GEOTECHNICAL ANALYSIS REPORT
DMMP STUDY
CALCASIEU RIVER & PASS
LAKE CHARLES, LOUISIANA

SUBMITTED TO
GAHAGAN & BRYANT ASSOCIATES, INC.
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BY
HVJ ASSOCIATES, INC.
NOVEMBER 30, 2007

REPORT NO. HG-06-17340

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November 30, 2007

Ms. Dana Cheney, P.E.
Gahagan & Bryant Associates Inc.
10631 South Sam Houston Parkway West, Suite 190
Houston, TX 77071-3140

Re: DMMP Study: Calcasieu River & Pass
Lake Charles, Louisiana
Owner: US Army Corps of Engineers
HVJ Project No.: HG-06-17340

Dear Ms. Cheney:

Submitted herein is the draft report of our geotechnical analysis for the above project. This study was performed in accordance with HVJ Proposal No. HG-06-17340 dated July 18, 2006 (revised August 21, 2006) and subject to the limitations presented in this report.

It has been a pleasure working with you on this project and we appreciate the opportunity to be of service. Please notify us if there are questions or if we may be of further assistance.

Sincerely,

HVJ ASSOCIATES, INC.

Michael Hasen, P.E.
Executive Vice President

STATE OF LOUISIANA
MICHAEL HASEN
License No. 31862
11-30-07
PROFESSIONAL ENGINEER

Fadi N. Faraj, P.E.
Geotechnical Engineer

MH/FF:abm

Copies submitted: 4

The seal appearing on this document was authorized by Michael Hasen, P.E. 31862 on November 30, 2007. Alteration of a sealed document without proper notification to the responsible engineer is an offense.

The following lists the pages which complete this report:

- Main Text – 18 pages
- Appendix A – 3 pages
- Appendix B – 5 pages
- Appendix C – 3 pages
- Appendix D – 3 pages
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EXECUTIVE SUMMARY

The Calcasieu River and Pass project is located in and south of Lake Charles, Louisiana. The project is divided into three reaches: the upper reach (mi. 24-36), the middle reach (mi. 14-24), and the lower reach (mi. 5-14). Several studies have been performed to address the short term and long term Dredged Material Management Plan (DMMP) for the navigation channels. This study is preliminary in nature, which is to say that it has considered a limited amount of data in order to provide general guidance. It is not intended for use in detailed design of any specific dredge disposal project. More detailed, site specific assessments of the site should be performed prior to developing project specific plans, specifications, and detailed project cost estimates.

Three previous studies have been performed for the Calcasieu River and Pass project and were provided to us. In addition, boring logs and in situ vane shear test results from various sites along the project were provided for our use. The main geotechnical issue of interest for the DMMP is the volume of fill that can be disposed in a given site. This is related to the long term fill to cut ratio and the dike foundations capacity to support a raised dike section. The only specific data related to long term fill to cut ratios is presented in the August 2005 report. Based on that report fill to cut ratios of about 0.73 to 0.83 were developed for confined disposal areas along the project.

Our analysis indicates that a fill to cut ratio of 0.8 is appropriate for marsh sites, and a fill to cut ratio of 0.7 is appropriate for managed, upland disposal sites. Our results were somewhat higher than the Corps determined principally due to the measured void ratio of the cut material. Our testing indicates a cut material average void ratio of 3.72. In the Corps report dated August 2005 the measured cut material void ratio varied between 4.6 and 8.2. For the purposes of this study, the fill to cut ratio is defined as the volume occupied by one cubic yard of cut after long term consolidation and desiccation are complete. Based on quantity data provided by Gahagan & Bryant the following table summarizes quantities and fill to cut ratios we recommend for use in project design.

Reach	Quantity (1000)	From to Miles	Evaluation Type	Fill to Dredge Ratio
Lower	39,700	5 to 16	Marsh	0.8
			Managed CDF	0.7
Mid	34,700	16 to 22	Marsh	0.8
			Managed CDF	0.7
Upper	22,500	22 to 36	Managed CDF	0.7

The proposed cross section for the Calcasieu Ship Channel DMP satisfies the stability requirements without modification except for the Phase I interior stability. The final cross section does not need to be modified, but the thickness of fill needs to be stepped down to 3 feet from 5 feet during the Phase I filling. The full Phase II cross section can be placed once the managed, dried interior fill is in place as assumed. This has the over affect of reducing the construction cost for Phase I and increasing the cost for Phase II, but the overall volume of fill to be placed is the same overall. The proposed modification to the Phase I cross section is shown on Plates 8 and 10.

Please note that this executive summary does not fully relate our findings and opinions. These findings and opinions are only presented through our full report.

1. INTRODUCTION

1.1 General

The Calcasieu River and Pass project is located in and south of Lake Charles, Louisiana. The project is divided into three reaches: the upper reach (mi. 24-36), the middle reach (mi. 14-24), and the lower reach (mi. 5-14). Several studies have been performed to address the short term and long term Dredged Material Management Plan (DMMP) for the navigation channels. The purpose of this study is to determine and report on the characteristics of the dredged sediment from the Calcasieu River channel to the extent necessary to prepare preliminary screening and design for containing the materials in a marsh site located in Calcasieu Lake in 2-5 feet of water or a traditional diked Confined Placement Facility (CPF) for the Federal Navigation channels in Calcasieu Lake.

1.2 Previous Studies

We have reviewed the following reports provided to us for Calcasieu River and Pass Dredging project:

- Calcasieu River Sediment Removal Study, dated August 1994
- Calcasieu River and Pass Dredged Material Sedimentation Study, dated May 2004
- Calcasieu River and Pass Dredged Material Sedimentation Study Phase 2, dated August 2005
- Boring Log and In situ Vane Shear Test Data, various dates

Calcasieu River Sediment Removal Study, dated August 1994

In this study tests were conducted on samples obtained from miles 22 to 36 of the Calcasieu River and Pass (mostly the upper reach of the river). Settling tests were performed and used to estimate the surface area needed to contain the estimated dredge material. The study concluded that the removal of 1.4, 1.6, and 3.0 million cubic yards of dredged material from three different sub-reaches requires a Confined Disposal Facility (CDF) of 224, 278, and 466 acres, respectively, for a dredge material storage depth of 6 feet. No long term settlement analysis of the fill material was performed for this study, therefore, no information on the long-term fill to cut ratio is presented.

Calcasieu River and Pass Dredged Material Sedimentation Study, dated May 2004

This study addressed the confined disposal site capacity requirements for a 20 year period based on short term (i.e. post-construction) analysis using the SETTLE program and settling column test results. No long term settlement analysis of the fill material was performed for this study, therefore, no information on the long-term fill to cut ratio is presented.

Calcasieu River and Pass Dredged Material Sedimentation Study Phase 2, dated August 2005

This study addressed the long term DMMP for the Calcasieu River and Pass. The following table summarizes the study conclusions; these are taken from Chapter 3, page 16 of the study.

Reach	Mile Post	Cut Yards	Required Area, Acres	Estimated Fill Height, Feet
Lower	5 – 14	44,000,000	2,595	7.7
Middle	14 – 24	49,500,000	3,175	8.0
Upper	26 – 36	32,500,000	1,966	7.8

We can calculate the fill volume based on the required area and estimated fill height. The fill volumes for the lower, middle, and upper reaches are 32,236,820, 40,978,667, and 24,740,144 cubic yards. Based on these fill volumes, the fill to cut ratios for the lower, middle, and upper reach are 0.73, 0.83, and 0.76, respectively. The report was not clear on whether aggressive crust management was assumed in the settlement analysis, our opinion is that it was not.

This report discussed construction of beneficial uses such as marsh, but did not present any specific settlement analysis related to marsh.

Boring Log and In situ Vane Shear Test Data, Various Dates
We reviewed existing boring log and in situ vane shear test data obtained at most of the disposal areas along the Calcasieu Ship Channel. Selected data of interest to the slope stability study is discussed in Section 4 of this report.

Summary. The only specific data related to long term fill to cut ratios is presented in the August 2005 report. Based on that report fill to cut ratios of about 0.73 to 0.83 were developed for confined disposal areas along the project.

2. LABORATORY TESTING

Soil samples were provided to us by GBA for laboratory testing to determine applicable physical and engineering properties. All tests were performed according to the relevant ASTM Standards, where applicable, or with other well-established procedures. These tests consisted of moisture content, Atterberg Limit, Shrinkage Limit, Water Salinity, Specific Gravity, Seepage Induced Consolidation, Oedometer Consolidation, Long Tube, and Self-Weight Consolidation Tests.

The consolidation tests were performed to evaluate the settling characteristics of the soil sample. The sample was collected from about Mile 11 of the Calcasieu River Lower.

Long Tube Tests. A zone settling column test was performed on the material sample. The test was conducted in accordance with the guidelines developed by the USACE and presented in Engineering Manual EM 1110-2-5027. The results of the zone-settling column test are presented in tabular and graphical format in Appendix A.

Self-Weight Test. The material sample was also subjected to self-weight consolidation test. The test was conducted in accordance with the guidelines presented in USACE Technical Report No. GL-86-13. The results of the self-weight test are presented in Appendix B.

Oedometer Test. An oedometer consolidation test was performed on the sample. The results of the consolidation tests are presented in Appendix C.

Seepage-Induced Consolidation Test. The sample was also subjected to seepage-induced consolidation tests. The test produces data that is interpreted using the computer program SICTA. The results of the test are presented in Appendix D.

The following table summarizes the results of the remaining tests:

Laboratory Test	**Result**
Moisture Content	115%, 134.4%, 124.1%, 153.6%
Shrinkage Limit	1.64%
Salinity Tests	0.00154 mg/liter
Specific Gravity	2.71

3. FILL EVALUATION

We have performed PSDDF analysis with objective of determining the appropriate long-term fill to cut ratio to use for marsh and upland confined disposal sites. For the purposes of this study, the fill to cut ratio is defined as the volume occupied by one cubic yard of cut after long term consolidation and desiccation are complete. Based on quantity data provided by Gahagan & Bryant the following table summarizes quantities and fill to cut ratios we recommend for use in project design.

Reach	Quantity (1000)	From to Miles	Evaluation Type	Fill to Dredge Ratio
Lower	39,700	5 to 16	Marsh	0.8
			Managed CDF	0.7
Mid	34,700	16 to 22	Marsh	0.8
			Managed CDF	0.7
Upper	22,500	22 to 36	Managed CDF	0.7

The fill evaluation is performed through settlement analyses of the fill. Fill settlement is governed by the interaction of two processes – self-weight consolidation of the fill and desiccation of the fill. During dredging, the soil is deposited and undergoes self-weight consolidation. After dredging, the fill continues to consolidate under its self-weight. If the fill surface is above the site water level, desiccation will occur which will cause additional settlement of the fill surface. Desiccation refers to the drying of the soil near the fill surface.

3.1 Self-Weight Consolidation

Self-weight consolidation refers to the process of the fill coming to equilibrium under its own weight. When a soil is hydraulically dredged it is completely disturbed and mixed with a large amount of water for transport to the disposal site. Once the soil-water mixture is deposited in the cell, the soil sediments out of the solution.

After sedimentation the soil still contains too much water. This extra water is squeezed out of the soil by the weight of the soil. This process is referred to as self-weight consolidation, and is also referred to as "primary consolidation" in geotechnical literature.

In order for the fill surface elevation to stabilize self-weight consolidation must be substantially complete. The thickness of the fill, the properties of the fill material, and the permeability of the foundation soil are factors that control the time to complete self-weight consolidation. For a particular marsh site and marsh fill material, the time to complete self-weight consolidation is determined primarily by the fill thickness.

3.2 Desiccation

Desiccation refers to the drying of the marsh surface due to exposure to the sun. Desiccation begins after the site is drained, once the rate of water seepage from the fill becomes less than the evaporation rate. A crust of stiffer soil is formed by desiccation.

Desiccation causes surface settlement in two ways. First, as the fill dries the volume of the crust soil is greatly reduced because the water content goes down. Second, as drying causes groundwater level lowering in the fill the effective self-weight of the fill is increased, this leads to additional self-weight consolidation. Surface settlement due to drying of the crust occurs immediately during the desiccation period. Surface settlement due to additional self-weight consolidation occurs slowly over time after desiccation is complete.

The final crust thickness is controlled by several factors. At an upland site, where the groundwater level is controlled by desiccation and site drainage, the final crust thickness is related to the fill permeability and the evaporation rate.

At a marsh site, the groundwater level is controlled both by site drainage and by the tidal level in the bay surrounding the marsh site since circulation is allowed through the spillbox. Crust formation may be prematurely interrupted if drying brings the bottom of the crust to near the tidal water level before the equilibrium thickness develops. At this point no further drying of the crust can occur.

3.3 Marsh Cell Design

Target Surface Elevation. The key factor for the marsh fill design is achieving the required final surface elevation. We understand that the target surface elevation is approximately +2.5 feet.

Analysis Method. We used a computer program developed by the U.S. Army Corps of Engineers called Primary Consolidation, Secondary Compression, and Desiccation of Dredged Fill (PSDDF) to evaluate marsh fill settlement. Soil input parameters for the program were developed from self-weight consolidation and oedometer consolidation tests. Analysis by the PSDDF method is described in Appendix E.

Analysis Results. We conducted PSDDF analyses for marsh constructed in varying water depths using both the parameters obtained from our lab testing and those presented by the Corps in their August 2005 report. The following table summarizes these results:

	PSDDF ANALYSIS - HVJ LAB RESULTS			**PSDDF ANALYSIS - USACE PREVIOUS LAB RESULTS**		
Water (ft)	**2'-3'**	**3'-4'**	**4'-5'**	**2'-3'**	**3'-4'**	**4'-5'**
Bottom Elevation (ft)	-1.00	-2.00	-3.00	-1.00	-2.00	-3.00
In situ Void Ratio	3.72	3.72	3.72	3.72	3.72	3.72
Final Marsh Elevation (ft)	2.44	2.50	2.45	2.49	2.47	2.50
Final Height of Fill (ft)	4.60	5.77	6.83	4.15	5.17	6.23
Average Final Void Ratio	2.83	2.88	2.85	3.39	3.50	3.67
Fill/Cut Ratio	0.81	0.82	0.81	0.93	0.95	0.99
Foundation Settlement (ft)	1.16	1.27	1.37	0.66	0.70	0.72

We wish to bring to your attention a wide variation in the estimated void ratio of the cut material. The sample that we were initially provided indicated a void ratio of about 3.1 for the cut material (based on a moisture content of 115% and specific gravity of 2.71). In the Corps report dated August 2005 the measured cut material void ratio varied between 4.6 and 8.2. Due to the wide variation of both the Corps and our data we requested additional samples of the cut source material. Three samples were obtained in December, 2006 – the void ratios of those samples were 3.64, 3.36, and 4.16. We used an average cut source material void ratio of 3.72 to evaluate the fill to cut ratio for the marsh cells based on the results of tests on the December, 2006 samples.

3.4 Upland Cell Design

We conducted PSDDF analyses for upland sites using the parameters obtained from our lab testing. Our analysis assumed that a management would allow an average crust thickness of 1.25 feet to be achieved in between filing events. The following table summarizes these results:

	PSDDF ANALYSIS - HVJ LAB RESULTS
Location	**Upland**
Pre-fill Elevation (ft)	+2.0
In situ Void Ratio	3.72
Final Elevation (ft)	+5.94
Final Height of Fill (ft)	5.85
Average Final Void Ratio	2.29
Fill/Cut Ratio	0.70
Foundation Settlement (ft)	1.91

4. DIKE STABILITY

We performed a preliminary evaluation of the slope stability for disposal areas along the Calcasieu Ship Channel. The purpose was to evaluate the potential for future dike raisings at existing project disposal areas.

4.1 Cross Section

Proposed Cross Section – The proposed dike cross section is shown on Plate 1, Typical Dike Rehab Cross Section prepared by Gahagan & Bryant as part of the DMP study.

Existing Cross Section – We reviewed the current dike cross sections at Sites 11, 13, and 17. We chose the cross-section at Station 45+00 of Site 11 as typical. The proposed cross section shown on Plate 1 calls for removing the existing dike crest and reconstructing the dike section. Therefore, the current topography is not as critical a factor in the analysis compared to a typical incremental dike raising. Plate 2 shows a plan of Site 11 and Plate 3 shows the current cross section at Station 45+00. For the purposes of this analysis, "Existing Grade" on Plate 1 is taken as El. +7, and the existing dike centerline is taken at +50 offset on the Station 45+00 cross section.

4.2 Soil Conditions

The purpose of this study is to provide guidance on the potential for dike raisings at existing disposal areas. Since the purpose is general guidance, and a reasonable amount of boring and test data exists at the project sites, we did not obtain additional borings specifically for this study. Our interpretation of soil and groundwater conditions at the project site is based on information obtained from borings drilled by others as provided to us by Gahagan & Bryant Associates. This information has been used as the basis for our conclusions and recommendations. We have made no independent confirmation that the data provided to us is representative of the soil conditions at the project site. Significant variations at areas not explored by the project borings may require reevaluation of our findings and conclusions.

The borings that are available were performed in the interior of the disposal sites off of the dike centerline. We were able to use the available data to make as assessment of the interior shear strength. Since there are no borings in the dike we had to assume a reasonable shear strength value for the dike fill and for the soil beneath the dike.

For the Phase I raising (to 12 feet) we included a 2-foot thick crust layer at a strength of 300 psf in the analysis. This represents the dried crust material that will be borrowed from a distance of at least 50 feet from the interior dike toe to construct the dike. Below El. +5 the shear strength profile we selected for the Phase I raising was based on both the shear strength data and a c/p based estimate of the shear strength. The data considered in the analysis is shown on Plates 4 to 6. For the Phase I raising we assumed the following shear strength distribution.

Elevation, Feet	**Interior Shear Strength, Psf**	**Dike Shear Strength, Psf**
+ 5 to 0	45	150
0 to -5	85	250
-5 to -15	125	335

In reviewing the shear strength data from the borings only one portion of Site 13 was weaker than the profile shown above. This was at borings CR22.4-4U and CR22.7-3U which are located at the northeast corner of Site 13, as shown on Plate 7. We evaluated this "weak area" at Site 13 based on the following shear strength profile.

Elevation, Feet	**Interior Shear Strength, Psf**	**Dike Shear Strength, Psf**
+ 5 to 0	45	150
0 to -5	85	250
-5 to -15	105	335

For the Phase II dike raising the presence of managed interior fill and the Phase I fill was considered. The managed fill material was represented as an additional thickness of crust material with a shear strength of 300 psf, extending from El. +7 to +10. For the Phase II raising we assumed the following shear strength distribution.

Elevation, Feet	**Interior Shear Strength, Psf**	**Dike Shear Strength, Psf**
+ 5 to 0	85	150
0 to -5	125	250
-5 to -15	165/145*	335

* "Weak Area" at Site 13

The soils conditions of the dike fill and beneath the dike had to be assumed. In determining a reasonable shear strength value we relied on the boring data from the site interior (which should form a "lower bound" of the dike foundation strength), c/p analysis based on the existing dike profile, and our experience with dike fills. For the analysis, we assumed a dike fill shear strength of 300 psf. For the dike foundation shear strength, we assumed the values shown in the tables above. These are slightly above the c/p based shear strengths calculated based on a ratio of 0.22, but below many of the shear strength measurements made in the site interior. Our experience has been that the shear strength of the dike foundation is generally in excess of the interior shear strength.

4.3 Slope Stability Analysis

We performed wedge analysis using the method of planes and rotational analysis using Spencer's Method. The soil parameters used were based on the boring data we reviewed, our experience with similar soils, and discussions with NOD Geotechnical staff. These analyses should be considered a preliminary assessment of dike stability for the project and are intended to illustrate the potential for future dike raisings. They are not intended as a final basis of design of any specific dike raising.

Wedge analyses were conducted using the stability program fs004, which uses the method of planes analysis, provided to us by the U.S. Army Corps of Engineers, New Orleans District. Please note that we are using the FS004 program at the Corps request. We have not performed any independent evaluation of the program code or results. The results of our analysis are provided based on the assumption that the FS004 program produces accurate factor of safety results. The factors of safety represent the calculated ratio of resisting forces to the calculated driving forces for the various potential failure surfaces analyzed. These forces are based on the estimated unit weights and shear strengths of the various soils in the slope profile.

Rotational slope stability analyses were conducted using the slope stability program UTEXAS 4 developed by Professor Stephen Wright at the University of Texas at Austin. The program calculates the factor of safety against slope failure using a two-dimensional limiting equilibrium method. The factors of safety represent the calculated ratio of resisting forces and moments to the calculated driving forces and moments for the various potential failure surfaces analyzed. These forces and moments are based on the estimated unit weights and shear strengths of the various soils in the slope profile.

A factor of safety of 1.0 indicates impending failure. The greater than 1.0 the factor is, the lower the risk of slope failure. As a practical matter, and in consideration of the variables and uncertainties involved, the risk cannot be reduced to zero. The goal is to reduce the risk of slope failure to a reasonable and acceptable level, with due consideration of the consequences of failure. The minimum recommended factors of safety for the dikes are as follows:

Case	**Minimum recommended factor of safety**
Exterior Stability - Operating case with dredged material 2 feet below the dike crest	1.3
Exterior Stability - Extreme case with dredged material at the dike crest level	1.2
Interior Stability - End-of-construction case stability into borrow pit on the disposal site of the dike	1.3

The following table summarizes the results. Factor of safety from both the Method of Planes (FS004) and Spencer's Method as calculated by UTEXAS4 (UT) are shown.

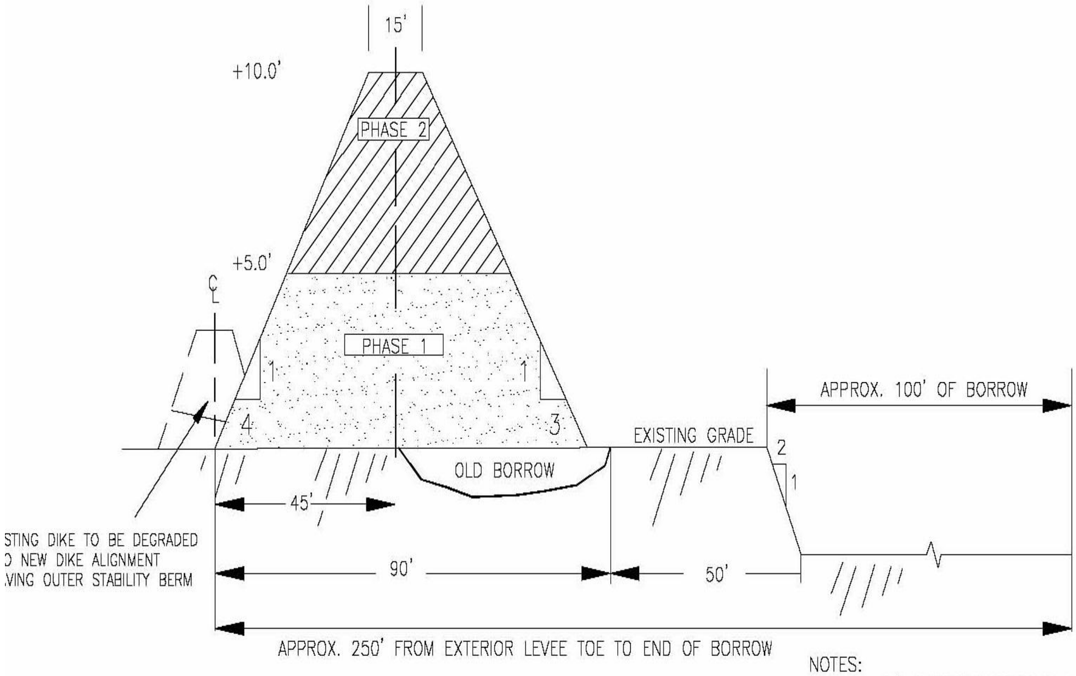
Plate No.: Case Description	**Layer**	**Cohesion (psf)** Vert 1	**Cohesion (psf)** Vert 2	**FS** FS004/UT
Plates 8 MOP & 8 UT: Typical Conditions - Sites 11, 13 & 17; Internal Stability; Phase I, 3-5' Tapered Raising, 4(H):1(V) Outside Slope, 3(H):1(V) Inside Slope	1 – Dike	300	300	1.47/1.62
	2 – Crust	300	300	
	3 – Foun. El. +5 to 0	150	45	
	4 – Foun. El. 0 to -5	250	85	
	5 – Foun. El. -5 to -15	335	125	
Plates 9 MOP & 9 UT: Typical Conditions - Sites 11, 13 & 17; Internal Stability; Phase II, 10' Raising, 4(H):1(V) Outside Slope, 3(H):1(V) Inside Slope	1 – Dike	300	300	1.63/1.83
	2 – Crust	300	300	
	3 – Foun. El. +5 to 0	150	85	
	4 – Foun. El. 0 to -5	250	125	
	5 – Foun. El. -5 to -15	335	165	
Plates 10 MOP & 10 UT: Weak Area - Site 13; Internal Stability; Phase I, 3-5' Tapered Raising, 4(H):1(V) Outside Slope, 3(H):1(V) Inside Slope	1 – Dike	300	300	1.30/1.44
	2 – Crust	300	300	
	3 – Foun. El. +5 to 0	150	45	
	4 – Foun. El. 0 to -5	250	85	
	5 – Foun. El. -5 to -15	335	105	
Plates 11 MOP & 11 UT: Weak Area - Site 13; Internal Stability; Phase II, 10' Raising, 4(H):1(V) Outside Slope, 3(H):1(V) Inside Slope	1 – Dike	300	300	1.55/1.78
	2 – Crust	300	300	
	3 – Foun. El. +5 to 0	150	45	
	4 – Foun. El. 0 to -5	250	85	
	5 – Foun. El. -5 to -15	335	145	
Plates 12 MOP and 12 UT: Typical Conditions - Sites 11, 13 & 17; External Stability; 2' Freeboard	1 – Dredge Fill	0	0	1.34/1.59
	2 – Dike	300	300	
	3 – Crust	300	300	
	4 – Foun. El. +5 to 0	110	150	
	5 – Foun. El. 0 to -5	195	250	
	6 – Foun. El. -5 to -15	275	335	
Plates 13MOP and 13 UT: Typical Conditions - Sites 11, 13 & 17; External Stability; Full site	1 – Dredge Fill	0	0	1.33/1.52
	2 – Dike	300	300	
	3 – Crust	300	300	
	4 – Foun. El. +5 to 0	110	150	
	5 – Foun. El. 0 to -5	195	250	
	6 – Foun. El. -5 to -15	275	335	

The proposed cross section for the Calcasieu Ship Channel DMP satisfies the stability requirements without modification except for the Phase I interior stability. The final cross section does not need to be modified, but the thickness of fill needs to be stepped down to 3 feet from 5 feet during the Phase I filling. The full Phase II cross section can be placed once the managed, dried interior fill is in place as assumed. This has the affect of reducing the construction cost for Phase I and increasing the cost for Phase II, but the overall volume of fill to be placed is the same. The proposed modification to the Phase I cross section is shown on Plates 8 and 10.

5. LIMITATIONS

This investigation was performed for the exclusive use of Gahagan & Bryant Associates, Inc. for specific application to Calcasieu River and Pass in Lake Charles, Louisiana. HVJ Associates, Inc. has endeavored to comply with generally accepted geotechnical engineering practice common in the local area. HVJ Associates, Inc. makes no warranty, express or implied. The analyses and recommendations contained in this report are based on data obtained from subsurface exploration, laboratory testing, the project information provided to us and our experience with similar soils and site conditions. The methods used indicate subsurface conditions only at the specific locations where samples were obtained, only at the time they were obtained. Samples cannot be relied on to accurately reflect the strata variations that usually exist between sampling locations. Should any subsurface conditions other than those described in our report be encountered, HVJ Associates should be immediately notified so that further investigation and supplemental recommendations can be provided.

This study is preliminary in nature, which is to say that it has considered a limited amount of data in order to provide general guidance. It is not intended for use in detailed design of any specific dredge disposal project. More detailed, site specific assessments of the site should be performed prior to developing project specific plans, specifications, and detailed project cost estimates.



PHASE 1 =	14 CY/FT	
	4 CY/FT	(SETTLEMENT)
	18 CY/FT	(SUBTOTAL)
	6 CY/FT	(SHRINKAGE)
	24 CY/FT	(BORROW)
PHASE 2 =	7 CY/FT	
	2 CY/FT	(SHRINKAGE)
	9 CY/FT	

NOTES:

1.) BORROW MATERIAL FOR LEVEE CONSTRUCTION CAN BE OBTAINED FROM ADJACENT BORROW AREAS WHERE AVAILABLE.

2.) AREAS WHERE NO ADJACENT BORROW IS AVAILABLE, LEVEE CONSTRUCTION MATERIAL WILL HAVE TO BE HAULED FROM THE NEAREST AVAILABLE SITE AND SUPPLEMENTED BY HYDRAULIC FILL.

3.) PHASE 2 MAY REQUIRE A 10' OFFSET AT ELVATION 6, DEPENDING ON LONGTERM CONSOLIDATION OF THE LEVEE FOUNDATION.

4.) DOES NOT ACCOUNT FOR SHRINKAGE DUE TO DITCHING AND ADDED DRAINAGE

5.) ANALYSIS ASSUMES SITE MANAGEMENT IS ONGOING TO PROVIDE POSITIVE DRAINAGE

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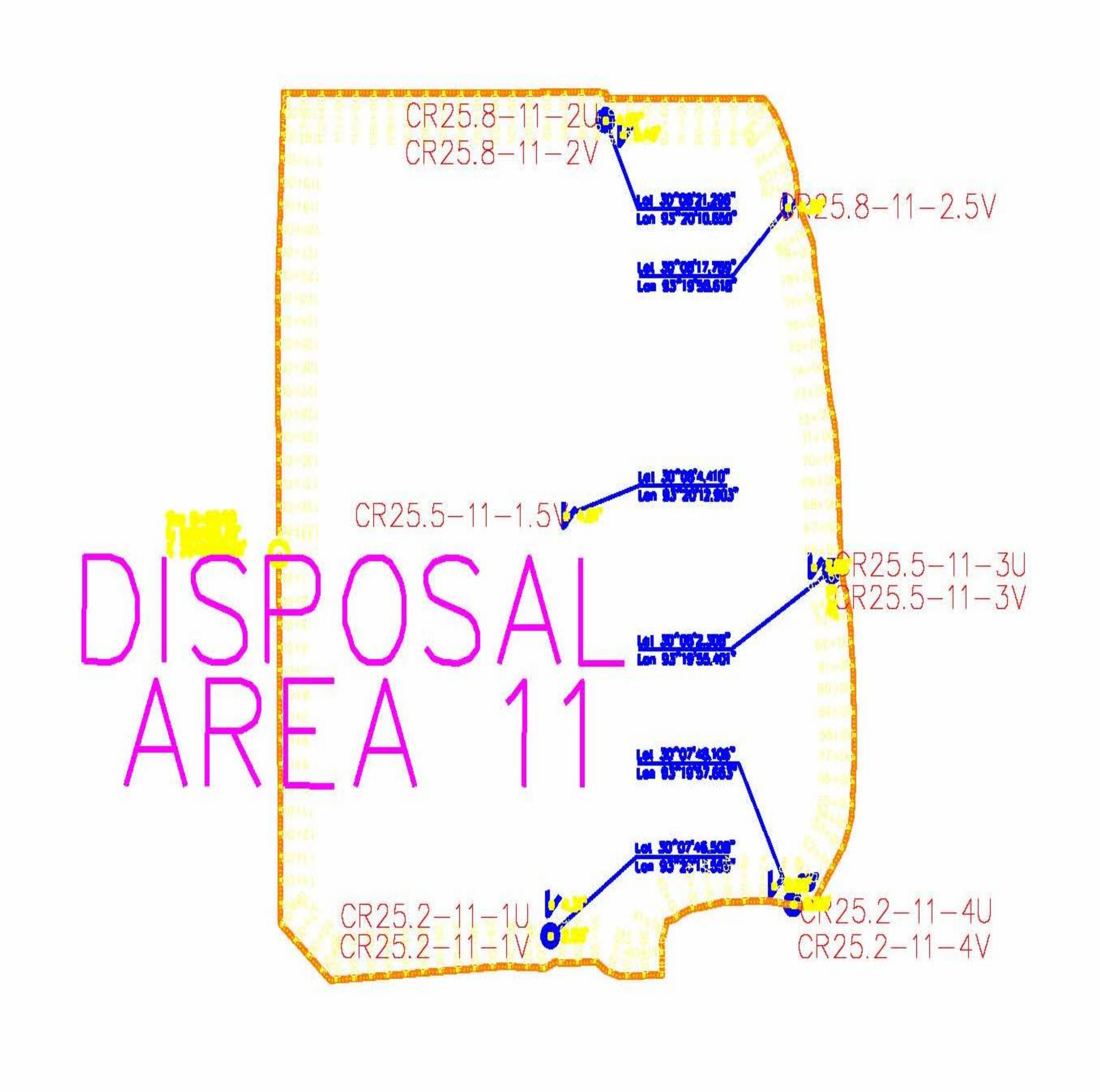
DATE: 11/30/2007	APPROVED BY: FF	PREPARED BY: DK

TYPICAL DIKE CROSS SECTION
Calcasieu Ship Channel-MOP Analysis Site 11, 13 & 17

PROJECT NO.: HG0617340	DRAWING NO.: PLATE 1



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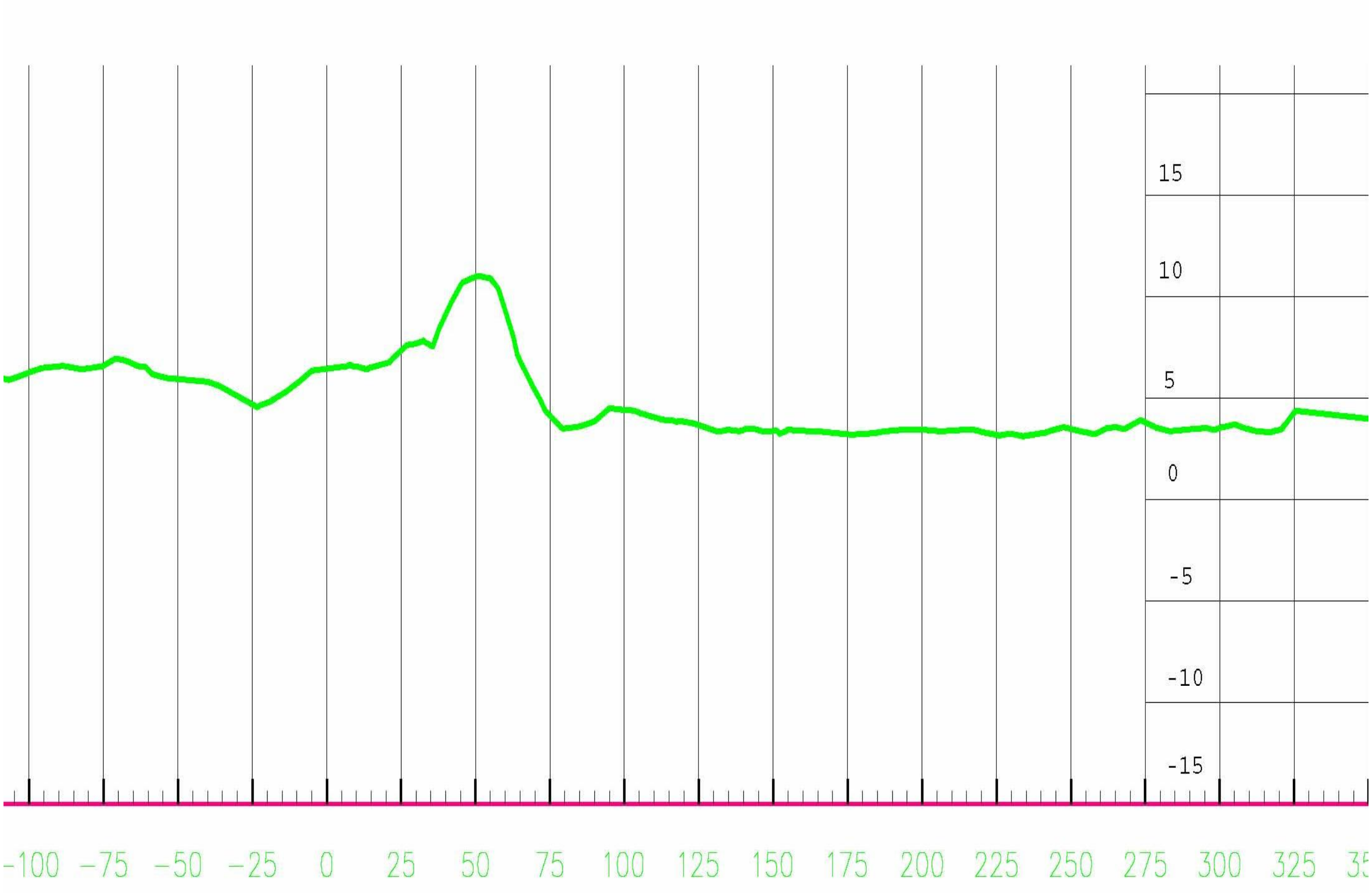
DATE: 11/30/2007	APPROVED BY: FF	PREPARED BY: DK

SITE PLAN, DISPOSAL AREA 11

PROJECT NO.: HG0617340	DRAWING NO.: PLATE 2



Cell 11, Station 45+00

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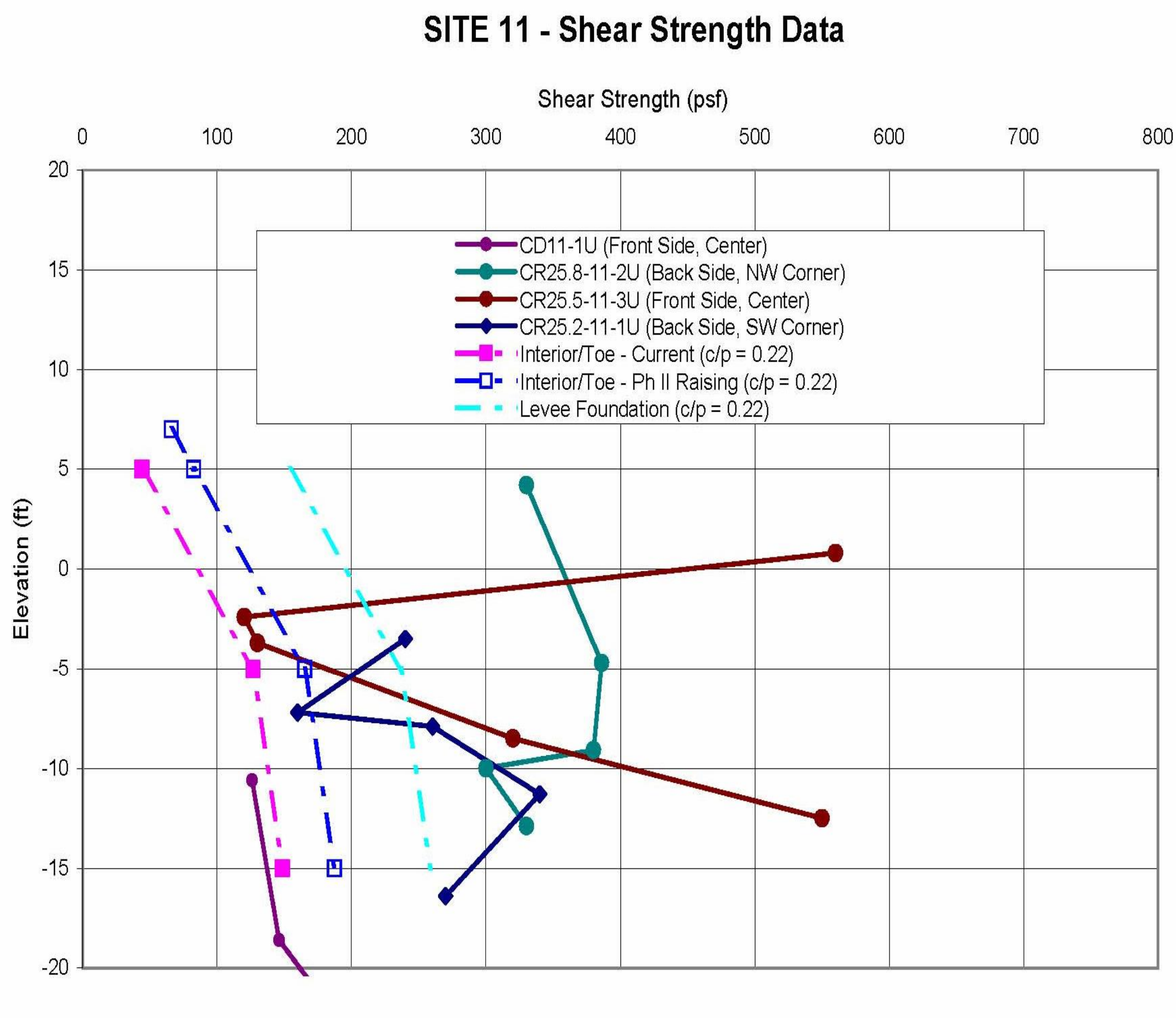
DATE: 11/30/2007	APPROVED BY: FF	PREPARED BY: DK

EXISTING DIKE CROSS SECTION, STATION 45+00, DISPOSAL AREA 11

PROJECT NO.: HG0617340	DRAWING NO.: PLATE 3



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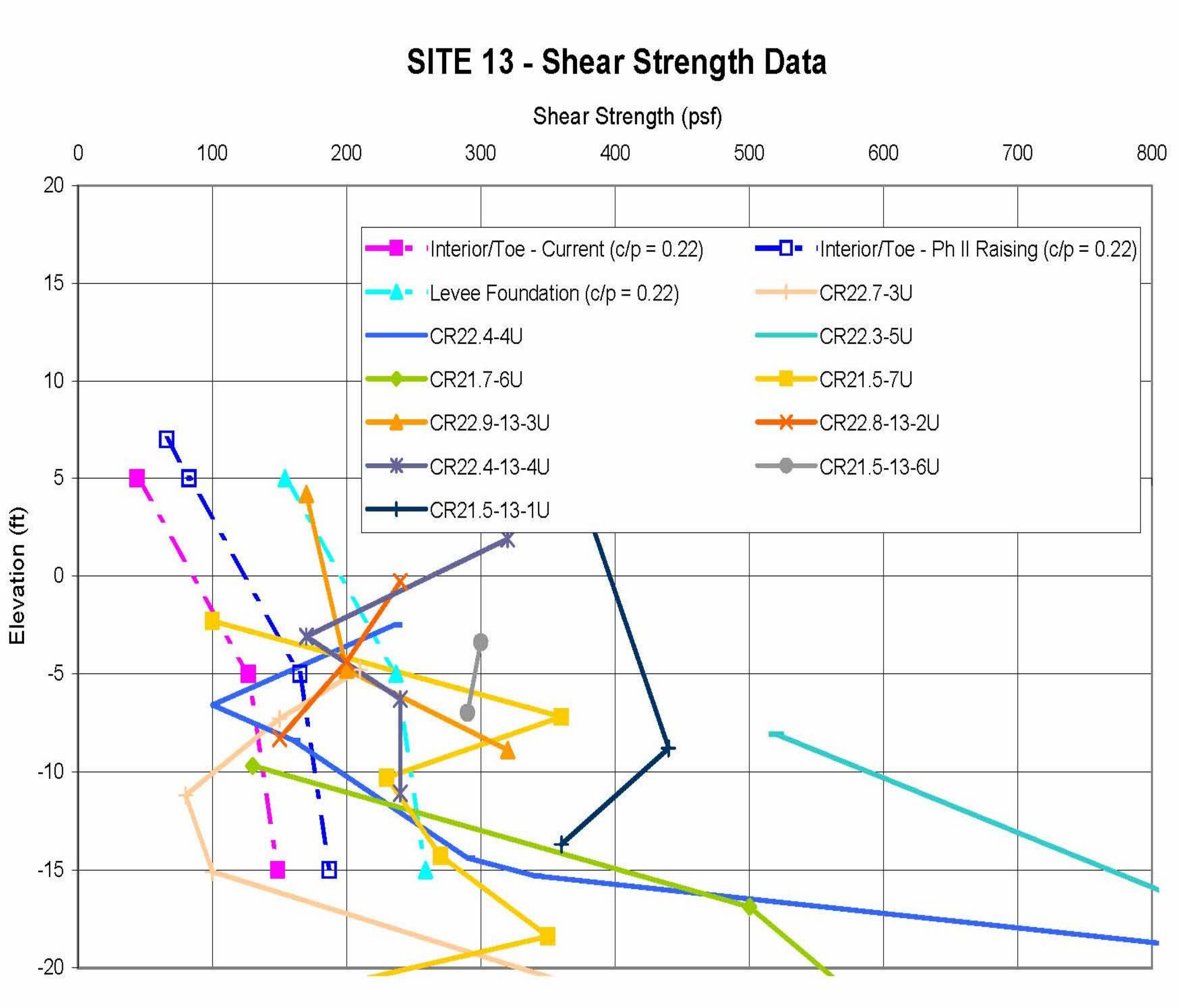
DATE: 11/30/2007	APPROVED BY: FF	PREPARED BY: DK

SHEAR STRENGTH DATA, DISPOSAL AREA 11

PROJECT NO.: HG0617340	DRAWING NO.: PLATE 4



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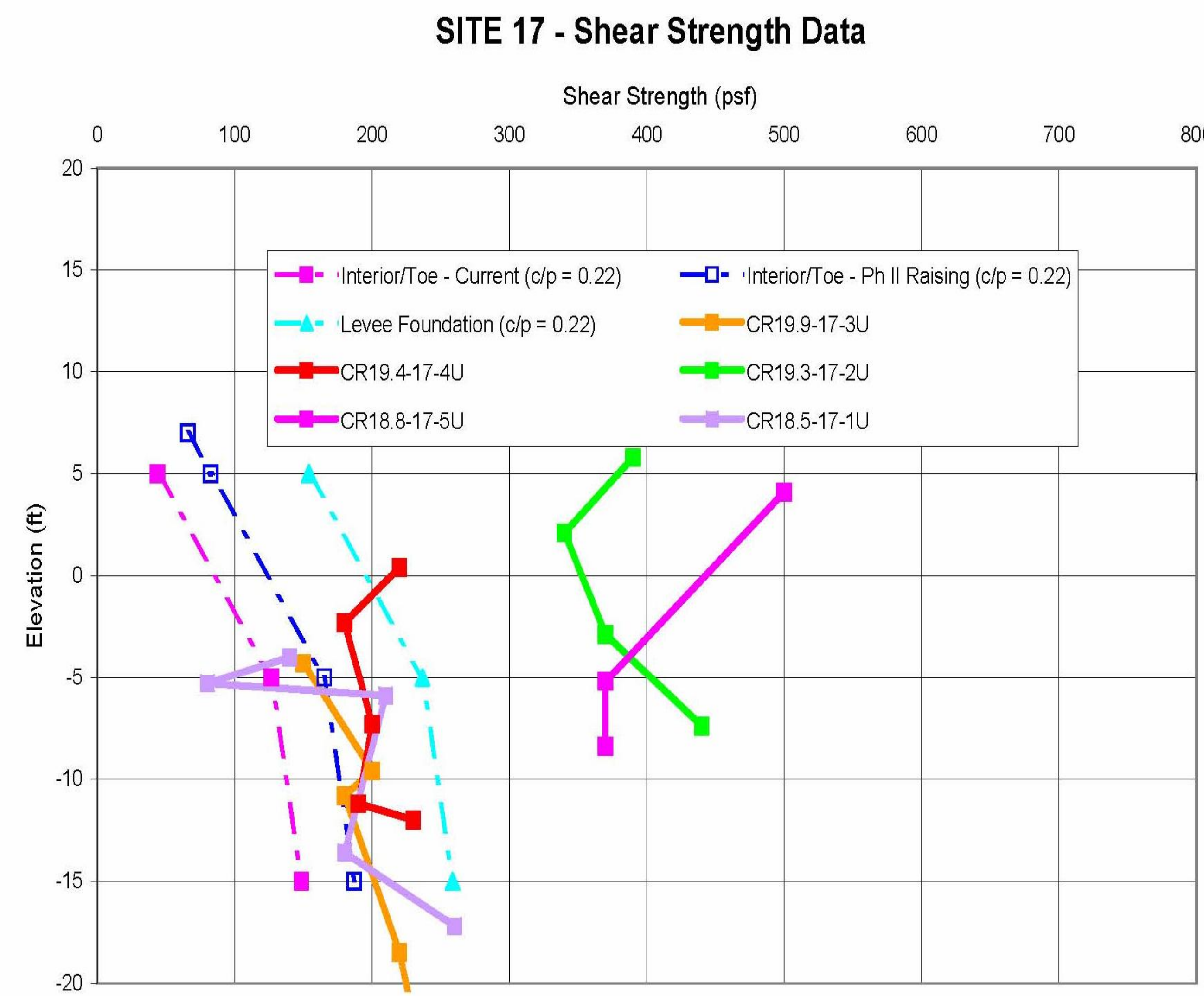
DATE: 11/30/2007	APPROVED BY: FF	PREPARED BY: DK

SHEAR STRENGTH DATA, DISPOSAL AREA 13

PROJECT NO.: HG0617340	DRAWING NO.: PLATE 5



HVJ ASSOCIATES
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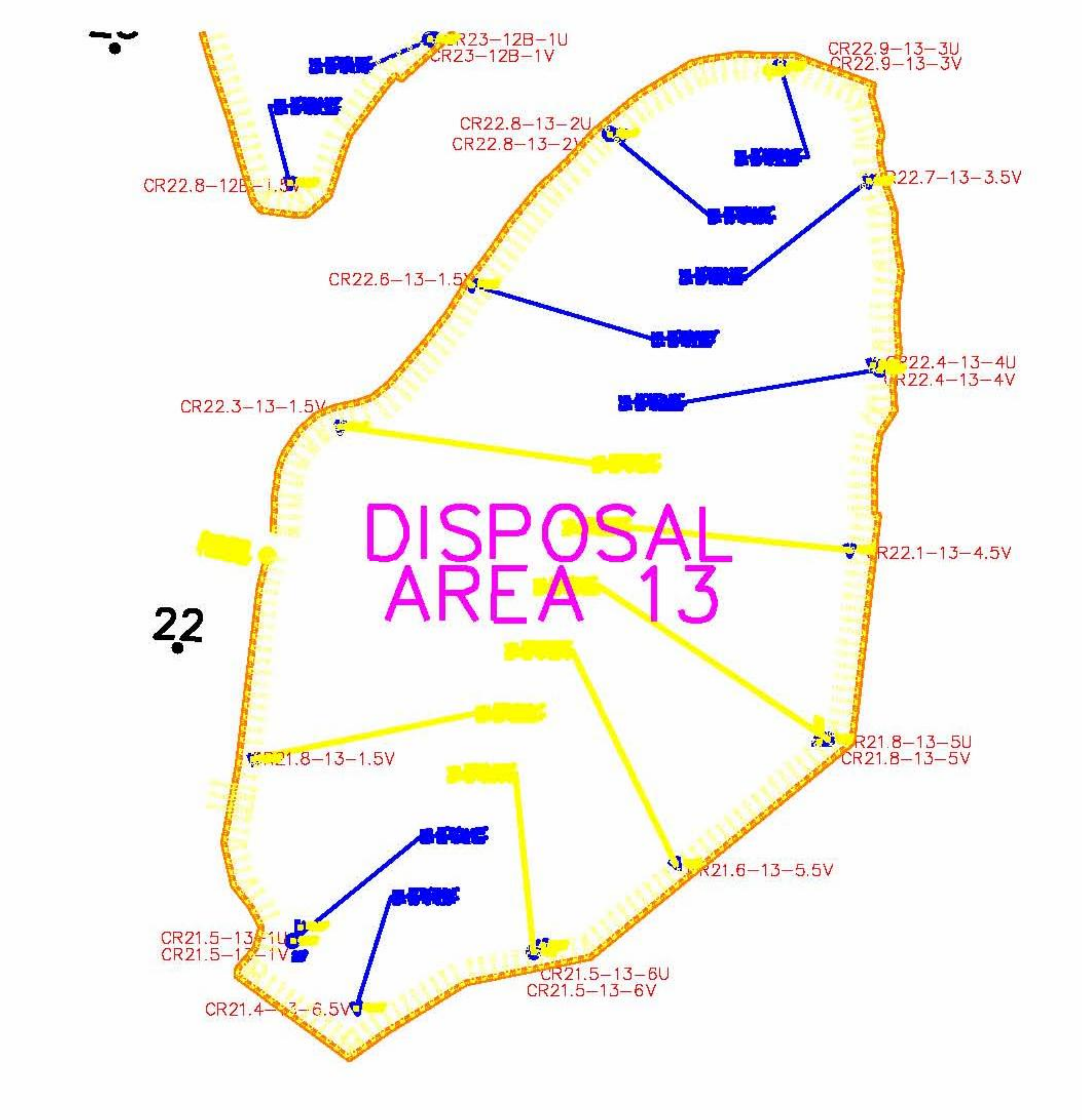
DATE: 11/30/2007	APPROVED BY: FF	PREPARED BY: DK

SHEAR STRENGTH DATA, DISPOSAL AREA 17

PROJECT NO.: HG0617340	DRAWING NO.: PLATE 6



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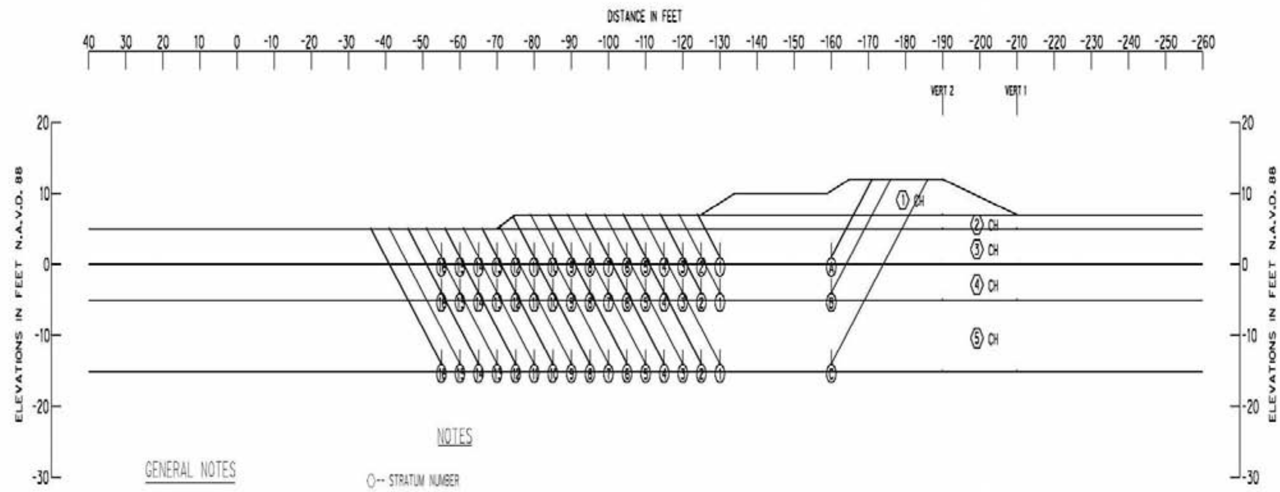
DATE: 11/30/2007	APPROVED BY: FF	PREPARED BY: DK

SITE PLAN, DISPOSAL AREA 13

PROJECT NO.: HG0617340	DRAWING NO.: PLATE 7



NOTES

GENERAL NOTES

CLASSIFICATION STRATIFICATION SHEAR STRENGTHS AND UNIT WEIGHTS OF THE SOIL WERE BASED ON THE RESULTS OF THE UNDISTURBED BORINGS. SEE BORING DATA PLATES.

SHEAR STRENGTHS BETWEEN VERTICALS WERE ASSUMED TO VARY LINEARLY BETWEEN THE VALUES INDICATED FOR THESE LOCATIONS.

◯ -- STRATUM NUMBER
▢ -- WEDGE NUMBER
σ -- CROSSOVER POINT
ϕ -- ANGLE OF INTERNAL FRICTION, DEGREES
C -- UNIT COHESION, P.S.F.
∇ -- STATIC WATER SURFACE
D -- HORIZONTAL DRIVING FORCE IN POUNDS
R -- HORIZONTAL RESISTING FORCE IN POUNDS
A -- AS A SUBSCRIPT, REFERS TO ACTIVE WEDGE
B -- AS A SUBSCRIPT REFERS TO CENTRAL BLOCK
P -- AS A SUBSCRIPT REFERS TO PASSIVE WEDGE

$$\text{FACTOR OF SAFETY} = \frac{R_A + R_B + R_P}{D_A - D_P}$$

STRATUM NO.	SOIL TYPE	TOTAL UNIT WEIGHT P.C.F.		C - UNIT COHESION - P.S.F.				FRICTION ANGLE DEGREES
				CENTER OF STRATUM		BOTTOM OF STRATUM		
		VERT. 1	VERT. 2	VERT. 1	VERT. 2	VERT. 1	VERT. 2	
①	CH	100	100	300	300	300	300	0
②	CH	100	100	300	300	300	300	0
③	CH	100	100	150	45	150	45	0
④	CH	100	100	250	85	250	85	0
⑤	CH	82	72	335	125	335	125	0

ASSUMED FAILURE SURFACE		RESISTING FORCES			DRIVING FORCES		SUMMATION OF FORCES		FACTOR OF SAFETY
NO.	ELEV.	R_A	R_B	R_P	D_A	$-D_P$	RESISTING	DRIVING	
Ⓐ ①	1.0	4559	1350	1560	5631	2216	7469	3415	2.19
Ⓐ ②	1.0	4559	1575	1560	5631	1800	7694	3831	2.01
Ⓐ ③	1.0	4559	1800	1560	5631	1800	7919	3831	2.07
Ⓐ ④	1.0	4559	2025	1559	5631	1799	8143	3832	2.13
Ⓐ ⑤	1.0	4559	2250	1559	5631	1799	8368	3832	2.18
Ⓐ ⑥	1.0	4559	2475	1559	5631	1799	8593	3832	2.24
Ⓐ ⑦	1.0	4559	2700	1559	5631	1799	8818	3832	2.30
Ⓐ ⑧	1.0	4559	2925	1558	5631	1799	9042	3832	2.36
Ⓐ ⑨	1.0	4559	3150	1558	5631	1798	9267	3833	2.42
Ⓐ ⑩	1.0	4559	3375	1558	5631	1798	9492	3833	2.48
Ⓐ ⑪	1.0	4559	3600	1387	5631	1784	9546	3847	2.48
Ⓐ ⑫	1.0	4559	3825	531	5631	1285	8915	4346	2.05
Ⓐ ⑬	1.0	4559	4050	360	5631	800	8969	4831	1.86
Ⓐ ⑭	1.0	4559	4275	360	5631	800	9194	4831	1.90
Ⓐ ⑮	1.0	4559	4500	360	5631	800	9419	4831	1.95
Ⓐ ⑯	1.0	4559	4725	360	5631	800	9644	4831	2.00
Ⓑ ①	-4.0	5329	2550	2330	12380	6466	10209	5914	1.73
Ⓑ ②	-4.0	5329	2975	2329	12380	6049	10633	6331	1.68
Ⓑ ③	-4.0	5329	3400	2329	12380	6049	11058	6331	1.75
Ⓑ ④	-4.0	5329	3825	2329	12380	6049	11483	6331	1.81

ASSUMED FAILURE SURFACE		RESISTING FORCES			DRIVING FORCES		SUMMATION OF FORCES		FACTOR OF SAFETY
NO.	ELEV.	R_A	R_B	R_P	D_A	$-D_P$	RESISTING	DRIVING	
Ⓑ ⑤	-4.0	5329	4250	2329	12380	6048	11908	6332	1.88
Ⓑ ⑥	-4.0	5329	4675	2329	12380	6048	12333	6332	1.95
Ⓑ ⑦	-4.0	5329	5100	2328	12380	6047	12757	6333	2.01
Ⓑ ⑧	-4.0	5329	5525	2328	12380	6047	13182	6333	2.08
Ⓑ ⑨	-4.0	5329	5950	2328	12380	6047	13607	6333	2.15
Ⓑ ⑩	-4.0	5329	6375	2157	12380	6032	13861	6348	2.18
Ⓑ ⑪	-4.0	5329	6800	1301	12380	5533	13430	6847	1.96
Ⓑ ⑫	-4.0	5329	7225	1130	12380	4549	13684	7831	1.75
Ⓑ ⑬	-4.0	5329	7650	1130	12380	4050	14109	8330	1.69
Ⓑ ⑭	-4.0	5329	8075	1130	12380	4050	14534	8330	1.74
Ⓑ ⑮	-4.0	5329	8500	1130	12380	4050	14959	8330	1.80
Ⓑ ⑯	-4.0	5329	8925	1130	12380	4050	15384	8330	1.85
Ⓒ ①	-14.0	7750	3750	4749	32260	21347	16249	10913	1.49
Ⓒ ②	-14.0	7750	4375	4749	32260	20930	16874	11330	1.49
Ⓒ ③	-14.0	7750	5000	4749	32260	20929	17499	11331	1.54
Ⓒ ④	-14.0	7750	5625	4749	32260	20928	18124	11332	1.60
Ⓒ ⑤	-14.0	7750	6250	4748	32260	20928	18748	11332	1.65
Ⓒ ⑥	-14.0	7750	6875	4748	32260	20927	19373	11333	1.71
Ⓒ ⑦	-14.0	7750	7500	4748	32260	20926	19998	11334	1.76
Ⓒ ⑧	-14.0	7750	8125	4577	32260	20911	20452	11349	1.80

ASSUMED FAILURE SURFACE		RESISTING FORCES			DRIVING FORCES		SUMMATION OF FORCES		FACTOR OF SAFETY
NO.	ELEV.	R_A	R_B	R_P	D_A	$-D_P$	RESISTING	DRIVING	
Ⓒ ⑨	-14.0	7750	8750	3721	32260	20412	20221	11848	1.71
Ⓒ ⑩	-14.0	7750	9375	3550	32260	19428	20675	12832	1.61
Ⓒ ⑪	-14.0	7750	10000	3550	32260	18429	21300	13831	1.54
Ⓒ ⑫	-14.0	7750	10625	3550	32260	17431	21925	14829	1.48
Ⓒ ⑬	-14.0	7750	11250	3550	32260	16932	22550	15328	1.47
Ⓒ ⑭	-14.0	7750	11875	3550	32260	16932	23175	15328	1.51
Ⓒ ⑮	-14.0	7750	12500	3550	32260	16931	23800	15329	1.55
Ⓒ ⑯	-14.0	7750	13125	3550	32260	16931	24425	15329	1.59

"Typical Conditions - Sites 11,13 & 17(c)inter "Phase I Raising, 9-04-07"

U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
CORPS OF ENGINEERS 04-SEP-07

HVJ ASSOCIATES
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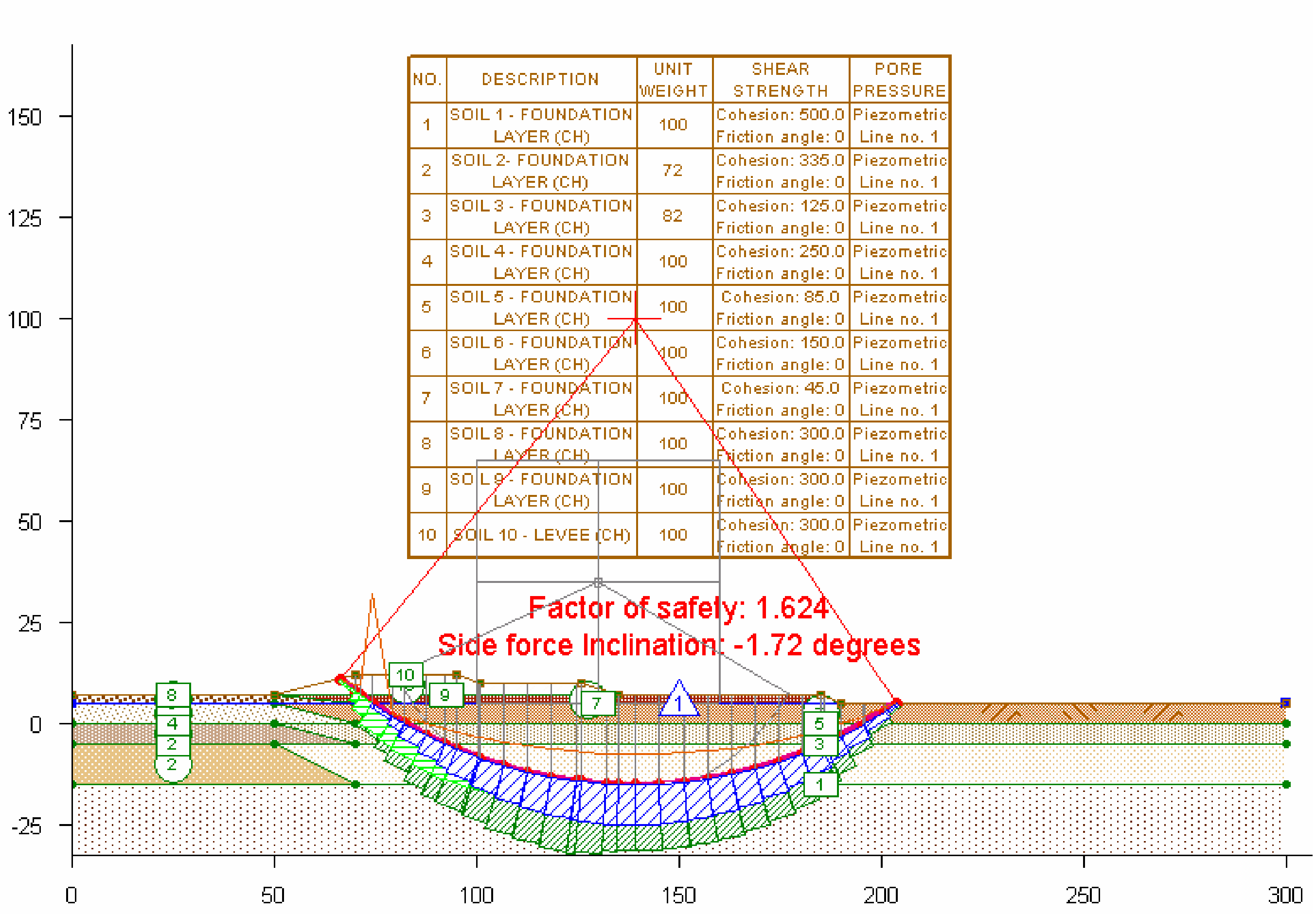
281.933.7293 Fax

DATE: 11/30/2007	APPROVED BY: FF	PREPARED BY: DK

METHOD OF PLANES ANALYSIS, TYPICAL CONDITIONS
INTERNAL STABILITY, PHASE I RAISING, AREAS 11,13 & 17

PROJECT NO.: HG0617340	DRAWING NO.: PLATE 8 MOP



NO.	DESCRIPTION	UNIT WEIGHT	SHEAR STRENGTH	PORE PRESSURE
1	SOIL 1 - FOUNDATION LAYER (CH)	100	Cohesion: 500.0 Friction angle: 0	Piezometric Line no. 1
2	SOIL 2- FOUNDATION LAYER (CH)	72	Cohesion: 335.0 Friction angle: 0	Piezometric Line no. 1
3	SOIL 3 - FOUNDATION LAYER (CH)	82	Cohesion: 125.0 Friction angle: 0	Piezometric Line no. 1
4	SOIL 4 - FOUNDATION LAYER (CH)	100	Cohesion: 250.0 Friction angle: 0	Piezometric Line no. 1
5	SOIL 5 - FOUNDATION LAYER (CH)	100	Cohesion: 85.0 Friction angle: 0	Piezometric Line no. 1
6	SOIL 6 - FOUNDATION LAYER (CH)	100	Cohesion: 150.0 Friction angle: 0	Piezometric Line no. 1
7	SOIL 7 - FOUNDATION LAYER (CH)	100	Cohesion: 45.0 Friction angle: 0	Piezometric Line no. 1
8	SOIL 8 - FOUNDATION LAYER (CH)	100	Cohesion: 300.0 Friction angle: 0	Piezometric Line no. 1
9	SOIL 9 - FOUNDATION LAYER (CH)	100	Cohesion: 300.0 Friction angle: 0	Piezometric Line no. 1
10	SOIL 10 - LEVEE (CH)	100	Cohesion: 300.0 Friction angle: 0	Piezometric Line no. 1

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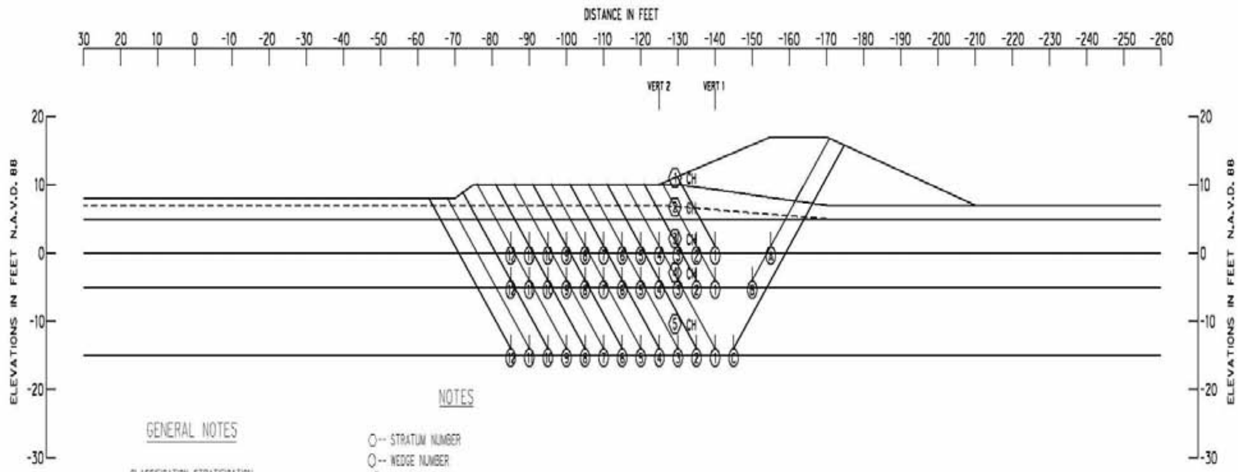
DATE: 11/30/2007	APPROVED BY: FF	PREPARED BY: DK

SPENCER'S METHOD ANALYSIS, TYPICAL CONDITIONS
INTERNAL STABILITY, PHASE I RAISING, AREAS 11,13 & 17

PROJECT NO.: HG0617340	DRAWING NO.: PLATE 8 SM



GENERAL NOTES

CLASSIFICATION STRATIFICATION SHEAR STRENGTHS AND UNIT WEIGHTS OF THE SOIL WERE BASED ON THE RESULTS OF THE UNDISTURBED BORINGS. SEE BORING DATA PLATES.

