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REPORT OF GEOTECHNICAL EXPLORATION

**ASH DISPOSAL AREA
KINGSTON FOSSIL PLANT
KINGSTON, TENNESSEE**

Prepared For:

TENNESSEE VALLEY AUTHORITY

Chattanooga, Tennessee

Prepared By:

MACTEC ENGINEERING AND CONSULTING, INC.

Knoxville, Tennessee

MACTEC Project 3043041009/0001

May 4, 2004

 **MACTEC**

 **MACTEC**

May 4, 2004

Mr. Ron Purkey
Tennessee Valley Authority
1101 Market Street, LP-2G
Chattanooga, TN 37402

Subject: **Report of Geotechnical Exploration
Ash Disposal Area
TVA Kingston Fossil Plant
Kingston, Tennessee
MACTEC Project 3043041009/0001**

Dear Mr. Purkey:

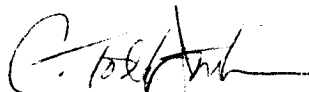
We at MACTEC Engineering and Consulting, Inc., (MACTEC) are pleased to submit this Report of Geotechnical Exploration for your project. Our services, as authorized through TAO No. MAC-0692-00050 were provided in general accordance with our proposal number Prop04Knox/076 dated February 17, 2004.

This report reviews the information provided to us, discusses the site and subsurface conditions, and presents our results of field and laboratory testing of the materials at the existing Ash Disposal Area. The Appendices contain a brief description of the Field Exploratory Procedures, a Key Sheet and Test Boring Records, Subsurface Fence Diagrams, In-situ Hydraulic Conductivity Test Results, Cone Penetrometer Test Results, the Laboratory Test Procedures, and the Laboratory Test Results.


We anticipate further dialog and interaction with your team and will be happy to provide additional information or interpretation of the data and recommendations presented here in which may be necessary.

We will be pleased to discuss our recommendations with you and would welcome the opportunity to provide the engineering services needed to successfully complete your project.


Sincerely,
MACTEC ENGINEERING AND CONSULTING, INC.



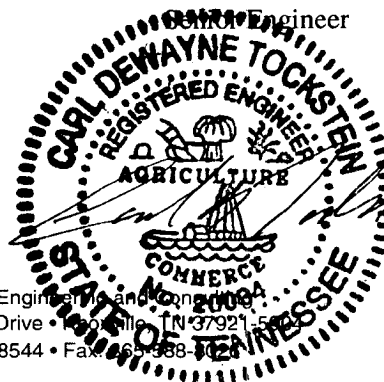
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TVA-00001087

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EXECUTIVE SUMMARY

MACTEC was selected by the Tennessee Valley Authority (TVA) to perform a geotechnical exploration for the existing Ash Disposal Area at the Kingston Fossil Plant in Kingston, Tennessee. The objectives of our exploration were to determine the subsurface conditions at the site, to obtain data to evaluate the strength and hydraulic conductivity characteristics of the ash materials, and also to evaluate the consolidation characteristics of the alluvial soils.

The exploration consisted of drilling a total of fifteen geotechnical test borings, installing three ground-water monitoring wells (piezometers), drilling three auger borings used to perform in-situ hydraulic conductivity testing, and performing Cone Penetrometer Test (CPT) probes at selected locations. The major findings and recommendations of our geotechnical exploration are as follows:

- The test borings typically encountered ash and intervals of fill soils overlying alluvial soils. The ash was typically comprised of silt and sand sized particles with lesser percentages of clay and gravel sized particles. The consistency and relative density of the ash varied from very soft to very stiff and very loose to very dense. The fill soils were typically comprised of silty clay and silty sand with chert fragments and some ash. The fill soils are judged to generally be of very soft to stiff consistency and firm relative density. The underlying alluvial soils were typically comprised of silty clay, clayey sand, and sand. The alluvial soils are judged to have very soft to very stiff consistencies and very loose to dense relative densities.
- Ground-water was measured in the test borings at the time of drilling. Table 2 summarizes the recorded ground-water data. Three ground-water monitoring wells identified as MW-1, MW-2, and MW-3, were installed along the slope of the Ash Disposal Area located adjacent to Swan Pond Road at the north end of the site (see Figure 2: Boring Location Plan). Long-term ground-water levels can be obtained from these well locations.
- In-situ hydraulic conductivity testing was conducted at auger boring locations B-1A, B-1B, and B-2A (see Figure 2: Boring Location Plan). A discussion of the field test results is found in Section 7.0. The test results are found in Appendix C.
- Cone Penetrometer Test soundings were performed at selected locations near some of the geotechnical test borings and on a newly constructed dike. The test locations are shown on Figure 2: Boring Location Plan. A discussion of the test results is found in Section 8.0. The CPT results are found in Appendix D.

This summary is only an overview and should not be used as a separate document or in place of reading the entire report, including the appendices.

1.0 INTRODUCTION

This report presents the findings of our subsurface exploration and field and laboratory testing recently performed for the existing Ash Disposal Area at TVA's Kingston Fossil Plant. Our services were authorized by Mr. Ron Purkey of TVA.

2.0 OBJECTIVES OF EXPLORATION

The objectives of our exploration were to characterize the subsurface conditions at the Ash Disposal Area, and to obtain data to aid in the evaluation of the strength and hydraulic conductivity characteristics of the ash materials and consolidation characteristics of the alluvial soils. An assessment of site environmental conditions, or an assessment for the presence or absence of pollutants in the soil, bedrock, surface water, or ground water of the site was beyond the proposed objectives of our exploration.

3.0 SCOPE OF EXPLORATION

The scope of our exploration was based on our proposal number Prop04Knox/076 dated February 17, 2004, and the geotechnical scope of work outlined in the project's scope of work prepared by TVA and Parsons E & C. It included the following:

3.1 DRILLING AND SAMPLING

The subsurface exploration for this project consisted of drilling and sampling twelve geotechnical borings (designated B-1 through B-12), three offset geotechnical borings (designated B-4A, B-5A, and B-8A), drilling three auger borings used to perform in-situ hydraulic conductivity testing (designated B-1A, B-1B, and B-2A), and drilling and installing three ground-water monitoring wells (piezometers), (designated MW-1, MW-2, and MW-3). One of our geotechnical engineers estimated the boring locations in the field using a boring location map as a reference. The boring locations are shown on Figure 2: Boring Location Plan. TVA determined the coordinates, and ground surface elevations at the geotechnical boring locations relative to mean sea level (msl), using surveying techniques.

The borings were drilled with a truck-mounted Central Mine Equipment (CME) Model 75 drill rig and an all-terrain vehicle (ATV) mounted Central Mine Equipment (CME) Model 55 drill rig in

general accordance with the procedures described in Appendix B. Standard Penetration Tests (SPTs) were performed in the geotechnical borings using a CME automatic hammer. The SPTs were performed using standard 2.00-inch OD split spoons with 1.38-inch ID barrels (i.e., no room for liners in the barrels). SPTs were performed at 5-foot intervals.

Three-inch-diameter relatively undisturbed (Shelby tube) samples were obtained from representative cohesive soils in the geotechnical borings. The Shelby tubes were pushed into the bottoms of the boreholes at the desired sampling depth. The samples were then sealed with wax and capped at both ends to minimize changes in the structure and moisture content of the samples.

A 3.5-inch OD, 3-inch ID split spoon with liner was used to sample the ash at varying depths. The spoon was pushed into the bottoms of the boreholes at the desired sampling depths. The ash samples, enclosed in the liners, were then sealed with a wax / motor oil mixture at both ends and capped to minimize changes in the structure and moisture content of the samples.

3.2 MEASUREMENT OF GROUND-WATER LEVELS

Ground-water levels in the geotechnical borings were generally measured and recorded when first encountered (at the time of drilling). Twenty-four-hour ground-water readings were not recorded in the geotechnical borings due to the necessity of grouting the borings immediately after termination of the borings. Ground water measurements taken at the termination of the borings were not recorded due to the introduction of water into the boreholes during drilling. The recorded ground-water levels are discussed in Section 9.0 and are summarized in Table 2.

3.3 PLUGGING AND ABANDONMENT OF BOREHOLES

Upon completion of drilling and sampling, the geotechnical boreholes were plugged with a Type I Portland cement-bentonite grout mixture using a tremie pipe method. The borings were backfilled in general accordance with the requirements specified by TVA. During plugging and abandonment precautions were taken to stabilize against cave-ins prior to and during plugging procedures, however, it was observed that at a few of the boring locations portions of the ash profiles collapsed (caved-in) within the borings due to the behavior of the saturated ash. However, it is noted that the alluvial and residual soil profiles encountered underlying the intervals of ash were successfully grouted.

3.4 ADDITIONAL FIELD TESTING

3.4.1 Field Hydraulic Conductivity Testing

Field measurements to assist in estimating the limiting hydraulic conductivity of the in-situ dike materials were performed near soil test borings B-1 and B-2. The locations of the in-situ hydraulic conductivity tests are shown on Figure 2: Boring Location Plan. The in-situ hydraulic conductivity test results are found in Appendix C. A discussion of the field test results is found in Section 7.0.

3.4.2 Cone Penetrometer Testing (CPT)

Eleven CPT soundings were performed to supplement the data obtained from the geotechnical borings. The CPT locations are shown on Figure 2: Boring Location Plan. Nine soundings were performed near geotechnical test boring locations while two were performed on a newly constructed dike. The CPT results are found in Appendix D. A discussion of the test results is found in Section 8.0.

CPT soundings were performed using an electric penetrometer with pore pressure measurements. The cone penetrometer equipment was mounted on a track vehicle. Continuous data was recorded with a computerized data acquisition system. Pore pressure measurements were performed to evaluate the rate of pore pressure dissipation within the ash and underlying soils.

3.5 LABORATORY TESTING

This section outlines the geotechnical laboratory testing program. The discussion and summary of the results of the laboratory testing program are found in Section 9.0. The laboratory testing procedures and laboratory test results are included in Appendix E.

- 46 Natural Moisture Content Tests
- 13 Unit Weight with Moisture Content Tests
- 18 Specific Gravity Tests
- 6 Atterberg Limits Tests
- 27 Particle Size Distribution Tests
- 3 Consolidated Undrained Triaxial Compression (CU) Tests
- 2 Falling Head Permeability Tests
- 1 Consolidation Test

4.0 PROJECT INFORMATION AND SITE CONDITIONS

Project information was provided to us by TVA and Parsons E & C in the form of a Subsurface Exploration document and a boring location plan. The existing Ash Disposal Area consists of an upstream method of construction ash disposal facility with various cells, existing ash pond, and stilling pond. The site is located just north of the Kingston Fossil Plant. The ground surface elevation varies by as much as about 48 feet in the areas of our exploration program. The areas of exploration included existing cells, a perimeter slope of the disposal facility, and areas along the perimeter of the existing ash and stilling ponds.

5.0 AREA AND SITE GEOLOGY

Kingston, Tennessee, is located in the Appalachian Valley and Ridge Physiographic Province. This province extends as a continuous belt from Central Alabama, through Georgia and Tennessee, northward into Pennsylvania. The formations that underlie this province consist primarily of limestone, dolostone, shale, and sandstone, which have been folded and faulted in the geologic past. These formations range in age from Cambrian to Pennsylvanian and have been subject to at least one extensive period of erosion since their structural deformation. The erosion has produced a series of subparallel, alternating ridges and valleys. The valleys are formed over more soluble bedrock (limestone and interbedded limestone and shale), whereas bedrock more resistant to solution weathering forms ridges (sandstone, shale, and cherty dolostone).

The site and vicinity are blanketed with alluvial (water-transported) soils that have been deposited over time by the nearby Emory River. The alluvial soils typically consist of heterogeneous mixtures of clay, silt, sand and gravel. The alluvial soils typically grade coarser with depth and may contain rock fragments ranging up to cobble and boulder size. The published geologic map of this area shows that this site is underlain by bedrock of the Conasauga Shale. The Conasauga Shale is mainly composed of blue-gray shale with many lenses of limestone, conglomerate, and siltstone. The proportion of shale to other materials is about 4 to 1. The lenses of limestone typically range in thickness from about 1 inch to several feet.

6.0 SUBSURFACE CONDITIONS

Subsurface conditions encountered in our borings are described in the following paragraphs. The approximate boring locations are shown on Figure 2: Boring Location Plan. Subsurface conditions encountered at the boring locations are shown on the Boring Records. The Boring Records

represent our interpretation of the subsurface conditions based on the field boring logs and visual examination of the field samples by one of our geotechnical engineers. The lines designating the interfaces between various strata on the Boring Records and Subsurface Profiles represent the approximate interface locations. Boring depths and types are summarized in Table 1. Descriptions of the materials encountered in the borings are given below:

- Ash – Ash was encountered at each boring location. The ash typically consisted of fine and coarse sized particles as described on the boring logs. Standard Penetration Test (SPT) N-values in the ash ranged from 0 (woh / “weight of hammer”) to over 50 blows per foot (bpf).
- Fill Soils – Fill was encountered in borings B-1 through B-3, B-7, B-9, B-11, and B-12. Fill soils are soils that have been transported to their present location by man. These soils typically consisted of silty clay and silty sand with varying percentages of chert fragments, coal fragments, limestone fragments, and ash. N-values in the fill soils ranged from 1 to over 50 blows per foot (bpf). The higher N-values were likely inflated due to the presence of large rock fragments in the fill. Correspondingly, the fill soils are judged to generally be of very soft to stiff consistency and firm relative density. The depth to fill varied from ground surface at borings B-1 and B-2 to about 57.5 feet at boring B-3.
- Alluvium – Alluvial soils were encountered below the ash in borings B-1, B-2, B-4, B-5A, B-6, B-7, B-8A, and B-9 through B-12. Alluvial soils are soils that have been transported to their present location by running water. These soils consisted of silty clay, clayey sand, and sand with coal fragments and roots. The N-values in the alluvial soils ranged from 0 (woh / “weight of hammer”) to 33 bpf. These soils are judged to have very soft to very stiff consistencies and very loose to dense relative densities. The depth to alluvium varied from about 26.2 ft at boring B-12 to about 83 ft at boring B-4. Based on the results of the laboratory testing, the alluvial soils were classified as CL and SM, in accordance with the USCS.
- Residuum - The residuum was encountered below the alluvial soils and extended to auger refusal or to auger termination depth in borings B-8A, B-9, B-10, and B-12. Residual soils (residuum) are soils that have developed from the in-place weathering of the underlying parent bedrock. The residuum typically consisted of weathered shale and shale with limestone. The N-values in the residuum ranged from 14 bpf to over 50 bpf. These residual materials are judged to have stiff to very hard consistencies. The depth to residuum varied from about 38 ft at boring B-10 to about 70.5 ft at boring B-8A.

7.0 IN-SITU HYDRAULIC CONDUCTIVITY TESTING AND DISCUSSION OF RESULTS

This section describes the hydraulic conductivity testing performed for this project. The results of the testing and a brief discussion of the test procedure is provided in Appendix C.

The hydraulic conductivity testing was performed at locations B-1A, adjacent to soil test boring B-1 and at B-2A, adjacent to soil test boring B-2. The temperature effect gage was installed at B-1B. These locations are shown on the Boring Location Plan, Figure 2, in the Appendix.

The in-situ hydraulic conductivity test provides the in-situ limiting hydraulic conductivity of the tested material. These limiting values are the maximum possible for the vertical direction, and the minimum possible for the horizontal direction.

The results of the tests indicated that the maximum vertical hydraulic conductivity at borings B-1 and B-2 was 5.13×10^{-6} and 3.59×10^{-6} centimeters per second (cm/s), respectively. The minimum horizontal hydraulic conductivity at borings B-1 and B-2 was measured as 1.42×10^{-5} and 3.67×10^{-6} cm/s, respectively.

8.0 CONE PENETROMETER TEST RESULTS

The subsurface profiles developed by the CPT soundings were consistent with those obtained from the geotechnical borings. Typically, the CPT soundings indicated that the tip resistance decreased from the coarser, cohesionless ash into the finer ash. Several pore pressure dissipation tests were performed at the CPT locations which give further indications of material types. Refer to Appendix D for details of the CPT results.

9.0 LABORATORY TESTING AND DISCUSSION OF LAB RESULTS

This section describes the geotechnical laboratory testing program performed for this project. The laboratory testing procedures and laboratory test results are included in Appendix E. The following paragraphs provide a short discussion of the laboratory testing conducted and summarize the results.

9.1 ASH SAMPLES

9.1.1 Index Properties, Specific Gravity, and Unit Weight

Natural moisture content, grain size distributions with hydrometer analyses, and specific gravity tests were performed on split-spoon and undisturbed ash samples. In addition, unit weight testing was performed on selected undisturbed ash samples.

Moisture contents of the tested ash ranged from 16 (B-3) to 48 (B-10) percent; most values ranged between 22 and 40 percent. Table 3 summarizes the results of the natural moisture content testing performed on selected split-spoon ash samples.

The grain size testing confirmed the variability of the grain size distributions of the sampled ash materials. Percent fines (percent silt and clay-size particles) varied from 30 to 98 percent.

Specific gravities for the ash samples tested varied from 2.27 to 2.58, with the preponderance of values in the 2.3 to 2.5 range. Moist unit weights in the ash material ranged from 76.7 to 114.0 pounds per cubic foot (pcf), and averaged 104.3 pcf. Dry unit weights in the ash material varied from 61.6 to 95.5 pcf and averaged 80.5 pcf.

9.1.2 Ash Sample Remolding

Remolded ash specimens were subjected to consolidated-undrained triaxial compression with pore pressure measurements (CU w/PP) and hydraulic conductivity testing. An undisturbed ash specimen (B-10, 5 to 7 feet), subjected to CU w/PP triaxial testing, was remolded to similar density and moisture content conditions as the undisturbed sample unit weight test results indicated. Bulk samples of ash (obtained from borings B-1A, B1B, and B-2A) subjected to hydraulic conductivity testing were remolded to density and moisture content conditions obtained from a unit weight test performed on an undisturbed ash specimen sampled from B-1 (4 to 4.5 feet).

9.1.3 Strength

Shear strength testing on ash material included consolidated-undrained triaxial compression with pore pressure measurements (CU w/PP). Tests were performed on relatively undisturbed and

remolded ash specimens. The strength parameters from the triaxial shear strength testing are summarized in Table 4. The test results are discussed below.

As shown in Table 4, CU w/PP parameters consisted of total stress cohesion intercepts from 3.0 to 5.6 ksf and total stress friction angles of 25.0 to 32.7 degrees. Effective stress cohesion intercepts varied from 0 to 0.1 ksf, and effective stress friction angles varied from 32.1 to 36.6 degrees. The high total stress cohesion values may be indicative of chemical bonding within the ash.

9.1.4 Hydraulic Conductivity

Hydraulic conductivity tests were performed on remolded specimens of ash material obtained from bulk samples. The results of the hydraulic conductivity tests are presented in Table 5. Values of hydraulic conductivity for the two remolded specimens were 1.67×10^{-5} cm/sec and 1.87×10^{-5} cm/sec.

9.2 SOIL SAMPLES

9.2.1 Index Properties, Specific Gravity, and Unit Weight

Natural moisture content and specific gravity tests were performed on split-spoon and undisturbed soil samples. Liquid limit and plastic limits (collectively known as Atterberg limits tests); and grain size distributions with hydrometer analyses were performed on split-spoon and undisturbed soil samples, as well. These tests were used to confirm our visual-manual classifications and to evaluate the volume change potential of the samples tested. In addition, unit weight testing was performed on selected undisturbed soil samples. Table 3 summarizes the results of the natural moisture content and Atterberg limits testing performed on selected split-spoon soil samples.

Moisture contents of the tested alluvial soils ranged from 17 (B-2 and B-8A) to 27 (B-8A) percent. Liquid limits of the tested alluvial soils were 26, while the plastic limits varied from 15 to 16. Plasticity indices (PIs) varied from 10 to 11. The majority of the tested alluvial soils were non-viscous and non-plastic. The tested soils, having plasticity indices of less than 30, are considered to have a relatively low potential for volume change with changes in moisture content. The alluvial soils classified as CL and SM in accordance with the Unified Soil Classification System.

The grain size testing confirmed the variability of the grain size distributions of the sampled alluvial soils. Percent fines (percent silt and clay-size particles) varied from 17.3 to 57.2 percent. Specific gravities of the tested alluvial soil samples varied from 2.67 to 2.68. Moist unit weights in the alluvial soils ranged from 124.6 to 131.0 pounds per cubic foot (pcf), and averaged 127.6 pcf. Dry unit weights in the alluvial soils varied from 102.2 to 112.2 pcf and averaged 106.3 pcf.

9.2.2 Compressibility

One-dimensional consolidation testing was performed on an undisturbed specimen of alluvial soil. Compression properties of the soil subjected to one-dimensional consolidation testing are summarized in Table 6. The laboratory consolidation data is presented in Appendix E. The preconsolidation pressure listed in Table 6 was estimated graphically by hand using the Casagrande Method and checked by the Log-Log Method.

The coefficients of consolidation were computed for each load increment by the consolidation test software. The compression index for the "laboratory" void ratio versus log pressure curve also was computed by the consolidation test software. The "field" compression index was estimated graphically using the Schmertmann Method.

10.0 GROUND-WATER CONDITIONS

Ground-water level measurements made in the borings during drilling are summarized in Table 2. Ground water was observed in borings B-1 through B-4, B-6 through B-8, B-9 through B-12, and in B-5A and B-8A. Depths below the ground surface to ground-water levels at the time of drilling varied from 3.0 to 42.0 feet. The ground-water elevations at the time of drilling varied from 943.1 to 982.8 feet msl. Twenty-four-hour ground-water levels were not measured in the geotechnical borings because plugging and abandonment procedures were initiated immediately after drilling.

To provide long-term ground-water data for the site vicinity near borings B-1 through B-3, three ground-water monitoring wells (piezometers) were installed and identified as MW-1, MW-2, and MW-3. Twenty-four-hour ground-water measurements were taken at these locations after the installation of these monitoring wells. Initial readings indicate depths below the ground surface to ground-water levels of 6.9 ft, 15.4 ft, and 27.3 ft, at locations MW-1, MW-2, and MW-3, respectively. These correspond to ground-water elevations of 774.9, 779.9, and 783.5 feet msl.

11.0 BASIS OF RESULTS

The results of our geotechnical exploration provided herein are based on the encountered subsurface conditions, and on the field and laboratory testing performed with respect to the specific project site and locations discussed in this report. Regardless of the thoroughness of a geotechnical exploration, there is always a possibility that conditions between test borings will differ from those at specific test boring locations, and that conditions may not be as anticipated. In addition, the interpretation and analysis of the results of a geotechnical exploration are critical related to proposed design criteria. Therefore, we recommend that experienced geotechnical engineers review any proposed site specific design plans that incorporate the results of our geotechnical exploration. We recommend that TVA retain MACTEC to provide this service, based upon our familiarity with the subsurface conditions, field and laboratory testing results, and our geotechnical experience.

Our exploration services include storing the collected samples and making them available for inspection for a period of 30 days. The samples are then discarded unless you request otherwise.

TABLES

**TABLE 1
 BORING SUMMARY**

Boring Number	Type	Ground Elevation msl (Feet)	Refusal Depth (Feet)	Refusal Elevation msl (Feet)	Refusal Type	Boring Termination Depth (Feet)	Boring Termination Elevation msl (Feet)
B-1	STB	781.8	82.2	699.6	AR	82.2	699.6
B-1A	HC	781.8*	NA	NA	NA	5.0	776.8
B-1B	HC	781.8*	NA	NA	NA	5.0	776.8
B-2	STB	795.3	87.5	707.8	AR	87.5	707.8
B-2A	HC	795.3*	NA	NA	NA	5.0	790.3
B-3	STB	810.8	NA	NA	NA	70.0	740.8
B-4	STB	810.6	NA	NA	NA	98.5	712.1
B-4A	STB	810.6*	NA	NA	NA	28.5	782.1
B-5	STB	810.2	NA	NA	NA	41.5	768.7
B-5A	STB	810.2	NA	NA	NA	101.5	708.7
B-6	STB	809.5	NA	NA	NA	86.5	723.0
B-7	STB	767.0*	NA	NA	NA	46.5	720.5
B-8	STB	773.6*	NA	NA	NA	35.0	738.6
B-8A	STB	773.6	70.7	702.9	AR	70.9	702.7
B-9	STB	764.4	61.9	702.5	AR	61.9	702.5
B-10	STB	762.6	39.2	723.4	AR	39.2	723.4
B-11	STB	765.0	62.5	702.5	AR	62.5	702.5
B-12	STB	763.9	59.7	704.2	AR	60.6	703.3
MW-1	MW	781.8*	NA	NA	NA	20.0	761.8
MW-2	MW	795.3*	NA	NA	NA	35.0	760.3
MW-3	MW	810.8*	NA	NA	NA	40.0	770.8

NA – Not Applicable

STB – Soil Test Boring

AR – Auger Refusal

HC – Auger Boring used for In-Situ Hydraulic Conductivity Testing

MW – Monitoring Well or Piezometer

* - Elevations were estimated based on nearby surveyed boring locations and field reconnaissance

Prepared By CTJ Date 5/4/04 Checked By MBH Date 5/4/04

TABLE 2
GROUND-WATER DATA

Boring Number	Ground Elevation msl (Feet)	Depth to Ground Water at Time of Drilling (Feet)	Ground-Water Elevation, msl at Time of Drilling (Feet)	Depth to Ground Water 24 Hours After Drilling (Feet)	Ground-Water Elevation 24 Hours After Drilling msl (Feet)
B-1	781.8	7.4	774.4	Not Measured	Not Measured
B-1A	781.8	Not Encountered	Not Encountered	Not Measured	Not Measured
B-1B	781.8	Not Encountered	Not Encountered	Not Measured	Not Measured
B-2	795.3	26.2	769.1	Not Measured	Not Measured
B-2A	795.3	Not Encountered	Not Encountered	Not Measured	Not Measured
B-3	810.8	28.0	782.8	Not Measured	Not Measured
B-4	810.6	28.0	782.6	Not Measured	Not Measured
B-4A	810.6	Not Encountered	Not Encountered	Not Measured	Not Measured
B-5	810.2	Not Encountered	Not Encountered	Not Measured	Not Measured
B-5A	810.2	41.0	769.2	Not Measured	Not Measured
B-6	809.5	42.0	767.5	Not Measured	Not Measured
B-7	767.0	12.6	754.4	Not Measured	Not Measured
B-8	773.6	12.2	761.4	Not Measured	Not Measured
B-8A	773.6	12.0	761.6	Not Measured	Not Measured
B-9	764.4	9.0	755.4	Not Measured	Not Measured
B-10	762.6	3.0	759.6	Not Measured	Not Measured
B-11	765.0	21.9	743.1	Not Measured	Not Measured
B-12	763.9	18.5	745.4	Not Measured	Not Measured
MW-1	781.8	Not Measured	Not Measured	6.9 *	774.9
MW-2	795.3	Not Measured	Not Measured	15.4 *	779.9
MW-3	810.8	Not Measured	Not Measured	27.3 *	783.5

*Measurements were taken 24 hours after monitoring well (piezometer) installation.

Prepared By CTJ Date 5/4/04 Checked By MBH Date 5/4/04

**TABLE 3
 NATURAL MOISTURE CONTENT AND
 ATTERBERG LIMITS LABORATORY TEST RESULTS**

Boring Number	Sample Number	Sample Type	Sample Description/ Origin	Sample Depth (Feet)	Moisture Content (%)	Atterberg Limits		
						Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
B-1	UD-1	UD	ASH	4-4.5	19	NT	NT	NT
B-1	UD-2	UD	Alluvium	65-67	20	NV	NP	NP
B-2	UD-4	UD	Alluvium	70-72	17	NV	NP	NP
B-3	1	SPT	ASH	0-1.5	24	NT	NT	NT
B-3	2	SPT	ASH	5-6.5	20	NT	NT	NT
B-3	3	SPT	ASH	10-11.5	16	NT	NT	NT
B-3	4	SPT	ASH	15-16.5	17	NT	NT	NT
B-3	5	SPT	ASH	20-21.5	39	NT	NT	NT
B-3	6	SPT	ASH	25-26.5	40	NT	NT	NT
B-3	7	SPT	ASH	30-31.5	34	NT	NT	NT
B-3	8	SPT	ASH	35-36.5	22	NT	NT	NT
B-3	9	SPT	ASH	40-41.5	22	NT	NT	NT
B-3	10	SPT	ASH	45-46.5	31	NT	NT	NT
B-3	11	SPT	ASH	50-51.5	39	NT	NT	NT
B-3	12	SPT	ASH	55-56.5	43	NT	NT	NT
B-3	13	SPT	FILL/ASH	60-61.5	30	NT	NT	NT
B-3	14	SPT	ASH	65-66.5	16	NT	NT	NT
B-4A	UD-1	UD	ASH	15-17	37	NT	NT	NT
B-4A	UD-3	UD	ASH	25-27	38	NT	NT	NT
B-5	1	SPT	ASH	0-1.5	22	NT	NT	NT
B-5	2	SPT	ASH	5-6.5	39	NT	NT	NT
B-5	3	SPT	ASH	10-11.5	25	NT	NT	NT
B-5	4	SPT	ASH	15-16.5	32	NT	NT	NT
B-5	5	SPT	ASH	20-21.5	30	NT	NT	NT
B-5	6	SPT	ASH	25-26.5	39	NT	NT	NT
B-5	7	SPT	ASH	30-31.5	41	NT	NT	NT
B-5	8	SPT	ASH	35-36.5	29	NT	NT	NT
B-5	9	SPT	ASH	40-41.5	34	NT	NT	NT
B-8	1	SPT	ASH	0-1.5	25	NT	NT	NT
B-8	2	SPT	ASH	5.8-7.3	20	NT	NT	NT
B-8	UD-2	UD	ASH	10-12	19	NT	NT	NT
B-8	3	SPT	ASH	12-13.5	22	NT	NT	NT
B-8	4	SPT	ASH	15-16.5	45	NT	NT	NT
B-8	UD-3	UD	ASH	20-22	32	NT	NT	NT

**TABLE 3
 NATURAL MOISTURE CONTENT AND
 ATTERBERG LIMITS LABORATORY TEST RESULTS**

Boring Number	Sample Number	Sample Type	Sample Description/ Origin	Sample Depth (Feet)	Moisture Content (%)	Atterberg Limits		
						Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
B-8	5	SPT	ASH	22-23.5	43	NT	NT	NT
B-8	6	SPT	ASH	25.6-27.1	27	NT	NT	NT
B-8	7	SPT	ASH	30-31.5	25	NT	NT	NT
B-8A	1	SPT	ASH	35-36.5	37	NT	NT	NT
B-8A	2	SPT	ASH	40-41.5	47	NT	NT	NT
B-8A	3	SPT	ASH	45-46.5	37	NT	NT	NT
B-8A	4	SPT	ASH	50-51.5	36	NT	NT	NT
B-8A	5	SPT	Alluvium	57-58.5	24	26	15	11
B-8A	6	SPT	Alluvium	62-63.5	24			
B-8A	UD-2	UD	Alluvium	60-62	22	26	16	10
B-8A	7	SPT	Alluvium	65-66.5	27	NV	NP	NP
B-8A	8	SPT	Alluvium	70-70.9	17			
B-10	1	SPT	ASH	0-1.5	18	NT	NT	NT
B-10	UD-1	UD	ASH	5-7	25	NT	NT	NT
B-10	2	SPT	ASH	7-8.5	28	NT	NT	NT
B-10	UD-2	UD	ASH	10-12	25	NT	NT	NT
B-10	3	SPT	ASH	12-13.5	30	NT	NT	NT
B-10	UD-3	UD	ASH	15-17	38	NT	NT	NT
B-10	4	SPT	ASH	17-18.5	45	NT	NT	NT
B-10	UD-4	UD	ASH	20-22	37	NT	NT	NT
B-10	5	SPT	ASH	22-23.5	32	NT	NT	NT
B-10	6	SPT	ASH	25-26.5	48	NT	NT	NT
B-10	7	SPT	Alluvium	30-31.5	25	NT	NT	NT
B-10	UD-5	UD	Alluvium	35-37	22	NV	NP	NP
B-10	8	SPT	Alluvium	37-38.5	20	NT	NT	NT

NT - Not Tested
 NV - Non-Viscous
 NP - Non-Plastic
 SPT - Standard Penetration Test

Prepared By CTJ Date 5/4/04 Checked By mbh Date 5/4/04

TABLE 4
ASH TRIAXIAL SHEAR STRENGTH TEST DATA
CONSOLIDATED-UNDRAINED WITH PORE PRESSURE MEASUREMENTS FOR ASH SAMPLES

Boring Number	Sample Depth (Feet)	Sample Type ^(1,2)	Description	Standard Penetration Test N-Value (Blows Per Foot) ⁽³⁾	Average Initial Moisture Content (%)	Average Initial Dry Density (pcf)	Strength Parameters			
							Total		Effective	
							Cohesion, C (ksf)	Friction Angle, ϕ (Degrees)	Cohesion, C' (ksf)	Friction Angle, ϕ' (Degrees)
B-4A	15-17	1	Gray Ash	1	32.0	83.1	5.6	32.7	0	34.7
B-10	5-7	2	Gray Ash	17	24.7	89.4	3.0	28.5	0.1	36.6
B-10	20-22	1	Gray Ash	3	36.5	79.2	5.0	25.0	0	32.1

⁽¹⁾ UD = Undisturbed Sample

⁽²⁾ Remolded

⁽³⁾ Performed after undisturbed sample retrieval

Prepared By CTJ Date 5/4/04 Checked By mbt Date 5/4/04

TABLE 5
LABORATORY HYDRAULIC CONDUCTIVITY TEST DATA FOR ASH SAMPLES

Boring Number	Sample Depth (Feet)	Sample Type	Description	Initial Moisture Content (%)	Initial Dry Density (pcf)	Average or Mean Hydraulic Conductivity (cm/Sec)
B-1A, 1B	0 - 5	1	Gray Ash	21.4	87.8	1.87×10^{-5}
B-2A	0 - 5	1	Gray Ash	19.4	90.9	1.67×10^{-5}

(1) Bulk samples remolded to dry density and moisture content conditions determined from laboratory tests performed on an undisturbed sample obtained at a depth of 4 to 4.5 feet from boring B-1.

Prepared By CTJ Date 5/4/04 Checked By MBH Date 5/4/04

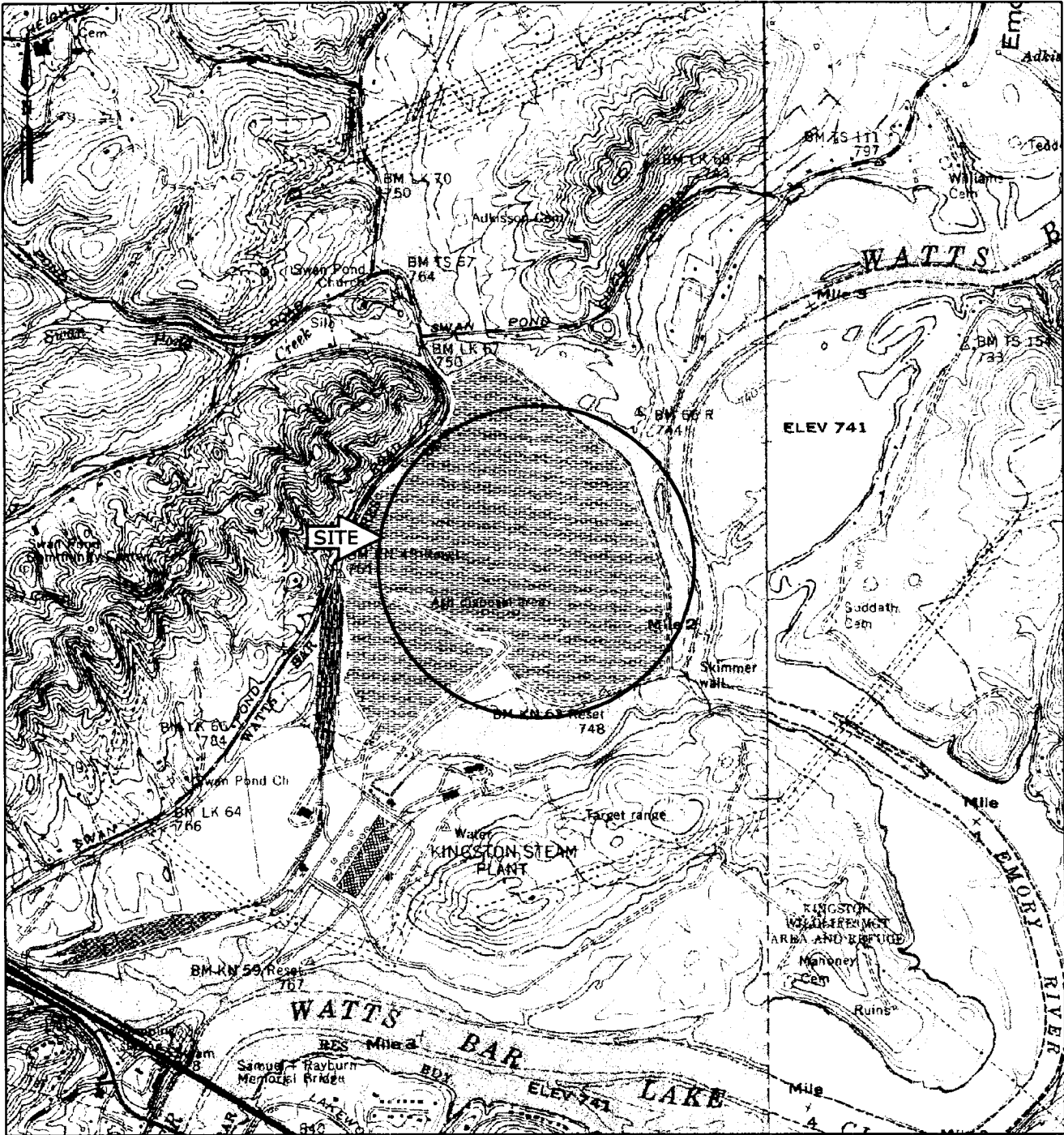
TABLE 6
 CONSOLIDATION TEST DATA FOR SOIL SAMPLES

Boring Number	Sample Depth (Feet)	Sample Type	Origin	Initial Moisture Content (%)	Initial Dry Density (pcf)	e Initial Void Ratio	"Laboratory" Cc Compression Index	"Field" Cc Compression Index	Pc Preconsolidation Pressure (ksf)
B-8A	60-62	UD	Alluvium	21.9	102.0	0.6795	0.19	0.21	5.0

UD - Undisturbed Sample (ASTM D 1587)

Prepared By CTJ Date 5/4/04 Checked By MBT Date 5/4/04

FIGURES



SOURCE: USGS TOPOGRAPHIC MAPS OF HARRIMAN AND ELVERTON, TN QUADRANGLES



MACTEC Engineering and Consulting, Inc.
 1725 Louisville Drive
 Knoxville, Tennessee 37921-5904
 865-588-8544 • Fax: 865-588-8026

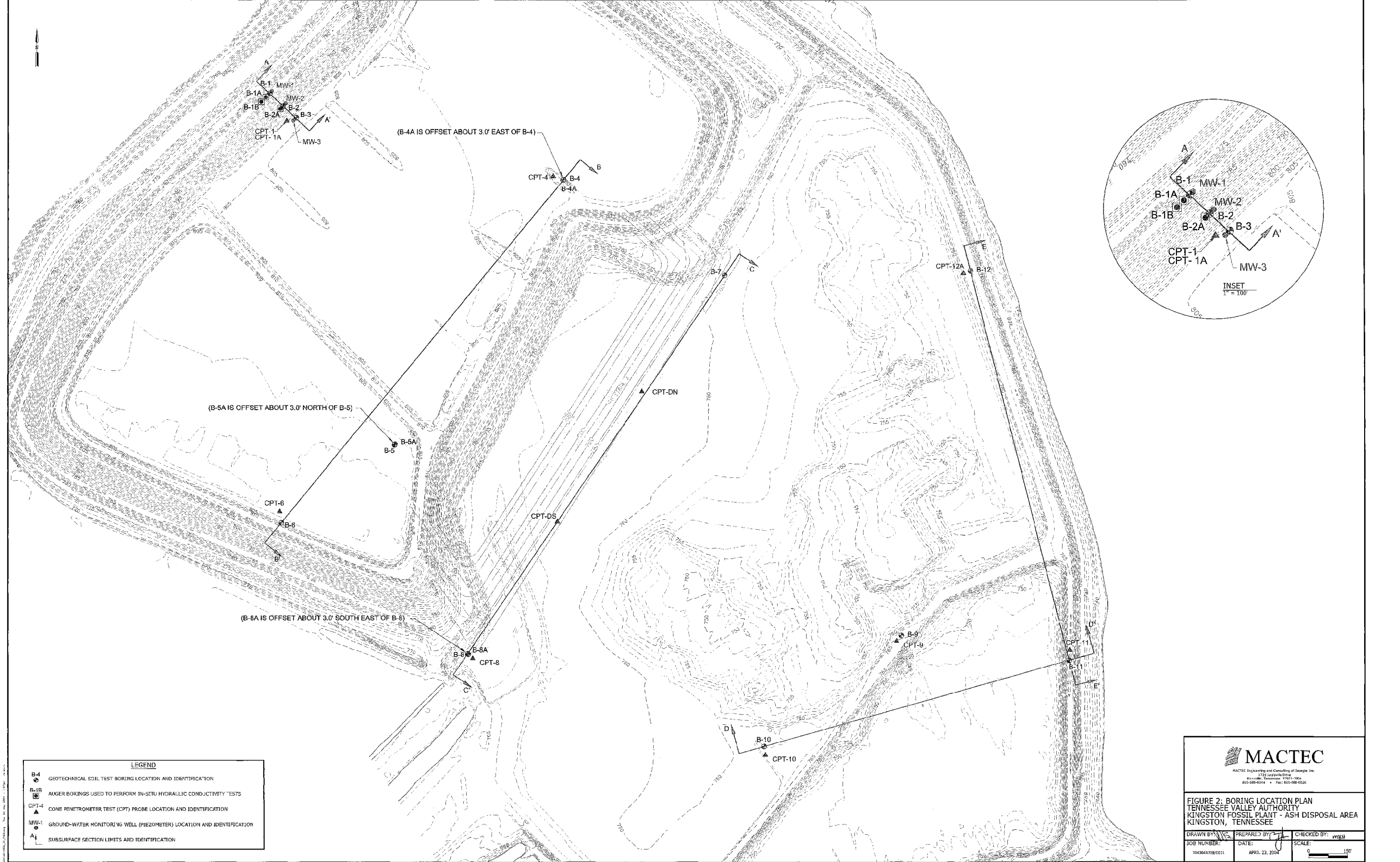
**FIGURE 1: SITE LOCATION MAP
 TENNESSEE VALLEY AUTHORITY
 KINGSTON FOSSIL PLANT - ASH DISPOSAL AREA
 KINGSTON, TENNESSEE**

DRAFTING BY: *RJB*
 JOB NUMBER:
 3043041009/0001

PREPARED BY: *CTJ*
 DATE:
 APRIL 9, 2004

CHECKED BY: *MBH*
 SCALE:
 0 2000'

COORDINATES: N XX°XX'XX" W XX°XX'XX"



LEGEND

B-4	GEOTECHNICAL SOIL TEST BORING LOCATION AND IDENTIFICATION
B-1B	AMBER BORINGS USED TO PERFORM IN-SITU HYDRAULIC CONDUCTIVITY TESTS
CPT-4	CONE PENETROMETER TEST (CPT) PROBE LOCATION AND IDENTIFICATION
MW-1	GROUND-WATER MONITORING WELL (PIEZOMETER) LOCATION AND IDENTIFICATION
A	SUBSURFACE SECTION LIMITS AND IDENTIFICATION

MACTEC
 MACTEC Engineering and Consulting of Georgia, Inc.
 3725 Leipsville Drive
 Knoxville, Tennessee 37919-1904
 865-588-8544 • Fax: 865-588-8526

FIGURE 2: BORING LOCATION PLAN
 TENNESSEE VALLEY AUTHORITY
 KINGSTON FOSSIL PLANT - ASH DISPOSAL AREA
 KINGSTON, TENNESSEE

DRAWN BY: <i>msj</i>	PREPARED BY: <i>msj</i>	CHECKED BY: <i>msj</i>
JOB NUMBER: 30430413709/0011	DATE: APR 23, 2004	SCALE: 1" = 150'

APPENDIX A

FIELD EXPLORATORY PROCEDURES

FIELD EXPLORATORY PROCEDURES

Soil Test Boring (Hollow Stem)

All boring and sampling operations were conducted in general accordance with ASTM D 1586. The borings were advanced by mechanically turning continuous steel hollow-stem auger flights into the ground. At regular intervals, soil samples were obtained with a standard 1.4-inch I.D., 2-inch O.D., split-tube sampler. The sampler was first seated 6 inches to penetrate any loose cuttings and then driven an additional foot with blows of a 140-pound hammer falling 30 inches. The number of hammer blows required to drive the sampler the final foot of penetration was recorded and is designated the "standard penetration test (SPT) resistance." Proper evaluation of the penetration resistance provides an index to the soil's strength, density, and ability to support foundations.

Representative portions of the soil samples obtained from the split-tube sampler were sealed in glass jars and transported to our laboratory for testing and further examination. Test Boring Records are attached, graphically showing the soil descriptions and penetration resistances.

Plugging and Abandonment of Boreholes

Upon completion of drilling and sampling, the geotechnical boreholes were plugged with a Type I Portland cement-bentonite grout mixture using a tremie pipe method. The borings were plugged in general accordance with the requirements specified by TVA. The borings were plugged immediately after drilling and sampling of the boreholes.

Bulk Samples

Bulk samples of several ash types obtained at various elevations were collected for testing.

Undisturbed Sampling

The relatively undisturbed soil samples were obtained by pushing a section of 3-inch O.D., 16-gauge steel tubing into the soil at the desired sampling level. The sampling procedure is described by ASTM D-1587. The tube, together with the encased soils, was carefully removed from the ground, made airtight, and transported to our laboratory.

To obtain relatively undisturbed samples of ash a 3-1/2-inch OD, 3-inch ID split spoon with liner was used. The spoon was pushed into the bottoms of the boreholes at the desired sampling depths. The ash samples, enclosed in the liners, were then sealed with a wax / motor oil mixture at both ends and then capped to minimize changes in the structure and moisture content of the samples.

APPENDIX B

KEY TO SYMBOLS AND DESCRIPTIONS

SOIL TEST BORING RECORDS

SUBSURFACE FENCE DIAGRAMS

**TABLE 1
 BORING SUMMARY**

Boring Number	Type	Ground Elevation msl (Feet)	Refusal Depth (Feet)	Refusal Elevation msl (Feet)	Refusal Type	Boring Termination Depth (Feet)	Boring Termination Elevation msl (Feet)
B-1	STB	781.8	82.2	699.6	AR	82.2	699.6
B-1A	HC	781.8*	NA	NA	NA	5.0	776.8
B-1B	HC	781.8*	NA	NA	NA	5.0	776.8
B-2	STB	795.3	87.5	707.8	AR	87.5	707.8
B-2A	HC	795.3*	NA	NA	NA	5.0	790.3
B-3	STB	810.8	NA	NA	NA	70.0	740.8
B-4	STB	810.6	NA	NA	NA	98.5	712.1
B-4A	STB	810.6*	NA	NA	NA	28.5	782.1
B-5	STB	810.2	NA	NA	NA	41.5	768.7
B-5A	STB	810.2	NA	NA	NA	101.5	708.7
B-6	STB	809.5	NA	NA	NA	86.5	723.0
B-7	STB	767.0*	NA	NA	NA	46.5	720.5
B-8	STB	773.6*	NA	NA	NA	35.0	738.6
B-8A	STB	773.6	70.7	702.9	AR	70.9	702.7
B-9	STB	764.4	61.9	702.5	AR	61.9	702.5
B-10	STB	762.6	39.2	723.4	AR	39.2	723.4
B-11	STB	765.0	62.5	702.5	AR	62.5	702.5
B-12	STB	763.9	59.7	704.2	AR	60.6	703.3
MW-1	MW	781.8*	NA	NA	NA	20.0	761.8
MW-2	MW	795.3*	NA	NA	NA	35.0	760.3
MW-3	MW	810.8*	NA	NA	NA	40.0	770.8

NA – Not Applicable

STB – Soil Test Boring

AR – Auger Refusal

HC – Auger Boring used for In-Situ Hydraulic Conductivity Testing

MW – Monitoring Well or Piezometer

* - Elevations were estimated based on nearby surveyed boring locations and field reconnaissance

Prepared By CTT Date 5/4/04 Checked By MBH Date 5/4/04

TABLE 2
GROUND-WATER DATA

Boring Number	Ground Elevation msl (Feet)	Depth to Ground Water at Time of Drilling (Feet)	Ground-Water Elevation, msl at Time of Drilling (Feet)	Depth to Ground Water 24 Hours After Drilling (Feet)	Ground-Water Elevation 24 Hours After Drilling msl (Feet)
B-1	781.8	7.4	774.4	Not Measured	Not Measured
B-1A	781.8	Not Encountered	Not Encountered	Not Measured	Not Measured
B-1B	781.8	Not Encountered	Not Encountered	Not Measured	Not Measured
B-2	795.3	26.2	769.1	Not Measured	Not Measured
B-2A	795.3	Not Encountered	Not Encountered	Not Measured	Not Measured
B-3	810.8	28.0	782.8	Not Measured	Not Measured
B-4	810.6	28.0	782.6	Not Measured	Not Measured
B-4A	810.6	Not Encountered	Not Encountered	Not Measured	Not Measured
B-5	810.2	Not Encountered	Not Encountered	Not Measured	Not Measured
B-5A	810.2	41.0	769.2	Not Measured	Not Measured
B-6	809.5	42.0	767.5	Not Measured	Not Measured
B-7	767.0	12.6	754.4	Not Measured	Not Measured
B-8	773.6	12.2	761.4	Not Measured	Not Measured
B-8A	773.6	12.0	761.6	Not Measured	Not Measured
B-9	764.4	9.0	755.4	Not Measured	Not Measured
B-10	762.6	3.0	759.6	Not Measured	Not Measured
B-11	765.0	21.9	743.1	Not Measured	Not Measured
B-12	763.9	18.5	745.4	Not Measured	Not Measured
MW-1	781.8	Not Measured	Not Measured	6.9 *	774.9
MW-2	795.3	Not Measured	Not Measured	15.4 *	779.9
MW-3	810.8	Not Measured	Not Measured	27.3 *	783.5

*Measurements were taken 24 hours after monitoring well (piezometer) installation.

Prepared By CTJ Date 5/4/04 Checked By MBH Date 5/4/04

**TABLE 3
 NATURAL MOISTURE CONTENT AND
 ATTERBERG LIMITS LABORATORY TEST RESULTS**

Boring Number	Sample Number	Sample Type	Sample Description/ Origin	Sample Depth (Feet)	Moisture Content (%)	Atterberg Limits		
						Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
B-1	UD-1	UD	ASH	4-4.5	19	NT	NT	NT
B-1	UD-2	UD	Alluvium	65-67	20	NV	NP	NP
B-2	UD-4	UD	Alluvium	70-72	17	NV	NP	NP
B-3	1	SPT	ASH	0-1.5	24	NT	NT	NT
B-3	2	SPT	ASH	5-6.5	20	NT	NT	NT
B-3	3	SPT	ASH	10-11.5	16	NT	NT	NT
B-3	4	SPT	ASH	15-16.5	17	NT	NT	NT
B-3	5	SPT	ASH	20-21.5	39	NT	NT	NT
B-3	6	SPT	ASH	25-26.5	40	NT	NT	NT
B-3	7	SPT	ASH	30-31.5	34	NT	NT	NT
B-3	8	SPT	ASH	35-36.5	22	NT	NT	NT
B-3	9	SPT	ASH	40-41.5	22	NT	NT	NT
B-3	10	SPT	ASH	45-46.5	31	NT	NT	NT
B-3	11	SPT	ASH	50-51.5	39	NT	NT	NT
B-3	12	SPT	ASH	55-56.5	43	NT	NT	NT
B-3	13	SPT	FILL/ASH	60-61.5	30	NT	NT	NT
B-3	14	SPT	ASH	65-66.5	16	NT	NT	NT
B-4A	UD-1	UD	ASH	15-17	37	NT	NT	NT
B-4A	UD-3	UD	ASH	25-27	38	NT	NT	NT
B-5	1	SPT	ASH	0-1.5	22	NT	NT	NT
B-5	2	SPT	ASH	5-6.5	39	NT	NT	NT
B-5	3	SPT	ASH	10-11.5	25	NT	NT	NT
B-5	4	SPT	ASH	15-16.5	32	NT	NT	NT
B-5	5	SPT	ASH	20-21.5	30	NT	NT	NT
B-5	6	SPT	ASH	25-26.5	39	NT	NT	NT
B-5	7	SPT	ASH	30-31.5	41	NT	NT	NT
B-5	8	SPT	ASH	35-36.5	29	NT	NT	NT
B-5	9	SPT	ASH	40-41.5	34	NT	NT	NT
B-8	1	SPT	ASH	0-1.5	25	NT	NT	NT
B-8	2	SPT	ASH	5.8-7.3	20	NT	NT	NT
B-8	UD-2	UD	ASH	10-12	19	NT	NT	NT
B-8	3	SPT	ASH	12-13.5	22	NT	NT	NT
B-8	4	SPT	ASH	15-16.5	45	NT	NT	NT
B-8	UD-3	UD	ASH	20-22	32	NT	NT	NT

**TABLE 3
 NATURAL MOISTURE CONTENT AND
 ATTERBERG LIMITS LABORATORY TEST RESULTS**

Boring Number	Sample Number	Sample Type	Sample Description/ Origin	Sample Depth (Feet)	Moisture Content (%)	Atterberg Limits		
						Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
B-8	5	SPT	ASH	22-23.5	43	NT	NT	NT
B-8	6	SPT	ASH	25.6-27.1	27	NT	NT	NT
B-8	7	SPT	ASH	30-31.5	25	NT	NT	NT
B-8A	1	SPT	ASH	35-36.5	37	NT	NT	NT
B-8A	2	SPT	ASH	40-41.5	47	NT	NT	NT
B-8A	3	SPT	ASH	45-46.5	37	NT	NT	NT
B-8A	4	SPT	ASH	50-51.5	36	NT	NT	NT
B-8A	5	SPT	Alluvium	57-58.5	24	26	15	11
B-8A	6	SPT	Alluvium	62-63.5	24			
B-8A	UD-2	UD	Alluvium	60-62	22	26	16	10
B-8A	7	SPT	Alluvium	65-66.5	27	NV	NP	NP
B-8A	8	SPT	Alluvium	70-70.9	17			
B-10	1	SPT	ASH	0-1.5	18	NT	NT	NT
B-10	UD-1	UD	ASH	5-7	25	NT	NT	NT
B-10	2	SPT	ASH	7-8.5	28	NT	NT	NT
B-10	UD-2	UD	ASH	10-12	25	NT	NT	NT
B-10	3	SPT	ASH	12-13.5	30	NT	NT	NT
B-10	UD-3	UD	ASH	15-17	38	NT	NT	NT
B-10	4	SPT	ASH	17-18.5	45	NT	NT	NT
B-10	UD-4	UD	ASH	20-22	37	NT	NT	NT
B-10	5	SPT	ASH	22-23.5	32	NT	NT	NT
B-10	6	SPT	ASH	25-26.5	48	NT	NT	NT
B-10	7	SPT	Alluvium	30-31.5	25	NT	NT	NT
B-10	UD-5	UD	Alluvium	35-37	22	NV	NP	NP
B-10	8	SPT	Alluvium	37-38.5	20	NT	NT	NT

NT - Not Tested
 NV - Non-Viscous
 NP - Non-Plastic
 SPT - Standard Penetration Test

Prepared By CTJ Date 5/4/04 Checked By MBH Date 5/4/04

**TABLE 4
 ASH TRIAXIAL SHEAR STRENGTH TEST DATA
 CONSOLIDATED-UNDRAINED WITH PORE PRESSURE MEASUREMENTS FOR ASH SAMPLES**

Boring Number	Sample Depth (Feet)	Sample Type ^(1, 2)	Description	Standard Penetration Test N-Value (Blows Per Foot) ⁽³⁾	Average Initial Moisture Content (%)	Average Initial Dry Density (pcf)	Strength Parameters			
							Total		Effective	
							Cohesion, C (ksf)	Friction Angle, ϕ (Degrees)	Cohesion, C' (ksf)	Friction Angle, ϕ' (Degrees)
B-4A	15-17	1	Gray Ash	1	32.0	83.1	5.6	32.7	0	34.7
B-10	5-7	2	Gray Ash	17	24.7	89.4	3.0	28.5	0.1	36.6
B-10	20-22	1	Gray Ash	3	36.5	79.2	5.0	25.0	0	32.1

(1) UD = Undisturbed Sample
 (2) Remolded
 (3) Performed after undisturbed sample retrieval

Prepared By CTJ Date 5/4/04 Checked By mbt Date 5/4/04

TABLE 5
LABORATORY HYDRAULIC CONDUCTIVITY TEST DATA FOR ASH SAMPLES

Boring Number	Sample Depth (Feet)	Sample Type	Description	Initial Moisture Content (%)	Initial Dry Density (pcf)	Average or Mean Hydraulic Conductivity (cm/Sec)
B-1A, 1B	0 - 5	1	Gray Ash	21.4	87.8	1.87×10^{-5}
B-2A	0 - 5	1	Gray Ash	19.4	90.9	1.67×10^{-5}

(1) Bulk samples remolded to dry density and moisture content conditions determined from laboratory tests performed on an undisturbed sample obtained at a depth of 4 to 4.5 feet from boring B-1.

Prepared By CJT Date 5/4/04 Checked By MBH Date 5/4/04

TABLE 6
 CONSOLIDATION TEST DATA FOR SOIL SAMPLES

Boring Number	Sample Depth (Feet)	Sample Type	Origin	Initial Moisture Content (%)	Initial Dry Density (pcf)	^e Initial Void Ratio	"Laboratory" Cc Compression Index	"Field" Cc Compression Index	Pc Preconsolidation Pressure (ksf)
B-8A	60-62	UD	Alluvium	21.9	102.0	0.6795	0.19	0.21	5.0

UD - Undisturbed Sample (ASTM D 1587)

Prepared By CTT Date 5/4/04 Checked By MBH Date 5/4/04

REPORT OF GEOTECHNICAL EXPLORATION

**ASH DISPOSAL AREA
KINGSTON FOSSIL PLANT
KINGSTON, TENNESSEE**

Prepared For:

TENNESSEE VALLEY AUTHORITY

Chattanooga, Tennessee

Prepared By:

MACTEC ENGINEERING AND CONSULTING, INC.

Knoxville, Tennessee

MACTEC Project 3043041009/0001

May 4, 2004



GROUP SYMBOLS	TYPICAL NAMES	GROUP SYMBOLS	TYPICAL NAMES	Undisturbed Sample 1.5-2.0 = Recovered (ft) / Pushed (ft)	
	TOPSOIL		CONCRETE		
	ASH		DOLOMITE		
	GRAVEL		LIMESTONE		
	FILL		SHALE		
	SUBSOIL		LIMESTONE/SHALE - Limestone with shale interbeds		
	ALLUVIUM		SANDSTONE		
	COLLUVIUM		SILTSTONE		
	RESIDIUM - Soft to firm		AUGER BORING		
	RESIDIUM - Stiff to very hard		UNDISTURBED SAMPLE ATTEMPT		

**Correlation of Penetration Resistance
with Relative Density and Consistency**

SAND & GRAVEL		SILT & CLAY	
No. of Blows	Relative Density	No. of Blows	Consistency
0 - 4	Very Loose	0 - 2	Very Soft
5 - 10	Loose	3 - 4	Soft
11 - 20	Firm	5 - 8	Firm
21 - 30	Very Firm	9 - 15	Stiff
31 - 50	Dense	16 - 30	Very Stiff
Over 50	Very Dense	31 - 50	Hard
		Over 50	Very Hard

BOUNDARY CLASSIFICATIONS: Soils possessing characteristics of two groups are designated by combinations of group symbols.

SILT OR CLAY	SAND			GRAVEL		Cobbles	Boulders
	Fine	Medium	Coarse	Fine	Coarse		
	No.200	No.40	No.10 No.4	3/4"	3"	12"	

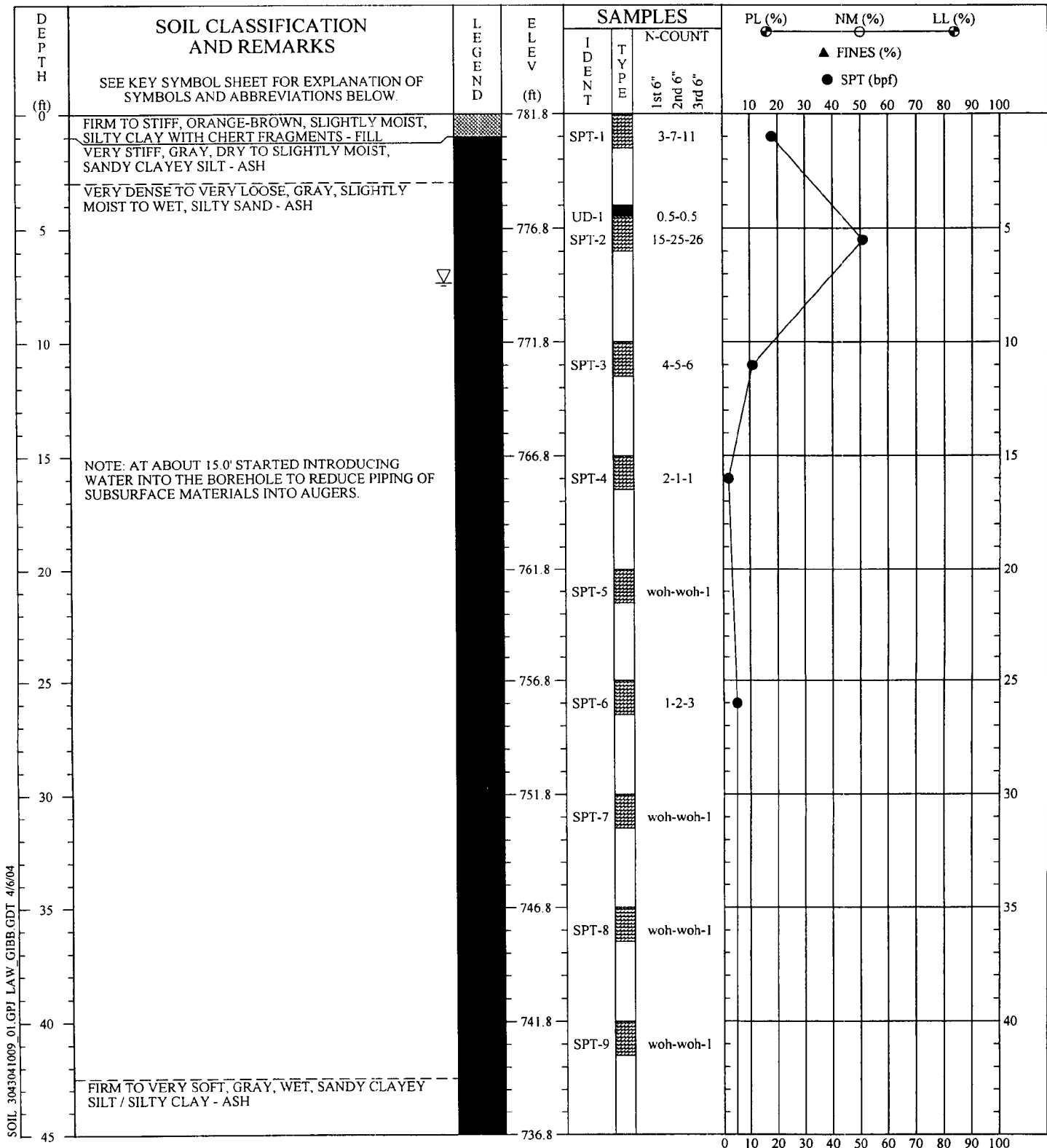
U.S. STANDARD SIEVE SIZE

KEY TO SYMBOLS AND DESCRIPTIONS



MACTEC Engineering and Consulting of Georgia, Inc.
1725 Louisville Drive
Knoxville, Tennessee 37921-5904
865-588-8544 • Fax: 865-588-8026

Reference: The Unified Soil Classification System, Corps of Engineers, U.S. Army Technical Memorandum No. 3-357, Vol. 1, March, 1953 (Revised April, 1960)




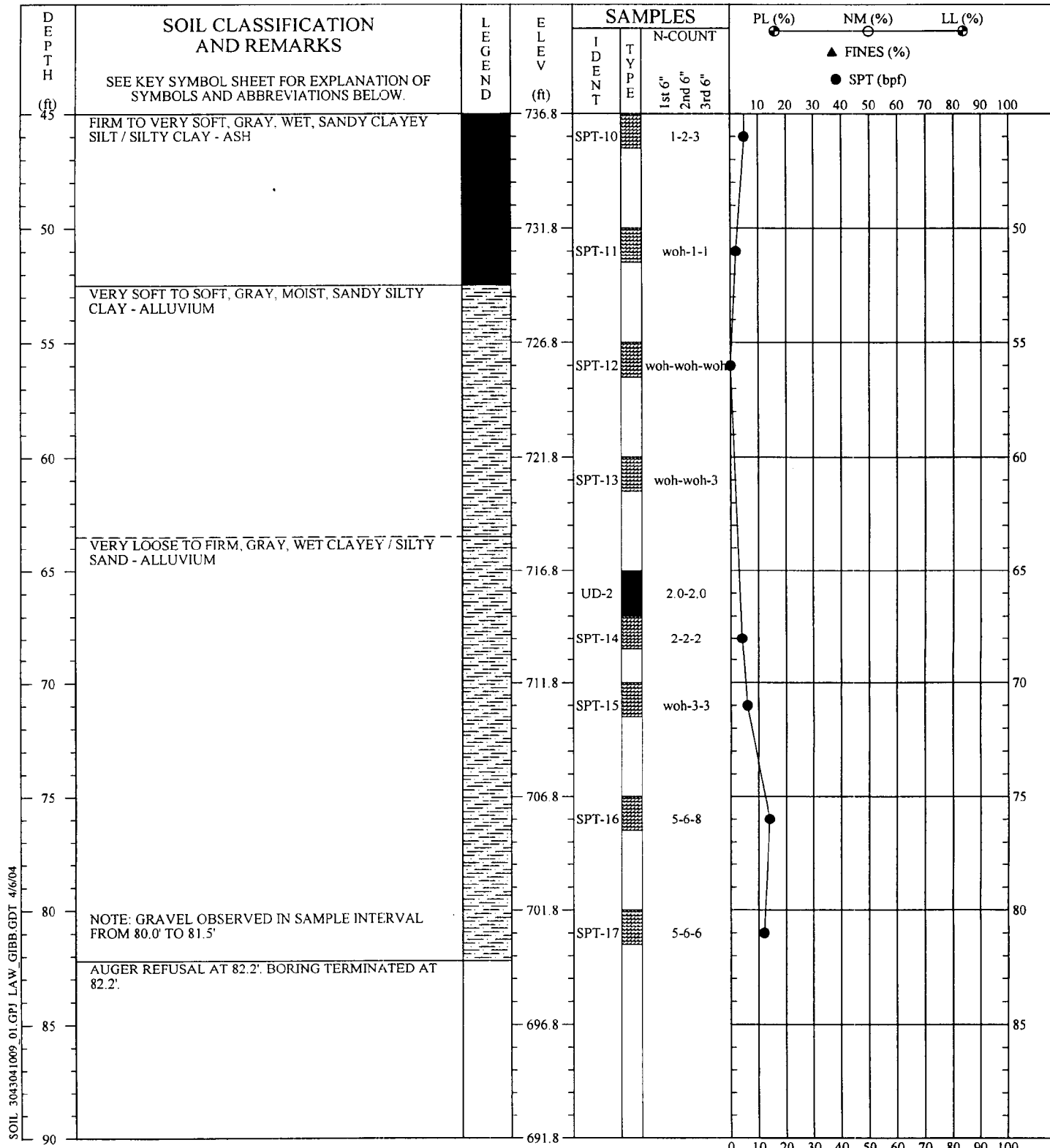
SOIL 3043041009_01.GPJ LAW_GIBB.GDT 4/6/04

REMARKS: STANDARD PENETRATION RESISTANCE TESTING PERFORMED USING AN AUTOMATIC HAMMER.

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Driller : Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	BORING NO.: B-1
DRILLED: March 8, 2004	
PROJ. NO.: 3043041009/0001	PAGE 1 OF 2
	



SOIL 3043041009_01.GPJ LAW. GIBB.GDT 4/6/04

REMARKS: STANDARD PENETRATION RESISTANCE TESTING PERFORMED USING AN AUTOMATIC HAMMER

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Driller: Akins
 Prepared By: Justice
 Checked By:

SOIL TEST BORING RECORD

PROJECT: TVA Kingston Ash
 DRILLED: March 8, 2004 BORING NO.: B-1
 PROJ. NO.: 3043041009/0001 PAGE 2 OF 2




DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS	LEGEND	ELEV (ft)	SAMPLES			PL (%)	NM (%)	LL (%)
				IDENT	TYPE	N-COUNT	▲ FINES (%)		
							1st 6"	2nd 6"	3rd 6"
0	<p>SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.</p> <p>NOTE: B-1A WAS OFFSET APPROXIMATELY 22.0' SOUTH WEST OF B-1.</p> <p>AUGER BORING FROM 0.0' TO 5.0' USED FOR IN-SITU HYDRAULIC CONDUCTIVITY TESTING.</p>		781.8						
5	BORING TERMINATED AT 5.0'		776.8						
10			771.8						
15			766.8						
20			761.8						
25			756.8						
30			751.8						
35			746.8						
40			741.8						
45			736.8						

SOIL 3043041009_01.GPJ LAW_GIBB.GDT 4/7/04

REMARKS:

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Driller: Akins
 Prepared By: Justice
 Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	BORING NO.: B-1A
DRILLED: March 15, 2004	PAGE 1 OF 1
PROJ. NO.: 3043041009/0001	
 MACTEC	


DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS	LEGEND	ELEV (ft)	SAMPLES			PL (%)	NM (%)	LL (%)				
				IDENT	TYPE	N-COUNT	▲ FINES (%)						
							● SPT (bpf)						
1st 6"	2nd 6"	3rd 6"	10	20	30	40	50	60	70	80	90	100	
0	NOTE: B-1B WAS OFFSET APPROXIMATELY 47.0' SOUTH WEST OF B-1. AUGER BORING FROM 0.0' TO 5.0' USED FOR IN-SITU HYDRAULIC CONDUCTIVITY TESTING.		781.8										
5	BORING TERMINATED AT 5.0'		776.8										
10			771.8										
15			766.8										
20			761.8										
25			756.8										
30			751.8										
35			746.8										
40			741.8										
45			736.8										

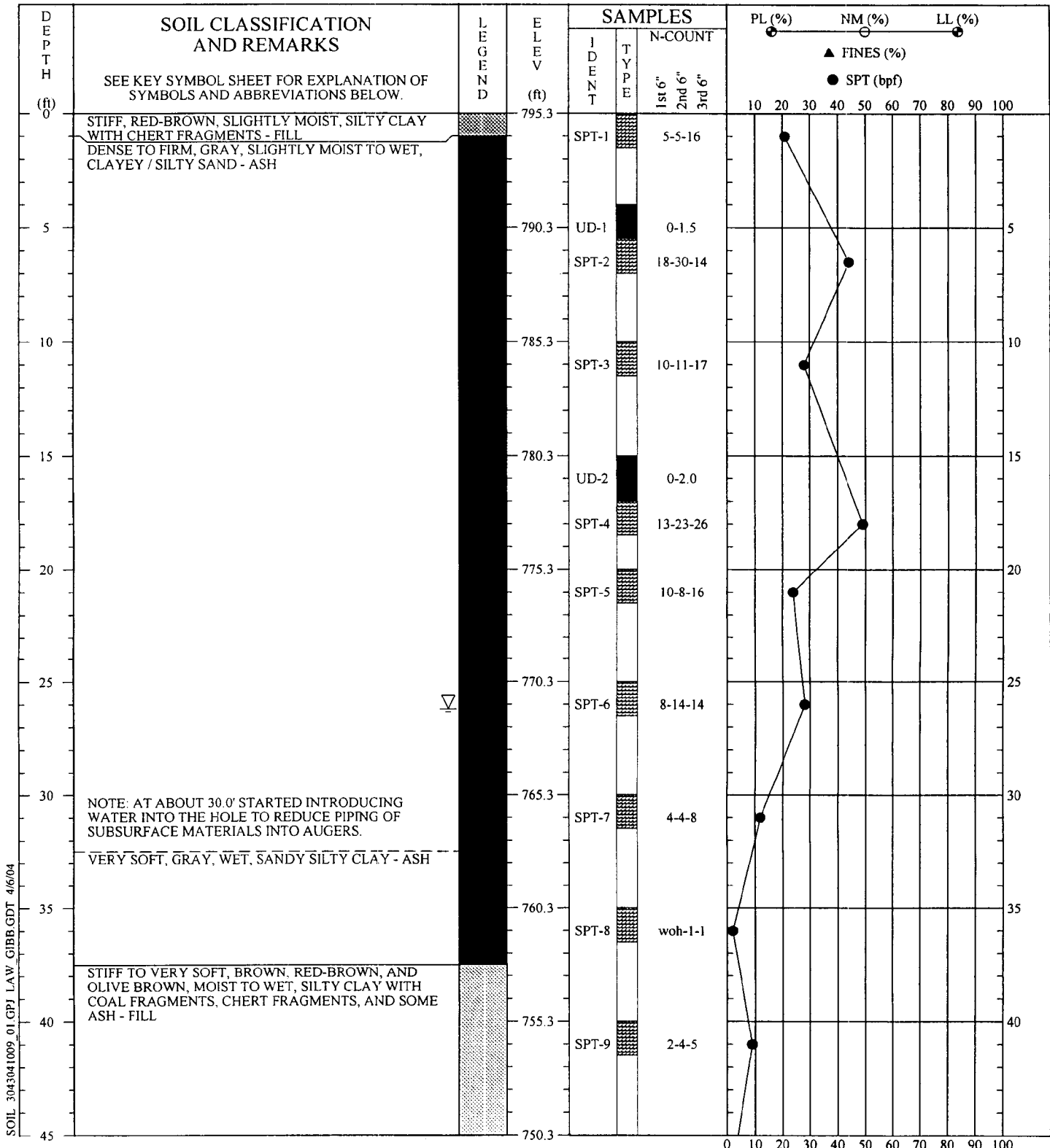
SOIL 3043041009 01.GPJ LAW_GIBB.GDT 4/7/04

REMARKS:

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Driller : Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	BORING NO.: B-1B
DRILLED: March 15, 2004	
PROJ. NO.: 3043041009/0001	PAGE 1 OF 1
 MACTEC	




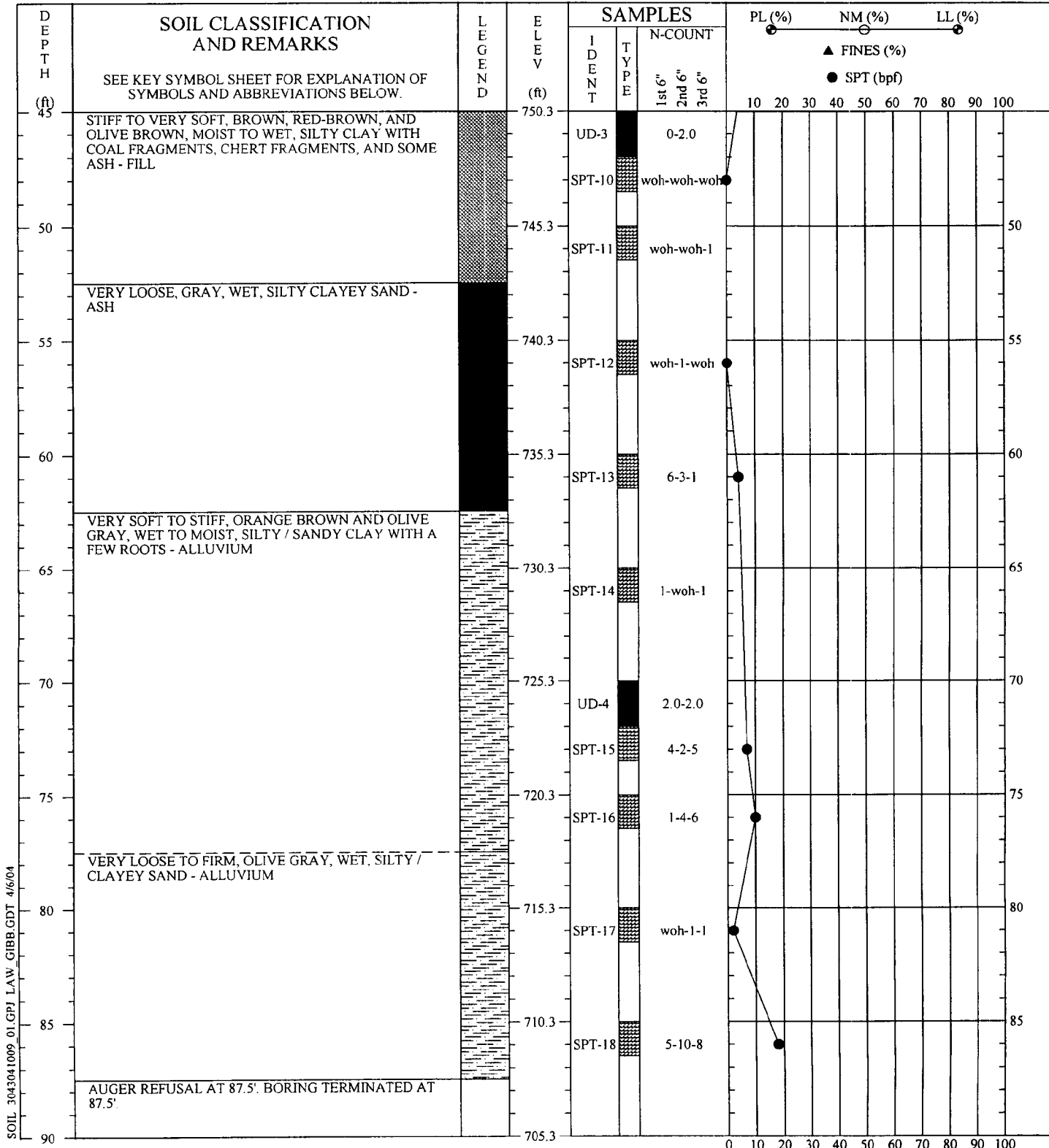
SOIL 3043041009_01.GPJ LAW_GIBB.GDT 4/6/04

REMARKS: STANDARD PENETRATION RESISTANCE TESTING PERFORMED USING AN AUTOMATIC HAMMER.

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Driller : Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	BORING NO.: B-2
DRILLED: March 4, 2004	PAGE 1 OF 2
PROJ. NO.: 3043041009/0001	
	



SOIL 3043041009_01.GPJ LAW_GIBB.GDT 4/6/04

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Driller : Akins
 Prepared By: Justice
 Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	BORING NO.: B-2
DRILLED: March 4, 2004	
PROJ. NO.: 3043041009/0001	PAGE 2 OF 2


DEPTH (ft)	SOIL CLASSIFICATION AND REMARKS SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	LEGEND	ELEV (ft)	SAMPLES			PL (%)	NM (%)	LL (%)
				IDENT	TYPE	N-COUNT	FINES (%)		
							1st 6"	2nd 6"	3rd 6"
0	NOTE: B-2A WAS OFFSET APPROXIMATELY 15.0' SOUTH WEST OF B-2. AUGER BORING FROM 0.0' TO 5.0' USED FOR IN-SITU HYDRAULIC CONDUCTIVITY TESTING.		795.3						
5	BORING TERMINATED AT 5.0'		790.3						
10			785.3						
15			780.3						
20			775.3						
25			770.3						
30			765.3						
35			760.3						
40			755.3						
45			750.3						

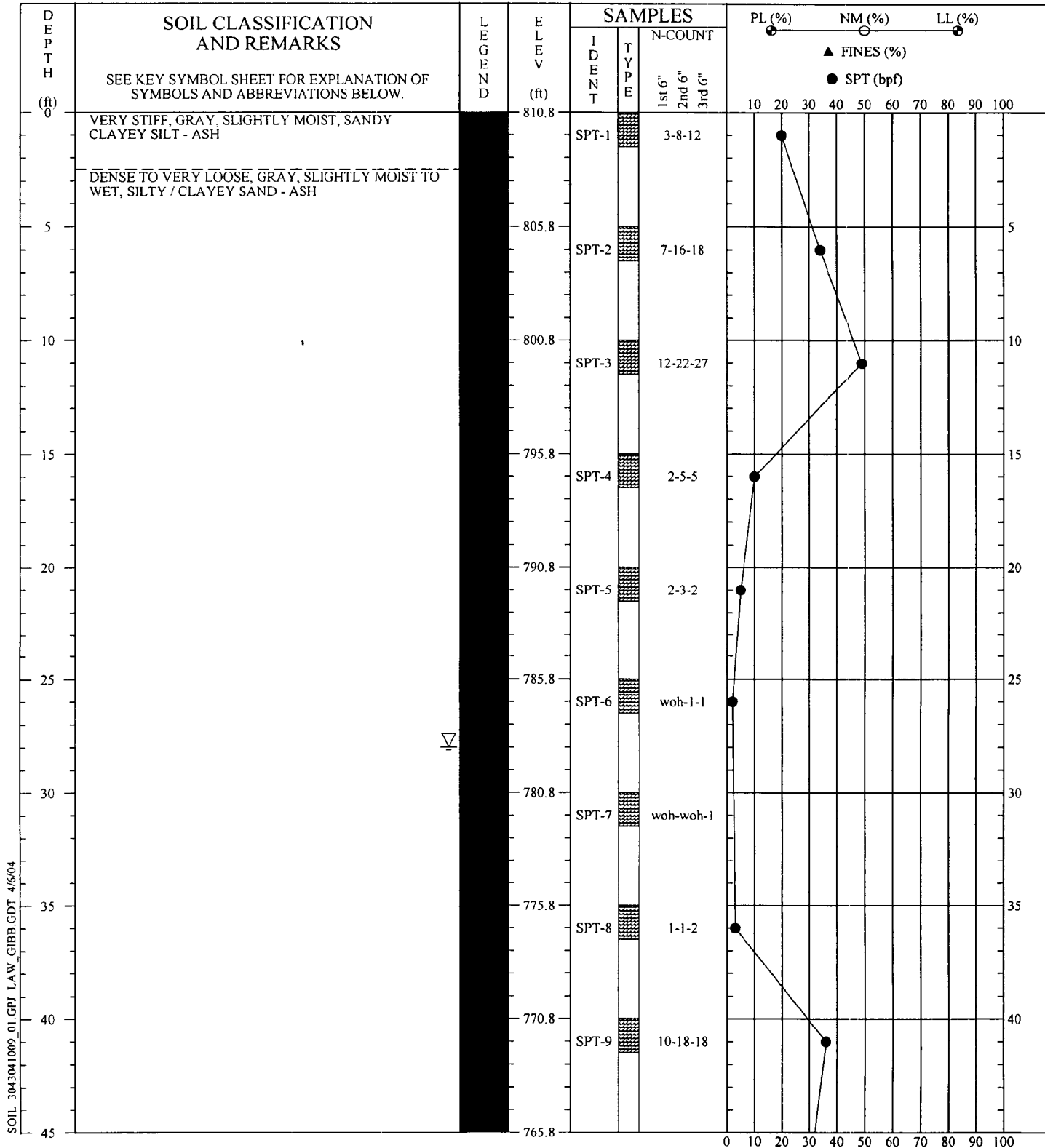
SOIL 3043041009_01.GPJ LAW GIBB.GDT 4/7/04

REMARKS:

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SUBSURFACE CONDITIONS AT THE EXPLORATION
LOCATION. SUBSURFACE CONDITIONS AT OTHER
LOCATIONS AND AT OTHER TIMES MAY DIFFER.
INTERFACES BETWEEN STRATA ARE APPROXIMATE.
TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Driller: Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	BORING NO.: B-2A
DRILLED: March 15, 2004	PAGE 1 OF 1
PROJ. NO.: 3043041009/0001	
	



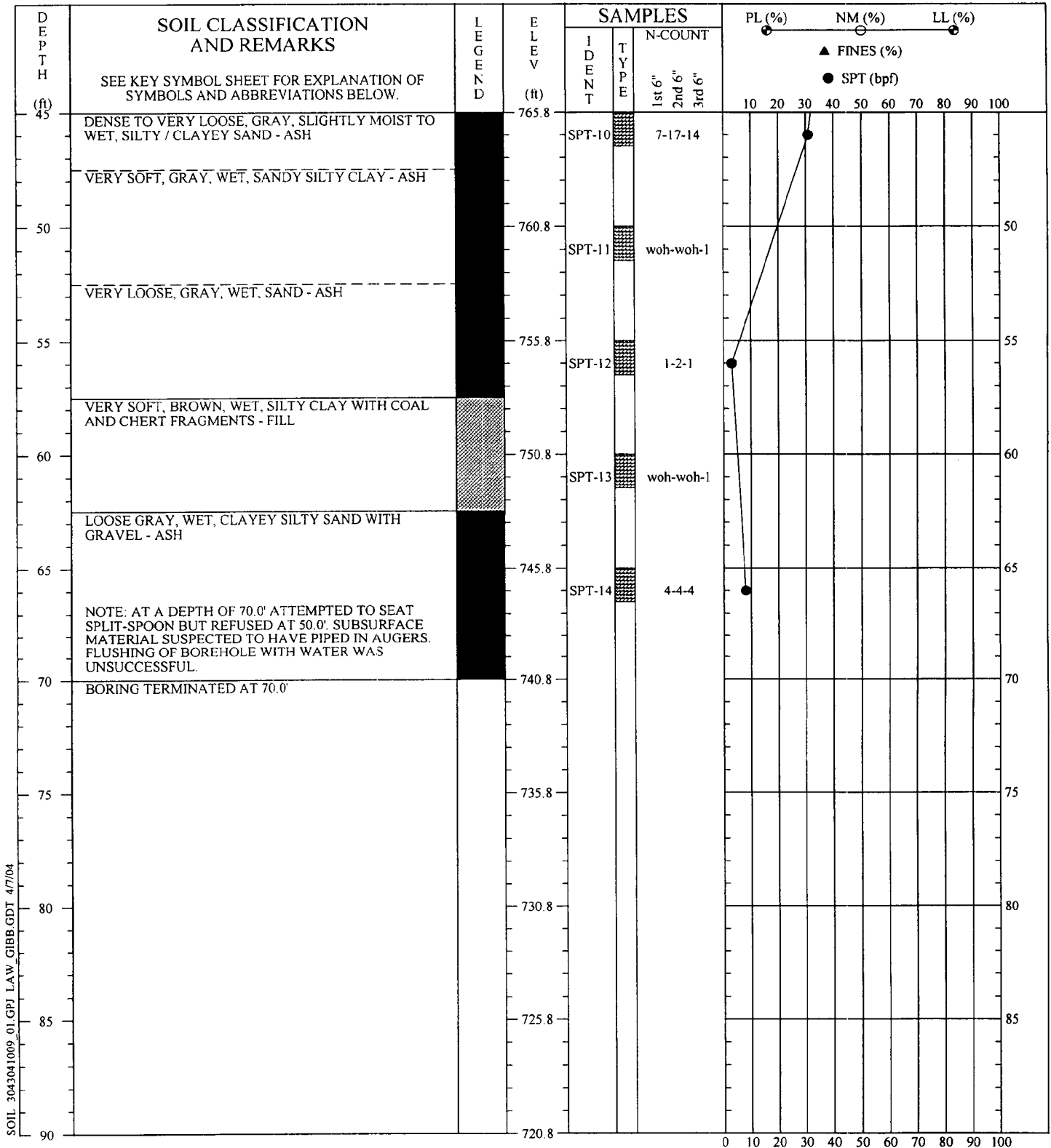
SOIL 3043041009 01.GPJ LAW_GIBB.GDT 4/6/04

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Driller : Akins
 Prepared By: Justice
 Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	BORING NO.: B-3
DRILLED: March 3, 2004	PAGE 1 OF 2
PROJ. NO.: 3043041009/0001	



SOIL 3043041009_01.GPJ LAW_GIBB.GDT 4/7/04

REMARKS: STANDARD PENETRATION RESISTANCE TESTING PERFORMED USING AN AUTOMATIC HAMMER.

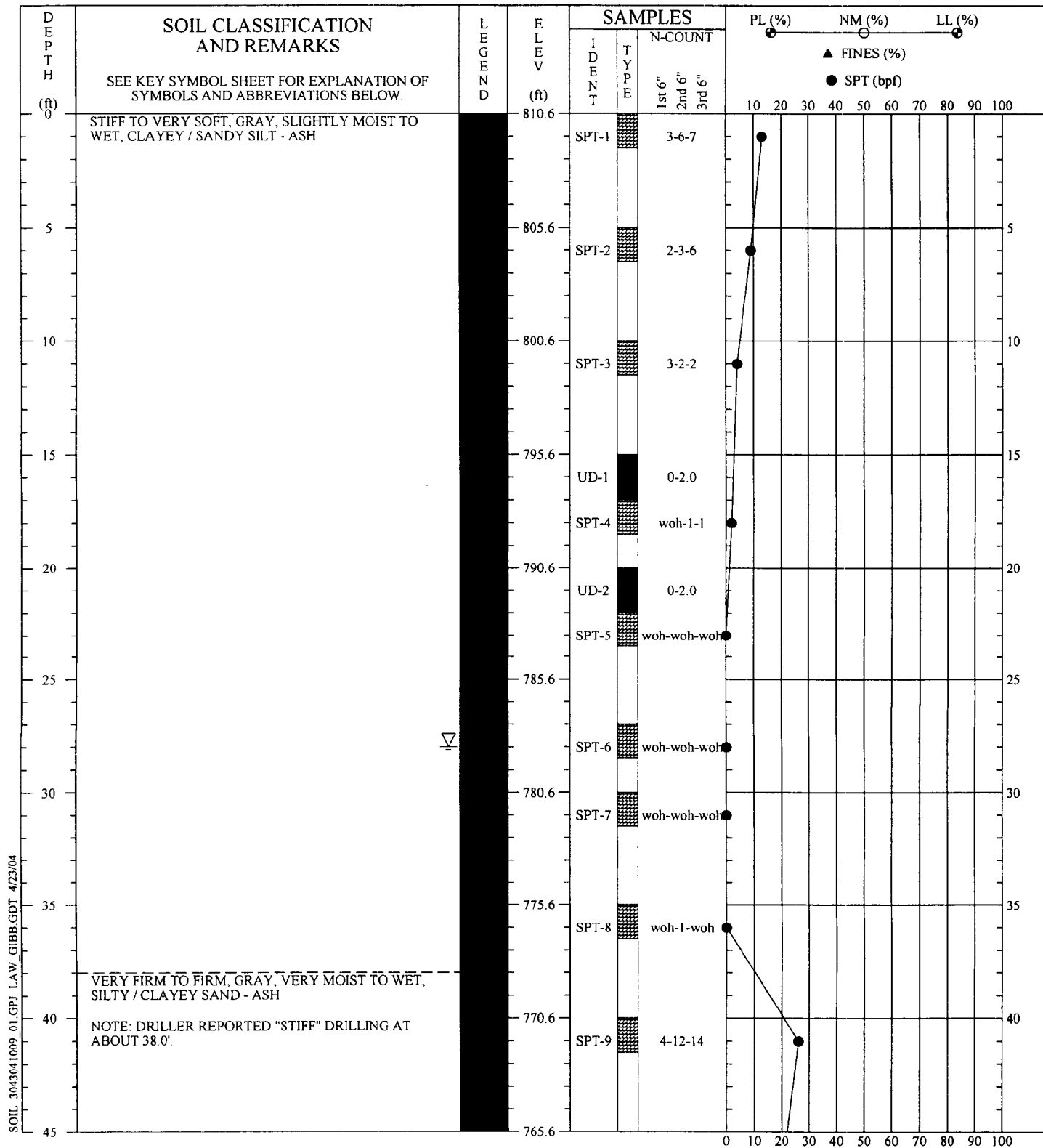
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Driller Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD

PROJECT: TVA Kingston Ash
 DRILLED: March 3, 2004 BORING NO.: B-3
 PROJ. NO.: 3043041009/0001 PAGE 2 OF 2






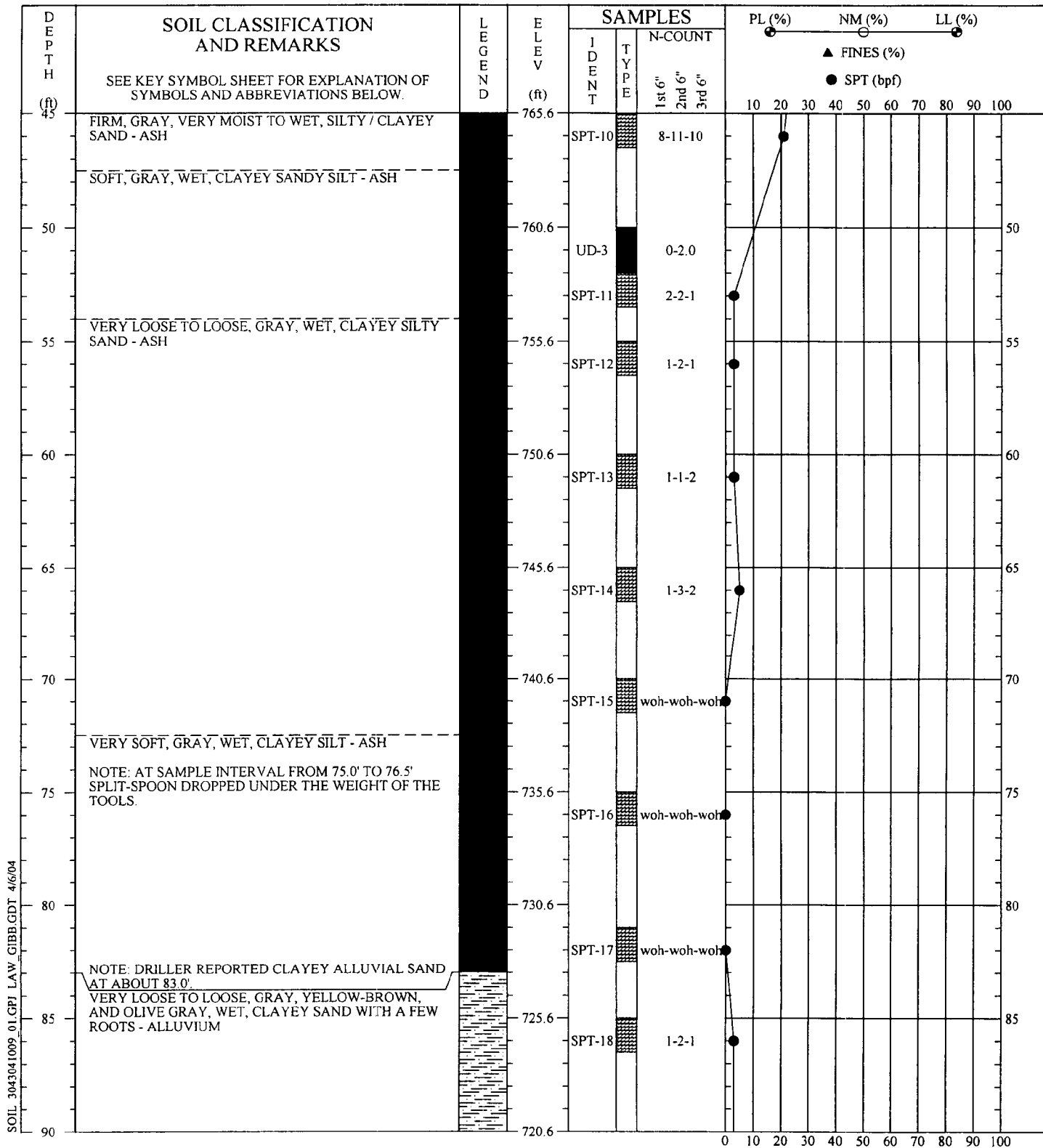
SOIL 3043041009 01.GPJ L.A.W. GIBB.GDT 4/23/04

REMARKS: STANDARD PENETRATION RESISTANCE TESTING PERFORMED USING AN AUTOMATIC HAMMER.

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Driller: Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: Kingston Fossil Plant - Ash Diposal Area	
DRILLED: March 23, 2004	BORING NO.: B-4
PROJ. NO.: 3043041009/0001	PAGE 1 OF 3
	



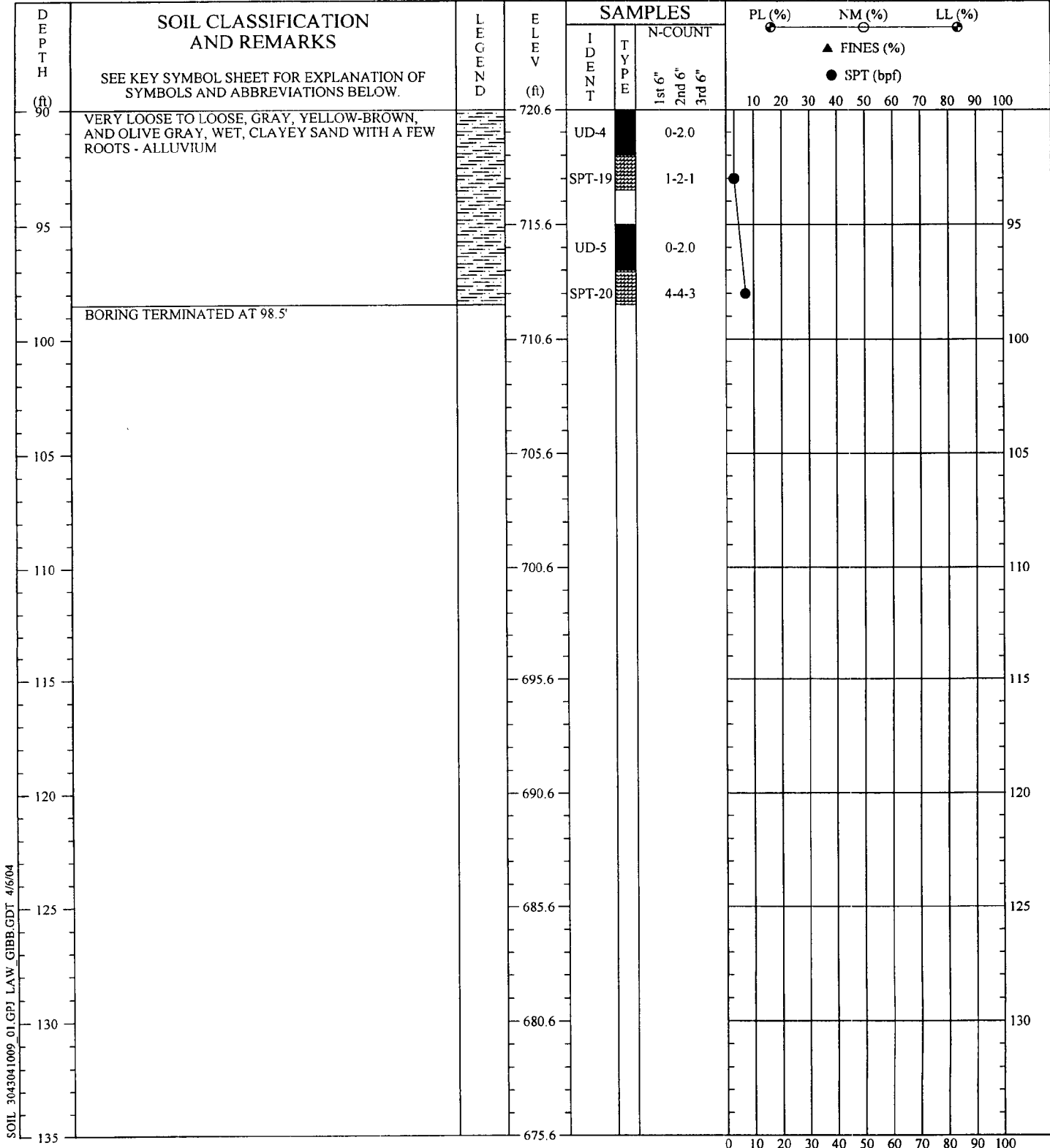
SOIL 3043041009_01.GPJ LAW_GIBB.GDT 4/6/04

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Driller: Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	BORING NO.: B-4
DRILLED: March 23, 2004	PROJ. NO.: 3043041009/0001
PAGE 2 OF 3	



SOIL 3043041009_01.GPJ LAW_GIBB.GDT 4/6/04

REMARKS: STANDARD PENETRATION RESISTANCE TESTING PERFORMED USING AN AUTOMATIC HAMMER.

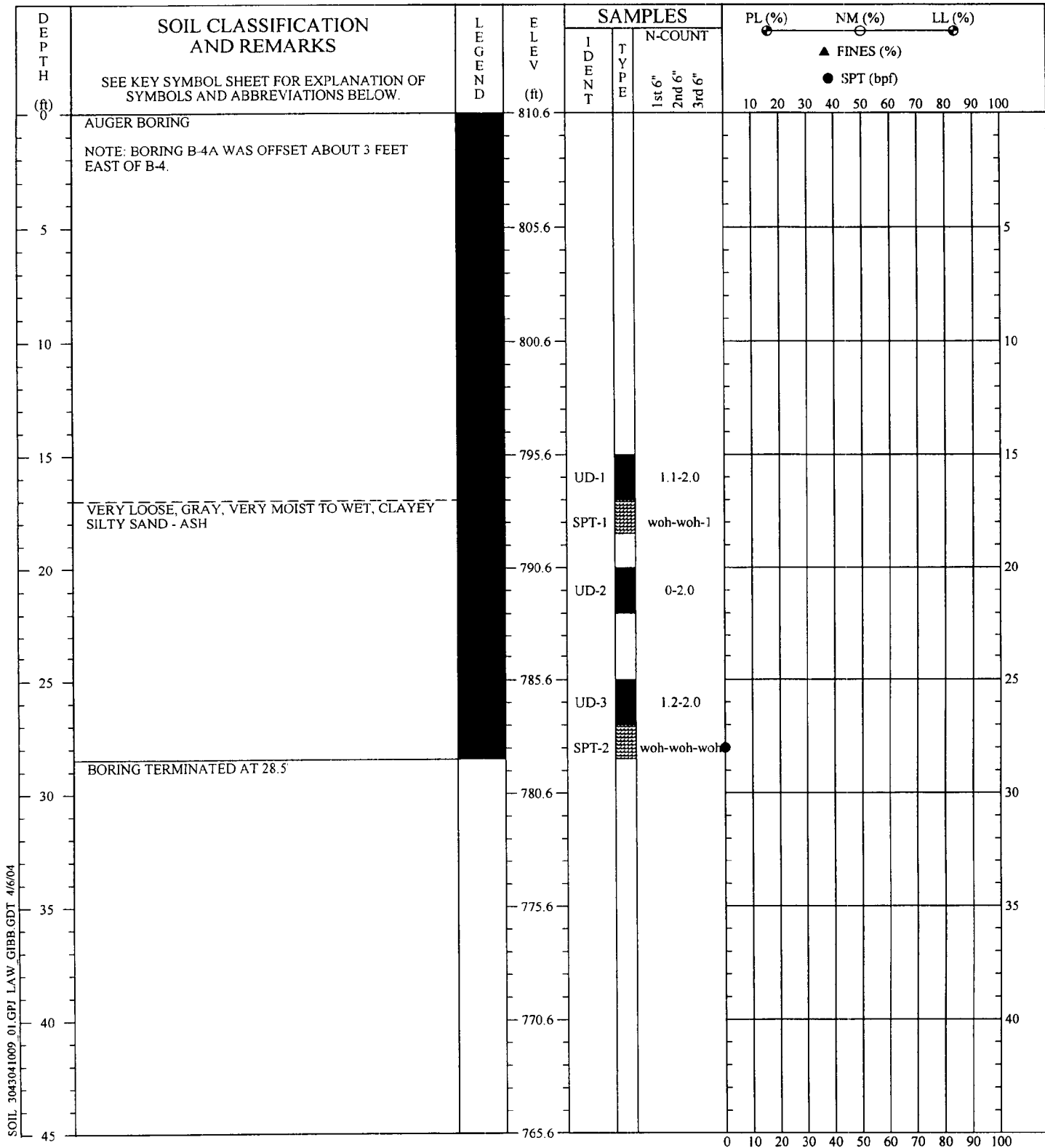
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Driller : Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD

PROJECT: TVA Kingston Ash
DRILLED: March 23, 2004 **BORING NO.:** B-4
PROJ. NO.: 3043041009/0001 **PAGE 3 OF 3**






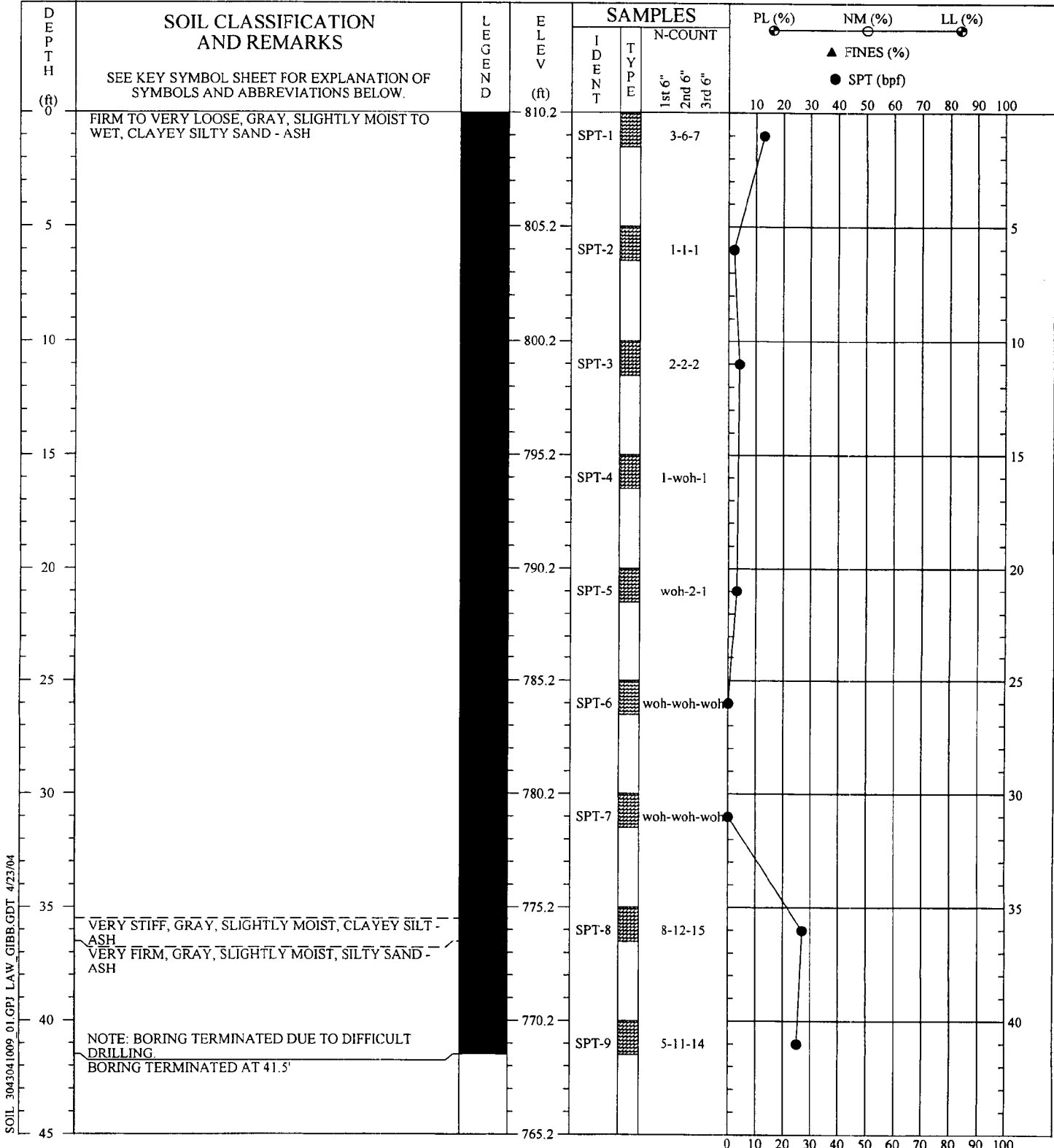
SOIL 3043041009_01.GPJ LAW_GIBB.GDT 4/6/04

REMARKS: STANDARD PENETRATION RESISTANCE TESTING PERFORMED USING AN AUTOMATIC HAMMER. NO GROUND WATER ENCOUNTERED AT TIME OF EXPLORATION.

