

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR
MANUFACTURER'S CERTIFICATE OF COMPLIANCE

(Read instructions on the reverse side prior to initiating this form)

TRANSMITTAL NO.
TO 022-007

DATE

October 10, 2006

FROM:

U.S. Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, LA 70160

CONTRACT NO.

Materials Management Group, Inc.
3520 General DeGaulle Drive, Suite 3010
New Orleans, LA 70114

CHECK ONE:

 THIS IS A NEW TRANSMITTAL
 THIS IS A RESUBMITTAL OF TRANSMITTAL

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS (This section will be initiated by the contractor)

TO: U.S. Army Corps of Engineers New Orleans District P.O. Box 60267 New Orleans, LA 70160	FROM: Materials Management Group, Inc. 3520 General DeGaulle Drive, Suite 3010 New Orleans, LA 70114	ITEM NO.	DESCRIPTION OF ITEM (Type, size, model number, etc.)	MFG. OR CONTR. CAT. CURVE DRAWING OR BROCHURE NO. (See instruction no. 8)	NO. OF COPIES	CONTRACT REFERENCE DOCUMENT (See instruction no. 6)	FOR CONTRACTOR USE CODE	VARIATION (See instruction no. 6)	FOR CE USE CODE
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.
1	Task Order No. 22 Final Site Activities/Soil Class. Report			3 + 1 cd			2845-DD-ACE-NOL-022		

REMARKS

I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as otherwise stated.

C. Paul Lo, Project Manager


NAME AND SIGNATURE OF CONTRACTOR

ENCLOSURES RETURNED (List by item No.)

DATE

SECTION II - APPROVAL ACTION

October 10, 2006

NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY

Comments on:
**GEC (Gulf Engineers & Consultants)
 Sediment Sampling and Analysis Plan**
 Lakes District,
 City/Parish of East Baton Rouge, Louisiana

26 September 2006

Reviewer: George Bacuta, Robert Brooks, Reuben Mabry (ED-F, USACE-NOD), Ellsworth Pilie (ED-LL, USACE-NOD)

Respondent: Karly Gibbs, Wendell Thompson (MMG)

1. Respondent concurs ©, Does not Concur (D), or takes Exception (E).
2. Commentor Agrees (A) with response, or Does not Agree (D) with response.

Comment #	Section : Item/Page	Paragraph/ Line	Comment	Response	A or D ²
1 (Bacuta & Pilie)	General	General	When submitting soil boring logs and in order for USACE-geotechnical and design engineers understand the boring presentation as well as per TO 22 SOW, suggest to avoid color-shading in the boring logs and used instead the symbols found in the Unified Soil Classification System. Sands should be dots, lean clays (CL's) slanted thin lines, fat clays (CH's) thick slanted lines, and silts (ML's) thin vertical lines. Boring logs and soil classification system following the USCS in MMG's previous contracted reports (e.g. Algiers Landfill and IHNC-Eastbank investigation reports) are standard industry systems understood by USACE Engineers. Attach USCS legend with your boring logs.	C, D, E ¹	Suggested changes made: removed color shading and replaced with graphic designation/symbols, and added appropriate USCS codes.
2 (Bacuta)	General	General	Please describe the pieces of landfill-related debris material found in Boring #3 and Boring #4. Are these recognizable pieces of construction/demolition debris? household debris? White trash? etc. Attachments of close-up photos of these debris pieces are strongly recommended.	C	Added debris descriptions to the appropriate boring logs (B3 and B4). In addition, added to report text: Section 3.1.2, added last sentence to paragraphs for B3 and B4. Revised photolog to reflect descriptions of debris.
3 Brooks	Soil Boring Logs		RE above comment #1: SOW Paragraphs D.2. & G. c. require soil classification in accordance with the USCS and ASTM	C	See response to comment #1.

Comment #	Section : Item/Page	Paragraph/Line	Comment	C, D, E ¹	Response	A or D ²
			Standards – “Lithology information shall be logged and recorded for each boring in accordance with the Uniform Soil Classification System (USCS). Each soil sample shall be visually classified in accordance with ASTM Standard D2488 and documented on a field log using the Unified Soil Classification System, in accordance with ASTM D2487, by a qualified geologist or engineer.”			
4 Brooks	Introduction		Please add a statement that this is a limited Phase II Assessment only; designed to determine if landfill debris exists along the proposed alignment. Further investigation actions may be required in additional rounds of sampling, if necessary, to determine the extent and characteristics of any such debris material.	C	Section 1.0, added 2 nd and 3 rd to last sentences: “It should be noted that this was a limited PIIESA;...It may be necessary....”	
5 Brooks	3.1.2	Summary	Please provide in the summary some possible reasoning for the “debris material” to be visible near the surface in boreholes B3 and B4. Something like “appear to be isolated areas of debris”, and “may have been dropped pushed onto the alignment during maintenance of the nearby roadway,” etc... We are going to have to run this report through DEQ to alleviate their concerns about construction over landfill materials. Please help us out here.	C	Further explanation of the presence of debris material has been added to the summary paragraph of Section 3.1.2 (last paragraph on Page 4).	

October 10, 2006

**FINAL SITE ACTIVITIES AND SOIL CLASSIFICATION
REPORT
PHASE II ENVIRONMENTAL SITE ASSESSMENT
OAKVILLE LEVEE EXTENSION
PLAQUEMINES PARISH, LOUISIANA**

Prepared for



**US Army Corps
of Engineers®**

New Orleans District

**Under Contract to
U.S. Army Corps of Engineers – New Orleans District
Environmental Services IAW
DACP29-03-D-0014 Task Order #0022**

By



Materials Management Group, Inc.

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1.0 Introduction

On behalf of the U.S. Army Corps of Engineers (USACE) – New Orleans District (NOD), Materials Management Group, Inc. (MMG) has completed a limited Phase II Environmental Site Assessment (PIIESA) of the proposed Oakville levee extension area in Plaquemines Parish. This area is east of the Harvey Canal, near the Hero Canal in Plaquemines Parish, Louisiana. The proposed levee extension area is included in the West Bank Hurricane Protection project. The subject area is adjacent to an industrial landfill; therefore there are concerns that the levee extension area may contain landfill material. The PIIESA was conducted to determine whether such material exists in the subject area as well as to determine whether there has been any environmental impact to the area. It should be noted that this was a limited PIIESA; the investigation was designed to determine only if landfill material exists along the proposed levee alignment (with limited screening for contaminants). It may be necessary to conduct further investigation (such as sampling) to fully determine the extent and characteristics of any landfill material. The scope of work under the PIIESA involved drilling four soil borings to 25 feet below ground surface (bgs) for soil sample collection and analysis as well as description of soil lithology in the proposed levee extension area.

2.0 Field Sampling

This section of the report describes the sampling schedule, procedures, equipment, personnel, and any exceptions to or deviations from the Sampling and Analysis Plan (SAP) prepared for the project.

2.1 Schedule

The field activities for the PIIESA were conducted according to the following schedule:

September 6, 2006: Mobilization to the site, drill four 25-ft soil borings, and collect soil samples.

September 22, 2006: Return to the site for waste load out.

