

**Appendix C**

**July 2001 Fill Area Soil Boring Logs**

**Former Gulf States Creosoting Site  
Hattiesburg, Mississippi**

# MICHAEL PISANI & ASSOCIATES

Environmental Management and Engineering Services  
New Orleans, Louisiana Houston, Texas

Boring/Well No.: GEO-71

Project: ADDITIONAL SITE INVESTIGATION ACTIVITIES Project No.: 21-04

Location: FORMER GULF STATES CREOSOTING SITE, HATTIESBURG, MISSISSIPPI


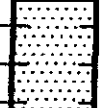
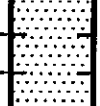
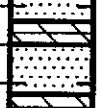


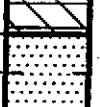
Surface Elev.: \_\_\_\_\_ Boring T.D.: 28 FEET Boring Dia.: 2 INCHES

Date Started: 07/09/01 Date Completed: 07/09/01

Drilling Company: WALKER-HILL ENVIRONMENTAL Driller: TIM CREEL

Drilling Method: GEOPROBE Grouting Method: CEMENT/BENTONITE GROUT

Logged by: DAVE UPTHEGROVE

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE TYPE	PID (PPM)	SAMPLE RECOVERY (FEET/FEET)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0					3.3/4	0-4	1.3' FILL: MOSTLY SILT WITH SOME GRAVEL AND BRICK, BROWN, MOIST, FRIABLE, THEN SAND: TAN, DRY TO MOIST, VERY FINE GRAINED, ORANGE MINERAL STAINING
5					3.7/4	4-8	1.8' AS ABOVE, SLIGHT CREOSOTE ODOR AT BASE, THEN 1.6' SAND: TAN AND GRAY, SATURATED, MEDIUM GRAINED, CREOSOTE STAINING AND ODOR, BOTTOM 0.9' CONTAINS WOOD AND IS HEAVILY STAINED, THEN 0.3' SILTY CLAY: TAN TO LIGHT GRAY, VERY MOIST, STIFF, CREOSOTE ODOR
10					4.0/4	8-12	1.3' SAND: DARK BROWN, SATURATED, COARSE GRAINED, CREOSOTE ODOR AND STAINING, THEN 1.3' SILTY CLAY: GREEN-GRAY, MOIST, STIFF, THEN 1.0' CLAYEY SAND: GREEN-GRAY, SATURATED, NAPHTHA ODOR, NO STAINING, THEN 0.4' SAND: DARK BROWN, SATURATED, COARSE GRAINED, CREOSOTE ODOR AND STAINING
15					3.7/4	12-16	0.5' AS ABOVE, THEN 1.0' SANDY CLAY: LIGHT GRAY, SATURATED, SOFT, ODOR BUT NO STAINING, THEN 0.5' SAND: LIGHT GRAY, SATURATED WITH FREE CREOSOTE, THEN 0.7' SILTY CLAY: LIGHT GRAY, MOIST, STIFF, ODOR, NO STAINING
20					4.0/4	16-20	SAND: TAN AND WHITE, SATURATED, MEDIUM GRAINED, NAPHTHA ODOR BUT NO STAINING
25					3.9/4	20-24	3.5' CLAYEY SAND: LIGHT GRAY, SATURATED, ODOR BUT NO STAINING, THEN 0.4' SILTY CLAY: GREEN-GRAY, MOIST, HARD, NAPHTHA ODOR BUT NO STAINING
30					3.3/4	24-28	AS ABOVE



# MICHAEL PISANI & ASSOCIATES

Environmental Management and Engineering Services  
 New Orleans, Louisiana                      Houston, Texas

Boring/Well No.: GEO-73

Project: ADDITIONAL SITE INVESTIGATION ACTIVITIES                      Project No.: 21-04

Location: FORMER GULF STATES CREOSOTING SITE, HATTIESBURG, MISSISSIPPI

Surface Elev.: \_\_\_\_\_ Boring T.D.: 24 FEET                      Boring Dia.: 2 INCHES

Date Started: 07/09/01                      Date Completed: 07/09/01

Drilling Company: WALKER-HILL ENVIRONMENTAL                      Driller: TIM CREEL

Drilling Method: GEOPROBE                      Grouting Method: CEMENT/BENTONITE GROUT