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Driller: Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	BORING NO.: B-4A
DRILLED: March 24, 2004	
PROJ. NO.: 3043041009/0001	PAGE 1 OF 1
	



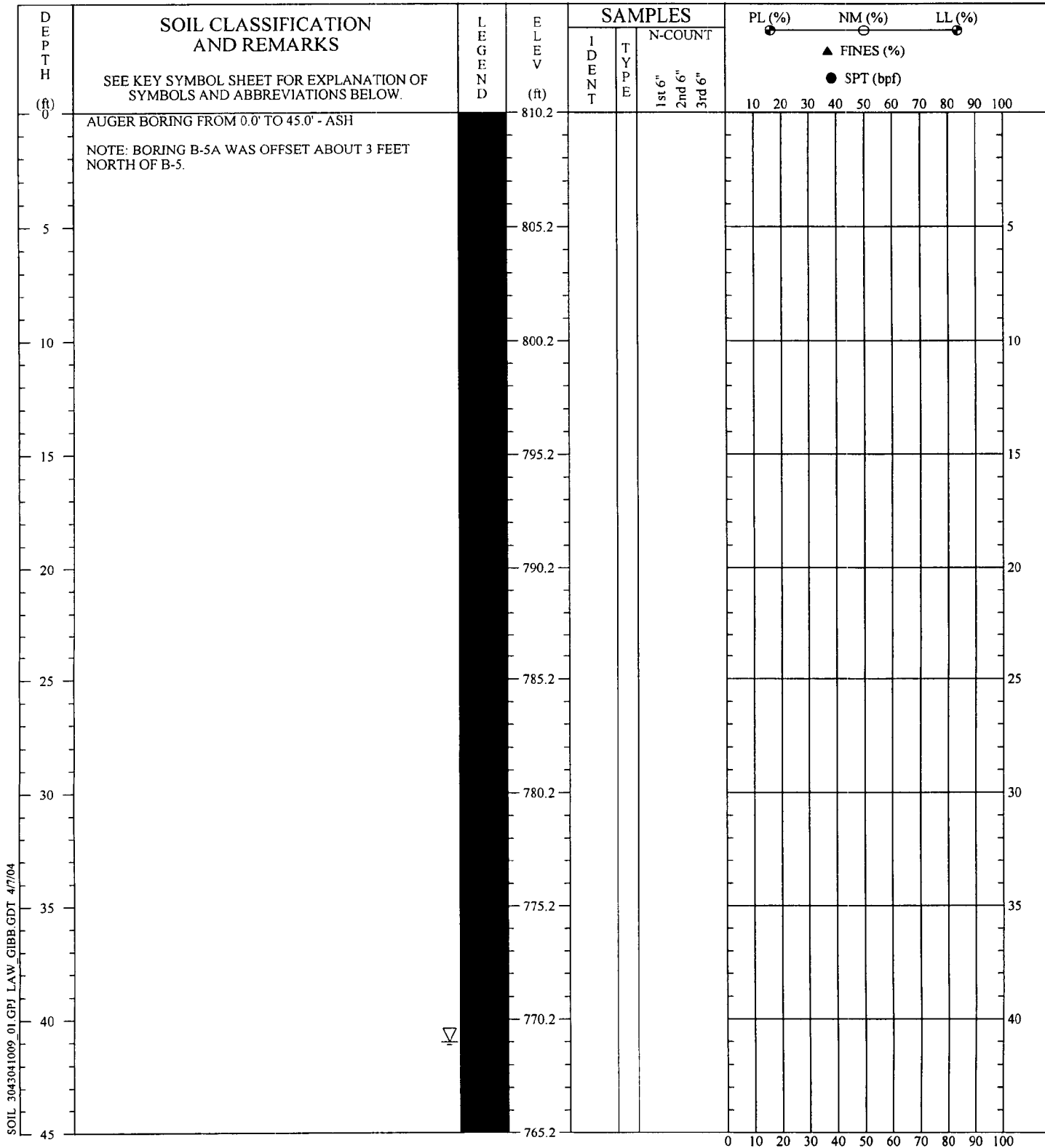
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Driller: Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: Kingston Fossil Plant - Ash Diposal Area	
DRILLED: March 1, 2004	BORING NO.: B-5
PROJ. NO.: 3043041009/0001	PAGE 1 OF 1




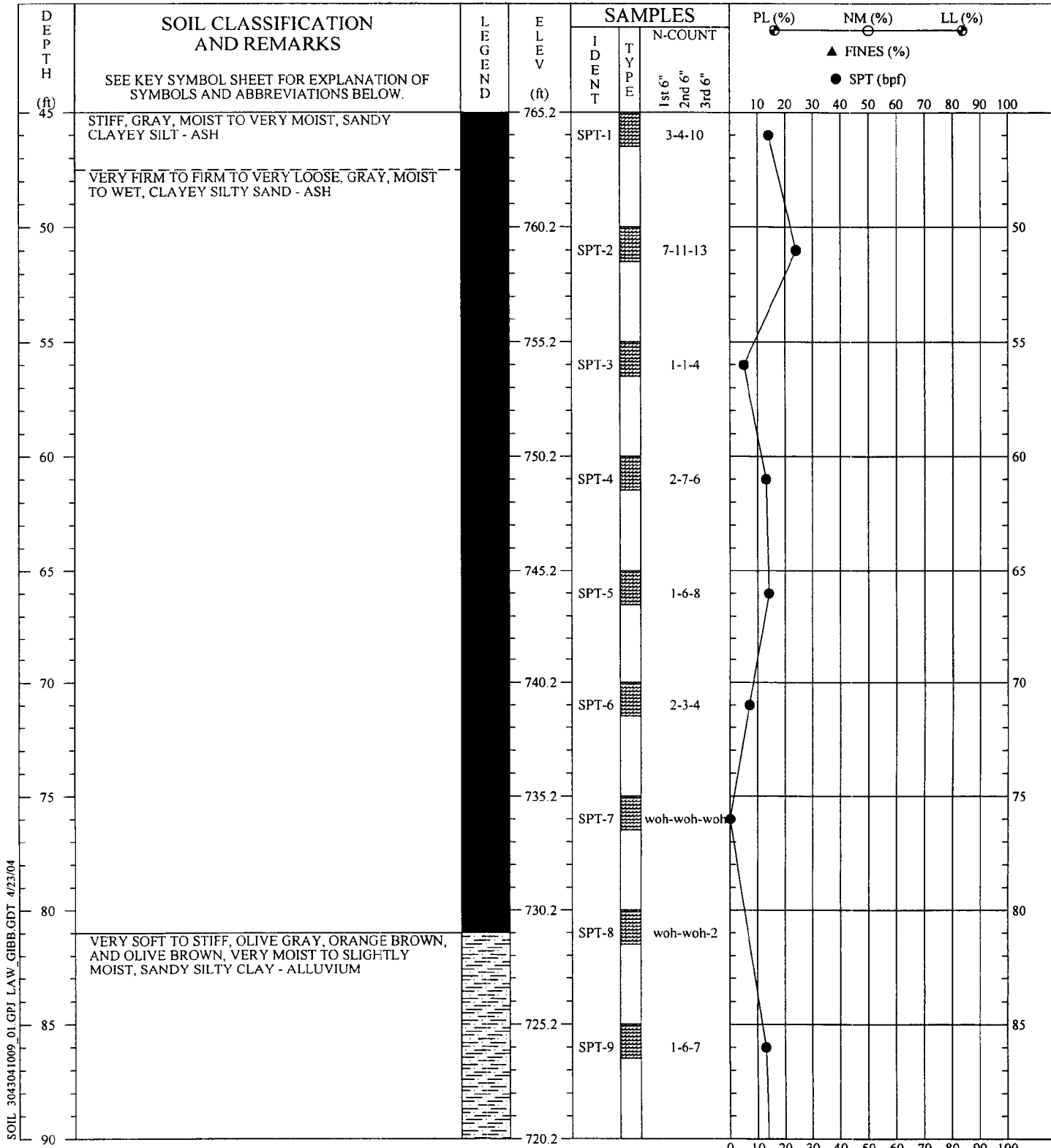
SOIL 3043041009_01.GPJ LAW. GIBB.GDT 4/7/04

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Driller: Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	
DRILLED: March 2, 2004	BORING NO.: B-5A
PROJ. NO.: 3043041009/0001	PAGE 1 OF 3
	



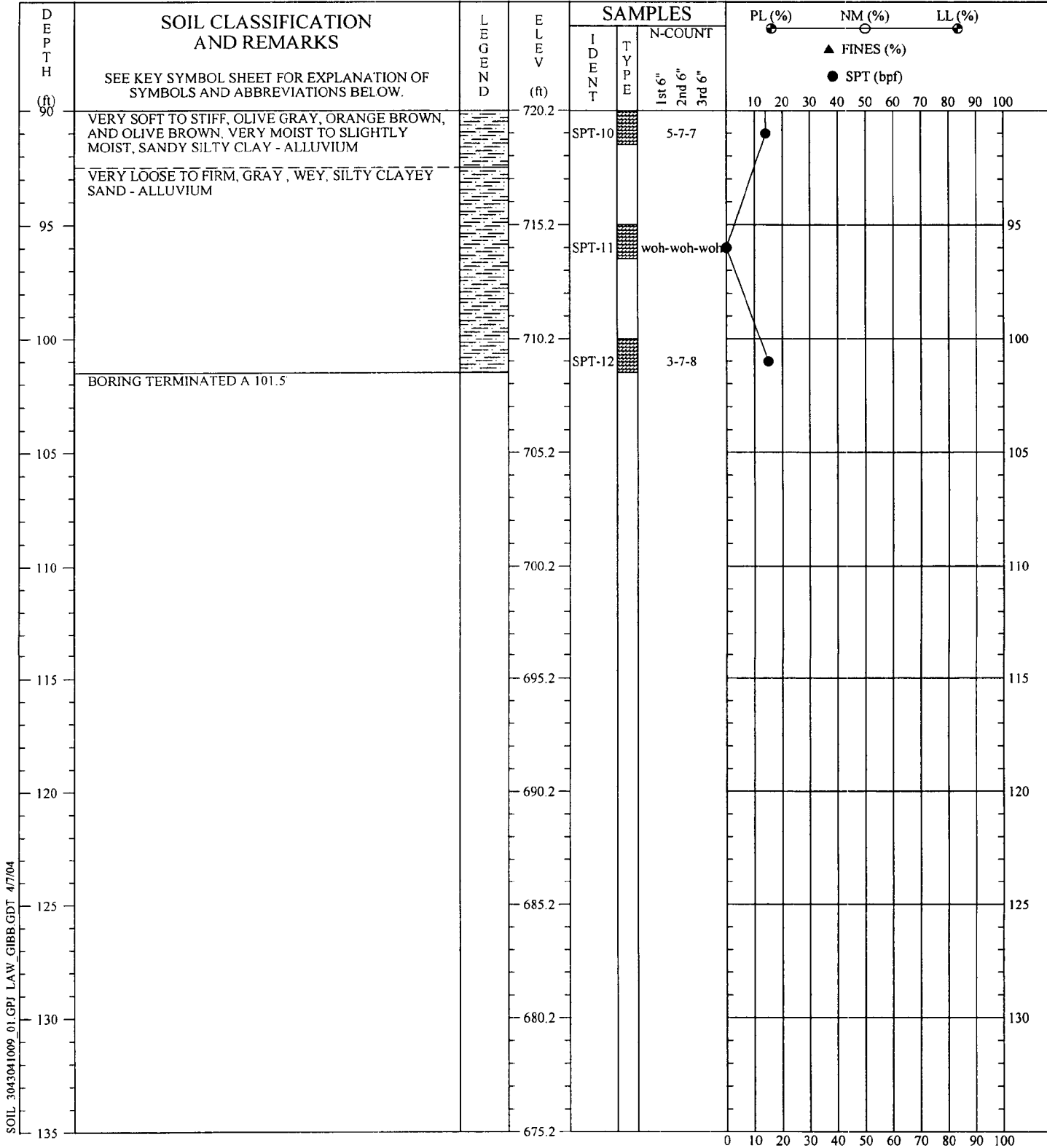
SOIL 3043041009_01.GPJ LAW_GIBB.GDT 4/23/04

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Driller : Akins
 Prepared By: Justice
 Checked By:

SOIL TEST BORING RECORD	
PROJECT: Kingston Fossil Plant - Ash Diposal Area	
DRILLED: March 2, 2004	BORING NO.: B-5A
PROJ. NO.: 3043041009/0001	PAGE 2 OF 3




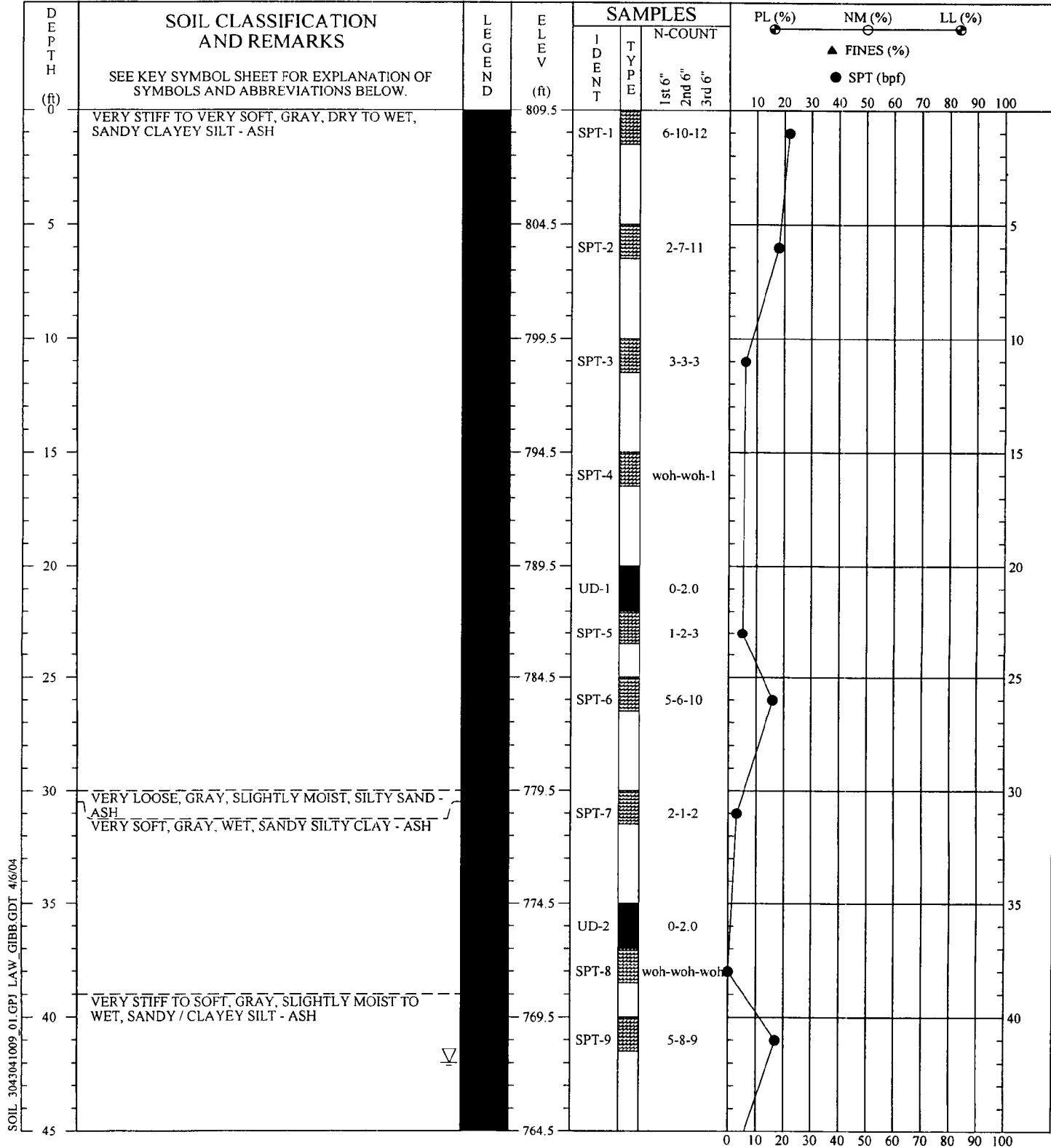
SOIL 3043041009 01.GPI LAW_GIBB.GDT 4/7/04

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Driller Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	BORING NO.: B-5A
DRILLED: March 2, 2004	PAGE 3 OF 3
PROJ. NO.: 3043041009/0001	
	



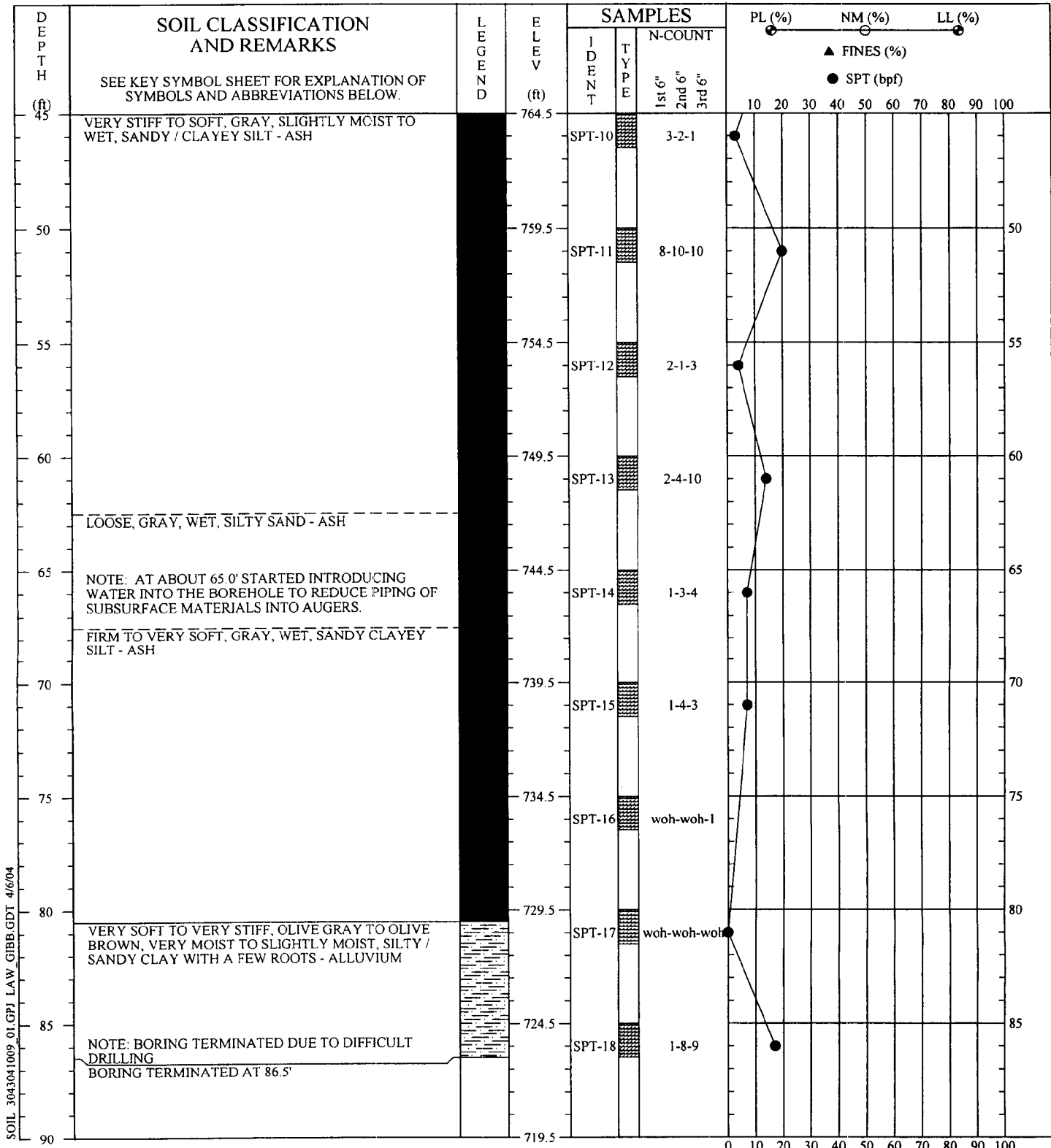
SOIL 3043041009 01.GPJ LAW GIBB.GDT 4/6/04

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Driller Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	BORING NO.: B-6
DRILLED: March 10, 2004	PAGE 1 OF 2
PROJ. NO.: 3043041009/0001	



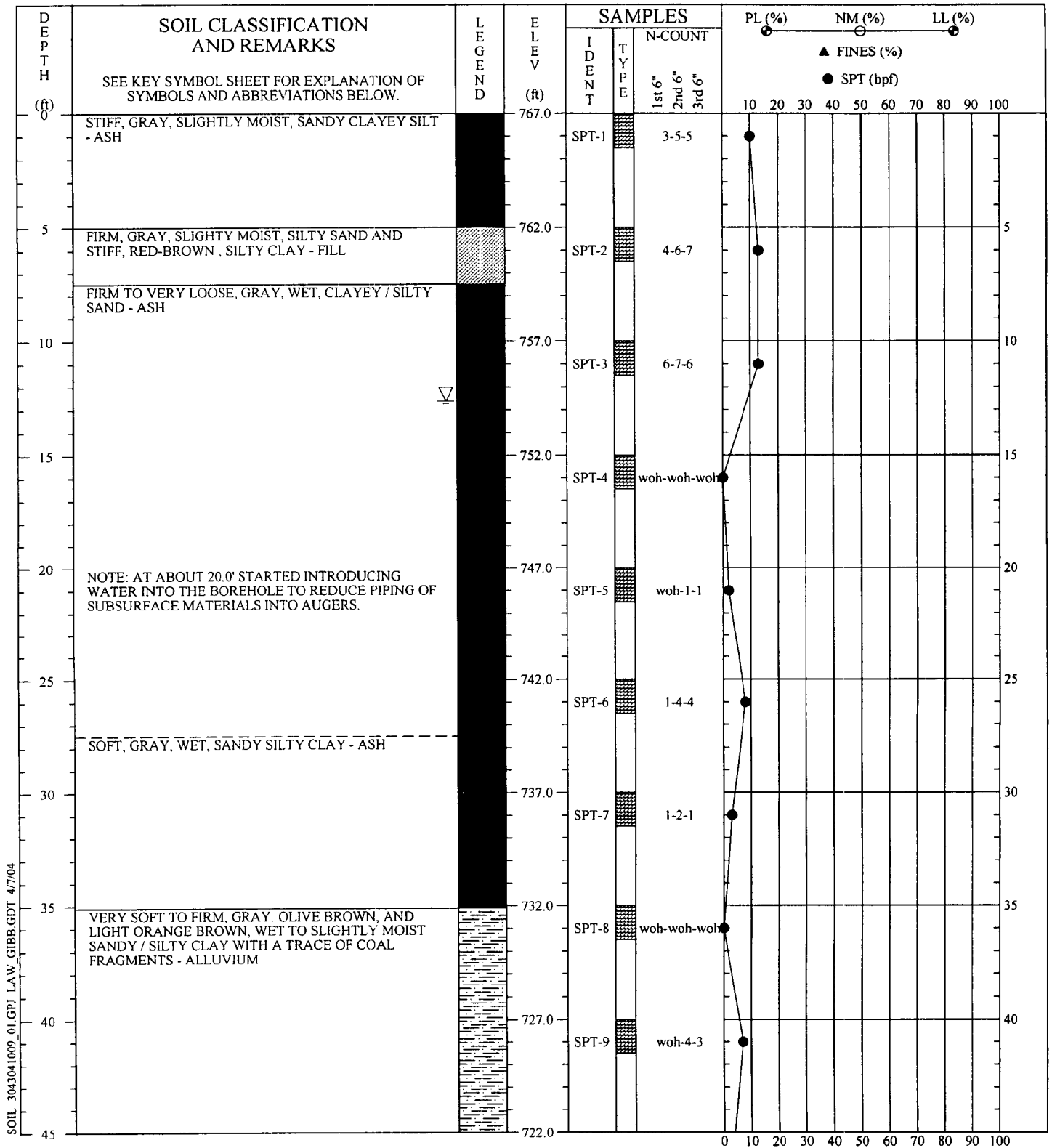
SOIL 3043041009 01.GPJ LAW. GIBB.GDT 4/6/04

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Driller: Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	BORING NO.: B-6
DRILLED: March 10, 2004	
PROJ. NO.: 3043041009/0001	PAGE 2 OF 2
MACTEC	




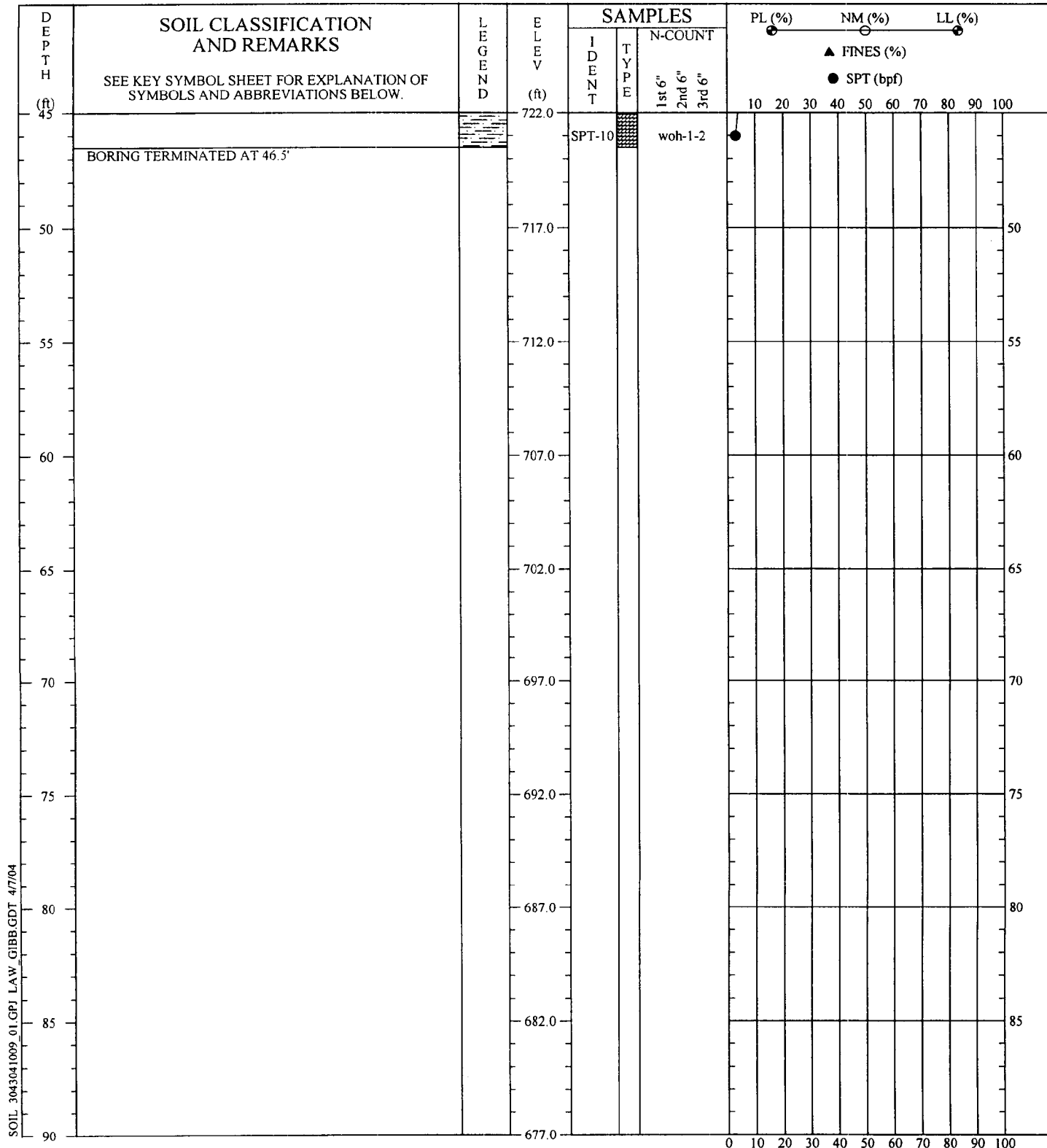
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Driller : Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	BORING NO.: B-7
DRILLED: March 11, 2004	
PROJ. NO.: 3043041009/0001	PAGE 1 OF 2
	



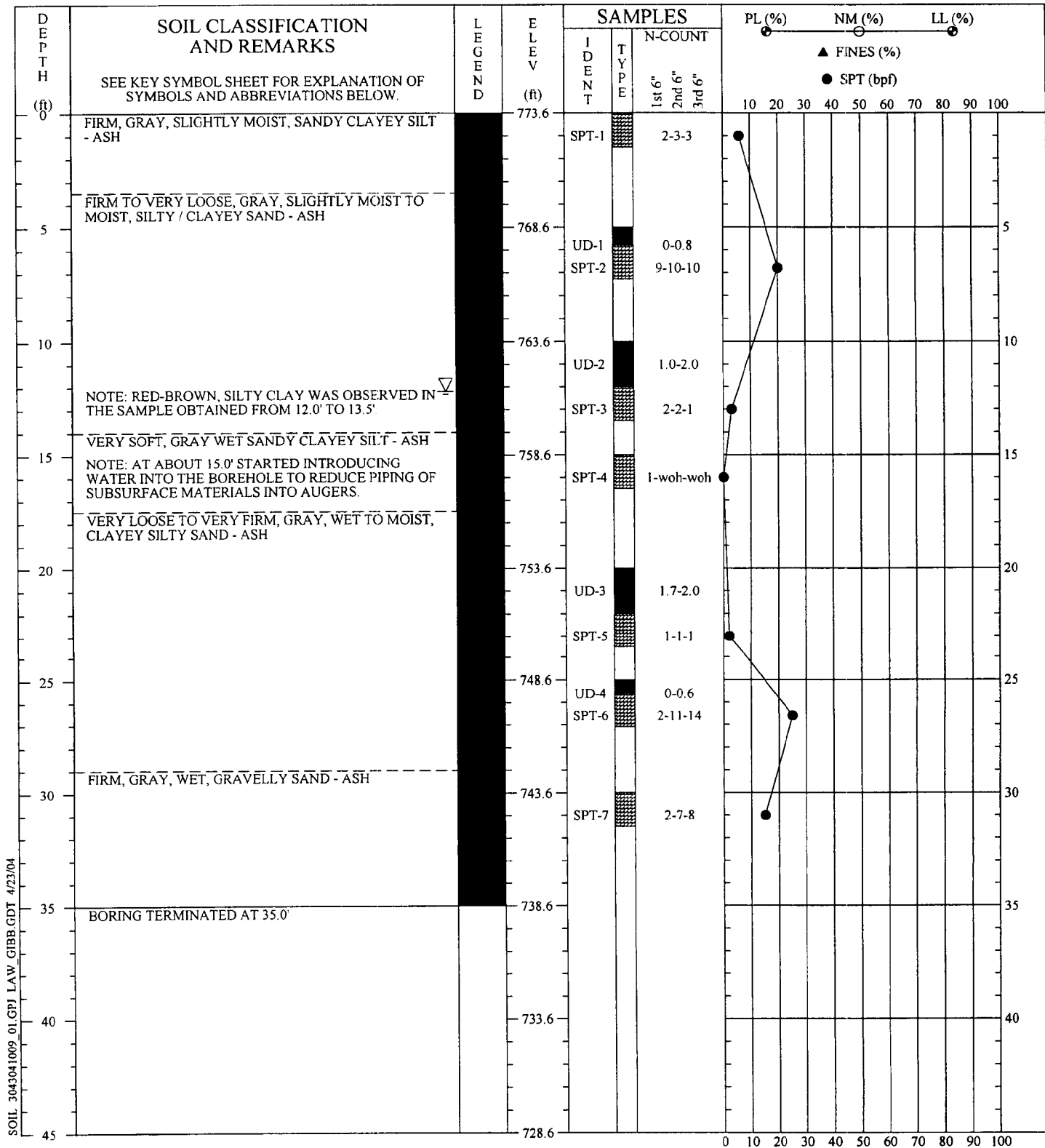
SOIL 3043041009_01.GPJ LAW_GIBB.GDT 4/7/04

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Driller : Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	BORING NO.: B-7
DRILLED: March 11, 2004	PAGE 2 OF 2
PROJ. NO.: 3043041009/0001	




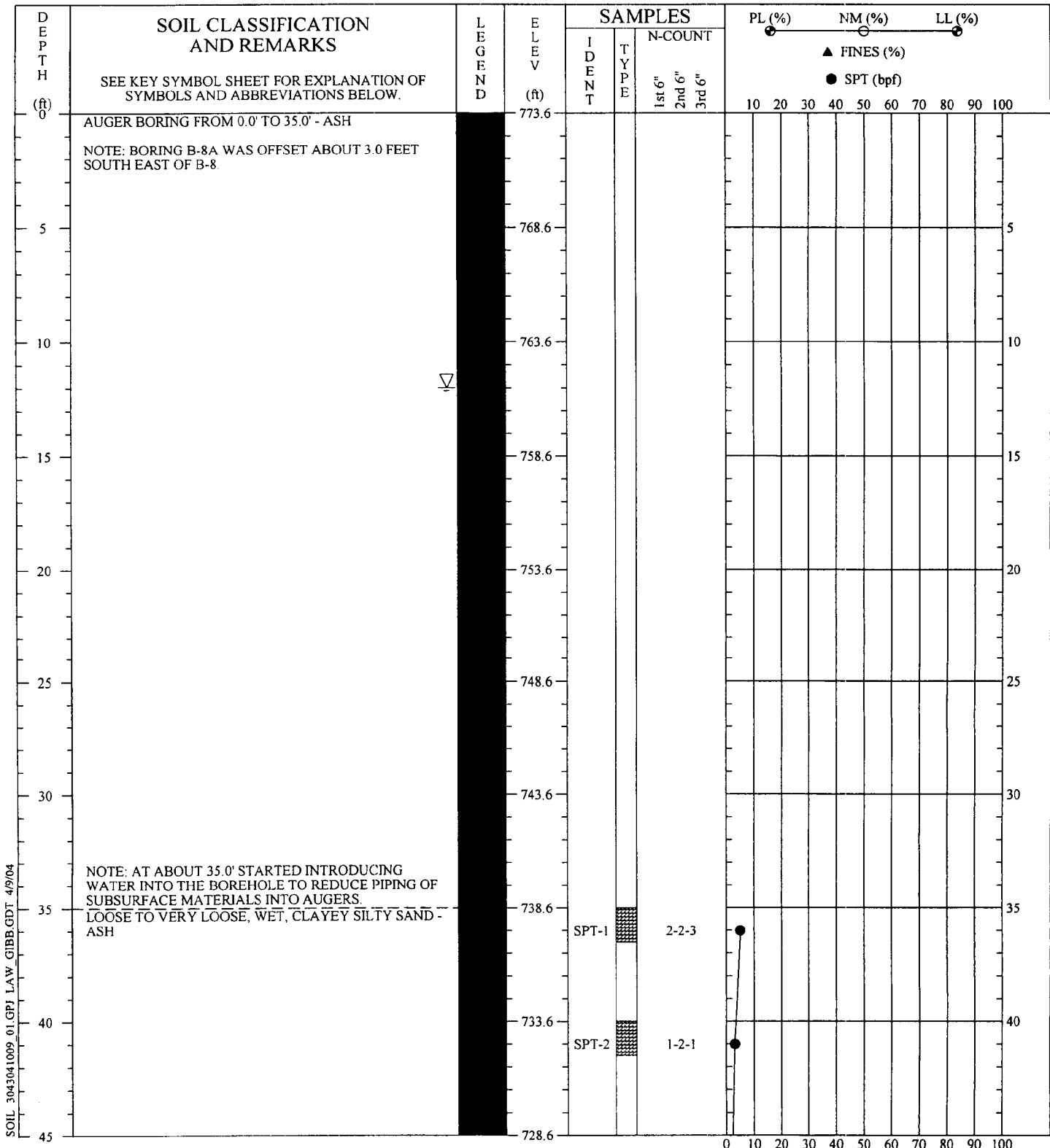
SOIL 3043041009_01.GPJ LAW GIBB.GDT 4/23/04

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Driller : Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: Kingston Fossil Plant - Ash Diposal Area	
DRILLED: March 19, 2004	BORING NO.: B-8
PROJ. NO.: 3043041009/0001	PAGE 1 OF 1
	



SOIL 3043041009 01.GPJ L.A.W. GIBB.GDT 4/9/04

REMARKS: STANDARD PENETRATION RESISTANCE TESTING PERFORMED USING AN AUTOMATIC HAMMER.

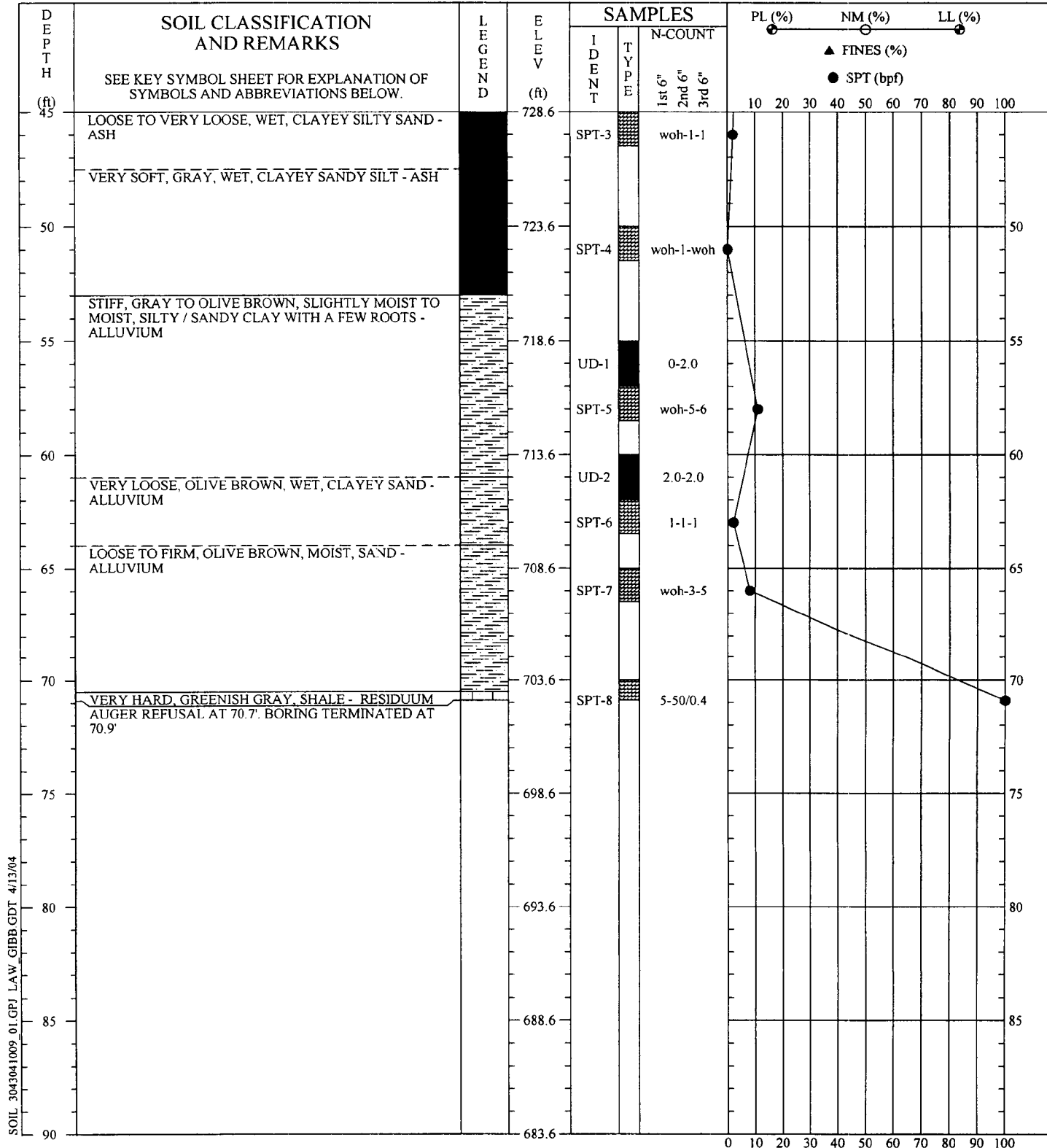
THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Driller : Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD

PROJECT: TVA Kingston Ash
DRILLED: March 22, 2004 **BORING NO.:** B-8A
PROJ. NO.: 3043041009/0001 **PAGE 1 OF 2**





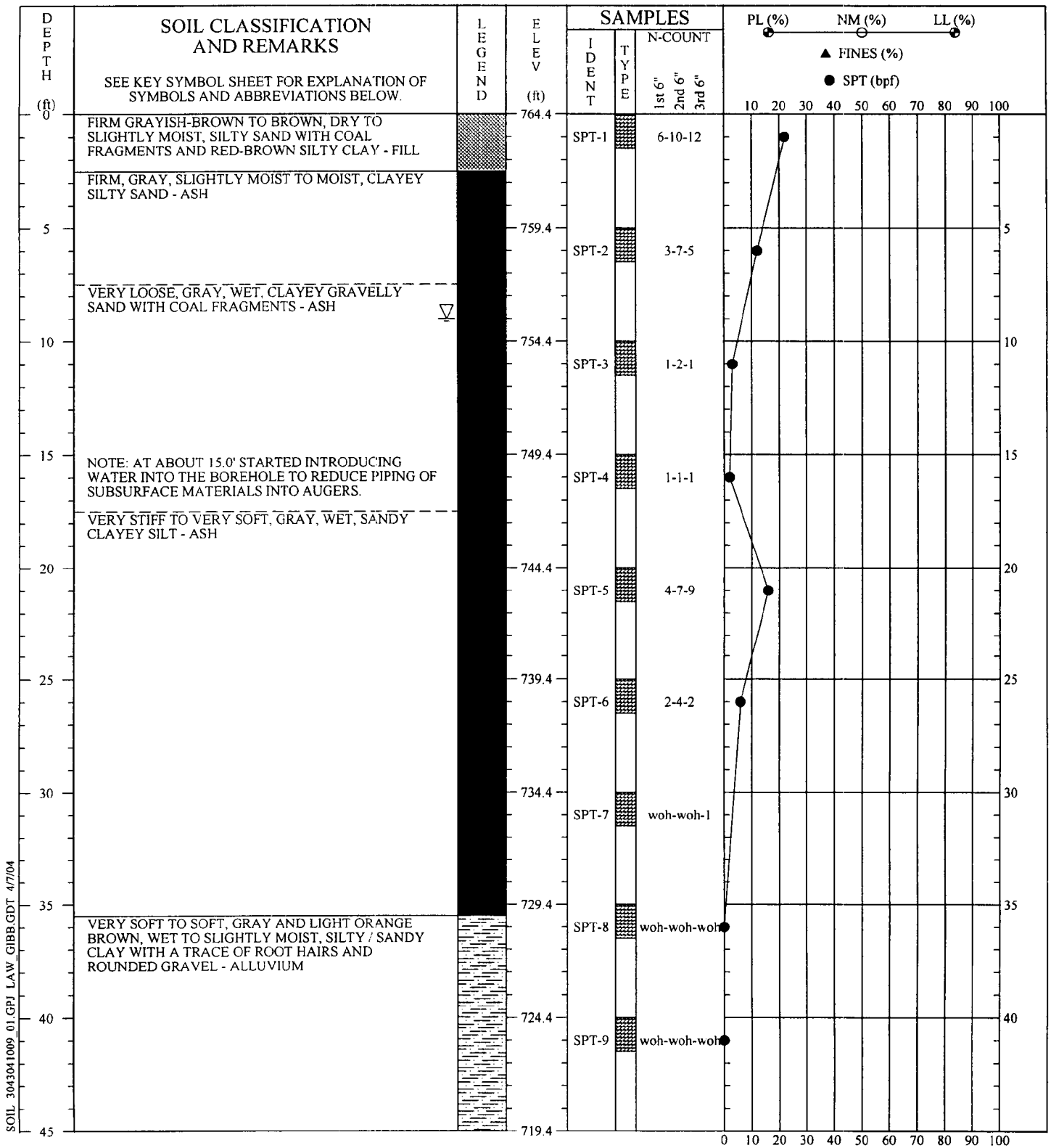
SOIL 3043041009 01.GPJ LAW_GFBB.GDT 4/13/04

REMARKS: STANDARD PENETRATION RESISTANCE TESTING PERFORMED USING AN AUTOMATIC HAMMER.

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Driller : Akins
 Prepared By: Justice
 Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	BORING NO.: B-8A
DRILLED: March 22, 2004	PROJ. NO.: 3043041009/0001
PAGE 2 OF 2	




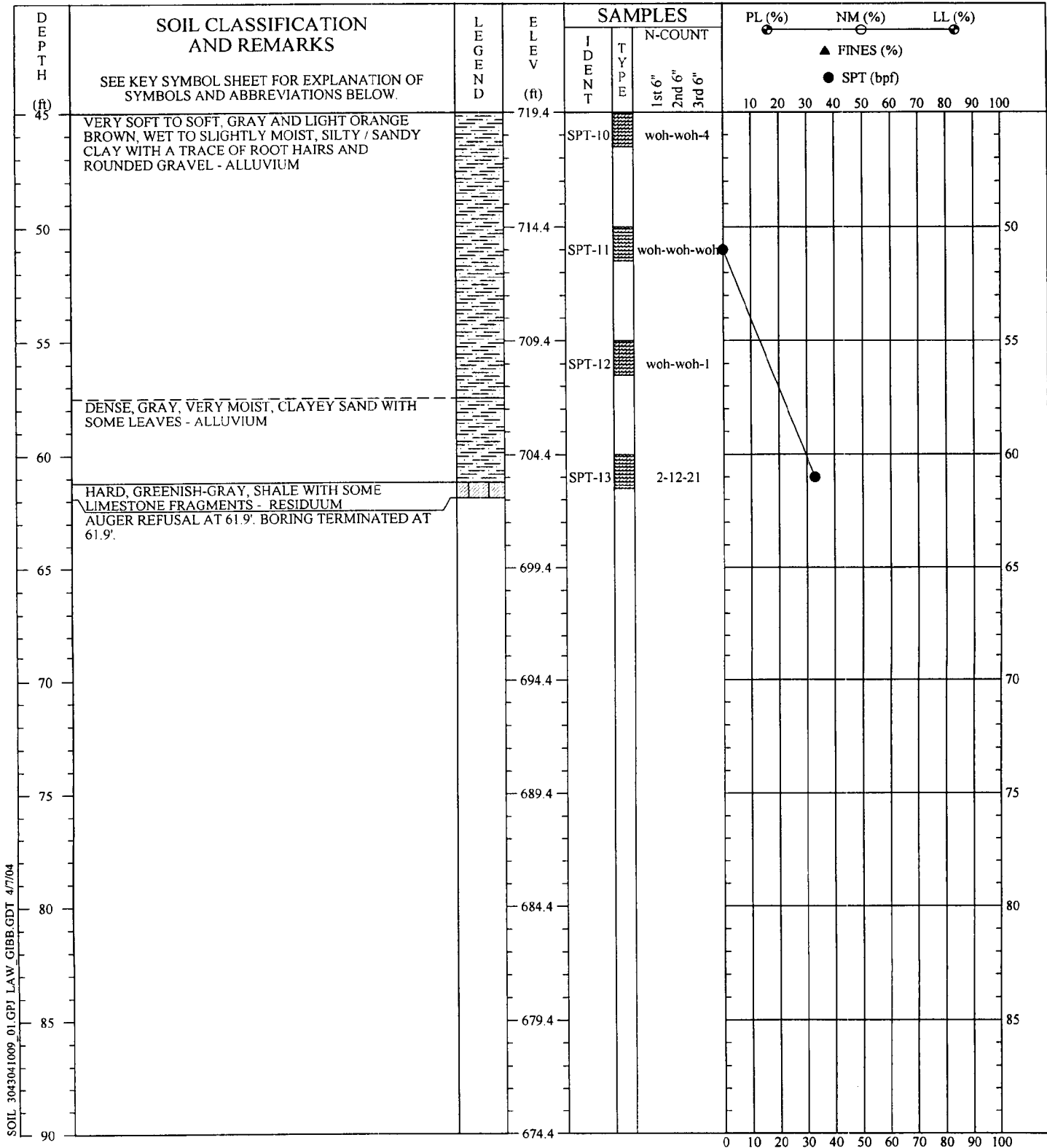
SOIL 3043041009_01.GPJ LAW_GIBB.GDT 4/7/04

REMARKS: STANDARD PENETRATION RESISTANCE TESTING PERFORMED USING AN AUTOMATIC HAMMER.

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Driller : Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	BORING NO.: B-9
DRILLED: March 12, 2004	
PROJ. NO.: 3043041009/0001	PAGE 1 OF 2
	



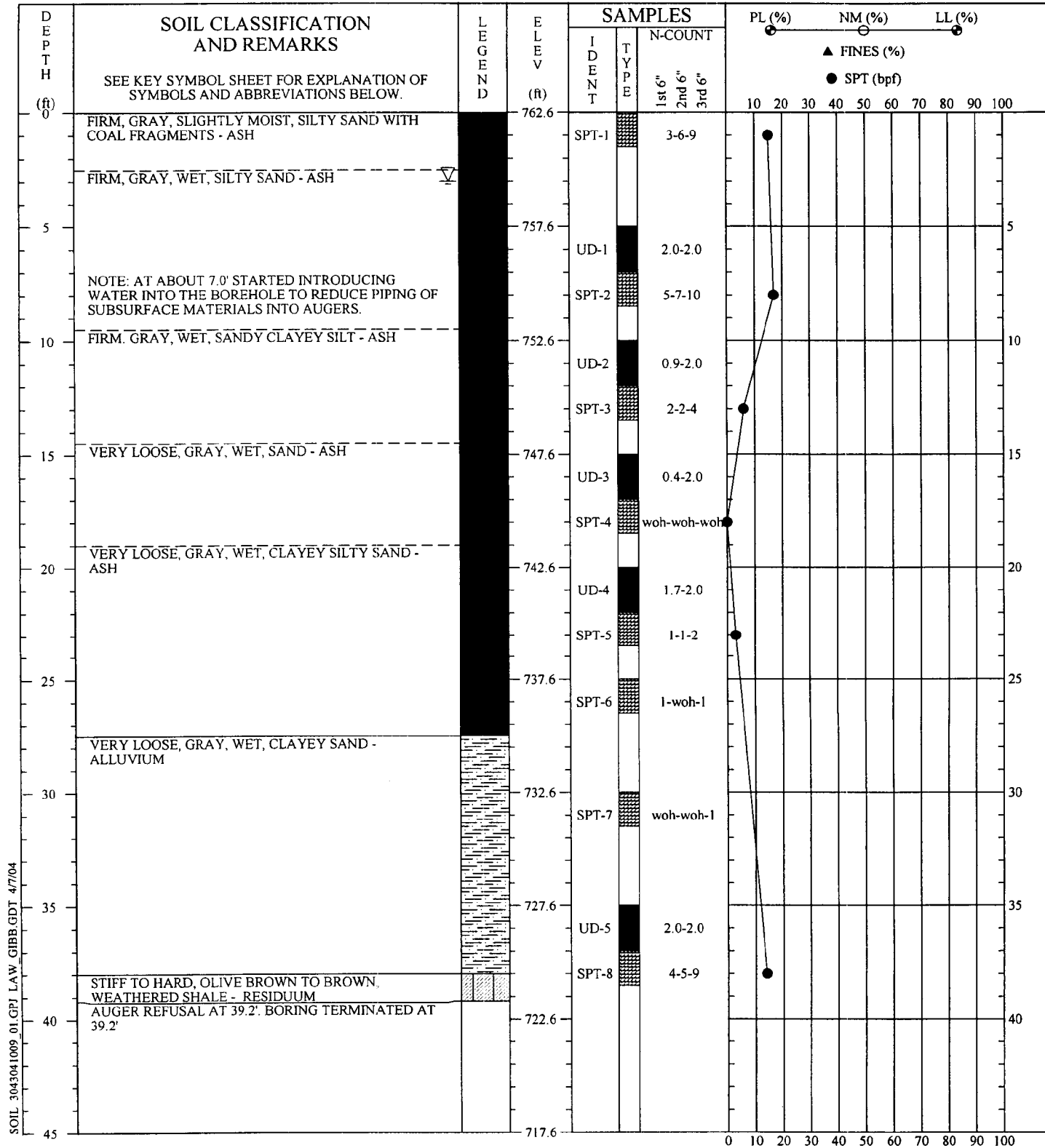
SOIL 3043041009_01.GPJ LAW_GIBB.GDT 4/7/04

REMARKS: STANDARD PENETRATION RESISTANCE TESTING PERFORMED USING AN AUTOMATIC HAMMER.

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Driller : Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	BORING NO.: B-9
DRILLED: March 12, 2004	
PROJ. NO.: 3043041009/0001	PAGE 2 OF 2

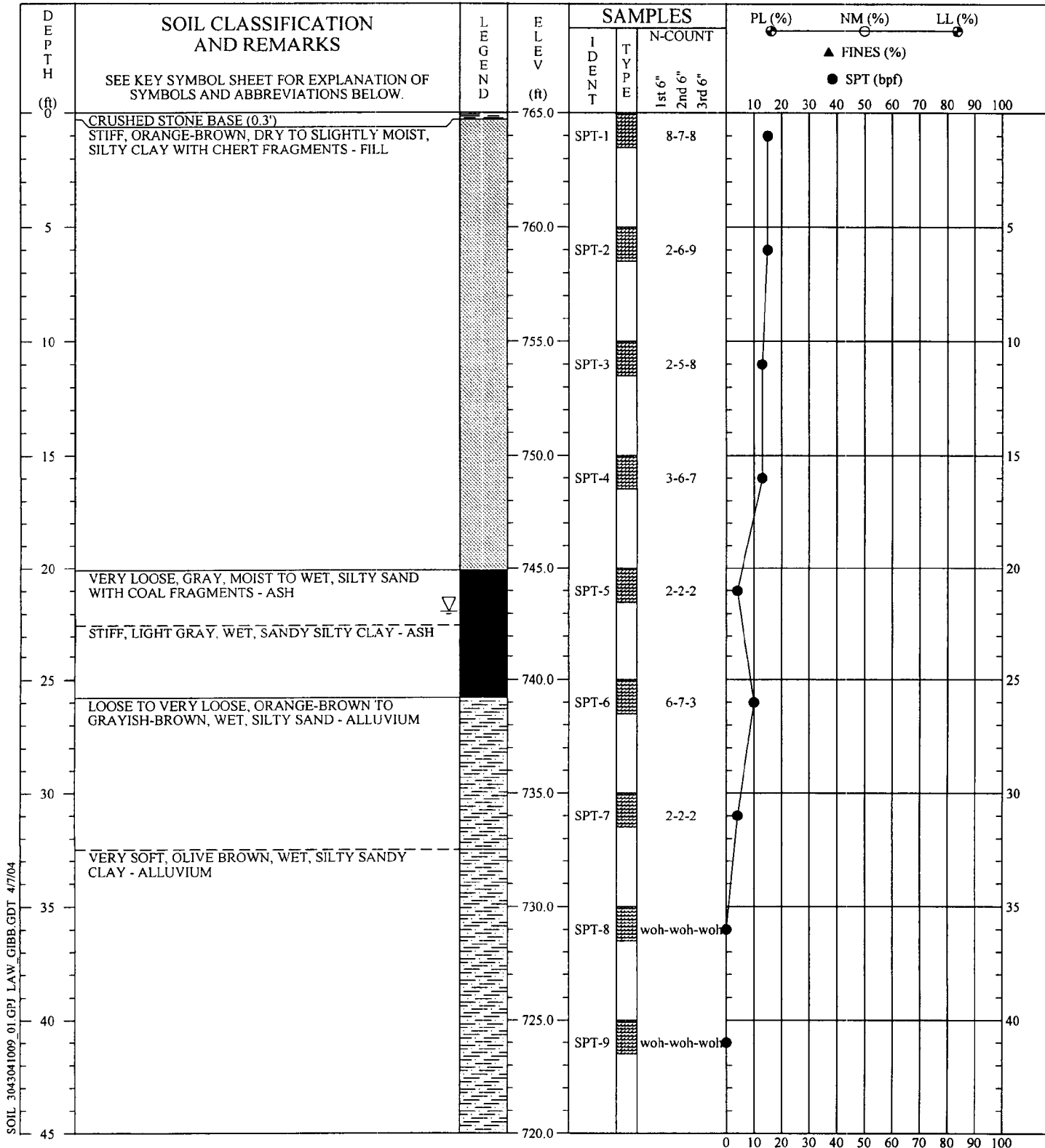


REMARKS: STANDARD PENETRATION RESISTANCE TESTING PERFORMED USING AN AUTOMATIC HAMMER

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Driller : Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	BORING NO.: B-10
DRILLED: March 18, 2004	PAGE 1 OF 1
PROJ. NO.: 3043041009/0001	



SOIL 3043041009_01.GPJ LAW_GIBB.GDT 4/7/04

REMARKS: STANDARD PENETRATION RESISTANCE TESTING PERFORMED USING AN AUTOMATIC HAMMER.

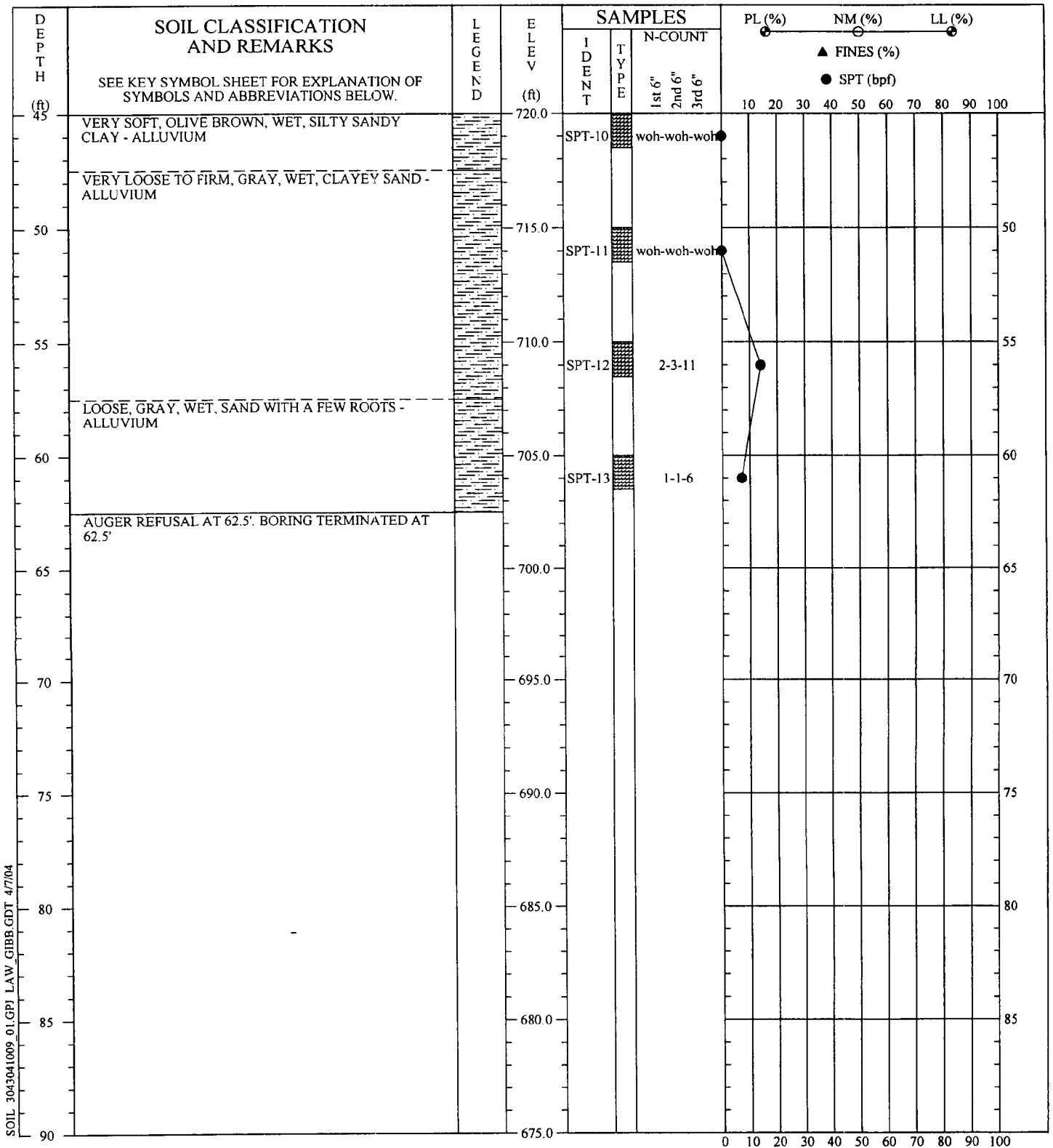
THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Driller Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD

PROJECT: TVA Kingston Ash
 DRILLED: March 15, 2004 BORING NO.: B-11
 PROJ. NO.: 3043041009/0001 PAGE 1 OF 2






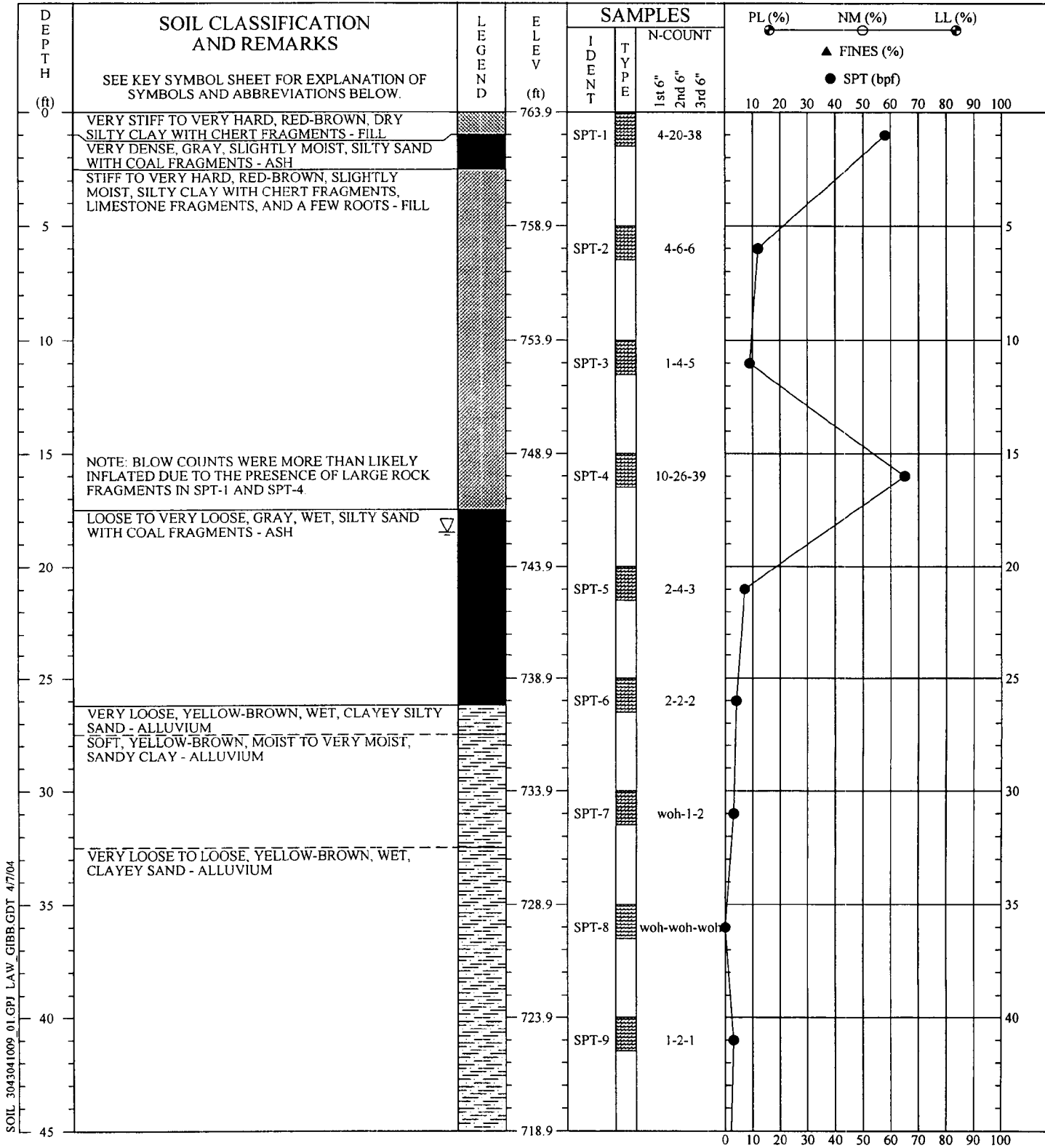
SOIL 3043041009_01.GPJ LAW_GIBB.GDT 4/7/04

REMARKS: STANDARD PENETRATION RESISTANCE TESTING PERFORMED USING AN AUTOMATIC HAMMER.

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Driller : Akins
 Prepared By: Justice
 Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	BORING NO.: B-11
DRILLED: March 15, 2004	PAGE 2 OF 2
PROJ. NO.: 3043041009/0001	
	



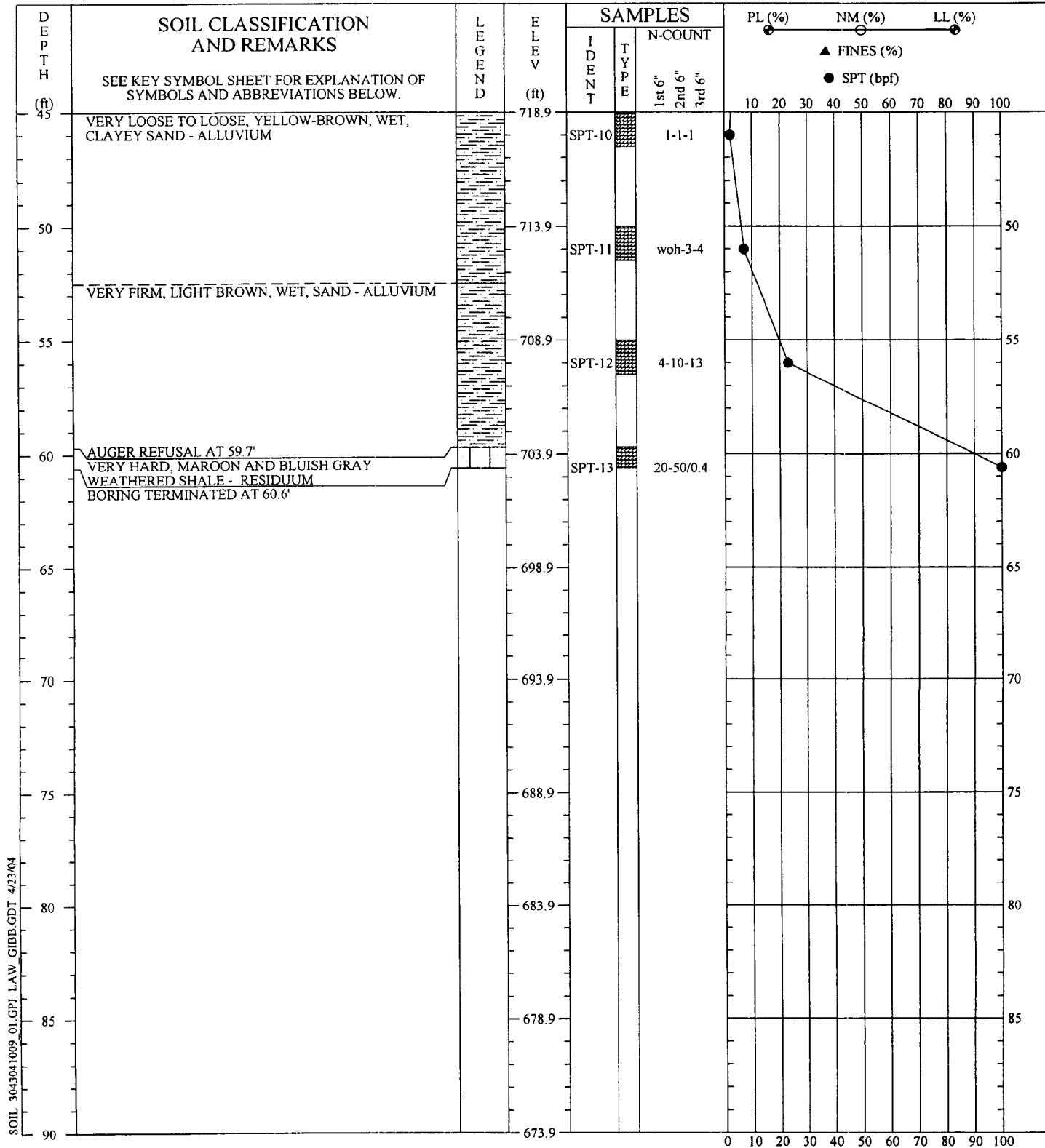
SOIL 3043041009_01.GPI LAW_GIBB.GDT 4/7/04

REMARKS: STANDARD PENETRATION RESISTANCE TESTING PERFORMED USING AN AUTOMATIC HAMMER.

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Driller: Akins
 Prepared By: Justice
 Checked By:

SOIL TEST BORING RECORD	
PROJECT: TVA Kingston Ash	
DRILLED: March 16, 2004	BORING NO.: B-12
PROJ. NO.: 3043041009/0001	PAGE 1 OF 2



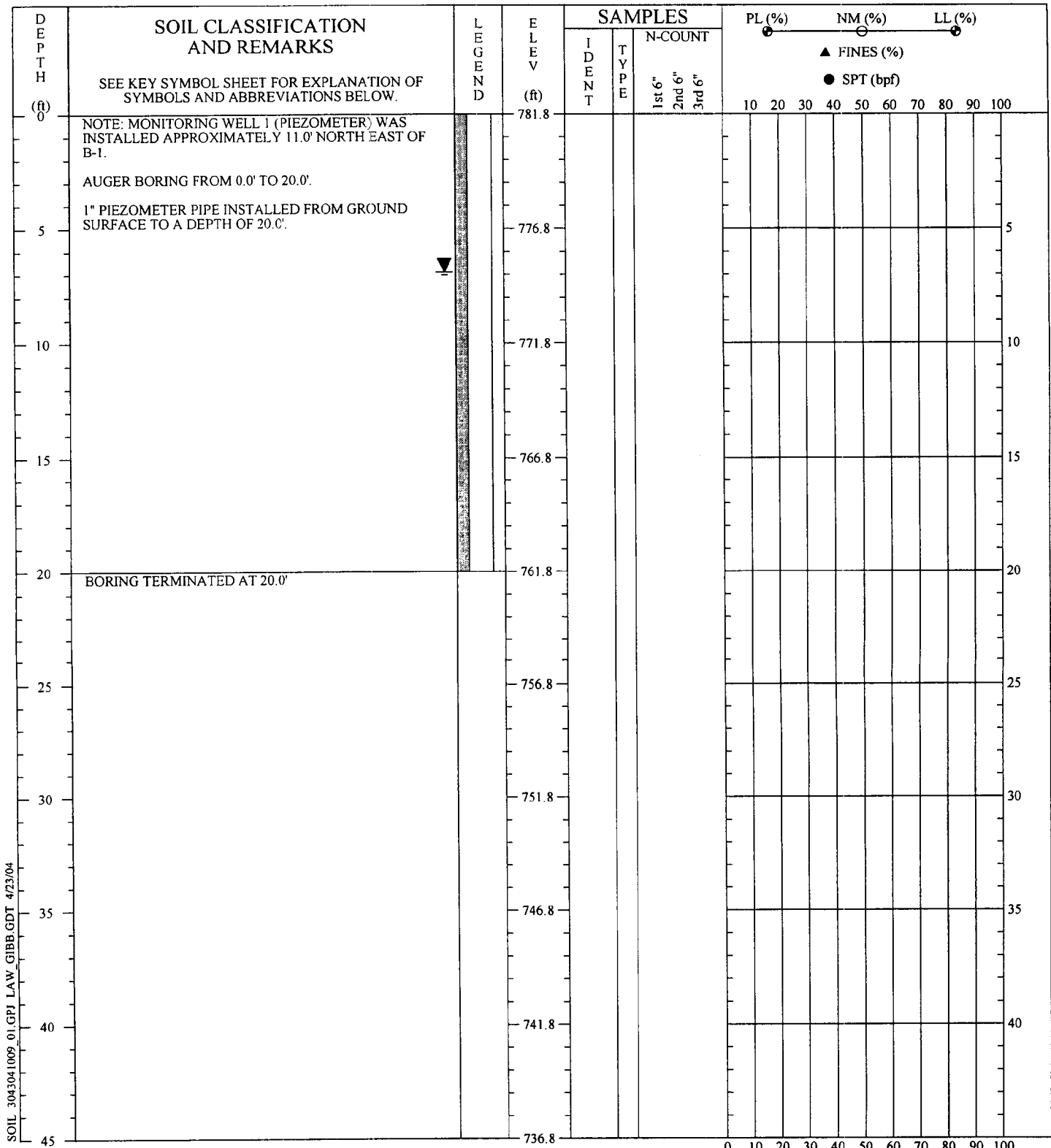
SOIL 3043041009 01.GPJ L.A.W. GIBB.GDT 4/23/04

REMARKS: STANDARD PENETRATION RESISTANCE TESTING PERFORMED USING AN AUTOMATIC HAMMER

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Driller: Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: Kingston Fossil Plant - Ash Diposal Area	BORING NO.: B-12
DRILLED: March 16, 2004	
PROJ. NO.: 3043041009/0001	PAGE 2 OF 2




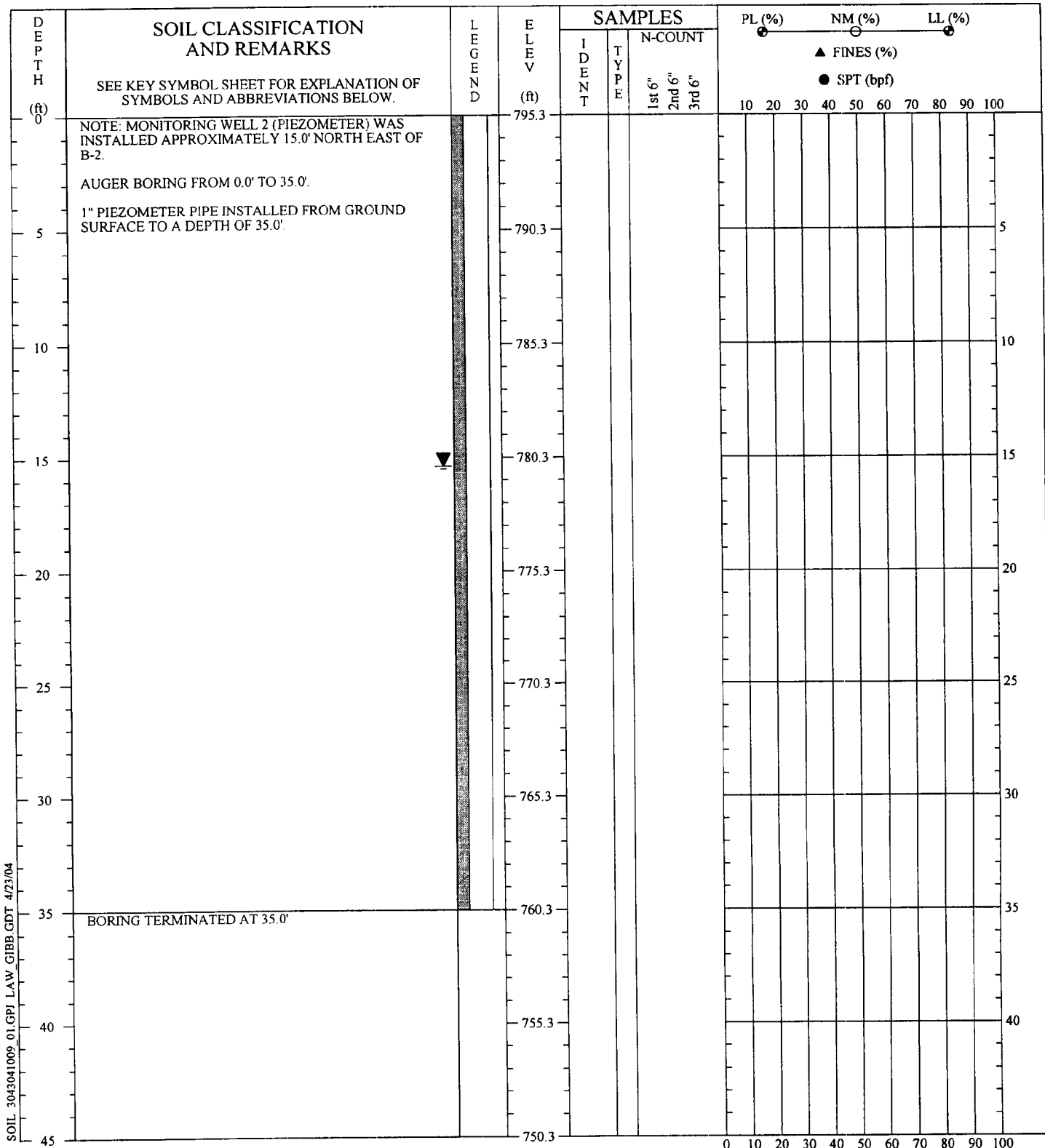
SOIL 3043041009_01.GPJ LAW_GIBB.GDT 4/23/04

REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION OF
SUBSURFACE CONDITIONS AT THE EXPLORATION
LOCATION. SUBSURFACE CONDITIONS AT OTHER
LOCATIONS AND AT OTHER TIMES MAY DIFFER.
INTERFACES BETWEEN STRATA ARE APPROXIMATE.
TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Driller : Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: Kingston Fossil Plant - Ash Diposal Area	BORING NO.: MW-1
DRILLED: March 25, 2004	PROJ. NO.: 3043041009/0001
PAGE 1 OF 1	
	




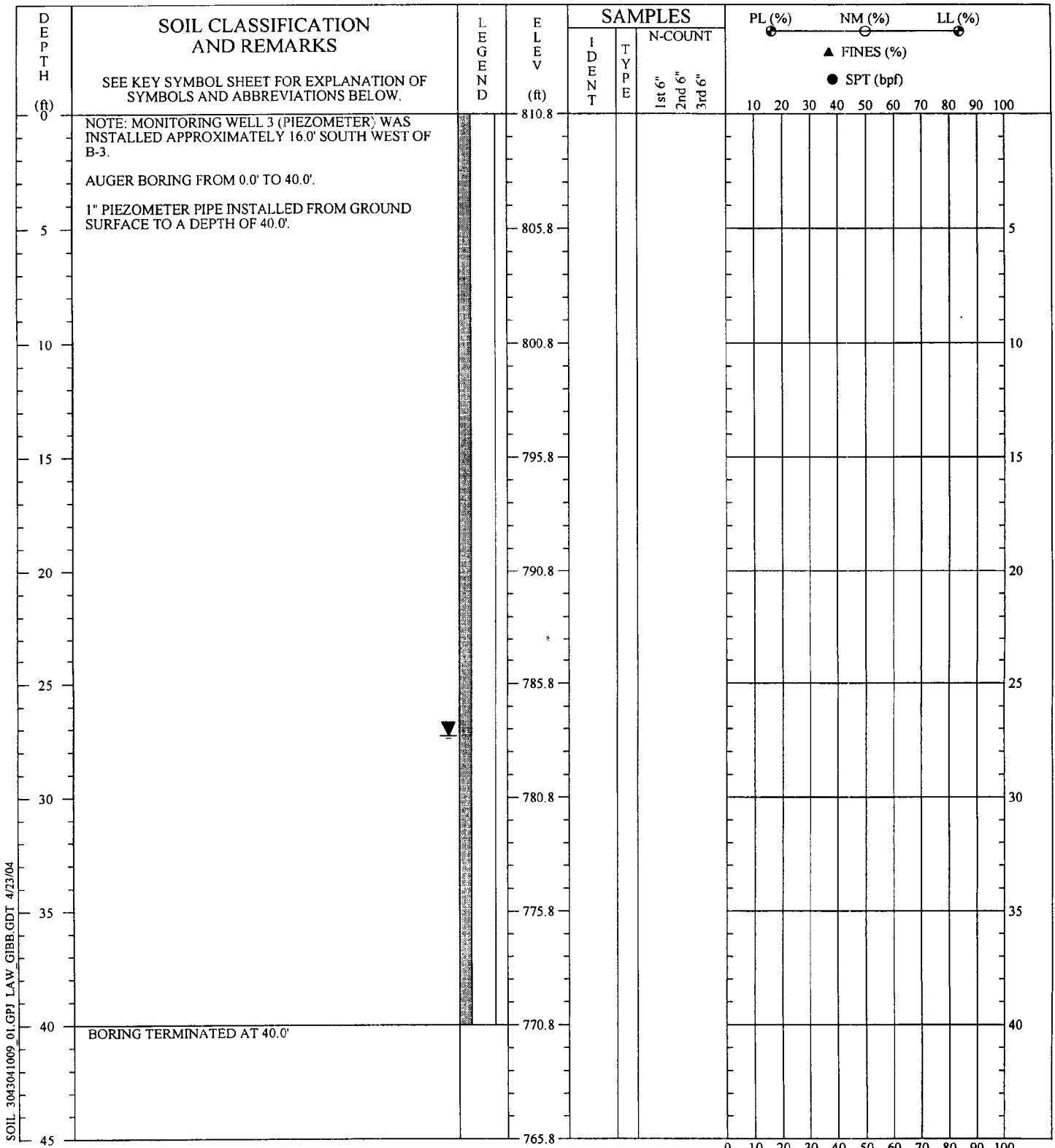
SOIL 3043041009_01.GPJ LAW_GIBB.GDT 4/23/04

REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Driller : Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: Kingston Fossil Plant - Ash Diposal Area	BORING NO.: MW-2
DRILLED: March 25, 2004	PROJ. NO.: 3043041009/0001
PAGE 1 OF 1	
	




SOIL 3043041009_01.GPJ LAW_GIBB.GDT 4/23/04

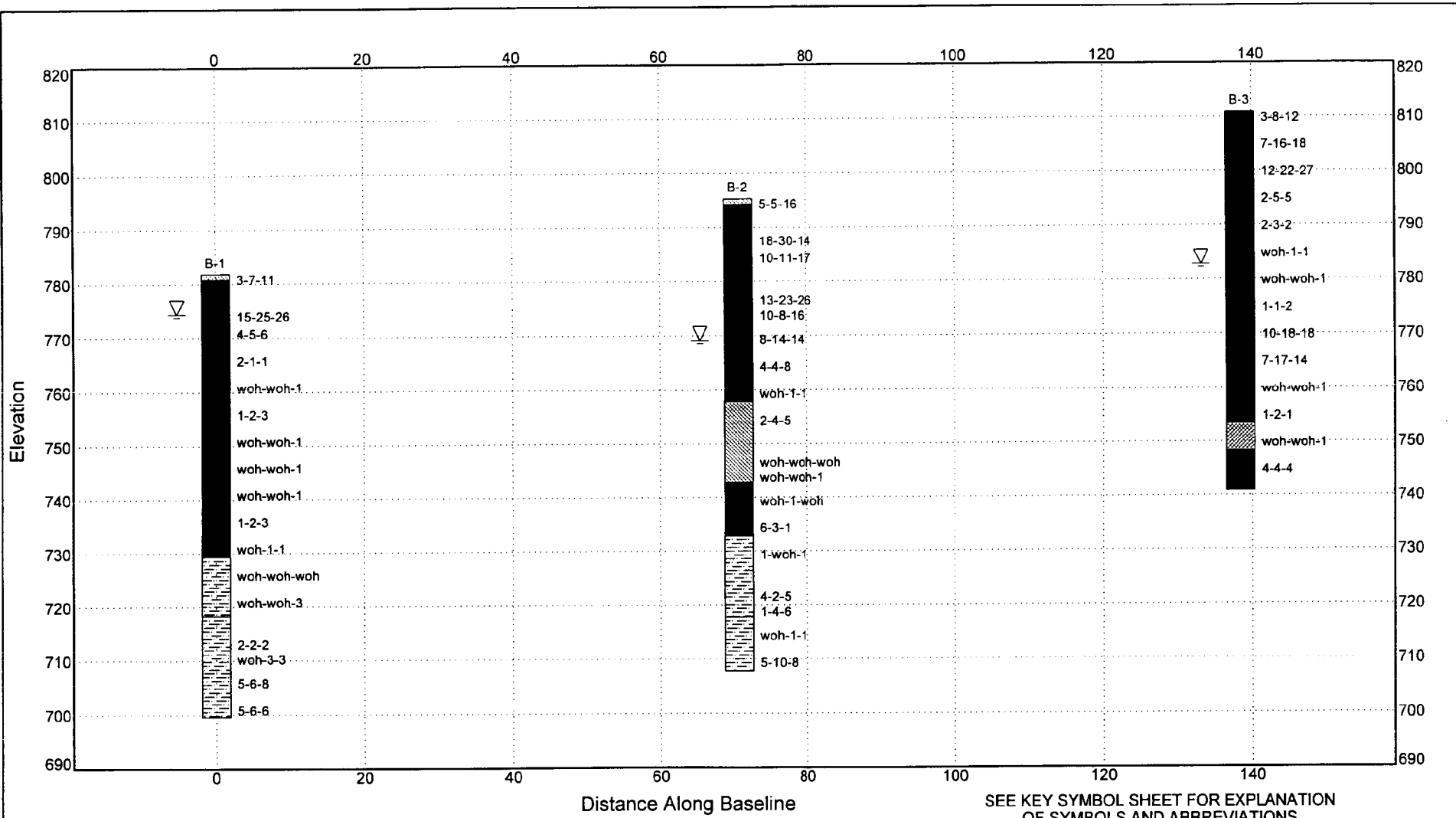
REMARKS:

THIS RECORD IS A REASONABLE INTERPRETATION OF
SUBSURFACE CONDITIONS AT THE EXPLORATION
LOCATION. SUBSURFACE CONDITIONS AT OTHER
LOCATIONS AND AT OTHER TIMES MAY DIFFER.
INTERFACES BETWEEN STRATA ARE APPROXIMATE.
TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Driller : Akins
Prepared By: Justice
Checked By:

SOIL TEST BORING RECORD	
PROJECT: Kingston Fossil Plant - Ash Diposal Area	
DRILLED: March 25, 2004	BORING NO.: MW-3
PROJ. NO.: 3043041009/0001	PAGE 1 OF 1
 MACTEC	

SECTION2 3043041009 01.GPJ FAGWGN01.GDT 4/13/04



SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS

Borehole	North	East	Elev.	Depth
B-1	556953	2439764	781.8	82.2
B-2	556903	2439814	795.3	87.5
B-3	556859	2439865	810.8	70.0

DISTANCES:

Beginning 0

Ending 140

VIEWING ANGLES (degrees):

Horizontal 0.0

Vertical 0.0

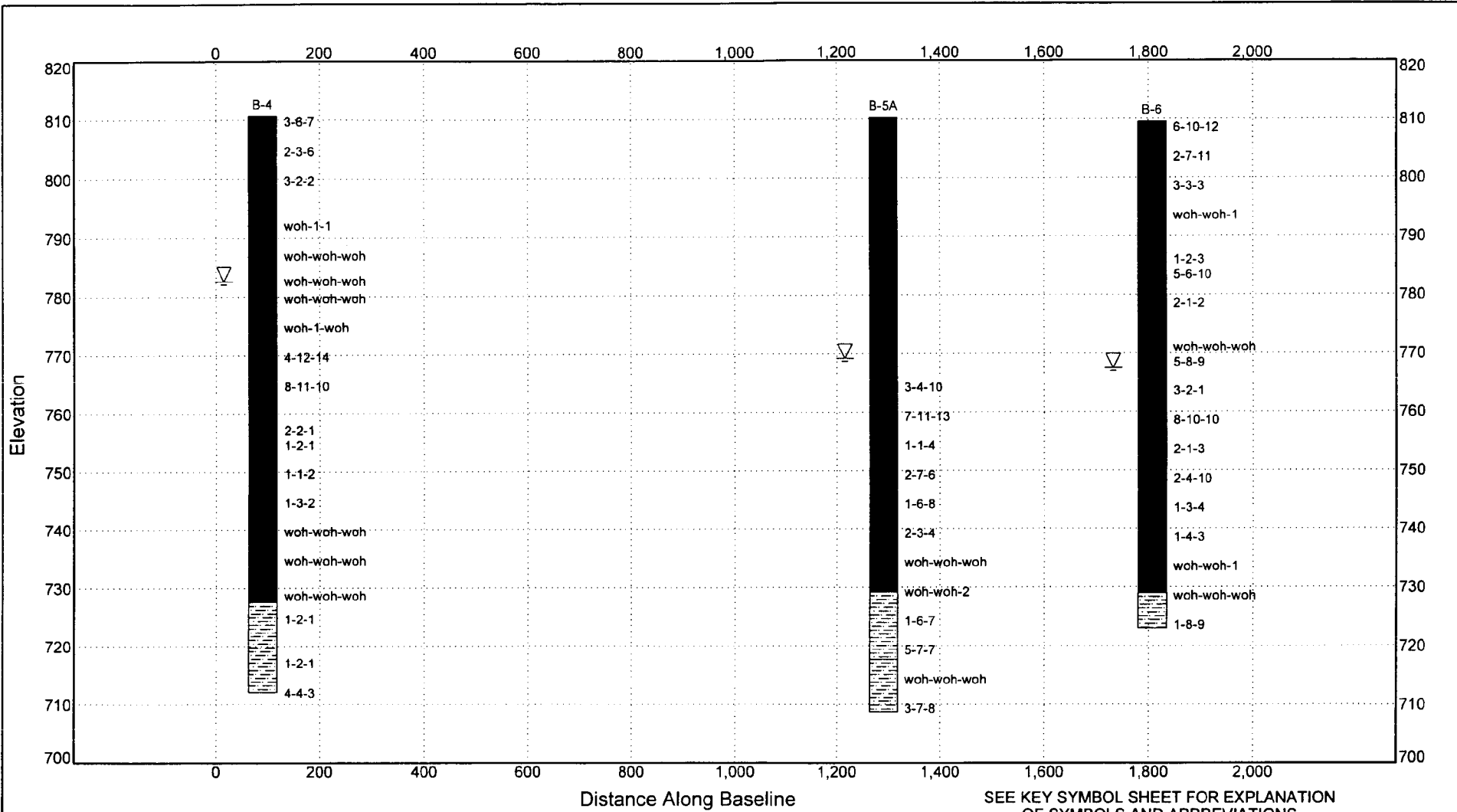
Position	North	East
Left, Front	556952	2439763
Right, Front	556857	2439866
Left, Back	556952	2439763
Right, Back	556857	2439866

SUBSURFACE FENCE DIAGRAM A - A

Kingston Fossil Plant - Ash Diposal Area

PROJECT #	DATE	PLATE
3043041009/0001	Apr 04	1

SECTION2_3043041009_01.GPJ FAGW.GN01.GDT 4/13/04



SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS

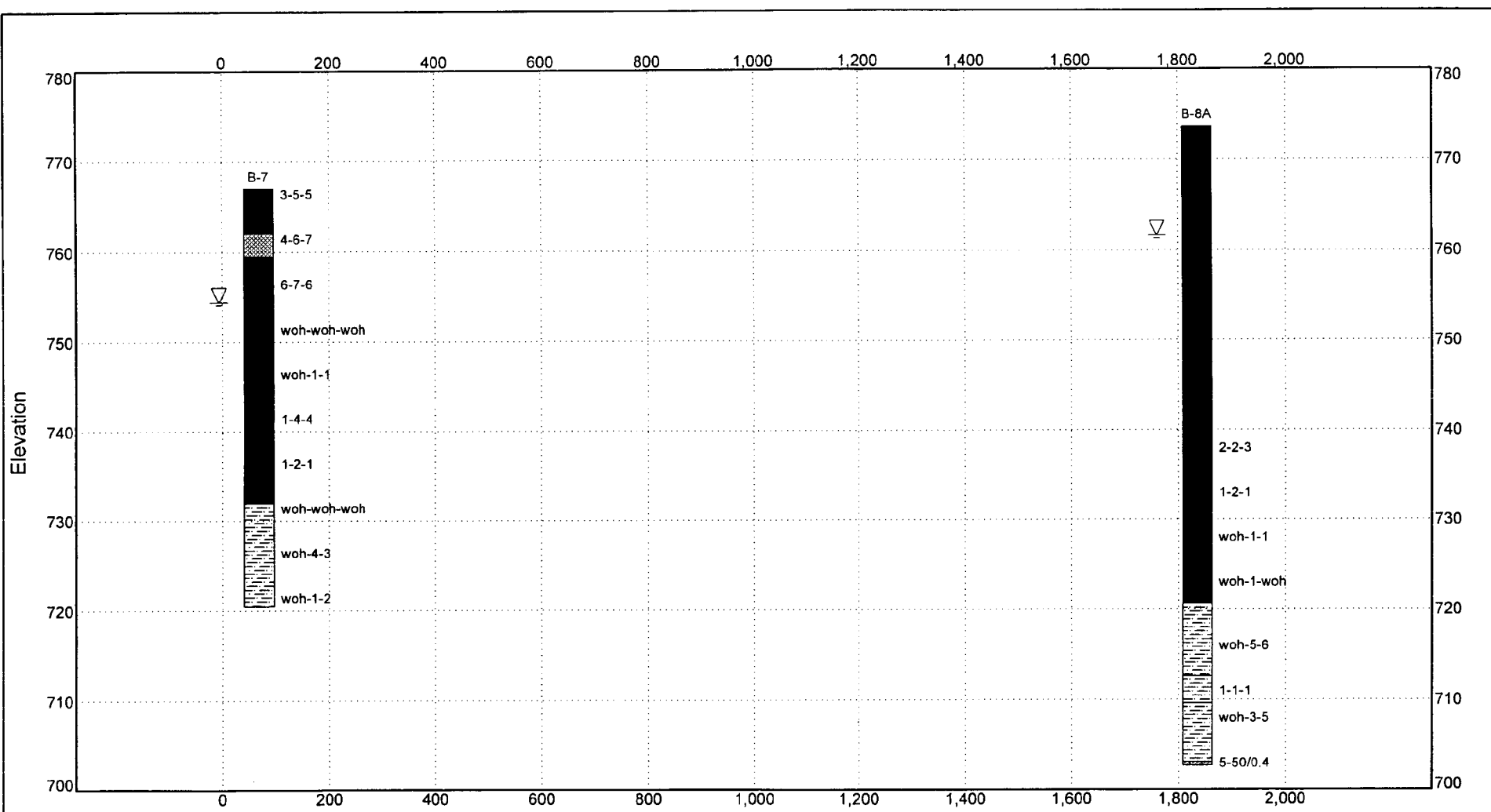
Borehole	North	East	Elev.	Depth
B-4	556619	2440897	810.6	98.5
B-5A	555597	2440247	810.2	101.5
B-6	555292	2439808	809.5	86.5

DISTANCES:
 Beginning 0
 Ending 2000
 VIEWING ANGLES (degrees):
 Horizontal 0.0
 Vertical 0.0

Position	North	East
Left, Front	556690	2440952
Right, Front	555166	2439657
Left, Back	556690	2440952
Right, Back	555166	2439657

SUBSURFACE FENCE DIAGRAM B - B'		
Kingston Fossil Plant - Ash Dipsal Area		
PROJECT #	DATE	PLATE
3043041009/0001	Apr 04	2

SECTION2_3043041009_01.GPJ FACWGN01.GDT 4/14/04



Distance Along Baseline

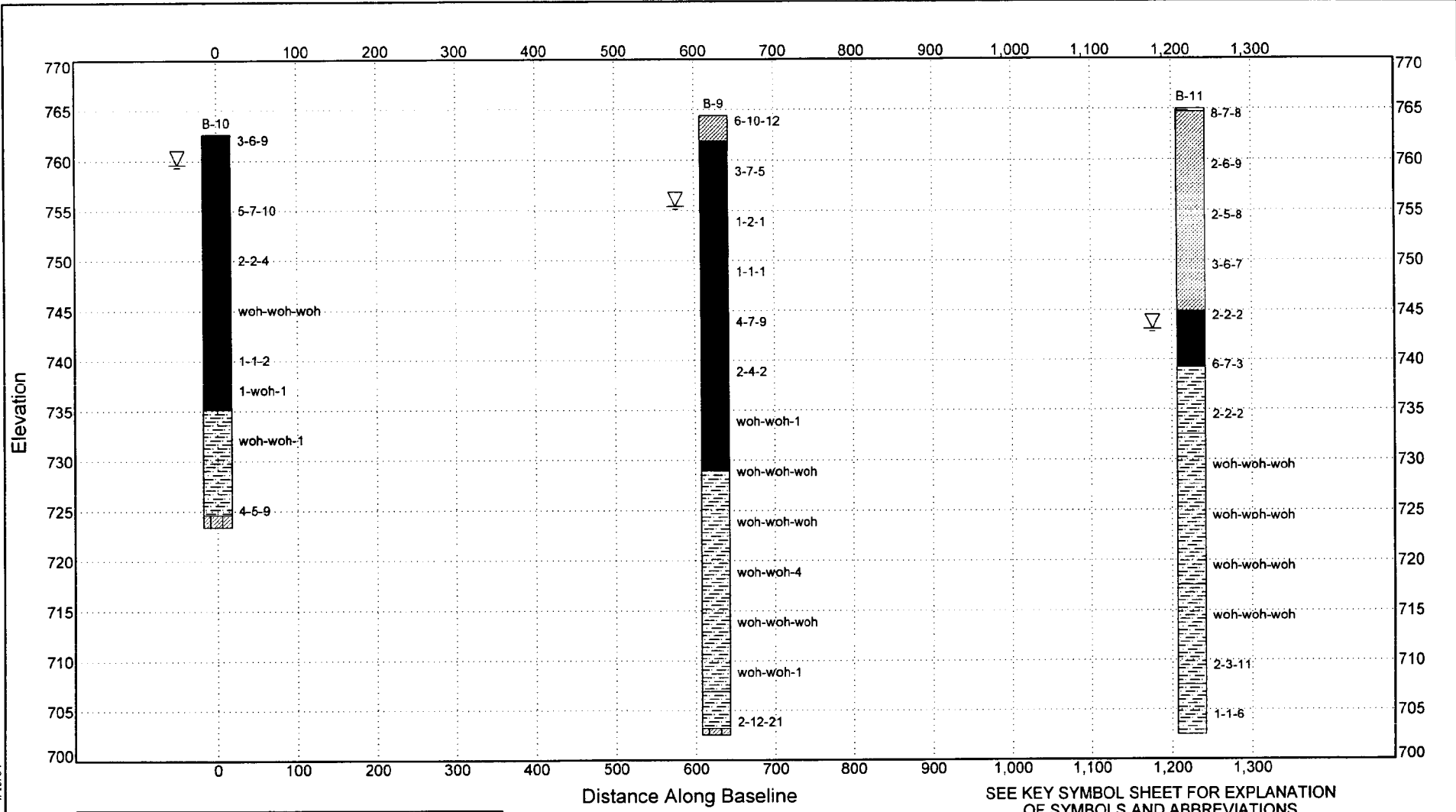
SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS

Borehole	North	East	Elev.	Depth
B-7	556249	2441518	767.0	46.5
B-8A	554787	2440526	773.6	70.9

DISTANCES:
 Beginning 0
 Ending 2000
 VIEWING ANGLES (degrees):
 Horizontal 0.0
 Vertical 0.0

Position	North	East
Left, Front	556304	2441560
Right, Front	554663	2440417
Left, Back	556304	2441560
Right, Back	554663	2440417

SUBSURFACE FENCE DIAGRAM C - C'		
Kingston Fossil Plant - Ash Diposal Area		
PROJECT #	DATE	PLATE
3043041009/0001	Apr 04	3



SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS

Distance Along Baseline

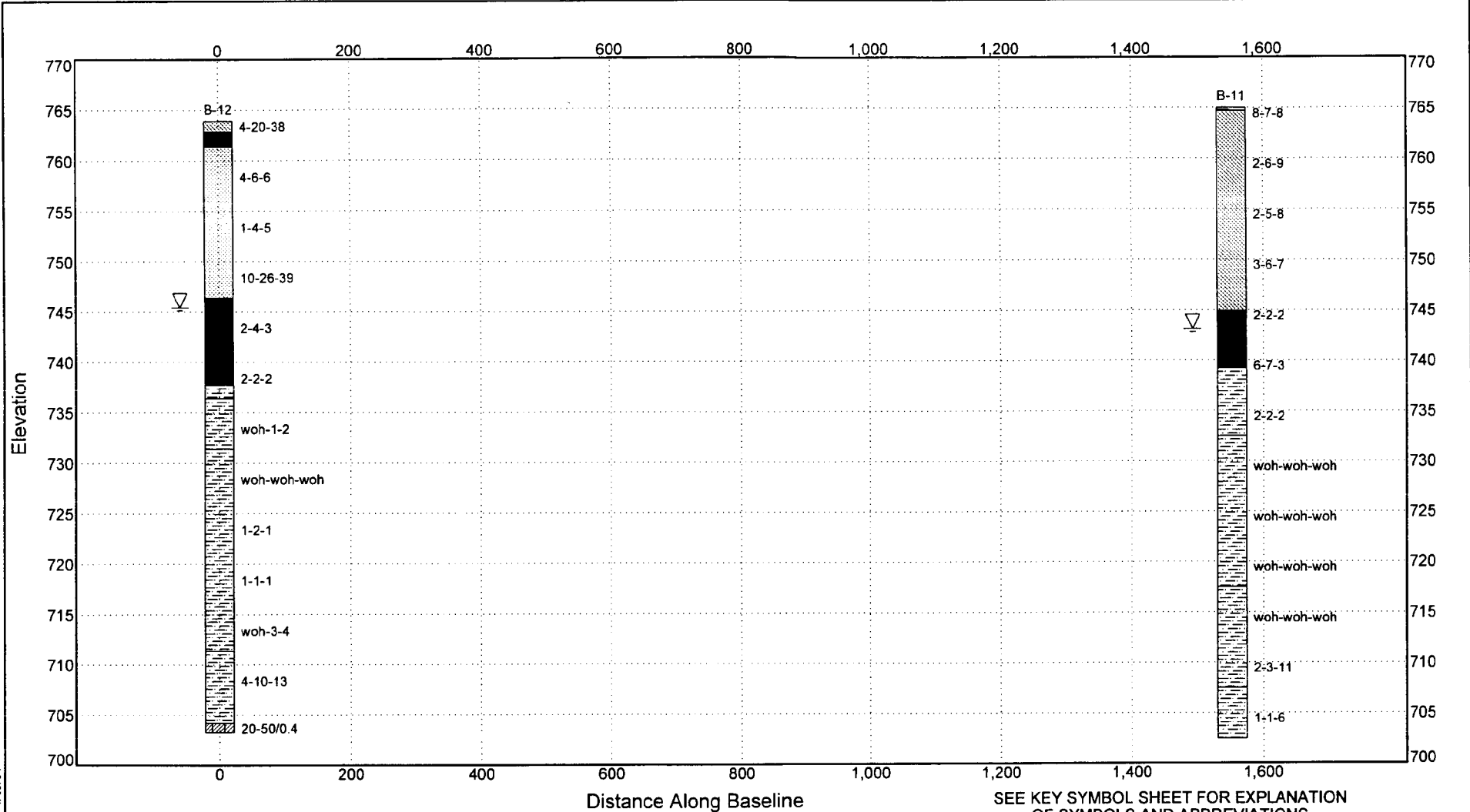
Borehole	North	East	Elev.	Depth
B-10	554428	2441665	762.6	39.2
B-11	554761	2442844	765.0	62.5
B-9	554858	2442197	764.4	61.9

DISTANCES:
 Beginning 0
 Ending 1300
 VIEWING ANGLES (degrees):
 Horizontal 0.0
 Vertical 0.0

Position	North	East
Left, Front	554523	2441640
Right, Front	554858	2442896
Left, Back	554523	2441640
Right, Back	554858	2442896

SUBSURFACE FENCE DIAGRAM D - D'		
Kingston Fossil Plant - Ash Diposal Area		
PROJECT #	DATE	PLATE
3043041009/0001	Apr 04	4

SECTION2: 3043041009 01.GPJ FAGWGN01.GDT 4/13/04



SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS

Borehole	North	East	Elev.	Depth
B-11	554761	2442844	765.0	62.5
B-12	556266	2442464	763.9	60.6

DISTANCES:
 Beginning 0
 Ending 1600
 VIEWING ANGLES (degrees):
 Horizontal 0.0
 Vertical 0.0

Position	North	East
Left, Front	556266	2442464
Right, Front	554715	2442855
Left, Back	556266	2442464
Right, Back	554715	2442855

SUBSURFACE FENCE DIAGRAM E - E'

Kingston Fossil Plant - Ash Diposal Area

PROJECT #	DATE	PLATE
3043041009/0001	Apr 04	5

SECTION2_3043041009_01.GPJ FACWGN01.GDT 4/13/04

APPENDIX C

IN-SITU HYDRAULIC CONDUCTIVITY TEST RESULTS AND PROCEDURE

IN-SITU HYDRAULIC CONDUCTIVITY TEST RESULTS

Stage 1 – Maximum Vertical Hydraulic Conductivity

Location:	Boring B-1
Depth:	5 Ft.
Max. Vertical Hydraulic Conductivity:	5.13×10^{-6} cm/s

Location:	Boring B-2
Depth:	5 Ft.
Max. Vertical Hydraulic Conductivity:	3.59×10^{-6} cm/s

Stage 2 – Minimum Horizontal Hydraulic Conductivity

Location:	Boring B-1
Depth:	5.42 Ft.
Min. Horizontal Hydraulic Conductivity:	1.42×10^{-5} cm/s

Location:	Boring B-2
Depth:	5.38 Ft.
Min. Horizontal Hydraulic Conductivity:	3.67×10^{-6} cm/s

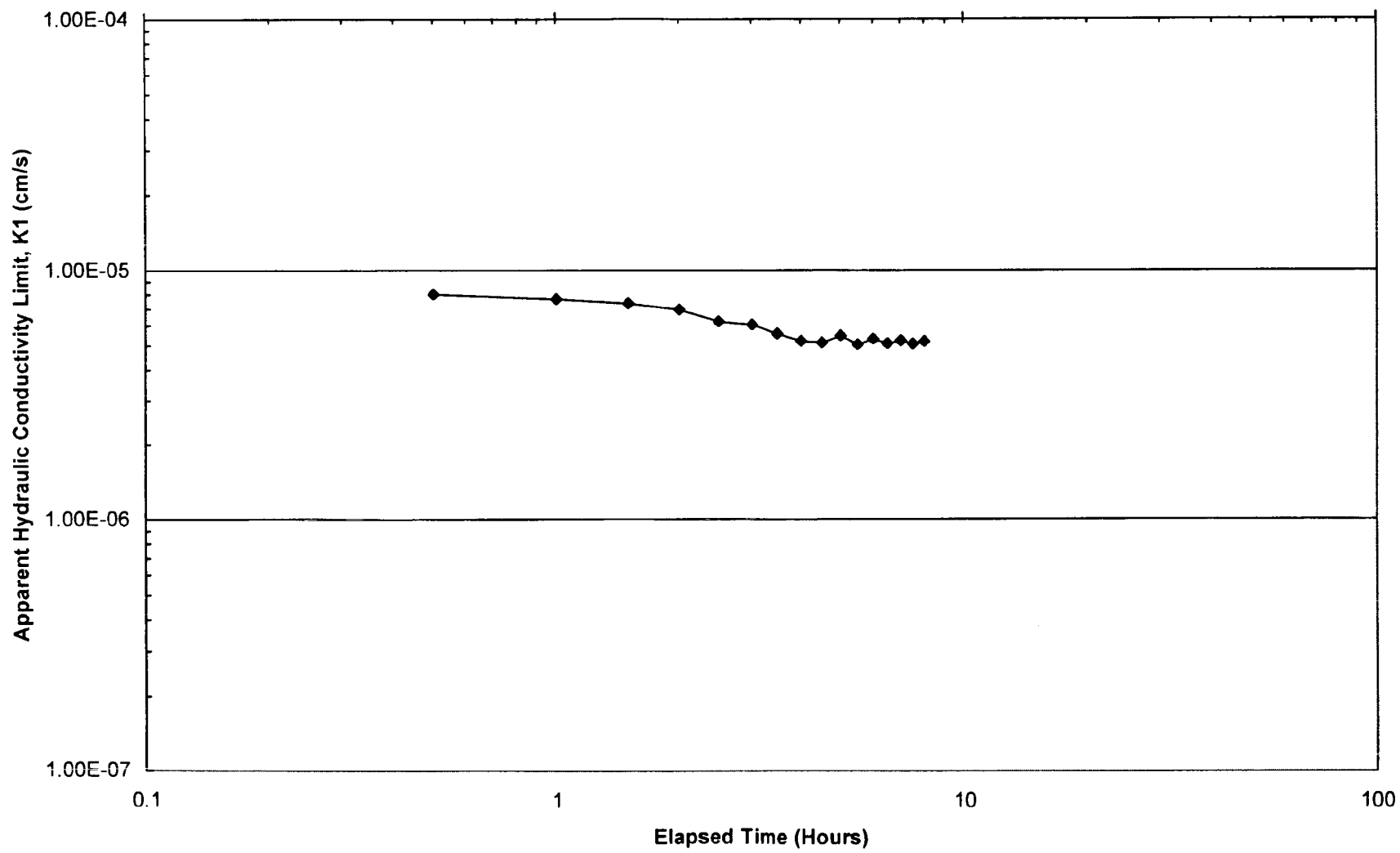
Note: The stage 2 depth is reported as the middle of the test interval below the bottom of the casing.