2.2 Sampling Procedures

2.2.1 Personnel and Equipment

The field crew consisted of MMG's Geologist and Sample Technician, and MMG's subcontractor, QRI of Baton Rouge, LA (including a driller and crew). The field crew used a Geoprobe 4005 direct push rig to advance four soil borings to 25 feet below ground surface (bgs) at the site. Five-foot soil intervals were collected in disposable sample tubes. MMG used a global positioning system (GPS) to determine the geographic coordinates of each borehole location. These coordinates are summarized in Table 2, and the actual sample locations and coordinates are shown in Figure 2.

2.2.2 Sampling

Each five-foot soil interval was field screened using a photoionization detector (PID) for organic vapors. The field screening results are summarized in Table 1. MMG's Geologist logged the soil descriptions on boring logs (see Section 3.0 and Appendix A) and collected soil samples based on the field screening results and visual observations. Soil samples were collected from borehole B1 (10-15 ft interval), borehole B2 (10-15 ft interval) and borehole B3 (11-15 ft interval). The split sample was collected at borehole B1. Matrix spike/matrix spike duplicate (MS/MSD) analysis was requested on the sample from borehole B3. The equipment blank was collected between boreholes B2 and B3. In addition, trip and field blanks were collected to ensure there was no cross contamination or outside contamination from volatile compounds. The background sample collected was a composite, consisting of the following soil intervals: B1, 20-25; B2, 20-25; B3, 15-20; and B4, 20-25.

The soil samples (primary, split, and background) as well as the equipment blank were sent to an offsite LELAP-accredited laboratory for analysis for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), RCRA metals, pesticides, and polychlorinated biphenyls (PCBs). The trip and field blanks were sent for analysis for VOCs. The analytical results will be presented and discussed in the Sample Analysis Report.

2.2.3 Sample Handling and Custody

Soil samples were collected directly from the disposable sample tubes and placed in the appropriate sample container. Samples for volatile analysis were placed in Encore samplers. All samples were placed on ice inside a cooler. The sealed cooler was delivered to SPL's Belle Chasse laboratory. A courier then delivered the samples to SPL's Lafayette laboratory for analysis. Changes in sample custody were documented on the chain-of-custody. All samples arrived at the final laboratory intact and at the appropriate temperature. A copy of the chain-of-custody and sample receipt checklist will be included in the final analytical report in the Sample Analysis Report.

2.3 Investigation-Derived Waste

All soil cuttings remaining following sample collection were placed in a 55-gallon drum that was staged onsite. Disposable PPE as well as sample tubes were also placed in the drum for disposal. MMG collected a sample of soil cuttings and sent it for toxicity characteristic leaching procedure (TCLP) for waste characterization. Based on the analytical results, the waste was characterized as non-hazardous. MMG prepared all waste documentation, including the waste profile and manifest, and arranged for disposal at Jefferson Parish Landfill in Avondale, LA. MMG's subcontractor, ACME Trucking, transported the waste to the landfill. A copy of the waste manifest is included in Appendix B.

2.4 Documentation

All field activities were documented in field logs and forms. Copies of the field documentation are included in Appendix B. In addition, photographs of site activities are included in Appendix C.

2.5 Exceptions and Deviations

There were no exceptions to or deviations from the Sampling and Analysis Plan. All activities were completed as described in the plan.

3.0 Geotechnical Characteristics

This section of the report includes the lithological data for the site including boring logs, as well as descriptions of the debris and materials encountered. Soil boring logs are included in Appendix A. Based on review of the most current USGS Topographic Map, the physical setting of the site is indicated below.

3.1 Site Geology

3.1.1 Physical Setting

The site is located within the City of Belle Chasse, Louisiana. Belle Chasse is located on the west bank of the Mississippi River between Algiers and Gretna. Belle Chasse is a city of Plaquemines Parish, Louisiana. Plaquemines Parish is south of Orleans Parish and east of Jefferson Parish.

Based on the General Soil Map of Plaquemines Parish, Louisiana, provided and printed by the U.S. Department of Agriculture (USDA) – Soil Conservation Service, the site is located on three possible individual series of soils. The soils are classified as Harahan Series, Westwego Series, and Rita Series. Based on field observations by MMG's Geologist, soils from boreholes B1, B2, B3, and B4 are of the Harahan Series. Refer to the Soil Boring Logs for a General Soil Map and a Site Soil Map.

Harahan Series: Harahan Series soils form in clayey alluvium. This is a level, and poorly drained soil in low positions on the natural levees of the Mississippi River and former swamps. Soils of the Harahan series are very-fine, montmorillonitic, nonacid, thermic Vertic Haplaquepts. Slope is dominantly less than one percent. Water and air move through this soil at a very slow rate.

3.1.2 Geology

The geology of the area is consistent with the deposition of near surface sedimentary deposits associated with fluvial depositional processes (Mississippi River Alluvium). These deposits typically consist of surface layer (0" to 5") of very dark gray firm clay, a subsoil layer (5" to 22") of gray firm to moist clay, and a substratum layer (22" to 65") of dark grey very-moist to fluid clay (2000, Soil Survey of Plaquemines Parish, Louisiana). Underlying rock formations include Quaternary and Tertiary sedimentary deposits.

Borehole Logs presented in this report will follow USCS Standard.

The lithology observed in each of the boreholes is described below.

Borehole 1 (B1): The borehole was observed from 0 to 25 feet. The column consists of grey to dark grey clay and sand that change from very fine to fine through the column. The water table is located at seven feet below ground surface (bgs). Peat inclusions are visible in the seven to ten foot interval. Shell inclusions are visible in the 20 to 22.5 foot interval. An empty space occurred in the 15 to 17 foot interval. Material in B1 was wet to saturate in the seven to 25 foot interval. Due to field PID screening, a sample was collected at the 10 to 15 foot interval. **Inorganic landfill waste was not visible in this borehole.**

Borehole 2 (B2): The borehole was observed from 0 to 25 feet. The column consists of grey to dark grey clay and sand that change from very fine to fine through the column. The water table is located at six feet bgs. No visible inclusions. Material in B2 was wet to saturate in the six to 25 foot interval. Due to field PID screening, a sample was collected at the 10 to 15 foot interval. **Inorganic landfill waste was not visible in this borehole.**

Borehole 3 (B3): The borehole was observed from 0 to 25 feet. The column consists of grey to dark grey clay and sand that change from very fine to fine through the column. The water table is located at 7.25 bgs. Wood and gravel inclusions are visible in the five to eight foot interval. An empty space occurred in the 0 to 3.5 foot interval. Material in B3 was wet to saturate in the 7.25 to 22.5 foot interval. Due to field PID screening, a sample was collected at the 11 to 15 foot interval. **Inorganic landfill waste is visible in the 3.5 to 4.5 foot interval.** **Waste consists of cinder block and wood-related construction materials.**

Borehole 4 (B4): The borehole was observed from 0 to 25 feet. The column consists of grey to dark grey clay and sand that change from very fine to fine through the column. The water table is located at 6.25 bgs. Gravel inclusions are visible in the 10.5 to 11.5 foot interval. An empty space occurred in the zero to one and the 10 to 10.5 foot intervals. Material in B4 was wet to saturate in the 6.25 to 25 foot interval. Only background samples were collected in this borehole. **Inorganic landfill waste is visible in the 1 to 4 foot interval.** **Waste consists of plastic household material.**

Summary: Boreholes B1, B2, B3, and B4 are not located over a landfill. B1 and B2 do not indicate the presence of any landfill material. The observed landfill material in B3 and B4 does not exist below 4.5 feet. All landfills at this site are deeper than 4.5 feet bgs. Therefore, the observed material appears to be isolated occurrences of debris that may have been dropped or pushed onto the alignment by machinery traveling to the landfill area, or during maintenance of the roadway and landfill. All material observed in the boreholes below 4.5 feet consists of clay or sand native to this geologic setting.

