manual Procedure) by ASTM D 2488**

Client: ENSR  
 Project Name USACOE Long Island Sound Study; Phase 2 Part III  
 Project Location Long Island Sound

GTX #: 2717  
 Test Date: 08/21/00-09/12/00  
 Tested By: PNP/NJH  
 Checked By: GTT

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Sample ID	Group Name	Group Symbol	Cobbles. %	Gravel %	Sand %	Fines %	Range		Angularity	Shape	Maximum Particle Size	Hardness	Plasticity	Dry Strength	Dilatancy	Toughness	Color	Odor	Moisture	Reaction with HCl
							Gravel	Sand												
LIS01CLFVPC3C**	silty clay with sand	CL	0	0	15	85	---	medium-fine	---	---	#4	---	Medium	High	Rapid	Medium	Black	---	Wet	Weak
LIS01CLFVPC3C**	silty clay with sand	CL	0	0	15	85	---	medium-fine	---	---	#10	---	Medium	High	Rapid	Medium	Black	---	Wet	Weak
LIS01CLFVPC3C**	silty clay with sand	CL	0	0	15	85	---	medium-fine	---	---	#4	---	Medium	Medium	Rapid	Medium	Black	---	Wet	Weak
LIS01CLFVPC5C	silty clay	CL	0	0	11	89	---	fine	---	---	#10	---	Medium	High	Rapid	Medium	Dk. Greenish Gray	---	Saturated	None
LIS01CLFVPCPC	silty clay with sand	CL	0	0	16	84	---	fine	---	---	#4	---	Medium	High	Rapid	Medium	Black/Brown	---	Saturated	None
LIS01WLEB1C1C	silty clay	CL	0	0	8	92	---	fine	---	---	#10	---	Medium	High	Rapid	Medium	Olive Brown/Black	---	Saturated	None
LIS01WLEB1C3C	silty clay with sand	CL	0	0	15	85	---	fine	---	---	#10	---	Medium	High	Rapid	Medium	Olive Brown/Black	---	Saturated	None
LIS01WLEB1C5C	silty clay	CL	0	0	9	91	---	fine	---	---	#4	---	Medium	High	Rapid	Medium	Dk. Brown	---	Saturated	None
LIS01WLEB1CPC	silty clay	CL	0	0	13	87	---	fine	---	---	#10	---	Medium	High	Rapid	Medium	Dk. Greenish Gray	---	Saturated	None
LIS01WLMDIC1C	silty, clayey sand	SC	0	3	50	47	fine	medium	Subangular	---	3/8 inch	Firm	---	---	---	---	Dk. Brown	---	Saturated	Weak
LIS01WLMDIC3C	silty, clayey sand	SC	0	0	54	46	---	medium-fine	---	---	#4	---	---	---	---	---	Dk. Brown	---	Saturated	None
LIS01WLMDIC5C	silty clay with sand	CL	0	0	27	73	---	medium-fine	---	---	#4	---	Medium	Medium	Slow	Medium	Dk. Brown	---	Saturated	Weak
LIS01WLMDICPC	silty, clayey sand	SC	0	2	54	44	fine	medium-fine	Subangular	---	3/8 inch	---	---	---	---	---	Dk. Greenish Gray	---	Wet	None
LIS01CLREFC1C	silty clay	CL	0	2	7	91	---	fine	---	---	3/8 inch	---	Medium	Very High	Slow	Medium	Dk. Greenish Gray	---	Wet	None
LIS01CLREFC3C	silty clay	CL	0	0	8	92	---	fine	---	---	#10	---	Medium	High	Slow	Medium	Dk. Greenish Gray	---	Saturated	Weak
LIS01CLREFC5C	silty clay	CL	0	2	6	92	---	fine	---	---	3/8 inch	---	Medium	High	Slow	Medium	Dk. Greenish Gray	---	Saturated	None
LIS01CLREFCPC	silty clay	CL	0	3	7	90	---	medium	---	---	3/8 inch	---	Medium	Very High	Rapid	Medium	Brown	---	Saturated	None
LIS01WLSTHC1C	silty sand	SM	0	1	71	28	fine	medium-fine	Subrounded	---	3/8 inch	---	---	---	---	---	Dk. Greenish Gray	---	Wet	None
LIS01WLSTHC3C	silty sand	SM	0	4	70	26	fine	medium-fine	Subrounded	---	3/8 inch	---	---	---	---	---	Dk. Greenish Gray	---	Wet	None
LIS01WLSTHC5C	silty sand	SM	0	4	71	25	fine	medium-fine	Subangular	---	3/8 inch	---	---	---	---	---	Dk. Brown	---	Saturated	Strong
LIS01WLSTHCPC	silty sand	SM	0	6	67	27	fine	medium-fine	Subrounded	---	1/2 inch	---	---	---	---	---	Dk. Greenish Gray	---	Wet	None
LIS01WLSWRC1C	silty sand	SM	0	2	78	22	fine	medium-fine	Subangular	---	3/8 inch	---	---	---	---	---	Dk. Greenish Gray/Brown	---	Wet	None
LIS01WLSWRC3C**	silty sand	SM	0	3	75	22	fine	medium-fine	Subrounded	---	3/8 inch	---	---	---	---	---	Dk. Greenish Gray	---	Wet	None
LIS01WLSWRC3C**	silty sand	SM	0	0	78	22	---	medium-fine	---	---	#4	---	---	---	---	---	Dk. Greenish Gray	---	Wet	Weak
LIS01WLSWRC3C**	silty sand	SM	0	0	78	22	---	medium-fine	---	---	#4	---	---	---	---	---	Dk. Greenish Gray	---	Wet	None