Logged by: JONATHAN MILLER

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE TYPE	PID (PPM)	SAMPLE RECOVERY (FEET/FEET)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0					3.6/4	0-6	SILTY SAND: LIGHT BROWN TO TAN, DRY, LOOSE, IRON STAINED MOTTLES, FEW ROOTLETS
5					3.2/4	6-8	SAND: TAN, MOIST, LOOSE, SLIGHT ODOR, BLACK STAINS AT 7', CREOSOTE ODOR
10					4.0/4	8-11.5	MEDIUM TO COARSE SAND WITH GRAVEL: DARK BROWN, WET, LOOSE, POCKETS OF PRODUCT, CREOSOTE ODOR, BLACK STAINS
11.5					4.0/4	11.5-12.8	SANDY CLAY: GREENISH GRAY, MOIST, STIFF, FEW BITS OF GRAVEL INCREASE IN STAINING AT 12', CREOSOTE ODOR
12.8						12.8-16.5	SAND: LIGHT GRAY, WET, MEDIUM DENSE, CREOSOTE ODOR, SMALL INTERVALS OF CLAY < 0.2'
16.5					4.0/4	16.5-17.5	SILTY SANDY CLAY: MOIST, STIFF, BLACK STAINS AT TOP, CREOSOTE ODOR
17.5						17.5-23.4	SAND: LIGHT GRAY, WET, MEDIUM DENSE, SLIGHT CREOSOTE ODOR
23.4					4.0/4	23.4-24	SANDY CLAY: LIGHT GRAY, MOIST, VERY STIFF, VERY SLIGHT ODOR
25							
30							

# MICHAEL PISANI & ASSOCIATES

Environmental Management and Engineering Services  
 New Orleans, Louisiana Houston, Texas

Boring/Well No.: GEO-74

Project: ADDITIONAL SITE INVESTIGATION ACTIVITIES Project No.: 21-04

Location: FORMER GULF STATES CREOSOTING SITE, HATTIESBURG, MISSISSIPPI

Surface Elev.: \_\_\_\_\_ Boring T.D.: 24 FEET Boring Dia.: 2 INCHES

Date Started: 07/09/01 Date Completed: 07/09/01

Drilling Company: WALKER-HILL ENVIRONMENTAL Driller: TIM CREEL

Drilling Method: GEOPROBE Grouting Method: CEMENT/BENTONITE GROUT

Logged by: JONATHAN MILLER

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE TYPE	PID (PPM)	SAMPLE RECOVERY (FEET/FEET)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0					3.5/4	0-8	SILTY SAND: BROWN TO TANNISH ORANGE, IRON STAINED MOTTLES FEW ROOTLETS, SLIGHT ODOR AT 6', WET AT
5					3.3/4		
10					4.0/4	8-10.9	SAND: DARK BROWN, WET, MEDIUM DENSE, IRON STAINED MOTTLES
						10.9-11.5	SANDY GRAVEL: GRAY, WET, LOOSE
						11.5-11.7	CLAY: LIGHT GRAY, MOIST, STIFF, FIRM
					4.0/4	11.7-14.3	MEDIUM SAND: LIGHT GRAY, WET, MEDIUM DENSE
15						14.3-18	CLAY: LIGHT GRAY, DAMP, VERY STIFF, (0.2') SAND AT 16', CREOSOTE ODOR
					4.0/4	18-20	SANDY CLAY: LIGHT GRAY, DAMP TO MOIST, FIRM, VERY SLIGHT ODOR
20						20-23	COARSE SAND AND GRAVEL: LIGHT TAN, WET
						23-24	SILTY CLAY: TAN, MOIST, VERY STIFF
25							
30							

# MICHAEL PISANI & ASSOCIATES

Environmental Management and Engineering Services

New Orleans, Louisiana

Houston, Texas

Boring/Well No.: GEO-75

Project: ADDITIONAL SITE INVESTIGATION ACTIVITIES Project No.: 21-04

Location: FORMER GULF STATES CREOSOTING SITE, HATTIESBURG, MISSISSIPPI

Surface Elev.: \_\_\_\_\_ Boring T.D.: 24 FEET Boring Dia.: 2 INCHES

Date Started: 07/09/01 Date Completed: 07/09/01

Drilling Company: WALKER-HILL ENVIRONMENTAL Driller: TIM CREEL

Drilling Method: GEOPROBE Grouting Method: CEMENT/BENTONITE GROUT

Logged by: JONATHAN MILLER

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE TYPE	PID (PPM)	SAMPLE RECOVERY (FEET/FEET)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0					2.9/4	0-7	SILTY SAND: BROWN TO TAN, DRY TO MOIST, LOOSE TO MEDIUM DENSE, IRON STAINED MOTTLES, WOOD FRAGMENTS, BLACK STAINS/CREOSOTE ODOR AT 6-7'
5					3.0/4	7-7.8	SILTY CLAY: TAN, DAMP, STIFF, IRON STAINED MOTTLES
10					3.3/4	7.8-9.8	SAND WITH GRAVEL: BROWN, WET, LOOSE, TO MEDIUM DENSE, BLACK STAIN, CREOSOTE ODOR
15					4.0/4	9.8-13	SILTY CLAY: LIGHT GRAY, DAMP, STIFF, CREOSOTE ODOR
20					4.0/4	13-15	SILTY SAND: WET, VERY LOOSE, BLACK STAIN, ODOR
25					4.0/4	15-21	SILTY CLAY: MOIST, FIRM, CREOSOTE ODOR, IRON STAINED MOTTLES, SAND LENS WITH GRAVEL AT 20-20.3'
30						21-21.8	SANDY SILT: WET, FIRM, IRON STAINED MOTTLES
						21.8-24	CLAY: GREENISH GRAY, DAMP, VERY STIFF