3.2 Site Hydrology

Site-specific groundwater characteristics cannot be determined from the soil investigation but regional groundwater movement in the Mississippi River delta is southeastern. The depth to the water table and the column of water at each borehole is presented in Table 3.

Tables

Table 1: Field Screening Results

Borehole	PID Result by Interval					Sample Interval
	0-5'	5-10'	10-15'	15-20'	20-25'	
B1	76.7	76.7	475.2	19.9	64.7	10-15'
B2	446.7	415.8	92.5	257.7	76.6	10-15'
B3	64.6	0	133	73.3	27.6	10-15'
B4	0	0	9.0	19.3	6.2	NA ¹

1. Not applicable – only sample material for background sample (20-25 ft bgs) was collected.

Table 2: Geographic Coordinates of Soil Borings

Borehole	Geographic Coordinates	
	Latitude	Longitude
B1	N 29.78756	W 90.02560
B2	N 29.78632	W 90.02664
B3	N 29.78501	W 90.02717
B4	N 29.78521	W 90.02928

Table 3: Summary of Groundwater Observations

Borehole	Water Table (feet)	Column of Water (feet)
B1	7	18
B2	6	19
B3	7.25	17.75
B4	6.25	18.75

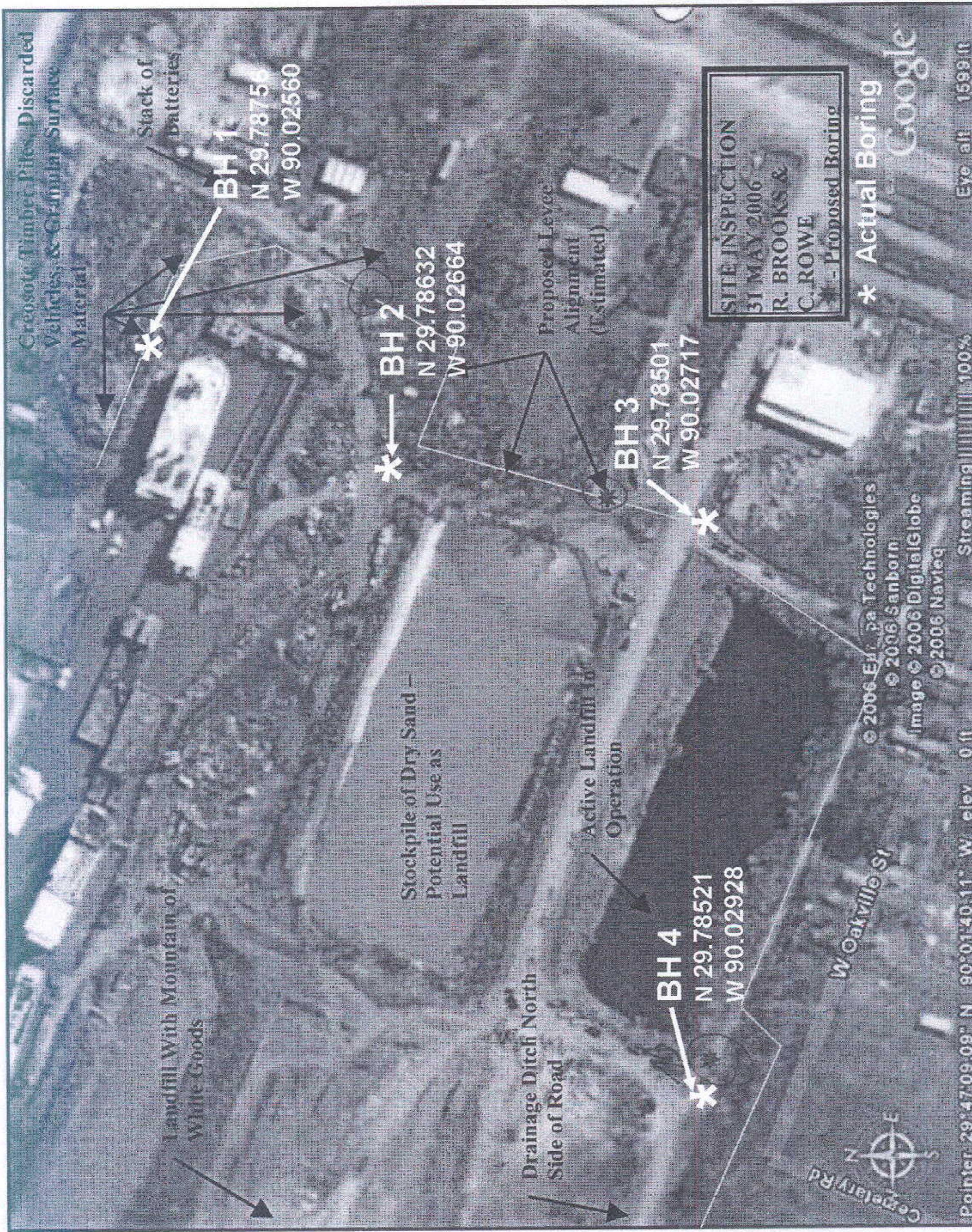
Figures

Figure 1: Site Location Map

Proposed Oakville Levee Extension
LA Highway 23
Belle Chasse, LA 70037



MMG Borehole Locations With GPS Coordinates



Appendices

Appendix A: Soil Boring Logs

Materials Management Group Inc

Borehole 1 (B1)

Depth (inches)

3520 General DeGaulle
Suite 3010
New Orleans Louisiana 70114
Phone (504) 368-0568

Geologist: Wendell J. Thompson Jr.