TWO STAGE FIELD HYDRAULIC CONDUCTIVITY TEST DATA
ASTM D 6391
STAGE 1

Project: TVA KIF Ash
Number: 3043041009/0001
Test: Stage 1
Location: B-1A

Date	Time	Delta t (sec)	Test			TEG at B-1B				Temp (deg)	Rt	K1 (cm/s)	Cumulative Vol (cc)	Cum Hrs	Rem
			R (cm)	H1 (cm)	H2 (cm)	Ro (cm)	Rf (cm)	C (cm)	H2' (cm)						
3/26/2004	10:14		88.8		327.0		70.9	0.0	-	9		-			Start
3/26/2004	10:44	1800	19.3	327.0	257.5	70.9	70.6	-0.3	257.8	9	1.339	8.01E-06	87.9	0.5	
3/26/2004	10:45		99.0	-	337.2		70.6	0.0	337.2	9		-			Refill
3/26/2004	11:15	1800	30.2	337.2	268.4	70.6	70.4	-0.2	268.6	9	1.339	7.66E-06	175.0	1	
3/26/2004	11:17		98.5	-	336.7		70.4	0.0	336.7	9		-			Refill
3/26/2004	11:47	1800	32.5	336.7	270.7	70.4	70.4	0.0	270.7	9	1.339	7.35E-06	258.8	1.5	
3/26/2004	11:48		99.0	-	337.2		70.4	0.0	337.2	9		-			Refill
3/26/2004	12:18	1800	36.2	337.2	274.4	70.4	70.3	-0.1	274.5	9	1.339	6.93E-06	338.5	2	
3/26/2004	12:19		100.0	-	338.2		70.3	0.0	338.2	9		-			Refill
3/26/2004	12:49	1800	42.9	338.2	281.1	70.3	70.2	-0.1	281.2	9	1.339	6.22E-06	410.8	2.5	
3/26/2004	12:51		98.5	-	336.7	70.2	70.2	0.0	336.7	9		-			Refill
3/26/2004	13:21	1800	43.2	336.7	281.4	70.3	70.3	0.0	281.4	9	1.339	6.05E-06	481.1	3	
3/26/2004	13:23		100.0	-	338.2	70.3	70.4	0.1	338.1	9		-			Refill
3/26/2004	13:53	1800	48.6	338.2	286.8	70.4	70.4	0.0	286.8	9	1.339	5.56E-06	546.4	3.5	
3/26/2004	13:54		97.0	-	335.2		70.4	0.0	335.2	9		-			Refill
3/26/2004	14:24	1800	49.2	335.2	287.4	70.4	70.4	0.0	287.4	9	1.339	5.18E-06	607.1	4	
3/26/2004	14:25		100.0	-	338.2	70.4	70.4	0.0	338.2	9		-			Refill
3/26/2004	14:55	1800	52.5	338.2	290.7	70.4	70.4	0.0	290.7	9	1.339	5.1E-06	667.4	4.5	
3/26/2004	15:25	1800	9.2	290.7	247.4	70.4	70.5	0.1	247.3	9	1.339	5.45E-06	722.5	5	
3/26/2004	15:25		99.0	-	337.2	70.5	70.5	0.0	337.2	9		-			Refill
3/26/2004	15:55	1800	52.3	337.2	290.5	70.5	70.5	0.0	290.5	9	1.339	5.02E-06	781.8	5.5	
3/26/2004	16:25	1800	10.1	290.5	248.3	70.5	70.5	0.0	248.3	9	1.339	5.29E-06	835.4	6	
3/26/2004	16:26		99.5	-	337.7	70.5	70.5	0.0	337.7	9		-			Refill
3/26/2004	16:56	1800	52.3	337.7	290.5	70.5	70.5	0.0	290.5	9	1.339	5.07E-06	895.4	6.5	
3/26/2004	17:26	1800	10.7	290.5	248.9	70.5	70.4	-0.1	249.0	9	1.339	5.19E-06	948.1	7	
3/26/2004	17:28		100.0	-	338.2	70.4	70.3	-0.1	338.3	9		-			Refill
3/26/2004	17:58	1800	53.0	338.2	291.2	70.3	70.3	0.0	291.2	9	1.339	5.04E-06	1007.7	7.5	
3/26/2004	18:28	1800	11.6	291.2	249.8	70.3	70.3	0.0	249.8	9	1.339	5.17E-06	1060.3	8	End

Stage 1 at B-1A

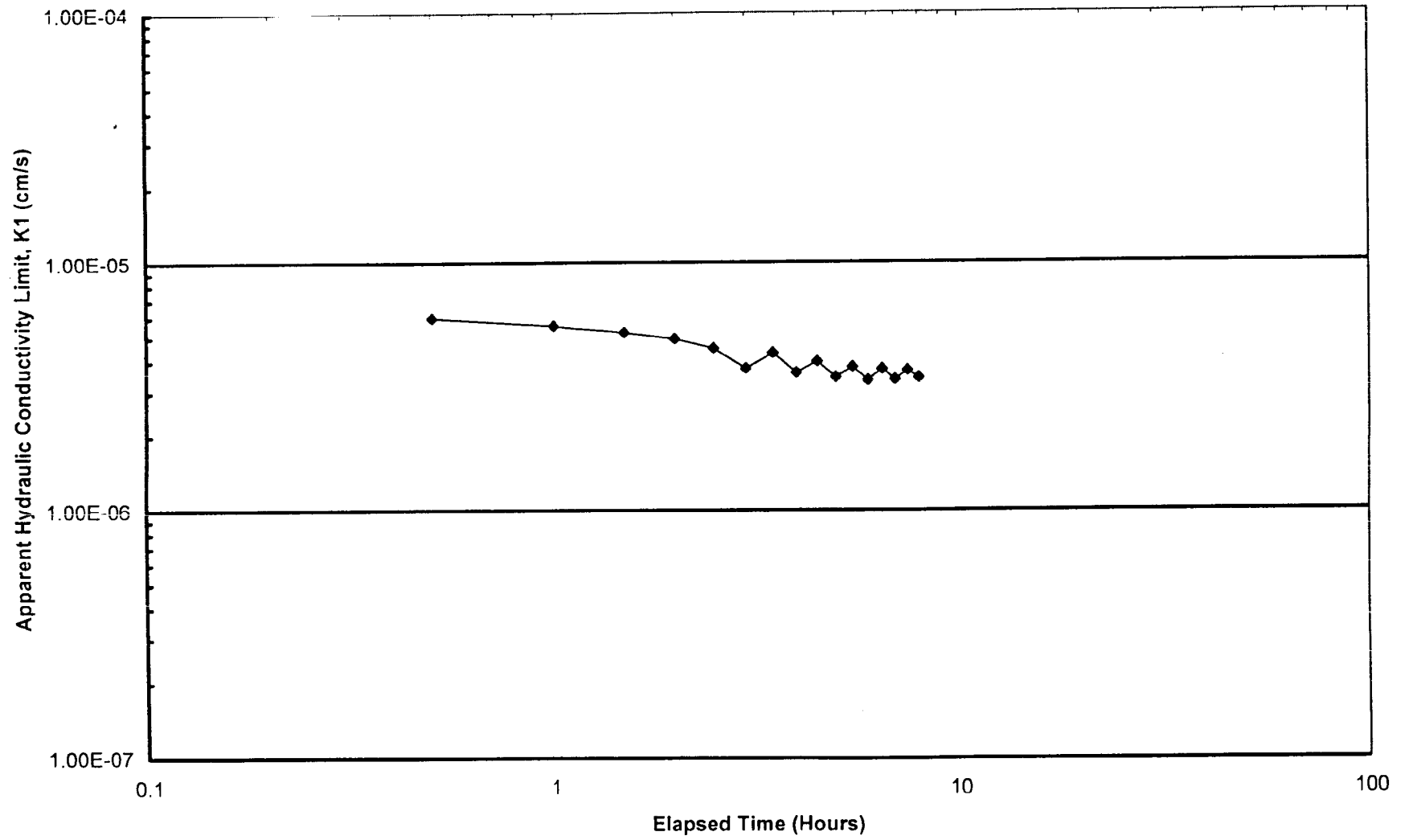


TWO STAGE FIELD HYDRAULIC CONDUCTIVITY TEST DATA
 ASTM D 6391
 STAGE 1

Project: TVA KIF Ash
 Number: 3043041009/0001
 Test: Stage 1
 Location: B-2A

Date	Time	Delta t (sec)	Test			TEG at B-1A				H2' (cm)	Temp (deg)	Rt	K1 (cm/s)	Cumulative		Rem
			R (cm)	H1 (cm)	H2 (cm)	Ro (cm)	Rf (cm)	C (cm)	Vol. (cc)					Cum Hrs		
3/26/2004	10:08		99.4		372.1		70.9	0.0	-	9		-				Start
3/26/2004	10:38	1800	38.7	372.1	311.4	70.9	70.6	-0.3	311.7	9	1.339	5.97E-06	76.7	0.5		
3/26/2004	10:39		99.0		371.7		70.6	0.0	-	9		-				Refill
3/26/2004	11:09	1800	42.3	371.7	315.0	70.6	70.4	-0.2	315.2	9	1.339	5.56E-06	148.5	1		
3/26/2004	11:10		100.0		372.7		70.4	0.0	-	9		-				Refill
3/26/2004	11:40	1800	46.4	372.7	319.1	70.4	70.4	0.0	319.1	9	1.339	5.23E-06	216.5	1.5		
3/26/2004	11:41		100.0		372.7		70.4	0.0	-	9		-				Refill
3/26/2004	12:11	1800	49.2	372.7	321.9	70.4	70.3	-0.1	322.0	9	1.339	4.93E-06	280.9	2		
3/26/2004	12:41		100.0		372.7		70.3	0.0	-	9		-				Refill
3/26/2004	12:56	1800	53.2	372.7	325.9	70.3	70.2	-0.1	326.0	9	1.339	4.51E-06	340.2	2.5		
3/26/2004	13:26	1800	19.1	325.9	291.8	70.2	70.3	0.1	291.7	9	1.339	3.74E-06	383.7	3		
3/26/2004	13:27		99.5		372.2		70.3	0.0	-	9		-				Refill
3/26/2004	13:57	1800	54.8	372.2	327.5	70.3	70.4	0.1	327.4	9	1.339	4.32E-06	440.6	3.5		
3/26/2004	14:27	1800	21.7	327.5	294.4	70.4	70.4	0.0	294.4	9	1.339	3.59E-06	482.6	4		
3/26/2004	14:29		97.0		369.7		70.4	0.0	-	9		-				Refill
3/26/2004	14:59	1800	55.7	369.7	328.4	70.4	70.4	0.0	328.4	9	1.339	3.99E-06	535.1	4.5		
3/26/2004	15:29	1800	23.9	328.4	296.6	70.4	70.5	0.1	296.5	9	1.339	3.44E-06	575.6	5		
3/26/2004	15:31		98.5		371.2		70.5	0.0	-	9		-				Refill
3/26/2004	16:01	1800	59.0	371.2	331.7	70.5	70.5	0.0	331.7	9	1.339	3.79E-06	625.7	5.5		
3/26/2004	16:31	1800	27.6	331.7	300.3	70.5	70.5	0.0	300.3	9	1.339	3.35E-06	665.6	6		
3/26/2004	16:33		99.5		372.2		70.5	0.0	-	9		-				Refill
3/26/2004	17:03	1800	60.7	372.2	333.4	70.5	70.5	0.0	333.4	9	1.339	3.71E-06	714.9	6.5		
3/26/2004	17:33	1800	28.7	333.4	301.4	70.5	70.3	-0.2	301.6	9	1.339	3.38E-06	755.3	7		
3/26/2004	17:35		98.5		371.2		70.3	0.0	-	9		-				Refill
3/26/2004	18:05	1800	60.2	371.2	332.9	70.3	70.3	0.0	332.9	9	1.339	3.67E-06	803.9	7.5		
3/26/2004	18:35	1800	28.1	332.9	300.8	70.2	70.3	0.1	300.7	9	1.339	3.43E-06	844.8	8		Stop

Stage 1 at B-2A

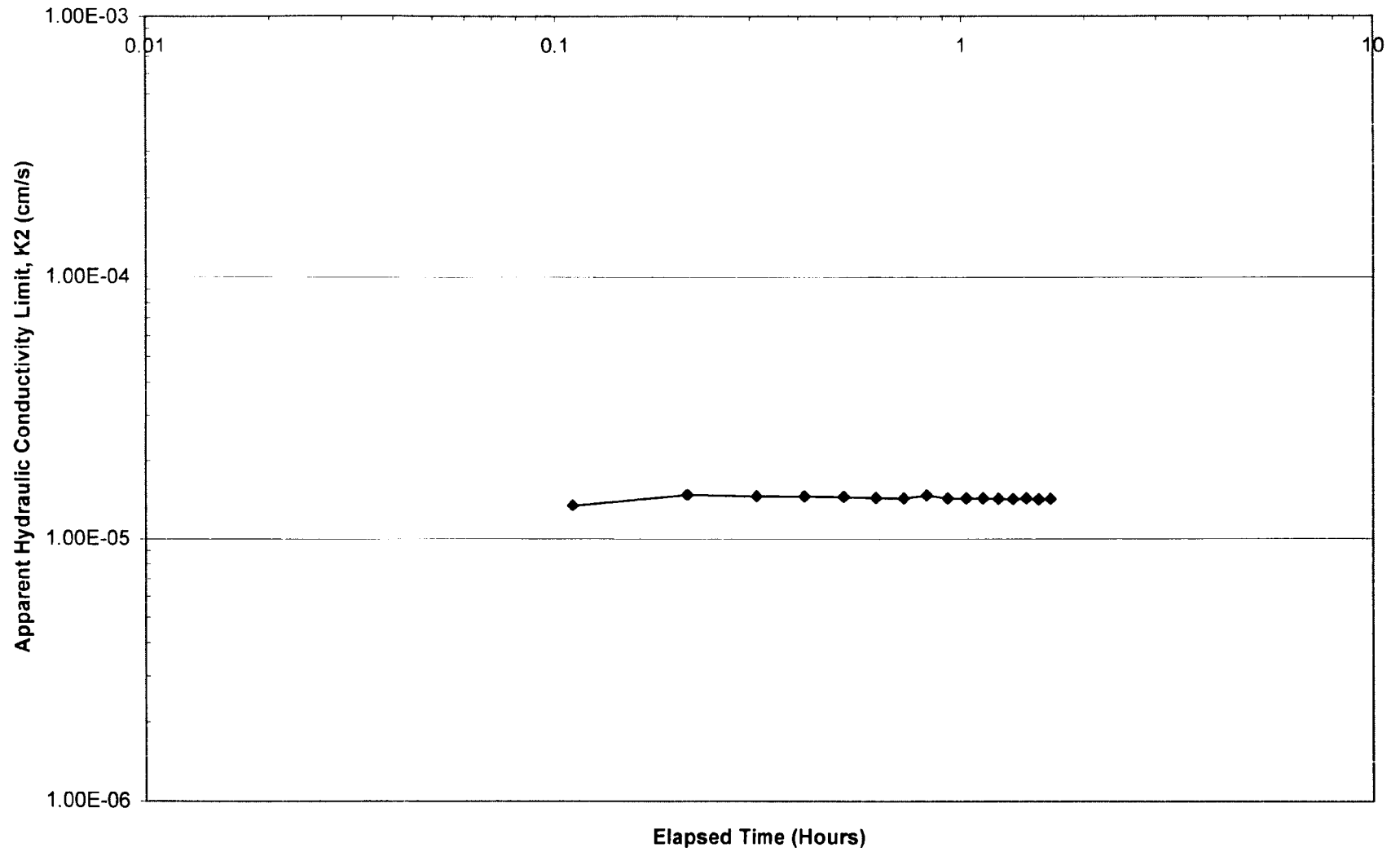


TWO STAGE FIELD HYDRAULIC CONDUCTIVITY TEST DATA
ASTM D 6391
STAGE 2

Project: TVA KIF Ash
Number: 3043041009/0001
Test: Stage 2
Location: B-1A

			Test			TEG							Cumulative		
Date	Time	Delta t (sec)	R (cm)	H1 (cm)	H2 (cm)	Ro (cm)	Rf (cm)	C (cm)	H2' (cm)	Temp (deg)	Rt	K2 (cm/s)	Vol (cc.)	Cum. Hrs	Rem
3/31/2004	10:00:00	-	100.0	-	338.2	-	40.2	0.0	-	10	-	-	-	-	Start
3/31/2004	10:06:37	397	10.0	338.2	248.2	40.2	40.2	0.0	248.2	10	1.301	1.34E-05	114.3	0.11	
3/31/2004	10:07:10	-	100.0	-	338.2	-	40.2	0.0	-	10	-	-	-	-	Refill
3/31/2004	10:13:11	361	10.0	338.2	248.2	40.2	40.2	0.0	248.2	10	1.301	1.47E-05	228.6	0.21	
3/31/2004	10:13:45	-	100.0	-	338.2	-	40.2	0.0	-	10	-	-	-	-	Refill
3/31/2004	10:19:50	365	10.0	338.2	248.2	40.2	40.2	0.0	248.2	10	1.301	1.46E-05	342.9	0.31	
3/31/2004	10:20:17	-	100.0	-	338.2	-	40.2	0.0	-	10	-	-	-	-	Refill
3/31/2004	10:26:23	366	10.0	338.2	248.2	40.2	40.2	0.0	248.2	10	1.301	1.45E-05	457.2	0.41	
3/31/2004	10:26:57	-	100.0	-	338.2	-	40.2	0.0	-	10	-	-	-	-	Refill
3/31/2004	10:33:05	368	10.0	338.2	248.2	40.2	40.2	0.0	248.2	10	1.301	1.44E-05	571.5	0.52	
3/31/2004	10:33:46	-	100.0	-	338.2	-	40.2	0.0	-	10	-	-	-	-	Refill
3/31/2004	10:39:57	371	10.0	338.2	248.2	40.2	40.2	0.0	248.2	10	1.301	1.43E-05	685.8	0.62	
3/31/2004	10:40:48	-	100.0	-	338.2	-	40.2	0.0	-	10	-	-	-	-	Refill
3/31/2004	10:47:01	373	10.0	338.2	248.2	40.2	40.2	0.0	248.2	10	1.301	1.42E-05	800.1	0.72	
3/31/2004	10:47:49	-	100.0	-	338.2	-	40.2	0.0	-	10	-	-	-	-	Refill
3/31/2004	10:53:52	363	10.0	338.2	248.2	40.2	40.2	0.0	248.2	10	1.301	1.46E-05	914.4	0.82	
3/31/2004	10:54:35	-	100.0	-	338.2	-	40.2	0.0	-	10	-	-	-	-	Refill
3/31/2004	11:00:48	373	10.0	338.2	248.2	40.2	40.2	0.0	248.2	10	1.301	1.42E-05	1028.7	0.93	
3/31/2004	11:01:32	-	100.0	-	338.2	-	40.2	0.0	-	10	-	-	-	-	Refill
3/31/2004	11:07:45	373	10.0	338.2	248.2	40.2	40.3	0.1	248.1	10	1.301	1.43E-05	1143.1	1.03	
3/31/2004	11:08:25	-	100.0	-	338.2	-	40.3	0.0	-	10	-	-	-	-	Refill
3/31/2004	11:14:38	373	10.0	338.2	248.2	40.3	40.3	0.0	248.2	10	1.301	1.42E-05	1257.4	1.13	
3/31/2004	11:15:18	-	100.0	-	338.2	-	40.3	0.0	-	10	-	-	-	-	Refill
3/31/2004	11:21:32	374	10.0	338.2	248.2	40.3	40.3	0.0	248.2	10	1.301	1.42E-05	1371.7	1.24	
3/31/2004	11:22:15	-	100.0	-	338.2	-	40.3	0.0	-	10	-	-	-	-	Refill
3/31/2004	11:28:30	375	10.0	338.2	248.2	40.3	40.3	0.0	248.2	10	1.301	1.42E-05	1486.0	1.34	
3/31/2004	11:29:03	-	100.0	-	338.2	-	40.3	0.0	-	10	-	-	-	-	Refill
3/31/2004	11:35:16	373	10.0	338.2	248.2	40.3	40.4	0.1	248.1	10	1.301	1.43E-05	1600.5	1.45	
3/31/2004	11:35:58	-	100.0	-	338.2	-	40.4	0.0	-	10	-	-	-	-	Refill
3/31/2004	11:42:14	376	10.0	338.2	248.2	40.4	40.4	0.0	248.2	10	1.301	1.41E-05	1714.8	1.55	
3/31/2004	11:42:46	-	100.0	-	338.2	-	40.4	0.0	-	10	-	-	-	-	Refill
3/31/2004	11:49:00	374	10.0	338.2	248.2	40.4	40.4	0.0	248.2	10	1.301	1.42E-05	1829.1	1.65	
3/31/2004	11:49:34	-	100.0	-	338.2	-	40.4	0.0	-	10	-	-	-	-	Refill
3/31/2004	11:55:49	375	10.0	338.2	248.2	40.4	40.4	0.0	248.2	10	1.301	1.42E-05	1943.4	1.76	
3/31/2004	11:56:27	-	100.0	-	338.2	-	40.4	0.0	-	10	-	-	-	-	Refill
3/31/2004	12:02:43	376	10.0	338.2	248.2	40.4	40.4	0.0	248.2	10	1.301	1.41E-05	2057.7	1.86	Stop

Stage 2 at B-1A

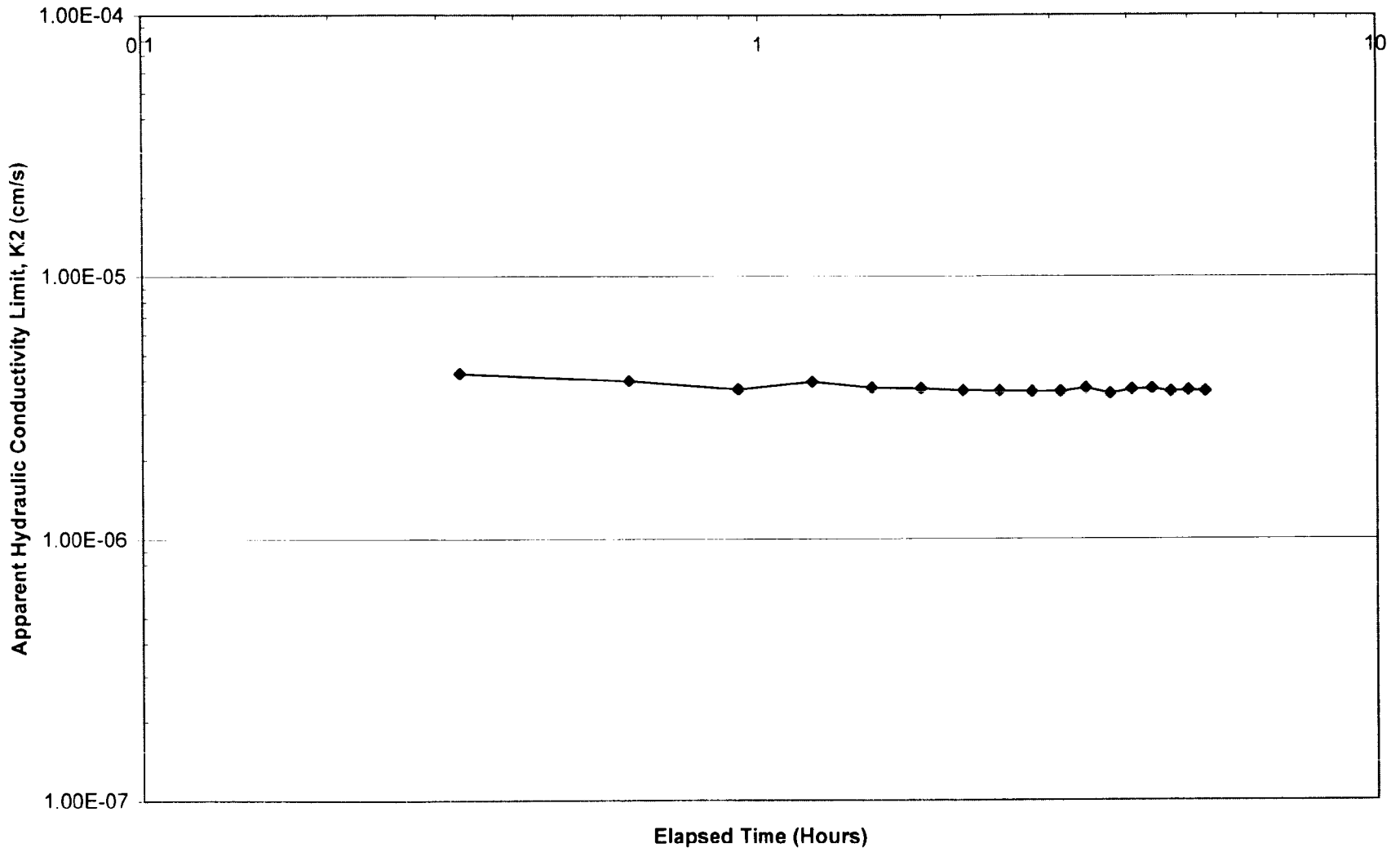


TWO STAGE FIELD HYDRAULIC CONDUCTIVITY TEST DATA
ASTM D 6391
STAGE 2

Project: TVA KIF Ash
Number: 3043041009/0001
Test: Stage 2
Location: B-2A

Date	Time	Delta t (sec)	Test			TEG					Rt	K2 (cm/s)	Cumulative		Rem	
			R (cm)	H1 (cm)	H2 (cm)	Ro (cm)	Rf (cm)	C (cm)	H2' (cm)	Temp (deg)			Vol (cc.)	Cum. Hrs		
3/31/2004	12:20:26		100		372.7		39.7	0	-	10						Start
3/31/2004	12:39:58	1172	10	372.7	282.7	39.7	39.5	-0.2	282.9	10	1.301	4.25E-06	114.0	0.33		
3/31/2004	12:40:52		100	-	372.7		39.5	0	-	10			-	-	Refill	
3/31/2004	12:58:11	1039	20	372.7	292.7	39.5	39.4	-0.1	292.8	10	1.301	3.99E-06	215.5	0.61		
3/31/2004	12:58:40		100	-	372.7		39.4	0	-	10			-	-	Refill	
3/31/2004	13:17:17	1117	20	372.7	292.7	39.4	39.2	-0.2	292.9	10	1.301	3.7E-06	316.9	0.92		
3/31/2004	13:17:54		100	-	372.7		39.2	0	-	10			-	-	Refill	
3/31/2004	13:36:09	1095	17	372.7	289.7	39.2	39.2	0	289.7	10	1.301	3.95E-06	422.3	1.23		
3/31/2004	13:36:42		100	-	372.7		39.2	0	-	10			-	-	Refill	
3/31/2004	13:55:04	1102	20	372.7	292.7	39.2	39.1	-0.1	292.8	10	1.301	3.76E-06	523.7	1.53		
3/31/2004	13:55:33		100	-	372.7		39.1	0	-	10			-	-	Refill	
3/31/2004	14:14:06	1113	20	372.7	292.7	39.1	39.1	0	292.7	10	1.301	3.73E-06	625.3	1.84		
3/31/2004	14:14:33		100	-	372.7		39	0	-	10			-	-	Refill	
3/31/2004	14:33:23	1130	20	372.7	292.7	39	38.8	-0.2	292.9	10	1.301	3.66E-06	726.7	2.16		
3/31/2004	14:33:45		100	-	372.7		38.8	0	-	10			-	-	Refill	
3/31/2004	14:52:40	1135	20	372.7	292.7	38.8	38.9	0.1	292.6	10	1.301	3.66E-06	828.4	2.47		
3/31/2004	14:53:07		100	-	372.7		38.9	0	-	10			-	-	Refill	
3/31/2004	15:12:12	1145	20	372.7	292.7	38.9	39	0.1	292.6	10	1.301	3.63E-06	930.1	2.79		
3/31/2004	15:12:55		100	-	372.7		39	0	-	10			-	-	Refill	
3/31/2004	15:31:57	1142	20	372.7	292.7	39	39.2	0.2	292.5	10	1.301	3.64E-06	1032.0	3.11		
3/31/2004	15:32:40		100	-	372.7		39.2	0	-	10			-	-	Refill	
3/31/2004	15:51:09	1109	20	372.7	292.7	39.2	39.3	0.1	292.6	10	1.301	3.75E-06	1133.7	3.42		
3/31/2004	15:51:42		100	-	372.7		39.3	0	-	10			-	-	Refill	
3/31/2004	16:11:01	1159	20	372.7	292.7	39.3	39.3	0	292.7	10	1.301	3.58E-06	1235.3	3.74		
3/31/2004	16:11:43		100	-	372.7		39.3	0	-	10			-	-	Refill	
3/31/2004	16:30:25	1122	20	372.7	292.7	39.3	39.5	0.2	292.5	10	1.301	3.71E-06	1337.2	4.05		
3/31/2004	16:31:02		100	-	372.7		39.5	0	-	10			-	-	Refill	
3/31/2004	16:49:36	1114	20	372.7	292.7	39.5	39.6	0.1	292.6	10	1.301	3.73E-06	1438.9	4.36		
3/31/2004	16:50:23		100	-	372.7		39.6	0	-	10			-	-	Refill	
3/31/2004	17:09:22	1139	20	372.7	292.7	39.6	39.6	0	292.7	10	1.301	3.64E-06	1540.5	4.68		
3/31/2004	17:09:57		100	-	372.7		39.6	0	-	10			-	-	Refill	
3/31/2004	17:28:45	1128	20	372.7	292.7	39.6	39.7	0.1	292.6	10	1.301	3.68E-06	1642.2	4.99		
3/31/2004	17:29:35		100	-	372.7		39.7	0	-	10			-	-	Refill	
3/31/2004	17:48:33	1138	20	372.7	292.7	39.7	39.8	0.1	292.6	10	1.301	3.65E-06	1744.0	5.31	Stop	

Stage 2 at B-2A



IN-SITU HYDRAULIC CONDUCTIVITY TEST PROCEDURE

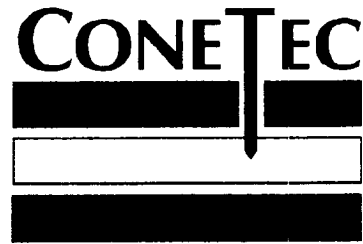
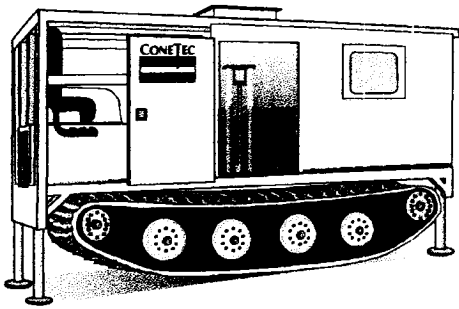
The field measurement of the limiting hydraulic conductivity values was performed in general accordance with ASTM D6391. The test method consists of installing and sealing a casing to the desired test depth. A graduated standpipe and flow control system is then attached to the casing. The system is filled with water and the drop in water level observed on the graduated standpipe and corresponding time is recorded. In a separate test installation, a casing sealed at the bottom is checked at each reading to obtain information regarding the temperature of the water in the test system and corresponding variation of the meniscus in the graduated standpipe. The reported hydraulic conductivity values are the time-weighted averages of the individual hydraulic conductivity values for each increment over the period when the individual readings have stabilized.

At this site one temperature effects gage was used to monitor and record the effect of temperature variation on the meniscus level in the standpipe. As the test locations, borings B-1A and B-2A in relatively close proximity, it was decided that atmospheric or subsurface temperature differences between the two locations would be negligible.

Also, the reported limiting hydraulic conductivity values were determined from individual hydraulic conductivity readings over a stabilized period less than that recommended in the ASTM standard. As the rate of evacuation of water from the system was such that refills were generally necessary at least every hour; it was not possible to leave the system unmonitored (such as overnight). The ASTM standard does not address this situation; therefore, it was decided that obtaining the time weighted averages over a stabilized period less than the recommended period would yield more valuable test data than another option.

APPENDIX D

CONE PENETROMETER TEST RESULTS



Geotechnical and Environmental In Situ Testing Contractors

ConeTec Field Report

Presentation of CPTU
Test Results for:

**TVA Fossil Fuel Power Plant
Kingston, Tennessee**

Presented to: MACTEC Engineering and
Consulting Inc.

Date: April 1, 2004

Presented by: ConeTec Inc.
436 Commerce Lane, Unit C
West Berlin, NJ
(856) 767-8600

Vancouver • Edmonton • Salt Lake City • New Jersey • Denver • Los Angeles • San Francisco • Houston • Hong Kong

TVA-00001179

PRESENTATION OF IN SITU TESTING PROGRAM RESULTS

**TVA Fossil Fuel Power Plant
Kingston, Tennessee**

March 22, 23, & 24, 2004

Prepared for:

**MACTEC Engineering and Consulting, Inc.
Knoxville, Tennessee**

Prepared by:

**ConeTec Inc.
West Berlin, NJ**

April 1, 2004

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TABLES

TABLE 1	Summary of CPT Soundings
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FIGURES

FIGURE 1	Typical Cone Penetrometer
FIGURE 2	Typical Dissipation Tests

APPENDICES

APPENDIX A	CPT Plots (normalized & non-normalized)
APPENDIX B	CPTSumm Data
APPENDIX C	Dissipation Tests
APPENDIX D	Data Disk

1.0 INTRODUCTION

This report presents the results of a cone penetrometer testing (CPT) program carried out at your site located in Kingston, Tennessee for MACTEC Engineering and Consulting, Inc. The CPT program took place from March 22nd thru March 24th, 2004 when a total of 11 soundings were completed at 10 different sounding locations. Many dissipation tests were taken during the program.

CPT sounding locations were selected and numbered under the direction and supervision of MACTEC Engineering and Consulting personnel.

2.0 FIELD EQUIPMENT AND PROCEDURES

2.1 CONE PENETRATION TESTING

The cone penetrometer tests were carried out using an integrated electronic piezo cone manufactured by ConeTec in Vancouver, Canada. The piezo cone used was a compression model cone penetrometer with a 15 cm² tip and a 225 cm² friction sleeve. The cone is designed with an equal end area friction sleeve and a tip end area ratio of 0.85. The piezo cone dimensions and the operating procedure were in accordance with ASTM Standard D-3441. A diagram of the cone penetrometer used for this project is shown as Figure 1.

Pore pressure filter elements, made of porous plastic, were saturated under a vacuum using glycerin as the saturating fluid. The pore pressure element was six millimeters thick and was located immediately behind the tip (the U₂ location) for all soundings.

The cone was advanced using ConeTec's 20-ton track mounted rig. The following data were recorded onto magnetic media every five centimeters (approximately every two inches) as the cone was advanced into the ground:

- Tip Resistance (Qc)
- Sleeve Friction (Fs)
- Dynamic Pore Pressure (Ut)

The field data recorded is included on the attached diskette (appendix D).

The principal objective of this project was to profile the soils.

Before each sounding a complete set of analog baseline readings are taken with a multi-meter and compared with the digitized value on the computer screen. This provides a check on the analog to digital conversion board.

Evaluation of the analog baselines is key to consistent readings. The baseline data should be stable and should not wander excessively during the course of a sounding. Baseline data can be used to apply corrections to the cone data where necessary. For this project, the baseline shift from sounding to sounding was small, typically less than 0.1% of full scale, and no data corrections were applied.

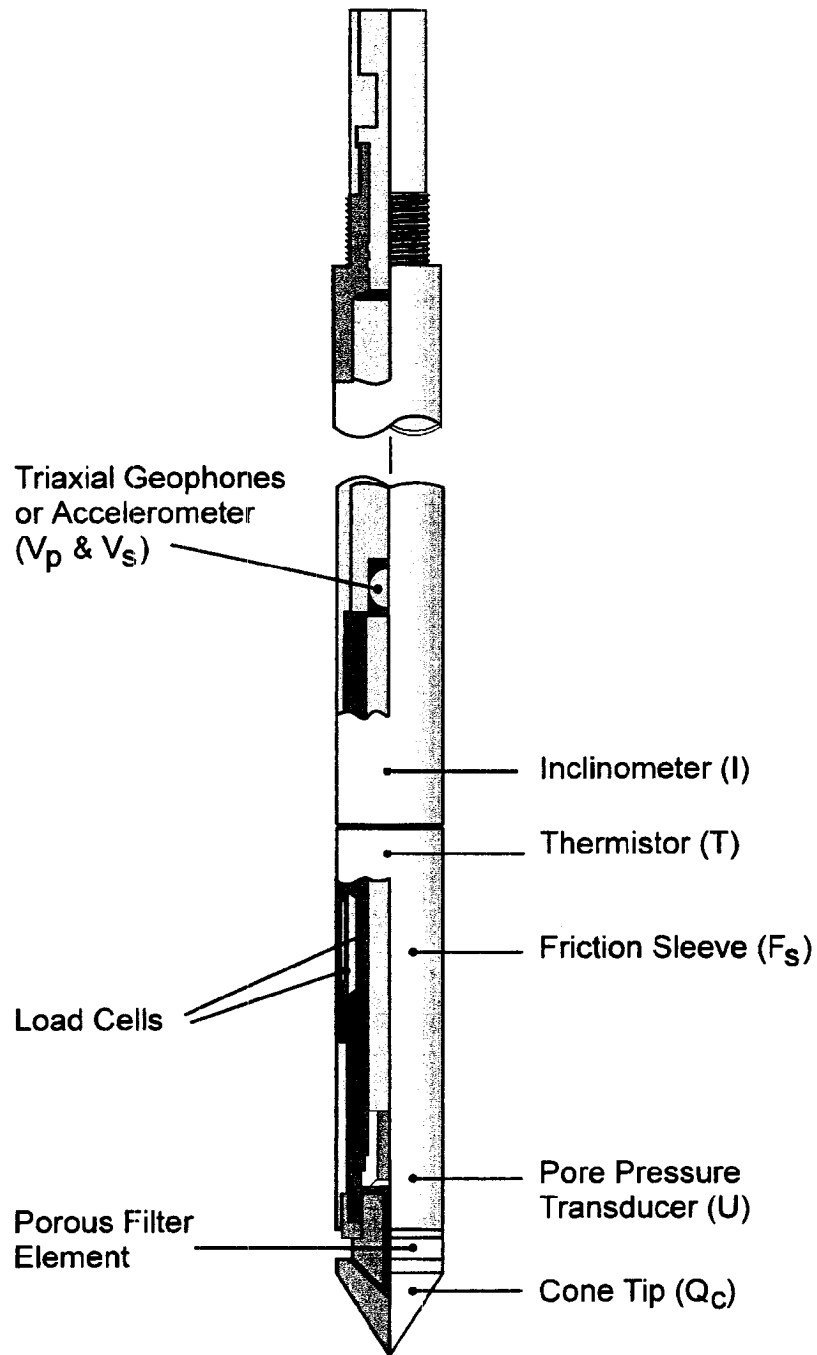


FIGURE 1 - TYPICAL CONE PENETROMETER

ConeTec, New Jersey

2.2 PORE PRESSURE DISSIPATION TESTS

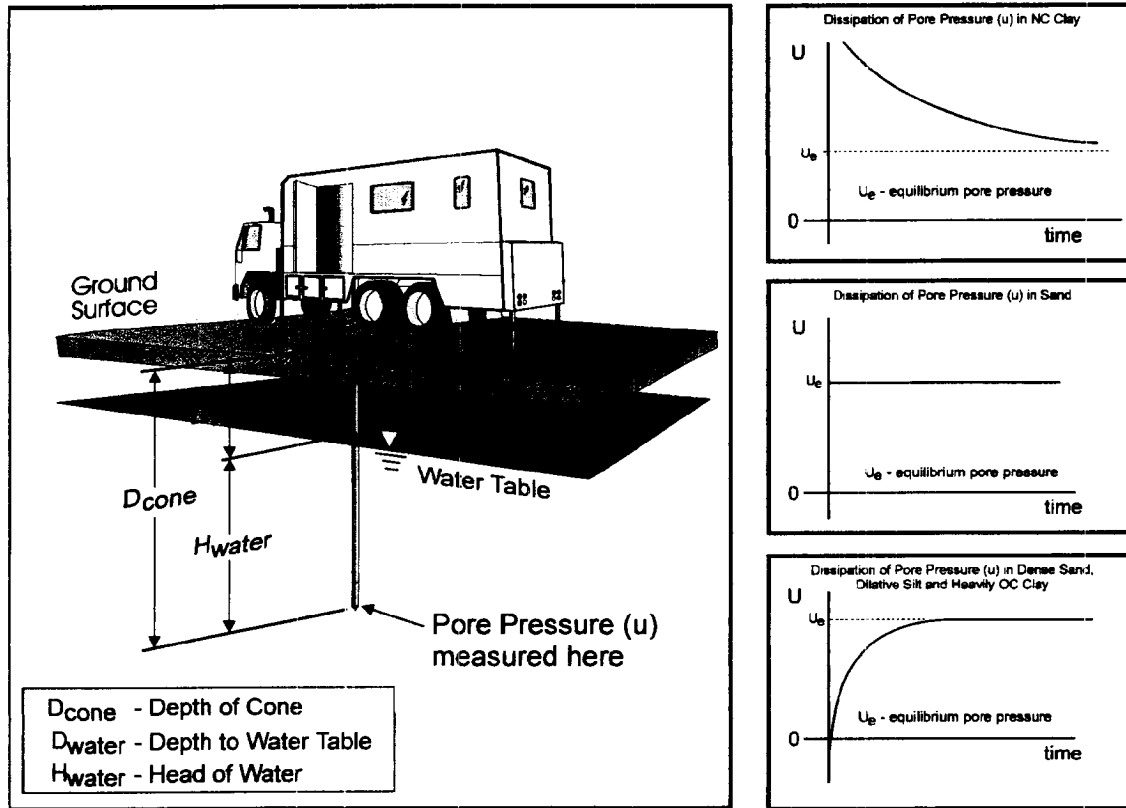
When cone penetration is stopped, the piezo cone essentially becomes a piezometer. While stopped, pore water pressures are automatically recorded at five-second intervals and the readings are stored in a dissipation file (.ppd). Dissipation data can then be plotted onto a dissipation curve consisting of pore water pressure (U) verses time (t). The shapes of dissipation curves are very useful in evaluating soil type, drainage and in situ static water level.

A flat curve that stabilizes quickly (i.e. less than 30 seconds) is typical of a free draining sand. In this case, the final measured pore water pressure is the static in situ water pressure.

Soils that generate excess dynamic pore water pressure during penetration will dissipate this excess pressure when penetration stops. The shape of the dissipation curve and the time of dissipation can be used to estimate C_h , the coefficient of consolidation that can in turn be used to calculate K_h , the horizontal permeability.

Figure 3 shows some idealized shapes of various pore water pressure dissipation curves. The reader is referred Robertson et. al., 1990 to reference dissipation test data analytical techniques.

Estimation of Ground Water Table from CPT Dissipation Tests



Water Table Calculation

$$D_{water} = D_{cone} - H_{water}$$

where $H_{water} = U_e$ (depth units)

Useful Conversion Factors: 1psi = 0.704m = 2.31 feet (water)
 1tsf = 0.958 bar = 13.9 psi
 1m = 3.28 feet

FIGURE 3 - TYPICAL DISSIPATION TESTS

3.0 CONE PENETRATION TEST DATA AND INTERPRETATION

3.1 ANALYSIS OF PIEZOCONE DATA - GENERAL

A total of 11 CPT soundings involving 758.39 feet of testing, were completed.

The interpretation of cone data is based on the relationship between cone bearing, Q_c , sleeve friction, F_s , and penetration pore water pressure, U . The friction ratio, R_f , (sleeve friction divided by cone bearing) is a calculated parameter which is used to infer soil behavior type. Generally, saturated cohesive soils have low tip resistance, high friction ratios and generate large excess pore water pressures. Cohesionless soils have higher tip resistances, lower friction ratios and do not generate significant excess pore water pressure.

The interpretation of soils encountered on this project was carried out using correlations developed by Robertson et al., 1986. It should be noted that it is not always possible to clearly identify a soil type based on Q_c , F_s and U_t . Occasionally soils will fall within different soil categories on the classification charts. In these situations, experience and judgment and an assessment of the pore pressure dissipation data should be used to infer the soil behavior type. Computer tabulations of the interpreted soil types along with certain other geotechnical parameters for each cone hole is presented in Appendix B.

Each of the parameters measured in the sounding is discussed briefly below. A detailed explanation of CPTU testing and interpretation of the results can be found in "Guidelines for Geotechnical Design Using CPT and CPTU" by P. K. Robertson and R. G. Campanella, listed in the references.

TIP RESISTANCE (Q_c): The resistance to penetration, measured at the cone tip, provides an accurate profile of subsurface strata. The recorded tip resistance is a composite of the penetration resistance of the soils located five to ten cone diameters (7 to 14 inches) in front of and behind the tip. The actual resistance "sensed" by the tip depends on the soil properties and on the relative stiffness of the layers encountered. Tip resistance is often corrected for pore pressure effects when testing in soft saturated cohesive soils.

For this project the correction was made and the tip resistance shown, Q_t is the corrected tip resistance.

The correction used is: $Q_t = Q_c + (1-a)U$

Where:

- Q_t = corrected tip resistance
- Q_c = measured tip resistance
- a = net area ratio for cone (0.85 for this project)
- U = dynamic pore water pressure measured behind tip

SLEEVE FRICTION (F_s) The resistance recorded on the friction sleeve, is a measure of the remolded strength of the soil. Values of sleeve friction in very soft soils (such as peat) may fluctuate due to the measured force being small relative to the capacity of the measuring load cell.

FRICTION RATIO (R_f) The ratio of sleeve friction to tip resistance expressed as a percentage, is an indicator of soil type. Cohesive soils generally have friction ratios that are greater than two, while sands and non-plastic silts have friction ratios that are lower than two.

PORE PRESSURE (U) Dynamic pore water pressure is measured during penetration. (dynamic pore water pressure data can be found in the .cor, .ifi (importable) and .ifp (printable) files). Static pore water pressure is measured when cone penetration is stopped (static pore water pressure data can be found in the .ppd files). The measured dynamic pore water pressure changes with the location of the porous filter and negative readings are possible when the filter is located behind the tip.

It is important to note that the CPT classifies soil by physical behavior, not by grain size; therefore, the CPT classification should be verified against samples obtained from a conventional drilling program. While the CPT soil classification may not always be accurate in terms of the actual label it applies to a particular soil, it is very accurate in grouping soils with similar mechanical properties.

Table 1 presents a summary of CPT soundings, including sounding depths.

3.2 CONE PLOTS

The data from each sounding was plotted using the computer program ScreenZ. The plots are included in Appendix A. ScreenZ was developed by ConeTec Inc. and it incorporates soil behavior type (SBT) classification as part of the plot. The soil classification is based on the classification chart reproduced chart in Appendix B.

3.3 PORE PRESSURE DISSIPATION TEST RESULTS

When conducting CPT investigations, pore water pressure dissipations are automatically recorded during pauses in penetration. The pore water pressure data is recorded at five second intervals. Dynamic and static pore pressure dissipation data for each CPT is included on the data disk. Many dissipation tests were completed during this project.

3.4 CPTSUMM DATA PROCESSING

The electronic data files were processed using the program CPTSUMM. CPTSUMM is a program developed by ConeTec to calculate common engineering parameters from CPT data. The processed data files are attached in Appendix B. The files are also included on the data disk. The calculations used are summarized in the table at the front of the Appendix. The water table used can be found in the header of each CPTSUMM file. Each calculation is derived according to the referenced article. The water table used was determined from the dissipation data.

3.5 DATA DISK

One data disk is included in Appendix D. The disk includes all of the CPT, dynamic and static pore water pressure, and CPTSUMM data.

4.0 REFERENCES

Robertson, P.K. and Campananella, R.G., 1989, "Guidelines for Geotechnical Design using CPT and CPTU", Soil Mechanics Series No. 120, The University of British Columbia.

Robertson, P.K., Sully, J., Woeller, D.G., Lunne, T., Powell, J.M., and Gillespie, D.J., 1990, "Guidelines for Interpretation of CPTU Test Data for determination of consolidation and permeability Parameters for Soils, Report prepared by ConeTec Investigations Ltd. for Energy Mines and Resources, Contract No. 23420-9-m644/01-OSC (copies available from ConeTec, Inc.).

APPENDIX A



TABLE 1 - SUMMARY OF CPT SOUNDINGS

Job No.: 04-717
Location: TVA Fossil Fuel Power Plant - Kingston, Tennessee
Client: MACTEC Engineering and Consulting Inc.
Date: March 22, 23, 24, 2004

Date	CPTU Sounding	File Name	Total Depth (ft)	Pore Water Pressure Dissipation Tests (sec)	Est. Water Table Depth (ft)	Comments
22-Mar-04	CPT-1	717cp001.cor	50.03	1,000	27.60	ran out of rods, having more shipped in.
23-Mar-04	CPT-10	717cp010.cor	47.41	400	2.70	
23-Mar-04	CPT-8	717cp008.cor	71.69	475	10.02	
23-Mar-04	CPT-1A	717cp01a.cor	95.14	1,625	28.22	redue of CPT-1
23-Mar-04	CPT-6	717cp006.cor	87.93	490	36.85	
24-Mar-04	CPT-4	717cp004.cor	95.14	2,304	25.35	
24-Mar-04	CPT-11	717cp011.cor	63.98	0	23.42	
24-Mar-04	CPT-9	717cp009.cor	49.38	145	6.74	
24-Mar-04	CPT-12A	717cp12a.cor	61.52	200	20.28	2nd attempt - 1st attempt refusal at 2.6 feet
24-Mar-04	DIKE N	717cp00n.cor	69.06	145	11.04	
24-Mar-04	DIKE S	717cp00s.cor	67.09	605	9.40	

Totals: 11 758.4 7,389



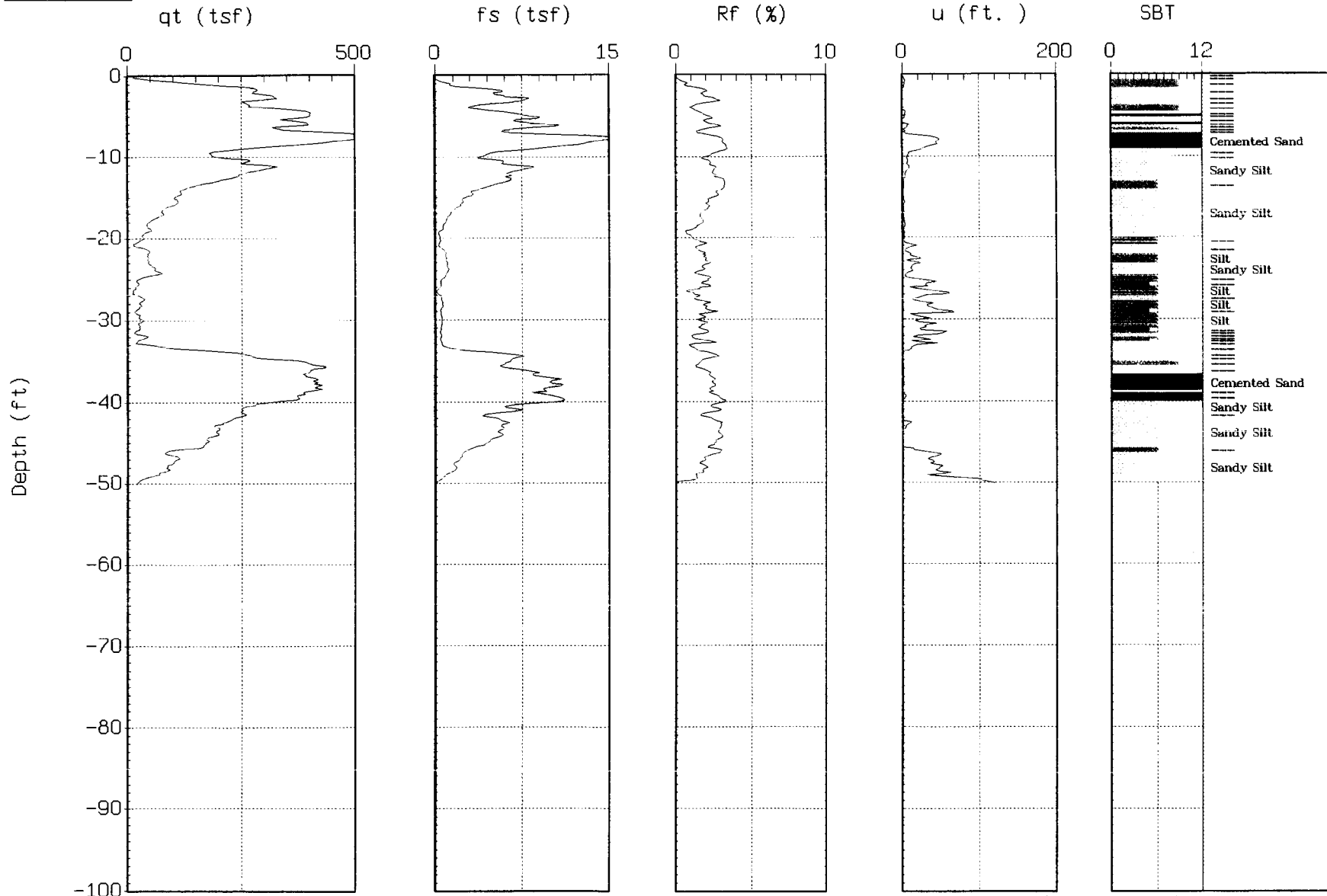
Non-normalized CPT plots



MACTEC

Site: CPT-1
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03:22:04 08:54



Max. Depth: 50.03 (ft)

Depth Inc.: 0.164 (ft)

SBT: Soil Behavior Type (Robertson 1990)

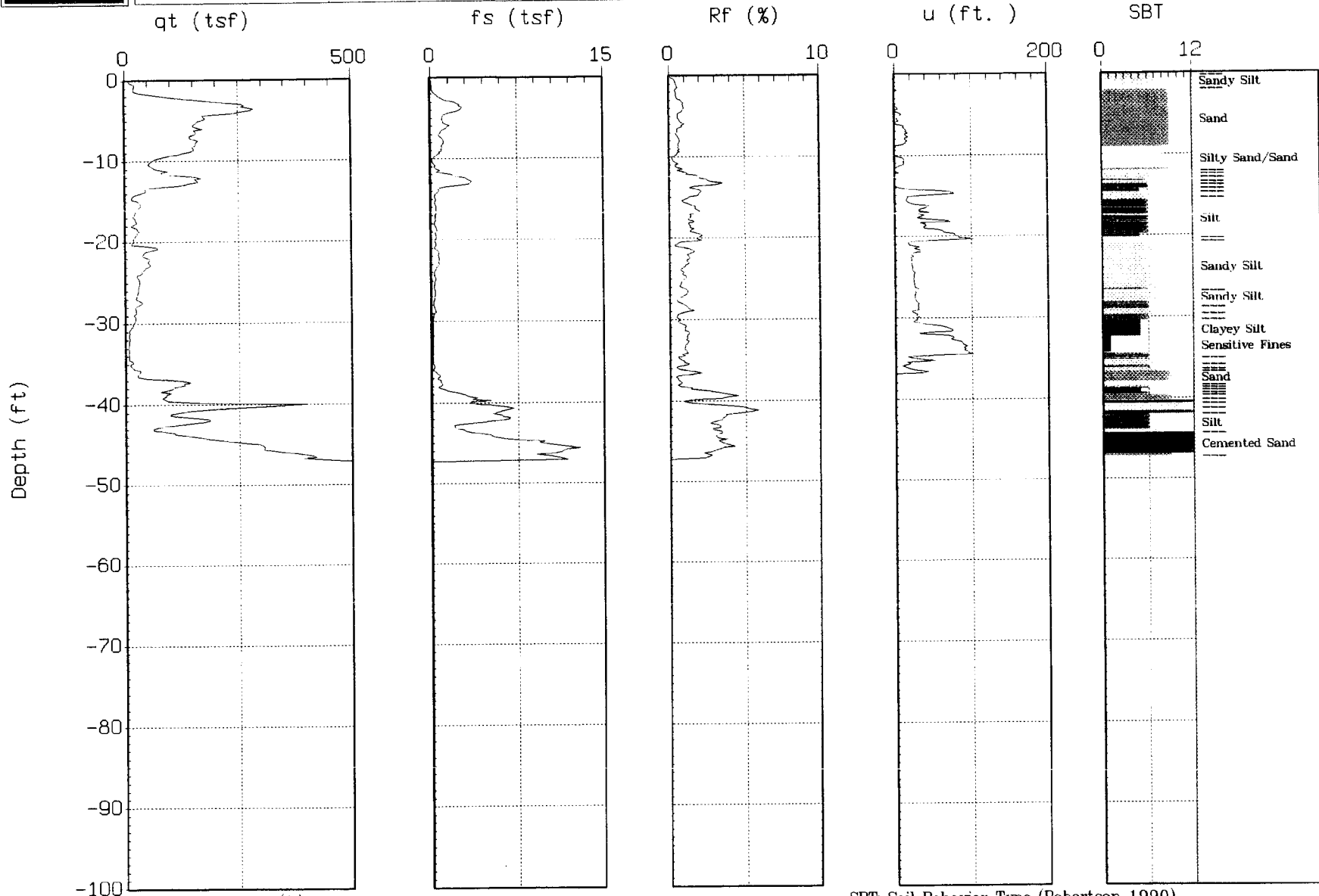
Estimated Phreatic Surface



MACTEC

Site: CPT-10
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03:23:04 10:53



Max. Depth: 47.41 (ft)
Depth Inc.: 0.164 (ft)

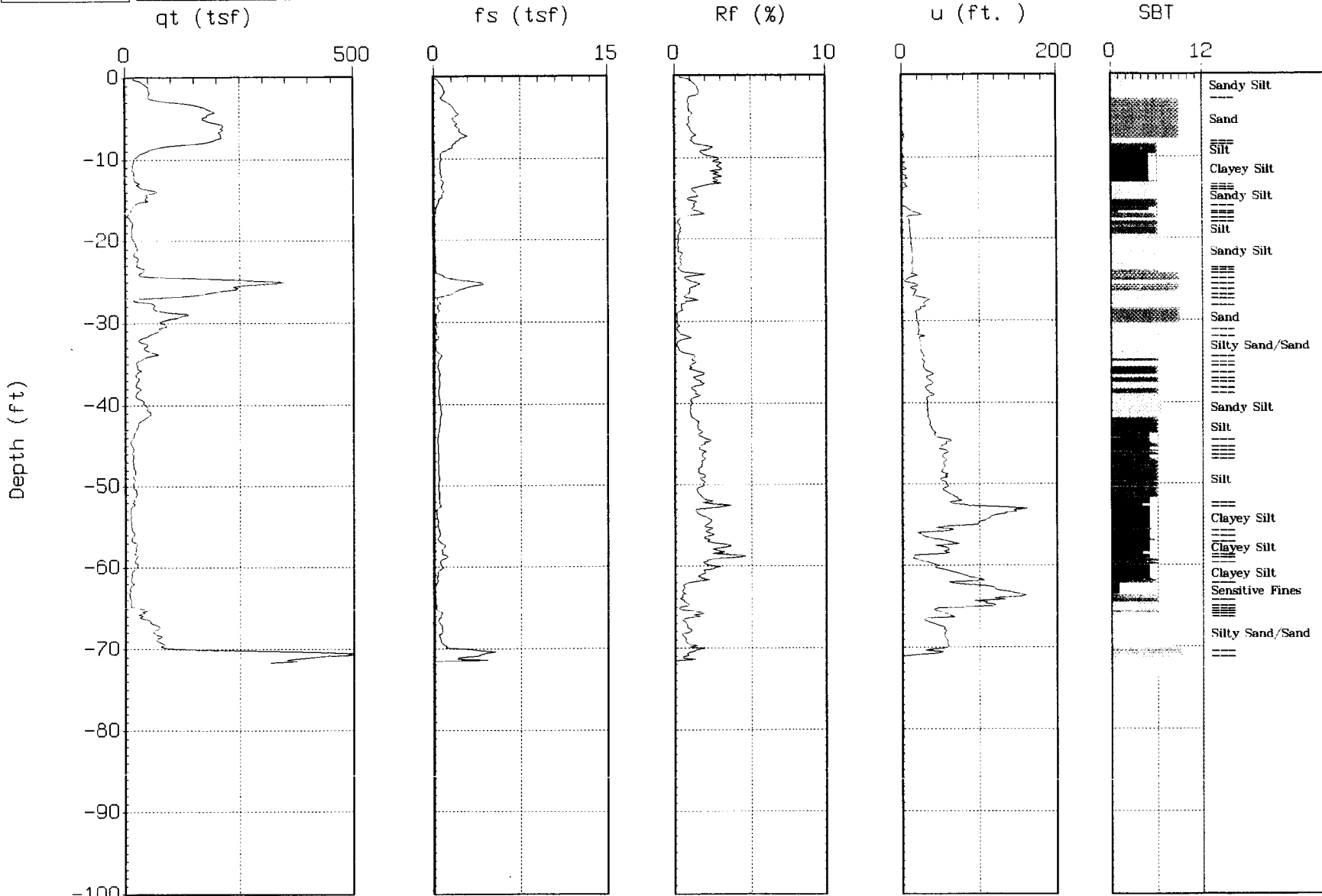
SBT: Soil Behavior Type (Robertson 1990)
Estimated Phreatic Surface



MACTEC

Site: CPT-8
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03:23:04 12:41



Max. Depth: 71.69 (ft)
Depth Inc.: 0.164 (ft)

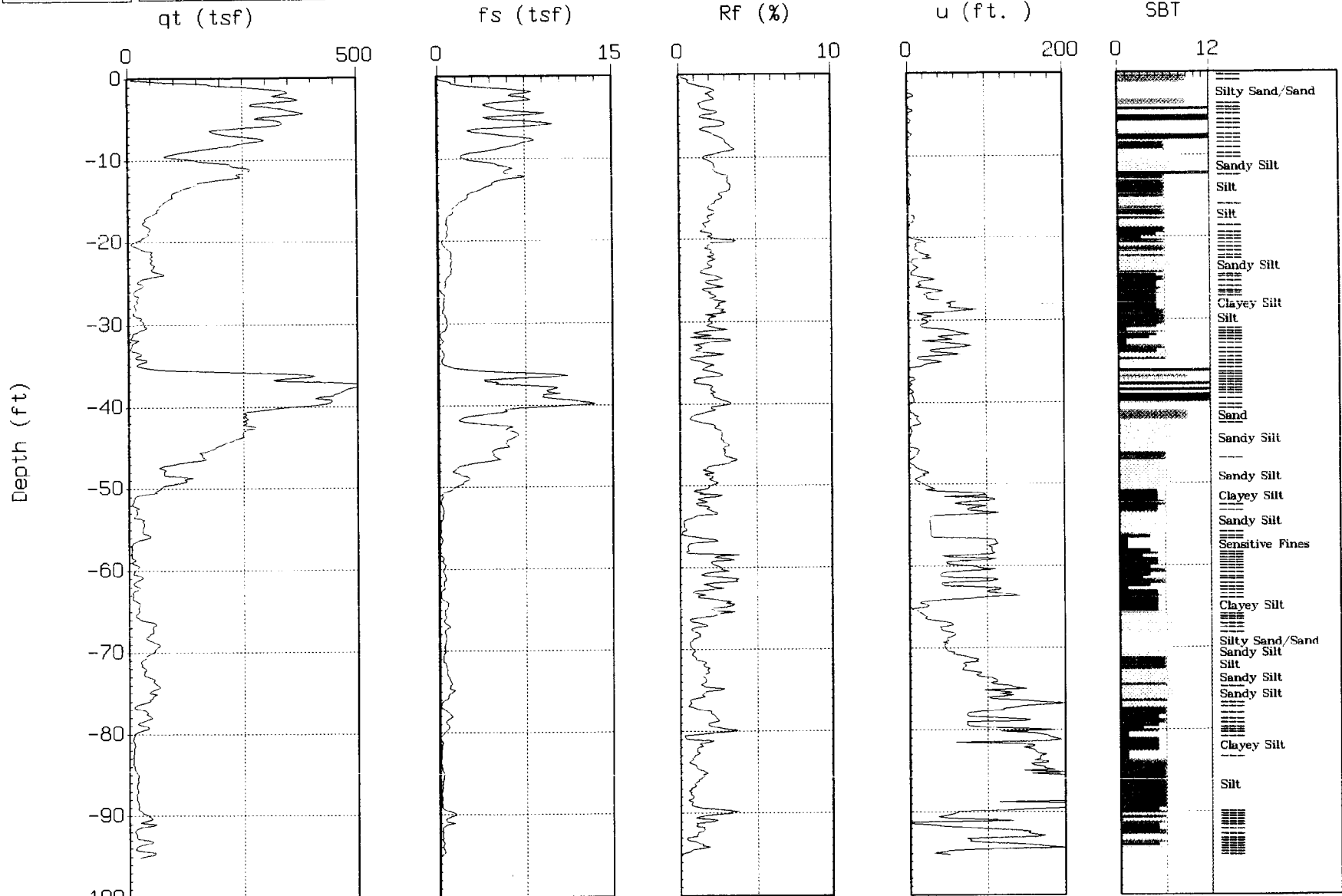
SBT: Soil Behavior Type (Robertson 1990)
≡ Estimated Phreatic Surface



MACTEC

Site: CPT-1A
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03:23:04 15:11



Max. Depth: 95.14 (ft)

Depth Inc.: 0.164 (ft)

SBT: Soil Behavior Type (Robertson 1990)

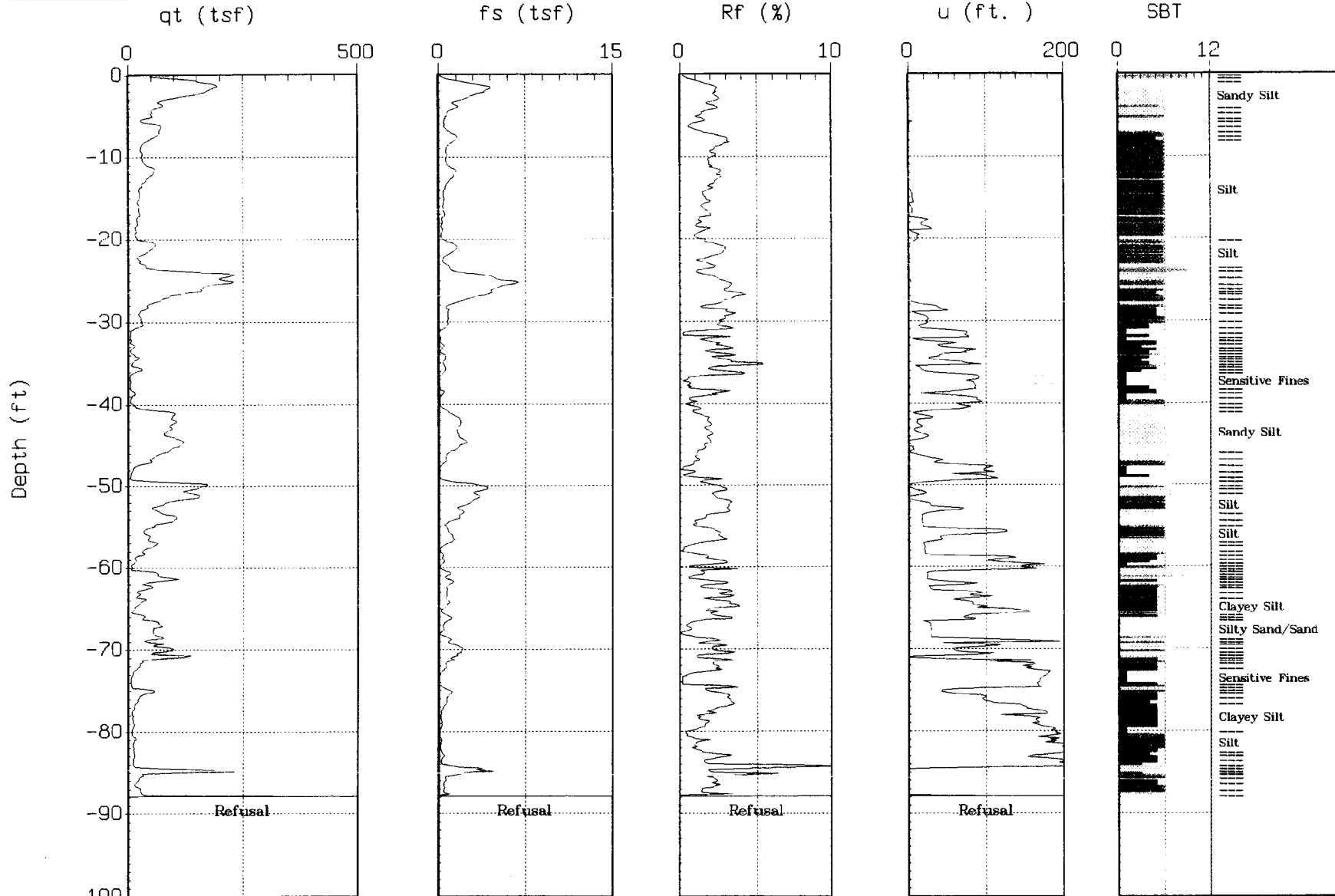
Estimated Phreatic Surface



MACTEC

Site: CPT-6
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03:23:04 17:20



Max. Depth: 87.93 (ft)

Depth Inc.: 0.164 (ft)

SBT: Soil Behavior Type (Robertson 1990)

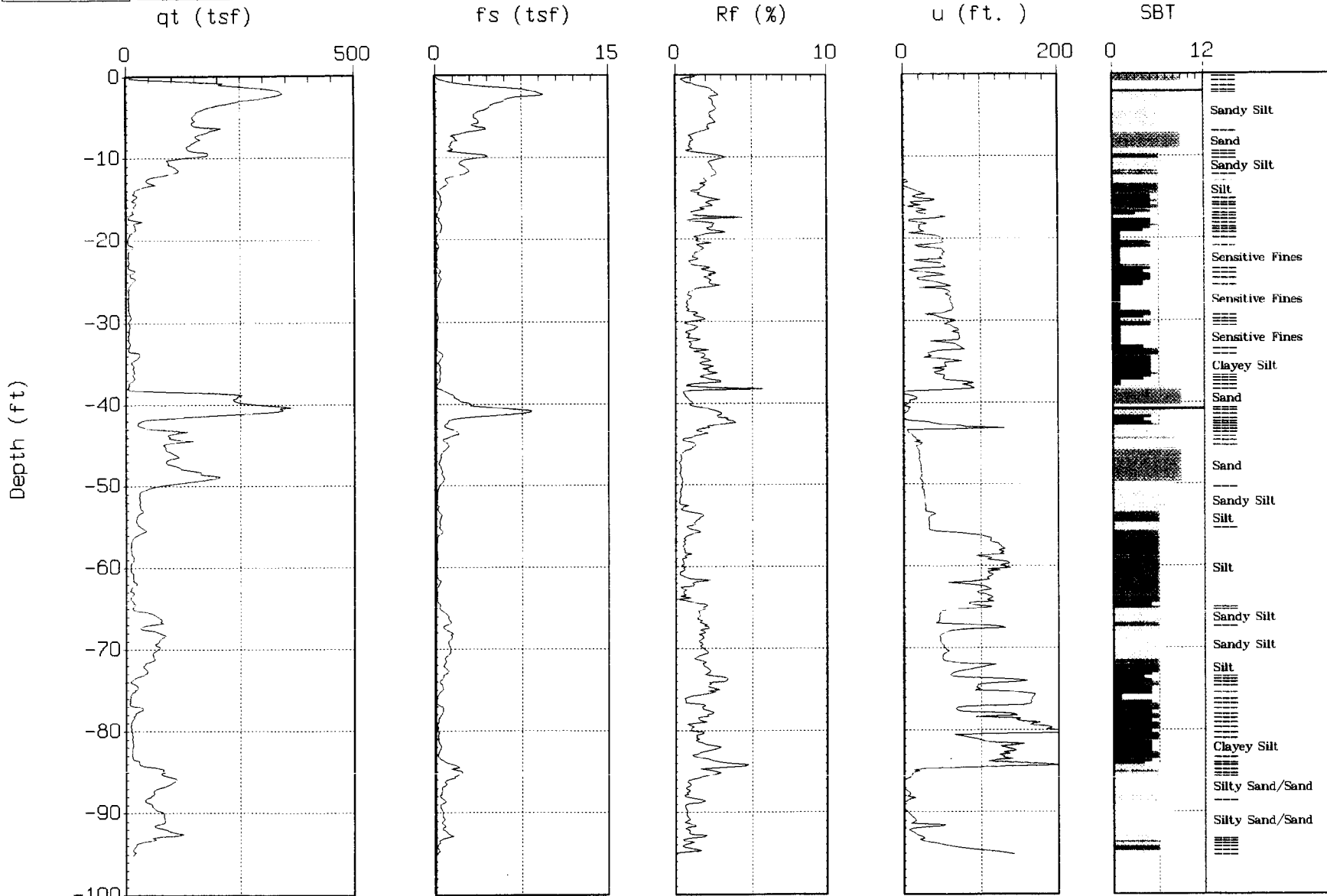
Estimated Phreatic Surface



MACTEC

Site: CPT-4
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03:24:04 08:29



Max. Depth: 95.14 (ft)

Depth Inc.: 0.164 (ft)

SBT: Soil Behavior Type (Robertson 1990)

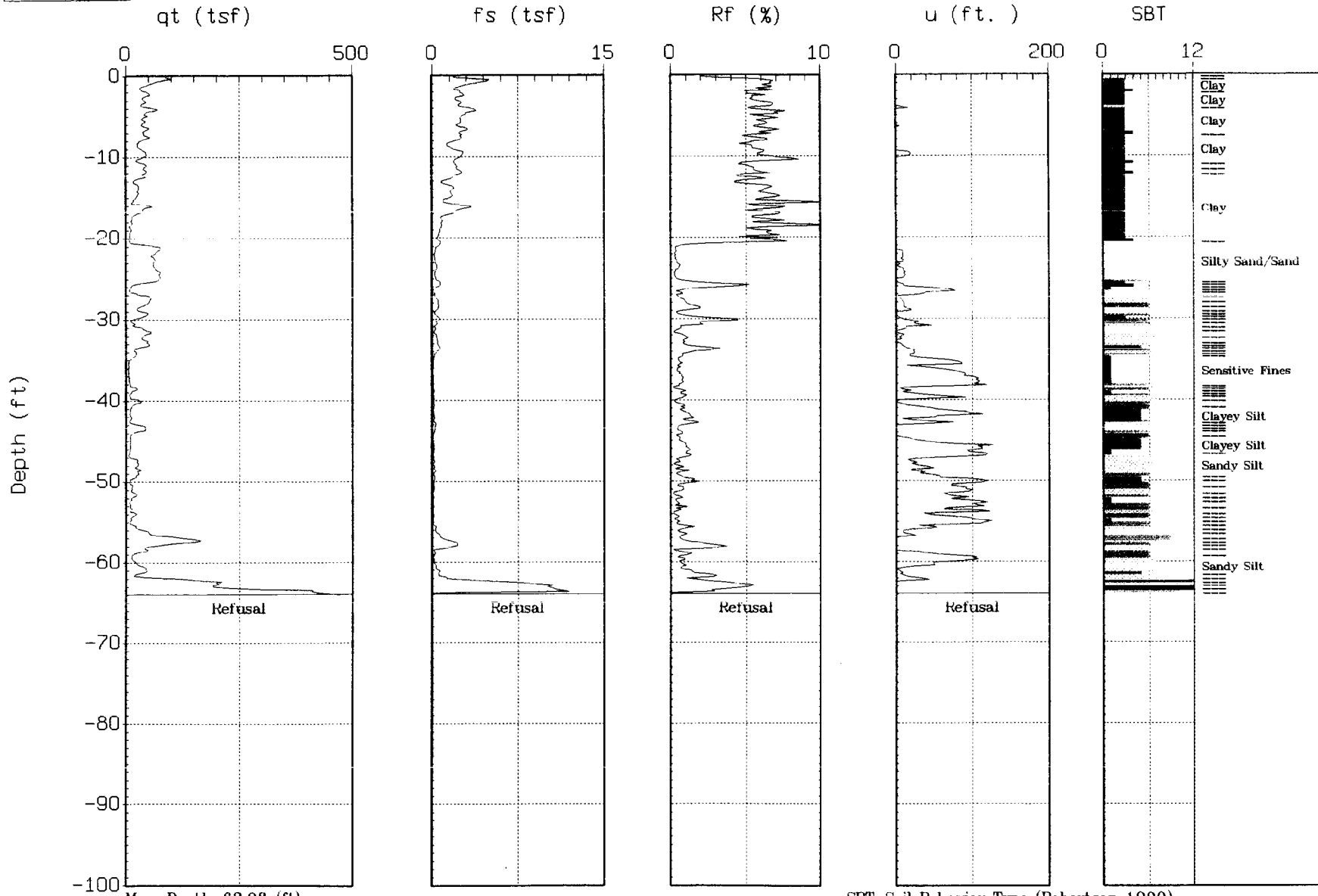
Estimated Phreatic Surface



MACTEC

Site: CPT-11
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03:24:04 12:03



Max. Depth: 63.98 (ft)

Depth Inc.: 0.164 (ft)

SBT: Soil Behavior Type (Robertson 1990)

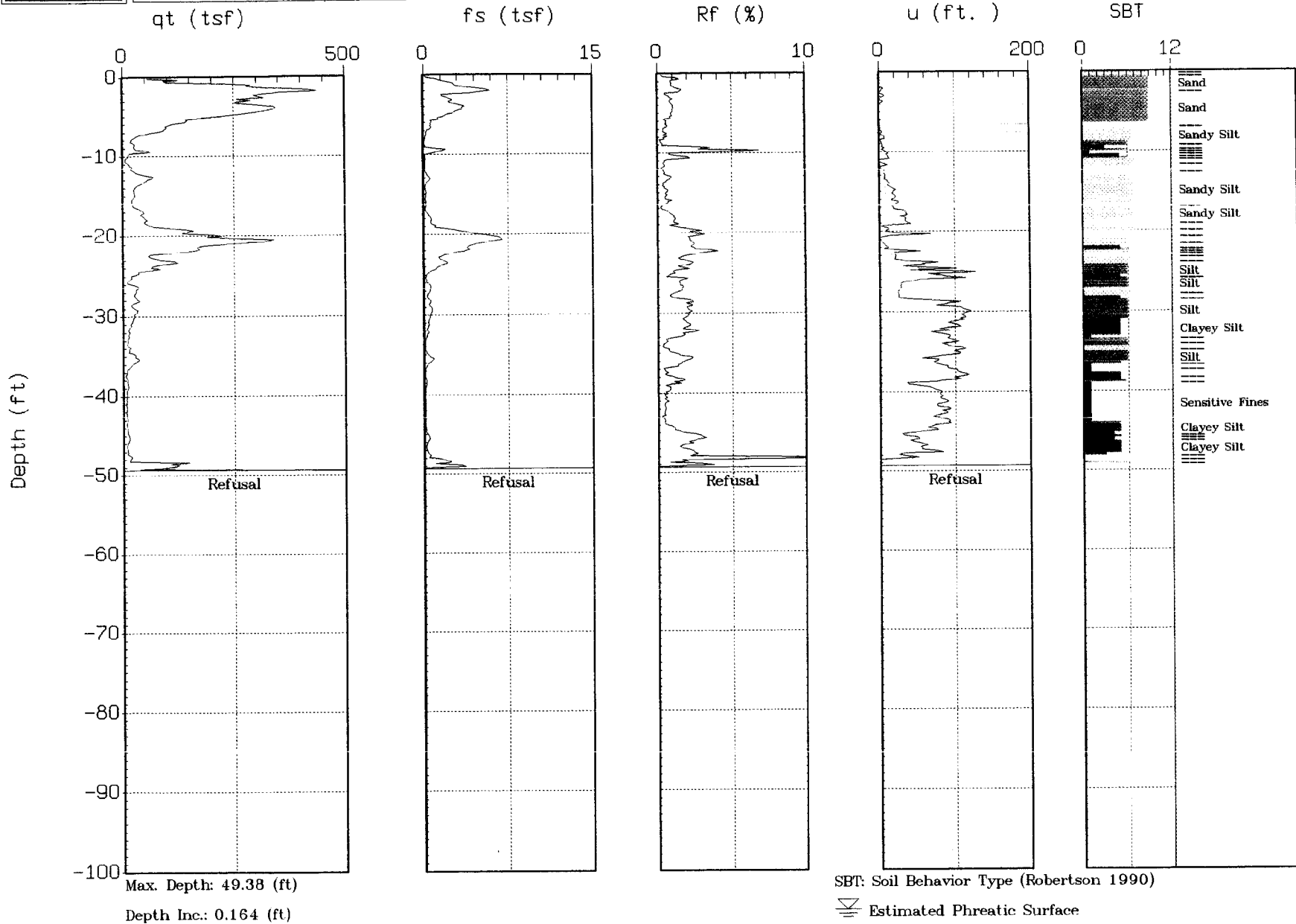
Estimated Phreatic Surface



MACTEC

Site: CPT-9
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03:24:04 13:20

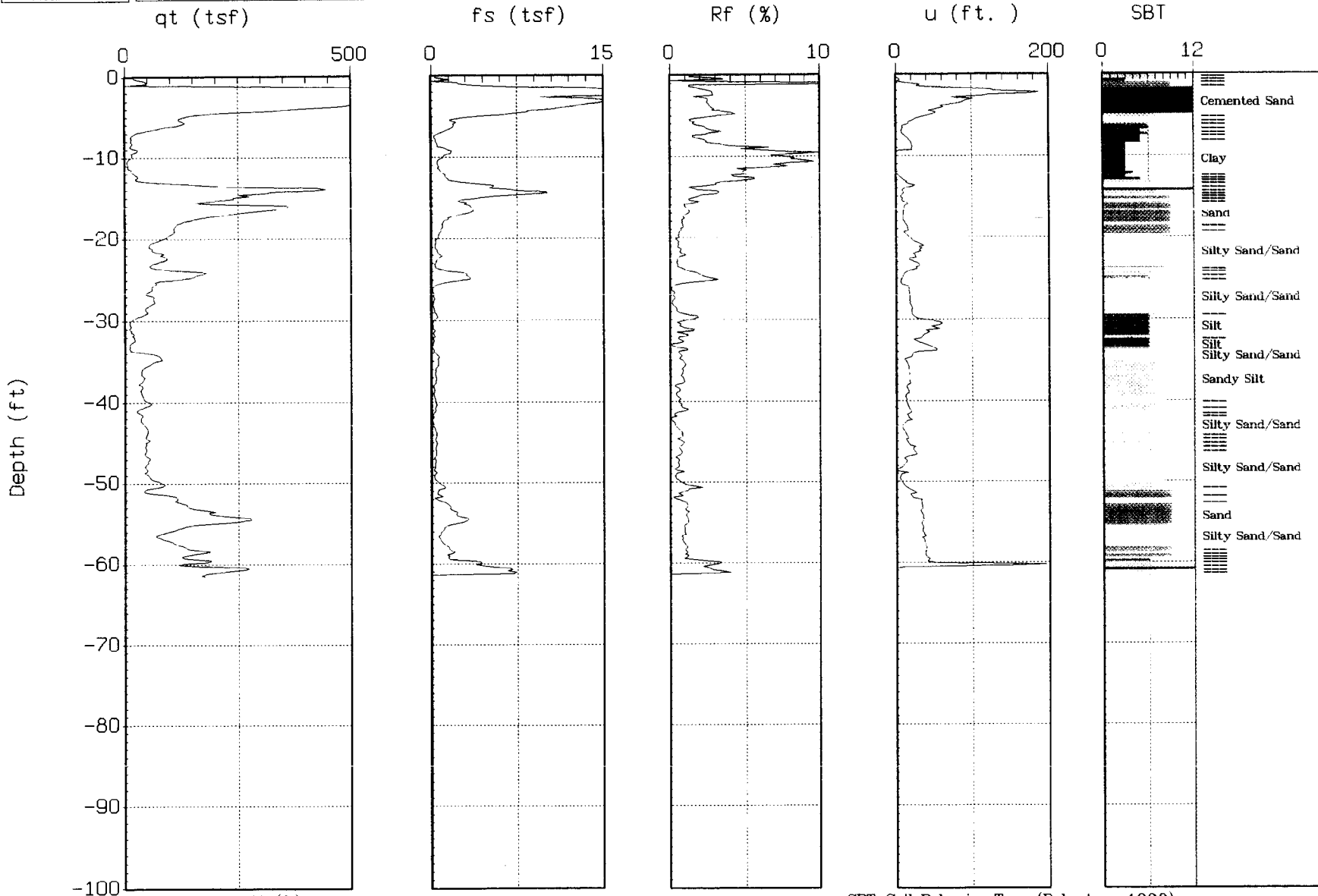




MACTEC

Site: CPT-12A
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03:24:04 14:54



Max. Depth: 61.52 (ft)

Depth Inc.: 0.164 (ft)

SBT: Soil Behavior Type (Robertson 1990)

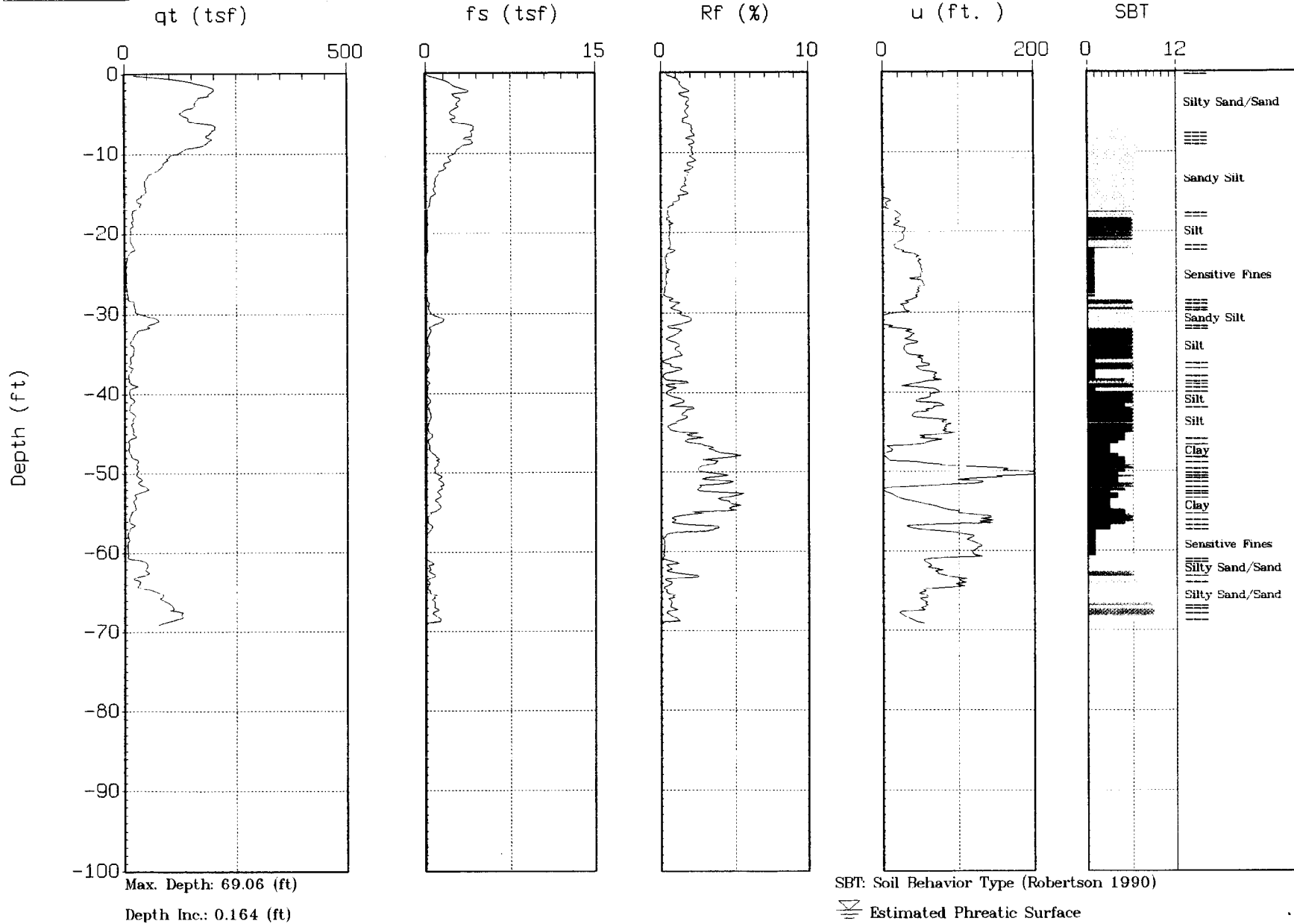
Estimated Phreatic Surface



MACTEC

Site: DIKE N
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03:24:04 16:19

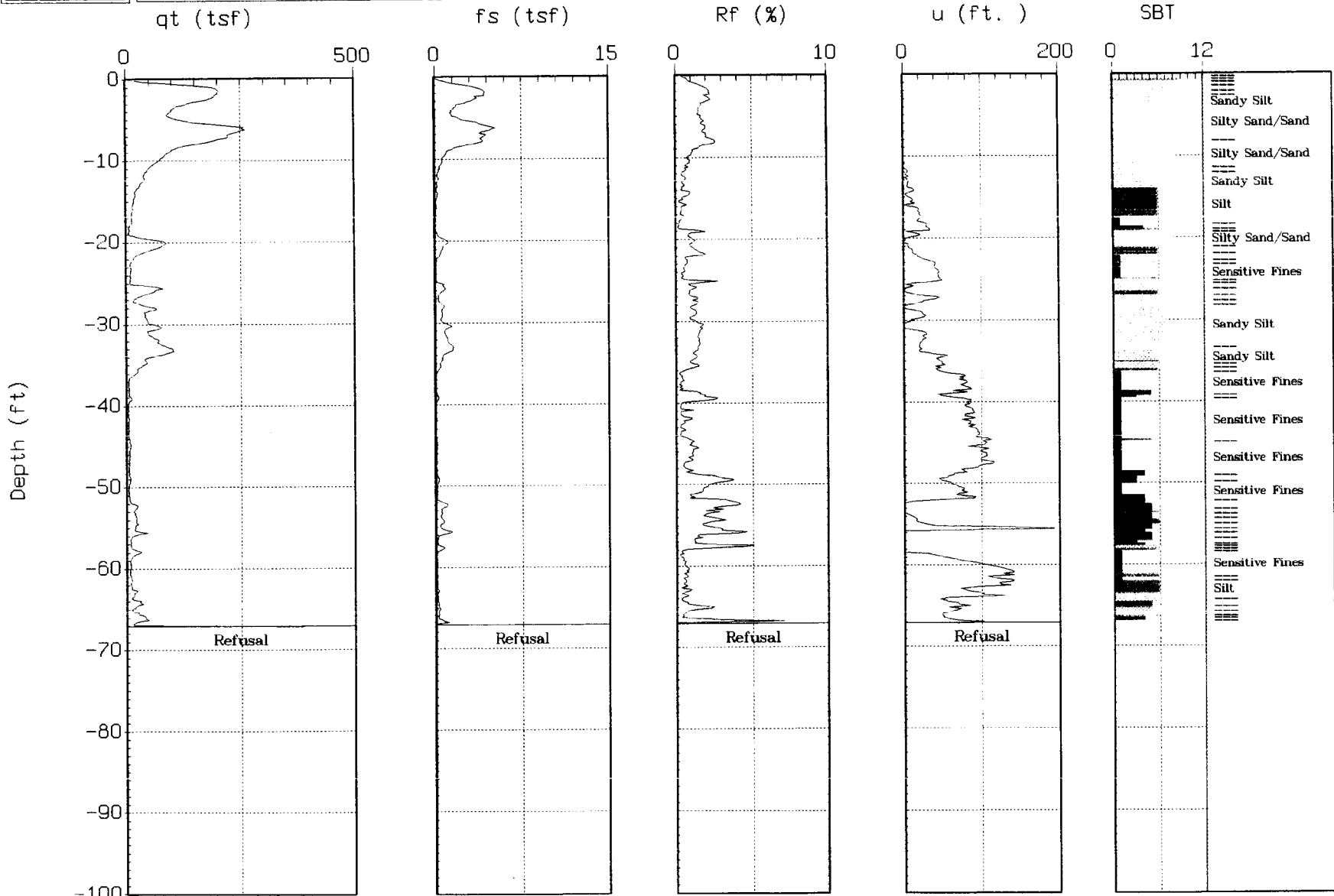




MACTEC

Site: DIKE S
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03/24/04 17:34



Max. Depth: 67.09 (ft)
Depth Inc.: 0.164 (ft)



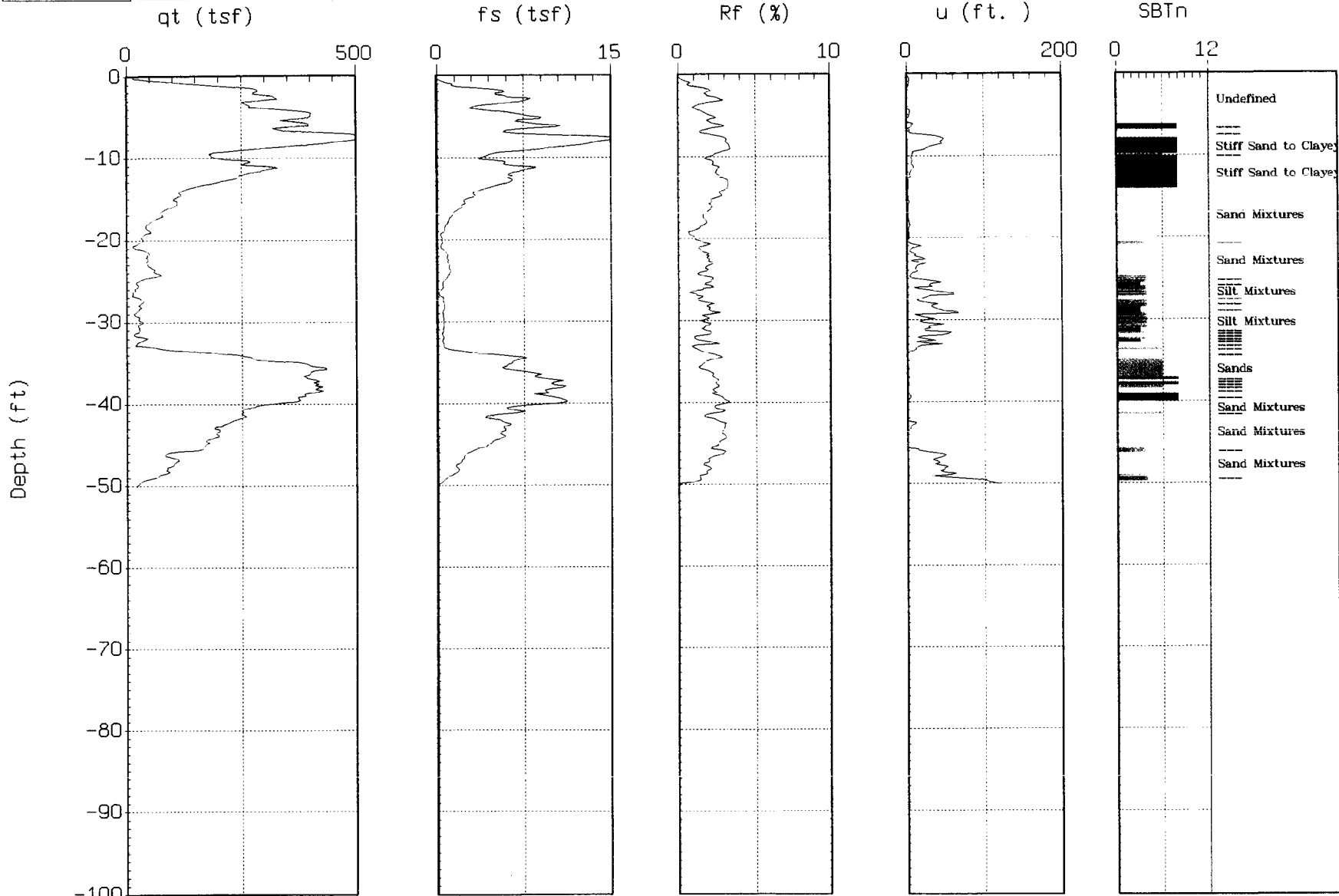
Normalized CPT plots



MACTEC

Site:CPT-1
Location:TVA Kingston

Cone:20 TON AD142
Date:03:22:04 08:54



Max. Depth: 50.03 (ft)

Depth Inc.: 0.164 (ft)

SBT: Soil Behavior Type (Robertson 1990)