**Description and Identification of Soils (Visual - Manual Procedure) by ASTM D 2488**

Client: ENSR  
 Project Name: USACOE Long Island Sound Study, Phase 2 Part III  
 Project Location: Long Island Sound

GTX #: 2717  
 Test Date: 08/21/00-09/12/00  
 Tested By: PNP/NJH  
 Checked By: GTT

Sample ID	Group Name	Group Symbol	Cobbles, %	Gravel, %	Sand, %	Fines, %	Range		Angularity	Shape	Maximum Particle Size	Hardness	Plasticity	Dry Strength	Dilatancy	Toughness	Color	Odor	Moisture	Reaction with HCl
							Gravel	Sand												
LIS01WLSWRC5C	silly sand	SM	0	2	75	23	fine	medium-fine	Subangular	---	3/8 inch	---	---	---	---	---	Dk Greenish Gray	---	Wet	None
LIS01WLSWRCPC	silly sand	SM	0	1	74	25	fine	medium-fine	Subangular	---	3/8 inch	---	---	---	---	---	Dk Greenish Gray	---	Wet	Weak
LIS01CLN93C1C	silty clay with sand	CL	0	0	20	80	---	medium-fine	---	---	#4	---	Medium	Very High	Rapid	Medium	Black/Brown	---	Saturated	Weak
LIS01CLN93C3C	silty clay	CL	0	0	13	87	---	medium-fine	---	---	#10	---	Medium	Medium	Slow	Low	Black/Brown	---	Saturated	None
LIS01CLN93C5C	silty clay with sand	CL	0	0	23	77	---	medium-fine	---	---	#4	---	Medium	Medium	Rapid	Medium	Black/Brown	---	Saturated	None
LIS01CLN93CPC	silty clay with sand	CL	0	0	17	83	---	medium-fine	---	---	#4	---	Medium	Medium	Rapid	Medium	Black/Brown	---	Saturated	Weak
LIS01WLE5HC1C	silty, sandy clay	CL	0	11	31	58	fine	medium-fine	Angular	---	1/2 inch	Hard	Medium	Medium	Rapid	Medium	Black/Brown	---	Saturated	None
LIS01WLE5HC3C	silty clay	CL	0	0	8	92	---	medium	---	---	#10	---	High	Medium	Slow	High	Greenish Gray	---	Saturated	None
LIS01WLE5HC5C	silty, clayey sand with gravel	SC	0	25	32	43	fine	coarse-medium	Rounded	---	1/2 inch	Hard	---	---	---	---	Dk Greenish Gray	---	Saturated	Weak
LIS01WLE5HCPC	silty clay	CL	0	0	14	86	---	medium-fine	---	---	#4	---	Medium	High	Slow	Medium	Black	---	Saturated	Weak