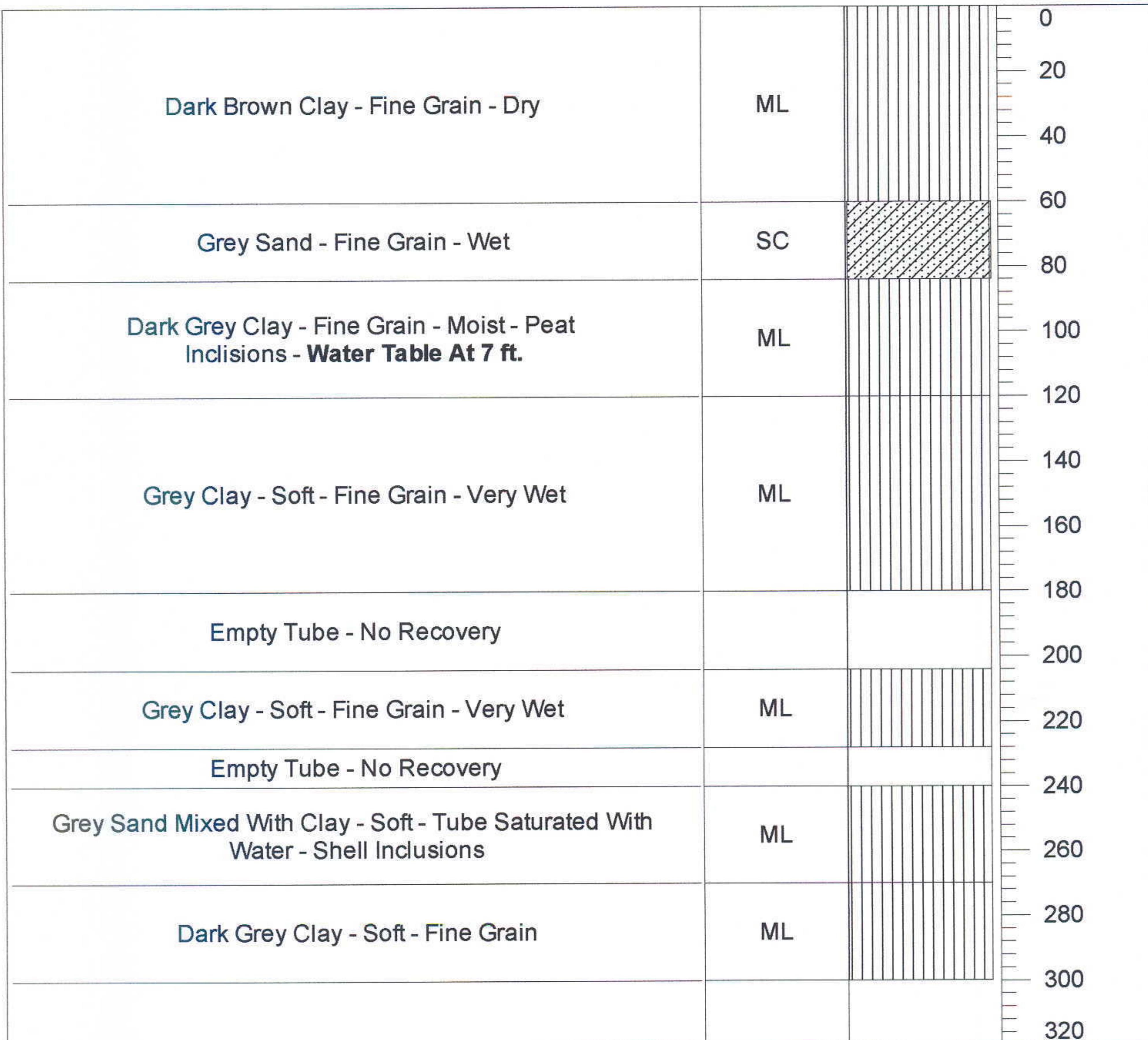
Drill Date: 09/06/2006

Sampler: Gary Brooks

Contractor: QRI

Lithographic Description

Project #: 2845ACE



Material Description

Abbreviation

USCS
Standard

Graphic

Depth (in.)

Materials Management Group Inc

Borehole 2 (B2) Depth (inches)

3520 General DeGaulle
Suite 3010
New Orleans Louisiana 70114
Phone (504) 368-0568

Geologist: Wendell J. Thompson Jr.

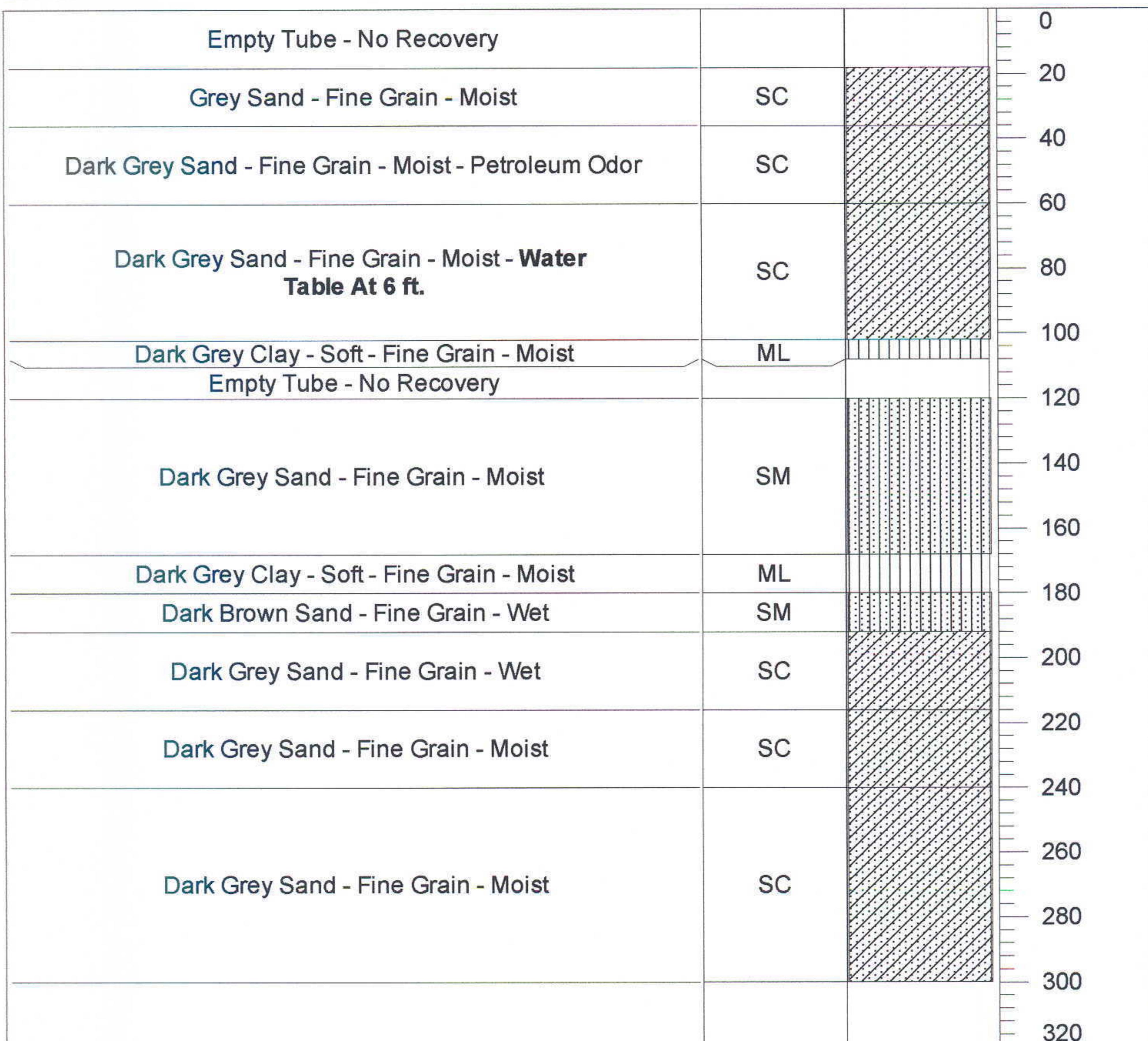
Drill Date: 09/06/2006

Sampler: Gary Brooks

Contractor: QRI

Lithographic Description

Project #: 2845ACE



Material Description

Abbreviation USCS Standard

Graphic

Materials Management Group Inc

Borehole 3 (B3) Depth (inches)

3520 General DeGaulle
Suite 3010
New Orleans Louisiana 70114
Phone (504) 368-0568

Geologist: Wendell J. Thompson Jr.