SHEAR STRENGTHS BETWEEN VERTICALS WERE ASSUMED TO VARY LINEARLY BETWEEN THE VALUES INDICATED FOR THESE LOCATIONS.

NOTES

- ○ -- STRATUM NUMBER
- ○ -- WEDGE NUMBER
- ⌀ -- CROSSOVER POINT
- ϕ -- ANGLE OF INTERNAL FRICTION, DEGREES
- C -- UNIT COHESION, P.S.F.
- ∇ -- STATIC WATER SURFACE
- D -- HORIZONTAL DRIVING FORCE IN POUNDS
- R -- HORIZONTAL RESISTING FORCE IN POUNDS
- A -- AS A SUBSCRIPT, REFERS TO ACTIVE WEDGE
- B -- AS A SUBSCRIPT REFERS TO CENTRAL BLOCK
- P -- AS A SUBSCRIPT REFERS TO PASSIVE WEDGE

$$\text{FACTOR OF SAFETY} = \frac{R_A + R_B + R_P}{D_A - D_P}$$

ASSUMED FAILURE SURFACE			RESISTING FORCES			DRIVING FORCES		SUMMATION OF FORCES		FACTOR OF SAFETY
NO.		ELEV.	R_A	R_B	R_P	D_A	$-D_P$	RESISTING	DRIVING	
A	1	1.0	8280	2250	4811	12788	6332	15341	6456	2.38
A	2	1.0	8280	2946	4071	12788	5206	15297	7582	2.02
A	3	1.0	8280	3533	3784	12788	4341	15597	8447	1.85
A	4	1.0	8280	4012	3680	12788	4050	15972	8738	1.83
A	5	1.0	8280	4437	3679	12788	4049	16396	8739	1.88
A	6	1.0	8280	4862	3679	12788	4049	16821	8739	1.92
A	7	1.0	8280	5287	3679	12788	4049	17246	8739	1.97
A	8	1.0	8280	5712	3679	12788	4048	17671	8740	2.02
A	9	1.0	8280	6137	3679	12788	4048	18096	8740	2.07
A	10	1.0	8280	6562	3678	12788	4048	18520	8740	2.12
A	11	1.0	8280	6987	3678	12788	4047	18945	8741	2.17
A	12	1.0	8280	7412	3678	12788	4047	19370	8741	2.22
B	1	-4.0	10580	2500	6198	21745	12413	19278	9332	2.07
B	2	-4.0	10580	3646	5535	21745	10965	19761	10780	1.83
B	3	-4.0	10580	4583	5050	21745	10091	20213	11654	1.73
B	4	-4.0	10580	5312	4849	21745	9799	20741	11946	1.74
B	5	-4.0	10580	5937	4849	21745	9798	21366	11947	1.79
B	6	-4.0	10580	6562	4849	21745	9798	21991	11947	1.84
B	7	-4.0	10580	7187	4849	21745	9798	22616	11947	1.89
B	8	-4.0	10580	7812	4849	21745	9797	23241	11948	1.95

ASSUMED FAILURE SURFACE			RESISTING FORCES			DRIVING FORCES		SUMMATION OF FORCES		FACTOR OF SAFETY
NO.		ELEV.	R_A	R_B	R_P	D_A	$-D_P$	RESISTING	DRIVING	
B	9	-4.0	10580	8437	4848	21745	9797	23865	11948	2.00
B	10	-4.0	10580	9062	4848	21745	9796	24490	11949	2.05
B	11	-4.0	10580	9687	4848	21745	9796	25115	11949	2.10
B	12	-4.0	10580	10312	4164	21745	9567	25056	12178	2.06
C	1	-14.0	16510	1675	10503	45806	30587	28688	15219	1.89
C	2	-14.0	16510	3208	9191	45806	28994	28909	16812	1.72
C	3	-14.0	16510	4458	8171	45806	27985	29139	17821	1.64
C	4	-14.0	16510	5425	8069	45806	27679	30004	18127	1.66
C	5	-14.0	16510	6250	8069	45806	27678	30829	18128	1.70
C	6	-14.0	16510	7075	8069	45806	27677	31654	18129	1.75
C	7	-14.0	16510	7900	8068	45806	27677	32478	18129	1.79
C	8	-14.0	16510	8725	8068	45806	27676	33303	18130	1.84
C	9	-14.0	16510	9550	8068	45806	27675	34128	18131	1.88
C	10	-14.0	16510	10375	7384	45806	27446	34269	18360	1.87
C	11	-14.0	16510	11200	6870	45806	26576	34580	19230	1.80
C	12	-14.0	16510	12025	6870	45806	25577	35405	20229	1.75

STRATUM NO.	SOIL TYPE	TOTAL UNIT WEIGHT P.C.F.		C - UNIT COHESION - P.S.F.				FRICTION ANGLE DEGREES
				CENTER OF STRATUM		BOTTOM OF STRATUM		
		VERT. 1	VERT. 2	VERT. 1	VERT. 2	VERT. 1	VERT. 2	
1	CH	100	100	300	300	300	300	0
2	CH	100	100	300	300	300	300	0
3	CH	100	100	150	85	150	85	0
4	CH	100	100	250	125	250	125	0
5	CH	82	72	335	165	335	165	0

"Typical Conditions - Sites 11, 13 & 17s inter
"Phase II Raising, 9-04-07"

U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
CORPS OF ENGINEERS 04-SEP-07

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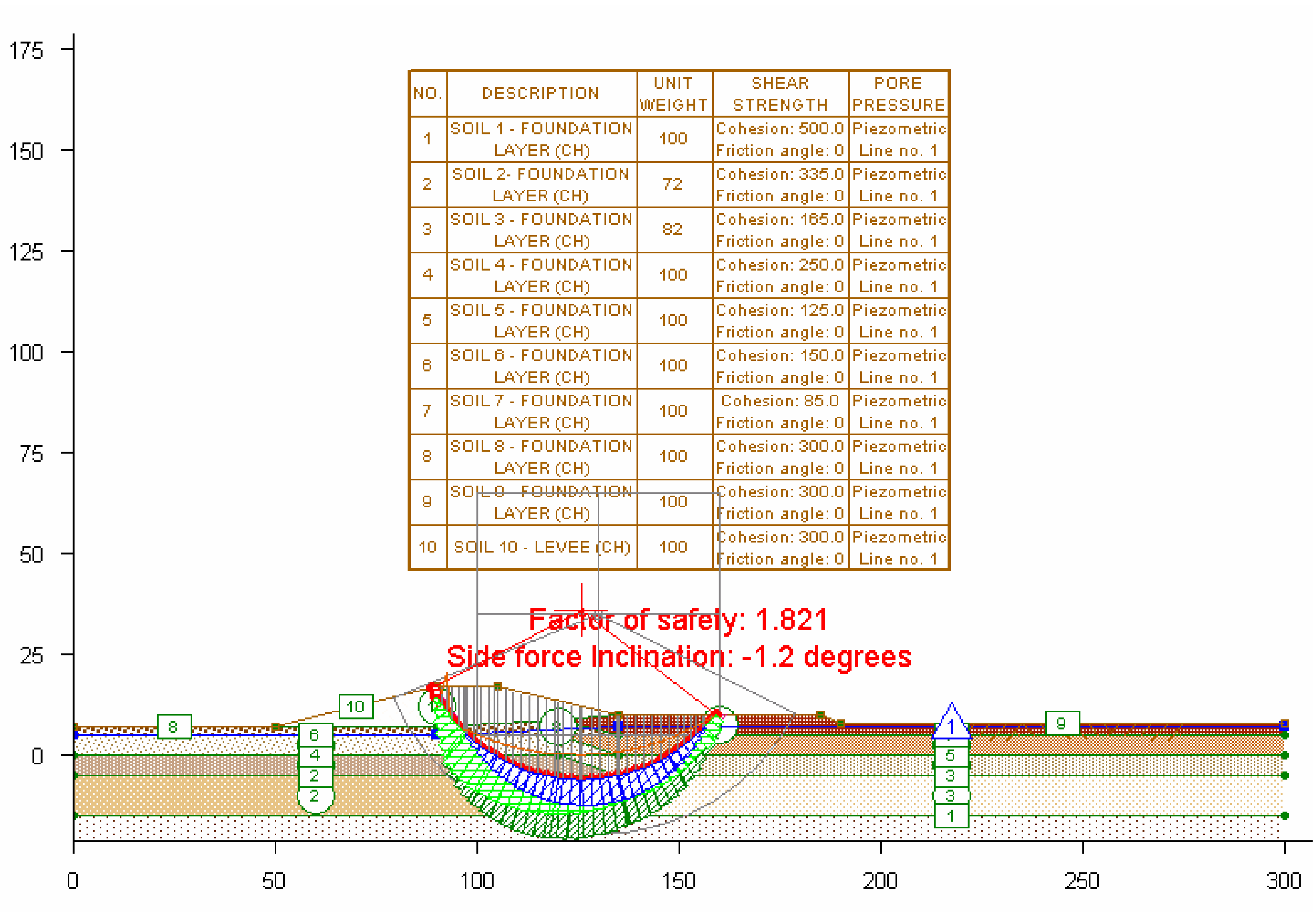
DATE: 11/30/2007	APPROVED BY: FF	PREPARED BY: DK

METHOD OF PLANES ANALYSIS, TYPICAL CONDITIONS
INTERNAL STABILITY, PHASE II RAISING, AREAS 11,13 & 17

PROJECT NO.: HG0617340	DRAWING NO.: PLATE 9 MOP



NO.	DESCRIPTION	UNIT WEIGHT	SHEAR STRENGTH	PORE PRESSURE
1	SOIL 1 - FOUNDATION LAYER (CH)	100	Cohesion: 500.0 Friction angle: 0	Piezometric Line no. 1
2	SOIL 2- FOUNDATION LAYER (CH)	72	Cohesion: 335.0 Friction angle: 0	Piezometric Line no. 1
3	SOIL 3 - FOUNDATION LAYER (CH)	82	Cohesion: 165.0 Friction angle: 0	Piezometric Line no. 1
4	SOIL 4 - FOUNDATION LAYER (CH)	100	Cohesion: 250.0 Friction angle: 0	Piezometric Line no. 1
5	SOIL 5 - FOUNDATION LAYER (CH)	100	Cohesion: 125.0 Friction angle: 0	Piezometric Line no. 1
6	SOIL 6 - FOUNDATION LAYER (CH)	100	Cohesion: 150.0 Friction angle: 0	Piezometric Line no. 1
7	SOIL 7 - FOUNDATION LAYER (CH)	100	Cohesion: 85.0 Friction angle: 0	Piezometric Line no. 1
8	SOIL 8 - FOUNDATION LAYER (CH)	100	Cohesion: 300.0 Friction angle: 0	Piezometric Line no. 1
9	SOIL 9 - FOUNDATION LAYER (CH)	100	Cohesion: 300.0 Friction angle: 0	Piezometric Line no. 1
10	SOIL 10 - LEVEE (CH)	100	Cohesion: 300.0 Friction angle: 0	Piezometric Line no. 1

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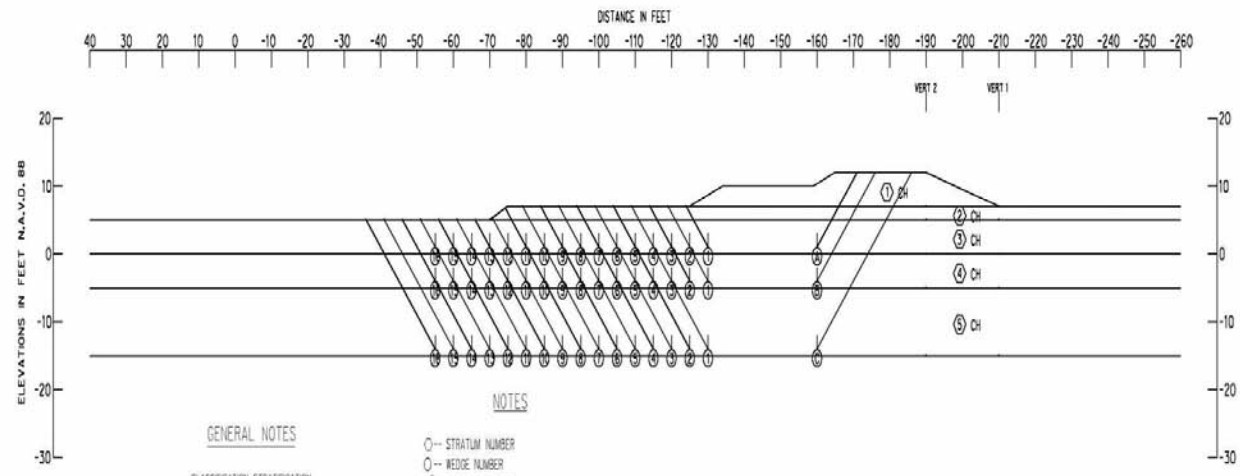
DATE: 11/30/2007	APPROVED BY: FF	PREPARED BY: DK

SPENCER'S METHOD ANALYSIS, TYPICAL CONDITIONS
INTERNAL STABILITY, PHASE II RAISING, AREAS 11,13 & 17

PROJECT NO.: HG0617340	DRAWING NO.: PLATE 9 SM



GENERAL NOTES

CLASSIFICATION STRATIFICATION SHEAR STRENGTHS AND UNIT WEIGHTS OF THE SOIL WERE BASED ON THE RESULTS OF THE UNDISTURBED BORINGS. SEE BORING DATA PLATES.

SHEAR STRENGTHS BETWEEN VERTICALS WERE ASSUMED TO VARY LINEARLY BETWEEN THE VALUES INDICATED FOR THESE LOCATIONS.

NOTES

○ -- STRATUM NUMBER
○ -- WEDGE NUMBER
ϕ -- CROSSOVER POINT
ϕ -- ANGLE OF INTERNAL FRICTION, DEGREES
C -- UNIT COHESION, P.S.F.
∇ -- STATIC WATER SURFACE
D -- HORIZONTAL DRIVING FORCE IN POUNDS
R -- HORIZONTAL RESISTING FORCE IN POUNDS
A -- AS A SUBSCRIPT, REFERS TO ACTIVE WEDGE
B -- AS A SUBSCRIPT REFERS TO CENTRAL BLOCK
P -- AS A SUBSCRIPT REFERS TO PASSIVE WEDGE

$$\text{FACTOR OF SAFETY} = \frac{R_A + R_B + R_P}{D_A - D_P}$$

STRATUM NO.	SOIL TYPE	TOTAL UNIT WEIGHT P.C.F.		C - UNIT COHESION - P.S.F.				FRICTION ANGLE DEGREES
				CENTER OF STRATUM		BOTTOM OF STRATUM		
		VERT. 1	VERT. 2	VERT. 1	VERT. 2	VERT. 1	VERT. 2	
1	CH	100	100	300	300	300	300	0
2	CH	100	100	300	300	300	300	0
3	CH	100	100	150	45	150	45	0
4	CH	100	100	250	85	250	85	0
5	CH	82	72	335	105	335	105	0

ASSUMED FAILURE SURFACE		RESISTING FORCES			DRIVING FORCES		SUMMATION OF FORCES		FACTOR OF SAFETY
NO.	ELEV.	R_A	R_B	R_P	D_A	$-D_P$	RESISTING	DRIVING	
A 1	1.0	4559	1350	1560	5631	2216	7469	3415	2.19
A 2	1.0	4559	1575	1560	5631	1800	7694	3831	2.01
A 3	1.0	4559	1800	1560	5631	1800	7919	3831	2.07
A 4	1.0	4559	2025	1559	5631	1799	8143	3832	2.13
A 5	1.0	4559	2250	1559	5631	1799	8368	3832	2.18
A 6	1.0	4559	2475	1559	5631	1799	8593	3832	2.24
A 7	1.0	4559	2700	1559	5631	1799	8818	3832	2.30
A 8	1.0	4559	2925	1558	5631	1799	9042	3832	2.36
A 9	1.0	4559	3150	1558	5631	1798	9267	3833	2.42
A 10	1.0	4559	3375	1558	5631	1798	9492	3833	2.48
A 11	1.0	4559	3600	1387	5631	1784	9546	3847	2.48
A 12	1.0	4559	3825	531	5631	1285	8915	4346	2.05
A 13	1.0	4559	4050	360	5631	800	8969	4831	1.86
A 14	1.0	4559	4275	360	5631	800	9194	4831	1.90
A 15	1.0	4559	4500	360	5631	800	9419	4831	1.95
A 16	1.0	4559	4725	360	5631	800	9644	4831	2.00
B 1	-4.0	5329	2550	2330	12380	6466	10209	5914	1.73
B 2	-4.0	5329	2975	2329	12380	6049	10633	6331	1.68
B 3	-4.0	5329	3400	2329	12380	6049	11058	6331	1.75
B 4	-4.0	5329	3825	2329	12380	6049	11483	6331	1.81

ASSUMED FAILURE SURFACE		RESISTING FORCES			DRIVING FORCES		SUMMATION OF FORCES		FACTOR OF SAFETY
NO.	ELEV.	R_A	R_B	R_P	D_A	$-D_P$	RESISTING	DRIVING	
B 5	-4.0	5329	4250	2329	12380	6048	11908	6332	1.88
B 6	-4.0	5329	4675	2329	12380	6048	12333	6332	1.95
B 7	-4.0	5329	5100	2328	12380	6047	12757	6333	2.01
B 8	-4.0	5329	5525	2328	12380	6047	13182	6333	2.08
B 9	-4.0	5329	5950	2328	12380	6047	13607	6333	2.15
B 10	-4.0	5329	6375	2157	12380	6032	13861	6348	2.18
B 11	-4.0	5329	6800	1301	12380	5533	13430	6847	1.96
B 12	-4.0	5329	7225	1130	12380	4549	13684	7831	1.75
B 13	-4.0	5329	7650	1130	12380	4050	14109	8330	1.69
B 14	-4.0	5329	8075	1130	12380	4050	14534	8330	1.74
B 15	-4.0	5329	8500	1130	12380	4050	14959	8330	1.80
B 16	-4.0	5329	8925	1130	12380	4050	15384	8330	1.85
C 1	-14.0	7390	3150	4389	32260	21347	14929	10913	1.37
C 2	-14.0	7390	3675	4389	32260	20930	15454	11330	1.36
C 3	-14.0	7390	4200	4389	32260	20929	15979	11331	1.41
C 4	-14.0	7390	4725	4389	32260	20928	16504	11332	1.46
C 5	-14.0	7390	5250	4388	32260	20928	17028	11332	1.50
C 6	-14.0	7390	5775	4388	32260	20927	17553	11333	1.55
C 7	-14.0	7390	6300	4388	32260	20926	18078	11334	1.60
C 8	-14.0	7390	6825	4217	32260	20911	18432	11349	1.62

ASSUMED FAILURE SURFACE		RESISTING FORCES			DRIVING FORCES		SUMMATION OF FORCES		FACTOR OF SAFETY
NO.	ELEV.	R_A	R_B	R_P	D_A	$-D_P$	RESISTING	DRIVING	
C 9	-14.0	7390	7350	3361	32260	20412	18101	11848	1.53
C 10	-14.0	7390	7875	3190	32260	19428	18455	12832	1.44
C 11	-14.0	7390	8400	3190	32260	18429	18980	13831	1.37
C 12	-14.0	7390	8925	3190	32260	17431	19505	14829	1.32
C 13	-14.0	7390	9450	3190	32260	16932	20030	15328	1.31
C 14	-14.0	7390	9975	3190	32260	16932	20555	15328	1.34
C 15	-14.0	7390	10500	3190	32260	16931	21080	15329	1.38
C 16	-14.0	7390	11025	3190	32260	16931	21605	15329	1.41

"Weak Area - Site 13, Internal Stability"
"Phase I Raising, 9-04-07"

U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
CORPS OF ENGINEERS 04-SEP-07

HVJ ASSOCIATES
6120 S. Dairy Ashford Road
Houston, Texas 77072-1010
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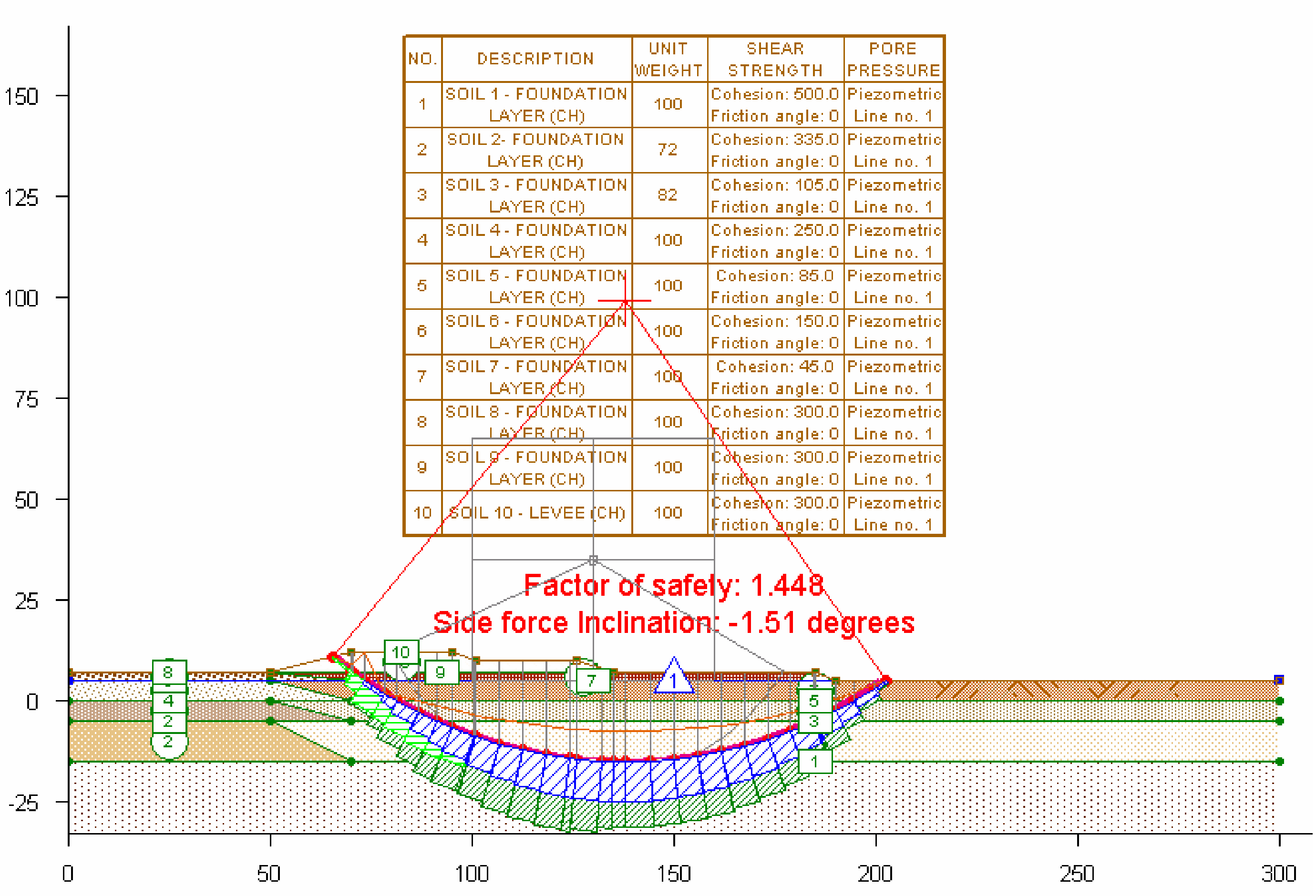
DATE: 11/30/2007	APPROVED BY: FF	PREPARED BY: DK

METHOD OF PLANES ANALYSIS, WEAK AREA INTERNAL STABILITY, PHASE I RAISING, AREA 13

PROJECT NO.: HG0617340	DRAWING NO.: PLATE 10 MOP



NO.	DESCRIPTION	UNIT WEIGHT	SHEAR STRENGTH	PORE PRESSURE
1	SOIL 1 - FOUNDATION LAYER (CH)	100	Cohesion: 500.0 Friction angle: 0	Piezometric Line no. 1
2	SOIL 2- FOUNDATION LAYER (CH)	72	Cohesion: 335.0 Friction angle: 0	Piezometric Line no. 1
3	SOIL 3 - FOUNDATION LAYER (CH)	82	Cohesion: 105.0 Friction angle: 0	Piezometric Line no. 1
4	SOIL 4 - FOUNDATION LAYER (CH)	100	Cohesion: 250.0 Friction angle: 0	Piezometric Line no. 1
5	SOIL 5 - FOUNDATION LAYER (CH)	100	Cohesion: 85.0 Friction angle: 0	Piezometric Line no. 1
6	SOIL 6 - FOUNDATION LAYER (CH)	100	Cohesion: 150.0 Friction angle: 0	Piezometric Line no. 1
7	SOIL 7 - FOUNDATION LAYER (CH)	100	Cohesion: 45.0 Friction angle: 0	Piezometric Line no. 1
8	SOIL 8 - FOUNDATION LAYER (CH)	100	Cohesion: 300.0 Friction angle: 0	Piezometric Line no. 1
9	SOIL 9 - FOUNDATION LAYER (CH)	100	Cohesion: 300.0 Friction angle: 0	Piezometric Line no. 1
10	SOIL 10 - LEVEE (CH)	100	Cohesion: 300.0 Friction angle: 0	Piezometric Line no. 1

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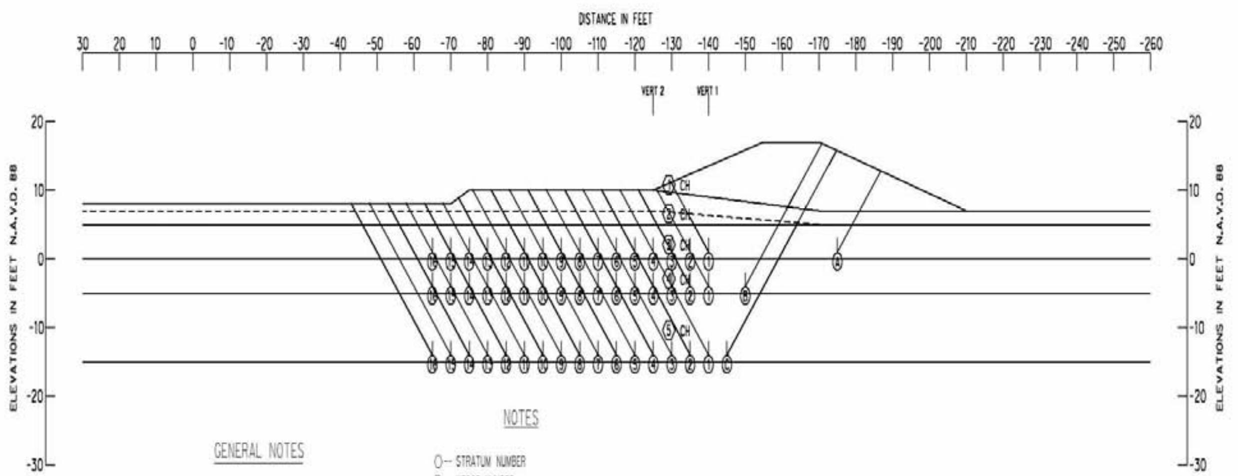
SPENCER'S METHOD ANALYSIS, WEAK AREA
INTERNAL STABILITY, PHASE I RAISING, AREA 13

PROJECT NO.: HG0617340	DRAWING NO.: PLATE 10 SM



GENERAL NOTES

CLASSIFICATION STRATIFICATION SHEAR STRENGTHS AND UNIT WEIGHTS OF THE SOIL WERE BASED ON THE RESULTS OF THE UNDISTURBED BORINGS. SEE BORING DATA PLATES.

SHEAR STRENGTHS BETWEEN VERTICALS WERE ASSUMED TO VARY LINEARLY BETWEEN THE VALUES INDICATED FOR THESE LOCATIONS.

NOTES

○ -- STRATUM NUMBER
○ -- WEDGE NUMBER
ϕ -- CROSSOVER POINT
ϕ -- ANGLE OF INTERNAL FRICTION, DEGREES
C -- UNIT COHESION, P.S.F.
∇ -- STATIC WATER SURFACE
D -- HORIZONTAL DRIVING FORCE IN POUNDS
R -- HORIZONTAL RESISTING FORCE IN POUNDS
A -- AS A SUBSCRIPT, REFERS TO ACTIVE WEDGE
B -- AS A SUBSCRIPT REFERS TO CENTRAL BLOCK
P -- AS A SUBSCRIPT REFERS TO PASSIVE WEDGE

$$\text{FACTOR OF SAFETY} = \frac{R_A + R_B + R_P}{D_A - D_P}$$

STRATUM NO.	SOIL TYPE	TOTAL UNIT WEIGHT P.C.F.		C - UNIT COHESION - P.S.F.				FRICTION ANGLE DEGREES
				CENTER OF STRATUM		BOTTOM OF STRATUM		
		VERT. 1	VERT. 2	VERT. 1	VERT. 2	VERT. 1	VERT. 2	
1	CH	100	100	300	300	300	300	0
2	CH	100	100	200	250	200	250	0
3	CH	100	100	150	85	150	85	0
4	CH	100	100	250	125	250	125	0
5	CH	82	72	335	145	335	145	0

ASSUMED FAILURE SURFACE		RESISTING FORCES			DRIVING FORCES		SUMMATION OF FORCES		FACTOR OF SAFETY
NO.	ELEV.	R_A	R_B	R_P	D_A	$-D_P$	RESISTING	DRIVING	
A 1	1.0	5480	5250	4089	8703	6333	14819	2370	6.25
A 2	1.0	5480	5946	3462	8703	5206	14888	3497	4.26
A 3	1.0	5480	6533	3284	8703	4341	15297	4362	3.51
A 4	1.0	5480	7012	3180	8703	4050	15672	4653	3.37
A 5	1.0	5480	7437	3179	8703	4049	16096	4654	3.46
A 6	1.0	5480	7862	3179	8703	4049	16521	4654	3.55
A 7	1.0	5480	8287	3179	8703	4049	16946	4654	3.64
A 8	1.0	5480	8712	3179	8703	4048	17371	4655	3.73
A 9	1.0	5480	9137	3179	8703	4048	17796	4655	3.82
A 10	1.0	5480	9562	3179	8703	4048	18221	4655	3.91
A 11	1.0	5480	9987	3178	8703	4047	18645	4656	4.01
A 12	1.0	5480	10412	3178	8703	4047	19070	4656	4.10
A 13	1.0	5480	10837	2608	8703	3819	18925	4884	3.87
A 14	1.0	5480	11262	2180	8703	2949	18922	5754	3.29
A 15	1.0	5480	11687	2180	8703	2450	19347	6253	3.09
A 16	1.0	5480	12112	2180	8703	2450	19772	6253	3.16
B 1	-4.0	10067	2500	5589	21745	12414	18156	9331	1.95
B 2	-4.0	10067	3646	5035	21745	10966	18748	10779	1.74
B 3	-4.0	10067	4583	4550	21745	10091	19200	11654	1.65
B 4	-4.0	10067	5312	4349	21745	9799	19728	11946	1.65
B 5	-4.0	10067	5937	4349	21745	9798	20353	11947	1.70
B 6	-4.0	10067	6562	4349	21745	9798	20978	11947	1.76
B 7	-4.0	10067	7187	4349	21745	9798	21603	11947	1.81
B 8	-4.0	10067	7812	4349	21745	9797	22228	11948	1.86
B 9	-4.0	10067	8437	4349	21745	9797	22853	11948	1.91
B 10	-4.0	10067	9062	4348	21745	9796	23477	11949	1.96
B 11	-4.0	10067	9687	4348	21745	9796	24102	11949	2.02
B 12	-4.0	10067	10312	3778	21745	9567	24157	12178	1.98
B 13	-4.0	10067	10937	3350	21745	8697	24354	13048	1.87
B 14	-4.0	10067	11562	3350	21745	7699	24979	14046	1.78
B 15	-4.0	10067	12187	3350	21745	7200	25604	14545	1.76
B 16	-4.0	10067	12812	3350	21745	7200	26229	14545	1.80
C 1	-14.0	16060	1675	9895	45806	30588	27630	15218	1.82
C 2	-14.0	16060	3191	8463	45806	28995	27714	16811	1.65
C 3	-14.0	16060	4391	7323	45806	27985	27774	17821	1.56
C 4	-14.0	16060	5275	7209	45806	27679	28544	18127	1.57
C 5	-14.0	16060	6000	7209	45806	27678	29269	18128	1.61
C 6	-14.0	16060	6725	7209	45806	27677	29994	18129	1.65
C 7	-14.0	16060	7450	7209	45806	27677	30719	18129	1.69
C 8	-14.0	16060	8175	7208	45806	27676	31443	18130	1.73
C 9	-14.0	16060	8900	7208	45806	27675	32168	18131	1.77
C 10	-14.0	16060	9625	6638	45806	27446	32323	18360	1.76
C 11	-14.0	16060	10350	6210	45806	26576	32620	19230	1.70
C 12	-14.0	16060	11075	6210	45806	25577	33345	20229	1.65
C 13	-14.0	16060	11800	6210	45806	24579	34070	21227	1.61
C 14	-14.0	16060	12525	6210	45806	23581	34795	22225	1.57
C 15	-14.0	16060	13250	6210	45806	23081	35520	22725	1.56
C 16	-14.0	16060	13975	6210	45806	23081	36245	22725	1.59

"Weak Area - Site 13, Internal Stability"
"Phase II Raising, 9-04-07"

U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
CORPS OF ENGINEERS 04-SEP-07

HVJ ASSOCIATES
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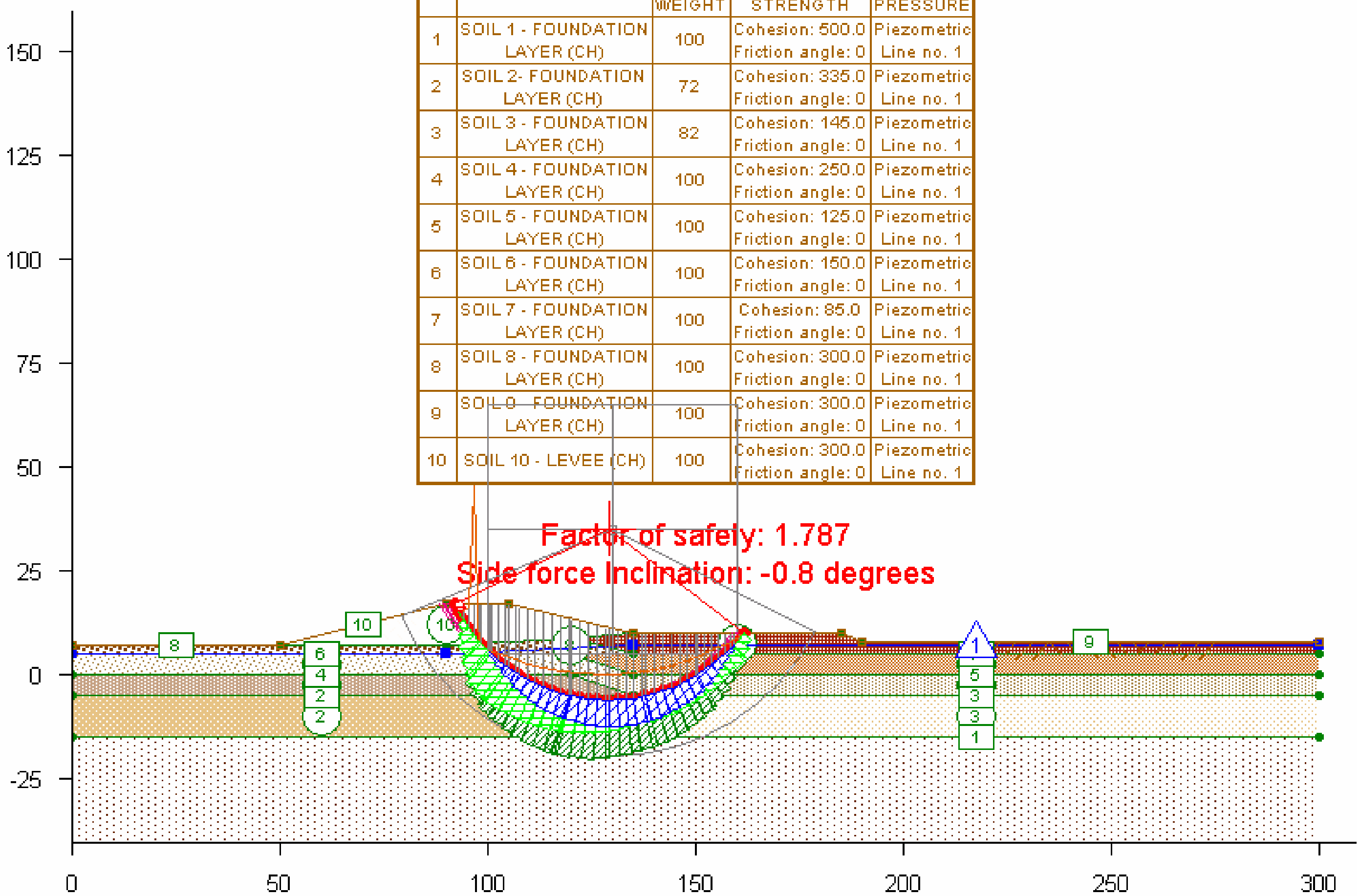
DATE: 11/30/2007 | APPROVED BY: FF | PREPARED BY: DK

METHOD OF PLANES ANALYSIS, WEAK AREA
INTERNAL STABILITY, PHASE II RAISING, AREA 13

PROJECT NO.: HG0617340 | DRAWING NO.: PLATE 11 MOP



NO.	DESCRIPTION	UNIT WEIGHT	SHEAR STRENGTH	PORE PRESSURE
1	SOIL 1 - FOUNDATION LAYER (CH)	100	Cohesion: 500.0 Friction angle: 0	Piezometric Line no. 1
2	SOIL 2- FOUNDATION LAYER (CH)	72	Cohesion: 335.0 Friction angle: 0	Piezometric Line no. 1
3	SOIL 3 - FOUNDATION LAYER (CH)	82	Cohesion: 145.0 Friction angle: 0	Piezometric Line no. 1
4	SOIL 4 - FOUNDATION LAYER (CH)	100	Cohesion: 250.0 Friction angle: 0	Piezometric Line no. 1
5	SOIL 5 - FOUNDATION LAYER (CH)	100	Cohesion: 125.0 Friction angle: 0	Piezometric Line no. 1
6	SOIL 6 - FOUNDATION LAYER (CH)	100	Cohesion: 150.0 Friction angle: 0	Piezometric Line no. 1
7	SOIL 7 - FOUNDATION LAYER (CH)	100	Cohesion: 85.0 Friction angle: 0	Piezometric Line no. 1
8	SOIL 8 - FOUNDATION LAYER (CH)	100	Cohesion: 300.0 Friction angle: 0	Piezometric Line no. 1
9	SOIL 9 - FOUNDATION LAYER (CH)	100	Cohesion: 300.0 Friction angle: 0	Piezometric Line no. 1
10	SOIL 10 - LEVEE (CH)	100	Cohesion: 300.0 Friction angle: 0	Piezometric Line no. 1

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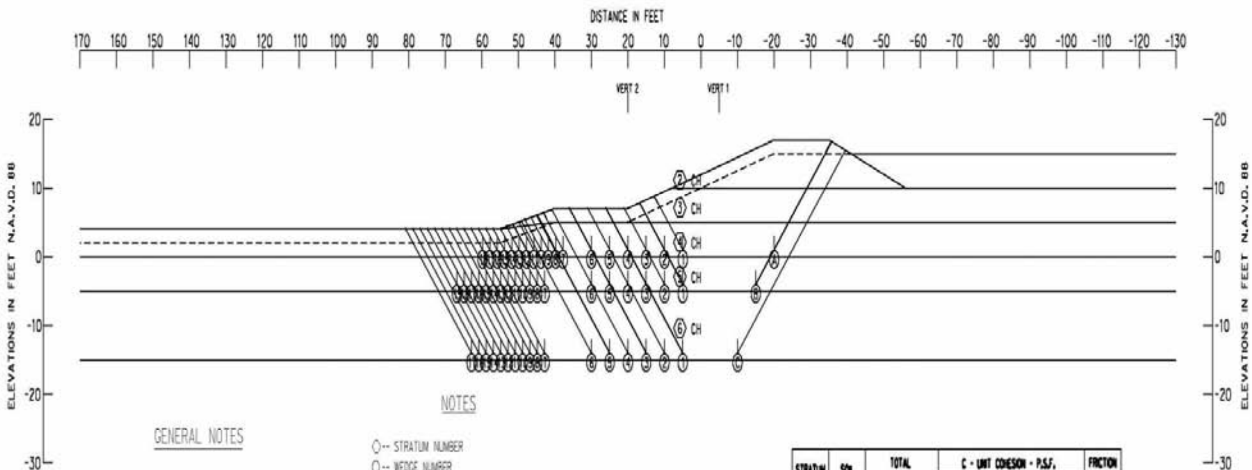
APPROVED BY: FF

PREPARED BY: DK

SPENCER'S METHOD ANALYSIS, WEAK AREA
INTERNAL STABILITY, PHASE II RAISING, AREA 13

PROJECT NO.: HG0617340

DRAWING NO.: PLATE 11 SM



GENERAL NOTES

CLASSIFICATION STRATIFICATION SHEAR STRENGTHS AND UNIT WEIGHTS OF THE SOIL WERE BASED ON THE RESULTS OF THE UNDISTURBED BORINGS. SEE BORING DATA PLATES.

SHEAR STRENGTHS BETWEEN VERTICALS WERE ASSUMED TO VARY LINEARLY BETWEEN THE VALUES INDICATED FOR THESE LOCATIONS.

NOTES

⬡ -- STRATUM NUMBER
○ -- WEDGE NUMBER
ø -- CROSSOVER POINT
ϕ -- ANGLE OF INTERNAL FRICTION, DEGREES
C -- UNIT COHESION, P.S.F.
∇ -- STATIC WATER SURFACE
D -- HORIZONTAL DRIVING FORCE IN POUNDS
R -- HORIZONTAL RESISTING FORCE IN POUNDS
A -- AS A SUBSCRIPT, REFERS TO ACTIVE WEDGE
B -- AS A SUBSCRIPT REFERS TO CENTRAL BLOCK
P -- AS A SUBSCRIPT REFERS TO PASSIVE WEDGE

$$\text{FACTOR OF SAFETY} = \frac{R_A + R_B + R_P}{D_A - D_P}$$

STRATUM NO.	SOIL TYPE	TOTAL UNIT WEIGHT P.C.F.		C - UNIT COHESION - P.S.F.				FRICTION ANGLE DEGREES
				CENTER OF STRATUM		BOTTOM OF STRATUM		
		VERT. 1	VERT. 2	VERT. 1	VERT. 2	VERT. 1	VERT. 2	
1		80	80	0	0	0	0	0
2	CH	100	100	300	300	300	300	0
3	CH	100	100	300	300	300	300	0
4	CH	100	100	110	150	110	150	0
5	CH	100	100	195	250	195	250	0
6	CH	72	82	275	335	275	335	0

ASSUMED FAILURE SURFACE		RESISTING FORCES			DRIVING FORCES		SUMMATION OF FORCES		FACTOR OF SAFETY
NO.	ELEV.	R_A	R_B	R_P	D_A	$-D_P$	RESISTING	DRIVING	
A 1	1.0	7930	2830	3313	12786	3801	14073	8985	1.57
A 2	1.0	7930	3480	2777	12786	2889	14187	9897	1.43
A 3	1.0	7930	4170	2362	12786	2112	14462	10674	1.35
A 4	1.0	7930	4900	2400	12786	1800	15230	10986	1.39
A 5	1.0	7930	5650	2400	12786	1800	15980	10986	1.45
A 6	1.0	7930	6400	2399	12786	1799	16729	10987	1.52
A 7	1.0	7930	7567	2055	12786	1680	17552	11106	1.58
A 8	1.0	7930	7867	1892	12786	1521	17689	11265	1.57
A 9	1.0	7930	8168	1730	12786	1326	17828	11460	1.56
A 10	1.0	7930	8468	1567	12786	1145	17965	11641	1.54
A 11	1.0	7930	8769	1404	12786	976	18103	11810	1.53
A 12	1.0	7930	9069	1242	12786	822	18241	11964	1.52
A 13	1.0	7930	9369	1079	12786	680	18378	12106	1.52
A 14	1.0	7930	9670	916	12786	552	18516	12234	1.51
A 15	1.0	7930	9970	900	12786	464	18800	12322	1.53
A 16	1.0	7930	10271	900	12786	450	19101	12336	1.55
A 17	1.0	7930	10571	900	12786	450	19401	12336	1.57
A 18	1.0	7930	10872	900	12786	450	19702	12336	1.60
B 1	-4.0	9710	4010	4815	21721	8700	18535	13021	1.42
B 2	-4.0	9710	5123	4503	21721	7299	19336	14422	1.34

ASSUMED FAILURE SURFACE		RESISTING FORCES			DRIVING FORCES		SUMMATION OF FORCES		FACTOR OF SAFETY
NO.	ELEV.	R_A	R_B	R_P	D_A	$-D_P$	RESISTING	DRIVING	
B 3	-4.0	9710	6290	4647	21721	6362	20647	15359	1.34
B 4	-4.0	9710	7513	4700	21721	6049	21923	15672	1.40
B 5	-4.0	9710	8763	4699	21721	6049	23172	15672	1.48
B 6	-4.0	9710	10013	4599	21721	6040	24322	15681	1.55
B 7	-4.0	9710	13209	3542	21721	4543	26461	17178	1.54
B 8	-4.0	9710	13710	3380	21721	4201	26800	17520	1.53
B 9	-4.0	9710	14211	3217	21721	3873	27138	17848	1.52
B 10	-4.0	9710	14711	3200	21721	3585	27621	18136	1.52
B 11	-4.0	9710	15212	3200	21721	3376	28122	18345	1.53
B 12	-4.0	9710	15713	3200	21721	3248	28623	18473	1.55
B 13	-4.0	9710	16214	3200	21721	3200	29124	18521	1.57
B 14	-4.0	9710	16714	3200	21721	3200	29624	18521	1.60
B 15	-4.0	9710	17215	3200	21721	3200	30125	18521	1.63
B 16	-4.0	9710	17716	3200	21721	3200	30626	18521	1.65
B 17	-4.0	9710	18217	3200	21721	3200	31127	18521	1.68
B 18	-4.0	9710	18718	3200	21721	3200	31628	18521	1.71
B 19	-4.0	9710	19218	3200	21721	3200	32128	18521	1.73
C 1	-14.0	14301	4245	10699	45228	23977	29245	21251	1.38
C 2	-14.0	14301	5770	10992	45228	22496	31063	22732	1.37
C 3	-14.0	14301	7355	11208	45228	21640	32864	23588	1.39

ASSUMED FAILURE SURFACE		RESISTING FORCES			DRIVING FORCES		SUMMATION OF FORCES		FACTOR OF SAFETY
NO.	ELEV.	R_A	R_B	R_P	D_A	$-D_P$	RESISTING	DRIVING	
C 4	-14.0	14301	9000	11129	45228	21326	34430	23902	1.44
C 5	-14.0	14301	10675	10705	45228	21034	35681	24194	1.47
C 6	-14.0	14301	12350	10299	45228	20326	36950	24902	1.48
C 7	-14.0	14301	16633	9730	45228	16978	40664	28250	1.44
C 8	-14.0	14301	17304	9730	45228	16529	41335	28699	1.44
C 9	-14.0	14301	17975	9730	45228	16160	42006	29068	1.45
C 10	-14.0	14301	18646	9730	45228	15872	42677	29356	1.45
C 11	-14.0	14301	19317	9730	45228	15663	43348	29565	1.47
C 12	-14.0	14301	19989	9730	45228	15535	44020	29693	1.48
C 13	-14.0	14301	20660	9730	45228	15487	44691	29741	1.50
C 14	-14.0	14301	21331	9730	45228	15487	45362	29741	1.53
C 15	-14.0	14301	22002	9730	45228	15487	46033	29741	1.55
C 16	-14.0	14301	22673	9730	45228	15487	46704	29741	1.57
C 17	-14.0	14301	23344	9730	45228	15487	47375	29741	1.59

"Typical Conditions - Sites 11, 13 & 17; Exter
"Phase II Raising, 2' Freeboard, 9-04-07"

U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
CORPS OF ENGINEERS 04-SEP-07

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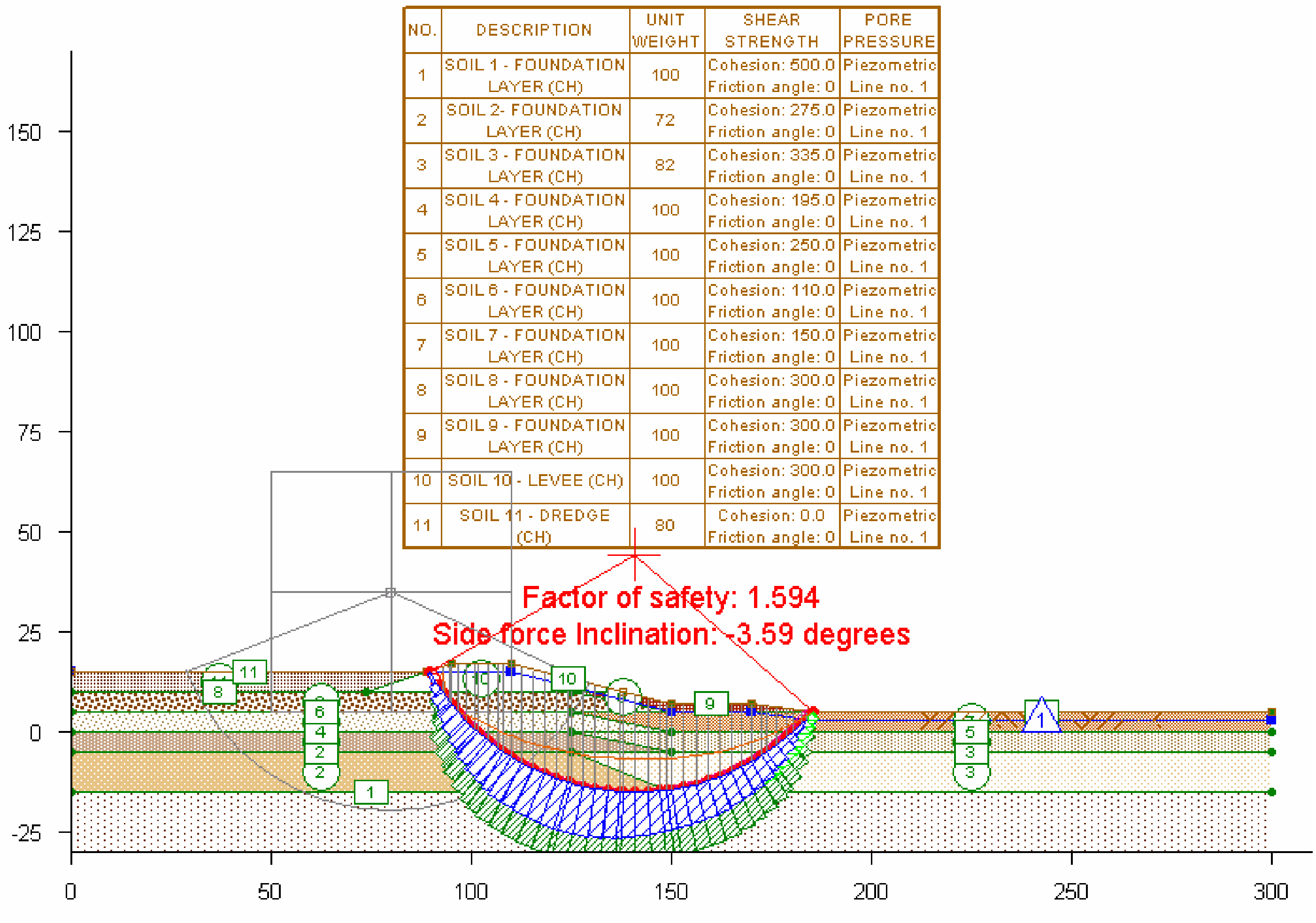
DATE: 11/30/2007	APPROVED BY: FF	PREPARED BY: DK

METHOD OF PLANES ANALYSIS, TYPICAL CONDITIONS
EXTERNAL STABILITY, 2-FOOT FREEBOARD, AREAS 11, 13&17

PROJECT NO.: HG0617340	DRAWING NO.: PLATE 12 MOP



NO.	DESCRIPTION	UNIT WEIGHT	SHEAR STRENGTH	PORE PRESSURE
1	SOIL 1 - FOUNDATION LAYER (CH)	100	Cohesion: 500.0 Friction angle: 0	Piezometric Line no. 1
2	SOIL 2- FOUNDATION LAYER (CH)	72	Cohesion: 275.0 Friction angle: 0	Piezometric Line no. 1
3	SOIL 3 - FOUNDATION LAYER (CH)	82	Cohesion: 335.0 Friction angle: 0	Piezometric Line no. 1
4	SOIL 4 - FOUNDATION LAYER (CH)	100	Cohesion: 195.0 Friction angle: 0	Piezometric Line no. 1
5	SOIL 5 - FOUNDATION LAYER (CH)	100	Cohesion: 250.0 Friction angle: 0	Piezometric Line no. 1
6	SOIL 6 - FOUNDATION LAYER (CH)	100	Cohesion: 110.0 Friction angle: 0	Piezometric Line no. 1
7	SOIL 7 - FOUNDATION LAYER (CH)	100	Cohesion: 150.0 Friction angle: 0	Piezometric Line no. 1
8	SOIL 8 - FOUNDATION LAYER (CH)	100	Cohesion: 300.0 Friction angle: 0	Piezometric Line no. 1
9	SOIL 9 - FOUNDATION LAYER (CH)	100	Cohesion: 300.0 Friction angle: 0	Piezometric Line no. 1
10	SOIL 10 - LEVEE (CH)	100	Cohesion: 300.0 Friction angle: 0	Piezometric Line no. 1
11	SOIL 11 - DREDGE (CH)	80	Cohesion: 0.0 Friction angle: 0	Piezometric Line no. 1

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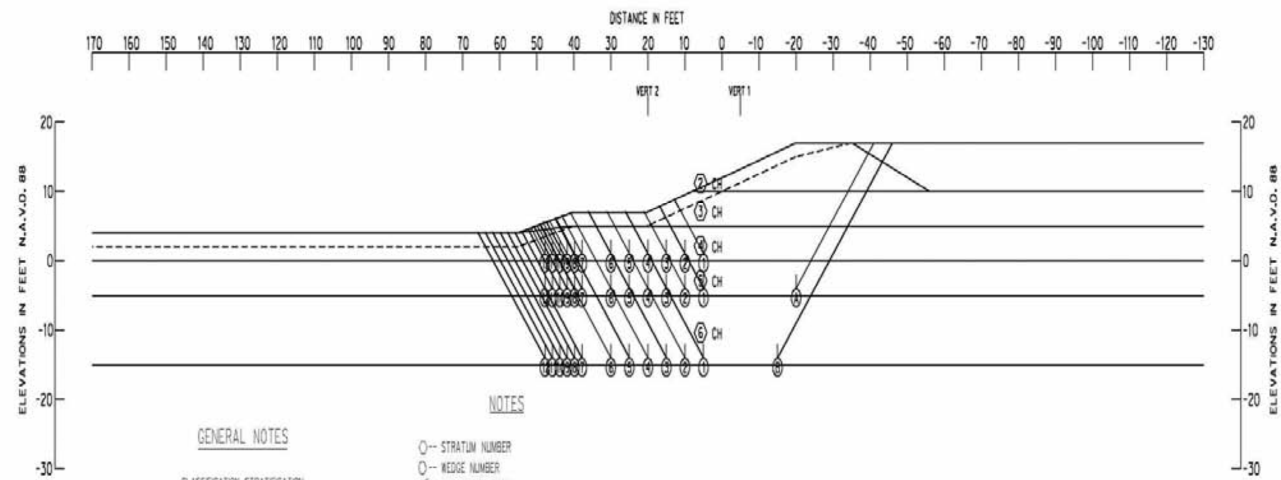
SPENCER'S METHOD ANALYSIS, TYPICAL CONDITIONS
EXTERNAL STABILITY, 2-FOOT FREEBOARD, AREAS 11, 13&17

PROJECT NO.: HG0617340	DRAWING NO.: PLATE 12 SM



NOTES

○ -- STRATUM NUMBER
○ -- WEDGE NUMBER
ȯ -- CROSSOVER POINT
ϕ -- ANGLE OF INTERNAL FRICTION, DEGREES
C -- UNIT COHESION, P.S.F.
∇ -- STATIC WATER SURFACE
D -- HORIZONTAL DRIVING FORCE IN POUNDS
R -- HORIZONTAL RESISTING FORCE IN POUNDS
A -- AS A SUBSCRIPT, REFERS TO ACTIVE WEDGE
B -- AS A SUBSCRIPT REFERS TO CENTRAL BLOCK
P -- AS A SUBSCRIPT REFERS TO PASSIVE WEDGE

$$\text{FACTOR OF SAFETY} = \frac{R_A + R_B + R_P}{D_A - D_P}$$

GENERAL NOTES

CLASSIFICATION STRATIFICATION SHEAR STRENGTHS AND UNIT WEIGHTS OF THE SOIL WERE BASED ON THE RESULTS OF THE UNDISTURBED BORINGS. SEE BORING DATA PLATES.

