APPENDIX A

SOIL BORINGS

The 13 undisturbed borings were drilled to depths ranging from 40 to 100 feet below the existing ground surface or mudline to observe the soil profile and to obtain samples for laboratory testing. The river borings were advanced using wet rotary methods, powered by a Failing 3600 truck mounted drilling rig. The rig was mounted on a barge and moved to the boring locations using a tug boat. The marsh borings were also drilled with a Failing 3600 placed on a marsh buggy. Finally, Boring 13, was drilled on land using the Failing 3600. The boring locations are shown on the Boring Location Plan, Figure 2. The locations shown are approximate and were established with a handheld GPS unit using coordinates provided by HNTB. The river borings were drilled on 12 and 13 April 2007. The marsh borings were drilled from 24 to 30 April 2007, and Boring13 was drilled on 27 April 2007.

Samples were taken continuously in the upper 20 feet, at 4-ft intervals or a change of stratum to the depth penetrated by the borings. Cohesive and semi-cohesive undisturbed samples were obtained using sampling procedures outlined in ASTM D 3550. A 3-in. diameter Shelby tube was used to recover undisturbed samples by pushing the tube using the weight of the truck for reaction.

Cohesionless samples were obtained within the test borings using a standard penetration sampler (ASTM D 1586). The standard penetration sampler has a 2-in. outside diameter and a 1.38-in. inside diameter. The samples were obtained by driving the sampler with a 140-lb hammer manually activated by rope and cathead, dropping 30 inches, and in general accordance with ASTM D 1586. Recovered soil samples were sealed in containers and returned to the laboratory.

The final logs of the borings represent our interpretation of the contents of the field logs and the results of laboratory testing performed on the samples obtained during the subsurface exploration. The final logs are included in this report. The stratification lines represent the approximate boundaries between soil types, although the transitions may be gradational.

Selected cohesive soils were tested using a pocket penetrometer prior to extruding the samples from the tubes. The penetrometer is a handheld device that is used to make field classifications of the soil type and the unconfined compressive strength. The penetrometer is a spring-loaded device with a 0.25-in. diameter piston having a surface area of 0.05 square inches that is pushed 0.25 inch into the soil. The gauge is a direct reading in tons per square foot.

LEGEND AND NOTES FOR
LOG OF BORING AND TEST RESULTS

PP Pocket penetrometer: Resistance in tons per square foot

SPT Standard Penetration Test: Number of blows of a 140-lb hammer dropped 30 inches required to drive 2-in. O.D., 1.4-in. I.D. sampler a distance of 1 foot into the soil after first seating it 6 inches

SPLR Type of Sampling Shelby SPT Auger No sample

SYMBOL Clay Silt Sand Peat/Humus Shells Stone/Gravel

Predominant type shown heavy; Modifying type shown light

USC Unified Soil Classification

DENSITY Unit weight in pounds per cubic foot

SHEAR TESTS

TYPE

- UC Unconfined compression shear
- OB Unconsolidated undrained triaxial compression shear on one specimen confined at the approximate overburden pressure
- UU Unconsolidated undrained triaxial compression shear
- CU Consolidated undrained triaxial compression shear
- DS Direct shear

Ø Angle of internal friction in degrees

c Cohesion in pounds per square foot

ATTERBERG LIMITS

- LL Liquid Limit
- PL Plastic Limit
- PI Plasticity Index

OTHER TESTS

- CON Consolidation
- PD Particle size distribution (sieve and/or hydrometer)
- k Coefficient of permeability in centimeters per second
- SP Swelling pressure in pounds per square foot

Other laboratory test results reported on separate figures

GENERAL NOTES

(1) If a ground water depth is shown on the boring log, these observations were made at the time of drilling and were measured below the existing ground surface. These observations are shown on the boring logs. However, ground water levels may vary due to seasonal fluctuations and other factors. If important to construction, the depth to ground water should be determined by those persons responsible for construction immediately prior to beginning work.

(2) While the individual logs of borings are considered to be representative of subsurface conditions at their respective locations on the dates shown, it is not warranted that they are representative of subsurface conditions at other locations and times.

EUSTIS ENGINEERING COMPANY, INC.