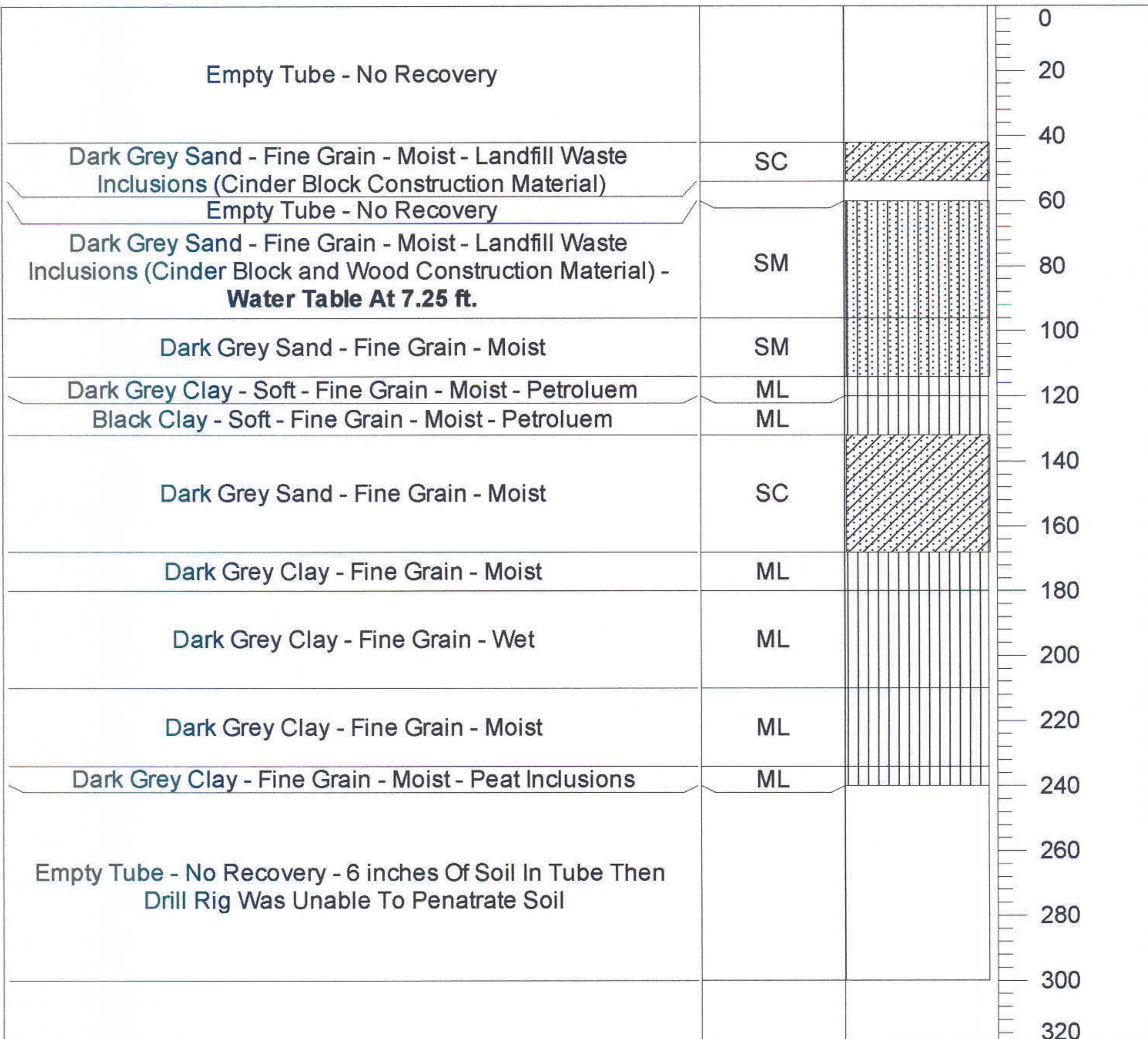
Drill Date: 09/06/2006

Sampler: Gary Brooks

Contractor: QRI

Lithographic Description

Project #: 2845ACE



Material Description

Abbreviation

USCS
Standard

Graphic

Depth (in.)

Materials Management Group Inc

3520 General DeGaulle
Suite 3010
New Orleans Louisiana 70114
Phone (504) 368-0568

Borehole 4 (B4)

Depth (inches)

Geologist: Wendell J. Thompson Jr.