SHEAR STRENGTHS BETWEEN VERTICALS WERE ASSUMED TO VARY LINEARLY BETWEEN THE VALUES INDICATED FOR THESE LOCATIONS.

ASSUMED FAILURE SURFACE NO.	ASSUMED FAILURE SURFACE ELEV.	RESISTING FORCES R_A	RESISTING FORCES R_B	RESISTING FORCES R_P	DRIVING FORCES D_A	DRIVING FORCES $-D_P$	SUMMATION OF FORCES RESISTING	SUMMATION OF FORCES DRIVING	FACTOR OF SAFETY
○ ①	1.0	7930	2830	3313	12796	3801	14073	8995	1.56
○ ②	1.0	7930	3480	2777	12796	2889	14187	9907	1.43
○ ③	1.0	7930	4170	2362	12796	2112	14462	10684	1.35
○ ④	1.0	7930	4900	2400	12796	1800	15230	10996	1.39
○ ⑤	1.0	7930	5650	2400	12796	1800	15980	10996	1.45
○ ⑥	1.0	7930	6400	2399	12796	1799	16729	10997	1.52
○ ⑦	1.0	7930	7567	2055	12796	1680	17552	11116	1.58
○ ⑧	1.0	7930	7867	1892	12796	1521	17689	11275	1.57
○ ⑨	1.0	7930	8168	1730	12796	1326	17828	11470	1.55
○ ⑩	1.0	7930	8468	1567	12796	1145	17965	11651	1.54
○ ⑪	1.0	7930	8769	1404	12796	976	18103	11820	1.53
○ ⑫	1.0	7930	9069	1242	12796	822	18241	11974	1.52
Ⓐ ①	-4.0	8960	4985	4815	21958	8700	18760	13258	1.42
Ⓐ ②	-4.0	8960	6098	4503	21958	7299	19561	14659	1.33
Ⓐ ③	-4.0	8960	7265	4647	21958	6362	20872	15596	1.34
Ⓐ ④	-4.0	8960	8488	4700	21958	6049	22148	15909	1.39
Ⓐ ⑤	-4.0	8960	9738	4699	21958	6049	23397	15909	1.47
Ⓐ ⑥	-4.0	8960	10988	4599	21958	6040	24547	15918	1.54
Ⓐ ⑦	-4.0	8960	12932	3949	21958	5406	25841	16552	1.56
Ⓐ ⑧	-4.0	8960	13433	3786	21958	5080	26179	16878	1.55

ASSUMED FAILURE SURFACE NO.	ASSUMED FAILURE SURFACE ELEV.	RESISTING FORCES R_A	RESISTING FORCES R_B	RESISTING FORCES R_P	DRIVING FORCES D_A	DRIVING FORCES $-D_P$	SUMMATION OF FORCES RESISTING	SUMMATION OF FORCES DRIVING	FACTOR OF SAFETY
Ⓐ ⑨	-4.0	8960	13934	3624	21958	4719	26518	17239	1.54
Ⓐ ⑩	-4.0	8960	14434	3461	21958	4370	26855	17588	1.53
Ⓐ ⑪	-4.0	8960	14935	3298	21958	4035	27193	17923	1.52
Ⓐ ⑫	-4.0	8960	15436	3200	21958	3719	27596	18239	1.51
Ⓑ ①	-14.0	13551	5620	10699	46313	23977	29870	22336	1.34
Ⓑ ②	-14.0	13551	7145	10992	46313	22496	31688	23817	1.33
Ⓑ ③	-14.0	13551	8730	11208	46313	21640	33489	24673	1.36
Ⓑ ④	-14.0	13551	10375	11129	46313	21326	35055	24987	1.40
Ⓑ ⑤	-14.0	13551	12050	10705	46313	21034	36306	25279	1.44
Ⓑ ⑥	-14.0	13551	13725	10299	46313	20326	37575	25987	1.45
Ⓑ ⑦	-14.0	13551	16331	9730	46313	18402	39612	27911	1.42
Ⓑ ⑧	-14.0	13551	17002	9730	46313	17801	40283	28512	1.41
Ⓑ ⑨	-14.0	13551	17673	9730	46313	17232	40954	29081	1.41
Ⓑ ⑩	-14.0	13551	18344	9730	46313	16743	41625	29570	1.41
Ⓑ ⑪	-14.0	13551	19015	9730	46313	16335	42296	29978	1.41
Ⓑ ⑫	-14.0	13551	19686	9730	46313	16006	42967	30307	1.42

STRATUM NO.	SOIL TYPE	TOTAL UNIT WEIGHT P.C.F. VERT. 1	TOTAL UNIT WEIGHT P.C.F. VERT. 2	C - UNIT COHESION - P.S.F. CENTER OF STRATUM VERT. 1	C - UNIT COHESION - P.S.F. CENTER OF STRATUM VERT. 2	C - UNIT COHESION - P.S.F. BOTTOM OF STRATUM VERT. 1	C - UNIT COHESION - P.S.F. BOTTOM OF STRATUM VERT. 2	FRICTION ANGLE DEGREES
①		80	80	0	0	0	0	0
②	CH	100	100	300	300	300	300	0
③	CH	100	100	300	300	300	300	0
④	CH	100	100	110	150	110	150	0
⑤	CH	100	100	195	250	195	250	0
⑥	CH	72	82	275	335	275	335	0

'Typical Conditions - Site 11, 13 & 17 Extern
'Phase II Raising, 0' Freeboard, 9-04-07'

U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
CORPS OF ENGINEERS 04-SEP-07

HVJ ASSOCIATES
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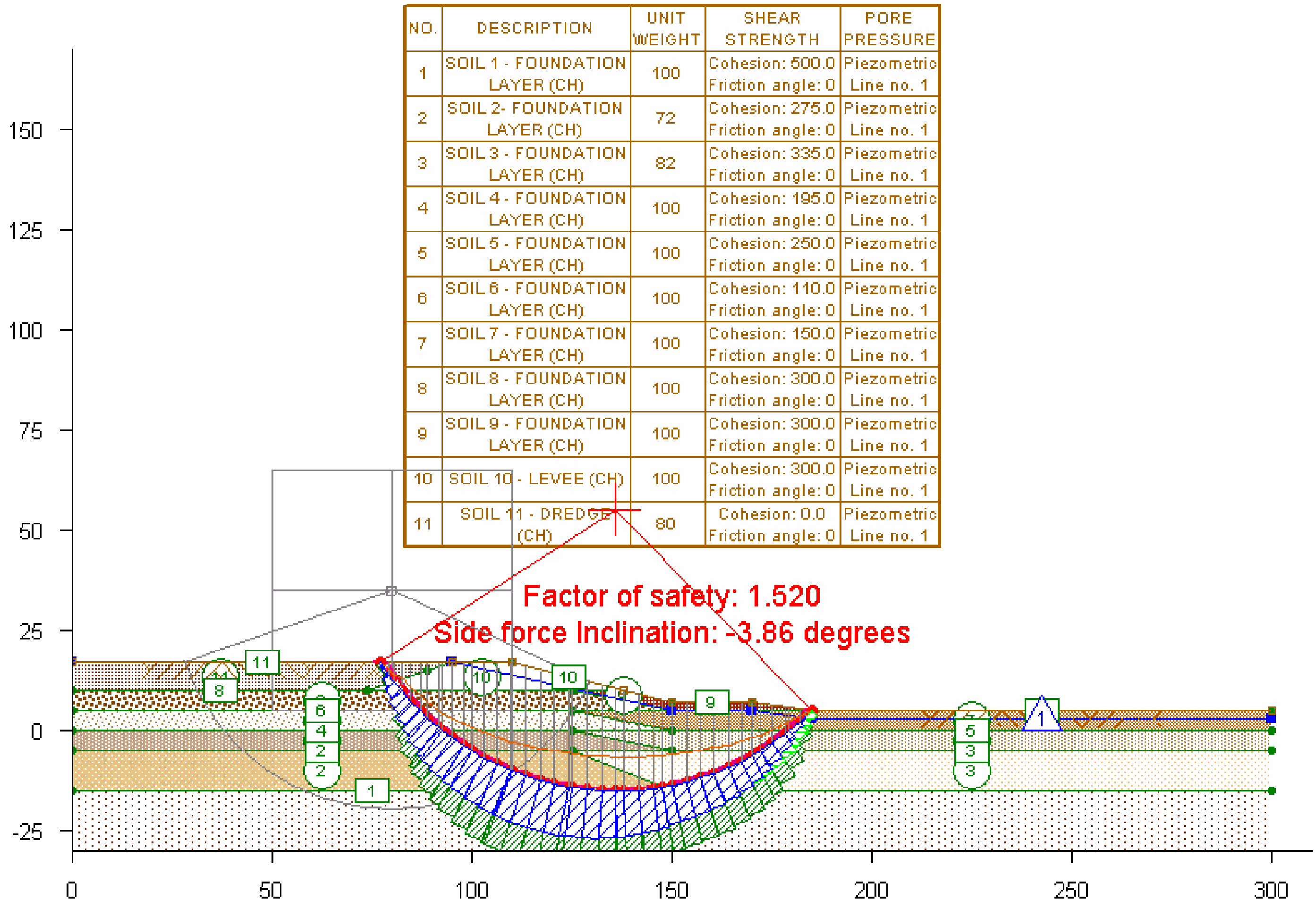
DATE: 11/30/2007 | APPROVED BY: FF | PREPARED BY: DK

METHOD OF PLANES ANALYSIS, TYPICAL CONDITIONS
EXTERNAL STABILITY, 0-FOOT FREEBOARD, AREAS 11, 13&17

PROJECT NO.: HG0617340 | DRAWING NO.: PLATE 13 MOP



NO.	DESCRIPTION	UNIT WEIGHT	SHEAR STRENGTH	PORE PRESSURE
1	SOIL 1 - FOUNDATION LAYER (CH)	100	Cohesion: 500.0 Friction angle: 0	Piezometric Line no. 1
2	SOIL 2- FOUNDATION LAYER (CH)	72	Cohesion: 275.0 Friction angle: 0	Piezometric Line no. 1
3	SOIL 3 - FOUNDATION LAYER (CH)	82	Cohesion: 335.0 Friction angle: 0	Piezometric Line no. 1
4	SOIL 4 - FOUNDATION LAYER (CH)	100	Cohesion: 195.0 Friction angle: 0	Piezometric Line no. 1
5	SOIL 5 - FOUNDATION LAYER (CH)	100	Cohesion: 250.0 Friction angle: 0	Piezometric Line no. 1
6	SOIL 6 - FOUNDATION LAYER (CH)	100	Cohesion: 110.0 Friction angle: 0	Piezometric Line no. 1
7	SOIL 7 - FOUNDATION LAYER (CH)	100	Cohesion: 150.0 Friction angle: 0	Piezometric Line no. 1
8	SOIL 8 - FOUNDATION LAYER (CH)	100	Cohesion: 300.0 Friction angle: 0	Piezometric Line no. 1
9	SOIL 9 - FOUNDATION LAYER (CH)	100	Cohesion: 300.0 Friction angle: 0	Piezometric Line no. 1
10	SOIL 10 - LEVEE (CH)	100	Cohesion: 300.0 Friction angle: 0	Piezometric Line no. 1
11	SOIL 11 - DREDGE (CH)	80	Cohesion: 0.0 Friction angle: 0	Piezometric Line no. 1

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SPENCER'S METHOD ANALYSIS, TYPICAL CONDITIONS
EXTERNAL STABILITY, 0-FOOT FREEBOARD, AREAS 11, 13&17

PROJECT NO.: HG0617340	DRAWING NO.: PLATE 13 SM

APPENDIX A

LONG TUBE TEST RESULTS

HVJ ASSOCIATES, INC.
LONG TUBE TEST RESULTS

HVJ Project No.:	HG-06-17340	Sample Location:	Composite
Project Name:	Calcasieu Ship Chan.	Sample Description:	Clay
		Date:	August 31, 2006

Initial Sampling Results Salinity mg/liter = 0.00154

Depth in.	Tare No.	Wet+Tare g	Dry+Tare g	Tare g	Ws g	w	%SS	C, g/l
12.0	Z1	168.88	22.52	13.45	9.07	1614%	5.69%	59.11
24.0	Z2	114.75	23.17	13.48	9.69	945%	9.43%	100.40
36.0	Z3	136.25	25.40	13.46	11.94	928%	9.58%	102.17
48.0	Z4	115.59	23.76	13.80	9.96	922%	9.65%	102.86
60.0	Z5	167.75	29.06	13.96	15.10	918%	9.68%	103.24
72.0	Z6	164.60	28.96	13.99	14.97	906%	9.80%	104.62
84.0	Z7	139.12	26.51	14.04	12.47	903%	9.83%	104.96
96.0	Z8	136.68	26.51	14.15	12.36	891%	9.95%	106.31
108.0	Z9	146.11	27.48	14.11	13.37	887%	9.99%	106.78
120.0	Z10	144.00	27.15	14.03	13.12	891%	9.96%	106.39
132.0	Z11	175.74	30.38	13.97	16.41	886%	10.01%	106.95
144.0	Z12	201.46	32.89	13.94	18.95	0%	10.11%	108.10
156.0	Z13	221.33	33.74	13.59	20.15	931%	9.56%	101.89
					Average	1004%	9.20%	97.96

HVJ ASSOCIATES, INC.
LONG TUBE TEST RESULTS

HVJ Project No.:	HG-06-17340	Sample Location:	Composite
Project Name:	Calcasieu Ship Chan.	Sample Description:	Clay
		Date:	August 31, 2006

Date	Hour	Elapsed Time (min)	Interface (in)	Void Ratio (e)
08/18	09:00	0	76.00	28.74
08/18	10:05	65	73.63	27.81
08/18	11:55	175	70.13	26.44
08/18	15:10	370	62.88	23.60
08/19	11:45	1605	40.00	14.65
08/21	07:30	4230	27.63	9.81
08/22	06:38	5618	25.63	9.03
08/23	12:40	7420	24.00	8.39
08/24	06:40	8500	23.00	8.00
08/25	13:00	10320	22.00	7.61
08/29	11:15	15975	19.50	6.63
08/31	13:40	19000	18.25	6.14

Specific Gravity = 2.71
Initial Height, Inches = 72.00
Initial Void Ratio = 27.18
Height of Solids, In. = 2.56

Project No.: HG-06-17340
Project Name: Calcasieu Ship Channel
Long Tube Sample From : Calcasieu Channel
Long Tube Test; Started at 9:00 AM, 08/18/06

Sample No.	Port No.	Sampling Event		Elapsed Time (hrs)	Height of Water Surface (ft)	TSS (mg/l)
		Date	Time			
1	2	8/18/06	12:00	0	6.33	52.0
2	2	8/19/06	11:50	23.83	6.27	12.0
3	3					20.0
4	4					38.0
5	5					32.0
6	6					120.0
7	7					84.0
8	8					74.0
9	3	8/21/06	7:30	63.49	5.95	28.0
10	4					20.0
11	5					42.0
12	6					42.0
13	7					60.0
14	8					46.0
15	9					126.0
16	3	8/23/06	12:50	116.82	5.75	13.0
17	4					19.0
18	5					14.0
19	6					7.0
20	7					7.0
21	8					10.0
22	9					22.0
23	10		13:15	117.18		161.0
24	3	08/25/06	13:00	164.93	5.50	12.0
25	4					14.0
26	5					10.0
27	6					6.0
28	7					15.0
29	8					15.0
30	9					18.0
31	10		13:35	165.50		31.0
32	4	08/29/06	11:15	259.17	5.25	22.0
33	5					9.0
34	6					13.0
35	7					9.0
36	8					14.0
37	9					17.0
38	10		11:45	259.67		22.0
39	4	08/31/06	13:38	307.05	5.07	ND
40	5					9.0
41	6					13.0
42	7					22.0
43	8					12.0
44	9					26.0
45	10		13:50	307.75		26.0

APPENDIX B

SELF-WEIGHT TEST RESULTS

HVJ ASSOCIATES, INC.
SELF-WEIGHT TEST RESULTS

HVJ Project No.: HG-06-17340 Sample Location: ~ Mile 11
Project Name: Calcasieu Ship Channel
Date: August 8, 2006

Initial Sampling Results Salinity mg/liter = 1.54E-05

Tare No.	Wet+Tare g	Dry+Tare g	Tare g	Ws g	w	%SS	C, g/l
057	130.25	51.99	29.52	22.47	348%	22.31%	259.60

Specific Gravity = 2.71
Initial Height, Inches = 9.00
Initial Void Ratio = 9.44
Height of Solids, In. = 0.86

Self-Weight Consolidation

Date	Time	Elapsed Time (min)	Interface Depth (in)	Sample Thickness (in)	Void Ratio (e)
08/08	07:35	0.0001	0	9.000	9.44
08/08	10:00	145	0.23	8.770	9.17
08/08	14:20	405	0.63	8.370	8.71
08/09	06:50	1395	1.99	7.010	7.13
08/09	14:55	1880	2.36	6.640	6.70
08/10	07:24	2869	2.92	6.080	6.05
08/11	14:18	4723	3.53	5.470	5.34
08/14	15:16	9101	4.32	4.680	4.43
08/15	14:40	10505	4.35	4.650	4.39
08/17	07:30	12955	4.35	4.650	4.39

Tested by: KC
Computed by: IG
Checked by: SP

HVJ ASSOCIATES, INC.
SELF-WEIGHT TEST RESULTS

HVJ Project No.: HG-06-17340 Sample Location: ~ Mile 11
Project Name: Calcasieu Ship Channel
Date: August 8, 2006

PERMEABILITY CALCULATION

Interpretation procedure based on USACE Technical Report No. GL-86-13, Cargill, K.W., The Large Strain Controlled Rate of Strain (LSCRS) Device for Consolidation Testing of Soft Fine-Grained Soils modified to interpret permeability at a time corresponding to 95% consolidation instead of 50% consolidation.

From Consolidation Phase

Specific Gravity = 2.71 (input)
Unit Weight of Water, pcf = 62.401 (input)

Initial Conditions:			At 95% Consolidation:		
Height, cm =	22.86	(input)	Time (t95), min =	7,500	(input)
Void Ratio =	9.44	(input)	Height, cm =	12.48	(input)
Height of Solids (Hs), cm =	2.190		Void Ratio (e95) =	4.701	

Based on Curve Fitting of effective stress vs. void ratio plot

e = (eoo-einf) exp (-lambda*eff. stress) + einf

eoo = 7 (input)
einf = 4 (input)
lambda = 0.15 (input)
Slope @ 95% con., 1/psf = -0.31333 (input)

N = Lambda * Hs (Unit Weight of Solids - Unit Weight of Water)
N = 1.15

Estimate Finite Strain Coefficient of Consolidation

Interpolate Time factor from Table
Time Factor for Test (T) = 0.803

Coef. of Consol (g) = T * Hs^2/t95
g, Sq. Feet/Day = 0.000796

Calculate Permeability

Permeability = - g * Unit Weight of Water * (1 + e95) * Slope
Permeability, Feet/Day = 0.089

Time Factor at 95% Consolidation

N	T
0.1	1.19
1	0.84
2	0.593
3	0.461
4	0.37
5	0.279
6	0.248
7	0.217
8	0.186
9	0.155
10	0.124

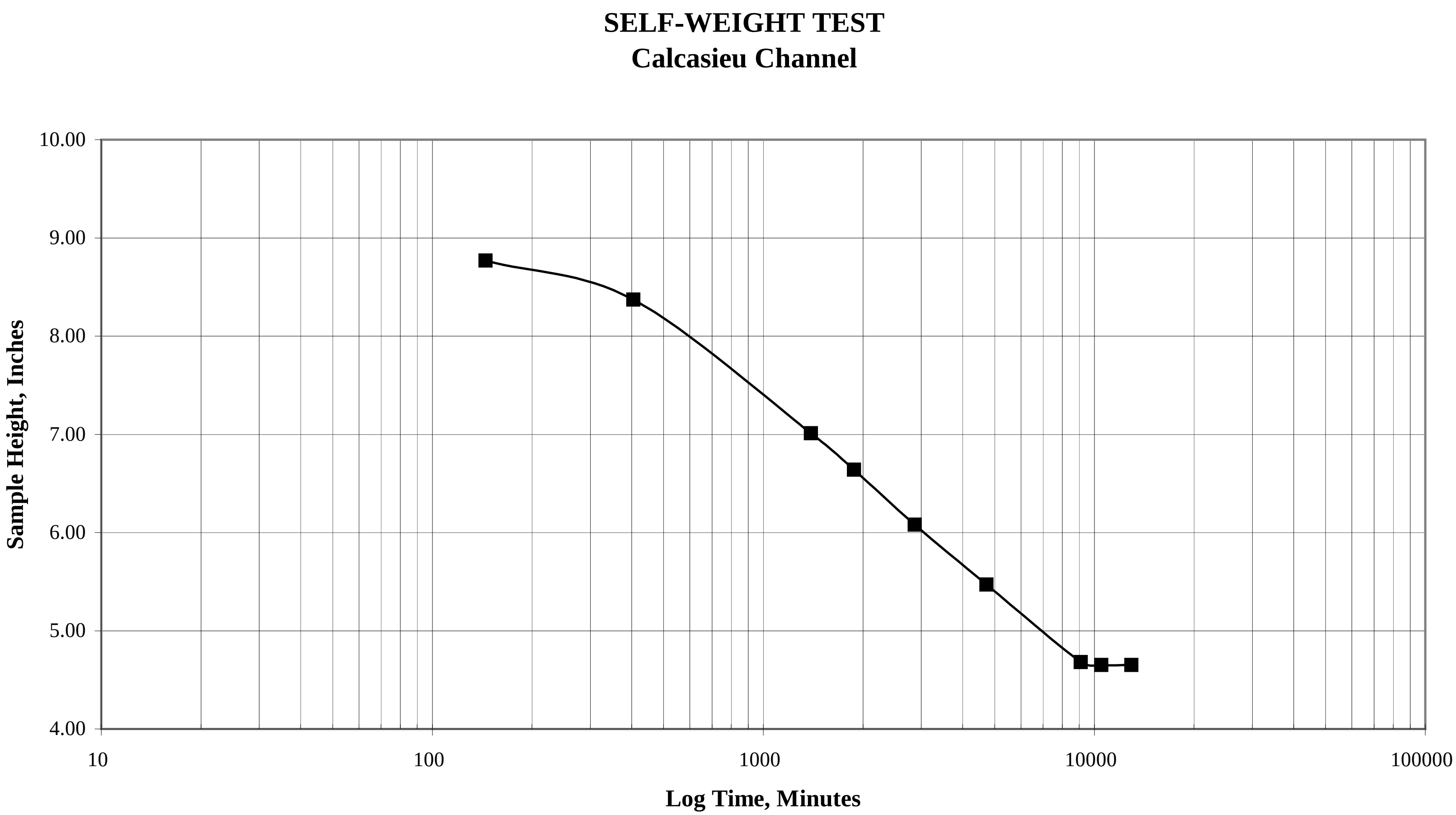

SELF-WEIGHT TEST
Calcasieu Channel
Sample Height, Inches
10.00
9.00
8.00
7.00
6.00
5.00
4.00
10
100
1000
10000
100000
Log Time, Minutes

PLATE B-3

SELF-WEIGHT TEST
Calcasieu Channel

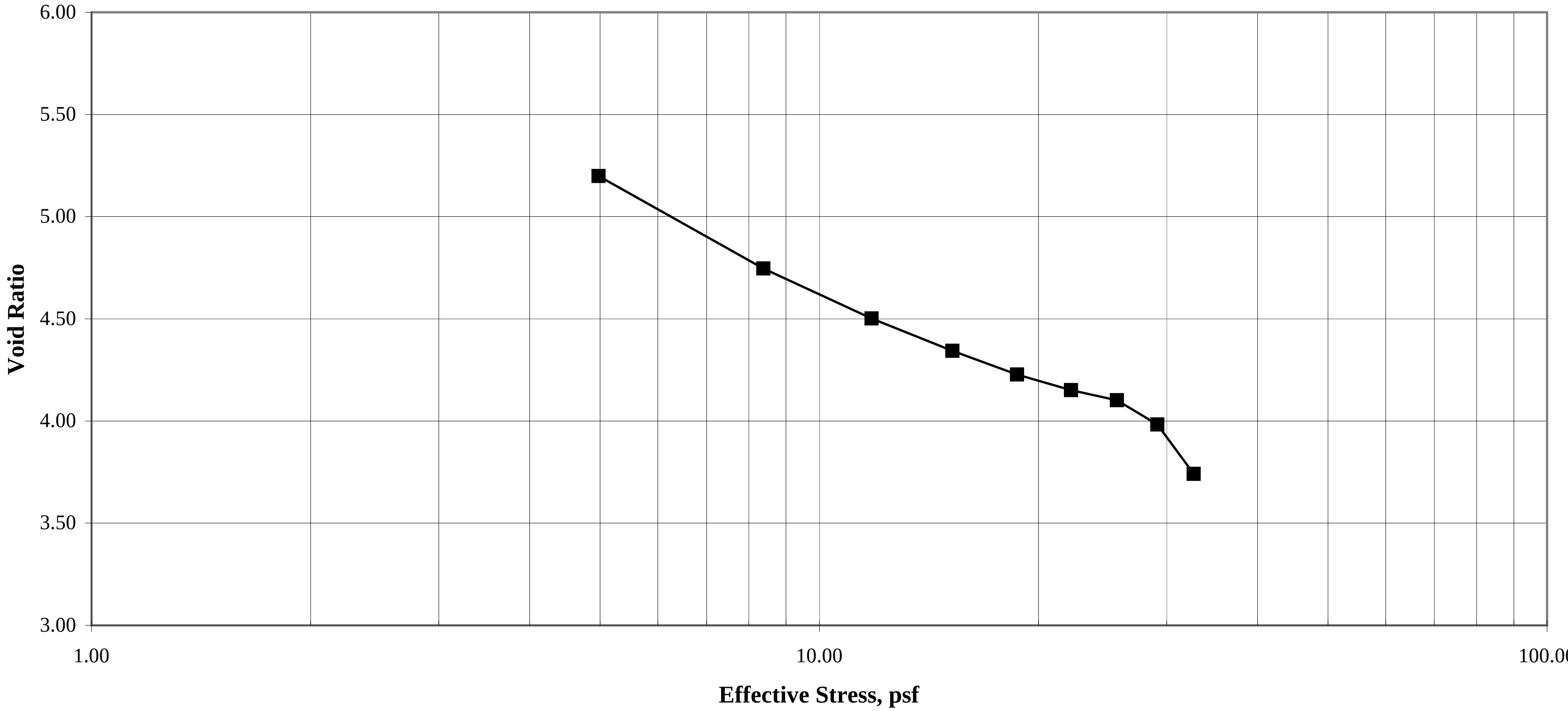


PLATE B-4

APPENDIX C

OEDOMETER CONSOLIDATION TEST RESULTS

HVJ ASSOCIATES, INC.
CONSOLIDATION TEST RESULTS

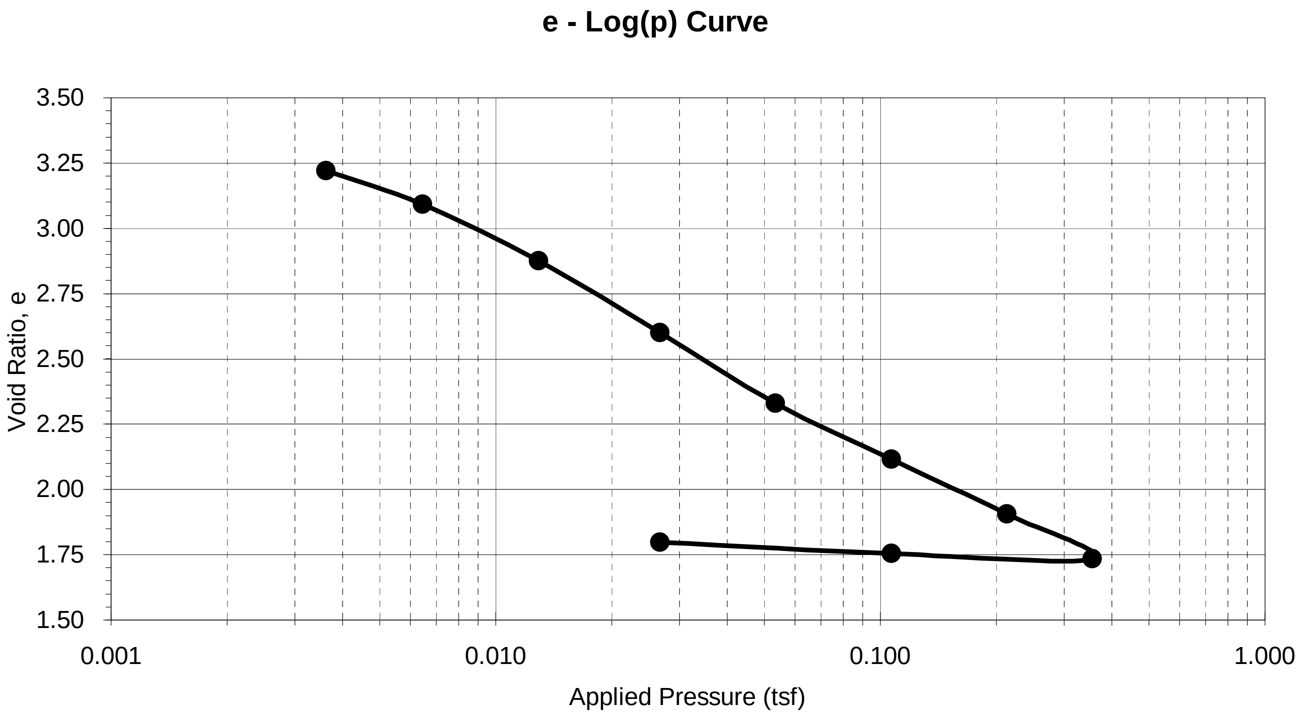
Project Name:	CALCASIEU SHIP CHANNEL	Boring No.	RM09
Project No.	HG-06-17340	Sample No.	N/A
Date Tested:	08/18/2006	Sample Depth	N/A
Technician:	ISAAC.G	Date Calculated:	

Sample Data	**Initial**	**Final**	**Test Data**	**Initial**	**Final**
Sample Height (in)	0.750	0.439	Wet + Ring (g)	139.900	115.400
Diameter (in)	2.500	2.500	Dry + Ring (g)	93.580	93.580
Volume (cc)	60.330	35.274	Ring Wt. (g)	59.400	59.400
Height of Solids (in)	0.157	0.157	**Moisture Data (Trimmings)**		**LL**
Specific Gravity	2.710	2.710	Wet + Tare (g)	74.610	
Moisture Content (%)	135.518	63.839	Dry + Tare (g)	48.690	**PI**
Wet Density (pcf)	83.262	99.064	Tare (g)	30.210	
Dry Density (pcf)	35.353	60.464	Moisture Content (%)	140.260	
Void Ratio	3.783	1.797	**Sample Description**	DK-GR CLAY	
Percent Saturation	97.072	96.286			

Applied Press. (tsf)	Calibr. Rdg. (in.)	Def. Rdg. (in.)	Corr. Cum Reading (in.)	Strain (%)	Void Ratio Change	Void Ratio	t_{50} (min.)	C_v (in^2/day)
0.004	0.0000	0.0882	0.0882	11.76	0.56	3.22	50	0.62
0.006	0.0001	0.1085	0.1084	14.46	0.69	3.09	40	0.73
0.013	0.0001	0.1424	0.1423	18.97	0.91	2.88	45	0.58
0.027	0.0002	0.1858	0.1855	24.74	1.18	2.60	38	0.59
0.053	0.0004	0.2285	0.2281	30.41	1.45	2.33	70	0.28
0.107	0.0009	0.2624	0.2615	34.87	1.67	2.12	60	0.28
0.214	0.0017	0.2961	0.2944	39.25	1.88	1.91	56	0.26
0.356	0.0029	0.3242	0.3213	42.84	2.05	1.73	50	0.26
0.107	0.0009	0.3188	0.3179	42.39	2.03	1.76	6	
0.027	0.0002	0.3117	0.3115	41.53	1.99	1.80	60	

HVJ ASSOCIATES, INC.
CONSOLIDATION TEST RESULTS

Project Name:	CALCASIEU SHIP CHANNEL	Boring No.	RM09
Project No.	HG-06-17340	Sample No.	N/A
		Sample Depth	N/A



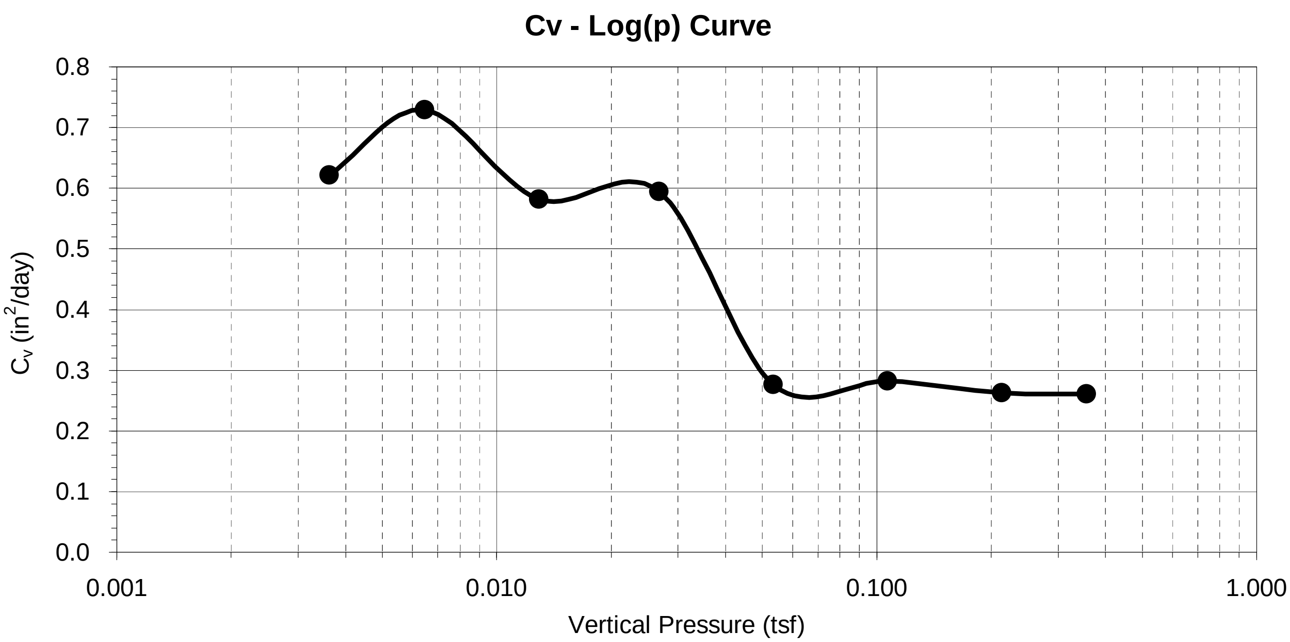


PLATE C-2

APPENDIX D

SEEPAGE INDUCED CONSOLIDATION TEST RESULTS

HVJ ASSOCIATES, INC.
SEEPAGE INDUCED CONSOLIDATION TEST RESULTS

HVJ Project No.: HG-06-17340 Sample Location: Calcasieu Channel (RM09) ~ Mile 11
Project Name: Calcasieu Ship Channel
Date: August 15, 2006

Specific Gravity = 2.71

Natural Soil Moisture

Tare No.	Wet+Tare g	Dry+Tare g	Tare g	Ws g	w
096	85.86	59.34	30.52	28.82	92%
168	77.75	52.73	29.96	22.77	110%
161	83.53	53.63	29.95	23.68	126%
				Average =	109%
				Void Ratio =	2.96

Test Slurry Moisture Content

Tare No.	Wet+Tare g	Dry+Tare g	Tare g	Ws g	w
088	167.78	82.48	30.56	51.92	164%
138	145.02	73.82	30.00	43.82	162%
073	147.47	76.04	29.91	46.13	155%
				Average =	161%
				Void Ratio =	4.35

Zero Effective Stress Moisture Content

Tare No.	Wet+Tare g	Dry+Tare g	Tare g	Ws g	w
A9	124.25	68.76	30.98	37.78	147%
086	133.09	72.06	30.77	41.29	148%
005	133.50	71.57	29.60	41.97	148%
				Average =	277%
				Void Ratio =	7.50

Final Sample Water Content

Tare No.	Wet+Tare g	Dry+Tare g	Tare g	Ws g	w
6	383.23	223.68	75.39	148.29	108%
				Void Ratio =	2.92

PLATE D-1

HVJ ASSOCIATES, INC.
SEEPAGE INDUCED CONSOLIDATION TEST RESULTS

HVJ Project No.:	HG-06-17340	Sample Location:	Calcasieu Channel (RM09) ~ Mile 11
Project Name:	Calcasieu Ship Channel		
		Date:	August 15, 2006

Initial Sample Data

Initial Slurry Height, In. =	2.0472			
Height of Solids =	0.0097	meters =	0.0319	feet
Sample Area =	0.0060	sq. meters		

Seepage Induced Data		**Step Loading Test Data**	
Flow Rate, ml/min =	0.05	Consol Pressure, psf =	720
Pressure Difference, psi =	1.036	Sample Height, In. =	1.3780
Fin. Sample Height, In. =	1.4173	Flow Rate, ml/min =	0.005
		Pressure Diff., psi =	0.342

SICTA Program Input	**SI Units (kPa & m/sec)**		**English Units (psf & ft/day)**	
Initial Sample Height	0.082603	meters	0.27102	feet
Void Ratio at Zero Effective Stress	7.50			
Top Effective Stress	0.1	kPa	2.09	psf
Darcian Velocity	1.17E-07	m/sec	3.32E-02	ft/day
Final Sample Height	0.0360	meters	0.1181	feet
Bottom Effective Stress	7.411	kPa	154.68	psf

Step Loading Test Results				
Void Ratio =	2.60			
Effective Stress	34.49	kPa	720	psf
Permeability	1.70E-09	m/sec	4.82E-04	ft/day

SEEPAGE INDUCED CONSOLIDATION TEST RESULTS

HVJ Project No.: HG-06-17340 Sample Location: Calcasieu Channel (RM09) ~ Mile 11

Project Name: Calcasieu Ship Channel

Date: August 15, 2006

THE OUTPUT RESULTS ARE LISTED AS FOLLOWS :

PARAMETER ESTIMATION RESULTS

Parameter A	=	3.81508
Parameter B	=	-0.05828
Parameter Z	=	0.00001
Parameter C	=	2.3081E-07
Parameter D	=	8
Number of Iterations	=	50
Total Normalized Difference	=	0.15104

Units are dependent on units used in preparing data entered into SICTA program

Effective Stress	Void Ratio	Permeability
0.001	5.70	2.58E-01
0.002	5.48	1.87E-01
0.005	5.19	1.22E-01
0.01	4.99	8.86E-02
0.02	4.79	6.42E-02
0.05	4.54	4.19E-02
0.1	4.36	3.03E-02
0.2	4.19	2.19E-02
0.5	3.97	1.43E-02
1	3.82	1.04E-02
2	3.66	7.50E-03
5	3.47	4.89E-03
10	3.34	3.54E-03
20	3.20	2.56E-03
50	3.04	1.67E-03
100	2.92	1.21E-03
200	2.80	8.76E-04
500	2.66	5.71E-04
1000	2.55	4.14E-04

APPENDIX E

PSDDF ANALYSIS

****
Consolidation and desiccation of soft layers---dredged fill
****

Problem   CALCASIEU RIVER AND PASS, Marsh 2-3ft of water

*****************Soil data for compressible foundation****************

Material Type	Layer Thickness	Numbers of Sub-layers	Ca/Cc	Cr/Cc
1	10.00	20	.040	.150

Material type :   1   Specific Gravity of Solids: 2.70

I	Void Ratio	Effective Stress	Perm-eability	k/1+e PK	Beta	Dsde	Alpha
1	6.000	.000E+00	.250E+00	.357E-01	.160E-01	-.600E+01	-.214E+00
2	5.500	.300E+01	.180E+00	.277E-01	.190E-01	-.550E+01	-.152E+00
3	5.000	.550E+01	.100E+00	.167E-01	.213E-01	-.900E+01	-.150E+00
4	4.500	.120E+02	.350E-01	.636E-02	.143E-01	-.195E+02	-.124E+00
5	4.000	.250E+02	.120E-01	.240E-02	.536E-02	-.380E+02	-.912E-01
6	3.500	.500E+02	.450E-02	.100E-02	.203E-02	-.570E+02	-.570E-01
7	3.000	.820E+02	.150E-02	.375E-03	.880E-03	-.140E+03	-.525E-01
8	2.500	.190E+03	.420E-03	.120E-03	.335E-03	-.618E+03	-.742E-01
9	2.000	.700E+03	.120E-03	.400E-04	.980E-04	-.241E+04	-.964E-01
10	1.500	.260E+04	.550E-04	.220E-04	.360E-04	-.380E+04	-.836E-01

**********************Soil data for dredged fill**********************

Material Type	Specific Gravity	Ca/Cc	Cr/Cc	Saturation Limit	Disication Limit
2	2.710	.040	.150	1.640	1.230

Material type :   2

I	Void Ratio	Effective Stress	Perm-eability	k/1+e PK	Beta	Dsde	Alpha
1	6.000	.000E+00	.250E+00	.357E-01	.160E-01	-.600E+01	-.214E+00

2	5.500	.300E+01	.180E+00	.277E-01	.190E-01	-.550E+01	-.152E+00
3	5.000	.550E+01	.100E+00	.167E-01	.213E-01	-.900E+01	-.150E+00
4	4.500	.120E+02	.350E-01	.636E-02	.143E-01	-.195E+02	-.124E+00
5	4.000	.250E+02	.120E-01	.240E-02	.536E-02	-.380E+02	-.912E-01
6	3.500	.500E+02	.450E-02	.100E-02	.203E-02	-.570E+02	-.570E-01
7	3.000	.820E+02	.150E-02	.375E-03	.880E-03	-.140E+03	-.525E-01
8	2.500	.190E+03	.420E-03	.120E-03	.335E-03	-.618E+03	-.742E-01
9	2.000	.700E+03	.120E-03	.400E-04	.980E-04	-.241E+04	-.964E-01
10	1.500	.260E+04	.550E-04	.220E-04	.360E-04	-.380E+04	-.836E-01

Summary of lifts and print detail

Time days	Material Type	Fill Height	# Sub- layers	Void ratio	Start Day	Dessic. Month	Print detai
0.	2	1.0	10	6.00	1050.	7	2
120.	2	2.5	10	6.00	210.	7	2
240.	2	2.5	10	6.00	330.	7	2
360.	2	2.5	10	6.00	450.	7	2
390.					480.	7	2
450.					540.	7	2
630.					720.	7	2
990.					1080.	7	2
1710.					1800.	7	2
3150.					3240.	7	2
6030.					6120.	7	2

Summary of monthly rainfall and evaporation potential

Month	Rainfall	Evaporation
1	.480	.090
2	.290	.130
3	.320	.210
4	.330	.410
5	.410	.550
6	.550	.570
7	.550	.400
8	.460	.480
9	.460	.420
10	.360	.240
11	.390	.110
12	.360	.090

***************************Calculation data****************************

tau	Lower layer Void ratio	Lower layer Permeability	drainage path Length
.294E-01	.500	.50000	z = .67

Summary of desiccation parameters

Parameter	Value
Surface Drainage Efficiency	.50
maximum evaporation efficiency	1.00
saturation at desiccation limit	.50
maximum crust thickness	.50
time to desic. after initial fill	1050.00
month of initial desiccation	7
elevation of fixed water table	.00
elevation of top of incompres. found.	-11.00

*************Initial Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.99	9.99	2.49	6.00	6.00	4.38	1
9.23	9.23	2.37	4.45	4.45	3.93	1
8.58	8.58	2.24	3.97	3.97	3.67	1
7.98	7.98	2.12	3.71	3.71	3.42	1
7.41	7.41	1.99	3.46	3.46	3.22	1
6.86	6.86	1.87	3.25	3.25	3.01	1
6.35	6.35	1.74	3.04	3.04	2.94	1
5.85	5.85	1.62	2.95	2.95	2.88	1
5.36	5.36	1.50	2.89	2.89	2.82	1
4.88	4.88	1.37	2.83	2.83	2.76	1
4.41	4.41	1.25	2.77	2.77	2.70	1
3.94	3.94	1.12	2.71	2.71	2.64	1
3.49	3.49	1.00	2.65	2.65	2.57	1
3.03	3.03	.87	2.58	2.58	2.51	1
2.59	2.59	.75	2.52	2.52	2.49	1
2.16	2.16	.62	2.49	2.49	2.48	1
1.72	1.72	.50	2.48	2.48	2.46	1
1.29	1.29	.37	2.47	2.47	2.45	1
.86	.86	.25	2.45	2.45	2.44	1
.43	.43	.12	2.44	2.44	2.43	1
.00	.00	.00	2.43	2.43	2.41	1

Time = 0. Degree of Consolidation = 0.%

Total Settlement =   .000

Settlement at End of Primary Consolidation =   .372

Settlement caused by Primary Consolidation at time   0. =   .000

Settlement caused by Secondary Compression at time   0. =   .000

******************Initial Conditions in Dredged Fill*******************

***** Coordinates *****   ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
1.00	1.00	.14	6.00	6.00	6.00	2
.90	.90	.13	6.00	6.00	5.75	2
.80	.80	.11	6.00	6.00	5.49	2
.70	.70	.10	6.00	6.00	5.19	2
.60	.60	.09	6.00	6.00	4.95	2
.50	.50	.07	6.00	6.00	4.84	2
.40	.40	.06	6.00	6.00	4.72	2
.30	.30	.04	6.00	6.00	4.60	2
.20	.20	.03	6.00	6.00	4.49	2
.10	.10	.01	6.00	6.00	4.43	2
.00	.00	.00	6.00	6.00	4.38	2

Time =   0.   Degree of Consolidation =   0.%

Total Settlement =   .000

Settlement at End of Primary Consolidation =   .148

Settlement caused by Primary Consolidation at time   0. =   .000

Settlement caused by Secondary Compression at time   0. =   .000

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****   ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.99	9.69	2.49	6.00	4.45	4.38	1
9.23	9.04	2.37	4.45	3.97	3.93	1
8.58	8.44	2.24	3.97	3.67	3.67	1
7.98	7.88	2.12	3.71	3.43	3.42	1
7.41	7.34	1.99	3.46	3.26	3.22	1
6.86	6.82	1.87	3.25	3.12	3.01	1
6.35	6.31	1.74	3.04	3.02	2.94	1
5.85	5.81	1.62	2.95	2.92	2.88	1
5.36	5.33	1.50	2.89	2.85	2.82	1
4.88	4.86	1.37	2.83	2.78	2.76	1
4.41	4.39	1.25	2.77	2.72	2.70	1
3.94	3.93	1.12	2.71	2.66	2.64	1

3.49	3.48	1.00	2.65	2.61	2.57	1
3.03	3.03	.87	2.58	2.57	2.51	1
2.59	2.59	.75	2.52	2.52	2.49	1
2.16	2.15	.62	2.49	2.49	2.48	1
1.72	1.72	.50	2.48	2.47	2.46	1
1.29	1.28	.37	2.47	2.46	2.45	1
.86	.85	.25	2.45	2.44	2.44	1
.43	.43	.12	2.44	2.43	2.43	1
.00	.00	.00	2.43	2.41	2.41	1

Time = 120. Degree of Consolidation = 79.%

Total Settlement = .295

Settlement at End of Primary Consolidation = .372

Settlement caused by Primary Consolidation at time 120. = .295

Settlement caused by Secondary Compression at time 120. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
1.00	.86	.14	6.00	6.00	6.00	2
.90	.76	.13	6.00	5.76	5.75	2
.80	.67	.11	6.00	5.51	5.49	2
.70	.58	.10	6.00	5.28	5.19	2
.60	.49	.09	6.00	5.09	4.95	2
.50	.40	.07	6.00	4.94	4.84	2
.40	.32	.06	6.00	4.81	4.72	2
.30	.24	.04	6.00	4.70	4.60	2
.20	.16	.03	6.00	4.60	4.49	2
.10	.08	.01	6.00	4.52	4.43	2
.00	.00	.00	6.00	4.45	4.38	2

Time = 120. Degree of Consolidation = 92.%

Total Settlement = .137

Settlement at End of Primary Consolidation = .148

Settlement caused by Primary Consolidation at time 120. = .137

Settlement caused by Secondary Compression at time 120. = .000

Surface Elevation = -.43

*************Current Conditions in Compressible Foundation************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.99	9.44	2.49	6.00	3.59	3.45	1
9.23	8.88	2.37	4.45	3.45	3.25	1
8.58	8.33	2.24	3.97	3.32	3.04	1
7.98	7.80	2.12	3.71	3.22	2.95	1
7.41	7.28	1.99	3.46	3.12	2.89	1
6.86	6.77	1.87	3.25	3.03	2.83	1
6.35	6.27	1.74	3.04	2.95	2.77	1
5.85	5.78	1.62	2.95	2.88	2.71	1
5.36	5.31	1.50	2.89	2.81	2.65	1
4.88	4.83	1.37	2.83	2.75	2.58	1
4.41	4.37	1.25	2.77	2.70	2.52	1
3.94	3.91	1.12	2.71	2.65	2.49	1
3.49	3.46	1.00	2.65	2.60	2.48	1
3.03	3.02	.87	2.58	2.56	2.47	1
2.59	2.57	.75	2.52	2.52	2.45	1
2.16	2.14	.62	2.49	2.49	2.44	1
1.72	1.70	.50	2.48	2.47	2.43	1
1.29	1.27	.37	2.47	2.44	2.41	1
.86	.85	.25	2.45	2.42	2.40	1
.43	.42	.12	2.44	2.40	2.39	1
.00	.00	.00	2.43	2.38	2.38	1

Time = 240. Degree of Consolidation = 62.%

Total Settlement = .547

Settlement at End of Primary Consolidation = .882

Settlement caused by Primary Consolidation at time 240. = .547

Settlement caused by Secondary Compression at time 240. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
3.47	2.59	.50	6.00	6.00	6.00	2
3.22	2.35	.46	6.00	5.39	5.35	2
2.98	2.14	.43	6.00	4.91	4.84	2
2.73	1.93	.39	6.00	4.61	4.55	2
2.48	1.74	.35	6.00	4.40	4.38	2
2.24	1.55	.32	6.00	4.24	4.24	2
1.99	1.37	.28	6.00	4.12	4.09	2
1.74	1.19	.25	6.00	4.02	3.97	2
1.49	1.01	.21	6.00	3.94	3.90	2
1.25	.84	.18	6.00	3.87	3.82	2
1.00	.67	.14	6.00	3.80	3.75	2
1.00	.67	.14	6.00	3.80	3.75	2
.90	.60	.13	6.00	3.78	3.72	2
.80	.53	.11	6.00	3.75	3.69	2
.70	.47	.10	6.00	3.73	3.66	2
.60	.40	.09	6.00	3.71	3.63	2
.50	.33	.07	6.00	3.69	3.59	2
.40	.26	.06	6.00	3.66	3.56	2
.30	.20	.04	6.00	3.64	3.53	2
.20	.13	.03	6.00	3.63	3.50	2

.10	.07	.01	6.00	3.61	3.48	2
.00	.00	.00	6.00	3.59	3.45	2

Time = 240. Degree of Consolidation = 97.%

Total Settlement = .883

Settlement at End of Primary Consolidation = .909

Settlement caused by Primary Consolidation at time 240. = .883

Settlement caused by Secondary Compression at time 240. = .000

Settlement Due to Desiccation = .000

Surface Elevation = 1.04

**************Current Conditions in Compressible Foundation*************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.99	9.30	2.49	6.00	3.33	2.96	1
9.23	8.76	2.37	4.45	3.25	2.90	1
8.58	8.24	2.24	3.97	3.17	2.84	1
7.98	7.72	2.12	3.71	3.09	2.78	1
7.41	7.22	1.99	3.46	3.02	2.72	1
6.86	6.72	1.87	3.25	2.95	2.65	1
6.35	6.23	1.74	3.04	2.88	2.59	1
5.85	5.75	1.62	2.95	2.83	2.53	1
5.36	5.28	1.50	2.89	2.77	2.49	1
4.88	4.81	1.37	2.83	2.72	2.48	1
4.41	4.35	1.25	2.77	2.67	2.47	1
3.94	3.90	1.12	2.71	2.63	2.45	1
3.49	3.45	1.00	2.65	2.59	2.44	1
3.03	3.00	.87	2.58	2.55	2.43	1
2.59	2.56	.75	2.52	2.52	2.42	1
2.16	2.12	.62	2.49	2.49	2.40	1
1.72	1.69	.50	2.48	2.45	2.39	1
1.29	1.26	.37	2.47	2.42	2.38	1
.86	.84	.25	2.45	2.39	2.36	1
.43	.42	.12	2.44	2.36	2.35	1
.00	.00	.00	2.43	2.34	2.34	1

Time = 360. Degree of Consolidation = 59.%

Total Settlement = .690

Settlement at End of Primary Consolidation = 1.172

Settlement caused by Primary Consolidation at time 360. = .690

Settlement caused by Secondary Compression at time 360. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
5.94	4.10	.85	6.00	1.64	6.00	2
5.69	3.93	.81	6.00	4.86	5.35	2
5.45	3.72	.78	6.00	4.92	4.84	2
5.20	3.52	.74	6.00	4.62	4.55	2
4.95	3.33	.71	6.00	4.41	4.38	2
4.71	3.14	.67	6.00	4.26	4.24	2
4.46	2.96	.64	6.00	4.14	4.09	2
4.21	2.78	.60	6.00	4.04	3.97	2
3.96	2.60	.57	6.00	3.96	3.90	2
3.72	2.43	.53	6.00	3.90	3.82	2
3.47	2.25	.50	6.00	3.84	3.75	2
3.47	2.25	.50	6.00	3.84	3.75	2
3.22	2.08	.46	6.00	3.78	3.67	2
2.98	1.92	.43	6.00	3.73	3.60	2
2.73	1.75	.39	6.00	3.68	3.52	2
2.48	1.59	.35	6.00	3.64	3.46	2
2.24	1.42	.32	6.00	3.60	3.40	2
1.99	1.26	.28	6.00	3.56	3.34	2
1.74	1.10	.25	6.00	3.53	3.28	2
1.49	.94	.21	6.00	3.50	3.22	2
1.25	.78	.18	6.00	3.47	3.16	2
1.00	.63	.14	6.00	3.44	3.10	2
1.00	.63	.14	6.00	3.44	3.10	2
.90	.56	.13	6.00	3.43	3.08	2
.80	.50	.11	6.00	3.42	3.06	2
.70	.44	.10	6.00	3.41	3.03	2
.60	.37	.09	6.00	3.40	3.01	2
.50	.31	.07	6.00	3.38	3.00	2
.40	.25	.06	6.00	3.37	2.99	2
.30	.19	.04	6.00	3.36	2.98	2
.20	.12	.03	6.00	3.35	2.97	2
.10	.06	.01	6.00	3.34	2.97	2
.00	.00	.00	6.00	3.33	2.96	2

Time =   360.   Degree of Consolidation = 91.%

Total Settlement =   1.839

Settlement at End of Primary Consolidation =   1.907

Settlement caused by Primary Consolidation at time 360. =   1.744

Settlement caused by Secondary Compression at time 360. =   .000

Settlement Due to Desiccation =   .096

Surface Elevation =   2.41

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****   ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.99	9.26	2.49	6.00	3.30	2.79	1
9.23	8.73	2.37	4.45	3.21	2.72	1
8.58	8.21	2.24	3.97	3.14	2.66	1
7.98	7.70	2.12	3.71	3.07	2.60	1
7.41	7.20	1.99	3.46	3.00	2.54	1
6.86	6.70	1.87	3.25	2.93	2.50	1
6.35	6.22	1.74	3.04	2.87	2.48	1
5.85	5.74	1.62	2.95	2.81	2.47	1
5.36	5.27	1.50	2.89	2.76	2.46	1
4.88	4.80	1.37	2.83	2.71	2.44	1
4.41	4.34	1.25	2.77	2.67	2.43	1
3.94	3.89	1.12	2.71	2.63	2.42	1
3.49	3.44	1.00	2.65	2.59	2.41	1
3.03	2.99	.87	2.58	2.55	2.39	1
2.59	2.55	.75	2.52	2.52	2.38	1
2.16	2.11	.62	2.49	2.48	2.37	1
1.72	1.68	.50	2.48	2.45	2.35	1
1.29	1.26	.37	2.47	2.41	2.34	1
.86	.83	.25	2.45	2.38	2.33	1
.43	.41	.12	2.44	2.34	2.31	1
.00	.00	.00	2.43	2.30	2.30	1

Time = 390. Degree of Consolidation = 53.%

Total Settlement = .725

Settlement at End of Primary Consolidation = 1.369

Settlement caused by Primary Consolidation at time 390. = .725

Settlement caused by Secondary Compression at time 390. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
8.41	5.83	1.20	6.00	6.00	6.00	2
8.16	5.60	1.17	6.00	5.39	5.35	2
7.92	5.38	1.13	6.00	4.93	4.84	2
7.67	5.18	1.10	6.00	4.63	4.55	2
7.42	4.98	1.06	6.00	4.43	4.38	2
7.18	4.79	1.02	6.00	4.28	4.24	2
6.93	4.61	.99	6.00	4.17	4.09	2
6.68	4.43	.95	6.00	4.07	3.97	2
6.43	4.25	.92	6.00	4.00	3.90	2
6.19	4.08	.88	6.00	3.93	3.82	2
5.94	3.90	.85	6.00	3.87	3.75	2
5.94	3.90	.85	6.00	3.82	3.75	2
5.69	3.73	.81	6.00	3.81	3.67	2
5.45	3.56	.78	6.00	3.81	3.60	2
5.20	3.39	.74	6.00	3.80	3.52	2
4.95	3.22	.71	6.00	3.79	3.46	2
4.71	3.06	.67	6.00	3.78	3.40	2
4.46	2.89	.64	6.00	3.76	3.34	2
4.21	2.72	.60	6.00	3.74	3.28	2
3.96	2.55	.57	6.00	3.72	3.22	2

3.72	2.39	.53	6.00	3.70	3.16	2
3.47	2.22	.50	6.00	3.67	3.10	2
3.47	2.22	.50	6.00	3.67	3.10	2
3.22	2.06	.46	6.00	3.65	3.05	2
2.98	1.89	.43	6.00	3.62	3.00	2
2.73	1.73	.39	6.00	3.59	2.98	2
2.48	1.57	.35	6.00	3.57	2.96	2
2.24	1.41	.32	6.00	3.54	2.94	2
1.99	1.25	.28	6.00	3.51	2.93	2
1.74	1.09	.25	6.00	3.48	2.91	2
1.49	.93	.21	6.00	3.45	2.89	2
1.25	.78	.18	6.00	3.42	2.87	2
1.00	.62	.14	6.00	3.40	2.86	2
1.00	.62	.14	6.00	3.40	2.86	2
.90	.56	.13	6.00	3.39	2.85	2
.80	.50	.11	6.00	3.38	2.84	2
.70	.43	.10	6.00	3.37	2.84	2
.60	.37	.09	6.00	3.36	2.83	2
.50	.31	.07	6.00	3.35	2.82	2
.40	.25	.06	6.00	3.34	2.81	2
.30	.18	.04	6.00	3.33	2.81	2
.20	.12	.03	6.00	3.32	2.80	2
.10	.06	.01	6.00	3.31	2.79	2
.00	.00	.00	6.00	3.30	2.79	2

Time = 390. Degree of Consolidation = 82.%

Total Settlement = 2.576

Settlement at End of Primary Consolidation = 3.010

Settlement caused by Primary Consolidation at time 390. = 2.480

Settlement caused by Secondary Compression at time 390. = .000

Surface Elevation = 4.11

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.99	9.20	2.49	6.00	3.22	2.79	1
9.23	8.68	2.37	4.45	3.15	2.72	1
8.58	8.17	2.24	3.97	3.09	2.66	1
7.98	7.66	2.12	3.71	3.02	2.60	1
7.41	7.17	1.99	3.46	2.96	2.54	1
6.86	6.68	1.87	3.25	2.90	2.50	1
6.35	6.19	1.74	3.04	2.84	2.48	1
5.85	5.72	1.62	2.95	2.79	2.47	1
5.36	5.25	1.50	2.89	2.74	2.46	1
4.88	4.79	1.37	2.83	2.70	2.44	1
4.41	4.33	1.25	2.77	2.66	2.43	1
3.94	3.87	1.12	2.71	2.62	2.42	1
3.49	3.43	1.00	2.65	2.58	2.41	1
3.03	2.98	.87	2.58	2.54	2.39	1
2.59	2.54	.75	2.52	2.51	2.38	1
2.16	2.11	.62	2.49	2.47	2.37	1

1.72	1.68	.50	2.48	2.43	2.35	1
1.29	1.25	.37	2.47	2.40	2.34	1
.86	.83	.25	2.45	2.37	2.33	1
.43	.41	.12	2.44	2.33	2.31	1
.00	.00	.00	2.43	2.30	2.30	1

Time = 450. Degree of Consolidation = 57.%

Total Settlement = .782

Settlement at End of Primary Consolidation = 1.369

Settlement caused by Primary Consolidation at time 450. = .782

Settlement caused by Secondary Compression at time 450. = .000

*******************Current Conditions in Dredged Fill*******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
8.41	5.72	1.20	6.00	6.00	6.00	2
8.16	5.49	1.17	6.00	5.39	5.35	2
7.92	5.27	1.13	6.00	4.92	4.84	2
7.67	5.07	1.10	6.00	4.61	4.55	2
7.42	4.87	1.06	6.00	4.40	4.38	2
7.18	4.69	1.02	6.00	4.25	4.24	2
6.93	4.50	.99	6.00	4.13	4.09	2
6.68	4.32	.95	6.00	4.04	3.97	2
6.43	4.15	.92	6.00	3.96	3.90	2
6.19	3.97	.88	6.00	3.89	3.82	2
5.94	3.80	.85	6.00	3.83	3.75	2
5.94	3.80	.85	6.00	3.82	3.75	2
5.69	3.63	.81	6.00	3.77	3.67	2
5.45	3.47	.78	6.00	3.73	3.60	2
5.20	3.30	.74	6.00	3.69	3.52	2
4.95	3.13	.71	6.00	3.66	3.46	2
4.71	2.97	.67	6.00	3.63	3.40	2
4.46	2.81	.64	6.00	3.61	3.34	2
4.21	2.64	.60	6.00	3.58	3.28	2
3.96	2.48	.57	6.00	3.56	3.22	2
3.72	2.32	.53	6.00	3.53	3.16	2
3.47	2.16	.50	6.00	3.51	3.10	2
3.47	2.16	.50	6.00	3.51	3.10	2
3.22	2.00	.46	6.00	3.49	3.05	2
2.98	1.85	.43	6.00	3.47	3.00	2
2.73	1.69	.39	6.00	3.45	2.98	2
2.48	1.53	.35	6.00	3.43	2.96	2
2.24	1.38	.32	6.00	3.41	2.94	2
1.99	1.22	.28	6.00	3.39	2.93	2
1.74	1.07	.25	6.00	3.36	2.91	2
1.49	.91	.21	6.00	3.34	2.89	2
1.25	.76	.18	6.00	3.32	2.87	2
1.00	.61	.14	6.00	3.30	2.86	2
1.00	.61	.14	6.00	3.30	2.86	2
.90	.55	.13	6.00	3.29	2.85	2
.80	.49	.11	6.00	3.29	2.84	2
.70	.42	.10	6.00	3.28	2.84	2

.60	.36	.09	6.00	3.27	2.83	2
.50	.30	.07	6.00	3.26	2.82	2
.40	.24	.06	6.00	3.25	2.81	2
.30	.18	.04	6.00	3.25	2.81	2
.20	.12	.03	6.00	3.24	2.80	2
.10	.06	.01	6.00	3.23	2.79	2
.00	.00	.00	6.00	3.22	2.79	2