LOG OF BORING AND TEST RESULTS

STATE OF LOUISIANA
LAKE HERMITAGE MARSH CREATION (BA-42)
PLAQUEMINES PARISH, LOUISIANA

Ground Elev.: **Datum:** **Gr. Water Depth:** **Job No.:** 19666 **Date Drilled:** 4/12/07 **Boring:** RB-1 **Refer to "Legends & Notes"**

Scale In Feet	PP	SPT	S P L R	Symbol	Visual Classification	USC	Sample Number	Depth In Feet	Water Content Percent	Density		Shear Tests			Atterberg Limits				Other Tests
										Dry	Wet	Type	ø	C	LL	PL	PI		
0		20	X		Medium dense gray fine sand w/rocks & shell fragments	SP	1	0-1.5											
		14	X		Medium dense gray fine sand		2	2.5-4											
		22	X				3	5-6.5											
		25	X				4	7.5-9											PD
							4	8.0-9											PD
10		17	X				5	10-11.5											
		20	X				6	12.5-14											
		30	X		Dense gray fine sand	SP	7	18.5-20											PD
20							7	19.0-20											PD
		30	X				8	23.5-25											
		35	X				9	28.5-30											
30																			
		36	X		Dense gray clayey sand	SC	10	33.5-35											PD
							10	34.0-35											PD
		29	X				11	38.5-40											
40																			
50																			

Comments: Water depth = 45 feet
Latitude: 29° 35' 25.99"
Longitude: 89° 49' 45.51"

EUSTIS ENGINEERING COMPANY, INC.

LOG OF BORING AND TEST RESULTS

STATE OF LOUISIANA
LAKE HERMITAGE MARSH CREATION (BA-42)
PLAQUEMINES PARISH, LOUISIANA

Ground Elev.: **Datum:** **Gr. Water Depth:** **Job No.:** 19666 **Date Drilled:** 4/13/07 **Boring:** RB-2 **Refer to "Legends & Notes"**

Scale In Feet	PP	SPT	S P L R	Symbol	Visual Classification	USC	Sample Number	Depth In Feet	Water Content Percent	Density		Shear Tests			Atterberg Limits				Other Tests
										Dry	Wet	Type	ø	C	LL	PL	PI		
0		18			Medium dense gray fine sand	SP	1	0-1.5											
		15					2	3-4.5											PD
		21					3	6-7.5											
10		20					4	9-10.5											PD
		7			Loose gray sand w/clay layers	SP	5	12-13.5											
					Medium dense gray fine sand	SP													
20		12					6	18.5-20											PD
		15					7	23.5-25											PD
30		18					8	28.5-30											
		36			Dense gray fine sand	SP	9	33.5-35											PD
40		32					10	38.5-40											
50																			

Comments: Water depth = 37 feet
Latitude: 29° 35'12.12"
Longitude: 89° 49'19.95"

EUSTIS ENGINEERING COMPANY, INC.

LOG OF BORING AND TEST RESULTS

STATE OF LOUISIANA
LAKE HERMITAGE MARSH CREATION (BA-42)
PLAQUEMINES PARISH, LOUISIANA

Ground Elev.: **Datum:** **Gr. Water Depth:** **Job No.:** 19666 **Date Drilled:** 4/12/07 **Boring:** RB-3 **Refer to "Legends & Notes"**

Scale In Feet	PP	SPT	S P L R	Symbol	Visual Classification	USC	Sample Number	Depth In Feet	Water Content Percent	Density Dry	Density Wet	Shear Tests Type	Shear Tests ø	Shear Tests C	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI		Other Tests
0		9			Loose gray fine sand w/shell fragments	SP	1	0-1.5											
		50=6"			Very dense gray fine sand w/trace of decayed wood	SP	2	3-4.5											PD
						SP	2	3.5-4.5											PD
		30			Very dense gray fine sand / Medium dense gray fine sand	SP	3	6-7.5											
10		26			Medium dense tan fine sand w/trace of silt & clay	SP-SM	4	9-10.5											PD
		24					5	12-13.5											
		12			w/trace of decayed wood		6	18.5-20											PD
20					Medium dense gray fine sand w/silt & trace of decayed wood	SP-SM	6	19.0-20											PD
		24					7	24.5-26											
		24			Medium dense tan fine sand w/trace of silt & clay	SP-SM	8	28.5-30											PD
30		28			w/trace of organic matter		9	33.5-35											PD
		27			Medium dense tan & gray fine sand w/silt & trace of clay	SP-SM	10	38.5-40											PD
40																			
50																			

Comments: Water depth = 55 feet
Latitude: 29° 34' 59.80"
Longitude: 89° 48' 52.70"

EUSTIS ENGINEERING COMPANY, INC.