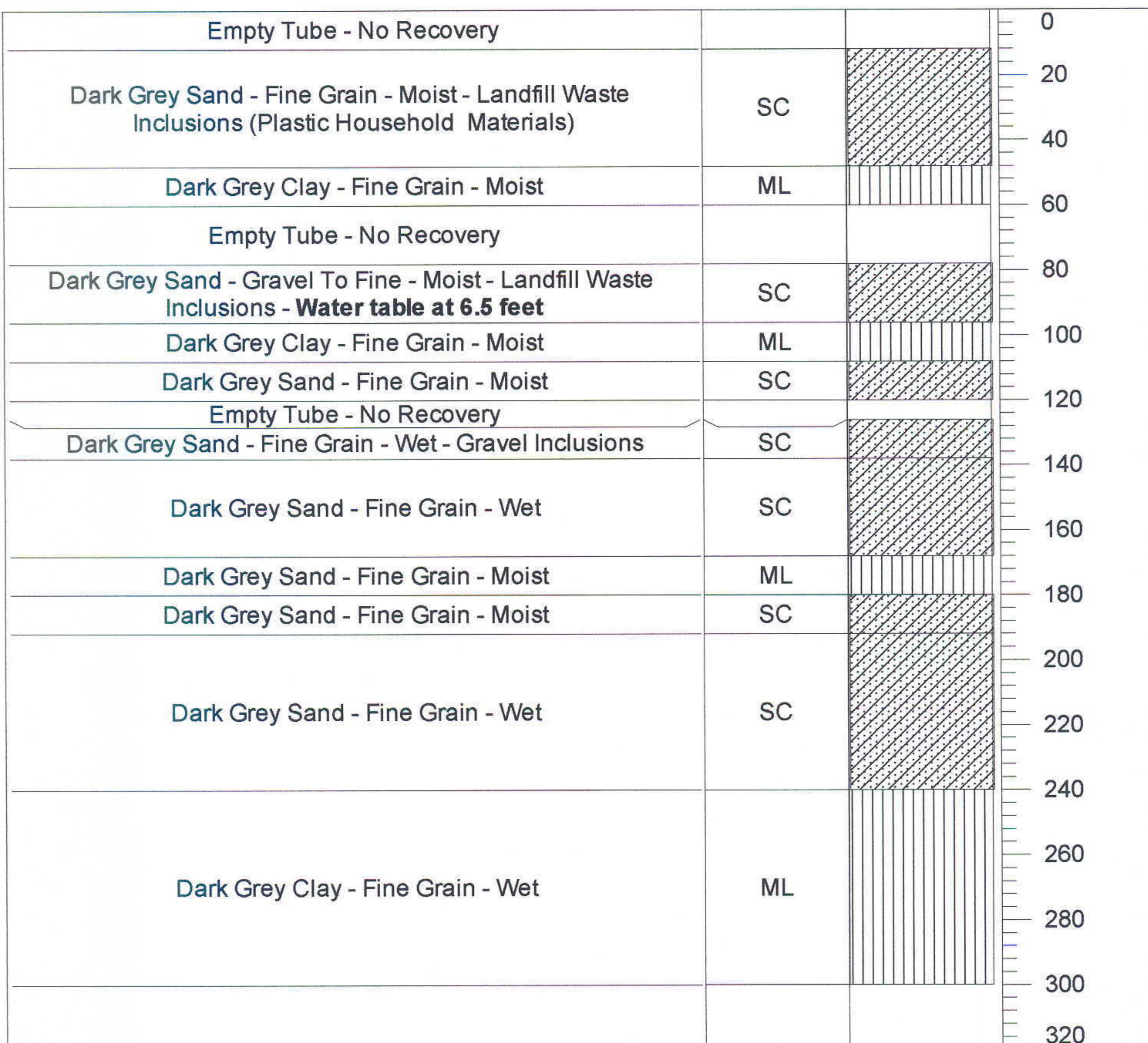
Drill Date: 09/06/2006

Sampler: Gary Brooks

Contractor: QRI

Lithographic Description

Project #: 2845ACE



Material Description

Abbreviation

USCS
Standard

Graphic

Depth (in.)

USCS Soil Boring Logs Legend

- G Gravel
- S Sand
- M Silt
- C Clay
- O Organic
- PT Peat
- W Well graded
- P Poorly graded
- L Low liquid limit compressibility; lean (clay)
Low liquid limit; (silts); plasticity
- H High liquid limit, compressibility; fat (clays)
High liquid limit; elastic (silts)

Appendix B: Field Documentation

	MMG Field Notes 9/6/2006 Oakville Levee Project 2845ACE Riverside Recycling 11266 Hwy 23, B. C. LA Wendell Thompson
TIME	Information
7:00	MMG and QRI (drill team) arrive at Riverside Recycling & Disposal All drilling will be done with a Geoprobe 4005 direct push rig using 5 foot disposable tubes that are 2 inches in diameter. MMG will use a PID meter for all field screening of sample material. All intervals are expressed in feet. 0-5 = 0 feet to 5 feet 7.5-9 = 7½ feet to 9 feet
7:30	MOB to first sight B1 (Borehole 1)
7:40	Tailgate meeting conducted by W. Thompson of MMG
7:45	W. Thompson calibrates PID
8:09	Begin drilling at B1
8:16	PID 0-5 076.7
8:18	0-5 Dark brown sand mixed with clay, dry, no odor
8:20	PID 5-10 076.7
8:21	5-7 Wet brown sand 7-10 Dark grey clay with wood inclusions, moist, no odor Water Table at 7 feet
8:32	PID 10-15 475.2
8:33	10-15 Grey clay, very wet (saturated), no odor
8:41	PID 15-20 019.9
8:42	15-17 Empty tube 17-20 Grey Clay, very wet (saturated), no odor
8:45	PID 20-25 064.7
8:49	20-22.5 Grey sand mixed with shell inclusions, very wet (saturated) 22.5-25 Dark grey clay, soft, no odor
8:50	Sample collection begins at B1 sample material collected from Interval 10-15 S-2845ACE-B1-10-15 S-2845ACE-B1-10-15-a (Split)
8:55	GPS B1 N 29.78756 W 90.02560

9:00	MOB to new sight B2 (Borehole 2)
9:21	Begin drilling at B2
9:35	PID 0-5 446.7
9:30	0-1.5 Empty Tube 1.5-3 Top soil 3-5 Dark grey sand, moist, petroleum odor
9:39	PID 5-10 415.8
9:40	5-8.5 Dark grey sand, moist to wet, mild petroleum odor Water table at 6 ft 8.5-9 Dark grey clay, moist
9:43	PID 10-15 0.92.5
9:45	10-14 Dark grey sand, very moist, no odor 14-15 Dark grey clay, moist
9:51	PID 15-20 257.7
9:53	15-16 Dark brown sand, unconsolidated, wet, no odor 16-18 Dark grey sand, wet, no odor 18-20 Dark grey sand, moist, no odor
9:54	PID 20-25 076.6
9:55	Dark grey sand, moist, no odor
9:55	Sample collection begins at B2 sample material collected from Interval 10-15 S-2845ACE-B2-10-15
10:00	GPS B2 N 29.78632 W 90.02664
10:05	Equipment Blank sample collected W-2845ACE-EB-9-6-06
10:20	MOB to new sight B3 (Borehole 3)
10:30	Begin drilling at B3
10:32	Mark Milner of Riverside Recycling & Disposal arrived
10:33	Mark Milner of Riverside Recycling & Disposal departed
10:45	PID 0-5 064.6
10:47	0-3.5 Empty tube

	3.5-5 Dark grey sand, moist, no odor, with inorganic waste inclusions
10:50	PID 5-10 000.0
10:51	5-8 Dark grey sand , moist, with wood and concrete inclusions at 5 feet Water table at 7.25 ft 8-9.5 Dark grey sand, moist, no odor 9.5-10 Dark gray clay, moist petroleum odor
10:53	PID 10-15 133.0
11:00	10-11 Black clay with sand, moist 11-14 Dark grey sand, moist, no odor 14-15 Dark grey clay, moist, no odor
11:06	PID 15-20 073.3
11:08	15-17.5 Dark grey clay with sand, very wet, no odor 17.5-19.5 Dark grey sand, moist, no odor 19.5-20 Dark grey clay, moist, no odor
11:10	PID 20-22 027.6
11:12	20-22 Dark grey clay, moist, no odor 22-25 No recovery
11:15	Sample collection begins at B3 sample material collected from Interval 11-15 S-2845ACE-B3-11-15
11:18	GPS B3 N 29.78501 W 90.02717
11:40	MOB to new site B4
12:00	Begin drilling at B4
12:05	Bg. sample collected from intervals B1 20-25, B2 20-25, B3 15-20, B4 20-25 S-2845ACE-BG
12:09	PID 0-5 000.0
12:11	0-1 Empty tube 1-4 Soil mixed with concrete waste and inorganic particles 4-5 Dark grey clay material, moist, no odor
12:14	PID 5-10 000.0
12:15	5-6.5 Empty tube 6.5-8 Gravel and soil Water table at 6.5 ft 8-9 Dark grey clay, moist, no odor, no inclusions- no waste

	9-10 Dark grey sand
12:17	PID 10-15 009.0
12:19	10-10.5 Empty tube 10.5-11.5 Dark grey sand with gravel inclusions 11.5-14 Grey sand, fine, very moist (saturated), no odor 14-15 Dark grey clay, moist, no odor
12:22	PID 15-20 019.3
12:24	15-16 Dark grey sand, moist, no odor 16-20 Dark grey sand, saturated, no odor
12:27	PID 20-25 006.2
12:29	20-25 Dark grey clay, saturated, no odor
12:31	Waste sample collected S-2845ACE-WASTE
12:33	GPS B4 N 29.78521 W 90.02928
13:30	MMG and QRI depart site