# MICHAEL PISANI & ASSOCIATES

Environmental Management and Engineering Services  
 New Orleans, Louisiana Houston, Texas

Boring/Well No.: GEO-76

Project: ADDITIONAL SITE INVESTIGATION ACTIVITIES Project No.: 21-04

Location: FORMER GULF STATES CREOSOTING SITE, HATTIESBURG, MISSISSIPPI

Surface Elev.: \_\_\_\_\_ Boring T.D.: 24 FEET Boring Dia.: 2 INCHES

Date Started: 07/10/01 Date Completed: 07/10/01

Drilling Company: WALKER-HILL ENVIRONMENTAL Driller: TIM CREEL

Drilling Method: GEOPROBE Grouting Method: CEMENT/BENTONITE GROUT

Logged by: JONATHAN MILLER

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE TYPE	PID (PPM)	SAMPLE RECOVERY (FEET/FEET)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0							
					3.5/4	0-5	SILTY SAND: BROWN TO TAN, DRY TO DAMP, LOOSE, IRON STAINED MOTTLES, ROOTLETS
5					3.3/4	5-7.8	SAND: TAN TO BROWN, MOIST TO WET, LOOSE TO MEDIUM DENSE, BLACK STAINS, CREOSOTE ODOR, GRAVEL PRESENT IN SMALL INTERVALS AND AT 7.5-7.7', WOOD AT 7.7-7.8'
						7.8-8.1	SANDY CLAY: LIGHT GRAY, DAMP, STIFF
10					4.0/4	8.1-10	SAND: BROWN, WET, LOOSE, BLACK STAIN, CREOSOTE ODOR, FEW SMALL GRAVEL INTERVALS WITH SHEEN
						10-11.2	CLAYEY SAND: LIGHT GRAY, WET, DENSE INCREASE IN CLAY WITH DEPTH, DECREASE IN CREOSOTE ODOR
					4.0/4	11.2-15.3	SANDY CLAY: LIGHT GRAY TO GREENISH GRAY, MOIST TO WET, FIRM, FEW SMALL SAND LENS, CREOSOTE ODOR
15						15.3-16.3	SILTY SAND: LIGHT GREENISH GRAY, WET, MEDIUM DENSE, SLIGHT CREOSOTE ODOR
					4.0/4	16.3-21	SAND WITH GRAVEL: LIGHT GREEN GRAY, WET, MEDIUM DENSE, SLIGHT CREOSOTE ODOR, PRODUCT AT 20.9-21', AT GRAVEL BLACK STAINING INCREASING WITH DEPTH, CREOSOTE ODOR
20					4.0/4	21-24	SANDY CLAY: LIGHT GREEN GRAY, DAMP, STIFF TO VERY STIFF
25							
30							