LOG OF BORING AND TEST RESULTS

STATE OF LOUISIANA
LAKE HERMITAGE MARSH CREATION (BA-42)
PLAQUEMINES PARISH, LOUISIANA

Ground Elev.: **Datum:** **Gr. Water Depth:** **Job No.:** 19666 **Date Drilled:** 4/24/07 **Boring:** 4 **Refer to "Legends & Notes"**

Scale In Feet	PP	SPT	S P L R	Symbol	Visual Classification	USC	Sample Number	Depth In Feet	Water Content Percent	Density Dry	Density Wet	Shear Tests Type	Shear Tests ø	Shear Tests C	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI		Other Tests
0	0.25				Very soft gray peat w/roots	Pt	1	0-1											
	0.25				Very soft gray silty clay w/trace of sand	CL	2	1-2											
	0.25						3	2-3	38	84	115	UC	--	196					
	0.25				Medium stiff gray clayey silt	ML	4	3-4											
	0.25						5	4-5	31	91	119	OB	0	670					
					Loose gray clayey sand	SC	6	5-6											
							7	6-7	31	89	116	OB	0	379					
							8	7-8											
	0.50				Very soft gray silty clay w/clay lenses	CL	9	8-9	55	66	102	UC	--	123	46	19	27		
10	0.50						10	9-10											
	0.50				Very soft gray clay w/sand & silt lenses	CH	11	10-11	47	73	108	UC	--	161					
	0.50						12	11-12											
	0.50						13	12-13											
	0.50						14	13-14											
	0.50						15	14-15	75	54	95	UC	--	187					
	0.50						16	15-16											
	0.50						17	16-17	69	58	97	UC	--	141					
	0.50						18	17-18											
	0.50						19	18-19											
20	0.50						20	19-20	70	57	96	UC	--	191					
					Loose gray sandy silt w/clay lenses	ML													
	0.50						21	24-25	27										#200 = 86.2
					Very soft gray silty clay w/sand & silt lenses & pockets	CL													
	0.50						22	29-30	32	90	119	UC	--	246					
30					Soft gray silty clay w/silt pockets	CL													
	0.50						23	34-35	28										
					Soft gray silty clay	CL													
40																			
50																			

Comments: Latitude: 29° 34' 25.93"
Longitude: 89° 52' 4.70"

EUSTIS ENGINEERING COMPANY, INC.

LOG OF BORING AND TEST RESULTS

STATE OF LOUISIANA
LAKE HERMITAGE MARSH CREATION (BA-42)
PLAQUEMINES PARISH, LOUISIANA

Ground Elev.: **Datum:** **Gr. Water Depth:** **Job No.:** 19666 **Date Drilled:** 4/24-25/07 **Boring:** 5 **Refer to "Legends & Notes"**

Scale In Feet	PP	SPT	S P L R	Symbol	Visual Classification	USC	Sample Number	Depth In Feet	Water Content Percent	Density Dry	Density Wet	Shear Tests Type	Shear Tests ø	Shear Tests C	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI		Other Tests
0	0.25				Very soft peat w/roots	Pt	1	0-1											
	0.25						2	1-2											
	0.25				Very soft gray clay w/peat & roots	CH	3	2-3											
	0.25						4	3-4	59	65	104	UC	--	46					
	0.25						5	4-5											
	0.25						6	5-6											
	0.25						7	6-7	49	73	108	UC	--	87					
	0.25				Very soft gray silty clay w/silt lenses	CL	8	7-8											
	0.25						9	8-9											
10	0.25						10	9-10	65	61	101	UC	--	56					
	0.25						11	10-11											
	0.25				Very soft gray clay	CH	12	11-12											
	0.25				w/silt pockets		13	12-13	49	72	108	UC	--	158					
	0.25						14	13-14											
	0.25						15	14-15											
	0.25						16	15-16	67	59	99	UC	--	106					
	0.25						17	16-17											
	0.25						18	17-18											
	0.25						19	18-19	74	55	95	UC	--	142					
20	0.25				w/shells		20	19-20											
	0.50				w/silt pockets		21	24-25	73	56	97	UC	--	167					
	0.50				w/trace of silt & silt pockets		22	28-29											
30																			
	0.50						23	34-35	47	73	107	UC	--	190					
40	0.50				w/silt pockets		24	39-40											
	0.50				Soft gray clay		25	44-45	64	62	102	UC	--	417					
50	0.50						26	49-50											

Comments: Latitude: 29° 33' 55.21"
Longitude: 89° 51' 33.80"

EUSTIS ENGINEERING COMPANY, INC.