- 7:00 Drill Team Arrives
7:30 MOB to First Site B1
7:40 Tailgate Meeting Conducted By W. Thompson
7:45 Calibrate PID
8:09 Begin drilling at Borehole #1 (B1)
8:50 Sample Collection Begins Interval 10-15 & 5p1.7
8:55 GPS Borehole #1 N 29.18756 W 90.02560
9:00 Mob to new site B2
9:21 Begin drilling at Borehole #2 (B2)
9:55 Sample Collection Begins Interval 10-15
10:00 GPS Borehole #2 N 29.18632 W 90.02664
10:05 Equip. Blank Sample Collected
10:20 Mob to new site B3
10:30 Begin drilling at Borehole #3 (B3)
10:32 Mark Miller arrived
10:33 Mark Miller departed
11:15 Sample Collection Begins Interval 11-15 & MSD
11:30 Background Sample Collected
B1 10-15
B2 20-25
B3 15-20
11:40 MOB To New Site B4
12:00 Drilling Begins at #4 (80) B4
12:31 Waste Sample Collected
12:33 GPS Borehole #4 (B4) N 29.18521 W 90.02928
No samples collected at B4
13:15 GPS Borehole #3 (B3) N 29.18501 W 90.02717
13:30 QRI & MMG Depart Site

2845 ACE - B1

PID Readings

0-5 076.7 @ 8:16

5-10 076.7 @ 8:26

~~6-9~~ 475.2 @ 8:32

~~9-12~~ 019.9 @ 8:41

~~12-15~~ 064.7 @ 8:45

15-18

18-21

21-24

Borehole 2
P.T.D

0-5 446.7 @ 9:35

~~8-24~~

415.8 @ 9:39

5-10

092.5 @ 9:43

10-15

251.7 @ 9:51

15-20

076.6 @ 9:54

20-25

B3

PID

0-5 @ 10:45 ~~64.6~~

5-10 @ 10:50 0.00

10-15 @ 10:53 133.0

15-20 @ 11:06 273.3

20-25 @ 27.6

B C
E S R

0 - 5 @ 12.09

5 - 10 @ 12:14

10 - 15 @ 12:17

15 - 20 @ 12:22

20 - 25 @ 12:27

Riverside Publishing & Distribution • 1800 Highway 12 • P.O. Box 1200 • (504) 654-2101
YAHOO!



**Sampling and Analysis Plan - PIIESA
Oakville Levee Extension, Plaquemines Parish, LA**

August 30, 200
2845-ACE

8270 131/
6010
7400

8481
8082
5035
8260

Table 1: Sample Table

Sample Name*	Date Sampled	Analyses	Containers	Preservation/Holding Time	Comments
S-2845ACE-text-depth B-1-10-15	202 - 8:50	VOCs, SVOCS, RCRA metals, PCBs, pesticides	1 202 1 402		
S-2845ACE-text-depth B3 - 11-15-MD	11:15	VOCs, SVOCS, RCRA metals, PCBs, pesticides	2 202 2 402		MS/MSD
S-2845ACE-text-depth B-2 - 10-15-a	10:00	VOCs, SVOCS, RCRA metals, PCBs, pesticides	1 202 1 402		
S-2845ACE-text-depth-a B-1 - 10-15-a	8:50	VOCs, SVOCS, RCRA metals, PCBs, pesticides	1 202 1 402		Split sample
S-2845ACE-text-Bc	1130	VOCs, SVOCS, RCRA metals, PCBs, pesticides	1 202 1 402		
W-2845ACE-text-EB-date		VOCs, > 8270C SVOCS, 6020 RCRA metals, 500ml PCBs, 8280 pesticides — 8180	3 120 1 500ml 1 120		Equipment blank
W-2845ACE-FB-date	1005	VOCs	3 via 15		Field blank
W-2845ACE-TB-date		VOCs	3 via 15		Trip blank

The text indicates the sample location (borehole) – this will be decided in the field, as will the sample interval depth. The split sample and MS/MSD location will also be determined in the field.

S-2845 ACE - WATE /2:3 /
1 12 02
1 12 02



SPL, Inc.

Analysis Request & Chain of Custody Record

SPL Workorder No. **179612**

page **/** of **/**

Requested Analysis										
Client Name:	Address:	Phone/Fax:	Client Contact:	Email:	Project Name/No.:	Site Name:	Site Location:	Invoice To:	Ph:	matrix
										bottle
										size
										pres.
Number of Containers										
W=water	S=soil	O=oil	P=plastic	A=ambar glass	G=glass	V=vial	X=other	1=HCl	2=HNO ₃	3=H ₂ SO ₄
SL=sludge	X=other							4=4oz	40=viial	16=16oz
								1=Liter	8=8oz	16=Liter
								3	3	3
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								122	122	122

Tailgate Safety Meeting

Date: 9-6-06

Time: 7:03

File #: 2945 ACE

Site Location: Belle Chasse Waste Yard

Type of Work: Drilling

Site Manager: Wendell Thompson Site Phone: (504) 715-7849

Hazards:

- Slips/Trips/Falls Thermal Stress Biological Fire/Explosion/Hot Work*
 Electrical Lifting Acoustical Heavy Equipment
 Radiological Excavation* Confined Space* Severe Weather

 Chemical Exposure

From site: _____
 From work procedures: _____

- Absorption Inhalation Ingestion MSDS located in field files
 Other: _____
 Designated Smoking Area

PPE: Level A B C D

- Full Face 1/2 Face Combination: _____
 Hepa Organic Air Pump
 Cascade Air SCBA
 Steel Toe Rubber Steel Toe Cotton Dot Leather Gloves
 Ear Plugs Hard Hat Face Shield/Goggles/Glasses
 Surgical Gloves Nitrile PVC Gloves
 Tyvek Saranex Other: _____

Monitoring:

- OVM/OVA TEL/CO Draeger: _____
 Personnel Area
 Other: _____

Emergency Facility: Map Attached

Name: _____ Phone: 911

Address: _____

Attendees Signature required on other side of this form

* Permit Required

Meeting Conducted By:

Wendell Thompson

Printed Name

Signature

Wendell Thompson

Wendell Thompson

GARY BROOKS

Gary Brooks

John Kearns

John Kearns

Kenny New

Kenny New

Emergency Telephone Numbers

Electrician: Ecko 733-3202

Entergy (elec): 1-800-968-8243

Entergy (gas, Orleans only): 636-2020

Orleans S&WB 736-6675

PLAN OF THE DAY

SAFETY INSPECTION FORM

Materials Management Group, Inc.

SUBJECT: INSTRUCTIONS, PROCEDURES &
DRAWINGS: HEALTH & SAFETY

Page: 1 of 1

Document: qa/qm/oper/h&s/sftyrep

PROJECT NUMBER: 2845 ACE DATE: 9-6-06CUSTOMER: A CE TIME FROM: 7:00 TO: 14:00JOB LOCATION: Riverside Recycling & Disposal 11200 Hwy 23SUPERVISOR: Wendell Thompson FOREMAN/LEADMAN: Wendell ThompsonGENERAL JOB DESCRIPTION: Phase II Environmental Site AssessmentEMPLOYEES: Wendell ThompsonGary BrooksJohn KeansKenny New

SAFETY CONDITIONS: .