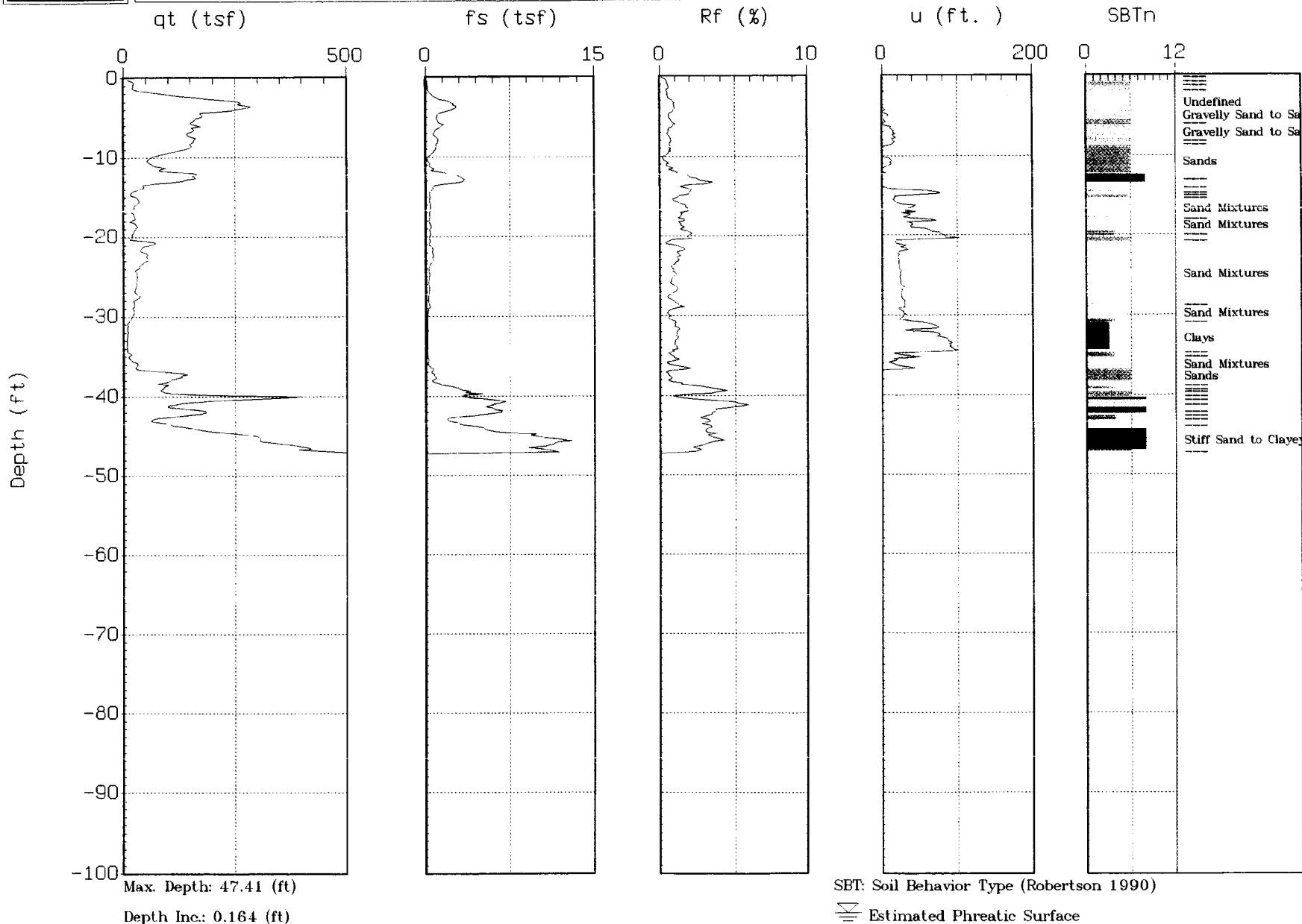
Estimated Phreatic Surface



MACTEC

Site: CPT-10
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03:23:04 10:53

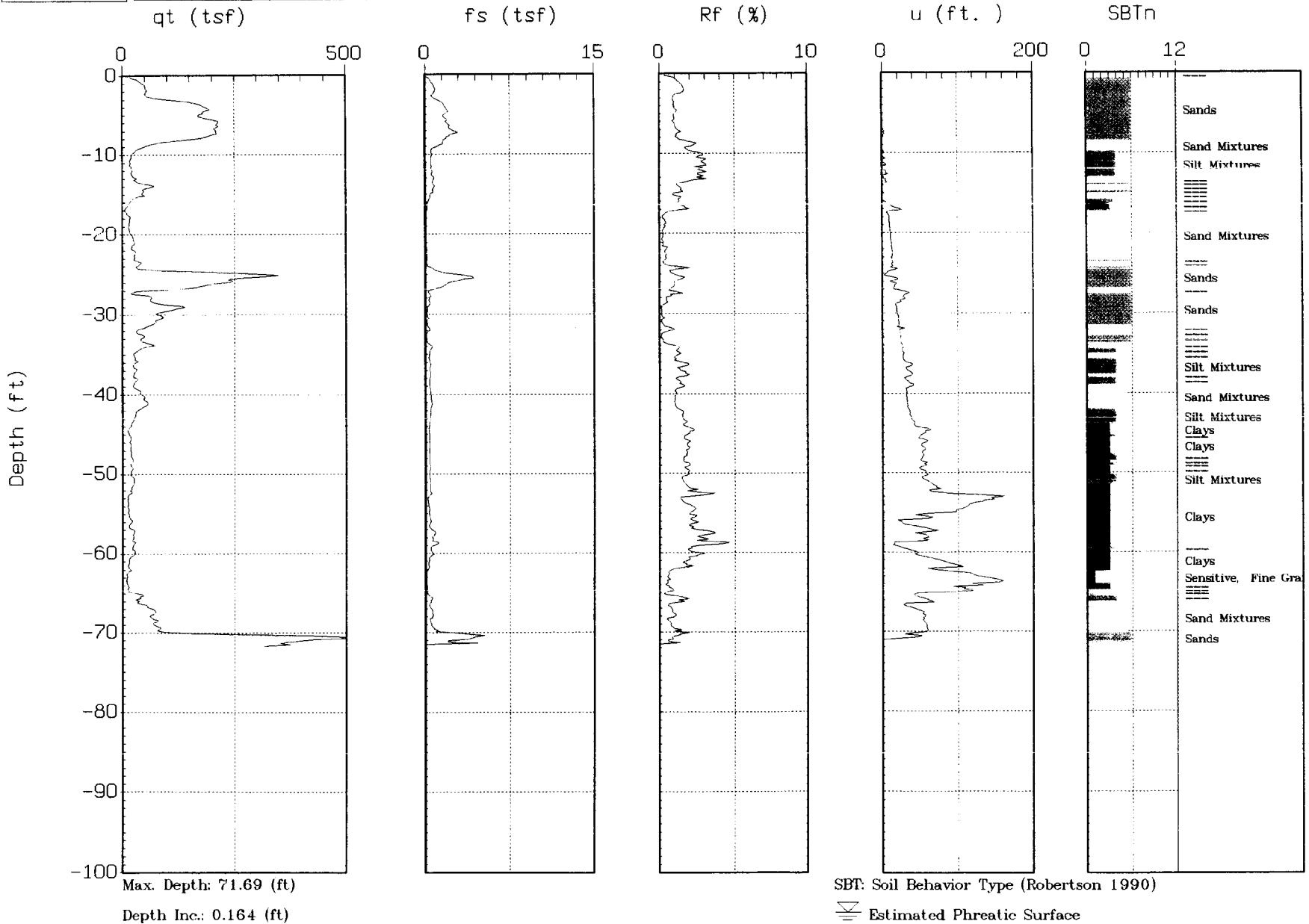




MACTEC

Site: CPT-8
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03/23/04 12:41

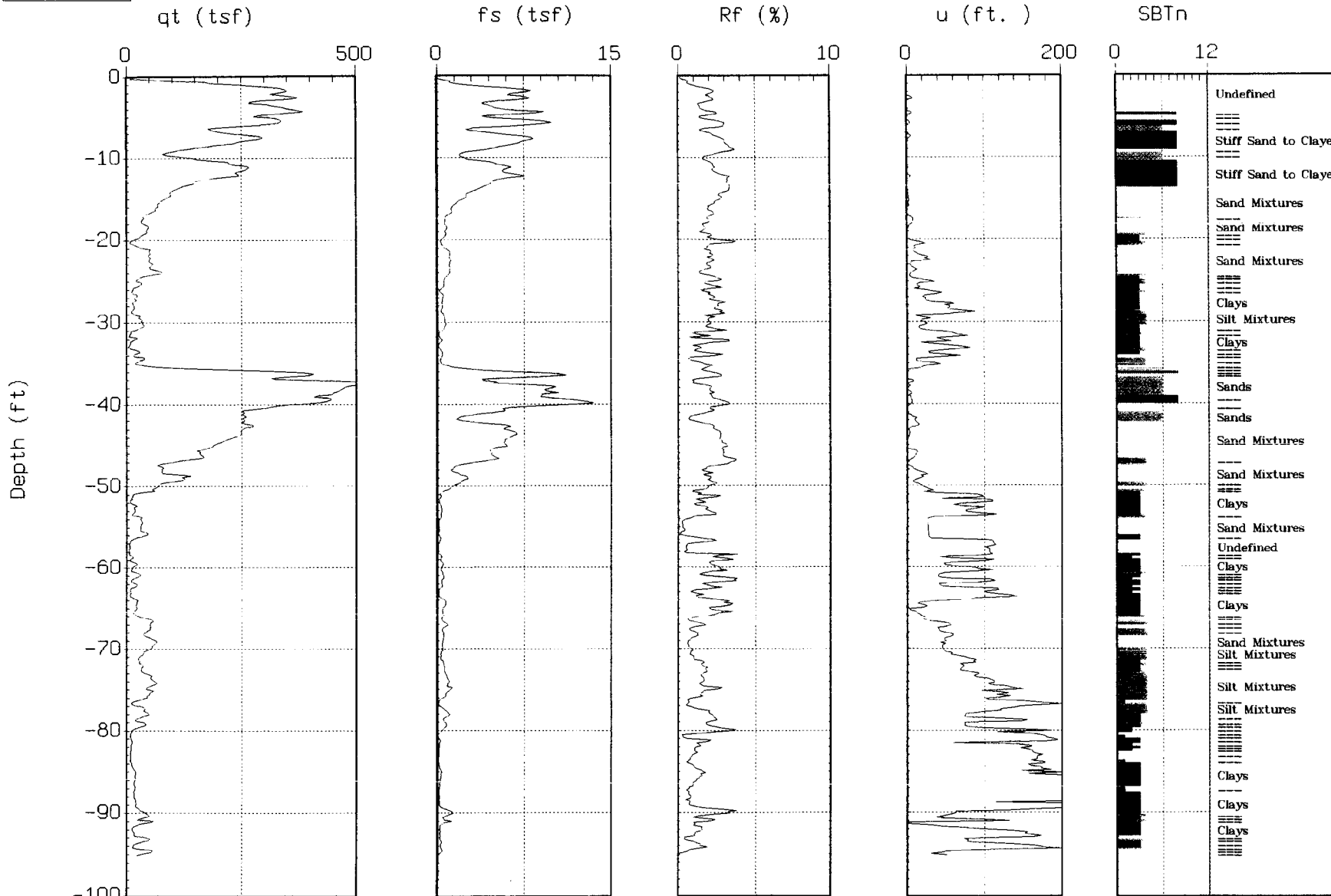




MACTEC

Site:CPT-1A
Location:TVA Kingston

Cone:20 TON AD142
Date:03:23:04 15:11



Max. Depth: 95.14 (ft)
Depth Inc.: 0.164 (ft)

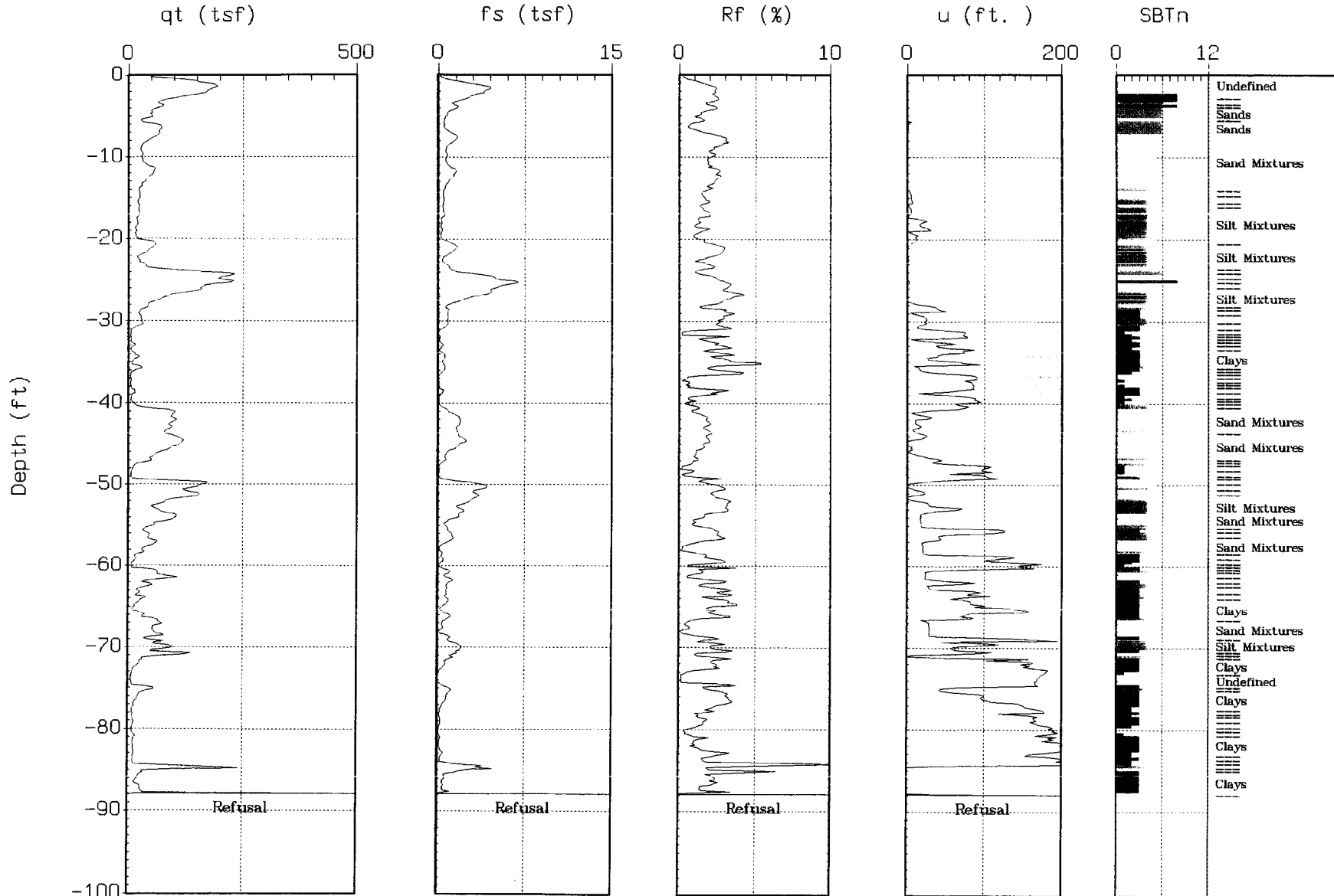
SBT: Soil Behavior Type (Robertson 1990)
Estimated Phreatic Surface



MACTEC

Site: CPT-6
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03:23:04 17:20



Max. Depth: 87.93 (ft)
Depth Inc.: 0.164 (ft)

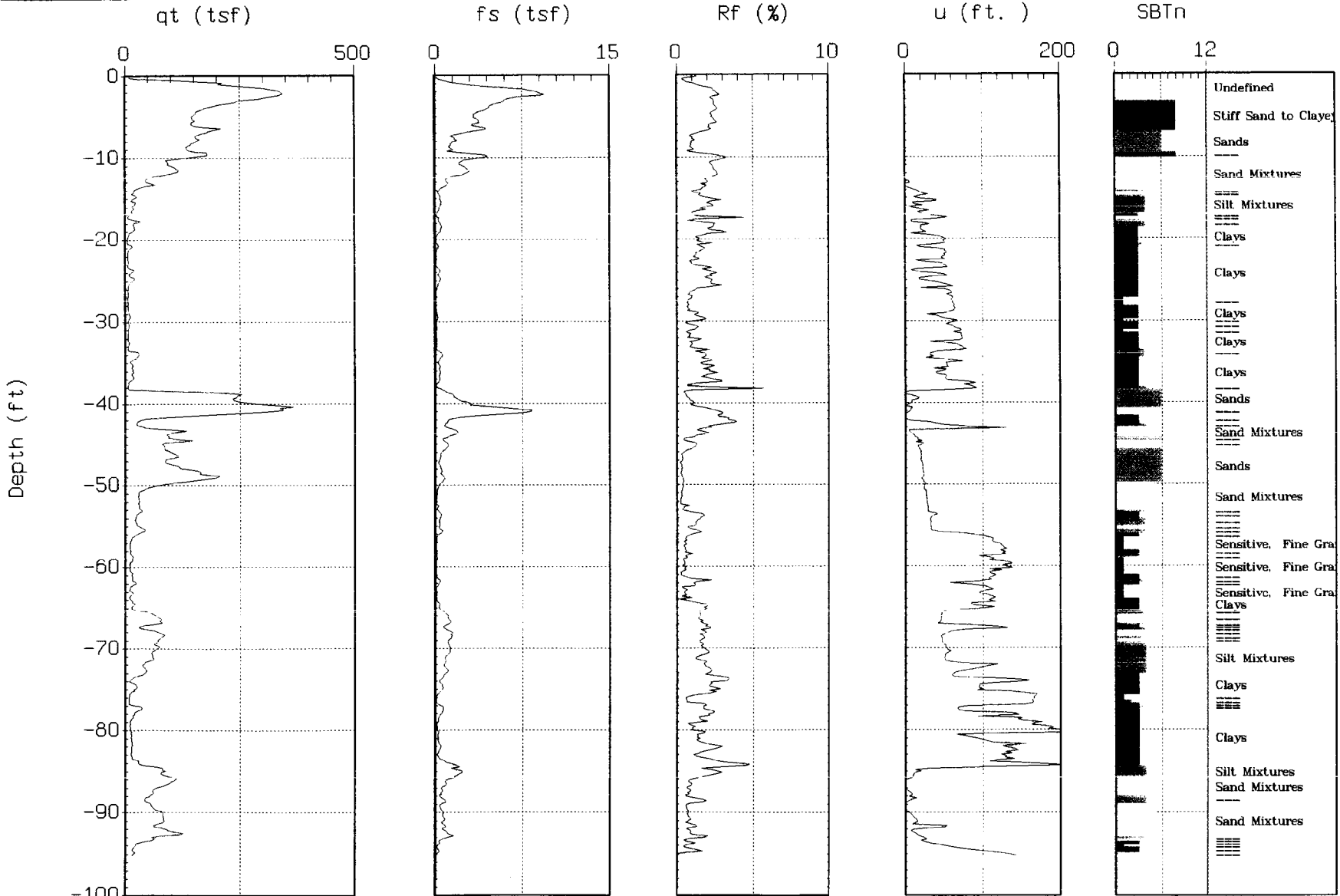
SBT: Soil Behavior Type (Robertson 1990)
Estimated Phreatic Surface



MACTEC

Site: CPT-4
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03:24:04 08:29



Max. Depth: 95.14 (ft)
Depth Inc.: 0.164 (ft)

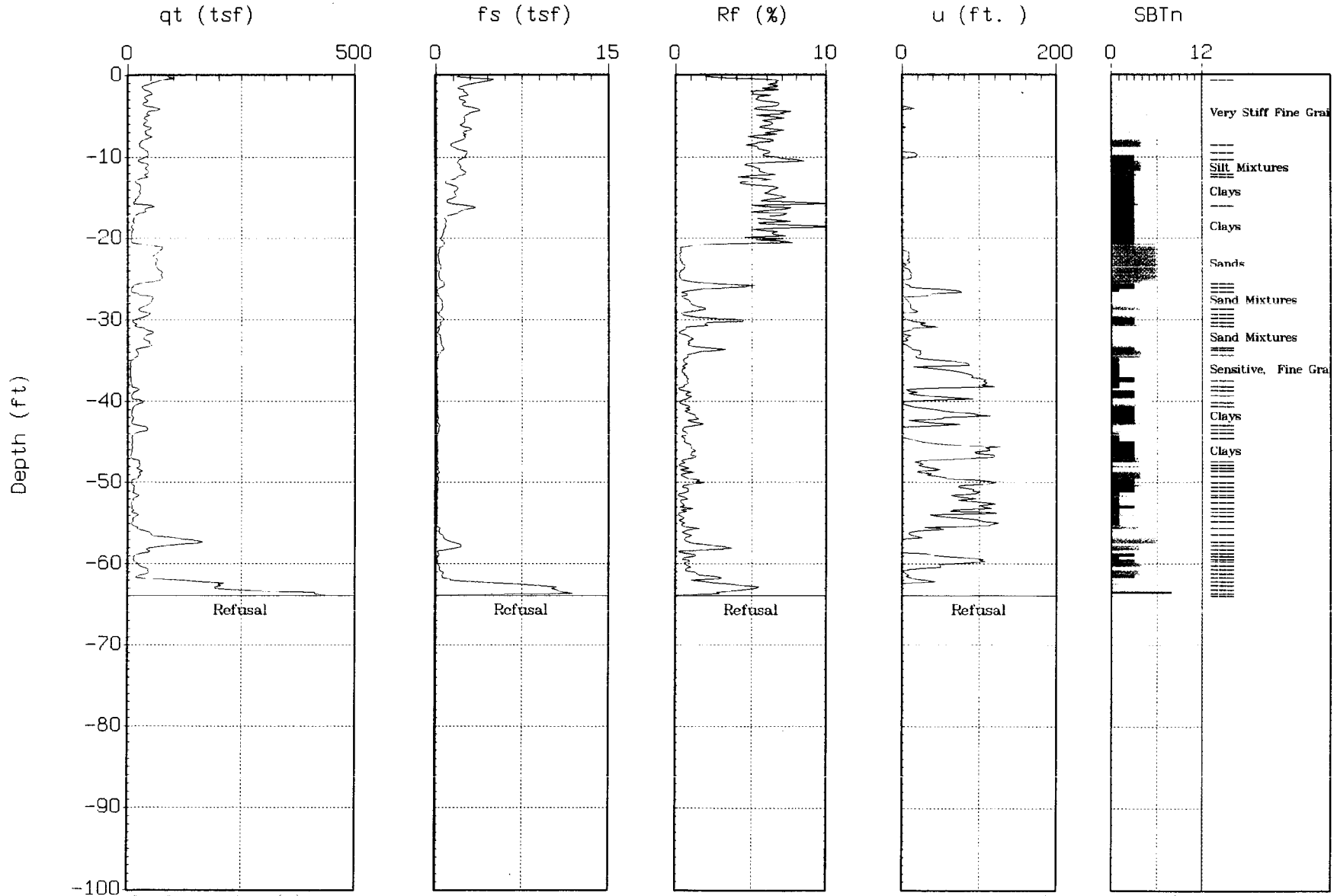
SBT: Soil Behavior Type (Robertson 1990)
Estimated Phreatic Surface



MACTEC

Site: CPT-11
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03:24:04 12:03



Max. Depth: 63.98 (ft)
Depth Inc.: 0.164 (ft)

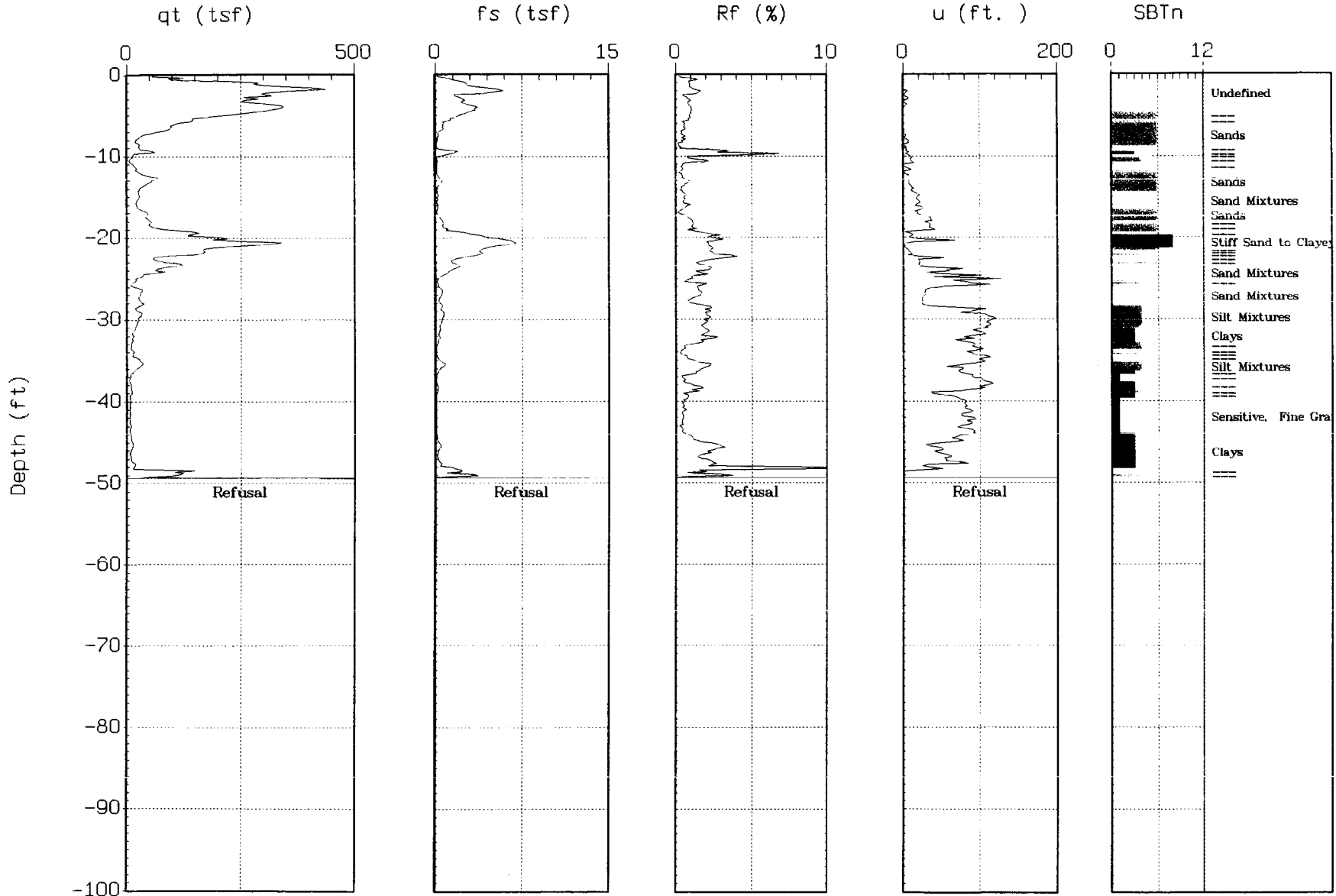
SBT: Soil Behavior Type (Robertson 1990)
Estimated Phreatic Surface



MACTEC

Site: CPT-9
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03:24:04 13:20



Max. Depth: 49.38 (ft)
Depth Inc.: 0.164 (ft)

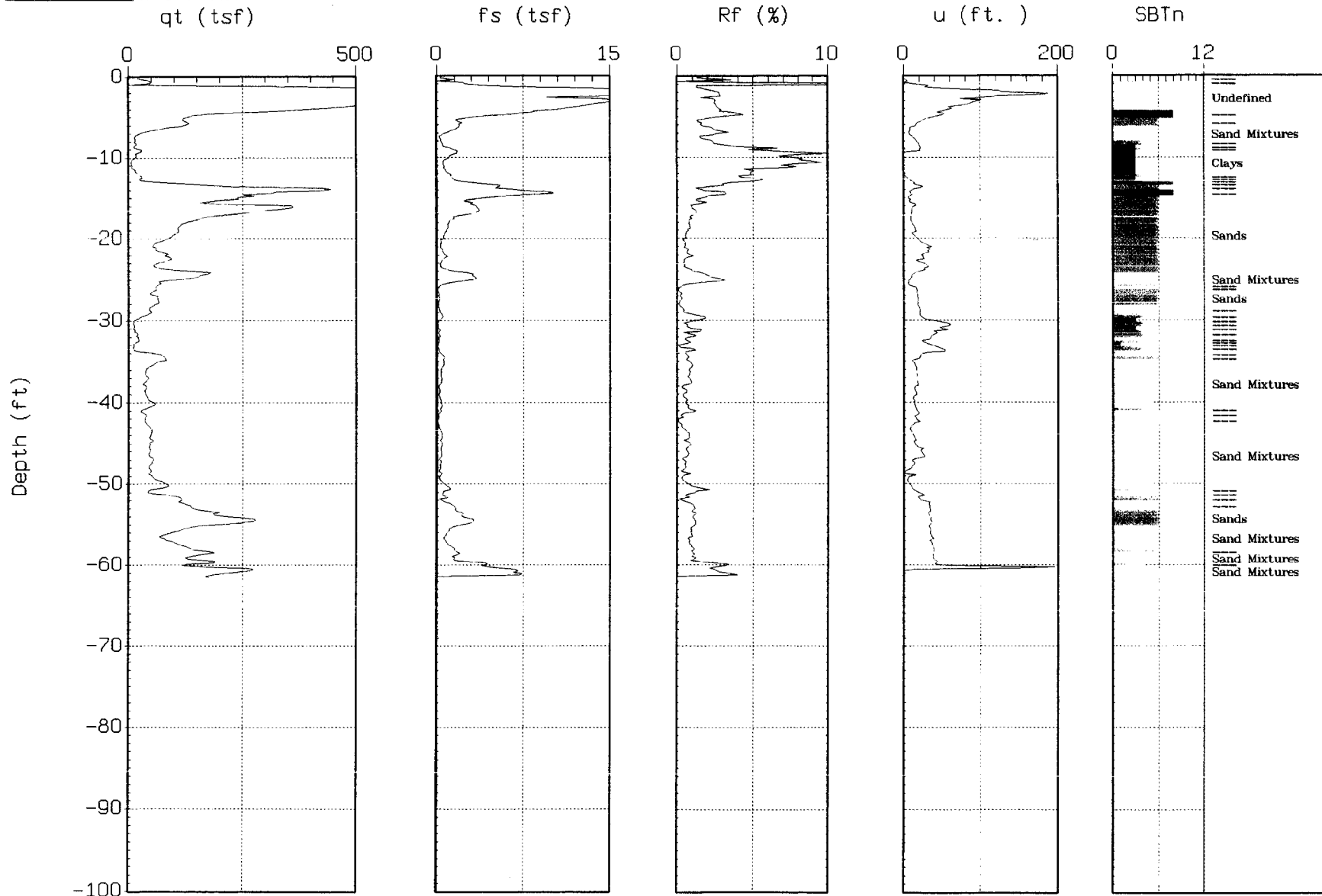
SBT: Soil Behavior Type (Robertson 1990)
Estimated Phreatic Surface



MACTEC

Site: CPT-12A
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03:24:04 14:54



Max. Depth: 61.52 (ft)
Depth Inc.: 0.164 (ft)

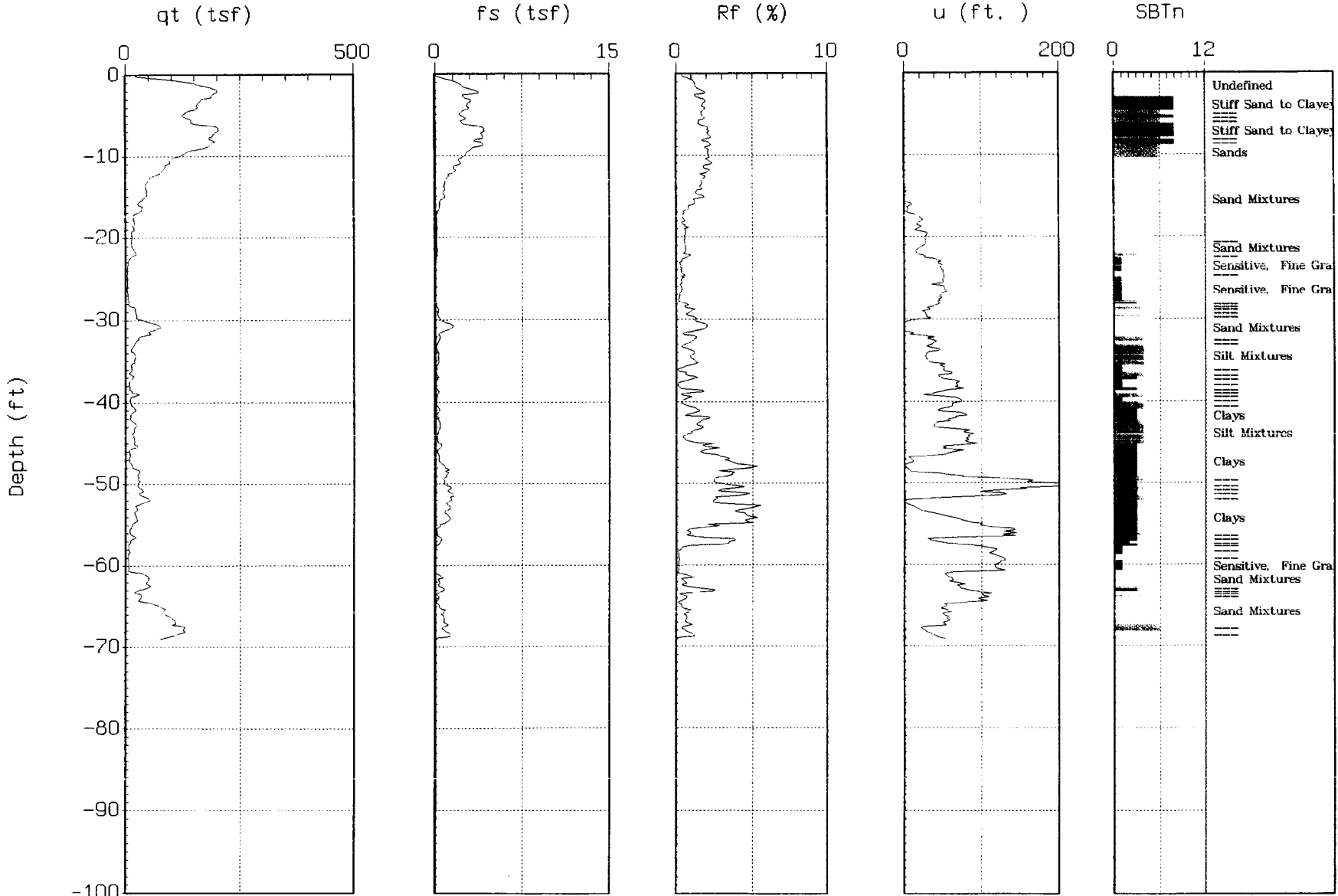
SBT: Soil Behavior Type (Robertson 1990)
Estimated Phreatic Surface



MACTEC

Site: DIKE N
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03:24:04 16:19



Max. Depth: 69.06 (ft)

Depth Inc.: 0.164 (ft)

SBT: Soil Behavior Type (Robertson 1990)

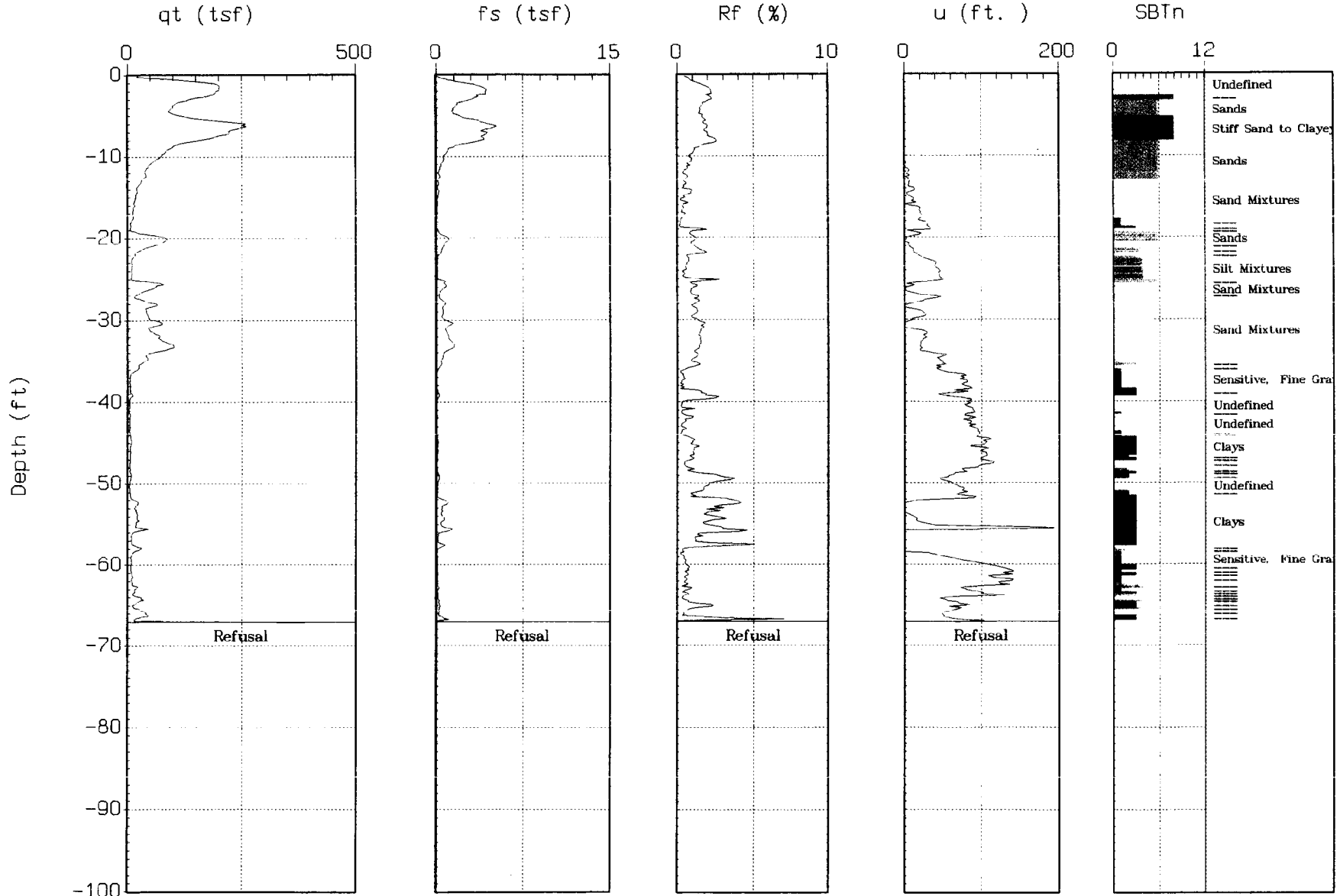
Estimated Phreatic Surface



MACTEC

Site: DIKE S
Location: TVA Kingston

Cone: 20 TON AD142
Date: 03:24:04 17:34



Max. Depth: 67.09 (ft)

Depth Inc.: 0.164 (ft)

SBT: Soil Behavior Type (Robertson 1990)

Estimated Phreatic Surface

APPENDIX B



ConeTec

Geotechnical and Environmental Site Investigation Contractors

ConeTec CPT Interpretations as of January 7, 1999 (Release 1.00.19)

ConeTec's interpretation routine should be considered a calculator of current published CPT correlations and is subject to change to reflect the current state of practice. The interpreted values are not considered valid for all soil types. The interpretations are presented only as a guide for geotechnical use and should be carefully scrutinized for consideration in any geotechnical design. Reference to current literature is strongly recommended.

The CPT interpretations are based on values of tip, sleeve friction and pore pressure averaged over a user specified interval (typically 0.25m). Note that Q_t is the recorded tip value, Q_c , corrected for pore pressure effects. Since all ConeTec cones have equal end area friction sleeves, pore pressure corrections to sleeve friction, F_s , are not required.

The tip correction is: $Q_t = Q_c + (1-a) \cdot U_d$

- where: Q_t is the corrected tip load
- Q_c is the recorded tip load
- U_d is the recorded dynamic pore pressure
- a is the Net Area Ratio for the cone (typically 0.85 for ConeTec cones)

Effective vertical overburden stresses are calculated based on a hydrostatic distribution of equilibrium pore pressures below the water table or from a user defined equilibrium pore pressure profile (this can be obtained from CPT dissipation tests). The stress calculations use unit weights assigned to the Soil Behaviour Type zones or from a user defined unit weight profile.

Details regarding the interpretation methods for all of the interpreted parameters is given in table 1. The appropriate references referred to in table 1 are listed in table 2.

The estimated Soil Behaviour Type is based on the charts developed by Robertson and Campanella shown in figure 1.

Table 1 CPT Interpretation Methods

Interpreted Parameter	Description	Equation	Ref
Depth	mid layer depth		
Avg Q_t	Averaged corrected tip (Q_t)	$AvgQ_t = \frac{1}{n} \sum_{i=1}^n Q_{t_i}$	
Avg F_s	Averaged sleeve friction (F_s)	$AvgF_s = \frac{1}{n} \sum_{i=1}^n F_{s_i}$	
Avg R_f	Averaged friction ratio (R_f)	$AvgR_f = 100\% \cdot \frac{AvgF_s}{AvgQ_t}$	
Avg U_d	Averaged dynamic pore pressure (U_d)	$AvgU_d = \frac{1}{n} \sum_{i=1}^n U_{d_i}$	
SBT	Soil Behavior Type as defined by Robertson and Campanella		1

CPT Interpretations

U.Wt.	Unit Weight of soil determined from: 1) uniform value or 2) value assigned to each SBT zone 3) user supplied unit weight profile		
TStress	Total vertical overburden stress at mid layer depth	$TStress = \sum_{i=1}^n \gamma_i h_i$ where γ_i is layer unit weight h_i is layer thickness	
EStress	Effective vertical overburden stress at mid layer depth	$EStress = TStress - Ueq$	
Ueq	Equilibrium pore pressure determined from: 1) hydrostatic from water table depth 2) user supplied profile		
Cn	SPT N_{60} overburden correction factor	$Cn = (\sigma_v')^{0.5}$ where σ_v' is in tsf $0.5 < Cn < 2.0$	
N_{60}	SPT N value at 60% energy calculated from Q_t/N ratios assigned to each SBT zone		3
$(N1)_{60}$	SPT N_{60} value corrected for overburden pressure	$N1_{60} = Cn \cdot N_{60}$	3
$\Delta(N1)_{60}$	Equivalent Clean Sand Correction to $(N1)_{60}$	$\Delta(N1)_{60} = \frac{K_{SPT}}{1 - K_{SPT}} \cdot (N1)_{60}$ Where: K_{SPT} is defined as: 0.0 for FC < 5% 0.0167 • (FC - 5) for 5% < FC < 35% 0.5 for FC > 35% FC - Fines Content in %	7
$(N1)_{60cs}$	Equivalent Clean Sand $(N1)_{60}$	$(N1)_{60cs} = (N1)_{60} + \Delta(N1)_{60}$	7
Su	Undrained shear strength - Nkt is use selectable	$Su = \frac{Qt - \sigma_v}{Nkt}$	2
k	Coefficient of permeability (assigned to each SBT zone)		6
Bq	Pore pressure parameter	$Bq = \frac{\Delta u}{Qt - \sigma_v}$	2
Qtn	Normalized Q_t for Soil Behavior Type classification as defined by Robertson, 1990	$Qtn = \frac{Qt - \sigma_v}{\sigma_v}$	4
Rfn	Normalized Rf for Soil Behavior Type classification as defined by Robertson, 1990	$Rfn = 100^0 \cdot \frac{f_s}{Qt - \sigma_v}$	4
SBTn	Normalized Soil Behavior Type (slightly modified from that published by Robertson, 1990. This version includes all the soil zones of the original non-normalized SBT chart - see figure 1)		4
Qc1	Normalized Q_t for seismic analysis	$qc1 = qc \cdot (Pa/\sigma_v')^{0.5}$ where: Pa = atm. pressure	5
Qc1N	Dimensionless Normalized Q_t1	$qc1N = qc1 / Pa$ where: Pa = atm. pressure	



CPT Interpretations

$\Delta Qc1N1$	Equivalent clean sand correction	$\Delta qc1N = \frac{K_{CPT}}{1 - K_{CPT}} \cdot qc1N$ <p>Where: K_{CPT} is defined as:</p> <p>0.0 for FC < 5% 0.0267 • (FC - 5) for 5% < FC < 35% 0.5 for FC > 35%</p> <p>FC - Fines Content in %</p>	5
Qc1Ncs	Clean Sand equivalent Qc1N	$qc1Ncs = qc1N + \Delta qc1N$	5
lc	Soil Index for estimating grain characteristics	$lc = [(3.47 - \log Q)^2 + (\log F + 1.22)^2]^{0.5}$	5
FC	Fines content (%)	$FC = 1.75(lc^{3.25}) - 3.7$ $FC = 100$ for $lc > 3.5$ $FC = 0$ for $lc < 1.26$ $FC = 5\%$ if $1.64 < lc < 2.6$ AND $Rfn < 0.5$	8
PHI	Friction Angle	Campanella and Robertson Durunoglu and Mitchel Janbu	1
Dr	Relative Density	Ticino Sand Hokksund Sand Schmertmann 1976 Jamolkowski - All Sands	1
OCR	Over Consolidation Ratio		1
State Parameter			9
CRR	Cyclic Resistance Ratio		7



CPT Interpretations

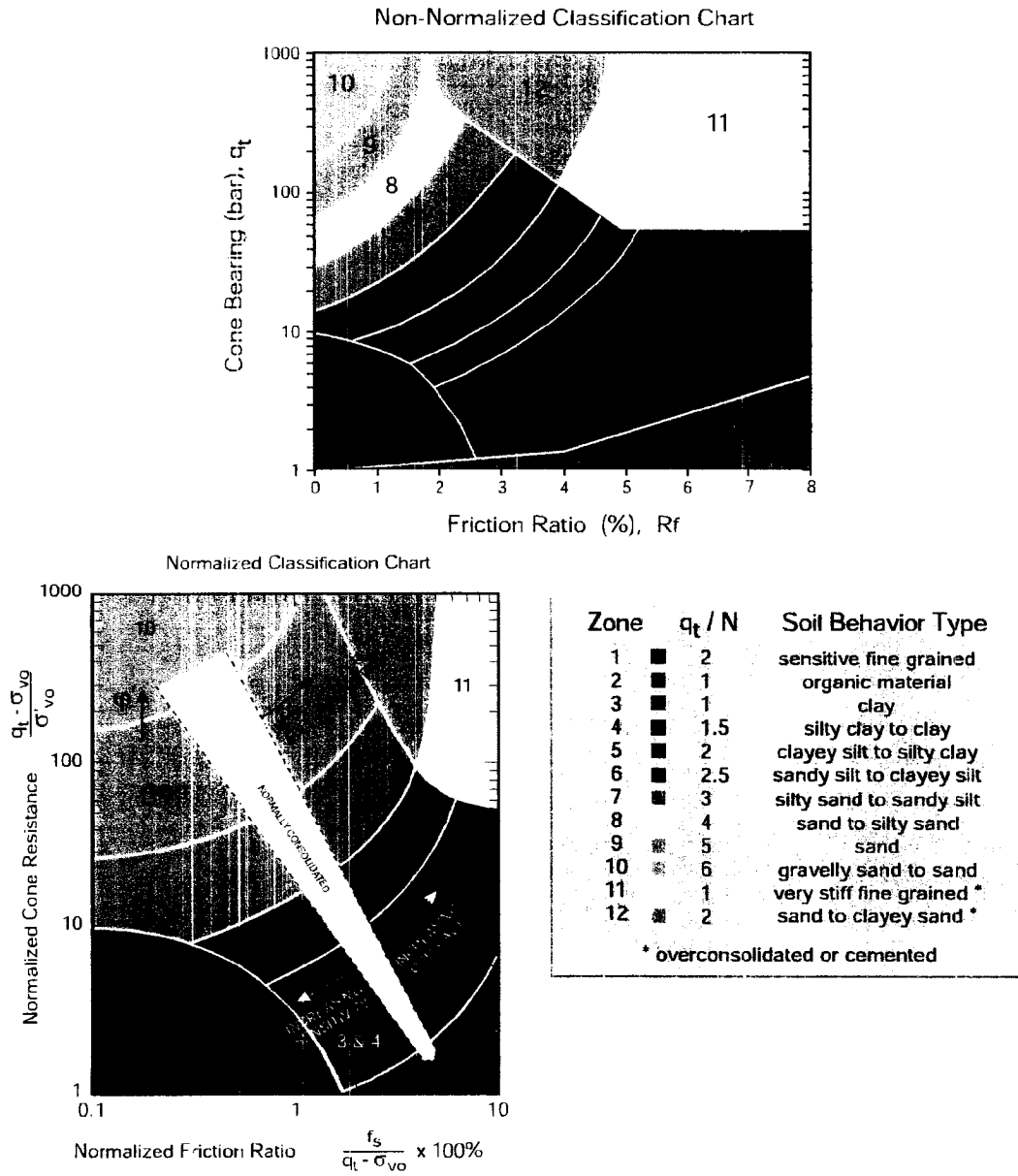


Figure 1 Non-Normalized and Normalized Soil Behaviour Type Classification Charts



CPT Interpretations

Table 2 References

No.	Reference
1	Robertson, P.K. and Campanella, R.G., 1986, "Guidelines for Use, Interpretation and Application of the CPT and CPTU", UBC, Soil Mechanics Series No. 105, Civil Eng. Dept., Vancouver, B.C., Canada
2	Robertson, P.K., Campanella, R.G., Gillespie, D. and Greig, J., 1986, "Use of Piezometer Cone Data", Proceedings of In Situ 86, ASCE Specialty Conference, Blacksburg, Virginia.
3	Robertson, P.K. and Campanella, R.G., 1989, "Guidelines for Geotechnical Design Using CPT and CPTU", UBC, Soil Mechanics Series No. 120, Civil Eng. Dept., Vancouver, B.C., Canada
4	Robertson, P.K., 1990, "Soil Classification Using the Cone Penetration Test", Canadian Geotechnical Journal, Volume 27.
5	Robertson, P.K. and Fear, C.E., 1995, "Liquefaction of Sands and its Evaluation", Keynote Lecture, First International Conference on Earthquake Geotechnical Engineering, Tokyo, Japan.
6	ConeTec Internal Report
7	Robertson, P.K. and Wride, C.E., 1997, "Cyclic Liquefaction and its Evaluation Based on SPT and CPT", NCEER Workshop Paper, January 22, 1997
8	Wride, C.E. and Robertson, P.K., 1997, "Phase II Data Review Report (Massey and Kidd Sites, Fraser River Delta)", Volume 1 - Data Report (June 1997), University of Alberta.
9	Plewes, H.D., Davies, M.P. and Jefferies, M.G., 1992, "CPT Based Screening Procedure for Evaluating Liquefaction Susceptibility", 45th Canadian Geotechnical Conference, Toronto, Ontario, October 1992.



Run No: 04-0401-1123-5225
 Job No: 04-717
 Client: MACTEC
 Project: TVA Kingston
 Site: CPT-1
 Location: TVA Kingston
 Cone: 20 TON AD142
 CPT Date: 04/22/03
 CPT Time: 08:54
 CPT File: 717CP001.COR
 Northing (m): 0.000
 Easting (m): 0.000
 Elevation (m): 0.000

Water Table (m): 8.41 (ft): 27.6
 Unit Weight of Water (User Specified): 62.40 pcf
 Su Nkt used: 12.50 Su/P' (nc): 0.30
 Averaging Increment (m): 0.10
 Phi Method: Robertson and Campanella, 1983
 Dr Method: Jamiolkowski - All Sands
 State Parameter M: 1.20

Used Unit Weights Assigned to Soil Zones

Values of 1.0E9 or UnDef are printed for parameters that are not valid for the material type (SBT)

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
0.16	23.5	0.01	0.04	0.9	7	117.8	0.01	0.01	0.00	2.00	7.5	15.0	UnDef	0.09
0.49	71.6	0.17	0.24	2.4	8	120.9	0.03	0.03	0.00	2.00	17.1	34.3	UnDef	0.32
0.82	146.6	0.99	0.67	2.5	9	124.1	0.05	0.05	0.00	2.00	28.1	56.2	UnDef	0.00
1.15	232.0	1.51	0.65	2.0	9	124.1	0.07	0.07	0.00	2.00	44.4	88.9	UnDef	0.00
1.48	280.7	4.00	1.42	1.3	8	120.9	0.09	0.09	0.00	2.00	67.2	134.4	UnDef	0.00
1.80	282.0	5.78	2.05	-2.0	8	120.9	0.11	0.11	0.00	2.00	67.5	135.0	UnDef	0.00
2.13	289.1	5.07	1.75	-4.8	8	120.9	0.13	0.13	0.00	2.00	69.2	138.4	UnDef	0.00
2.46	320.8	5.97	1.86	-3.1	8	120.9	0.15	0.15	0.00	2.00	76.8	153.6	UnDef	0.00
2.79	312.2	7.98	2.56	-1.0	7	117.8	0.17	0.17	0.00	2.00	99.7	199.4	UnDef	0.00
3.12	255.0	6.83	2.68	-1.7	7	117.8	0.19	0.19	0.00	2.00	81.4	162.8	UnDef	0.00
3.44	265.9	4.31	1.62	-2.6	8	120.9	0.21	0.21	0.00	2.00	63.7	127.3	UnDef	0.00
3.77	285.6	2.97	1.04	-0.1	9	124.1	0.23	0.23	0.00	2.00	54.7	109.4	UnDef	0.00
4.10	362.5	4.26	1.17	0.2	9	124.1	0.25	0.25	0.00	2.00	69.4	138.8	UnDef	0.00
4.43	399.6	6.20	1.55	3.5	8	120.9	0.27	0.27	0.00	1.93	95.7	184.7	UnDef	0.00
4.76	401.4	7.58	1.89	3.3	8	120.9	0.29	0.29	0.00	1.86	96.1	179.0	UnDef	0.00
5.09	377.1	8.95	2.37	2.6	8	120.9	0.31	0.31	0.00	1.80	90.3	162.7	UnDef	0.00
5.41	351.8	6.90	1.96	-0.8	8	120.9	0.33	0.33	0.00	1.75	84.2	147.1	UnDef	0.00
5.74	395.0	8.27	2.09	0.4	8	120.9	0.35	0.35	0.00	1.70	94.6	160.4	UnDef	0.00
6.07	371.9	10.49	2.82	7.0	12	120.9	0.37	0.37	0.00	1.65	178.1	293.7	UnDef	0.00
6.40	325.2	7.85	2.41	5.2	7	117.8	0.39	0.39	0.00	1.61	103.8	166.9	UnDef	0.00
6.73	382.3	5.81	1.52	2.3	8	120.9	0.41	0.41	0.00	1.57	91.5	143.5	UnDef	0.00
7.05	503.2	8.61	1.71	3.2	8	120.9	0.43	0.43	0.00	1.53	120.5	184.5	UnDef	0.00
7.38	563.4	14.20	2.52	26.6	12	120.9	0.45	0.45	0.00	1.50	269.8	403.8	UnDef	0.00
7.79	490.0	14.97	3.05	44.5	12	120.9	0.47	0.47	0.00	1.46	234.6	341.8	UnDef	0.00
8.20	424.9	13.18	3.10	42.7	12	120.9	0.50	0.50	0.00	1.42	203.5	288.9	UnDef	0.00
8.53	349.7	11.51	3.29	40.9	12	120.9	0.52	0.52	0.00	1.39	167.5	233.2	UnDef	0.00
8.86	266.7	8.96	3.36	27.4	12	120.9	0.54	0.54	0.00	1.37	127.7	174.5	UnDef	0.00
9.19	204.0	6.22	3.05	19.5	7	117.8	0.56	0.56	0.00	1.34	65.1	87.4	UnDef	0.00
9.51	182.2	4.57	2.51	7.8	7	117.8	0.57	0.57	0.00	1.32	58.2	76.7	UnDef	0.00
9.84	190.7	3.96	2.08	6.0	7	117.8	0.59	0.59	0.00	1.30	60.9	79.0	UnDef	0.00
10.17	240.0	4.21	1.75	5.5	8	120.9	0.61	0.61	0.00	1.28	57.5	73.4	UnDef	0.00
10.50	264.2	5.88	2.23	6.6	7	117.8	0.63	0.63	0.00	1.26	84.3	106.0	UnDef	0.00
10.83	278.5	6.24	2.24	5.8	7	117.8	0.65	0.65	0.00	1.24	88.9	110.1	UnDef	0.00
11.15	323.9	8.52	2.63	8.2	7	117.8	0.67	0.67	0.00	1.22	103.4	126.2	UnDef	0.00
11.48	295.6	7.47	2.53	7.6	7	117.8	0.69	0.69	0.00	1.20	94.4	113.5	UnDef	0.00
11.81	262.0	6.37	2.43	4.7	7	117.8	0.71	0.71	0.00	1.19	83.6	99.2	UnDef	0.00
12.14	246.2	6.38	2.59	3.2	7	117.8	0.73	0.73	0.00	1.17	78.6	92.0	UnDef	0.00
12.47	233.1	6.29	2.70	3.9	7	117.8	0.75	0.75	0.00	1.16	74.4	86.0	UnDef	0.00
12.80	203.0	6.43	3.16	0.5	7	117.8	0.77	0.77	0.00	1.14	64.8	74.0	UnDef	0.00

Run No: 04-0401-1123-5225

CPT File: 717CP001.COR

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
13.12	176.8	5.71	3.23	1.1	6	114.6	0.79	0.79	0.00	1.13	67.7	76.3	14.08	0.00
13.45	150.1	4.82	3.21	1.3	6	114.6	0.81	0.81	0.00	1.11	57.5	64.0	11.94	0.00
13.78	127.6	3.98	3.12	1.4	6	114.6	0.82	0.82	0.00	1.10	48.9	53.8	10.14	0.00
14.11	115.5	3.27	2.83	0.6	6	114.6	0.84	0.84	0.00	1.09	44.3	48.2	9.18	0.00
14.44	118.0	3.18	2.69	0.6	7	117.8	0.86	0.86	0.00	1.08	37.7	40.6	UnDef	0.00
14.76	106.6	2.90	2.72	0.6	6	114.6	0.88	0.88	0.00	1.07	40.8	43.5	8.46	0.00
15.09	105.0	2.32	2.21	1.1	7	117.8	0.90	0.90	0.00	1.05	33.5	35.3	UnDef	0.42
15.42	110.2	2.38	2.16	1.6	7	117.8	0.92	0.92	0.00	1.04	35.2	36.7	UnDef	0.44
15.75	103.6	2.13	2.06	1.1	7	117.8	0.94	0.94	0.00	1.03	33.1	34.1	UnDef	0.38
16.08	88.3	1.90	2.16	1.3	7	117.8	0.96	0.96	0.00	1.02	28.2	28.8	UnDef	0.31
16.40	78.1	1.61	2.07	1.3	7	117.8	0.98	0.98	0.00	1.01	24.9	25.2	UnDef	0.26
16.73	75.4	1.33	1.76	1.6	7	117.8	1.00	1.00	0.00	1.00	24.1	24.1	UnDef	0.22
17.06	76.2	1.22	1.60	1.5	7	117.8	1.02	1.02	0.00	0.99	24.3	24.1	UnDef	0.20
17.39	62.1	1.01	1.62	1.4	7	117.8	1.04	1.04	0.00	0.98	19.8	19.5	UnDef	0.17
17.72	51.3	0.91	1.78	1.8	7	117.8	1.06	1.06	0.00	0.97	16.4	15.9	UnDef	0.16
18.04	44.6	0.79	1.78	2.4	7	117.8	1.07	1.07	0.00	0.96	14.2	13.7	UnDef	0.16
18.37	41.9	0.63	1.51	3.0	7	117.8	1.09	1.09	0.00	0.96	13.4	12.8	UnDef	0.14
18.70	48.2	0.62	1.28	1.9	7	117.8	1.11	1.11	0.00	0.95	15.4	14.6	UnDef	0.13
19.03	48.6	0.40	0.81	1.2	7	117.8	1.13	1.13	0.00	0.94	15.5	14.6	UnDef	0.11
19.36	35.3	0.25	0.70	1.8	7	117.8	1.15	1.15	0.00	0.93	11.3	10.5	UnDef	0.10
19.68	33.0	0.33	1.00	1.8	7	117.8	1.17	1.17	0.00	0.92	10.5	9.7	UnDef	0.11
20.01	32.8	0.37	1.13	1.7	7	117.8	1.19	1.19	0.00	0.92	10.5	9.6	UnDef	0.11
20.34	23.9	0.38	1.58	0.5	6	114.6	1.21	1.21	0.00	0.91	9.1	8.3	1.81	0.19
20.67	13.4	0.26	1.91	6.1	5	114.6	1.23	1.23	0.00	0.90	6.4	5.8	0.97	0.10
21.00	26.8	0.36	1.35	15.6	6	114.6	1.25	1.25	0.00	0.90	10.3	9.2	2.04	0.16
21.33	44.2	0.63	1.43	4.7	7	117.8	1.27	1.27	0.00	0.89	14.1	12.5	UnDef	0.14
21.65	46.7	0.84	1.80	4.6	7	117.8	1.29	1.29	0.00	0.88	14.9	13.1	UnDef	0.18
21.98	44.2	0.83	1.87	9.9	7	117.8	1.30	1.30	0.00	0.88	14.1	12.3	UnDef	0.19
22.31	45.9	0.87	1.90	16.6	7	117.8	1.32	1.32	0.00	0.87	14.6	12.7	UnDef	0.20
22.64	45.1	0.88	1.95	13.7	6	114.6	1.34	1.34	0.00	0.86	17.3	14.9	3.50	0.21
22.97	46.0	1.03	2.23	17.7	6	114.6	1.36	1.36	0.00	0.86	17.6	15.1	3.57	0.28
23.29	53.9	0.98	1.82	13.7	7	117.8	1.38	1.38	0.00	0.85	17.2	14.6	UnDef	0.19
23.62	59.4	1.09	1.83	10.8	7	117.8	1.40	1.40	0.00	0.85	19.0	16.0	UnDef	0.20
23.95	66.6	1.04	1.56	12.7	7	117.8	1.42	1.42	0.00	0.84	21.3	17.9	UnDef	0.18
24.28	69.1	0.90	1.30	5.5	7	117.8	1.44	1.44	0.00	0.83	22.1	18.4	UnDef	0.16
24.61	38.8	0.77	1.98	3.2	6	114.6	1.46	1.46	0.00	0.83	14.9	12.3	2.99	0.32
24.93	23.4	0.51	2.17	11.8	6	114.6	1.48	1.48	0.00	0.82	9.0	7.4	1.75	0.16
25.26	21.6	0.42	1.93	37.7	6	114.6	1.50	1.50	0.00	0.82	8.3	6.8	1.61	0.14
25.59	22.5	0.43	1.92	29.3	6	114.6	1.51	1.51	0.00	0.81	8.6	7.0	1.68	0.15
25.92	17.4	0.33	1.90	20.4	6	114.6	1.53	1.53	0.00	0.81	6.7	5.4	1.27	0.11
26.25	13.1	0.16	1.18	24.4	6	114.6	1.55	1.55	0.00	0.80	5.0	4.0	0.93	0.09
26.57	11.8	0.11	0.89	50.7	6	114.6	1.57	1.57	0.00	0.80	4.5	3.6	0.82	0.09
26.90	24.1	0.34	1.41	44.6	6	114.6	1.59	1.59	0.00	0.79	9.2	7.3	1.80	0.16
27.23	34.0	0.45	1.31	22.3	7	117.8	1.61	1.61	0.00	0.79	10.8	8.5	UnDef	0.20
27.56	31.6	0.48	1.52	13.8	6	114.6	1.63	1.63	0.00	0.78	12.1	9.5	2.40	0.25
27.89	26.1	0.55	2.11	32.8	6	114.6	1.65	1.64	0.01	0.78	10.0	7.8	1.96	0.17
28.21	29.3	0.56	1.90	31.5	6	114.6	1.67	1.65	0.02	0.78	11.2	8.8	2.21	0.21
28.54	23.2	0.45	1.95	37.8	6	114.6	1.68	1.65	0.03	0.78	8.9	6.9	1.72	0.14
28.87	15.8	0.39	2.44	54.1	5	114.6	1.70	1.66	0.04	0.78	7.6	5.9	1.13	0.10
29.20	22.3	0.40	1.80	36.9	6	114.6	1.72	1.67	0.05	0.77	8.5	6.6	1.65	0.14
29.53	25.1	0.47	1.85	19.2	6	114.6	1.74	1.68	0.06	0.77	9.6	7.4	1.87	0.16
29.86	32.7	0.50	1.53	28.8	6	114.6	1.76	1.69	0.07	0.77	12.5	9.6	2.47	0.25
30.18	26.6	0.49	1.84	18.5	6	114.6	1.78	1.70	0.08	0.77	10.2	7.8	1.99	0.17
30.59	25.6	0.45	1.76	34.8	6	114.6	1.80	1.71	0.09	0.77	9.8	7.5	1.90	0.16
31.00	26.3	0.42	1.58	25.8	6	114.6	1.83	1.72	0.11	0.76	10.1	7.7	1.96	0.17
31.33	15.8	0.33	2.09	39.3	5	114.6	1.84	1.73	0.12	0.76	7.6	5.8	1.12	0.10
31.66	28.3	0.42	1.47	47.5	6	114.6	1.86	1.74	0.13	0.76	10.8	8.2	2.11	0.19
31.99	41.7	0.43	1.03	16.2	7	117.8	1.88	1.75	0.14	0.76	13.3	10.1	UnDef	0.14
32.32	26.6	0.38	1.41	29.7	6	114.6	1.90	1.75	0.15	0.76	10.2	7.7	1.98	0.17
32.64	19.2	0.47	2.43	16.3	5	114.6	1.92	1.76	0.16	0.75	9.2	6.9	1.38	0.11
32.97	49.5	0.50	1.00	31.3	7	117.8	1.94	1.77	0.17	0.75	15.8	11.9	UnDef	0.13
33.30	92.0	1.00	1.09	12.0	8	120.9	1.96	1.78	0.18	0.75	22.0	16.5	UnDef	0.18

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CPT File: 717CP001.COR

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
33.63	184.3	2.64	1.43	8.7	8	120.9	1.98	1.79	0.19	0.75	44.1	33.0	UnDef	0.00
33.96	246.0	5.32	2.16	-1.1	7	117.8	2.00	1.80	0.20	0.75	78.5	58.5	UnDef	0.00
34.28	273.1	7.42	2.72	-2.1	7	117.8	2.02	1.81	0.21	0.74	87.2	64.8	UnDef	0.00
34.61	306.1	6.82	2.23	-3.0	8	120.9	2.04	1.82	0.22	0.74	73.3	54.4	UnDef	0.00
34.94	382.2	6.47	1.69	-0.9	8	120.9	2.06	1.83	0.23	0.74	91.5	67.7	UnDef	0.00
35.27	401.6	5.98	1.49	-1.4	8	120.9	2.08	1.84	0.24	0.74	96.2	71.0	UnDef	0.00
35.60	434.7	5.68	1.31	-2.3	9	124.1	2.10	1.85	0.25	0.74	83.3	61.3	UnDef	0.00
35.92	407.8	6.95	1.70	0.0	8	120.9	2.12	1.86	0.26	0.73	97.6	71.7	UnDef	0.00
36.25	399.1	8.60	2.15	0.1	8	120.9	2.14	1.87	0.27	0.73	95.6	70.0	UnDef	0.00
36.58	388.6	8.44	2.17	0.5	8	120.9	2.16	1.88	0.28	0.73	93.0	67.9	UnDef	0.00
36.91	401.1	9.28	2.31	0.9	8	120.9	2.18	1.89	0.29	0.73	96.0	69.9	UnDef	0.00
37.24	413.6	10.49	2.54	-0.2	12	120.9	2.20	1.90	0.30	0.73	198.1	143.9	UnDef	0.00
37.57	414.9	10.01	2.41	0.7	12	120.9	2.22	1.90	0.31	0.72	198.7	144.0	UnDef	0.00
37.89	422.8	10.95	2.59	0.2	12	120.9	2.24	1.91	0.32	0.72	202.5	146.3	UnDef	0.00
38.22	419.7	9.51	2.27	-0.9	8	120.9	2.26	1.92	0.33	0.72	100.5	72.5	UnDef	0.00
38.55	402.9	9.52	2.36	-0.9	8	120.9	2.28	1.93	0.34	0.72	96.5	69.4	UnDef	0.00
38.88	388.5	8.78	2.26	-1.9	8	120.9	2.30	1.94	0.35	0.72	93.0	66.7	UnDef	0.00
39.21	374.3	10.26	2.74	3.2	12	120.9	2.31	1.95	0.36	0.72	179.2	128.3	UnDef	0.00
39.53	373.9	11.07	2.96	1.9	12	120.9	2.33	1.96	0.37	0.71	179.0	127.8	UnDef	0.00
39.86	327.0	10.61	3.24	-0.1	12	120.9	2.35	1.97	0.38	0.71	156.6	111.5	UnDef	0.00
40.19	280.9	7.21	2.57	-2.4	7	117.8	2.37	1.98	0.39	0.71	89.7	63.7	UnDef	0.00
40.52	255.5	6.00	2.35	-3.7	7	117.8	2.39	1.99	0.40	0.71	81.6	57.8	UnDef	0.00
40.85	251.9	7.16	2.84	-1.8	7	117.8	2.41	2.00	0.41	0.71	80.4	56.9	UnDef	0.00
41.17	251.6	6.05	2.41	-1.3	7	117.8	2.43	2.01	0.42	0.71	80.3	56.7	UnDef	0.00
41.50	255.3	4.18	1.64	-2.8	8	120.9	2.45	2.02	0.43	0.70	61.1	43.0	UnDef	0.00
41.83	236.5	4.95	2.09	-0.4	8	120.9	2.47	2.03	0.44	0.70	56.6	39.8	UnDef	0.00
42.16	222.2	5.69	2.56	0.1	7	117.8	2.49	2.04	0.45	0.70	70.9	49.7	UnDef	0.00
42.49	208.9	6.23	2.98	10.3	7	117.8	2.51	2.05	0.46	0.70	66.7	46.6	UnDef	0.00
42.81	192.1	5.71	2.97	5.2	7	117.8	2.53	2.06	0.47	0.70	61.3	42.8	UnDef	0.00
43.14	202.1	5.86	2.90	3.3	7	117.8	2.55	2.06	0.48	0.70	64.5	44.9	UnDef	0.00
43.47	195.1	5.44	2.79	0.7	7	117.8	2.57	2.07	0.50	0.69	62.3	43.3	UnDef	0.00
43.80	199.6	5.72	2.86	-0.9	7	117.8	2.59	2.08	0.51	0.69	63.7	44.2	UnDef	0.00
44.13	182.1	5.52	3.03	-3.2	7	117.8	2.61	2.09	0.52	0.69	58.1	40.2	UnDef	0.00
44.45	173.3	4.80	2.77	-4.9	7	117.8	2.63	2.10	0.53	0.69	55.3	38.2	UnDef	0.00
44.78	175.5	4.62	2.63	-5.3	7	117.8	2.65	2.11	0.54	0.69	56.0	38.6	UnDef	0.00
45.11	168.4	4.25	2.52	-5.8	7	117.8	2.67	2.12	0.55	0.69	53.8	36.9	UnDef	0.00
45.44	160.5	3.38	2.11	-6.7	7	117.8	2.68	2.13	0.56	0.69	51.2	35.1	UnDef	0.00
45.77	102.0	2.84	2.78	13.4	6	114.6	2.70	2.14	0.57	0.68	39.1	26.7	7.95	0.00
46.10	82.9	2.39	2.88	31.7	6	114.6	2.72	2.15	0.58	0.68	31.8	21.7	6.41	0.00
46.42	99.4	2.23	2.24	47.0	7	117.8	2.74	2.15	0.59	0.68	31.7	21.6	UnDef	0.45
46.75	111.7	2.15	1.92	38.7	7	117.8	2.76	2.16	0.60	0.68	35.7	24.2	UnDef	0.38
47.08	103.5	1.98	1.92	35.0	7	117.8	2.78	2.17	0.61	0.68	33.0	22.4	UnDef	0.36
47.41	98.3	1.55	1.58	37.8	7	117.8	2.80	2.18	0.62	0.68	31.4	21.2	UnDef	0.27
47.74	87.8	1.63	1.86	45.7	7	117.8	2.82	2.19	0.63	0.68	28.0	18.9	UnDef	0.33
48.06	88.5	1.74	1.97	46.7	7	117.8	2.84	2.20	0.64	0.67	28.2	19.0	UnDef	0.36
48.39	80.6	1.43	1.77	44.5	7	117.8	2.86	2.21	0.65	0.67	25.7	17.3	UnDef	0.30
48.72	68.4	1.05	1.54	57.9	7	117.8	2.88	2.22	0.66	0.67	21.8	14.7	UnDef	0.25
49.05	50.2	0.68	1.35	41.0	7	117.8	2.90	2.23	0.67	0.67	16.0	10.7	UnDef	0.27
49.38	30.7	0.41	1.32	88.9	6	114.6	2.91	2.24	0.68	0.67	11.8	7.9	2.23	0.17
49.70	23.8	0.12	0.48	103.5	7	117.8	2.93	2.24	0.69	0.67	7.6	5.1	UnDef	0.12

Run No: 04-0401-1123-5225
 Job No: 04-717
 Client: MACTEC
 Project: TVA Kingston
 Site: CPT-1
 Location: TVA Kingston
 Cone: 20 TON AD142
 CPT Date: 04/22/03
 CPT Time: 08:54
 CPT File: 717CP001.COR
 Northing (m): 0.000
 Easting (m): 0.000
 Elevation (m): 0.000

Water Table (m): 8.41 (ft): 27.6
 Unit Weight of Water (User Specified): 62.40 pcf
 Su Nkt used: 12.50 Su/P' (nc): 0.30
 Averaging Increment (m): 0.10
 Phi Method : Robertson and Campanella, 1983
 Dr Method : Jamiolkowski - All Sands
 State Parameter M: 1.20

Used Unit Weights Assigned to Soil Zones

Values of 1.0E9 or UnDef are printed for parameters that are not valid for the material type (SBT)

Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTr	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Fhi (Deg)	Dr (%)	OCR	State Del Param	(n1)60	(N1)60cs
0.16	5.0E-04	0.00	1000.0	0.04	10	45.0	0.0	45.0	0.0	50	91.7	1.0	-0.12	0.0	15.0
0.49	5.0E-03	0.00	1000.0	0.24	10	137.1	0.0	137.1	0.0	50	95.0	1.0	-0.26	0.0	34.3
0.82	5.0E-02	0.00	1000.0	0.67	10	280.8	0.0	280.8	0.0	50	95.0	1.0	-0.36	0.0	56.2
1.15	5.0E-02	0.00	1000.0	0.65	10	444.3	0.0	444.3	0.0	50	95.0	1.0	-0.36	0.0	88.9
1.48	5.0E-03	0.00	1000.0	1.43	12	537.7	UnDef	UnDef	0.0	50	95.0	1.0	-0.45	UnDef	UnDef
1.80	5.0E-03	0.00	1000.0	2.05	12	540.2	UnDef	UnDef	0.0	50	95.0	1.0	-0.52	UnDef	UnDef
2.13	5.0E-03	0.00	1000.0	1.76	12	553.7	UnDef	UnDef	0.0	50	95.0	1.0	-0.49	UnDef	UnDef
2.46	5.0E-03	0.00	1000.0	1.86	12	614.5	UnDef	UnDef	0.0	50	95.0	1.0	-0.50	UnDef	UnDef
2.79	5.0E-04	0.00	1000.0	2.56	12	598.1	UnDef	UnDef	0.0	50	95.0	1.0	-0.57	UnDef	UnDef
3.12	5.0E-04	0.00	1000.0	2.68	12	488.5	UnDef	UnDef	0.0	50	95.0	1.0	-0.59	UnDef	UnDef
3.44	5.0E-03	0.00	1000.0	1.62	12	509.3	UnDef	UnDef	0.0	50	95.0	1.0	-0.47	UnDef	UnDef
3.77	5.0E-02	0.00	1000.0	1.04	9	547.0	0.0	547.0	0.6	50	95.0	1.0	-0.41	0.0	109.4
4.10	5.0E-02	0.00	1000.0	1.17	9	694.2	0.0	694.2	1.2	50	95.0	1.0	-0.43	0.0	138.8
4.43	5.0E-03	0.00	1000.0	1.55	12	754.9	UnDef	UnDef	0.0	50	95.0	1.0	-0.47	UnDef	UnDef
4.76	5.0E-03	0.00	1000.0	1.89	12	731.7	UnDef	UnDef	0.0	50	95.0	1.0	-0.50	UnDef	UnDef
5.09	5.0E-03	0.00	1000.0	2.37	12	664.9	UnDef	UnDef	0.0	50	95.0	1.0	-0.55	UnDef	UnDef
5.41	5.0E-03	0.00	1000.0	1.96	12	601.2	UnDef	UnDef	0.0	50	95.0	1.0	-0.51	UnDef	UnDef
5.74	5.0E-03	0.00	1000.0	2.10	12	655.4	UnDef	UnDef	0.0	50	95.0	1.0	-0.52	UnDef	UnDef
6.07	1.0E-15	0.00	1000.0	2.82	12	600.3	UnDef	UnDef	0.0	50	95.0	1.0	-0.61	UnDef	UnDef
6.40	5.0E-04	0.00	839.1	2.42	12	511.5	UnDef	UnDef	0.0	50	95.0	1.0	-0.54	UnDef	UnDef
6.73	5.0E-03	0.00	939.1	1.52	12	586.7	UnDef	UnDef	0.0	50	95.0	1.0	-0.46	UnDef	UnDef
7.05	5.0E-03	0.00	1000.0	1.71	12	754.0	UnDef	UnDef	0.0	50	95.0	1.0	-0.48	UnDef	UnDef
7.38	1.0E-15	0.00	1000.0	2.52	12	825.2	UnDef	UnDef	0.0	50	95.0	1.0	-0.57	UnDef	UnDef
7.79	1.0E-15	0.00	1000.0	3.06	12	698.5	UnDef	UnDef	0.0	50	95.0	1.0	-0.63	UnDef	UnDef
8.20	1.0E-15	0.00	855.8	3.11	12	590.5	UnDef	UnDef	0.0	50	95.0	1.0	-0.62	UnDef	UnDef
8.53	1.0E-15	0.00	677.0	3.30	12	476.6	UnDef	UnDef	0.0	50	95.0	1.0	-0.61	UnDef	UnDef
8.86	1.0E-15	0.00	496.9	3.37	12	356.6	UnDef	UnDef	0.0	48	95.0	1.0	-0.58	UnDef	UnDef
9.19	5.0E-04	0.00	366.4	3.05	12	267.9	UnDef	UnDef	0.0	48	95.0	1.0	-0.51	UnDef	UnDef
9.51	5.0E-04	0.00	316.1	2.52	12	235.2	UnDef	UnDef	0.0	46	91.8	1.0	-0.43	UnDef	UnDef
9.84	5.0E-04	0.00	320.1	2.08	9	242.2	24.7	266.9	8.5	46	92.6	1.0	-0.40	4.9	83.9
10.17	5.0E-03	0.00	390.2	1.76	9	299.9	10.5	310.4	6.3	48	95.0	1.0	-0.39	1.6	75.0
10.50	5.0E-04	0.00	416.3	2.23	12	324.9	UnDef	UnDef	0.0	48	95.0	1.0	-0.44	UnDef	UnDef
10.83	5.0E-04	0.00	426.0	2.24	12	337.5	UnDef	UnDef	0.0	48	95.0	1.0	-0.44	UnDef	UnDef
11.15	5.0E-04	0.00	481.3	2.64	12	386.8	UnDef	UnDef	0.0	48	95.0	1.0	-0.50	UnDef	UnDef
11.48	5.0E-04	0.00	426.9	2.53	12	348.1	UnDef	UnDef	0.0	48	95.0	1.0	-0.47	UnDef	UnDef
11.81	5.0E-04	0.00	367.8	2.44	12	304.2	UnDef	UnDef	0.0	48	95.0	1.0	-0.45	UnDef	UnDef
12.14	5.0E-04	0.00	336.4	2.60	12	282.1	UnDef	UnDef	0.0	48	95.0	1.0	-0.45	UnDef	UnDef
12.47	5.0E-04	0.00	310.2	2.71	12	263.5	UnDef	UnDef	0.0	46	95.0	1.0	-0.45	UnDef	UnDef
12.80	5.0E-04	0.00	263.3	3.18	12	226.7	UnDef	UnDef	0.0	46	90.7	1.0	-0.48	UnDef	UnDef

Ch (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1)60	(N1)60cs
13.12	5.0E-05	0.00	223.5	3.25	12	195.0	UnDef	UnDef	0.0	46	86.4	10.0	-0.46	UnDef	UnDef
13.45	5.0E-05	0.00	185.2	3.23	12	163.6	UnDef	UnDef	0.0	44	81.4	10.0	-0.44	UnDef	UnDef
13.78	5.0E-05	0.00	153.7	3.14	12	137.5	UnDef	UnDef	0.0	44	76.4	10.0	-0.40	UnDef	UnDef
14.11	5.0E-05	0.00	135.9	2.85	7	123.1	59.1	182.2	17.1	44	73.2	10.0	-0.36	12.3	60.4
14.44	5.0E-04	0.00	135.8	2.71	7	124.3	55.9	180.2	16.6	44	73.5	1.0	-0.35	9.8	50.3
14.76	5.0E-05	0.00	119.9	2.74	7	111.1	57.8	168.9	17.8	42	70.3	10.0	-0.34	11.8	55.3
15.09	5.0E-04	0.00	115.6	2.23	7	108.3	45.1	153.4	16.0	42	69.6	1.0	-0.30	8.0	43.3
15.42	5.0E-04	0.00	118.8	2.17	7	112.5	44.0	156.5	15.5	42	70.6	1.0	-0.30	7.8	44.5
15.75	5.0E-04	0.00	109.3	2.08	7	104.6	42.5	147.1	15.8	42	68.6	1.0	-0.28	7.5	41.6
16.08	5.0E-04	0.00	91.0	2.18	7	88.2	47.0	135.3	18.0	42	63.7	1.0	-0.27	8.0	36.8
16.40	5.0E-04	0.00	78.8	2.05	7	77.3	46.5	123.7	19.1	42	59.9	1.0	-0.24	7.7	32.9
16.73	5.0E-04	0.00	74.6	1.75	7	73.9	39.6	113.5	18.1	40	58.6	1.0	-0.22	6.7	30.8
17.06	5.0E-04	0.00	74.0	1.62	7	74.0	35.9	109.9	17.2	40	58.6	1.0	-0.21	6.2	30.3
17.39	5.0E-04	0.00	59.0	1.65	7	59.7	39.3	99.0	19.9	40	52.5	1.0	-0.18	6.4	25.9
17.72	5.0E-04	0.00	47.6	1.82	7	48.9	47.3	96.1	23.4	38	46.8	1.0	-0.17	7.1	23.0
18.04	5.0E-04	0.00	40.5	1.82	7	42.1	51.3	93.4	25.6	38	42.5	1.0	-0.16	7.2	20.9
18.37	5.0E-04	0.00	37.3	1.55	7	39.2	44.9	84.1	25.0	38	40.4	1.0	-0.13	6.4	19.2
18.70	5.0E-04	0.00	42.3	1.31	7	44.7	36.0	80.7	21.7	38	44.2	1.0	-0.13	5.6	20.2
19.03	5.0E-04	0.00	41.9	0.85	7	44.7	23.9	68.6	18.1	38	44.2	1.0	-0.09	4.1	18.6
19.36	5.0E-04	0.00	29.7	0.72	7	32.2	25.1	57.3	21.4	36	34.8	1.0	-0.05	4.0	14.5
19.68	5.0E-04	0.00	27.1	1.04	7	29.8	36.9	66.7	25.7	36	32.6	1.0	-0.07	5.1	14.9
20.01	5.0E-04	0.00	26.5	1.17	7	29.4	42.7	72.1	27.2	36	32.2	1.0	-0.07	5.6	15.2
20.34	5.0E-05	0.00	18.7	1.66	6	21.2	84.9	106.2	36.7	32	30.0	8.5	-0.07	8.3	16.6
20.67	5.0E-06	0.02	9.9	2.11	6	11.8	47.2	58.9	53.1	UnDef	UnDef	3.2	UnDef	5.8	11.5
21.00	5.0E-05	0.02	20.5	1.41	7	23.5	72.3	95.8	33.3	34	30.0	9.8	-0.06	8.2	17.4
21.33	5.0E-04	0.00	33.9	1.47	7	38.4	48.0	86.5	25.8	36	39.9	1.0	-0.12	6.7	19.2
21.65	5.0E-04	0.00	35.3	1.85	7	40.3	61.9	102.2	27.7	38	41.2	1.0	-0.14	8.0	21.2
21.98	5.0E-04	0.01	32.8	1.93	7	37.8	69.1	106.9	29.2	36	39.4	1.0	-0.14	8.4	20.7
22.31	5.0E-04	0.01	33.6	1.96	7	39.0	69.7	108.7	29.0	36	40.3	1.0	-0.14	8.5	21.2
22.64	5.0E-05	0.01	32.5	2.01	7	38.1	74.5	112.5	29.8	36	39.6	10.0	-0.14	10.5	25.4
22.97	5.0E-05	0.01	32.8	2.30	6	38.6	91.3	129.9	31.3	36	40.0	10.0	-0.16	11.9	27.0
23.29	5.0E-04	0.01	38.0	1.87	7	44.8	62.1	107.0	26.8	38	44.3	1.0	-0.15	8.3	23.0
23.62	5.0E-04	0.01	41.4	1.87	7	49.1	59.9	109.0	25.6	38	46.9	1.0	-0.16	8.4	24.4
23.95	5.0E-04	0.01	45.9	1.59	7	54.7	48.1	102.8	22.5	38	50.0	1.0	-0.16	7.4	25.2
24.28	5.0E-04	0.00	47.0	1.33	7	56.4	40.0	96.4	20.5	38	50.9	1.0	-0.14	6.4	24.8
24.61	5.0E-05	0.00	25.6	2.05	6	31.4	105.6	137.0	33.9	34	34.1	10.0	-0.12	11.5	23.8
24.93	5.0E-05	0.02	14.8	2.31	6	18.8	75.3	94.1	45.5	32	30.0	5.9	-0.07	7.4	14.7
25.26	5.0E-05	0.06	13.4	2.07	6	17.3	69.2	86.4	46.0	32	30.0	5.1	-0.04	6.8	13.5
25.59	5.0E-05	0.04	13.8	2.06	6	17.9	71.4	89.3	45.3	32	30.0	5.3	-0.05	7.0	14.0
25.92	5.0E-05	0.04	10.4	2.08	6	13.8	55.0	68.8	51.8	30	30.0	3.4	-0.02	5.4	10.8
26.25	5.0E-05	0.07	7.4	1.34	6	10.3	41.2	51.5	53.7	30	30.0	2.2	0.05	4.0	8.1
26.57	5.0E-05	0.16	6.5	1.03	6	9.2	36.8	45.9	53.9	30	30.0	1.8	0.09	3.6	7.2
26.90	5.0E-05	0.06	14.2	1.52	6	18.7	74.8	93.5	40.9	32	30.0	5.5	-0.03	7.3	14.6
27.23	5.0E-04	0.02	20.1	1.38	7	26.2	81.4	107.6	33.3	34	30.0	1.0	-0.06	7.7	16.2
27.56	5.0E-05	0.01	18.4	1.61	6	24.2	96.9	121.2	36.6	32	30.0	8.3	-0.06	9.5	19.0
27.89	5.0E-05	0.04	14.9	2.26	6	19.9	79.8	99.7	45.0	32	30.0	6.0	-0.06	7.8	15.6
28.21	5.0E-05	0.03	16.8	2.01	6	22.4	89.4	111.8	41.2	32	30.0	7.2	-0.07	8.8	17.5
28.54	5.0E-05	0.05	13.0	2.10	6	17.6	70.5	88.2	46.9	30	30.0	4.8	-0.04	6.9	13.8
28.87	5.0E-06	0.12	8.5	2.71	4	12.0	48.1	60.1	60.7	UnDef	UnDef	2.6	UnDef	5.9	11.8
29.20	5.0E-05	0.05	12.3	1.95	6	16.9	67.5	84.4	47.0	30	30.0	4.5	-0.03	6.6	13.2
29.53	5.0E-05	0.02	13.9	1.99	6	19.0	75.9	94.9	44.8	32	30.0	5.4	-0.05	7.4	14.9
29.86	5.0E-05	0.03	18.3	1.62	6	24.6	98.4	123.0	36.8	32	30.0	8.2	-0.06	9.6	19.3
30.18	5.0E-05	0.02	14.6	1.98	6	20.0	80.0	100.0	43.6	32	30.0	5.8	-0.05	7.8	15.7
30.59	5.0E-05	0.04	13.9	1.90	6	19.2	76.6	95.8	44.1	32	30.0	5.4	-0.04	7.5	15.0
31.00	5.0E-05	0.03	14.3	1.70	6	19.7	78.7	98.3	42.2	32	30.0	5.6	-0.04	7.7	15.4
31.33	5.0E-06	0.08	8.1	2.37	4	11.8	47.1	58.8	59.7	UnDef	UnDef	2.4	UnDef	5.8	11.5
31.66	5.0E-05	0.05	15.2	1.58	6	21.0	84.0	105.0	40.0	32	30.0	6.1	-0.04	8.2	16.4
31.99	5.0E-04	0.01	22.8	1.08	7	30.9	53.7	84.6	28.8	34	33.6	1.0	-0.05	6.6	16.7
32.32	5.0E-05	0.03	14.1	1.52	6	19.7	78.7	98.3	41.1	32	30.0	5.5	-0.03	7.7	15.4
32.64	5.0E-06	0.02	9.8	2.70	4	14.2	56.7	70.8	57.0	UnDef	UnDef	3.2	UnDef	6.9	13.9
32.97	5.0E-04	0.02	26.8	1.04	7	36.4	46.0	82.4	25.9	36	38.3	1.0	-0.06	6.4	18.2
33.30	5.0E-03	0.00	50.6	1.11	7	67.5	36.4	103.8	18.1	38	56.0	1.0	-0.13	4.6	21.1

Run No: 04-0401-1123-5225

CPT File: 717CP001.COR

Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTr	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1)60	(N1)60cs
33.63	5.0E-03	0.00	101.8	1.45	9	134.8	38.0	172.8	13.2	42	75.8	1.0	-0.23	5.3	38.2
33.96	5.0E-04	0.00	135.6	2.18	7	179.5	60.6	240.1	14.5	44	84.0	1.0	-0.31	11.0	69.5
34.28	5.0E-04	0.00	149.9	2.74	7	198.8	81.5	280.2	15.9	44	87.0	1.0	-0.37	14.4	79.3
34.61	5.0E-03	0.00	167.3	2.24	7	222.2	61.3	283.5	13.1	44	90.2	1.0	-0.34	8.5	62.9
34.94	5.0E-03	0.00	208.0	1.70	9	276.6	35.7	312.3	9.3	46	95.0	1.0	-0.32	5.2	72.9
35.27	5.0E-03	0.00	217.5	1.50	9	290.0	25.8	315.8	8.1	46	95.0	1.0	-0.31	3.8	74.8
35.60	5.0E-02	0.00	234.2	1.31	9	313.0	15.3	328.3	6.7	46	95.0	1.0	-0.30	1.8	63.1
35.92	5.0E-03	0.00	218.5	1.71	9	292.9	35.3	328.2	9.0	46	95.0	1.0	-0.33	5.2	76.8
36.25	5.0E-03	0.00	212.7	2.17	9	285.9	55.9	341.8	11.1	46	95.0	1.0	-0.36	8.0	77.9
36.58	5.0E-03	0.00	206.0	2.18	9	277.6	57.3	334.9	11.4	46	95.0	1.0	-0.36	8.1	76.1
36.91	5.0E-03	0.00	211.5	2.33	9	285.8	63.4	349.2	11.8	46	95.0	1.0	-0.37	9.0	78.9
37.24	1.0E-15	0.00	217.1	2.55	7	294.0	73.4	367.4	12.5	46	95.0	1.0	-0.39	20.5	164.4
37.57	1.0E-15	0.00	216.6	2.43	9	294.2	67.9	362.1	12.0	46	95.0	1.0	-0.38	19.1	163.1
37.89	1.0E-15	0.00	219.7	2.60	7	299.1	76.1	375.2	12.6	46	95.0	1.0	-0.40	21.3	167.6
38.22	5.0E-03	0.00	217.0	2.28	9	296.1	61.5	357.7	11.4	46	95.0	1.0	-0.37	8.7	81.2
38.55	5.0E-03	0.00	207.2	2.38	9	283.6	66.7	350.3	12.1	46	95.0	1.0	-0.37	9.4	78.8
38.88	5.0E-03	0.00	198.7	2.27	9	272.7	62.8	335.5	12.0	46	95.0	1.0	-0.36	8.8	75.6
39.21	1.0E-15	0.00	190.5	2.76	7	262.1	84.7	346.8	14.1	44	94.9	1.0	-0.40	23.1	151.4
39.53	1.0E-15	0.00	189.3	2.98	12	261.2	UnDef	UnDef	0.0	44	94.8	1.0	-0.42	UnDef	UnDef
39.86	1.0E-15	0.00	164.6	3.27	12	227.9	UnDef	UnDef	0.0	44	90.9	1.0	-0.42	UnDef	UnDef
40.19	5.0E-04	0.00	140.6	2.55	7	195.3	79.6	274.9	15.8	44	86.5	1.0	-0.35	14.1	77.8
40.52	5.0E-04	0.00	127.1	2.37	7	177.2	71.9	249.1	15.8	44	83.7	1.0	-0.32	12.7	70.5
40.85	5.0E-04	0.00	124.8	2.87	7	174.3	92.2	266.5	18.0	42	83.2	1.0	-0.35	15.7	72.6
41.17	5.0E-04	0.00	124.1	2.43	7	173.7	74.7	248.4	16.3	42	83.1	1.0	-0.32	13.1	69.8
41.50	5.0E-03	0.00	125.3	1.65	9	175.9	44.9	220.8	12.6	44	83.5	1.0	-0.26	6.3	49.3
41.83	5.0E-03	0.00	115.4	2.11	7	162.5	63.4	226.0	15.5	42	81.2	1.0	-0.29	8.5	48.2
42.16	5.0E-04	0.00	107.9	2.55	7	152.4	82.8	235.2	18.2	42	79.3	1.0	-0.32	14.0	63.7
42.49	5.0E-04	0.00	100.9	3.02	7	142.9	101.3	244.2	20.5	42	77.5	1.0	-0.34	16.3	62.9
42.81	5.0E-04	0.00	92.2	3.01	7	131.1	102.4	233.5	21.4	42	75.0	1.0	-0.33	16.2	58.9
43.14	5.0E-04	0.00	96.7	2.94	7	137.7	98.7	236.3	20.6	42	76.4	1.0	-0.33	15.9	60.8
43.47	5.0E-04	0.00	92.9	2.83	7	132.6	94.8	227.4	20.6	42	75.4	1.0	-0.31	15.3	58.5
43.80	5.0E-04	0.00	94.6	2.90	7	135.4	98.0	233.3	20.7	42	76.0	1.0	-0.32	15.7	59.9
44.13	5.0E-04	0.00	85.8	3.08	7	123.2	107.3	230.5	22.4	42	73.3	1.0	-0.32	16.5	56.7
44.45	5.0E-04	0.00	81.3	2.81	7	117.0	96.8	213.9	22.0	42	71.8	1.0	-0.30	15.1	53.3
44.78	5.0E-04	0.00	81.9	2.67	7	118.2	90.9	209.1	21.3	42	72.1	1.0	-0.29	14.4	53.0
45.11	5.0E-04	0.00	78.2	2.56	7	113.2	87.3	200.5	21.3	42	70.8	1.0	-0.28	13.8	50.8
45.44	5.0E-04	0.00	74.2	2.14	7	107.7	71.5	179.1	19.9	40	69.4	1.0	-0.24	11.7	46.8
45.77	5.0E-05	0.00	46.5	2.86	6	68.3	121.6	189.9	29.0	38	56.4	10.0	-0.23	17.9	44.6
46.10	5.0E-05	0.01	37.4	2.98	6	55.4	156.9	212.3	32.7	38	50.3	10.0	-0.21	18.6	40.3
46.42	5.0E-04	0.01	44.9	2.31	7	66.3	92.8	159.1	26.9	38	55.5	1.0	-0.19	12.4	34.0
46.75	5.0E-04	0.01	50.4	1.97	7	74.3	73.1	147.4	23.6	38	58.8	1.0	-0.19	10.9	35.1
47.08	5.0E-04	0.00	46.4	1.97	7	68.7	75.7	144.4	24.6	38	56.5	1.0	-0.18	10.9	33.4
47.41	5.0E-04	0.01	43.8	1.62	7	65.1	62.4	127.5	23.3	38	55.0	1.0	-0.15	9.4	30.6
47.74	5.0E-04	0.01	38.8	1.92	7	58.0	80.5	138.6	26.8	38	51.7	1.0	-0.16	10.8	29.7
48.06	5.0E-04	0.01	38.9	2.04	7	58.4	86.5	144.8	27.4	38	51.8	1.0	-0.16	11.3	30.4
48.39	5.0E-04	0.01	35.2	1.84	7	53.1	81.1	134.1	27.6	38	49.1	1.0	-0.14	10.5	27.8
48.72	5.0E-04	0.02	29.5	1.61	7	44.9	77.9	122.9	28.8	36	44.3	1.0	-0.11	9.6	24.3
49.05	5.0E-04	0.01	21.3	1.43	7	32.9	94.6	127.6	32.8	34	35.4	1.0	-0.07	9.3	20.0
49.38	5.0E-05	0.08	12.4	1.46	6	20.1	80.5	100.6	43.1	30	30.0	4.5	-0.01	7.9	15.7
49.70	5.0E-04	0.12	9.3	0.55	6	15.5	62.2	77.7	39.4	30	30.0	1.0	0.09	5.1	10.1

Run No: 04-0401-1123-5274
 No: 04-717
 Client: MACTEC
 Project: TVA Kingston
 Site: CPT-10
 Location: TVA Kingston
 Cone: 20 TON AD142
 CPT Date: 04/23/03
 CPT Time: 10:53
 CPT File: 717CP010.COR
 Northing (m): 0.000
 Easting (m): 0.000
 Elevation (m): 0.000

Water Table (m): 0.82 (ft): 2.7
 Unit Weight of Water (User Specified): 62.40 pcf
 Su Nkt used: 12.50 Su/P' (nc): 0.30
 Averaging Increment (m): 0.10
 Phi Method: Robertson and Campanella, 1983
 Dr Method: Jamiolkowski - All Sands
 State Parameter M: 1.20

Used Unit Weights Assigned to Soil Zones

Values of 1.0E9 or UnDef are printed for parameters that are not valid for the material type (SBT)

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
0.16	12.5	0.03	0.24	0.5	6	114.6	0.01	0.01	0.00	2.00	4.8	9.6	1.00	0.00
0.49	22.3	0.09	0.41	0.3	7	117.8	0.03	0.03	0.00	2.00	7.1	14.2	UnDef	0.09
0.82	22.0	0.11	0.48	-0.3	7	117.8	0.05	0.05	0.00	2.00	7.0	14.0	UnDef	0.09
1.15	20.9	0.12	0.55	0.0	7	117.8	0.07	0.07	0.00	2.00	6.7	13.3	UnDef	0.09
48	30.3	0.15	0.48	0.3	7	117.8	0.09	0.09	0.00	2.00	9.7	19.3	UnDef	0.10
80	70.1	0.31	0.44	1.6	8	120.9	0.11	0.11	0.00	2.00	16.8	33.6	UnDef	0.31
2.13	119.3	0.56	0.47	-0.2	9	124.1	0.13	0.13	0.00	2.00	22.8	45.7	UnDef	0.00
2.46	172.9	0.88	0.51	-4.9	9	124.1	0.15	0.15	0.00	2.00	33.1	66.2	UnDef	0.00
2.79	239.4	1.64	0.69	-6.5	9	124.1	0.17	0.16	0.00	2.00	45.9	91.7	UnDef	0.00
3.12	260.4	2.37	0.91	-5.7	9	124.1	0.19	0.17	0.01	2.00	49.9	99.8	UnDef	0.00
3.44	277.7	2.56	0.92	-1.5	9	124.1	0.21	0.18	0.02	2.00	53.2	106.4	UnDef	0.00
3.77	266.9	2.61	0.98	0.7	9	124.1	0.23	0.19	0.03	2.00	51.1	102.3	UnDef	0.00
4.10	222.5	1.99	0.90	3.6	9	124.1	0.25	0.20	0.04	2.00	42.6	85.2	UnDef	0.00
4.43	172.8	1.28	0.74	-0.3	9	124.1	0.27	0.21	0.05	2.00	33.1	66.2	UnDef	0.00
4.76	175.2	1.01	0.58	6.8	9	124.1	0.29	0.22	0.06	2.00	33.6	67.1	UnDef	0.00
5.09	160.2	0.99	0.62	5.1	9	124.1	0.31	0.23	0.07	2.00	30.7	61.4	UnDef	0.00
5.41	154.3	1.07	0.70	2.9	9	124.1	0.33	0.25	0.08	2.00	29.6	59.1	UnDef	0.00
5.74	156.0	1.44	0.93	0.7	9	124.1	0.35	0.26	0.09	1.98	29.9	59.1	UnDef	0.00
6.07	163.1	1.38	0.85	1.2	9	124.1	0.37	0.27	0.11	1.94	31.2	60.7	UnDef	0.00
6.40	157.5	1.00	0.64	10.8	9	124.1	0.39	0.28	0.12	1.91	30.2	57.5	UnDef	0.00
6.73	149.5	0.81	0.54	13.9	9	124.1	0.41	0.29	0.13	1.87	28.6	53.6	UnDef	0.00
7.05	144.6	0.69	0.47	15.5	9	124.1	0.43	0.30	0.14	1.84	27.7	50.9	UnDef	0.00
7.38	157.2	0.91	0.58	14.0	9	124.1	0.45	0.31	0.15	1.81	30.1	54.4	UnDef	0.00
7.79	158.1	1.09	0.69	15.8	9	124.1	0.48	0.32	0.16	1.77	30.3	53.7	UnDef	0.00
8.20	150.7	0.99	0.66	15.4	9	124.1	0.50	0.33	0.17	1.74	28.9	50.2	UnDef	0.00
8.53	152.1	0.95	0.63	11.7	9	124.1	0.52	0.34	0.18	1.71	29.1	49.9	UnDef	0.00
8.86	137.1	0.88	0.64	-2.2	9	124.1	0.54	0.35	0.19	1.69	26.3	44.3	UnDef	0.00
9.19	111.7	0.71	0.63	-1.1	9	124.1	0.56	0.36	0.20	1.66	21.4	35.6	UnDef	0.00
9.51	85.0	0.45	0.53	-7.6	8	120.9	0.58	0.37	0.21	1.64	20.3	33.4	UnDef	0.32
9.84	63.4	0.18	0.28	-6.9	8	120.9	0.60	0.38	0.22	1.62	15.2	24.6	UnDef	0.17
10.17	55.3	0.11	0.19	6.0	8	120.9	0.62	0.39	0.23	1.60	13.2	21.2	UnDef	0.14
10.50	55.1	0.18	0.33	11.7	8	120.9	0.64	0.40	0.24	1.58	13.2	20.9	UnDef	0.14
10.83	64.0	0.33	0.51	11.2	8	120.9	0.66	0.41	0.25	1.56	15.3	23.9	UnDef	0.17
11.15	88.0	0.44	0.50	8.5	8	120.9	0.68	0.42	0.26	1.54	21.1	32.5	UnDef	0.30
11.48	80.6	0.58	0.71	0.5	8	120.9	0.70	0.43	0.27	1.53	19.3	29.5	UnDef	0.24
81	135.5	1.44	1.06	-4.3	8	120.9	0.72	0.44	0.28	1.51	32.4	49.0	UnDef	0.00
11.14	160.9	2.28	1.42	1.7	8	120.9	0.74	0.45	0.29	1.49	38.5	57.6	UnDef	0.00
12.47	160.3	3.14	1.96	-2.3	7	117.8	0.76	0.46	0.30	1.48	51.2	75.7	UnDef	0.00
12.80	136.1	3.44	2.53	-7.0	7	117.8	0.78	0.47	0.31	1.46	43.4	63.6	UnDef	0.00