Time = 450. Degree of Consolidation = 86.%

Total Settlement = 2.686

Settlement at End of Primary Consolidation = 3.010

Settlement caused by Primary Consolidation at time 450. = 2.591

Settlement caused by Secondary Compression at time 450. = .000

Surface Elevation = 3.94

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.99	9.07	2.49	6.00	3.07	2.72	1
9.23	8.57	2.37	4.45	3.02	2.66	1
8.58	8.07	2.24	3.97	2.96	2.60	1
7.98	7.58	2.12	3.71	2.91	2.54	1
7.41	7.09	1.99	3.46	2.87	2.50	1
6.86	6.61	1.87	3.25	2.82	2.48	1
6.35	6.14	1.74	3.04	2.78	2.47	1
5.85	5.67	1.62	2.95	2.73	2.46	1
5.36	5.21	1.50	2.89	2.69	2.44	1
4.88	4.75	1.37	2.83	2.66	2.43	1
4.41	4.30	1.25	2.77	2.62	2.42	1
3.94	3.85	1.12	2.71	2.58	2.40	1
3.49	3.41	1.00	2.65	2.55	2.39	1
3.03	2.97	.87	2.58	2.51	2.38	1
2.59	2.53	.75	2.52	2.48	2.37	1
2.16	2.10	.62	2.49	2.45	2.35	1
1.72	1.67	.50	2.48	2.41	2.34	1
1.29	1.25	.37	2.47	2.38	2.33	1
.86	.83	.25	2.45	2.35	2.31	1
.43	.41	.12	2.44	2.33	2.30	1
.00	.00	.00	2.43	2.30	2.29	1

Time = 630. Degree of Consolidation = 64.%

Total Settlement = .916

Settlement at End of Primary Consolidation = 1.427

Settlement caused by Primary Consolidation at time 630. = .916

Settlement caused by Secondary Compression at time 630. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
8.41	5.19	1.20	6.00	1.23	1.23	2
8.16	5.10	1.17	6.00	1.23	1.23	2
7.92	5.03	1.13	6.00	1.23	1.23	2
7.67	4.90	1.10	6.00	3.84	4.01	2
7.42	4.72	1.06	6.00	4.22	3.93	2
7.18	4.54	1.02	6.00	4.10	3.85	2
6.93	4.36	.99	6.00	4.00	3.78	2
6.68	4.18	.95	6.00	3.92	3.70	2
6.43	4.01	.92	6.00	3.85	3.63	2
6.19	3.84	.88	6.00	3.79	3.55	2
5.94	3.67	.85	6.00	3.73	3.48	2
5.94	3.67	.85	6.00	3.73	3.48	2
5.69	3.51	.81	6.00	3.68	3.42	2
5.45	3.34	.78	6.00	3.63	3.36	2
5.20	3.18	.74	6.00	3.58	3.31	2
4.95	3.02	.71	6.00	3.54	3.25	2
4.71	2.86	.67	6.00	3.50	3.19	2
4.46	2.70	.64	6.00	3.47	3.13	2
4.21	2.54	.60	6.00	3.43	3.07	2
3.96	2.39	.57	6.00	3.40	3.01	2
3.72	2.23	.53	6.00	3.37	2.99	2
3.47	2.08	.50	6.00	3.35	2.97	2
3.47	2.08	.50	6.00	3.35	2.97	2
3.22	1.93	.46	6.00	3.32	2.95	2
2.98	1.77	.43	6.00	3.29	2.93	2
2.73	1.62	.39	6.00	3.27	2.92	2
2.48	1.47	.35	6.00	3.25	2.90	2
2.24	1.32	.32	6.00	3.23	2.88	2
1.99	1.17	.28	6.00	3.21	2.86	2
1.74	1.03	.25	6.00	3.19	2.85	2
1.49	.88	.21	6.00	3.17	2.83	2
1.25	.73	.18	6.00	3.15	2.81	2
1.00	.59	.14	6.00	3.14	2.79	2
1.00	.59	.14	6.00	3.14	2.79	2
.90	.53	.13	6.00	3.13	2.79	2
.80	.47	.11	6.00	3.12	2.78	2
.70	.41	.10	6.00	3.12	2.77	2
.60	.35	.09	6.00	3.11	2.77	2
.50	.29	.07	6.00	3.10	2.76	2
.40	.23	.06	6.00	3.10	2.75	2
.30	.17	.04	6.00	3.09	2.74	2
.20	.12	.03	6.00	3.08	2.74	2
.10	.06	.01	6.00	3.08	2.73	2
.00	.00	.00	6.00	3.07	2.72	2

Time = 630. Degree of Consolidation = 77.%

Total Settlement = 3.219

Settlement at End of Primary Consolidation = 3.550

Settlement caused by Primary Consolidation at time 630. = 2.746

Settlement caused by Secondary Compression at time 630. = .000

Settlement Due to Desiccation = .474

Surface Elevation = 3.27

**************Current Conditions in Compressible Foundation*************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.99	8.94	2.49	6.00	3.07	2.71	1
9.23	8.44	2.37	4.45	2.97	2.65	1
8.58	7.95	2.24	3.97	2.90	2.59	1
7.98	7.46	2.12	3.71	2.83	2.53	1
7.41	6.99	1.99	3.46	2.78	2.49	1
6.86	6.52	1.87	3.25	2.74	2.48	1
6.35	6.06	1.74	3.04	2.69	2.47	1
5.85	5.60	1.62	2.95	2.66	2.45	1
5.36	5.15	1.50	2.89	2.62	2.44	1
4.88	4.70	1.37	2.83	2.59	2.43	1
4.41	4.25	1.25	2.77	2.56	2.42	1
3.94	3.81	1.12	2.71	2.52	2.40	1
3.49	3.37	1.00	2.65	2.49	2.39	1
3.03	2.94	.87	2.58	2.47	2.38	1
2.59	2.51	.75	2.52	2.44	2.36	1
2.16	2.08	.62	2.49	2.41	2.35	1
1.72	1.66	.50	2.48	2.38	2.34	1
1.29	1.24	.37	2.47	2.36	2.32	1
.86	.82	.25	2.45	2.33	2.31	1
.43	.41	.12	2.44	2.31	2.30	1
.00	.00	.00	2.43	2.29	2.29	1

Time = 990. Degree of Consolidation = 73.%

Total Settlement = 1.049

Settlement at End of Primary Consolidation = 1.437

Settlement caused by Primary Consolidation at time 990. = 1.049

Settlement caused by Secondary Compression at time 990. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
8.41	4.88	1.20	6.00	1.23	1.23	2
8.16	4.80	1.17	6.00	1.23	1.23	2
7.92	4.72	1.13	6.00	1.23	1.23	2
7.67	4.65	1.10	6.00	1.23	1.23	2
7.42	4.55	1.06	6.00	2.63	3.88	2
7.18	4.39	1.02	6.00	3.78	3.80	2

6.93	4.22	.99	6.00	3.72	3.73	2
6.68	4.06	.95	6.00	3.65	3.65	2
6.43	3.89	.92	6.00	3.59	3.58	2
6.19	3.73	.88	6.00	3.54	3.50	2
5.94	3.57	.85	6.00	3.49	3.44	2
5.94	3.57	.85	6.00	3.49	3.44	2
5.69	3.42	.81	6.00	3.44	3.38	2
5.45	3.26	.78	6.00	3.41	3.32	2
5.20	3.11	.74	6.00	3.37	3.27	2
4.95	2.95	.71	6.00	3.34	3.21	2
4.71	2.80	.67	6.00	3.32	3.15	2
4.46	2.65	.64	6.00	3.29	3.09	2
4.21	2.50	.60	6.00	3.27	3.03	2
3.96	2.35	.57	6.00	3.25	2.99	2
3.72	2.20	.53	6.00	3.23	2.97	2
3.47	2.05	.50	6.00	3.22	2.96	2
3.47	2.05	.50	6.00	3.22	2.96	2
3.22	1.90	.46	6.00	3.20	2.94	2
2.98	1.75	.43	6.00	3.18	2.92	2
2.73	1.60	.39	6.00	3.17	2.90	2
2.48	1.46	.35	6.00	3.16	2.89	2
2.24	1.31	.32	6.00	3.15	2.87	2
1.99	1.16	.28	6.00	3.13	2.85	2
1.74	1.02	.25	6.00	3.12	2.83	2
1.49	.87	.21	6.00	3.12	2.82	2
1.25	.73	.18	6.00	3.11	2.80	2
1.00	.58	.14	6.00	3.10	2.78	2
1.00	.58	.14	6.00	3.10	2.78	2
.90	.52	.13	6.00	3.10	2.78	2
.80	.47	.11	6.00	3.09	2.77	2
.70	.41	.10	6.00	3.09	2.76	2
.60	.35	.09	6.00	3.09	2.75	2
.50	.29	.07	6.00	3.08	2.75	2
.40	.23	.06	6.00	3.08	2.74	2
.30	.17	.04	6.00	3.08	2.73	2
.20	.12	.03	6.00	3.08	2.73	2
.10	.06	.01	6.00	3.07	2.72	2
.00	.00	.00	6.00	3.07	2.71	2

Time = 990. Degree of Consolidation = 79.%

Total Settlement = 3.532

Settlement at End of Primary Consolidation = 3.710

Settlement caused by Primary Consolidation at time 990. = 2.922

Settlement caused by Secondary Compression at time 990. = .000

Settlement Due to Desiccation = .610

Surface Elevation = 2.83

**************Current Conditions in Compressible Foundation*************

***** Coordinates ***** ***** Void Ratios *****

A XI Z Einitial E Eeop Material

9.99	8.85	2.49	6.00	3.07	2.67	1
9.23	8.35	2.37	4.45	2.96	2.61	1
8.58	7.86	2.24	3.97	2.87	2.55	1
7.98	7.39	2.12	3.71	2.80	2.50	1
7.41	6.92	1.99	3.46	2.74	2.49	1
6.86	6.45	1.87	3.25	2.69	2.47	1
6.35	6.00	1.74	3.04	2.65	2.46	1
5.85	5.54	1.62	2.95	2.61	2.45	1
5.36	5.10	1.50	2.89	2.57	2.43	1
4.88	4.65	1.37	2.83	2.54	2.42	1
4.41	4.22	1.25	2.77	2.51	2.41	1
3.94	3.78	1.12	2.71	2.48	2.39	1
3.49	3.35	1.00	2.65	2.45	2.38	1
3.03	2.92	.87	2.58	2.43	2.37	1
2.59	2.50	.75	2.52	2.40	2.36	1
2.16	2.07	.62	2.49	2.38	2.34	1
1.72	1.65	.50	2.48	2.36	2.33	1
1.29	1.24	.37	2.47	2.34	2.32	1
.86	.82	.25	2.45	2.32	2.30	1
.43	.41	.12	2.44	2.30	2.29	1
.00	.00	.00	2.43	2.28	2.28	1

Time =   1710.   Degree of Consolidation = 77.%

Total Settlement =   1.134

Settlement at End of Primary Consolidation =   1.469

Settlement caused by Primary Consolidation at time 1710. =   1.134

Settlement caused by Secondary Compression at time 1710. =   .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
8.41	4.69	1.20	6.00	1.23	1.23	2
8.16	4.61	1.17	6.00	1.23	1.23	2
7.92	4.53	1.13	6.00	1.23	1.23	2
7.67	4.45	1.10	6.00	1.23	1.23	2
7.42	4.37	1.06	6.00	1.23	1.23	2
7.18	4.32	1.02	6.00	1.23	1.23	2
6.93	4.19	.99	6.00	3.57	3.57	2
6.68	4.03	.95	6.00	3.52	3.49	2
6.43	3.87	.92	6.00	3.48	3.44	2
6.19	3.71	.88	6.00	3.44	3.38	2
5.94	3.55	.85	6.00	3.41	3.32	2
5.94	3.55	.85	6.00	3.41	3.32	2
5.69	3.40	.81	6.00	3.37	3.26	2
5.45	3.24	.78	6.00	3.34	3.20	2
5.20	3.09	.74	6.00	3.32	3.14	2
4.95	2.94	.71	6.00	3.29	3.08	2
4.71	2.79	.67	6.00	3.27	3.02	2
4.46	2.64	.64	6.00	3.25	2.99	2
4.21	2.49	.60	6.00	3.23	2.97	2
3.96	2.34	.57	6.00	3.22	2.95	2
3.72	2.19	.53	6.00	3.20	2.94	2

3.47	2.04	.50	6.00	3.19	2.92	2
3.47	2.04	.50	6.00	3.19	2.92	2
3.22	1.89	.46	6.00	3.18	2.90	2
2.98	1.75	.43	6.00	3.16	2.88	2
2.73	1.60	.39	6.00	3.15	2.87	2
2.48	1.45	.35	6.00	3.14	2.85	2
2.24	1.31	.32	6.00	3.13	2.83	2
1.99	1.16	.28	6.00	3.12	2.82	2
1.74	1.02	.25	6.00	3.12	2.80	2
1.49	.87	.21	6.00	3.11	2.78	2
1.25	.73	.18	6.00	3.10	2.76	2
1.00	.58	.14	6.00	3.09	2.75	2
1.00	.58	.14	6.00	3.09	2.75	2
.90	.52	.13	6.00	3.09	2.74	2
.80	.47	.11	6.00	3.09	2.73	2
.70	.41	.10	6.00	3.09	2.72	2
.60	.35	.09	6.00	3.08	2.72	2
.50	.29	.07	6.00	3.08	2.71	2
.40	.23	.06	6.00	3.08	2.70	2
.30	.17	.04	6.00	3.08	2.70	2
.20	.12	.03	6.00	3.07	2.69	2
.10	.06	.01	6.00	3.07	2.68	2
.00	.00	.00	6.00	3.07	2.67	2

Time = 1710. Degree of Consolidation = 75.%

Total Settlement = 3.725

Settlement at End of Primary Consolidation = 3.967

Settlement caused by Primary Consolidation at time 1710. = 2.976

Settlement caused by Secondary Compression at time 1710. = .000

Settlement Due to Desiccation = .749

Surface Elevation = 2.55

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.99	8.83	2.49	6.00	3.07	2.68	1
9.23	8.33	2.37	4.45	2.95	2.62	1
8.58	7.84	2.24	3.97	2.86	2.56	1
7.98	7.37	2.12	3.71	2.79	2.50	1
7.41	6.90	1.99	3.46	2.73	2.49	1
6.86	6.44	1.87	3.25	2.68	2.47	1
6.35	5.98	1.74	3.04	2.63	2.46	1
5.85	5.53	1.62	2.95	2.59	2.45	1
5.36	5.09	1.50	2.89	2.56	2.43	1
4.88	4.64	1.37	2.83	2.52	2.42	1
4.41	4.21	1.25	2.77	2.49	2.41	1
3.94	3.77	1.12	2.71	2.47	2.40	1
3.49	3.34	1.00	2.65	2.44	2.38	1
3.03	2.92	.87	2.58	2.42	2.37	1
2.59	2.49	.75	2.52	2.39	2.36	1

2.16	2.07	.62	2.49	2.37	2.34	1
1.72	1.65	.50	2.48	2.35	2.33	1
1.29	1.24	.37	2.47	2.33	2.32	1
.86	.82	.25	2.45	2.31	2.31	1
.43	.41	.12	2.44	2.30	2.29	1
.00	.00	.00	2.43	2.28	2.28	1

Time = 3150. Degree of Consolidation = 79.%

Total Settlement = 1.155

Settlement at End of Primary Consolidation = 1.464

Settlement caused by Primary Consolidation at time 3150. = 1.155

Settlement caused by Secondary Compression at time 3150. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
8.41	4.65	1.20	6.00	1.23	1.23	2
8.16	4.57	1.17	6.00	1.23	1.23	2
7.92	4.49	1.13	6.00	1.23	1.23	2
7.67	4.42	1.10	6.00	1.23	1.23	2
7.42	4.34	1.06	6.00	1.23	1.23	2
7.18	4.26	1.02	6.00	1.23	1.23	2
6.93	4.17	.99	6.00	2.12	3.59	2
6.68	4.02	.95	6.00	3.52	3.52	2
6.43	3.87	.92	6.00	3.48	3.46	2
6.19	3.71	.88	6.00	3.44	3.40	2
5.94	3.55	.85	6.00	3.41	3.34	2
5.94	3.55	.85	6.00	3.41	3.34	2
5.69	3.40	.81	6.00	3.37	3.28	2
5.45	3.24	.78	6.00	3.34	3.22	2
5.20	3.09	.74	6.00	3.32	3.16	2
4.95	2.94	.71	6.00	3.29	3.10	2
4.71	2.79	.67	6.00	3.27	3.04	2
4.46	2.64	.64	6.00	3.25	3.00	2
4.21	2.49	.60	6.00	3.23	2.98	2
3.96	2.34	.57	6.00	3.22	2.96	2
3.72	2.19	.53	6.00	3.20	2.94	2
3.47	2.04	.50	6.00	3.19	2.93	2
3.47	2.04	.50	6.00	3.19	2.93	2
3.22	1.89	.46	6.00	3.18	2.91	2
2.98	1.75	.43	6.00	3.16	2.89	2
2.73	1.60	.39	6.00	3.15	2.87	2
2.48	1.45	.35	6.00	3.14	2.86	2
2.24	1.31	.32	6.00	3.13	2.84	2
1.99	1.16	.28	6.00	3.12	2.82	2
1.74	1.02	.25	6.00	3.11	2.80	2
1.49	.87	.21	6.00	3.11	2.79	2
1.25	.73	.18	6.00	3.10	2.77	2
1.00	.58	.14	6.00	3.09	2.75	2
1.00	.58	.14	6.00	3.09	2.75	2
.90	.52	.13	6.00	3.09	2.74	2
.80	.47	.11	6.00	3.09	2.74	2

.70	.41	.10	6.00	3.09	2.73	2
.60	.35	.09	6.00	3.08	2.72	2
.50	.29	.07	6.00	3.08	2.72	2
.40	.23	.06	6.00	3.08	2.71	2
.30	.17	.04	6.00	3.08	2.70	2
.20	.12	.03	6.00	3.07	2.69	2
.10	.06	.01	6.00	3.07	2.69	2
.00	.00	.00	6.00	3.07	2.68	2

Time = 3150. Degree of Consolidation = 75.%

Total Settlement = 3.759

Settlement at End of Primary Consolidation = 3.955

Settlement caused by Primary Consolidation at time 3150. = 2.959

Settlement caused by Secondary Compression at time 3150. = .000

Settlement Due to Desiccation = .800

Surface Elevation = 2.50

**************Current Conditions in Compressible Foundation*************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.99	8.83	2.49	6.00	3.07	2.66	1
9.23	8.33	2.37	4.45	2.95	2.60	1
8.58	7.84	2.24	3.97	2.86	2.54	1
7.98	7.36	2.12	3.71	2.79	2.49	1
7.41	6.89	1.99	3.46	2.73	2.48	1
6.86	6.43	1.87	3.25	2.68	2.47	1
6.35	5.98	1.74	3.04	2.63	2.46	1
5.85	5.53	1.62	2.95	2.59	2.44	1
5.36	5.08	1.50	2.89	2.56	2.43	1
4.88	4.64	1.37	2.83	2.52	2.42	1
4.41	4.20	1.25	2.77	2.49	2.40	1
3.94	3.77	1.12	2.71	2.46	2.39	1
3.49	3.34	1.00	2.65	2.44	2.38	1
3.03	2.91	.87	2.58	2.41	2.37	1
2.59	2.49	.75	2.52	2.39	2.35	1
2.16	2.07	.62	2.49	2.37	2.34	1
1.72	1.65	.50	2.48	2.35	2.33	1
1.29	1.23	.37	2.47	2.33	2.31	1
.86	.82	.25	2.45	2.31	2.30	1
.43	.41	.12	2.44	2.29	2.29	1
.00	.00	.00	2.43	2.27	2.27	1

Time = 6030. Degree of Consolidation = 78.%

Total Settlement = 1.160

Settlement at End of Primary Consolidation = 1.481

Settlement caused by Primary Consolidation at time 6030. = 1.160

Settlement caused by Secondary Compression at time 6030. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
8.41	4.60	1.20	6.00	1.23	1.23	2
8.16	4.53	1.17	6.00	1.23	1.23	2
7.92	4.45	1.13	6.00	1.23	1.23	2
7.67	4.37	1.10	6.00	1.23	1.23	2
7.42	4.29	1.06	6.00	1.23	1.23	2
7.18	4.20	1.02	6.00	1.23	1.23	2
6.93	4.13	.99	6.00	1.23	1.23	2
6.68	4.00	.95	6.00	3.44	3.44	2
6.43	3.85	.92	6.00	3.41	3.38	2
6.19	3.69	.88	6.00	3.38	3.32	2
5.94	3.54	.85	6.00	3.35	3.26	2
5.94	3.54	.85	6.00	3.35	3.26	2
5.69	3.38	.81	6.00	3.32	3.21	2
5.45	3.23	.78	6.00	3.30	3.15	2
5.20	3.08	.74	6.00	3.28	3.09	2
4.95	2.93	.71	6.00	3.26	3.03	2
4.71	2.78	.67	6.00	3.24	2.99	2
4.46	2.63	.64	6.00	3.22	2.97	2
4.21	2.48	.60	6.00	3.21	2.96	2
3.96	2.33	.57	6.00	3.19	2.94	2
3.72	2.19	.53	6.00	3.18	2.92	2
3.47	2.04	.50	6.00	3.17	2.90	2
3.47	2.04	.50	6.00	3.17	2.90	2
3.22	1.89	.46	6.00	3.16	2.89	2
2.98	1.74	.43	6.00	3.15	2.87	2
2.73	1.60	.39	6.00	3.14	2.85	2
2.48	1.45	.35	6.00	3.13	2.83	2
2.24	1.31	.32	6.00	3.12	2.82	2
1.99	1.16	.28	6.00	3.11	2.80	2
1.74	1.02	.25	6.00	3.11	2.78	2
1.49	.87	.21	6.00	3.10	2.76	2
1.25	.73	.18	6.00	3.10	2.75	2
1.00	.58	.14	6.00	3.09	2.73	2
1.00	.58	.14	6.00	3.09	2.73	2
.90	.52	.13	6.00	3.09	2.72	2
.80	.47	.11	6.00	3.09	2.72	2
.70	.41	.10	6.00	3.08	2.71	2
.60	.35	.09	6.00	3.08	2.70	2
.50	.29	.07	6.00	3.08	2.69	2
.40	.23	.06	6.00	3.08	2.69	2
.30	.17	.04	6.00	3.08	2.68	2
.20	.12	.03	6.00	3.07	2.67	2
.10	.06	.01	6.00	3.07	2.67	2
.00	.00	.00	6.00	3.07	2.66	2

Time = 6030. Degree of Consolidation = 73.%

Total Settlement = 3.806

Settlement at End of Primary Consolidation = 4.049

Settlement caused by Primary Consolidation at time 6030. = 2.974

Settlement caused by Secondary Compression at time 6030. = .000

Settlement Due to Desiccation = .832

Surface Elevation = 2.44

****
Consolidation and desiccation of soft layers---dredged fill
****

Problem CALCASIEU RIVER AND PASS, Marsh 3-4ft of water

*****************Soil data for compressible foundation****************

Material Type	Layer Thickness	Numbers of Sub-layers	Ca/Cc	Cr/Cc
1	10.00	20	.040	.150

Material type : 1 Specific Gravity of Solids: 2.70

I	Void Ratio	Effective Stress	Perm-eability	k/1+e PK	Beta	Dsde	Alpha
1	6.000	.000E+00	.250E+00	.357E-01	.160E-01	-.600E+01	-.214E+00
2	5.500	.300E+01	.180E+00	.277E-01	.190E-01	-.550E+01	-.152E+00
3	5.000	.550E+01	.100E+00	.167E-01	.213E-01	-.900E+01	-.150E+00
4	4.500	.120E+02	.350E-01	.636E-02	.143E-01	-.195E+02	-.124E+00
5	4.000	.250E+02	.120E-01	.240E-02	.536E-02	-.380E+02	-.912E-01
6	3.500	.500E+02	.450E-02	.100E-02	.203E-02	-.570E+02	-.570E-01
7	3.000	.820E+02	.150E-02	.375E-03	.880E-03	-.140E+03	-.525E-01
8	2.500	.190E+03	.420E-03	.120E-03	.335E-03	-.618E+03	-.742E-01
9	2.000	.700E+03	.120E-03	.400E-04	.980E-04	-.241E+04	-.964E-01
10	1.500	.260E+04	.550E-04	.220E-04	.360E-04	-.380E+04	-.836E-01

*********************Soil data for dredged fill*********************

Material Type	Specific Gravity	Ca/Cc	Cr/Cc	Saturation Limit	Disication Limit
2	2.710	.040	.150	1.640	1.230

Material type : 2

I	Void Ratio	Effective Stress	Perm-eability	k/1+e PK	Beta	Dsde	Alpha
1	6.000	.000E+00	.250E+00	.357E-01	.160E-01	-.600E+01	-.214E+00

2	5.500	.300E+01	.180E+00	.277E-01	.190E-01	-.550E+01	-.152E+00
3	5.000	.550E+01	.100E+00	.167E-01	.213E-01	-.900E+01	-.150E+00
4	4.500	.120E+02	.350E-01	.636E-02	.143E-01	-.195E+02	-.124E+00
5	4.000	.250E+02	.120E-01	.240E-02	.536E-02	-.380E+02	-.912E-01
6	3.500	.500E+02	.450E-02	.100E-02	.203E-02	-.570E+02	-.570E-01
7	3.000	.820E+02	.150E-02	.375E-03	.880E-03	-.140E+03	-.525E-01
8	2.500	.190E+03	.420E-03	.120E-03	.335E-03	-.618E+03	-.742E-01
9	2.000	.700E+03	.120E-03	.400E-04	.980E-04	-.241E+04	-.964E-01
10	1.500	.260E+04	.550E-04	.220E-04	.360E-04	-.380E+04	-.836E-01

Summary of lifts and print detail

Time days	Material Type	Fill Height	# Sub- layers	Void ratio	Start Day	Dessic. Month	Print detai
0.	2	1.0	10	6.00	1050.	7	2
120.	2	3.1	10	6.00	210.	7	2
240.	2	3.1	10	6.00	330.	7	2
360.	2	3.1	10	6.00	450.	7	2
390.					480.	7	2
450.					540.	7	2
630.					720.	7	2
990.					1080.	7	2
1710.					1800.	7	2
3150.					3240.	7	2
6030.					6120.	7	2

Summary of monthly rainfall and evaporation potential

Month	Rainfall	Evaporation
1	.480	.090
2	.290	.130
3	.320	.210
4	.330	.410
5	.410	.550
6	.550	.570
7	.550	.400
8	.460	.480
9	.460	.420
10	.360	.240
11	.390	.110
12	.360	.090

**************************Calculation data***************************

tau	Lower layer Void ratio	Lower layer Permeability	drainage path Length
.294E-01	.500	.50000	z = .67

Summary of desiccation parameters

Parameter	Value
Surface Drainage Efficiency	.50
maximum evaporation efficiency	1.00
saturation at desiccation limit	.50
maximum crust thickness	.50
time to desic. after initial fill	1050.00
month of initial desiccation	7
elevation of fixed water table	.00
elevation of top of incompres. found.	-12.00

*************Initial Conditions in Compressible Foundation************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.99	9.99	2.49	6.00	6.00	4.38	1
9.23	9.23	2.37	4.45	4.45	3.93	1
8.58	8.58	2.24	3.97	3.97	3.67	1
7.98	7.98	2.12	3.71	3.71	3.42	1
7.41	7.41	1.99	3.46	3.46	3.22	1
6.86	6.86	1.87	3.25	3.25	3.01	1
6.35	6.35	1.74	3.04	3.04	2.94	1
5.85	5.85	1.62	2.95	2.95	2.88	1
5.36	5.36	1.50	2.89	2.89	2.82	1
4.88	4.88	1.37	2.83	2.83	2.76	1
4.41	4.41	1.25	2.77	2.77	2.70	1
3.94	3.94	1.12	2.71	2.71	2.64	1
3.49	3.49	1.00	2.65	2.65	2.57	1
3.03	3.03	.87	2.58	2.58	2.51	1
2.59	2.59	.75	2.52	2.52	2.49	1
2.16	2.16	.62	2.49	2.49	2.48	1
1.72	1.72	.50	2.48	2.48	2.46	1
1.29	1.29	.37	2.47	2.47	2.45	1
.86	.86	.25	2.45	2.45	2.44	1
.43	.43	.12	2.44	2.44	2.43	1
.00	.00	.00	2.43	2.43	2.41	1

Time = 0. Degree of Consolidation = 0.%

Total Settlement = .000

Settlement at End of Primary Consolidation = .372

Settlement caused by Primary Consolidation at time 0. = .000

Settlement caused by Secondary Compression at time 0. = .000

******************Initial Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
1.00	1.00	.14	6.00	6.00	6.00	2
.90	.90	.13	6.00	6.00	5.75	2
.80	.80	.11	6.00	6.00	5.49	2
.70	.70	.10	6.00	6.00	5.19	2
.60	.60	.09	6.00	6.00	4.95	2
.50	.50	.07	6.00	6.00	4.84	2
.40	.40	.06	6.00	6.00	4.72	2
.30	.30	.04	6.00	6.00	4.60	2
.20	.20	.03	6.00	6.00	4.49	2
.10	.10	.01	6.00	6.00	4.43	2
.00	.00	.00	6.00	6.00	4.38	2

Time = 0. Degree of Consolidation = 0.%

Total Settlement = .000

Settlement at End of Primary Consolidation = .148

Settlement caused by Primary Consolidation at time 0. = .000

Settlement caused by Secondary Compression at time 0. = .000

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.99	9.69	2.49	6.00	4.45	4.38	1
9.23	9.04	2.37	4.45	3.97	3.93	1
8.58	8.44	2.24	3.97	3.67	3.67	1
7.98	7.88	2.12	3.71	3.43	3.42	1
7.41	7.34	1.99	3.46	3.26	3.22	1
6.86	6.82	1.87	3.25	3.12	3.01	1
6.35	6.31	1.74	3.04	3.02	2.94	1
5.85	5.81	1.62	2.95	2.92	2.88	1
5.36	5.33	1.50	2.89	2.85	2.82	1
4.88	4.86	1.37	2.83	2.78	2.76	1
4.41	4.39	1.25	2.77	2.72	2.70	1
3.94	3.93	1.12	2.71	2.66	2.64	1

3.49	3.48	1.00	2.65	2.61	2.57	1
3.03	3.03	.87	2.58	2.57	2.51	1
2.59	2.59	.75	2.52	2.52	2.49	1
2.16	2.15	.62	2.49	2.49	2.48	1
1.72	1.72	.50	2.48	2.47	2.46	1
1.29	1.28	.37	2.47	2.46	2.45	1
.86	.85	.25	2.45	2.44	2.44	1
.43	.43	.12	2.44	2.43	2.43	1
.00	.00	.00	2.43	2.41	2.41	1

Time = 120. Degree of Consolidation = 79.%

Total Settlement = .295

Settlement at End of Primary Consolidation = .372

Settlement caused by Primary Consolidation at time 120. = .295

Settlement caused by Secondary Compression at time 120. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
1.00	.86	.14	6.00	6.00	6.00	2
.90	.76	.13	6.00	5.76	5.75	2
.80	.67	.11	6.00	5.51	5.49	2
.70	.58	.10	6.00	5.28	5.19	2
.60	.49	.09	6.00	5.09	4.95	2
.50	.40	.07	6.00	4.94	4.84	2
.40	.32	.06	6.00	4.81	4.72	2
.30	.24	.04	6.00	4.70	4.60	2
.20	.16	.03	6.00	4.60	4.49	2
.10	.08	.01	6.00	4.52	4.43	2
.00	.00	.00	6.00	4.45	4.38	2

Time = 120. Degree of Consolidation = 92.%

Total Settlement = .137

Settlement at End of Primary Consolidation = .148

Settlement caused by Primary Consolidation at time 120. = .137

Settlement caused by Secondary Compression at time 120. = .000

Surface Elevation = -1.43

*************Current Conditions in Compressible Foundation************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.99	9.42	2.49	6.00	3.52	3.30	1
9.23	8.87	2.37	4.45	3.41	3.09	1
8.58	8.32	2.24	3.97	3.31	2.97	1
7.98	7.79	2.12	3.71	3.21	2.90	1
7.41	7.27	1.99	3.46	3.12	2.84	1
6.86	6.77	1.87	3.25	3.03	2.78	1
6.35	6.27	1.74	3.04	2.95	2.72	1
5.85	5.78	1.62	2.95	2.87	2.66	1
5.36	5.30	1.50	2.89	2.81	2.60	1
4.88	4.83	1.37	2.83	2.75	2.54	1
4.41	4.37	1.25	2.77	2.70	2.49	1
3.94	3.91	1.12	2.71	2.65	2.48	1
3.49	3.46	1.00	2.65	2.60	2.47	1
3.03	3.01	.87	2.58	2.56	2.46	1
2.59	2.57	.75	2.52	2.52	2.44	1
2.16	2.13	.62	2.49	2.49	2.43	1
1.72	1.70	.50	2.48	2.46	2.42	1
1.29	1.27	.37	2.47	2.44	2.40	1
.86	.84	.25	2.45	2.41	2.39	1
.43	.42	.12	2.44	2.39	2.38	1
.00	.00	.00	2.43	2.37	2.37	1

Time = 240. Degree of Consolidation = 58.%

Total Settlement = .563

Settlement at End of Primary Consolidation = .979

Settlement caused by Primary Consolidation at time 240. = .563

Settlement caused by Secondary Compression at time 240. = .000

*******************Current Conditions in Dredged Fill*******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
4.14	3.03	.59	6.00	6.00	6.00	2
3.83	2.74	.55	6.00	5.25	5.14	2
3.51	2.47	.50	6.00	4.74	4.69	2
3.20	2.22	.46	6.00	4.44	4.41	2
2.88	1.98	.41	6.00	4.24	4.23	2
2.57	1.75	.37	6.00	4.10	4.04	2
2.26	1.52	.32	6.00	3.98	3.93	2
1.94	1.30	.28	6.00	3.89	3.83	2
1.63	1.08	.23	6.00	3.81	3.73	2
1.31	.87	.19	6.00	3.74	3.64	2
1.00	.66	.14	6.00	3.68	3.54	2
1.00	.66	.14	6.00	3.68	3.54	2
.90	.59	.13	6.00	3.67	3.51	2
.80	.52	.11	6.00	3.65	3.49	2
.70	.46	.10	6.00	3.63	3.46	2
.60	.39	.09	6.00	3.61	3.44	2
.50	.33	.07	6.00	3.60	3.41	2
.40	.26	.06	6.00	3.58	3.39	2
.30	.19	.04	6.00	3.56	3.37	2
.20	.13	.03	6.00	3.55	3.34	2

.10	.06	.01	6.00	3.53	3.32	2
.00	.00	.00	6.00	3.52	3.30	2

Time = 240. Degree of Consolidation = 95.%

Total Settlement = 1.107

Settlement at End of Primary Consolidation = 1.163

Settlement caused by Primary Consolidation at time 240. = 1.107

Settlement caused by Secondary Compression at time 240. = .000

Settlement Due to Desiccation = .000

Surface Elevation = .47

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.99	9.28	2.49	6.00	3.30	2.87	1
9.23	8.74	2.37	4.45	3.23	2.80	1
8.58	8.22	2.24	3.97	3.15	2.74	1
7.98	7.71	2.12	3.71	3.08	2.68	1
7.41	7.20	1.99	3.46	3.01	2.62	1
6.86	6.71	1.87	3.25	2.94	2.56	1
6.35	6.22	1.74	3.04	2.88	2.50	1
5.85	5.74	1.62	2.95	2.82	2.49	1
5.36	5.27	1.50	2.89	2.77	2.47	1
4.88	4.80	1.37	2.83	2.72	2.46	1
4.41	4.34	1.25	2.77	2.67	2.45	1
3.94	3.89	1.12	2.71	2.63	2.43	1
3.49	3.44	1.00	2.65	2.59	2.42	1
3.03	2.99	.87	2.58	2.55	2.41	1
2.59	2.55	.75	2.52	2.51	2.40	1
2.16	2.12	.62	2.49	2.48	2.38	1
1.72	1.68	.50	2.48	2.44	2.37	1
1.29	1.26	.37	2.47	2.41	2.36	1
.86	.83	.25	2.45	2.38	2.34	1
.43	.42	.12	2.44	2.35	2.33	1
.00	.00	.00	2.43	2.32	2.32	1

Time = 360. Degree of Consolidation = 55.%

Total Settlement = .710

Settlement at End of Primary Consolidation = 1.285

Settlement caused by Primary Consolidation at time 360. = .710

Settlement caused by Secondary Compression at time 360. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
7.28	5.00	1.04	6.00	2.43	6.00	2
6.97	4.76	1.00	6.00	5.26	5.14	2
6.65	4.49	.95	6.00	4.76	4.69	2
6.34	4.24	.91	6.00	4.46	4.41	2
6.02	4.00	.86	6.00	4.26	4.23	2
5.71	3.77	.82	6.00	4.12	4.04	2
5.40	3.54	.77	6.00	4.02	3.93	2
5.08	3.32	.73	6.00	3.93	3.83	2
4.77	3.10	.68	6.00	3.86	3.73	2
4.45	2.88	.64	6.00	3.80	3.64	2
4.14	2.66	.59	6.00	3.75	3.54	2
4.14	2.66	.59	6.00	3.75	3.54	2
3.83	2.45	.55	6.00	3.70	3.46	2
3.51	2.24	.50	6.00	3.66	3.38	2
3.20	2.03	.46	6.00	3.62	3.31	2
2.88	1.83	.41	6.00	3.58	3.23	2
2.57	1.62	.37	6.00	3.55	3.16	2
2.26	1.42	.32	6.00	3.52	3.08	2
1.94	1.22	.28	6.00	3.48	3.01	2
1.63	1.02	.23	6.00	3.45	2.98	2
1.31	.82	.19	6.00	3.42	2.96	2
1.00	.62	.14	6.00	3.39	2.94	2
1.00	.62	.14	6.00	3.39	2.94	2
.90	.56	.13	6.00	3.38	2.93	2
.80	.50	.11	6.00	3.37	2.92	2
.70	.43	.10	6.00	3.37	2.92	2
.60	.37	.09	6.00	3.36	2.91	2
.50	.31	.07	6.00	3.35	2.90	2
.40	.25	.06	6.00	3.34	2.89	2
.30	.18	.04	6.00	3.33	2.89	2
.20	.12	.03	6.00	3.32	2.88	2
.10	.06	.01	6.00	3.31	2.87	2
.00	.00	.00	6.00	3.30	2.87	2

Time = 360. Degree of Consolidation = 88.%

Total Settlement = 2.279

Settlement at End of Primary Consolidation = 2.501

Settlement caused by Primary Consolidation at time 360. = 2.199

Settlement caused by Secondary Compression at time 360. = .000

Settlement Due to Desiccation = .080

Surface Elevation = 2.29

*************Current Conditions in Compressible Foundation*************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.99	9.24	2.49	6.00	3.26	2.64	1
9.23	8.71	2.37	4.45	3.19	2.58	1
8.58	8.19	2.24	3.97	3.12	2.52	1
7.98	7.68	2.12	3.71	3.06	2.49	1
7.41	7.18	1.99	3.46	2.99	2.48	1
6.86	6.69	1.87	3.25	2.93	2.47	1
6.35	6.20	1.74	3.04	2.87	2.45	1
5.85	5.72	1.62	2.95	2.81	2.44	1
5.36	5.25	1.50	2.89	2.76	2.43	1
4.88	4.79	1.37	2.83	2.71	2.41	1
4.41	4.33	1.25	2.77	2.67	2.40	1
3.94	3.87	1.12	2.71	2.62	2.39	1
3.49	3.42	1.00	2.65	2.58	2.38	1
3.03	2.98	.87	2.58	2.55	2.36	1
2.59	2.54	.75	2.52	2.51	2.35	1
2.16	2.10	.62	2.49	2.47	2.34	1
1.72	1.67	.50	2.48	2.44	2.32	1
1.29	1.25	.37	2.47	2.40	2.31	1
.86	.83	.25	2.45	2.36	2.30	1
.43	.41	.12	2.44	2.32	2.28	1
.00	.00	.00	2.43	2.27	2.27	1

Time = 390. Degree of Consolidation = 50.%

Total Settlement = .749

Settlement at End of Primary Consolidation = 1.492

Settlement caused by Primary Consolidation at time 390. = .749

Settlement caused by Secondary Compression at time 390. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
10.42	7.28	1.49	6.00	6.00	6.00	2
10.11	6.98	1.44	6.00	5.31	5.14	2
9.79	6.71	1.40	6.00	4.85	4.69	2
9.48	6.46	1.35	6.00	4.59	4.41	2
9.16	6.21	1.31	6.00	4.43	4.23	2
8.85	5.97	1.26	6.00	4.32	4.04	2
8.54	5.73	1.22	6.00	4.24	3.93	2
8.22	5.50	1.17	6.00	4.18	3.83	2
7.91	5.27	1.13	6.00	4.13	3.73	2
7.59	5.04	1.08	6.00	4.09	3.64	2
7.28	4.81	1.04	6.00	4.05	3.54	2
7.28	4.81	1.04	6.00	4.05	3.54	2
6.97	4.58	1.00	6.00	4.00	3.46	2
6.65	4.36	.95	6.00	3.97	3.38	2
6.34	4.14	.91	6.00	3.93	3.31	2
6.02	3.92	.86	6.00	3.89	3.23	2
5.71	3.70	.82	6.00	3.85	3.16	2
5.40	3.48	.77	6.00	3.81	3.08	2
5.08	3.27	.73	6.00	3.77	3.01	2
4.77	3.06	.68	6.00	3.74	2.98	2

4.45	2.84	.64	6.00	3.70	2.96	2
4.14	2.63	.59	6.00	3.67	2.94	2
4.14	2.63	.59	6.00	3.67	2.94	2
3.83	2.43	.55	6.00	3.63	2.91	2
3.51	2.22	.50	6.00	3.60	2.89	2
3.20	2.01	.46	6.00	3.56	2.87	2
2.88	1.81	.41	6.00	3.53	2.85	2
2.57	1.61	.37	6.00	3.50	2.83	2
2.26	1.41	.32	6.00	3.47	2.80	2
1.94	1.21	.28	6.00	3.43	2.78	2
1.63	1.01	.23	6.00	3.40	2.76	2
1.31	.81	.19	6.00	3.38	2.74	2
1.00	.62	.14	6.00	3.35	2.71	2
1.00	.62	.14	6.00	3.35	2.71	2
.90	.55	.13	6.00	3.34	2.71	2
.80	.49	.11	6.00	3.33	2.70	2
.70	.43	.10	6.00	3.32	2.69	2
.60	.37	.09	6.00	3.31	2.69	2
.50	.31	.07	6.00	3.31	2.68	2
.40	.24	.06	6.00	3.30	2.67	2
.30	.18	.04	6.00	3.29	2.67	2
.20	.12	.03	6.00	3.28	2.66	2
.10	.06	.01	6.00	3.27	2.65	2
.00	.00	.00	6.00	3.26	2.64	2

Time = 390. Degree of Consolidation = 77.%

Total Settlement = 3.138

Settlement at End of Primary Consolidation = 3.956

Settlement caused by Primary Consolidation at time 390. = 3.058

Settlement caused by Secondary Compression at time 390. = .000

Surface Elevation = 4.53

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.99	9.18	2.49	6.00	3.20	2.64	1
9.23	8.66	2.37	4.45	3.13	2.58	1
8.58	8.15	2.24	3.97	3.07	2.52	1
7.98	7.64	2.12	3.71	3.01	2.49	1
7.41	7.15	1.99	3.46	2.95	2.48	1
6.86	6.66	1.87	3.25	2.89	2.47	1
6.35	6.18	1.74	3.04	2.84	2.45	1
5.85	5.70	1.62	2.95	2.79	2.44	1
5.36	5.23	1.50	2.89	2.74	2.43	1
4.88	4.77	1.37	2.83	2.70	2.41	1
4.41	4.31	1.25	2.77	2.65	2.40	1
3.94	3.86	1.12	2.71	2.61	2.39	1
3.49	3.41	1.00	2.65	2.57	2.38	1
3.03	2.97	.87	2.58	2.53	2.36	1
2.59	2.53	.75	2.52	2.50	2.35	1
2.16	2.10	.62	2.49	2.46	2.34	1

1.72	1.67	.50	2.48	2.42	2.32	1
1.29	1.24	.37	2.47	2.38	2.31	1
.86	.82	.25	2.45	2.34	2.30	1
.43	.41	.12	2.44	2.31	2.28	1
.00	.00	.00	2.43	2.27	2.27	1

Time = 450. Degree of Consolidation = 54.%

Total Settlement = .809

Settlement at End of Primary Consolidation = 1.492

Settlement caused by Primary Consolidation at time 450. = .809

Settlement caused by Secondary Compression at time 450. = .000

******************Current Conditions in Dredged Fill*******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
10.42	7.07	1.49	6.00	6.00	6.00	2
10.11	6.78	1.44	6.00	5.27	5.14	2
9.79	6.51	1.40	6.00	4.77	4.69	2
9.48	6.26	1.35	6.00	4.48	4.41	2
9.16	6.01	1.31	6.00	4.29	4.23	2
8.85	5.78	1.26	6.00	4.16	4.04	2
8.54	5.55	1.22	6.00	4.06	3.93	2
8.22	5.33	1.17	6.00	3.99	3.83	2
7.91	5.10	1.13	6.00	3.93	3.73	2
7.59	4.88	1.08	6.00	3.87	3.64	2
7.28	4.67	1.04	6.00	3.83	3.54	2
7.28	4.67	1.04	6.00	3.83	3.54	2
6.97	4.45	1.00	6.00	3.79	3.46	2
6.65	4.24	.95	6.00	3.75	3.38	2
6.34	4.02	.91	6.00	3.71	3.31	2
6.02	3.81	.86	6.00	3.68	3.23	2
5.71	3.60	.82	6.00	3.65	3.16	2
5.40	3.40	.77	6.00	3.63	3.08	2
5.08	3.19	.73	6.00	3.60	3.01	2
4.77	2.98	.68	6.00	3.57	2.98	2
4.45	2.78	.64	6.00	3.55	2.96	2
4.14	2.58	.59	6.00	3.52	2.94	2
4.14	2.58	.59	6.00	3.52	2.94	2
3.83	2.37	.55	6.00	3.50	2.91	2
3.51	2.17	.50	6.00	3.47	2.89	2
3.20	1.97	.46	6.00	3.44	2.87	2
2.88	1.77	.41	6.00	3.42	2.85	2
2.57	1.58	.37	6.00	3.39	2.83	2
2.26	1.38	.32	6.00	3.37	2.80	2
1.94	1.18	.28	6.00	3.34	2.78	2
1.63	.99	.23	6.00	3.32	2.76	2
1.31	.80	.19	6.00	3.29	2.74	2
1.00	.60	.14	6.00	3.27	2.71	2
1.00	.60	.14	6.00	3.27	2.71	2
.90	.54	.13	6.00	3.26	2.71	2
.80	.48	.11	6.00	3.26	2.70	2
.70	.42	.10	6.00	3.25	2.69	2

.60	.36	.09	6.00	3.24	2.69	2
.50	.30	.07	6.00	3.23	2.68	2
.40	.24	.06	6.00	3.23	2.67	2
.30	.18	.04	6.00	3.22	2.67	2
.20	.12	.03	6.00	3.21	2.66	2
.10	.06	.01	6.00	3.20	2.65	2
.00	.00	.00	6.00	3.20	2.64	2

Time = 450. Degree of Consolidation = 83.%

Total Settlement = 3.347

Settlement at End of Primary Consolidation = 3.956

Settlement caused by Primary Consolidation at time 450. = 3.266

Settlement caused by Secondary Compression at time 450. = .000

Surface Elevation = 4.26

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.99	9.03	2.49	6.00	3.05	2.58	1
9.23	8.53	2.37	4.45	3.00	2.52	1
8.58	8.04	2.24	3.97	2.95	2.49	1
7.98	7.55	2.12	3.71	2.90	2.48	1
7.41	7.06	1.99	3.46	2.86	2.47	1
6.86	6.58	1.87	3.25	2.81	2.45	1
6.35	6.11	1.74	3.04	2.77	2.44	1
5.85	5.65	1.62	2.95	2.73	2.43	1
5.36	5.18	1.50	2.89	2.69	2.41	1
4.88	4.73	1.37	2.83	2.65	2.40	1
4.41	4.27	1.25	2.77	2.61	2.39	1
3.94	3.83	1.12	2.71	2.57	2.37	1
3.49	3.38	1.00	2.65	2.53	2.36	1
3.03	2.95	.87	2.58	2.50	2.35	1
2.59	2.51	.75	2.52	2.46	2.34	1
2.16	2.08	.62	2.49	2.43	2.32	1
1.72	1.66	.50	2.48	2.39	2.31	1
1.29	1.24	.37	2.47	2.36	2.30	1
.86	.82	.25	2.45	2.33	2.28	1
.43	.41	.12	2.44	2.29	2.27	1
.00	.00	.00	2.43	2.26	2.26	1

Time = 630. Degree of Consolidation = 62.%

Total Settlement = .954

Settlement at End of Primary Consolidation = 1.537

Settlement caused by Primary Consolidation at time 630. = .954

Settlement caused by Secondary Compression at time 630. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
10.42	6.43	1.49	6.00	1.23	1.23	2
10.11	6.36	1.44	6.00	1.23	1.23	2
9.79	6.18	1.40	6.00	4.07	4.07	2
9.48	5.96	1.35	6.00	3.98	3.94	2
9.16	5.74	1.31	6.00	3.90	3.85	2
8.85	5.52	1.26	6.00	3.84	3.75	2
8.54	5.30	1.22	6.00	3.78	3.65	2
8.22	5.09	1.17	6.00	3.73	3.56	2
7.91	4.88	1.13	6.00	3.69	3.47	2
7.59	4.67	1.08	6.00	3.65	3.40	2
7.28	4.46	1.04	6.00	3.61	3.32	2
7.28	4.46	1.04	6.00	3.61	3.32	2
6.97	4.25	1.00	6.00	3.57	3.25	2
6.65	4.05	.95	6.00	3.54	3.17	2
6.34	3.85	.91	6.00	3.50	3.10	2
6.02	3.65	.86	6.00	3.47	3.02	2
5.71	3.45	.82	6.00	3.44	2.98	2
5.40	3.25	.77	6.00	3.41	2.96	2
5.08	3.05	.73	6.00	3.38	2.94	2
4.77	2.86	.68	6.00	3.35	2.92	2
4.45	2.66	.64	6.00	3.33	2.90	2
4.14	2.47	.59	6.00	3.31	2.87	2
4.14	2.47	.59	6.00	3.31	2.87	2
3.83	2.27	.55	6.00	3.28	2.85	2
3.51	2.08	.50	6.00	3.26	2.83	2
3.20	1.89	.46	6.00	3.24	2.81	2
2.88	1.70	.41	6.00	3.22	2.78	2
2.57	1.51	.37	6.00	3.20	2.76	2
2.26	1.33	.32	6.00	3.18	2.74	2
1.94	1.14	.28	6.00	3.16	2.72	2
1.63	.95	.23	6.00	3.14	2.70	2
1.31	.77	.19	6.00	3.12	2.67	2
1.00	.58	.14	6.00	3.11	2.65	2
1.00	.58	.14	6.00	3.11	2.65	2
.90	.52	.13	6.00	3.10	2.64	2
.80	.47	.11	6.00	3.09	2.64	2
.70	.41	.10	6.00	3.09	2.63	2
.60	.35	.09	6.00	3.08	2.62	2
.50	.29	.07	6.00	3.08	2.62	2
.40	.23	.06	6.00	3.07	2.61	2
.30	.17	.04	6.00	3.06	2.60	2
.20	.12	.03	6.00	3.06	2.60	2
.10	.06	.01	6.00	3.05	2.59	2
.00	.00	.00	6.00	3.05	2.58	2

Time = 630. Degree of Consolidation = 81.%

Total Settlement = 3.994

Settlement at End of Primary Consolidation = 4.490

Settlement caused by Primary Consolidation at time 630. = 3.627

Settlement caused by Secondary Compression at time 630. = .000

Settlement Due to Desiccation = .367

Surface Elevation = 3.47

**************Current Conditions in Compressible Foundation*************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.99	8.87	2.49	6.00	2.99	2.57	1
9.23	8.38	2.37	4.45	2.91	2.51	1
8.58	7.90	2.24	3.97	2.86	2.49	1
7.98	7.42	2.12	3.71	2.80	2.48	1
7.41	6.95	1.99	3.46	2.76	2.46	1
6.86	6.48	1.87	3.25	2.72	2.45	1
6.35	6.02	1.74	3.04	2.68	2.44	1
5.85	5.57	1.62	2.95	2.64	2.42	1
5.36	5.11	1.50	2.89	2.61	2.41	1
4.88	4.67	1.37	2.83	2.57	2.40	1
4.41	4.22	1.25	2.77	2.54	2.39	1
3.94	3.79	1.12	2.71	2.51	2.37	1
3.49	3.35	1.00	2.65	2.48	2.36	1
3.03	2.92	.87	2.58	2.45	2.35	1
2.59	2.49	.75	2.52	2.42	2.33	1
2.16	2.07	.62	2.49	2.39	2.32	1
1.72	1.65	.50	2.48	2.36	2.31	1
1.29	1.23	.37	2.47	2.33	2.29	1
.86	.82	.25	2.45	2.30	2.28	1
.43	.41	.12	2.44	2.28	2.27	1
.00	.00	.00	2.43	2.26	2.26	1

Time = 990. Degree of Consolidation = 72.%

Total Settlement = 1.112

Settlement at End of Primary Consolidation = 1.545

Settlement caused by Primary Consolidation at time 990. = 1.112

Settlement caused by Secondary Compression at time 990. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
10.42	6.08	1.49	6.00	1.23	1.23	2
10.11	5.97	1.44	6.00	1.23	1.23	2
9.79	5.88	1.40	6.00	1.23	1.23	2
9.48	5.75	1.35	6.00	2.88	3.89	2
9.16	5.55	1.31	6.00	3.79	3.79	2
8.85	5.33	1.26	6.00	3.71	3.70	2

8.54	5.12	1.22	6.00	3.63	3.60	2
8.22	4.92	1.17	6.00	3.57	3.51	2
7.91	4.71	1.13	6.00	3.51	3.43	2
7.59	4.51	1.08	6.00	3.46	3.36	2
7.28	4.31	1.04	6.00	3.42	3.28	2
7.28	4.31	1.04	6.00	3.42	3.28	2
6.97	4.12	1.00	6.00	3.38	3.21	2
6.65	3.92	.95	6.00	3.34	3.13	2
6.34	3.73	.91	6.00	3.31	3.06	2
6.02	3.53	.86	6.00	3.28	2.99	2
5.71	3.34	.82	6.00	3.25	2.97	2
5.40	3.15	.77	6.00	3.23	2.95	2
5.08	2.96	.73	6.00	3.20	2.93	2
4.77	2.77	.68	6.00	3.18	2.91	2
4.45	2.59	.64	6.00	3.17	2.88	2
4.14	2.40	.59	6.00	3.15	2.86	2
4.14	2.40	.59	6.00	3.15	2.86	2
3.83	2.22	.55	6.00	3.13	2.84	2
3.51	2.03	.50	6.00	3.12	2.82	2
3.20	1.85	.46	6.00	3.10	2.80	2
2.88	1.66	.41	6.00	3.09	2.77	2
2.57	1.48	.37	6.00	3.08	2.75	2
2.26	1.30	.32	6.00	3.06	2.73	2
1.94	1.11	.28	6.00	3.05	2.71	2
1.63	.93	.23	6.00	3.04	2.68	2
1.31	.75	.19	6.00	3.03	2.66	2
1.00	.57	.14	6.00	3.02	2.64	2
1.00	.57	.14	6.00	3.02	2.64	2
.90	.51	.13	6.00	3.01	2.63	2
.80	.46	.11	6.00	3.01	2.63	2
.70	.40	.10	6.00	3.01	2.62	2
.60	.34	.09	6.00	3.00	2.61	2
.50	.29	.07	6.00	3.00	2.60	2
.40	.23	.06	6.00	3.00	2.60	2
.30	.17	.04	6.00	3.00	2.59	2
.20	.11	.03	6.00	2.99	2.58	2
.10	.06	.01	6.00	2.99	2.58	2
.00	.00	.00	6.00	2.99	2.57	2

Time = 990. Degree of Consolidation = 82.%

Total Settlement = 4.337

Settlement at End of Primary Consolidation = 4.609

Settlement caused by Primary Consolidation at time 990. = 3.795

Settlement caused by Secondary Compression at time 990. = .000

Settlement Due to Desiccation = .543

Surface Elevation = 2.97

**************Current Conditions in Compressible Foundation*************

***** Coordinates ***** ***** Void Ratios *****

A XI Z Einitial E Eeop Material

9.99	8.75	2.49	6.00	2.95	2.52	1
9.23	8.26	2.37	4.45	2.86	2.49	1
8.58	7.78	2.24	3.97	2.80	2.48	1
7.98	7.32	2.12	3.71	2.74	2.47	1
7.41	6.85	1.99	3.46	2.69	2.45	1
6.86	6.40	1.87	3.25	2.65	2.44	1
6.35	5.94	1.74	3.04	2.61	2.43	1
5.85	5.50	1.62	2.95	2.57	2.41	1
5.36	5.05	1.50	2.89	2.54	2.40	1
4.88	4.61	1.37	2.83	2.51	2.39	1
4.41	4.18	1.25	2.77	2.48	2.38	1
3.94	3.75	1.12	2.71	2.45	2.36	1
3.49	3.32	1.00	2.65	2.42	2.35	1
3.03	2.89	.87	2.58	2.40	2.34	1
2.59	2.47	.75	2.52	2.37	2.32	1
2.16	2.05	.62	2.49	2.35	2.31	1
1.72	1.64	.50	2.48	2.33	2.30	1
1.29	1.22	.37	2.47	2.31	2.28	1
.86	.81	.25	2.45	2.28	2.27	1
.43	.41	.12	2.44	2.26	2.26	1
.00	.00	.00	2.43	2.25	2.25	1

Time = 1710. Degree of Consolidation = 79.%

Total Settlement = 1.237

Settlement at End of Primary Consolidation = 1.572

Settlement caused by Primary Consolidation at time 1710. = 1.237

Settlement caused by Secondary Compression at time 1710. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
10.42	5.78	1.49	6.00	1.23	1.23	2
10.11	5.68	1.44	6.00	1.23	1.23	2
9.79	5.58	1.40	6.00	1.23	1.23	2
9.48	5.47	1.35	6.00	1.23	1.23	2
9.16	5.38	1.31	6.00	1.23	1.23	2
8.85	5.21	1.26	6.00	3.50	3.50	2
8.54	5.01	1.22	6.00	3.44	3.43	2
8.22	4.82	1.17	6.00	3.40	3.35	2
7.91	4.62	1.13	6.00	3.35	3.28	2
7.59	4.42	1.08	6.00	3.32	3.20	2
7.28	4.23	1.04	6.00	3.28	3.13	2
7.28	4.23	1.04	6.00	3.28	3.13	2
6.97	4.04	1.00	6.00	3.25	3.05	2
6.65	3.85	.95	6.00	3.22	2.99	2
6.34	3.66	.91	6.00	3.19	2.97	2
6.02	3.47	.86	6.00	3.17	2.95	2
5.71	3.29	.82	6.00	3.15	2.93	2
5.40	3.10	.77	6.00	3.13	2.90	2
5.08	2.92	.73	6.00	3.11	2.88	2
4.77	2.73	.68	6.00	3.10	2.86	2
4.45	2.55	.64	6.00	3.08	2.84	2

4.14	2.37	.59	6.00	3.07	2.82	2
4.14	2.37	.59	6.00	3.07	2.82	2
3.83	2.18	.55	6.00	3.06	2.79	2
3.51	2.00	.50	6.00	3.04	2.77	2
3.20	1.82	.46	6.00	3.03	2.75	2
2.88	1.64	.41	6.00	3.02	2.73	2
2.57	1.46	.37	6.00	3.01	2.71	2
2.26	1.28	.32	6.00	3.00	2.68	2
1.94	1.10	.28	6.00	2.99	2.66	2
1.63	.92	.23	6.00	2.98	2.64	2
1.31	.74	.19	6.00	2.98	2.62	2
1.00	.57	.14	6.00	2.97	2.59	2
1.00	.57	.14	6.00	2.97	2.59	2
.90	.51	.13	6.00	2.97	2.59	2
.80	.45	.11	6.00	2.97	2.58	2
.70	.40	.10	6.00	2.96	2.57	2
.60	.34	.09	6.00	2.96	2.57	2
.50	.28	.07	6.00	2.96	2.56	2
.40	.23	.06	6.00	2.96	2.55	2
.30	.17	.04	6.00	2.95	2.55	2
.20	.11	.03	6.00	2.95	2.54	2
.10	.06	.01	6.00	2.95	2.53	2
.00	.00	.00	6.00	2.95	2.52	2

Time =   1710.   Degree of Consolidation = 79.%

Total Settlement =   4.637

Settlement at End of Primary Consolidation =   4.948

Settlement caused by Primary Consolidation at time 1710. =   3.911

Settlement caused by Secondary Compression at time 1710. =   .000

Settlement Due to Desiccation =   .727

Surface Elevation =   2.55

*************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.99	8.71	2.49	6.00	2.95	2.52	1
9.23	8.23	2.37	4.45	2.86	2.49	1
8.58	7.75	2.24	3.97	2.78	2.48	1
7.98	7.28	2.12	3.71	2.72	2.47	1
7.41	6.82	1.99	3.46	2.67	2.45	1
6.86	6.37	1.87	3.25	2.63	2.44	1
6.35	5.92	1.74	3.04	2.59	2.43	1
5.85	5.47	1.62	2.95	2.55	2.41	1
5.36	5.03	1.50	2.89	2.52	2.40	1
4.88	4.60	1.37	2.83	2.48	2.39	1
4.41	4.16	1.25	2.77	2.46	2.38	1
3.94	3.74	1.12	2.71	2.43	2.36	1
3.49	3.31	1.00	2.65	2.40	2.35	1
3.03	2.89	.87	2.58	2.38	2.34	1
2.59	2.47	.75	2.52	2.36	2.32	1

2.16	2.05	.62	2.49	2.34	2.31	1
1.72	1.64	.50	2.48	2.32	2.30	1
1.29	1.22	.37	2.47	2.30	2.28	1
.86	.81	.25	2.45	2.28	2.27	1
.43	.41	.12	2.44	2.26	2.26	1
.00	.00	.00	2.43	2.25	2.25	1

Time = 3150. Degree of Consolidation = 81.%

Total Settlement = 1.273

Settlement at End of Primary Consolidation = 1.572

Settlement caused by Primary Consolidation at time 3150. = 1.273

Settlement caused by Secondary Compression at time 3150. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
10.42	5.77	1.49	6.00	1.23	1.23	2
10.11	5.67	1.44	6.00	1.23	1.23	2
9.79	5.57	1.40	6.00	1.23	1.23	2
9.48	5.46	1.35	6.00	1.23	1.23	2
9.16	5.37	1.31	6.00	1.23	1.23	2
8.85	5.20	1.26	6.00	3.50	3.50	2
8.54	5.00	1.22	6.00	3.44	3.43	2
8.22	4.81	1.17	6.00	3.39	3.35	2
7.91	4.61	1.13	6.00	3.35	3.28	2
7.59	4.42	1.08	6.00	3.31	3.20	2
7.28	4.22	1.04	6.00	3.28	3.13	2
7.28	4.22	1.04	6.00	3.28	3.13	2
6.97	4.03	1.00	6.00	3.24	3.05	2
6.65	3.84	.95	6.00	3.21	2.99	2
6.34	3.65	.91	6.00	3.19	2.97	2
6.02	3.47	.86	6.00	3.16	2.95	2
5.71	3.28	.82	6.00	3.14	2.93	2
5.40	3.10	.77	6.00	3.12	2.90	2
5.08	2.91	.73	6.00	3.10	2.88	2
4.77	2.73	.68	6.00	3.09	2.86	2
4.45	2.54	.64	6.00	3.07	2.84	2
4.14	2.36	.59	6.00	3.06	2.82	2
4.14	2.36	.59	6.00	3.06	2.82	2
3.83	2.18	.55	6.00	3.05	2.79	2
3.51	2.00	.50	6.00	3.03	2.77	2
3.20	1.82	.46	6.00	3.02	2.75	2
2.88	1.64	.41	6.00	3.01	2.73	2
2.57	1.46	.37	6.00	3.00	2.71	2
2.26	1.28	.32	6.00	2.99	2.68	2
1.94	1.10	.28	6.00	2.99	2.66	2
1.63	.92	.23	6.00	2.98	2.64	2
1.31	.74	.19	6.00	2.97	2.62	2
1.00	.57	.14	6.00	2.97	2.59	2
1.00	.57	.14	6.00	2.97	2.59	2
.90	.51	.13	6.00	2.96	2.59	2
.80	.45	.11	6.00	2.96	2.58	2