Notes: \*\* denotes triplicate analysis

E-367

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U.S. Army Corps of Engineers, New England District (NED)  
Long Island Sound EIS Sampling - February 2000

**CHAIN OF CUSTODY**

Survey  Analytical Lab ID  COC\_ID

	Name	Signature	Affiliation	Date and Time	Fieldbook Nu
Released	D. B. [Signature]	[Signature]	ENSR	18 FEB 120	<input type="text"/>
Rec'd	E. [Signature]	[Signature]	WHE	18 FEB 12 00	Num of Coolers <input type="text" value="1"/>
Released	E. [Signature]	[Signature]	WITG	18 FEB 16:45	Num of Bottles <input type="text"/>
Rec'd	Dianne H. [Signature]	[Signature]	WHE	2/18/2000 @ 1645	COC Tape No's <input type="text"/>
Released	Dianne H. [Signature]	[Signature]	WHE	2/21/2000 @ 1410	<input type="text"/>
Rec'd	D. Boye	[Signature]	ENSR	21 FEB 1410	











Recipient's Address: 1145 Massachusetts Ave., Boston, MA 01719  
 Comments: ENSR 22 FEB 0945 2/24/00

BOTTLE_ID	Bar Code	DATE/TIME	Container	Media	Analysis	Preservative	Filtered
LIS01NL1KEC1C	[Barcode]	02/16/00 20:36:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NL1KEC2C	[Barcode]	02/16/00 20:56:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NL1KEC3C	[Barcode]	02/16/00 21 22:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NL1KEC4C	[Barcode]	02/16/00 21 48:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NL1KEC5C	[Barcode]	02/16/00 22:15:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NL1KECPC	[Barcode]	02/16/00 22 40:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NL2KEC1C	[Barcode]	02/16/00 16:45:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NL2KEC2C	[Barcode]	02/16/00 17:22:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NL2KEC3C	[Barcode]	02/16/00 17:40:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NL2KEC4C	[Barcode]	02/16/00 18:00:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NL2KEC5C	[Barcode]	02/16/00 18 30:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NL2KECPC	[Barcode]	02/16/00 19:05:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLLRFC1C	[Barcode]	02/16/00 13:35:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLLRFC2C	[Barcode]	02/16/00 14:10:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO



U.S. Army Corps of Engineers, New England District (NED)  
Long Island Sound EIS Sampling - February 2000

**CHAIN OF CUSTODY**

LIS01NLLRFC3C		02/16/00 15:10:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLLRFC4C		02/16/00 15:20:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLLRFC5C		02/16/00 15:42:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLLRFCPC		02/16/00 15:43:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLWRFC1C		02/16/00 23:08:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLWRFC2C		02/16/00 23:28:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLWRFC3C		02/17/00 0:17:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLWRFC4C		02/17/00 0:33:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLWRFC5C		02/17/00 0:48:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01NLWRFCPC		02/17/00 1:12:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO



U.S. Army Corps of Engineers, New England District (NED)  
Long Island Sound EIS Sampling - February 2000

**CHAIN OF CUSTODY**

Survey	LIS01	Analytical Lab ID	GEOT	COC_ID	42			
	Name				Signature	Affiliation	Date and Time	Fieldbook Nu
Released	D. Bop				[Signature]	ENSR	22 FEB 0945	0200A380
Rec'd	G.T. TOROSIAN				[Signature]	GTX	2/22/00	Num of Coolers
Released								1
Rec'd								Num of Bottles
Released								18
Rec'd								COC Tape No's