# MICHAEL PISANI & ASSOCIATES

Environmental Management and Engineering Services

New Orleans, Louisiana

Houston, Texas

Boring/Well No.: GEO-77

Project: ADDITIONAL SITE INVESTIGATION ACTIVITIES Project No.: 21-04

Location: FORMER GULF STATES CREOSOTING SITE, HATTIESBURG, MISSISSIPPI

Surface Elev.: \_\_\_\_\_ Boring T.D.: 28 FEET Boring Dia.: 2 INCHES

Date Started: 07/10/01 Date Completed: 07/10/01

Drilling Company: WALKER-HILL ENVIRONMENTAL Driller: TIM CREEL

Drilling Method: GEOPROBE Grouting Method: CEMENT/BENTONITE GROUT

Logged by: JONATHAN MILLER

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE TYPE	PID (PPM)	SAMPLE RECOVERY (FEET/FEET)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0					3.5/4	0-7	SILTY SAND: BROWN TO TAN, DRY TO DAMP, LOOSE, IRON STAINED MOTTLES, BLACK ORGANIC NODULES
5					3.3/4		
10					4.0/4	7-11.3	SILTY SAND: TAN TO GRAY, WET, LOOSE, CREOSOTE ODOR, BLACK STAINING, 8.2-11.3', PRODUCT IN GRAVEL AREAS
						11.3-12.1	CLAYEY SAND: LIGHT GRAY, WET, MEDIUM DENSE, CREOSOTE ODOR, IRON STAINED MOTTLES, SOME GRAVEL
15					4.0/4	12.1-16	SAND: BROWN, WET, MEDIUM DENSE, BLACK STAINING, CREOSOTE ODOR, SHEEN/PRODUCT IN GRAVEL, VERY LOOSE INTERVALS
						16-17	SILTY CLAY: GRAY, MOIST, STIFF, CREOSOTE ODOR, IRON STAINED MOTTLES
					4.0/4	17-18.2	SILTY SAND: LIGHT GRAY, WET, LOOSE
20						18.2-24	SANDY CLAY: LIGHT GRAY, WET, FIRM, CREOSOTE ODOR, (VARIABLE CLAY %)
						24-24.3	SAND WITH GRAVEL: REDDISH BROWN, WET, LOOSE, SLIGHT CREOSOTE ODOR
25						4.0/4	24.3-28
30							



# MICHAEL PISANI & ASSOCIATES

Environmental Management and Engineering Services

New Orleans, Louisiana

Houston, Texas

Boring/Well No.: GEO-78

Project: ADDITIONAL SITE INVESTIGATION ACTIVITIES Project No.: 21-04

Location: FORMER GULF STATES CREOSOTING SITE, HATTIESBURG, MISSISSIPPI

Surface Elev.: \_\_\_\_\_ Boring T.D.: 20 FEET Boring Dia.: 2 INCHES

Date Started: 07/10/01 Date Completed: 07/10/01

Drilling Company: WALKER-HILL ENVIRONMENTAL Driller: TIM CREEL

Drilling Method: GEOPROBE Grouting Method: CEMENT/BENTONITE GROUT

Logged by: JONATHAN MILLER

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE TYPE	PID (PPM)	SAMPLE RECOVERY (FEET/FEET)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0					3.5/4	0-4.2	SILTY SAND: BROWN TO TAN, DRY TO DAMP, FRIABLE, IRON STAINED MOTTLES, ORGANIC DEBRIS, ROOTLETS, LEAVES, AT 1-1.3' ASPHALT LIKE MATERIAL
5					3.3/4	4.2-5.5	SILTY CLAYEY SAND WITH GRAVEL (FILL)
						5.5-7.6	SANDY CLAY: DARK GRAY, FRIABLE TO FIRM, CREOSOTE ODOR, DESSICATED CREOSOTE LAYER (5.7-5.8'), BLACK STAINING
10					4.0/4	7.6-8.2	CLAYEY SAND: DARK BROWN, WET, MEDIUM DENSE, BLACK STAINING, CREOSOTE ODOR
						8.2-15.8	SAND: DARK BRWON TO LIGHT GRAY, WET, LOOSE TO MEDIUM DENSE, BLACK STAINING TO 10', THEN AT DISCRETE INTERVALS, WOOD FRAGMENTS PRESENT
15					4.0/4	15.8-20	SANDY CLAY: LIGHT GREENISH GRAY, DAMP, STIFF TO VERY STIFF, SLIGHT CREOSOTE ODOR
20							
25							
30							

# MICHAEL PISANI & ASSOCIATES

Environmental Management and Engineering Services

New Orleans, Louisiana

Houston, Texas

Boring/Well No.: GEO-79

Project: ADDITIONAL SITE INVESTIGATION ACTIVITIES Project No.: 21-04

Location: FORMER GULF STATES CREOSOTING SITE, HATTIESBURG, MISSISSIPPI

Surface Elev.: \_\_\_\_\_ Boring T.D.: 16 FEET Boring Dia.: 2 INCHES

Date Started: 07/10/01 Date Completed: 07/10/01

Drilling Company: WALKER-HILL ENVIRONMENTAL Driller: TIM CREEL

Drilling Method: GEOPROBE Grouting Method: CEMENT/BENTONITE GROUT

Logged by: JONATHAN MILLER

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE TYPE	PID (PPM)	SAMPLE RECOVERY (FEET/FEET)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0							
					3.7/4	0-3	SILTY SAND: BROWN, DRY, FRIABLE, ABUNDANT ORGANIC DEBRIS (ROOT, LEAVES), FEW BLACK NODULES
						3-4.2	SANDY CLAY: DARK BROWN, DAMP, CREOSOTE ODOR, BLACK STAINING SHEEN
5					3.3/4	4.2-7.5	SAND: GRAY TO BROWN, WET, VERY LOOSE TO MEDIUM DRUGE, BLACK STAINING, 5.5' THEN BLACK STAINED INTERVALS WITH SHEEN, 7.1-7.3' LARGE STAINED INTERVAL WITH VISIBLE PRODUCT
						7.5-8.1	SANDY CLAY: LIGHT GRAY, DAMP, FIRM
10					0.2/4	8.1-12.2	LOOSE SAND: NO RECOVERY, BLACK STAIN, CREOSOTE ODOR
15					3.8/4	12.2-16	SILTY CLAY: LIGHT GREEN GRAY, DAMP, VERY STIFF
20							
25							
30							