.70	.40	.10	6.00	2.96	2.57	2
.60	.34	.09	6.00	2.96	2.57	2
.50	.28	.07	6.00	2.96	2.56	2
.40	.23	.06	6.00	2.95	2.55	2
.30	.17	.04	6.00	2.95	2.55	2
.20	.11	.03	6.00	2.95	2.54	2
.10	.06	.01	6.00	2.95	2.53	2
.00	.00	.00	6.00	2.95	2.52	2

Time = 3150. Degree of Consolidation = 79.%

Total Settlement = 4.646

Settlement at End of Primary Consolidation = 4.948

Settlement caused by Primary Consolidation at time 3150. = 3.920

Settlement caused by Secondary Compression at time 3150. = .000

Settlement Due to Desiccation = .727

Surface Elevation = 2.50

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.99	8.71	2.49	6.00	2.95	2.52	1
9.23	8.23	2.37	4.45	2.86	2.49	1
8.58	7.75	2.24	3.97	2.78	2.48	1
7.98	7.28	2.12	3.71	2.72	2.47	1
7.41	6.82	1.99	3.46	2.67	2.45	1
6.86	6.37	1.87	3.25	2.63	2.44	1
6.35	5.92	1.74	3.04	2.59	2.43	1
5.85	5.47	1.62	2.95	2.55	2.41	1
5.36	5.03	1.50	2.89	2.52	2.40	1
4.88	4.60	1.37	2.83	2.48	2.39	1
4.41	4.16	1.25	2.77	2.46	2.38	1
3.94	3.74	1.12	2.71	2.43	2.36	1
3.49	3.31	1.00	2.65	2.40	2.35	1
3.03	2.89	.87	2.58	2.38	2.34	1
2.59	2.47	.75	2.52	2.36	2.32	1
2.16	2.05	.62	2.49	2.34	2.31	1
1.72	1.64	.50	2.48	2.32	2.30	1
1.29	1.22	.37	2.47	2.30	2.28	1
.86	.81	.25	2.45	2.28	2.27	1
.43	.41	.12	2.44	2.26	2.26	1
.00	.00	.00	2.43	2.25	2.25	1

Time = 6030. Degree of Consolidation = 81.%

Total Settlement = 1.273

Settlement at End of Primary Consolidation = 1.572

Settlement caused by Primary Consolidation at time 6030. = 1.273

Settlement caused by Secondary Compression at time 6030. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
10.42	5.77	1.49	6.00	1.23	1.23	2
10.11	5.67	1.44	6.00	1.23	1.23	2
9.79	5.57	1.40	6.00	1.23	1.23	2
9.48	5.46	1.35	6.00	1.23	1.23	2
9.16	5.37	1.31	6.00	1.23	1.23	2
8.85	5.20	1.26	6.00	3.50	3.50	2
8.54	5.00	1.22	6.00	3.44	3.43	2
8.22	4.81	1.17	6.00	3.39	3.35	2
7.91	4.61	1.13	6.00	3.35	3.28	2
7.59	4.42	1.08	6.00	3.31	3.20	2
7.28	4.22	1.04	6.00	3.28	3.13	2
7.28	4.22	1.04	6.00	3.28	3.13	2
6.97	4.03	1.00	6.00	3.24	3.05	2
6.65	3.84	.95	6.00	3.21	2.99	2
6.34	3.65	.91	6.00	3.19	2.97	2
6.02	3.47	.86	6.00	3.16	2.95	2
5.71	3.28	.82	6.00	3.14	2.93	2
5.40	3.10	.77	6.00	3.12	2.90	2
5.08	2.91	.73	6.00	3.10	2.88	2
4.77	2.73	.68	6.00	3.09	2.86	2
4.45	2.54	.64	6.00	3.07	2.84	2
4.14	2.36	.59	6.00	3.06	2.82	2
4.14	2.36	.59	6.00	3.06	2.82	2
3.83	2.18	.55	6.00	3.05	2.79	2
3.51	2.00	.50	6.00	3.03	2.77	2
3.20	1.82	.46	6.00	3.02	2.75	2
2.88	1.64	.41	6.00	3.01	2.73	2
2.57	1.46	.37	6.00	3.00	2.71	2
2.26	1.28	.32	6.00	2.99	2.68	2
1.94	1.10	.28	6.00	2.99	2.66	2
1.63	.92	.23	6.00	2.98	2.64	2
1.31	.74	.19	6.00	2.97	2.62	2
1.00	.57	.14	6.00	2.97	2.59	2
1.00	.57	.14	6.00	2.97	2.59	2
.90	.51	.13	6.00	2.96	2.59	2
.80	.45	.11	6.00	2.96	2.58	2
.70	.40	.10	6.00	2.96	2.57	2
.60	.34	.09	6.00	2.96	2.57	2
.50	.28	.07	6.00	2.96	2.56	2
.40	.23	.06	6.00	2.95	2.55	2
.30	.17	.04	6.00	2.95	2.55	2
.20	.11	.03	6.00	2.95	2.54	2
.10	.06	.01	6.00	2.95	2.53	2
.00	.00	.00	6.00	2.95	2.52	2

Time = 6030. Degree of Consolidation = 79.%

Total Settlement = 4.646

Settlement at End of Primary Consolidation = 4.948

Settlement caused by Primary Consolidation at time 6030. =   3.920

Settlement caused by Secondary Compression at time 6030. =   .000

Settlement Due to Desiccation =   .727

Surface Elevation =   2.50

****
Consolidation and desiccation of soft layers---dredged fill
****

Problem   CALCASIEU RIVER AND PASS, Marsh 4-5ft of water

*****************Soil data for compressible foundation****************

Material Type	Layer Thickness	Numbers of Sub-layers	Ca/Cc	Cr/Cc
1	10.00	20	.040	.150

Material type :   1   Specific Gravity of Solids: 2.70

I	Void Ratio	Effective Stress	Perm-eability	k/1+e PK	Beta	Dsde	Alpha
1	6.000	.000E+00	.250E+00	.357E-01	.160E-01	-.600E+01	-.214E+00
2	5.500	.300E+01	.180E+00	.277E-01	.190E-01	-.550E+01	-.152E+00
3	5.000	.550E+01	.100E+00	.167E-01	.213E-01	-.900E+01	-.150E+00
4	4.500	.120E+02	.350E-01	.636E-02	.143E-01	-.195E+02	-.124E+00
5	4.000	.250E+02	.120E-01	.240E-02	.536E-02	-.380E+02	-.912E-01
6	3.500	.500E+02	.450E-02	.100E-02	.203E-02	-.570E+02	-.570E-01
7	3.000	.820E+02	.150E-02	.375E-03	.880E-03	-.140E+03	-.525E-01
8	2.500	.190E+03	.420E-03	.120E-03	.335E-03	-.618E+03	-.742E-01
9	2.000	.700E+03	.120E-03	.400E-04	.980E-04	-.241E+04	-.964E-01
10	1.500	.260E+04	.550E-04	.220E-04	.360E-04	-.380E+04	-.836E-01

*********************Soil data for dredged fill*********************

Material Type	Specific Gravity	Ca/Cc	Cr/Cc	Saturation Limit	Disication Limit
2	2.710	.040	.150	1.640	1.230

Material type :   2

I	Void Ratio	Effective Stress	Perm-eability	k/1+e PK	Beta	Dsde	Alpha
1	6.000	.000E+00	.250E+00	.357E-01	.160E-01	-.600E+01	-.214E+00

2	5.500	.300E+01	.180E+00	.277E-01	.190E-01	-.550E+01	-.152E+00
3	5.000	.550E+01	.100E+00	.167E-01	.213E-01	-.900E+01	-.150E+00
4	4.500	.120E+02	.350E-01	.636E-02	.143E-01	-.195E+02	-.124E+00
5	4.000	.250E+02	.120E-01	.240E-02	.536E-02	-.380E+02	-.912E-01
6	3.500	.500E+02	.450E-02	.100E-02	.203E-02	-.570E+02	-.570E-01
7	3.000	.820E+02	.150E-02	.375E-03	.880E-03	-.140E+03	-.525E-01
8	2.500	.190E+03	.420E-03	.120E-03	.335E-03	-.618E+03	-.742E-01
9	2.000	.700E+03	.120E-03	.400E-04	.980E-04	-.241E+04	-.964E-01
10	1.500	.260E+04	.550E-04	.220E-04	.360E-04	-.380E+04	-.836E-01

Summary of lifts and print detail

Time days	Material Type	Fill Height	# Sub-layers	Void ratio	Start Day	Dessic. Month	Print detai
0.	2	1.0	10	6.00	1050.	7	2
120.	2	3.8	10	6.00	210.	7	2
240.	2	3.8	10	6.00	330.	7	2
360.	2	3.8	10	6.00	450.	7	2
390.					480.	7	2
450.					540.	7	2
630.					720.	7	2
990.					1080.	7	2
1710.					1800.	7	2
3150.					3240.	7	2
6030.					6120.	7	2

Summary of monthly rainfall and evaporation potential

Month	Rainfall	Evaporation
1	.480	.090
2	.290	.130
3	.320	.210
4	.330	.410
5	.410	.550
6	.550	.570
7	.550	.400
8	.460	.480
9	.460	.420
10	.360	.240
11	.390	.110
12	.360	.090

**************************Calculation data***************************

tau	Lower layer Void ratio	Lower layer Permeability	drainage path Length
.294E-01	.500	.50000	z = .67

Summary of desiccation parameters

Parameter	Value
Surface Drainage Efficiency	.50
maximum evaporation efficiency	1.00
saturation at desiccation limit	.50
maximum crust thickness	.50
time to desic. after initial fill	1050.00
month of initial desiccation	7
elevation of fixed water table	.00
elevation of top of incompres. found.	-13.00

*************Initial Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.99	9.99	2.49	6.00	6.00	4.38	1
9.23	9.23	2.37	4.45	4.45	3.93	1
8.58	8.58	2.24	3.97	3.97	3.67	1
7.98	7.98	2.12	3.71	3.71	3.42	1
7.41	7.41	1.99	3.46	3.46	3.22	1
6.86	6.86	1.87	3.25	3.25	3.01	1
6.35	6.35	1.74	3.04	3.04	2.94	1
5.85	5.85	1.62	2.95	2.95	2.88	1
5.36	5.36	1.50	2.89	2.89	2.82	1
4.88	4.88	1.37	2.83	2.83	2.76	1
4.41	4.41	1.25	2.77	2.77	2.70	1
3.94	3.94	1.12	2.71	2.71	2.64	1
3.49	3.49	1.00	2.65	2.65	2.57	1
3.03	3.03	.87	2.58	2.58	2.51	1
2.59	2.59	.75	2.52	2.52	2.49	1
2.16	2.16	.62	2.49	2.49	2.48	1
1.72	1.72	.50	2.48	2.48	2.46	1
1.29	1.29	.37	2.47	2.47	2.45	1
.86	.86	.25	2.45	2.45	2.44	1
.43	.43	.12	2.44	2.44	2.43	1
.00	.00	.00	2.43	2.43	2.41	1

Time = 0. Degree of Consolidation = 0.%

Total Settlement = .000

Settlement at End of Primary Consolidation = .372

Settlement caused by Primary Consolidation at time 0. = .000

Settlement caused by Secondary Compression at time 0. = .000

******************Initial Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
1.00	1.00	.14	6.00	6.00	6.00	2
.90	.90	.13	6.00	6.00	5.75	2
.80	.80	.11	6.00	6.00	5.49	2
.70	.70	.10	6.00	6.00	5.19	2
.60	.60	.09	6.00	6.00	4.95	2
.50	.50	.07	6.00	6.00	4.84	2
.40	.40	.06	6.00	6.00	4.72	2
.30	.30	.04	6.00	6.00	4.60	2
.20	.20	.03	6.00	6.00	4.49	2
.10	.10	.01	6.00	6.00	4.43	2
.00	.00	.00	6.00	6.00	4.38	2

Time = 0. Degree of Consolidation = 0.%

Total Settlement = .000

Settlement at End of Primary Consolidation = .148

Settlement caused by Primary Consolidation at time 0. = .000

Settlement caused by Secondary Compression at time 0. = .000

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.99	9.69	2.49	6.00	4.45	4.38	1
9.23	9.04	2.37	4.45	3.97	3.93	1
8.58	8.44	2.24	3.97	3.67	3.67	1
7.98	7.88	2.12	3.71	3.43	3.42	1
7.41	7.34	1.99	3.46	3.26	3.22	1
6.86	6.82	1.87	3.25	3.12	3.01	1
6.35	6.31	1.74	3.04	3.02	2.94	1
5.85	5.81	1.62	2.95	2.92	2.88	1
5.36	5.33	1.50	2.89	2.85	2.82	1
4.88	4.86	1.37	2.83	2.78	2.76	1
4.41	4.39	1.25	2.77	2.72	2.70	1
3.94	3.93	1.12	2.71	2.66	2.64	1

3.49	3.48	1.00	2.65	2.61	2.57	1
3.03	3.03	.87	2.58	2.57	2.51	1
2.59	2.59	.75	2.52	2.52	2.49	1
2.16	2.15	.62	2.49	2.49	2.48	1
1.72	1.72	.50	2.48	2.47	2.46	1
1.29	1.28	.37	2.47	2.46	2.45	1
.86	.85	.25	2.45	2.44	2.44	1
.43	.43	.12	2.44	2.43	2.43	1
.00	.00	.00	2.43	2.41	2.41	1

Time = 120. Degree of Consolidation = 79.%

Total Settlement = .295

Settlement at End of Primary Consolidation = .372

Settlement caused by Primary Consolidation at time 120. = .295

Settlement caused by Secondary Compression at time 120. = .000

*******************Current Conditions in Dredged Fill*******************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
1.00	.86	.14	6.00	6.00	6.00	2
.90	.76	.13	6.00	5.76	5.75	2
.80	.67	.11	6.00	5.51	5.49	2
.70	.58	.10	6.00	5.28	5.19	2
.60	.49	.09	6.00	5.09	4.95	2
.50	.40	.07	6.00	4.94	4.84	2
.40	.32	.06	6.00	4.81	4.72	2
.30	.24	.04	6.00	4.70	4.60	2
.20	.16	.03	6.00	4.60	4.49	2
.10	.08	.01	6.00	4.52	4.43	2
.00	.00	.00	6.00	4.45	4.38	2

Time = 120. Degree of Consolidation = 92.%

Total Settlement = .137

Settlement at End of Primary Consolidation = .148

Settlement caused by Primary Consolidation at time 120. = .137

Settlement caused by Secondary Compression at time 120. = .000

Surface Elevation = -2.43

**************Current Conditions in Compressible Foundation*************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.99	9.41	2.49	6.00	3.49	3.14	1
9.23	8.86	2.37	4.45	3.39	2.98	1
8.58	8.32	2.24	3.97	3.30	2.92	1
7.98	7.79	2.12	3.71	3.21	2.86	1
7.41	7.27	1.99	3.46	3.12	2.80	1
6.86	6.76	1.87	3.25	3.03	2.73	1
6.35	6.27	1.74	3.04	2.95	2.67	1
5.85	5.78	1.62	2.95	2.87	2.61	1
5.36	5.30	1.50	2.89	2.81	2.55	1
4.88	4.83	1.37	2.83	2.75	2.50	1
4.41	4.36	1.25	2.77	2.70	2.48	1
3.94	3.91	1.12	2.71	2.65	2.47	1
3.49	3.46	1.00	2.65	2.60	2.46	1
3.03	3.01	.87	2.58	2.56	2.45	1
2.59	2.57	.75	2.52	2.52	2.43	1
2.16	2.13	.62	2.49	2.49	2.42	1
1.72	1.70	.50	2.48	2.46	2.41	1
1.29	1.27	.37	2.47	2.43	2.39	1
.86	.84	.25	2.45	2.41	2.38	1
.43	.42	.12	2.44	2.38	2.37	1
.00	.00	.00	2.43	2.36	2.36	1

Time = 240. Degree of Consolidation = 54.%

Total Settlement = .572

Settlement at End of Primary Consolidation = 1.062

Settlement caused by Primary Consolidation at time 240. = .572

Settlement caused by Secondary Compression at time 240. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
4.81	3.48	.69	6.00	6.00	6.00	2
4.43	3.13	.63	6.00	5.12	4.98	2
4.05	2.81	.58	6.00	4.61	4.53	2
3.67	2.51	.52	6.00	4.32	4.29	2
3.29	2.23	.47	6.00	4.13	4.07	2
2.91	1.95	.42	6.00	4.00	3.92	2
2.52	1.68	.36	6.00	3.89	3.80	2
2.14	1.42	.31	6.00	3.80	3.69	2
1.76	1.16	.25	6.00	3.73	3.57	2
1.38	.90	.20	6.00	3.67	3.46	2
1.00	.65	.14	6.00	3.62	3.37	2
1.00	.65	.14	6.00	3.62	3.37	2
.90	.58	.13	6.00	3.60	3.35	2
.80	.52	.11	6.00	3.59	3.33	2
.70	.45	.10	6.00	3.58	3.30	2
.60	.39	.09	6.00	3.56	3.28	2
.50	.32	.07	6.00	3.55	3.25	2
.40	.26	.06	6.00	3.54	3.23	2
.30	.19	.04	6.00	3.53	3.21	2
.20	.13	.03	6.00	3.51	3.18	2

.10	.06	.01	6.00	3.50	3.16	2
.00	.00	.00	6.00	3.49	3.14	2

Time = 240. Degree of Consolidation = 93.%

Total Settlement = 1.330

Settlement at End of Primary Consolidation = 1.432

Settlement caused by Primary Consolidation at time 240. = 1.330

Settlement caused by Secondary Compression at time 240. = .000

Settlement Due to Desiccation = .000

Surface Elevation = -.09

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.99	9.26	2.49	6.00	3.28	2.77	1
9.23	8.73	2.37	4.45	3.21	2.71	1
8.58	8.21	2.24	3.97	3.14	2.65	1
7.98	7.70	2.12	3.71	3.07	2.59	1
7.41	7.19	1.99	3.46	3.01	2.53	1
6.86	6.70	1.87	3.25	2.94	2.49	1
6.35	6.21	1.74	3.04	2.88	2.48	1
5.85	5.73	1.62	2.95	2.82	2.47	1
5.36	5.26	1.50	2.89	2.77	2.45	1
4.88	4.79	1.37	2.83	2.72	2.44	1
4.41	4.33	1.25	2.77	2.67	2.43	1
3.94	3.88	1.12	2.71	2.63	2.41	1
3.49	3.43	1.00	2.65	2.59	2.40	1
3.03	2.98	.87	2.58	2.55	2.39	1
2.59	2.54	.75	2.52	2.51	2.38	1
2.16	2.11	.62	2.49	2.47	2.36	1
1.72	1.68	.50	2.48	2.43	2.35	1
1.29	1.25	.37	2.47	2.40	2.34	1
.86	.83	.25	2.45	2.36	2.32	1
.43	.41	.12	2.44	2.33	2.31	1
.00	.00	.00	2.43	2.30	2.30	1

Time = 360. Degree of Consolidation = 53.%

Total Settlement = .726

Settlement at End of Primary Consolidation = 1.383

Settlement caused by Primary Consolidation at time 360. = .726

Settlement caused by Secondary Compression at time 360. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
8.62	5.90	1.23	6.00	3.64	6.00	2
8.24	5.58	1.18	6.00	5.13	4.98	2
7.86	5.26	1.12	6.00	4.62	4.53	2
7.48	4.97	1.07	6.00	4.34	4.29	2
7.10	4.68	1.01	6.00	4.16	4.07	2
6.72	4.40	.96	6.00	4.04	3.92	2
6.33	4.13	.90	6.00	3.94	3.80	2
5.95	3.87	.85	6.00	3.87	3.69	2
5.57	3.60	.80	6.00	3.81	3.57	2
5.19	3.34	.74	6.00	3.76	3.46	2
4.81	3.09	.69	6.00	3.71	3.37	2
4.81	3.09	.69	6.00	3.71	3.37	2
4.43	2.83	.63	6.00	3.67	3.28	2
4.05	2.58	.58	6.00	3.63	3.19	2
3.67	2.33	.52	6.00	3.60	3.10	2
3.29	2.08	.47	6.00	3.56	3.01	2
2.91	1.83	.42	6.00	3.53	2.98	2
2.52	1.58	.36	6.00	3.50	2.95	2
2.14	1.34	.31	6.00	3.46	2.92	2
1.76	1.10	.25	6.00	3.43	2.90	2
1.38	.86	.20	6.00	3.40	2.87	2
1.00	.62	.14	6.00	3.37	2.84	2
1.00	.62	.14	6.00	3.37	2.84	2
.90	.56	.13	6.00	3.36	2.83	2
.80	.49	.11	6.00	3.35	2.83	2
.70	.43	.10	6.00	3.34	2.82	2
.60	.37	.09	6.00	3.33	2.81	2
.50	.31	.07	6.00	3.33	2.81	2
.40	.25	.06	6.00	3.32	2.80	2
.30	.18	.04	6.00	3.31	2.79	2
.20	.12	.03	6.00	3.30	2.79	2
.10	.06	.01	6.00	3.29	2.78	2
.00	.00	.00	6.00	3.28	2.77	2

Time = 360. Degree of Consolidation = 85.%

Total Settlement = 2.724

Settlement at End of Primary Consolidation = 3.112

Settlement caused by Primary Consolidation at time 360. = 2.660

Settlement caused by Secondary Compression at time 360. = .000

Settlement Due to Desiccation = .064

Surface Elevation = 2.17

**************Current Conditions in Compressible Foundation*************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.99	9.22	2.49	6.00	3.25	2.50	1
9.23	8.69	2.37	4.45	3.18	2.49	1
8.58	8.17	2.24	3.97	3.11	2.47	1
7.98	7.67	2.12	3.71	3.05	2.46	1
7.41	7.17	1.99	3.46	2.98	2.45	1
6.86	6.67	1.87	3.25	2.92	2.44	1
6.35	6.19	1.74	3.04	2.86	2.42	1
5.85	5.71	1.62	2.95	2.81	2.41	1
5.36	5.24	1.50	2.89	2.76	2.40	1
4.88	4.77	1.37	2.83	2.71	2.38	1
4.41	4.31	1.25	2.77	2.67	2.37	1
3.94	3.86	1.12	2.71	2.62	2.36	1
3.49	3.41	1.00	2.65	2.58	2.34	1
3.03	2.97	.87	2.58	2.54	2.33	1
2.59	2.53	.75	2.52	2.50	2.32	1
2.16	2.09	.62	2.49	2.46	2.31	1
1.72	1.66	.50	2.48	2.43	2.29	1
1.29	1.24	.37	2.47	2.38	2.28	1
.86	.82	.25	2.45	2.34	2.27	1
.43	.41	.12	2.44	2.29	2.25	1
.00	.00	.00	2.43	2.24	2.24	1

Time = 390. Degree of Consolidation = 49.%

Total Settlement = .769

Settlement at End of Primary Consolidation = 1.584

Settlement caused by Primary Consolidation at time 390. = .769

Settlement caused by Secondary Compression at time 390. = .000

******************Current Conditions in Dredged Fill*******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
12.43	8.70	1.78	6.00	6.00	6.00	2
12.05	8.34	1.72	6.00	5.24	4.98	2
11.67	8.02	1.67	6.00	4.80	4.53	2
11.29	7.71	1.61	6.00	4.57	4.29	2
10.91	7.41	1.56	6.00	4.44	4.07	2
10.52	7.11	1.50	6.00	4.35	3.92	2
10.14	6.82	1.45	6.00	4.29	3.80	2
9.76	6.54	1.39	6.00	4.23	3.69	2
9.38	6.25	1.34	6.00	4.18	3.57	2
9.00	5.97	1.29	6.00	4.13	3.46	2
8.62	5.70	1.23	6.00	4.09	3.37	2
8.62	5.70	1.23	6.00	4.09	3.37	2
8.24	5.42	1.18	6.00	4.04	3.28	2
7.86	5.15	1.12	6.00	3.99	3.19	2
7.48	4.88	1.07	6.00	3.95	3.10	2
7.10	4.61	1.01	6.00	3.90	3.01	2
6.72	4.34	.96	6.00	3.85	2.98	2
6.33	4.08	.90	6.00	3.81	2.95	2
5.95	3.82	.85	6.00	3.77	2.92	2
5.57	3.56	.80	6.00	3.73	2.90	2

5.19	3.31	.74	6.00	3.69	2.87	2
4.81	3.05	.69	6.00	3.65	2.84	2
4.81	3.05	.69	6.00	3.65	2.84	2
4.43	2.80	.63	6.00	3.61	2.81	2
4.05	2.55	.58	6.00	3.58	2.79	2
3.67	2.30	.52	6.00	3.54	2.76	2
3.29	2.05	.47	6.00	3.51	2.73	2
2.91	1.81	.42	6.00	3.48	2.71	2
2.52	1.57	.36	6.00	3.45	2.68	2
2.14	1.33	.31	6.00	3.41	2.65	2
1.76	1.09	.25	6.00	3.38	2.63	2
1.38	.85	.20	6.00	3.35	2.60	2
1.00	.61	.14	6.00	3.32	2.57	2
1.00	.61	.14	6.00	3.32	2.57	2
.90	.55	.13	6.00	3.32	2.57	2
.80	.49	.11	6.00	3.31	2.56	2
.70	.43	.10	6.00	3.30	2.55	2
.60	.37	.09	6.00	3.29	2.54	2
.50	.30	.07	6.00	3.28	2.54	2
.40	.24	.06	6.00	3.28	2.53	2
.30	.18	.04	6.00	3.27	2.52	2
.20	.12	.03	6.00	3.26	2.52	2
.10	.06	.01	6.00	3.25	2.51	2
.00	.00	.00	6.00	3.25	2.50	2

Time = 390. Degree of Consolidation = 74.%

Total Settlement = 3.729

Settlement at End of Primary Consolidation = 4.943

Settlement caused by Primary Consolidation at time 390. = 3.665

Settlement caused by Secondary Compression at time 390. = .000

Surface Elevation = 4.93

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.99	9.15	2.49	6.00	3.18	2.50	1
9.23	8.63	2.37	4.45	3.12	2.49	1
8.58	8.12	2.24	3.97	3.06	2.47	1
7.98	7.62	2.12	3.71	3.00	2.46	1
7.41	7.13	1.99	3.46	2.94	2.45	1
6.86	6.64	1.87	3.25	2.89	2.44	1
6.35	6.16	1.74	3.04	2.84	2.42	1
5.85	5.68	1.62	2.95	2.79	2.41	1
5.36	5.21	1.50	2.89	2.74	2.40	1
4.88	4.75	1.37	2.83	2.69	2.38	1
4.41	4.29	1.25	2.77	2.65	2.37	1
3.94	3.84	1.12	2.71	2.61	2.36	1
3.49	3.39	1.00	2.65	2.57	2.34	1
3.03	2.95	.87	2.58	2.53	2.33	1
2.59	2.51	.75	2.52	2.49	2.32	1
2.16	2.08	.62	2.49	2.45	2.31	1

1.72	1.66	.50	2.48	2.40	2.29	1
1.29	1.23	.37	2.47	2.36	2.28	1
.86	.82	.25	2.45	2.32	2.27	1
.43	.41	.12	2.44	2.28	2.25	1
.00	.00	.00	2.43	2.24	2.24	1

Time = 450. Degree of Consolidation = 53.%

Total Settlement = .833

Settlement at End of Primary Consolidation = 1.584

Settlement caused by Primary Consolidation at time 450. = .833

Settlement caused by Secondary Compression at time 450. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
12.43	8.41	1.78	6.00	6.00	6.00	2
12.05	8.06	1.72	6.00	5.15	4.98	2
11.67	7.74	1.67	6.00	4.65	4.53	2
11.29	7.44	1.61	6.00	4.37	4.29	2
10.91	7.15	1.56	6.00	4.21	4.07	2
10.52	6.87	1.50	6.00	4.09	3.92	2
10.14	6.59	1.45	6.00	4.01	3.80	2
9.76	6.32	1.39	6.00	3.95	3.69	2
9.38	6.06	1.34	6.00	3.90	3.57	2
9.00	5.79	1.29	6.00	3.86	3.46	2
8.62	5.53	1.23	6.00	3.82	3.37	2
8.62	5.53	1.23	6.00	3.82	3.37	2
8.24	5.27	1.18	6.00	3.78	3.28	2
7.86	5.01	1.12	6.00	3.75	3.19	2
7.48	4.75	1.07	6.00	3.72	3.10	2
7.10	4.49	1.01	6.00	3.69	3.01	2
6.72	4.24	.96	6.00	3.66	2.98	2
6.33	3.99	.90	6.00	3.63	2.95	2
5.95	3.73	.85	6.00	3.61	2.92	2
5.57	3.48	.80	6.00	3.58	2.90	2
5.19	3.24	.74	6.00	3.55	2.87	2
4.81	2.99	.69	6.00	3.52	2.84	2
4.81	2.99	.69	6.00	3.52	2.84	2
4.43	2.74	.63	6.00	3.50	2.81	2
4.05	2.50	.58	6.00	3.47	2.79	2
3.67	2.26	.52	6.00	3.44	2.76	2
3.29	2.02	.47	6.00	3.41	2.73	2
2.91	1.78	.42	6.00	3.38	2.71	2
2.52	1.54	.36	6.00	3.36	2.68	2
2.14	1.30	.31	6.00	3.33	2.65	2
1.76	1.07	.25	6.00	3.30	2.63	2
1.38	.83	.20	6.00	3.28	2.60	2
1.00	.60	.14	6.00	3.25	2.57	2
1.00	.60	.14	6.00	3.25	2.57	2
.90	.54	.13	6.00	3.24	2.57	2
.80	.48	.11	6.00	3.24	2.56	2
.70	.42	.10	6.00	3.23	2.55	2

.60	.36	.09	6.00	3.22	2.54	2
.50	.30	.07	6.00	3.21	2.54	2
.40	.24	.06	6.00	3.21	2.53	2
.30	.18	.04	6.00	3.20	2.52	2
.20	.12	.03	6.00	3.19	2.52	2
.10	.06	.01	6.00	3.19	2.51	2
.00	.00	.00	6.00	3.18	2.50	2

Time = 450. Degree of Consolidation = 80.%

Total Settlement = 4.018

Settlement at End of Primary Consolidation = 4.943

Settlement caused by Primary Consolidation at time 450. = 3.954

Settlement caused by Secondary Compression at time 450. = .000

Surface Elevation = 4.58

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.99	9.00	2.49	6.00	3.02	2.50	1
9.23	8.50	2.37	4.45	2.98	2.49	1
8.58	8.01	2.24	3.97	2.94	2.47	1
7.98	7.52	2.12	3.71	2.89	2.46	1
7.41	7.04	1.99	3.46	2.85	2.45	1
6.86	6.56	1.87	3.25	2.81	2.44	1
6.35	6.09	1.74	3.04	2.76	2.42	1
5.85	5.62	1.62	2.95	2.72	2.41	1
5.36	5.16	1.50	2.89	2.68	2.40	1
4.88	4.71	1.37	2.83	2.64	2.38	1
4.41	4.25	1.25	2.77	2.60	2.37	1
3.94	3.81	1.12	2.71	2.56	2.36	1
3.49	3.37	1.00	2.65	2.52	2.34	1
3.03	2.93	.87	2.58	2.48	2.33	1
2.59	2.50	.75	2.52	2.45	2.32	1
2.16	2.07	.62	2.49	2.41	2.31	1
1.72	1.65	.50	2.48	2.37	2.29	1
1.29	1.23	.37	2.47	2.34	2.28	1
.86	.82	.25	2.45	2.31	2.27	1
.43	.41	.12	2.44	2.27	2.25	1
.00	.00	.00	2.43	2.24	2.24	1

Time = 630. Degree of Consolidation = 62.%

Total Settlement = .984

Settlement at End of Primary Consolidation = 1.584

Settlement caused by Primary Consolidation at time 630. = .984

Settlement caused by Secondary Compression at time 630. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
12.43	7.67	1.78	6.00	1.64	6.00	2
12.05	7.52	1.72	6.00	1.64	4.98	2
11.67	7.38	1.67	6.00	2.19	4.53	2
11.29	7.13	1.61	6.00	4.29	4.29	2
10.91	6.84	1.56	6.00	4.11	4.07	2
10.52	6.57	1.50	6.00	3.97	3.92	2
10.14	6.30	1.45	6.00	3.86	3.80	2
9.76	6.04	1.39	6.00	3.78	3.69	2
9.38	5.78	1.34	6.00	3.71	3.57	2
9.00	5.53	1.29	6.00	3.66	3.46	2
8.62	5.27	1.23	6.00	3.61	3.37	2
8.62	5.27	1.23	6.00	3.61	3.37	2
8.24	5.02	1.18	6.00	3.56	3.28	2
7.86	4.78	1.12	6.00	3.52	3.19	2
7.48	4.53	1.07	6.00	3.48	3.10	2
7.10	4.29	1.01	6.00	3.45	3.01	2
6.72	4.05	.96	6.00	3.42	2.98	2
6.33	3.81	.90	6.00	3.39	2.95	2
5.95	3.57	.85	6.00	3.37	2.92	2
5.57	3.33	.80	6.00	3.34	2.90	2
5.19	3.10	.74	6.00	3.32	2.87	2
4.81	2.86	.69	6.00	3.30	2.84	2
4.81	2.86	.69	6.00	3.30	2.84	2
4.43	2.63	.63	6.00	3.28	2.81	2
4.05	2.40	.58	6.00	3.26	2.79	2
3.67	2.16	.52	6.00	3.23	2.76	2
3.29	1.93	.47	6.00	3.21	2.73	2
2.91	1.71	.42	6.00	3.19	2.71	2
2.52	1.48	.36	6.00	3.17	2.68	2
2.14	1.25	.31	6.00	3.15	2.65	2
1.76	1.03	.25	6.00	3.13	2.63	2
1.38	.80	.20	6.00	3.11	2.60	2
1.00	.58	.14	6.00	3.08	2.57	2
1.00	.58	.14	6.00	3.08	2.57	2
.90	.52	.13	6.00	3.08	2.57	2
.80	.46	.11	6.00	3.07	2.56	2
.70	.40	.10	6.00	3.07	2.55	2
.60	.35	.09	6.00	3.06	2.54	2
.50	.29	.07	6.00	3.05	2.54	2
.40	.23	.06	6.00	3.05	2.53	2
.30	.17	.04	6.00	3.04	2.52	2
.20	.11	.03	6.00	3.03	2.52	2
.10	.06	.01	6.00	3.02	2.51	2
.00	.00	.00	6.00	3.02	2.50	2

Time = 630. Degree of Consolidation = 86.%

Total Settlement = 4.756

Settlement at End of Primary Consolidation = 4.943

Settlement caused by Primary Consolidation at time 630. = 4.255

Settlement caused by Secondary Compression at time 630. = .000

Settlement Due to Desiccation = .501

Surface Elevation = 3.69

**************Current Conditions in Compressible Foundation*************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.99	8.79	2.49	6.00	2.86	2.48	1
9.23	8.31	2.37	4.45	2.82	2.47	1
8.58	7.83	2.24	3.97	2.79	2.45	1
7.98	7.37	2.12	3.71	2.75	2.44	1
7.41	6.90	1.99	3.46	2.72	2.43	1
6.86	6.44	1.87	3.25	2.68	2.41	1
6.35	5.98	1.74	3.04	2.65	2.40	1
5.85	5.53	1.62	2.95	2.62	2.39	1
5.36	5.08	1.50	2.89	2.59	2.38	1
4.88	4.64	1.37	2.83	2.55	2.36	1
4.41	4.19	1.25	2.77	2.52	2.35	1
3.94	3.76	1.12	2.71	2.49	2.34	1
3.49	3.32	1.00	2.65	2.46	2.32	1
3.03	2.90	.87	2.58	2.43	2.31	1
2.59	2.47	.75	2.52	2.39	2.30	1
2.16	2.05	.62	2.49	2.36	2.29	1
1.72	1.63	.50	2.48	2.33	2.27	1
1.29	1.22	.37	2.47	2.30	2.26	1
.86	.81	.25	2.45	2.27	2.25	1
.43	.40	.12	2.44	2.25	2.23	1
.00	.00	.00	2.43	2.22	2.22	1

Time = 990. Degree of Consolidation = 73.%

Total Settlement = 1.198

Settlement at End of Primary Consolidation = 1.636

Settlement caused by Primary Consolidation at time 990. = 1.198

Settlement caused by Secondary Compression at time 990. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
12.43	7.16	1.78	6.00	1.23	1.23	2
12.05	7.02	1.72	6.00	1.23	1.23	2
11.67	6.92	1.67	6.00	1.23	1.23	2
11.29	6.71	1.61	6.00	3.72	3.72	2
10.91	6.45	1.56	6.00	3.64	3.61	2
10.52	6.20	1.50	6.00	3.56	3.49	2

10.14	5.96	1.45	6.00	3.50	3.40	2
9.76	5.71	1.39	6.00	3.44	3.31	2
9.38	5.47	1.34	6.00	3.39	3.22	2
9.00	5.23	1.29	6.00	3.35	3.13	2
8.62	5.00	1.23	6.00	3.32	3.04	2
8.62	5.00	1.23	6.00	3.32	3.04	2
8.24	4.76	1.18	6.00	3.28	2.98	2
7.86	4.53	1.12	6.00	3.25	2.96	2
7.48	4.30	1.07	6.00	3.22	2.93	2
7.10	4.07	1.01	6.00	3.20	2.90	2
6.72	3.84	.96	6.00	3.18	2.88	2
6.33	3.62	.90	6.00	3.15	2.85	2
5.95	3.39	.85	6.00	3.13	2.82	2
5.57	3.17	.80	6.00	3.11	2.80	2
5.19	2.94	.74	6.00	3.09	2.77	2
4.81	2.72	.69	6.00	3.07	2.74	2
4.81	2.72	.69	6.00	3.07	2.74	2
4.43	2.50	.63	6.00	3.05	2.72	2
4.05	2.28	.58	6.00	3.04	2.69	2
3.67	2.06	.52	6.00	3.02	2.66	2
3.29	1.84	.47	6.00	3.00	2.64	2
2.91	1.63	.42	6.00	2.98	2.61	2
2.52	1.41	.36	6.00	2.96	2.58	2
2.14	1.19	.31	6.00	2.95	2.55	2
1.76	.98	.25	6.00	2.93	2.53	2
1.38	.77	.20	6.00	2.91	2.50	2
1.00	.55	.14	6.00	2.90	2.49	2
1.00	.55	.14	6.00	2.90	2.49	2
.90	.50	.13	6.00	2.89	2.49	2
.80	.44	.11	6.00	2.89	2.49	2
.70	.39	.10	6.00	2.89	2.49	2
.60	.33	.09	6.00	2.88	2.49	2
.50	.28	.07	6.00	2.88	2.49	2
.40	.22	.06	6.00	2.87	2.49	2
.30	.17	.04	6.00	2.87	2.48	2
.20	.11	.03	6.00	2.86	2.48	2
.10	.06	.01	6.00	2.86	2.48	2
.00	.00	.00	6.00	2.86	2.48	2

Time =   990.   Degree of Consolidation = 82.%

Total Settlement =   5.268

Settlement at End of Primary Consolidation =   5.739

Settlement caused by Primary Consolidation at time 990. =   4.682

Settlement caused by Secondary Compression at time 990. =   .000

Settlement Due to Desiccation =   .586

Surface Elevation =   2.96

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material

9.99	8.64	2.49	6.00	2.86	2.47	1
9.23	8.17	2.37	4.45	2.79	2.46	1
8.58	7.70	2.24	3.97	2.73	2.45	1
7.98	7.24	2.12	3.71	2.68	2.44	1
7.41	6.78	1.99	3.46	2.64	2.42	1
6.86	6.33	1.87	3.25	2.60	2.41	1
6.35	5.88	1.74	3.04	2.56	2.40	1
5.85	5.44	1.62	2.95	2.53	2.38	1
5.36	5.00	1.50	2.89	2.50	2.37	1
4.88	4.57	1.37	2.83	2.47	2.36	1
4.41	4.14	1.25	2.77	2.44	2.35	1
3.94	3.71	1.12	2.71	2.42	2.33	1
3.49	3.29	1.00	2.65	2.39	2.32	1
3.03	2.87	.87	2.58	2.37	2.31	1
2.59	2.45	.75	2.52	2.34	2.29	1
2.16	2.03	.62	2.49	2.32	2.28	1
1.72	1.62	.50	2.48	2.30	2.27	1
1.29	1.21	.37	2.47	2.28	2.25	1
.86	.81	.25	2.45	2.25	2.24	1
.43	.40	.12	2.44	2.23	2.23	1
.00	.00	.00	2.43	2.22	2.22	1

Time = 1710. Degree of Consolidation = 81.%

Total Settlement = 1.341

Settlement at End of Primary Consolidation = 1.648

Settlement caused by Primary Consolidation at time 1710. = 1.341

Settlement caused by Secondary Compression at time 1710. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
12.43	6.83	1.78	6.00	1.23	1.23	2
12.05	6.72	1.72	6.00	1.23	1.23	2
11.67	6.59	1.67	6.00	1.23	1.23	2
11.29	6.51	1.61	6.00	1.23	1.23	2
10.91	6.31	1.56	6.00	3.51	3.51	2
10.52	6.06	1.50	6.00	3.44	3.42	2
10.14	5.82	1.45	6.00	3.37	3.33	2
9.76	5.59	1.39	6.00	3.32	3.24	2
9.38	5.35	1.34	6.00	3.27	3.15	2
9.00	5.12	1.29	6.00	3.23	3.06	2
8.62	4.89	1.23	6.00	3.19	2.99	2
8.62	4.89	1.23	6.00	3.19	2.99	2
8.24	4.67	1.18	6.00	3.16	2.96	2
7.86	4.44	1.12	6.00	3.13	2.94	2
7.48	4.22	1.07	6.00	3.10	2.91	2
7.10	3.99	1.01	6.00	3.07	2.88	2
6.72	3.77	.96	6.00	3.05	2.86	2
6.33	3.55	.90	6.00	3.03	2.83	2
5.95	3.33	.85	6.00	3.01	2.80	2
5.57	3.12	.80	6.00	3.00	2.78	2
5.19	2.90	.74	6.00	2.98	2.75	2

4.81	2.68	.69	6.00	2.97	2.72	2
4.81	2.68	.69	6.00	2.97	2.72	2
4.43	2.47	.63	6.00	2.95	2.69	2
4.05	2.25	.58	6.00	2.94	2.67	2
3.67	2.04	.52	6.00	2.93	2.64	2
3.29	1.82	.47	6.00	2.92	2.61	2
2.91	1.61	.42	6.00	2.91	2.59	2
2.52	1.40	.36	6.00	2.90	2.56	2
2.14	1.19	.31	6.00	2.89	2.53	2
1.76	.97	.25	6.00	2.89	2.51	2
1.38	.76	.20	6.00	2.88	2.50	2
1.00	.55	.14	6.00	2.87	2.49	2
1.00	.55	.14	6.00	2.87	2.49	2
.90	.50	.13	6.00	2.87	2.49	2
.80	.44	.11	6.00	2.87	2.49	2
.70	.39	.10	6.00	2.87	2.49	2
.60	.33	.09	6.00	2.87	2.48	2
.50	.28	.07	6.00	2.86	2.48	2
.40	.22	.06	6.00	2.86	2.48	2
.30	.17	.04	6.00	2.86	2.48	2
.20	.11	.03	6.00	2.86	2.48	2
.10	.06	.01	6.00	2.86	2.48	2
.00	.00	.00	6.00	2.86	2.47	2

Time = 1710. Degree of Consolidation = 82.%

Total Settlement = 5.597

Settlement at End of Primary Consolidation = 5.968

Settlement caused by Primary Consolidation at time 1710. = 4.875

Settlement caused by Secondary Compression at time 1710. = .000

Settlement Due to Desiccation = .722

Surface Elevation = 2.49

**************Current Conditions in Compressible Foundation*************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.99	8.61	2.49	6.00	2.86	2.47	1
9.23	8.13	2.37	4.45	2.78	2.46	1
8.58	7.67	2.24	3.97	2.72	2.45	1
7.98	7.21	2.12	3.71	2.67	2.44	1
7.41	6.75	1.99	3.46	2.62	2.42	1
6.86	6.30	1.87	3.25	2.58	2.41	1
6.35	5.86	1.74	3.04	2.54	2.40	1
5.85	5.42	1.62	2.95	2.51	2.38	1
5.36	4.98	1.50	2.89	2.48	2.37	1
4.88	4.55	1.37	2.83	2.45	2.36	1
4.41	4.12	1.25	2.77	2.42	2.35	1
3.94	3.70	1.12	2.71	2.40	2.33	1
3.49	3.28	1.00	2.65	2.37	2.32	1
3.03	2.86	.87	2.58	2.35	2.31	1
2.59	2.44	.75	2.52	2.33	2.29	1

2.16	2.03	.62	2.49	2.31	2.28	1
1.72	1.62	.50	2.48	2.29	2.27	1
1.29	1.21	.37	2.47	2.27	2.25	1
.86	.81	.25	2.45	2.25	2.24	1
.43	.40	.12	2.44	2.23	2.23	1
.00	.00	.00	2.43	2.22	2.22	1

Time =   3150.   Degree of Consolidation = 84.%

Total Settlement =   1.377

Settlement at End of Primary Consolidation =   1.648

Settlement caused by Primary Consolidation at time 3150. =   1.377

Settlement caused by Secondary Compression at time 3150. =   .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****   ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
12.43	6.83	1.78	6.00	1.23	1.23	2
12.05	6.71	1.72	6.00	1.23	1.23	2
11.67	6.59	1.67	6.00	1.23	1.23	2
11.29	6.50	1.61	6.00	1.23	1.23	2
10.91	6.30	1.56	6.00	3.51	3.51	2
10.52	6.06	1.50	6.00	3.44	3.42	2
10.14	5.82	1.45	6.00	3.37	3.33	2
9.76	5.58	1.39	6.00	3.31	3.24	2
9.38	5.35	1.34	6.00	3.27	3.15	2
9.00	5.12	1.29	6.00	3.22	3.06	2
8.62	4.89	1.23	6.00	3.19	2.99	2
8.62	4.89	1.23	6.00	3.19	2.99	2
8.24	4.66	1.18	6.00	3.15	2.96	2
7.86	4.44	1.12	6.00	3.12	2.94	2
7.48	4.21	1.07	6.00	3.09	2.91	2
7.10	3.99	1.01	6.00	3.07	2.88	2
6.72	3.77	.96	6.00	3.05	2.86	2
6.33	3.55	.90	6.00	3.03	2.83	2
5.95	3.33	.85	6.00	3.01	2.80	2
5.57	3.11	.80	6.00	2.99	2.78	2
5.19	2.90	.74	6.00	2.98	2.75	2
4.81	2.68	.69	6.00	2.96	2.72	2
4.81	2.68	.69	6.00	2.96	2.72	2
4.43	2.47	.63	6.00	2.95	2.69	2
4.05	2.25	.58	6.00	2.94	2.67	2
3.67	2.04	.52	6.00	2.93	2.64	2
3.29	1.82	.47	6.00	2.92	2.61	2
2.91	1.61	.42	6.00	2.91	2.59	2
2.52	1.40	.36	6.00	2.90	2.56	2
2.14	1.19	.31	6.00	2.89	2.53	2
1.76	.97	.25	6.00	2.88	2.51	2
1.38	.76	.20	6.00	2.88	2.50	2
1.00	.55	.14	6.00	2.87	2.49	2
1.00	.55	.14	6.00	2.87	2.49	2
.90	.50	.13	6.00	2.87	2.49	2
.80	.44	.11	6.00	2.87	2.49	2

.70	.39	.10	6.00	2.87	2.49	2
.60	.33	.09	6.00	2.86	2.48	2
.50	.28	.07	6.00	2.86	2.48	2
.40	.22	.06	6.00	2.86	2.48	2
.30	.17	.04	6.00	2.86	2.48	2
.20	.11	.03	6.00	2.86	2.48	2
.10	.06	.01	6.00	2.86	2.48	2
.00	.00	.00	6.00	2.86	2.47	2

Time = 3150. Degree of Consolidation = 82.%

Total Settlement = 5.602

Settlement at End of Primary Consolidation = 5.968

Settlement caused by Primary Consolidation at time 3150. = 4.880

Settlement caused by Secondary Compression at time 3150. = .000

Settlement Due to Desiccation = .722

Surface Elevation = 2.45

**************Current Conditions in Compressible Foundation*************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.99	8.61	2.49	6.00	2.86	2.47	1
9.23	8.13	2.37	4.45	2.78	2.46	1
8.58	7.67	2.24	3.97	2.72	2.45	1
7.98	7.21	2.12	3.71	2.67	2.44	1
7.41	6.75	1.99	3.46	2.62	2.42	1
6.86	6.30	1.87	3.25	2.58	2.41	1
6.35	5.86	1.74	3.04	2.54	2.40	1
5.85	5.42	1.62	2.95	2.51	2.38	1
5.36	4.98	1.50	2.89	2.48	2.37	1
4.88	4.55	1.37	2.83	2.45	2.36	1
4.41	4.12	1.25	2.77	2.42	2.35	1
3.94	3.70	1.12	2.71	2.40	2.33	1
3.49	3.28	1.00	2.65	2.37	2.32	1
3.03	2.86	.87	2.58	2.35	2.31	1
2.59	2.44	.75	2.52	2.33	2.29	1
2.16	2.03	.62	2.49	2.31	2.28	1
1.72	1.62	.50	2.48	2.29	2.27	1
1.29	1.21	.37	2.47	2.27	2.25	1
.86	.81	.25	2.45	2.25	2.24	1
.43	.40	.12	2.44	2.23	2.23	1
.00	.00	.00	2.43	2.22	2.22	1

Time = 6030. Degree of Consolidation = 84.%

Total Settlement = 1.377

Settlement at End of Primary Consolidation = 1.648

Settlement caused by Primary Consolidation at time 6030. = 1.377

Settlement caused by Secondary Compression at time 6030. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
12.43	6.83	1.78	6.00	1.23	1.23	2
12.05	6.71	1.72	6.00	1.23	1.23	2
11.67	6.59	1.67	6.00	1.23	1.23	2
11.29	6.50	1.61	6.00	1.23	1.23	2
10.91	6.30	1.56	6.00	3.51	3.51	2
10.52	6.06	1.50	6.00	3.44	3.42	2
10.14	5.82	1.45	6.00	3.37	3.33	2
9.76	5.58	1.39	6.00	3.31	3.24	2
9.38	5.35	1.34	6.00	3.27	3.15	2
9.00	5.12	1.29	6.00	3.22	3.06	2
8.62	4.89	1.23	6.00	3.19	2.99	2
8.62	4.89	1.23	6.00	3.19	2.99	2
8.24	4.66	1.18	6.00	3.15	2.96	2
7.86	4.44	1.12	6.00	3.12	2.94	2
7.48	4.21	1.07	6.00	3.09	2.91	2
7.10	3.99	1.01	6.00	3.07	2.88	2
6.72	3.77	.96	6.00	3.05	2.86	2
6.33	3.55	.90	6.00	3.03	2.83	2
5.95	3.33	.85	6.00	3.01	2.80	2
5.57	3.11	.80	6.00	2.99	2.78	2
5.19	2.90	.74	6.00	2.98	2.75	2
4.81	2.68	.69	6.00	2.96	2.72	2
4.81	2.68	.69	6.00	2.96	2.72	2
4.43	2.47	.63	6.00	2.95	2.69	2
4.05	2.25	.58	6.00	2.94	2.67	2
3.67	2.04	.52	6.00	2.93	2.64	2
3.29	1.82	.47	6.00	2.92	2.61	2
2.91	1.61	.42	6.00	2.91	2.59	2
2.52	1.40	.36	6.00	2.90	2.56	2
2.14	1.19	.31	6.00	2.89	2.53	2
1.76	.97	.25	6.00	2.88	2.51	2
1.38	.76	.20	6.00	2.88	2.50	2
1.00	.55	.14	6.00	2.87	2.49	2
1.00	.55	.14	6.00	2.87	2.49	2
.90	.50	.13	6.00	2.87	2.49	2
.80	.44	.11	6.00	2.87	2.49	2
.70	.39	.10	6.00	2.87	2.49	2
.60	.33	.09	6.00	2.86	2.48	2
.50	.28	.07	6.00	2.86	2.48	2
.40	.22	.06	6.00	2.86	2.48	2
.30	.17	.04	6.00	2.86	2.48	2
.20	.11	.03	6.00	2.86	2.48	2
.10	.06	.01	6.00	2.86	2.48	2
.00	.00	.00	6.00	2.86	2.47	2

Time = 6030. Degree of Consolidation = 82.%

Total Settlement = 5.602

Settlement at End of Primary Consolidation = 5.968

Settlement caused by Primary Consolidation at time 6030. = 4.880

Settlement caused by Secondary Compression at time 6030. = .000

Settlement Due to Desiccation = .722

Surface Elevation = 2.45

****
Consolidation and desiccation of soft layers---dredged fill
****

Problem   CALCASIEU RIVER AND PASS, Marsh 2-3ft USACE B&C

******************Soil data for compressible foundation*****************

Material Type	Layer Thickness	Numbers of Sub-layers	Ca/Cc	Cr/Cc
1	10.00	20	.040	.150

Material type :   1   Specific Gravity of Solids: 2.70

I	Void Ratio	Effective Stress	Perm-eability	k/1+e PK	Beta	Dsde	Alpha
1	6.000	.000E+00	.100E-01	.143E-02	.879E-04	-.400E+01	-.571E-02
2	5.500	.200E+01	.900E-02	.138E-02	.595E-03	-.500E+01	-.692E-02
3	5.000	.500E+01	.500E-02	.833E-03	.965E-03	-.667E+01	-.556E-02
4	4.300	.100E+02	.120E-02	.226E-03	.871E-03	-.294E+02	-.666E-02
5	4.150	.300E+02	.480E-03	.932E-04	.403E-03	-.125E+03	-.117E-01
6	3.900	.600E+02	.320E-03	.653E-04	.113E-03	-.111E+03	-.726E-02
7	3.700	.800E+02	.200E-03	.426E-04	.488E-04	-.226E+03	-.961E-02
8	3.280	.200E+03	.150E-03	.350E-04	.251E-04	-.350E+03	-.123E-01
9	3.000	.325E+03	.100E-03	.250E-04	.208E-04	-.714E+03	-.179E-01
10	2.650	.650E+03	.800E-04	.219E-04	.146E-04	-.143E+04	-.314E-01
11	2.320	.130E+04	.500E-04	.151E-04	.223E-04	-.327E+04	-.493E-01
12	2.100	.245E+04	.300E-04	.968E-05	.212E-04	-.683E+04	-.661E-01
13	1.780	.499E+04	.100E-04	.360E-05	.190E-04	-.794E+04	-.286E-01

**********************Soil data for dredged fill**********************

Material Type	Specific Gravity	Ca/Cc	Cr/Cc	Saturation Limit	Disication Limit
2	2.710	.040	.150	1.640	1.230

Material type :   2

I	Void Ratio	Effective Stress	Perm-eability	k/1+e PK	Beta	Dsde	Alpha
1	6.000	.000E+00	.100E-01	.143E-02	.879E-04	-.400E+01	-.571E-02
2	5.500	.200E+01	.900E-02	.138E-02	.595E-03	-.500E+01	-.692E-02
3	5.000	.500E+01	.500E-02	.833E-03	.965E-03	-.667E+01	-.556E-02
4	4.300	.100E+02	.120E-02	.226E-03	.871E-03	-.294E+02	-.666E-02
5	4.150	.300E+02	.480E-03	.932E-04	.403E-03	-.125E+03	-.117E-01
6	3.900	.600E+02	.320E-03	.653E-04	.113E-03	-.111E+03	-.726E-02
7	3.700	.800E+02	.200E-03	.426E-04	.488E-04	-.226E+03	-.961E-02
8	3.280	.200E+03	.150E-03	.350E-04	.251E-04	-.350E+03	-.123E-01
9	3.000	.325E+03	.100E-03	.250E-04	.208E-04	-.714E+03	-.179E-01
10	2.650	.650E+03	.800E-04	.219E-04	.146E-04	-.143E+04	-.314E-01
11	2.320	.130E+04	.500E-04	.151E-04	.223E-04	-.327E+04	-.493E-01
12	2.100	.245E+04	.300E-04	.968E-05	.212E-04	-.683E+04	-.661E-01
13	1.780	.499E+04	.100E-04	.360E-05	.190E-04	-.794E+04	-.286E-01

Summary of lifts and print detail

Time days	Material Type	Fill Height	# Sub-layers	Void ratio	Start Day	Dessic. Month	Print detai
0.	2	1.0	10	6.00	1050.	7	2
120.	2	1.9	10	6.00	210.	7	2
240.	2	1.9	10	6.00	330.	7	2
360.	2	1.9	10	6.00	450.	7	2
390.					480.	7	2
450.					540.	7	2
630.					720.	7	2
990.					1080.	7	2
1710.					1800.	7	2
3150.					3240.	7	2
6030.					6120.	7	2

Summary of monthly rainfall and evaporation potential

Month	Rainfall	Evaporation
1	.480	.090
2	.290	.130
3	.320	.210
4	.330	.410
5	.410	.550
6	.550	.570
7	.550	.400
8	.460	.480
9	.460	.420

10	.360	.240
11	.390	.110
12	.360	.090

***************************Calculation data****************************

tau	Lower layer Void ratio	Lower layer Permeability	drainage path Length
.953E-01	.500	.50000	z = .67

Summary of desiccation parameters

Parameter	Value
Surface Drainage Efficiency	.50
maximum evaporation efficiency	1.00
saturation at desiccation limit	.50
maximum crust thickness	.50
time to desic. after initial fill	1050.00
month of initial desiccation	7
elevation of fixed water table	.00
elevation of top of incompres. found.	-11.00

**************Initial Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.98	2.13	6.00	6.00	4.26	1
9.35	9.35	2.02	4.29	4.29	4.18	1
8.79	8.79	1.91	4.21	4.21	4.08	1
8.25	8.25	1.81	4.12	4.12	3.99	1
7.71	7.71	1.70	4.02	4.02	3.90	1
7.18	7.18	1.60	3.93	3.93	3.78	1
6.66	6.66	1.49	3.82	3.82	3.69	1
6.15	6.15	1.38	3.71	3.71	3.65	1
5.65	5.65	1.28	3.66	3.66	3.61	1
5.16	5.16	1.17	3.62	3.62	3.57	1
4.67	4.67	1.06	3.59	3.59	3.53	1
4.18	4.18	.96	3.55	3.55	3.49	1
3.70	3.70	.85	3.51	3.51	3.45	1
3.23	3.23	.74	3.47	3.47	3.41	1
2.75	2.75	.64	3.43	3.43	3.37	1
2.28	2.28	.53	3.39	3.39	3.33	1
1.82	1.82	.43	3.35	3.35	3.29	1

1.36	1.36	.32	3.31	3.31	3.26	1
.90	.90	.21	3.27	3.27	3.24	1
.45	.45	.11	3.25	3.25	3.21	1
.00	.00	.00	3.22	3.22	3.19	1

Time = 0. Degree of Consolidation = 0.%

Total Settlement = .000

Settlement at End of Primary Consolidation = .216

Settlement caused by Primary Consolidation at time 0. = .000

Settlement caused by Secondary Compression at time 0. = .000

*******************Initial Conditions in Dredged Fill*******************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
1.00	1.00	.14	6.00	6.00	6.00	2
.90	.90	.13	6.00	6.00	5.62	2
.80	.80	.11	6.00	6.00	5.33	2
.70	.70	.10	6.00	6.00	5.07	2
.60	.60	.09	6.00	6.00	4.85	2
.50	.50	.07	6.00	6.00	4.63	2
.40	.40	.06	6.00	6.00	4.42	2
.30	.30	.04	6.00	6.00	4.29	2
.20	.20	.03	6.00	6.00	4.28	2
.10	.10	.01	6.00	6.00	4.27	2
.00	.00	.00	6.00	6.00	4.26	2

Time = 0. Degree of Consolidation = 0.%

Total Settlement = .000

Settlement at End of Primary Consolidation = .173

Settlement caused by Primary Consolidation at time 0. = .000

Settlement caused by Secondary Compression at time 0. = .000

**************Current Conditions in Compressible Foundation*************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.98	9.88	2.13	6.00	4.29	4.26	1
9.35	9.32	2.02	4.29	4.20	4.18	1
8.79	8.77	1.91	4.21	4.14	4.08	1
8.25	8.23	1.81	4.12	4.07	3.99	1
7.71	7.69	1.70	4.02	3.99	3.90	1
7.18	7.16	1.60	3.93	3.90	3.78	1

6.66	6.65	1.49	3.82	3.80	3.69	1
6.15	6.14	1.38	3.71	3.71	3.65	1
5.65	5.65	1.28	3.66	3.66	3.61	1
5.16	5.15	1.17	3.62	3.62	3.57	1
4.67	4.66	1.06	3.59	3.58	3.53	1
4.18	4.18	.96	3.55	3.54	3.49	1
3.70	3.70	.85	3.51	3.50	3.45	1
3.23	3.22	.74	3.47	3.46	3.41	1
2.75	2.75	.64	3.43	3.42	3.37	1
2.28	2.28	.53	3.39	3.38	3.33	1
1.82	1.81	.43	3.35	3.35	3.29	1
1.36	1.35	.32	3.31	3.31	3.26	1
.90	.90	.21	3.27	3.27	3.24	1
.45	.45	.11	3.25	3.23	3.21	1
.00	.00	.00	3.22	3.19	3.19	1

Time = 120. Degree of Consolidation = 47.%

Total Settlement = .102

Settlement at End of Primary Consolidation = .216

Settlement caused by Primary Consolidation at time 120. = .102

Settlement caused by Secondary Compression at time 120. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
1.00	.84	.14	6.00	6.00	6.00	2
.90	.74	.13	6.00	5.68	5.62	2
.80	.65	.11	6.00	5.40	5.33	2
.70	.56	.10	6.00	5.16	5.07	2
.60	.48	.09	6.00	4.94	4.85	2
.50	.39	.07	6.00	4.76	4.63	2
.40	.31	.06	6.00	4.62	4.42	2
.30	.23	.04	6.00	4.51	4.29	2
.20	.15	.03	6.00	4.42	4.28	2
.10	.08	.01	6.00	4.35	4.27	2
.00	.00	.00	6.00	4.29	4.26	2

Time = 120. Degree of Consolidation = 91.%

Total Settlement = .158

Settlement at End of Primary Consolidation = .173

Settlement caused by Primary Consolidation at time 120. = .158

Settlement caused by Secondary Compression at time 120. = .000

Surface Elevation = -.26

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.84	2.13	6.00	4.28	4.04	1
9.35	9.28	2.02	4.29	4.17	3.94	1
8.79	8.74	1.91	4.21	4.10	3.84	1
8.25	8.20	1.81	4.12	4.03	3.72	1
7.71	7.67	1.70	4.02	3.96	3.67	1
7.18	7.14	1.60	3.93	3.87	3.63	1
6.66	6.63	1.49	3.82	3.79	3.59	1
6.15	6.13	1.38	3.71	3.71	3.55	1
5.65	5.63	1.28	3.66	3.66	3.51	1
5.16	5.13	1.17	3.62	3.62	3.47	1
4.67	4.65	1.06	3.59	3.58	3.43	1
4.18	4.16	.96	3.55	3.54	3.39	1
3.70	3.68	.85	3.51	3.50	3.35	1
3.23	3.20	.74	3.47	3.46	3.31	1
2.75	2.73	.64	3.43	3.42	3.28	1
2.28	2.26	.53	3.39	3.38	3.25	1
1.82	1.80	.43	3.35	3.34	3.23	1
1.36	1.34	.32	3.31	3.29	3.20	1
.90	.89	.21	3.27	3.24	3.18	1
.45	.44	.11	3.25	3.18	3.15	1
.00	.00	.00	3.22	3.12	3.12	1