Run No: 04-0401-1123-5274

CPT File: 717CP010.COR

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
33.63	7.3	0.08	1.02	88.7	5	114.6	1.99	1.03	0.96	0.99	3.5	3.5	0.43	0.08
33.96	7.7	0.09	1.11	89.9	5	114.6	2.01	1.03	0.98	0.98	3.7	3.6	0.45	0.08
34.28	8.0	0.07	0.88	96.6	5	114.6	2.03	1.04	0.99	0.98	3.8	3.7	0.47	0.09
34.61	15.9	0.09	0.57	34.0	6	114.6	2.05	1.05	1.00	0.98	6.1	5.9	1.11	0.11
34.94	10.8	0.09	0.79	26.5	6	114.6	2.07	1.06	1.01	0.97	4.1	4.0	0.70	0.09
35.27	15.0	0.17	1.10	32.3	6	114.6	2.08	1.07	1.02	0.97	5.7	5.6	1.03	0.11
35.60	25.6	0.17	0.65	15.9	7	117.8	2.10	1.08	1.03	0.96	8.2	7.9	UnDef	0.09
35.92	31.5	0.16	0.51	10.3	7	117.8	2.12	1.09	1.04	0.96	10.0	9.6	UnDef	0.09
36.25	26.8	0.37	1.36	22.7	6	114.6	2.14	1.09	1.05	0.96	10.3	9.8	1.98	0.15
36.58	38.6	0.63	1.62	38.0	7	117.8	2.16	1.10	1.06	0.95	12.3	11.7	UnDef	0.15
36.91	105.8	0.47	0.44	-3.6	9	124.1	2.18	1.11	1.07	0.95	20.3	19.2	UnDef	0.17
37.24	135.9	0.71	0.52	-4.6	9	124.1	2.20	1.12	1.08	0.94	26.0	24.6	UnDef	0.28
37.57	122.6	0.86	0.70	-5.0	9	124.1	2.22	1.13	1.09	0.94	23.5	22.1	UnDef	0.25
37.89	104.8	0.63	0.60	-15.8	8	120.9	2.24	1.14	1.10	0.94	25.1	23.5	UnDef	0.19
38.22	85.5	0.89	1.04	-16.4	8	120.9	2.26	1.15	1.11	0.93	20.5	19.1	UnDef	0.18
38.55	95.4	1.74	1.82	-13.0	7	117.8	2.28	1.16	1.12	0.93	30.4	28.2	UnDef	0.29
38.88	88.8	2.70	3.04	-21.8	6	114.6	2.30	1.17	1.13	0.92	34.0	31.4	6.92	0.00
39.21	84.3	3.50	4.16	-24.7	5	114.6	2.32	1.18	1.14	0.92	40.4	37.2	6.56	0.00
39.53	121.5	4.28	3.52	-25.4	6	114.6	2.34	1.19	1.15	0.92	46.5	42.7	9.53	0.00
39.86	299.5	3.36	1.12	-25.9	9	124.1	2.36	1.20	1.16	0.91	57.4	52.4	UnDef	0.00
40.19	309.6	4.66	1.51	-25.5	8	120.9	2.38	1.21	1.17	0.91	74.1	67.5	UnDef	0.00
40.52	184.1	6.81	3.70	-25.2	12	120.9	2.40	1.22	1.18	0.91	88.1	79.9	UnDef	0.00
40.85	126.3	6.42	5.08	-25.4	11	130.5	2.42	1.23	1.19	0.90	121.0	109.2	UnDef	0.00
41.17	98.5	5.53	5.62	-26.0	11	130.5	2.44	1.24	1.20	0.90	94.3	84.8	UnDef	0.00
41.50	149.3	6.10	4.09	-26.4	11	130.5	2.46	1.25	1.21	0.89	142.9	127.9	UnDef	0.00
41.83	184.5	6.77	3.67	-27.0	12	120.9	2.48	1.26	1.22	0.89	88.3	78.7	UnDef	0.00
42.16	159.2	5.47	3.44	-27.5	6	114.6	2.50	1.27	1.23	0.89	61.0	54.1	12.54	0.00
42.49	104.4	3.06	2.93	-27.7	6	114.6	2.52	1.28	1.24	0.88	40.0	35.4	8.15	0.00
42.81	65.6	1.88	2.86	-27.9	6	114.6	2.54	1.29	1.25	0.88	25.1	22.2	5.05	0.43
43.14	72.6	2.39	3.29	-28.2	6	114.6	2.56	1.29	1.26	0.88	27.8	24.5	5.61	0.00
43.47	107.6	3.15	2.93	-28.3	6	114.6	2.58	1.30	1.27	0.88	41.2	36.1	8.40	0.00
43.80	138.7	4.71	3.39	-28.6	6	114.6	2.59	1.31	1.28	0.87	53.1	46.4	10.89	0.00
44.13	177.2	5.43	3.07	-28.8	7	117.8	2.61	1.32	1.29	0.87	56.6	49.2	UnDef	0.00
44.45	226.5	7.03	3.10	-28.9	7	117.8	2.63	1.33	1.30	0.87	72.3	62.7	UnDef	0.00
44.78	277.6	9.59	3.45	-28.8	12	120.9	2.65	1.34	1.31	0.86	132.9	114.9	UnDef	0.00
45.11	305.0	10.56	3.46	-28.6	12	120.9	2.67	1.35	1.32	0.86	146.0	125.8	UnDef	0.00
45.44	305.8	12.50	4.09	-28.2	12	120.9	2.69	1.36	1.33	0.86	146.4	125.7	UnDef	0.00
45.77	336.3	11.65	3.47	-28.0	12	120.9	2.71	1.37	1.34	0.86	161.0	137.7	UnDef	0.00
46.10	386.4	10.95	2.83	-28.1	12	120.9	2.73	1.38	1.35	0.85	185.0	157.7	UnDef	0.00
46.42	419.2	9.73	2.32	-28.1	8	120.9	2.75	1.39	1.36	0.85	100.4	85.2	UnDef	0.00
46.75	419.0	11.04	2.64	-28.5	12	120.9	2.77	1.40	1.37	0.85	200.6	169.8	UnDef	0.00
47.08	535.2	5.94	1.11	-28.5	9	124.1	2.79	1.41	1.38	0.84	102.5	86.4	UnDef	0.00

Run No: 04-0401-1123-5274
 Job No: 04-717
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 CPT Time: 10:53
 CPT File: 717CP010.COR
 Northing (m): 0.000
 Easting (m): 0.000
 Elevation (m): 0.000

Water Table (m): 0.82 (ft): 2.7
 Unit Weight of Water (User Specified): 62.40 pcf
 Su Nkt used: 12.50 Su/P' (nc): 0.30
 Averaging Increment (m): 0.10
 Phi Method : Robertson and Campanella, 1983
 Dr Method : Jamiolkowski - All Sands
 State Parameter M: 1.20

Used Unit Weights Assigned to Soil Zones

Values of 1.0E9 or UnDef are printed for parameters that are not valid for the material type (SBT)

Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del (n1) 60 Param	(N1) 60cs
0.16	5.0E-05	0.00	1000.0	0.24	10	24.0	0.0	24.0	0.0	50	74.0	10.0	-0.27	9.6
0.49	5.0E-04	0.00	781.5	0.41	10	42.6	0.0	42.6	0.0	50	74.6	1.0	-0.29	14.2
0.82	5.0E-04	0.00	459.6	0.43	10	42.1	0.0	42.1	0.0	48	66.8	1.0	-0.26	14.0
1.15	5.0E-04	0.00	309.9	0.55	9	39.9	0.0	39.9	1.2	46	60.4	1.0	-0.24	13.3
1.48	5.0E-04	0.00	349.4	0.43	10	58.0	0.0	58.0	0.3	48	67.5	1.0	-0.23	19.3
1.80	5.0E-03	0.00	660.9	0.44	10	134.4	0.0	134.4	0.0	50	88.7	1.0	-0.28	33.6
2.13	5.0E-02	0.00	944.9	0.47	10	228.4	0.0	228.4	0.0	50	95.0	1.0	-0.32	45.7
2.46	5.0E-02	0.00	1000.0	0.51	10	331.2	0.0	331.2	0.0	50	95.0	1.0	-0.33	66.2
2.79	5.0E-02	0.00	1000.0	0.69	10	458.6	0.0	458.6	0.0	50	95.0	1.0	-0.36	91.7
3.12	5.0E-02	0.00	1000.0	0.91	10	498.8	0.0	498.8	0.1	50	95.0	1.0	-0.39	99.8
3.44	5.0E-02	0.00	1000.0	0.92	10	531.9	0.0	531.9	0.2	50	95.0	1.0	-0.40	106.4
3.77	5.0E-02	0.00	1000.0	0.93	10	511.3	0.0	511.3	0.4	50	95.0	1.0	-0.40	102.3
4.10	5.0E-02	0.00	1000.0	0.90	10	426.2	0.0	426.2	0.0	50	95.0	1.0	-0.39	85.2
4.43	5.0E-02	0.00	803.7	0.74	10	331.0	0.0	331.0	0.0	50	95.0	1.0	-0.35	66.2
4.76	5.0E-02	0.00	778.1	0.59	10	335.6	0.0	335.6	0.0	50	95.0	1.0	-0.32	67.1
5.09	5.0E-02	0.00	680.5	0.62	10	306.8	0.0	306.8	0.0	50	95.0	1.0	-0.32	61.4
5.41	5.0E-02	0.00	628.3	0.70	10	295.5	0.0	295.5	0.0	50	95.0	1.0	-0.32	59.1
5.74	5.0E-02	0.00	609.8	0.93	9	298.7	0.0	298.7	1.2	50	95.0	1.0	-0.35	59.1
6.07	5.0E-02	0.00	613.5	0.85	9	309.9	0.0	309.9	0.8	50	95.0	1.0	-0.34	60.7
6.40	5.0E-02	0.00	570.5	0.64	10	293.7	0.0	293.7	0.0	50	95.0	1.0	-0.30	57.5
6.73	5.0E-02	0.00	522.3	0.54	10	273.9	0.0	273.9	0.0	48	95.0	1.0	-0.28	53.6
7.05	5.0E-02	0.00	487.6	0.48	10	260.2	0.0	260.2	0.0	48	94.7	1.0	-0.26	50.9
7.38	5.0E-02	0.00	512.4	0.58	10	278.1	0.0	278.1	0.0	48	95.0	1.0	-0.29	54.4
7.79	5.0E-02	0.00	495.0	0.69	10	274.2	0.0	274.2	0.6	48	95.0	1.0	-0.30	53.7
8.20	5.0E-02	0.00	453.7	0.66	10	256.4	0.0	256.4	0.6	48	94.3	1.0	-0.29	50.2
8.53	5.0E-02	0.00	444.2	0.63	10	254.8	0.0	254.8	0.5	48	94.1	1.0	-0.28	49.9
8.86	5.0E-02	0.00	388.8	0.64	9	226.4	0.0	226.4	1.0	48	90.7	1.0	-0.27	44.3
9.19	5.0E-02	0.00	307.3	0.64	9	181.7	0.0	181.7	1.8	46	84.4	1.0	-0.25	35.6
9.51	5.0E-03	-0.01	227.3	0.53	9	136.5	0.0	136.5	2.3	46	76.2	1.0	-0.21	33.4
9.84	5.0E-03	-0.01	164.8	0.29	9	100.5	0.0	100.5	1.8	44	67.4	1.0	-0.13	24.6
10.17	5.0E-03	0.00	140.0	0.19	9	86.6	0.0	86.6	1.7	44	63.1	1.0	-0.08	21.2
10.50	5.0E-03	0.00	136.1	0.33	9	85.2	0.0	85.2	3.2	44	62.7	1.0	-0.12	20.9
10.83	5.0E-03	0.00	154.6	0.51	9	97.8	0.0	97.8	4.1	44	66.6	1.0	-0.17	23.9
11.15	5.0E-03	0.00	208.2	0.51	9	133.0	0.0	133.0	2.5	46	75.4	1.0	-0.19	32.5
11.48	5.0E-03	0.00	186.3	0.72	9	120.5	0.0	120.5	4.6	44	72.6	1.0	-0.22	29.5
11.81	5.0E-03	0.00	307.3	1.07	9	200.2	0.0	200.2	4.2	46	87.2	1.0	-0.30	49.0
12.14	5.0E-03	0.00	357.4	1.42	9	235.2	1.5	236.7	5.2	48	91.8	1.0	-0.35	57.8
12.47	5.0E-04	0.00	348.8	1.97	9	232.0	17.3	249.3	7.6	48	91.4	1.0	-0.40	79.1
12.80	5.0E-04	0.00	290.0	2.54	12	195.0	UnDef	UnDef	0.0	46	86.4	1.0	-0.43	UnDef

Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1) 60	(N1) 60cs
13.12	5.0E-05	-0.01	184.7	3.28	12	125.7	UnDef	UnDef	0.0	44	73.8	10.0	-0.44	UnDef	UnDef
13.45	5.0E-05	-0.01	90.1	2.46	7	62.5	39.0	101.5	19.4	42	53.8	10.0	-0.29	7.7	32.2
13.78	5.0E-04	-0.01	83.9	1.53	7	58.8	22.8	81.6	15.5	42	52.1	1.0	-0.21	4.1	23.3
14.11	5.0E-05	0.01	48.7	2.11	7	34.9	39.1	74.0	24.8	38	37.1	10.0	-0.19	6.7	20.4
14.44	5.0E-06	0.11	29.1	2.09	6	21.6	55.7	77.2	32.0	UnDef	UnDef	10.0	UnDef	8.7	19.2
14.76	5.0E-05	0.07	39.3	1.57	7	28.9	31.3	60.1	24.5	38	31.7	10.0	-0.13	5.4	16.8
15.09	5.0E-04	0.00	60.0	1.16	7	43.9	19.2	63.1	16.4	40	43.7	1.0	-0.15	3.4	17.7
15.42	5.0E-04	0.00	63.1	0.90	9	46.5	15.0	61.4	14.1	40	45.3	1.0	-0.13	2.7	17.9
15.75	5.0E-05	0.01	53.8	1.37	7	40.1	24.4	64.6	19.2	40	41.1	10.0	-0.16	4.9	20.6
16.08	5.0E-05	0.03	40.7	1.78	7	30.9	36.4	67.3	25.3	38	33.6	10.0	-0.15	6.2	18.3
16.40	5.0E-05	0.04	38.6	1.85	7	29.6	39.4	69.0	26.4	38	32.4	10.0	-0.15	6.4	18.0
16.73	5.0E-05	0.03	31.4	2.04	7	24.5	52.5	77.0	30.5	36	30.0	10.0	-0.14	7.1	16.7
17.06	5.0E-05	0.03	37.4	1.46	7	29.2	31.1	60.3	24.3	38	32.0	10.0	-0.12	5.4	16.9
17.39	5.0E-05	0.03	40.7	1.44	7	31.9	29.9	61.8	23.1	38	34.5	10.0	-0.13	5.4	17.9
17.72	5.0E-05	0.03	33.9	1.44	7	27.0	32.8	59.8	25.5	36	30.0	10.0	-0.11	5.5	16.1
18.04	5.0E-05	0.10	27.6	1.47	7	22.4	39.2	61.5	28.8	36	30.0	10.0	-0.09	5.8	14.6
18.37	5.0E-05	0.02	42.9	1.47	7	34.2	29.1	63.4	22.2	38	36.6	10.0	-0.13	5.4	18.8
18.70	5.0E-05	0.02	45.6	1.54	7	36.6	31.3	67.9	22.3	38	38.5	10.0	-0.15	5.8	20.1
19.03	5.0E-05	0.04	38.7	1.44	7	31.5	31.6	63.0	23.8	38	34.1	10.0	-0.12	5.6	17.9
19.36	5.0E-05	0.07	32.0	1.93	7	26.5	50.8	77.2	29.6	36	30.0	10.0	-0.13	7.2	17.6
19.68	5.0E-05	0.10	27.9	2.19	6	23.4	71.7	95.2	33.2	36	30.0	10.0	-0.12	8.2	17.4
20.01	5.0E-05	0.13	23.8	1.96	6	20.3	75.7	96.0	34.5	34	30.0	10.0	-0.09	7.7	15.7
20.34	5.0E-04	0.07	45.1	1.15	7	37.5	24.4	61.8	19.8	38	39.1	1.0	-0.12	4.0	16.2
20.67	5.0E-03	0.00	102.8	0.47	9	84.1	0.0	84.1	5.0	42	62.3	1.0	-0.12	0.0	20.6
21.00	5.0E-03	0.00	75.1	0.62	9	62.3	9.9	72.2	10.2	40	53.7	1.0	-0.12	1.4	16.7
21.33	5.0E-04	0.01	57.1	1.46	7	48.0	28.9	76.9	19.1	40	46.3	1.0	-0.17	4.8	20.5
21.65	5.0E-04	0.01	53.9	1.57	7	45.7	32.1	77.9	20.5	40	44.9	1.0	-0.17	5.2	20.1
21.98	5.0E-04	0.00	71.9	1.18	7	60.9	21.6	82.4	14.8	40	53.0	1.0	-0.17	3.9	23.7
22.31	5.0E-04	0.00	69.7	1.33	7	59.5	25.0	84.5	16.1	40	52.4	1.0	-0.18	4.4	23.8
22.64	5.0E-04	0.00	72.9	1.16	9	62.5	21.4	83.9	14.5	40	53.8	1.0	-0.17	3.9	24.3
22.97	5.0E-04	0.00	65.7	1.27	7	56.8	24.7	81.5	16.3	40	51.1	1.0	-0.17	4.3	22.9
23.29	5.0E-04	0.00	53.0	1.06	7	46.4	22.4	68.9	17.2	40	45.3	1.0	-0.13	3.9	19.0
23.62	5.0E-04	0.00	47.0	0.82	7	41.6	18.6	60.2	16.6	38	42.2	1.0	-0.10	3.2	16.8
23.95	5.0E-04	0.00	37.8	0.87	7	34.0	21.8	55.7	19.6	38	36.3	1.0	-0.08	3.6	14.7
24.28	5.0E-04	0.00	33.3	0.91	7	30.3	24.4	54.7	21.7	36	33.0	1.0	-0.08	3.8	13.7
24.61	5.0E-04	0.00	37.6	1.09	7	34.2	27.1	61.3	21.6	38	36.5	1.0	-0.10	4.3	15.4
24.93	5.0E-04	0.00	37.7	1.01	7	34.5	25.3	59.8	20.9	38	36.7	1.0	-0.10	4.1	15.3
25.26	5.0E-04	0.00	36.1	0.81	7	33.3	21.5	54.9	19.7	38	35.8	1.0	-0.07	3.5	14.4
25.59	5.0E-04	0.00	34.4	0.75	7	32.0	20.8	52.8	19.8	38	34.6	1.0	-0.06	3.4	13.9
25.92	5.0E-04	0.00	33.6	0.80	7	31.5	22.3	53.7	20.5	36	34.1	1.0	-0.07	3.6	13.9
26.25	5.0E-05	0.00	30.9	1.13	7	29.2	32.1	61.3	24.6	36	32.0	10.0	-0.09	5.6	17.0
26.57	5.0E-05	0.00	28.5	1.20	7	27.2	35.8	63.0	26.3	36	30.0	10.0	-0.08	5.9	16.5
26.90	5.0E-05	0.00	28.4	1.06	7	27.3	32.1	59.4	25.2	36	30.0	10.0	-0.07	5.5	16.1
27.23	5.0E-04	0.00	39.2	0.72	7	37.2	19.3	56.5	17.8	38	38.9	1.0	-0.07	3.3	15.4
27.56	5.0E-04	0.00	37.0	0.52	7	35.4	15.4	50.8	16.4	38	37.5	1.0	-0.04	2.7	14.3
27.89	5.0E-04	0.00	25.3	0.79	7	24.9	26.9	51.8	24.5	34	30.0	1.0	-0.04	3.9	12.0
28.21	5.0E-05	0.01	23.9	1.09	7	23.8	38.1	61.9	28.1	34	30.0	10.0	-0.06	5.8	15.1
28.54	5.0E-05	0.00	25.1	1.32	7	24.9	45.7	70.7	29.2	34	30.0	10.0	-0.08	6.6	16.4
28.87	5.0E-05	0.00	19.9	1.48	6	20.2	73.1	93.4	34.3	34	30.0	9.4	-0.06	7.6	15.5
29.20	5.0E-04	-0.01	23.3	0.73	7	23.5	27.1	50.6	25.1	34	30.0	1.0	-0.03	3.9	11.5
29.53	5.0E-04	0.00	22.4	0.51	7	22.8	21.2	44.0	23.0	34	30.0	1.0	0.00	3.2	10.7
29.86	5.0E-05	0.00	17.9	0.69	7	18.7	32.6	51.3	28.8	32	30.0	8.0	0.00	4.8	12.2
30.18	5.0E-05	0.00	16.0	0.60	7	17.0	32.7	49.6	29.6	32	30.0	6.7	0.02	4.6	11.3
30.59	5.0E-05	0.02	9.3	1.06	5	10.7	42.7	53.4	45.7	30	30.0	3.0	0.04	4.2	8.4
31.00	5.0E-06	0.15	7.1	1.25	5	8.7	34.6	43.3	53.9	UnDef	UnDef	2.1	UnDef	4.2	8.5
31.33	5.0E-06	0.21	6.6	1.42	4	8.2	32.8	41.0	57.4	UnDef	UnDef	1.9	UnDef	4.0	8.0
31.66	5.0E-06	0.09	7.5	1.51	5	9.1	36.4	45.5	55.1	UnDef	UnDef	2.2	UnDef	4.5	8.9
31.99	5.0E-06	0.10	6.8	1.42	4	8.5	34.0	42.5	56.6	UnDef	UnDef	1.9	UnDef	4.2	8.3
32.32	5.0E-06	0.22	6.4	1.41	4	8.2	32.7	40.8	58.0	UnDef	UnDef	1.8	UnDef	4.0	8.0
32.64	5.0E-06	0.27	5.3	1.62	4	7.0	28.1	35.2	65.4	UnDef	UnDef	1.4	UnDef	3.4	6.9
32.97	5.0E-06	0.32	5.2	1.42	4	7.1	28.2	35.3	63.6	UnDef	UnDef	1.4	UnDef	3.5	6.9
33.30	5.0E-06	0.34	5.3	1.31	4	7.1	28.4	35.5	62.4	UnDef	UnDef	1.4	UnDef	3.5	7.0

h (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1) 60	(N1) 60cs
33.63	5.0E-06	0.34	5.2	1.40	4	7.1	28.4	35.5	63.5	UnDef	UnDef	1.4	UnDef	3.5	7.0
33.96	5.0E-06	0.32	5.5	1.50	4	7.4	29.5	36.9	63.2	UnDef	UnDef	1.5	UnDef	3.6	7.2
34.28	5.0E-06	0.34	5.7	1.18	4	7.6	30.5	38.1	59.0	UnDef	UnDef	1.6	UnDef	3.7	7.5
34.61	5.0E-05	0.00	13.2	0.65	7	15.2	50.3	65.5	33.8	32	30.0	4.9	0.03	5.5	11.4
34.94	5.0E-05	-0.02	8.2	0.98	5	10.3	41.1	51.3	47.5	30	30.0	2.5	0.05	4.0	8.0
35.27	5.0E-05	0.00	12.1	1.28	5	14.2	56.9	71.1	42.1	30	30.0	4.3	0.00	5.6	11.1
35.60	5.0E-04	-0.02	21.8	0.70	7	24.1	30.0	54.1	25.7	34	30.0	1.0	-0.02	4.2	12.1
35.92	5.0E-04	-0.02	27.0	0.55	7	29.6	21.5	51.1	20.8	36	32.3	1.0	-0.02	3.4	13.1
36.25	5.0E-05	-0.01	22.6	1.48	7	25.1	66.2	91.3	32.2	34	30.0	10.0	-0.08	8.2	18.0
36.58	5.0E-04	0.00	33.1	1.72	7	36.0	56.0	92.0	27.8	36	38.0	1.0	-0.13	7.2	19.0
36.91	5.0E-02	-0.01	93.1	0.45	9	98.1	0.0	98.1	5.0	42	66.7	1.0	-0.11	0.0	19.2
37.24	5.0E-02	-0.01	119.0	0.53	9	125.5	2.8	128.2	5.8	42	73.8	1.0	-0.15	0.3	24.9
37.57	5.0E-02	-0.01	106.2	0.71	9	112.7	10.1	122.8	8.1	42	70.7	1.0	-0.16	1.2	23.3
37.89	5.0E-03	-0.02	89.7	0.61	9	95.9	10.1	106.0	8.6	42	66.1	1.0	-0.14	1.5	25.0
38.22	5.0E-03	-0.02	72.2	1.07	9	77.9	24.7	102.6	14.0	40	60.1	1.0	-0.16	3.4	22.4
38.55	5.0E-04	-0.02	80.1	1.87	7	86.6	44.6	131.4	17.8	42	63.1	1.0	-0.23	7.7	35.9
38.88	5.0E-05	-0.02	73.9	3.12	7	80.3	84.9	165.2	24.3	40	61.0	10.0	-0.31	14.9	46.3
39.21	5.0E-06	-0.02	69.5	4.27	6	76.0	137.7	213.7	29.1	UnDef	UnDef	10.0	UnDef	25.1	62.3
39.53	5.0E-05	-0.02	100.3	3.59	7	109.1	97.3	206.4	22.7	42	69.8	10.0	-0.39	17.9	60.6
39.86	5.0E-02	-0.01	248.2	1.13	9	267.9	3.7	271.6	5.5	46	95.0	1.0	-0.29	0.4	52.9
40.19	5.0E-03	-0.01	254.5	1.52	9	275.7	17.9	293.6	7.3	46	95.0	1.0	-0.32	2.7	70.1
40.52	1.0E-15	-0.01	149.3	3.75	12	163.3	UnDef	UnDef	0.0	44	81.3	1.0	-0.46	UnDef	UnDef
40.85	1.0E-15	-0.02	101.0	5.13	11	111.6	UnDef	UnDef	0.0	42	70.4	1.0	-0.58	UnDef	UnDef
41.17	1.0E-15	-0.02	77.6	5.75	11	86.6	UnDef	UnDef	0.0	42	63.2	1.0	-0.64	UnDef	UnDef
41.50	1.0E-15	-0.01	117.5	4.15	11	130.7	UnDef	UnDef	0.0	42	74.9	1.0	-0.47	UnDef	UnDef
41.83	1.0E-15	-0.01	144.4	3.72	12	160.8	UnDef	UnDef	0.0	44	80.9	1.0	-0.45	UnDef	UnDef
42.16	5.0E-05	-0.01	123.5	3.49	12	138.3	UnDef	UnDef	0.0	42	76.6	10.0	-0.41	UnDef	UnDef
42.49	5.0E-05	-0.02	79.8	3.01	7	90.4	83.1	173.5	22.9	42	64.4	10.0	-0.31	15.1	50.5
42.81	5.0E-05	-0.03	49.1	2.98	6	56.6	98.6	155.2	28.8	38	51.0	10.0	-0.25	14.6	36.8
43.14	5.0E-05	-0.03	54.1	3.41	6	62.5	114.8	177.2	29.3	40	53.8	10.0	-0.29	16.6	41.1
43.47	5.0E-05	-0.02	80.6	3.00	7	92.2	83.5	175.7	22.8	42	65.0	10.0	-0.31	15.3	51.4
43.80	5.0E-05	-0.02	103.7	3.46	7	118.5	97.0	215.5	21.9	42	72.1	10.0	-0.38	18.2	64.6
44.13	5.0E-04	-0.01	132.2	3.11	7	150.9	83.5	234.4	18.3	44	79.1	1.0	-0.38	14.1	63.3
44.45	5.0E-04	-0.01	168.4	3.14	12	192.2	UnDef	UnDef	0.0	44	86.0	1.0	-0.42	UnDef	UnDef
44.78	1.0E-15	-0.01	205.3	3.49	12	234.7	UnDef	UnDef	0.0	46	91.7	1.0	-0.48	UnDef	UnDef
45.11	1.0E-15	-0.01	224.2	3.49	12	257.0	UnDef	UnDef	0.0	46	94.3	1.0	-0.49	UnDef	UnDef
45.44	1.0E-15	-0.01	223.2	4.12	12	256.8	UnDef	UnDef	0.0	46	94.3	1.0	-0.56	UnDef	UnDef
45.77	1.0E-15	-0.01	243.9	3.49	12	281.4	UnDef	UnDef	0.0	46	95.0	1.0	-0.50	UnDef	UnDef
46.10	1.0E-15	-0.01	278.6	2.85	12	322.2	UnDef	UnDef	0.0	46	95.0	1.0	-0.45	UnDef	UnDef
46.42	5.0E-03	-0.01	300.3	2.34	12	348.3	UnDef	UnDef	0.0	46	95.0	1.0	-0.41	UnDef	UnDef
46.75	1.0E-15	-0.01	298.0	2.65	12	347.0	UnDef	UnDef	0.0	46	95.0	1.0	-0.44	UnDef	UnDef
47.08	5.0E-02	0.00	378.5	1.12	9	441.6	0.0	441.6	3.6	48	95.0	1.0	-0.33	0.0	86.4

Run No: 04-0401-1123-5324
 No: 04-717
 Client: MACTEC
 Project: TVA Kingston
 Site: CPT-8
 Location: TVA Kingston
 Cone: 20 TON AD142
 CPT Date: 04/23/03
 CPT Time: 12:41
 CPT File: 717CP008.COR
 Northing (m): 0.000
 Easting (m): 0.000
 Elevation (m): 0.000

 Water Table (m): 3.05 (ft): 10.0
 Unit Weight of Water (User Specified): 62.40 pcf
 Su Nkt used: 12.50 Su/P' (nc): 0.30
 Averaging Increment (m): 0.10
 Phi Method : Robertson and Campanella, 1983
 Dr Method : Jamioikowski - All Sands
 State Parameter M: 1.20
 Used Unit Weights Assigned to Soil Zones
 Values of 1.0E9 or UnDef are printed for parameters that are not valid for the material type (SBT)

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
0.16	21.7	0.13	0.58	0.0	7	117.8	0.01	0.01	0.00	2.00	6.9	13.9	UnDef	0.09
0.49	35.2	0.37	1.04	-1.5	7	117.8	0.03	0.03	0.00	2.00	11.2	22.5	UnDef	0.11
0.82	44.6	0.55	1.22	-4.2	7	117.8	0.05	0.05	0.00	2.00	14.2	28.5	UnDef	0.14
1.15	50.5	0.73	1.45	-7.8	7	117.8	0.07	0.07	0.00	2.00	16.1	32.3	UnDef	0.16
1.48	51.8	0.79	1.53	-11.5	7	117.8	0.09	0.09	0.00	2.00	16.5	33.1	UnDef	0.17
1.80	54.6	0.88	1.61	-13.1	7	117.8	0.11	0.11	0.00	2.00	17.4	34.9	UnDef	0.19
2.13	51.7	0.79	1.53	-13.0	7	117.8	0.13	0.13	0.00	2.00	16.5	33.0	UnDef	0.17
2.46	53.5	0.61	1.14	-12.8	7	117.8	0.14	0.14	0.00	2.00	17.1	34.1	UnDef	0.18
2.79	82.1	0.74	0.90	-9.3	8	120.9	0.16	0.16	0.00	2.00	19.7	39.3	UnDef	0.44
3.12	138.3	1.21	0.88	-8.3	9	124.1	0.18	0.18	0.00	2.00	26.5	53.0	UnDef	0.00
3.44	164.0	1.53	0.93	-4.3	9	124.1	0.20	0.20	0.00	2.00	31.4	62.8	UnDef	0.00
3.77	181.3	1.68	0.93	-8.1	9	124.1	0.23	0.23	0.00	2.00	34.7	69.4	UnDef	0.00
4.10	193.6	1.85	0.96	-7.0	9	124.1	0.25	0.25	0.00	2.00	37.1	74.1	UnDef	0.00
4.43	183.3	2.04	1.11	-6.5	9	124.1	0.27	0.27	0.00	1.94	35.1	68.1	UnDef	0.00
4.76	174.6	1.85	1.06	-7.3	9	124.1	0.29	0.29	0.00	1.87	33.4	62.5	UnDef	0.00
5.09	174.5	1.61	0.92	-5.3	9	124.1	0.31	0.31	0.00	1.81	33.4	60.4	UnDef	0.00
5.41	190.9	1.80	0.95	-5.7	9	124.1	0.33	0.33	0.00	1.75	36.6	63.9	UnDef	0.00
5.74	213.4	1.90	0.89	-6.1	9	124.1	0.35	0.35	0.00	1.70	40.9	69.3	UnDef	0.00
6.07	210.6	2.02	0.96	-3.0	9	124.1	0.37	0.37	0.00	1.65	40.3	66.5	UnDef	0.00
6.40	212.4	2.18	1.02	-1.8	9	124.1	0.39	0.39	0.00	1.61	40.7	65.3	UnDef	0.00
6.73	207.3	2.27	1.10	-2.2	9	124.1	0.41	0.41	0.00	1.56	39.7	62.1	UnDef	0.00
7.05	209.9	2.78	1.33	2.0	8	120.9	0.43	0.43	0.00	1.53	50.3	76.8	UnDef	0.00
7.38	204.8	2.41	1.18	2.2	8	120.9	0.45	0.45	0.00	1.49	49.0	73.2	UnDef	0.00
7.79	174.6	2.03	1.16	0.6	8	120.9	0.47	0.47	0.00	1.45	41.8	60.8	UnDef	0.00
8.20	114.7	1.61	1.40	-1.9	8	120.9	0.50	0.50	0.00	1.42	27.5	38.9	UnDef	0.00
8.53	71.1	1.56	2.19	-1.7	7	117.8	0.52	0.52	0.00	1.39	22.7	31.5	UnDef	0.28
8.86	49.5	1.12	2.27	0.0	6	114.6	0.54	0.54	0.00	1.37	19.0	25.9	3.92	0.18
9.19	36.1	0.60	1.67	-0.2	6	114.6	0.56	0.56	0.00	1.34	13.8	18.6	2.84	0.12
9.51	28.2	0.54	1.90	0.5	6	114.6	0.57	0.57	0.00	1.32	10.8	14.3	2.21	0.12
9.84	20.8	0.55	2.65	1.7	5	114.6	0.59	0.59	0.00	1.30	10.0	13.0	1.62	0.18
10.17	19.7	0.55	2.78	-0.9	5	114.6	0.61	0.61	0.00	1.28	9.4	12.1	1.52	0.25
10.50	17.7	0.49	2.75	2.1	5	114.6	0.63	0.62	0.01	1.27	8.5	10.8	1.37	0.21
10.83	17.3	0.49	2.84	0.3	5	114.6	0.65	0.62	0.03	1.27	8.3	10.5	1.33	0.19
11.15	16.3	0.49	3.01	2.3	5	114.6	0.67	0.63	0.04	1.26	7.8	9.8	1.25	0.17
11.48	19.3	0.52	2.67	0.7	5	114.6	0.69	0.64	0.05	1.25	9.3	11.6	1.49	0.23
11.81	20.2	0.54	2.68	0.6	5	114.6	0.71	0.65	0.06	1.24	9.7	12.0	1.56	0.25
12.14	19.8	0.59	2.99	3.9	5	114.6	0.72	0.66	0.07	1.23	9.5	11.7	1.52	0.24
12.47	21.3	0.54	2.54	5.9	5	114.6	0.74	0.67	0.08	1.22	10.2	12.5	1.65	0.21
12.80	28.6	0.76	2.66	-1.9	6	114.6	0.76	0.68	0.09	1.22	11.0	13.3	2.23	0.18

Run No: 04-0401-1123-5324

CPT File: 717CP008.COR

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
13.12	26.9	0.73	2.70	3 0	5	114.6	0.78	0.68	0.10	1.21	12.9	15.6	2.09	0.20
13.45	35.9	0.62	1.72	5 1	6	114.6	0.80	0.69	0.11	1.20	13.7	16.5	2.81	0.12
13.78	66.6	0.75	1.12	-0 5	7	117.8	0.82	0.70	0.12	1.19	21.3	25.4	UnDef	0.16
14.11	56.3	0.74	1.31	-10 4	7	117.8	0.84	0.71	0.13	1.19	18.0	21.3	UnDef	0.15
14.44	47.1	0.66	1.39	-3 3	7	117.8	0.86	0.72	0.14	1.18	15.0	17.7	UnDef	0.13
14.76	44.5	0.55	1.23	0 7	7	117.8	0.88	0.73	0.15	1.17	14.2	16.6	UnDef	0.12
15.09	42.6	0.39	0.91	-3 2	7	117.8	0.90	0.74	0.16	1.16	13.6	15.8	UnDef	0.11
15.42	24.0	0.33	1.36	-3 8	6	114.6	0.92	0.75	0.17	1.16	9.2	10.6	1.85	0.11
15.75	17.7	0.22	1.24	-5.1	6	114.6	0.93	0.76	0.18	1.15	6.8	7.8	1.34	0.11
16.08	12.8	0.15	1.17	5.6	6	114.6	0.95	0.76	0.19	1.14	4.9	5.6	0.95	0.11
16.40	9.8	0.14	1.38	10.3	5	114.6	0.97	0.77	0.20	1.14	4.7	5.4	0.71	0.10
16.73	5.6	0.10	1.78	18.0	4	114.6	0.99	0.78	0.21	1.13	3.6	4.1	0.37	0.08
17.06	7.8	0.07	0.83	17.3	5	114.6	1.01	0.79	0.22	1.13	3.7	4.2	0.54	0.09
17.39	11.3	0.04	0.36	6.6	6	114.6	1.03	0.80	0.23	1.12	4.3	4.8	0.82	0.00
17.72	16.4	0.03	0.18	8.7	6	114.6	1.05	0.81	0.24	1.11	6.3	7.0	1.23	0.00
18.04	15.7	0.04	0.25	8.9	6	114.6	1.07	0.82	0.25	1.11	6.0	6.7	1.17	0.00
18.37	14.7	0.05	0.34	9.1	6	114.6	1.08	0.82	0.26	1.10	5.6	6.2	1.09	0.00
18.70	14.3	0.05	0.35	9.5	6	114.6	1.10	0.83	0.27	1.10	5.5	6.0	1.06	0.00
19.03	13.4	0.05	0.34	9.8	6	114.6	1.12	0.84	0.28	1.09	5.1	5.6	0.98	0.00
19.36	14.9	0.04	0.24	10.1	6	114.6	1.14	0.85	0.29	1.09	5.7	6.2	1.10	0.00
19.68	16.3	0.04	0.21	10.2	6	114.6	1.16	0.86	0.30	1.08	6.3	6.8	1.21	0.00
20.01	20.8	0.05	0.24	10.7	7	117.8	1.18	0.87	0.31	1.07	6.6	7.1	UnDef	0.00
20.34	22.7	0.04	0.18	10.7	7	117.8	1.20	0.88	0.32	1.07	7.2	7.7	UnDef	0.00
20.67	24.8	0.04	0.16	11.2	7	117.8	1.22	0.89	0.33	1.06	7.9	8.4	UnDef	0.00
21.00	26.8	0.06	0.21	11.6	7	117.8	1.24	0.89	0.34	1.06	8.5	9.0	UnDef	0.00
21.33	20.9	0.04	0.19	12.0	7	117.8	1.26	0.90	0.35	1.05	6.7	7.0	UnDef	0.00
21.65	19.6	0.10	0.49	12.2	6	114.6	1.27	0.91	0.36	1.05	7.5	7.9	1.47	0.09
21.98	27.5	0.11	0.38	12.6	7	117.8	1.29	0.92	0.37	1.04	8.8	9.1	UnDef	0.00
22.31	27.5	0.11	0.38	13.4	7	117.8	1.31	0.93	0.38	1.04	8.8	9.1	UnDef	0.00
22.64	26.5	0.10	0.38	13.3	7	117.8	1.33	0.94	0.39	1.03	8.5	8.7	UnDef	0.00
22.97	25.5	0.11	0.43	11.6	7	117.8	1.35	0.95	0.40	1.03	8.2	8.4	UnDef	0.00
23.29	37.9	0.09	0.24	13.1	8	120.9	1.37	0.96	0.41	1.02	9.1	9.3	UnDef	0.09
23.62	38.8	0.12	0.30	12.9	8	120.9	1.39	0.97	0.42	1.02	9.3	9.4	UnDef	0.09
23.95	30.4	0.24	0.79	12.8	7	117.8	1.41	0.98	0.43	1.01	9.7	9.8	UnDef	0.10
24.28	52.4	0.73	1.40	15.5	7	117.8	1.43	0.99	0.44	1.01	16.7	16.8	UnDef	0.14
24.61	210.9	1.39	0.66	10.0	9	124.1	1.45	1.00	0.46	1.00	40.4	40.5	UnDef	0.00
24.93	331.2	3.00	0.90	5.0	9	124.1	1.47	1.01	0.47	1.00	63.4	63.3	UnDef	0.00
25.26	288.7	4.22	1.46	6.8	8	120.9	1.49	1.02	0.48	0.99	69.1	68.6	UnDef	0.00
25.59	241.6	3.15	1.30	19.2	8	120.9	1.51	1.02	0.49	0.99	57.8	57.2	UnDef	0.00
25.92	228.6	2.20	0.96	10.2	9	124.1	1.53	1.03	0.50	0.98	43.8	43.1	UnDef	0.00
26.25	185.3	1.76	0.95	17.3	9	124.1	1.55	1.04	0.51	0.98	35.5	34.7	UnDef	0.00
26.57	150.1	1.25	0.83	15.6	9	124.1	1.57	1.05	0.52	0.97	28.8	28.0	UnDef	0.40
26.90	49.6	0.32	0.65	15.9	8	120.9	1.59	1.06	0.53	0.97	11.9	11.5	UnDef	0.11
27.23	19.8	0.26	1.31	31.2	6	114.6	1.61	1.07	0.54	0.97	7.6	7.3	1.46	0.16
27.56	59.8	0.44	0.73	28.9	8	120.9	1.63	1.08	0.55	0.96	14.3	13.8	UnDef	0.12
27.89	63.0	0.26	0.41	27.5	8	120.9	1.65	1.09	0.56	0.96	15.1	14.4	UnDef	0.10
28.21	62.8	0.27	0.42	25.6	8	120.9	1.67	1.10	0.57	0.95	15.0	14.3	UnDef	0.10
28.54	84.4	0.36	0.42	21.4	8	120.9	1.69	1.11	0.58	0.95	20.2	19.2	UnDef	0.12
28.87	136.4	0.21	0.15	16.7	9	124.1	1.71	1.12	0.59	0.94	26.1	24.7	UnDef	0.27
29.20	118.0	0.13	0.11	18.0	9	124.1	1.73	1.13	0.60	0.94	22.6	21.2	UnDef	0.20
29.53	87.7	0.11	0.12	18.3	9	124.1	1.75	1.14	0.61	0.94	16.8	15.7	UnDef	0.13
29.86	77.2	0.07	0.09	19.0	8	120.9	1.77	1.15	0.62	0.93	18.5	17.2	UnDef	0.11
30.18	89.5	0.13	0.14	19.8	9	124.1	1.79	1.16	0.63	0.93	17.1	15.9	UnDef	0.13
30.59	77.1	0.14	0.18	20.5	8	120.9	1.82	1.17	0.64	0.92	18.5	17.0	UnDef	0.11
31.00	69.0	0.10	0.15	20.8	8	120.9	1.84	1.19	0.65	0.92	16.5	15.2	UnDef	0.10
31.33	55.2	0.15	0.27	20.9	8	120.9	1.86	1.20	0.66	0.91	13.2	12.1	UnDef	0.09
31.66	40.9	0.31	0.76	23.6	7	117.8	1.88	1.20	0.68	0.91	13.0	11.9	UnDef	0.10
31.99	30.1	0.25	0.83	21.6	7	117.8	1.90	1.21	0.69	0.91	9.6	8.7	UnDef	0.10
32.32	39.0	0.08	0.19	21.9	8	120.9	1.92	1.22	0.70	0.90	9.3	8.5	UnDef	0.08
32.64	48.1	0.05	0.09	22.6	8	120.9	1.94	1.23	0.71	0.90	11.5	10.4	UnDef	0.09
32.97	41.3	0.06	0.13	22.9	8	120.9	1.96	1.24	0.72	0.90	9.9	8.9	UnDef	0.08
33.30	48.5	0.11	0.22	23.1	8	120.9	1.98	1.25	0.73	0.89	11.6	10.4	UnDef	0.09

Run No: 04-0401-1123-5324

CPT File: 717CP008.COR

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
33.63	68.1	0.34	0.50	23.7	8	120.9	2.00	1.26	0.74	0.89	16.3	14.5	UnDef	0.12
33.96	53.8	0.58	1.07	25.6	7	117.8	2.02	1.27	0.75	0.89	17.2	15.2	UnDef	0.13
34.28	37.6	0.46	1.21	25.6	7	117.8	2.04	1.28	0.76	0.88	12.0	10.6	UnDef	0.13
34.61	26.7	0.31	1.16	25.5	6	114.6	2.06	1.29	0.77	0.88	10.2	9.0	1.97	0.16
34.94	23.9	0.31	1.28	27.4	6	114.6	2.07	1.30	0.78	0.88	9.1	8.0	1.74	0.18
35.27	26.8	0.27	0.99	26.6	7	117.8	2.09	1.31	0.79	0.88	8.6	7.5	UnDef	0.13
35.60	31.3	0.31	0.98	27.1	7	117.8	2.11	1.32	0.80	0.87	10.0	8.7	UnDef	0.12
35.92	28.2	0.38	1.33	29.4	6	114.6	2.13	1.32	0.81	0.87	10.8	9.4	2.08	0.20
36.25	22.7	0.43	1.87	37.8	6	114.6	2.15	1.33	0.82	0.87	8.7	7.5	1.65	0.16
36.58	28.0	0.37	1.31	33.2	6	114.6	2.17	1.34	0.83	0.86	10.7	9.3	2.06	0.20
36.91	29.3	0.38	1.30	30.8	6	114.6	2.19	1.35	0.84	0.86	11.2	9.7	2.17	0.19
37.24	25.1	0.42	1.68	36.4	6	114.6	2.21	1.36	0.85	0.86	9.6	8.2	1.83	0.19
37.57	23.0	0.41	1.79	37.5	6	114.6	2.23	1.37	0.86	0.86	8.8	7.5	1.66	0.16
37.89	31.7	0.36	1.14	30.4	7	117.8	2.25	1.38	0.87	0.85	10.1	8.6	UnDef	0.14
38.22	28.5	0.34	1.20	30.3	6	114.6	2.26	1.38	0.88	0.85	10.9	9.3	2.10	0.18
38.55	24.3	0.33	1.34	34.5	6	114.6	2.28	1.39	0.89	0.85	9.3	7.9	1.76	0.18
38.88	23.1	0.36	1.56	40.1	6	114.6	2.30	1.40	0.90	0.84	8.9	7.5	1.67	0.16
39.21	32.1	0.39	1.20	31.9	7	117.8	2.32	1.41	0.91	0.84	10.3	8.6	UnDef	0.16
39.53	40.7	0.41	1.01	30.8	7	117.8	2.34	1.42	0.92	0.84	13.0	10.9	UnDef	0.12
39.86	41.3	0.45	1.08	31.2	7	117.8	2.36	1.43	0.93	0.84	13.2	11.0	UnDef	0.13
40.19	48.9	0.49	1.00	30.8	7	117.8	2.38	1.44	0.94	0.83	15.6	13.0	UnDef	0.12
40.52	47.9	0.48	0.99	31.5	7	117.8	2.40	1.45	0.95	0.83	15.3	12.7	UnDef	0.12
40.85	54.7	0.53	0.97	31.7	7	117.8	2.42	1.46	0.96	0.83	17.5	14.5	UnDef	0.13
41.17	53.7	0.55	1.02	31.9	7	117.8	2.44	1.46	0.97	0.83	17.2	14.2	UnDef	0.13
41.50	43.9	0.47	1.06	32.5	7	117.8	2.46	1.47	0.98	0.82	14.0	11.5	UnDef	0.13
41.83	35.3	0.44	1.25	33.4	7	117.8	2.48	1.48	0.99	0.82	11.3	9.3	UnDef	0.16
42.16	28.8	0.44	1.51	34.7	6	114.6	2.49	1.49	1.00	0.82	11.0	9.0	2.11	0.22
42.49	27.8	0.41	1.48	35.0	6	114.6	2.51	1.50	1.01	0.82	10.7	8.7	2.02	0.21
42.81	25.6	0.38	1.49	36.1	6	114.6	2.53	1.51	1.02	0.81	9.8	8.0	1.85	0.18
43.14	22.6	0.36	1.57	37.4	6	114.6	2.55	1.52	1.03	0.81	8.7	7.0	1.61	0.15
43.47	18.7	0.32	1.71	41.1	6	114.6	2.57	1.53	1.04	0.81	7.2	5.8	1.29	0.12
43.80	17.7	0.27	1.53	40.7	6	114.6	2.59	1.53	1.05	0.81	6.8	5.5	1.21	0.11
44.13	13.5	0.26	1.89	45.5	5	114.6	2.61	1.54	1.06	0.81	6.5	5.2	0.87	0.09
44.45	10.5	0.24	2.29	61.3	5	114.6	2.63	1.55	1.07	0.80	5.0	4.0	0.63	0.00
44.78	13.7	0.27	1.93	55.6	5	114.6	2.64	1.56	1.08	0.80	6.6	5.3	0.89	0.09
45.11	16.7	0.28	1.65	51.0	6	114.6	2.66	1.57	1.09	0.80	6.4	5.1	1.12	0.11
45.44	17.7	0.28	1.59	47.3	6	114.6	2.68	1.58	1.11	0.80	6.8	5.4	1.20	0.11
45.77	15.7	0.30	1.88	55.8	5	114.6	2.70	1.59	1.12	0.79	7.5	6.0	1.04	0.10
46.10	17.6	0.32	1.80	54.9	6	114.6	2.72	1.59	1.13	0.79	6.7	5.3	1.19	0.11
46.42	17.9	0.32	1.79	50.6	6	114.6	2.74	1.60	1.14	0.79	6.9	5.4	1.21	0.11
46.75	16.2	0.31	1.92	54.1	5	114.6	2.76	1.61	1.15	0.79	7.8	6.1	1.07	0.10
47.08	17.2	0.30	1.72	54.1	6	114.6	2.78	1.62	1.16	0.79	6.6	5.2	1.15	0.11
47.41	17.7	0.31	1.75	52.1	6	114.6	2.80	1.63	1.17	0.78	6.8	5.3	1.20	0.11
47.74	19.5	0.33	1.67	53.2	6	114.6	2.81	1.64	1.18	0.78	7.5	5.8	1.33	0.12
48.06	21.9	0.34	1.56	50.8	6	114.6	2.83	1.65	1.19	0.78	8.4	6.5	1.52	0.13
48.39	20.4	0.32	1.57	50.7	6	114.6	2.85	1.65	1.20	0.78	7.8	6.1	1.40	0.12
48.72	17.3	0.33	1.91	56.1	6	114.6	2.87	1.66	1.21	0.78	6.6	5.1	1.16	0.11
49.05	20.3	0.35	1.72	53.7	6	114.6	2.89	1.67	1.22	0.77	7.8	6.0	1.40	0.12
49.38	19.2	0.35	1.80	48.5	6	114.6	2.91	1.68	1.23	0.77	7.4	5.7	1.31	0.12
49.70	17.2	0.32	1.86	55.5	6	114.6	2.93	1.69	1.24	0.77	6.6	5.1	1.14	0.11
50.03	17.9	0.33	1.82	58.0	6	114.6	2.95	1.70	1.25	0.77	6.9	5.3	1.20	0.11
50.36	23.8	0.34	1.43	53.0	6	114.6	2.96	1.71	1.26	0.77	9.1	7.0	1.67	0.15
50.69	24.2	0.36	1.47	53.1	6	114.6	2.98	1.71	1.27	0.76	9.3	7.1	1.70	0.15
51.02	24.0	0.38	1.56	59.7	6	114.6	3.00	1.72	1.28	0.76	9.2	7.0	1.68	0.15
51.34	20.6	0.36	1.73	65.3	6	114.6	3.02	1.73	1.29	0.76	7.9	6.0	1.41	0.12
51.67	19.2	0.37	1.90	70.3	6	114.6	3.04	1.74	1.30	0.76	7.4	5.6	1.30	0.11
52.00	18.3	0.39	2.10	67.8	6	114.6	3.06	1.75	1.31	0.76	7.0	5.3	1.22	0.11
52.33	16.0	0.49	3.04	72.6	5	114.6	3.08	1.76	1.32	0.75	7.7	5.8	1.03	0.00
52.66	10.9	0.32	2.89	107.3	4	114.6	3.10	1.77	1.33	0.75	7.0	5.2	0.63	0.00
52.98	10.4	0.14	1.34	150.3	5	114.6	3.11	1.77	1.34	0.75	5.0	3.8	0.59	0.09
53.31	11.1	0.16	1.45	138.7	5	114.6	3.13	1.78	1.35	0.75	5.3	4.0	0.63	0.09
53.64	11.6	0.19	1.64	125.1	5	114.6	3.15	1.79	1.36	0.75	5.6	4.2	0.68	0.09

Run No: 04-0401-1123-5324

CPT File: 717CP008.COR

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
53.97	11.4	0.24	2.12	112.2	5	114.6	3.17	1.80	1.37	0.75	5.4	4.1	0.65	0.00
54.30	12.6	0.30	2.35	106.3	5	114.6	3.19	1.81	1.38	0.74	6.0	4.5	0.75	0.00
54.63	12.0	0.27	2.22	96.9	5	114.6	3.21	1.82	1.39	0.74	5.7	4.2	0.70	0.00
54.95	13.4	0.26	1.94	78.7	5	114.6	3.23	1.83	1.40	0.74	6.4	4.7	0.81	0.09
55.28	14.1	0.34	2.38	49.9	5	114.6	3.25	1.83	1.41	0.74	6.7	5.0	0.87	0.00
55.61	18.7	0.39	2.06	61.1	6	114.6	3.27	1.84	1.42	0.74	7.2	5.3	1.24	0.11
55.94	17.7	0.42	2.38	21.1	5	114.6	3.28	1.85	1.43	0.74	8.5	6.2	1.15	0.10
56.27	14.0	0.29	2.05	27.3	5	114.6	3.30	1.86	1.44	0.73	6.7	4.9	0.85	0.09
56.59	13.8	0.29	2.07	39.8	5	114.6	3.32	1.87	1.45	0.73	6.6	4.8	0.84	0.09
56.92	24.1	0.55	2.27	59.3	6	114.6	3.34	1.88	1.46	0.73	9.2	6.7	1.66	0.14
57.25	24.5	0.85	3.46	62.6	5	114.6	3.36	1.89	1.47	0.73	11.7	8.5	1.69	0.00
57.58	22.8	0.75	3.30	48.2	5	114.6	3.38	1.89	1.48	0.73	10.9	7.9	1.55	0.00
57.91	22.8	0.60	2.62	58.6	5	114.6	3.40	1.90	1.49	0.73	10.9	7.9	1.55	0.13
58.23	21.4	0.60	2.81	55.8	5	114.6	3.42	1.91	1.50	0.72	10.3	7.4	1.44	0.00
58.56	26.2	1.04	3.96	32.9	4	114.6	3.43	1.92	1.51	0.72	16.7	12.1	1.82	0.00
58.89	22.3	0.76	3.42	14.2	5	114.6	3.45	1.93	1.52	0.72	10.7	7.7	1.50	0.00
59.22	20.9	0.44	2.09	22.2	6	114.6	3.47	1.94	1.54	0.72	8.0	5.7	1.39	0.12
59.55	26.0	0.48	1.85	33.0	6	114.6	3.49	1.95	1.55	0.72	9.9	7.1	1.80	0.15
59.87	25.5	0.65	2.54	43.9	6	114.6	3.51	1.95	1.56	0.72	9.8	7.0	1.76	0.15
60.20	18.2	0.46	2.50	44.2	5	114.6	3.53	1.96	1.57	0.71	8.7	6.2	1.18	0.10
60.53	14.4	0.27	1.88	58.2	5	114.6	3.55	1.97	1.58	0.71	6.9	4.9	0.87	0.09
60.86	14.3	0.26	1.83	72.2	5	114.6	3.57	1.98	1.59	0.71	6.8	4.9	0.86	0.09
61.19	12.0	0.19	1.59	84.1	5	114.6	3.58	1.99	1.60	0.71	5.7	4.1	0.67	0.09
61.52	11.8	0.23	1.96	96.6	5	114.6	3.60	2.00	1.61	0.71	5.6	4.0	0.65	0.00
61.84	16.2	0.19	1.15	81.4	6	114.6	3.62	2.01	1.62	0.71	6.2	4.4	1.01	0.10
62.17	12.0	0.07	0.59	78.3	6	114.6	3.64	2.01	1.63	0.70	4.6	3.2	0.67	0.09
62.50	8.4	0.05	0.60	110.4	6	114.6	3.66	2.02	1.64	0.70	3.2	2.3	0.38	0.00
62.83	9.0	0.05	0.50	119.9	6	114.6	3.68	2.03	1.65	0.70	3.4	2.4	0.42	0.00
63.16	7.7	0.05	0.59	139.9	1	111.4	3.70	2.04	1.66	0.70	3.7	2.6	0.32	0.00
63.48	8.5	0.04	0.47	154.4	6	114.6	3.72	2.05	1.67	0.70	3.3	2.3	0.38	0.00
63.81	11.0	0.05	0.41	133.9	6	114.6	3.73	2.06	1.68	0.70	4.2	2.9	0.58	0.00
64.14	11.9	0.07	0.59	111.0	6	114.6	3.75	2.06	1.69	0.70	4.5	3.2	0.65	0.09
64.47	11.7	0.10	0.81	106.6	6	114.6	3.77	2.07	1.70	0.69	4.5	3.1	0.64	0.09
64.80	20.2	0.11	0.52	116.4	6	114.6	3.79	2.08	1.71	0.69	7.7	5.4	1.31	0.11
65.12	44.6	0.17	0.38	42.5	8	120.9	3.81	2.09	1.72	0.69	10.7	7.4	UnDef	0.08
65.45	39.2	0.52	1.32	43.9	7	117.8	3.83	2.10	1.73	0.69	12.5	8.6	UnDef	0.30
65.78	32.7	0.49	1.50	55.6	6	114.6	3.85	2.11	1.74	0.69	12.5	8.6	2.31	0.20
66.11	35.6	0.42	1.17	64.5	7	117.8	3.87	2.12	1.75	0.69	11.4	7.8	UnDef	0.24
66.44	53.4	0.29	0.54	28.5	8	120.9	3.89	2.13	1.76	0.69	12.8	8.8	UnDef	0.11
66.76	59.4	0.40	0.68	33.0	8	120.9	3.91	2.14	1.77	0.68	14.2	9.7	UnDef	0.12
67.09	72.0	0.57	0.79	43.2	8	120.9	3.93	2.15	1.78	0.68	17.2	11.8	UnDef	0.14
67.42	72.3	0.59	0.81	52.3	8	120.9	3.95	2.16	1.79	0.68	17.3	11.8	UnDef	0.14
67.75	61.3	0.64	1.05	53.6	7	117.8	3.97	2.17	1.80	0.68	19.6	13.3	UnDef	0.17
68.08	65.9	0.44	0.67	53.9	8	120.9	3.99	2.17	1.81	0.68	15.8	10.7	UnDef	0.13
68.40	77.4	0.40	0.51	53.1	8	120.9	4.01	2.18	1.82	0.68	18.5	12.5	UnDef	0.12
68.73	67.4	0.46	0.68	54.9	8	120.9	4.03	2.19	1.83	0.68	16.1	10.9	UnDef	0.13
69.06	75.7	0.52	0.69	57.2	8	120.9	4.05	2.20	1.84	0.67	18.1	12.2	UnDef	0.14
69.39	83.6	0.71	0.85	57.1	8	120.9	4.07	2.21	1.85	0.67	20.0	13.5	UnDef	0.16
69.72	84.3	0.98	1.16	58.0	8	120.9	4.09	2.22	1.86	0.67	20.2	13.5	UnDef	0.19
70.05	238.2	3.61	1.52	45.6	8	120.9	4.11	2.23	1.87	0.67	57.0	38.2	UnDef	0.00
70.37	461.4	4.87	1.05	39.7	9	124.1	4.13	2.24	1.88	0.67	88.4	59.0	UnDef	0.00
70.70	478.9	3.86	0.81	32.0	10	127.3	4.15	2.25	1.89	0.67	76.4	50.9	UnDef	0.00
71.03	381.1	2.02	0.53	-10.6	10	127.3	4.17	2.26	1.90	0.66	60.8	40.4	UnDef	0.00
71.36	363.7	2.32	0.64	-19.3	10	127.3	4.19	2.27	1.91	0.66	58.1	38.5	UnDef	0.00

Run No: 04-0401-1123-5324
 Job No: 04-717
 Client: MACTEC
 Project: TVA Kingston
 Site: CPT-8
 Location: TVA Kingston
 Cone: 20 TON AD142
 CPT Date: 04/23/03
 CPT Time: 12:41
 CPT File: 717CPT008.COR
 Northing (m): 0.000
 Easting (m): 0.000
 Elevation (m): 0.000

Water Table (m): 3.05 (ft): 10.0
 Unit Weight of Water (User Specified): 62.40 pcf
 Su Nkt used: 12.50 Su/P' (inc): 0.30
 Averaging Increment (m): 0.10
 Phi Method: Robertson and Campanella, 1983
 Dr Method: Jamiolkowski - All Sands
 State Parameter M: 1.20

Used Unit Weights Assigned to Soil Zones

Values of 1.0E9 or UnDef are printed for parameters that are not valid for the material type (SBT)

Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Param	Del(n1)60 (N1)60cs	(N1)60cs	
0.16	5.0E-04	0.00	1000.0	0.58	10	41.6	0.0	41.6	0.0	50	89.4	1.0	-0.35	0.0	13.9
0.49	5.0E-04	0.00	1000.0	1.04	9	67.5	0.0	67.5	0.6	50	87.5	1.0	-0.41	0.0	22.5
0.82	5.0E-04	0.00	923.2	1.23	9	85.5	0.0	85.5	1.6	50	87.0	1.0	-0.42	0.0	28.5
1.15	5.0E-04	0.00	746.3	1.45	9	96.8	0.0	96.8	2.9	50	85.7	1.0	-0.43	0.0	32.3
1.48	5.0E-04	-0.01	595.1	1.53	9	99.3	0.0	99.3	3.8	50	82.8	1.0	-0.41	0.0	33.1
1.80	5.0E-04	-0.01	513.1	1.61	9	104.6	0.0	104.6	4.6	48	81.5	1.0	-0.40	0.0	34.9
2.13	5.0E-04	-0.01	410.9	1.54	9	99.1	0.4	99.4	5.1	48	77.5	1.0	-0.38	0.1	33.1
2.46	5.0E-04	-0.01	368.1	1.15	9	102.4	0.0	102.4	3.8	48	76.4	1.0	-0.33	0.0	34.1
2.79	5.0E-03	0.00	498.3	0.91	9	157.3	0.0	157.3	1.6	48	86.9	1.0	-0.33	0.0	39.3
3.12	5.0E-02	0.00	748.1	0.88	10	264.8	0.0	264.8	0.5	50	95.0	1.0	-0.36	0.0	53.0
3.44	5.0E-02	0.00	799.1	0.93	10	314.0	0.0	314.0	0.6	50	95.0	1.0	-0.38	0.0	62.8
3.77	5.0E-02	0.00	803.7	0.93	10	347.2	0.0	347.2	0.6	50	95.0	1.0	-0.38	0.0	69.4
4.10	5.0E-02	0.00	787.0	0.96	9	370.7	0.0	370.7	0.7	50	95.0	1.0	-0.38	0.0	74.1
4.43	5.0E-02	0.00	688.0	1.11	9	347.7	0.0	347.7	1.7	50	95.0	1.0	-0.38	0.0	68.1
4.76	5.0E-02	0.00	608.5	1.06	9	319.2	0.0	319.2	1.8	50	95.0	1.0	-0.37	0.0	62.5
5.09	5.0E-02	0.00	567.9	0.92	9	308.3	0.0	308.3	1.3	50	95.0	1.0	-0.34	0.0	60.4
5.41	5.0E-02	0.00	582.7	0.95	9	326.7	0.0	326.7	1.4	50	95.0	1.0	-0.35	0.0	63.9
5.74	5.0E-02	0.00	613.2	0.89	9	354.3	0.0	354.3	1.0	50	95.0	1.0	-0.35	0.0	69.3
6.07	5.0E-02	0.00	571.5	0.96	9	339.8	0.0	339.8	1.5	50	95.0	1.0	-0.35	0.0	66.5
6.40	5.0E-02	0.00	546.1	1.03	9	333.6	0.0	333.6	1.9	50	95.0	1.0	-0.35	0.0	65.3
6.73	5.0E-02	0.00	506.5	1.10	9	317.5	0.0	317.5	2.5	48	95.0	1.0	-0.35	0.0	62.1
7.05	5.0E-03	0.00	488.7	1.33	9	313.8	0.0	313.8	3.6	48	95.0	1.0	-0.37	0.0	76.8
7.38	5.0E-03	0.00	455.7	1.19	9	299.3	0.0	299.3	3.2	48	95.0	1.0	-0.35	0.0	73.2
7.79	5.0E-03	0.00	368.0	1.17	9	248.4	0.0	248.4	3.9	48	93.4	1.0	-0.33	0.0	60.8
8.20	5.0E-03	0.00	229.2	1.41	9	159.0	10.6	169.6	7.3	46	80.6	1.0	-0.30	1.6	40.5
8.53	5.0E-04	0.00	136.3	2.21	7	96.7	33.0	129.7	14.5	44	66.3	1.0	-0.31	6.0	37.5
8.86	5.0E-05	0.00	91.2	2.29	7	66.1	37.3	103.5	18.5	42	55.4	10.0	-0.27	7.5	33.4
9.19	5.0E-05	0.00	64.0	1.69	7	47.4	28.9	76.3	19.2	40	45.9	10.0	-0.20	5.8	24.3
9.51	5.0E-05	0.00	48.2	1.94	7	36.5	37.4	73.8	24.0	38	38.4	10.0	-0.18	6.6	20.9
9.84	5.0E-06	0.00	34.1	2.72	6	26.5	76.9	103.4	32.9	UnDef	UnDef	10.0	UnDef	11.3	24.2
10.17	5.0E-06	0.00	31.4	2.87	6	24.7	97.1	121.8	34.9	UnDef	UnDef	10.0	UnDef	12.0	24.1
10.50	5.0E-06	0.00	27.7	2.85	6	22.1	88.3	110.4	36.8	UnDef	UnDef	10.0	UnDef	10.8	21.6
10.83	5.0E-06	0.00	26.7	2.95	6	21.4	85.8	107.2	37.9	UnDef	UnDef	10.0	UnDef	10.5	21.0
11.15	5.0E-06	0.00	24.7	3.14	6	20.1	80.4	100.4	40.1	UnDef	UnDef	10.0	UnDef	9.8	19.7
11.48	5.0E-06	0.00	29.1	2.77	6	23.6	94.5	118.1	35.6	UnDef	UnDef	10.0	UnDef	11.6	23.1
11.81	5.0E-06	0.00	30.0	2.77	6	24.5	98.2	122.7	35.1	UnDef	UnDef	10.0	UnDef	12.0	24.0
12.14	5.0E-06	0.00	28.9	3.10	6	23.9	95.4	119.3	37.3	UnDef	UnDef	10.0	UnDef	11.7	23.4
12.47	5.0E-06	0.01	30.9	2.63	6	25.6	87.3	112.9	34.0	UnDef	UnDef	10.0	UnDef	11.7	24.2
12.80	5.0E-05	-0.01	41.2	2.74	6	34.1	69.4	103.4	30.1	38	36.4	10.0	-0.21	9.6	23.0

Ch (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTr	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1)60	(N1)60cs
13.12	5.0E-06	0.00	38.2	2.78	6	31.9	76.2	108.1	31.4	UnDef	UnDef	10.0	UnDef	12.3	27.9
13.45	5.0E-05	0.00	50.7	1.76	7	42.2	36.2	78.4	22.3	38	42.5	10.0	-0.18	6.7	23.2
13.78	5.0E-04	0.00	93.8	1.13	9	77.8	18.1	96.0	12.1	42	60.1	1.0	-0.19	3.4	28.8
14.11	5.0E-04	-0.01	78.1	1.33	7	65.4	23.7	89.1	15.0	42	55.1	1.0	-0.19	4.3	25.6
14.44	5.0E-04	-0.01	64.3	1.42	7	54.4	27.3	81.7	17.5	40	49.8	1.0	-0.18	4.7	22.4
14.76	5.0E-04	0.00	59.8	1.25	7	51.0	24.7	75.7	17.2	40	48.0	1.0	-0.16	4.3	20.9
15.09	5.0E-04	-0.01	56.5	0.93	7	48.5	18.8	67.3	15.4	40	46.5	1.0	-0.13	3.3	19.2
15.42	5.0E-05	-0.01	30.9	1.41	7	27.2	37.5	64.7	26.7	36	30.0	10.0	-0.11	6.1	16.7
15.75	5.0E-05	-0.02	22.2	1.31	7	20.0	45.9	65.9	31.1	34	30.0	10.0	-0.07	6.0	13.9
16.08	5.0E-05	0.00	15.5	1.27	6	14.3	57.3	71.7	37.1	32	30.0	6.3	-0.03	5.6	11.2
16.40	5.0E-06	0.01	11.5	1.53	6	10.9	43.7	54.7	45.4	UnDef	UnDef	4.0	UnDef	5.4	10.7
16.73	5.0E-07	0.08	6.0	2.16	4	6.2	25.0	31.2	66.3	UnDef	UnDef	1.6	UnDef	4.1	8.1
17.06	5.0E-06	0.05	8.6	0.96	6	8.6	34.4	43.0	46.3	UnDef	UnDef	2.7	UnDef	4.2	8.4
17.39	5.0E-05	0.00	12.8	0.39	7	12.4	0.0	12.4	5.0	30	30.0	4.7	0.07	0.0	4.8
17.72	5.0E-05	0.00	19.0	0.20	7	17.8	0.0	17.8	5.0	32	30.0	8.7	0.09	0.0	7.0
18.04	5.0E-05	0.00	18.0	0.27	7	17.0	0.0	17.0	5.0	32	30.0	8.0	0.07	0.0	6.7
18.37	5.0E-05	0.00	16.5	0.37	7	15.9	0.0	15.9	5.0	32	30.0	7.0	0.06	0.0	6.2
18.70	5.0E-05	0.00	15.9	0.38	7	15.4	0.0	15.4	5.0	32	30.0	6.6	0.06	0.0	6.0
19.03	5.0E-05	0.00	14.6	0.37	7	14.3	0.0	14.3	5.0	32	30.0	5.8	0.07	0.0	5.6
19.36	5.0E-05	0.00	16.2	0.26	7	15.8	0.0	15.8	5.0	32	30.0	6.8	0.09	0.0	6.2
19.68	5.0E-05	0.00	17.7	0.23	7	17.3	0.0	17.3	5.0	32	30.0	7.8	0.09	0.0	6.8
20.01	5.0E-04	0.00	22.6	0.26	7	21.9	0.0	21.9	5.0	34	30.0	1.0	0.06	0.0	7.1
20.34	5.0E-04	0.00	24.5	0.19	7	23.7	0.0	23.7	5.0	34	30.0	1.0	0.07	0.0	7.7
20.67	5.0E-04	0.00	26.7	0.17	7	25.8	0.0	25.8	5.0	36	30.0	1.0	0.07	0.0	8.4
21.00	5.0E-04	0.00	28.5	0.22	7	27.7	0.0	27.7	5.0	36	30.5	1.0	0.05	0.0	9.0
21.33	5.0E-04	0.00	21.7	0.20	7	21.5	0.0	21.5	5.0	34	30.0	1.0	0.08	0.0	7.0
21.65	5.0E-05	0.00	20.1	0.52	7	20.1	22.6	42.7	24.8	34	30.0	9.5	0.01	3.9	11.8
21.98	5.0E-04	0.00	28.4	0.40	7	28.0	0.0	28.0	5.0	36	30.8	1.0	0.00	0.0	9.1
22.31	5.0E-04	0.00	28.2	0.40	7	27.9	0.0	27.9	5.0	36	30.7	1.0	0.00	0.0	9.1
22.64	5.0E-04	0.00	26.8	0.40	7	26.8	0.0	26.8	5.0	36	30.0	1.0	0.01	0.0	8.7
22.97	5.0E-04	0.00	25.5	0.46	7	25.7	0.0	25.7	5.0	34	30.0	1.0	0.00	0.0	8.4
23.29	5.0E-03	0.00	38.1	0.25	9	37.9	0.0	37.9	5.0	38	39.5	1.0	0.01	0.0	9.3
23.62	5.0E-03	0.00	38.7	0.31	9	38.6	0.0	38.6	5.0	38	40.0	1.0	0.00	0.0	9.4
23.95	5.0E-04	0.00	29.7	0.83	7	30.1	26.4	56.5	22.5	36	32.8	1.0	-0.06	4.1	13.9
24.28	5.0E-04	0.00	51.7	1.44	7	51.6	34.8	86.5	20.1	38	48.3	1.0	-0.16	5.7	22.5
24.61	5.0E-02	0.00	210.5	0.66	9	206.9	0.0	206.9	3.6	46	88.1	1.0	-0.22	0.0	40.5
24.93	5.0E-02	0.00	328.1	0.91	9	323.3	0.0	323.3	3.1	48	95.0	1.0	-0.29	0.0	63.3
25.26	5.0E-03	0.00	283.0	1.47	9	280.5	11.7	292.2	6.5	46	95.0	1.0	-0.33	1.8	70.4
25.59	5.0E-03	0.00	234.3	1.31	9	233.6	11.4	245.0	6.7	46	91.6	1.0	-0.30	1.7	58.9
25.92	5.0E-02	0.00	219.5	0.97	9	220.0	1.4	221.3	5.2	46	89.9	1.0	-0.26	0.2	43.2
26.25	5.0E-02	0.00	175.9	0.96	9	177.4	7.0	184.4	6.4	44	83.7	1.0	-0.24	0.8	35.6
26.57	5.0E-02	0.00	140.8	0.84	9	143.1	8.3	151.3	7.0	44	77.5	1.0	-0.20	1.0	29.0
26.90	5.0E-03	0.00	45.1	0.67	7	47.1	18.7	65.8	15.6	38	45.7	1.0	-0.08	2.5	14.0
27.23	5.0E-05	0.02	17.0	1.43	6	18.7	74.9	93.6	36.8	32	30.0	7.3	-0.04	7.3	14.7
27.56	5.0E-03	0.01	53.8	0.75	9	56.3	19.1	75.4	14.5	40	50.8	1.0	-0.10	2.6	16.4
27.89	5.0E-03	0.00	56.1	0.42	9	59.0	0.0	59.0	5.0	40	52.1	1.0	-0.06	0.0	14.4
28.21	5.0E-03	0.00	55.5	0.43	9	58.6	0.0	58.6	5.0	40	51.9	1.0	-0.06	0.0	14.3
28.54	5.0E-03	0.00	74.4	0.43	9	78.4	0.0	78.4	5.0	40	60.3	1.0	-0.09	0.0	19.2
28.87	5.0E-02	0.00	120.1	0.16	9	126.0	0.0	126.0	2.2	42	73.9	1.0	-0.05	0.0	24.7
29.20	5.0E-02	0.00	102.7	0.11	9	108.5	0.0	108.5	2.6	42	69.6	1.0	0.00	0.0	21.2
29.53	5.0E-02	0.00	75.3	0.12	9	80.3	0.0	80.3	4.7	40	61.0	1.0	0.01	0.0	15.7
29.86	5.0E-03	0.00	65.5	0.09	9	70.4	0.0	70.4	5.0	40	57.2	1.0	0.05	0.0	17.2
30.18	5.0E-02	0.00	75.5	0.14	9	81.3	0.0	81.3	5.0	40	61.3	1.0	0.00	0.0	15.9
30.59	5.0E-03	0.00	64.1	0.18	9	69.6	0.0	69.6	5.0	40	56.9	1.0	-0.01	0.0	17.0
31.00	5.0E-03	0.00	56.6	0.15	9	62.0	0.0	62.0	5.0	40	53.6	1.0	0.02	0.0	15.2
31.33	5.0E-03	0.00	44.6	0.28	9	49.4	0.0	49.4	5.0	38	47.0	1.0	-0.01	0.0	12.1
31.66	5.0E-04	0.00	32.4	0.80	7	36.4	27.2	63.6	21.0	36	38.3	1.0	-0.06	4.3	16.2
31.99	5.0E-04	0.00	23.2	0.89	7	26.7	36.8	63.5	26.7	34	30.0	1.0	-0.04	5.0	13.7
32.32	5.0E-03	0.00	30.4	0.20	9	34.5	0.0	34.5	5.0	36	36.8	1.0	0.05	0.0	8.5
32.64	5.0E-03	0.00	37.5	0.10	9	42.4	0.0	42.4	5.0	38	42.7	1.0	0.09	0.0	10.4
32.97	5.0E-03	0.00	31.7	0.14	9	36.3	0.0	36.3	5.0	36	38.2	1.0	0.08	0.0	8.9
33.30	5.0E-03	0.00	37.1	0.23	9	42.4	0.0	42.4	5.0	38	42.7	1.0	0.02	0.0	10.4

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Ch (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1)60	(N1)60cs
33.63	5.0E-03	0.00	52.4	0.52	9	59.3	14.9	74.2	12.5	40	52.3	1.0	-0.07	2.1	16.6
33.96	5.0E-04	0.00	40.7	1.11	7	46.7	33.8	80.5	20.7	38	45.4	1.0	-0.11	5.4	20.7
34.28	5.0E-04	0.00	27.8	1.28	7	32.5	48.1	80.6	27.4	36	35.1	1.0	-0.09	6.3	16.9
34.61	5.0E-05	0.00	19.1	1.26	7	23.0	70.5	93.5	33.2	32	30.0	8.8	-0.05	8.0	17.1
34.94	5.0E-05	0.00	16.8	1.40	6	20.5	82.0	102.5	36.8	32	30.0	7.2	-0.04	8.0	16.1
35.27	5.0E-04	0.00	18.9	1.08	7	22.9	57.9	80.9	31.8	32	30.0	1.0	-0.04	6.1	13.6
35.60	5.0E-04	0.00	22.2	1.05	7	26.7	47.0	73.7	28.9	34	30.0	1.0	-0.05	5.8	14.5
35.92	5.0E-05	0.00	19.7	1.44	6	24.0	85.0	108.9	34.2	34	30.0	9.2	-0.06	8.9	18.3
36.25	5.0E-05	0.02	15.4	2.07	6	19.3	77.1	96.3	43.2	32	30.0	6.3	-0.06	7.5	15.1
36.58	5.0E-05	0.01	19.2	1.42	6	23.6	86.5	110.1	34.4	34	30.0	8.9	-0.06	8.9	18.2
36.91	5.0E-05	0.00	20.1	1.41	6	24.7	79.5	104.2	33.6	34	30.0	9.5	-0.06	8.8	18.5
37.24	5.0E-05	0.01	16.8	1.84	6	21.1	84.3	105.3	39.9	32	30.0	7.2	-0.06	8.2	16.5
37.57	5.0E-05	0.01	15.2	1.98	6	19.2	76.9	96.2	42.9	32	30.0	6.1	-0.06	7.5	15.1
37.89	5.0E-04	0.00	21.4	1.23	7	26.4	60.2	86.7	31.0	34	30.0	1.0	-0.06	6.6	15.3
38.22	5.0E-05	0.00	18.9	1.30	6	23.7	78.3	102.0	33.8	32	30.0	8.7	-0.05	8.6	17.8
38.55	5.0E-05	0.01	15.8	1.48	6	20.2	80.6	100.8	38.5	32	30.0	6.5	-0.04	7.9	15.8
38.88	5.0E-05	0.02	14.9	1.73	6	19.1	76.5	95.6	41.6	32	30.0	5.9	-0.04	7.5	15.0
39.21	5.0E-04	0.00	21.1	1.30	7	26.5	66.8	93.2	31.8	34	30.0	1.0	-0.06	7.0	15.6
39.53	5.0E-04	0.00	27.0	1.07	7	33.4	42.9	76.3	26.0	36	35.9	1.0	-0.07	5.9	16.8
39.86	5.0E-04	0.00	27.3	1.15	7	33.8	45.7	79.6	26.5	36	36.2	1.0	-0.08	6.2	17.2
40.19	5.0E-04	0.00	32.3	1.05	7	39.9	37.9	77.8	23.2	36	40.9	1.0	-0.08	5.7	18.7
40.52	5.0E-04	0.00	31.5	1.05	7	39.0	38.6	77.6	23.6	36	40.3	1.0	-0.08	5.7	18.5
40.85	5.0E-04	0.00	35.9	1.02	7	44.4	35.2	79.6	21.6	38	44.0	1.0	-0.09	5.5	20.0
41.17	5.0E-04	0.00	35.0	1.06	7	43.5	37.3	80.8	22.3	38	43.4	1.0	-0.09	5.8	19.9
41.50	5.0E-04	0.00	28.1	1.12	7	35.4	44.7	80.1	25.9	36	37.5	1.0	-0.08	6.2	17.7
41.83	5.0E-04	0.00	22.1	1.34	7	28.4	68.1	96.4	31.4	34	31.2	1.0	-0.07	7.3	16.6
42.16	5.0E-05	0.00	17.6	1.66	6	23.1	92.4	115.4	37.8	32	30.0	7.7	-0.06	9.0	18.1
42.49	5.0E-05	0.00	16.9	1.62	6	22.2	88.9	111.1	38.4	32	30.0	7.2	-0.05	8.7	17.4
42.81	5.0E-05	0.00	15.3	1.65	6	20.4	81.6	102.0	40.5	32	30.0	6.2	-0.05	8.0	16.0
43.14	5.0E-05	0.01	13.2	1.77	6	18.0	71.9	89.9	44.3	32	30.0	5.0	-0.04	7.0	14.1
43.47	5.0E-05	0.01	10.6	1.99	6	14.8	59.3	74.1	50.7	30	30.0	3.6	-0.02	5.8	11.6
43.80	5.0E-05	0.01	9.8	1.80	6	14.0	55.8	69.8	51.0	30	30.0	3.2	0.00	5.5	10.9
44.13	5.0E-06	0.03	7.1	2.34	4	10.7	42.7	53.3	62.9	UnDef	UnDef	2.0	UnDef	5.2	10.4
44.45	5.0E-06	0.11	5.1	3.05	1	8.3	UnDef	UnDef	100.0	UnDef	UnDef	1.4	UnDef	UnDef	UnDef
44.78	5.0E-06	0.06	7.1	2.39	4	10.8	43.1	53.8	63.2	UnDef	UnDef	2.0	UnDef	5.3	10.5
45.11	5.0E-05	0.04	9.0	1.96	6	13.1	52.2	65.3	54.4	30	30.0	2.8	0.00	5.1	10.2
45.44	5.0E-05	0.02	9.5	1.87	6	13.8	55.1	68.9	52.3	30	30.0	3.1	0.00	5.4	10.8
45.77	5.0E-06	0.05	8.2	2.28	4	12.2	48.8	61.0	58.8	UnDef	UnDef	2.5	UnDef	6.0	11.9
46.10	5.0E-05	0.04	9.3	2.13	4	13.6	54.5	68.1	54.6	30	30.0	3.0	-0.01	5.3	10.7
46.42	5.0E-05	0.03	9.5	2.12	4	13.8	55.3	69.2	54.2	30	30.0	3.0	-0.01	5.4	10.8
46.75	5.0E-06	0.04	8.3	2.31	4	12.5	49.9	62.4	58.6	UnDef	UnDef	2.5	UnDef	6.1	12.2
47.08	5.0E-05	0.04	8.9	2.05	4	13.2	52.8	66.0	55.2	30	30.0	2.8	0.00	5.2	10.3
47.41	5.0E-05	0.03	9.2	2.08	4	13.6	54.4	68.0	54.6	30	30.0	2.9	0.00	5.3	10.7
47.74	5.0E-05	0.03	10.2	1.95	6	14.9	59.6	74.5	51.3	30	30.0	3.4	-0.01	5.8	11.7
48.06	5.0E-05	0.02	11.6	1.79	6	16.7	66.8	83.5	47.2	30	30.0	4.1	-0.02	6.5	13.1
48.39	5.0E-05	0.02	10.6	1.83	6	15.5	62.1	77.6	49.5	30	30.0	3.6	-0.01	6.1	12.1
48.72	5.0E-05	0.04	8.7	2.29	4	13.1	52.6	65.7	57.4	30	30.0	2.7	0.00	5.1	10.3
49.05	5.0E-05	0.03	10.4	2.01	6	15.4	61.6	77.0	51.1	30	30.0	3.5	-0.02	6.0	12.1
49.38	5.0E-05	0.02	9.7	2.12	6	14.5	58.1	72.6	53.6	30	30.0	3.1	-0.01	5.7	11.4
49.70	5.0E-05	0.03	8.5	2.24	4	13.0	51.9	64.8	57.7	30	30.0	2.6	0.00	5.1	10.2
50.03	5.0E-05	0.04	8.8	2.18	4	13.4	53.8	67.2	56.3	30	30.0	2.7	0.00	5.3	10.5
50.36	5.0E-05	0.02	12.2	1.63	6	17.8	71.4	89.2	44.9	30	30.0	4.4	-0.02	7.0	14.0
50.69	5.0E-05	0.02	12.4	1.67	6	18.1	72.4	90.6	44.9	30	30.0	4.5	-0.02	7.1	14.2
51.02	5.0E-05	0.03	12.2	1.79	6	17.9	71.7	89.6	46.1	30	30.0	4.4	-0.03	7.0	14.0
51.34	5.0E-05	0.04	10.1	2.03	6	15.3	61.3	76.6	51.9	30	30.0	3.3	-0.01	6.0	12.0
51.67	5.0E-05	0.06	9.3	2.26	4	14.3	57.1	71.4	55.5	30	30.0	3.0	-0.01	5.6	11.2
52.00	5.0E-05	0.05	8.7	2.53	4	13.6	54.3	67.8	58.8	30	30.0	2.7	-0.01	5.3	10.6
52.33	5.0E-06	0.07	7.4	3.76	1	11.8	UnDef	UnDef	100.0	UnDef	UnDef	2.1	UnDef	UnDef	UnDef
52.66	5.0E-07	0.26	4.4	4.04	1	8.0	UnDef	UnDef	100.0	UnDef	UnDef	1.2	UnDef	UnDef	UnDef
52.98	5.0E-06	0.46	4.1	1.91	4	7.7	30.7	38.4	75.0	UnDef	UnDef	1.1	UnDef	3.8	7.5
53.31	5.0E-06	0.38	4.4	2.02	4	8.1	32.4	40.5	73.6	UnDef	UnDef	1.2	UnDef	4.0	7.9
53.64	5.0E-06	0.30	4.7	2.25	4	8.5	33.9	42.4	73.7	UnDef	UnDef	1.3	UnDef	4.2	8.3

Run No: 04-0401-1123-5324

CPT File: 717CP008.COR

Ch (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1)60	(N1)60cs
53.97	5.0E-06	0.26	4.5	2.94	1	8.3	UnDef	UnDef	100.0	UnDef	UnDef	1.2	UnDef	UnDef	UnDef
54.30	5.0E-06	0.21	5.2	3.14	1	9.2	UnDef	UnDef	100.0	UnDef	UnDef	1.4	UnDef	UnDef	UnDef
54.63	5.0E-06	0.19	4.8	3.04	1	8.7	UnDef	UnDef	100.0	UnDef	UnDef	1.3	UnDef	UnDef	UnDef
54.95	5.0E-06	0.10	5.6	2.56	4	9.7	38.8	48.5	71.0	UnDef	UnDef	1.5	UnDef	4.7	9.5
55.28	5.0E-06	0.01	5.9	3.10	1	10.2	UnDef	UnDef	100.0	UnDef	UnDef	1.6	UnDef	UnDef	UnDef
55.61	5.0E-05	0.03	8.4	2.49	4	13.5	54.1	67.6	59.5	30	30.0	2.6	-0.01	5.3	10.6
55.94	5.0E-06	-0.05	7.8	2.92	4	12.7	50.9	63.6	64.1	UnDef	UnDef	2.3	UnDef	6.2	12.5
56.27	5.0E-06	-0.06	5.7	2.68	4	10.0	40.1	50.1	70.9	UnDef	UnDef	1.6	UnDef	4.9	9.8
56.59	5.0E-06	-0.02	5.6	2.73	4	9.9	39.5	49.4	71.9	UnDef	UnDef	1.5	UnDef	4.8	9.7
56.92	5.0E-05	0.02	11.0	2.63	4	17.2	68.8	86.0	53.9	30	30.0	3.8	-0.04	6.7	13.5
57.25	5.0E-06	0.02	11.2	4.01	1	17.4	UnDef	UnDef	100.0	UnDef	UnDef	3.9	UnDef	UnDef	UnDef
57.58	5.0E-06	0.00	10.2	3.88	1	16.2	UnDef	UnDef	100.0	UnDef	UnDef	3.4	UnDef	UnDef	UnDef
57.91	5.0E-06	0.02	10.2	3.07	4	16.2	64.7	80.9	58.2	UnDef	UnDef	3.4	UnDef	7.9	15.8
58.23	5.0E-06	0.01	9.4	3.34	1	15.2	UnDef	UnDef	100.0	UnDef	UnDef	3.0	UnDef	UnDef	UnDef
58.56	5.0E-07	-0.02	11.9	4.56	1	18.5	UnDef	UnDef	100.0	UnDef	UnDef	4.2	UnDef	UnDef	UnDef
58.89	5.0E-06	-0.06	9.8	4.05	1	15.7	UnDef	UnDef	100.0	UnDef	UnDef	3.2	UnDef	UnDef	UnDef
59.22	5.0E-05	-0.05	9.0	2.51	4	14.7	58.7	73.4	58.0	30	30.0	2.8	-0.02	5.7	11.5
59.55	5.0E-05	-0.02	11.6	2.14	6	18.2	72.9	91.1	49.8	30	30.0	4.0	-0.04	7.1	14.3
59.87	5.0E-05	-0.01	11.3	2.94	4	17.9	71.4	89.3	55.2	30	30.0	3.9	-0.06	7.0	14.0
60.20	5.0E-06	-0.01	7.5	3.10	4	12.7	50.9	63.6	66.2	UnDef	UnDef	2.2	UnDef	6.2	12.5
60.53	5.0E-06	0.02	5.5	2.49	4	10.1	40.2	50.3	70.7	UnDef	UnDef	1.5	UnDef	4.9	9.8
60.86	5.0E-06	0.06	5.4	2.44	4	9.9	39.7	49.6	71.0	UnDef	UnDef	1.5	UnDef	4.9	9.7
61.19	5.0E-06	0.12	4.2	2.27	4	8.3	33.2	41.5	77.2	UnDef	UnDef	1.1	UnDef	4.1	8.1
61.52	5.0E-06	0.17	4.1	2.82	1	8.2	UnDef	UnDef	100.0	UnDef	UnDef	1.1	UnDef	UnDef	UnDef
61.84	5.0E-05	0.07	6.3	1.46	4	11.2	44.8	55.9	59.3	30	30.0	1.7	0.06	4.4	8.8
62.17	5.0E-05	0.10	4.1	0.84	4	8.3	33.0	41.3	63.7	30	30.0	1.1	0.13	3.2	6.5
62.50	5.0E-05	0.38	2.3	1.06	1	5.8	UnDef	UnDef	100.0	30	30.0	0.7	0.21	UnDef	UnDef
62.83	5.0E-05	0.40	2.6	0.85	1	6.2	UnDef	UnDef	100.0	30	30.0	0.7	0.21	UnDef	UnDef
63.16	1.0E-07	0.68	2.0	1.13	1	5.3	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
63.48	5.0E-05	0.66	2.3	0.84	1	5.8	UnDef	UnDef	100.0	30	30.0	0.7	0.28	UnDef	UnDef
63.81	5.0E-05	0.35	3.5	0.62	1	7.5	UnDef	UnDef	100.0	30	30.0	0.9	0.20	UnDef	UnDef
64.14	5.0E-05	0.22	3.9	0.87	4	8.1	32.3	40.4	65.5	30	30.0	1.0	0.15	3.2	6.3
64.47	5.0E-05	0.20	3.8	1.19	4	8.0	31.9	39.9	70.2	30	30.0	1.0	0.13	3.1	6.3
64.80	5.0E-05	0.12	7.9	0.64	6	13.7	54.7	68.3	44.4	30	30.0	2.3	0.09	5.4	10.7
65.12	5.0E-03	-0.01	19.5	0.42	7	30.2	0.0	30.2	5.0	34	33.0	1.0	0.03	0.0	7.4
65.45	5.0E-04	-0.01	16.8	1.46	6	26.5	105.9	132.4	37.2	32	30.0	1.0	-0.05	8.6	17.3
65.78	5.0E-05	0.00	13.7	1.70	6	22.1	88.3	110.3	43.0	32	30.0	5.2	-0.04	8.6	17.3
66.11	5.0E-04	0.01	15.0	1.31	6	23.9	95.7	119.6	38.2	32	30.0	1.0	-0.03	7.8	15.6
66.44	5.0E-03	-0.02	23.3	0.59	7	35.9	34.6	70.5	23.4	34	37.9	1.0	-0.01	3.9	12.7
66.76	5.0E-03	-0.01	26.0	0.72	7	39.8	38.1	77.9	23.3	36	40.8	1.0	-0.04	4.3	14.0
67.09	5.0E-03	-0.01	31.7	0.83	7	48.1	38.3	86.4	21.6	36	46.3	1.0	-0.06	4.5	16.3
67.42	5.0E-03	0.00	31.7	0.86	7	48.2	39.4	87.6	21.9	36	46.3	1.0	-0.07	4.6	16.4
67.75	5.0E-04	0.00	26.5	1.12	7	40.7	56.6	97.3	26.8	36	41.5	1.0	-0.07	7.6	20.9
68.08	5.0E-03	0.00	28.5	0.71	7	43.7	36.0	79.7	21.9	36	43.6	1.0	-0.04	4.2	14.9
68.40	5.0E-03	0.00	33.6	0.54	7	51.2	26.7	77.9	17.8	36	48.1	1.0	-0.04	3.4	16.0
68.73	5.0E-03	0.00	28.9	0.73	7	44.5	36.5	81.0	21.9	36	44.1	1.0	-0.05	4.3	15.2
69.06	5.0E-03	0.00	32.5	0.73	7	49.9	34.3	84.2	20.2	36	47.4	1.0	-0.06	4.2	16.4
69.39	5.0E-03	0.00	35.9	0.89	7	55.0	38.9	93.9	20.5	38	50.1	1.0	-0.08	4.7	18.2
69.72	5.0E-03	0.00	36.1	1.22	7	55.3	51.8	107.2	23.1	38	50.3	1.0	-0.11	5.9	19.4
70.05	5.0E-03	0.00	104.9	1.54	9	156.0	46.0	202.0	13.5	42	80.0	1.0	-0.24	6.3	44.5
70.37	5.0E-02	0.00	203.9	1.06	9	301.5	9.8	311.4	6.2	46	95.0	1.0	-0.26	1.2	60.2
70.70	5.0E+00	0.00	210.8	0.81	9	312.3	0.0	312.3	4.5	46	95.0	1.0	-0.24	0.0	50.9
71.03	5.0E+00	-0.01	166.6	0.54	9	247.9	0.0	247.9	3.9	44	93.3	1.0	-0.18	0.0	40.4
71.36	5.0E+00	-0.01	158.1	0.64	9	236.1	0.0	236.1	5.0	44	91.9	1.0	-0.19	0.0	38.5

Interpretation Output - Release 1.00.19M

Run No: 04-0401-1123-5373

No: 04-717

Client: MACTEC

Project: TVA Kingston

Site: CPT-1A

Location: TVA Kingston

Cone: 20 TON AD142

CPT Date: 04/23/03

CPT Time: 15:11

CPT File: 717CP01A.COR

Northing (m): 0.000

Easting (m): 0.000

Elevation (m): 0.000

Water Table (m): 8.60 (ft): 28.2

Unit Weight of Water (User Specified): 62.40 pcf

Su Nkt used: 12.50 Su/P' (nc): 0.30

Averaging Increment (m): 0.10

Phi Method: Robertson and Campanella, 1983

Dr Method: Jamiolkowski - All Sands

State Parameter M: 1.20

Used Unit Weights Assigned to Soil Zones

Values of 1.0E9 or UnDef are printed for parameters that are not valid for the material type (SBT)

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60 (blows/ft)	Su (tsf)	CRR
0.16	30.5	0.06	0.20	0.2	7	117.8	0.01	0.01	0.00	2.00	9.7	19.5	UnDef	0.10
0.49	128.9	0.77	0.60	-0.3	9	124.1	0.03	0.03	0.00	2.00	24.7	49.4	UnDef	0.00
0.82	211.8	1.40	0.66	-0.9	9	124.1	0.05	0.05	0.00	2.00	40.6	81.1	UnDef	0.00
1.15	299.2	3.60	1.20	-1.9	9	124.1	0.07	0.07	0.00	2.00	57.3	114.6	UnDef	0.00
1.48	341.8	6.49	1.90	-8.9	8	120.9	0.09	0.09	0.00	2.00	81.8	163.7	UnDef	0.00
1.80	343.7	7.92	2.30	-7.5	8	120.9	0.11	0.11	0.00	2.00	82.3	164.6	UnDef	0.00
2.13	327.7	6.25	1.91	-5.1	8	120.9	0.13	0.13	0.00	2.00	78.5	156.9	UnDef	0.00
2.46	366.0	7.39	2.02	4.5	8	120.9	0.15	0.15	0.00	2.00	87.6	175.2	UnDef	0.00
2.79	326.0	7.42	2.28	2.8	8	120.9	0.17	0.17	0.00	2.00	78.1	156.1	UnDef	0.00
3.12	269.3	4.47	1.66	-2.8	8	120.9	0.19	0.19	0.00	2.00	64.5	129.0	UnDef	0.00
3.44	312.6	4.17	1.33	-0.6	9	124.1	0.21	0.21	0.00	2.00	59.9	119.8	UnDef	0.00
3.77	345.7	4.93	1.43	-1.1	8	120.9	0.23	0.23	0.00	2.00	82.8	165.5	UnDef	0.00
4.10	377.9	6.71	1.78	0.6	8	120.9	0.25	0.25	0.00	2.00	90.5	180.9	UnDef	0.00
4.43	353.5	8.82	2.49	6.2	7	117.8	0.27	0.27	0.00	1.93	112.8	217.5	UnDef	0.00
4.76	283.8	5.03	1.77	-0.5	8	120.9	0.29	0.29	0.00	1.86	67.9	126.4	UnDef	0.00
5.09	327.8	5.20	1.59	-1.2	8	120.9	0.31	0.31	0.00	1.80	78.5	141.3	UnDef	0.00
5.41	337.8	8.52	2.52	1.0	7	117.8	0.33	0.33	0.00	1.75	107.8	188.3	UnDef	0.00
5.74	315.4	9.38	2.97	3.7	12	120.9	0.35	0.35	0.00	1.70	151.0	256.1	UnDef	0.00
6.07	224.2	6.28	2.80	-0.4	7	117.8	0.37	0.37	0.00	1.65	71.6	118.1	UnDef	0.00
6.40	180.5	2.85	1.58	-1.8	8	120.9	0.39	0.39	0.00	1.61	43.2	69.5	UnDef	0.00
6.73	204.4	3.50	1.71	-0.6	8	120.9	0.41	0.41	0.00	1.57	48.9	76.7	UnDef	0.00
7.05	255.8	5.66	2.21	1.1	7	117.8	0.43	0.43	0.00	1.53	81.7	125.1	UnDef	0.00
7.38	293.9	7.66	2.61	4.6	7	117.8	0.45	0.45	0.00	1.50	93.8	140.6	UnDef	0.00
7.79	264.1	7.82	2.96	-0.3	12	120.9	0.47	0.47	0.00	1.46	126.5	184.4	UnDef	0.00
8.20	221.1	6.86	3.10	-3.0	7	117.8	0.49	0.49	0.00	1.42	70.6	100.4	UnDef	0.00
8.53	171.6	5.68	3.31	-3.6	6	114.6	0.51	0.51	0.00	1.40	65.7	91.7	13.69	0.00
8.86	126.1	4.55	3.60	-4.0	6	114.6	0.53	0.53	0.00	1.37	48.3	66.2	10.05	0.00
9.19	95.2	2.91	3.05	-4.0	6	114.6	0.55	0.55	0.00	1.35	36.5	49.1	7.57	0.00
9.51	85.1	1.98	2.33	-0.9	7	117.8	0.57	0.57	0.00	1.32	27.2	36.0	UnDef	0.38
9.84	132.4	2.19	1.65	-0.1	8	120.9	0.59	0.59	0.00	1.30	31.7	41.3	UnDef	0.00
10.17	168.6	2.89	1.71	0.0	8	120.9	0.61	0.61	0.00	1.28	40.4	51.7	UnDef	0.00
10.50	222.8	4.70	2.11	0.1	7	117.8	0.63	0.63	0.00	1.26	71.1	89.7	UnDef	0.00
10.83	247.0	5.60	2.27	-2.2	7	117.8	0.65	0.65	0.00	1.24	78.9	97.9	UnDef	0.00
11.15	266.2	6.26	2.35	0.9	7	117.8	0.67	0.67	0.00	1.22	85.0	104.0	UnDef	0.00
11.48	253.4	5.72	2.26	-0.2	7	117.8	0.69	0.69	0.00	1.21	80.9	97.6	UnDef	0.00
11.81	240.1	6.16	2.57	-0.4	7	117.8	0.71	0.71	0.00	1.19	76.7	91.2	UnDef	0.00
12.14	233.8	7.40	3.17	2.5	12	120.9	0.73	0.73	0.00	1.17	111.9	131.4	UnDef	0.00
12.47	184.3	5.83	3.16	2.4	6	114.6	0.75	0.75	0.00	1.16	70.6	81.8	14.68	0.00
12.80	150.8	4.77	3.17	-1.8	6	114.6	0.76	0.76	0.00	1.14	57.7	66.1	12.00	0.00

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgTd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
13.12	140.7	4.58	3.25	0.0	6	114.6	0.78	0.78	0.00	1.13	53.9	60.9	11.19	0.00
13.45	120.4	4.01	3.33	-0.3	6	114.6	0.80	0.80	0.00	1.12	46.1	51.5	9.57	0.00
13.78	105.8	3.49	3.30	0.4	6	114.6	0.82	0.82	0.00	1.10	40.5	44.7	8.39	0.00
14.11	95.9	2.85	2.97	0.9	6	114.6	0.84	0.84	0.00	1.09	36.7	40.1	7.61	0.00
14.44	96.3	2.53	2.63	0.9	6	114.6	0.86	0.86	0.00	1.08	36.9	39.8	7.64	0.44
14.76	87.6	2.46	2.81	2.2	6	114.6	0.88	0.88	0.00	1.07	33.5	35.8	6.93	0.41
15.09	77.9	2.00	2.57	2.5	6	114.6	0.90	0.90	0.00	1.06	29.8	31.5	6.16	0.32
15.42	70.4	1.67	2.37	1.5	6	114.6	0.91	0.91	0.00	1.05	27.0	28.2	5.56	0.26
15.75	68.0	1.37	2.01	2.3	7	117.8	0.93	0.93	0.00	1.03	21.7	22.4	UnDef	0.22
16.08	63.1	1.20	1.90	-0.1	7	117.8	0.95	0.95	0.00	1.02	20.1	20.6	UnDef	0.19
16.40	59.9	1.25	2.09	0.3	7	117.8	0.97	0.97	0.00	1.01	19.1	19.4	UnDef	0.20
16.73	45.7	1.05	2.30	-0.3	6	114.6	0.99	0.99	0.00	1.00	17.5	17.6	3.57	0.20
17.06	36.7	0.72	1.97	1.9	6	114.6	1.01	1.01	0.00	1.00	14.1	14.0	2.86	0.17
17.39	35.3	0.67	1.90	7.3	6	114.6	1.03	1.03	0.00	0.99	13.5	13.3	2.74	0.16
17.72	32.5	0.64	1.96	6.9	6	114.6	1.05	1.05	0.00	0.98	12.5	12.2	2.52	0.18
18.04	43.4	0.68	1.56	5.3	7	117.8	1.07	1.07	0.00	0.97	13.9	13.4	UnDef	0.14
18.37	47.8	0.81	1.70	1.9	7	117.8	1.09	1.09	0.00	0.96	15.3	14.6	UnDef	0.15
18.70	44.7	0.72	1.60	0.3	7	117.8	1.11	1.11	0.00	0.95	14.3	13.6	UnDef	0.14
19.03	44.6	0.69	1.54	-2.5	7	117.8	1.12	1.12	0.00	0.94	14.3	13.4	UnDef	0.14
19.36	32.6	0.69	2.12	-3.1	6	114.6	1.14	1.14	0.00	0.94	12.5	11.7	2.51	0.26
19.68	22.2	0.45	2.01	-1.2	6	114.6	1.16	1.16	0.00	0.93	8.5	7.9	1.68	0.17
20.01	8.5	0.27	3.20	5.3	3	111.4	1.18	1.18	0.00	0.92	8.1	7.5	0.58	0.00
20.34	12.2	0.31	2.51	20.4	5	114.6	1.20	1.20	0.00	0.91	5.8	5.3	0.88	0.09
20.67	25.4	0.48	1.89	10.3	6	114.6	1.22	1.22	0.00	0.91	9.7	8.8	1.94	0.21
21.00	45.1	0.79	1.76	10.0	7	117.8	1.24	1.24	0.00	0.90	14.4	12.9	UnDef	0.17
21.33	49.8	1.04	2.09	8.0	6	114.6	1.26	1.26	0.00	0.89	19.1	17.0	3.88	0.22
21.65	50.3	1.06	2.11	13.3	6	114.6	1.28	1.28	0.00	0.89	19.3	17.1	3.92	0.22
21.98	50.8	1.02	2.01	23.8	6	114.6	1.29	1.29	0.00	0.88	19.4	17.1	3.96	0.21
22.31	49.9	1.13	2.26	25.5	6	114.6	1.31	1.31	0.00	0.87	19.1	16.7	3.89	0.26
22.64	54.7	1.07	1.95	5.3	7	117.8	1.33	1.33	0.00	0.87	17.5	15.1	UnDef	0.21
22.97	55.1	1.02	1.85	3.8	7	117.8	1.35	1.35	0.00	0.86	17.6	15.1	UnDef	0.19
23.29	51.3	1.08	2.11	7.1	6	114.6	1.37	1.37	0.00	0.85	19.7	16.8	4.00	0.24
23.62	69.1	1.06	1.53	11.2	7	117.8	1.39	1.39	0.00	0.85	22.1	18.7	UnDef	0.18
23.95	71.9	1.01	1.40	5.4	7	117.8	1.41	1.41	0.00	0.84	23.0	19.3	UnDef	0.18
24.28	40.1	0.83	2.08	3.0	6	114.6	1.43	1.43	0.00	0.84	15.3	12.8	3.09	0.32
24.61	22.5	0.60	2.68	11.3	5	114.6	1.45	1.45	0.00	0.83	10.8	8.9	1.68	0.15
24.93	25.6	0.53	2.06	31.8	6	114.6	1.47	1.47	0.00	0.83	9.8	8.1	1.93	0.18
25.26	30.9	0.55	1.77	14.7	6	114.6	1.48	1.48	0.00	0.82	11.8	9.7	2.35	0.26
25.59	18.3	0.46	2.52	14.9	5	114.6	1.50	1.50	0.00	0.82	8.8	7.1	1.34	0.12
25.92	12.8	0.22	1.72	14.8	5	114.6	1.52	1.52	0.00	0.81	6.1	5.0	0.90	0.09
26.25	12.2	0.23	1.89	37.2	5	114.6	1.54	1.54	0.00	0.81	5.8	4.7	0.85	0.09
26.57	22.2	0.46	2.05	29.3	6	114.6	1.56	1.56	0.00	0.80	8.5	6.8	1.65	0.14
26.90	17.6	0.42	2.36	21.0	5	114.6	1.58	1.58	0.00	0.80	8.4	6.7	1.28	0.11
27.23	18.5	0.40	2.14	23.3	6	114.6	1.60	1.60	0.00	0.79	7.1	5.6	1.36	0.11
27.56	13.2	0.37	2.80	47.5	5	114.6	1.62	1.62	0.00	0.79	6.3	5.0	0.93	0.00
27.89	16.0	0.41	2.58	51.1	5	114.6	1.63	1.63	0.00	0.78	7.6	6.0	1.15	0.10
28.21	14.8	0.35	2.36	52.4	5	114.6	1.65	1.65	0.00	0.78	7.1	5.5	1.06	0.10
28.54	10.5	0.29	2.78	76.7	4	114.6	1.67	1.66	0.01	0.78	6.7	5.2	0.70	0.00
28.87	16.7	0.47	2.79	56.5	5	114.6	1.69	1.67	0.02	0.77	8.0	6.2	1.20	0.10
29.20	26.8	0.54	2.02	13.9	6	114.6	1.71	1.68	0.03	0.77	10.3	7.9	2.00	0.18
29.53	31.8	0.62	1.94	24.4	6	114.6	1.73	1.69	0.04	0.77	12.2	9.4	2.40	0.24
29.86	32.8	0.65	1.97	19.0	6	114.6	1.75	1.70	0.05	0.77	12.6	9.6	2.48	0.25
30.18	36.7	0.72	1.97	22.9	6	114.6	1.77	1.71	0.06	0.77	14.1	10.8	2.79	0.32
30.59	26.5	0.55	2.07	15.7	6	114.6	1.79	1.72	0.07	0.76	10.2	7.8	1.98	0.17
31.00	10.0	0.24	2.40	37.1	5	114.6	1.81	1.73	0.09	0.76	4.8	3.7	0.66	0.00
31.33	7.1	0.08	1.06	60.6	5	114.6	1.83	1.73	0.10	0.76	3.4	2.6	0.42	0.00
31.66	14.0	0.14	0.97	65.2	6	114.6	1.85	1.74	0.11	0.76	5.4	4.1	0.97	0.09
31.99	16.2	0.33	2.02	41.2	5	114.6	1.87	1.75	0.12	0.76	7.7	5.8	1.14	0.10
32.32	8.5	0.23	2.66	36.5	4	114.6	1.89	1.76	0.13	0.75	5.4	4.1	0.53	0.00
32.64	6.0	0.08	1.26	46.3	5	114.6	1.91	1.77	0.14	0.75	2.9	2.1	0.32	0.00
32.97	6.0	0.09	1.43	73.9	5	114.6	1.93	1.78	0.15	0.75	2.9	2.1	0.32	0.00
33.30	23.0	0.26	1.11	52.7	6	114.6	1.94	1.79	0.16	0.75	8.8	6.6	1.68	0.14