# MICHAEL PISANI & ASSOCIATES

Environmental Management and Engineering Services

New Orleans, Louisiana

Houston, Texas

Boring/Well No.: GEO-80

Project: ADDITIONAL SITE INVESTIGATION ACTIVITIES Project No.: 21-04

Location: FORMER GULF STATES CREOSOTING SITE, HATTIESBURG, MISSISSIPPI

Surface Elev.: \_\_\_\_\_ Boring T.D.: 24 FEET Boring Dia.: 2 INCHES

Date Started: 07/10/01 Date Completed: 07/10/01

Drilling Company: WALKER-HILL ENVIRONMENTAL Driller: TIM CREEL

Drilling Method: GEOPROBE Grouting Method: CEMENT/BENTONITE GROUT

Logged by: JONATHAN MILLER

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE TYPE	PID (PPM)	SAMPLE RECOVERY (FEET/FEET)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0					3.0/4	0-6	SILTY SAND: BROWN, DRY, FRIABLE, IRON STAINED MOTTLES, CONCRETE AND WOOD FRAGMENTS
5					3.0/4	6-11	SAND: TAN TO LIGHT GRAY, WET, MEDIUM DENSE TO LOOSE, GRAVEL AT 9.5' AND 11' WITH ASSOCIATED BLACK STAINING AND CREOSOTE ODOR, SANDY CLAY LENS AT 9.6', 0.2' THICK
10					4.0/4	11-12.6	SANDY CLAY: LIGHT GRAY, DAMP, STIFF, IRON STAINED MOTTLES, CREOSOTE ODOR
15					4.0/4	12.6-15.6	SAND: GRAY TO TAN, WET, MEDIUM DENSE TO LOOSE
						15.6-16.2	SANDY CLAY: LIGHT GRAY, DAMP, STIFF, IRON STAINED MOTTLES, CREOSOTE ODOR
20					4.0/4	16.2-20.1	SAND WITH GRAVEL: LIGHT GRAY, WET, LOOSE, CREOSOTE ODOR
						20.1-24	SANDY CLAY: LIGHT GRAY, DAMP, STIFF TO VERY STIFF, SLIGHT CREOSOTE ODOR
25							
30							

# MICHAEL PISANI & ASSOCIATES

Environmental Management and Engineering Services  
 New Orleans, Louisiana Houston, Texas

Boring/Well No.: GEO-81

Project: ADDITIONAL SITE INVESTIGATION ACTIVITIES Project No.: 21-04

Location: FORMER GULF STATES CREOSOTING SITE, HATTIESBURG, MISSISSIPPI

Surface Elev.: \_\_\_\_\_ Boring T.D.: 24 FEET Boring Dia.: 2 INCHES

Date Started: 07/10/01 Date Completed: 07/10/01

Drilling Company: WALKER-HILL ENVIRONMENTAL Driller: TIM CREEL

Drilling Method: GEOPROBE Grouting Method: CEMENT/BENTONITE GROUT

Logged by: JONATHAN MILLER

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE TYPE	PID (PPM)	SAMPLE RECOVERY (FEET/FEET)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION			
0					3.7/4	0-7	SILTY SAND: TAN TO LIGHT GRAY, DRY, FRIABLE, IRON STAINED MOTTLES			
5					3.5/4					
7-7.5								7-7.5	SAND: BROWN, WET, LOOSE, BLACK/BROWN STAINING, CREOSOTE ODOR	
7.5-9								7.5-9	SANDY CLAY: LIGHT GRAY, MOIST, STIFF, IRON STAINED MOTTLES, CREOSOTE ODOR, BLACK STAINS AT 8-8.4'	
9-11.7								4.0/4	9-11.7	CLAYEY SAND TO SAND: LIGHT GRAY WET, DENSE TO LOOSE, SLIGHT CREOSOTE ODOR
11.7-12									11.7-12	SILTY CLAY: LIGHT GRAY, MOIST FIRM, IRON STAINED MOTTLES
12-20								4.0/4	12-20	SAND: TAN, WET, LOOSE TO DENSE GRAVEL AT 15.8-16', SHEEN AT LOOSE SANDY ZONE 13-15', CREOSOTE ODOR
20-24								4.0/4	20-24	SANDY CLAY: LIGHT GREEN, WET, VERY STIFF, VERY SLIGHT CREOSOTE ODOR
25										
30										