Time = 240. Degree of Consolidation = 29.%

Total Settlement = .140

Settlement at End of Primary Consolidation = .484

Settlement caused by Primary Consolidation at time 240. = .140

Settlement caused by Secondary Compression at time 240. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
2.87	2.44	.41	6.00	6.00	6.00	2
2.68	2.26	.38	6.00	5.85	5.36	2
2.50	2.08	.36	6.00	5.71	4.90	2
2.31	1.90	.33	6.00	5.57	4.50	2
2.12	1.73	.30	6.00	5.42	4.29	2
1.94	1.56	.28	6.00	5.27	4.27	2
1.75	1.39	.25	6.00	5.10	4.25	2
1.56	1.23	.22	6.00	4.94	4.23	2
1.37	1.08	.20	6.00	4.80	4.20	2
1.19	.92	.17	6.00	4.69	4.18	2
1.00	.77	.14	6.00	4.59	4.16	2
1.00	.77	.14	6.00	4.59	4.16	2
.90	.69	.13	6.00	4.54	4.15	2
.80	.61	.11	6.00	4.49	4.14	2

.70	.53	.10	6.00	4.45	4.12	2
.60	.46	.09	6.00	4.41	4.11	2
.50	.38	.07	6.00	4.38	4.10	2
.40	.30	.06	6.00	4.36	4.09	2
.30	.23	.04	6.00	4.33	4.07	2
.20	.15	.03	6.00	4.31	4.06	2
.10	.08	.01	6.00	4.29	4.05	2
.00	.00	.00	6.00	4.28	4.04	2

Time = 240. Degree of Consolidation = 64.%

Total Settlement = .425

Settlement at End of Primary Consolidation = .667

Settlement caused by Primary Consolidation at time 240. = .425

Settlement caused by Secondary Compression at time 240. = .000

Settlement Due to Desiccation = .000

Surface Elevation = 1.30

*************Current Conditions in Compressible Foundation************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.80	2.13	6.00	4.20	3.78	1
9.35	9.25	2.02	4.29	4.13	3.69	1
8.79	8.70	1.91	4.21	4.07	3.65	1
8.25	8.17	1.81	4.12	4.00	3.61	1
7.71	7.64	1.70	4.02	3.93	3.57	1
7.18	7.12	1.60	3.93	3.85	3.53	1
6.66	6.61	1.49	3.82	3.78	3.49	1
6.15	6.10	1.38	3.71	3.71	3.45	1
5.65	5.61	1.28	3.66	3.66	3.41	1
5.16	5.11	1.17	3.62	3.62	3.37	1
4.67	4.62	1.06	3.59	3.58	3.33	1
4.18	4.14	.96	3.55	3.53	3.29	1
3.70	3.66	.85	3.51	3.49	3.26	1
3.23	3.18	.74	3.47	3.45	3.24	1
2.75	2.71	.64	3.43	3.41	3.21	1
2.28	2.25	.53	3.39	3.37	3.19	1
1.82	1.78	.43	3.35	3.32	3.16	1
1.36	1.33	.32	3.31	3.26	3.14	1
.90	.88	.21	3.27	3.20	3.11	1
.45	.44	.11	3.25	3.13	3.09	1
.00	.00	.00	3.22	3.06	3.06	1

Time = 360. Degree of Consolidation = 26.%

Total Settlement = .181

Settlement at End of Primary Consolidation = .704

Settlement caused by Primary Consolidation at time 360. = .181

Settlement caused by Secondary Compression at time 360. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
4.74	4.00	.68	6.00	1.64	6.00	2
4.55	3.85	.65	6.00	5.90	5.36	2
4.37	3.67	.62	6.00	5.91	4.90	2
4.18	3.48	.60	6.00	5.86	4.50	2
3.99	3.30	.57	6.00	5.79	4.29	2
3.81	3.12	.54	6.00	5.71	4.27	2
3.62	2.94	.52	6.00	5.61	4.25	2
3.43	2.77	.49	6.00	5.51	4.23	2
3.24	2.60	.46	6.00	5.39	4.20	2
3.06	2.43	.44	6.00	5.27	4.18	2
2.87	2.26	.41	6.00	5.13	4.16	2
2.87	2.26	.41	6.00	5.13	4.16	2
2.68	2.10	.38	6.00	5.00	4.14	2
2.50	1.94	.36	6.00	4.88	4.11	2
2.31	1.79	.33	6.00	4.78	4.09	2
2.12	1.63	.30	6.00	4.69	4.07	2
1.94	1.48	.28	6.00	4.61	4.04	2
1.75	1.33	.25	6.00	4.54	4.02	2
1.56	1.18	.22	6.00	4.48	4.00	2
1.37	1.04	.20	6.00	4.43	3.97	2
1.19	.89	.17	6.00	4.38	3.95	2
1.00	.75	.14	6.00	4.34	3.92	2
1.00	.75	.14	6.00	4.34	3.92	2
.90	.68	.13	6.00	4.32	3.91	2
.80	.60	.11	6.00	4.30	3.90	2
.70	.52	.10	6.00	4.28	3.88	2
.60	.45	.09	6.00	4.27	3.87	2
.50	.37	.07	6.00	4.26	3.85	2
.40	.30	.06	6.00	4.24	3.84	2
.30	.22	.04	6.00	4.23	3.82	2
.20	.15	.03	6.00	4.22	3.81	2
.10	.07	.01	6.00	4.21	3.79	2
.00	.00	.00	6.00	4.20	3.78	2

Time = 360. Degree of Consolidation = 56.%

Total Settlement = .740

Settlement at End of Primary Consolidation = 1.225

Settlement caused by Primary Consolidation at time 360. = .680

Settlement caused by Secondary Compression at time 360. = .000

Settlement Due to Desiccation = .060

Surface Elevation = 2.82

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.78	2.13	6.00	4.19	3.63	1
9.35	9.23	2.02	4.29	4.12	3.59	1
8.79	8.69	1.91	4.21	4.06	3.55	1
8.25	8.16	1.81	4.12	4.00	3.51	1
7.71	7.63	1.70	4.02	3.93	3.47	1
7.18	7.11	1.60	3.93	3.85	3.43	1
6.66	6.60	1.49	3.82	3.78	3.39	1
6.15	6.09	1.38	3.71	3.71	3.35	1
5.65	5.60	1.28	3.66	3.66	3.31	1
5.16	5.10	1.17	3.62	3.62	3.27	1
4.67	4.61	1.06	3.59	3.57	3.25	1
4.18	4.13	.96	3.55	3.53	3.22	1
3.70	3.65	.85	3.51	3.49	3.20	1
3.23	3.17	.74	3.47	3.45	3.17	1
2.75	2.70	.64	3.43	3.41	3.15	1
2.28	2.24	.53	3.39	3.36	3.12	1
1.82	1.78	.43	3.35	3.31	3.10	1
1.36	1.32	.32	3.31	3.25	3.07	1
.90	.87	.21	3.27	3.18	3.05	1
.45	.43	.11	3.25	3.10	3.02	1
.00	.00	.00	3.22	3.00	3.00	1

Time = 390. Degree of Consolidation = 22.%

Total Settlement = .195

Settlement at End of Primary Consolidation = .880

Settlement caused by Primary Consolidation at time 390. = .195

Settlement caused by Secondary Compression at time 390. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
6.61	5.66	.94	6.00	6.00	6.00	2
6.42	5.48	.92	6.00	6.00	5.36	2
6.24	5.29	.89	6.00	5.99	4.90	2
6.05	5.10	.86	6.00	5.98	4.50	2
5.86	4.92	.84	6.00	5.95	4.29	2
5.67	4.73	.81	6.00	5.89	4.27	2
5.49	4.55	.78	6.00	5.77	4.25	2
5.30	4.37	.76	6.00	5.58	4.23	2
5.11	4.20	.73	6.00	5.33	4.20	2
4.93	4.03	.70	6.00	5.01	4.18	2
4.74	3.88	.68	6.00	4.68	4.16	2
4.74	3.88	.68	6.00	3.82	4.16	2
4.55	3.73	.65	6.00	4.67	4.14	2
4.37	3.58	.62	6.00	5.13	4.11	2

4.18	3.41	.60	6.00	5.36	4.09	2
3.99	3.24	.57	6.00	5.45	4.07	2
3.81	3.07	.54	6.00	5.46	4.04	2
3.62	2.89	.52	6.00	5.41	4.02	2
3.43	2.72	.49	6.00	5.31	4.00	2
3.24	2.56	.46	6.00	5.20	3.97	2
3.06	2.39	.44	6.00	5.07	3.95	2
2.87	2.23	.41	6.00	4.95	3.92	2
2.87	2.23	.41	6.00	4.95	3.92	2
2.68	2.07	.38	6.00	4.84	3.90	2
2.50	1.92	.36	6.00	4.75	3.87	2
2.31	1.77	.33	6.00	4.66	3.84	2
2.12	1.62	.30	6.00	4.59	3.82	2
1.94	1.47	.28	6.00	4.53	3.79	2
1.75	1.32	.25	6.00	4.47	3.76	2
1.56	1.18	.22	6.00	4.42	3.73	2
1.37	1.03	.20	6.00	4.37	3.70	2
1.19	.89	.17	6.00	4.32	3.69	2
1.00	.75	.14	6.00	4.28	3.68	2
1.00	.75	.14	6.00	4.28	3.68	2
.90	.67	.13	6.00	4.27	3.68	2
.80	.60	.11	6.00	4.26	3.67	2
.70	.52	.10	6.00	4.25	3.66	2
.60	.45	.09	6.00	4.24	3.66	2
.50	.37	.07	6.00	4.23	3.65	2
.40	.30	.06	6.00	4.22	3.65	2
.30	.22	.04	6.00	4.21	3.64	2
.20	.15	.03	6.00	4.21	3.64	2
.10	.07	.01	6.00	4.20	3.63	2
.00	.00	.00	6.00	4.19	3.63	2

Time = 390. Degree of Consolidation = 48.%

Total Settlement = .948

Settlement at End of Primary Consolidation = 1.843

Settlement caused by Primary Consolidation at time 390. = .888

Settlement caused by Secondary Compression at time 390. = .000

Surface Elevation = 4.47

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.76	2.13	6.00	4.16	3.63	1
9.35	9.22	2.02	4.29	4.10	3.59	1
8.79	8.68	1.91	4.21	4.05	3.55	1
8.25	8.14	1.81	4.12	3.98	3.51	1
7.71	7.62	1.70	4.02	3.92	3.47	1
7.18	7.10	1.60	3.93	3.84	3.43	1
6.66	6.59	1.49	3.82	3.77	3.39	1
6.15	6.08	1.38	3.71	3.71	3.35	1
5.65	5.58	1.28	3.66	3.66	3.31	1
5.16	5.09	1.17	3.62	3.62	3.27	1

4.67	4.60	1.06	3.59	3.57	3.25	1
4.18	4.12	.96	3.55	3.53	3.22	1
3.70	3.64	.85	3.51	3.49	3.20	1
3.23	3.16	.74	3.47	3.45	3.17	1
2.75	2.69	.64	3.43	3.40	3.15	1
2.28	2.23	.53	3.39	3.35	3.12	1
1.82	1.77	.43	3.35	3.30	3.10	1
1.36	1.31	.32	3.31	3.23	3.07	1
.90	.87	.21	3.27	3.16	3.05	1
.45	.43	.11	3.25	3.08	3.02	1
.00	.00	.00	3.22	3.00	3.00	1

Time = 450. Degree of Consolidation = 24.%

Total Settlement = .215

Settlement at End of Primary Consolidation = .880

Settlement caused by Primary Consolidation at time 450. = .215

Settlement caused by Secondary Compression at time 450. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
6.61	5.38	.94	6.00	6.00	6.00	2
6.42	5.19	.92	6.00	5.86	5.36	2
6.24	5.01	.89	6.00	5.72	4.90	2
6.05	4.84	.86	6.00	5.55	4.50	2
5.86	4.66	.84	6.00	5.37	4.29	2
5.67	4.50	.81	6.00	5.16	4.27	2
5.49	4.33	.78	6.00	4.93	4.25	2
5.30	4.18	.76	6.00	4.73	4.23	2
5.11	4.03	.73	6.00	4.55	4.20	2
4.93	3.88	.70	6.00	4.41	4.18	2
4.74	3.74	.68	6.00	4.30	4.16	2
4.74	3.74	.68	6.00	3.82	4.16	2
4.55	3.60	.65	6.00	4.46	4.14	2
4.37	3.45	.62	6.00	4.76	4.11	2
4.18	3.29	.60	6.00	4.93	4.09	2
3.99	3.13	.57	6.00	5.00	4.07	2
3.81	2.97	.54	6.00	5.00	4.04	2
3.62	2.81	.52	6.00	4.96	4.02	2
3.43	2.66	.49	6.00	4.90	4.00	2
3.24	2.50	.46	6.00	4.83	3.97	2
3.06	2.34	.44	6.00	4.76	3.95	2
2.87	2.19	.41	6.00	4.69	3.92	2
2.87	2.19	.41	6.00	4.69	3.92	2
2.68	2.04	.38	6.00	4.61	3.90	2
2.50	1.89	.36	6.00	4.55	3.87	2
2.31	1.74	.33	6.00	4.49	3.84	2
2.12	1.60	.30	6.00	4.44	3.82	2
1.94	1.45	.28	6.00	4.40	3.79	2
1.75	1.31	.25	6.00	4.36	3.76	2
1.56	1.17	.22	6.00	4.32	3.73	2
1.37	1.02	.20	6.00	4.29	3.70	2

1.19	.88	.17	6.00	4.27	3.69	2
1.00	.74	.14	6.00	4.25	3.68	2
1.00	.74	.14	6.00	4.25	3.68	2
.90	.67	.13	6.00	4.24	3.68	2
.80	.59	.11	6.00	4.23	3.67	2
.70	.52	.10	6.00	4.22	3.66	2
.60	.44	.09	6.00	4.21	3.66	2
.50	.37	.07	6.00	4.20	3.65	2
.40	.30	.06	6.00	4.19	3.65	2
.30	.22	.04	6.00	4.18	3.64	2
.20	.15	.03	6.00	4.18	3.64	2
.10	.07	.01	6.00	4.17	3.63	2
.00	.00	.00	6.00	4.16	3.63	2

Time = 450. Degree of Consolidation = 63.%

Total Settlement = 1.230

Settlement at End of Primary Consolidation = 1.843

Settlement caused by Primary Consolidation at time 450. = 1.170

Settlement caused by Secondary Compression at time 450. = .000

Surface Elevation = 4.16

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.72	2.13	6.00	4.10	3.63	1
9.35	9.17	2.02	4.29	4.06	3.59	1
8.79	8.64	1.91	4.21	4.01	3.55	1
8.25	8.11	1.81	4.12	3.95	3.51	1
7.71	7.59	1.70	4.02	3.89	3.47	1
7.18	7.07	1.60	3.93	3.82	3.43	1
6.66	6.56	1.49	3.82	3.76	3.39	1
6.15	6.06	1.38	3.71	3.71	3.35	1
5.65	5.56	1.28	3.66	3.66	3.31	1
5.16	5.07	1.17	3.62	3.61	3.27	1
4.67	4.58	1.06	3.59	3.57	3.25	1
4.18	4.09	.96	3.55	3.52	3.22	1
3.70	3.62	.85	3.51	3.48	3.20	1
3.23	3.14	.74	3.47	3.43	3.17	1
2.75	2.67	.64	3.43	3.38	3.15	1
2.28	2.21	.53	3.39	3.32	3.12	1
1.82	1.76	.43	3.35	3.26	3.10	1
1.36	1.31	.32	3.31	3.19	3.07	1
.90	.86	.21	3.27	3.12	3.05	1
.45	.43	.11	3.25	3.06	3.02	1
.00	.00	.00	3.22	3.00	3.00	1

Time = 630. Degree of Consolidation = 30.%

Total Settlement = .262

Settlement at End of Primary Consolidation = .880

Settlement caused by Primary Consolidation at time 630. = .262

Settlement caused by Secondary Compression at time 630. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
6.61	4.59	.94	6.00	1.64	6.00	2
6.42	4.52	.92	6.00	1.64	5.36	2
6.24	4.45	.89	6.00	1.64	4.90	2
6.05	4.38	.86	6.00	1.64	4.50	2
5.86	4.31	.84	6.00	1.64	4.29	2
5.67	4.24	.81	6.00	2.48	4.27	2
5.49	4.12	.78	6.00	4.37	4.25	2
5.30	3.97	.76	6.00	4.33	4.23	2
5.11	3.83	.73	6.00	4.30	4.20	2
4.93	3.69	.70	6.00	4.27	4.18	2
4.74	3.55	.68	6.00	4.25	4.16	2
4.74	3.55	.68	6.00	3.82	4.16	2
4.55	3.41	.65	6.00	4.23	4.14	2
4.37	3.27	.62	6.00	4.30	4.11	2
4.18	3.13	.60	6.00	4.35	4.09	2
3.99	2.99	.57	6.00	4.37	4.07	2
3.81	2.84	.54	6.00	4.38	4.04	2
3.62	2.70	.52	6.00	4.37	4.02	2
3.43	2.56	.49	6.00	4.36	4.00	2
3.24	2.41	.46	6.00	4.34	3.97	2
3.06	2.27	.44	6.00	4.31	3.95	2
2.87	2.13	.41	6.00	4.29	3.92	2
2.87	2.13	.41	6.00	4.29	3.92	2
2.68	1.99	.38	6.00	4.28	3.90	2
2.50	1.85	.36	6.00	4.26	3.87	2
2.31	1.71	.33	6.00	4.25	3.84	2
2.12	1.57	.30	6.00	4.24	3.82	2
1.94	1.43	.28	6.00	4.22	3.79	2
1.75	1.29	.25	6.00	4.21	3.76	2
1.56	1.15	.22	6.00	4.20	3.73	2
1.37	1.01	.20	6.00	4.19	3.70	2
1.19	.87	.17	6.00	4.17	3.69	2
1.00	.73	.14	6.00	4.16	3.68	2
1.00	.73	.14	6.00	4.16	3.68	2
.90	.66	.13	6.00	4.16	3.68	2
.80	.59	.11	6.00	4.15	3.67	2
.70	.51	.10	6.00	4.15	3.66	2
.60	.44	.09	6.00	4.14	3.66	2
.50	.37	.07	6.00	4.13	3.65	2
.40	.29	.06	6.00	4.13	3.65	2
.30	.22	.04	6.00	4.12	3.64	2
.20	.15	.03	6.00	4.12	3.64	2
.10	.07	.01	6.00	4.11	3.63	2
.00	.00	.00	6.00	4.10	3.63	2

Time = 630. Degree of Consolidation = 81.%

Total Settlement = 2.018

Settlement at End of Primary Consolidation =   1.843

Settlement caused by Primary Consolidation at time 630. =   1.496

Settlement caused by Secondary Compression at time 630. =   .000

Settlement Due to Desiccation =   .521

Surface Elevation =   3.33

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****   ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.98	9.64	2.13	6.00	4.02	3.55	1
9.35	9.10	2.02	4.29	3.99	3.51	1
8.79	8.58	1.91	4.21	3.95	3.47	1
8.25	8.05	1.81	4.12	3.90	3.43	1
7.71	7.53	1.70	4.02	3.84	3.40	1
7.18	7.02	1.60	3.93	3.79	3.36	1
6.66	6.51	1.49	3.82	3.74	3.32	1
6.15	6.01	1.38	3.71	3.69	3.28	1
5.65	5.52	1.28	3.66	3.64	3.25	1
5.16	5.02	1.17	3.62	3.60	3.23	1
4.67	4.54	1.06	3.59	3.55	3.20	1
4.18	4.06	.96	3.55	3.50	3.18	1
3.70	3.58	.85	3.51	3.44	3.15	1
3.23	3.11	.74	3.47	3.39	3.13	1
2.75	2.65	.64	3.43	3.33	3.10	1
2.28	2.19	.53	3.39	3.27	3.08	1
1.82	1.74	.43	3.35	3.21	3.05	1
1.36	1.30	.32	3.31	3.15	3.03	1
.90	.86	.21	3.27	3.09	3.00	1
.45	.43	.11	3.25	3.03	2.99	1
.00	.00	.00	3.22	2.98	2.98	1

Time =   990.   Degree of Consolidation = 34.%

Total Settlement =   .341

Settlement at End of Primary Consolidation =   1.001

Settlement caused by Primary Consolidation at time 990. =   .341

Settlement caused by Secondary Compression at time 990. =   .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****   ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material

6.61	4.31	.94	6.00	1.23	1.23	2
6.42	4.25	.92	6.00	1.23	1.23	2
6.24	4.19	.89	6.00	1.23	1.23	2
6.05	4.13	.86	6.00	1.23	1.23	2
5.86	4.07	.84	6.00	1.23	1.23	2
5.67	4.00	.81	6.00	1.23	1.23	2
5.49	3.95	.78	6.00	1.23	1.23	2
5.30	3.84	.76	6.00	4.06	4.06	2
5.11	3.71	.73	6.00	4.09	4.03	2
4.93	3.57	.70	6.00	4.07	4.01	2
4.74	3.44	.68	6.00	4.06	3.99	2
4.74	3.44	.68	6.00	3.82	3.99	2
4.55	3.31	.65	6.00	4.04	3.96	2
4.37	3.17	.62	6.00	4.06	3.94	2
4.18	3.04	.60	6.00	4.07	3.91	2
3.99	2.90	.57	6.00	4.08	3.89	2
3.81	2.76	.54	6.00	4.09	3.86	2
3.62	2.63	.52	6.00	4.10	3.83	2
3.43	2.49	.49	6.00	4.10	3.80	2
3.24	2.36	.46	6.00	4.11	3.78	2
3.06	2.22	.44	6.00	4.11	3.75	2
2.87	2.08	.41	6.00	4.11	3.72	2
2.87	2.08	.41	6.00	4.11	3.72	2
2.68	1.95	.38	6.00	4.11	3.70	2
2.50	1.81	.36	6.00	4.11	3.69	2
2.31	1.67	.33	6.00	4.11	3.68	2
2.12	1.54	.30	6.00	4.10	3.67	2
1.94	1.40	.28	6.00	4.10	3.66	2
1.75	1.26	.25	6.00	4.09	3.65	2
1.56	1.13	.22	6.00	4.09	3.64	2
1.37	.99	.20	6.00	4.08	3.63	2
1.19	.86	.17	6.00	4.08	3.62	2
1.00	.72	.14	6.00	4.07	3.61	2
1.00	.72	.14	6.00	4.07	3.61	2
.90	.65	.13	6.00	4.07	3.60	2
.80	.58	.11	6.00	4.06	3.60	2
.70	.50	.10	6.00	4.06	3.59	2
.60	.43	.09	6.00	4.05	3.59	2
.50	.36	.07	6.00	4.05	3.58	2
.40	.29	.06	6.00	4.04	3.57	2
.30	.22	.04	6.00	4.04	3.57	2
.20	.14	.03	6.00	4.03	3.56	2
.10	.07	.01	6.00	4.03	3.56	2
.00	.00	.00	6.00	4.02	3.55	2

Time = 990. Degree of Consolidation = 63.%

Total Settlement = 2.298

Settlement at End of Primary Consolidation = 2.544

Settlement caused by Primary Consolidation at time 990. = 1.614

Settlement caused by Secondary Compression at time 990. = .000

Settlement Due to Desiccation = .685

Surface Elevation = 2.97

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.53	2.13	6.00	4.02	3.54	1
9.35	9.00	2.02	4.29	3.96	3.50	1
8.79	8.48	1.91	4.21	3.89	3.47	1
8.25	7.96	1.81	4.12	3.84	3.43	1
7.71	7.45	1.70	4.02	3.78	3.39	1
7.18	6.94	1.60	3.93	3.74	3.35	1
6.66	6.44	1.49	3.82	3.69	3.31	1
6.15	5.94	1.38	3.71	3.64	3.27	1
5.65	5.45	1.28	3.66	3.59	3.25	1
5.16	4.97	1.17	3.62	3.54	3.22	1
4.67	4.49	1.06	3.59	3.49	3.20	1
4.18	4.01	.96	3.55	3.44	3.17	1
3.70	3.54	.85	3.51	3.38	3.15	1
3.23	3.08	.74	3.47	3.33	3.12	1
2.75	2.62	.64	3.43	3.27	3.10	1
2.28	2.17	.53	3.39	3.21	3.07	1
1.82	1.73	.43	3.35	3.16	3.04	1
1.36	1.29	.32	3.31	3.11	3.02	1
.90	.85	.21	3.27	3.06	3.00	1
.45	.42	.11	3.25	3.02	2.99	1
.00	.00	.00	3.22	2.97	2.97	1

Time = 1710. Degree of Consolidation = 44.%

Total Settlement = .446

Settlement at End of Primary Consolidation = 1.015

Settlement caused by Primary Consolidation at time 1710. = .446

Settlement caused by Secondary Compression at time 1710. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
6.61	4.16	.94	6.00	1.23	1.23	2
6.42	4.10	.92	6.00	1.23	1.23	2
6.24	4.04	.89	6.00	1.23	1.23	2
6.05	3.98	.86	6.00	1.23	1.23	2
5.86	3.92	.84	6.00	1.23	1.23	2
5.67	3.86	.81	6.00	1.23	1.23	2
5.49	3.80	.78	6.00	1.23	1.23	2
5.30	3.76	.76	6.00	1.23	1.23	2
5.11	3.66	.73	6.00	4.01	4.01	2
4.93	3.52	.70	6.00	4.00	3.99	2
4.74	3.39	.68	6.00	3.98	3.96	2
4.74	3.39	.68	6.00	3.82	3.96	2
4.55	3.26	.65	6.00	3.97	3.94	2
4.37	3.13	.62	6.00	3.98	3.92	2
4.18	2.99	.60	6.00	3.98	3.89	2

3.99	2.86	.57	6.00	3.99	3.86	2
3.81	2.73	.54	6.00	3.99	3.83	2
3.62	2.59	.52	6.00	4.00	3.81	2
3.43	2.46	.49	6.00	4.00	3.78	2
3.24	2.33	.46	6.00	4.00	3.75	2
3.06	2.19	.44	6.00	4.01	3.72	2
2.87	2.06	.41	6.00	4.01	3.70	2
2.87	2.06	.41	6.00	4.01	3.70	2
2.68	1.92	.38	6.00	4.01	3.69	2
2.50	1.79	.36	6.00	4.02	3.68	2
2.31	1.66	.33	6.00	4.02	3.67	2
2.12	1.52	.30	6.00	4.02	3.66	2
1.94	1.39	.28	6.00	4.02	3.65	2
1.75	1.25	.25	6.00	4.02	3.64	2
1.56	1.12	.22	6.00	4.02	3.63	2
1.37	.99	.20	6.00	4.02	3.62	2
1.19	.85	.17	6.00	4.02	3.61	2
1.00	.72	.14	6.00	4.02	3.60	2
1.00	.72	.14	6.00	4.02	3.60	2
.90	.65	.13	6.00	4.02	3.59	2
.80	.57	.11	6.00	4.02	3.59	2
.70	.50	.10	6.00	4.02	3.58	2
.60	.43	.09	6.00	4.02	3.58	2
.50	.36	.07	6.00	4.02	3.57	2
.40	.29	.06	6.00	4.02	3.57	2
.30	.22	.04	6.00	4.02	3.56	2
.20	.14	.03	6.00	4.02	3.55	2
.10	.07	.01	6.00	4.02	3.55	2
.00	.00	.00	6.00	4.02	3.54	2

Time = 1710. Degree of Consolidation = 64.%

Total Settlement = 2.451

Settlement at End of Primary Consolidation = 2.657

Settlement caused by Primary Consolidation at time 1710. = 1.691

Settlement caused by Secondary Compression at time 1710. = .000

Settlement Due to Desiccation = .760

Surface Elevation = 2.71

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.41	2.13	6.00	4.02	3.54	1
9.35	8.88	2.02	4.29	3.93	3.50	1
8.79	8.36	1.91	4.21	3.85	3.47	1
8.25	7.85	1.81	4.12	3.78	3.43	1
7.71	7.34	1.70	4.02	3.72	3.39	1
7.18	6.85	1.60	3.93	3.66	3.35	1
6.66	6.35	1.49	3.82	3.61	3.31	1
6.15	5.87	1.38	3.71	3.56	3.27	1
5.65	5.38	1.28	3.66	3.50	3.25	1

5.16	4.91	1.17	3.62	3.45	3.22	1
4.67	4.44	1.06	3.59	3.40	3.20	1
4.18	3.97	.96	3.55	3.35	3.17	1
3.70	3.51	.85	3.51	3.30	3.15	1
3.23	3.06	.74	3.47	3.25	3.12	1
2.75	2.61	.64	3.43	3.21	3.10	1
2.28	2.16	.53	3.39	3.16	3.07	1
1.82	1.72	.43	3.35	3.12	3.04	1
1.36	1.28	.32	3.31	3.08	3.02	1
.90	.85	.21	3.27	3.04	3.00	1
.45	.42	.11	3.25	3.01	2.99	1
.00	.00	.00	3.22	2.97	2.97	1

Time =   3150.   Degree of Consolidation = 56.%

Total Settlement =   .567

Settlement at End of Primary Consolidation =   1.015

Settlement caused by Primary Consolidation at time 3150. =   .567

Settlement caused by Secondary Compression at time 3150. =   .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
6.61	4.15	.94	6.00	1.23	1.23	2
6.42	4.10	.92	6.00	1.23	1.23	2
6.24	4.04	.89	6.00	1.23	1.23	2
6.05	3.98	.86	6.00	1.23	1.23	2
5.86	3.92	.84	6.00	1.23	1.23	2
5.67	3.86	.81	6.00	1.23	1.23	2
5.49	3.80	.78	6.00	1.23	1.23	2
5.30	3.76	.76	6.00	1.23	1.23	2
5.11	3.65	.73	6.00	4.01	4.01	2
4.93	3.52	.70	6.00	4.00	3.99	2
4.74	3.39	.68	6.00	3.98	3.96	2
4.74	3.39	.68	6.00	3.82	3.96	2
4.55	3.26	.65	6.00	3.97	3.94	2
4.37	3.12	.62	6.00	3.97	3.92	2
4.18	2.99	.60	6.00	3.98	3.89	2
3.99	2.86	.57	6.00	3.98	3.86	2
3.81	2.72	.54	6.00	3.99	3.83	2
3.62	2.59	.52	6.00	3.99	3.81	2
3.43	2.46	.49	6.00	3.99	3.78	2
3.24	2.32	.46	6.00	4.00	3.75	2
3.06	2.19	.44	6.00	4.00	3.72	2
2.87	2.06	.41	6.00	4.00	3.70	2
2.87	2.06	.41	6.00	4.00	3.70	2
2.68	1.92	.38	6.00	4.00	3.69	2
2.50	1.79	.36	6.00	4.01	3.68	2
2.31	1.65	.33	6.00	4.01	3.67	2
2.12	1.52	.30	6.00	4.01	3.66	2
1.94	1.39	.28	6.00	4.01	3.65	2
1.75	1.25	.25	6.00	4.01	3.64	2
1.56	1.12	.22	6.00	4.01	3.63	2

1.37	.99	.20	6.00	4.02	3.62	2
1.19	.85	.17	6.00	4.02	3.61	2
1.00	.72	.14	6.00	4.02	3.60	2
1.00	.72	.14	6.00	4.02	3.60	2
.90	.65	.13	6.00	4.02	3.59	2
.80	.57	.11	6.00	4.02	3.59	2
.70	.50	.10	6.00	4.02	3.58	2
.60	.43	.09	6.00	4.02	3.58	2
.50	.36	.07	6.00	4.02	3.57	2
.40	.29	.06	6.00	4.02	3.57	2
.30	.22	.04	6.00	4.02	3.56	2
.20	.14	.03	6.00	4.02	3.55	2
.10	.07	.01	6.00	4.02	3.55	2
.00	.00	.00	6.00	4.02	3.54	2

Time = 3150. Degree of Consolidation = 64.%

Total Settlement = 2.455

Settlement at End of Primary Consolidation = 2.657

Settlement caused by Primary Consolidation at time 3150. = 1.695

Settlement caused by Secondary Compression at time 3150. = .000

Settlement Due to Desiccation = .760

Surface Elevation = 2.59

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.31	2.13	6.00	4.02	3.54	1
9.35	8.79	2.02	4.29	3.91	3.50	1
8.79	8.27	1.91	4.21	3.81	3.47	1
8.25	7.76	1.81	4.12	3.73	3.43	1
7.71	7.26	1.70	4.02	3.66	3.39	1
7.18	6.77	1.60	3.93	3.60	3.35	1
6.66	6.28	1.49	3.82	3.54	3.31	1
6.15	5.80	1.38	3.71	3.48	3.27	1
5.65	5.33	1.28	3.66	3.43	3.25	1
5.16	4.86	1.17	3.62	3.38	3.22	1
4.67	4.40	1.06	3.59	3.33	3.20	1
4.18	3.94	.96	3.55	3.29	3.17	1
3.70	3.49	.85	3.51	3.24	3.15	1
3.23	3.04	.74	3.47	3.20	3.12	1
2.75	2.59	.64	3.43	3.16	3.10	1
2.28	2.15	.53	3.39	3.13	3.07	1
1.82	1.71	.43	3.35	3.09	3.04	1
1.36	1.28	.32	3.31	3.06	3.02	1
.90	.85	.21	3.27	3.03	3.00	1
.45	.42	.11	3.25	3.00	2.99	1
.00	.00	.00	3.22	2.97	2.97	1

Time = 6030. Degree of Consolidation = 65.%

Total Settlement = .662

Settlement at End of Primary Consolidation = 1.015

Settlement caused by Primary Consolidation at time 6030. = .662

Settlement caused by Secondary Compression at time 6030. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
6.61	4.15	.94	6.00	1.23	1.23	2
6.42	4.10	.92	6.00	1.23	1.23	2
6.24	4.04	.89	6.00	1.23	1.23	2
6.05	3.98	.86	6.00	1.23	1.23	2
5.86	3.92	.84	6.00	1.23	1.23	2
5.67	3.86	.81	6.00	1.23	1.23	2
5.49	3.80	.78	6.00	1.23	1.23	2
5.30	3.76	.76	6.00	1.23	1.23	2
5.11	3.65	.73	6.00	4.01	4.01	2
4.93	3.52	.70	6.00	4.00	3.99	2
4.74	3.39	.68	6.00	3.98	3.96	2
4.74	3.39	.68	6.00	3.82	3.96	2
4.55	3.26	.65	6.00	3.97	3.94	2
4.37	3.12	.62	6.00	3.97	3.92	2
4.18	2.99	.60	6.00	3.98	3.89	2
3.99	2.86	.57	6.00	3.98	3.86	2
3.81	2.72	.54	6.00	3.99	3.83	2
3.62	2.59	.52	6.00	3.99	3.81	2
3.43	2.46	.49	6.00	3.99	3.78	2
3.24	2.32	.46	6.00	4.00	3.75	2
3.06	2.19	.44	6.00	4.00	3.72	2
2.87	2.06	.41	6.00	4.00	3.70	2
2.87	2.06	.41	6.00	4.00	3.70	2
2.68	1.92	.38	6.00	4.00	3.69	2
2.50	1.79	.36	6.00	4.01	3.68	2
2.31	1.65	.33	6.00	4.01	3.67	2
2.12	1.52	.30	6.00	4.01	3.66	2
1.94	1.39	.28	6.00	4.01	3.65	2
1.75	1.25	.25	6.00	4.01	3.64	2
1.56	1.12	.22	6.00	4.01	3.63	2
1.37	.99	.20	6.00	4.02	3.62	2
1.19	.85	.17	6.00	4.02	3.61	2
1.00	.72	.14	6.00	4.02	3.60	2
1.00	.72	.14	6.00	4.02	3.60	2
.90	.65	.13	6.00	4.02	3.59	2
.80	.57	.11	6.00	4.02	3.59	2
.70	.50	.10	6.00	4.02	3.58	2
.60	.43	.09	6.00	4.02	3.58	2
.50	.36	.07	6.00	4.02	3.57	2
.40	.29	.06	6.00	4.02	3.57	2
.30	.22	.04	6.00	4.02	3.56	2
.20	.14	.03	6.00	4.02	3.55	2
.10	.07	.01	6.00	4.02	3.55	2
.00	.00	.00	6.00	4.02	3.54	2

Time = 6030. Degree of Consolidation = 64.%

Total Settlement = 2.455

Settlement at End of Primary Consolidation = 2.657

Settlement caused by Primary Consolidation at time 6030. = 1.695

Settlement caused by Secondary Compression at time 6030. = .000

Settlement Due to Desiccation = .760

Surface Elevation = 2.49

****
Consolidation and desiccation of soft layers---dredged fill
****

Problem CALCASIEU RIVER AND PASS, Marsh 3-4ft USACE B&C

*****************Soil data for compressible foundation****************

Material Type	Layer Thickness	Numbers of Sub-layers	Ca/Cc	Cr/Cc
1	10.00	20	.040	.150

Material type : 1 Specific Gravity of Solids: 2.70

I	Void Ratio	Effective Stress	Perm-eability	k/1+e PK	Beta	Dsde	Alpha
1	6.000	.000E+00	.100E-01	.143E-02	.879E-04	-.400E+01	-.571E-02
2	5.500	.200E+01	.900E-02	.138E-02	.595E-03	-.500E+01	-.692E-02
3	5.000	.500E+01	.500E-02	.833E-03	.965E-03	-.667E+01	-.556E-02
4	4.300	.100E+02	.120E-02	.226E-03	.871E-03	-.294E+02	-.666E-02
5	4.150	.300E+02	.480E-03	.932E-04	.403E-03	-.125E+03	-.117E-01
6	3.900	.600E+02	.320E-03	.653E-04	.113E-03	-.111E+03	-.726E-02
7	3.700	.800E+02	.200E-03	.426E-04	.488E-04	-.226E+03	-.961E-02
8	3.280	.200E+03	.150E-03	.350E-04	.251E-04	-.350E+03	-.123E-01
9	3.000	.325E+03	.100E-03	.250E-04	.208E-04	-.714E+03	-.179E-01
10	2.650	.650E+03	.800E-04	.219E-04	.146E-04	-.143E+04	-.314E-01
11	2.320	.130E+04	.500E-04	.151E-04	.223E-04	-.327E+04	-.493E-01
12	2.100	.245E+04	.300E-04	.968E-05	.212E-04	-.683E+04	-.661E-01
13	1.780	.499E+04	.100E-04	.360E-05	.190E-04	-.794E+04	-.286E-01

*********************Soil data for dredged fill*********************

Material Type	Specific Gravity	Ca/Cc	Cr/Cc	Saturation Limit	Disication Limit
2	2.710	.040	.150	1.640	1.230

Material type : 2

I	Void Ratio	Effective Stress	Perm-eability	k/1+e PK	Beta	Dsde	Alpha
1	6.000	.000E+00	.100E-01	.143E-02	.879E-04	-.400E+01	-.571E-02
2	5.500	.200E+01	.900E-02	.138E-02	.595E-03	-.500E+01	-.692E-02
3	5.000	.500E+01	.500E-02	.833E-03	.965E-03	-.667E+01	-.556E-02
4	4.300	.100E+02	.120E-02	.226E-03	.871E-03	-.294E+02	-.666E-02
5	4.150	.300E+02	.480E-03	.932E-04	.403E-03	-.125E+03	-.117E-01
6	3.900	.600E+02	.320E-03	.653E-04	.113E-03	-.111E+03	-.726E-02
7	3.700	.800E+02	.200E-03	.426E-04	.488E-04	-.226E+03	-.961E-02
8	3.280	.200E+03	.150E-03	.350E-04	.251E-04	-.350E+03	-.123E-01
9	3.000	.325E+03	.100E-03	.250E-04	.208E-04	-.714E+03	-.179E-01
10	2.650	.650E+03	.800E-04	.219E-04	.146E-04	-.143E+04	-.314E-01
11	2.320	.130E+04	.500E-04	.151E-04	.223E-04	-.327E+04	-.493E-01
12	2.100	.245E+04	.300E-04	.968E-05	.212E-04	-.683E+04	-.661E-01
13	1.780	.499E+04	.100E-04	.360E-05	.190E-04	-.794E+04	-.286E-01

Summary of lifts and print detail

Time days	Material Type	Fill Height	# Sub-layers	Void ratio	Start Day	Dessic. Month	Print detai
0.	2	1.0	10	6.00	1050.	7	2
120.	2	2.3	10	6.00	210.	7	2
240.	2	2.3	10	6.00	330.	7	2
360.	2	2.3	10	6.00	450.	7	2
390.					480.	7	2
450.					540.	7	2
630.					720.	7	2
990.					1080.	7	2
1710.					1800.	7	2
3150.					3240.	7	2
6030.					6120.	7	2

Summary of monthly rainfall and evaporation potential

Month	Rainfall	Evaporation
1	.480	.090
2	.290	.130
3	.320	.210
4	.330	.410
5	.410	.550
6	.550	.570
7	.550	.400
8	.460	.480
9	.460	.420

10	.360	.240
11	.390	.110
12	.360	.090

**************************Calculation data***************************

tau	Lower layer Void ratio	Lower layer Permeability	drainage path Length
.953E-01	.500	.50000	z = .67

Summary of desiccation parameters

Parameter	Value
Surface Drainage Efficiency	.50
maximum evaporation efficiency	1.00
saturation at desiccation limit	.50
maximum crust thickness	.50
time to desic. after initial fill	1050.00
month of initial desiccation	7
elevation of fixed water table	.00
elevation of top of incompres. found.	-12.00

*************Initial Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.98	2.13	6.00	6.00	4.26	1
9.35	9.35	2.02	4.29	4.29	4.18	1
8.79	8.79	1.91	4.21	4.21	4.08	1
8.25	8.25	1.81	4.12	4.12	3.99	1
7.71	7.71	1.70	4.02	4.02	3.90	1
7.18	7.18	1.60	3.93	3.93	3.78	1
6.66	6.66	1.49	3.82	3.82	3.69	1
6.15	6.15	1.38	3.71	3.71	3.65	1
5.65	5.65	1.28	3.66	3.66	3.61	1
5.16	5.16	1.17	3.62	3.62	3.57	1
4.67	4.67	1.06	3.59	3.59	3.53	1
4.18	4.18	.96	3.55	3.55	3.49	1
3.70	3.70	.85	3.51	3.51	3.45	1
3.23	3.23	.74	3.47	3.47	3.41	1
2.75	2.75	.64	3.43	3.43	3.37	1
2.28	2.28	.53	3.39	3.39	3.33	1
1.82	1.82	.43	3.35	3.35	3.29	1

1.36	1.36	.32	3.31	3.31	3.26	1
.90	.90	.21	3.27	3.27	3.24	1
.45	.45	.11	3.25	3.25	3.21	1
.00	.00	.00	3.22	3.22	3.19	1

Time = 0. Degree of Consolidation = 0.%

Total Settlement = .000

Settlement at End of Primary Consolidation = .216

Settlement caused by Primary Consolidation at time 0. = .000

Settlement caused by Secondary Compression at time 0. = .000

******************Initial Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
1.00	1.00	.14	6.00	6.00	6.00	2
.90	.90	.13	6.00	6.00	5.62	2
.80	.80	.11	6.00	6.00	5.33	2
.70	.70	.10	6.00	6.00	5.07	2
.60	.60	.09	6.00	6.00	4.85	2
.50	.50	.07	6.00	6.00	4.63	2
.40	.40	.06	6.00	6.00	4.42	2
.30	.30	.04	6.00	6.00	4.29	2
.20	.20	.03	6.00	6.00	4.28	2
.10	.10	.01	6.00	6.00	4.27	2
.00	.00	.00	6.00	6.00	4.26	2

Time = 0. Degree of Consolidation = 0.%

Total Settlement = .000

Settlement at End of Primary Consolidation = .173

Settlement caused by Primary Consolidation at time 0. = .000

Settlement caused by Secondary Compression at time 0. = .000

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.88	2.13	6.00	4.29	4.26	1
9.35	9.32	2.02	4.29	4.20	4.18	1
8.79	8.77	1.91	4.21	4.14	4.08	1
8.25	8.23	1.81	4.12	4.07	3.99	1
7.71	7.69	1.70	4.02	3.99	3.90	1
7.18	7.16	1.60	3.93	3.90	3.78	1

6.66	6.65	1.49	3.82	3.80	3.69	1
6.15	6.14	1.38	3.71	3.71	3.65	1
5.65	5.65	1.28	3.66	3.66	3.61	1
5.16	5.15	1.17	3.62	3.62	3.57	1
4.67	4.66	1.06	3.59	3.58	3.53	1
4.18	4.18	.96	3.55	3.54	3.49	1
3.70	3.70	.85	3.51	3.50	3.45	1
3.23	3.22	.74	3.47	3.46	3.41	1
2.75	2.75	.64	3.43	3.42	3.37	1
2.28	2.28	.53	3.39	3.38	3.33	1
1.82	1.81	.43	3.35	3.35	3.29	1
1.36	1.35	.32	3.31	3.31	3.26	1
.90	.90	.21	3.27	3.27	3.24	1
.45	.45	.11	3.25	3.23	3.21	1
.00	.00	.00	3.22	3.19	3.19	1

Time = 120. Degree of Consolidation = 47.%

Total Settlement = .102

Settlement at End of Primary Consolidation = .216

Settlement caused by Primary Consolidation at time 120. = .102

Settlement caused by Secondary Compression at time 120. = .000

*******************Current Conditions in Dredged Fill*******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
1.00	.84	.14	6.00	6.00	6.00	2
.90	.74	.13	6.00	5.68	5.62	2
.80	.65	.11	6.00	5.40	5.33	2
.70	.56	.10	6.00	5.16	5.07	2
.60	.48	.09	6.00	4.94	4.85	2
.50	.39	.07	6.00	4.76	4.63	2
.40	.31	.06	6.00	4.62	4.42	2
.30	.23	.04	6.00	4.51	4.29	2
.20	.15	.03	6.00	4.42	4.28	2
.10	.08	.01	6.00	4.35	4.27	2
.00	.00	.00	6.00	4.29	4.26	2

Time = 120. Degree of Consolidation = 91.%

Total Settlement = .158

Settlement at End of Primary Consolidation = .173

Settlement caused by Primary Consolidation at time 120. = .158

Settlement caused by Secondary Compression at time 120. = .000

Surface Elevation = -1.26

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.83	2.13	6.00	4.28	3.97	1
9.35	9.28	2.02	4.29	4.17	3.88	1
8.79	8.73	1.91	4.21	4.10	3.76	1
8.25	8.20	1.81	4.12	4.03	3.68	1
7.71	7.66	1.70	4.02	3.96	3.64	1
7.18	7.14	1.60	3.93	3.87	3.60	1
6.66	6.63	1.49	3.82	3.79	3.56	1
6.15	6.12	1.38	3.71	3.71	3.52	1
5.65	5.62	1.28	3.66	3.66	3.49	1
5.16	5.13	1.17	3.62	3.62	3.45	1
4.67	4.64	1.06	3.59	3.58	3.41	1
4.18	4.16	.96	3.55	3.54	3.37	1
3.70	3.68	.85	3.51	3.50	3.33	1
3.23	3.20	.74	3.47	3.46	3.29	1
2.75	2.73	.64	3.43	3.42	3.26	1
2.28	2.26	.53	3.39	3.38	3.23	1
1.82	1.80	.43	3.35	3.33	3.21	1
1.36	1.34	.32	3.31	3.29	3.18	1
.90	.89	.21	3.27	3.23	3.16	1
.45	.44	.11	3.25	3.17	3.13	1
.00	.00	.00	3.22	3.11	3.11	1

Time = 240. Degree of Consolidation = 26.%

Total Settlement = .143

Settlement at End of Primary Consolidation = .545

Settlement caused by Primary Consolidation at time 240. = .143

Settlement caused by Secondary Compression at time 240. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
3.35	2.91	.48	6.00	6.00	6.00	2
3.11	2.68	.44	6.00	5.93	5.24	2
2.88	2.45	.41	6.00	5.85	4.70	2
2.64	2.22	.38	6.00	5.74	4.29	2
2.41	1.99	.34	6.00	5.60	4.27	2
2.18	1.78	.31	6.00	5.44	4.24	2
1.94	1.56	.28	6.00	5.26	4.21	2
1.71	1.36	.24	6.00	5.06	4.19	2
1.47	1.16	.21	6.00	4.87	4.16	2
1.24	.96	.18	6.00	4.71	4.13	2
1.00	.77	.14	6.00	4.59	4.10	2
1.00	.77	.14	6.00	4.59	4.10	2
.90	.69	.13	6.00	4.54	4.09	2
.80	.61	.11	6.00	4.49	4.08	2

.70	.53	.10	6.00	4.45	4.06	2
.60	.46	.09	6.00	4.41	4.05	2
.50	.38	.07	6.00	4.38	4.04	2
.40	.30	.06	6.00	4.35	4.03	2
.30	.23	.04	6.00	4.33	4.01	2
.20	.15	.03	6.00	4.31	4.00	2
.10	.08	.01	6.00	4.29	3.99	2
.00	.00	.00	6.00	4.28	3.97	2

Time = 240. Degree of Consolidation = 54.%

Total Settlement = .438

Settlement at End of Primary Consolidation = .805

Settlement caused by Primary Consolidation at time 240. = .438

Settlement caused by Secondary Compression at time 240. = .000

Settlement Due to Desiccation = .000

Surface Elevation = .77

**************Current Conditions in Compressible Foundation*************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.98	9.79	2.13	6.00	4.20	3.68	1
9.35	9.24	2.02	4.29	4.13	3.64	1
8.79	8.70	1.91	4.21	4.07	3.60	1
8.25	8.16	1.81	4.12	4.00	3.56	1
7.71	7.63	1.70	4.02	3.93	3.52	1
7.18	7.11	1.60	3.93	3.85	3.48	1
6.66	6.60	1.49	3.82	3.78	3.44	1
6.15	6.10	1.38	3.71	3.71	3.40	1
5.65	5.60	1.28	3.66	3.66	3.36	1
5.16	5.10	1.17	3.62	3.62	3.32	1
4.67	4.62	1.06	3.59	3.58	3.28	1
4.18	4.13	.96	3.55	3.53	3.26	1
3.70	3.65	.85	3.51	3.49	3.23	1
3.23	3.18	.74	3.47	3.45	3.20	1
2.75	2.70	.64	3.43	3.41	3.18	1
2.28	2.24	.53	3.39	3.36	3.15	1
1.82	1.78	.43	3.35	3.31	3.13	1
1.36	1.32	.32	3.31	3.25	3.10	1
.90	.87	.21	3.27	3.18	3.08	1
.45	.43	.11	3.25	3.10	3.05	1
.00	.00	.00	3.22	3.03	3.03	1

Time = 360. Degree of Consolidation = 24.%

Total Settlement = .189

Settlement at End of Primary Consolidation = .797

Settlement caused by Primary Consolidation at time 360. = .189

Settlement caused by Secondary Compression at time 360. =   .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
5.70	4.95	.81	6.00	2.85	6.00	2
5.47	4.75	.78	6.00	5.99	5.24	2
5.23	4.51	.75	6.00	5.98	4.70	2
4.99	4.28	.71	6.00	5.97	4.29	2
4.76	4.05	.68	6.00	5.95	4.27	2
4.52	3.81	.65	6.00	5.91	4.24	2
4.29	3.58	.61	6.00	5.85	4.21	2
4.05	3.35	.58	6.00	5.77	4.19	2
3.82	3.13	.55	6.00	5.66	4.16	2
3.58	2.91	.51	6.00	5.53	4.13	2
3.35	2.69	.48	6.00	5.39	4.10	2
3.35	2.69	.48	6.00	5.39	4.10	2
3.11	2.48	.44	6.00	5.26	4.07	2
2.88	2.27	.41	6.00	5.12	4.04	2
2.64	2.07	.38	6.00	4.97	4.01	2
2.41	1.87	.34	6.00	4.83	3.98	2
2.18	1.68	.31	6.00	4.71	3.95	2
1.94	1.49	.28	6.00	4.61	3.92	2
1.71	1.30	.24	6.00	4.53	3.89	2
1.47	1.11	.21	6.00	4.45	3.86	2
1.24	.93	.18	6.00	4.39	3.82	2
1.00	.75	.14	6.00	4.34	3.78	2
1.00	.75	.14	6.00	4.34	3.78	2
.90	.68	.13	6.00	4.32	3.77	2
.80	.60	.11	6.00	4.30	3.75	2
.70	.52	.10	6.00	4.28	3.74	2
.60	.45	.09	6.00	4.27	3.72	2
.50	.37	.07	6.00	4.26	3.71	2
.40	.30	.06	6.00	4.24	3.70	2
.30	.22	.04	6.00	4.23	3.69	2
.20	.15	.03	6.00	4.22	3.69	2
.10	.07	.01	6.00	4.21	3.68	2
.00	.00	.00	6.00	4.20	3.68	2

Time =   360.   Degree of Consolidation = 45.%

Total Settlement =   .752

Settlement at End of Primary Consolidation =   1.539

Settlement caused by Primary Consolidation at time 360. =   .699

Settlement caused by Secondary Compression at time 360. =   .000

Settlement Due to Desiccation =   .053

Surface Elevation =   2.76

**************Current Conditions in Compressible Foundation*************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.98	9.77	2.13	6.00	4.19	3.55	1
9.35	9.22	2.02	4.29	4.12	3.51	1
8.79	8.68	1.91	4.21	4.06	3.47	1
8.25	8.15	1.81	4.12	4.00	3.43	1
7.71	7.62	1.70	4.02	3.93	3.39	1
7.18	7.10	1.60	3.93	3.85	3.35	1
6.66	6.59	1.49	3.82	3.78	3.31	1
6.15	6.09	1.38	3.71	3.71	3.28	1
5.65	5.59	1.28	3.66	3.66	3.25	1
5.16	5.09	1.17	3.62	3.62	3.23	1
4.67	4.61	1.06	3.59	3.57	3.20	1
4.18	4.12	.96	3.55	3.53	3.18	1
3.70	3.64	.85	3.51	3.49	3.15	1
3.23	3.17	.74	3.47	3.45	3.12	1
2.75	2.69	.64	3.43	3.41	3.10	1
2.28	2.23	.53	3.39	3.36	3.07	1
1.82	1.77	.43	3.35	3.30	3.05	1
1.36	1.31	.32	3.31	3.24	3.02	1
.90	.87	.21	3.27	3.16	3.00	1
.45	.43	.11	3.25	3.07	2.99	1
.00	.00	.00	3.22	2.97	2.97	1

Time = 390. Degree of Consolidation = 20.%

Total Settlement = .204

Settlement at End of Primary Consolidation = 1.005

Settlement caused by Primary Consolidation at time 390. = .204

Settlement caused by Secondary Compression at time 390. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
8.05	7.12	1.15	6.00	6.00	6.00	2
7.82	6.89	1.12	6.00	6.00	5.24	2
7.58	6.65	1.08	6.00	6.00	4.70	2
7.35	6.42	1.05	6.00	6.00	4.29	2
7.11	6.18	1.02	6.00	5.99	4.27	2
6.88	5.95	.98	6.00	5.97	4.24	2
6.64	5.71	.95	6.00	5.91	4.21	2
6.41	5.48	.91	6.00	5.80	4.19	2
6.17	5.26	.88	6.00	5.59	4.16	2
5.94	5.04	.85	6.00	5.32	4.13	2
5.70	4.83	.81	6.00	5.02	4.10	2
5.70	4.83	.81	6.00	4.43	4.10	2
5.47	4.64	.78	6.00	5.15	4.07	2
5.23	4.43	.75	6.00	5.52	4.04	2

4.99	4.20	.71	6.00	5.71	4.01	2
4.76	3.98	.68	6.00	5.80	3.98	2
4.52	3.75	.65	6.00	5.79	3.95	2
4.29	3.52	.61	6.00	5.73	3.92	2
4.05	3.30	.58	6.00	5.63	3.89	2
3.82	3.08	.55	6.00	5.51	3.86	2
3.58	2.86	.51	6.00	5.38	3.82	2
3.35	2.65	.48	6.00	5.23	3.78	2
3.35	2.65	.48	6.00	5.23	3.78	2
3.11	2.44	.44	6.00	5.08	3.75	2
2.88	2.24	.41	6.00	4.94	3.71	2
2.64	2.04	.38	6.00	4.81	3.69	2
2.41	1.85	.34	6.00	4.70	3.68	2
2.18	1.66	.31	6.00	4.61	3.67	2
1.94	1.47	.28	6.00	4.53	3.65	2
1.71	1.29	.24	6.00	4.45	3.64	2
1.47	1.11	.21	6.00	4.39	3.63	2
1.24	.93	.18	6.00	4.33	3.62	2
1.00	.75	.14	6.00	4.28	3.60	2
1.00	.75	.14	6.00	4.28	3.60	2
.90	.67	.13	6.00	4.27	3.60	2
.80	.60	.11	6.00	4.26	3.59	2
.70	.52	.10	6.00	4.25	3.59	2
.60	.45	.09	6.00	4.24	3.58	2
.50	.37	.07	6.00	4.23	3.58	2
.40	.30	.06	6.00	4.22	3.57	2
.30	.22	.04	6.00	4.21	3.57	2
.20	.15	.03	6.00	4.21	3.56	2
.10	.07	.01	6.00	4.20	3.56	2
.00	.00	.00	6.00	4.19	3.55	2

Time = 390. Degree of Consolidation = 37.%

Total Settlement = .929

Settlement at End of Primary Consolidation = 2.340

Settlement caused by Primary Consolidation at time 390. = .876

Settlement caused by Secondary Compression at time 390. = .000

Surface Elevation = 4.92

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.75	2.13	6.00	4.16	3.55	1
9.35	9.21	2.02	4.29	4.10	3.51	1
8.79	8.67	1.91	4.21	4.05	3.47	1
8.25	8.13	1.81	4.12	3.98	3.43	1
7.71	7.61	1.70	4.02	3.92	3.39	1
7.18	7.09	1.60	3.93	3.84	3.35	1
6.66	6.58	1.49	3.82	3.77	3.31	1
6.15	6.07	1.38	3.71	3.71	3.28	1
5.65	5.57	1.28	3.66	3.66	3.25	1
5.16	5.08	1.17	3.62	3.62	3.23	1

4.67	4.59	1.06	3.59	3.57	3.20	1
4.18	4.11	.96	3.55	3.53	3.18	1
3.70	3.63	.85	3.51	3.49	3.15	1
3.23	3.15	.74	3.47	3.45	3.12	1
2.75	2.68	.64	3.43	3.40	3.10	1
2.28	2.22	.53	3.39	3.35	3.07	1
1.82	1.76	.43	3.35	3.29	3.05	1
1.36	1.31	.32	3.31	3.22	3.02	1
.90	.86	.21	3.27	3.14	3.00	1
.45	.43	.11	3.25	3.06	2.99	1
.00	.00	.00	3.22	2.97	2.97	1

Time = 450. Degree of Consolidation = 22.%

Total Settlement = .224

Settlement at End of Primary Consolidation = 1.005

Settlement caused by Primary Consolidation at time 450. = .224

Settlement caused by Secondary Compression at time 450. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
8.05	6.86	1.15	6.00	6.00	6.00	2
7.82	6.63	1.12	6.00	5.97	5.24	2
7.58	6.39	1.08	6.00	5.93	4.70	2
7.35	6.16	1.05	6.00	5.86	4.29	2
7.11	5.93	1.02	6.00	5.76	4.27	2
6.88	5.71	.98	6.00	5.62	4.24	2
6.64	5.49	.95	6.00	5.46	4.21	2
6.41	5.28	.91	6.00	5.27	4.19	2
6.17	5.07	.88	6.00	5.08	4.16	2
5.94	4.87	.85	6.00	4.91	4.13	2
5.70	4.67	.81	6.00	4.78	4.10	2
5.70	4.67	.81	6.00	4.43	4.10	2
5.47	4.48	.78	6.00	4.98	4.07	2
5.23	4.27	.75	6.00	5.26	4.04	2
4.99	4.06	.71	6.00	5.39	4.01	2
4.76	3.84	.68	6.00	5.45	3.98	2
4.52	3.63	.65	6.00	5.44	3.95	2
4.29	3.41	.61	6.00	5.38	3.92	2
4.05	3.20	.58	6.00	5.28	3.89	2
3.82	2.99	.55	6.00	5.16	3.86	2
3.58	2.79	.51	6.00	5.03	3.82	2
3.35	2.59	.48	6.00	4.90	3.78	2
3.35	2.59	.48	6.00	4.90	3.78	2
3.11	2.39	.44	6.00	4.78	3.75	2
2.88	2.20	.41	6.00	4.68	3.71	2
2.64	2.01	.38	6.00	4.59	3.69	2
2.41	1.82	.34	6.00	4.52	3.68	2
2.18	1.64	.31	6.00	4.45	3.67	2
1.94	1.46	.28	6.00	4.39	3.65	2
1.71	1.28	.24	6.00	4.34	3.64	2
1.47	1.10	.21	6.00	4.30	3.63	2

1.24	.92	.18	6.00	4.27	3.62	2
1.00	.74	.14	6.00	4.25	3.60	2
1.00	.74	.14	6.00	4.25	3.60	2
.90	.67	.13	6.00	4.24	3.60	2
.80	.59	.11	6.00	4.23	3.59	2
.70	.52	.10	6.00	4.22	3.59	2
.60	.44	.09	6.00	4.21	3.58	2
.50	.37	.07	6.00	4.20	3.58	2
.40	.30	.06	6.00	4.19	3.57	2
.30	.22	.04	6.00	4.18	3.57	2
.20	.15	.03	6.00	4.18	3.56	2
.10	.07	.01	6.00	4.17	3.56	2
.00	.00	.00	6.00	4.16	3.55	2

Time = 450. Degree of Consolidation = 49.%

Total Settlement = 1.188

Settlement at End of Primary Consolidation = 2.340

Settlement caused by Primary Consolidation at time 450. = 1.136

Settlement caused by Secondary Compression at time 450. = .000

Surface Elevation = 4.64

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.70	2.13	6.00	4.10	3.55	1
9.35	9.16	2.02	4.29	4.06	3.51	1
8.79	8.63	1.91	4.21	4.01	3.47	1
8.25	8.10	1.81	4.12	3.95	3.43	1
7.71	7.58	1.70	4.02	3.89	3.39	1
7.18	7.06	1.60	3.93	3.82	3.35	1
6.66	6.55	1.49	3.82	3.76	3.31	1
6.15	6.05	1.38	3.71	3.71	3.28	1
5.65	5.55	1.28	3.66	3.66	3.25	1
5.16	5.05	1.17	3.62	3.61	3.23	1
4.67	4.57	1.06	3.59	3.57	3.20	1
4.18	4.08	.96	3.55	3.52	3.18	1
3.70	3.60	.85	3.51	3.47	3.15	1
3.23	3.13	.74	3.47	3.43	3.12	1
2.75	2.66	.64	3.43	3.37	3.10	1
2.28	2.20	.53	3.39	3.31	3.07	1
1.82	1.75	.43	3.35	3.24	3.05	1
1.36	1.30	.32	3.31	3.18	3.02	1
.90	.86	.21	3.27	3.11	3.00	1
.45	.43	.11	3.25	3.04	2.99	1
.00	.00	.00	3.22	2.97	2.97	1