LOG OF BORING AND TEST RESULTS

STATE OF LOUISIANA
LAKE HERMITAGE MARSH CREATION (BA-42)
PLAQUEMINES PARISH, LOUISIANA

Ground Elev.: **Datum:** **Gr. Water Depth:** **Job No.:** 19666 **Date Drilled:** 4/24-25/07 **Boring:** 5 **Refer to "Legends & Notes"**

Scale In Feet	PP	SPT	S P L R	Symbol	Visual Classification	USC	Sample Number	Depth In Feet	Water Content Percent	Density		Shear Tests			Atterberg Limits				Other Tests
										Dry	Wet	Type	ø	C	LL	PL	PI		
50					Soft gray clay	CH													
	0.50						27	54-55	72	57	97	UC	--	356					
	0.50				w/silt pockets		28	59-60											
60																			
70																			
80																			
90																			
100																			

Comments: Latitude: 29° 33' 55.21"
Longitude: 89° 51' 33.80"

EUSTIS ENGINEERING COMPANY, INC.

LOG OF BORING AND TEST RESULTS

STATE OF LOUISIANA
LAKE HERMITAGE MARSH CREATION (BA-42)
PLAQUEMINES PARISH, LOUISIANA

Ground Elev.: **Datum:** **Gr. Water Depth:** **Job No.:** 19666 **Date Drilled:** 4/25/07 **Boring:** 6 **Refer to "Legends & Notes"**

Scale In Feet	PP	SPT	S P L R	Symbol	Visual Classification	USC	Sample Number	Depth In Feet	Water Content Percent	Density Dry	Density Wet	Shear Tests Type	Shear Tests ø	Shear Tests C	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI		Other Tests
0	0.25				Very soft black peat w/roots	Pt	1	0-1											
	0.25						2	1-2											
	0.25						3	2-3											
	0.25						4	3-4											
	0.25				Very soft gray silty clay	CL	5	4-5											
	0.25						6	5-6											
	0.25				w/silt pockets		7	6-7	40	81	114	UC	--	83					
	0.25						8	7-8											
	0.25						9	8-9											
10	0.25						10	9-10	44	77	111	UC	--	82					
	0.25						11	10-11											
	0.25						12	11-12											
	0.25				Medium stiff gray silty clay	CL	13	12-13	30	92	120	OB	--	504					
	0.25						14	13-14											
	0.25						15	14-15											
	0.25				Very soft gray silty clay	CL	16	15-16	46	75	110	UC	--	101					
	0.25						17	16-17											
	0.25						18	17-18											
	0.25						19	18-19	70	58	99	UC	--	83					
20	0.25						20	19-20											
					Very soft gray clay w/sandy silt pockets	CH													
	0.50						21	24-25	85	51	94	UC	--	150					
30	0.50				w/silt pockets		22	29-30											
	0.50						23	34-35	64	62	101	UC	--	165					
40	0.50						24	39-40											
50																			

Comments: Latitude: 29° 33' 33.84"
Longitude: 89° 51' 34.62"

EUSTIS ENGINEERING COMPANY, INC.

LOG OF BORING AND TEST RESULTS

STATE OF LOUISIANA
LAKE HERMITAGE MARSH CREATION (BA-42)
PLAQUEMINES PARISH, LOUISIANA

(Sheet 1 of 1)

Ground Elev.: **Datum:** **Gr. Water Depth:** **Job No.:** 19666 **Date Drilled:** 4/26/07 **Boring:** 7 Refer to "Legends & Notes"