Recipient's Address	Comments
1145 Massachusetts Ave., Boxboro, MA 01719	

BOTTLE_ID	Bar Code	DATE/TIME	Container	Media	Analysis	Preservative	Filtered
LIS01CL25WC1C	[Barcode]	02/19/00 17:12:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CL25WC2C	[Barcode]	02/19/00 17:26:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CL25WC3C	[Barcode]	02/19/00 17:40:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CL25WC4C	[Barcode]	02/19/00 18:05:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CL25WC5C	[Barcode]	02/19/00 18:33:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CL25WCPC	[Barcode]	02/19/00 18:53:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLN74C1C	[Barcode]	02/20/00 6:32:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLN74C2C	[Barcode]	02/20/00 6:44:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLN74C3C	[Barcode]	02/20/00 6:56:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLN74C4C	[Barcode]	02/20/00 7:09:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLN74C5C	[Barcode]	02/20/00 7:24:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CLN74CPC	[Barcode]	02/20/00 7:47:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLW5HC1C	[Barcode]	02/19/00 8:18:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLW5HC2C	[Barcode]	02/19/00 9:10:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO



U.S. Army Corps of Engineers, New England District (NED)  
Long Island Sound EIS Sampling - February 2000

### CHAIN OF CUSTODY

LIS01WLW5HC3C		02/19/00 9:25:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLW5HC4C		02/19/00 9:38:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLW5HC5C		02/19/00 9:53:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01WLW5HCPC		02/19/00 10:14:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO



U.S. Army Corps of Engineers, New England District (NED)  
Long Island Sound EIS Sampling - February 2000

**CHAIN OF CUSTODY**

Survey	LIS01	Analytical Lab ID	GEOT	COC_ID	43
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	Name	Signature	Affiliation	Date and Time	Fieldbook Nu
Released	D. Boye	<i>[Signature]</i>	ENSR	22 FEB 0945	0200A380
Rec'd	<i>[Signature]</i>	<i>[Signature]</i>	GA	2/22/00	Num of Coolers 1
Released					Num of Bottles 12
Rec'd					COC Tape No's
Released					
Rec'd					

Recipient's Address	Comments
1145 Massachusetts Ave., Boxboro, MA 01719	

BOTTLE_ID	Bar Code	DATE/TIME	Container	Media	Analysis	Preservative	Filtered
LIS01CL1KWC4C		02/19/00 21:02:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CL1KWC5C		02/19/00 21:13:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CL1KWCPC		02/19/00 21:39:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CL1KWC1C		02/19/00 20:11:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CL1KWC2C		02/19/00 20:28:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CL1KWC3C		02/19/00 20:41:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CL2KWC1C		02/19/00 18:50:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CL2KWC2C		02/19/00 19:09:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CL2KWC3C		02/19/00 19:23:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CL2KWC4C		02/19/00 19:39:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CL2KWC5C		02/19/00 19:52:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO
LIS01CL2KWCPC		02/19/00 20:05:00	12"x12" ZIP-LOC	SED	GRAIN_SIZE	-20C	NO

## Specific Gravity of Soils by ASTM D 854

Client: ENSR  
 Project Name: USACOE Long Island Sound Study; Phase 2 Part III  
 Project Locat: Long Island Sound