WEATHER: 70-75 °F, overcast, mild

MONITORING & SAMPLING (attach results)

INSTRUMENTATION USED: PID Meter

LEVEL OF PROTECTION (special conditions)

D

PROBLEMS/UNUSUAL SITUATIONS

None

CORRESPONDENCE

SIGNATURE: W.M.J. Thompson
(Project Supervisor/Foreman/Leadman)SIGNATURE: _____
(HSO Dept.)

ORIGINAL DATE: September 4, 1997

REV#: _____

DATE: _____

GENERATED BY: JEM

REVIEWED BY: Jane Morgan;
signature on fileAPPROVED BY: Jane Morgan; signature
on file

SAFETY INSPECTION FORM

Materials Management Group, Inc.

SUBJECT: INSTRUCTIONS, PROCEDURES &
DRAWINGS: HEALTH & SAFETY

Page: 1 of 1

Document: qa/qm/oper/h&s/sftyrep

ORIGINAL DATE: September 4, 1997

REV#: DATE:

GENERATED BY: JEM

REVIEWED BY: Jane Morgan;
signature on file

APPROVED BY: Jane Morgan; signature
on file

DATE

9/6/2006

DAY

S	M	T	<u>W</u>	TH	F	S
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A-E DAILY QUALITY CONTROL REPORT

COE PROJECT MANAGER Karley Gibbs
 PROJECT 2845 O.R.V. Inc. Land Phase II
 JOB NO. 2845 ACE
 CONTRACT NO. _____

WEATHER

Temp

Wind

Humidity

Bright Sun	Clear	<u>Overcast</u>	Rain	Snow
To 32	32-35	50-70	70-85	85 up
Still	Moder	High	Report No.	
Dry	Moder	Humid		

SUB-CONTRACTOR ON SITE

Quaternary Resource Investigations

EQUIPMENT ON SITE

Drill Rig, PID, Truck, Camera

WORK PERFORMED (INCLUDING SAMPLING):

Drill four holes along profile #2 from 0 to 25 feet. Collect samples and describe soil.

(Continuation Sheet)

PROJECT Carville Levee Phase II

REPORT NO. _____

JOB NO 2545 ALE

DATE 9/6/2006

QUALITY CONTROL ACTIVITIES (INCLUDING FIELD CALIBRATIONS)

Calibrate PID

HEALTH AND SAFETY LEVELS AND ACTIVITIES

Level D

PROBLEMS ENCOUNTERED/CORRECTION ACTION TAKEN:

NONE

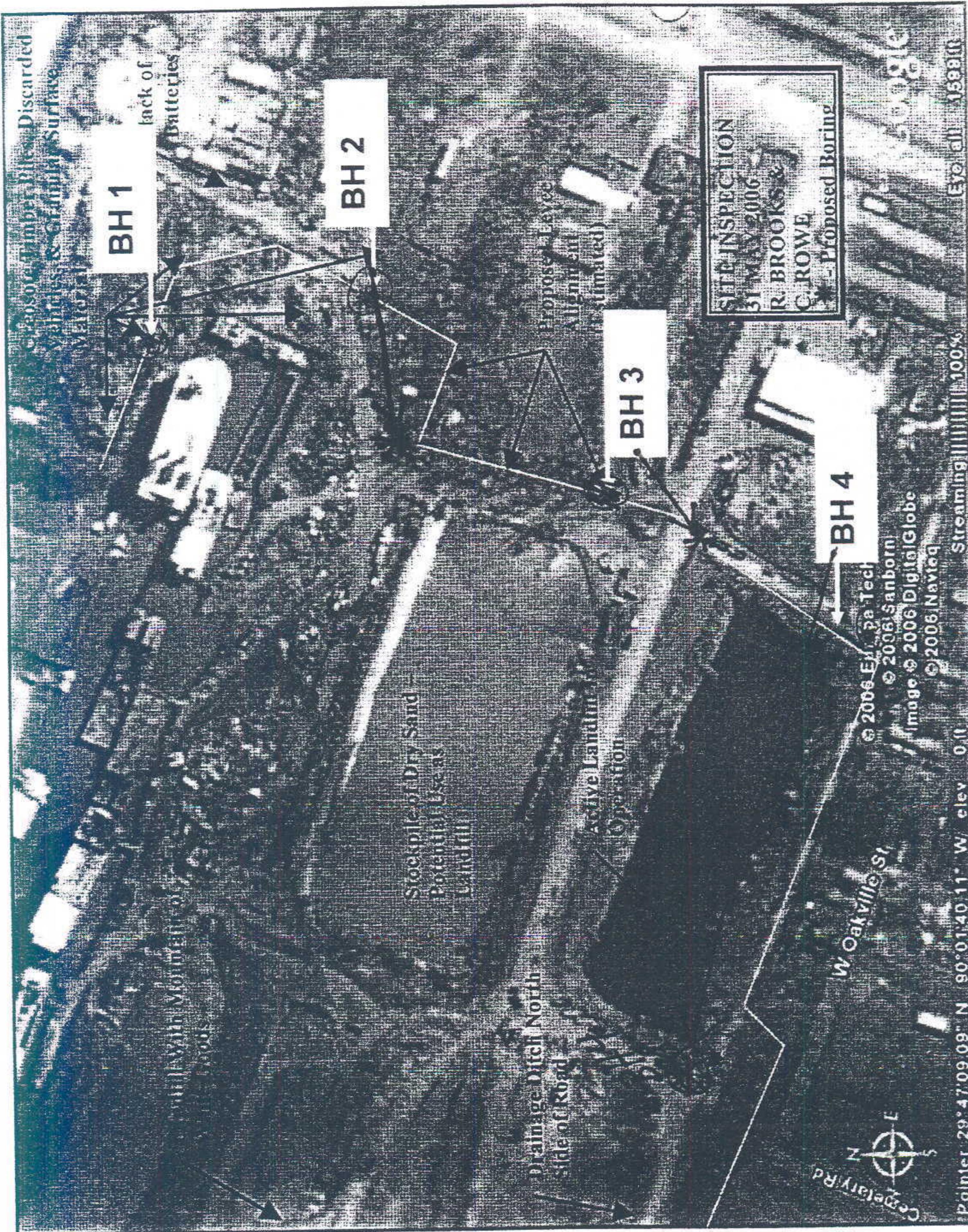
SPECIAL NOTES

TOMORROW'S EXPECTATIONS:

SHEET 1 OF 2

BY Wendell Thompson TITLE Geologist

Figure 2 – MMG Proposed Borehole Locations



Appendix C: Photographs

Pictures
2845ACE
Oakville Levee Project
Materials Management Group Inc.



QRI Removes Interval 10-15
From Tube At B4



Water In Tube
Interval 5-10, Borehole B1



Landfill Waste Inclusions-
Cinder Block Material-
Wood Material
Interval 0-5, Borehole B3



Sand To Clay Boundary
Interval 0-5, Borehole B3



Landfill Waste Inclusions-
Plastic Household Products-
Interval 0-5 , Borehole B4



Finger Holes Pressed Into Clay,
Interval 15-20 Borehole B1