Scale In Feet	PP	SPT	S P L R	Symbol	Visual Classification	USC	Sample Number	Depth In Feet	Water Content Percent	Density Dry	Density Wet	Shear Tests Type	Shear Tests ø	Shear Tests C	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI		Other Tests
0	0.25				Very soft black peat w/roots	Pt	1	0-1											
	0.25				Soft gray silty clay	CL	2	1-2	33	89	118	UC	--	422					
	0.25						3	2-3											
	0.25						4	3-4											
	0.25						5	4-5	32	90	119	UC	--	441					
	0.25						6	5-6											
	0.25						7	6-7											
	0.25						8	7-8	32	90	119	UC	--	301					
	0.25						9	8-9											
10	0.25	3			Medium dense gray fine sand	SP	10	9-10	26	98	123	OB	--	529					
		2					11	10-11.5											
							12	11.5-13											
	0.25						13	13-14											
	0.25				Very soft gray clay w/silty sand pockets	CH	14	14-15	58	66	104	UC	--	76					
	0.25						15	15-16											
	0.25						16	16-17											
	0.25						17	17-18	73	57	99	UC	--	79					
	0.25						18	18-19											
20	0.25						19	19-20	96	47	92	UC	--	125					
					Very soft gray clay	CH													
	0.50						20	24-25	74	57	98	UC	--	133					
30	0.50						21	29-30											
	0.50				w/silt lenses		22	34-35	54	69	106	UC	--	217					
40	0.50						23	39-40											
50																			

Comments: Latitude: 29° 33' 14.23"
Longitude: 89° 51' 44.59"

EUSTIS ENGINEERING COMPANY, INC.

LOG OF BORING AND TEST RESULTS

STATE OF LOUISIANA
LAKE HERMITAGE MARSH CREATION (BA-42)
PLAQUEMINES PARISH, LOUISIANA

Ground Elev.: **Datum:** **Gr. Water Depth:** **Job No.:** 19666 **Date Drilled:** 4/26/07 **Boring:** 8 **Refer to "Legends & Notes"**

Scale In Feet	PP	SPT	S P L R	Symbol	Visual Classification	USC	Sample Number	Depth In Feet	Water Content Percent	Density Dry	Density Wet	Shear Tests Type	Shear Tests ø	Shear Tests C	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI		Other Tests
0	0.25				Very soft black peat w/roots	Pt	1	0-1											
	0.25						2	1-2											
	0.25				Very soft gray sandy clay	CL	3	2-3											
	0.25						4	3-4	35	86	117	UC	--	52					
	0.25						5	4-5											
	0.25				Very soft gray silty clay	CL	6	5-6	37	84	116	UC	--	222					
	0.25				Medium stiff gray sandy silt w/clay	ML	7	6-7											
	0.25						8	7-8	25	100	124	OB	0	714	26	22	4		
	0.25						9	8-9											
10	0.25				Very soft gray sandy clay	CL	10	9-10											
	0.25						11	10-11	31	92	120	UC	--	225					
	0.25				Very soft gray clay	CH	12	11-12											
	0.25				w/trace of silt		13	12-13											
	0.25						14	13-14	46	76	110	UC	--	49					
	0.25						15	14-15											
	0.25				w/silt lenses		16	15-16											
	0.25				w/silt pockets		17	16-17	49	73	108	UC	--	117					
	0.25						18	17-18											
	0.25				w/trace of silt		19	18-19											
20	0.25				Very soft gray clay w/silt pockets	CH	20	19-20	69	59	100	UC	--	100					
	0.50						21	24-25											
30	0.50				Soft gray clay w/silt pockets & lenses	CH	22	29-30	51	70	105	UC	--	274					
	0.50				w/silt pockets		23	34-35											
					Soft gray sandy clay	CL													
40	0.50						24	39-40	36	85	115	UC	--	357					
					Soft gray clay	CH													
	0.50						25	44-45											
50							26	49-50	70	58	99	UC	--	425					

Comments: Latitude: 29° 32' 52.85"
Longitude: 89° 51' 22.81"

EUSTIS ENGINEERING COMPANY, INC.

LOG OF BORING AND TEST RESULTS

STATE OF LOUISIANA
LAKE HERMITAGE MARSH CREATION (BA-42)
PLAQUEMINES PARISH, LOUISIANA

Ground Elev.: **Datum:** **Gr. Water Depth:** **Job No.:** 19666 **Date Drilled:** 4/26/07 **Boring:** 8 **Refer to "Legends & Notes"**

Scale In Feet	PP	SPT	S P L R	Symbol	Visual Classification	USC	Sample Number	Depth In Feet	Water Content Percent	Density		Shear Tests			Atterberg Limits				Other Tests
										Dry	Wet	Type	ø	C	LL	PL	PI		
50					Soft gray clay w/silt pockets	CH													
	0.50						27	54-55	48	73	107	UC	--	403					
60	0.50						28	59-60	58	65	102	UC	--	328					
70																			
80																			
90																			
100																			

Comments: Latitude: 29° 32' 52.85"
Longitude: 89° 51' 22.81"

EUSTIS ENGINEERING COMPANY, INC.