# MICHAEL PISANI & ASSOCIATES

Environmental Management and Engineering Services

New Orleans, Louisiana

Houston, Texas

Boring/Well No.: GEO-82

Project: ADDITIONAL SITE INVESTIGATION ACTIVITIES

Project No.: 21-04

Location: FORMER GULF STATES CREOSOTING SITE, HATTIESBURG, MISSISSIPPI

Surface Elev.: \_\_\_\_\_ Boring T.D.: 36 FEET

Boring Dia.: 2 INCHES

Date Started: 07/11/01

Date Completed: 07/11/01

Drilling Company: WALKER-HILL ENVIRONMENTAL

Driller: TIM CREEL

Drilling Method: GEOPROBE

Grouting Method: CEMENT/BENTONITE GROUT

Logged by: JONATHAN MILLER

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE TYPE	PID (PPM)	SAMPLE RECOVERY (FEET/FEET)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0							
					3.5/4	0-3	SILTY SAND: BROWN TO TAN, DRY, FRIABLE, IRON STAINED MOTTLES, ROOTLETS
5					3.7/4	3-6	SANDY CLAY: DARK GRAY, DAMP, SOFT, BLACK STAINING, CREOSOTE ODOR
					4.0/4	6-10	SAND: GRAY TO TAN, WET, LOOSE, BLACK STAINING AT DISCRETE INTERVALS, PRODUCT AND GRAVEL AT 9.9-10'
10					4.0/4	10-13.5	CLAYEY SAND: LIGHT GRAY, WET, MEDIUM DENSE, CREOSOTE ODOR
					3.9/4	13.5-14.5	SAND: TAN, WET, LOOSE, BLACK STAINING, CREOSOTE ODOR, SOME SHEEN
15						14.5-16	SANDY CLAY: LIGHT GRAY, MOIST, STIFF, CREOSOTE ODOR
					3.8/4	16-20	SAND WITH GRAVEL: TAN, WET, LOOSE, CREOSOTE ODOR, INCREASES IN GRAVEL AT 19'
20					4.0/4	20-22	SANDY CLAY: LIGHT GREEN GRAY, DAMP, STIFF CREOSOTE ODOR
					4.0/4	22-27	SANDY SILT: LIGHT GREEN GRAY, WET, FIRM TO SOFT, WITH VARIABLE AMOUNTS OF CLAY
25					4.0/4	27-33	SANDY CLAY: LIGHT GREEN GRAY, DAMP, STIFF
30					4.0/4		

# MICHAEL PISANI & ASSOCIATES

Environmental Management and Engineering Services

New Orleans, Louisiana

Houston, Texas

Boring/Well No.: GEO-82

Project No.: 21-04

Date Drilled: 07/11/01

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE TYPE	PID (PPM)	SAMPLE RECOVERY (FEET/FEET)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION	
30								
						27-33		
					3.4/4	33-35	SAND: LIGHT GRAY, WET, MEDIUM DENSE	
35						35-36	SANDY SILT: LIGHT GRAY, WET, FIRM	
40								
45								
50								
55								
60								
65								

# MICHAEL PISANI & ASSOCIATES

Environmental Management and Engineering Services

New Orleans, Louisiana

Houston, Texas

Boring/Well No.: GEO-83

Project: ADDITIONAL SITE INVESTIGATION ACTIVITIES Project No.: 21-04

Location: FORMER GULF STATES CREOSOTING SITE, HATTIESBURG, MISSISSIPPI

Surface Elev.: \_\_\_\_\_ Boring T.D.: 32 FEET Boring Dia.: 2 INCHES

Date Started: 07/11/01 Date Completed: 07/11/01

Drilling Company: WALKER-HILL ENVIRONMENTAL Driller: TIM CREEL

Drilling Method: GEOPROBE Grouting Method: CEMENT/BENTONITE GROUT

Logged by: JONATHAN MILLER

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE TYPE	PID (PPM)	SAMPLE RECOVERY (FEET/FEET)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0							
					3.5/4	0-6	SILTY SAND: BROWN TO TAN, DRY, FRIABLE
5					3.1/4	6-8.4	SANDY SILT: TAN TO BROWN, MOIST TO WET, BLACK STAINING, AT 7.6-8.4' CREOSOTE ODOR
10					3.2/4	8.4-11.9	SANDY CLAY: LIGHT GRAY, DAMP, STIFF, CREOSOTE ODOR
15					4.0/4	11.9-19	SAND: TAN TO LIGHT GRAY, WET, LOOSE, FEW BLACK STAINS, CREOSOTE ODOR (GRAVEL WITH PRODUCT 18.9-19' SPLOTCHY)
20					4.0/4	19-20.5	SANDY CLAY: LIGHT GRAY, DAMP, STIFF
25					4.0/4	20.5-25	SAND: MEDIUM TO COARSE
					4.0/4	25-26	SANDY CLAY: LIGHT GRAY, DAMP, STIFF
					4.0/4	26-26.7	SAND WITH GRAVEL: TAN TO LIGHT GRAY, WET
					4.0/4	26.7-32	SANDY CLAY: LIGHT GRAY, DAMP, STIFF, SAND LENS AT 31-31.5'
30					4.0/4		