Time = 630. Degree of Consolidation = 27.%

Total Settlement = .273

Settlement at End of Primary Consolidation = 1.005

Settlement caused by Primary Consolidation at time 630. = .273

Settlement caused by Secondary Compression at time 630. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
8.05	6.01	1.15	6.00	1.64	6.00	2
7.82	5.90	1.12	6.00	1.64	5.24	2
7.58	5.83	1.08	6.00	1.64	4.70	2
7.35	5.69	1.05	6.00	4.18	4.29	2
7.11	5.50	1.02	6.00	4.78	4.27	2
6.88	5.31	.98	6.00	4.74	4.24	2
6.64	5.12	.95	6.00	4.68	4.21	2
6.41	4.93	.91	6.00	4.63	4.19	2
6.17	4.74	.88	6.00	4.58	4.16	2
5.94	4.55	.85	6.00	4.54	4.13	2
5.70	4.37	.81	6.00	4.51	4.10	2
5.70	4.37	.81	6.00	4.43	4.10	2
5.47	4.18	.78	6.00	4.58	4.07	2
5.23	3.99	.75	6.00	4.66	4.04	2
4.99	3.80	.71	6.00	4.68	4.01	2
4.76	3.61	.68	6.00	4.66	3.98	2
4.52	3.42	.65	6.00	4.63	3.95	2
4.29	3.24	.61	6.00	4.59	3.92	2
4.05	3.05	.58	6.00	4.54	3.89	2
3.82	2.86	.55	6.00	4.49	3.86	2
3.58	2.68	.51	6.00	4.44	3.82	2
3.35	2.50	.48	6.00	4.40	3.78	2
3.35	2.50	.48	6.00	4.40	3.78	2
3.11	2.32	.44	6.00	4.36	3.75	2
2.88	2.14	.41	6.00	4.32	3.71	2
2.64	1.96	.38	6.00	4.29	3.69	2
2.41	1.78	.34	6.00	4.26	3.68	2
2.18	1.61	.31	6.00	4.24	3.67	2
1.94	1.43	.28	6.00	4.22	3.65	2
1.71	1.26	.24	6.00	4.21	3.64	2
1.47	1.08	.21	6.00	4.19	3.63	2
1.24	.91	.18	6.00	4.18	3.62	2
1.00	.73	.14	6.00	4.16	3.60	2
1.00	.73	.14	6.00	4.16	3.60	2
.90	.66	.13	6.00	4.16	3.60	2
.80	.59	.11	6.00	4.15	3.59	2
.70	.51	.10	6.00	4.15	3.59	2
.60	.44	.09	6.00	4.14	3.58	2
.50	.37	.07	6.00	4.13	3.58	2
.40	.29	.06	6.00	4.13	3.57	2
.30	.22	.04	6.00	4.12	3.57	2
.20	.15	.03	6.00	4.12	3.56	2
.10	.07	.01	6.00	4.11	3.56	2
.00	.00	.00	6.00	4.10	3.55	2

Time = 630. Degree of Consolidation = 70.%

Total Settlement = 2.043

Settlement at End of Primary Consolidation = 2.340

Settlement caused by Primary Consolidation at time 630. = 1.637

Settlement caused by Secondary Compression at time 630. = .000

Settlement Due to Desiccation = .407

Surface Elevation = 3.73

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.62	2.13	6.00	4.03	3.48	1
9.35	9.09	2.02	4.29	3.99	3.44	1
8.79	8.56	1.91	4.21	3.95	3.40	1
8.25	8.04	1.81	4.12	3.90	3.36	1
7.71	7.52	1.70	4.02	3.84	3.32	1
7.18	7.01	1.60	3.93	3.79	3.28	1
6.66	6.50	1.49	3.82	3.74	3.26	1
6.15	6.00	1.38	3.71	3.69	3.23	1
5.65	5.50	1.28	3.66	3.64	3.21	1
5.16	5.01	1.17	3.62	3.59	3.18	1
4.67	4.53	1.06	3.59	3.54	3.16	1
4.18	4.04	.96	3.55	3.49	3.13	1
3.70	3.57	.85	3.51	3.44	3.11	1
3.23	3.10	.74	3.47	3.38	3.08	1
2.75	2.64	.64	3.43	3.32	3.05	1
2.28	2.18	.53	3.39	3.26	3.03	1
1.82	1.73	.43	3.35	3.19	3.00	1
1.36	1.29	.32	3.31	3.13	2.99	1
.90	.85	.21	3.27	3.07	2.98	1
.45	.42	.11	3.25	3.01	2.97	1
.00	.00	.00	3.22	2.96	2.95	1

Time = 990. Degree of Consolidation = 32.%

Total Settlement = .355

Settlement at End of Primary Consolidation = 1.108

Settlement caused by Primary Consolidation at time 990. = .355

Settlement caused by Secondary Compression at time 990. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material

8.05	5.51	1.15	6.00	1.23	1.23	2
7.82	5.43	1.12	6.00	1.23	1.23	2
7.58	5.36	1.08	6.00	1.23	1.23	2
7.35	5.27	1.05	6.00	1.23	1.23	2
7.11	5.21	1.02	6.00	1.23	1.23	2
6.88	5.07	.98	6.00	4.09	4.09	2
6.64	4.90	.95	6.00	4.22	4.06	2
6.41	4.72	.91	6.00	4.23	4.03	2
6.17	4.55	.88	6.00	4.25	4.00	2
5.94	4.37	.85	6.00	4.25	3.97	2
5.70	4.20	.81	6.00	4.25	3.94	2
5.70	4.20	.81	6.00	4.25	3.94	2
5.47	4.02	.78	6.00	4.25	3.91	2
5.23	3.84	.75	6.00	4.24	3.87	2
4.99	3.67	.71	6.00	4.24	3.84	2
4.76	3.49	.68	6.00	4.23	3.80	2
4.52	3.32	.65	6.00	4.22	3.76	2
4.29	3.14	.61	6.00	4.21	3.73	2
4.05	2.97	.58	6.00	4.20	3.70	2
3.82	2.79	.55	6.00	4.19	3.68	2
3.58	2.62	.51	6.00	4.18	3.67	2
3.35	2.44	.48	6.00	4.18	3.66	2
3.35	2.44	.48	6.00	4.18	3.66	2
3.11	2.27	.44	6.00	4.17	3.65	2
2.88	2.10	.41	6.00	4.16	3.63	2
2.64	1.92	.38	6.00	4.15	3.62	2
2.41	1.75	.34	6.00	4.14	3.61	2
2.18	1.58	.31	6.00	4.13	3.60	2
1.94	1.41	.28	6.00	4.12	3.58	2
1.71	1.23	.24	6.00	4.11	3.57	2
1.47	1.06	.21	6.00	4.10	3.56	2
1.24	.89	.18	6.00	4.09	3.55	2
1.00	.72	.14	6.00	4.08	3.53	2
1.00	.72	.14	6.00	4.08	3.53	2
.90	.65	.13	6.00	4.07	3.53	2
.80	.58	.11	6.00	4.07	3.52	2
.70	.50	.10	6.00	4.06	3.52	2
.60	.43	.09	6.00	4.06	3.51	2
.50	.36	.07	6.00	4.05	3.51	2
.40	.29	.06	6.00	4.05	3.50	2
.30	.22	.04	6.00	4.04	3.50	2
.20	.14	.03	6.00	4.04	3.49	2
.10	.07	.01	6.00	4.03	3.49	2
.00	.00	.00	6.00	4.03	3.48	2

Time = 990. Degree of Consolidation = 64.%

Total Settlement = 2.540

Settlement at End of Primary Consolidation = 2.980

Settlement caused by Primary Consolidation at time 990. = 1.897

Settlement caused by Secondary Compression at time 990. = .000

Settlement Due to Desiccation = .644

Surface Elevation = 3.15

**************Current Conditions in Compressible Foundation*************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.98	9.51	2.13	6.00	4.03	3.47	1
9.35	8.98	2.02	4.29	3.96	3.43	1
8.79	8.46	1.91	4.21	3.89	3.39	1
8.25	7.94	1.81	4.12	3.84	3.35	1
7.71	7.43	1.70	4.02	3.78	3.31	1
7.18	6.92	1.60	3.93	3.73	3.28	1
6.66	6.42	1.49	3.82	3.69	3.25	1
6.15	5.93	1.38	3.71	3.64	3.23	1
5.65	5.44	1.28	3.66	3.59	3.20	1
5.16	4.95	1.17	3.62	3.54	3.18	1
4.67	4.47	1.06	3.59	3.48	3.15	1
4.18	4.00	.96	3.55	3.43	3.12	1
3.70	3.53	.85	3.51	3.37	3.10	1
3.23	3.07	.74	3.47	3.31	3.07	1
2.75	2.61	.64	3.43	3.25	3.05	1
2.28	2.16	.53	3.39	3.20	3.02	1
1.82	1.72	.43	3.35	3.14	3.00	1
1.36	1.28	.32	3.31	3.09	2.99	1
.90	.85	.21	3.27	3.04	2.98	1
.45	.42	.11	3.25	2.99	2.96	1
.00	.00	.00	3.22	2.95	2.95	1

Time = 1710. Degree of Consolidation = 41.%

Total Settlement = .465

Settlement at End of Primary Consolidation = 1.121

Settlement caused by Primary Consolidation at time 1710. = .465

Settlement caused by Secondary Compression at time 1710. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
8.05	5.25	1.15	6.00	1.23	1.23	2
7.82	5.18	1.12	6.00	1.23	1.23	2
7.58	5.10	1.08	6.00	1.23	1.23	2
7.35	5.03	1.05	6.00	1.23	1.23	2
7.11	4.95	1.02	6.00	1.23	1.23	2
6.88	4.89	.98	6.00	1.23	1.23	2
6.64	4.78	.95	6.00	3.10	4.03	2
6.41	4.62	.91	6.00	4.04	4.00	2
6.17	4.45	.88	6.00	4.05	3.97	2
5.94	4.29	.85	6.00	4.05	3.94	2
5.70	4.12	.81	6.00	4.06	3.91	2
5.70	4.12	.81	6.00	4.06	3.91	2
5.47	3.95	.78	6.00	4.06	3.88	2
5.23	3.78	.75	6.00	4.06	3.85	2
4.99	3.61	.71	6.00	4.07	3.81	2

4.76	3.44	.68	6.00	4.07	3.77	2
4.52	3.27	.65	6.00	4.07	3.74	2
4.29	3.10	.61	6.00	4.07	3.70	2
4.05	2.93	.58	6.00	4.07	3.69	2
3.82	2.76	.55	6.00	4.07	3.68	2
3.58	2.58	.51	6.00	4.07	3.66	2
3.35	2.41	.48	6.00	4.06	3.65	2
3.35	2.41	.48	6.00	4.06	3.65	2
3.11	2.24	.44	6.00	4.06	3.64	2
2.88	2.08	.41	6.00	4.06	3.63	2
2.64	1.91	.38	6.00	4.06	3.61	2
2.41	1.74	.34	6.00	4.05	3.60	2
2.18	1.57	.31	6.00	4.05	3.59	2
1.94	1.40	.28	6.00	4.05	3.58	2
1.71	1.23	.24	6.00	4.05	3.56	2
1.47	1.06	.21	6.00	4.04	3.55	2
1.24	.89	.18	6.00	4.04	3.54	2
1.00	.72	.14	6.00	4.04	3.53	2
1.00	.72	.14	6.00	4.04	3.53	2
.90	.65	.13	6.00	4.04	3.52	2
.80	.58	.11	6.00	4.04	3.51	2
.70	.50	.10	6.00	4.03	3.51	2
.60	.43	.09	6.00	4.03	3.50	2
.50	.36	.07	6.00	4.03	3.50	2
.40	.29	.06	6.00	4.03	3.49	2
.30	.22	.04	6.00	4.03	3.49	2
.20	.14	.03	6.00	4.03	3.48	2
.10	.07	.01	6.00	4.03	3.48	2
.00	.00	.00	6.00	4.03	3.47	2

Time = 1710. Degree of Consolidation = 65.%

Total Settlement = 2.797

Settlement at End of Primary Consolidation = 3.122

Settlement caused by Primary Consolidation at time 1710. = 2.027

Settlement caused by Secondary Compression at time 1710. = .000

Settlement Due to Desiccation = .771

Surface Elevation = 2.79

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.38	2.13	6.00	4.03	3.46	1
9.35	8.85	2.02	4.29	3.93	3.42	1
8.79	8.33	1.91	4.21	3.85	3.38	1
8.25	7.82	1.81	4.12	3.78	3.34	1
7.71	7.32	1.70	4.02	3.71	3.30	1
7.18	6.82	1.60	3.93	3.66	3.27	1
6.66	6.33	1.49	3.82	3.60	3.24	1
6.15	5.84	1.38	3.71	3.55	3.22	1
5.65	5.36	1.28	3.66	3.49	3.19	1

5.16	4.88	1.17	3.62	3.44	3.17	1
4.67	4.41	1.06	3.59	3.39	3.14	1
4.18	3.95	.96	3.55	3.34	3.12	1
3.70	3.49	.85	3.51	3.29	3.09	1
3.23	3.04	.74	3.47	3.23	3.07	1
2.75	2.59	.64	3.43	3.19	3.04	1
2.28	2.15	.53	3.39	3.14	3.01	1
1.82	1.71	.43	3.35	3.10	2.99	1
1.36	1.28	.32	3.31	3.06	2.98	1
.90	.85	.21	3.27	3.02	2.97	1
.45	.42	.11	3.25	2.98	2.96	1
.00	.00	.00	3.22	2.95	2.95	1

Time = 3150. Degree of Consolidation = 52.%

Total Settlement = .595

Settlement at End of Primary Consolidation = 1.141

Settlement caused by Primary Consolidation at time 3150. = .595

Settlement caused by Secondary Compression at time 3150. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
8.05	5.17	1.15	6.00	1.23	1.23	2
7.82	5.10	1.12	6.00	1.23	1.23	2
7.58	5.02	1.08	6.00	1.23	1.23	2
7.35	4.95	1.05	6.00	1.23	1.23	2
7.11	4.87	1.02	6.00	1.23	1.23	2
6.88	4.78	.98	6.00	1.23	1.23	2
6.64	4.72	.95	6.00	1.23	1.23	2
6.41	4.59	.91	6.00	3.97	3.97	2
6.17	4.42	.88	6.00	3.98	3.94	2
5.94	4.25	.85	6.00	3.98	3.91	2
5.70	4.08	.81	6.00	3.99	3.88	2
5.70	4.08	.81	6.00	3.99	3.88	2
5.47	3.92	.78	6.00	3.99	3.84	2
5.23	3.75	.75	6.00	4.00	3.80	2
4.99	3.58	.71	6.00	4.00	3.77	2
4.76	3.41	.68	6.00	4.00	3.73	2
4.52	3.25	.65	6.00	4.01	3.70	2
4.29	3.08	.61	6.00	4.01	3.69	2
4.05	2.91	.58	6.00	4.01	3.67	2
3.82	2.74	.55	6.00	4.01	3.66	2
3.58	2.57	.51	6.00	4.02	3.65	2
3.35	2.40	.48	6.00	4.02	3.64	2
3.35	2.40	.48	6.00	4.02	3.64	2
3.11	2.24	.44	6.00	4.02	3.62	2
2.88	2.07	.41	6.00	4.02	3.61	2
2.64	1.90	.38	6.00	4.02	3.60	2
2.41	1.73	.34	6.00	4.02	3.59	2
2.18	1.56	.31	6.00	4.02	3.57	2
1.94	1.39	.28	6.00	4.02	3.56	2
1.71	1.22	.24	6.00	4.02	3.55	2

1.47	1.06	.21	6.00	4.03	3.54	2
1.24	.89	.18	6.00	4.03	3.52	2
1.00	.72	.14	6.00	4.03	3.51	2
1.00	.72	.14	6.00	4.03	3.51	2
.90	.65	.13	6.00	4.03	3.51	2
.80	.57	.11	6.00	4.03	3.50	2
.70	.50	.10	6.00	4.03	3.50	2
.60	.43	.09	6.00	4.03	3.49	2
.50	.36	.07	6.00	4.03	3.48	2
.40	.29	.06	6.00	4.03	3.48	2
.30	.22	.04	6.00	4.03	3.47	2
.20	.14	.03	6.00	4.03	3.47	2
.10	.07	.01	6.00	4.03	3.46	2
.00	.00	.00	6.00	4.03	3.46	2

Time = 3150. Degree of Consolidation = 64.%

Total Settlement = 2.879

Settlement at End of Primary Consolidation = 3.205

Settlement caused by Primary Consolidation at time 3150. = 2.046

Settlement caused by Secondary Compression at time 3150. = .000

Settlement Due to Desiccation = .833

Surface Elevation = 2.58

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.28	2.13	6.00	4.03	3.46	1
9.35	8.75	2.02	4.29	3.91	3.42	1
8.79	8.23	1.91	4.21	3.81	3.38	1
8.25	7.73	1.81	4.12	3.73	3.34	1
7.71	7.23	1.70	4.02	3.65	3.30	1
7.18	6.74	1.60	3.93	3.59	3.27	1
6.66	6.25	1.49	3.82	3.53	3.24	1
6.15	5.77	1.38	3.71	3.47	3.22	1
5.65	5.30	1.28	3.66	3.42	3.19	1
5.16	4.83	1.17	3.62	3.36	3.17	1
4.67	4.37	1.06	3.59	3.31	3.14	1
4.18	3.92	.96	3.55	3.27	3.12	1
3.70	3.47	.85	3.51	3.22	3.09	1
3.23	3.02	.74	3.47	3.18	3.07	1
2.75	2.58	.64	3.43	3.14	3.04	1
2.28	2.14	.53	3.39	3.10	3.01	1
1.82	1.70	.43	3.35	3.07	2.99	1
1.36	1.27	.32	3.31	3.04	2.98	1
.90	.85	.21	3.27	3.00	2.97	1
.45	.42	.11	3.25	2.97	2.96	1
.00	.00	.00	3.22	2.95	2.95	1

Time = 6030. Degree of Consolidation = 61.%

Total Settlement = .698

Settlement at End of Primary Consolidation = 1.141

Settlement caused by Primary Consolidation at time 6030. = .698

Settlement caused by Secondary Compression at time 6030. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
8.05	5.17	1.15	6.00	1.23	1.23	2
7.82	5.09	1.12	6.00	1.23	1.23	2
7.58	5.02	1.08	6.00	1.23	1.23	2
7.35	4.95	1.05	6.00	1.23	1.23	2
7.11	4.87	1.02	6.00	1.23	1.23	2
6.88	4.78	.98	6.00	1.23	1.23	2
6.64	4.72	.95	6.00	1.23	1.23	2
6.41	4.58	.91	6.00	3.97	3.97	2
6.17	4.42	.88	6.00	3.98	3.94	2
5.94	4.25	.85	6.00	3.98	3.91	2
5.70	4.08	.81	6.00	3.98	3.88	2
5.70	4.08	.81	6.00	3.98	3.88	2
5.47	3.92	.78	6.00	3.99	3.84	2
5.23	3.75	.75	6.00	3.99	3.80	2
4.99	3.58	.71	6.00	4.00	3.77	2
4.76	3.41	.68	6.00	4.00	3.73	2
4.52	3.24	.65	6.00	4.00	3.70	2
4.29	3.08	.61	6.00	4.01	3.69	2
4.05	2.91	.58	6.00	4.01	3.67	2
3.82	2.74	.55	6.00	4.01	3.66	2
3.58	2.57	.51	6.00	4.01	3.65	2
3.35	2.40	.48	6.00	4.01	3.64	2
3.35	2.40	.48	6.00	4.01	3.64	2
3.11	2.24	.44	6.00	4.02	3.62	2
2.88	2.07	.41	6.00	4.02	3.61	2
2.64	1.90	.38	6.00	4.02	3.60	2
2.41	1.73	.34	6.00	4.02	3.59	2
2.18	1.56	.31	6.00	4.02	3.57	2
1.94	1.39	.28	6.00	4.02	3.56	2
1.71	1.22	.24	6.00	4.02	3.55	2
1.47	1.06	.21	6.00	4.02	3.54	2
1.24	.89	.18	6.00	4.02	3.52	2
1.00	.72	.14	6.00	4.03	3.51	2
1.00	.72	.14	6.00	4.03	3.51	2
.90	.65	.13	6.00	4.03	3.51	2
.80	.57	.11	6.00	4.03	3.50	2
.70	.50	.10	6.00	4.03	3.50	2
.60	.43	.09	6.00	4.03	3.49	2
.50	.36	.07	6.00	4.03	3.48	2
.40	.29	.06	6.00	4.03	3.48	2
.30	.22	.04	6.00	4.03	3.47	2
.20	.14	.03	6.00	4.03	3.47	2
.10	.07	.01	6.00	4.03	3.46	2
.00	.00	.00	6.00	4.03	3.46	2

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Time =    6030.     Degree of Consolidation =  64.%

Total Settlement =    2.880

Settlement at End of Primary Consolidation =   3.205

Settlement caused by Primary Consolidation at time 6030. =    2.047

Settlement caused by Secondary Compression at time 6030. =     .000

Settlement Due to Desiccation =     .833

Surface Elevation =     2.47
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Consolidation and desiccation of soft layers---dredged fill
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Problem CALCASIEU RIVER AND PASS, Marsh 4-5ft USACE B&C

*****************Soil data for compressible foundation****************

Material Type	Layer Thickness	Numbers of Sub-layers	Ca/Cc	Cr/Cc
1	10.00	20	.040	.150

Material type : 1 Specific Gravity of Solids: 2.70

I	Void Ratio	Effective Stress	Perm- eability	k/1+e PK	Beta	Dsde	Alpha
1	6.000	.000E+00	.100E-01	.143E-02	.879E-04	-.400E+01	-.571E-02
2	5.500	.200E+01	.900E-02	.138E-02	.595E-03	-.500E+01	-.692E-02
3	5.000	.500E+01	.500E-02	.833E-03	.965E-03	-.667E+01	-.556E-02
4	4.300	.100E+02	.120E-02	.226E-03	.871E-03	-.294E+02	-.666E-02
5	4.150	.300E+02	.480E-03	.932E-04	.403E-03	-.125E+03	-.117E-01
6	3.900	.600E+02	.320E-03	.653E-04	.113E-03	-.111E+03	-.726E-02
7	3.700	.800E+02	.200E-03	.426E-04	.488E-04	-.226E+03	-.961E-02
8	3.280	.200E+03	.150E-03	.350E-04	.251E-04	-.350E+03	-.123E-01
9	3.000	.325E+03	.100E-03	.250E-04	.208E-04	-.714E+03	-.179E-01
10	2.650	.650E+03	.800E-04	.219E-04	.146E-04	-.143E+04	-.314E-01
11	2.320	.130E+04	.500E-04	.151E-04	.223E-04	-.327E+04	-.493E-01
12	2.100	.245E+04	.300E-04	.968E-05	.212E-04	-.683E+04	-.661E-01
13	1.780	.499E+04	.100E-04	.360E-05	.190E-04	-.794E+04	-.286E-01

**********************Soil data for dredged fill**********************

Material Type	Specific Gravity	Ca/Cc	Cr/Cc	Saturation Limit	Disication Limit
2	2.710	.040	.150	1.640	1.230

Material type : 2

I	Void Ratio	Effective Stress	Perm-eability	k/1+e PK	Beta	Dsde	Alpha
1	6.000	.000E+00	.100E-01	.143E-02	.879E-04	-.400E+01	-.571E-02
2	5.500	.200E+01	.900E-02	.138E-02	.595E-03	-.500E+01	-.692E-02
3	5.000	.500E+01	.500E-02	.833E-03	.965E-03	-.667E+01	-.556E-02
4	4.300	.100E+02	.120E-02	.226E-03	.871E-03	-.294E+02	-.666E-02
5	4.150	.300E+02	.480E-03	.932E-04	.403E-03	-.125E+03	-.117E-01
6	3.900	.600E+02	.320E-03	.653E-04	.113E-03	-.111E+03	-.726E-02
7	3.700	.800E+02	.200E-03	.426E-04	.488E-04	-.226E+03	-.961E-02
8	3.280	.200E+03	.150E-03	.350E-04	.251E-04	-.350E+03	-.123E-01
9	3.000	.325E+03	.100E-03	.250E-04	.208E-04	-.714E+03	-.179E-01
10	2.650	.650E+03	.800E-04	.219E-04	.146E-04	-.143E+04	-.314E-01
11	2.320	.130E+04	.500E-04	.151E-04	.223E-04	-.327E+04	-.493E-01
12	2.100	.245E+04	.300E-04	.968E-05	.212E-04	-.683E+04	-.661E-01
13	1.780	.499E+04	.100E-04	.360E-05	.190E-04	-.794E+04	-.286E-01

Summary of lifts and print detail

Time days	Material Type	Fill Height	# Sub-layers	Void ratio	Start Day	Dessic. Month	Print detai
0.	2	1.0	10	6.00	1050.	7	2
120.	2	2.8	10	6.00	210.	7	2
240.	2	2.8	10	6.00	330.	7	2
360.	2	2.8	10	6.00	450.	7	2
390.					480.	7	2
450.					540.	7	2
630.					720.	7	2
990.					1080.	7	2
1710.					1800.	7	2
3150.					3240.	7	2
6030.					6120.	7	2

Summary of monthly rainfall and evaporation potential

Month	Rainfall	Evaporation
1	.480	.090
2	.290	.130
3	.320	.210
4	.330	.410
5	.410	.550
6	.550	.570
7	.550	.400
8	.460	.480
9	.460	.420

10	.360	.240
11	.390	.110
12	.360	.090

****************************Calculation data****************************

tau	Lower layer Void ratio	Lower layer Permeability	drainage path Length
.953E-01	.500	.50000	z = .67

Summary of desiccation parameters

Parameter	Value
Surface Drainage Efficiency	.50
maximum evaporation efficiency	1.00
saturation at desiccation limit	.50
maximum crust thickness	.50
time to desic. after initial fill	1050.00
month of initial desiccation	7
elevation of fixed water table	.00
elevation of top of incompres. found.	-13.00

**************Initial Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.98	2.13	6.00	6.00	4.26	1
9.35	9.35	2.02	4.29	4.29	4.18	1
8.79	8.79	1.91	4.21	4.21	4.08	1
8.25	8.25	1.81	4.12	4.12	3.99	1
7.71	7.71	1.70	4.02	4.02	3.90	1
7.18	7.18	1.60	3.93	3.93	3.78	1
6.66	6.66	1.49	3.82	3.82	3.69	1
6.15	6.15	1.38	3.71	3.71	3.65	1
5.65	5.65	1.28	3.66	3.66	3.61	1
5.16	5.16	1.17	3.62	3.62	3.57	1
4.67	4.67	1.06	3.59	3.59	3.53	1
4.18	4.18	.96	3.55	3.55	3.49	1
3.70	3.70	.85	3.51	3.51	3.45	1
3.23	3.23	.74	3.47	3.47	3.41	1
2.75	2.75	.64	3.43	3.43	3.37	1
2.28	2.28	.53	3.39	3.39	3.33	1
1.82	1.82	.43	3.35	3.35	3.29	1

1.36	1.36	.32	3.31	3.31	3.26	1
.90	.90	.21	3.27	3.27	3.24	1
.45	.45	.11	3.25	3.25	3.21	1
.00	.00	.00	3.22	3.22	3.19	1

Time = 0. Degree of Consolidation = 0.%

Total Settlement = .000

Settlement at End of Primary Consolidation = .216

Settlement caused by Primary Consolidation at time 0. = .000

Settlement caused by Secondary Compression at time 0. = .000

*******************Initial Conditions in Dredged Fill*******************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
1.00	1.00	.14	6.00	6.00	6.00	2
.90	.90	.13	6.00	6.00	5.62	2
.80	.80	.11	6.00	6.00	5.33	2
.70	.70	.10	6.00	6.00	5.07	2
.60	.60	.09	6.00	6.00	4.85	2
.50	.50	.07	6.00	6.00	4.63	2
.40	.40	.06	6.00	6.00	4.42	2
.30	.30	.04	6.00	6.00	4.29	2
.20	.20	.03	6.00	6.00	4.28	2
.10	.10	.01	6.00	6.00	4.27	2
.00	.00	.00	6.00	6.00	4.26	2

Time = 0. Degree of Consolidation = 0.%

Total Settlement = .000

Settlement at End of Primary Consolidation = .173

Settlement caused by Primary Consolidation at time 0. = .000

Settlement caused by Secondary Compression at time 0. = .000

**************Current Conditions in Compressible Foundation*************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.98	9.88	2.13	6.00	4.29	4.26	1
9.35	9.32	2.02	4.29	4.20	4.18	1
8.79	8.77	1.91	4.21	4.14	4.08	1
8.25	8.23	1.81	4.12	4.07	3.99	1
7.71	7.69	1.70	4.02	3.99	3.90	1
7.18	7.16	1.60	3.93	3.90	3.78	1

6.66	6.65	1.49	3.82	3.80	3.69	1
6.15	6.14	1.38	3.71	3.71	3.65	1
5.65	5.65	1.28	3.66	3.66	3.61	1
5.16	5.15	1.17	3.62	3.62	3.57	1
4.67	4.66	1.06	3.59	3.58	3.53	1
4.18	4.18	.96	3.55	3.54	3.49	1
3.70	3.70	.85	3.51	3.50	3.45	1
3.23	3.22	.74	3.47	3.46	3.41	1
2.75	2.75	.64	3.43	3.42	3.37	1
2.28	2.28	.53	3.39	3.38	3.33	1
1.82	1.81	.43	3.35	3.35	3.29	1
1.36	1.35	.32	3.31	3.31	3.26	1
.90	.90	.21	3.27	3.27	3.24	1
.45	.45	.11	3.25	3.23	3.21	1
.00	.00	.00	3.22	3.19	3.19	1

Time = 120. Degree of Consolidation = 47.%

Total Settlement = .102

Settlement at End of Primary Consolidation = .216

Settlement caused by Primary Consolidation at time 120. = .102

Settlement caused by Secondary Compression at time 120. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
1.00	.84	.14	6.00	6.00	6.00	2
.90	.74	.13	6.00	5.68	5.62	2
.80	.65	.11	6.00	5.40	5.33	2
.70	.56	.10	6.00	5.16	5.07	2
.60	.48	.09	6.00	4.94	4.85	2
.50	.39	.07	6.00	4.76	4.63	2
.40	.31	.06	6.00	4.62	4.42	2
.30	.23	.04	6.00	4.51	4.29	2
.20	.15	.03	6.00	4.42	4.28	2
.10	.08	.01	6.00	4.35	4.27	2
.00	.00	.00	6.00	4.29	4.26	2

Time = 120. Degree of Consolidation = 91.%

Total Settlement = .158

Settlement at End of Primary Consolidation = .173

Settlement caused by Primary Consolidation at time 120. = .158

Settlement caused by Secondary Compression at time 120. = .000

Surface Elevation = -2.26

**************Current Conditions in Compressible Foundation*************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.98	9.83	2.13	6.00	4.28	3.92	1
9.35	9.28	2.02	4.29	4.17	3.81	1
8.79	8.73	1.91	4.21	4.10	3.70	1
8.25	8.19	1.81	4.12	4.03	3.66	1
7.71	7.66	1.70	4.02	3.96	3.62	1
7.18	7.14	1.60	3.93	3.87	3.58	1
6.66	6.62	1.49	3.82	3.79	3.54	1
6.15	6.12	1.38	3.71	3.71	3.50	1
5.65	5.62	1.28	3.66	3.66	3.46	1
5.16	5.13	1.17	3.62	3.62	3.42	1
4.67	4.64	1.06	3.59	3.58	3.38	1
4.18	4.15	.96	3.55	3.54	3.34	1
3.70	3.67	.85	3.51	3.50	3.30	1
3.23	3.20	.74	3.47	3.46	3.27	1
2.75	2.73	.64	3.43	3.42	3.25	1
2.28	2.26	.53	3.39	3.38	3.22	1
1.82	1.80	.43	3.35	3.33	3.19	1
1.36	1.34	.32	3.31	3.28	3.17	1
.90	.88	.21	3.27	3.22	3.14	1
.45	.44	.11	3.25	3.16	3.12	1
.00	.00	.00	3.22	3.09	3.09	1

Time = 240. Degree of Consolidation = 24.%

Total Settlement = .146

Settlement at End of Primary Consolidation = .598

Settlement caused by Primary Consolidation at time 240. = .146

Settlement caused by Secondary Compression at time 240. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
3.78	3.34	.54	6.00	6.00	6.00	2
3.50	3.06	.50	6.00	5.97	5.13	2
3.22	2.78	.46	6.00	5.93	4.51	2
2.95	2.51	.42	6.00	5.86	4.28	2
2.67	2.24	.38	6.00	5.75	4.25	2
2.39	1.97	.34	6.00	5.59	4.22	2
2.11	1.72	.30	6.00	5.39	4.18	2
1.83	1.47	.26	6.00	5.16	4.15	2
1.56	1.23	.22	6.00	4.93	4.12	2
1.28	1.00	.18	6.00	4.74	4.08	2
1.00	.77	.14	6.00	4.59	4.05	2
1.00	.77	.14	6.00	4.59	4.05	2
.90	.69	.13	6.00	4.54	4.03	2
.80	.61	.11	6.00	4.49	4.02	2

.70	.53	.10	6.00	4.45	4.01	2
.60	.46	.09	6.00	4.41	4.00	2
.50	.38	.07	6.00	4.38	3.98	2
.40	.30	.06	6.00	4.35	3.97	2
.30	.23	.04	6.00	4.33	3.96	2
.20	.15	.03	6.00	4.31	3.95	2
.10	.08	.01	6.00	4.29	3.93	2
.00	.00	.00	6.00	4.28	3.92	2

Time = 240. Degree of Consolidation = 48.%

Total Settlement = .442

Settlement at End of Primary Consolidation = .929

Settlement caused by Primary Consolidation at time 240. = .442

Settlement caused by Secondary Compression at time 240. = .000

Settlement Due to Desiccation = .000

Surface Elevation = .19

*************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.78	2.13	6.00	4.20	3.63	1
9.35	9.23	2.02	4.29	4.13	3.59	1
8.79	8.69	1.91	4.21	4.07	3.55	1
8.25	8.15	1.81	4.12	4.00	3.51	1
7.71	7.62	1.70	4.02	3.93	3.47	1
7.18	7.10	1.60	3.93	3.85	3.43	1
6.66	6.59	1.49	3.82	3.78	3.39	1
6.15	6.09	1.38	3.71	3.71	3.35	1
5.65	5.59	1.28	3.66	3.66	3.31	1
5.16	5.10	1.17	3.62	3.62	3.28	1
4.67	4.61	1.06	3.59	3.57	3.25	1
4.18	4.12	.96	3.55	3.53	3.23	1
3.70	3.64	.85	3.51	3.49	3.20	1
3.23	3.17	.74	3.47	3.45	3.18	1
2.75	2.70	.64	3.43	3.41	3.15	1
2.28	2.23	.53	3.39	3.36	3.12	1
1.82	1.77	.43	3.35	3.31	3.10	1
1.36	1.31	.32	3.31	3.24	3.07	1
.90	.87	.21	3.27	3.16	3.05	1
.45	.43	.11	3.25	3.08	3.02	1
.00	.00	.00	3.22	3.00	3.00	1

Time = 360. Degree of Consolidation = 22.%

Total Settlement = .197

Settlement at End of Primary Consolidation = .876

Settlement caused by Primary Consolidation at time 360. = .197

Settlement caused by Secondary Compression at time 360. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
6.56	5.81	.94	6.00	3.22	6.00	2
6.28	5.57	.90	6.00	6.00	5.13	2
6.00	5.29	.86	6.00	6.00	4.51	2
5.73	5.01	.82	6.00	5.99	4.28	2
5.45	4.73	.78	6.00	5.99	4.25	2
5.17	4.46	.74	6.00	5.97	4.22	2
4.89	4.18	.70	6.00	5.95	4.18	2
4.61	3.90	.66	6.00	5.91	4.15	2
4.34	3.63	.62	6.00	5.85	4.12	2
4.06	3.36	.58	6.00	5.76	4.08	2
3.78	3.09	.54	6.00	5.63	4.05	2
3.78	3.09	.54	6.00	5.63	4.05	2
3.50	2.83	.50	6.00	5.51	4.01	2
3.22	2.58	.46	6.00	5.36	3.98	2
2.95	2.33	.42	6.00	5.18	3.94	2
2.67	2.09	.38	6.00	4.99	3.91	2
2.39	1.85	.34	6.00	4.82	3.86	2
2.11	1.62	.30	6.00	4.68	3.82	2
1.83	1.40	.26	6.00	4.57	3.78	2
1.56	1.18	.22	6.00	4.48	3.74	2
1.28	.97	.18	6.00	4.41	3.70	2
1.00	.75	.14	6.00	4.34	3.68	2
1.00	.75	.14	6.00	4.34	3.68	2
.90	.68	.13	6.00	4.32	3.68	2
.80	.60	.11	6.00	4.30	3.67	2
.70	.52	.10	6.00	4.29	3.67	2
.60	.45	.09	6.00	4.27	3.66	2
.50	.37	.07	6.00	4.26	3.66	2
.40	.30	.06	6.00	4.24	3.65	2
.30	.22	.04	6.00	4.23	3.65	2
.20	.15	.03	6.00	4.22	3.64	2
.10	.07	.01	6.00	4.21	3.64	2
.00	.00	.00	6.00	4.20	3.63	2

Time = 360. Degree of Consolidation = 38.%

Total Settlement = .753

Settlement at End of Primary Consolidation = 1.825

Settlement caused by Primary Consolidation at time 360. = .698

Settlement caused by Secondary Compression at time 360. = .000

Settlement Due to Desiccation = .055

Surface Elevation = 2.61

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.77	2.13	6.00	4.19	3.48	1
9.35	9.22	2.02	4.29	4.12	3.44	1
8.79	8.68	1.91	4.21	4.06	3.40	1
8.25	8.14	1.81	4.12	4.00	3.36	1
7.71	7.61	1.70	4.02	3.93	3.32	1
7.18	7.09	1.60	3.93	3.85	3.28	1
6.66	6.58	1.49	3.82	3.78	3.26	1
6.15	6.08	1.38	3.71	3.71	3.23	1
5.65	5.58	1.28	3.66	3.66	3.21	1
5.16	5.09	1.17	3.62	3.62	3.18	1
4.67	4.60	1.06	3.59	3.57	3.16	1
4.18	4.11	.96	3.55	3.53	3.13	1
3.70	3.63	.85	3.51	3.49	3.11	1
3.23	3.16	.74	3.47	3.45	3.08	1
2.75	2.69	.64	3.43	3.41	3.06	1
2.28	2.22	.53	3.39	3.36	3.03	1
1.82	1.76	.43	3.35	3.30	3.00	1
1.36	1.31	.32	3.31	3.23	2.99	1
.90	.86	.21	3.27	3.15	2.98	1
.45	.43	.11	3.25	3.05	2.97	1
.00	.00	.00	3.22	2.95	2.95	1

Time = 390. Degree of Consolidation = 19.%

Total Settlement = .211

Settlement at End of Primary Consolidation = 1.107

Settlement caused by Primary Consolidation at time 390. = .211

Settlement caused by Secondary Compression at time 390. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.34	8.42	1.33	6.00	6.00	6.00	2
9.06	8.14	1.29	6.00	6.00	5.13	2
8.78	7.87	1.25	6.00	6.00	4.51	2
8.51	7.59	1.22	6.00	6.00	4.28	2
8.23	7.31	1.18	6.00	6.00	4.25	2
7.95	7.03	1.14	6.00	5.99	4.22	2
7.67	6.76	1.10	6.00	5.96	4.18	2
7.39	6.48	1.06	6.00	5.89	4.15	2
7.12	6.21	1.02	6.00	5.73	4.12	2
6.84	5.95	.98	6.00	5.47	4.08	2
6.56	5.70	.94	6.00	5.17	4.05	2
6.56	5.70	.94	6.00	4.61	4.05	2
6.28	5.46	.90	6.00	5.31	4.01	2
6.00	5.20	.86	6.00	5.67	3.98	2

5.73	4.93	.82	6.00	5.85	3.94	2
5.45	4.66	.78	6.00	5.92	3.91	2
5.17	4.38	.74	6.00	5.93	3.86	2
4.89	4.11	.70	6.00	5.90	3.82	2
4.61	3.83	.66	6.00	5.84	3.78	2
4.34	3.56	.62	6.00	5.74	3.74	2
4.06	3.30	.58	6.00	5.61	3.70	2
3.78	3.04	.54	6.00	5.45	3.68	2
3.78	3.04	.54	6.00	5.45	3.68	2
3.50	2.79	.50	6.00	5.33	3.67	2
3.22	2.54	.46	6.00	5.17	3.65	2
2.95	2.30	.42	6.00	4.99	3.64	2
2.67	2.06	.38	6.00	4.83	3.62	2
2.39	1.83	.34	6.00	4.70	3.61	2
2.11	1.61	.30	6.00	4.59	3.59	2
1.83	1.39	.26	6.00	4.49	3.58	2
1.56	1.17	.22	6.00	4.41	3.56	2
1.28	.96	.18	6.00	4.34	3.55	2
1.00	.75	.14	6.00	4.28	3.54	2
1.00	.75	.14	6.00	4.28	3.54	2
.90	.67	.13	6.00	4.27	3.53	2
.80	.60	.11	6.00	4.26	3.52	2
.70	.52	.10	6.00	4.25	3.52	2
.60	.45	.09	6.00	4.24	3.51	2
.50	.37	.07	6.00	4.23	3.51	2
.40	.30	.06	6.00	4.22	3.50	2
.30	.22	.04	6.00	4.21	3.50	2
.20	.15	.03	6.00	4.21	3.49	2
.10	.07	.01	6.00	4.20	3.49	2
.00	.00	.00	6.00	4.19	3.48	2

Time = 390. Degree of Consolidation = 31.%

Total Settlement = .918

Settlement at End of Primary Consolidation = 2.796

Settlement caused by Primary Consolidation at time 390. = .863

Settlement caused by Secondary Compression at time 390. = .000

Surface Elevation = 5.21

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.74	2.13	6.00	4.16	3.48	1
9.35	9.20	2.02	4.29	4.10	3.44	1
8.79	8.66	1.91	4.21	4.05	3.40	1
8.25	8.13	1.81	4.12	3.98	3.36	1
7.71	7.60	1.70	4.02	3.92	3.32	1
7.18	7.08	1.60	3.93	3.84	3.28	1
6.66	6.57	1.49	3.82	3.77	3.26	1
6.15	6.06	1.38	3.71	3.71	3.23	1
5.65	5.57	1.28	3.66	3.66	3.21	1
5.16	5.07	1.17	3.62	3.62	3.18	1

4.67	4.58	1.06	3.59	3.57	3.16	1
4.18	4.10	.96	3.55	3.53	3.13	1
3.70	3.62	.85	3.51	3.49	3.11	1
3.23	3.15	.74	3.47	3.44	3.08	1
2.75	2.68	.64	3.43	3.40	3.06	1
2.28	2.21	.53	3.39	3.34	3.03	1
1.82	1.75	.43	3.35	3.28	3.00	1
1.36	1.30	.32	3.31	3.21	2.99	1
.90	.86	.21	3.27	3.12	2.98	1
.45	.42	.11	3.25	3.04	2.97	1
.00	.00	.00	3.22	2.95	2.95	1

Time = 450. Degree of Consolidation = 21.%

Total Settlement = .233

Settlement at End of Primary Consolidation = 1.107

Settlement caused by Primary Consolidation at time 450. = .233

Settlement caused by Secondary Compression at time 450. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.34	8.17	1.33	6.00	6.00	6.00	2
9.06	7.90	1.29	6.00	5.99	5.13	2
8.78	7.62	1.25	6.00	5.98	4.51	2
8.51	7.34	1.22	6.00	5.95	4.28	2
8.23	7.07	1.18	6.00	5.89	4.25	2
7.95	6.79	1.14	6.00	5.80	4.22	2
7.67	6.53	1.10	6.00	5.66	4.18	2
7.39	6.27	1.06	6.00	5.49	4.15	2
7.12	6.01	1.02	6.00	5.31	4.12	2
6.84	5.76	.98	6.00	5.13	4.08	2
6.56	5.52	.94	6.00	4.98	4.05	2
6.56	5.52	.94	6.00	4.61	4.05	2
6.28	5.29	.90	6.00	5.18	4.01	2
6.00	5.04	.86	6.00	5.46	3.98	2
5.73	4.78	.82	6.00	5.62	3.94	2
5.45	4.51	.78	6.00	5.70	3.91	2
5.17	4.25	.74	6.00	5.72	3.86	2
4.89	3.98	.70	6.00	5.68	3.82	2
4.61	3.72	.66	6.00	5.59	3.78	2
4.34	3.46	.62	6.00	5.46	3.74	2
4.06	3.20	.58	6.00	5.31	3.70	2
3.78	2.96	.54	6.00	5.14	3.68	2
3.78	2.96	.54	6.00	5.14	3.68	2
3.50	2.72	.50	6.00	4.98	3.67	2
3.22	2.48	.46	6.00	4.83	3.65	2
2.95	2.25	.42	6.00	4.71	3.64	2
2.67	2.03	.38	6.00	4.60	3.62	2
2.39	1.81	.34	6.00	4.51	3.61	2
2.11	1.59	.30	6.00	4.43	3.59	2
1.83	1.37	.26	6.00	4.37	3.58	2
1.56	1.16	.22	6.00	4.32	3.56	2

1.28	.95	.18	6.00	4.28	3.55	2
1.00	.74	.14	6.00	4.25	3.54	2
1.00	.74	.14	6.00	4.25	3.54	2
.90	.67	.13	6.00	4.24	3.53	2
.80	.59	.11	6.00	4.23	3.52	2
.70	.52	.10	6.00	4.22	3.52	2
.60	.44	.09	6.00	4.21	3.51	2
.50	.37	.07	6.00	4.20	3.51	2
.40	.30	.06	6.00	4.19	3.50	2
.30	.22	.04	6.00	4.18	3.50	2
.20	.15	.03	6.00	4.18	3.49	2
.10	.07	.01	6.00	4.17	3.49	2
.00	.00	.00	6.00	4.16	3.48	2

Time = 450. Degree of Consolidation = 40.%

Total Settlement = 1.167

Settlement at End of Primary Consolidation = 2.796

Settlement caused by Primary Consolidation at time 450. = 1.112

Settlement caused by Secondary Compression at time 450. = .000

Surface Elevation = 4.94

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.69	2.13	6.00	4.10	3.48	1
9.35	9.15	2.02	4.29	4.06	3.44	1
8.79	8.62	1.91	4.21	4.01	3.40	1
8.25	8.09	1.81	4.12	3.95	3.36	1
7.71	7.56	1.70	4.02	3.89	3.32	1
7.18	7.05	1.60	3.93	3.82	3.28	1
6.66	6.54	1.49	3.82	3.76	3.26	1
6.15	6.04	1.38	3.71	3.71	3.23	1
5.65	5.54	1.28	3.66	3.66	3.21	1
5.16	5.04	1.17	3.62	3.61	3.18	1
4.67	4.56	1.06	3.59	3.57	3.16	1
4.18	4.07	.96	3.55	3.52	3.13	1
3.70	3.59	.85	3.51	3.47	3.11	1
3.23	3.12	.74	3.47	3.42	3.08	1
2.75	2.65	.64	3.43	3.37	3.06	1
2.28	2.19	.53	3.39	3.30	3.03	1
1.82	1.74	.43	3.35	3.23	3.00	1
1.36	1.29	.32	3.31	3.16	2.99	1
.90	.85	.21	3.27	3.09	2.98	1
.45	.42	.11	3.25	3.02	2.97	1
.00	.00	.00	3.22	2.95	2.95	1

Time = 630. Degree of Consolidation = 26.%

Total Settlement = .284

Settlement at End of Primary Consolidation = 1.107

Settlement caused by Primary Consolidation at time 630. = .284

Settlement caused by Secondary Compression at time 630. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates ***** ***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
9.34	7.28	1.33	6.00	1.64	6.00	2
9.06	7.20	1.29	6.00	1.64	5.13	2
8.78	7.04	1.25	6.00	4.10	4.51	2
8.51	6.80	1.22	6.00	5.26	4.28	2
8.23	6.56	1.18	6.00	5.19	4.25	2
7.95	6.31	1.14	6.00	5.09	4.22	2
7.67	6.07	1.10	6.00	5.00	4.18	2
7.39	5.84	1.06	6.00	4.92	4.15	2
7.12	5.60	1.02	6.00	4.86	4.12	2
6.84	5.37	.98	6.00	4.81	4.08	2
6.56	5.14	.94	6.00	4.77	4.05	2
6.56	5.14	.94	6.00	4.61	4.05	2
6.28	4.91	.90	6.00	4.89	4.01	2
6.00	4.67	.86	6.00	5.01	3.98	2
5.73	4.44	.82	6.00	5.02	3.94	2
5.45	4.20	.78	6.00	4.97	3.91	2
5.17	3.96	.74	6.00	4.90	3.86	2
4.89	3.73	.70	6.00	4.81	3.82	2
4.61	3.50	.66	6.00	4.72	3.78	2
4.34	3.27	.62	6.00	4.64	3.74	2
4.06	3.05	.58	6.00	4.57	3.70	2
3.78	2.83	.54	6.00	4.50	3.68	2
3.78	2.83	.54	6.00	4.50	3.68	2
3.50	2.62	.50	6.00	4.43	3.67	2
3.22	2.40	.46	6.00	4.38	3.65	2
2.95	2.19	.42	6.00	4.33	3.64	2
2.67	1.98	.38	6.00	4.29	3.62	2
2.39	1.77	.34	6.00	4.26	3.61	2
2.11	1.56	.30	6.00	4.24	3.59	2
1.83	1.35	.26	6.00	4.22	3.58	2
1.56	1.15	.22	6.00	4.20	3.56	2
1.28	.94	.18	6.00	4.18	3.55	2
1.00	.73	.14	6.00	4.16	3.54	2
1.00	.73	.14	6.00	4.16	3.54	2
.90	.66	.13	6.00	4.16	3.53	2
.80	.59	.11	6.00	4.15	3.52	2
.70	.51	.10	6.00	4.15	3.52	2
.60	.44	.09	6.00	4.14	3.51	2
.50	.37	.07	6.00	4.13	3.51	2
.40	.29	.06	6.00	4.13	3.50	2
.30	.22	.04	6.00	4.12	3.50	2
.20	.15	.03	6.00	4.12	3.49	2
.10	.07	.01	6.00	4.11	3.49	2
.00	.00	.00	6.00	4.10	3.48	2

Time = 630. Degree of Consolidation = 61.%

Total Settlement = 2.060

Settlement at End of Primary Consolidation = 2.796

Settlement caused by Primary Consolidation at time 630. = 1.708

Settlement caused by Secondary Compression at time 630. = .000

Settlement Due to Desiccation = .353

Surface Elevation = 4.00

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.61	2.13	6.00	4.03	3.41	1
9.35	9.07	2.02	4.29	3.99	3.37	1
8.79	8.55	1.91	4.21	3.95	3.33	1
8.25	8.02	1.81	4.12	3.90	3.29	1
7.71	7.50	1.70	4.02	3.84	3.26	1
7.18	6.99	1.60	3.93	3.79	3.24	1
6.66	6.48	1.49	3.82	3.74	3.21	1
6.15	5.98	1.38	3.71	3.69	3.19	1
5.65	5.49	1.28	3.66	3.64	3.16	1
5.16	5.00	1.17	3.62	3.59	3.14	1
4.67	4.51	1.06	3.59	3.54	3.11	1
4.18	4.03	.96	3.55	3.49	3.09	1
3.70	3.56	.85	3.51	3.43	3.06	1
3.23	3.09	.74	3.47	3.37	3.04	1
2.75	2.63	.64	3.43	3.31	3.01	1
2.28	2.17	.53	3.39	3.24	2.99	1
1.82	1.72	.43	3.35	3.18	2.98	1
1.36	1.28	.32	3.31	3.11	2.97	1
.90	.85	.21	3.27	3.05	2.96	1
.45	.42	.11	3.25	2.99	2.94	1
.00	.00	.00	3.22	2.93	2.93	1

Time = 990. Degree of Consolidation = 31.%

Total Settlement = .370

Settlement at End of Primary Consolidation = 1.201

Settlement caused by Primary Consolidation at time 990. = .370

Settlement caused by Secondary Compression at time 990. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material

9.34	6.51	1.33	6.00	1.23	1.23	2
9.06	6.43	1.29	6.00	1.23	1.23	2
8.78	6.33	1.25	6.00	1.23	1.23	2
8.51	6.28	1.22	6.00	1.23	1.23	2
8.23	6.12	1.18	6.00	4.09	4.09	2
7.95	5.92	1.14	6.00	4.20	4.06	2
7.67	5.71	1.10	6.00	4.30	4.02	2
7.39	5.50	1.06	6.00	4.35	3.99	2
7.12	5.28	1.02	6.00	4.37	3.95	2
6.84	5.07	.98	6.00	4.37	3.92	2
6.56	4.86	.94	6.00	4.36	3.88	2
6.56	4.86	.94	6.00	4.36	3.88	2
6.28	4.64	.90	6.00	4.34	3.84	2
6.00	4.43	.86	6.00	4.32	3.79	2
5.73	4.22	.82	6.00	4.30	3.75	2
5.45	4.01	.78	6.00	4.28	3.71	2
5.17	3.80	.74	6.00	4.27	3.69	2
4.89	3.59	.70	6.00	4.25	3.67	2
4.61	3.38	.66	6.00	4.24	3.66	2
4.34	3.18	.62	6.00	4.22	3.64	2
4.06	2.97	.58	6.00	4.21	3.63	2
3.78	2.76	.54	6.00	4.20	3.61	2
3.78	2.76	.54	6.00	4.20	3.61	2
3.50	2.56	.50	6.00	4.18	3.60	2
3.22	2.35	.46	6.00	4.17	3.58	2
2.95	2.15	.42	6.00	4.16	3.57	2
2.67	1.94	.38	6.00	4.15	3.55	2
2.39	1.74	.34	6.00	4.14	3.54	2
2.11	1.53	.30	6.00	4.13	3.53	2
1.83	1.33	.26	6.00	4.12	3.51	2
1.56	1.13	.22	6.00	4.10	3.50	2
1.28	.92	.18	6.00	4.09	3.48	2
1.00	.72	.14	6.00	4.08	3.47	2
1.00	.72	.14	6.00	4.08	3.47	2
.90	.65	.13	6.00	4.07	3.46	2
.80	.58	.11	6.00	4.07	3.46	2
.70	.50	.10	6.00	4.06	3.45	2
.60	.43	.09	6.00	4.06	3.44	2
.50	.36	.07	6.00	4.05	3.44	2
.40	.29	.06	6.00	4.05	3.43	2
.30	.22	.04	6.00	4.04	3.43	2
.20	.14	.03	6.00	4.04	3.42	2
.10	.07	.01	6.00	4.03	3.42	2
.00	.00	.00	6.00	4.03	3.41	2

Time = 990. Degree of Consolidation = 64.%

Total Settlement = 2.828

Settlement at End of Primary Consolidation = 3.450

Settlement caused by Primary Consolidation at time 990. = 2.211

Settlement caused by Secondary Compression at time 990. = .000

Settlement Due to Desiccation = .618

Surface Elevation = 3.14

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.49	2.13	6.00	4.03	3.40	1
9.35	8.96	2.02	4.29	3.96	3.36	1
8.79	8.44	1.91	4.21	3.89	3.32	1
8.25	7.92	1.81	4.12	3.83	3.28	1
7.71	7.41	1.70	4.02	3.78	3.26	1
7.18	6.90	1.60	3.93	3.73	3.23	1
6.66	6.40	1.49	3.82	3.68	3.20	1
6.15	5.91	1.38	3.71	3.63	3.18	1
5.65	5.42	1.28	3.66	3.58	3.15	1
5.16	4.93	1.17	3.62	3.53	3.13	1
4.67	4.45	1.06	3.59	3.47	3.10	1
4.18	3.98	.96	3.55	3.42	3.08	1
3.70	3.51	.85	3.51	3.36	3.05	1
3.23	3.05	.74	3.47	3.30	3.03	1
2.75	2.60	.64	3.43	3.24	3.00	1
2.28	2.15	.53	3.39	3.18	2.99	1
1.82	1.71	.43	3.35	3.12	2.98	1
1.36	1.28	.32	3.31	3.07	2.96	1
.90	.84	.21	3.27	3.02	2.95	1
.45	.42	.11	3.25	2.97	2.94	1
.00	.00	.00	3.22	2.93	2.93	1

Time = 1710. Degree of Consolidation = 40.%

Total Settlement = .485

Settlement at End of Primary Consolidation = 1.218

Settlement caused by Primary Consolidation at time 1710. = .485

Settlement caused by Secondary Compression at time 1710. = .000

*****************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.34	6.27	1.33	6.00	1.23	1.23	2
9.06	6.18	1.29	6.00	1.23	1.23	2
8.78	6.10	1.25	6.00	1.23	1.23	2
8.51	5.99	1.22	6.00	1.23	1.23	2
8.23	5.92	1.18	6.00	1.23	1.23	2
7.95	5.76	1.14	6.00	4.03	4.03	2
7.67	5.56	1.10	6.00	4.04	3.99	2
7.39	5.36	1.06	6.00	4.06	3.96	2
7.12	5.15	1.02	6.00	4.07	3.92	2
6.84	4.95	.98	6.00	4.07	3.88	2
6.56	4.75	.94	6.00	4.08	3.84	2
6.56	4.75	.94	6.00	4.08	3.84	2
6.28	4.55	.90	6.00	4.09	3.80	2
6.00	4.35	.86	6.00	4.09	3.76	2
5.73	4.14	.82	6.00	4.09	3.71	2

5.45	3.94	.78	6.00	4.10	3.69	2
5.17	3.74	.74	6.00	4.10	3.68	2
4.89	3.54	.70	6.00	4.09	3.66	2
4.61	3.34	.66	6.00	4.09	3.65	2
4.34	3.13	.62	6.00	4.09	3.63	2
4.06	2.93	.58	6.00	4.09	3.62	2
3.78	2.73	.54	6.00	4.08	3.60	2
3.78	2.73	.54	6.00	4.08	3.60	2
3.50	2.53	.50	6.00	4.08	3.59	2
3.22	2.33	.46	6.00	4.08	3.57	2
2.95	2.12	.42	6.00	4.07	3.56	2
2.67	1.92	.38	6.00	4.07	3.54	2
2.39	1.72	.34	6.00	4.06	3.53	2
2.11	1.52	.30	6.00	4.06	3.51	2
1.83	1.32	.26	6.00	4.05	3.50	2
1.56	1.12	.22	6.00	4.05	3.48	2
1.28	.92	.18	6.00	4.04	3.47	2
1.00	.72	.14	6.00	4.04	3.45	2
1.00	.72	.14	6.00	4.04	3.45	2
.90	.65	.13	6.00	4.04	3.45	2
.80	.58	.11	6.00	4.04	3.44	2
.70	.50	.10	6.00	4.04	3.44	2
.60	.43	.09	6.00	4.03	3.43	2
.50	.36	.07	6.00	4.03	3.43	2
.40	.29	.06	6.00	4.03	3.42	2
.30	.22	.04	6.00	4.03	3.42	2
.20	.14	.03	6.00	4.03	3.41	2
.10	.07	.01	6.00	4.03	3.40	2
.00	.00	.00	6.00	4.03	3.40	2

Time = 1710. Degree of Consolidation = 66.%

Total Settlement = 3.068

Settlement at End of Primary Consolidation = 3.549

Settlement caused by Primary Consolidation at time 1710. = 2.336

Settlement caused by Secondary Compression at time 1710. = .000

Settlement Due to Desiccation = .731

Surface Elevation = 2.79

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.36	2.13	6.00	4.03	3.40	1
9.35	8.83	2.02	4.29	3.93	3.36	1
8.79	8.31	1.91	4.21	3.85	3.32	1
8.25	7.80	1.81	4.12	3.77	3.28	1
7.71	7.29	1.70	4.02	3.71	3.26	1
7.18	6.80	1.60	3.93	3.65	3.23	1
6.66	6.30	1.49	3.82	3.59	3.20	1
6.15	5.82	1.38	3.71	3.54	3.18	1
5.65	5.34	1.28	3.66	3.48	3.15	1

5.16	4.86	1.17	3.62	3.43	3.13	1
4.67	4.40	1.06	3.59	3.38	3.10	1
4.18	3.93	.96	3.55	3.32	3.08	1
3.70	3.48	.85	3.51	3.27	3.05	1
3.23	3.03	.74	3.47	3.22	3.03	1
2.75	2.58	.64	3.43	3.17	3.00	1
2.28	2.14	.53	3.39	3.12	2.99	1
1.82	1.70	.43	3.35	3.08	2.98	1
1.36	1.27	.32	3.31	3.04	2.96	1
.90	.84	.21	3.27	3.00	2.95	1
.45	.42	.11	3.25	2.96	2.94	1
.00	.00	.00	3.22	2.93	2.93	1

Time = 3150. Degree of Consolidation = 51.%

Total Settlement = .619

Settlement at End of Primary Consolidation = 1.218

Settlement caused by Primary Consolidation at time 3150. = .619

Settlement caused by Secondary Compression at time 3150. = .000

******************Current Conditions in Dredged Fill*******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.34	6.23	1.33	6.00	1.23	1.23	2
9.06	6.14	1.29	6.00	1.23	1.23	2
8.78	6.05	1.25	6.00	1.23	1.23	2
8.51	5.95	1.22	6.00	1.23	1.23	2
8.23	5.88	1.18	6.00	1.23	1.23	2
7.95	5.71	1.14	6.00	4.03	4.03	2
7.67	5.51	1.10	6.00	4.03	3.99	2
7.39	5.32	1.06	6.00	4.03	3.96	2
7.12	5.12	1.02	6.00	4.03	3.92	2
6.84	4.92	.98	6.00	4.03	3.88	2
6.56	4.72	.94	6.00	4.03	3.84	2
6.56	4.72	.94	6.00	4.03	3.84	2
6.28	4.52	.90	6.00	4.03	3.80	2
6.00	4.32	.86	6.00	4.03	3.76	2
5.73	4.12	.82	6.00	4.03	3.71	2
5.45	3.92	.78	6.00	4.03	3.69	2
5.17	3.72	.74	6.00	4.03	3.68	2
4.89	3.52	.70	6.00	4.03	3.66	2
4.61	3.32	.66	6.00	4.03	3.65	2
4.34	3.12	.62	6.00	4.03	3.63	2
4.06	2.92	.58	6.00	4.03	3.62	2
3.78	2.72	.54	6.00	4.03	3.60	2
3.78	2.72	.54	6.00	4.03	3.60	2
3.50	2.52	.50	6.00	4.03	3.59	2
3.22	2.32	.46	6.00	4.03	3.57	2
2.95	2.12	.42	6.00	4.03	3.56	2
2.67	1.92	.38	6.00	4.03	3.54	2
2.39	1.72	.34	6.00	4.03	3.53	2
2.11	1.52	.30	6.00	4.03	3.51	2
1.83	1.32	.26	6.00	4.03	3.50	2

1.56	1.12	.22	6.00	4.03	3.48	2
1.28	.92	.18	6.00	4.03	3.47	2
1.00	.72	.14	6.00	4.03	3.45	2
1.00	.72	.14	6.00	4.03	3.45	2
.90	.65	.13	6.00	4.03	3.45	2
.80	.57	.11	6.00	4.03	3.44	2
.70	.50	.10	6.00	4.03	3.44	2
.60	.43	.09	6.00	4.03	3.43	2
.50	.36	.07	6.00	4.03	3.43	2
.40	.29	.06	6.00	4.03	3.42	2
.30	.22	.04	6.00	4.03	3.42	2
.20	.14	.03	6.00	4.03	3.41	2
.10	.07	.01	6.00	4.03	3.40	2
.00	.00	.00	6.00	4.03	3.40	2