LOG OF BORING AND TEST RESULTS

STATE OF LOUISIANA
LAKE HERMITAGE MARSH CREATION (BA-42)
PLAQUEMINES PARISH, LOUISIANA

(Sheet 1 of 1)

Ground Elev.: **Datum:** **Gr. Water Depth:** **Job No.:** 19666 **Date Drilled:** 4/25/07 **Boring:** 9 Refer to "Legends & Notes"

Scale In Feet	PP	SPT	S P L R	Symbol	Visual Classification	USC	Sample Number	Depth In Feet	Water Content Percent	Density Dry	Density Wet	Shear Tests Type	Shear Tests ø	Shear Tests C	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI		Other Tests
0	0.25				Very soft black peat w/roots	Pt	1	0-1											
	0.25						2	1-2											
	0.25						3	2-3											
	0.25						4	3-4											
	0.25				Very soft gray clay w/silt pockets & lenses	CH	5	4-5											
	0.25						6	5-6	96	47	92	UC	--	38					
	0.25						7	6-7											
	0.25						8	7-8											
	0.25						9	8-9											
10	0.25				Very soft gray silty clay	CL	10	9-10	36	86	116	UC	--	191					
	0.25						11	10-11											
	0.25						12	11-12											
	0.25						13	12-13	32	91	119	UC	--	333					
	0.25				Very soft gray clay w/silty sand layers & pockets	CH	14	13-14											
	0.25						15	14-15											
	0.25						16	15-16											
	0.25						17	16-17	55	68	105	UC	--	94					
	0.25						18	17-18											
	0.25						19	18-19											
20	0.25				Very soft gray clay w/silt pockets	CH	20	19-20	83	52	95	UC	--	58					
	0.50						21	24-25											
30	0.50						22	29-30	74	56	97	UC	--	170					
	0.50						23	34-35											
					Very soft gray silty clay	CL													
40	0.50						24	39-40	40	81	113	UC	--	178					
50																			

Comments: Latitude: 29° 33' 25.40"
Longitude: 89° 51' 9.34"

EUSTIS ENGINEERING COMPANY, INC.

LOG OF BORING AND TEST RESULTS

STATE OF LOUISIANA
LAKE HERMITAGE MARSH CREATION (BA-42)
PLAQUEMINES PARISH, LOUISIANA

(Sheet 1 of 1)

Ground Elev.: **Datum:** **Gr. Water Depth:** **Job No.:** 19666 **Date Drilled:** 4/30/07 **Boring:** 10 Refer to "Legends & Notes"

Scale In Feet	PP	SPT	S P L R	Symbol	Visual Classification	USC	Sample Number	Depth In Feet	Water Content Percent	Density Dry	Density Wet	Shear Tests Type	Shear Tests ø	Shear Tests C	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI		Other Tests
0					Very soft black peat w/roots	Pt	1	0-1											
							2	1-2											
							3	2-3											
					Very soft gray organic clay w/decayed wood	OH	4	3-4	135	36	85	UC	--	38					
					Very soft gray silty clay	CL	5	4-5											
							6	5-6	38	83	115	UC	--	185	41	16	25		
							7	6-7											
					Dense gray silty sand	SM	8	7-8	28	95	121	OB	--	1634					
							9	8-9											
10							10	9-10	28	89	114	OB	--	405					
							11	10-11											
					Soft gray silty clay	CL	12	11-11.17	29	92	119	OB	0	622	25	21	4		
							13	12-13											
							14	13-14											
							15	14-15	30	91	118	OB	0	409					
					Very soft gray clay w/silty sand layers & pockets	CH	16	15-16											
							17	16-17	57	65	102	UC	--	114					
							18	17-18											
							19	18-19											
20							20	19-20											
					Soft gray sandy clay	CL													
	0.25						21	23-24											
					Dense gray silty sand w/clay lenses	SM													
	0.50						22	28-29	26	94	118	OB	0	1106	26	22	4		
30																			
	0.50						23	33-34											
					Loose gray silty sand w/sandy clay layers	SM													
	0.50						24	37-38	25	93	117	OB	0	469	25	21	4		
40																			
50																			

Comments: Latitude: 29° 33' 29.44"
Longitude: 89° 50' 26.29"

EUSTIS ENGINEERING COMPANY, INC.