# MICHAEL PISANI & ASSOCIATES


Environmental Management and Engineering Services

New Orleans, Louisiana

Houston, Texas

Boring/Well No.: GEO-83

Project No.: 21-04 Date Drilled: 07/11/01

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE TYPE	PID (PPM)	SAMPLE RECOVERY (FEET/FEET)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
38						26.7-32	
35							
40							
45							
50							
55							
60							
65							



# MICHAEL PISANI & ASSOCIATES

Environmental Management and Engineering Services

New Orleans, Louisiana

Houston, Texas

Boring/Well No.: GEO-84

Project: ADDITIONAL SITE INVESTIGATION ACTIVITIES Project No.: 21-04

Location: FORMER GULF STATES CREOSOTING SITE, HATTIESBURG, MISSISSIPPI

Surface Elev.: \_\_\_\_\_ Boring T.D.: 28 FEET Boring Dia.: 2 INCHES

Date Started: 07/11/01 Date Completed: 07/11/01

Drilling Company: WALKER-HILL ENVIRONMENTAL Driller: TIM CREEL

Drilling Method: GEOPROBE Grouting Method: CEMENT/BENTONITE GROUT

Logged by: JONATHAN MILLER

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE TYPE	PID (PPM)	SAMPLE RECOVERY (FEET/FEET)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION			
0					3.8/4	0-6	SANDY SILT: BROWN TO TAN, FRIABLE, IRON STAINED MOTTLES			
5					3.6/4	6-7.5	SANDY CLAY: LIGHT GRAY, STIFF			
10					3.0/4	7.5-10.5	SAND: LIGHT GRAY, WET, LOOSE TO MEDIUM DENSE			
10.5					4.0/4	10.5-11.5	SANDY CLAY: LIGHT GRAY, DAMP, STIFF, IRON STAINED MOTTLES			
15					4.0/4	11.5-23.9	SAND WITH GRAVEL: TAN, WET, LOOSE, VERY VERY FAINT CREOSOTE ODOR			
20					3.4/4					
25					4.0/4					
25					4.0/4	23.9-28	SANDY CLAY: GREENISH GRAY, DAMP, VERY STIFF, SLIGHT CHANGE IN SILT AND SAND CONTENT WITH DEPTH			
30										

# MICHAEL PISANI & ASSOCIATES

Environmental Management and Engineering Services

New Orleans, Louisiana

Houston, Texas

Boring/Well No.: GEO-85

Project: ADDITIONAL SITE INVESTIGATION ACTIVITIES Project No.: 21-04

Location: FORMER GULF STATES CREOSOTING SITE, HATTIESBURG, MISSISSIPPI

Surface Elev.: \_\_\_\_\_ Boring T.D.: 28 FEET Boring Dia.: 2 INCHES

Date Started: 07/11/01 Date Completed: 07/11/01

Drilling Company: WALKER-HILL ENVIRONMENTAL Driller: TIM CREEL

Drilling Method: GEOPROBE Grouting Method: CEMENT/BENTONITE GROUT

Logged by: JONATHAN MILLER

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE TYPE	PID (PPM)	SAMPLE RECOVERY (FEET/FEET)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION			
0					3.6/4	0-7	SILTY SAND: BROWN TO TAN, DRY, FRIABLE, CONCRETE DEBRIS, BLACK STAINING 7-7.6'			
5					2.0/4					
7-9						CLAYEY SAND: DARK BROWN, MEDIUM DENSE, MOIST TO WET, BLACK STAINING, CREOSOTE ODOR, GRAVEL/CONCRETE PRESENT				
9-11					4.0/4	SANDY CLAY: LIGHT GRAY, DAMP, STIFF, BLACK STAINING, CREOSOTE ODOR				
11-16					4.0/4	SAND: TAN TO GRAY, WET, LOOSE, BLACK STAINING, CREOSOTE ODOR, PRODUCT (11.5-11.7), GRAVEL AT 15.5' (INCREASE BLACK STAINING)				
16-16.2					4.0/4	SANDY CLAY: TAN, DAMP, VERY STIFF, BLACK STAINING				
16.2-25					4.0/4	SAND: TAN TO LIGHT GRAY, LOOSE, BLACK STAINING AT PRODUCT, CREOSOTE ODOR, GRAVEL PRESENT, NO STAINING AT 20', GRAVEL LAYER AT (23.6-24')				
25-28					4.0/4	SANDY CLAY: GREENISH GRAY, DAMP, VERY STIFF				
30										