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgLd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
33.63	22.2	0.38	1.69	27.6	6	114.6	1.96	1.79	0.17	0.75	8.5	6.4	1.62	0.13
33.96	15.2	0.39	2.58	55.9	5	114.6	1.98	1.80	0.18	0.74	7.3	5.4	1.06	0.10
34.28	39.5	0.28	0.71	24.7	7	117.8	2.00	1.81	0.19	0.74	12.6	9.4	UnDef	0.11
34.61	23.7	0.23	0.95	11.9	6	114.6	2.02	1.82	0.20	0.74	9.1	6.7	1.73	0.14
34.94	21.8	0.36	1.65	37.6	6	114.6	2.04	1.83	0.21	0.74	8.4	6.2	1.58	0.13
35.27	54.6	1.10	2.02	22.1	7	117.8	2.06	1.84	0.22	0.74	17.4	12.9	UnDef	0.37
35.60	188.2	2.93	1.56	8.7	8	120.9	2.08	1.85	0.23	0.74	45.1	33.1	UnDef	0.00
35.92	346.4	6.54	1.89	-3.1	8	120.9	2.10	1.86	0.24	0.73	82.9	60.9	UnDef	0.00
36.25	403.1	10.79	2.68	-1.5	12	120.9	2.12	1.87	0.25	0.73	193.0	141.3	UnDef	0.00
36.58	332.8	7.67	2.31	-5.4	8	120.9	2.14	1.88	0.26	0.73	79.7	58.2	UnDef	0.00
36.91	383.1	3.92	1.02	1.6	9	124.1	2.16	1.89	0.27	0.73	73.4	53.4	UnDef	0.00
37.24	514.6	4.98	0.97	5.1	9	124.1	2.18	1.90	0.28	0.73	98.6	71.6	UnDef	0.00
37.57	503.3	8.69	1.73	1.7	8	120.9	2.20	1.91	0.29	0.72	120.5	87.3	UnDef	0.00
37.89	474.9	10.00	2.11	1.1	8	120.9	2.22	1.92	0.30	0.72	113.7	82.2	UnDef	0.00
38.22	463.8	9.40	2.03	0.9	8	120.9	2.24	1.93	0.31	0.72	111.1	80.0	UnDef	0.00
38.55	450.3	9.73	2.16	5.1	8	120.9	2.26	1.94	0.32	0.72	107.8	77.5	UnDef	0.00
38.88	414.6	8.99	2.17	2.6	8	120.9	2.28	1.94	0.33	0.72	99.3	71.2	UnDef	0.00
39.21	445.9	10.63	2.38	4.5	12	120.9	2.30	1.95	0.34	0.72	213.5	152.7	UnDef	0.00
39.53	433.7	12.75	2.94	6.2	12	120.9	2.32	1.96	0.35	0.71	207.7	148.2	UnDef	0.00
39.86	383.2	12.66	3.30	5.3	12	120.9	2.34	1.97	0.36	0.71	183.5	130.6	UnDef	0.00
40.19	316.5	7.69	2.43	0.9	7	117.8	2.36	1.98	0.37	0.71	101.0	71.7	UnDef	0.00
40.52	266.1	5.77	2.17	-3.4	8	120.9	2.38	1.99	0.38	0.71	63.7	45.1	UnDef	0.00
40.85	255.3	5.23	2.05	0.1	8	120.9	2.40	2.00	0.39	0.71	61.1	43.2	UnDef	0.00
41.17	254.1	3.09	1.22	2.1	9	124.1	2.42	2.01	0.40	0.71	48.7	34.3	UnDef	0.00
41.50	257.1	1.89	0.73	9.2	9	124.1	2.44	2.02	0.41	0.70	49.3	34.6	UnDef	0.00
41.83	257.3	1.84	0.71	10.1	9	124.1	2.46	2.03	0.42	0.70	49.3	34.6	UnDef	0.00
42.16	253.9	3.56	1.40	11.6	8	120.9	2.48	2.04	0.43	0.70	60.8	42.5	UnDef	0.00
42.49	275.7	6.11	2.22	13.6	7	117.8	2.50	2.05	0.45	0.70	88.0	61.4	UnDef	0.00
42.81	255.9	5.84	2.28	3.4	7	117.8	2.52	2.06	0.46	0.70	81.7	56.9	UnDef	0.00
43.14	249.3	6.45	2.59	2.0	7	117.8	2.54	2.07	0.47	0.70	79.6	55.3	UnDef	0.00
43.47	250.2	6.84	2.73	2.8	7	117.8	2.55	2.08	0.48	0.69	79.9	55.4	UnDef	0.00
43.80	240.0	6.53	2.72	1.8	7	117.8	2.57	2.09	0.49	0.69	76.6	53.0	UnDef	0.00
44.13	222.1	5.96	2.69	0.1	7	117.8	2.59	2.10	0.50	0.69	70.9	49.0	UnDef	0.00
44.45	206.4	5.81	2.81	-1.2	7	117.8	2.61	2.11	0.51	0.69	65.9	45.4	UnDef	0.00
44.78	194.1	5.88	3.03	-2.0	7	117.8	2.63	2.11	0.52	0.69	61.9	42.6	UnDef	0.00
45.11	183.1	5.58	3.05	-1.9	7	117.8	2.65	2.12	0.53	0.69	58.5	40.1	UnDef	0.00
45.44	160.6	4.62	2.88	3.9	7	117.8	2.67	2.13	0.54	0.68	51.3	35.1	UnDef	0.00
45.77	159.7	4.63	2.90	12.4	7	117.8	2.69	2.14	0.55	0.68	51.0	34.8	UnDef	0.00
46.10	163.0	4.70	2.88	10.8	7	117.8	2.71	2.15	0.56	0.68	52.0	35.5	UnDef	0.00
46.42	161.4	5.21	3.23	8.2	6	114.6	2.73	2.16	0.57	0.68	61.8	42.1	12.69	0.00
46.75	120.6	4.47	3.71	3.3	6	114.6	2.75	2.17	0.58	0.68	46.2	31.4	9.43	0.00
47.08	83.1	2.74	3.30	-0.5	6	114.6	2.77	2.18	0.59	0.68	31.8	21.6	6.43	0.00
47.41	70.3	1.64	2.33	1.9	6	114.6	2.78	2.19	0.60	0.68	26.9	18.2	5.40	0.00
47.74	78.4	1.40	1.79	7.3	7	117.8	2.80	2.19	0.61	0.68	25.0	16.9	UnDef	0.31
48.06	77.1	1.25	1.62	13.0	7	117.8	2.82	2.20	0.62	0.67	24.6	16.6	UnDef	0.26
48.39	100.3	1.85	1.84	23.3	7	117.8	2.84	2.21	0.63	0.67	32.0	21.5	UnDef	0.34
48.72	130.4	2.48	1.90	18.6	7	117.8	2.86	2.22	0.64	0.67	41.6	27.9	UnDef	0.43
49.05	124.3	2.47	1.98	13.1	7	117.8	2.88	2.23	0.65	0.67	39.7	26.6	UnDef	0.44
49.38	91.5	2.04	2.23	8.0	7	117.8	2.90	2.24	0.66	0.67	29.2	19.5	UnDef	0.00
49.70	71.7	1.68	2.34	14.3	6	114.6	2.92	2.25	0.67	0.67	27.5	18.3	5.50	0.00
50.03	64.0	1.21	1.89	21.3	7	117.8	2.94	2.26	0.68	0.67	20.4	13.6	UnDef	0.44
50.36	58.8	0.78	1.33	30.0	7	117.8	2.96	2.27	0.69	0.66	18.8	12.5	UnDef	0.23
50.69	28.4	0.31	1.08	28.9	7	117.8	2.98	2.28	0.70	0.66	9.1	6.0	UnDef	0.15
51.02	12.4	0.25	1.98	91.8	5	114.6	3.00	2.28	0.71	0.66	5.9	3.9	0.75	0.09
51.34	10.2	0.19	1.86	70.6	5	114.6	3.01	2.29	0.72	0.66	4.9	3.2	0.58	0.00
51.67	7.7	0.10	1.30	101.5	5	114.6	3.03	2.30	0.73	0.66	3.7	2.4	0.38	0.00
52.00	11.1	0.14	1.27	87.5	5	114.6	3.05	2.31	0.74	0.66	5.3	3.5	0.64	0.08
52.33	18.8	0.26	1.39	66.3	6	114.6	3.07	2.32	0.75	0.66	7.2	4.7	1.26	0.10
52.66	16.6	0.30	1.81	91.8	6	114.6	3.09	2.33	0.76	0.66	6.4	4.2	1.08	0.09
52.98	16.9	0.34	1.99	74.4	5	114.6	3.11	2.34	0.77	0.65	8.1	5.3	1.10	0.09
53.31	11.2	0.27	2.42	101.5	5	114.6	3.13	2.34	0.78	0.65	5.4	3.5	0.64	0.00
53.64	28.2	0.29	1.03	66.7	7	117.8	3.15	2.35	0.79	0.65	9.0	5.9	UnDef	0.15

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Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
53.97	29.9	0.17	0.55	25.6	7	117.8	3.17	2.36	0.80	0.65	9.5	6.2	UnDef	0.16
54.30	33.4	0.08	0.23	25.2	7	117.8	3.19	2.37	0.81	0.65	10.7	6.9	UnDef	0.00
54.63	31.1	0.08	0.26	25.6	7	117.8	3.20	2.38	0.82	0.65	9.9	6.4	UnDef	0.00
54.95	30.0	0.08	0.27	26.0	7	117.8	3.22	2.39	0.83	0.65	9.6	6.2	UnDef	0.00
55.28	30.0	0.12	0.40	26.1	7	117.8	3.24	2.40	0.84	0.65	9.6	6.2	UnDef	0.00
55.61	43.5	0.07	0.15	26.3	8	120.9	3.26	2.41	0.85	0.64	10.4	6.7	UnDef	0.00
55.94	40.6	0.10	0.23	26.6	8	120.9	3.28	2.42	0.86	0.64	9.7	6.3	UnDef	0.00
56.27	16.8	0.23	1.37	28.8	6	114.6	3.30	2.43	0.88	0.64	6.4	4.1	1.08	0.09
56.59	8.3	0.20	2.36	96.2	4	114.6	3.32	2.44	0.89	0.64	5.3	3.4	0.40	0.00
56.92	5.6	0.05	0.90	109.5	1	111.4	3.34	2.44	0.90	0.64	2.7	1.7	0.18	0.00
57.25	5.8	0.03	0.51	108.8	1	111.4	3.36	2.45	0.91	0.64	2.8	1.8	0.20	0.00
57.58	5.9	0.03	0.51	101.8	1	111.4	3.38	2.46	0.92	0.64	2.8	1.8	0.20	0.00
57.91	5.5	0.03	0.46	104.4	1	111.4	3.39	2.47	0.93	0.64	2.6	1.7	0.17	0.00
58.23	5.6	0.13	2.23	106.4	4	114.6	3.41	2.48	0.94	0.64	3.6	2.3	0.18	0.00
58.56	12.4	0.30	2.42	70.3	5	114.6	3.43	2.48	0.95	0.63	6.0	3.8	0.72	0.00
58.89	7.3	0.24	3.30	83.8	3	111.4	3.45	2.49	0.96	0.63	7.0	4.4	0.31	0.00
59.22	17.4	0.35	2.02	77.1	6	114.6	3.47	2.50	0.97	0.63	6.6	4.2	1.11	0.09
59.55	19.7	0.42	2.14	46.7	6	114.6	3.49	2.51	0.98	0.63	7.5	4.8	1.29	0.10
59.87	12.7	0.33	2.61	74.2	5	114.6	3.51	2.52	0.99	0.63	6.1	3.8	0.73	0.00
60.20	9.4	0.27	2.89	99.7	4	114.6	3.52	2.53	1.00	0.63	6.0	3.8	0.47	0.00
60.53	21.1	0.39	1.85	66.0	6	114.6	3.54	2.54	1.01	0.63	8.1	5.1	1.40	0.11
60.86	28.1	0.44	1.57	39.1	6	114.6	3.56	2.54	1.02	0.63	10.8	6.7	1.96	0.14
61.19	14.4	0.47	3.28	49.0	4	114.6	3.58	2.55	1.03	0.63	9.2	5.7	0.86	0.00
61.52	9.1	0.34	3.69	108.6	3	111.4	3.60	2.56	1.04	0.62	8.7	5.4	0.44	0.00
61.84	18.5	0.34	1.81	69.4	6	114.6	3.62	2.57	1.05	0.62	7.1	4.4	1.19	0.10
62.17	18.4	0.37	1.99	42.8	6	114.6	3.64	2.58	1.06	0.62	7.1	4.4	1.18	0.10
62.50	8.1	0.20	2.48	95.7	4	114.6	3.66	2.59	1.07	0.62	5.2	3.2	0.35	0.00
62.83	8.3	0.07	0.85	107.4	5	114.6	3.67	2.59	1.08	0.62	4.0	2.5	0.37	0.00
63.16	7.1	0.10	1.35	110.1	5	114.6	3.69	2.60	1.09	0.62	3.4	2.1	0.27	0.00
63.48	9.9	0.12	1.16	135.5	5	114.6	3.71	2.61	1.10	0.62	4.7	2.9	0.49	0.00
63.81	20.8	0.48	2.28	80.9	6	114.6	3.73	2.62	1.11	0.62	8.0	4.9	1.37	0.10
64.14	22.1	0.69	3.11	23.5	5	114.6	3.75	2.63	1.12	0.62	10.6	6.5	1.47	0.00
64.47	20.0	0.70	3.48	16.3	4	114.6	3.77	2.64	1.13	0.62	12.8	7.9	1.30	0.00
64.80	21.0	0.51	2.43	22.3	5	114.6	3.79	2.65	1.14	0.61	10.1	6.2	1.38	0.10
65.12	17.5	0.39	2.23	2.8	5	114.6	3.81	2.65	1.15	0.61	8.4	5.1	1.10	0.00
65.45	13.7	0.42	3.08	10.8	4	114.6	3.82	2.66	1.16	0.61	8.7	5.4	0.79	0.00
65.78	21.5	0.48	2.22	16.4	6	114.6	3.84	2.67	1.17	0.61	8.2	5.0	1.41	0.10
66.11	40.9	0.34	0.82	20.6	7	117.8	3.86	2.68	1.18	0.61	13.1	8.0	UnDef	0.25
66.44	56.8	0.38	0.66	24.6	8	120.9	3.88	2.69	1.19	0.61	13.6	8.3	UnDef	0.14
66.76	52.5	0.74	1.40	49.3	7	117.8	3.90	2.70	1.20	0.61	16.7	10.2	UnDef	0.43
67.09	52.1	0.76	1.45	52.2	7	117.8	3.92	2.71	1.21	0.61	16.6	10.1	UnDef	0.43
67.42	51.9	0.40	0.76	38.8	7	117.8	3.94	2.72	1.22	0.61	16.6	10.0	UnDef	0.16
67.75	44.4	0.40	0.90	41.5	7	117.8	3.96	2.73	1.23	0.61	14.2	8.6	UnDef	0.29
68.08	36.7	0.46	1.24	56.2	7	117.8	3.98	2.74	1.24	0.60	11.7	7.1	UnDef	0.20
68.40	42.7	0.50	1.16	55.4	7	117.8	4.00	2.74	1.25	0.60	13.6	8.2	UnDef	0.27
68.73	56.7	0.45	0.79	47.6	8	120.9	4.02	2.75	1.26	0.60	13.6	8.2	UnDef	0.16
69.06	64.5	0.39	0.61	45.7	8	120.9	4.04	2.76	1.27	0.60	15.4	9.3	UnDef	0.13
69.39	59.3	0.36	0.61	46.2	8	120.9	4.06	2.77	1.28	0.60	14.2	8.5	UnDef	0.13
69.72	55.0	0.38	0.69	44.3	8	120.9	4.08	2.78	1.29	0.60	13.2	7.9	UnDef	0.15
70.05	46.3	0.41	0.88	45.8	7	117.8	4.10	2.79	1.30	0.60	14.8	8.8	UnDef	0.29
70.37	37.0	0.29	0.77	52.4	7	117.8	4.12	2.80	1.32	0.60	11.8	7.1	UnDef	0.20
70.70	32.5	0.27	0.82	59.4	7	117.8	4.14	2.81	1.33	0.60	10.4	6.2	UnDef	0.16
71.03	25.4	0.25	0.97	76.0	6	114.6	4.15	2.82	1.34	0.60	9.7	5.8	1.70	0.12
71.36	26.7	0.34	1.28	85.2	6	114.6	4.17	2.83	1.35	0.59	10.2	6.1	1.80	0.12
71.69	29.1	0.45	1.55	76.3	6	114.6	4.19	2.84	1.36	0.59	11.1	6.6	1.99	0.14
72.01	34.9	0.55	1.58	71.3	6	114.6	4.21	2.84	1.37	0.59	13.4	7.9	2.45	0.18
72.34	32.1	0.58	1.79	68.1	6	114.6	4.23	2.85	1.38	0.59	12.3	7.3	2.23	0.15
72.67	32.0	0.58	1.82	72.6	6	114.6	4.25	2.86	1.39	0.59	12.3	7.2	2.22	0.15
73.00	45.6	0.70	1.54	89.4	7	117.8	4.27	2.87	1.40	0.59	14.6	8.6	UnDef	0.29
73.33	53.4	0.80	1.50	86.0	7	117.8	4.29	2.88	1.41	0.59	17.0	10.0	UnDef	0.42
73.65	54.6	0.90	1.64	105.3	7	117.8	4.31	2.89	1.42	0.59	17.4	10.2	UnDef	0.44
73.98	63.5	0.98	1.54	110.6	7	117.8	4.33	2.90	1.43	0.59	20.3	11.9	UnDef	0.00

Run No: 04-0401-1123-5373

CPT File: 717CP01A.COR

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
74.31	62.0	0.86	1.39	104.7	7	117.8	4.35	2.91	1.44	0.59	19.8	11.6	UnDef	0.00
74.64	47.6	1.04	2.19	130.0	6	114.6	4.36	2.92	1.45	0.59	18.2	10.7	3.46	0.32
74.97	51.4	1.03	2.00	121.1	7	117.8	4.38	2.92	1.46	0.58	16.4	9.6	UnDef	0.38
75.29	52.5	0.81	1.54	120.1	7	117.8	4.40	2.93	1.47	0.58	16.7	9.8	UnDef	0.39
75.62	47.1	0.69	1.47	122.5	7	117.8	4.42	2.94	1.48	0.58	15.0	8.8	UnDef	0.31
75.95	42.4	0.43	1.01	108.7	7	117.8	4.44	2.95	1.49	0.58	13.5	7.9	UnDef	0.24
76.28	21.0	0.13	0.60	125.3	6	114.6	4.46	2.96	1.50	0.58	8.0	4.7	1.32	0.10
76.61	10.4	0.07	0.63	184.8	6	114.6	4.48	2.97	1.51	0.58	4.0	2.3	0.47	0.00
76.93	25.4	0.17	0.65	153.9	7	117.8	4.50	2.98	1.52	0.58	8.1	4.7	UnDef	0.11
77.26	38.9	0.46	1.19	126.7	7	117.8	4.52	2.99	1.53	0.58	12.4	7.2	UnDef	0.20
77.59	40.2	0.79	1.96	106.2	6	114.6	4.54	3.00	1.54	0.58	15.4	8.9	2.85	0.22
77.92	48.0	1.01	2.10	73.7	6	114.6	4.56	3.00	1.55	0.58	18.4	10.6	3.48	0.31
78.25	35.1	0.80	2.28	74.0	6	114.6	4.57	3.01	1.56	0.58	13.5	7.8	2.44	0.17
78.58	18.9	0.47	2.47	135.5	5	114.6	4.59	3.02	1.57	0.58	9.0	5.2	1.14	0.00
78.90	32.3	0.61	1.88	108.4	6	114.6	4.61	3.03	1.58	0.57	12.4	7.1	2.21	0.15
79.23	41.5	0.77	1.86	72.8	6	114.6	4.63	3.04	1.59	0.57	15.9	9.1	2.95	0.23
79.56	23.3	0.60	2.58	88.5	5	114.6	4.65	3.05	1.60	0.57	11.1	6.4	1.49	0.00
79.89	10.3	0.37	3.59	171.8	3	111.4	4.67	3.06	1.61	0.57	9.9	5.7	0.45	0.00
80.22	9.2	0.17	1.86	135.0	5	114.6	4.69	3.06	1.62	0.57	4.4	2.5	0.36	0.00
80.54	7.7	0.02	0.26	171.7	1	111.4	4.70	3.07	1.63	0.57	3.7	2.1	0.24	0.00
80.87	8.9	0.04	0.45	181.5	6	114.6	4.72	3.08	1.64	0.57	3.4	1.9	0.33	0.00
81.20	10.6	0.21	1.99	183.3	5	114.6	4.74	3.09	1.65	0.57	5.1	2.9	0.47	0.00
81.53	10.3	0.13	1.26	98.5	5	114.6	4.76	3.10	1.66	0.57	4.9	2.8	0.45	0.00
81.86	9.3	0.12	1.29	157.9	5	114.6	4.78	3.11	1.67	0.57	4.5	2.5	0.36	0.00
82.18	9.4	0.10	1.06	148.9	5	114.6	4.80	3.11	1.68	0.57	4.5	2.6	0.37	0.00
82.51	8.3	0.10	1.14	159.2	5	114.6	4.82	3.12	1.69	0.57	4.0	2.3	0.28	0.00
82.84	7.8	0.08	0.97	167.6	5	114.6	4.84	3.13	1.70	0.57	3.7	2.1	0.24	0.00
83.17	8.1	0.07	0.80	165.2	5	114.6	4.86	3.14	1.71	0.56	3.9	2.2	0.26	0.00
83.50	7.8	0.06	0.71	161.4	5	114.6	4.87	3.15	1.72	0.56	3.7	2.1	0.24	0.00
83.82	10.0	0.06	0.60	175.1	6	114.6	4.89	3.16	1.73	0.56	3.8	2.2	0.41	0.00
84.15	10.6	0.10	0.95	155.6	6	114.6	4.91	3.17	1.75	0.56	4.1	2.3	0.45	0.00
84.48	13.6	0.15	1.10	170.5	6	114.6	4.93	3.17	1.76	0.56	5.2	2.9	0.69	0.08
84.81	17.6	0.27	1.51	163.8	6	114.6	4.95	3.18	1.77	0.56	6.8	3.8	1.01	0.09
85.14	18.5	0.30	1.60	181.1	6	114.6	4.97	3.19	1.78	0.56	7.1	4.0	1.08	0.09
85.46	17.8	0.26	1.47	209.4	6	114.6	4.99	3.20	1.79	0.56	6.8	3.8	1.02	0.09
85.79	17.7	0.22	1.25	214.0	6	114.6	5.01	3.21	1.80	0.56	6.8	3.8	1.02	0.09
86.12	15.9	0.17	1.07	239.2	6	114.6	5.02	3.22	1.81	0.56	6.1	3.4	0.87	0.09
86.45	15.5	0.14	0.91	279.7	6	114.6	5.04	3.23	1.82	0.56	5.9	3.3	0.84	0.09
86.78	17.5	0.14	0.77	253.9	6	114.6	5.06	3.23	1.83	0.56	6.7	3.7	1.00	0.09
87.11	17.5	0.11	0.60	234.7	6	114.6	5.08	3.24	1.84	0.56	6.7	3.7	0.99	0.09
87.43	15.3	0.10	0.66	266.6	6	114.6	5.10	3.25	1.85	0.55	5.8	3.2	0.81	0.09
87.76	15.1	0.11	0.73	280.7	6	114.6	5.12	3.26	1.86	0.55	5.8	3.2	0.80	0.09
88.09	16.6	0.13	0.75	267.3	6	114.6	5.14	3.27	1.87	0.55	6.4	3.5	0.92	0.09
88.42	18.9	0.12	0.61	256.6	6	114.6	5.16	3.28	1.88	0.55	7.2	4.0	1.10	0.09
88.75	19.5	0.14	0.69	164.4	6	114.6	5.17	3.29	1.89	0.55	7.5	4.1	1.14	0.09
89.07	18.6	0.17	0.89	237.2	6	114.6	5.19	3.29	1.90	0.55	7.1	3.9	1.07	0.09
89.40	25.5	0.57	2.24	192.8	6	114.6	5.21	3.30	1.91	0.55	9.8	5.4	1.63	0.11
89.73	33.9	1.18	3.47	92.7	5	114.6	5.23	3.31	1.92	0.55	16.2	8.9	2.30	0.00
90.06	43.7	1.17	2.68	57.8	6	114.6	5.25	3.32	1.93	0.55	16.8	9.2	3.08	0.23
90.39	45.5	0.52	1.14	41.0	7	117.8	5.27	3.33	1.94	0.55	14.5	8.0	UnDef	0.25
90.71	25.1	0.51	2.04	70.8	6	114.6	5.29	3.34	1.95	0.55	9.6	5.3	1.59	0.11
91.04	54.0	0.86	1.59	60.4	7	117.8	5.31	3.35	1.96	0.55	17.2	9.4	UnDef	0.36
91.37	23.3	0.25	1.05	9.0	6	114.6	5.33	3.36	1.97	0.55	8.9	4.9	1.44	0.10
91.70	12.3	0.19	1.51	58.9	5	114.6	5.34	3.36	1.98	0.55	5.9	3.2	0.55	0.00
92.03	12.5	0.19	1.48	114.6	5	114.6	5.36	3.37	1.99	0.54	6.0	3.3	0.57	0.00
92.35	15.4	0.17	1.10	150.5	6	114.6	5.38	3.38	2.00	0.54	5.9	3.2	0.80	0.09
92.68	16.5	0.17	1.03	164.5	6	114.6	5.40	3.39	2.01	0.54	6.3	3.4	0.89	0.09
93.01	45.7	0.18	0.39	115.8	8	120.9	5.42	3.40	2.02	0.54	11.0	5.9	UnDef	0.00
93.34	40.1	0.30	0.75	76.2	7	117.8	5.44	3.41	2.03	0.54	12.8	6.9	UnDef	0.19
93.67	18.0	0.24	1.31	118.4	6	114.6	5.46	3.42	2.04	0.54	6.9	3.7	1.00	0.09
93.99	13.1	0.21	1.60	166.1	5	114.6	5.48	3.43	2.05	0.54	6.3	3.4	0.61	0.00
94.32	38.2	0.32	0.84	143.2	7	117.8	5.50	3.43	2.06	0.54	12.2	6.6	UnDef	0.18

Run No: 04-0401-1123-5373

CPT File: 717CP01A.COR

th (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
94.65	54.2	0.28	0.52	47.5	8	120.9	5.52	3.44	2.07	0.54	13.0	7.0	UnDef	0.17

Run No: 04-0401-1123-5373
 Job No: 04-717
 Client: MACTEC
 Project: TVA Kingston
 Site: CPT-1A
 Location: TVA Kingston
 Cone: 20 TON AD142
 CPT Date: 04/23/03
 CPT Time: 15:11
 CPT File: 717CP01A.COR
 Northing (m): 0.000
 Easting (m): 0.000
 Elevation (m): 0.000

 Water Table (m): 8.60 (ft): 28.2
 Unit Weight of Water (User Specified): 62.40 pcf
 Su Nkt used: 12.50 Su/P' (rc): 0.3C
 Averaging Increment (m): 0.10
 Phi Method : Robertsor. and Campanella, 1983
 Dr Method : Jamiolkowski - All Sands
 State Parameter M: 1.20

Used Unit Weights Assigned to Soil Zones
 Values of 1.0E9 or UnDef are printed for parameters that are not valid for the material type (SBT)

Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1)60	(N1)60cs
0.16	5.0E-04	0.00	1000.0	0.20	10	58.4	0.0	58.4	0.0	50	95.0	1.0	-0.25	0.0	19.5
0.49	5.0E-02	0.00	1000.0	0.60	10	247.0	0.0	247.0	0.0	50	95.0	1.0	-0.35	0.0	49.4
0.82	5.0E-02	0.00	1000.0	0.60	10	405.7	0.0	405.7	0.0	50	95.0	1.0	-0.36	0.0	81.1
1.15	5.0E-02	0.00	1000.0	1.20	9	573.0	0.0	573.0	1.3	50	95.0	1.0	-0.43	0.0	114.6
1.48	5.0E-03	0.00	1000.0	1.90	12	654.7	UnDef	UnDef	0.0	50	95.0	1.0	-0.50	UnDef	UnDef
1.80	5.0E-03	0.00	1000.0	2.30	12	658.3	UnDef	UnDef	0.0	50	95.0	1.0	-0.55	UnDef	UnDef
2.13	5.0E-03	0.00	1000.0	1.91	12	627.6	UnDef	UnDef	0.0	50	95.0	1.0	-0.50	UnDef	UnDef
2.46	5.0E-03	0.00	1000.0	2.02	12	701.0	UnDef	UnDef	0.0	50	95.0	1.0	-0.52	UnDef	UnDef
2.79	5.0E-03	0.00	1000.0	2.28	12	624.5	UnDef	UnDef	0.0	50	95.0	1.0	-0.54	UnDef	UnDef
3.12	5.0E-03	0.00	1000.0	1.66	12	515.8	UnDef	UnDef	0.0	50	95.0	1.0	-0.48	UnDef	UnDef
3.44	5.0E-02	0.00	1000.0	1.35	9	598.8	0.0	598.8	1.8	50	95.0	1.0	-0.44	0.0	119.8
3.77	5.0E-03	0.00	1000.0	1.45	12	662.0	UnDef	UnDef	0.0	50	95.0	1.0	-0.45	UnDef	UnDef
4.10	5.0E-03	0.00	1000.0	1.78	12	723.7	UnDef	UnDef	0.0	50	95.0	1.0	-0.49	UnDef	UnDef
4.43	5.0E-04	0.00	1000.0	2.50	12	666.7	UnDef	UnDef	0.0	50	95.0	1.0	-0.57	UnDef	UnDef
4.76	5.0E-03	0.00	981.8	1.77	12	516.8	UnDef	UnDef	0.0	50	95.0	1.0	-0.49	UnDef	UnDef
5.09	5.0E-03	0.00	1000.0	1.59	12	577.5	UnDef	UnDef	0.0	50	95.0	1.0	-0.47	UnDef	UnDef
5.41	5.0E-04	0.00	1000.0	2.52	12	577.0	UnDef	UnDef	0.0	50	95.0	1.0	-0.57	UnDef	UnDef
5.74	1.0E-15	0.00	906.1	2.98	12	523.4	UnDef	UnDef	0.0	50	95.0	1.0	-0.61	UnDef	UnDef
6.07	5.0E-04	0.00	609.4	2.81	12	362.0	UnDef	UnDef	0.0	50	95.0	1.0	-0.54	UnDef	UnDef
6.40	5.0E-03	0.00	465.5	1.58	9	283.9	0.0	283.9	4.9	48	95.0	1.0	-0.39	0.0	69.5
6.73	5.0E-03	0.00	501.6	1.72	9	313.7	1.2	314.8	5.1	48	95.0	1.0	-0.41	0.2	76.9
7.05	5.0E-04	0.00	599.1	2.22	12	383.4	UnDef	UnDef	0.0	50	95.0	1.0	-0.48	UnDef	UnDef
7.38	5.0E-04	0.00	658.6	2.61	12	430.9	UnDef	UnDef	0.0	50	95.0	1.0	-0.53	UnDef	UnDef
7.79	1.0E-15	0.00	560.7	2.97	12	376.9	UnDef	UnDef	0.0	50	95.0	1.0	-0.55	UnDef	UnDef
8.20	5.0E-04	0.00	446.0	3.11	12	307.7	UnDef	UnDef	0.0	48	95.0	1.0	-0.54	UnDef	UnDef
8.53	5.0E-05	0.00	333.1	3.32	12	234.3	UnDef	UnDef	0.0	48	91.7	10.0	-0.52	UnDef	UnDef
8.86	5.0E-05	0.00	235.9	3.62	12	169.2	UnDef	UnDef	0.0	46	82.3	10.0	-0.51	UnDef	UnDef
9.19	5.0E-05	0.00	171.7	3.07	12	125.5	UnDef	UnDef	0.0	44	73.8	10.0	-0.41	UnDef	UnDef
9.51	5.0E-04	0.00	148.3	2.34	7	110.3	37.0	147.4	14.4	44	70.1	1.0	-0.33	6.7	42.7
9.84	5.0E-03	0.00	223.4	1.66	9	168.6	18.3	187.0	8.7	46	82.3	1.0	-0.32	2.7	44.0
10.17	5.0E-03	0.00	275.6	1.72	9	211.3	16.8	228.1	7.8	46	88.7	1.0	-0.35	2.5	54.2
10.50	5.0E-04	0.00	353.0	2.12	9	274.8	24.9	299.8	8.1	48	95.0	1.0	-0.41	4.9	94.6
10.83	5.0E-04	0.00	379.8	2.27	12	300.1	UnDef	UnDef	0.0	48	95.0	1.0	-0.43	UnDef	UnDef
11.15	5.0E-04	0.00	397.5	2.36	12	318.8	UnDef	UnDef	0.0	48	95.0	1.0	-0.45	UnDef	UnDef
11.48	5.0E-04	0.00	367.7	2.26	12	299.1	UnDef	UnDef	0.0	48	95.0	1.0	-0.43	UnDef	UnDef
11.81	5.0E-04	0.00	338.8	2.57	12	279.5	UnDef	UnDef	0.0	48	95.0	1.0	-0.45	UnDef	UnDef
12.14	1.0E-15	0.00	320.9	3.18	12	268.4	UnDef	UnDef	0.0	46	95.0	1.0	-0.50	UnDef	UnDef
12.47	5.0E-05	0.00	246.2	3.18	12	208.9	UnDef	UnDef	0.0	46	88.4	10.0	-0.47	UnDef	UnDef
12.80	5.0E-05	0.00	196.2	3.18	12	168.7	UnDef	UnDef	0.0	46	82.3	10.0	-0.44	UnDef	UnDef

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h (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1) 60	(N1) 60cs
13.12	5.0E-05	0.00	178.7	3.27	12	155.6	UnDef	UnDef	0.0	44	79.9	10.0	-0.43	UnDef	UnDef
13.45	5.0E-05	0.00	149.1	3.35	12	131.6	UnDef	UnDef	0.0	44	75.1	10.0	-0.42	UnDef	UnDef
13.78	5.0E-05	0.00	127.9	3.35	7	114.2	71.4	185.7	19.4	44	71.1	10.0	-0.40	14.2	58.9
14.11	5.0E-05	0.00	113.3	2.99	7	102.4	63.4	165.8	19.3	42	68.0	10.0	-0.35	12.6	52.7
14.44	5.0E-05	0.00	111.2	2.65	7	101.8	55.0	156.8	18.1	42	67.8	10.0	-0.32	11.2	51.0
14.76	5.0E-05	0.00	98.8	2.84	7	91.5	61.4	152.9	20.0	42	64.7	10.0	-0.32	12.0	47.8
15.09	5.0E-05	0.00	86.0	2.60	7	80.6	56.8	137.3	20.5	42	61.1	10.0	-0.29	11.0	42.5
15.42	5.0E-05	0.00	75.9	2.40	7	72.0	53.2	125.3	20.9	40	57.9	10.0	-0.26	10.2	38.4
15.75	5.0E-04	0.00	71.8	2.04	7	68.8	45.0	113.8	19.8	40	56.6	1.0	-0.23	7.4	29.8
16.08	5.0E-04	0.00	65.2	1.93	7	63.2	43.6	106.8	20.3	40	54.1	1.0	-0.21	7.1	27.7
16.40	5.0E-04	0.00	60.6	2.12	7	59.4	50.0	109.4	22.1	40	52.3	1.0	-0.22	7.8	27.1
16.73	5.0E-05	0.00	45.1	2.36	7	44.9	64.2	109.0	27.0	38	44.3	10.0	-0.20	10.2	27.8
17.06	5.0E-05	0.00	35.3	2.02	7	35.7	61.3	97.1	28.7	38	37.8	10.0	-0.15	9.1	23.1
17.39	5.0E-05	0.01	33.3	1.96	7	34.0	62.1	96.1	29.2	36	36.4	10.0	-0.14	9.0	22.4
17.72	5.0E-05	0.01	30.0	2.02	7	31.1	71.6	102.7	31.1	36	33.8	10.0	-0.13	9.4	21.6
18.04	5.0E-04	0.00	39.7	1.60	7	41.2	44.5	85.6	24.5	38	41.8	1.0	-0.14	6.5	19.9
18.37	5.0E-04	0.00	43.0	1.74	7	44.9	47.5	92.4	24.3	38	44.3	1.0	-0.16	6.9	21.6
18.70	5.0E-04	0.00	39.5	1.64	7	41.6	46.9	88.5	24.8	38	42.2	1.0	-0.14	6.7	20.3
19.03	5.0E-04	0.00	38.7	1.58	7	41.2	45.6	86.8	24.7	38	41.9	1.0	-0.14	6.6	20.0
19.36	5.0E-05	0.00	27.5	2.20	5	29.8	95.8	125.6	33.6	36	32.6	10.0	-0.13	10.6	22.3
19.68	5.0E-05	0.00	18.1	2.12	5	20.1	80.6	100.7	40.4	32	30.0	8.1	-0.08	7.9	15.8
20.01	5.0E-08	0.02	6.2	3.72	1	7.6	UnDef	UnDef	100.0	UnDef	UnDef	1.7	UnDef	UnDef	UnDef
20.34	5.0E-06	0.06	9.1	2.79	4	10.9	43.5	54.4	59.2	UnDef	UnDef	2.9	UnDef	5.3	10.6
20.67	5.0E-05	0.01	19.9	1.99	6	22.5	90.1	112.6	37.9	34	30.0	9.3	-0.09	8.8	17.6
21.00	5.0E-04	0.01	35.5	1.80	7	39.7	58.6	98.3	27.3	38	40.8	1.0	-0.14	7.7	20.6
21.33	5.0E-05	0.01	38.6	2.15	7	43.5	69.8	113.3	28.1	38	43.4	10.0	-0.17	10.7	27.7
21.65	5.0E-05	0.01	38.4	2.17	7	43.6	71.4	115.0	28.3	38	43.5	10.0	-0.17	10.8	27.9
21.98	5.0E-05	0.02	38.2	2.07	7	43.7	67.8	111.5	27.8	38	43.5	10.0	-0.16	10.5	27.6
22.31	5.0E-05	0.02	37.0	2.32	7	42.6	81.9	124.5	29.6	38	42.8	10.0	-0.17	11.7	28.3
22.64	5.0E-04	0.00	40.1	2.00	7	46.4	64.3	110.6	26.8	38	45.3	1.0	-0.16	8.6	23.8
22.97	5.0E-04	0.00	39.8	1.89	7	46.4	60.8	107.2	26.2	38	45.2	1.0	-0.16	8.3	23.4
23.29	5.0E-05	0.00	36.5	2.17	7	42.9	76.7	119.6	29.0	38	43.0	10.0	-0.16	11.3	28.0
23.62	5.0E-04	0.01	48.8	1.56	7	57.4	45.6	103.0	21.6	38	51.4	1.0	-0.16	7.2	25.9
23.95	5.0E-04	0.00	50.1	1.43	7	59.3	41.5	100.8	20.4	38	52.3	1.0	-0.15	6.7	26.1
24.28	5.0E-05	0.00	27.1	2.15	6	32.8	105.0	137.8	33.5	36	35.3	10.0	-0.13	11.7	24.5
24.61	5.0E-06	0.02	14.5	2.86	6	18.3	73.2	91.4	49.1	UnDef	UnDef	5.7	UnDef	8.9	17.9
24.93	5.0E-05	0.04	16.4	2.18	6	20.7	82.7	103.4	42.6	32	30.0	6.9	-0.07	8.1	16.2
25.26	5.0E-05	0.02	19.8	1.86	6	24.8	99.2	124.0	37.1	32	30.0	9.3	-0.08	9.7	19.4
25.59	5.0E-06	0.03	11.2	2.75	4	14.6	58.4	73.0	54.3	UnDef	UnDef	3.8	UnDef	7.1	14.3
25.92	5.0E-06	0.04	7.4	1.95	4	10.2	40.7	50.8	58.9	UnDef	UnDef	2.2	UnDef	5.0	9.9
26.25	5.0E-06	0.11	6.9	2.17	4	9.6	38.4	48.0	62.4	UnDef	UnDef	2.0	UnDef	4.7	9.4
26.57	5.0E-05	0.04	13.3	2.21	5	17.4	69.7	87.1	47.2	30	30.0	5.0	-0.05	6.8	13.6
26.90	5.0E-06	0.04	10.2	2.59	4	13.7	55.0	68.7	55.5	UnDef	UnDef	3.4	UnDef	6.7	13.4
27.23	5.0E-05	0.04	10.6	2.34	5	14.4	57.4	71.8	53.0	30	30.0	3.6	-0.03	5.6	11.2
27.56	5.0E-06	0.13	7.2	3.20	1	10.2	UnDef	UnDef	100.0	UnDef	UnDef	2.1	UnDef	UnDef	UnDef
27.89	5.0E-06	0.11	8.8	2.87	4	12.2	48.9	61.1	60.8	UnDef	UnDef	2.7	UnDef	6.0	12.0
28.21	5.0E-06	0.12	8.0	2.66	4	11.3	45.2	56.5	61.9	UnDef	UnDef	2.4	UnDef	5.5	11.1
28.54	5.0E-07	0.27	5.3	3.31	1	7.9	UnDef	UnDef	100.0	UnDef	UnDef	1.4	UnDef	UnDef	UnDef
28.87	5.0E-06	0.12	9.0	3.11	4	12.6	50.5	63.2	61.5	UnDef	UnDef	2.8	UnDef	6.2	12.4
29.20	5.0E-05	0.02	14.9	2.16	6	20.2	80.8	101.1	44.5	32	30.0	6.0	-0.06	7.9	15.8
29.53	5.0E-05	0.02	17.8	2.05	6	23.9	95.7	119.6	40.3	32	30.0	7.9	-0.08	9.4	18.7
29.86	5.0E-05	0.02	18.3	2.08	6	24.6	98.6	123.2	40.0	32	30.0	8.2	-0.08	9.6	19.3
30.18	5.0E-05	0.02	20.5	2.07	6	27.5	110.0	137.5	37.8	34	30.3	9.8	-0.09	10.8	21.5
30.59	5.0E-05	0.02	14.4	2.22	6	19.8	79.2	99.0	45.5	32	30.0	5.6	-0.06	7.8	15.5
31.00	5.0E-06	0.13	4.8	2.92	1	7.5	UnDef	UnDef	100.0	UnDef	UnDef	1.3	UnDef	UnDef	UnDef
31.33	5.0E-06	0.34	3.0	1.43	4	5.3	21.1	26.3	80.2	UnDef	UnDef	0.8	UnDef	2.6	5.2
31.66	5.0E-05	0.16	7.0	1.12	6	10.4	41.4	51.8	53.1	30	30.0	2.0	0.07	4.1	8.1
31.99	5.0E-06	0.08	8.2	2.28	4	11.9	47.8	59.7	58.9	UnDef	UnDef	2.5	UnDef	5.8	11.7
32.32	5.0E-07	0.15	3.7	3.42	1	6.3	UnDef	UnDef	100.0	UnDef	UnDef	1.0	UnDef	UnDef	UnDef
32.64	5.0E-06	0.32	2.3	1.85	4	4.4	17.6	21.9	94.0	UnDef	UnDef	0.7	UnDef	2.1	4.3
32.97	5.0E-06	0.53	2.3	2.11	4	4.4	17.5	21.9	96.5	UnDef	UnDef	0.7	UnDef	2.1	4.3
33.30	5.0E-05	0.07	11.8	1.22	6	16.8	67.2	84.0	42.1	30	30.0	4.2	0.01	6.6	13.2

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Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1)60	(N1)60cs
33.63	5.0E-05	0.03	11.3	1.85	6	16.2	65.0	81.2	48.3	30	30.0	3.9	-0.02	6.4	12.7
33.96	5.0E-06	0.12	7.3	2.96	4	11.1	44.2	55.3	66.0	UnDef	UnDef	2.1	UnDef	5.4	10.8
34.28	5.0E-04	0.02	20.7	0.75	7	28.7	41.2	69.9	27.1	34	31.5	1.0	-0.02	5.5	14.8
34.61	5.0E-05	0.01	11.9	1.04	6	17.2	68.6	85.8	40.2	30	30.0	4.2	0.01	6.7	13.4
34.94	5.0E-05	0.05	10.8	1.82	6	15.8	63.2	79.0	49.0	30	30.0	3.7	-0.01	6.2	12.4
35.27	5.0E-04	0.01	28.6	2.10	6	39.4	106.4	145.8	32.3	36	40.6	1.0	-0.13	10.8	23.7
35.60	5.0E-03	0.00	100.7	1.57	7	135.5	43.1	178.5	14.0	42	76.0	1.0	-0.23	5.9	39.0
35.92	5.0E-03	0.00	185.4	1.90	9	248.7	46.5	295.3	10.9	44	93.4	1.0	-0.32	6.7	67.5
36.25	1.0E-15	0.00	214.8	2.69	12	288.7	UnDef	UnDef	0.0	46	95.0	1.0	-0.40	UnDef	UnDef
36.58	5.0E-03	0.00	176.2	2.32	7	237.8	64.9	302.7	13.0	44	92.1	1.0	-0.35	9.0	67.2
36.91	5.0E-02	0.00	202.0	1.03	9	273.0	7.8	280.8	6.0	46	95.0	1.0	-0.26	0.9	54.4
37.24	5.0E-02	0.00	270.2	0.97	9	365.7	0.0	365.7	4.2	46	95.0	1.0	-0.28	0.0	71.6
37.57	5.0E-03	0.00	262.8	1.73	9	356.7	31.9	388.6	8.1	46	95.0	1.0	-0.35	4.7	92.0
37.89	5.0E-03	0.00	246.7	2.12	9	335.8	51.9	387.7	10.0	46	95.0	1.0	-0.37	7.5	89.7
38.22	5.0E-03	0.00	239.7	2.04	9	327.1	48.9	376.0	9.9	46	95.0	1.0	-0.36	7.1	87.1
38.55	5.0E-03	0.00	231.5	2.17	9	316.8	55.9	372.7	10.6	46	95.0	1.0	-0.37	8.0	85.5
38.88	5.0E-03	0.00	212.0	2.18	9	291.0	57.7	348.7	11.2	46	95.0	1.0	-0.36	8.2	79.4
39.21	1.0E-15	0.00	227.0	2.40	9	312.1	67.0	379.1	11.6	46	95.0	1.0	-0.39	19.0	171.7
39.53	1.0E-15	0.00	219.6	2.95	12	302.8	UnDef	UnDef	0.0	46	95.0	1.0	-0.43	UnDef	UnDef
39.86	1.0E-15	0.00	192.9	3.32	12	266.9	UnDef	UnDef	0.0	44	95.0	1.0	-0.45	UnDef	UnDef
40.19	5.0E-04	0.00	158.4	2.45	7	219.9	73.1	293.0	14.3	44	89.9	1.0	-0.35	13.3	85.0
40.52	5.0E-03	0.00	132.4	2.19	7	184.5	64.3	248.8	14.7	44	84.8	1.0	-0.31	8.7	53.8
40.85	5.0E-03	0.00	126.3	2.07	7	176.6	60.3	236.9	14.5	44	83.6	1.0	-0.29	8.2	51.4
41.17	5.0E-02	0.00	125.1	1.23	9	175.3	29.0	204.4	10.3	44	83.4	1.0	-0.23	3.3	37.7
41.50	5.0E-02	0.00	126.0	0.74	9	177.0	10.5	187.5	7.1	44	83.6	1.0	-0.18	1.3	35.9
41.83	5.0E-02	0.00	125.4	0.72	9	176.7	9.9	186.5	7.0	44	83.6	1.0	-0.18	1.2	35.8
42.16	5.0E-03	0.00	123.1	1.42	9	173.9	36.6	210.5	11.5	42	83.1	1.0	-0.24	5.2	47.7
42.49	5.0E-04	0.00	133.2	2.24	7	188.3	67.2	255.6	14.9	44	85.4	1.0	-0.31	12.1	73.5
42.81	5.0E-04	0.00	123.0	2.31	7	174.5	70.8	245.3	15.8	42	83.2	1.0	-0.31	12.5	69.5
43.14	5.0E-04	0.00	119.2	2.61	7	169.6	83.5	253.1	17.4	42	82.4	1.0	-0.33	14.4	69.7
43.47	5.0E-04	0.00	119.1	2.76	7	169.8	89.9	259.7	18.0	42	82.5	1.0	-0.34	15.3	70.7
43.80	5.0E-04	0.00	113.7	2.75	7	162.5	89.9	252.5	18.3	42	81.2	1.0	-0.33	15.2	68.2
44.13	5.0E-04	0.00	104.7	2.72	7	150.1	89.4	239.6	19.0	42	78.9	1.0	-0.32	14.9	63.9
44.45	5.0E-04	0.00	96.8	2.85	7	139.2	96.0	235.2	20.3	42	76.8	1.0	-0.32	15.6	61.0
44.78	5.0E-04	0.00	90.5	3.07	7	130.6	106.8	237.4	21.8	42	74.9	1.0	-0.33	16.7	59.3
45.11	5.0E-04	0.00	85.0	3.09	7	123.0	108.9	231.8	22.6	42	73.2	1.0	-0.32	16.7	56.8
45.44	5.0E-04	0.00	74.1	2.93	7	107.6	104.5	212.1	23.4	40	69.4	1.0	-0.29	15.6	50.8
45.77	5.0E-04	0.00	73.3	2.95	7	106.8	106.1	212.9	23.7	40	69.2	1.0	-0.29	15.8	50.6
46.10	5.0E-04	0.00	74.5	2.93	7	108.8	105.2	213.9	23.4	40	69.7	1.0	-0.29	15.8	51.2
46.42	5.0E-05	0.00	73.4	3.28	7	107.4	122.6	230.0	25.0	40	69.3	10.0	-0.32	21.0	63.1
46.75	5.0E-05	0.00	54.3	3.79	6	80.1	174.3	254.4	30.7	40	60.9	10.0	-0.32	23.5	54.9
47.08	5.0E-05	-0.01	36.9	3.41	6	55.1	212.9	268.0	34.8	38	50.2	10.0	-0.24	21.3	42.9
47.41	5.0E-05	-0.01	30.9	2.43	6	46.6	136.1	182.7	32.9	36	45.4	10.0	-0.16	15.9	34.1
47.74	5.0E-04	-0.01	34.5	1.86	7	51.8	82.9	134.7	28.1	36	48.4	1.0	-0.14	10.6	27.5
48.06	5.0E-04	0.00	33.7	1.69	7	50.8	74.9	125.8	27.3	36	47.9	1.0	-0.13	9.9	26.4
48.39	5.0E-04	0.00	44.0	1.90	7	66.0	74.8	140.7	24.9	38	55.4	1.0	-0.17	10.7	32.2
48.72	5.0E-04	0.00	57.4	1.94	7	85.6	69.7	155.4	21.8	40	62.8	1.0	-0.20	10.9	38.8
49.05	5.0E-04	0.00	54.4	2.03	7	81.4	74.9	156.3	22.9	40	61.4	1.0	-0.20	11.4	37.9
49.38	5.0E-04	0.00	39.6	2.30	7	59.9	101.5	161.3	28.6	38	52.6	1.0	-0.18	12.7	32.2
49.70	5.0E-05	0.00	30.6	2.44	6	46.8	141.8	188.6	33.2	36	45.5	10.0	-0.16	16.3	34.6
50.03	5.0E-04	0.00	27.0	1.98	6	41.7	115.4	157.1	32.5	36	42.2	1.0	-0.12	11.6	25.2
50.36	5.0E-04	0.00	24.6	1.40	7	38.2	77.9	116.1	30.1	34	39.7	1.0	-0.08	9.0	21.5
50.69	5.0E-04	0.01	11.2	1.20	6	18.4	73.8	92.2	43.1	30	30.0	1.0	0.01	6.0	12.0
51.02	5.0E-06	0.23	4.1	2.62	4	8.0	32.0	40.1	80.5	UnDef	UnDef	1.1	UnDef	3.9	7.8
51.34	5.0E-06	0.21	3.1	2.64	1	6.6	UnDef	UnDef	100.0	UnDef	UnDef	0.9	UnDef	UnDef	UnDef
51.67	5.0E-06	0.52	2.0	2.14	4	5.0	19.9	24.9	100.0	UnDef	UnDef	0.6	UnDef	2.4	4.9
52.00	5.0E-06	0.25	3.5	1.75	4	7.1	28.5	35.7	78.9	UnDef	UnDef	0.9	UnDef	3.5	7.0
52.33	5.0E-05	0.08	6.8	1.66	4	12.1	48.3	60.3	58.9	30	30.0	1.9	0.05	4.7	9.4
52.66	5.0E-05	0.16	5.8	2.22	4	10.7	42.6	53.3	67.4	30	30.0	1.6	0.06	4.2	8.3
52.98	5.0E-06	0.11	5.9	2.44	4	10.8	43.2	54.0	68.6	UnDef	UnDef	1.6	UnDef	5.3	10.6
53.31	5.0E-06	0.30	3.4	3.35	1	7.1	UnDef	UnDef	100.0	UnDef	UnDef	0.9	UnDef	UnDef	UnDef
53.64	5.0E-04	0.05	10.6	1.15	6	18.0	71.9	89.8	43.8	30	30.0	1.0	0.02	5.9	11.7

z (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1) 60	(N1) 60cs
53.97	5.0E-04	0.00	11.3	0.62	6	19.0	76.1	95.1	36.3	30	30.0	1.0	0.05	6.2	12.4
54.30	5.0E-04	0.00	12.7	0.25	7	21.2	0.0	21.2	5.0	30	30.0	1.0	0.11	0.0	6.9
54.63	5.0E-04	0.00	11.7	0.29	7	19.7	0.0	19.7	5.0	30	30.0	1.0	0.10	0.0	6.4
54.95	5.0E-04	0.00	11.2	0.30	7	19.0	0.0	19.0	5.0	30	30.0	1.0	0.11	0.0	6.2
55.28	5.0E-04	0.00	11.2	0.45	7	19.0	0.0	19.0	5.0	30	30.0	1.0	0.08	0.0	6.2
55.61	5.0E-03	0.00	16.7	0.16	7	27.4	0.0	27.4	5.0	32	30.2	1.0	0.12	0.0	6.7
55.94	5.0E-03	0.00	15.4	0.26	7	25.5	0.0	25.5	5.0	32	30.0	1.0	0.09	0.0	6.3
56.27	5.0E-05	0.00	5.6	1.7	4	10.5	42.2	52.7	64.7	30	30.0	1.5	0.06	4.1	8.3
56.59	5.0E-07	0.43	2.0	3.94	1	5.2	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
56.92	1.0E-07	1.14	0.9	2.26	1	3.5	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
57.25	1.0E-07	1.00	1.0	1.2	1	3.7	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
57.58	1.0E-07	0.91	1.0	1.20	1	3.7	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
57.91	1.0E-07	1.10	0.9	1.19	1	3.4	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
58.23	5.0E-07	1.09	0.9	5.70	1	3.5	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
58.56	5.0E-06	0.14	3.6	3.34	1	7.7	UnDef	UnDef	100.0	UnDef	UnDef	1.0	UnDef	UnDef	UnDef
58.89	5.0E-08	0.43	1.5	6.27	1	4.5	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
59.22	5.0E-05	0.10	5.6	2.53	4	10.7	43.0	53.7	70.8	30	30.0	1.5	0.05	4.2	8.4
59.55	5.0E-05	0.03	6.4	2.60	4	12.2	48.6	60.8	67.2	30	30.0	1.8	0.02	4.8	9.5
59.87	5.0E-06	0.15	3.6	3.61	1	7.8	UnDef	UnDef	100.0	UnDef	UnDef	1.0	UnDef	UnDef	UnDef
60.20	5.0E-07	0.36	2.3	4.62	1	5.8	UnDef	UnDef	100.0	UnDef	UnDef	0.7	UnDef	UnDef	UnDef
60.53	5.0E-05	0.06	6.9	2.23	4	13.0	51.9	64.9	62.7	30	30.0	2.0	0.03	5.1	10.2
60.86	5.0E-05	0.01	9.6	1.80	6	17.2	69.0	86.2	51.4	30	30.0	3.1	0.00	6.7	13.5
61.19	5.0E-07	0.05	4.2	4.35	1	8.8	UnDef	UnDef	100.0	UnDef	UnDef	1.1	UnDef	UnDef	UnDef
61.52	5.0E-08	0.43	2.1	6.11	1	5.6	UnDef	UnDef	100.0	UnDef	UnDef	0.7	UnDef	UnDef	UnDef
61.84	5.0E-05	0.07	5.8	2.25	4	11.3	45.3	56.6	67.7	30	30.0	1.6	0.05	4.4	8.9
62.17	5.0E-05	0.02	5.7	2.43	4	11.2	44.9	56.1	69.6	30	30.0	1.6	0.04	4.4	8.8
62.50	5.0E-07	0.43	1.7	4.53	1	4.9	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
62.83	5.0E-06	0.49	1.8	1.52	4	5.0	20.2	25.2	100.0	UnDef	UnDef	0.6	UnDef	2.5	4.9
63.16	5.0E-06	0.70	1.3	2.82	1	4.3	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
63.48	5.0E-06	0.51	2.4	1.85	4	6.0	24.0	30.0	92.9	UnDef	UnDef	0.7	UnDef	2.9	5.9
63.81	5.0E-05	0.08	6.5	2.73	4	12.6	50.4	63.0	67.9	30	30.0	1.8	0.02	4.9	9.9
64.14	5.0E-06	-0.02	7.0	3.74	1	13.3	UnDef	UnDef	100.0	UnDef	UnDef	2.0	UnDef	UnDef	UnDef
64.47	5.0E-07	-0.04	6.2	4.23	1	12.1	UnDef	UnDef	100.0	UnDef	UnDef	1.7	UnDef	UnDef	UnDef
64.80	5.0E-06	-0.03	6.5	2.95	4	12.7	50.6	63.3	69.1	UnDef	UnDef	1.8	UnDef	6.2	12.4
65.12	5.0E-06	-0.08	5.2	2.85	1	10.5	UnDef	UnDef	100.0	UnDef	UnDef	1.4	UnDef	UnDef	UnDef
65.45	5.0E-07	-0.08	3.7	4.27	1	8.2	UnDef	UnDef	100.0	UnDef	UnDef	1.0	UnDef	UnDef	UnDef
65.78	5.0E-05	-0.04	6.6	2.70	4	12.9	51.4	64.3	67.1	30	30.0	1.9	0.01	5.0	10.1
66.11	5.0E-04	-0.01	13.8	0.91	6	24.5	97.9	122.4	35.8	32	30.0	1.0	0.01	8.0	16.0
66.44	5.0E-03	-0.01	19.7	0.71	7	33.9	50.7	84.7	27.4	34	36.3	1.0	-0.01	5.0	13.3
66.76	5.0E-04	0.01	18.0	1.52	6	31.2	125.0	156.2	36.4	32	33.9	1.0	-0.06	10.2	20.4
67.09	5.0E-04	0.01	17.8	1.57	6	31.0	123.9	154.9	37.0	32	33.7	1.0	-0.06	10.1	20.2
67.42	5.0E-04	0.00	17.6	0.83	7	30.8	66.2	97.0	30.6	32	33.5	1.0	-0.01	7.5	17.5
67.75	5.0E-04	0.00	14.8	0.99	6	26.3	105.3	131.7	35.4	32	30.0	1.0	-0.01	8.6	17.2
68.08	5.0E-04	0.02	12.0	1.39	6	21.7	86.9	108.6	43.4	30	30.0	1.0	-0.01	7.1	14.2
68.40	5.0E-04	0.01	14.1	1.23	6	25.2	101.0	126.2	39.0	32	30.0	1.0	-0.02	8.2	16.5
68.73	5.0E-03	0.00	19.1	0.85	7	33.4	62.6	96.0	29.4	32	35.9	1.0	-0.02	5.6	13.8
69.06	5.0E-03	0.00	21.9	0.65	7	38.0	43.8	81.8	25.1	34	39.5	1.0	-0.01	4.7	14.0
69.39	5.0E-03	0.00	19.9	0.65	7	34.8	47.6	82.4	26.6	34	37.0	1.0	0.00	4.8	13.3
69.72	5.0E-03	0.00	18.3	0.75	7	32.2	58.3	90.5	29.1	32	34.8	1.0	-0.01	5.3	13.2
70.05	5.0E-04	0.00	15.1	0.95	6	27.1	104.6	131.7	34.7	32	30.0	1.0	-0.01	8.7	17.6
70.37	5.0E-04	0.01	11.7	0.87	6	21.6	86.5	108.1	38.7	30	30.0	1.0	0.03	7.1	14.1
70.70	5.0E-04	0.02	10.1	0.94	6	19.0	75.9	94.9	42.5	30	30.0	1.0	0.04	6.2	12.4
71.03	5.0E-05	0.05	7.5	1.15	6	14.8	59.1	73.9	51.6	30	30.0	2.2	0.05	5.8	11.6
71.36	5.0E-05	0.06	8.0	1.51	6	15.5	62.1	77.6	53.6	30	30.0	2.4	0.03	6.1	12.2
71.69	5.0E-05	0.04	8.8	1.81	6	16.9	67.6	84.5	53.7	30	30.0	2.7	0.01	6.6	13.2
72.01	5.0E-05	0.03	10.8	1.80	6	20.2	81.0	101.2	48.8	30	30.0	3.7	-0.01	7.9	15.9
72.34	5.0E-05	0.03	9.8	2.07	6	18.6	74.5	93.1	53.0	30	30.0	3.2	-0.01	7.3	14.6
72.67	5.0E-05	0.03	9.7	2.10	6	18.5	74.0	92.5	53.4	30	30.0	3.1	-0.01	7.2	14.5
73.00	5.0E-04	0.03	14.4	1.70	6	26.3	105.4	131.7	42.0	32	30.0	1.0	-0.04	8.6	17.2
73.33	5.0E-04	0.03	17.0	1.63	6	30.8	123.1	153.9	38.3	32	33.5	1.0	-0.05	10.0	20.1
73.65	5.0E-04	0.04	17.4	1.73	6	31.4	125.7	157.1	39.0	32	34.1	1.0	-0.06	10.2	20.5
73.98	5.0E-04	0.03	20.4	1.65	6	36.5	146.0	182.5	35.1	34	38.4	1.0	-0.07	11.9	23.8

Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1)60	(N1)60cs
74.31	5.0E-04	0.03	19.8	1.50	6	35.6	131.4	167.0	34.5	34	37.7	1.0	-0.06	11.3	22.9
74.64	5.0E-05	0.06	14.8	2.41	6	27.3	109.0	136.3	46.2	32	30.0	5.9	-0.07	10.7	21.3
74.97	5.0E-04	0.05	16.1	2.18	6	29.4	117.7	147.1	43.1	32	32.2	1.0	-0.07	9.6	19.2
75.29	5.0E-04	0.05	16.4	1.68	6	30.0	119.9	149.9	39.3	32	32.7	1.0	-0.05	9.8	19.6
75.62	5.0E-04	0.05	14.5	1.62	6	26.9	107.6	134.5	41.2	32	30.0	1.0	-0.03	8.8	17.5
75.95	5.0E-04	0.05	12.8	1.12	6	24.1	96.5	120.6	39.5	32	30.0	1.0	0.00	7.9	15.7
76.28	5.0E-05	0.15	5.6	0.76	6	11.9	47.7	59.6	54.4	30	30.0	1.5	0.12	4.7	9.3
76.61	5.0E-05	0.72	2.0	1.10	1	5.9	UnDef	UnDef	100.0	30	30.0	0.6	0.30	UnDef	UnDef
76.93	5.0E-04	0.16	7.0	0.79	6	14.4	57.7	72.1	49.0	30	30.0	1.0	0.09	4.7	9.4
77.26	5.0E-04	0.07	11.5	1.34	6	22.0	88.1	110.1	43.7	30	30.0	1.0	0.00	7.2	14.4
77.59	5.0E-05	0.05	11.9	2.21	6	22.7	90.8	113.6	49.6	30	30.0	4.2	-0.04	8.9	17.8
77.92	5.0E-05	0.02	14.5	2.32	6	27.1	108.4	135.5	46.1	32	30.0	5.7	-0.07	10.6	21.2
78.25	5.0E-05	0.02	10.1	2.62	4	19.8	79.2	99.0	55.8	30	30.0	3.3	-0.03	7.8	15.5
78.58	5.0E-06	0.19	4.7	3.26	1	10.6	UnDef	UnDef	100.0	UnDef	UnDef	1.3	UnDef	UnDef	UnDef
78.90	5.0E-05	0.07	9.1	2.19	4	18.2	72.6	90.8	55.5	30	30.0	2.9	0.00	7.1	14.2
79.23	5.0E-05	0.02	12.1	2.09	6	23.3	93.3	116.6	48.3	30	30.0	4.4	-0.04	9.1	18.3
79.56	5.0E-06	0.06	6.1	3.23	1	13.1	UnDef	UnDef	100.0	UnDef	UnDef	1.7	UnDef	UnDef	UnDef
79.89	5.0E-08	0.66	1.9	6.56	1	5.8	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
80.22	5.0E-06	0.58	1.5	3.81	1	5.1	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
80.54	1.0E-07	1.26	1.0	0.68	1	4.3	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
80.87	5.0E-05	0.96	1.4	0.96	1	5.0	UnDef	UnDef	100.0	30	30.0	0.6	0.53	UnDef	UnDef
81.20	5.0E-06	0.70	1.9	3.61	1	5.9	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
81.53	5.0E-06	0.25	1.8	2.34	1	5.7	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
81.86	5.0E-06	0.72	1.5	2.64	1	5.2	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
82.18	5.0E-06	0.64	1.5	2.16	1	5.2	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
82.51	5.0E-06	0.94	1.1	2.72	1	4.6	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
82.84	5.0E-06	1.20	0.9	2.55	1	4.3	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
83.17	5.0E-06	1.05	1.0	1.95	1	4.5	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
83.50	5.0E-06	1.13	0.9	1.88	1	4.3	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
83.82	5.0E-05	0.73	1.6	1.18	1	5.5	UnDef	UnDef	100.0	30	30.0	0.6	0.32	UnDef	UnDef
84.15	5.0E-05	0.55	1.8	1.76	4	5.8	23.3	29.1	100.0	30	30.0	0.6	0.26	2.3	4.6
84.48	5.0E-05	0.41	2.7	1.73	4	7.5	29.9	37.4	86.7	30	30.0	0.8	0.18	2.9	5.9
84.81	5.0E-05	0.26	4.0	2.10	4	9.7	38.7	48.3	77.6	30	30.0	1.1	0.12	3.8	7.6
85.14	5.0E-05	0.29	4.2	2.18	4	10.1	40.6	50.7	76.3	30	30.0	1.1	0.11	4.0	7.9
85.46	5.0E-05	0.37	4.0	2.04	4	9.7	38.8	48.6	77.1	30	30.0	1.1	0.13	3.8	7.6
85.79	5.0E-05	0.38	4.0	1.74	4	9.7	38.7	48.4	74.7	30	30.0	1.1	0.14	3.8	7.6
86.12	5.0E-05	0.52	3.4	1.57	4	8.7	34.7	43.4	78.0	30	30.0	0.9	0.19	3.4	6.8
86.45	5.0E-05	0.66	3.2	1.34	4	8.4	33.8	42.2	77.1	30	30.0	0.9	0.23	3.3	6.6
86.78	5.0E-05	0.49	3.8	1.09	4	9.5	38.1	47.6	68.9	30	30.0	1.0	0.18	3.7	7.5
87.11	5.0E-05	0.44	3.8	0.85	4	9.5	38.0	47.5	66.0	30	30.0	1.0	0.18	3.7	7.4
87.43	5.0E-05	0.64	3.1	0.99	4	8.3	33.1	41.4	74.0	30	30.0	0.9	0.24	3.2	6.5
87.76	5.0E-05	0.69	3.1	1.10	4	8.2	32.8	41.0	76.0	30	30.0	0.8	0.25	3.2	6.4
88.09	5.0E-05	0.56	3.5	1.09	4	9.0	36.0	45.1	71.6	30	30.0	0.9	0.20	3.5	7.1
88.42	5.0E-05	0.45	4.2	0.84	4	10.2	40.8	51.0	63.3	30	30.0	1.1	0.18	4.0	8.0
88.75	5.0E-05	0.23	4.4	0.95	4	10.5	42.1	52.6	63.6	30	30.0	1.2	0.14	4.1	8.2
89.07	5.0E-05	0.41	4.1	1.24	4	10.0	40.0	50.0	69.1	30	30.0	1.1	0.16	3.9	7.8
89.40	5.0E-05	0.20	6.2	2.81	4	13.7	55.0	68.7	69.8	30	30.0	1.7	0.05	5.4	10.8
89.73	5.0E-06	0.03	8.7	4.10	1	18.2	UnDef	UnDef	100.0	UnDef	UnDef	2.7	UnDef	UnDef	UnDef
90.06	5.0E-05	0.00	11.6	3.05	4	23.5	94.0	117.5	55.1	30	30.0	4.1	-0.07	9.2	18.4
90.39	5.0E-04	-0.02	12.1	1.29	6	24.4	97.7	122.1	42.3	30	30.0	1.0	-0.01	8.0	15.9
90.71	5.0E-05	0.01	5.9	2.58	4	13.5	53.8	67.3	69.3	30	30.0	1.6	0.03	5.3	10.5
91.04	5.0E-04	0.00	14.5	1.76	6	28.9	115.5	144.4	42.3	32	31.7	1.0	-0.05	9.4	18.8
91.37	5.0E-05	-0.09	5.4	1.37	4	12.4	49.8	62.2	62.5	30	30.0	1.4	0.06	4.9	9.7
91.70	5.0E-06	-0.02	2.1	2.66	1	6.5	UnDef	UnDef	100.0	UnDef	UnDef	0.7	UnDef	UnDef	UnDef
92.03	5.0E-06	0.22	2.1	2.59	1	6.7	UnDef	UnDef	100.0	UnDef	UnDef	0.7	UnDef	UnDef	UnDef
92.35	5.0E-05	0.27	3.0	1.70	4	8.2	32.8	41.1	83.5	30	30.0	0.8	0.15	3.2	6.4
92.68	5.0E-05	0.28	3.3	1.53	4	8.8	35.2	44.0	78.6	30	30.0	0.9	0.15	3.4	6.9
93.01	5.0E-03	0.04	11.9	0.45	7	24.3	0.0	24.3	5.0	30	30.0	1.0	0.07	0.0	5.9
93.34	5.0E-04	0.01	10.2	0.87	6	21.3	85.0	106.3	41.6	30	30.0	1.0	0.04	6.9	13.9
93.67	5.0E-05	0.13	3.7	1.88	4	9.5	38.1	47.6	78.4	30	30.0	1.0	0.11	3.7	7.5
93.99	5.0E-06	0.41	2.2	2.75	1	6.9	UnDef	UnDef	100.0	UnDef	UnDef	0.7	UnDef	UnDef	UnDef
94.32	5.0E-04	0.07	9.5	0.98	6	20.2	80.6	100.8	44.3	30	30.0	1.0	0.04	6.6	13.2

Run No: 04-0401-1123-5373

CPT File: 717CP01A.COR

h (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Param	Del(n1)60	(N1)60cs
94.65	5.0E-03	-0.01	14.1	0.58	7	28.6	69.4	98.0	31.5	32	31.4	1.0	0.04	5.6	12.6

Interpretation Output - Release 1.00.19M

No: 04-0401-1123-5439
 No: 04-717
 Client: MACTEC
 Project: TVA Kingston
 Site: CPT-6
 Location: TVA Kingston
 Cone: 20 TON AD142
 CPT Date: 04/23/03
 CPT Time: 17:20
 CPT File: 717CP006.COR
 Northing (m): 0.000
 Easting (m): 0.000
 Elevation (m): 0.000

 Water Table (m): 11.23 (ft): 36.8
 Unit Weight of Water (User Specified): 62.40 pcf
 Su Nkt used: 12.50 Su/P' (r.c): 0.30
 Averaging Increment (m): 0.10
 Phi Method : Robertsor. and Campanella, 1983
 Dr Method : Jamiolkowski - All Sands
 State Parameter M: 1.20
 Used Unit Weights Assigned to Soil Zones
 Values of 1.0E9 or UnDef are printed for parameters that are not valid for the material type (SBT)

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
0.16	70.3	0.25	0.36	-0.1	8	120.9	0.01	0.01	0.00	2.00	16.8	33.7	UnDef	0.31
0.49	132.9	0.90	0.68	-1.4	9	124.1	0.03	0.03	0.00	2.00	25.4	50.9	UnDef	0.00
0.82	166.5	2.27	1.36	-10.2	8	120.9	0.05	0.05	0.00	2.00	39.9	79.7	UnDef	0.00
1.15	193.7	3.71	1.92	-13.0	8	120.9	0.07	0.07	0.00	2.00	46.4	92.7	UnDef	0.00
1.48	187.2	4.50	2.40	-13.2	7	117.8	0.09	0.09	0.00	2.00	59.7	119.5	UnDef	0.00
1.80	173.2	4.05	2.34	-14.1	7	117.8	0.11	0.11	0.00	2.00	55.3	110.6	UnDef	0.00
2.13	158.6	3.60	2.27	-11.7	7	117.8	0.13	0.13	0.00	2.00	50.6	101.2	UnDef	0.00
2.46	126.8	2.92	2.30	-15.1	7	117.8	0.15	0.15	0.00	2.00	40.5	81.0	UnDef	0.00
2.79	93.7	2.38	2.54	-8.9	7	117.8	0.17	0.17	0.00	2.00	29.9	59.8	UnDef	0.00
3.12	67.6	1.54	2.28	-5.3	6	114.6	0.19	0.19	0.00	2.00	25.9	51.8	5.39	0.00
3.44	71.7	1.25	1.75	-6.6	7	117.8	0.20	0.20	0.00	2.00	22.9	45.8	UnDef	0.36
3.77	70.4	1.64	2.33	-11.3	6	114.6	0.22	0.22	0.00	2.00	27.0	54.0	5.62	0.00
4.10	54.0	1.20	2.22	-13.6	6	114.6	0.24	0.24	0.00	2.00	20.7	41.4	4.30	0.26
4.43	51.9	0.82	1.58	-11.8	7	117.8	0.26	0.26	0.00	1.95	16.6	32.4	UnDef	0.21
4.76	50.2	0.70	1.39	-11.2	7	117.8	0.28	0.28	0.00	1.89	16.0	30.2	UnDef	0.18
5.09	45.6	0.52	1.14	-13.9	7	117.8	0.30	0.30	0.00	1.82	14.6	26.6	UnDef	0.15
5.41	28.5	0.46	1.60	-7.3	6	114.6	0.32	0.32	0.00	1.77	10.9	19.3	2.26	0.11
5.74	44.5	0.44	0.98	-1.2	7	117.8	0.34	0.34	0.00	1.72	14.2	24.4	UnDef	0.13
6.07	70.5	0.44	0.62	0.5	8	120.9	0.36	0.36	0.00	1.67	16.9	28.2	UnDef	0.22
6.40	71.8	0.50	0.69	0.5	8	120.9	0.38	0.38	0.00	1.63	17.2	28.0	UnDef	0.22
6.73	67.6	0.81	1.20	0.4	7	117.8	0.40	0.40	0.00	1.59	21.6	34.2	UnDef	0.22
7.05	66.9	1.23	1.84	0.0	7	117.8	0.42	0.42	0.00	1.55	21.3	33.1	UnDef	0.26
7.38	60.2	1.55	2.57	0.1	6	114.6	0.44	0.44	0.00	1.51	23.1	34.9	4.78	0.27
7.79	45.9	1.40	3.06	-0.4	6	114.6	0.46	0.46	0.00	1.48	17.6	26.0	3.64	0.22
8.20	34.3	1.05	3.06	0.1	5	114.6	0.48	0.48	0.00	1.44	16.4	23.6	2.70	0.18
8.53	29.4	0.80	2.71	0.0	5	114.6	0.50	0.50	0.00	1.41	14.1	19.9	2.31	0.15
8.86	27.7	0.63	2.26	0.1	6	114.6	0.52	0.52	0.00	1.39	10.6	14.7	2.17	0.13
9.19	27.4	0.56	2.03	0.0	6	114.6	0.54	0.54	0.00	1.36	10.5	14.3	2.15	0.12
9.51	31.0	0.68	2.18	0.0	6	114.6	0.56	0.56	0.00	1.34	11.9	15.9	2.44	0.13
9.84	30.2	0.66	2.19	0.1	6	114.6	0.58	0.58	0.00	1.32	11.6	15.2	2.37	0.13
10.17	30.4	0.57	1.86	0.1	6	114.6	0.60	0.60	0.00	1.30	11.7	15.1	2.39	0.12
10.50	32.2	0.61	1.89	-0.4	6	114.6	0.61	0.61	0.00	1.28	12.3	15.7	2.52	0.12
10.83	38.7	0.73	1.88	-1.8	6	114.6	0.63	0.63	0.00	1.26	14.8	18.6	3.05	0.13
11.15	50.5	1.01	1.99	0.0	7	117.8	0.65	0.65	0.00	1.24	16.1	20.0	UnDef	0.17
11.48	57.5	1.45	2.53	-2.3	6	114.6	0.67	0.67	0.00	1.22	22.0	26.9	4.54	0.23
11.81	54.7	1.41	2.58	-2.3	6	114.6	0.69	0.69	0.00	1.20	21.0	25.2	4.32	0.22
12.14	50.7	1.29	2.54	-1.9	6	114.6	0.71	0.71	0.00	1.19	19.4	23.1	4.00	0.21
12.47	43.2	1.13	2.62	-2.2	6	114.6	0.73	0.73	0.00	1.17	16.6	19.4	3.40	0.20
12.80	37.8	0.89	2.35	-6.3	6	114.6	0.75	0.75	0.00	1.16	14.5	16.8	2.96	0.17

Run No: 04-0401-1123-5439

CPT File: 717CP006.COR

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgQd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
13.12	31.5	0.71	2.24	-5.5	6	114.6	0.77	0.77	0.00	1.14	12.1	13.8	2.46	0.16
13.45	29.6	0.56	1.88	-4.0	6	114.6	0.78	0.78	0.00	1.13	11.3	12.8	2.31	0.13
13.78	23.8	0.49	2.06	-1.3	6	114.6	0.80	0.80	0.00	1.12	9.1	10.2	1.84	0.17
14.11	23.6	0.37	1.57	2.5	6	114.6	0.82	0.82	0.00	1.10	9.1	10.0	1.83	0.12
14.44	24.6	0.37	1.49	3.9	6	114.6	0.84	0.84	0.00	1.09	9.4	10.3	1.90	0.12
14.76	24.9	0.40	1.61	4.3	6	114.6	0.86	0.86	0.00	1.08	9.6	10.3	1.93	0.13
15.09	24.1	0.41	1.70	4.4	6	114.6	0.88	0.88	0.00	1.07	9.2	9.9	1.86	0.14
15.42	20.4	0.40	1.94	5.8	6	114.6	0.90	0.90	0.00	1.06	7.8	8.3	1.56	0.19
15.75	23.6	0.34	1.42	0.7	6	114.6	0.92	0.92	0.00	1.05	9.1	9.5	1.82	0.12
16.08	23.3	0.35	1.48	2.9	6	114.6	0.93	0.93	0.00	1.03	8.9	9.2	1.79	0.13
16.40	22.5	0.37	1.65	4.4	6	114.6	0.95	0.95	0.00	1.02	8.6	8.8	1.72	0.17
16.73	24.2	0.48	1.97	4.2	6	114.6	0.97	0.97	0.00	1.01	9.3	9.4	1.86	0.24
17.06	23.9	0.48	1.99	0.3	6	114.6	0.99	0.99	0.00	1.00	9.2	9.2	1.83	0.23
17.39	18.5	0.24	1.27	8.1	6	114.6	1.01	1.01	0.00	1.00	7.1	7.1	1.40	0.15
17.72	19.6	0.26	1.30	22.1	6	114.6	1.03	1.03	0.00	0.99	7.5	7.4	1.48	0.16
18.04	20.8	0.24	1.16	16.0	6	114.6	1.05	1.05	0.00	0.98	8.0	7.8	1.58	0.13
18.37	17.0	0.18	1.03	18.6	6	114.6	1.07	1.07	0.00	0.97	6.5	6.3	1.27	0.13
18.70	15.8	0.30	1.87	27.9	5	114.6	1.08	1.08	0.00	0.96	7.6	7.3	1.18	0.12
19.03	17.4	0.24	1.39	1.9	6	114.6	1.10	1.10	0.00	0.95	6.6	6.3	1.30	0.13
19.36	15.2	0.16	1.02	10.2	6	114.6	1.12	1.12	0.00	0.94	5.8	5.5	1.12	0.11
19.68	18.5	0.19	1.03	10.6	6	114.6	1.14	1.14	0.00	0.94	7.1	6.6	1.39	0.14
20.01	29.6	0.49	1.64	10.5	6	114.6	1.16	1.16	0.00	0.93	11.3	10.5	2.27	0.17
20.34	56.3	1.06	1.89	4.8	7	117.8	1.18	1.18	0.00	0.92	18.0	16.6	UnDef	0.19
20.67	57.2	1.49	2.61	1.1	6	114.6	1.20	1.20	0.00	0.91	21.9	20.0	4.48	0.30
21.00	52.1	1.54	2.95	-1.4	6	114.6	1.22	1.22	0.00	0.91	20.0	18.1	4.07	0.42
21.33	44.0	1.26	2.86	-2.0	6	114.6	1.24	1.24	0.00	0.90	16.9	15.2	3.42	0.00
21.65	33.7	0.91	2.69	-1.7	6	114.6	1.25	1.25	0.00	0.89	12.9	11.5	2.59	0.38
21.98	21.2	0.45	2.10	0.3	6	114.6	1.27	1.27	0.00	0.89	8.1	7.2	1.60	0.15
22.31	21.5	0.33	1.52	0.5	6	114.6	1.29	1.29	0.00	0.88	8.2	7.2	1.62	0.15
22.64	25.6	0.33	1.29	-2.7	6	114.6	1.31	1.31	0.00	0.87	9.8	8.6	1.94	0.19
22.97	36.2	0.70	1.94	-2.0	6	114.6	1.33	1.33	0.00	0.87	13.9	12.0	2.79	0.26
23.29	40.2	0.92	2.29	-6.7	6	114.6	1.35	1.35	0.00	0.86	15.4	13.3	3.11	0.37
23.62	90.5	1.16	1.28	-1.7	8	120.9	1.37	1.37	0.00	0.86	21.7	18.5	UnDef	0.20
23.95	193.1	2.13	1.10	-0.1	9	124.1	1.39	1.39	0.00	0.85	37.0	31.4	UnDef	0.00
24.28	225.9	4.03	1.79	-0.3	8	120.9	1.41	1.41	0.00	0.84	54.1	45.6	UnDef	0.00
24.61	200.2	4.86	2.43	-0.9	7	117.8	1.43	1.43	0.00	0.84	63.9	53.5	UnDef	0.00
24.93	222.1	6.12	2.76	0.5	7	117.8	1.45	1.45	0.00	0.83	70.9	58.9	UnDef	0.00
25.26	206.3	6.64	3.22	1.5	7	117.8	1.47	1.47	0.00	0.83	65.9	54.4	UnDef	0.00
25.59	166.7	5.42	3.25	-4.4	6	114.6	1.49	1.49	0.00	0.82	63.8	52.4	13.22	0.00
25.92	159.0	4.73	2.97	-3.7	7	117.8	1.50	1.50	0.00	0.82	50.8	41.4	UnDef	0.00
26.25	146.9	4.55	3.10	-3.7	6	114.6	1.52	1.52	0.00	0.81	56.3	45.6	11.63	0.00
26.57	101.5	4.18	4.12	-3.1	5	114.6	1.54	1.54	0.00	0.81	48.6	39.1	8.00	0.00
26.90	85.2	3.05	3.58	-1.8	6	114.6	1.56	1.56	0.00	0.80	32.7	26.1	6.69	0.00
27.23	71.1	2.22	3.12	-1.2	6	114.6	1.58	1.58	0.00	0.80	27.2	21.7	5.56	0.00
27.56	53.2	1.44	2.72	4.0	6	114.6	1.60	1.60	0.00	0.79	20.4	16.1	4.13	0.00
27.89	41.9	0.85	2.02	20.6	6	114.6	1.62	1.62	0.00	0.79	16.0	12.6	3.22	0.42
28.21	41.1	0.58	1.42	37.0	7	117.8	1.64	1.64	0.00	0.78	13.1	10.2	UnDef	0.18
28.54	27.6	0.83	3.01	45.7	5	114.6	1.66	1.66	0.00	0.78	13.2	10.3	2.08	0.19
28.87	23.4	0.78	3.32	4.8	5	114.6	1.67	1.67	0.00	0.77	11.2	8.7	1.74	0.14
29.20	25.4	0.79	3.10	17.1	5	114.6	1.69	1.69	0.00	0.77	12.2	9.4	1.90	0.16
29.53	27.7	0.81	2.91	23.7	5	114.6	1.71	1.71	0.00	0.76	13.3	10.2	2.08	0.18
29.86	28.6	0.75	2.61	21.9	6	114.6	1.73	1.73	0.00	0.76	10.9	8.3	2.15	0.19
30.18	30.8	0.76	2.47	21.8	6	114.6	1.75	1.75	0.00	0.76	11.8	8.9	2.33	0.22
30.59	17.1	0.50	2.93	14.4	5	114.6	1.77	1.77	0.00	0.75	8.2	6.1	1.22	0.00
31.00	5.5	0.11	1.91	46.7	4	114.6	1.80	1.80	0.00	0.75	3.5	2.6	0.30	0.00
31.33	5.0	0.01	0.20	73.6	1	111.4	1.82	1.82	0.00	0.74	2.4	1.8	0.25	0.00
31.66	4.2	0.07	1.66	73.3	1	111.4	1.83	1.83	0.00	0.74	2.0	1.5	0.19	0.00
31.99	6.3	0.11	1.68	40.2	4	114.6	1.85	1.85	0.00	0.73	4.0	2.9	0.35	0.00
32.32	4.3	0.08	1.85	26.3	4	114.6	1.87	1.87	0.00	0.73	2.8	2.0	0.20	0.00
32.64	12.2	0.30	2.42	53.0	5	114.6	1.89	1.89	0.00	0.73	5.9	4.3	0.83	0.09
32.97	11.9	0.34	2.86	38.2	5	114.6	1.91	1.91	0.00	0.72	5.7	4.1	0.80	0.00
33.30	5.0	0.14	2.83	71.1	3	111.4	1.93	1.93	0.00	0.72	4.8	3.4	0.24	0.00

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1) 60	Su (tsf)	CRR
33.63	8.2	0.17	2.09	71.9	5	114.6	1.95	1.95	0.00	0.72	3.9	2.8	0.50	0.00
33.96	14.2	0.48	3.38	42.3	4	114.6	1.96	1.96	0.00	0.71	9.1	6.5	0.98	0.00
34.28	22.8	0.51	2.22	31.6	6	114.6	1.98	1.98	0.00	0.71	8.7	6.2	1.66	0.13
34.61	12.0	0.39	3.23	37.8	4	114.6	2.00	2.00	0.00	0.71	7.6	5.4	0.80	0.00
34.94	7.9	0.33	4.17	69.0	3	111.4	2.02	2.02	0.00	0.70	7.6	5.3	0.47	0.00
35.27	13.7	0.45	3.28	50.5	4	114.6	2.04	2.04	0.00	0.70	8.8	6.1	0.94	0.00
35.60	28.7	0.54	1.89	14.5	6	114.6	2.06	2.06	0.00	0.70	11.0	7.7	2.13	0.17
35.92	17.2	0.45	2.59	18.2	5	114.6	2.08	2.08	0.00	0.69	8.3	5.7	1.21	0.10
36.25	5.1	0.21	4.12	48.7	3	111.4	2.09	2.09	0.00	0.69	4.9	3.4	0.24	0.00
36.58	4.0	0.04	1.01	87.0	1	111.4	2.11	2.11	0.00	0.69	1.9	1.3	0.15	0.00
36.91	4.1	0.02	0.49	88.3	1	111.4	2.13	2.13	0.00	0.69	1.9	1.3	0.15	0.00
37.24	5.2	0.02	0.39	77.3	1	111.4	2.15	2.14	0.01	0.68	2.5	1.7	0.24	0.00
37.57	4.4	0.03	0.57	83.3	1	111.4	2.17	2.15	0.02	0.68	2.1	1.4	0.18	0.00
37.89	4.9	0.03	0.61	84.3	1	111.4	2.19	2.15	0.03	0.68	2.4	1.6	0.22	0.00
38.22	9.7	0.26	2.62	75.0	4	114.6	2.20	2.16	0.04	0.68	6.2	4.2	0.60	0.00
38.55	14.5	0.35	2.39	32.6	5	114.6	2.22	2.17	0.05	0.68	6.9	4.7	0.98	0.09
38.88	8.1	0.17	2.10	43.5	5	114.6	2.24	2.18	0.06	0.68	3.9	2.6	0.47	0.00
39.21	5.9	0.04	0.68	81.8	1	111.4	2.26	2.19	0.07	0.68	2.8	1.9	0.29	0.00
39.53	4.7	0.04	0.86	88.5	1	111.4	2.28	2.20	0.08	0.67	2.2	1.5	0.19	0.00
39.86	11.1	0.05	0.45	77.1	6	114.6	2.30	2.20	0.09	0.67	4.2	2.9	0.70	0.00
40.19	16.6	0.16	0.94	71.7	6	114.6	2.32	2.21	0.10	0.67	6.4	4.3	1.14	0.10
40.52	43.8	0.54	1.22	67.6	7	117.8	2.34	2.22	0.11	0.67	14.0	9.4	UnDef	0.27
40.85	95.2	0.80	0.84	22.7	8	120.9	2.36	2.23	0.12	0.67	22.8	15.3	UnDef	0.16
41.17	99.6	1.23	1.24	8.6	8	120.9	2.38	2.24	0.13	0.67	23.8	15.9	UnDef	0.22
41.50	94.8	1.65	1.74	26.5	7	117.8	2.39	2.25	0.15	0.67	30.3	20.2	UnDef	0.30
41.83	100.5	1.81	1.80	19.0	7	117.8	2.41	2.26	0.16	0.67	32.1	21.3	UnDef	0.33
42.16	100.1	1.88	1.88	10.3	7	117.8	2.43	2.27	0.17	0.66	31.9	21.2	UnDef	0.35
42.49	89.2	1.79	2.01	13.8	7	117.8	2.45	2.28	0.18	0.66	28.5	18.9	UnDef	0.38
42.81	94.6	1.57	1.66	15.8	7	117.8	2.47	2.29	0.19	0.66	30.2	20.0	UnDef	0.29
43.14	86.7	1.55	1.79	6.8	7	117.8	2.49	2.29	0.20	0.66	27.7	18.3	UnDef	0.32
43.47	78.6	1.65	2.10	13.0	7	117.8	2.51	2.30	0.21	0.66	25.1	16.5	UnDef	0.45
43.80	90.4	1.71	1.90	22.8	7	117.8	2.53	2.31	0.22	0.66	28.9	19.0	UnDef	0.35
44.13	108.8	2.01	1.85	19.0	7	117.8	2.55	2.32	0.23	0.66	34.7	22.8	UnDef	0.36
44.45	120.5	2.39	1.98	-0.3	7	117.8	2.57	2.33	0.24	0.66	38.5	25.2	UnDef	0.43
44.78	115.5	2.06	1.78	-9.9	7	117.8	2.59	2.34	0.25	0.65	36.9	24.1	UnDef	0.36
45.11	103.9	1.69	1.63	-3.2	7	117.8	2.61	2.35	0.26	0.65	33.2	21.6	UnDef	0.30
45.44	91.2	1.39	1.52	5.3	7	117.8	2.63	2.36	0.27	0.65	29.1	19.0	UnDef	0.26
45.77	79.4	0.91	1.14	1.1	8	120.9	2.65	2.37	0.28	0.65	19.0	12.4	UnDef	0.19
46.10	61.6	0.66	1.07	8.2	7	117.8	2.67	2.38	0.29	0.65	19.7	12.7	UnDef	0.17
46.42	52.7	0.52	0.99	23.7	7	117.8	2.68	2.39	0.30	0.65	16.8	10.9	UnDef	0.17
46.75	48.9	0.61	1.25	40.3	7	117.8	2.70	2.40	0.31	0.65	15.6	10.1	UnDef	0.29
47.08	41.2	0.37	0.89	33.8	7	117.8	2.72	2.40	0.32	0.64	13.2	8.5	UnDef	0.20
47.41	16.3	0.12	0.71	75.6	6	114.6	2.74	2.41	0.33	0.64	6.3	4.0	1.09	0.09
47.74	11.0	0.03	0.23	103.9	6	114.6	2.76	2.42	0.34	0.64	4.2	2.7	0.66	0.00
48.06	8.5	0.04	0.47	95.8	6	114.6	2.78	2.43	0.35	0.64	3.2	2.1	0.45	0.00
48.39	6.2	0.04	0.64	81.0	1	111.4	2.80	2.44	0.36	0.64	3.0	1.9	0.27	0.00
48.72	5.2	0.02	0.29	96.3	1	111.4	2.82	2.45	0.37	0.64	2.5	1.6	0.19	0.00
49.05	7.5	0.17	2.20	109.0	4	114.6	2.84	2.45	0.38	0.64	4.8	3.1	0.37	0.00
49.38	87.5	1.19	1.36	42.2	8	120.9	2.85	2.46	0.39	0.64	21.0	13.4	UnDef	0.23
49.70	171.9	3.06	1.78	5.1	8	120.9	2.87	2.47	0.40	0.64	41.1	26.2	UnDef	0.00
50.03	155.2	4.16	2.68	-6.0	7	117.8	2.89	2.48	0.41	0.63	49.5	31.4	UnDef	0.00
50.36	129.3	3.89	3.01	6.8	6	114.6	2.91	2.49	0.42	0.63	49.5	31.4	10.11	0.00
50.69	127.0	3.05	2.40	18.9	7	117.8	2.93	2.50	0.43	0.63	40.5	25.6	UnDef	0.00
51.02	154.9	3.31	2.14	18.6	7	117.8	2.95	2.51	0.44	0.63	49.4	31.2	UnDef	0.00
51.34	145.2	3.41	2.35	-1.4	7	117.8	2.97	2.52	0.45	0.63	46.4	29.2	UnDef	0.00
51.67	102.0	2.97	2.91	-1.0	6	114.6	2.99	2.53	0.46	0.63	39.1	24.6	7.92	0.00
52.00	80.3	2.66	3.31	20.7	6	114.6	3.01	2.54	0.47	0.63	30.8	19.3	6.18	0.00
52.33	64.1	2.01	3.14	27.3	6	114.6	3.03	2.54	0.48	0.63	24.5	15.4	4.88	0.00
52.66	52.4	1.60	3.06	54.6	6	114.6	3.05	2.55	0.49	0.63	20.1	12.6	3.95	0.00
52.98	66.1	2.11	3.19	53.6	6	114.6	3.07	2.56	0.50	0.62	25.3	15.8	5.05	0.00
53.31	79.4	1.94	2.45	24.1	6	114.6	3.08	2.57	0.51	0.62	30.4	19.0	6.10	0.00
53.64	104.0	1.76	1.69	17.0	7	117.8	3.10	2.58	0.52	0.62	33.2	20.7	UnDef	0.34

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Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgCd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
53.97	102.0	1.54	1.51	16.6	8	120.9	3.12	2.59	0.53	0.62	24.4	15.2	UnDef	0.29
54.30	87.0	0.82	0.94	16.7	8	120.9	3.14	2.60	0.54	0.62	20.8	12.9	UnDef	0.17
54.63	59.8	0.57	0.95	17.2	7	117.8	3.16	2.61	0.55	0.62	19.1	11.8	UnDef	0.17
54.95	52.1	0.62	1.18	17.7	7	117.8	3.18	2.62	0.56	0.62	16.6	10.3	UnDef	0.30
55.28	35.5	0.78	2.20	83.1	6	114.6	3.20	2.63	0.58	0.62	13.6	8.4	2.59	0.19
55.61	33.5	0.84	2.50	124.3	6	114.6	3.22	2.63	0.59	0.62	12.8	7.9	2.42	0.18
55.94	45.2	1.14	2.52	79.8	6	114.6	3.24	2.64	0.60	0.62	17.3	10.6	3.36	0.31
56.27	44.6	1.22	2.74	39.6	6	114.6	3.26	2.65	0.61	0.61	17.1	10.5	3.31	0.30
56.59	46.4	1.26	2.71	40.9	6	114.6	3.28	2.66	0.62	0.61	17.8	10.9	3.45	0.33
56.92	62.5	0.84	1.34	20.9	7	117.8	3.29	2.67	0.63	0.61	20.0	12.2	UnDef	0.30
57.25	54.5	0.34	0.62	19.1	8	120.9	3.31	2.68	0.64	0.61	13.1	8.0	UnDef	0.13
57.58	39.9	0.10	0.24	19.7	8	120.9	3.33	2.69	0.65	0.61	9.5	5.8	UnDef	0.00
57.91	30.8	0.05	0.16	19.7	7	117.8	3.35	2.70	0.66	0.61	9.8	6.0	UnDef	0.00
58.23	33.0	0.30	0.91	20.2	7	117.8	3.37	2.71	0.67	0.61	10.5	6.4	UnDef	0.17
58.56	16.6	0.30	1.78	77.3	6	114.6	3.39	2.71	0.68	0.61	6.4	3.9	1.06	0.09
58.89	15.9	0.32	1.98	126.1	5	114.6	3.41	2.72	0.69	0.61	7.6	4.6	1.00	0.09
59.22	13.4	0.40	2.95	105.5	5	114.6	3.43	2.73	0.70	0.61	6.4	3.9	0.80	0.00
59.55	7.5	0.19	2.54	153.5	4	114.6	3.45	2.74	0.71	0.60	4.8	2.9	0.32	0.00
59.87	7.5	0.05	0.60	144.0	1	111.4	3.47	2.75	0.72	0.60	3.6	2.2	0.33	0.00
60.20	24.0	0.40	1.67	127.4	6	114.6	3.49	2.76	0.73	0.60	9.2	5.5	1.64	0.11
60.53	62.0	0.96	1.55	27.9	7	117.8	3.50	2.77	0.74	0.60	19.8	11.9	UnDef	0.00
60.86	65.0	0.73	1.12	22.8	7	117.8	3.52	2.77	0.75	0.60	20.7	12.5	UnDef	0.22
61.19	97.9	0.56	0.57	22.7	8	120.9	3.54	2.78	0.76	0.60	23.4	14.0	UnDef	0.15
61.52	78.1	1.15	1.48	27.8	7	117.8	3.56	2.79	0.77	0.60	24.9	14.9	UnDef	0.32
61.84	34.9	1.06	3.05	69.9	5	114.6	3.58	2.80	0.78	0.60	16.7	10.0	2.50	0.18
62.17	51.8	0.75	1.44	45.9	7	117.8	3.60	2.81	0.79	0.60	16.5	9.9	UnDef	0.40
62.50	40.1	0.70	1.75	26.4	7	117.8	3.62	2.82	0.80	0.60	12.8	7.6	UnDef	0.23
62.83	20.4	0.68	3.32	57.0	5	114.6	3.64	2.83	0.81	0.59	9.7	5.8	1.34	0.00
63.16	25.2	0.65	2.58	86.0	5	114.6	3.66	2.84	0.82	0.59	12.1	7.2	1.73	0.12
63.48	17.9	0.61	3.39	91.3	4	114.6	3.68	2.85	0.83	0.59	11.4	6.8	1.14	0.00
63.81	37.3	0.67	1.79	64.5	6	114.6	3.70	2.85	0.84	0.59	14.3	8.4	2.68	0.20
64.14	27.3	0.88	3.22	77.8	5	114.6	3.71	2.86	0.85	0.59	13.1	7.7	1.88	0.00
64.47	21.3	0.73	3.44	81.2	5	114.6	3.73	2.87	0.86	0.59	10.2	6.0	1.41	0.00
64.80	13.6	0.41	3.02	92.9	5	114.6	3.75	2.88	0.87	0.59	6.5	3.8	0.79	0.00
65.12	9.6	0.17	1.77	135.7	5	114.6	3.77	2.89	0.88	0.59	4.6	2.7	0.47	0.00
65.45	13.9	0.29	2.09	151.8	5	114.6	3.79	2.90	0.89	0.59	6.7	3.9	0.81	0.00
65.78	34.2	0.78	2.29	77.4	6	114.6	3.81	2.91	0.90	0.59	13.1	7.7	2.43	0.17
66.11	31.4	1.06	3.37	76.0	5	114.6	3.83	2.91	0.91	0.59	15.0	8.8	2.21	0.00
66.44	57.8	0.72	1.24	49.5	7	117.8	3.85	2.92	0.92	0.58	18.4	10.8	UnDef	0.42
66.76	67.2	0.39	0.58	26.0	8	120.9	3.87	2.93	0.93	0.58	16.1	9.4	UnDef	0.13
67.09	69.5	0.32	0.46	26.9	8	120.9	3.89	2.94	0.94	0.58	16.6	9.7	UnDef	0.09
67.42	55.0	0.39	0.70	27.8	8	120.9	3.91	2.95	0.95	0.58	13.2	7.7	UnDef	0.16
67.75	53.9	0.19	0.34	27.9	8	120.9	3.93	2.96	0.96	0.58	12.9	7.5	UnDef	0.08
68.08	57.8	0.10	0.16	27.8	8	120.9	3.95	2.97	0.97	0.58	13.8	8.0	UnDef	0.08
68.40	74.9	0.66	0.88	28.3	8	120.9	3.97	2.98	0.98	0.58	17.9	10.4	UnDef	0.17
68.73	40.9	0.98	2.39	115.6	6	114.6	3.98	2.99	0.99	0.58	15.6	9.1	2.95	0.22
69.06	61.2	0.85	1.39	117.4	7	117.8	4.00	3.00	1.01	0.58	19.5	11.3	UnDef	0.00
69.39	56.1	1.48	2.63	103.9	6	114.6	4.02	3.01	1.02	0.58	21.5	12.4	4.17	0.45
69.72	93.1	1.94	2.08	75.9	7	117.8	4.04	3.02	1.03	0.58	29.7	17.1	UnDef	0.00
70.05	84.3	1.94	2.30	58.3	7	117.8	4.06	3.03	1.04	0.57	26.9	15.5	UnDef	0.00
70.37	51.5	1.69	3.29	87.9	5	114.6	4.08	3.03	1.05	0.57	24.6	14.1	3.79	0.36
70.70	129.9	1.46	1.13	44.2	8	120.9	4.10	3.04	1.06	0.57	31.1	17.8	UnDef	0.27
71.03	60.2	1.14	1.89	23.2	7	117.8	4.12	3.05	1.07	0.57	19.2	11.0	UnDef	0.00
71.36	30.5	0.86	2.83	128.3	5	114.6	4.14	3.06	1.08	0.57	14.6	8.3	2.11	0.00
71.69	25.3	0.54	2.14	159.5	6	114.6	4.16	3.07	1.09	0.57	9.7	5.5	1.69	0.11
72.01	23.1	0.58	2.50	150.6	5	114.6	4.18	3.08	1.10	0.57	11.0	6.3	1.51	0.00
72.34	16.3	0.40	2.46	154.5	5	114.6	4.19	3.09	1.11	0.57	7.8	4.4	0.97	0.00
72.67	10.3	0.15	1.41	178.8	5	114.6	4.21	3.10	1.12	0.57	4.9	2.8	0.49	0.00
73.00	8.4	0.04	0.48	175.0	6	114.6	4.23	3.10	1.13	0.57	3.2	1.8	0.33	0.00
73.33	6.7	0.01	0.15	170.1	1	111.4	4.25	3.11	1.14	0.57	3.2	1.8	0.20	0.00
73.65	6.3	0.01	0.16	166.5	1	111.4	4.27	3.12	1.15	0.57	3.0	1.7	0.16	0.00
73.98	6.4	0.01	0.16	164.5	1	111.4	4.29	3.13	1.16	0.57	3.0	1.7	0.17	0.00