LOG OF BORING AND TEST RESULTS

STATE OF LOUISIANA
LAKE HERMITAGE MARSH CREATION (BA-42)
PLAQUEMINES PARISH, LOUISIANA

Ground Elev.: **Datum:** **Gr. Water Depth:** **Job No.:** 19666 **Date Drilled:** 4/27/07 **Boring:** 11 **Refer to "Legends & Notes"**

Scale In Feet	PP	SPT	S P L R	Symbol	Visual Classification	USC	Sample Number	Depth In Feet	Water Content Percent	Density Dry	Density Wet	Shear Tests Type	Shear Tests ø	Shear Tests C	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI		Other Tests
0	0.25				Very soft black peat w/roots	Pt	1	0-1											
	0.25						2	1-2											
	0.25						3	2-3											
	0.25						4	3-4											
	0.25						5	4-5											
	0.25				Very soft gray sandy clay	CL	6	5-6											
	0.25						7	6-7	44	78	111	UC	--	128					
	0.25						8	7-8											
	0.25						9	8-9											
10	0.25						10	9-10	39										
	0.25						11	10-11											
	0.25				Very soft gray clay w/sandy silt layers	CH	12	11-12											
	0.25						13	12-13	58	66	104	UC	--	88					
	0.25				Very soft gray silty clay	CL	14	13-14	61	63	102	UC	--	83					
	0.25				Very soft gray clay w/silt layers	CH	15	14-15											
	0.25						16	15-16	64	62	102	UC	--	123					
	0.25						17	16-17											
	0.25						18	17-18	73	57	98	UC	--	129					
	0.25						19	18-19											
20	0.25						20	19-20											
	0.50						21	24-25	80	53	96	UC	--	133					
	0.50						22	29-30											
30					Medium dense gray sandy silt w/clay lenses & layers	ML													
	0.50						23	34-35	31	91	119	OB	0	787	25	21	4		
					Soft gray silty clay w/silt lenses	CL													
40	0.50						24	39-40											
	0.50						25	44-45											
					Soft gray clay w/silty sand lenses	CH													
50	0.50						26	49-50	61	63	102	UC	--	268					

Comments: Latitude: 29° 33' 10.55"
Longitude: 89° 51' 6.59"

EUSTIS ENGINEERING COMPANY, INC.

LOG OF BORING AND TEST RESULTS

STATE OF LOUISIANA
LAKE HERMITAGE MARSH CREATION (BA-42)
PLAQUEMINES PARISH, LOUISIANA

Ground Elev.: **Datum:** **Gr. Water Depth:** **Job No.:** 19666 **Date Drilled:** 4/27/07 **Boring:** 11 **Refer to "Legends & Notes"**

Scale In Feet	PP	SPT	S P L R	Symbol	Visual Classification	USC	Sample Number	Depth In Feet	Water Content Percent	Density		Shear Tests			Atterberg Limits				Other Tests
										Dry	Wet	Type	ø	C	LL	PL	PI		
50					Soft gray clay w/silty sand lenses	CH													
	0.50						27	54-55											
60	0.50				Soft gray clay		28	59-60	63	62	101	UC	--	452					
	0.50				w/silt pockets		29	64-65											
70	0.50				Medium stiff gray clay	CH	30	69-70	63	62	100	UC	--	783					
	0.50						31	74-75											
80	0.50				Soft gray clay	CH	32	79-80	60	63	100	UC	--	431					
	0.50						33	84-85											
90	0.50				Medium stiff gray clay	CH	34	89-90	55	67	103	UC	--	849					
	0.50						35	94-95											
100							36	99-100	55	66	102	UC	--	515					

Comments: Latitude: 29° 33' 10.55"
Longitude: 89° 51' 6.59"

EUSTIS ENGINEERING COMPANY, INC.