# MICHAEL PISANI & ASSOCIATES

Environmental Management and Engineering Services

New Orleans, Louisiana

Houston, Texas

Boring/Well No.: GEO-87

Project: ADDITIONAL SITE INVESTIGATION ACTIVITIES Project No.: 21-04

Location: FORMER GULF STATES CREOSOTING SITE, HATTIESBURG, MISSISSIPPI

Surface Elev.: \_\_\_\_\_ Boring T.D.: 24 FEET Boring Dia.: 2 INCHES

Date Started: 07/19/01 Date Completed: 07/19/01

Drilling Company: WALKER-HILL ENVIRONMENTAL Driller: TIM CREEL

Drilling Method: GEOPROBE Grouting Method: CEMENT/BENTONITE GROUT

Logged by: JONATHAN MILLER

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE TYPE	PID (PPM)	SAMPLE RECOVERY (FEET/FEET)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0							
0-5					3.6/4	0-5	SILTY SAND: BROWN TO TAN, DRY, FRIABLE, IRON STAINED MOTTLES
5-6.5					3.8/4	5-6.5	SAND: TAN TO DARK BROWN, DAMP, LOOSE, CREOSOTE ODOR, 6-6.5" BLACK STAINING
6.5-8.5						6.5-8.5	SILTY CLAY: GRAY, DAMP, STIFF, CREOSOTE ODOR
8.5-11.6					3.6/4	8.5-11.6	SILTY SAND WITH GRAVEL: LIGHT GRAY, WET, LOOSE, BLACK STAINING, SATURATED IN GRAVEL, CREOSOTE ODOR
11.6-12						11.6-12	CLAYEY SILT: LIGHT GRAY, DAMP, STIFF, CREOSOTE ODOR, IRON STAINED MOTTLES
12-16					3.6/4	12-16	SAND WITH GRAVEL: GRAY TO TAN, WET, LOOSE, SHEEN, CREOSOTE ODOR
16-19					3.7/4	16-19	CLAYEY SAND: LIGHT GRAY, WET, DENSE
19-20						19-20	SAND: LIGHT GRAY, WET, LOOSE
20-24					4.0/4	20-24	SANDY CLAY: GREENISH GRAY, DAMP, VERY STIFF
25							
30							

# MICHAEL PISANI & ASSOCIATES

Environmental Management and Engineering Services

New Orleans, Louisiana

Houston, Texas

Boring/Well No.: GEO-88

Project: ADDITIONAL SITE INVESTIGATION ACTIVITIES Project No.: 21-04

Location: FORMER GULF STATES CREOSOTING SITE, HATTIESBURG, MISSISSIPPI

Surface Elev.: \_\_\_\_\_ Boring T.D.: 28 FEET Boring Dia.: 2 INCHES

Date Started: 07/19/01 Date Completed: 07/19/01

Drilling Company: WALKER-HILL ENVIRONMENTAL Driller: TIM CREEL

Drilling Method: GEOPROBE Grouting Method: CEMENT/BENTONITE GROUT

Logged by: JONATHAN MILLER

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE TYPE	PID (PPM)	SAMPLE RECOVERY (FEET/FEET)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0							
0-6					3.2/4	0-6	SILTY SAND: BROWN TO TAN, DRY, FRIABLE, IRON STAINED MOTTLES, ROOTLETS PRESENT
5-6					3.4/4		
6-10						6-10	SAND: TAN TO BROWN, DAMP TO WET, LOOSE, BLACK STAINING AT 6.3-10'
10-10.9					3.6/4	10-10.9	SANDY CLAY: LIGHT GRAY, DAMP, STIFF, CREOSOTE ODOR
10.9-15.8					3.5/4	10.9-15.8	SAND WITH GRAVEL: GRAYISH TAN, WET, LOOSE, CREOSOTE ODOR, SHEEN, BLACK STAINING, GRAVEL INCREASE WITH DEPTH
15.8-17						15.8-17	SILTY CLAY: GRAY, DAMP, VERY STIFF, CREOSOTE ODOR
17-21					3.6/4	17-21	SILTY SAND: LIGHT GRAY, WET, MEDIUM DENSE
21-25					4.0/4	21-25	SAND WITH GRAVEL: LIGHT GRAY, WET, LOOSE TO MEDIUM DENSE
25-28					4.0/4	25-28	SANDY CLAY: LIGHT GREEN GRAY, DAMP, VERY STIFF
30							