GTX #: 2717  
 Test Date: 08/21-09/12/00  
 Tested By: KAH  
 Checked By: GTT

Sample ID	Specific Gravity @ 20° C
LIS01NL1KEC1C	2.51
LIS01NL1KEC3C	2.49
LIS01NL1KEC5C	2.53
LIS01NL1KECPC	2.54
LIS01NL2KEC1C	2.63
LIS01NL2KEC3C	2.59
LIS01NL2KEC5C	2.61
LIS01NL2KECPC	2.64
LIS01NLLRFC1C	2.68
LIS01NLLRFC3C**	2.67
LIS01NLLRFC3C**	2.62
LIS01NLLRFC3C**	2.65
LIS01NLLRFC5C	2.61
LIS01NLLRFCPC	2.67
LIS01NLWRFC1C	2.63
LIS01NLWRFC3C	2.59
LIS01NLWRFC5C	2.62
LIS01NLWRFCPC	2.57
LIS01CL25WC1C	2.54
LIS01CL25WC3C	2.44
LIS01CL25WC5C	2.63
LIS01CL25WCPC	2.52
LIS01CLN74C1C	2.58
LIS01CLN74C3C	2.60
LIS01CLN74C5C	2.58
LIS01CLN74CPC	2.64
LIS01WLW5HC1C	2.64
LIS01WLW5HC3C	2.36
LIS01WLW5HC5C	2.44
LIS01WLW5HCPC	2.62
LIS01CL1KWC5C	2.47
LIS01CL1KWCPC**	2.51
LIS01CL1KWCPC**	2.63
LIS01CL1KWCPC**	2.54
LIS01CL1KWC1C	2.58
LIS01CL1KWC3C	2.67
LIS01CL2KWC1C	2.43
LIS01CL2KWC3C	2.60
LIS01CL2KWC5C	2.47
LIS01CL2KWPC	2.41
LIS01CS2KWC1C	2.59
LIS01CS2SKWC3C	2.66
LIS01CS2KWC5C	2.62
LIS01CS2KWPC	2.62
LIS01CS4KWC1C	2.65

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## Specific Gravity of Soils by ASTM D 854

Client: ENSR  
 Project Name USACOE Long Island Sound Study; Phase 2 Part III  
 Project Locat Long Island Sound

GTX #: 2717  
 Test Date: 08/21-09/12/00  
 Tested By: KAH  
 Checked By: GTT

Sample ID	Specific Gravity @ 20° C
LIS01CS4KWC3C	2.65
LIS01CS4KWC5C	2.64
LIS01CS4KWPC	2.62
LIS01CSS94C1C	2.66
LIS01CSS94C3C	2.67
LIS01CSS94C5C	2.63
LIS01CSS94CPC	2.72
LIS01NLRCC1C	2.59
LIS01NLRCC3C**	2.63
LIS01NLRCC3C**	2.61
LIS01NLRCC3C**	2.62
LIS01NLRCC5C	2.68
LIS01NLRCCPC	2.62
LIS01CSB92C1C	2.62
LIS01CSB92C3C	2.68
LIS01CSB92C5C	2.61
LIS01CSB92CPC	2.68
LIS01CSRF3C1C	2.60
LIS01CSRF3C3C	2.72
LIS01CSRF3C5C	2.72
LIS01CSRF3CPC	2.62
LIS01CSRF4C1C	2.70
LIS01CSRF4C3C	2.78
LIS01CSRF4C5C	2.73
LIS01CSRF4CPC	2.73
LIS01NLSEAC1C	2.53
LIS01NLSEAC3C	2.49
LIS01NLSEAC5C	2.49
LIS01NLSEACPC	2.42
LIS01CLFVPC1C	2.55
LIS01CLFVPC3C**	2.53
LIS01CLFVPC3C**	2.52
LIS01CLFVPC3C**	2.48
LIS01CLFVPC5C	2.49
LIS01CLFVPCPC	2.52
LIS01WLEB1C1C	2.52
LIS01WLEB1C3C	2.47
LIS01WLEB1C5C	2.45
LIS01WLEB1CPC	2.46
LIS01WLMDC1C	2.47
LIS01WLMDC3C	2.50
LIS01WLMDC5C	2.49
LIS01WLMDCPC	2.52
LIS01CLREFC1C	2.46
LIS01CLREFC3C	2.63

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