Run No: 04-0401-1123-5439

CPT File: 717CP006.COR

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
74.31	7.0	0.12	1.64	164.1	5	114.6	4.31	3.14	1.17	0.56	3.4	1.9	0.22	0.00
74.64	24.3	0.49	2.02	116.6	6	114.6	4.32	3.15	1.18	0.56	9.3	5.3	1.60	0.11
74.97	56.3	1.04	1.85	41.6	7	117.8	4.34	3.15	1.19	0.56	18.0	10.1	UnDef	0.43
75.29	37.1	1.03	2.78	54.1	6	114.6	4.36	3.16	1.20	0.56	14.2	8.0	2.62	0.18
75.62	25.0	0.79	3.15	94.7	5	114.6	4.38	3.17	1.21	0.56	12.0	6.7	1.65	0.00
75.95	22.2	0.70	3.16	95.2	5	114.6	4.40	3.18	1.22	0.56	10.6	6.0	1.42	0.00
76.28	20.3	0.67	3.30	99.2	5	114.6	4.42	3.19	1.23	0.56	9.7	5.5	1.27	0.00
76.61	14.7	0.51	3.45	125.1	4	114.6	4.44	3.20	1.24	0.56	9.4	5.2	0.82	0.00
76.93	13.0	0.36	2.75	147.3	5	114.6	4.46	3.21	1.25	0.56	6.2	3.5	0.68	0.00
77.26	10.7	0.24	2.20	155.8	5	114.6	4.48	3.21	1.26	0.56	5.1	2.9	0.50	0.00
77.59	8.0	0.17	2.06	173.9	5	114.6	4.49	3.22	1.27	0.56	3.8	2.1	0.28	0.00
77.92	9.5	0.13	1.37	145.9	5	114.6	4.51	3.23	1.28	0.56	4.5	2.5	0.40	0.00
78.25	9.2	0.12	1.26	159.3	5	114.6	4.53	3.24	1.29	0.56	4.4	2.4	0.37	0.00
78.58	10.4	0.17	1.64	162.0	5	114.6	4.55	3.25	1.30	0.55	5.0	2.8	0.47	0.00
78.90	12.5	0.22	1.73	161.5	5	114.6	4.57	3.26	1.31	0.55	6.0	3.3	0.63	0.00
79.23	12.1	0.20	1.62	166.7	5	114.6	4.59	3.27	1.32	0.55	5.8	3.2	0.60	0.00
79.56	9.3	0.11	1.19	183.6	5	114.6	4.61	3.27	1.33	0.55	4.4	2.5	0.37	0.00
79.89	7.8	0.05	0.58	184.5	1	111.4	4.63	3.28	1.34	0.55	3.7	2.1	0.25	0.00
80.22	8.0	0.04	0.44	189.2	1	111.4	4.64	3.29	1.35	0.55	3.8	2.1	0.27	0.00
80.54	13.5	0.09	0.67	172.9	6	114.6	4.66	3.30	1.36	0.55	5.2	2.9	0.71	0.00
80.87	15.1	0.22	1.42	185.5	6	114.6	4.68	3.31	1.37	0.55	5.8	3.2	0.84	0.09
81.20	12.2	0.14	1.15	180.0	6	114.6	4.70	3.32	1.38	0.55	4.7	2.6	0.60	0.08
81.53	10.8	0.11	0.97	202.4	6	114.6	4.72	3.32	1.39	0.55	4.1	2.3	0.49	0.00
81.86	12.0	0.11	0.92	195.4	6	114.6	4.74	3.33	1.40	0.55	4.6	2.5	0.58	0.08
82.18	11.8	0.15	1.23	210.0	6	114.6	4.76	3.34	1.41	0.55	4.5	2.5	0.56	0.08
82.51	13.0	0.24	1.82	195.9	5	114.6	4.78	3.35	1.42	0.55	6.2	3.4	0.65	0.00
82.84	13.2	0.43	3.24	164.4	4	114.6	4.79	3.36	1.43	0.55	8.4	4.6	0.67	0.00
83.17	11.3	0.26	2.31	166.8	5	114.6	4.81	3.37	1.45	0.54	5.4	2.9	0.52	0.00
83.50	11.1	0.18	1.58	199.3	5	114.6	4.83	3.38	1.46	0.54	5.3	2.9	0.50	0.00
83.82	10.5	0.19	1.76	198.7	5	114.6	4.85	3.38	1.47	0.54	5.0	2.7	0.45	0.00
84.15	13.9	1.36	9.83	219.5	3	111.4	4.87	3.39	1.48	0.54	13.3	7.2	0.72	0.00
84.48	126.8	3.54	2.79	4.7	7	117.8	4.89	3.40	1.49	0.54	40.5	21.9	UnDef	0.00
84.81	174.3	3.49	2.00	-28.8	7	117.8	4.91	3.41	1.50	0.54	55.6	30.1	UnDef	0.00
85.14	31.7	1.61	5.08	-24.8	3	111.4	4.93	3.42	1.51	0.54	30.4	16.4	2.14	0.00
85.46	26.0	0.51	1.96	-22.3	6	114.6	4.94	3.43	1.52	0.54	10.0	5.4	1.69	0.11
85.79	23.0	0.54	2.35	-21.1	6	114.6	4.96	3.44	1.53	0.54	8.8	4.8	1.45	0.00
86.12	17.9	0.40	2.24	-20.0	5	114.6	4.98	3.44	1.54	0.54	8.6	4.6	1.03	0.00
86.45	14.5	0.36	2.45	-19.0	5	114.6	5.00	3.45	1.55	0.54	7.0	3.7	0.76	0.00
86.78	25.1	0.44	1.76	-17.1	6	114.6	5.02	3.46	1.56	0.54	9.6	5.2	1.61	0.11
87.11	26.7	0.38	1.41	-14.0	6	114.6	5.04	3.47	1.57	0.54	10.2	5.5	1.73	0.11
87.43	29.0	0.73	2.51	-9.7	6	114.6	5.06	3.48	1.58	0.54	11.1	6.0	1.91	0.12

Run No: 04-0401-1123-5439
 Job No: 04-717
 Client: MACTEC
 Project: TVA Kingston
 Site: CPT-6
 Location: TVA Kingston
 Cone: 20 TON AD142
 CPT Date: 04/23/03
 CPT Time: 17:20
 CPT File: 717CP006.COR

Northing (m): 0.000
 Easting (m): 0.000
 Elevation (m): 0.000

Water Table (m): 11.23 (ft): 36.8
 Unit Weight of Water (User Specified): 62.40 pcf
 Su Nkt used: 12.50 Su/P' (nc): 0.30
 Averaging Increment (m): 0.10
 Phi Method : Robertson and Campanella, 1983
 Dr Method : Jamiolkowski - All Sands
 State Parameter M: 1.20

Used Unit Weights Assigned to Soil Zones

Values of 1.0E9 or UnDef are printed for parameters that are not valid for the material type (SBT)

Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del (n1) 60 Param	(N1) 60cs	
0.16	5.0E-03	0.00	1000.0	0.36	10	134.6	0.0	134.6	0.0	50	95.0	1.0	-0.30	0.0	33.7
0.49	5.0E-02	0.00	1000.0	0.68	10	254.5	0.0	254.5	0.0	50	95.0	1.0	-0.36	0.0	50.9
0.82	5.0E-03	0.00	1000.0	1.36	9	318.9	0.0	318.9	1.9	50	95.0	1.0	-0.45	0.0	79.7
1.15	5.0E-03	0.00	1000.0	1.92	12	371.0	UnDef	UnDef	0.0	50	95.0	1.0	-0.51	UnDef	UnDef
1.48	5.0E-04	0.00	1000.0	2.40	12	358.5	UnDef	UnDef	0.0	50	95.0	1.0	-0.56	UnDef	UnDef
1.80	5.0E-04	0.00	1000.0	2.34	12	331.7	UnDef	UnDef	0.0	50	95.0	1.0	-0.55	UnDef	UnDef
2.13	5.0E-04	0.00	1000.0	2.27	12	303.7	UnDef	UnDef	0.0	50	95.0	1.0	-0.54	UnDef	UnDef
2.46	5.0E-04	0.00	858.9	2.30	12	242.9	UnDef	UnDef	0.0	50	95.0	1.0	-0.53	UnDef	UnDef
2.79	5.0E-04	0.00	560.5	2.55	12	179.4	UnDef	UnDef	0.0	50	90.4	1.0	-0.51	UnDef	UnDef
3.12	5.0E-05	0.00	362.5	2.28	12	129.4	UnDef	UnDef	0.0	48	79.5	10.0	-0.43	UnDef	UnDef
3.44	5.0E-04	0.00	348.9	1.75	9	137.3	6.7	144.1	6.7	48	79.8	1.0	-0.38	1.4	47.2
3.77	5.0E-05	-0.01	313.5	2.33	12	134.9	UnDef	UnDef	0.0	46	78.1	10.0	-0.42	UnDef	UnDef
4.10	5.0E-05	-0.01	221.5	2.23	9	103.5	20.2	123.6	11.1	46	69.3	10.0	-0.37	4.7	46.1
4.43	5.0E-04	-0.01	197.0	1.58	9	99.2	12.1	111.2	9.1	46	67.0	1.0	-0.30	2.4	34.7
4.76	5.0E-04	-0.01	177.6	1.39	9	92.7	10.4	103.1	8.8	44	65.1	1.0	-0.28	2.0	32.3
5.09	5.0E-04	-0.01	150.9	1.15	9	81.5	8.5	89.9	8.5	44	61.4	1.0	-0.24	1.7	28.2
5.41	5.0E-05	-0.01	88.3	1.62	7	49.4	19.2	68.6	15.5	42	47.0	10.0	-0.23	4.1	23.4
5.74	5.0E-04	0.00	130.3	0.99	9	74.8	7.8	82.6	8.6	44	58.9	1.0	-0.21	1.5	25.9
6.07	5.0E-03	0.00	195.7	0.62	9	115.2	0.0	115.2	3.6	44	71.3	1.0	-0.21	0.0	28.2
6.40	5.0E-03	0.00	189.0	0.69	9	114.3	0.0	114.3	4.3	44	71.1	1.0	-0.21	0.0	28.0
6.73	5.0E-04	0.00	169.1	1.21	9	104.9	9.5	114.4	8.1	44	68.7	1.0	-0.26	1.9	36.1
7.05	5.0E-04	0.00	159.4	1.86	9	101.3	22.3	123.7	11.8	44	67.7	1.0	-0.30	4.2	37.3
7.38	5.0E-05	0.00	137.1	2.59	7	89.2	37.4	126.6	16.1	44	64.0	10.0	-0.34	7.9	42.8
7.79	5.0E-05	0.00	99.0	3.09	7	66.3	49.3	115.7	21.0	42	55.5	10.0	-0.34	9.4	35.4
8.20	5.0E-06	0.00	70.0	3.10	7	48.3	54.2	102.5	24.8	UnDef	UnDef	10.0	UnDef	11.7	35.3
8.53	5.0E-06	0.00	57.6	2.76	7	40.6	50.4	91.0	25.7	UnDef	UnDef	10.0	UnDef	10.5	30.4
8.86	5.0E-05	0.00	52.1	2.31	7	37.5	42.5	80.0	24.9	38	39.2	10.0	-0.21	7.3	22.0
9.19	5.0E-05	0.00	49.8	2.07	7	36.5	38.6	75.1	24.3	38	38.4	10.0	-0.19	6.8	21.1
9.51	5.0E-05	0.00	54.6	2.22	7	40.7	41.3	81.9	23.9	40	41.5	10.0	-0.21	7.3	23.2
9.84	5.0E-05	0.00	51.3	2.24	7	38.8	43.3	82.2	24.7	38	40.2	10.0	-0.21	7.5	22.7
10.17	5.0E-05	0.00	50.1	1.90	7	38.6	36.6	75.2	23.2	38	40.0	10.0	-0.18	6.6	21.7
10.50	5.0E-05	0.00	51.3	1.92	7	40.1	37.4	77.6	23.1	38	41.1	10.0	-0.19	6.8	22.5
10.83	5.0E-05	0.00	60.2	1.91	7	47.6	35.9	83.5	21.1	40	46.0	10.0	-0.20	6.8	25.5
11.15	5.0E-04	0.00	76.5	2.02	7	61.2	36.6	97.9	19.0	40	53.2	1.0	-0.24	6.1	26.1
11.48	5.0E-05	0.00	84.6	2.56	7	68.7	48.2	116.9	20.5	42	56.5	10.0	-0.28	9.4	36.2
11.81	5.0E-05	0.00	78.3	2.62	7	64.4	51.0	115.4	21.5	42	54.7	10.0	-0.28	9.6	34.9
12.14	5.0E-05	0.00	70.5	2.58	7	58.9	51.9	110.7	22.5	40	52.1	10.0	-0.26	9.5	32.6
12.47	5.0E-05	0.00	58.4	2.67	7	49.6	57.8	107.4	25.2	40	47.2	10.0	-0.25	9.9	29.3
12.80	5.0E-05	-0.01	49.6	2.40	7	42.8	54.4	97.2	26.0	38	42.9	10.0	-0.21	9.0	25.8

Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTr	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1)60	(N1)60cs
13.12	5.0E-05	-0.01	40.2	2.30	7	35.2	58.3	93.5	28.3	38	37.4	10.0	-0.18	8.8	22.6
13.45	5.0E-05	0.00	36.8	1.93	7	32.7	49.5	82.3	27.5	38	35.3	10.0	-0.15	7.7	20.6
13.78	5.0E-05	0.00	28.6	2.14	6	26.0	72.1	98.1	32.5	36	30.0	10.0	-0.14	8.7	18.8
14.11	5.0E-05	0.00	27.8	1.63	7	25.5	50.2	75.7	29.8	36	30.0	10.0	-0.11	7.1	17.1
14.44	5.0E-05	0.01	28.2	1.54	7	26.2	46.8	73.0	29.0	36	30.0	10.0	-0.10	6.9	17.1
14.76	5.0E-05	0.01	28.0	1.67	7	26.3	52.6	78.9	30.0	36	30.0	10.0	-0.11	7.4	17.7
15.09	5.0E-05	0.01	26.5	1.77	7	25.2	61.1	86.3	31.5	36	30.0	10.0	-0.11	7.8	17.7
15.42	5.0E-05	0.01	21.7	2.03	6	21.1	84.3	105.4	36.5	34	30.0	10.0	-0.10	8.3	16.5
15.75	5.0E-05	0.00	24.8	1.48	7	24.2	52.0	76.2	30.6	34	30.0	10.0	-0.09	7.1	16.5
16.08	5.0E-05	0.00	23.9	1.55	7	23.6	58.2	81.8	31.7	34	30.0	10.0	-0.09	7.4	16.6
16.40	5.0E-05	0.01	22.6	1.72	6	22.6	75.3	97.9	33.8	34	30.0	10.0	-0.09	8.2	17.0
16.73	5.0E-05	0.01	23.9	2.05	6	24.0	96.2	120.2	35.0	34	30.0	10.0	-0.11	9.4	18.8
17.06	5.0E-05	0.00	23.1	2.08	6	23.5	94.0	117.4	35.7	34	30.0	10.0	-0.11	9.2	18.4
17.39	5.0E-05	0.01	17.3	1.34	6	18.0	72.2	90.2	35.7	32	30.0	7.5	-0.04	7.1	14.1
17.72	5.0E-05	0.04	18.0	1.38	6	18.9	75.6	94.5	35.2	32	30.0	8.0	-0.05	7.4	14.8
18.04	5.0E-05	0.03	18.8	1.22	7	19.9	60.3	80.2	33.2	32	30.0	8.6	-0.04	6.9	14.7
18.37	5.0E-05	0.04	14.9	1.10	6	16.1	64.4	80.5	36.3	32	30.0	6.0	-0.01	6.3	12.6
18.70	5.0E-06	0.06	13.6	2.00	6	14.9	59.5	74.4	45.3	UnDef	UnDef	5.2	UnDef	7.3	14.6
19.03	5.0E-05	0.00	14.7	1.48	6	16.2	64.6	80.8	39.9	32	30.0	5.8	-0.03	6.3	12.7
19.36	5.0E-05	0.02	12.5	1.11	6	14.0	56.0	70.0	39.9	30	30.0	4.6	0.00	5.5	11.0
19.68	5.0E-05	0.02	15.2	1.10	6	17.0	67.8	84.8	35.9	32	30.0	6.2	-0.01	6.6	13.3
20.01	5.0E-05	0.01	24.5	1.71	7	26.9	73.3	100.2	32.4	34	30.0	10.0	-0.10	8.9	19.4
20.34	5.0E-04	0.00	46.8	1.93	7	50.8	53.8	104.6	24.3	38	47.8	1.0	-0.18	7.9	24.4
20.67	5.0E-05	0.00	46.8	2.66	7	51.2	81.7	132.9	28.0	38	48.1	10.0	-0.22	12.5	32.6
21.00	5.0E-05	0.00	41.8	3.02	6	46.2	107.8	154.0	31.2	38	45.2	10.0	-0.23	14.1	32.2
21.33	5.0E-05	0.00	34.6	2.94	6	38.8	126.2	165.0	33.7	36	40.1	10.0	-0.20	13.9	29.1
21.65	5.0E-05	0.00	25.9	2.80	6	29.4	117.7	147.2	37.7	34	32.2	10.0	-0.16	11.5	23.0
21.98	5.0E-05	0.00	15.7	2.23	6	18.4	73.7	92.1	43.9	32	30.0	6.4	-0.07	7.2	14.4
22.31	5.0E-05	0.00	15.6	1.61	6	18.5	74.0	92.5	39.7	32	30.0	6.4	-0.05	7.2	14.5
22.64	5.0E-05	0.00	18.5	1.36	6	21.9	83.4	105.3	34.7	32	30.0	8.4	-0.05	8.4	17.0
22.97	5.0E-05	0.00	26.3	2.01	6	30.8	93.5	124.2	33.2	34	33.5	10.0	-0.12	10.7	22.7
23.29	5.0E-05	-0.01	28.8	2.37	6	33.9	111.7	145.6	33.7	36	36.3	10.0	-0.15	12.2	25.5
23.62	5.0E-03	0.00	65.2	1.30	7	75.7	34.0	109.8	16.6	40	59.3	1.0	-0.17	4.5	23.0
23.95	5.0E-02	0.00	138.1	1.11	9	160.4	18.7	179.1	8.9	44	80.8	1.0	-0.23	2.2	33.6
24.28	5.0E-03	0.00	159.5	1.80	9	186.3	39.1	225.4	11.5	44	85.1	1.0	-0.30	5.5	51.1
24.61	5.0E-04	0.00	139.2	2.45	7	164.0	62.6	226.6	15.4	44	81.4	1.0	-0.33	11.2	64.7
24.93	5.0E-04	0.00	152.5	2.77	7	180.7	74.1	254.8	15.9	44	84.2	1.0	-0.37	13.1	72.0
25.26	5.0E-04	0.00	139.7	3.24	12	166.7	UnDef	UnDef	0.0	44	81.9	1.0	-0.40	UnDef	UnDef
25.59	5.0E-05	0.00	111.2	3.28	7	133.8	94.9	228.8	20.5	42	75.6	10.0	-0.37	18.4	70.8
25.92	5.0E-04	0.00	104.7	3.00	7	126.9	85.6	212.5	20.1	42	74.1	1.0	-0.34	13.9	55.3
26.25	5.0E-05	0.00	95.5	3.13	7	116.5	91.9	208.4	21.5	42	71.7	10.0	-0.34	17.4	63.0
26.57	5.0E-06	0.00	64.8	4.18	6	80.0	155.1	235.1	29.7	UnDef	UnDef	10.0	UnDef	27.5	66.6
26.90	5.0E-05	0.00	53.6	3.65	6	66.8	138.8	205.6	30.3	40	55.7	10.0	-0.30	19.1	45.2
27.23	5.0E-05	0.00	44.0	3.20	6	55.3	129.3	184.6	31.2	38	50.3	10.0	-0.24	16.9	38.5
27.56	5.0E-05	0.00	32.3	2.80	6	41.2	143.5	184.7	34.1	36	41.8	10.0	-0.18	15.2	31.3
27.89	5.0E-05	0.02	24.9	2.10	6	32.2	122.1	154.3	34.6	34	34.8	10.0	-0.12	12.4	25.0
28.21	5.0E-04	0.03	24.1	1.47	7	31.4	71.6	103.0	31.0	34	34.1	1.0	-0.08	7.9	18.1
28.54	5.0E-06	0.05	15.7	3.21	6	21.0	84.0	105.0	49.3	UnDef	UnDef	6.4	UnDef	10.3	20.6
28.87	5.0E-06	0.01	13.0	3.57	4	17.7	70.9	88.6	55.1	UnDef	UnDef	4.8	UnDef	8.7	17.3
29.20	5.0E-06	0.02	14.0	3.32	4	19.1	76.4	95.5	52.2	UnDef	UnDef	5.4	UnDef	9.4	18.7
29.53	5.0E-06	0.03	15.2	3.10	6	20.7	83.0	103.7	49.4	UnDef	UnDef	6.1	UnDef	10.2	20.3
29.86	5.0E-05	0.03	15.5	2.78	6	21.2	85.0	106.2	47.3	32	30.0	6.3	-0.09	8.3	16.6
30.18	5.0E-05	0.02	16.6	2.62	6	22.8	91.2	114.1	45.0	32	30.0	7.1	-0.09	8.9	17.9
30.59	5.0E-06	0.03	8.6	3.27	1	12.6	UnDef	UnDef	100.0	UnDef	UnDef	2.7	UnDef	UnDef	UnDef
31.00	5.0E-07	0.39	2.1	2.83	1	4.0	UnDef	UnDef	100.0	UnDef	UnDef	0.7	UnDef	UnDef	UnDef
31.33	1.0E-07	0.73	1.7	0.32	1	3.6	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
31.66	1.0E-07	0.95	1.3	2.92	1	3.1	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
31.99	5.0E-07	0.28	2.4	2.39	1	4.5	UnDef	UnDef	100.0	UnDef	UnDef	0.7	UnDef	UnDef	UnDef
32.32	5.0E-07	0.33	1.3	3.25	1	3.1	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
32.64	5.0E-06	0.16	5.5	2.86	4	8.7	34.8	43.5	73.4	UnDef	UnDef	1.5	UnDef	4.3	8.5
32.97	5.0E-06	0.12	5.2	3.41	1	8.4	UnDef	UnDef	100.0	UnDef	UnDef	1.4	UnDef	UnDef	UnDef
33.30	5.0E-08	0.73	1.6	4.62	1	3.5	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef

Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1)60	(N1)60cs
33.63	5.0E-06	0.36	3.2	2.74	1	5.7	UnDef	UnDef	100.0	UnDef	UnDef	0.9	UnDef	UnDef	UnDef
33.96	5.0E-07	0.11	6.2	3.93	1	9.9	UnDef	UnDef	100.0	UnDef	UnDef	1.7	UnDef	UnDef	UnDef
34.28	5.0E-05	0.05	10.5	2.43	4	15.8	63.4	79.2	53.8	30	30.0	3.5	-0.03	6.2	12.4
34.61	5.0E-07	0.12	5.0	3.88	1	8.3	UnDef	UnDef	100.0	UnDef	UnDef	1.3	UnDef	UnDef	UnDef
34.94	5.0E-08	0.36	2.9	5.60	1	5.5	UnDef	UnDef	100.0	UnDef	UnDef	0.8	UnDef	UnDef	UnDef
35.27	5.0E-07	0.13	5.7	3.85	1	9.4	UnDef	UnDef	100.0	UnDef	UnDef	1.6	UnDef	UnDef	UnDef
35.60	5.0E-05	0.02	12.9	2.02	6	19.6	78.3	97.9	46.6	30	30.0	4.8	-0.04	7.7	15.3
35.92	5.0E-06	0.04	7.3	2.94	4	11.7	46.8	58.5	65.9	UnDef	UnDef	2.1	UnDef	5.7	11.5
36.25	5.0E-08	0.50	1.4	6.97	1	3.5	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
36.58	1.0E-07	1.48	0.9	2.18	1	2.7	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
36.91	1.0E-07	1.43	0.9	1.04	1	2.7	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
37.24	1.0E-07	0.79	1.4	0.66	1	3.5	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
37.57	1.0E-07	1.15	1.0	1.12	1	2.9	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
37.89	1.0E-07	0.95	1.3	1.10	1	3.3	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
38.22	5.0E-07	0.31	3.5	3.39	1	6.5	UnDef	UnDef	100.0	UnDef	UnDef	0.9	UnDef	UnDef	UnDef
38.55	5.0E-06	0.08	5.7	2.82	4	9.6	38.5	48.1	72.2	UnDef	UnDef	1.5	UnDef	4.7	9.4
38.88	5.0E-06	0.22	2.7	2.90	1	5.4	UnDef	UnDef	100.0	UnDef	UnDef	0.8	UnDef	UnDef	UnDef
39.21	1.0E-07	0.69	1.7	1.11	1	3.9	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
39.53	1.0E-07	1.12	1.1	1.68	2	3.1	12.3	15.4	100.0	UnDef	UnDef	0.5	UnDef	1.5	3.0
39.86	5.0E-05	0.26	4.0	0.57	1	7.3	UnDef	UnDef	100.0	30	30.0	1.1	0.18	UnDef	UnDef
40.19	5.0E-05	0.15	6.5	1.09	6	10.9	43.7	54.6	54.7	30	30.0	1.8	0.08	4.3	8.5
40.52	5.0E-04	0.05	18.7	1.29	6	28.8	97.7	126.5	33.9	32	31.6	1.0	-0.04	8.8	18.2
40.85	5.0E-03	0.01	41.6	0.86	7	62.4	34.6	96.9	18.4	38	53.7	1.0	-0.09	4.4	19.6
41.17	5.0E-03	0.00	43.4	1.27	7	65.1	49.0	114.1	21.1	38	55.0	1.0	-0.13	5.8	21.8
41.50	5.0E-04	0.01	41.1	1.79	7	61.8	72.1	134.0	25.2	38	53.5	1.0	-0.15	10.2	30.4
41.83	5.0E-04	0.00	43.4	1.85	7	65.4	73.2	138.6	24.8	38	55.1	1.0	-0.16	10.5	31.9
42.16	5.0E-04	0.00	43.1	1.93	7	65.0	77.6	142.6	25.4	38	54.9	1.0	-0.17	10.9	32.2
42.49	5.0E-04	0.00	38.1	2.05	7	57.9	90.0	147.9	27.8	38	51.6	1.0	-0.16	11.6	30.5
42.81	5.0E-04	0.00	40.3	1.70	7	61.2	69.6	130.8	24.9	38	53.2	1.0	-0.15	10.0	29.9
43.14	5.0E-04	0.00	36.7	1.85	7	56.0	80.5	136.5	27.1	38	50.7	1.0	-0.15	10.7	28.9
43.47	5.0E-04	0.00	33.0	2.17	7	50.7	107.8	158.5	30.5	36	47.8	1.0	-0.15	12.2	28.8
43.80	5.0E-04	0.01	38.0	1.95	7	58.2	84.7	142.9	27.2	38	51.8	1.0	-0.16	11.2	30.2
44.13	5.0E-04	0.00	45.8	1.89	7	69.9	74.7	144.6	24.4	38	57.0	1.0	-0.17	10.9	33.7
44.45	5.0E-04	0.00	50.6	2.02	7	77.2	77.9	155.1	23.8	38	59.9	1.0	-0.19	11.5	36.7
44.78	5.0E-04	0.00	48.3	1.82	7	73.9	70.5	144.4	23.3	38	58.6	1.0	-0.18	10.6	34.7
45.11	5.0E-04	0.00	43.1	1.67	7	66.3	67.1	133.5	23.8	38	55.5	1.0	-0.15	9.9	31.6
45.44	5.0E-04	0.00	37.6	1.57	7	58.1	66.7	124.9	25.0	38	51.7	1.0	-0.13	9.5	28.5
45.77	5.0E-03	0.00	32.4	1.18	7	50.5	53.7	104.2	24.3	36	47.7	1.0	-0.09	5.9	18.2
46.10	5.0E-04	0.00	24.8	1.12	7	39.1	60.9	100.0	27.8	34	40.3	1.0	-0.06	7.8	20.6
46.42	5.0E-04	0.01	21.0	1.04	7	33.4	65.2	98.6	29.8	34	35.9	1.0	-0.04	7.7	18.6
46.75	5.0E-04	0.02	19.3	1.32	7	30.9	100.4	131.3	33.6	32	33.6	1.0	-0.05	9.2	19.3
47.08	5.0E-04	0.02	16.0	0.95	7	26.0	83.5	109.6	33.6	32	30.0	1.0	-0.01	7.7	16.2
47.41	5.0E-05	0.15	5.6	0.85	6	10.3	41.1	51.4	55.3	30	30.0	1.5	0.11	4.0	8.1
47.74	5.0E-05	0.35	3.4	0.30	1	6.9	UnDef	UnDef	100.0	30	30.0	0.9	0.25	UnDef	UnDef
48.06	5.0E-05	0.46	2.3	0.71	1	5.3	UnDef	UnDef	100.0	30	30.0	0.7	0.24	UnDef	UnDef
48.39	1.0E-07	0.63	1.4	1.17	1	3.9	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
48.72	1.0E-07	1.10	1.0	0.63	1	3.3	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
49.05	5.0E-07	0.65	1.9	3.54	1	4.7	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
49.38	5.0E-03	0.01	34.4	1.40	7	54.6	63.5	118.0	25.1	36	49.9	1.0	-0.11	6.8	20.1
49.70	5.0E-03	0.00	68.3	1.81	7	106.9	64.8	171.7	19.1	40	69.2	1.0	-0.21	8.1	34.2
50.03	5.0E-04	0.00	61.3	2.73	7	96.4	108.5	204.8	24.8	40	66.2	1.0	-0.26	15.6	47.0
50.36	5.0E-05	0.00	50.7	3.08	6	80.2	139.1	219.2	28.8	38	60.9	10.0	-0.26	20.6	52.0
50.69	5.0E-04	0.00	49.6	2.46	7	78.6	103.4	182.0	26.3	38	60.4	1.0	-0.22	14.1	39.8
51.02	5.0E-04	0.00	60.5	2.18	7	95.7	83.1	178.8	22.4	40	66.0	1.0	-0.22	12.8	44.0
51.34	5.0E-04	0.00	56.5	2.40	7	89.6	95.4	184.9	24.3	40	64.1	1.0	-0.23	13.9	43.1
51.67	5.0E-05	0.00	39.2	3.00	6	62.8	163.7	226.5	32.1	38	53.9	10.0	-0.22	20.3	44.9
52.00	5.0E-05	0.00	30.5	3.44	6	49.3	197.4	246.7	37.9	36	47.0	10.0	-0.21	19.3	38.6
52.33	5.0E-05	0.01	24.0	3.29	6	39.3	157.2	196.5	41.4	34	40.5	10.0	-0.17	15.4	30.8
52.66	5.0E-05	0.02	19.3	3.25	6	32.1	128.5	160.6	45.2	32	34.7	9.0	-0.14	12.6	25.1
52.98	5.0E-05	0.02	24.6	3.35	6	40.4	161.8	202.2	41.2	34	41.3	10.0	-0.17	15.8	31.7
53.31	5.0E-05	0.00	29.7	2.55	6	48.4	171.3	219.8	34.2	36	46.5	10.0	-0.16	18.0	37.0
53.64	5.0E-04	0.00	39.1	1.74	7	63.4	77.3	140.7	25.6	38	54.2	1.0	-0.15	10.8	31.5

Run No: 04-0401-1123-5439

CPT File: 717CP006.COR

Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del (nl) 60	(N1) 60cs	60cs
53.97	5.0E-03	0.00	38.2	1.56	7	62.1	69.2	131.2	24.7	38	53.6	1.0	-0.14	7.5	22.7
54.30	5.0E-03	0.00	32.3	0.98	7	52.8	47.4	100.2	22.7	36	49.0	1.0	-0.08	5.4	18.4
54.63	5.0E-04	0.00	21.7	1.00	7	36.3	63.2	99.4	28.8	34	38.2	1.0	-0.04	7.8	19.6
54.95	5.0E-04	0.00	18.7	1.26	7	31.5	102.4	133.9	33.6	32	34.2	1.0	-0.05	9.4	19.7
55.28	5.0E-05	0.06	12.3	2.42	6	21.5	85.8	107.3	50.1	30	30.0	4.5	-0.04	8.4	16.8
55.61	5.0E-05	0.11	11.5	2.77	4	20.2	80.8	100.9	53.7	30	30.0	4.0	-0.04	7.9	15.8
55.94	5.0E-05	0.05	15.9	2.71	6	27.2	108.8	136.0	46.4	32	30.0	6.6	-0.09	10.6	21.3
56.27	5.0E-05	0.02	15.6	2.95	6	26.8	107.3	134.2	48.1	32	30.0	6.4	-0.10	10.5	21.0
56.59	5.0E-05	0.02	16.2	2.91	6	27.9	111.5	139.3	47.1	32	30.7	6.8	-0.10	10.9	21.8
56.92	5.0E-04	0.00	22.2	1.41	7	37.5	95.7	133.1	31.9	34	39.1	1.0	-0.07	10.0	22.2
57.25	5.0E-03	0.00	19.1	0.66	7	32.6	47.9	80.6	27.3	32	35.2	1.0	0.00	4.7	12.7
57.58	5.0E-03	0.00	13.6	0.26	7	23.8	0.0	23.8	5.0	32	30.0	1.0	0.10	0.0	5.8
57.91	5.0E-04	0.00	10.2	0.18	7	18.4	0.0	18.4	5.0	30	30.0	1.0	0.15	0.0	6.0
58.23	5.0E-04	0.00	10.9	1.02	6	19.6	78.5	98.1	41.7	30	30.0	1.0	0.02	6.4	12.8
58.56	5.0E-05	0.13	4.9	2.24	4	9.9	39.5	49.4	72.5	30	30.0	1.3	0.07	3.9	7.7
58.89	5.0E-06	0.26	4.6	2.52	4	9.4	37.8	47.2	76.4	Ur.Def	UnDef	1.2	UnDef	4.6	9.2
59.22	5.0E-06	0.26	3.6	3.97	1	7.9	UnDef	UnDef	100.0	Ur.Def	UnDef	1.0	UnDef	UnDef	UnDef
59.55	5.0E-07	1.01	1.5	4.71	1	4.4	UnDef	UnDef	100.0	Ur.Def	UnDef	0.6	UnDef	UnDef	UnDef
59.87	1.0E-07	0.93	1.5	1.11	1	4.5	UnDef	UnDef	100.0	Ur.Def	UnDef	0.6	UnDef	UnDef	UnDef
60.20	5.0E-05	0.16	7.4	1.96	4	14.1	56.5	70.7	58.9	30	30.0	2.2	0.04	5.5	11.1
60.53	5.0E-04	0.00	21.2	1.65	6	36.5	134.1	170.6	34.4	34	38.4	1.0	-0.08	11.5	23.4
60.86	5.0E-04	0.00	22.1	1.18	7	38.2	77.7	115.8	30.1	34	39.7	1.0	-0.06	9.0	21.4
61.19	5.0E-03	0.00	33.9	0.59	7	57.4	31.5	88.9	18.3	36	51.4	1.0	-0.04	4.0	18.0
61.52	5.0E-04	0.00	26.7	1.55	7	45.7	90.9	136.6	29.9	36	44.8	1.0	-0.10	10.6	25.5
61.84	5.0E-06	0.04	11.2	3.39	4	20.4	81.6	102.0	57.7	UnDef	UnDef	3.9	UnDef	10.0	20.0
62.17	5.0E-04	0.01	17.1	1.55	6	30.2	120.9	151.1	37.5	32	33.0	1.0	-0.05	9.9	19.7
62.50	5.0E-04	0.00	12.9	1.92	6	23.4	93.5	116.9	45.8	30	30.0	1.0	-0.04	7.6	15.3
62.83	5.0E-06	0.06	5.9	4.05	1	11.8	UnDef	UnDef	100.0	UnDef	UnDef	1.6	UnDef	UnDef	UnDef
63.16	5.0E-06	0.09	7.6	3.02	4	14.7	58.6	73.3	65.3	UnDef	UnDef	2.2	UnDef	7.2	14.3
63.48	5.0E-07	0.14	5.0	4.27	1	10.4	UnDef	UnDef	100.0	UnDef	UnDef	1.3	UnDef	UnDef	UnDef
63.81	5.0E-05	0.03	11.8	1.99	6	21.6	86.3	107.9	48.3	30	30.0	4.2	-0.03	8.4	16.9
64.14	5.0E-06	0.07	8.2	3.73	1	15.8	UnDef	UnDef	100.0	UnDef	UnDef	2.5	UnDef	UnDef	UnDef
64.47	5.0E-06	0.10	6.1	4.17	1	12.3	UnDef	UnDef	100.0	UnDef	UnDef	1.7	UnDef	UnDef	UnDef
64.80	5.0E-06	0.21	3.4	4.16	1	7.9	UnDef	UnDef	100.0	UnDef	UnDef	0.9	UnDef	UnDef	UnDef
65.12	5.0E-06	0.57	2.0	2.90	1	5.6	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
65.45	5.0E-06	0.38	3.5	2.87	1	8.0	UnDef	UnDef	100.0	UnDef	UnDef	0.9	UnDef	UnDef	UnDef
65.78	5.0E-05	0.05	10.4	2.58	4	19.6	78.4	98.0	54.8	30	30.0	3.5	-0.03	7.7	15.4
66.11	5.0E-06	0.05	9.5	3.84	1	18.0	UnDef	UnDef	100.0	UnDef	UnDef	3.0	UnDef	UnDef	UnDef
66.44	5.0E-04	0.01	18.5	1.33	6	33.1	121.6	154.7	34.4	32	35.6	1.0	-0.05	10.4	21.2
66.76	5.0E-03	0.00	21.6	0.62	7	38.4	43.6	82.0	24.9	34	39.8	1.0	-0.01	4.7	14.1
67.09	5.0E-03	0.00	22.3	0.49	7	39.6	0.0	39.6	5.0	34	40.8	1.0	0.01	0.0	9.7
67.42	5.0E-03	0.00	17.3	0.76	7	31.3	63.8	95.1	30.1	32	34.0	1.0	0.00	5.5	13.2
67.75	5.0E-03	0.00	16.9	0.37	7	30.6	0.0	30.6	5.0	32	33.4	1.0	0.05	0.0	7.5
68.08	5.0E-03	0.00	18.1	0.18	7	32.8	0.0	32.8	5.0	32	35.3	1.0	0.10	0.0	8.0
68.40	5.0E-03	0.00	23.8	0.95	7	42.5	58.2	100.7	26.7	34	42.7	1.0	-0.05	5.9	16.3
68.73	5.0E-05	0.07	12.3	2.65	6	23.1	92.5	115.6	51.5	30	30.0	4.5	-0.05	9.1	18.1
69.06	5.0E-04	0.05	19.1	1.49	6	34.6	138.3	172.8	35.1	32	36.8	1.0	-0.06	11.3	22.6
69.39	5.0E-05	0.04	17.3	2.84	6	31.7	126.7	158.4	45.4	32	34.3	7.5	-0.10	12.4	24.8
69.72	5.0E-04	0.02	29.5	2.16	6	52.4	140.8	193.3	32.3	36	48.8	1.0	-0.14	14.3	31.4
70.05	5.0E-04	0.01	26.5	2.42	6	47.4	189.7	237.2	35.3	36	45.9	1.0	-0.14	15.5	31.0
70.37	5.0E-06	0.04	15.6	3.58	4	28.9	115.6	144.5	51.1	UnDef	UnDef	6.4	UnDef	14.1	28.3
70.70	5.0E-03	0.00	41.3	1.16	7	72.9	53.9	126.8	20.9	38	58.2	1.0	-0.12	6.5	24.3
71.03	5.0E-04	-0.01	18.4	2.03	6	33.7	134.8	168.5	39.6	32	36.1	1.0	-0.08	11.0	22.0
71.36	5.0E-06	0.11	8.6	3.27	1	17.0	UnDef	UnDef	100.0	UnDef	UnDef	2.6	UnDef	UnDef	UnDef
71.69	5.0E-05	0.18	6.9	2.56	4	14.1	56.5	70.6	65.2	30	30.0	2.0	0.04	5.5	11.1
72.01	5.0E-06	0.19	6.1	3.05	1	12.9	UnDef	UnDef	100.0	UnDef	UnDef	1.7	UnDef	UnDef	UnDef
72.34	5.0E-06	0.31	3.9	3.32	1	9.1	UnDef	UnDef	100.0	UnDef	UnDef	1.0	UnDef	UnDef	UnDef
72.67	5.0E-06	0.73	2.0	2.38	1	5.7	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
73.00	5.0E-05	1.05	1.3	0.97	1	4.6	UnDef	UnDef	100.0	30	30.0	0.5	0.00	UnDef	UnDef
73.33	1.0E-07	1.67	0.8	0.40	1	3.7	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
73.65	1.0E-07	1.99	0.7	0.49	1	3.5	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
73.98	1.0E-07	1.92	0.7	0.48	1	3.5	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef

Run No: 04-0401-1123-5439

CPT File: 717CP006.COR

Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1) 60	(N1) 60cs
74.31	5.0E-06	1.45	0.9	4.23	1	3.9	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
74.64	5.0E-05	0.12	6.4	2.45	4	13.4	53.7	67.2	66.5	30	30.0	1.8	0.04	5.3	10.5
74.97	5.0E-04	0.00	16.5	2.01	6	31.0	124.0	155.0	41.5	32	33.7	1.0	-0.07	10.1	20.2
75.29	5.0E-05	0.01	10.4	3.15	4	20.4	81.7	102.1	58.3	30	30.0	3.4	-0.05	8.0	16.0
75.62	5.0E-06	0.08	6.5	3.82	1	13.7	UnDef	UnDef	100.0	UnDef	UnDef	1.8	UnDef	UnDef	UnDef
75.95	5.0E-06	0.10	5.6	3.94	1	12.2	UnDef	UnDef	100.0	UnDef	UnDef	1.5	UnDef	UnDef	UnDef
76.28	5.0E-06	0.12	5.0	4.22	1	11.1	UnDef	UnDef	100.0	UnDef	UnDef	1.3	UnDef	UnDef	UnDef
76.61	5.0E-07	0.26	3.2	4.95	1	8.0	UnDef	UnDef	100.0	UnDef	UnDef	0.9	UnDef	UnDef	UnDef
76.93	5.0E-06	0.39	2.7	4.19	1	7.1	UnDef	UnDef	100.0	UnDef	UnDef	0.8	UnDef	UnDef	UnDef
77.26	5.0E-06	0.58	1.9	3.79	1	5.8	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
77.59	5.0E-06	1.18	1.1	4.63	1	4.4	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
77.92	5.0E-06	0.66	1.5	2.61	1	5.2	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
78.25	5.0E-06	0.79	1.4	2.43	1	5.0	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
78.58	5.0E-06	0.64	1.8	2.91	1	5.6	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
78.90	5.0E-06	0.47	2.4	2.73	1	6.8	UnDef	UnDef	100.0	UnDef	UnDef	0.7	UnDef	UnDef	UnDef
79.23	5.0E-06	0.52	2.3	2.61	1	6.5	UnDef	UnDef	100.0	UnDef	UnDef	0.7	UnDef	UnDef	UnDef
79.56	5.0E-06	0.95	1.4	2.37	1	5.0	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
79.89	1.0E-07	1.39	1.0	1.42	1	4.2	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
80.22	1.0E-07	1.34	1.0	1.03	1	4.3	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
80.54	5.0E-05	0.46	2.7	1.02	1	7.3	UnDef	UnDef	100.0	30	30.0	0.8	0.21	UnDef	UnDef
80.87	5.0E-05	0.42	3.2	2.05	4	8.2	32.6	40.8	84.6	30	30.0	0.9	0.17	3.2	6.4
81.20	5.0E-05	0.57	2.3	1.83	4	6.5	26.2	32.7	94.8	30	30.0	0.7	0.24	2.6	5.1
81.53	5.0E-05	0.81	1.8	1.73	4	5.8	23.2	29.0	100.0	30	30.0	0.6	0.34	2.3	4.5
81.86	5.0E-05	0.64	2.2	1.51	4	6.4	25.8	32.2	92.3	30	30.0	0.7	0.26	2.5	5.0
82.18	5.0E-05	0.73	2.1	2.05	4	6.3	25.3	31.6	98.9	30	30.0	0.7	0.29	2.5	5.0
82.51	5.0E-06	0.57	2.4	2.89	1	6.9	UnDef	UnDef	100.0	UnDef	UnDef	0.7	UnDef	UnDef	UnDef
82.84	5.0E-07	0.44	2.5	5.09	1	7.0	UnDef	UnDef	100.0	UnDef	UnDef	0.7	UnDef	UnDef	UnDef
83.17	5.0E-06	0.58	1.9	4.03	1	6.0	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
83.50	5.0E-06	0.76	1.9	2.79	1	5.9	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
83.82	5.0E-06	0.84	1.7	3.27	1	5.6	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
84.15	5.0E-08	0.60	2.7	10.00	1	7.4	UnDef	UnDef	100.0	UnDef	UnDef	0.8	UnDef	UnDef	UnDef
84.48	5.0E-04	-0.01	35.8	2.90	6	67.3	198.3	265.6	33.0	38	55.9	1.0	-0.20	19.2	41.2
84.81	5.0E-04	-0.01	49.7	2.05	7	92.4	97.6	190.0	24.2	38	65.0	1.0	-0.19	14.3	44.4
85.14	5.0E-08	-0.09	7.8	6.01	1	16.8	UnDef	UnDef	100.0	UnDef	UnDef	2.3	UnDef	UnDef	UnDef
85.46	5.0E-05	-0.11	6.2	2.43	4	13.8	55.0	68.8	67.3	30	30.0	1.7	0.02	5.4	10.8
85.79	5.0E-05	-0.12	5.3	3.00	1	12.2	UnDef	UnDef	100.0	30	30.0	1.4	0.02	UnDef	UnDef
86.12	5.0E-06	-0.17	3.7	3.11	1	9.4	UnDef	UnDef	100.0	UnDef	UnDef	1.0	UnDef	UnDef	UnDef
86.45	5.0E-06	-0.22	2.8	3.73	1	7.7	UnDef	UnDef	100.0	UnDef	UnDef	0.8	UnDef	UnDef	UnDef
86.78	5.0E-05	-0.10	5.8	2.20	4	13.2	52.8	66.0	67.3	30	30.0	1.6	0.03	5.2	10.3
87.11	5.0E-05	-0.09	6.2	1.74	4	14.0	56.0	70.0	61.8	30	30.0	1.7	0.03	5.5	11.0
87.43	5.0E-05	-0.08	6.9	3.04	4	15.2	60.8	76.1	68.0	30	30.0	2.0	-0.01	6.0	11.9

Interpretation Output - Release 1.00.19M

Run No: 04-0401-1123-5533
 No: 04-717
 Client: MACTEC
 Project: TVA Kingston
 Site: CPT-4
 Location: TVA Kingston
 Cone: 20 TON AD142
 CPT Date: 04/24/03
 CPT Time: 08:29
 CPT File: 717CP004.COR
 Northing (m): 0.000
 Easting (m): 0.000
 Elevation (m): 0.000

Water Table (m): 7.73 (ft): 25.4
 Unit Weight of Water (User Specified): 62.40 pcf
 Su Nkt used: 12.50 Su/P' (nc): 0.30
 Averaging Increment (m): 0.10
 Phi Method : Robertson and Campanella, 1983
 Dr Method : Jamiolkowski - All Sands
 State Parameter M: 1.20

Used Unit Weights Assigned to Soil Zones

Values of 1.0E9 or UnDef are printed for parameters that are not valid for the material type (SBT)

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
0.16	19.4	0.14	0.72	-0.6	6	114.6	0.01	0.01	0.00	2.00	7.5	14.9	1.56	0.08
0.49	123.5	0.58	0.47	0.1	9	124.1	0.03	0.03	0.00	2.00	23.6	47.3	UnDef	0.00
0.82	207.9	1.79	0.86	-0.4	9	124.1	0.05	0.05	0.00	2.00	39.8	79.7	UnDef	0.00
1.15	258.8	3.88	1.50	-1.2	8	120.9	0.07	0.07	0.00	2.00	62.0	123.9	UnDef	0.00
1.48	312.5	6.76	2.16	-6.7	8	120.9	0.09	0.09	0.00	2.00	74.8	149.6	UnDef	0.00
1.80	338.7	8.40	2.48	-4.4	7	117.8	0.11	0.11	0.00	2.00	108.1	216.2	UnDef	0.00
2.13	340.1	9.20	2.71	-5.4	12	120.9	0.13	0.13	0.00	2.00	162.8	325.7	UnDef	0.00
2.46	315.6	8.06	2.55	-6.4	7	117.8	0.15	0.15	0.00	2.00	100.8	201.5	UnDef	0.00
2.79	270.6	6.16	2.28	-9.1	7	117.8	0.17	0.17	0.00	2.00	86.4	172.8	UnDef	0.00
3.12	232.5	5.70	2.45	-8.1	7	117.8	0.19	0.19	0.00	2.00	74.2	148.5	UnDef	0.00
3.44	201.3	4.93	2.45	-6.7	7	117.8	0.21	0.21	0.00	2.00	64.3	128.5	UnDef	0.00
3.77	178.0	4.63	2.60	-4.3	7	117.8	0.23	0.23	0.00	2.00	56.8	113.6	UnDef	0.00
4.10	161.4	4.23	2.62	-2.7	7	117.8	0.24	0.24	0.00	2.00	51.5	103.1	UnDef	0.00
4.43	153.7	3.59	2.34	-3.0	7	117.8	0.26	0.26	0.00	1.95	49.1	95.5	UnDef	0.00
4.76	147.1	3.33	2.26	-5.9	7	117.8	0.28	0.28	0.00	1.88	46.9	88.2	UnDef	0.00
5.09	146.6	3.43	2.34	-7.5	7	117.8	0.30	0.30	0.00	1.82	46.8	85.1	UnDef	0.00
5.41	149.3	3.72	2.49	-9.1	7	117.8	0.32	0.32	0.00	1.76	47.7	84.0	UnDef	0.00
5.74	144.1	3.48	2.41	-9.3	7	117.8	0.34	0.34	0.00	1.71	46.0	78.8	UnDef	0.00
6.07	162.3	3.40	2.10	-8.3	7	117.8	0.36	0.36	0.00	1.67	51.8	86.3	UnDef	0.00
6.40	202.1	4.34	2.15	-3.0	7	117.8	0.38	0.38	0.00	1.62	64.5	104.7	UnDef	0.00
6.73	179.4	3.24	1.81	-1.4	8	120.9	0.40	0.40	0.00	1.58	42.9	68.0	UnDef	0.00
7.05	160.0	1.88	1.17	0.1	8	120.9	0.42	0.42	0.00	1.54	38.3	59.2	UnDef	0.00
7.38	153.5	1.46	0.95	-0.1	9	124.1	0.44	0.44	0.00	1.51	29.4	44.4	UnDef	0.00
7.79	157.5	1.54	0.98	-0.1	9	124.1	0.46	0.46	0.00	1.47	30.2	44.3	UnDef	0.00
8.20	143.4	1.36	0.95	-0.5	9	124.1	0.49	0.49	0.00	1.43	27.5	39.2	UnDef	0.00
8.53	134.4	1.23	0.91	-0.2	9	124.1	0.51	0.51	0.00	1.40	25.7	36.0	UnDef	0.00
8.86	135.3	1.42	1.05	-0.4	8	120.9	0.53	0.53	0.00	1.37	32.4	44.5	UnDef	0.00
9.19	164.4	1.33	0.81	0.3	9	124.1	0.55	0.55	0.00	1.35	31.5	42.4	UnDef	0.00
9.51	178.9	3.58	2.00	-0.5	7	117.8	0.57	0.57	0.00	1.32	57.1	75.6	UnDef	0.00
9.84	140.1	4.29	3.06	-1.1	6	114.6	0.59	0.59	0.00	1.30	53.7	69.9	11.16	0.00
10.17	96.3	2.83	2.94	-1.7	6	114.6	0.61	0.61	0.00	1.28	36.9	47.3	7.65	0.00
10.50	92.8	2.13	2.30	-0.2	7	117.8	0.63	0.63	0.00	1.26	29.6	37.4	UnDef	0.41
10.83	97.5	2.20	2.25	-0.5	7	117.8	0.65	0.65	0.00	1.24	31.1	38.7	UnDef	0.44
11.15	109.2	2.61	2.39	-2.4	7	117.8	0.67	0.67	0.00	1.23	34.8	42.7	UnDef	0.00
11.48	115.3	2.86	2.48	-5.3	7	117.8	0.69	0.69	0.00	1.21	36.8	44.5	UnDef	0.00
11.81	99.4	2.63	2.64	-5.4	6	114.6	0.70	0.70	0.00	1.19	38.1	45.4	7.90	0.00
12.14	73.9	1.95	2.64	-6.1	6	114.6	0.72	0.72	0.00	1.18	28.3	33.3	5.85	0.32
12.47	48.6	1.02	2.10	-5.0	6	114.6	0.74	0.74	0.00	1.16	18.6	21.6	3.83	0.17
12.80	46.5	0.91	1.96	2.1	6	114.6	0.76	0.76	0.00	1.15	17.8	20.4	3.66	0.16

Run No: 04-0401-1123-5533

CPT File: 717CP004.COR

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1) 60	Su (tsf)	CRR
13.12	61.0	1.07	1.76	3.1	7	117.8	0.78	0.78	0.00	1.13	19.5	22.1	UnDef	0.18
13.45	39.1	0.74	1.88	-0.1	6	114.6	0.80	0.80	0.00	1.12	15.0	16.8	3.06	0.14
13.78	22.1	0.36	1.61	6.9	6	114.6	0.82	0.82	0.00	1.11	8.5	9.4	1.70	0.13
14.11	18.7	0.19	0.99	16.1	6	114.6	0.84	0.84	0.00	1.09	7.2	7.8	1.43	0.10
14.44	18.6	0.28	1.48	24.4	6	114.6	0.86	0.86	0.00	1.08	7.1	7.7	1.42	0.15
14.76	22.0	0.39	1.77	14.3	6	114.6	0.87	0.87	0.00	1.07	8.4	9.0	1.69	0.16
15.09	14.0	0.38	2.69	30.0	5	114.6	0.89	0.89	0.00	1.06	6.7	7.1	1.05	0.12
15.42	22.4	0.46	2.06	24.3	6	114.6	0.91	0.91	0.00	1.05	8.6	9.0	1.72	0.22
15.75	17.3	0.41	2.35	16.4	5	114.6	0.93	0.93	0.00	1.04	8.3	8.6	1.31	0.14
16.08	18.2	0.31	1.68	8.2	6	114.6	0.95	0.95	0.00	1.03	7.0	7.2	1.38	0.15
16.40	14.9	0.25	1.65	24.6	6	114.6	0.97	0.97	0.00	1.02	5.7	5.8	1.11	0.12
16.73	12.8	0.13	1.02	18.1	6	114.6	0.99	0.99	0.00	1.01	4.9	4.9	0.95	0.10
17.06	5.9	0.08	1.35	35.4	5	114.6	1.01	1.01	0.00	1.00	2.8	2.8	0.40	0.00
17.39	12.2	0.25	2.06	46.0	5	114.6	1.02	1.02	0.00	0.99	5.8	5.8	0.89	0.10
17.72	27.2	0.31	1.12	7.7	6	114.6	1.04	1.04	0.00	0.98	10.4	10.2	2.09	0.11
18.04	17.8	0.44	2.47	27.8	5	114.6	1.06	1.06	0.00	0.97	8.5	8.3	1.34	0.14
18.37	19.9	0.48	2.40	19.8	5	114.6	1.08	1.08	0.00	0.96	9.5	9.1	1.50	0.16
18.70	20.0	0.42	2.08	19.4	6	114.6	1.10	1.10	0.00	0.95	7.6	7.3	1.51	0.16
19.03	10.8	0.34	3.11	24.2	4	114.6	1.12	1.12	0.00	0.95	6.9	6.5	0.77	0.00
19.36	7.5	0.14	1.86	19.1	5	114.6	1.14	1.14	0.00	0.94	3.6	3.4	0.51	0.08
19.68	4.6	0.06	1.32	46.0	1	111.4	1.16	1.16	0.00	0.93	2.2	2.0	0.27	0.00
20.01	4.3	0.06	1.39	49.8	1	111.4	1.17	1.17	0.00	0.92	2.1	1.9	0.25	0.00
20.34	4.9	0.10	2.03	50.2	4	114.6	1.19	1.19	0.00	0.92	3.1	2.9	0.30	0.00
20.67	15.0	0.22	1.47	26.4	6	114.6	1.21	1.21	0.00	0.91	5.8	5.2	1.11	0.11
21.00	9.8	0.18	1.79	28.4	5	114.6	1.23	1.23	0.00	0.90	4.7	4.2	0.69	0.09
21.33	5.8	0.09	1.57	50.0	4	114.6	1.25	1.25	0.00	0.89	3.7	3.3	0.36	0.00
21.65	4.9	0.06	1.24	50.8	1	111.4	1.27	1.27	0.00	0.89	2.3	2.1	0.29	0.00
21.98	5.4	0.06	1.11	48.9	1	111.4	1.29	1.29	0.00	0.88	2.6	2.3	0.33	0.00
22.31	4.9	0.07	1.44	48.1	1	111.4	1.30	1.30	0.00	0.88	2.3	2.0	0.29	0.00
22.64	6.8	0.06	0.88	20.6	1	111.4	1.32	1.32	0.00	0.87	3.3	2.8	0.44	0.00
22.97	5.4	0.06	1.03	47.6	1	111.4	1.34	1.34	0.00	0.86	2.6	2.2	0.32	0.00
23.29	7.1	0.15	2.10	52.8	4	114.6	1.36	1.36	0.00	0.86	4.6	3.9	0.46	0.08
23.62	18.6	0.34	1.83	12.0	6	114.6	1.38	1.38	0.00	0.85	7.1	6.1	1.38	0.12
23.95	10.8	0.28	2.56	23.7	5	114.6	1.40	1.40	0.00	0.85	5.2	4.4	0.75	0.09
24.28	9.9	0.22	2.24	50.7	5	114.6	1.42	1.42	0.00	0.84	4.7	4.0	0.67	0.09
24.61	20.0	0.39	1.95	24.1	6	114.6	1.43	1.43	0.00	0.84	7.7	6.4	1.49	0.13
24.93	15.1	0.35	2.29	21.8	5	114.6	1.45	1.45	0.00	0.83	7.2	6.0	1.09	0.10
25.26	9.7	0.22	2.22	44.0	5	114.6	1.47	1.47	0.00	0.82	4.6	3.8	0.66	0.09
25.59	6.2	0.16	2.61	58.0	4	114.6	1.49	1.48	0.01	0.82	3.9	3.2	0.37	0.00
25.92	6.2	0.08	1.29	34.2	5	114.6	1.51	1.49	0.02	0.82	3.0	2.4	0.38	0.00
26.25	5.8	0.06	0.95	57.1	1	111.4	1.53	1.50	0.03	0.82	2.8	2.3	0.34	0.00
26.57	6.3	0.05	0.79	56.0	1	111.4	1.55	1.51	0.04	0.81	3.0	2.5	0.38	0.00
26.90	5.5	0.06	0.99	58.7	1	111.4	1.56	1.52	0.05	0.81	2.7	2.2	0.32	0.00
27.23	5.5	0.05	0.82	58.7	1	111.4	1.58	1.52	0.06	0.81	2.6	2.1	0.31	0.00
27.56	5.6	0.04	0.71	60.1	1	111.4	1.60	1.53	0.07	0.81	2.7	2.2	0.32	0.00
27.89	5.2	0.04	0.77	61.8	1	111.4	1.62	1.54	0.08	0.81	2.5	2.0	0.28	0.00
28.21	5.6	0.04	0.71	62.4	1	111.4	1.64	1.55	0.09	0.80	2.7	2.2	0.32	0.00
28.54	6.5	0.05	0.78	61.9	1	111.4	1.66	1.56	0.10	0.80	3.1	2.5	0.38	0.00
28.87	7.5	0.11	1.40	53.3	5	114.6	1.67	1.56	0.11	0.80	3.6	2.9	0.47	0.00
29.20	10.9	0.14	1.24	34.3	5	114.6	1.69	1.57	0.12	0.80	5.2	4.2	0.74	0.09
29.53	8.0	0.15	1.81	48.0	5	114.6	1.71	1.58	0.13	0.80	3.8	3.1	0.50	0.08
29.86	5.6	0.07	1.15	64.9	1	111.4	1.73	1.59	0.14	0.79	2.7	2.1	0.31	0.00
30.18	7.8	0.06	0.71	54.6	5	114.6	1.75	1.60	0.15	0.79	3.7	3.0	0.48	0.08
30.59	7.4	0.10	1.30	61.7	5	114.6	1.77	1.61	0.16	0.79	3.6	2.8	0.45	0.00
31.00	6.2	0.06	0.97	70.0	1	111.4	1.80	1.62	0.18	0.79	3.0	2.3	0.35	0.00
31.33	6.0	0.05	0.75	65.8	1	111.4	1.81	1.63	0.19	0.78	2.9	2.3	0.34	0.00
31.66	4.9	0.04	0.82	70.9	1	111.4	1.83	1.64	0.20	0.78	2.3	1.8	0.24	0.00
31.99	5.7	0.07	1.14	71.4	1	111.4	1.85	1.64	0.21	0.78	2.7	2.1	0.31	0.00
32.32	7.8	0.08	1.02	49.8	5	114.6	1.87	1.65	0.22	0.78	3.8	2.9	0.48	0.00
32.64	7.7	0.08	0.98	58.8	5	114.6	1.89	1.66	0.23	0.78	3.7	2.8	0.46	0.00
32.97	6.2	0.06	0.88	69.4	1	111.4	1.91	1.67	0.24	0.77	3.0	2.3	0.35	0.00
33.30	5.7	0.10	1.68	76.1	4	114.6	1.93	1.68	0.25	0.77	3.6	2.8	0.30	0.00

Run No: 04-0401-1123-5533

CPT File: 717CP004.COR

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
33.63	27.6	0.39	1.42	39.4	6	114.6	1.94	1.69	0.26	0.77	10.6	8.2	2.05	0.18
33.96	28.9	0.54	1.86	31.1	6	114.6	1.96	1.69	0.27	0.77	11.1	8.5	2.15	0.20
34.28	24.5	0.42	1.72	30.3	6	114.6	1.98	1.70	0.28	0.77	9.4	7.2	1.80	0.15
34.61	13.6	0.30	2.18	54.5	5	114.6	2.00	1.71	0.29	0.76	6.5	5.0	0.93	0.09
34.94	12.8	0.22	1.68	63.5	5	114.6	2.02	1.72	0.30	0.76	6.2	4.7	0.87	0.09
35.27	15.8	0.33	2.06	52.9	5	114.6	2.04	1.73	0.31	0.76	7.6	5.8	1.10	0.10
35.60	16.0	0.31	1.91	45.6	5	114.6	2.06	1.74	0.32	0.76	7.7	5.8	1.12	0.10
35.92	16.8	0.36	2.12	49.8	5	114.6	2.08	1.75	0.33	0.76	8.1	6.1	1.18	0.10
36.25	14.5	0.35	2.43	39.6	5	114.6	2.09	1.75	0.34	0.76	6.9	5.2	0.99	0.09
36.58	17.7	0.30	1.68	52.0	6	114.6	2.11	1.76	0.35	0.75	6.8	5.1	1.24	0.11
36.91	16.3	0.33	2.03	50.7	5	114.6	2.13	1.77	0.36	0.75	7.8	5.9	1.13	0.10
37.24	7.9	0.23	2.91	67.1	4	114.6	2.15	1.78	0.37	0.75	5.1	3.8	0.46	0.00
37.57	6.5	0.07	1.00	81.8	5	114.6	2.17	1.79	0.38	0.75	3.1	2.3	0.35	0.00
37.89	5.3	0.08	1.42	84.1	4	114.6	2.19	1.80	0.39	0.75	3.4	2.5	0.25	0.00
38.22	37.8	0.58	1.53	73.9	7	117.8	2.21	1.81	0.40	0.74	12.1	9.0	UnDef	0.32
38.55	210.0	1.04	0.50	-1.4	9	124.1	2.23	1.82	0.41	0.74	40.2	29.9	UnDef	0.43
38.88	248.7	1.48	0.60	-2.7	9	124.1	2.25	1.83	0.42	0.74	47.6	35.3	UnDef	0.00
39.21	239.1	1.68	0.70	14.4	9	124.1	2.27	1.84	0.43	0.74	45.8	33.8	UnDef	0.00
39.53	242.0	2.11	0.87	11.7	9	124.1	2.29	1.85	0.44	0.74	46.4	34.1	UnDef	0.00
39.86	275.0	2.93	1.06	7.4	9	124.1	2.31	1.86	0.45	0.73	52.7	38.7	UnDef	0.00
40.19	349.5	3.76	1.08	1.2	9	124.1	2.33	1.87	0.46	0.73	66.9	49.0	UnDef	0.00
40.52	341.2	6.72	1.97	7.0	8	120.9	2.35	1.88	0.47	0.73	81.7	59.7	UnDef	0.00
40.85	323.5	8.28	2.56	6.1	7	117.8	2.37	1.89	0.48	0.73	103.3	75.2	UnDef	0.00
41.17	219.4	6.51	2.97	0.9	7	117.8	2.39	1.89	0.49	0.73	70.0	50.9	UnDef	0.00
41.50	107.2	2.90	2.70	-6.2	6	114.6	2.41	1.90	0.50	0.72	41.1	29.8	8.38	0.00
41.83	39.8	1.34	3.37	-1.9	5	114.6	2.43	1.91	0.51	0.72	19.0	13.8	2.99	0.34
42.16	25.8	0.99	3.82	18.7	4	114.6	2.44	1.92	0.52	0.72	16.5	11.9	1.87	0.00
42.49	27.0	0.76	2.81	44.4	5	114.6	2.46	1.93	0.53	0.72	12.9	9.3	1.96	0.16
42.81	41.2	0.88	2.14	76.1	6	114.6	2.48	1.94	0.54	0.72	15.8	11.3	3.10	0.36
43.14	113.9	1.60	1.41	66.2	8	120.9	2.50	1.95	0.56	0.72	27.3	19.6	UnDef	0.27
43.47	101.7	1.88	1.85	5.0	7	117.8	2.52	1.96	0.57	0.72	32.5	23.2	UnDef	0.32
43.80	93.2	1.38	1.49	10.0	8	120.9	2.54	1.97	0.58	0.71	22.3	15.9	UnDef	0.24
44.13	103.3	0.80	0.77	13.9	8	120.9	2.56	1.97	0.59	0.71	24.7	17.6	UnDef	0.17
44.45	129.1	0.69	0.53	17.8	9	124.1	2.58	1.98	0.60	0.71	24.7	17.6	UnDef	0.19
44.78	84.5	0.96	1.14	18.1	8	120.9	2.60	1.99	0.61	0.71	20.2	14.3	UnDef	0.18
45.11	85.0	1.06	1.24	18.4	8	120.9	2.62	2.00	0.62	0.71	20.3	14.4	UnDef	0.19
45.44	86.4	0.83	0.96	16.7	8	120.9	2.64	2.01	0.63	0.70	20.7	14.6	UnDef	0.17
45.77	97.4	0.57	0.58	18.5	8	120.9	2.66	2.02	0.64	0.70	23.3	16.4	UnDef	0.15
46.10	110.0	0.38	0.35	19.4	9	124.1	2.68	2.03	0.65	0.70	21.1	14.8	UnDef	0.12
46.42	109.6	0.37	0.34	19.2	9	124.1	2.70	2.04	0.66	0.70	21.0	14.7	UnDef	0.12
46.75	90.5	0.34	0.37	19.6	8	120.9	2.72	2.05	0.67	0.70	21.7	15.1	UnDef	0.10
47.08	88.0	0.25	0.28	19.8	9	124.1	2.74	2.06	0.68	0.70	16.9	11.7	UnDef	0.10
47.41	107.0	0.32	0.30	21.1	9	124.1	2.76	2.07	0.69	0.69	20.5	14.2	UnDef	0.12
47.74	119.6	0.39	0.32	21.3	9	124.1	2.78	2.08	0.70	0.69	22.9	15.9	UnDef	0.13
48.06	152.5	0.48	0.31	21.6	9	124.1	2.80	2.09	0.71	0.69	29.2	20.2	UnDef	0.18
48.39	163.8	0.42	0.25	22.0	9	124.1	2.82	2.10	0.72	0.69	31.4	21.6	UnDef	0.21
48.72	194.1	0.59	0.30	22.4	9	124.1	2.84	2.11	0.73	0.69	37.2	25.6	UnDef	0.29
49.05	187.8	0.71	0.38	21.0	9	124.1	2.86	2.12	0.74	0.69	36.0	24.7	UnDef	0.27
49.38	139.9	0.60	0.43	22.0	9	124.1	2.88	2.13	0.75	0.68	26.8	18.3	UnDef	0.16
49.70	94.7	0.38	0.40	23.9	9	124.1	2.90	2.14	0.76	0.68	18.1	12.4	UnDef	0.10
50.03	57.8	0.23	0.39	23.5	8	120.9	2.92	2.15	0.77	0.68	13.8	9.4	UnDef	0.09
50.36	41.0	0.14	0.34	23.0	8	120.9	2.94	2.16	0.78	0.68	9.8	6.7	UnDef	0.00
50.69	30.3	0.10	0.31	25.2	7	117.8	2.96	2.17	0.79	0.68	9.7	6.6	UnDef	0.00
51.02	28.9	0.09	0.31	25.5	7	117.8	2.98	2.18	0.80	0.68	9.2	6.3	UnDef	0.00
51.34	28.6	0.09	0.30	26.0	7	117.8	3.00	2.19	0.81	0.68	9.1	6.2	UnDef	0.00
51.67	29.4	0.07	0.24	26.3	7	117.8	3.02	2.20	0.82	0.67	9.4	6.3	UnDef	0.00
52.00	29.3	0.07	0.24	26.6	7	117.8	3.04	2.21	0.83	0.67	9.3	6.3	UnDef	0.00
52.33	30.3	0.16	0.53	27.5	7	117.8	3.06	2.22	0.84	0.67	9.7	6.5	UnDef	0.15
52.66	30.8	0.15	0.47	27.7	7	117.8	3.08	2.23	0.85	0.67	9.8	6.6	UnDef	0.13
52.98	35.7	0.16	0.43	27.9	7	117.8	3.10	2.24	0.86	0.67	11.4	7.6	UnDef	0.00
53.31	28.0	0.34	1.20	33.3	6	114.6	3.12	2.25	0.87	0.67	10.7	7.2	1.99	0.15
53.64	24.0	0.42	1.75	37.7	6	114.6	3.14	2.25	0.88	0.67	9.2	6.1	1.67	0.12

Run No: 04-0401-1123-5533

CPT File: 717CP004.COR

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
53.97	21.7	0.33	1.52	32.0	6	114.6	3.16	2.26	0.89	0.66	8.3	5.5	1.48	0.11
54.30	22.4	0.29	1.30	31.6	6	114.6	3.17	2.27	0.90	0.66	8.6	5.7	1.54	0.12
54.63	24.8	0.30	1.21	31.9	6	114.6	3.19	2.28	0.91	0.66	9.5	6.3	1.73	0.13
54.95	31.5	0.28	0.89	32.0	7	117.8	3.21	2.29	0.92	0.66	10.0	6.6	UnDef	0.18
55.28	41.5	0.38	0.91	32.2	7	117.8	3.23	2.30	0.93	0.66	13.2	8.7	UnDef	0.20
55.61	36.6	0.54	1.47	37.2	7	117.8	3.25	2.31	0.94	0.66	11.7	7.7	UnDef	0.23
55.94	23.2	0.25	1.06	78.8	6	114.6	3.27	2.32	0.95	0.66	8.9	5.9	1.60	0.12
56.27	14.6	0.09	0.62	102.5	6	114.6	3.29	2.32	0.96	0.66	5.6	3.7	0.91	0.09
56.59	12.1	0.07	0.58	110.8	6	114.6	3.31	2.33	0.97	0.65	4.7	3.0	0.71	0.00
56.92	11.0	0.06	0.50	111.0	6	114.6	3.33	2.34	0.99	0.65	4.2	2.8	0.61	0.00
57.25	10.4	0.06	0.53	121.2	6	114.6	3.34	2.35	1.00	0.65	4.0	2.6	0.56	0.00
57.58	10.7	0.06	0.52	123.9	6	114.6	3.36	2.36	1.01	0.65	4.1	2.7	0.59	0.00
57.91	11.7	0.07	0.56	124.6	6	114.6	3.38	2.37	1.02	0.65	4.5	2.9	0.67	0.00
58.23	11.9	0.09	0.76	124.9	6	114.6	3.40	2.38	1.03	0.65	4.6	3.0	0.68	0.09
58.56	15.7	0.10	0.61	110.0	6	114.6	3.42	2.38	1.04	0.65	6.0	3.9	0.98	0.09
58.89	15.8	0.09	0.57	109.1	6	114.6	3.44	2.39	1.05	0.65	6.0	3.9	0.99	0.09
59.22	12.2	0.06	0.45	115.1	6	114.6	3.46	2.40	1.06	0.65	4.7	3.0	0.70	0.00
59.55	9.8	0.05	0.51	133.3	6	114.6	3.48	2.41	1.07	0.64	3.8	2.4	0.51	0.00
59.87	9.8	0.05	0.46	125.1	6	114.6	3.50	2.42	1.08	0.64	3.7	2.4	0.50	0.00
60.20	10.5	0.06	0.53	121.5	6	114.6	3.51	2.43	1.09	0.64	4.0	2.6	0.56	0.00
60.53	13.7	0.05	0.33	114.5	6	114.6	3.53	2.44	1.10	0.64	5.3	3.4	0.82	0.00
60.86	14.7	0.04	0.27	110.8	6	114.6	3.55	2.44	1.11	0.64	5.6	3.6	0.89	0.00
61.19	15.8	0.10	0.60	109.7	6	114.6	3.57	2.45	1.12	0.64	6.0	3.9	0.97	0.09
61.52	15.5	0.25	1.62	107.1	6	114.6	3.59	2.46	1.13	0.64	5.9	3.8	0.95	0.09
61.84	22.7	0.28	1.21	74.1	6	114.6	3.61	2.47	1.14	0.64	8.7	5.5	1.53	0.11
62.17	13.4	0.16	1.16	88.8	6	114.6	3.63	2.48	1.15	0.64	5.1	3.3	0.78	0.09
62.50	10.1	0.04	0.35	105.0	6	114.6	3.65	2.49	1.16	0.63	3.9	2.5	0.52	0.00
62.83	12.1	0.07	0.58	105.3	6	114.6	3.66	2.50	1.17	0.63	4.6	2.9	0.67	0.00
63.16	15.3	0.08	0.49	94.4	6	114.6	3.68	2.50	1.18	0.63	5.9	3.7	0.93	0.00
63.48	10.2	0.05	0.49	106.1	6	114.6	3.70	2.51	1.19	0.63	3.9	2.5	0.52	0.00
63.81	10.8	0.06	0.51	111.7	6	114.6	3.72	2.52	1.20	0.63	4.2	2.6	0.57	0.00
64.14	15.6	0.14	0.90	110.2	6	114.6	3.74	2.53	1.21	0.63	6.0	3.8	0.95	0.09
64.47	18.8	0.31	1.65	82.9	6	114.6	3.76	2.54	1.22	0.63	7.2	4.5	1.20	0.10
64.80	14.0	0.26	1.86	103.5	5	114.6	3.78	2.55	1.23	0.63	6.7	4.2	0.82	0.09
65.12	21.9	0.39	1.78	80.7	6	114.6	3.80	2.55	1.24	0.63	8.4	5.3	1.45	0.11
65.45	50.8	0.75	1.48	47.7	7	117.8	3.81	2.56	1.25	0.62	16.2	10.1	UnDef	0.43
65.78	64.3	0.99	1.54	45.3	7	117.8	3.83	2.57	1.26	0.62	20.5	12.8	UnDef	0.39
66.11	73.9	1.06	1.44	44.9	7	117.8	3.85	2.58	1.27	0.62	23.6	14.7	UnDef	0.28
66.44	75.8	1.17	1.54	44.7	7	117.8	3.87	2.59	1.28	0.62	24.2	15.0	UnDef	0.32
66.76	73.4	1.19	1.62	42.1	7	117.8	3.89	2.60	1.29	0.62	23.4	14.5	UnDef	0.37
67.09	36.7	0.71	1.93	92.8	6	114.6	3.91	2.61	1.30	0.62	14.1	8.7	2.62	0.21
67.42	32.6	0.70	2.14	125.5	6	114.6	3.93	2.62	1.31	0.62	12.5	7.7	2.29	0.17
67.75	65.3	1.11	1.70	66.3	7	117.8	3.95	2.63	1.32	0.62	20.8	12.9	UnDef	0.00
68.08	81.5	1.37	1.68	51.7	7	117.8	3.97	2.64	1.33	0.62	26.0	16.0	UnDef	0.37
68.40	80.8	1.37	1.69	45.7	7	117.8	3.99	2.64	1.34	0.61	25.8	15.9	UnDef	0.38
68.73	72.4	1.22	1.68	45.6	7	117.8	4.01	2.65	1.35	0.61	23.1	14.2	UnDef	0.44
69.06	69.0	1.03	1.50	45.7	7	117.8	4.03	2.66	1.36	0.61	22.0	13.5	UnDef	0.35
69.39	63.1	1.08	1.71	47.5	7	117.8	4.05	2.67	1.37	0.61	20.1	12.3	UnDef	0.00
69.72	72.4	1.18	1.63	50.5	7	117.8	4.07	2.68	1.38	0.61	23.1	14.1	UnDef	0.42
70.05	64.4	1.21	1.88	53.3	7	117.8	4.08	2.69	1.39	0.61	20.5	12.5	UnDef	0.00
70.37	58.0	1.19	2.06	55.9	7	117.8	4.10	2.70	1.40	0.61	18.5	11.3	UnDef	0.00
70.70	58.5	0.99	1.69	50.1	7	117.8	4.12	2.71	1.41	0.61	18.7	11.3	UnDef	0.00
71.03	60.8	0.77	1.27	49.2	7	117.8	4.14	2.72	1.43	0.61	19.4	11.8	UnDef	0.32
71.36	56.6	0.84	1.48	49.8	7	117.8	4.16	2.73	1.44	0.61	18.1	10.9	UnDef	0.00
71.69	42.3	0.78	1.84	65.0	7	117.8	4.18	2.74	1.45	0.60	13.5	8.2	UnDef	0.26
72.01	37.9	0.69	1.81	111.3	6	114.6	4.20	2.74	1.46	0.60	14.5	8.8	2.70	0.21
72.34	42.6	0.89	2.08	96.0	6	114.6	4.22	2.75	1.47	0.60	16.3	9.8	3.07	0.26
72.67	45.8	1.02	2.23	73.4	6	114.6	4.24	2.76	1.48	0.60	17.5	10.6	3.32	0.31
73.00	40.1	0.78	1.95	61.1	6	114.6	4.26	2.77	1.49	0.60	15.4	9.2	2.87	0.23
73.33	25.0	0.64	2.57	60.1	5	114.6	4.28	2.78	1.50	0.60	12.0	7.2	1.66	0.12
73.65	13.1	0.44	3.36	113.7	4	114.6	4.29	2.79	1.51	0.60	8.4	5.0	0.71	0.00
73.98	12.2	0.31	2.55	148.5	5	114.6	4.31	2.80	1.52	0.60	5.8	3.5	0.63	0.00

Run No: 04-0401-1123-5533

CPT File: 717CP004.COR

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
74.31	21.8	0.48	2.21	103.7	6	114.6	4.33	2.80	1.53	0.60	8.3	5.0	1.39	0.10
74.64	25.2	0.58	2.29	93.3	6	114.6	4.35	2.81	1.54	0.60	9.6	5.7	1.66	0.12
74.97	19.3	0.47	2.44	93.7	5	114.6	4.37	2.82	1.55	0.60	9.3	5.5	1.20	0.00
75.29	12.2	0.30	2.42	139.8	5	114.6	4.39	2.83	1.56	0.59	5.8	3.5	0.63	0.00
75.62	9.1	0.13	1.38	166.3	5	114.6	4.41	2.84	1.57	0.59	4.3	2.6	0.37	0.00
75.95	8.6	0.06	0.64	163.7	6	114.6	4.43	2.85	1.58	0.59	3.3	1.9	0.33	0.00
76.28	8.1	0.05	0.62	162.1	5	114.6	4.44	2.86	1.59	0.59	3.9	2.3	0.29	0.00
76.61	8.1	0.10	1.24	161.8	5	114.6	4.46	2.86	1.60	0.59	3.9	2.3	0.29	0.00
76.93	24.7	0.44	1.79	115.0	6	114.6	4.48	2.87	1.61	0.59	9.5	5.6	1.62	0.11
77.26	35.8	0.62	1.73	66.0	6	114.6	4.50	2.88	1.62	0.59	13.7	8.1	2.51	0.18
77.59	25.3	0.58	2.28	71.8	6	114.6	4.52	2.89	1.63	0.59	9.7	5.7	1.66	0.12
77.92	19.5	0.43	2.21	132.8	6	114.6	4.54	2.90	1.64	0.59	7.5	4.4	1.19	0.00
78.25	16.2	0.29	1.77	117.6	6	114.6	4.56	2.91	1.65	0.59	6.2	3.6	0.93	0.09
78.58	13.2	0.20	1.52	145.5	5	114.6	4.58	2.92	1.66	0.59	6.3	3.7	0.69	0.09
78.90	10.0	0.17	1.70	162.1	5	114.6	4.59	2.92	1.67	0.58	4.8	2.8	0.43	0.00
79.23	10.6	0.09	0.80	161.6	6	114.6	4.61	2.93	1.68	0.58	4.1	2.4	0.48	0.08
79.56	10.8	0.12	1.07	185.6	6	114.6	4.63	2.94	1.69	0.58	4.1	2.4	0.49	0.08
79.89	10.8	0.11	0.97	188.5	6	114.6	4.65	2.95	1.70	0.58	4.2	2.4	0.50	0.08
80.22	13.0	0.23	1.78	206.4	5	114.6	4.67	2.96	1.71	0.58	6.2	3.6	0.66	0.00
80.54	13.4	0.18	1.35	69.3	6	114.6	4.69	2.97	1.72	0.58	5.1	3.0	0.70	0.09
80.87	13.2	0.19	1.41	86.7	6	114.6	4.71	2.98	1.73	0.58	5.0	2.9	0.68	0.08
81.20	14.0	0.19	1.36	100.3	6	114.6	4.73	2.98	1.74	0.58	5.4	3.1	0.75	0.09
81.53	14.6	0.27	1.82	131.5	5	114.6	4.75	2.99	1.75	0.58	7.0	4.0	0.79	0.00
81.86	14.5	0.40	2.76	131.2	5	114.6	4.76	3.00	1.76	0.58	6.9	4.0	0.78	0.00
82.18	13.6	0.35	2.54	134.3	5	114.6	4.78	3.01	1.77	0.58	6.5	3.8	0.71	0.00
82.51	13.6	0.24	1.74	134.8	5	114.6	4.80	3.02	1.78	0.58	6.5	3.7	0.70	0.00
82.84	12.1	0.15	1.24	128.3	6	114.6	4.82	3.03	1.79	0.57	4.6	2.7	0.58	0.08
83.17	14.4	0.21	1.43	126.6	6	114.6	4.84	3.04	1.80	0.57	5.5	3.2	0.76	0.09
83.50	21.6	0.50	2.32	127.7	6	114.6	4.86	3.04	1.81	0.57	8.3	4.7	1.34	0.00
83.82	28.0	0.88	3.15	124.1	5	114.6	4.88	3.05	1.82	0.57	13.4	7.7	1.85	0.00
84.15	34.5	1.59	4.62	202.0	3	111.4	4.90	3.06	1.83	0.57	33.1	18.9	2.37	0.00
84.48	74.3	1.67	2.25	71.4	7	117.8	4.91	3.07	1.84	0.57	23.7	13.5	UnDef	0.00
84.81	83.9	2.05	2.44	15.7	7	117.8	4.93	3.08	1.86	0.57	26.8	15.3	UnDef	0.00
85.14	77.3	2.13	2.75	11.6	6	114.6	4.95	3.09	1.87	0.57	29.6	16.9	5.79	0.00
85.46	90.3	1.71	1.90	9.3	7	117.8	4.97	3.10	1.88	0.57	28.8	16.4	UnDef	0.00
85.79	110.1	1.40	1.27	5.3	8	120.9	4.99	3.11	1.89	0.57	26.4	15.0	UnDef	0.29
86.12	103.6	0.80	0.77	-3.6	8	120.9	5.01	3.11	1.90	0.57	24.8	14.1	UnDef	0.18
86.45	93.7	0.87	0.93	-5.2	8	120.9	5.03	3.12	1.91	0.57	22.4	12.7	UnDef	0.20
86.78	78.2	0.60	0.77	-3.2	8	120.9	5.05	3.13	1.92	0.56	18.7	10.6	UnDef	0.17
87.11	62.2	0.49	0.78	0.8	8	120.9	5.07	3.14	1.93	0.56	14.9	8.4	UnDef	0.19
87.43	60.0	0.46	0.77	5.6	8	120.9	5.09	3.15	1.94	0.56	14.4	8.1	UnDef	0.20
87.76	57.0	0.38	0.67	7.6	8	120.9	5.11	3.16	1.95	0.56	13.7	7.7	UnDef	0.18
88.09	48.6	0.40	0.82	8.8	7	117.8	5.13	3.17	1.96	0.56	15.5	8.7	UnDef	0.30
88.42	42.1	0.75	1.77	4.9	7	117.8	5.15	3.18	1.97	0.56	13.4	7.5	UnDef	0.22
88.75	51.6	0.64	1.23	-0.3	7	117.8	5.17	3.19	1.98	0.56	16.5	9.2	UnDef	0.34
89.07	56.6	0.34	0.59	-3.5	8	120.9	5.19	3.20	1.99	0.56	13.5	7.6	UnDef	0.16
89.40	61.7	0.40	0.64	-1.4	8	120.9	5.21	3.21	2.00	0.56	14.8	8.3	UnDef	0.16
89.73	74.4	0.54	0.72	1.9	8	120.9	5.23	3.22	2.01	0.56	17.8	9.9	UnDef	0.16
90.06	82.0	0.57	0.70	5.8	8	120.9	5.25	3.23	2.02	0.56	19.6	10.9	UnDef	0.16
90.39	82.3	0.60	0.73	9.5	8	120.9	5.27	3.24	2.03	0.56	19.7	10.9	UnDef	0.16
90.71	83.7	0.73	0.87	12.9	8	120.9	5.29	3.25	2.04	0.55	20.0	11.1	UnDef	0.19
91.04	83.4	0.54	0.65	13.5	8	120.9	5.31	3.26	2.05	0.55	20.0	11.1	UnDef	0.15
91.37	65.4	0.69	1.05	30.5	8	120.9	5.33	3.27	2.06	0.55	15.6	8.7	UnDef	0.33
91.70	68.9	0.70	1.02	40.3	8	120.9	5.35	3.28	2.07	0.55	16.5	9.1	UnDef	0.28
92.03	90.7	0.66	0.73	8.9	8	120.9	5.37	3.29	2.08	0.55	21.7	12.0	UnDef	0.17
92.35	115.0	0.98	0.85	11.4	8	120.9	5.39	3.30	2.09	0.55	27.5	15.2	UnDef	0.21
92.68	95.8	1.36	1.42	16.3	8	120.9	5.41	3.31	2.10	0.55	22.9	12.6	UnDef	0.37
93.01	60.7	0.79	1.30	24.4	7	117.8	5.43	3.31	2.11	0.55	19.4	10.6	UnDef	0.00
93.34	48.5	0.26	0.54	22.1	8	120.9	5.45	3.32	2.12	0.55	11.6	6.4	UnDef	0.20
93.67	23.7	0.26	1.08	36.0	6	114.6	5.46	3.33	2.13	0.55	9.1	5.0	1.46	0.10
93.99	20.3	0.10	0.49	54.2	7	117.8	5.48	3.34	2.14	0.55	6.5	3.5	UnDef	0.00
94.32	15.8	0.15	0.95	77.6	6	114.6	5.50	3.35	2.15	0.55	6.0	3.3	0.82	0.09

Run No: 04-0401-1123-5533

CPT File: 717CP004.COR

th (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
94.65	18.7	0.24	1.29	107.7	5	114.6	5.52	3.36	2.16	0.55	7.2	3.9	1.06	0.09

Interpretation Output - Release 1.00.19M

Run No: 04-0401-1123-5533

Job No: 04-717

Client: MACTEC

Project: TVA Kingston

Site: CPT-4

Location: TVA Kingston

Cone: 20 TON AD142

CPT Date: 04/24/03

CPT Time: 08:29

CPT File: 717CP004.COR

Northing (m): 0.000

Easting (m): 0.000

Elevation (m): 0.000

Water Table (m): 7.73 (ft): 25.4

Unit Weight of Water (User Specified): 62.40 pcf

Su Nkt used: 12.50 Su/P' (nc): 0.30

Averaging Increment (m): 0.10

Phi Method : Robertson and Campanella, 1983

Dr Method : Jamiolkowski - All Sands

State Parameter M: 1.20

Used Unit Weights Assigned to Soil Zones

Values of 1.0E9 or UnDef are printed for parameters that are not valid for the material type (SBT)

Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1)60	(N1)60cs
0.16	5.0E-05	0.00	1000.0	0.72	10	37.3	0.0	37.3	0.0	50	86.6	10.0	-0.37	0.0	14.9
0.49	5.0E-02	0.00	1000.0	0.47	10	236.4	0.0	236.4	0.0	50	95.0	1.0	-0.33	0.0	47.3
0.82	5.0E-02	0.00	1000.0	0.85	10	398.3	0.0	398.3	0.0	50	95.0	1.0	-0.39	0.0	79.7
1.15	5.0E-03	0.00	1000.0	1.50	12	495.6	UnDef	UnDef	0.0	50	95.0	1.0	-0.46	UnDef	UnDef
1.48	5.0E-03	0.00	1000.0	2.15	12	598.5	UnDef	UnDef	0.0	50	95.0	1.0	-0.53	UnDef	UnDef
1.80	5.0E-04	0.00	1000.0	2.48	12	648.7	UnDef	UnDef	0.0	50	95.0	1.0	-0.57	UnDef	UnDef
2.13	1.0E-15	0.00	1000.0	2.71	12	651.4	UnDef	UnDef	0.0	50	95.0	1.0	-0.59	UnDef	UnDef
2.46	5.0E-04	0.00	1000.0	2.55	12	604.6	UnDef	UnDef	0.0	50	95.0	1.0	-0.57	UnDef	UnDef
2.79	5.0E-04	0.00	1000.0	2.23	12	518.3	UnDef	UnDef	0.0	50	95.0	1.0	-0.54	UnDef	UnDef
3.12	5.0E-04	0.00	1000.0	2.45	12	445.4	UnDef	UnDef	0.0	50	95.0	1.0	-0.56	UnDef	UnDef
3.44	5.0E-04	0.00	976.4	2.45	12	385.6	UnDef	UnDef	0.0	50	95.0	1.0	-0.56	UnDef	UnDef
3.77	5.0E-04	0.00	789.0	2.60	12	340.9	UnDef	UnDef	0.0	50	95.0	1.0	-0.55	UnDef	UnDef
4.10	5.0E-04	0.00	659.0	2.62	12	309.2	UnDef	UnDef	0.0	50	95.0	1.0	-0.53	UnDef	UnDef
4.43	5.0E-04	0.00	581.3	2.34	12	292.8	UnDef	UnDef	0.0	50	95.0	1.0	-0.49	UnDef	UnDef
4.76	5.0E-04	0.00	518.2	2.27	12	270.4	UnDef	UnDef	0.0	48	95.0	1.0	-0.47	UnDef	UnDef
5.09	5.0E-04	0.00	483.5	2.34	12	260.8	UnDef	UnDef	0.0	48	94.7	1.0	-0.47	UnDef	UnDef
5.41	5.0E-04	0.00	462.9	2.50	12	257.6	UnDef	UnDef	0.0	48	94.4	1.0	-0.48	UnDef	UnDef
5.74	5.0E-04	0.00	421.4	2.42	12	241.4	UnDef	UnDef	0.0	48	92.5	1.0	-0.46	UnDef	UnDef
6.07	5.0E-04	0.00	449.2	2.10	12	264.5	UnDef	UnDef	0.0	48	95.0	1.0	-0.44	UnDef	UnDef
6.40	5.0E-04	0.00	531.0	2.15	12	320.9	UnDef	UnDef	0.0	48	95.0	1.0	-0.46	UnDef	UnDef
6.73	5.0E-03	0.00	448.1	1.81	9	277.8	7.0	284.8	5.9	48	95.0	1.0	-0.41	1.1	69.0
7.05	5.0E-03	0.00	380.6	1.18	9	241.8	0.0	241.8	3.8	48	92.6	1.0	-0.33	0.0	59.2
7.38	5.0E-02	0.00	348.5	0.96	9	226.7	0.0	226.7	3.1	48	90.7	1.0	-0.30	0.0	44.4
7.79	5.0E-02	0.00	337.9	0.98	9	226.1	0.0	226.1	3.3	48	90.7	1.0	-0.30	0.0	44.3
8.20	5.0E-02	0.00	291.5	0.95	9	200.4	0.0	200.4	3.8	46	87.2	1.0	-0.28	0.0	39.2
8.53	5.0E-02	0.00	262.3	0.92	9	184.1	0.0	184.1	4.1	46	84.8	1.0	-0.27	0.0	36.0
8.86	5.0E-03	0.00	254.0	1.06	9	181.8	0.0	181.8	5.0	46	84.4	1.0	-0.28	0.0	44.5
9.19	5.0E-02	0.00	297.4	0.81	9	216.7	0.0	216.7	2.9	46	89.4	1.0	-0.27	0.0	42.4
9.51	5.0E-04	0.00	312.6	2.01	9	231.8	22.3	254.1	8.3	46	91.4	1.0	-0.39	4.4	80.0
9.84	5.0E-05	0.00	236.7	3.07	12	176.6	UnDef	UnDef	0.0	46	83.9	10.0	-0.45	UnDef	UnDef
10.17	5.0E-05	0.00	157.2	2.96	7	120.8	52.3	173.0	16.3	44	72.7	10.0	-0.39	11.0	58.3
10.50	5.0E-04	0.00	146.8	2.31	7	114.6	38.3	152.8	14.4	44	71.2	1.0	-0.33	6.9	44.3
10.83	5.0E-04	0.00	149.7	2.27	7	118.6	37.7	156.3	14.0	44	72.2	1.0	-0.33	6.9	45.6
11.15	5.0E-04	0.00	162.9	2.41	7	130.9	41.2	172.0	14.0	44	75.0	1.0	-0.35	7.5	50.2
11.48	5.0E-04	0.00	167.2	2.50	7	136.3	43.8	180.1	14.1	44	76.2	1.0	-0.36	8.0	52.4
11.81	5.0E-05	0.00	140.1	2.66	7	115.9	49.1	165.1	16.1	44	71.5	10.0	-0.35	10.4	55.8
12.14	5.0E-05	0.00	101.1	2.67	7	85.0	51.4	136.4	19.1	42	62.6	10.0	-0.31	10.3	43.5
12.47	5.0E-05	0.00	64.5	2.14	7	55.2	43.4	98.6	21.5	40	50.2	10.0	-0.23	8.2	29.8
12.80	5.0E-05	0.00	60.1	1.99	7	52.2	41.4	93.5	21.6	40	48.6	10.0	-0.21	7.8	28.2

Run No: 04-0401-1123-5533

CPT File: 717CP004.COR

h (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1)60	(N1)60cs
13.12	5.0E-04	0.00	77.2	1.78	7	67.6	34.6	102.2	17.7	40	56.1	1.0	-0.22	5.9	28.0
13.45	5.0E-05	0.00	47.9	1.92	7	42.8	43.8	86.6	23.9	38	42.9	10.0	-0.18	7.8	24.5
13.78	5.0E-05	0.01	26.0	1.67	7	23.9	55.4	79.4	31.2	34	30.0	10.0	-0.10	7.3	16.6
14.11	5.0E-05	0.03	21.4	1.04	7	20.0	37.6	57.6	29.4	34	30.0	10.0	-0.04	5.4	13.2
14.44	5.0E-05	0.04	20.7	1.56	6	19.7	69.1	88.8	34.2	34	30.0	10.0	-0.07	7.3	15.0
14.76	5.0E-05	0.02	24.2	1.85	6	23.1	73.5	96.6	33.5	34	30.0	10.0	-0.10	8.2	17.2
15.09	5.0E-06	0.07	14.6	2.87	6	14.5	57.9	72.3	49.0	UnDef	UnDef	5.8	UnDef	7.1	14.2
15.42	5.0E-05	0.04	23.5	2.15	6	22.9	91.7	114.6	35.8	34	30.0	10.0	-0.11	9.0	18.0
15.75	5.0E-06	0.03	17.6	2.48	6	17.5	70.2	87.7	43.1	UnDef	UnDef	7.7	UnDef	8.6	17.2
16.08	5.0E-05	0.01	18.2	1.77	6	18.3	73.3	91.6	38.0	32	30.0	8.1	-0.07	7.2	14.3
16.40	5.0E-05	0.06	14.4	1.77	6	14.8	59.2	73.9	42.6	32	30.0	5.6	-0.04	5.8	11.6
16.73	5.0E-05	0.05	12.0	1.10	6	12.6	50.6	63.2	40.6	30	30.0	4.3	0.01	4.9	9.9
17.06	5.0E-06	0.22	4.9	1.62	4	5.8	23.2	29.0	67.3	UnDef	UnDef	1.3	UnDef	2.8	5.7
17.39	5.0E-06	0.13	10.9	2.24	6	11.8	47.2	58.9	51.7	UnDef	UnDef	3.7	UnDef	5.8	11.5
17.72	5.0E-05	0.01	25.1	1.17	7	26.0	41.6	67.6	28.0	34	30.0	10.0	-0.07	6.4	16.6
18.04	5.0E-06	0.05	15.8	2.62	6	16.9	67.7	84.6	46.1	UnDef	UnDef	6.5	UnDef	8.3	16.6
18.37	5.0E-06	0.03	17.4	2.53	6	18.7	74.8	93.5	43.6	UnDef	UnDef	7.6	UnDef	9.1	18.3
18.70	5.0E-05	0.03	17.1	2.21	6	18.6	74.5	93.1	42.0	32	30.0	7.4	-0.08	7.3	14.6
19.03	5.0E-07	0.08	8.6	3.47	1	10.0	UnDef	UnDef	100.0	UnDef	UnDef	2.7	UnDef	UnDef	UnDef
19.36	5.0E-06	0.09	5.6	2.15	4	6.9	27.6	34.6	68.1	UnDef	UnDef	1.5	UnDef	3.4	6.8
19.68	1.0E-07	0.42	2.9	1.77	4	4.2	16.6	20.8	84.5	UnDef	UnDef	0.8	UnDef	2.0	4.1
20.01	1.0E-07	0.49	2.7	1.91	4	3.9	15.6	19.5	89.1	UnDef	UnDef	0.8	UnDef	1.9	3.8
20.34	5.0E-07	0.42	3.1	2.68	1	4.4	UnDef	UnDef	100.0	UnDef	UnDef	0.9	UnDef	UnDef	UnDef
20.67	5.0E-05	0.06	11.4	1.55	6	13.4	53.5	66.9	46.0	30	30.0	4.0	-0.01	5.2	10.5
21.00	5.0E-06	0.10	7.0	2.04	4	8.7	34.6	43.3	61.2	UnDef	UnDef	2.0	UnDef	4.2	8.5
21.33	5.0E-07	0.35	3.6	2.00	4	5.0	20.2	25.2	79.8	UnDef	UnDef	1.0	UnDef	3.3	6.6
21.65	1.0E-07	0.44	2.8	1.67	4	4.2	16.9	21.2	84.8	UnDef	UnDef	0.8	UnDef	2.1	4.1
21.98	1.0E-07	0.37	3.2	1.45	4	4.7	18.8	23.5	78.4	UnDef	UnDef	0.9	UnDef	2.3	4.6
22.31	1.0E-07	0.42	2.7	1.96	4	4.2	16.7	20.9	88.6	UnDef	UnDef	0.8	UnDef	2.0	4.1
22.64	1.0E-07	0.12	4.2	1.09	4	5.8	23.3	29.1	66.6	UnDef	UnDef	1.1	UnDef	2.8	5.7
22.97	1.0E-07	0.37	3.0	1.37	4	4.5	18.1	22.7	79.9	UnDef	UnDef	0.8	UnDef	2.2	4.4
23.29	5.0E-07	0.28	4.3	2.60	4	6.0	24.0	30.0	79.2	UnDef	UnDef	1.1	UnDef	3.9	7.8
23.62	5.0E-05	0.02	12.5	1.98	6	15.5	62.1	77.6	46.9	30	30.0	4.6	-0.04	6.1	12.2
23.95	5.0E-06	0.08	6.7	2.94	4	8.9	35.7	44.6	68.1	UnDef	UnDef	1.9	UnDef	4.4	8.7
24.28	5.0E-06	0.19	6.0	2.61	4	8.1	32.4	40.5	69.4	UnDef	UnDef	1.6	UnDef	4.0	7.9
24.61	5.0E-05	0.04	13.0	2.10	6	16.4	65.5	81.9	47.0	30	30.0	4.8	-0.04	6.4	12.8
24.93	5.0E-06	0.05	9.4	2.54	4	12.2	49.0	61.2	57.1	UnDef	UnDef	3.0	UnDef	6.0	12.0
25.26	5.0E-06	0.17	5.6	2.62	4	7.8	31.3	39.1	71.3	UnDef	UnDef	1.5	UnDef	3.8	7.6
25.59	5.0E-07	0.39	3.1	3.44	1	4.9	UnDef	UnDef	100.0	UnDef	UnDef	0.9	UnDef	UnDef	UnDef
25.92	5.0E-06	0.22	3.1	1.71	4	5.0	19.9	24.8	81.8	UnDef	UnDef	0.9	UnDef	2.4	4.9
26.25	1.0E-07	0.41	2.8	1.29	4	4.6	18.5	23.1	80.8	UnDef	UnDef	0.8	UnDef	2.3	4.5
26.57	1.0E-07	0.36	3.2	1.05	4	5.0	20.2	25.2	74.3	UnDef	UnDef	0.9	UnDef	2.5	4.9
26.90	1.0E-07	0.45	2.6	1.39	4	4.4	17.6	22.0	84.6	UnDef	UnDef	0.8	UnDef	2.2	4.3
27.23	1.0E-07	0.46	2.6	1.16	4	4.3	17.4	21.7	82.8	UnDef	UnDef	0.7	UnDef	2.1	4.3
27.56	1.0E-07	0.45	2.6	0.99	1	4.5	UnDef	UnDef	100.0	UnDef	UnDef	0.8	UnDef	UnDef	UnDef
27.89	1.0E-07	0.52	2.3	1.13	1	4.1	UnDef	UnDef	100.0	UnDef	UnDef	0.7	UnDef	UnDef	UnDef
28.21	1.0E-07	0.47	2.6	1.01	1	4.4	UnDef	UnDef	100.0	UnDef	UnDef	0.7	UnDef	UnDef	UnDef
28.54	1.0E-07	0.38	3.1	1.04	4	5.1	20.3	25.3	75.2	UnDef	UnDef	0.8	UnDef	2.5	5.0
28.87	5.0E-06	0.27	3.7	1.80	4	5.9	23.6	29.5	77.0	UnDef	UnDef	1.0	UnDef	2.9	5.8
29.20	5.0E-06	0.10	5.9	1.47	4	8.5	34.1	42.6	61.0	UnDef	UnDef	1.6	UnDef	4.2	8.3
29.53	5.0E-06	0.22	4.0	2.30	4	6.2	25.0	31.2	79.2	UnDef	UnDef	1.1	UnDef	3.1	6.1
29.86	1.0E-07	0.48	2.5	1.67	4	4.4	17.5	21.9	89.7	UnDef	UnDef	0.7	UnDef	2.1	4.3
30.18	5.0E-06	0.26	3.8	0.91	4	6.0	24.1	30.2	67.2	UnDef	UnDef	1.0	UnDef	3.0	5.9
30.59	5.0E-06	0.31	3.5	1.71	4	5.7	23.0	28.7	78.1	UnDef	UnDef	0.9	UnDef	2.8	5.6
31.00	1.0E-07	0.46	2.7	1.37	4	4.7	19.0	23.7	83.4	UnDef	UnDef	0.8	UnDef	2.3	4.6
31.33	1.0E-07	0.44	2.6	1.07	4	4.6	18.5	23.1	81.3	UnDef	UnDef	0.7	UnDef	2.3	4.5
31.66	1.0E-07	0.66	1.9	1.32	4	3.7	14.9	18.6	96.2	UnDef	UnDef	0.6	UnDef	1.8	3.6
31.99	1.0E-07	0.52	2.4	1.68	4	4.4	17.5	21.9	91.3	UnDef	UnDef	0.7	UnDef	2.1	4.3
32.32	5.0E-06	0.22	3.6	1.34	4	6.0	23.9	29.8	73.7	UnDef	UnDef	1.0	UnDef	2.9	5.8
32.64	5.0E-06	0.28	3.5	1.30	4	5.8	23.2	29.1	74.5	UnDef	UnDef	0.9	UnDef	2.8	5.7
32.97	1.0E-07	0.45	2.6	1.27	4	4.7	18.9	23.6	83.7	UnDef	UnDef	0.7	UnDef	2.3	4.6
33.30	5.0E-07	0.57	2.2	2.55	1	4.3	UnDef	UnDef	100.0	UnDef	UnDef	0.7	UnDef	UnDef	UnDef

Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTr	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1)60	(N1)60cs
33.63	5.0E-05	0.04	15.2	1.52	6	20.8	83.3	104.1	39.6	32	30.0	6.2	-0.04	8.2	16.3
33.96	5.0E-05	0.03	15.9	1.99	6	21.7	86.8	108.5	42.1	32	30.0	6.6	-0.06	8.5	17.0
34.28	5.0E-05	0.03	13.2	1.87	6	18.4	73.4	91.8	45.0	32	30.0	5.0	-0.04	7.2	14.4
34.61	5.0E-06	0.12	6.8	2.56	4	10.2	40.6	50.8	65.6	UnDef	UnDef	1.9	UnDef	5.0	9.9
34.94	5.0E-06	0.16	6.3	1.99	4	9.6	38.3	47.9	63.5	UnDef	UnDef	1.8	UnDef	4.7	9.4
35.27	5.0E-06	0.10	8.0	2.36	4	11.8	47.1	58.9	60.0	UnDef	UnDef	2.4	UnDef	5.8	11.5
35.60	5.0E-06	0.08	8.0	2.19	4	11.9	47.6	59.5	58.6	UnDef	UnDef	2.4	UnDef	5.8	11.6
35.92	5.0E-06	0.08	8.4	2.41	4	12.5	49.8	62.3	58.9	UnDef	UnDef	2.6	UnDef	6.1	12.2
36.25	5.0E-06	0.07	7.1	2.84	4	10.7	42.8	53.4	66.2	UnDef	UnDef	2.0	UnDef	5.2	10.5
36.58	5.0E-05	0.08	8.8	1.90	6	13.0	52.0	65.0	54.3	30	30.0	2.7	0.01	5.1	10.2
36.91	5.0E-06	0.09	8.0	2.33	4	12.0	48.0	59.9	59.7	UnDef	UnDef	2.4	UnDef	5.9	11.7
37.24	5.0E-07	0.30	3.2	4.00	1	5.8	UnDef	UnDef	100.0	UnDef	UnDef	0.9	UnDef	UnDef	UnDef
37.57	5.0E-06	0.50	2.4	1.51	4	4.7	19.0	23.7	88.7	UnDef	UnDef	0.7	UnDef	2.3	4.6
37.89	5.0E-07	0.72	1.7	2.43	1	3.9	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
38.22	5.0E-04	0.05	19.7	1.62	6	27.5	110.1	137.6	35.5	34	30.3	1.0	-0.07	9.0	18.0
38.55	5.0E-02	0.00	114.5	0.50	9	152.5	3.5	156.0	5.8	42	79.4	1.0	-0.14	0.4	30.3
38.88	5.0E-02	0.00	135.0	0.60	9	180.1	2.9	183.0	5.6	44	84.1	1.0	-0.17	0.4	35.6
39.21	5.0E-02	0.00	129.0	0.71	9	172.7	8.3	181.0	6.7	44	82.9	1.0	-0.18	1.0	34.8
39.53	5.0E-02	0.00	129.9	0.88	9	174.3	14.4	188.8	7.9	44	83.2	1.0	-0.20	1.7	35.8
39.86	5.0E-02	0.00	146.9	1.07	9	197.5	18.8	216.3	8.3	44	86.8	1.0	-0.23	2.2	40.9
40.19	5.0E-02	0.00	186.0	1.08	9	250.4	12.8	263.2	6.8	44	93.6	1.0	-0.25	1.5	50.5
40.52	5.0E-03	0.00	180.6	1.98	9	243.8	50.7	294.5	11.4	44	92.8	1.0	-0.33	7.2	66.9
40.85	5.0E-04	0.00	170.3	2.58	7	230.6	76.1	306.6	14.3	44	91.2	1.0	-0.37	13.8	89.0
41.17	5.0E-04	0.00	114.6	3.00	7	156.0	95.6	251.6	19.2	42	80.0	1.0	-0.35	15.9	66.8
41.50	5.0E-05	-0.01	55.1	2.76	7	76.0	100.7	176.7	26.3	40	59.4	10.0	-0.25	16.5	46.2
41.83	5.0E-06	-0.02	19.5	3.58	6	28.1	112.6	140.7	46.6	UnDef	UnDef	9.1	UnDef	13.8	27.5
42.16	5.0E-07	0.00	12.2	4.22	1	18.2	UnDef	UnDef	100.0	UnDef	UnDef	4.4	UnDef	UnDef	UnDef
42.49	5.0E-06	0.03	12.7	3.09	4	19.0	76.0	95.0	53.2	UnDef	UnDef	4.7	UnDef	9.3	18.6
42.81	5.0E-05	0.05	20.0	2.28	6	28.9	115.8	144.7	39.5	34	31.7	9.4	-0.10	11.3	22.7
43.14	5.0E-03	0.01	57.2	1.44	7	79.9	47.3	127.2	18.9	40	60.8	1.0	-0.17	5.9	25.5
43.47	5.0E-04	0.00	50.7	1.90	7	71.2	66.5	137.7	23.1	38	57.5	1.0	-0.19	10.1	33.3
43.80	5.0E-03	0.00	46.1	1.53	7	65.0	54.4	119.4	22.1	38	54.9	1.0	-0.15	6.3	22.3
44.13	5.0E-03	0.00	51.0	0.79	7	71.9	27.8	99.7	15.4	38	57.8	1.0	-0.10	3.7	21.3
44.45	5.0E-02	0.00	63.7	0.54	9	89.7	16.7	106.4	10.9	40	64.2	1.0	-0.09	1.9	19.5
44.78	5.0E-03	0.00	41.1	1.17	7	58.6	44.1	102.7	21.1	38	51.9	1.0	-0.12	5.3	19.6
45.11	5.0E-03	0.00	41.1	1.28	7	58.7	48.2	107.0	21.9	38	52.0	1.0	-0.12	5.6	20.0
45.44	5.0E-03	0.00	41.6	0.99	7	59.6	37.7	97.3	19.5	38	52.4	1.0	-0.10	4.7	19.2
45.77	5.0E-03	0.00	46.8	0.60	9	67.0	22.9	89.9	14.5	38	55.8	1.0	-0.07	3.1	19.5
46.10	5.0E-02	0.00	52.8	0.36	9	75.5	0.0	75.5	5.0	40	59.2	1.0	-0.04	0.0	14.8
46.42	5.0E-02	0.00	52.3	0.35	9	75.0	0.0	75.0	5.0	38	59.0	1.0	-0.04	0.0	14.7
46.75	5.0E-03	0.00	42.7	0.38	9	61.8	0.0	61.8	5.0	38	53.5	1.0	-0.03	0.0	15.1
47.08	5.0E-02	0.00	41.3	0.29	9	60.0	0.0	60.0	5.0	38	52.6	1.0	-0.01	0.0	11.7
47.41	5.0E-02	0.00	50.3	0.30	9	72.7	0.0	72.7	5.0	38	58.1	1.0	-0.03	0.0	14.2
47.74	5.0E-02	0.00	56.1	0.33	9	81.1	0.0	81.1	5.0	40	61.3	1.0	-0.04	0.0	15.9
48.06	5.0E-02	0.00	71.5	0.32	9	103.2	0.0	103.2	5.0	40	68.2	1.0	-0.06	0.0	20.2
48.39	5.0E-02	0.00	76.5	0.26	9	110.5	0.0	110.5	5.0	40	70.1	1.0	-0.05	0.0	21.6
48.72	5.0E-02	0.00	90.5	0.31	9	130.6	0.0	130.6	5.0	42	74.9	1.0	-0.08	0.0	25.6
49.05	5.0E-02	0.00	87.1	0.38	9	126.1	0.0	126.1	5.0	42	73.9	1.0	-0.09	0.0	24.7
49.38	5.0E-02	0.00	64.2	0.44	9	93.7	0.0	93.7	5.0	40	65.4	1.0	-0.08	0.0	18.3
49.70	5.0E-02	0.00	42.8	0.41	9	63.3	0.0	63.3	5.0	38	54.2	1.0	-0.04	0.0	12.4
50.03	5.0E-03	0.00	25.5	0.41	7	38.5	0.0	38.5	5.0	34	39.9	1.0	0.01	0.0	9.4
50.36	5.0E-03	0.00	17.6	0.37	7	27.3	0.0	27.3	5.0	32	30.1	1.0	0.05	0.0	6.7
50.69	5.0E-04	0.00	12.6	0.35	7	20.1	0.0	20.1	5.0	30	30.0	1.0	0.08	0.0	6.6
51.02	5.0E-04	0.00	11.9	0.35	7	19.2	0.0	19.2	5.0	30	30.0	1.0	0.09	0.0	6.3
51.34	5.0E-04	0.00	11.7	0.33	7	18.9	0.0	18.9	5.0	30	30.0	1.0	0.09	0.0	6.2
51.67	5.0E-04	0.00	12.0	0.27	7	19.4	0.0	19.4	5.0	30	30.0	1.0	0.11	0.0	6.3
52.00	5.0E-04	0.00	11.9	0.27	7	19.3	0.0	19.3	5.0	30	30.0	1.0	0.11	0.0	6.3
52.33	5.0E-04	0.00	12.3	0.59	7	19.9	71.6	91.5	34.3	30	30.0	1.0	0.05	6.2	12.7
52.66	5.0E-04	0.00	12.5	0.52	7	20.2	61.0	81.3	33.1	30	30.0	1.0	0.06	5.8	12.4
52.98	5.0E-04	0.00	14.6	0.48	7	23.4	0.0	23.4	5.0	32	30.0	1.0	0.05	0.0	7.6
53.31	5.0E-05	0.01	11.1	1.35	6	18.3	73.1	91.3	44.7	30	30.0	3.8	0.00	7.2	14.3
53.64	5.0E-05	0.01	9.3	2.01	6	15.7	62.7	78.4	53.9	30	30.0	2.9	-0.01	6.1	12.3

Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1)60	(N1)60cs
53.97	5.0E-05	0.01	8.2	1.78	4	14.1	56.5	70.6	55.1	30	30.0	2.5	0.01	5.5	11.1
54.30	5.0E-05	0.00	8.5	1.51	6	14.5	58.1	72.7	52.2	30	30.0	2.6	0.02	5.7	11.4
54.63	5.0E-05	0.00	9.5	1.39	6	16.1	64.4	80.5	48.4	30	30.0	3.0	0.01	6.3	12.6
54.95	5.0E-04	0.00	12.3	0.99	6	20.3	81.4	101.7	39.0	30	30.0	1.0	0.01	6.6	13.3
55.28	5.0E-04	0.00	16.6	0.98	7	26.8	81.7	108.4	33.2	32	30.0	1.0	-0.02	7.8	16.5
55.61	5.0E-04	0.01	14.5	1.61	6	23.6	94.3	117.9	41.3	32	30.0	1.0	-0.04	7.7	15.4
55.94	5.0E-05	0.08	8.6	1.23	6	14.9	59.8	74.7	49.1	30	30.0	2.7	0.04	5.9	11.7
56.27	5.0E-05	0.20	4.9	0.80	4	9.4	37.6	47.0	58.4	30	30.0	1.3	0.13	3.7	7.4
56.59	5.0E-05	0.28	3.8	0.79	1	7.8	UnDef	UnDef	100.0	30	30.0	1.0	0.17	UnDef	UnDef
56.92	5.0E-05	0.32	3.3	0.72	1	7.0	UnDef	UnDef	100.0	30	30.0	0.9	0.19	UnDef	UnDef
57.25	5.0E-05	0.40	3.0	0.78	1	6.6	UnDef	UnDef	100.0	30	30.0	0.8	0.20	UnDef	UnDef
57.58	5.0E-05	0.39	3.1	0.75	1	6.8	UnDef	UnDef	100.0	30	30.0	0.9	0.20	UnDef	UnDef
57.91	5.0E-05	0.34	3.5	0.78	1	7.5	UnDef	UnDef	100.0	30	30.0	0.9	0.18	UnDef	UnDef
58.23	5.0E-05	0.34	3.6	1.06	4	7.6	30.3	37.9	70.6	30	30.0	1.0	0.16	3.0	5.9
58.56	5.0E-05	0.20	5.1	0.78	6	9.9	39.7	49.6	56.8	30	30.0	1.4	0.13	3.9	7.8
58.89	5.0E-05	0.19	5.2	0.73	6	10.0	39.9	49.9	56.0	30	30.0	1.4	0.13	3.9	7.8
59.22	5.0E-05	0.29	3.6	0.63	1	7.7	UnDef	UnDef	100.0	30	30.0	1.0	0.18	UnDef	UnDef
59.55	5.0E-05	0.49	2.6	0.79	1	6.2	UnDef	UnDef	100.0	30	30.0	0.8	0.23	UnDef	UnDef
59.87	5.0E-05	0.45	2.6	0.72	1	6.2	UnDef	UnDef	100.0	30	30.0	0.7	0.23	UnDef	UnDef
60.20	5.0E-05	0.39	2.9	0.79	1	6.6	UnDef	UnDef	100.0	30	30.0	0.8	0.21	UnDef	UnDef
60.53	5.0E-05	0.24	4.2	0.44	1	8.6	UnDef	UnDef	100.0	30	30.0	1.1	0.19	UnDef	UnDef
60.86	5.0E-05	0.21	4.6	0.36	1	9.2	UnDef	UnDef	100.0	30	30.0	1.2	0.19	UnDef	UnDef
61.19	5.0E-05	0.19	5.0	0.78	6	9.8	39.4	49.2	57.7	30	30.0	1.3	0.13	3.9	7.7
61.52	5.0E-05	0.19	4.8	2.11	4	9.7	38.6	48.3	71.8	30	30.0	1.3	0.08	3.8	7.6
61.84	5.0E-05	0.06	7.7	1.44	6	14.1	56.6	70.7	53.7	30	30.0	2.3	0.04	5.5	11.1
62.17	5.0E-05	0.17	3.9	1.59	4	8.3	33.3	41.6	73.6	30	30.0	1.0	0.11	3.3	6.5
62.50	5.0E-05	0.33	2.6	0.54	1	6.3	UnDef	UnDef	100.0	30	30.0	0.8	0.23	UnDef	UnDef
62.83	5.0E-05	0.25	3.4	0.83	1	7.5	UnDef	UnDef	100.0	30	30.0	0.9	0.17	UnDef	UnDef
63.16	5.0E-05	0.15	4.6	0.65	1	9.5	UnDef	UnDef	100.0	30	30.0	1.2	0.14	UnDef	UnDef
63.48	5.0E-05	0.32	2.6	0.77	1	6.3	UnDef	UnDef	100.0	30	30.0	0.7	0.21	UnDef	UnDef
63.81	5.0E-05	0.32	2.8	0.77	1	6.7	UnDef	UnDef	100.0	30	30.0	0.8	0.20	UnDef	UnDef
64.14	5.0E-05	0.19	4.7	1.16	4	9.6	38.5	48.1	64.2	30	30.0	1.3	0.11	3.8	7.5
64.47	5.0E-05	0.09	5.9	2.06	4	11.6	46.2	57.8	65.7	30	30.0	1.6	0.05	4.5	9.1
64.80	5.0E-06	0.20	4.0	2.54	4	8.6	34.4	43.0	80.6	UnDef	UnDef	1.1	UnDef	4.2	8.4
65.12	5.0E-05	0.07	7.1	2.16	4	13.4	53.7	67.1	61.6	30	30.0	2.0	0.03	5.3	10.5
65.45	5.0E-04	0.01	18.3	1.60	6	31.0	124.1	155.1	36.7	32	33.7	1.0	-0.06	10.1	20.2
65.78	5.0E-04	0.00	23.5	1.64	7	39.2	110.5	149.7	32.6	34	40.4	1.0	-0.09	11.0	23.8
66.11	5.0E-04	0.00	27.1	1.52	7	45.0	84.6	129.6	29.4	36	44.4	1.0	-0.10	10.1	24.8
66.44	5.0E-04	0.00	27.8	1.62	7	46.1	90.5	136.6	29.8	36	45.1	1.0	-0.11	10.6	25.7
66.76	5.0E-04	0.00	26.7	1.72	7	44.6	101.5	146.0	31.0	36	44.1	1.0	-0.11	11.2	25.7
67.09	5.0E-05	0.05	12.6	2.16	6	22.2	88.9	111.1	48.0	30	30.0	4.6	-0.04	8.7	17.4
67.42	5.0E-05	0.09	10.9	2.43	4	19.7	78.8	98.5	52.9	30	30.0	3.7	-0.03	7.7	15.4
67.75	5.0E-04	0.01	23.4	1.81	6	39.4	133.0	172.4	33.9	34	40.6	1.0	-0.10	12.0	24.9
68.08	5.0E-04	0.00	29.4	1.76	7	49.2	96.8	146.0	29.8	36	46.9	1.0	-0.12	11.4	27.4
68.40	5.0E-04	0.00	29.1	1.76	7	48.6	99.4	148.0	30.1	36	46.6	1.0	-0.12	11.5	27.4
68.73	5.0E-04	0.00	25.8	1.76	7	43.5	113.2	156.7	32.1	34	43.4	1.0	-0.11	11.7	25.9
69.06	5.0E-04	0.00	24.4	1.59	7	41.4	102.0	143.4	31.6	34	42.0	1.0	-0.09	10.8	24.3
69.39	5.0E-04	0.00	22.1	1.83	6	37.8	149.9	187.6	34.9	34	39.4	1.0	-0.09	12.3	24.6
69.72	5.0E-04	0.00	25.5	1.73	7	43.3	110.2	153.5	31.9	34	43.3	1.0	-0.10	11.5	25.6
70.05	5.0E-04	0.00	22.4	2.00	6	38.4	153.6	192.0	35.8	34	39.8	1.0	-0.10	12.5	25.1
70.37	5.0E-04	0.01	20.0	2.21	6	34.5	138.2	172.7	39.2	34	36.8	1.0	-0.10	11.3	22.5
70.70	5.0E-04	0.00	20.1	1.82	6	34.8	139.1	173.8	36.6	34	37.0	1.0	-0.08	11.3	22.7
71.03	5.0E-04	0.00	20.9	1.36	7	36.1	100.8	136.9	32.6	34	38.1	1.0	-0.06	10.1	21.8
71.36	5.0E-04	0.00	19.2	1.60	6	33.5	134.1	167.7	35.8	32	36.0	1.0	-0.07	10.9	21.9
71.69	5.0E-04	0.02	13.9	2.04	6	25.0	100.1	125.1	45.1	32	30.0	1.0	-0.05	8.2	16.3
72.01	5.0E-05	0.06	12.3	2.04	6	22.4	89.5	111.9	47.7	30	30.0	4.4	-0.03	8.8	17.5
72.34	5.0E-05	0.04	13.9	2.31	6	25.1	100.4	125.5	46.8	32	30.0	5.4	-0.06	9.8	19.7
72.67	5.0E-05	0.02	15.1	2.46	6	27.0	107.9	134.9	46.1	32	30.0	6.0	-0.07	10.6	21.1
73.00	5.0E-05	0.01	12.9	2.16	6	23.6	94.4	117.9	47.5	32	30.0	4.8	-0.05	9.2	18.5
73.33	5.0E-06	0.02	7.5	3.10	4	14.7	58.7	73.4	66.2	UnDef	UnDef	2.2	UnDef	7.2	14.4
73.65	5.0E-07	0.23	3.2	5.00	1	7.7	UnDef	UnDef	100.0	UnDef	UnDef	0.9	UnDef	UnDef	UnDef
73.98	5.0E-06	0.40	2.8	3.96	1	7.1	UnDef	UnDef	100.0	UnDef	UnDef	0.8	UnDef	UnDef	UnDef

Run No: 04-0401-1123-5533

CPT File: 717CP004.COR

Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1) 60	(N1) 60cs
74.31	5.0E-05	0.10	6.2	2.76	4	12.7	50.9	63.6	69.2	30	30.0	1.7	0.03	5.0	10.0
74.64	5.0E-05	0.07	7.4	2.77	4	14.7	58.7	73.4	64.5	30	30.0	2.2	0.01	5.7	11.5
74.97	5.0E-06	0.09	5.3	3.15	1	11.3	UnDef	UnDef	100.0	UnDef	UnDef	1.4	UnDef	UnDef	UnDef
75.29	5.0E-06	0.36	2.8	3.78	1	7.1	UnDef	UnDef	100.0	UnDef	UnDef	0.8	UnDef	UnDef	UnDef
75.62	5.0E-06	0.77	1.6	2.68	1	5.3	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
75.95	5.0E-05	0.86	1.5	1.33	1	5.0	UnDef	UnDef	100.0	30	30.0	0.6	0.39	UnDef	UnDef
76.28	5.0E-06	0.95	1.3	1.37	1	4.7	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
76.61	5.0E-06	0.96	1.3	2.78	1	4.7	UnDef	UnDef	100.0	UnDef	UnDef	0.5	UnDef	UnDef	UnDef
76.93	5.0E-05	0.10	7.0	2.18	4	14.3	57.0	71.3	62.0	30	30.0	2.0	0.03	5.6	11.2
77.26	5.0E-05	0.01	10.9	1.98	6	20.7	82.6	103.3	50.0	30	30.0	3.7	-0.02	8.1	16.2
77.59	5.0E-05	0.03	7.2	2.77	4	14.6	58.3	72.9	65.3	30	30.0	2.1	0.01	5.7	11.4
77.92	5.0E-05	0.17	5.1	2.88	1	11.2	UnDef	UnDef	100.0	30	30.0	1.4	0.06	UnDef	UnDef
78.25	5.0E-05	0.17	4.0	2.46	4	9.3	37.1	46.4	80.2	30	30.0	1.1	0.10	3.6	7.3
78.58	5.0E-06	0.33	3.0	2.32	4	7.6	30.3	37.8	89.0	UnDef	UnDef	0.8	UnDef	3.7	7.4
78.90	5.0E-06	0.62	1.9	3.14	1	5.7	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
79.23	5.0E-05	0.56	2.0	1.42	4	6.1	24.2	30.3	93.9	30	30.0	0.6	0.25	2.4	4.7
79.56	5.0E-05	0.67	2.1	1.88	4	6.1	24.6	30.7	97.6	30	30.0	0.7	0.27	2.4	4.8
79.89	5.0E-05	0.67	2.1	1.70	4	6.2	24.7	30.9	95.7	30	30.0	0.7	0.27	2.4	4.8
80.22	5.0E-06	0.57	2.8	2.78	1	7.4	UnDef	UnDef	100.0	UnDef	UnDef	0.8	UnDef	UnDef	UnDef
80.54	5.0E-05	0.05	2.9	2.07	4	7.6	30.4	38.0	87.3	30	30.0	0.8	0.12	3.0	6.0
80.87	5.0E-05	0.12	2.8	2.20	4	7.5	29.8	37.3	89.4	30	30.0	0.8	0.13	2.9	5.8
81.20	5.0E-05	0.15	3.1	2.04	4	8.0	31.8	39.8	84.9	30	30.0	0.9	0.13	3.1	6.2
81.53	5.0E-06	0.24	3.3	2.70	1	8.2	UnDef	UnDef	100.0	UnDef	UnDef	0.9	UnDef	UnDef	UnDef
81.86	5.0E-06	0.24	3.2	4.11	1	8.2	UnDef	UnDef	100.0	UnDef	UnDef	0.9	UnDef	UnDef	UnDef
82.18	5.0E-06	0.27	2.9	3.92	1	7.7	UnDef	UnDef	100.0	UnDef	UnDef	0.8	UnDef	UnDef	UnDef
82.51	5.0E-06	0.28	2.9	2.69	1	7.6	UnDef	UnDef	100.0	UnDef	UnDef	0.8	UnDef	UnDef	UnDef
82.84	5.0E-05	0.30	2.4	2.06	4	6.8	27.3	34.1	94.0	30	30.0	0.7	0.18	2.7	5.3
83.17	5.0E-05	0.23	3.1	2.16	4	8.1	32.3	40.3	85.7	30	30.0	0.9	0.14	3.2	6.3
83.50	5.0E-05	0.13	5.5	2.99	1	12.1	UnDef	UnDef	100.0	30	30.0	1.5	0.05	UnDef	UnDef
83.82	5.0E-06	0.09	7.6	3.82	1	15.7	UnDef	UnDef	100.0	UnDef	UnDef	2.2	UnDef	UnDef	UnDef
84.15	5.0E-08	0.15	9.7	5.38	1	19.3	UnDef	UnDef	100.0	UnDef	UnDef	3.1	UnDef	UnDef	UnDef
84.48	5.0E-04	0.01	22.6	2.41	5	41.5	166.1	207.6	38.0	34	42.1	1.0	-0.12	13.5	27.1
84.81	5.0E-04	-0.02	25.6	2.60	5	46.8	187.1	233.9	36.9	34	45.5	1.0	-0.15	15.3	30.5
85.14	5.0E-05	-0.02	23.4	2.94	5	43.1	172.3	215.3	40.2	34	43.1	10.0	-0.15	16.9	33.7
85.46	5.0E-04	-0.02	27.6	2.01	5	50.2	136.6	186.9	32.4	36	47.5	1.0	-0.13	13.8	30.2
85.79	5.0E-03	-0.02	33.8	1.34	7	61.1	69.0	130.2	24.9	36	53.2	1.0	-0.11	7.4	22.4
86.12	5.0E-03	-0.02	31.6	0.81	7	57.4	44.8	102.2	21.4	36	51.4	1.0	-0.06	5.3	19.4
86.45	5.0E-03	-0.02	28.4	0.98	7	51.9	56.4	108.3	24.5	36	48.5	1.0	-0.07	6.1	18.8
86.78	5.0E-03	-0.03	23.3	0.82	7	43.2	54.9	98.1	26.0	34	43.2	1.0	-0.04	5.7	16.3
87.11	5.0E-03	-0.03	18.2	0.85	7	34.3	71.5	105.9	30.3	32	36.6	1.0	-0.02	6.2	14.6
87.43	5.0E-03	-0.03	17.4	0.84	7	33.1	74.5	107.6	30.9	32	35.5	1.0	-0.01	6.2	14.3
87.76	5.0E-03	-0.03	16.4	0.73	7	31.4	69.3	100.7	30.8	32	34.1	1.0	0.00	5.8	13.5
88.09	5.0E-04	-0.04	13.7	0.91	5	26.7	106.7	133.4	36.1	32	30.0	1.0	0.00	8.7	17.4
88.42	5.0E-04	-0.05	11.6	2.02	5	23.1	92.4	115.5	48.8	30	30.0	1.0	-0.04	7.5	15.1
88.75	5.0E-04	-0.04	14.6	1.37	5	28.3	113.1	141.4	39.2	32	31.1	1.0	-0.03	9.2	18.5
89.07	5.0E-03	-0.04	16.1	0.65	7	31.0	63.8	94.8	30.2	32	33.7	1.0	0.01	5.5	13.1
89.40	5.0E-03	-0.04	17.6	0.70	7	33.7	61.5	95.3	29.2	32	36.1	1.0	0.00	5.6	13.8
89.73	5.0E-03	-0.03	21.5	0.78	7	40.6	56.3	96.9	26.8	34	41.4	1.0	-0.03	5.7	15.6
90.06	5.0E-03	-0.02	23.8	0.74	7	44.7	50.4	95.1	24.9	34	44.2	1.0	-0.03	5.4	16.4
90.39	5.0E-03	-0.02	23.8	0.77	7	44.7	52.3	97.0	25.2	34	44.2	1.0	-0.03	5.6	16.5
90.71	5.0E-03	-0.02	24.1	0.93	7	45.4	61.4	106.8	26.5	34	44.7	1.0	-0.05	6.2	17.4
91.04	5.0E-03	-0.02	24.0	0.69	7	45.2	47.5	92.7	24.2	34	44.5	1.0	-0.03	5.2	16.3
91.37	5.0E-03	-0.02	18.4	1.14	7	35.4	103.9	139.3	32.9	32	37.5	1.0	-0.04	7.6	16.2
91.70	5.0E-03	-0.01	19.4	1.10	7	37.2	91.9	129.2	31.7	34	39.0	1.0	-0.04	7.3	15.4
92.03	5.0E-03	-0.02	26.0	0.78	7	49.0	49.7	98.7	23.9	36	46.8	1.0	-0.04	5.5	17.5
92.35	5.0E-03	-0.02	33.3	0.90	7	62.0	49.1	111.1	21.6	36	53.6	1.0	-0.08	5.8	21.0
92.68	5.0E-03	-0.02	27.3	1.50	7	51.6	94.3	145.9	29.2	36	48.3	1.0	-0.10	8.6	21.2
93.01	5.0E-04	-0.02	16.7	1.43	6	32.6	130.5	163.2	37.1	32	35.2	1.0	-0.05	10.6	21.3
93.34	5.0E-03	-0.03	13.0	0.61	7	26.0	83.2	109.2	33.5	32	30.0	1.0	0.04	5.8	12.2
93.67	5.0E-05	-0.06	5.5	1.40	4	12.7	50.8	63.5	62.2	30	30.0	1.5	0.06	5.0	10.0
93.99	5.0E-04	-0.03	4.4	0.68	1	10.9	UnDef	UnDef	100.0	30	30.0	1.0	0.13	UnDef	UnDef
94.32	5.0E-05	0.03	3.1	1.47	4	8.4	33.7	42.1	80.3	30	30.0	0.8	0.13	3.3	6.6

Run No: 04-0401-1123-5533

CPT File: 717CP004.COR

h (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Param	Del (nl) 60	(Nl) 60cs
94.65	5.0E-05	0.09	3.9	1.82	4	10.0	40.0	50.0	75.7	30	30.0	1.0	0.10	3.9	7.8

Run No: 04-0401-1123-5615
 No: 04-717
 Client: MACTEC
 Project: TVA Kingston
 Site: CPT-11
 Location: TVA Kingston
 Cone: 20 TON AD142
 CPT Date: 04/24/03
 CPT Time: 12:03
 CPT File: 717CP011.COR
 Northing (m): 0.000
 Easting (m): 0.000
 Elevation (m): 0.000

 Water Table (m): 7.14 (ft): 23.4
 Unit Weight of Water (User Specified): 62.40 pcf
 Su Nkt used: 12.50 Su/P' (nc): 0.30
 Averaging Increment (m): 0.10
 Phi Method : Robertson and Campanella, 1983
 Dr Method : Jamiolkowski - All Sands
 State Parameter M: 1.20
 Used Unit Weights Assigned to Soil Zones
 Values of 1.0E9 or UnDef are printed for parameters that are not valid for the material type (SBT)

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	ESTress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60 (blows/ft)	Su (tsf)	CRR
0.16	94.8	2.65	2.79	1.1	6	114.6	0.01	0.01	0.00	2.00	36.3	72.7	7.59	0.00
0.49	78.6	4.88	6.20	-2.2	11	130.5	0.03	0.03	0.00	2.00	75.3	150.6	UnDef	0.00
0.82	56.8	3.74	6.59	-17.0	11	130.5	0.05	0.05	0.00	2.00	54.4	108.8	UnDef	0.00
1.15	40.1	2.54	6.34	-19.1	3	111.4	0.07	0.07	0.00	2.00	38.4	76.8	3.20	0.00
1.48	31.8	1.93	6.09	-19.3	3	111.4	0.09	0.09	0.00	2.00	30.4	60.8	2.53	0.00
1.80	41.9	2.40	5.72	-8.9	3	111.4	0.11	0.11	0.00	2.00	40.1	80.2	3.34	0.00
2.13	53.1	2.70	5.08	-5.7	11	130.5	0.13	0.13	0.00	2.00	50.8	101.6	UnDef	0.00
2.46	41.7	2.44	5.86	-16.3	3	111.4	0.15	0.15	0.00	2.00	39.9	79.8	3.32	0.00
2.79	37.9	2.02	5.34	-6.2	3	111.4	0.17	0.17	0.00	2.00	36.3	72.5	3.01	0.00
3.12	42.6	2.52	5.92	-10.8	3	111.4	0.18	0.18	0.00	2.00	40.8	81.5	3.39	0.00
3.44	33.7	2.28	6.76	-20.3	3	111.4	0.20	0.20	0.00	2.00	32.2	64.5	2.68	0.00
3.77	48.3	2.81	5.82	3.4	3	111.4	0.22	0.22	0.00	2.00	46.3	92.5	3.85	0.00
4.10	66.4	3.74	5.64	0.9	11	130.5	0.24	0.24	0.00	2.00	63.6	127.2	UnDef	0.00
4.43	44.2	3.20	7.25	-18.2	3	111.4	0.26	0.26	0.00	1.96	42.3	83.0	3.51	0.00
4.76	44.6	2.73	6.13	-13.2	3	111.4	0.28	0.28	0.00	1.90	42.7	81.0	3.55	0.00
5.09	36.9	2.47	6.70	-16.2	3	111.4	0.30	0.30	0.00	1.84	35.3	64.9	2.93	0.00
5.41	40.9	2.47	6.04	-13.0	3	111.4	0.31	0.31	0.00	1.78	39.2	69.9	3.25	0.00
5.74	37.5	2.38	6.33	-11.5	3	111.4	0.33	0.33	0.00	1.73	35.9	62.3	2.97	0.00
6.07	38.4	2.23	5.82	-8.4	3	111.4	0.35	0.35	0.00	1.69	36.7	62.0	3.04	0.00
6.40	50.5	2.98	5.90	-1.5	3	111.4	0.37	0.37	0.00	1.65	48.3	79.5	4.01	0.00
6.73	39.5	2.71	6.87	-7.7	3	111.4	0.39	0.39	0.00	1.61	37.8	60.7	3.13	0.00
7.05	39.4	2.46	6.25	-2.7	3	111.4	0.41	0.41	0.00	1.57	37.7	59.2	3.12	0.00
7.38	49.0	2.49	5.08	-4.5	3	111.4	0.42	0.42	0.00	1.54	46.9	72.0	3.88	0.00
7.79	36.8	2.18	5.91	-17.5	3	111.4	0.45	0.45	0.00	1.50	35.2	52.7	2.91	0.00
8.20	26.3	1.40	5.34	-19.6	3	111.4	0.47	0.47	0.00	1.46	25.2	36.7	2.07	0.00
8.53	26.4	1.31	4.95	-10.5	3	111.4	0.49	0.49	0.00	1.43	25.3	36.2	2.08	0.00
8.86	32.8	1.77	5.39	-0.7	3	111.4	0.51	0.51	0.00	1.41	31.4	44.1	2.58	0.00
9.19	40.7	2.48	6.09	-9.5	3	111.4	0.52	0.52	0.00	1.38	39.0	53.9	3.22	0.00
9.51	44.5	2.65	5.95	16.6	3	111.4	0.54	0.54	0.00	1.36	42.7	57.9	3.52	0.00
9.84	40.5	2.50	6.17	16.9	3	111.4	0.56	0.56	0.00	1.33	38.8	51.8	3.19	0.00
10.17	28.2	2.10	7.43	1.2	3	111.4	0.58	0.58	0.00	1.31	27.0	35.5	2.21	0.00
10.50	26.1	1.87	7.16	-6.3	3	111.4	0.60	0.60	0.00	1.29	25.0	32.4	2.04	0.00
10.83	43.5	2.00	4.60	-2.3	4	114.6	0.62	0.62	0.00	1.27	27.7	35.3	3.43	0.00
11.15	40.9	2.11	5.14	-6.1	3	111.4	0.63	0.63	0.00	1.26	39.2	49.2	3.22	0.00
11.48	40.7	2.23	5.48	-8.3	3	111.4	0.65	0.65	0.00	1.24	39.0	48.3	3.20	0.00
11.81	44.4	2.56	5.76	-13.2	3	111.4	0.67	0.67	0.00	1.22	42.6	51.9	3.50	0.00
12.14	37.4	2.15	5.74	-13.5	3	111.4	0.69	0.69	0.00	1.20	35.9	43.2	2.94	0.00
12.47	36.6	1.72	4.70	-15.9	3	111.4	0.71	0.71	0.00	1.19	35.0	41.7	2.87	0.00
12.80	18.3	1.04	5.66	-15.3	3	111.4	0.73	0.73	0.00	1.17	17.5	20.6	1.41	0.00

Run No: 04-0401-1123-5615

CPT File: 717CP011.COR

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
13.12	19.6	0.83	4.22	-13.9	3	111.4	0.74	0.74	0.00	1.16	18.8	21.8	1.51	0.21
13.45	27.2	1.55	5.69	-13.7	3	111.4	0.76	0.76	0.00	1.15	26.1	29.8	2.12	0.00
13.78	28.2	1.85	6.58	-17.1	3	111.4	0.78	0.78	0.00	1.13	27.0	30.5	2.19	0.00
14.11	26.3	1.62	6.16	-17.3	3	111.4	0.80	0.80	0.00	1.12	25.2	28.2	2.04	0.00
14.44	27.4	1.66	6.06	-16.1	3	111.4	0.82	0.82	0.00	1.11	26.2	29.0	2.12	0.00
14.76	23.8	1.69	7.11	-15.4	3	111.4	0.84	0.84	0.00	1.09	22.7	24.9	1.83	0.00
15.09	18.7	1.19	6.39	-15.4	3	111.4	0.85	0.85	0.00	1.08	17.9	19.4	1.43	0.00
15.42	14.1	0.95	6.74	-14.6	3	111.4	0.87	0.87	0.00	1.07	13.5	14.4	1.05	0.00
15.75	32.4	2.03	6.28	-13.2	3	111.4	0.89	0.89	0.00	1.06	31.0	32.9	2.52	0.00
16.08	51.0	3.35	6.58	-17.3	3	111.4	0.91	0.91	0.00	1.05	48.8	51.2	4.01	0.00
16.40	37.1	2.43	6.55	-19.0	3	111.4	0.93	0.93	0.00	1.04	35.5	36.9	2.89	0.00
16.73	32.4	1.91	5.89	-19.6	3	111.4	0.95	0.95	0.00	1.03	31.1	31.9	2.52	0.00
17.06	17.9	1.25	6.98	-19.5	3	111.4	0.96	0.96	0.00	1.02	17.1	17.5	1.35	0.00
17.39	13.4	0.72	5.39	-19.5	3	111.4	0.98	0.98	0.00	1.01	12.8	12.9	0.99	0.00
17.72	11.9	0.83	6.98	-19.7	3	111.4	1.00	1.00	0.00	1.00	11.4	11.4	0.87	0.00
18.04	13.7	0.75	5.48	-19.0	3	111.4	1.02	1.02	0.00	0.99	13.1	13.0	1.02	0.00
18.37	8.3	0.79	9.43	-19.1	3	111.4	1.04	1.04	0.00	0.98	8.0	7.9	0.58	0.00
18.70	11.7	0.67	5.76	-17.8	3	111.4	1.06	1.06	0.00	0.97	11.2	10.9	0.85	0.00
19.03	9.9	0.61	6.16	-17.8	3	111.4	1.07	1.07	0.00	0.97	9.4	9.1	0.70	0.00
19.36	8.4	0.53	6.36	-16.1	3	111.4	1.09	1.09	0.00	0.96	8.0	7.7	0.58	0.00
19.68	8.1	0.46	5.65	-15.8	3	111.4	1.11	1.11	0.00	0.95	7.7	7.3	0.56	0.00
20.01	6.3	0.38	6.00	-15.3	3	111.4	1.13	1.13	0.00	0.94	6.1	5.7	0.42	0.00
20.34	8.7	0.65	7.42	-15.9	3	111.4	1.15	1.15	0.00	0.93	8.3	7.8	0.61	0.00
20.67	41.3	0.62	1.49	-15.2	7	117.8	1.17	1.17	0.00	0.93	13.2	12.2	UnDef	0.14
21.00	74.5	0.32	0.43	-13.3	8	120.9	1.18	1.18	0.00	0.92	17.8	16.4	UnDef	0.11
21.33	71.8	0.24	0.34	-1.2	8	120.9	1.20	1.20	0.00	0.91	17.2	15.7	UnDef	0.10
21.65	65.3	0.22	0.34	7.8	8	120.9	1.22	1.22	0.00	0.90	15.6	14.1	UnDef	0.10
21.98	56.7	0.18	0.31	8.0	8	120.9	1.24	1.24	0.00	0.90	13.6	12.2	UnDef	0.09
22.31	61.8	0.18	0.29	8.3	8	120.9	1.26	1.26	0.00	0.89	14.8	13.2	UnDef	0.09
22.64	63.3	0.23	0.36	7.2	8	120.9	1.28	1.28	0.00	0.88	15.2	13.4	UnDef	0.10
22.97	60.6	0.25	0.40	4.4	8	120.9	1.30	1.30	0.00	0.88	14.5	12.7	UnDef	0.09
23.29	61.1	0.37	0.61	2.2	8	120.9	1.32	1.32	0.00	0.87	14.6	12.7	UnDef	0.11
23.62	65.4	0.35	0.54	5.6	8	120.9	1.34	1.34	0.01	0.86	15.7	13.5	UnDef	0.12
23.95	73.1	0.24	0.32	9.0	8	120.9	1.36	1.35	0.02	0.86	17.5	15.1	UnDef	0.10
24.28	73.7	0.19	0.26	11.0	8	120.9	1.38	1.36	0.03	0.86	17.6	15.2	UnDef	0.10
24.61	74.1	0.21	0.28	11.0	8	120.9	1.40	1.37	0.04	0.86	17.7	15.2	UnDef	0.10
24.93	71.8	0.28	0.38	4.9	8	120.9	1.42	1.38	0.05	0.85	17.2	14.6	UnDef	0.10
25.26	53.0	0.58	1.10	-3.6	7	117.8	1.44	1.39	0.06	0.85	16.9	14.4	UnDef	0.13
25.59	16.9	0.64	3.79	6.1	4	114.6	1.46	1.39	0.07	0.85	10.8	9.2	1.24	0.00
25.92	10.1	0.40	3.92	13.8	3	111.4	1.48	1.40	0.08	0.84	9.7	8.2	0.69	0.00
26.25	7.1	0.09	1.20	62.1	5	114.6	1.50	1.41	0.09	0.84	3.4	2.9	0.45	0.00
26.57	17.1	0.11	0.62	56.8	6	114.6	1.52	1.42	0.10	0.84	6.5	5.5	1.24	0.11
26.90	36.9	0.19	0.50	30.9	7	117.8	1.54	1.43	0.11	0.84	11.8	9.9	UnDef	0.10
27.23	54.8	0.30	0.54	2.7	8	120.9	1.56	1.44	0.12	0.83	13.1	10.9	UnDef	0.11
27.56	52.1	0.46	0.89	6.4	7	117.8	1.58	1.45	0.13	0.83	16.6	13.8	UnDef	0.12
27.89	48.1	0.48	0.99	9.0	7	117.8	1.60	1.46	0.14	0.83	15.4	12.7	UnDef	0.12
28.21	37.1	0.50	1.34	9.6	7	117.8	1.61	1.46	0.15	0.83	11.9	9.8	UnDef	0.15
28.54	24.7	0.48	1.93	12.1	6	114.6	1.63	1.47	0.16	0.82	9.4	7.8	1.84	0.17
28.87	31.7	0.27	0.85	18.5	7	117.8	1.65	1.48	0.17	0.82	10.1	8.3	UnDef	0.11
29.20	48.2	0.20	0.42	-1.8	8	120.9	1.67	1.49	0.18	0.82	11.5	9.5	UnDef	0.09
29.53	36.9	0.42	1.14	0.9	7	117.8	1.69	1.50	0.19	0.82	11.8	9.6	UnDef	0.13
29.86	16.6	0.58	3.47	5.5	4	114.6	1.71	1.51	0.20	0.81	10.6	8.6	1.19	0.00
30.18	11.8	0.37	3.10	21.5	4	114.6	1.73	1.52	0.21	0.81	7.5	6.1	0.81	0.00
30.59	18.9	0.28	1.48	31.5	6	114.6	1.75	1.53	0.22	0.81	7.2	5.9	1.37	0.12
31.00	37.0	0.25	0.66	13.4	7	117.8	1.78	1.54	0.24	0.81	11.8	9.5	UnDef	0.10
31.33	50.1	0.17	0.34	3.2	8	120.9	1.80	1.55	0.25	0.80	12.0	9.6	UnDef	0.09
31.66	47.7	0.21	0.43	1.8	8	120.9	1.82	1.56	0.26	0.80	11.4	9.2	UnDef	0.08
31.99	37.7	0.33	0.86	8.3	7	117.8	1.84	1.57	0.27	0.80	12.0	9.6	UnDef	0.11
32.32	36.2	0.37	1.02	5.1	7	117.8	1.86	1.58	0.28	0.80	11.6	9.2	UnDef	0.13
32.64	47.6	0.41	0.85	-1.7	7	117.8	1.87	1.59	0.29	0.79	15.2	12.1	UnDef	0.12
32.97	51.7	0.43	0.82	3.8	7	117.8	1.89	1.60	0.30	0.79	16.5	13.1	UnDef	0.12
33.30	38.1	0.58	1.51	9.1	7	117.8	1.91	1.60	0.31	0.79	12.2	9.6	UnDef	0.23

Run No: 04-0401-1123-5615

CPT File: 717CP011.COR

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgQd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
33.63	18.5	0.54	2.90	18.4	5	114.6	1.93	1.61	0.32	0.79	8.9	7.0	1.32	0.11
33.96	22.2	0.31	1.40	22.6	6	114.6	1.95	1.62	0.33	0.79	8.5	6.7	1.62	0.14
34.28	22.1	0.17	0.77	19.7	6	114.6	1.97	1.63	0.34	0.78	8.5	6.6	1.61	0.14
34.61	14.0	0.10	0.68	23.0	6	114.6	1.99	1.64	0.35	0.78	5.4	4.2	0.96	0.09
34.94	6.9	0.04	0.51	54.6	1	111.4	2.01	1.65	0.36	0.78	3.3	2.6	0.39	0.00
35.27	5.3	0.04	0.67	81.4	1	111.4	2.03	1.66	0.37	0.78	2.5	2.0	0.26	0.00
35.60	6.1	0.03	0.49	49.3	1	111.4	2.04	1.66	0.38	0.78	2.9	2.3	0.33	0.00
35.92	4.6	0.03	0.55	38.4	1	111.4	2.06	1.67	0.39	0.77	2.2	1.7	0.20	0.00
36.25	4.8	0.02	0.42	69.0	1	111.4	2.08	1.68	0.40	0.77	2.3	1.8	0.21	0.00
36.58	5.1	0.03	0.59	85.2	1	111.4	2.10	1.69	0.41	0.77	2.4	1.9	0.24	0.00
36.91	5.6	0.04	0.72	88.5	1	111.4	2.12	1.70	0.42	0.77	2.7	2.0	0.28	0.00
37.24	6.3	0.05	0.79	103.8	1	111.4	2.13	1.70	0.43	0.77	3.0	2.3	0.34	0.00
37.57	6.9	0.06	0.79	105.3	1	111.4	2.15	1.71	0.44	0.76	3.3	2.5	0.38	0.00
37.89	8.6	0.06	0.64	103.8	6	114.6	2.17	1.72	0.45	0.76	3.3	2.5	0.51	0.08
38.22	15.5	0.04	0.26	74.2	6	114.6	2.19	1.73	0.46	0.76	5.9	4.5	1.06	0.00
38.55	22.1	0.10	0.45	6.3	7	117.8	2.21	1.74	0.47	0.76	7.1	5.4	UnDef	0.12
38.88	11.9	0.10	0.84	13.4	6	114.6	2.23	1.75	0.48	0.76	4.6	3.5	0.78	0.09
39.21	7.6	0.07	0.86	28.2	5	114.6	2.25	1.75	0.49	0.75	3.6	2.7	0.43	0.00
39.53	10.0	0.08	0.80	75.5	6	114.6	2.27	1.76	0.50	0.75	3.8	2.9	0.62	0.08
39.86	28.5	0.11	0.37	25.2	7	117.8	2.29	1.77	0.51	0.75	9.1	6.8	UnDef	0.00
40.19	27.5	0.09	0.33	0.2	7	117.8	2.30	1.78	0.52	0.75	8.8	6.6	UnDef	0.00
40.52	13.8	0.12	0.87	12.1	6	114.6	2.32	1.79	0.53	0.75	5.3	4.0	0.92	0.09
40.85	11.2	0.09	0.80	35.0	6	114.6	2.34	1.80	0.54	0.75	4.3	3.2	0.71	0.09
41.17	9.5	0.07	0.69	60.5	6	114.6	2.36	1.81	0.55	0.74	3.6	2.7	0.57	0.08
41.50	8.1	0.09	1.11	92.7	5	114.6	2.38	1.82	0.56	0.74	3.9	2.9	0.46	0.00
41.83	11.2	0.15	1.30	82.0	5	114.6	2.40	1.82	0.57	0.74	5.4	4.0	0.70	0.09
42.16	10.7	0.13	1.17	28.5	5	114.6	2.42	1.83	0.58	0.74	5.1	3.8	0.66	0.09
42.49	8.4	0.12	1.37	33.6	5	114.6	2.44	1.84	0.59	0.74	4.0	3.0	0.48	0.08
42.81	18.5	0.26	1.38	53.3	6	114.6	2.46	1.85	0.61	0.74	7.1	5.2	1.28	0.11
43.14	41.6	0.22	0.53	-6.7	7	117.8	2.47	1.86	0.62	0.73	13.3	9.7	UnDef	0.10
43.47	41.8	0.20	0.47	-12.5	7	117.8	2.49	1.87	0.63	0.73	13.4	9.8	UnDef	0.00
43.80	22.2	0.16	0.70	-14.8	6	114.6	2.51	1.88	0.64	0.73	8.5	6.2	1.57	0.13
44.13	10.4	0.06	0.58	-6.3	6	114.6	2.53	1.89	0.65	0.73	4.0	2.9	0.63	0.00
44.45	9.5	0.06	0.58	5.1	6	114.6	2.55	1.89	0.66	0.73	3.6	2.6	0.56	0.00
44.78	10.4	0.06	0.58	19.0	6	114.6	2.57	1.90	0.67	0.73	4.0	2.9	0.62	0.00
45.11	9.6	0.08	0.84	43.5	6	114.6	2.59	1.91	0.68	0.72	3.7	2.7	0.56	0.08
45.44	10.1	0.10	0.99	101.8	5	114.6	2.61	1.92	0.69	0.72	4.8	3.5	0.60	0.08
45.77	9.9	0.11	1.06	108.0	5	114.6	2.63	1.93	0.70	0.72	4.7	3.4	0.58	0.08
46.10	8.8	0.11	1.19	101.1	5	114.6	2.64	1.94	0.71	0.72	4.2	3.0	0.49	0.08
46.42	6.6	0.07	0.99	104.6	5	114.6	2.66	1.95	0.72	0.72	3.1	2.3	0.31	0.00
46.75	5.9	0.08	1.28	115.8	5	114.6	2.68	1.95	0.73	0.72	2.8	2.0	0.26	0.00
47.08	19.2	0.10	0.50	48.3	6	114.6	2.70	1.96	0.74	0.71	7.3	5.2	1.32	0.11
47.41	24.9	0.15	0.58	18.0	7	117.8	2.72	1.97	0.75	0.71	8.0	5.7	UnDef	0.14
47.74	27.0	0.07	0.26	22.9	7	117.8	2.74	1.98	0.76	0.71	8.6	6.1	UnDef	0.00
48.06	22.3	0.16	0.70	34.5	7	117.8	2.76	1.99	0.77	0.71	7.1	5.1	UnDef	0.12
48.39	29.2	0.14	0.46	34.3	7	117.8	2.78	2.00	0.78	0.71	9.3	6.6	UnDef	0.11
48.72	26.1	0.22	0.84	27.9	7	117.8	2.80	2.01	0.79	0.71	8.3	5.9	UnDef	0.15
49.05	25.4	0.12	0.45	37.9	7	117.8	2.82	2.02	0.80	0.70	8.1	5.7	UnDef	0.14
49.38	19.2	0.16	0.81	56.3	6	114.6	2.84	2.03	0.81	0.70	7.3	5.2	1.31	0.11
49.70	9.2	0.14	1.48	99.1	5	114.6	2.85	2.03	0.82	0.70	4.4	3.1	0.50	0.08
50.03	8.3	0.11	1.34	113.1	5	114.6	2.87	2.04	0.83	0.70	4.0	2.8	0.43	0.00
50.36	14.5	0.07	0.48	71.4	6	114.6	2.89	2.05	0.84	0.70	5.6	3.9	0.93	0.09
50.69	13.4	0.11	0.82	85.0	6	114.6	2.91	2.06	0.85	0.70	5.1	3.6	0.84	0.09
51.02	11.5	0.09	0.74	94.3	6	114.6	2.93	2.07	0.86	0.70	4.4	3.1	0.69	0.09
51.34	21.6	0.04	0.16	76.7	7	117.8	2.95	2.08	0.87	0.69	6.9	4.8	UnDef	0.00
51.67	19.5	0.08	0.41	69.7	7	117.8	2.97	2.09	0.88	0.69	6.2	4.3	UnDef	0.11
52.00	11.7	0.07	0.56	82.2	6	114.6	2.99	2.09	0.89	0.69	4.5	3.1	0.70	0.00
52.33	8.2	0.03	0.37	101.2	1	111.4	3.01	2.10	0.90	0.69	3.9	2.7	0.42	0.00
52.66	8.9	0.05	0.56	109.0	6	114.6	3.02	2.11	0.91	0.69	3.4	2.4	0.47	0.00
52.98	9.6	0.07	0.73	108.2	6	114.6	3.04	2.12	0.92	0.69	3.7	2.5	0.53	0.08
53.31	11.9	0.06	0.51	62.8	6	114.6	3.06	2.13	0.93	0.69	4.6	3.1	0.71	0.00
53.64	13.3	0.04	0.30	114.8	6	114.6	3.08	2.14	0.94	0.68	5.1	3.5	0.82	0.00

Run No: 04-0401-1123-5615

CPT File: 717CP011.COR

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SET	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
53.97	21.3	0.06	0.26	39.5	7	117.8	3.10	2.15	0.95	0.68	6.8	4.6	UnDef	0.11
54.30	11.6	0.06	0.52	77.2	6	114.6	3.12	2.15	0.96	0.68	4.4	3.0	0.68	0.00
54.63	11.4	0.04	0.31	100.0	6	114.6	3.14	2.16	0.97	0.68	4.4	3.0	0.66	0.00
54.95	9.0	0.05	0.50	118.4	6	114.6	3.16	2.17	0.98	0.68	3.4	2.3	0.46	0.00
55.28	18.8	0.14	0.72	68.7	6	114.6	3.17	2.18	0.99	0.68	7.2	4.9	1.25	0.10
55.61	23.0	0.30	1.29	49.3	6	114.6	3.19	2.19	1.00	0.68	8.8	5.9	1.58	0.12
55.94	42.0	0.23	0.55	15.1	7	117.8	3.21	2.20	1.01	0.67	13.4	9.0	UnDef	0.11
56.27	51.6	0.44	0.85	9.6	7	117.8	3.23	2.21	1.02	0.67	16.5	11.1	UnDef	0.14
56.59	78.8	0.61	0.77	21.0	8	120.9	3.25	2.22	1.04	0.67	18.9	12.7	UnDef	0.14
56.92	134.7	0.84	0.63	-1.1	9	124.1	3.27	2.23	1.05	0.67	25.8	17.3	UnDef	0.21
57.25	159.0	1.56	0.98	-3.6	9	124.1	3.29	2.24	1.06	0.67	30.4	20.4	UnDef	0.32
57.58	101.9	2.13	2.09	-17.9	7	117.8	3.31	2.25	1.07	0.67	32.5	21.7	UnDef	0.43
57.91	56.5	1.92	3.40	-20.8	5	114.6	3.33	2.25	1.08	0.67	27.1	18.0	4.26	0.00
58.23	44.5	0.56	1.26	-20.0	7	117.8	3.35	2.26	1.09	0.66	14.2	9.4	UnDef	0.36
58.56	38.0	0.17	0.44	4.8	7	117.8	3.37	2.27	1.10	0.66	12.1	8.0	UnDef	0.00
58.89	15.5	0.20	1.26	46.5	6	114.6	3.39	2.28	1.11	0.66	5.9	3.9	0.97	0.09
59.22	13.2	0.07	0.53	93.0	6	114.6	3.41	2.29	1.12	0.66	5.1	3.4	0.79	0.00
59.55	14.5	0.13	0.90	102.4	6	114.6	3.43	2.30	1.13	0.66	5.5	3.7	0.88	0.09
59.87	22.3	0.14	0.63	65.8	7	117.8	3.44	2.31	1.14	0.66	7.1	4.7	UnDef	0.11
60.20	28.7	0.26	0.91	48.2	7	117.8	3.46	2.32	1.15	0.66	9.2	6.0	UnDef	0.15
60.53	41.7	0.29	0.70	17.0	7	117.8	3.48	2.33	1.16	0.66	13.3	8.7	UnDef	0.14
60.86	45.4	0.47	1.04	1.2	7	117.8	3.50	2.33	1.17	0.65	14.5	9.5	UnDef	0.23
61.19	34.2	0.51	1.49	6.4	6	114.6	3.52	2.34	1.18	0.65	13.1	8.6	2.46	0.20
61.52	18.7	0.52	2.76	7.2	5	114.6	3.54	2.35	1.19	0.65	9.0	5.8	1.21	0.00
61.84	81.5	1.23	1.51	23.5	7	117.8	3.56	2.36	1.20	0.65	26.0	16.9	UnDef	0.26
62.17	182.8	4.17	2.28	24.5	7	117.8	3.58	2.37	1.21	0.65	58.4	37.9	UnDef	0.00
62.50	202.2	7.99	3.95	-24.3	12	120.9	3.60	2.38	1.22	0.65	96.8	62.8	UnDef	0.00
62.83	192.3	10.31	5.36	-28.6	11	130.5	3.62	2.39	1.23	0.65	184.2	119.1	UnDef	0.00
63.16	270.8	10.64	3.93	-29.7	12	120.9	3.64	2.40	1.24	0.65	129.6	83.7	UnDef	0.00
63.48	412.7	11.56	2.80	-31.0	12	120.9	3.66	2.41	1.25	0.64	197.6	127.3	UnDef	0.00

Run No: 04-0401-1123-5615
 Job No: 04-717
 Client: MACTEC
 Project: TVA Kingston
 Site: CPT-11
 Location: TVA Kingston
 Cone: 20 TON AD142
 CPT Date: 04/24/03
 CPT Time: 12:03
 CPT File: 717CP011.COR
 Northing (m): 0.000
 Easting (m): 0.000
 Elevation (m): 0.000

Water Table (m): 7.14 (ft): 23.4
 Unit Weight of Water (User Specified): 62.40 pcf
 Su Nkt used: 12.50 Su/P' (nc): 0.30
 Averaging Increment (m): 0.10
 Phi Method: Robertson and Campanella, 1983
 Dr Method: Jamiolkowski -- All Sands
 State Parameter M: 1.20

Used Unit Weights Assigned to Soil Zones

Values of 1.0E9 or UnDef are printed for parameters that are not valid for the material type (SBT)

Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1) 60	(N1) 60cs
0.16	5.0E-05	0.00	1000.0	2.79	12	181.6	UnDef	UnDef	0.0	50	95.0	10.0	-0.60	UnDef	UnDef
0.49	1.0E-15	0.00	1000.0	6.20	11	150.6	UnDef	UnDef	0.0	50	95.0	1.0	-1.44	UnDef	UnDef
0.82	1.0E-15	-0.01	1000.0	6.60	11	108.8	UnDef	UnDef	0.0	50	93.1	1.0	-1.69	UnDef	UnDef
1.15	5.0E-08	-0.01	565.7	6.35	11	76.8	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
1.48	5.0E-08	-0.02	355.7	6.11	11	60.8	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
1.80	5.0E-08	-0.01	389.2	5.74	11	80.2	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
2.13	1.0E-15	0.00	416.3	5.09	11	101.6	UnDef	UnDef	0.0	48	78.0	1.0	-0.84	UnDef	UnDef
2.46	5.0E-08	-0.01	282.5	5.88	11	79.8	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
2.79	5.0E-08	-0.01	228.1	5.36	11	72.5	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
3.12	5.0E-08	-0.01	230.9	5.95	11	81.5	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
3.44	5.0E-08	-0.02	165.8	6.80	11	64.5	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
3.77	5.0E-08	0.00	218.5	5.85	11	92.5	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
4.10	1.0E-15	0.00	275.8	5.66	11	127.2	UnDef	UnDef	0.0	46	75.4	1.0	-0.90	UnDef	UnDef
4.43	5.0E-08	-0.01	169.1	7.29	11	84.6	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
4.76	5.0E-08	-0.01	159.4	6.16	11	82.8	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
5.09	5.0E-08	-0.01	123.5	6.75	11	66.3	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
5.41	5.0E-08	-0.01	129.1	6.09	11	71.4	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
5.74	5.0E-08	-0.01	111.7	6.39	11	63.6	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
6.07	5.0E-08	-0.01	108.2	5.87	11	63.3	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
6.40	5.0E-08	0.00	135.6	5.94	11	81.2	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
6.73	5.0E-08	-0.01	100.8	6.94	11	62.0	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
7.05	5.0E-08	0.00	96.0	6.32	11	60.5	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
7.38	5.0E-08	0.00	114.5	5.12	11	73.6	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
7.79	5.0E-08	-0.02	81.3	5.99	11	53.8	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
8.20	5.0E-08	-0.02	55.0	5.43	6	37.5	150.1	187.7	35.9	UnDef	UnDef	10.0	UnDef	36.7	73.5
8.53	5.0E-08	-0.01	53.1	5.04	6	37.0	148.1	185.1	35.2	UnDef	UnDef	10.0	UnDef	36.2	72.5
8.86	5.0E-08	0.00	63.8	5.48	6	45.1	153.7	198.9	34.0	UnDef	UnDef	10.0	UnDef	41.3	85.5
9.19	5.0E-08	-0.01	76.7	6.17	11	55.0	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
9.51	5.0E-08	0.01	81.0	6.03	11	59.2	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
9.84	5.0E-08	0.01	71.1	6.25	11	52.9	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
10.17	5.0E-08	0.00	47.7	7.56	1	36.3	UnDef	UnDef	100.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
10.50	5.0E-08	-0.01	42.7	7.32	1	33.1	UnDef	UnDef	100.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
10.83	5.0E-07	0.00	69.5	4.67	6	54.2	114.2	168.4	30.4	UnDef	UnDef	10.0	UnDef	26.0	61.4
11.15	5.0E-08	0.00	63.5	5.23	6	50.3	155.1	205.3	33.3	UnDef	UnDef	10.0	UnDef	44.0	93.2
11.48	5.0E-08	-0.01	61.3	5.57	6	49.3	190.0	239.3	34.7	UnDef	UnDef	10.0	UnDef	47.6	95.9
11.81	5.0E-08	-0.01	65.2	5.85	11	53.1	UnDef	UnDef	0.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
12.14	5.0E-08	-0.01	53.3	5.85	1	44.1	UnDef	UnDef	100.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
12.47	5.0E-08	-0.01	50.7	4.79	6	42.6	170.2	212.8	35.0	UnDef	UnDef	10.0	UnDef	41.7	83.3
12.80	5.0E-08	-0.03	24.2	5.90	1	21.0	UnDef	UnDef	100.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef

Run No: 04-0401-1123-5615

CPT File: 717CP011.COR

Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1)60	(N1)60cs
13.12	5.0E-08	-0.02	25.3	4.38	4	22.2	89.0	111.2	44.9	UnDef	UnDef	10.0	UnDef	21.8	43.5
13.45	5.0E-08	-0.02	34.7	5.86	1	30.5	UnDef	UnDef	100.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
13.78	5.0E-08	-0.02	35.1	6.77	1	31.2	UnDef	UnDef	100.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
14.11	5.0E-08	-0.02	31.9	6.35	1	28.8	UnDef	UnDef	100.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
14.44	5.0E-08	-0.02	32.5	6.25	1	29.6	UnDef	UnDef	100.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
14.76	5.0E-08	-0.02	27.4	7.37	1	25.4	UnDef	UnDef	100.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
15.09	5.0E-08	-0.03	20.9	6.69	1	19.8	UnDef	UnDef	100.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
15.42	5.0E-08	-0.03	15.1	7.19	1	14.7	UnDef	UnDef	100.0	UnDef	UnDef	6.1	UnDef	UnDef	UnDef
15.75	5.0E-08	-0.01	35.4	6.46	1	33.6	UnDef	UnDef	100.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
16.08	5.0E-08	-0.01	55.1	6.70	1	52.3	UnDef	UnDef	100.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
16.40	5.0E-08	-0.02	39.0	6.71	1	37.7	UnDef	UnDef	100.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
16.73	5.0E-08	-0.02	33.3	6.07	1	32.6	UnDef	UnDef	100.0	UnDef	UnDef	10.0	UnDef	UnDef	UnDef
17.06	5.0E-08	-0.04	17.6	7.37	1	17.8	UnDef	UnDef	100.0	UnDef	UnDef	7.7	UnDef	UnDef	UnDef
17.39	5.0E-08	-0.05	12.6	5.82	1	13.2	UnDef	UnDef	100.0	UnDef	UnDef	4.6	UnDef	UnDef	UnDef
17.72	5.0E-08	-0.06	10.9	7.62	1	11.7	UnDef	UnDef	100.0	UnDef	UnDef	3.7	UnDef	UnDef	UnDef
18.04	5.0E-08	-0.05	12.5	5.92	1	13.3	UnDef	UnDef	100.0	UnDef	UnDef	4.5	UnDef	UnDef	UnDef
18.37	5.0E-08	-0.08	7.0	10.00	1	8.0	UnDef	UnDef	100.0	UnDef	UnDef	2.0	UnDef	UnDef	UnDef
18.70	5.0E-08	-0.05	10.1	6.33	1	11.1	UnDef	UnDef	100.0	UnDef	UnDef	3.3	UnDef	UnDef	UnDef
19.03	5.0E-08	-0.06	8.2	6.91	1	9.3	UnDef	UnDef	100.0	UnDef	UnDef	2.5	UnDef	UnDef	UnDef
19.36	5.0E-08	-0.07	6.7	7.31	1	7.8	UnDef	UnDef	100.0	UnDef	UnDef	1.9	UnDef	UnDef	UnDef
19.68	5.0E-08	-0.07	6.3	6.55	1	7.5	UnDef	UnDef	100.0	UnDef	UnDef	1.7	UnDef	UnDef	UnDef
20.01	5.0E-08	-0.09	4.6	7.30	1	5.8	UnDef	UnDef	100.0	UnDef	UnDef	1.2	UnDef	UnDef	UnDef
20.34	5.0E-08	-0.07	6.6	8.55	1	8.0	UnDef	UnDef	100.0	UnDef	UnDef	1.9	UnDef	UnDef	UnDef
20.67	5.0E-04	-0.01	34.4	1.54	7	37.4	48.0	85.4	26.0	36	39.1	1.0	-0.12	6.6	18.8
21.00	5.0E-03	-0.01	61.9	0.44	9	67.0	0.0	67.0	5.0	40	55.8	1.0	-0.07	0.0	16.4
21.33	5.0E-03	0.00	58.6	0.34	9	64.0	0.0	64.0	5.0	40	54.5	1.0	-0.05	0.0	15.7
21.65	5.0E-03	0.00	52.3	0.34	9	57.8	0.0	57.8	5.0	38	51.5	1.0	-0.04	0.0	14.1
21.98	5.0E-03	0.00	44.5	0.32	9	49.7	0.0	49.7	5.0	38	47.2	1.0	-0.02	0.0	12.2
22.31	5.0E-03	0.00	47.9	0.30	9	53.8	0.0	53.8	5.0	38	49.5	1.0	-0.02	0.0	13.2
22.64	5.0E-03	0.00	48.3	0.37	9	54.7	0.0	54.7	5.0	38	50.0	1.0	-0.04	0.0	13.4
22.97	5.0E-03	0.00	45.5	0.41	9	52.0	0.0	52.0	5.0	38	48.5	1.0	-0.04	0.0	12.7
23.29	5.0E-03	0.00	45.2	0.62	9	52.0	19.4	71.4	15.2	38	48.5	1.0	-0.07	2.6	15.3
23.62	5.0E-03	0.00	47.9	0.55	9	55.4	16.9	72.3	13.8	38	50.3	1.0	-0.07	2.3	15.9
23.95	5.0E-03	0.00	53.3	0.33	9	61.6	0.0	61.6	5.0	40	53.4	1.0	-0.04	0.0	15.1
24.28	5.0E-03	0.00	53.3	0.26	9	61.9	0.0	61.9	5.0	40	53.5	1.0	-0.02	0.0	15.2
24.61	5.0E-03	0.00	53.2	0.29	9	62.1	0.0	62.1	5.0	40	53.6	1.0	-0.03	0.0	15.2
24.93	5.0E-03	0.00	51.1	0.39	9	59.9	0.0	59.9	5.0	38	52.6	1.0	-0.05	0.0	14.6
25.26	5.0E-04	0.00	37.2	1.13	7	44.1	36.6	80.7	22.0	38	43.8	1.0	-0.10	5.7	20.1
25.59	5.0E-07	0.01	11.1	4.15	1	14.0	UnDef	UnDef	100.0	UnDef	UnDef	3.8	UnDef	UnDef	UnDef
25.92	5.0E-08	0.04	6.1	4.60	1	8.3	UnDef	UnDef	100.0	UnDef	UnDef	1.7	UnDef	UnDef	UnDef
26.25	5.0E-06	0.33	4.0	1.51	4	5.9	23.5	29.4	72.4	UnDef	UnDef	1.1	UnDef	2.9	5.7
26.57	5.0E-05	0.11	11.0	0.68	6	14.0	56.1	70.1	37.7	30	30.0	3.7	0.06	5.5	11.0
26.90	5.0E-04	0.02	24.8	0.52	7	30.3	24.4	54.7	21.7	34	33.0	1.0	0.00	3.8	13.7
27.23	5.0E-03	0.00	37.0	0.56	7	44.7	20.6	65.3	16.8	38	44.2	1.0	-0.05	2.7	13.6
27.56	5.0E-04	0.00	34.9	0.91	7	42.4	31.3	74.2	21.1	38	42.7	1.0	-0.08	5.1	18.9
27.89	5.0E-04	0.00	32.0	1.02	7	39.0	37.0	76.0	23.2	36	40.3	1.0	-0.08	5.6	18.3
28.21	5.0E-04	0.00	24.2	1.40	7	30.0	62.9	92.9	30.4	34	32.8	1.0	-0.08	7.2	17.0
28.54	5.0E-05	0.01	15.6	2.07	6	19.9	79.5	99.4	42.9	32	30.0	6.4	-0.07	7.8	15.6
28.87	5.0E-04	0.01	20.3	0.90	7	25.5	45.4	70.9	29.0	34	30.0	1.0	-0.03	5.6	13.9
29.20	5.0E-03	-0.01	31.2	0.43	7	38.6	0.0	38.6	5.0	36	40.0	1.0	-0.01	0.0	9.5
29.53	5.0E-04	0.00	23.5	1.19	7	29.5	54.3	83.8	29.3	34	32.3	1.0	-0.06	6.6	16.2
29.86	5.0E-07	0.00	9.9	3.87	1	13.2	UnDef	UnDef	100.0	UnDef	UnDef	3.2	UnDef	UnDef	UnDef
30.18	5.0E-07	0.05	6.6	3.64	1	9.4	UnDef	UnDef	100.0	UnDef	UnDef	1.9	UnDef	UnDef	UnDef
30.59	5.0E-05	0.04	11.2	1.64	6	15.0	59.9	74.8	46.7	30	30.0	3.9	-0.01	5.9	11.7
31.00	5.0E-04	0.01	22.9	0.70	7	29.2	33.2	62.4	24.9	34	32.0	1.0	-0.02	4.7	14.3
31.33	5.0E-03	0.00	31.2	0.35	7	39.4	0.0	39.4	5.0	36	40.6	1.0	0.00	0.0	9.6
31.66	5.0E-03	0.00	29.4	0.45	7	37.4	0.0	37.4	5.0	36	39.1	1.0	-0.01	0.0	9.2
31.99	5.0E-04	0.00	22.9	0.91	7	29.5	42.5	72.0	27.1	34	32.2	1.0	-0.04	5.6	15.2
32.32	5.0E-04	0.00	21.8	1.08	7	28.2	53.3	81.5	29.5	34	31.0	1.0	-0.05	6.4	15.6
32.64	5.0E-04	-0.01	28.9	0.89	7	37.0	35.9	72.9	23.4	36	38.8	1.0	-0.06	5.4	17.5
32.97	5.0E-04	0.00	31.2	0.86	7	40.1	33.5	73.5	22.0	36	41.0	1.0	-0.07	5.2	18.3
33.30	5.0E-04	0.00	22.6	1.59	7	29.4	86.8	116.3	33.0	34	32.2	1.0	-0.08	8.4	18.0

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Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Nes	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1) 60	(N1) 60cs
33.63	5.0E-06	0.02	10.3	3.24	4	14.2	57.0	71.2	58.9	UnDef	UnDef	3.4	UnDef	7.0	13.9
33.96	5.0E-05	0.02	12.5	1.54	6	17.0	68.2	85.2	43.7	30	30.0	4.5	-0.02	6.7	13.3
34.28	5.0E-05	0.01	12.4	0.85	6	17.0	67.8	84.8	37.3	30	30.0	4.5	0.02	6.6	13.3
34.61	5.0E-05	0.03	7.4	0.79	6	10.7	42.9	53.6	48.0	30	30.0	2.1	0.08	4.2	8.4
34.94	1.0E-07	0.28	2.9	0.72	1	5.2	UnDef	UnDef	100.0	UnDef	UnDef	0.8	UnDef	UnDef	UnDef
35.27	1.0E-07	0.67	2.0	1.08	1	4.0	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
35.60	1.0E-07	0.29	2.4	0.74	1	4.6	UnDef	UnDef	100.0	UnDef	UnDef	0.7	UnDef	UnDef	UnDef
35.92	1.0E-07	0.32	1.5	1.00	1	3.4	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
36.25	1.0E-07	0.65	1.6	0.75	1	3.6	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
36.58	1.0E-07	0.76	1.8	1.00	1	3.8	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
36.91	1.0E-07	0.68	2.0	1.17	1	4.2	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
37.24	1.0E-07	0.67	2.5	1.19	4	4.7	19.0	23.7	84.5	UnDef	UnDef	0.7	UnDef	2.3	4.6
37.57	1.0E-07	0.59	2.8	1.15	4	5.2	20.8	26.0	79.7	UnDef	UnDef	0.8	UnDef	2.5	5.1
37.89	5.0E-05	0.43	3.7	0.86	4	6.4	25.7	32.1	66.8	30	30.0	1.0	0.19	2.5	5.0
38.22	5.0E-05	0.14	7.7	0.30	1	11.5	UnDef	UnDef	100.0	30	30.0	2.3	0.15	UnDef	UnDef
38.55	5.0E-04	-0.01	11.5	0.50	7	16.4	60.2	76.7	34.4	30	30.0	1.0	0.06	5.2	10.5
38.88	5.0E-05	-0.01	5.6	1.03	4	8.8	35.4	44.2	57.9	30	30.0	1.5	0.08	3.5	6.9
39.21	5.0E-06	0.07	3.1	1.22	4	5.6	22.5	28.1	77.6	UnDef	UnDef	0.8	UnDef	2.7	5.5
39.53	5.0E-05	0.24	4.4	1.03	4	7.4	29.6	37.0	64.3	30	30.0	1.2	0.13	2.9	5.8
39.86	5.0E-04	0.01	14.8	0.40	7	21.0	0.0	21.0	5.0	32	30.0	1.0	0.06	0.0	6.8
40.19	5.0E-04	-0.02	14.1	0.36	7	20.2	0.0	20.2	5.0	32	30.0	1.0	0.07	0.0	6.6
40.52	5.0E-05	-0.01	6.4	1.05	5	10.1	40.4	50.5	54.3	30	30.0	1.8	0.07	4.0	7.9
40.85	5.0E-05	0.06	4.9	1.02	4	8.2	32.7	40.9	60.9	30	30.0	1.3	0.10	3.2	6.4
41.17	5.0E-05	0.19	3.9	0.92	4	6.9	27.5	34.4	66.2	30	30.0	1.0	0.14	2.7	5.4
41.50	5.0E-06	0.41	3.2	1.57	4	5.9	23.6	29.5	80.2	UnDef	UnDef	0.9	UnDef	2.9	5.8
41.83	5.0E-06	0.23	4.8	1.65	4	8.1	32.5	40.6	68.0	UnDef	UnDef	1.3	UnDef	4.0	7.9
42.16	5.0E-06	0.04	4.5	1.51	4	7.7	30.9	38.7	68.7	UnDef	UnDef	1.2	UnDef	3.8	7.6
42.49	5.0E-06	0.08	3.2	1.93	4	6.1	24.2	30.3	82.8	UnDef	UnDef	0.9	UnDef	3.0	5.9
42.81	5.0E-05	0.08	8.7	1.59	6	13.3	53.2	66.5	52.3	30	30.0	2.7	0.02	5.2	10.4
43.14	5.0E-04	-0.02	21.0	0.55	7	29.9	33.0	62.9	24.7	34	32.6	1.0	0.00	4.8	14.5
43.47	5.0E-04	-0.03	21.1	0.50	7	30.0	0.0	30.0	5.0	34	32.7	1.0	0.01	0.0	9.8
43.80	5.0E-05	-0.06	10.5	0.79	6	15.8	63.3	79.1	40.1	30	30.0	3.5	0.04	6.2	12.4
44.13	5.0E-05	-0.11	4.2	0.75	1	7.4	UnDef	UnDef	100.0	30	30.0	1.1	0.12	UnDef	UnDef
44.45	5.0E-05	-0.07	3.7	0.79	1	6.8	UnDef	UnDef	100.0	30	30.0	1.0	0.13	UnDef	UnDef
44.78	5.0E-05	-0.01	4.1	0.77	1	7.4	UnDef	UnDef	100.0	30	30.0	1.1	0.13	UnDef	UnDef
45.11	5.0E-05	0.10	3.7	1.15	4	6.8	27.1	33.9	71.2	30	30.0	1.0	0.13	2.7	5.3
45.44	5.0E-06	0.33	3.9	1.34	4	7.1	28.5	35.6	71.3	UnDef	UnDef	1.0	UnDef	3.5	7.0
45.77	5.0E-06	0.37	3.8	1.45	4	7.0	27.9	34.9	73.5	UnDef	UnDef	1.0	UnDef	3.4	6.8
46.10	5.0E-06	0.40	3.2	1.71	4	6.2	24.8	31.0	81.3	UnDef	UnDef	0.9	UnDef	3.0	6.1
46.42	5.0E-06	0.65	2.0	1.67	4	4.6	18.4	23.0	97.2	UnDef	UnDef	0.6	UnDef	2.3	4.5
46.75	5.0E-06	0.90	1.6	2.35	1	4.1	UnDef	UnDef	100.0	UnDef	UnDef	0.6	UnDef	UnDef	UnDef
47.08	5.0E-05	0.05	8.4	0.53	6	13.4	53.6	66.9	42.0	30	30.0	2.6	0.09	5.2	10.5
47.41	5.0E-04	-0.01	11.3	0.65	6	17.4	69.5	86.9	36.9	30	30.0	1.0	0.05	5.7	11.3
47.74	5.0E-04	0.00	12.2	0.29	7	18.8	0.0	18.8	5.0	30	30.0	1.0	0.10	0.0	6.1
48.06	5.0E-04	0.02	9.8	0.79	6	15.5	62.0	77.5	41.4	30	30.0	1.0	0.05	5.1	10.1
48.39	5.0E-04	0.01	13.2	0.51	7	20.2	51.2	71.5	31.9	32	30.0	1.0	0.05	5.4	12.0
48.72	5.0E-04	0.00	11.6	0.95	6	18.0	72.2	90.2	39.7	30	30.0	1.0	0.02	5.9	11.8
49.05	5.0E-04	0.02	11.2	0.51	7	17.5	70.3	87.8	35.0	30	30.0	1.0	0.07	5.7	11.4
49.38	5.0E-05	0.06	8.1	0.95	6	13.2	52.7	65.9	47.7	30	30.0	2.4	0.06	5.2	10.3
49.70	5.0E-06	0.36	3.1	2.15	4	6.3	25.1	31.4	86.1	UnDef	UnDef	0.8	UnDef	3.1	6.1
50.03	5.0E-06	0.50	2.6	2.05	4	5.7	22.6	28.3	90.8	UnDef	UnDef	0.8	UnDef	2.8	5.5
50.36	5.0E-05	0.12	5.7	0.60	6	9.9	39.7	49.6	51.7	30	30.0	1.5	0.13	3.9	7.8
50.69	5.0E-05	0.17	5.1	1.05	4	9.1	36.5	45.7	60.5	30	30.0	1.4	0.11	3.6	7.2
51.02	5.0E-05	0.24	4.2	0.99	4	7.8	31.4	39.2	65.5	30	30.0	1.1	0.14	3.1	6.1
51.34	5.0E-04	0.08	9.0	0.19	1	14.7	UnDef	UnDef	100.0	30	30.0	1.0	0.17	UnDef	UnDef
51.67	5.0E-04	0.08	7.9	0.49	6	13.2	52.7	65.9	41.9	30	30.0	1.0	0.11	4.3	8.6
52.00	5.0E-05	0.19	4.2	0.75	1	7.9	UnDef	UnDef	100.0	30	30.0	1.1	0.15	UnDef	UnDef
52.33	1.0E-07	0.43	2.5	0.53	1	5.5	UnDef	UnDef	100.0	UnDef	UnDef	0.7	UnDef	UnDef	UnDef
52.66	5.0E-05	0.42	2.8	0.85	1	6.0	UnDef	UnDef	100.0	30	30.0	0.8	0.21	UnDef	UnDef
52.98	5.0E-05	0.37	3.1	1.05	4	6.5	25.9	32.4	75.1	30	30.0	0.9	0.18	2.5	5.1
53.31	5.0E-05	0.12	4.1	0.63	1	8.0	UnDef	UnDef	100.0	30	30.0	1.1	0.15	UnDef	UnDef
53.64	5.0E-05	0.26	4.8	0.39	1	8.9	UnDef	UnDef	100.0	30	30.0	1.3	0.19	UnDef	UnDef

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Depth (ft)	k (cm/s)	Bq	Qtn	Rfn	SBTn	Qc1N	DeltaQc1N	Qc1Ncs	Fc (%)	Phi (Deg)	Dr (%)	OCR	State Del Param	(n1) 60	(N1) 60cs
53.97	5.0E-04	0.02	8.5	0.30	7	14.2	57.0	71.2	37.1	30	30.0	1.0	0.13	4.6	9.3
54.30	5.0E-05	0.17	3.9	0.71	1	7.7	UnDef	UnDef	100.0	30	30.0	1.0	0.16	UnDef	UnDef
54.63	5.0E-05	0.26	3.8	0.42	1	7.6	UnDef	UnDef	100.0	30	30.0	1.0	0.20	UnDef	UnDef
54.95	5.0E-05	0.47	2.7	0.76	1	5.9	UnDef	UnDef	100.0	30	30.0	0.8	0.23	UnDef	UnDef
55.28	5.0E-05	0.07	7.2	0.87	6	12.5	49.8	62.3	49.5	30	30.0	2.1	0.08	4.9	9.7
55.61	5.0E-05	0.03	9.0	1.50	6	15.2	60.8	76.0	50.5	30	30.0	2.8	0.02	5.9	11.9
55.94	5.0E-04	-0.01	17.7	0.59	7	27.7	43.5	71.2	27.9	32	30.5	1.0	0.01	5.6	14.6
56.27	5.0E-04	-0.01	21.9	0.91	7	34.0	53.0	87.0	27.8	34	36.4	1.0	-0.04	6.8	17.9
56.59	5.0E-03	-0.01	34.1	0.80	7	51.8	36.0	87.8	20.4	36	48.4	1.0	-0.07	4.4	17.1
56.92	5.0E-02	-0.01	59.0	0.64	9	88.3	22.3	110.6	12.5	40	63.7	1.0	-0.10	2.5	19.8
57.25	5.0E-02	-0.01	69.6	1.00	9	104.0	32.5	136.5	13.9	40	68.4	1.0	-0.15	3.6	23.9
57.58	5.0E-04	-0.02	43.9	2.16	7	66.5	88.5	155.1	26.4	38	55.6	1.0	-0.19	12.1	33.8
57.91	5.0E-06	-0.03	23.6	3.62	6	36.8	147.4	184.2	43.1	UnDef	UnDef	10.0	UnDef	18.0	36.1
58.23	5.0E-04	-0.04	18.2	1.36	6	29.0	116.1	145.1	35.0	32	31.8	1.0	-0.05	9.5	18.9
58.56	5.0E-04	-0.03	15.2	0.48	7	24.7	0.0	24.7	5.0	32	30.0	1.0	0.04	0.0	8.0
58.89	5.0E-05	0.03	5.3	1.62	4	10.0	40.1	50.1	65.2	30	30.0	1.4	0.07	3.9	7.8
59.22	5.0E-05	0.18	4.3	0.71	1	8.6	UnDef	UnDef	100.0	30	30.0	1.1	0.15	UnDef	UnDef
59.55	5.0E-05	0.19	4.8	1.18	4	9.3	37.4	46.7	63.5	30	30.0	1.3	0.11	3.7	7.3
59.87	5.0E-04	0.05	8.2	0.75	5	14.3	57.3	71.7	45.0	30	30.0	1.0	0.07	4.7	9.4
60.20	5.0E-04	0.01	10.9	1.03	5	18.5	73.9	92.3	41.9	30	30.0	1.0	0.02	6.0	12.0
60.53	5.0E-04	-0.02	16.4	0.76	7	26.8	61.4	88.1	31.1	32	30.0	1.0	0.00	6.7	15.5
60.86	5.0E-04	-0.03	18.0	1.12	7	29.1	88.3	117.4	33.2	32	31.9	1.0	-0.04	8.4	17.9
61.19	5.0E-05	-0.03	13.1	1.66	5	21.9	87.5	109.4	43.7	32	30.0	4.9	-0.03	8.6	17.1
61.52	5.0E-06	-0.06	6.5	3.40	1	11.9	UnDef	UnDef	100.0	UnDef	UnDef	1.8	UnDef	UnDef	UnDef
61.84	5.0E-04	-0.01	33.0	1.58	7	51.9	73.1	125.0	26.9	36	48.5	1.0	-0.12	9.8	26.7
62.17	5.0E-04	0.00	75.6	2.33	7	116.2	83.1	199.3	20.6	40	71.6	1.0	-0.26	13.4	51.3
62.50	1.0E-15	-0.01	83.5	4.03	6	128.3	166.2	294.5	26.1	42	74.4	1.0	-0.40	34.2	97.0
62.83	1.0E-15	-0.01	79.0	5.46	11	121.7	UnDef	UnDef	0.0	42	72.9	1.0	-0.58	UnDef	UnDef
63.16	1.0E-15	-0.01	111.3	3.98	12	171.0	UnDef	UnDef	0.0	42	82.7	1.0	-0.44	UnDef	UnDef
63.48	1.0E-15	-0.01	169.7	2.83	7	260.2	98.0	358.1	15.2	44	94.7	1.0	-0.39	26.3	153.6

Interpretation Output - Release 1.00.19M

Log No: 04-0401-1123-5670
 No: 04-717
 Client: MACTEC
 Project: TVA Kingston
 Site: CPT-9
 Location: TVA Kingston
 Cone: 20 TON AD142
 CPT Date: 04/24/03
 CPT Time: 13:20
 CPT File: 717CP009.COR

Northing (m): 0.000
 Easting (m): 0.000
 Elevation (m): 0.000

 Water Table (m): 2.05 (ft): 6.7
 Unit Weight of Water (User Specified): 62.40 pcf
 Su Nkt used: 12.50 Su/P' (nc): 0.30
 Averaging Increment (m): 0.10
 Phi Method : Robertson and Campanella, 1983
 Dr Method : Jamiolkowski - All Sands
 State Parameter M: 1.20
 Used Unit Weights Assigned to Soil Zones
 Values of 1.0E9 or UnDef are printed for parameters that are not valid for the material type (SBT)

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUd (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
0.16	90.9	0.34	0.37	0.6	8	120.9	0.01	0.01	0.00	2.00	21.8	43.5	UnDef	0.00
0.49	96.0	1.28	1.33	0.4	8	120.9	0.03	0.03	0.00	2.00	23.0	46.0	UnDef	0.00
0.82	256.0	2.30	0.90	0.3	9	124.1	0.05	0.05	0.00	2.00	49.0	98.1	UnDef	0.00
1.15	293.7	2.75	0.94	-0.3	9	124.1	0.07	0.07	0.00	2.00	56.3	112.5	UnDef	0.00
1.48	384.1	3.89	1.01	-0.6	9	124.1	0.09	0.09	0.00	2.00	73.6	147.1	UnDef	0.00
1.80	398.6	5.71	1.43	2.7	9	124.1	0.11	0.11	0.00	2.00	76.3	152.7	UnDef	0.00
2.13	307.1	4.44	1.45	2.7	8	120.9	0.13	0.13	0.00	2.00	73.5	147.0	UnDef	0.00
2.46	311.4	1.60	0.52	0.1	10	127.3	0.15	0.15	0.00	2.00	49.7	99.4	UnDef	0.00
2.79	273.8	2.14	0.78	6.2	9	124.1	0.17	0.17	0.00	2.00	52.4	104.9	UnDef	0.00
3.12	255.0	2.40	0.94	1.4	9	124.1	0.19	0.19	0.00	2.00	48.8	97.7	UnDef	0.00
3.44	293.4	2.50	0.85	2.5	9	124.1	0.21	0.21	0.00	2.00	56.2	112.4	UnDef	0.00
3.77	343.4	3.40	0.99	0.4	9	124.1	0.23	0.23	0.00	2.00	65.8	131.5	UnDef	0.00
4.10	327.0	3.43	1.05	-2.8	9	124.1	0.25	0.25	0.00	1.99	62.6	124.4	UnDef	0.00
4.43	294.0	2.97	1.01	-6.5	9	124.1	0.27	0.27	0.00	1.91	56.3	107.6	UnDef	0.00
4.76	242.8	2.35	0.97	-10.0	9	124.1	0.29	0.29	0.00	1.84	46.5	85.7	UnDef	0.00
5.09	178.9	1.69	0.95	-8.7	9	124.1	0.31	0.31	0.00	1.78	34.3	61.1	UnDef	0.00
5.41	144.5	1.25	0.87	-8.6	9	124.1	0.33	0.33	0.00	1.73	27.7	47.8	UnDef	0.00
5.74	126.3	0.64	0.50	-11.1	9	124.1	0.36	0.36	0.00	1.68	24.2	40.6	UnDef	0.00
6.07	100.0	0.59	0.59	-5.5	8	120.9	0.38	0.38	0.00	1.63	24.0	39.1	UnDef	0.46
6.40	97.1	0.59	0.60	-3.1	8	120.9	0.40	0.40	0.00	1.59	23.2	37.0	UnDef	0.40
6.73	88.1	0.45	0.51	0.5	8	120.9	0.42	0.42	0.00	1.55	21.1	32.7	UnDef	0.30
7.05	57.0	0.22	0.38	0.3	8	120.9	0.43	0.43	0.01	1.53	13.6	20.9	UnDef	0.14
7.38	34.4	0.20	0.57	2.9	7	117.8	0.45	0.43	0.02	1.52	11.0	16.7	UnDef	0.10
7.79	23.6	0.10	0.40	3.7	7	117.8	0.48	0.45	0.03	1.50	7.5	11.3	UnDef	0.08
8.20	20.9	0.06	0.29	6.5	7	117.8	0.50	0.46	0.05	1.48	6.7	9.9	UnDef	0.08
8.53	27.4	0.06	0.20	0.7	7	117.8	0.52	0.47	0.06	1.46	8.8	12.8	UnDef	0.09
8.86	27.3	0.09	0.31	2.8	7	117.8	0.54	0.48	0.07	1.45	8.7	12.6	UnDef	0.09
9.19	43.0	1.39	3.23	3.6	5	114.6	0.56	0.48	0.08	1.44	20.6	29.6	3.39	0.23
9.51	39.4	1.43	3.63	4.4	5	114.6	0.58	0.49	0.09	1.42	18.9	26.9	3.10	0.25
9.84	13.3	0.38	2.83	7.9	5	114.6	0.60	0.50	0.10	1.41	6.4	9.0	1.02	0.15
10.17	7.5	0.07	0.94	9.7	5	114.6	0.62	0.51	0.11	1.40	3.6	5.0	0.55	0.09
10.50	5.3	0.11	2.10	10.4	4	114.6	0.64	0.52	0.12	1.39	3.4	4.7	0.37	0.08
10.83	12.6	0.07	0.56	4.9	6	114.6	0.65	0.53	0.13	1.38	4.8	6.6	0.95	0.08
11.15	17.2	0.07	0.41	-0.4	6	114.6	0.67	0.54	0.14	1.37	6.6	9.0	1.32	0.00
11.48	20.2	0.10	0.47	7.8	7	117.8	0.69	0.54	0.15	1.36	6.4	8.7	UnDef	0.00
11.81	25.4	0.07	0.28	-0.8	7	117.8	0.71	0.55	0.16	1.34	8.1	10.9	UnDef	0.08
12.14	35.7	0.15	0.41	4.4	7	117.8	0.73	0.56	0.17	1.33	11.4	15.2	UnDef	0.09
12.47	60.4	0.28	0.46	5.2	8	120.9	0.75	0.57	0.18	1.32	14.5	19.1	UnDef	0.12
12.80	60.9	0.46	0.76	6.6	8	120.9	0.77	0.58	0.19	1.31	14.6	19.1	UnDef	0.14

Run No: 04-0401-1123-5670

CPT File: 717CP009.COR

Depth (ft)	AvgQt (tsf)	AvgFs (tsf)	AvgRf (%)	AvgUi (ft)	SBT	U.Wt. pcf	TStress (tsf)	EStress (tsf)	Ueq (tsf)	Cn	N60 (blows/ft)	(N1)60	Su (tsf)	CRR
13.12	51.4	0.44	0.85	6.9	7	117.8	0.79	0.59	0.20	1.30	16.4	21.4	UnDef	0.12
13.45	40.3	0.25	0.61	8.6	7	117.8	0.81	0.60	0.21	1.29	12.9	16.6	UnDef	0.10
13.78	30.0	0.12	0.38	11.8	7	117.8	0.83	0.61	0.22	1.28	9.6	12.3	UnDef	0.08
14.11	25.6	0.10	0.37	10.2	7	117.8	0.85	0.62	0.23	1.27	8.2	10.4	UnDef	0.08
14.44	26.0	0.15	0.56	15.6	7	117.8	0.87	0.63	0.24	1.26	8.3	10.5	UnDef	0.09
14.76	27.3	0.18	0.64	19.6	7	117.8	0.89	0.64	0.25	1.25	8.7	10.9	UnDef	0.09
15.09	25.7	0.15	0.59	16.9	7	117.8	0.91	0.65	0.26	1.25	8.2	10.2	UnDef	0.09
15.42	21.2	0.11	0.52	19.9	7	117.8	0.93	0.65	0.27	1.24	6.8	8.4	UnDef	0.09
15.75	20.9	0.16	0.77	18.4	6	114.6	0.94	0.66	0.28	1.23	8.0	9.8	1.59	0.09
16.08	22.3	0.16	0.72	19.9	6	114.6	0.96	0.67	0.29	1.22	8.5	10.4	1.71	0.09
16.40	29.5	0.14	0.46	23.0	7	117.8	0.98	0.68	0.30	1.21	9.4	11.4	UnDef	0.08
16.73	42.1	0.09	0.20	16.5	8	120.9	1.00	0.69	0.31	1.20	10.1	12.1	UnDef	0.09
17.06	45.8	0.20	0.43	19.4	8	120.9	1.02	0.70	0.32	1.20	11.0	13.1	UnDef	0.09
17.39	42.6	0.34	0.80	33.2	7	117.8	1.04	0.71	0.33	1.19	13.6	16.1	UnDef	0.11
17.72	49.9	0.53	1.05	35.5	7	117.8	1.06	0.72	0.34	1.18	15.9	18.8	UnDef	0.12
18.04	53.6	0.61	1.13	29.7	7	117.8	1.08	0.73	0.35	1.17	17.1	20.1	UnDef	0.13
18.37	52.0	0.57	1.10	34.1	7	117.8	1.10	0.74	0.36	1.17	16.6	19.3	UnDef	0.13
18.70	68.4	0.87	1.27	35.3	7	117.8	1.12	0.75	0.37	1.16	21.8	25.3	UnDef	0.17
19.03	125.1	1.23	0.99	29.8	8	120.9	1.14	0.75	0.38	1.15	30.0	34.5	UnDef	0.39
19.36	150.1	2.87	1.91	6.1	7	117.8	1.16	0.76	0.39	1.14	47.9	54.8	UnDef	0.00
19.68	169.6	4.20	2.47	9.9	7	117.8	1.18	0.77	0.40	1.14	54.1	61.6	UnDef	0.00
20.01	205.8	5.68	2.76	15.2	7	117.8	1.20	0.78	0.41	1.13	65.7	74.3	UnDef	0.00
20.34	294.7	6.77	2.30	41.1	7	117.8	1.22	0.79	0.42	1.12	94.1	105.8	UnDef	0.00
20.67	300.7	6.45	2.14	1.7	8	120.9	1.24	0.80	0.43	1.12	72.0	80.5	UnDef	0.00
21.00	210.1	4.76	2.26	-0.9	7	117.8	1.25	0.81	0.44	1.11	67.1	74.5	UnDef	0.00
21.33	168.7	4.00	2.37	4.3	7	117.8	1.27	0.82	0.46	1.11	53.9	59.5	UnDef	0.00
21.65	169.3	3.96	2.34	7.8	7	117.8	1.29	0.83	0.47	1.10	54.0	59.4	UnDef	0.00
21.98	121.1	3.61	2.98	8.4	6	114.6	1.31	0.84	0.48	1.09	46.4	50.7	9.58	0.00
22.31	59.8	2.17	3.63	36.7	5	114.6	1.33	0.85	0.49	1.09	28.6	31.2	4.68	0.44
22.64	67.4	1.40	2.08	19.1	7	117.8	1.35	0.85	0.50	1.08	21.5	23.3	UnDef	0.23
22.97	101.1	1.47	1.46	20.7	8	120.9	1.37	0.86	0.51	1.08	24.2	26.0	UnDef	0.30
23.29	112.4	1.98	1.76	19.7	7	117.8	1.39	0.87	0.52	1.07	35.9	38.4	UnDef	0.40
23.62	72.3	1.66	2.30	54.6	7	117.8	1.41	0.88	0.53	1.06	23.1	24.6	UnDef	0.27
23.95	74.0	1.22	1.65	57.3	7	117.8	1.43	0.89	0.54	1.06	23.6	25.0	UnDef	0.21
24.28	49.8	0.90	1.80	41.2	7	117.8	1.45	0.90	0.55	1.05	15.9	16.8	UnDef	0.16
24.61	32.3	0.37	1.13	70.2	7	117.8	1.47	0.91	0.56	1.05	10.3	10.8	UnDef	0.11
24.93	19.1	0.20	1.02	115.7	6	114.6	1.49	0.92	0.57	1.04	7.3	7.6	1.41	0.11
25.26	16.7	0.11	0.66	72.1	6	114.6	1.50	0.93	0.58	1.04	6.4	6.6	1.21	0.09
25.59	9.3	0.18	1.88	100.0	5	114.6	1.52	0.94	0.59	1.03	4.5	4.6	0.62	0.09
25.92	19.5	0.28	1.42	50.1	6	114.6	1.54	0.94	0.60	1.03	7.5	7.7	1.43	0.17
26.25	33.7	0.51	1.50	28.8	6	114.6	1.56	0.95	0.61	1.02	12.9	13.2	2.57	0.13
26.57	30.3	0.52	1.70	27.3	6	114.6	1.58	0.96	0.62	1.02	11.6	11.8	2.30	0.15
26.90	29.1	0.47	1.62	27.3	6	114.6	1.60	0.97	0.63	1.02	11.2	11.3	2.20	0.14
27.23	26.1	0.33	1.27	24.3	6	114.6	1.62	0.98	0.64	1.01	10.0	10.1	1.96	0.12
27.56	28.3	0.25	0.87	23.8	7	117.8	1.64	0.99	0.65	1.01	9.0	9.1	UnDef	0.10
27.89	34.6	0.34	0.99	24.1	7	117.8	1.66	1.00	0.66	1.00	11.0	11.1	UnDef	0.11
28.21	27.9	0.54	1.94	30.9	6	114.6	1.67	1.00	0.67	1.00	10.7	10.7	2.10	0.22
28.54	18.9	0.40	2.12	89.6	6	114.6	1.69	1.01	0.68	0.99	7.3	7.2	1.38	0.15
28.87	24.8	0.57	2.28	87.8	6	114.6	1.71	1.02	0.69	0.99	9.5	9.4	1.85	0.24
29.20	32.6	0.64	1.97	88.9	6	114.6	1.73	1.03	0.70	0.99	12.5	12.3	2.47	0.19
29.53	28.4	0.61	2.16	109.3	6	114.6	1.75	1.04	0.71	0.98	10.9	10.7	2.13	0.31
29.86	25.9	0.50	1.93	117.5	6	114.6	1.77	1.05	0.72	0.98	9.9	9.7	1.93	0.26
30.18	23.2	0.47	2.03	108.3	6	114.6	1.79	1.06	0.73	0.97	8.9	8.7	1.72	0.21
30.59	20.2	0.35	1.75	109.3	6	114.6	1.81	1.07	0.74	0.97	7.7	7.5	1.47	0.16
31.00	18.2	0.35	1.90	103.5	6	114.6	1.83	1.08	0.76	0.96	7.0	6.7	1.31	0.14
31.33	14.5	0.31	2.14	93.5	5	114.6	1.85	1.09	0.77	0.96	6.9	6.7	1.01	0.11
31.66	12.1	0.22	1.83	104.5	5	114.6	1.87	1.09	0.78	0.96	5.8	5.5	0.81	0.10
31.99	14.4	0.31	2.17	83.9	5	114.6	1.89	1.10	0.79	0.95	6.9	6.5	1.00	0.11
32.32	12.2	0.25	2.01	78.4	5	114.6	1.91	1.11	0.80	0.95	5.8	5.5	0.82	0.10
32.64	10.8	0.19	1.72	82.8	5	114.6	1.93	1.12	0.81	0.94	5.2	4.9	0.71	0.09
32.97	9.7	0.10	0.98	90.8	5	114.6	1.95	1.13	0.82	0.94	4.7	4.4	0.62	0.09
33.30	8.8	0.05	0.57	91.3	6	114.6	1.97	1.14	0.83	0.94	3.4	3.1	0.54	0.09