LOG OF BORING AND TEST RESULTS

STATE OF LOUISIANA
LAKE HERMITAGE MARSH CREATION (BA-42)
PLAQUEMINES PARISH, LOUISIANA

(Sheet 1 of 1)

Ground Elev.: **Datum:** **Gr. Water Depth:** **Job No.:** 19666 **Date Drilled:** 4/30/07 **Boring:** 12 **Refer to "Legends & Notes"**

Scale In Feet	PP	SPT	S P L R	Symbol	Visual Classification	USC	Sample Number	Depth In Feet	Water Content Percent	Density Dry	Density Wet	Shear Tests Type	Shear Tests ø	Shear Tests C	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI		Other Tests
0					Very soft gray sandy clay	CL	1	0-1											
							2	1-2	35	86	116	OB	0	63	29	18	11		
					Medium stiff gray clayey silt	ML	3	2-3											
							4	3-4	28	94	120	OB	0	813					
							5	4-5											
							6	5-6	28	95	121	OB	0	740					
							7	6-7											
							8	7-8	33	89	118	OB	0	238	28	14	14		
							9	8-9	29	94	121	OB	0	313					-#200 = 83.5%
10					Very soft gray silty clay w/clay lenses	CL	10	9-10											
							11	10-11											
							12	11-12	47	72	105	OB	0	30					
							13	12-13											
					Very soft gray clay w/sandy silt lenses & layers	CH	14	13-14											
							15	14-15											
							16	15-16	50	70	105	OB	0	110	61	20	41		
							17	16-17											
							18	17-18											
							19	18-19	98	45	90	OB	0	112					
20					w/silt lenses		20	19-20											
							21	23-24	67	60	100	UC	--	125					
							22	28-29											
30					Soft gray silty clay w/silt layers	CL													
	0.25						23	33-34											
	0.25						24	38-39	48	69	103	OB	0	270					
40																			
50																			

Comments: Water Depth = 4 Feet
Latitude: 29° 33' 7.73"
Longitude: 89° 50' 10.91"

EUSTIS ENGINEERING COMPANY, INC.

LOG OF BORING AND TEST RESULTS

STATE OF LOUISIANA
LAKE HERMITAGE MARSH CREATION (BA-42)
PLAQUEMINES PARISH, LOUISIANA

Ground Elev.: **Datum:** NAD83 **Gr. Water Depth:** **Job No.:** 19666 **Date Drilled:** 4/17/07 **Boring:** 13 **Refer to "Legends & Notes"**

Scale In Feet	PP	SPT	S P L R	Symbol	Visual Classification	USC	Sample Number	Depth in Feet	Water Content Percent	Density Dry	Density Wet	Shear Tests Type	Shear Tests ø	Shear Tests C	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI		Other Tests
0					6" Rocks & gravel	GP	1	0-0.5											
	2.25				Soft gray silty clay	CL	2	2-3											
	0.50				w/silt lenses		3	5-6	28	96	121	UC	--	444					
	0.50				w/silt pockets		4	8-9											
10					Very soft dark gray peat	Pt													
	0.50						5	11-12	218	24	75	UC	--	204					
					Very soft gray clay w/silt lenses & pockets	CH													
	0.50						6	14-15											
20	0.50						7	19-20	59	65	103	UC	--	197					
	0.50						8	24-25											
					Soft gray silty clay	CL													
30	0.50						9	29-30	38	83	115	UC	--	282					
	0.50						10	34-35											
40	0.50						11	39-40											
		15			Medium dense gray sandy silt w/clay pockets	ML	12	41-42.5											
		17					13	43.5-45											-#200 = 87.3%
		19					14	46-47.5											
50		18					15	48.5-50											

Comments: Latitude: 29° 34' 14.45"
Longitude: 89° 48' 15.45"

EUSTIS ENGINEERING COMPANY, INC.

LOG OF BORING AND TEST RESULTS

STATE OF LOUISIANA
LAKE HERMITAGE MARSH CREATION (BA-42)
PLAQUEMINES PARISH, LOUISIANA

Ground Elev.: **Datum:** NAD83 **Gr. Water Depth:** **Job No.:** 19666 **Date Drilled:** 4/17/07 **Boring:** 13 **Refer to "Legends & Notes"**

Scale In Feet	PP	SPT	S P L R	Symbol	Visual Classification	USC	Sample Number	Depth In Feet	Water Content Percent	Density		Shear Tests			Atterberg Limits				Other Tests
										Dry	Wet	Type	ø	C	LL	PL	PI		
50					Medium dense gray silty sand	SM													
		19	X				16	53.5-55											
					Soft gray clay w/silt pockets	CH													
		3	X				17	58.8-60.3	50										
60																			
70																			
80																			
90																			
100																			

Comments: Latitude: 29° 34' 14.45"
Longitude: 89° 48' 15.45"