Time = 3150. Degree of Consolidation = 67.%

Total Settlement = 3.109

Settlement at End of Primary Consolidation = 3.549

Settlement caused by Primary Consolidation at time 3150. = 2.377

Settlement caused by Secondary Compression at time 3150. = .000

Settlement Due to Desiccation = .731

Surface Elevation = 2.61

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.98	9.25	2.13	6.00	4.03	3.40	1
9.35	8.72	2.02	4.29	3.91	3.36	1
8.79	8.21	1.91	4.21	3.80	3.32	1
8.25	7.70	1.81	4.12	3.72	3.28	1
7.71	7.20	1.70	4.02	3.65	3.26	1
7.18	6.71	1.60	3.93	3.58	3.23	1
6.66	6.23	1.49	3.82	3.52	3.20	1
6.15	5.75	1.38	3.71	3.46	3.18	1
5.65	5.28	1.28	3.66	3.40	3.15	1
5.16	4.82	1.17	3.62	3.35	3.13	1
4.67	4.36	1.06	3.59	3.30	3.10	1
4.18	3.90	.96	3.55	3.25	3.08	1
3.70	3.45	.85	3.51	3.21	3.05	1
3.23	3.01	.74	3.47	3.16	3.03	1
2.75	2.57	.64	3.43	3.12	3.00	1
2.28	2.13	.53	3.39	3.09	2.99	1
1.82	1.70	.43	3.35	3.05	2.98	1
1.36	1.27	.32	3.31	3.02	2.96	1
.90	.84	.21	3.27	2.99	2.95	1
.45	.42	.11	3.25	2.96	2.94	1
.00	.00	.00	3.22	2.93	2.93	1

Time = 6030. Degree of Consolidation = 59.%

Total Settlement = .724

Settlement at End of Primary Consolidation = 1.218

Settlement caused by Primary Consolidation at time 6030. = .724

Settlement caused by Secondary Compression at time 6030. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
9.34	6.23	1.33	6.00	1.23	1.23	2
9.06	6.14	1.29	6.00	1.23	1.23	2
8.78	6.05	1.25	6.00	1.23	1.23	2
8.51	5.94	1.22	6.00	1.23	1.23	2
8.23	5.87	1.18	6.00	1.23	1.23	2
7.95	5.71	1.14	6.00	4.03	4.03	2
7.67	5.51	1.10	6.00	4.03	3.99	2
7.39	5.31	1.06	6.00	4.03	3.96	2
7.12	5.11	1.02	6.00	4.03	3.92	2
6.84	4.91	.98	6.00	4.03	3.88	2
6.56	4.71	.94	6.00	4.03	3.84	2
6.56	4.71	.94	6.00	4.03	3.84	2
6.28	4.51	.90	6.00	4.03	3.80	2
6.00	4.31	.86	6.00	4.03	3.76	2
5.73	4.11	.82	6.00	4.03	3.71	2
5.45	3.91	.78	6.00	4.03	3.69	2
5.17	3.71	.74	6.00	4.03	3.68	2
4.89	3.51	.70	6.00	4.03	3.66	2
4.61	3.31	.66	6.00	4.03	3.65	2
4.34	3.11	.62	6.00	4.03	3.63	2
4.06	2.92	.58	6.00	4.03	3.62	2
3.78	2.72	.54	6.00	4.03	3.60	2
3.78	2.72	.54	6.00	4.03	3.60	2
3.50	2.52	.50	6.00	4.03	3.59	2
3.22	2.32	.46	6.00	4.03	3.57	2
2.95	2.12	.42	6.00	4.03	3.56	2
2.67	1.92	.38	6.00	4.03	3.54	2
2.39	1.72	.34	6.00	4.03	3.53	2
2.11	1.52	.30	6.00	4.03	3.51	2
1.83	1.32	.26	6.00	4.03	3.50	2
1.56	1.12	.22	6.00	4.03	3.48	2
1.28	.92	.18	6.00	4.03	3.47	2
1.00	.72	.14	6.00	4.03	3.45	2
1.00	.72	.14	6.00	4.03	3.45	2
.90	.65	.13	6.00	4.03	3.45	2
.80	.57	.11	6.00	4.03	3.44	2
.70	.50	.10	6.00	4.03	3.44	2
.60	.43	.09	6.00	4.03	3.43	2
.50	.36	.07	6.00	4.03	3.43	2
.40	.29	.06	6.00	4.03	3.42	2
.30	.22	.04	6.00	4.03	3.42	2
.20	.14	.03	6.00	4.03	3.41	2
.10	.07	.01	6.00	4.03	3.40	2
.00	.00	.00	6.00	4.03	3.40	2

Time =   6030.   Degree of Consolidation = 67.%

Total Settlement =   3.112

Settlement at End of Primary Consolidation =   3.549

Settlement caused by Primary Consolidation at time 6030. =   2.381

Settlement caused by Secondary Compression at time 6030. =   .000

Settlement Due to Desiccation =   .731

Surface Elevation =   2.50

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***********************************************************
Consolidation and desiccation of soft layers---dredged fill
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Problem   CALCASIEU RIVER AND PASS, CDF 4-5ft of water

*****************Soil data for compressible foundation****************

Material Type	Layer Thickness	Numbers of Sub-layers	Ca/Cc	Cr/Cc
1	15.00	20	.040	.150

Material type :   1   Specific Gravity of Solids: 2.70

I	Void Ratio	Effective Stress	Perm- eability	k/1+e PK	Beta	Dsde	Alpha
1	6.000	.000E+00	.250E+00	.357E-01	.160E-01	-.600E+01	-.214E+00
2	5.500	.300E+01	.180E+00	.277E-01	.190E-01	-.550E+01	-.152E+00
3	5.000	.550E+01	.100E+00	.167E-01	.213E-01	-.900E+01	-.150E+00
4	4.500	.120E+02	.350E-01	.636E-02	.143E-01	-.195E+02	-.124E+00
5	4.000	.250E+02	.120E-01	.240E-02	.536E-02	-.380E+02	-.912E-01
6	3.500	.500E+02	.450E-02	.100E-02	.203E-02	-.570E+02	-.570E-01
7	3.000	.820E+02	.150E-02	.375E-03	.880E-03	-.140E+03	-.525E-01
8	2.500	.190E+03	.420E-03	.120E-03	.335E-03	-.618E+03	-.742E-01
9	2.000	.700E+03	.120E-03	.400E-04	.980E-04	-.241E+04	-.964E-01
10	1.500	.260E+04	.550E-04	.220E-04	.360E-04	-.380E+04	-.836E-01

*********************Soil data for dredged fill*********************

Material Type	Specific Gravity	Ca/Cc	Cr/Cc	Saturation Limit	Disication Limit
2	2.710	.040	.150	1.640	1.230

Material type :   2

I	Void Ratio	Effective Stress	Perm- eability	k/1+e PK	Beta	Dsde	Alpha
1	6.000	.000E+00	.250E+00	.357E-01	.160E-01	-.600E+01	-.214E+00

2	5.500	.300E+01	.180E+00	.277E-01	.190E-01	-.550E+01	-.152E+00
3	5.000	.550E+01	.100E+00	.167E-01	.213E-01	-.900E+01	-.150E+00
4	4.500	.120E+02	.350E-01	.636E-02	.143E-01	-.195E+02	-.124E+00
5	4.000	.250E+02	.120E-01	.240E-02	.536E-02	-.380E+02	-.912E-01
6	3.500	.500E+02	.450E-02	.100E-02	.203E-02	-.570E+02	-.570E-01
7	3.000	.820E+02	.150E-02	.375E-03	.880E-03	-.140E+03	-.525E-01
8	2.500	.190E+03	.420E-03	.120E-03	.335E-03	-.618E+03	-.742E-01
9	2.000	.700E+03	.120E-03	.400E-04	.980E-04	-.241E+04	-.964E-01
10	1.500	.260E+04	.550E-04	.220E-04	.360E-04	-.380E+04	-.836E-01

Summary of lifts and print detail

Time days	Material Type	Fill Height	# Sub-layers	Void ratio	Start Day	Dessic. Month	Print detai
0.	2	1.0	10	6.00	1050.	7	2
120.	2	3.8	10	6.00	210.	7	2
240.	2	3.8	10	6.00	330.	7	2
360.	2	3.8	10	6.00	450.	7	2
390.					480.	7	2
450.					540.	7	2
630.					720.	7	2
990.					1080.	7	2
1710.					1800.	7	2
3150.					3240.	7	2
6030.					6120.	7	2

Summary of monthly rainfall and evaporation potential

Month	Rainfall	Evaporation
1	.480	.090
2	.290	.130
3	.320	.210
4	.330	.410
5	.410	.550
6	.550	.570
7	.550	.400
8	.460	.480
9	.460	.420
10	.360	.240
11	.390	.110
12	.360	.090

**************************Calculation data****************************

tau	Lower layer Void ratio	Lower layer Permeability	drainage path Length
.294E-01	.500	.50000	z = .67

Summary of desiccation parameters

Parameter	Value
Surface Drainage Efficiency	.50
maximum evaporation efficiency	1.00
saturation at desiccation limit	.50
maximum crust thickness	1.25
time to desic. after initial fill	1050.00
month of initial desiccation	7
elevation of fixed water table	.00
elevation of top of incompres. found.	-13.00

*************Initial Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
14.99	14.99	3.98	6.00	6.00	4.38	1
13.83	13.83	3.78	4.15	4.15	3.77	1
12.85	12.85	3.58	3.66	3.66	3.38	1
11.96	11.96	3.38	3.29	3.29	3.05	1
11.14	11.14	3.19	2.99	2.99	2.92	1
10.36	10.36	2.99	2.89	2.89	2.82	1
9.59	9.59	2.79	2.79	2.79	2.72	1
8.85	8.85	2.59	2.70	2.70	2.62	1
8.12	8.12	2.39	2.60	2.60	2.53	1
7.42	7.42	2.19	2.50	2.50	2.48	1
6.72	6.72	1.99	2.48	2.48	2.46	1
6.03	6.03	1.79	2.46	2.46	2.44	1
5.34	5.34	1.59	2.44	2.44	2.42	1
4.66	4.66	1.39	2.42	2.42	2.40	1
3.98	3.98	1.19	2.40	2.40	2.38	1
3.31	3.31	1.00	2.38	2.38	2.36	1
2.64	2.64	.80	2.35	2.35	2.34	1
1.97	1.97	.60	2.33	2.33	2.32	1
1.31	1.31	.40	2.31	2.31	2.30	1
.65	.65	.20	2.29	2.29	2.28	1
.00	.00	.00	2.27	2.27	2.26	1

Time = 0. Degree of Consolidation = 0.%

Total Settlement = .000

Settlement at End of Primary Consolidation = .407

Settlement caused by Primary Consolidation at time 0. = .000

Settlement caused by Secondary Compression at time 0. = .000

******************Initial Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
1.00	1.00	.14	6.00	6.00	6.00	2
.90	.90	.13	6.00	6.00	5.75	2
.80	.80	.11	6.00	6.00	5.49	2
.70	.70	.10	6.00	6.00	5.19	2
.60	.60	.09	6.00	6.00	4.95	2
.50	.50	.07	6.00	6.00	4.84	2
.40	.40	.06	6.00	6.00	4.72	2
.30	.30	.04	6.00	6.00	4.60	2
.20	.20	.03	6.00	6.00	4.49	2
.10	.10	.01	6.00	6.00	4.43	2
.00	.00	.00	6.00	6.00	4.38	2

Time = 0. Degree of Consolidation = 0.%

Total Settlement = .000

Settlement at End of Primary Consolidation = .148

Settlement caused by Primary Consolidation at time 0. = .000

Settlement caused by Secondary Compression at time 0. = .000

Consistency Error --FOUNDATION --LAYER/ 1

*************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
14.99	14.66	3.98	6.00	4.44	4.38	1
13.83	13.65	3.78	4.15	3.77	3.77	1
12.85	12.74	3.58	3.66	3.40	3.38	1
11.96	11.89	3.38	3.29	3.15	3.05	1
11.14	11.09	3.19	2.99	2.97	2.92	1
10.36	10.31	2.99	2.89	2.84	2.82	1

9.59	9.55	2.79	2.79	2.74	2.72	1
8.85	8.82	2.59	2.70	2.65	2.62	1
8.12	8.10	2.39	2.60	2.57	2.53	1
7.42	7.40	2.19	2.50	2.50	2.48	1
6.72	6.70	1.99	2.48	2.48	2.46	1
6.03	6.01	1.79	2.46	2.45	2.44	1
5.34	5.33	1.59	2.44	2.43	2.42	1
4.66	4.65	1.39	2.42	2.41	2.40	1
3.98	3.97	1.19	2.40	2.39	2.38	1
3.31	3.30	1.00	2.38	2.37	2.36	1
2.64	2.63	.80	2.35	2.35	2.34	1
1.97	1.97	.60	2.33	2.32	2.32	1
1.31	1.31	.40	2.31	2.30	2.30	1
.65	.65	.20	2.29	2.28	2.28	1
.00	.00	.00	2.27	2.26	2.26	1

Time = 120. Degree of Consolidation = 81.%

Total Settlement = .331

Settlement at End of Primary Consolidation = .407

Settlement caused by Primary Consolidation at time 120. = .331

Settlement caused by Secondary Compression at time 120. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
1.00	.86	.14	6.00	6.00	6.00	2
.90	.76	.13	6.00	5.76	5.75	2
.80	.67	.11	6.00	5.51	5.49	2
.70	.58	.10	6.00	5.28	5.19	2
.60	.49	.09	6.00	5.09	4.95	2
.50	.40	.07	6.00	4.93	4.84	2
.40	.32	.06	6.00	4.80	4.72	2
.30	.24	.04	6.00	4.69	4.60	2
.20	.16	.03	6.00	4.60	4.49	2
.10	.08	.01	6.00	4.52	4.43	2
.00	.00	.00	6.00	4.44	4.38	2

Time = 120. Degree of Consolidation = 93.%

Total Settlement = .137

Settlement at End of Primary Consolidation = .148

Settlement caused by Primary Consolidation at time 120. = .137

Settlement caused by Secondary Compression at time 120. = .000

Surface Elevation = 2.53

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
14.99	14.36	3.98	6.00	3.49	3.14	1
13.83	13.48	3.78	4.15	3.33	2.94	1
12.85	12.64	3.58	3.66	3.19	2.84	1
11.96	11.82	3.38	3.29	3.05	2.75	1
11.14	11.02	3.19	2.99	2.92	2.65	1
10.36	10.26	2.99	2.89	2.81	2.55	1
9.59	9.51	2.79	2.79	2.71	2.49	1
8.85	8.78	2.59	2.70	2.63	2.47	1
8.12	8.06	2.39	2.60	2.56	2.45	1
7.42	7.36	2.19	2.50	2.50	2.43	1
6.72	6.66	1.99	2.48	2.47	2.41	1
6.03	5.98	1.79	2.46	2.45	2.39	1
5.34	5.29	1.59	2.44	2.43	2.37	1
4.66	4.61	1.39	2.42	2.40	2.35	1
3.98	3.94	1.19	2.40	2.38	2.32	1
3.31	3.27	1.00	2.38	2.35	2.30	1
2.64	2.60	.80	2.35	2.33	2.28	1
1.97	1.94	.60	2.33	2.30	2.26	1
1.31	1.29	.40	2.31	2.27	2.24	1
.65	.64	.20	2.29	2.23	2.22	1
.00	.00	.00	2.27	2.20	2.20	1

Time = 240. Degree of Consolidation = 53.%

Total Settlement = .633

Settlement at End of Primary Consolidation = 1.185

Settlement caused by Primary Consolidation at time 240. = .633

Settlement caused by Secondary Compression at time 240. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
4.81	3.42	.69	6.00	2.59	6.00	2
4.43	3.12	.63	6.00	5.12	4.98	2
4.05	2.80	.58	6.00	4.61	4.53	2
3.67	2.51	.52	6.00	4.32	4.29	2
3.29	2.22	.47	6.00	4.13	4.07	2
2.91	1.95	.42	6.00	3.99	3.92	2
2.52	1.68	.36	6.00	3.88	3.80	2
2.14	1.42	.31	6.00	3.80	3.69	2
1.76	1.16	.25	6.00	3.73	3.57	2
1.38	.90	.20	6.00	3.67	3.46	2
1.00	.65	.14	6.00	3.61	3.37	2
1.00	.65	.14	6.00	3.61	3.37	2
.90	.58	.13	6.00	3.60	3.35	2
.80	.52	.11	6.00	3.58	3.33	2

.70	.45	.10	6.00	3.57	3.30	2
.60	.39	.09	6.00	3.56	3.28	2
.50	.32	.07	6.00	3.55	3.25	2
.40	.26	.06	6.00	3.53	3.23	2
.30	.19	.04	6.00	3.52	3.21	2
.20	.13	.03	6.00	3.51	3.18	2
.10	.06	.01	6.00	3.50	3.16	2
.00	.00	.00	6.00	3.49	3.14	2

Time = 240. Degree of Consolidation = 91.%

Total Settlement = 1.394

Settlement at End of Primary Consolidation = 1.432

Settlement caused by Primary Consolidation at time 240. = 1.302

Settlement caused by Secondary Compression at time 240. = .000

Settlement Due to Desiccation = .093

Surface Elevation = 4.78

*************Current Conditions in Compressible Foundation*************

***** Coordinates *****　　　***** Void Ratios *****

A	XI	Z	Einitial	E	Eeop	Material
14.99	14.19	3.98	6.00	3.28	2.77	1
13.83	13.35	3.78	4.15	3.17	2.67	1
12.85	12.53	3.58	3.66	3.06	2.58	1
11.96	11.73	3.38	3.29	2.95	2.50	1
11.14	10.95	3.19	2.99	2.85	2.47	1
10.36	10.19	2.99	2.89	2.76	2.45	1
9.59	9.45	2.79	2.79	2.69	2.43	1
8.85	8.73	2.59	2.70	2.62	2.41	1
8.12	8.01	2.39	2.60	2.55	2.39	1
7.42	7.31	2.19	2.50	2.50	2.37	1
6.72	6.62	1.99	2.48	2.47	2.35	1
6.03	5.93	1.79	2.46	2.44	2.33	1
5.34	5.25	1.59	2.44	2.42	2.31	1
4.66	4.57	1.39	2.42	2.39	2.29	1
3.98	3.90	1.19	2.40	2.36	2.27	1
3.31	3.23	1.00	2.38	2.33	2.25	1
2.64	2.57	.80	2.35	2.30	2.23	1
1.97	1.91	.60	2.33	2.27	2.21	1
1.31	1.27	.40	2.31	2.23	2.18	1
.65	.63	.20	2.29	2.18	2.16	1
.00	.00	.00	2.27	2.14	2.14	1

Time = 360. Degree of Consolidation = 51.%

Total Settlement = .807

Settlement at End of Primary Consolidation = 1.594

Settlement caused by Primary Consolidation at time 360. = .807

Settlement caused by Secondary Compression at time 360. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
8.62	5.89	1.23	6.00	3.57	6.00	2
8.24	5.58	1.18	6.00	5.13	4.98	2
7.86	5.26	1.12	6.00	4.62	4.53	2
7.48	4.96	1.07	6.00	4.34	4.29	2
7.10	4.68	1.01	6.00	4.16	4.07	2
6.72	4.40	.96	6.00	4.03	3.92	2
6.33	4.13	.90	6.00	3.94	3.80	2
5.95	3.86	.85	6.00	3.86	3.69	2
5.57	3.60	.80	6.00	3.80	3.57	2
5.19	3.34	.74	6.00	3.75	3.46	2
4.81	3.08	.69	6.00	3.71	3.37	2
4.81	3.08	.69	6.00	3.71	3.37	2
4.43	2.83	.63	6.00	3.67	3.28	2
4.05	2.57	.58	6.00	3.63	3.19	2
3.67	2.32	.52	6.00	3.59	3.10	2
3.29	2.07	.47	6.00	3.56	3.01	2
2.91	1.83	.42	6.00	3.53	2.98	2
2.52	1.58	.36	6.00	3.49	2.95	2
2.14	1.34	.31	6.00	3.46	2.92	2
1.76	1.10	.25	6.00	3.43	2.90	2
1.38	.86	.20	6.00	3.40	2.87	2
1.00	.62	.14	6.00	3.36	2.84	2
1.00	.62	.14	6.00	3.36	2.84	2
.90	.56	.13	6.00	3.36	2.83	2
.80	.49	.11	6.00	3.35	2.83	2
.70	.43	.10	6.00	3.34	2.82	2
.60	.37	.09	6.00	3.33	2.81	2
.50	.31	.07	6.00	3.32	2.81	2
.40	.25	.06	6.00	3.31	2.80	2
.30	.18	.04	6.00	3.31	2.79	2
.20	.12	.03	6.00	3.30	2.79	2
.10	.06	.01	6.00	3.29	2.78	2
.00	.00	.00	6.00	3.28	2.77	2

Time = 360. Degree of Consolidation = 83.%

Total Settlement = 2.730

Settlement at End of Primary Consolidation = 3.112

Settlement caused by Primary Consolidation at time 360. = 2.571

Settlement caused by Secondary Compression at time 360. = .000

Settlement Due to Desiccation = .159

Surface Elevation = 7.08

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
14.99	14.14	3.98	6.00	3.24	2.50	1
13.83	13.31	3.78	4.15	3.14	2.48	1
12.85	12.49	3.58	3.66	3.03	2.46	1
11.96	11.70	3.38	3.29	2.93	2.44	1
11.14	10.93	3.19	2.99	2.84	2.42	1
10.36	10.17	2.99	2.89	2.76	2.40	1
9.59	9.43	2.79	2.79	2.68	2.38	1
8.85	8.70	2.59	2.70	2.61	2.36	1
8.12	7.99	2.39	2.60	2.55	2.33	1
7.42	7.29	2.19	2.50	2.50	2.31	1
6.72	6.60	1.99	2.48	2.47	2.29	1
6.03	5.91	1.79	2.46	2.44	2.27	1
5.34	5.23	1.59	2.44	2.41	2.25	1
4.66	4.55	1.39	2.42	2.39	2.23	1
3.98	3.88	1.19	2.40	2.36	2.21	1
3.31	3.21	1.00	2.38	2.33	2.19	1
2.64	2.55	.80	2.35	2.30	2.17	1
1.97	1.90	.60	2.33	2.26	2.15	1
1.31	1.25	.40	2.31	2.21	2.13	1
.65	.62	.20	2.29	2.15	2.11	1
.00	.00	.00	2.27	2.09	2.09	1

Time =   390.   Degree of Consolidation = 45.%

Total Settlement =   .854

Settlement at End of Primary Consolidation =   1.879

Settlement caused by Primary Consolidation at time 390. =   .854

Settlement caused by Secondary Compression at time 390. =   .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
12.43	8.70	1.78	6.00	6.00	6.00	2
12.05	8.34	1.72	6.00	5.24	4.98	2
11.67	8.01	1.67	6.00	4.80	4.53	2
11.29	7.70	1.61	6.00	4.57	4.29	2
10.91	7.40	1.56	6.00	4.44	4.07	2
10.52	7.11	1.50	6.00	4.35	3.92	2
10.14	6.82	1.45	6.00	4.28	3.80	2
9.76	6.53	1.39	6.00	4.23	3.69	2
9.38	6.25	1.34	6.00	4.18	3.57	2
9.00	5.97	1.29	6.00	4.13	3.46	2
8.62	5.69	1.23	6.00	4.08	3.37	2
8.62	5.69	1.23	6.00	4.08	3.37	2
8.24	5.42	1.18	6.00	4.04	3.28	2
7.86	5.14	1.12	6.00	3.99	3.19	2

7.48	4.87	1.07	6.00	3.94	3.10	2
7.10	4.61	1.01	6.00	3.90	3.01	2
6.72	4.34	.96	6.00	3.85	2.98	2
6.33	4.08	.90	6.00	3.81	2.95	2
5.95	3.82	.85	6.00	3.76	2.92	2
5.57	3.56	.80	6.00	3.72	2.90	2
5.19	3.30	.74	6.00	3.68	2.87	2
4.81	3.05	.69	6.00	3.65	2.84	2
4.81	3.05	.69	6.00	3.65	2.84	2
4.43	2.80	.63	6.00	3.61	2.81	2
4.05	2.55	.58	6.00	3.57	2.79	2
3.67	2.30	.52	6.00	3.54	2.76	2
3.29	2.05	.47	6.00	3.51	2.73	2
2.91	1.81	.42	6.00	3.47	2.71	2
2.52	1.57	.36	6.00	3.44	2.68	2
2.14	1.32	.31	6.00	3.41	2.65	2
1.76	1.09	.25	6.00	3.38	2.63	2
1.38	.85	.20	6.00	3.35	2.60	2
1.00	.61	.14	6.00	3.32	2.57	2
1.00	.61	.14	6.00	3.32	2.57	2
.90	.55	.13	6.00	3.31	2.57	2
.80	.49	.11	6.00	3.30	2.56	2
.70	.43	.10	6.00	3.30	2.55	2
.60	.37	.09	6.00	3.29	2.54	2
.50	.30	.07	6.00	3.28	2.54	2
.40	.24	.06	6.00	3.27	2.53	2
.30	.18	.04	6.00	3.27	2.52	2
.20	.12	.03	6.00	3.26	2.52	2
.10	.06	.01	6.00	3.25	2.51	2
.00	.00	.00	6.00	3.24	2.50	2

Time = 390. Degree of Consolidation = 72.%

Total Settlement = 3.734

Settlement at End of Primary Consolidation = 4.943

Settlement caused by Primary Consolidation at time 390. = 3.575

Settlement caused by Secondary Compression at time 390. = .000

Surface Elevation = 9.84

*************Current Conditions in Compressible Foundation************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
14.99	14.07	3.98	6.00	3.18	2.50	1
13.83	13.25	3.78	4.15	3.08	2.48	1
12.85	12.44	3.58	3.66	2.99	2.46	1
11.96	11.66	3.38	3.29	2.90	2.44	1
11.14	10.89	3.19	2.99	2.81	2.42	1
10.36	10.14	2.99	2.89	2.74	2.40	1
9.59	9.40	2.79	2.79	2.67	2.38	1
8.85	8.68	2.59	2.70	2.61	2.36	1
8.12	7.97	2.39	2.60	2.55	2.33	1
7.42	7.27	2.19	2.50	2.50	2.31	1

6.72	6.57	1.99	2.48	2.47	2.29	1
6.03	5.88	1.79	2.46	2.44	2.27	1
5.34	5.20	1.59	2.44	2.41	2.25	1
4.66	4.53	1.39	2.42	2.38	2.23	1
3.98	3.86	1.19	2.40	2.35	2.21	1
3.31	3.19	1.00	2.38	2.32	2.19	1
2.64	2.54	.80	2.35	2.28	2.17	1
1.97	1.89	.60	2.33	2.24	2.15	1
1.31	1.25	.40	2.31	2.19	2.13	1
.65	.62	.20	2.29	2.14	2.11	1
.00	.00	.00	2.27	2.09	2.09	1

Time = 450. Degree of Consolidation = 49.%

Total Settlement = .923

Settlement at End of Primary Consolidation = 1.879

Settlement caused by Primary Consolidation at time 450. = .923

Settlement caused by Secondary Compression at time 450. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
12.43	8.41	1.78	6.00	6.00	6.00	2
12.05	8.05	1.72	6.00	5.15	4.98	2
11.67	7.73	1.67	6.00	4.65	4.53	2
11.29	7.43	1.61	6.00	4.37	4.29	2
10.91	7.15	1.56	6.00	4.20	4.07	2
10.52	6.87	1.50	6.00	4.09	3.92	2
10.14	6.59	1.45	6.00	4.01	3.80	2
9.76	6.32	1.39	6.00	3.95	3.69	2
9.38	6.05	1.34	6.00	3.90	3.57	2
9.00	5.79	1.29	6.00	3.85	3.46	2
8.62	5.52	1.23	6.00	3.82	3.37	2
8.62	5.52	1.23	6.00	3.82	3.37	2
8.24	5.26	1.18	6.00	3.78	3.28	2
7.86	5.00	1.12	6.00	3.75	3.19	2
7.48	4.75	1.07	6.00	3.72	3.10	2
7.10	4.49	1.01	6.00	3.69	3.01	2
6.72	4.24	.96	6.00	3.66	2.98	2
6.33	3.98	.90	6.00	3.63	2.95	2
5.95	3.73	.85	6.00	3.60	2.92	2
5.57	3.48	.80	6.00	3.58	2.90	2
5.19	3.23	.74	6.00	3.55	2.87	2
4.81	2.99	.69	6.00	3.52	2.84	2
4.81	2.99	.69	6.00	3.52	2.84	2
4.43	2.74	.63	6.00	3.49	2.81	2
4.05	2.50	.58	6.00	3.47	2.79	2
3.67	2.26	.52	6.00	3.44	2.76	2
3.29	2.01	.47	6.00	3.41	2.73	2
2.91	1.78	.42	6.00	3.38	2.71	2
2.52	1.54	.36	6.00	3.35	2.68	2
2.14	1.30	.31	6.00	3.33	2.65	2
1.76	1.07	.25	6.00	3.30	2.63	2

1.38	.83	.20	6.00	3.27	2.60	2
1.00	.60	.14	6.00	3.25	2.57	2
1.00	.60	.14	6.00	3.25	2.57	2
.90	.54	.13	6.00	3.24	2.57	2
.80	.48	.11	6.00	3.23	2.56	2
.70	.42	.10	6.00	3.23	2.55	2
.60	.36	.09	6.00	3.22	2.54	2
.50	.30	.07	6.00	3.21	2.54	2
.40	.24	.06	6.00	3.20	2.53	2
.30	.18	.04	6.00	3.20	2.52	2
.20	.12	.03	6.00	3.19	2.52	2
.10	.06	.01	6.00	3.18	2.51	2
.00	.00	.00	6.00	3.18	2.50	2

Time = 450. Degree of Consolidation = 78.%

Total Settlement = 4.022

Settlement at End of Primary Consolidation = 4.943

Settlement caused by Primary Consolidation at time 450. = 3.863

Settlement caused by Secondary Compression at time 450. = .000

Surface Elevation = 9.49

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
14.99	13.91	3.98	6.00	3.00	2.50	1
13.83	13.12	3.78	4.15	2.94	2.48	1
12.85	12.34	3.58	3.66	2.88	2.46	1
11.96	11.57	3.38	3.29	2.82	2.44	1
11.14	10.82	3.19	2.99	2.75	2.42	1
10.36	10.08	2.99	2.89	2.69	2.40	1
9.59	9.35	2.79	2.79	2.64	2.38	1
8.85	8.63	2.59	2.70	2.59	2.36	1
8.12	7.92	2.39	2.60	2.54	2.33	1
7.42	7.22	2.19	2.50	2.50	2.31	1
6.72	6.53	1.99	2.48	2.46	2.29	1
6.03	5.84	1.79	2.46	2.42	2.27	1
5.34	5.16	1.59	2.44	2.39	2.25	1
4.66	4.49	1.39	2.42	2.35	2.23	1
3.98	3.83	1.19	2.40	2.32	2.21	1
3.31	3.17	1.00	2.38	2.28	2.19	1
2.64	2.52	.80	2.35	2.24	2.17	1
1.97	1.88	.60	2.33	2.20	2.15	1
1.31	1.24	.40	2.31	2.16	2.13	1
.65	.62	.20	2.29	2.12	2.11	1
.00	.00	.00	2.27	2.09	2.09	1

Time = 630. Degree of Consolidation = 58.%

Total Settlement = 1.083

Settlement at End of Primary Consolidation = 1.879

Settlement caused by Primary Consolidation at time 630. = 1.083

Settlement caused by Secondary Compression at time 630. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
12.43	7.67	1.78	6.00	1.64	6.00	2
12.05	7.52	1.72	6.00	1.64	4.98	2
11.67	7.37	1.67	6.00	2.34	4.53	2
11.29	7.11	1.61	6.00	4.29	4.29	2
10.91	6.83	1.56	6.00	4.11	4.07	2
10.52	6.56	1.50	6.00	3.97	3.92	2
10.14	6.29	1.45	6.00	3.86	3.80	2
9.76	6.03	1.39	6.00	3.78	3.69	2
9.38	5.77	1.34	6.00	3.71	3.57	2
9.00	5.51	1.29	6.00	3.66	3.46	2
8.62	5.26	1.23	6.00	3.61	3.37	2
8.62	5.26	1.23	6.00	3.61	3.37	2
8.24	5.01	1.18	6.00	3.56	3.28	2
7.86	4.77	1.12	6.00	3.52	3.19	2
7.48	4.52	1.07	6.00	3.48	3.10	2
7.10	4.28	1.01	6.00	3.45	3.01	2
6.72	4.04	.96	6.00	3.42	2.98	2
6.33	3.80	.90	6.00	3.39	2.95	2
5.95	3.56	.85	6.00	3.37	2.92	2
5.57	3.32	.80	6.00	3.34	2.90	2
5.19	3.09	.74	6.00	3.32	2.87	2
4.81	2.85	.69	6.00	3.30	2.84	2
4.81	2.85	.69	6.00	3.30	2.84	2
4.43	2.62	.63	6.00	3.27	2.81	2
4.05	2.39	.58	6.00	3.25	2.79	2
3.67	2.15	.52	6.00	3.23	2.76	2
3.29	1.93	.47	6.00	3.21	2.73	2
2.91	1.70	.42	6.00	3.18	2.71	2
2.52	1.47	.36	6.00	3.16	2.68	2
2.14	1.24	.31	6.00	3.13	2.65	2
1.76	1.02	.25	6.00	3.11	2.63	2
1.38	.80	.20	6.00	3.09	2.60	2
1.00	.58	.14	6.00	3.06	2.57	2
1.00	.58	.14	6.00	3.06	2.57	2
.90	.52	.13	6.00	3.05	2.57	2
.80	.46	.11	6.00	3.05	2.56	2
.70	.40	.10	6.00	3.04	2.55	2
.60	.34	.09	6.00	3.03	2.54	2
.50	.29	.07	6.00	3.03	2.54	2
.40	.23	.06	6.00	3.02	2.53	2
.30	.17	.04	6.00	3.02	2.52	2
.20	.11	.03	6.00	3.01	2.52	2
.10	.06	.01	6.00	3.00	2.51	2
.00	.00	.00	6.00	3.00	2.50	2

Time = 630. Degree of Consolidation = 84.%

Total Settlement = 4.762

Settlement at End of Primary Consolidation = 4.943

Settlement caused by Primary Consolidation at time 630. = 4.175

Settlement caused by Secondary Compression at time 630. = .000

Settlement Due to Desiccation = .587

Surface Elevation = 8.59

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
14.99	13.71	3.98	6.00	2.87	2.50	1
13.83	12.95	3.78	4.15	2.82	2.48	1
12.85	12.19	3.58	3.66	2.77	2.46	1
11.96	11.45	3.38	3.29	2.72	2.44	1
11.14	10.71	3.19	2.99	2.67	2.42	1
10.36	9.98	2.99	2.89	2.63	2.40	1
9.59	9.27	2.79	2.79	2.59	2.38	1
8.85	8.56	2.59	2.70	2.55	2.36	1
8.12	7.85	2.39	2.60	2.51	2.33	1
7.42	7.16	2.19	2.50	2.47	2.31	1
6.72	6.47	1.99	2.48	2.43	2.29	1
6.03	5.79	1.79	2.46	2.39	2.27	1
5.34	5.12	1.59	2.44	2.36	2.25	1
4.66	4.46	1.39	2.42	2.32	2.23	1
3.98	3.80	1.19	2.40	2.28	2.21	1
3.31	3.15	1.00	2.38	2.25	2.19	1
2.64	2.51	.80	2.35	2.21	2.17	1
1.97	1.87	.60	2.33	2.18	2.15	1
1.31	1.24	.40	2.31	2.15	2.13	1
.65	.62	.20	2.29	2.12	2.11	1
.00	.00	.00	2.27	2.09	2.09	1

Time = 990. Degree of Consolidation = 68.%

Total Settlement = 1.283

Settlement at End of Primary Consolidation = 1.879

Settlement caused by Primary Consolidation at time 990. = 1.283

Settlement caused by Secondary Compression at time 990. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material

12.43	6.92	1.78	6.00	1.64	6.00	2
12.05	6.77	1.72	6.00	1.64	4.98	2
11.67	6.63	1.67	6.00	1.64	4.53	2
11.29	6.49	1.61	6.00	1.64	4.29	2
10.91	6.34	1.56	6.00	1.64	4.07	2
10.52	6.22	1.50	6.00	1.64	3.92	2
10.14	6.03	1.45	6.00	3.14	3.80	2
9.76	5.78	1.39	6.00	3.69	3.69	2
9.38	5.53	1.34	6.00	3.60	3.57	2
9.00	5.28	1.29	6.00	3.52	3.46	2
8.62	5.03	1.23	6.00	3.46	3.37	2
8.62	5.03	1.23	6.00	3.46	3.37	2
8.24	4.79	1.18	6.00	3.39	3.28	2
7.86	4.56	1.12	6.00	3.34	3.19	2
7.48	4.32	1.07	6.00	3.29	3.10	2
7.10	4.09	1.01	6.00	3.25	3.01	2
6.72	3.86	.96	6.00	3.22	2.98	2
6.33	3.63	.90	6.00	3.19	2.95	2
5.95	3.40	.85	6.00	3.16	2.92	2
5.57	3.18	.80	6.00	3.14	2.90	2
5.19	2.95	.74	6.00	3.11	2.87	2
4.81	2.73	.69	6.00	3.09	2.84	2
4.81	2.73	.69	6.00	3.09	2.84	2
4.43	2.51	.63	6.00	3.07	2.81	2
4.05	2.29	.58	6.00	3.05	2.79	2
3.67	2.07	.52	6.00	3.03	2.76	2
3.29	1.85	.47	6.00	3.01	2.73	2
2.91	1.63	.42	6.00	2.99	2.71	2
2.52	1.41	.36	6.00	2.97	2.68	2
2.14	1.20	.31	6.00	2.96	2.65	2
1.76	.98	.25	6.00	2.94	2.63	2
1.38	.77	.20	6.00	2.92	2.60	2
1.00	.56	.14	6.00	2.91	2.57	2
1.00	.56	.14	6.00	2.91	2.57	2
.90	.50	.13	6.00	2.90	2.57	2
.80	.44	.11	6.00	2.90	2.56	2
.70	.39	.10	6.00	2.90	2.55	2
.60	.33	.09	6.00	2.89	2.54	2
.50	.28	.07	6.00	2.89	2.54	2
.40	.22	.06	6.00	2.88	2.53	2
.30	.17	.04	6.00	2.88	2.52	2
.20	.11	.03	6.00	2.88	2.52	2
.10	.06	.01	6.00	2.87	2.51	2
.00	.00	.00	6.00	2.87	2.50	2

Time = 990. Degree of Consolidation = 90.%

Total Settlement = 5.514

Settlement at End of Primary Consolidation = 4.943

Settlement caused by Primary Consolidation at time 990. = 4.451

Settlement caused by Secondary Compression at time 990. = .000

Settlement Due to Desiccation = 1.063

Surface Elevation = 7.63

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
14.99	13.40	3.98	6.00	2.71	2.46	1
13.83	12.67	3.78	4.15	2.67	2.44	1
12.85	11.94	3.58	3.66	2.64	2.42	1
11.96	11.22	3.38	3.29	2.60	2.39	1
11.14	10.51	3.19	2.99	2.57	2.37	1
10.36	9.80	2.99	2.89	2.53	2.35	1
9.59	9.10	2.79	2.79	2.50	2.33	1
8.85	8.41	2.59	2.70	2.46	2.31	1
8.12	7.72	2.39	2.60	2.43	2.29	1
7.42	7.04	2.19	2.50	2.40	2.27	1
6.72	6.37	1.99	2.48	2.36	2.25	1
6.03	5.70	1.79	2.46	2.33	2.23	1
5.34	5.04	1.59	2.44	2.30	2.21	1
4.66	4.39	1.39	2.42	2.26	2.19	1
3.98	3.74	1.19	2.40	2.23	2.17	1
3.31	3.10	1.00	2.38	2.20	2.15	1
2.64	2.47	.80	2.35	2.17	2.13	1
1.97	1.84	.60	2.33	2.13	2.10	1
1.31	1.22	.40	2.31	2.10	2.08	1
.65	.61	.20	2.29	2.07	2.06	1
.00	.00	.00	2.27	2.04	2.04	1

Time = 1710. Degree of Consolidation = 78.%

Total Settlement = 1.593

Settlement at End of Primary Consolidation = 2.054

Settlement caused by Primary Consolidation at time 1710. = 1.593

Settlement caused by Secondary Compression at time 1710. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
12.43	6.08	1.78	6.00	1.23	1.23	2
12.05	5.96	1.72	6.00	1.23	1.23	2
11.67	5.84	1.67	6.00	1.23	1.23	2
11.29	5.71	1.61	6.00	1.23	1.23	2
10.91	5.59	1.56	6.00	1.23	1.23	2
10.52	5.47	1.50	6.00	1.23	1.23	2
10.14	5.35	1.45	6.00	1.23	1.23	2
9.76	5.22	1.39	6.00	1.23	1.23	2
9.38	5.10	1.34	6.00	1.50	2.96	2
9.00	4.93	1.29	6.00	2.94	2.93	2
8.62	4.70	1.23	6.00	2.93	2.90	2
8.62	4.70	1.23	6.00	2.93	2.90	2
8.24	4.49	1.18	6.00	2.92	2.88	2
7.86	4.27	1.12	6.00	2.91	2.85	2
7.48	4.06	1.07	6.00	2.90	2.82	2

7.10	3.85	1.01	6.00	2.89	2.80	2
6.72	3.64	.96	6.00	2.88	2.77	2
6.33	3.43	.90	6.00	2.87	2.74	2
5.95	3.22	.85	6.00	2.86	2.71	2
5.57	3.01	.80	6.00	2.85	2.69	2
5.19	2.80	.74	6.00	2.84	2.66	2
4.81	2.59	.69	6.00	2.83	2.63	2
4.81	2.59	.69	6.00	2.83	2.63	2
4.43	2.38	.63	6.00	2.82	2.61	2
4.05	2.17	.58	6.00	2.81	2.58	2
3.67	1.97	.52	6.00	2.80	2.55	2
3.29	1.76	.47	6.00	2.79	2.53	2
2.91	1.55	.42	6.00	2.78	2.50	2
2.52	1.35	.36	6.00	2.77	2.49	2
2.14	1.14	.31	6.00	2.76	2.49	2
1.76	.94	.25	6.00	2.75	2.48	2
1.38	.73	.20	6.00	2.74	2.48	2
1.00	.53	.14	6.00	2.73	2.47	2
1.00	.53	.14	6.00	2.73	2.47	2
.90	.48	.13	6.00	2.73	2.47	2
.80	.42	.11	6.00	2.73	2.47	2
.70	.37	.10	6.00	2.72	2.47	2
.60	.32	.09	6.00	2.72	2.47	2
.50	.27	.07	6.00	2.72	2.46	2
.40	.21	.06	6.00	2.72	2.46	2
.30	.16	.04	6.00	2.71	2.46	2
.20	.11	.03	6.00	2.71	2.46	2
.10	.05	.01	6.00	2.71	2.46	2
.00	.00	.00	6.00	2.71	2.46	2

Time = 1710. Degree of Consolidation = 74.%

Total Settlement = 6.352

Settlement at End of Primary Consolidation = 6.535

Settlement caused by Primary Consolidation at time 1710. = 4.849

Settlement caused by Secondary Compression at time 1710. = .000

Settlement Due to Desiccation = 1.502

Surface Elevation = 6.49

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
14.99	13.15	3.98	6.00	2.71	2.44	1
13.83	12.42	3.78	4.15	2.64	2.42	1
12.85	11.70	3.58	3.66	2.58	2.40	1
11.96	10.99	3.38	3.29	2.53	2.38	1
11.14	10.29	3.19	2.99	2.48	2.36	1
10.36	9.60	2.99	2.89	2.44	2.34	1
9.59	8.92	2.79	2.79	2.40	2.32	1
8.85	8.25	2.59	2.70	2.37	2.30	1
8.12	7.58	2.39	2.60	2.34	2.28	1

7.42	6.92	2.19	2.50	2.31	2.26	1
6.72	6.26	1.99	2.48	2.28	2.24	1
6.03	5.62	1.79	2.46	2.25	2.22	1
5.34	4.97	1.59	2.44	2.22	2.20	1
4.66	4.33	1.39	2.42	2.19	2.18	1
3.98	3.70	1.19	2.40	2.17	2.15	1
3.31	3.07	1.00	2.38	2.14	2.13	1
2.64	2.45	.80	2.35	2.12	2.11	1
1.97	1.83	.60	2.33	2.10	2.09	1
1.31	1.22	.40	2.31	2.07	2.07	1
.65	.61	.20	2.29	2.05	2.05	1
.00	.00	.00	2.27	2.03	2.03	1

Time = 3150. Degree of Consolidation = 88.%

Total Settlement = 1.846

Settlement at End of Primary Consolidation = 2.103

Settlement caused by Primary Consolidation at time 3150. = 1.846

Settlement caused by Secondary Compression at time 3150. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
12.43	5.86	1.78	6.00	1.23	1.23	2
12.05	5.74	1.72	6.00	1.23	1.23	2
11.67	5.62	1.67	6.00	1.23	1.23	2
11.29	5.50	1.61	6.00	1.23	1.23	2
10.91	5.38	1.56	6.00	1.23	1.23	2
10.52	5.26	1.50	6.00	1.23	1.23	2
10.14	5.14	1.45	6.00	1.23	1.23	2
9.76	5.02	1.39	6.00	1.23	1.23	2
9.38	4.89	1.34	6.00	1.23	1.23	2
9.00	4.77	1.29	6.00	1.23	1.23	2
8.62	4.63	1.23	6.00	2.36	2.85	2
8.62	4.63	1.23	6.00	2.84	2.85	2
8.24	4.42	1.18	6.00	2.83	2.82	2
7.86	4.21	1.12	6.00	2.82	2.79	2
7.48	4.01	1.07	6.00	2.81	2.76	2
7.10	3.80	1.01	6.00	2.80	2.74	2
6.72	3.59	.96	6.00	2.80	2.71	2
6.33	3.39	.90	6.00	2.79	2.68	2
5.95	3.18	.85	6.00	2.78	2.66	2
5.57	2.97	.80	6.00	2.77	2.63	2
5.19	2.77	.74	6.00	2.77	2.60	2
4.81	2.56	.69	6.00	2.76	2.58	2
4.81	2.56	.69	6.00	2.76	2.58	2
4.43	2.36	.63	6.00	2.76	2.55	2
4.05	2.15	.58	6.00	2.75	2.52	2
3.67	1.95	.52	6.00	2.74	2.50	2
3.29	1.75	.47	6.00	2.74	2.49	2
2.91	1.54	.42	6.00	2.74	2.49	2
2.52	1.34	.36	6.00	2.73	2.48	2
2.14	1.14	.31	6.00	2.73	2.48	2

1.76	.93	.25	6.00	2.72	2.47	2
1.38	.73	.20	6.00	2.72	2.46	2
1.00	.53	.14	6.00	2.71	2.46	2
1.00	.53	.14	6.00	2.71	2.46	2
.90	.48	.13	6.00	2.71	2.46	2
.80	.42	.11	6.00	2.71	2.46	2
.70	.37	.10	6.00	2.71	2.45	2
.60	.32	.09	6.00	2.71	2.45	2
.50	.26	.07	6.00	2.71	2.45	2
.40	.21	.06	6.00	2.71	2.45	2
.30	.16	.04	6.00	2.71	2.45	2
.20	.11	.03	6.00	2.71	2.45	2
.10	.05	.01	6.00	2.71	2.45	2
.00	.00	.00	6.00	2.71	2.44	2

Time = 3150. Degree of Consolidation = 73.%

Total Settlement = 6.565

Settlement at End of Primary Consolidation = 6.771

Settlement caused by Primary Consolidation at time 3150. = 4.929

Settlement caused by Secondary Compression at time 3150. = .000

Settlement Due to Desiccation = 1.637

Surface Elevation = 6.02

**************Current Conditions in Compressible Foundation*************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
14.99	13.09	3.98	6.00	2.71	2.44	1
13.83	12.36	3.78	4.15	2.63	2.42	1
12.85	11.64	3.58	3.66	2.56	2.40	1
11.96	10.94	3.38	3.29	2.51	2.38	1
11.14	10.24	3.19	2.99	2.46	2.36	1
10.36	9.56	2.99	2.89	2.42	2.34	1
9.59	8.88	2.79	2.79	2.38	2.32	1
8.85	8.21	2.59	2.70	2.34	2.30	1
8.12	7.55	2.39	2.60	2.31	2.28	1
7.42	6.90	2.19	2.50	2.28	2.26	1
6.72	6.24	1.99	2.48	2.25	2.24	1
6.03	5.60	1.79	2.46	2.23	2.22	1
5.34	4.96	1.59	2.44	2.20	2.20	1
4.66	4.32	1.39	2.42	2.18	2.18	1
3.98	3.69	1.19	2.40	2.16	2.15	1
3.31	3.07	1.00	2.38	2.13	2.13	1
2.64	2.45	.80	2.35	2.11	2.11	1
1.97	1.83	.60	2.33	2.09	2.09	1
1.31	1.21	.40	2.31	2.07	2.07	1
.65	.61	.20	2.29	2.05	2.05	1
.00	.00	.00	2.27	2.03	2.03	1

Time = 6030. Degree of Consolidation = 91.%

Total Settlement = 1.905

Settlement at End of Primary Consolidation = 2.101

Settlement caused by Primary Consolidation at time 6030. = 1.905

Settlement caused by Secondary Compression at time 6030. = .000

******************Current Conditions in Dredged Fill******************

***** Coordinates *****			***** Void Ratios *****			
A	XI	Z	Einitial	E	Eeop	Material
12.43	5.84	1.78	6.00	1.23	1.23	2
12.05	5.72	1.72	6.00	1.23	1.23	2
11.67	5.60	1.67	6.00	1.23	1.23	2
11.29	5.48	1.61	6.00	1.23	1.23	2
10.91	5.36	1.56	6.00	1.23	1.23	2
10.52	5.24	1.50	6.00	1.23	1.23	2
10.14	5.12	1.45	6.00	1.23	1.23	2
9.76	5.00	1.39	6.00	1.23	1.23	2
9.38	4.87	1.34	6.00	1.23	1.23	2
9.00	4.75	1.29	6.00	1.23	1.23	2
8.62	4.62	1.23	6.00	2.05	2.85	2
8.62	4.62	1.23	6.00	2.66	2.85	2
8.24	4.41	1.18	6.00	2.81	2.82	2
7.86	4.20	1.12	6.00	2.80	2.79	2
7.48	4.00	1.07	6.00	2.79	2.77	2
7.10	3.79	1.01	6.00	2.79	2.74	2
6.72	3.59	.96	6.00	2.78	2.71	2
6.33	3.38	.90	6.00	2.77	2.69	2
5.95	3.17	.85	6.00	2.77	2.66	2
5.57	2.97	.80	6.00	2.76	2.63	2
5.19	2.77	.74	6.00	2.76	2.61	2
4.81	2.56	.69	6.00	2.75	2.58	2
4.81	2.56	.69	6.00	2.75	2.58	2
4.43	2.36	.63	6.00	2.75	2.55	2
4.05	2.15	.58	6.00	2.74	2.52	2
3.67	1.95	.52	6.00	2.74	2.50	2
3.29	1.75	.47	6.00	2.73	2.49	2
2.91	1.54	.42	6.00	2.73	2.49	2
2.52	1.34	.36	6.00	2.73	2.48	2
2.14	1.14	.31	6.00	2.72	2.48	2
1.76	.93	.25	6.00	2.72	2.47	2
1.38	.73	.20	6.00	2.72	2.47	2
1.00	.53	.14	6.00	2.71	2.46	2
1.00	.53	.14	6.00	2.71	2.46	2
.90	.48	.13	6.00	2.71	2.46	2
.80	.42	.11	6.00	2.71	2.46	2
.70	.37	.10	6.00	2.71	2.46	2
.60	.32	.09	6.00	2.71	2.45	2
.50	.26	.07	6.00	2.71	2.45	2
.40	.21	.06	6.00	2.71	2.45	2
.30	.16	.04	6.00	2.71	2.45	2
.20	.11	.03	6.00	2.71	2.45	2
.10	.05	.01	6.00	2.71	2.45	2
.00	.00	.00	6.00	2.71	2.44	2

Time = 6030. Degree of Consolidation = 69.%

Total Settlement = 6.585

Settlement at End of Primary Consolidation = 6.770

Settlement caused by Primary Consolidation at time 6030. = 4.656

Settlement caused by Secondary Compression at time 6030. = .000

Settlement Due to Desiccation = 1.929

Surface Elevation = 5.94

APPENDIX F

UTEXAS4 ANALYSIS

TABLE NO. 1
COMPUTER PROGRAM DESIGNATION: UTEXAS4
Originally Coded By Stephen G. Wright
Version No. 4.0.2.0 - Last Revision Date: 1/29/2005


```
*******************************************************************
* RESULTS OF COMPUTATIONS PERFORMED USING THIS SOFTWARE           *
* SHOULD NOT BE USED FOR DESIGN PURPOSES UNLESS THEY HAVE         *
* BEEN VERIFIED BY INDEPENDENT ANALYSES, EXPERIMENTAL DATA        *
* OR FIELD EXPERIENCE. THE USER SHOULD UNDERSTAND THE ALGORITHMS *
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* READ ALL DOCUMENTATION FOR THIS SOFTWARE BEFORE ATTEMPTING      *
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* OR ADAPTABILITY OF THIS SOFTWARE.                               *
*******************************************************************
```

UTEXAS4 S/N:00152 - Version: 4.0.2.0 - Latest Revision: 1/29/2005
Licensed for use by: Fadi Faraj, HVJ Associates, Houston, TX
Time and date of run: Wed Sep 05 13:51:57 2007
Name of input data file: C:\UTEXAS4\HG-06-17340 Calcasieu Ship Channel_All Sites (09-05-07)\xiph1.txt

SITE 11
SHORT TERM STABILITY CALCULATIONS

TABLE NO. 3

```
*************************
* NEW PROFILE LINE DATA *
*************************
```

```
----------------------------------------------------------
----- Profile Line No. 1 - Material Type (Number): 1 -----
----------------------------------------------------------
```
Description: SOIL 1

Point	X	Y
1	0.00	-15.00
2	70.00	-15.00
3	300.00	-15.00

```
----------------------------------------------------------
----- Profile Line No. 2 - Material Type (Number): 2 -----
----------------------------------------------------------
```
Description: SOIL 2

Point	X	Y
1	0.00	-5.00
2	50.00	-5.00
3	70.00	-15.00

```
----------------------------------------------------------
----- Profile Line No. 3 - Material Type (Number): 3 -----
----------------------------------------------------------
```
Description: SOIL 3

Point	X	Y
1	50.00	-5.00
2	70.00	-5.00

3	300.00	-5.00

----- Profile Line No. 4 - Material Type (Number): 4 -----

Description: SOIL 4

Point	X	Y
1	0.00	0.00
2	50.00	0.00
3	70.00	-5.00

----- Profile Line No. 5 - Material Type (Number): 5 -----

Description: SOIL 5

Point	X	Y
1	50.00	0.00
2	70.00	0.00
3	300.00	0.00

----- Profile Line No. 6 - Material Type (Number): 6 -----

Description: SOIL 6

Point	X	Y
1	0.00	5.00
2	50.00	5.00
3	70.00	0.00

----- Profile Line No. 7 - Material Type (Number): 7 -----

Description: SOIL 7

Point	X	Y
1	50.00	5.00
2	70.00	5.00
3	190.00	5.00
4	300.00	5.00

----- Profile Line No. 8 - Material Type (Number): 8 -----

Description: SOIL 8

Point	X	Y
1	0.00	7.00
2	50.00	7.00
3	70.00	5.00

----- Profile Line No. 9 - Material Type (Number): 9 -----

Description: SOIL 9

```
Point        X           Y

   1       50.00        7.00
   2      135.00        7.00
   3      185.00        7.00
   4      190.00        5.00

------------------------------------------------------------
----- Profile Line No. 10 - Material Type (Number): 10 -----
------------------------------------------------------------
Description: SOIL 10

Point        X           Y

   1       50.00        7.00
   2       70.00       12.00
   3       95.00       12.00
   4      101.00       10.00
   5      126.00       10.00
   6      135.00        7.00
```

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```
TABLE NO. 4
**********************************************************************
* NEW MATERIAL PROPERTY DATA - CONVENTIONAL/FIRST-STAGE COMPUTATIONS *
**********************************************************************

------------------------------------------------------------------
------------------- DATA FOR MATERIAL NUMBER 1 -------------------
------------------------------------------------------------------
Description: SOIL 1 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - - 500.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

------------------------------------------------------------------
------------------- DATA FOR MATERIAL NUMBER 2 -------------------
------------------------------------------------------------------
Description: SOIL 2- FOUNDATION LAYER (CH)

Unit weight of soil (material): 72.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - - 335.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.
```

```
-----------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 3 -------------------
-----------------------------------------------------------------
Description: SOIL 3 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 82.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 125.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-----------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 4 -------------------
-----------------------------------------------------------------
Description: SOIL 4 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 250.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-----------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 5 -------------------
-----------------------------------------------------------------
Description: SOIL 5 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 85.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-----------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 6 -------------------
-----------------------------------------------------------------
Description: SOIL 6 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 150.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-----------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 7 -------------------
```

```
-------------------------------------------------------------------
Description: SOIL 7 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 45.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-------------------------------------------------------------------
------------------- DATA FOR MATERIAL NUMBER 8 -------------------
-------------------------------------------------------------------
Description: SOIL 8 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 300.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-------------------------------------------------------------------
------------------- DATA FOR MATERIAL NUMBER 9 -------------------
-------------------------------------------------------------------
Description: SOIL 9 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 300.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

--------------------------------------------------------------------
------------------- DATA FOR MATERIAL NUMBER 10 -------------------
--------------------------------------------------------------------
Description: SOIL 10 - LEVEE (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 300.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

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```

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TABLE NO. 6
```
***********************************************************************
* NEW PIEZOMETRIC LINE DATA - CONVENTIONAL/FIRST-STAGE COMPUTATIONS *
***********************************************************************

---------------------------------------------------------
--------------- Piezometric Line Number 1 ---------------
---------------------------------------------------------
```
Description: PIEZOMETRIC LINE
Unit weight of fluid (water): 62.4

Point	X	Y
1	0.00	5.00
2	300.00	5.00

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TABLE NO. 10
```
***************************
* NEW SLOPE GEOMETRY DATA *
***************************
```

Point	X	Y
1	0.00	7.00
2	50.00	7.00
3	70.00	12.00
4	95.00	12.00
5	101.00	10.00
6	126.00	10.00
7	135.00	7.00
8	185.00	7.00
9	190.00	5.00
10	300.00	5.00

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TABLE NO. 16
```
*********************************
* NEW ANALYSIS/COMPUTATION DATA *
*********************************
```

Starting Center Coordinate for Search at -
X: 130.00
Y: 35.00

Required accuracy for critical center

(= minimum spacing between grid points): 1.000

Critical shear surface not allowed to pass below Y: -20.00
For the initial mode of search circles are tangent to horizontal line at -
Y: -20.00
Radius: 55.00

Will save the following number of shear surfaces with the lowest factors of safety:10

The following represent default values or values that were prevously defined:
Subtended angle for slice subdivision: 3.00(degrees)
There is no crack.
There is no water in a crack.
Conventional (single-stage) computations will be performed.
Seismic coefficient: 0.000
Unit weight of water (or other fluid) in crack: 62.4
Automatic search output will be in long form.
Search will be continued after the initial mode to find a most critical circle.
Maximum number of trial grids for a given search mode: 50
No restrictions exist on the lateral extent of the search.
Neither slope face was explicitly designated for analysis.
Standard sign convention used for direction of shear stress on shear surface.
Procedure of Analysis: Spencer

Iteration limit: 100
Force imbalance: 1.000000e-005 (fraction of total weight)
Moment imbalance: 1.000000e-005 (fraction of moment due to total weight)
Minimum weight required for computations to be performed: 100
Initial trial factor of safety: 3.000
Initial trial side force inclination: 17.189 (degrees)
Minimum (most negative) side force inclination allowed in Spencer's procedure: -10.00

Search will be conducted for RIGHT face of slope

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TABLE NO. 30
****
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
****

------ Output for Circles Tangent to a Given Horizontal Line ------
------ Tangent line elevation, Y: -20.00

Center Coordinates X	Center Coordinates Y	Radius	1-Stage Factor of Safety	Side Force Inclination (degrees)	Iterations	Messages
100.00	5.00	25.00	Center rejected as follows:			UTEXAS ERROR NUMBER 8050 Center of circle is below the toe (lowest point) of the slope

```
    130.00      5.00     25.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    160.00      5.00     25.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    100.00     35.00     55.00   6.800     -0.760        14
    130.00     35.00     55.00   3.706     -2.210         8
    160.00     35.00     55.00   4.839     -2.726        10
    100.00     65.00     85.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    130.00     65.00     85.00   3.514     -2.386         8
    160.00     65.00     85.00   4.126     -2.628         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    100.00     95.00    115.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    130.00     95.00    115.00   3.934     -1.937         7
    160.00     95.00    115.00   3.733     -2.750         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    125.00     60.00     80.00   3.718     -1.895         8
    130.00     60.00     80.00   3.545     -2.331         8
    135.00     60.00     80.00   3.454     -2.700         7
    125.00     65.00     85.00   3.815     -1.817         8
    135.00     65.00     85.00   3.394     -2.751         7
    125.00     70.00     90.00   3.911     -1.763         8
    130.00     70.00     90.00   3.528     -2.369         8
    135.00     70.00     90.00   3.368     -2.751         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    140.00     65.00     85.00   3.399     -2.917         7
    140.00     70.00     90.00   3.362     -2.905         7
    130.00     75.00     95.00   3.567     -2.316         8
    135.00     75.00     95.00   3.372     -2.705         7
    140.00     75.00     95.00   3.333     -2.894         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    145.00     70.00     90.00   3.417     -2.982         7
    145.00     75.00     95.00   3.388     -2.953         7
    135.00     80.00    100.00   3.398     -2.634         7
    140.00     80.00    100.00   3.323     -2.858         7
    145.00     80.00    100.00   3.370     -2.919         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    135.00     85.00    105.00   3.444     -2.543         7
    140.00     85.00    105.00   3.336     -2.802         7
    145.00     85.00    105.00   3.358     -2.888         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    137.00     77.00     97.00   3.341     -2.788         7
    140.00     77.00     97.00   3.326     -2.882         7
    143.00     77.00     97.00   3.355     -2.920         7
    137.00     80.00    100.00   3.352     -2.746         7
    143.00     80.00    100.00   3.344     -2.905         7
    137.00     83.00    103.00   3.370     -2.698         7
    140.00     83.00    103.00   3.328     -2.828         7
    143.00     83.00    103.00   3.335     -2.890         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
```

```
    139.00     79.00     99.00   3.326     -2.840         7
    140.00     79.00     99.00   3.323     -2.867         7
    141.00     79.00     99.00   3.326     -2.889         7
    139.00     80.00    100.00   3.327     -2.831         7
    141.00     80.00    100.00   3.324     -2.881         7
    139.00     81.00    101.00   3.330     -2.820         7
    140.00     81.00    101.00   3.324     -2.849         7
    141.00     81.00    101.00   3.324     -2.872         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    139.00     78.00     98.00   3.325     -2.849         7
    140.00     78.00     98.00   3.324     -2.875         7
    141.00     78.00     98.00   3.329     -2.896         7
----- Critical Circle After the Current Mode of Search -----
X: 140.00     Y: 79.00     Radius: 99.000
Factor of safety: 3.323     Side force inclination: -2.867

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TABLE NO. 31
***************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
***************************************************

------ Output for Circles with a Given, Constant Radius ------
------ Radius: 99.00

                                1-Stage
Center Coordinates              Factor  Side Force
                                  of    Inclination
     X         Y       Radius   Safety   (degrees)   Iterations          Messages

    110.00     49.00     99.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    140.00     49.00     99.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    170.00     49.00     99.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    110.00     79.00     99.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    170.00     79.00     99.00   4.592     -2.276         8
    110.00    109.00     99.00  45.913     -8.888        89
    140.00    109.00     99.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.
```

```
    170.00    109.00     99.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    135.00     74.00     99.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    140.00     74.00     99.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    145.00     74.00     99.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    135.00     79.00     99.00   3.391     -2.650         7
    145.00     79.00     99.00   3.373     -2.926         7
    135.00     84.00     99.00   1.644     -1.615         8
    140.00     84.00     99.00   1.660     -1.714         8
    145.00     84.00     99.00   1.689     -1.812         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    130.00     79.00     99.00   3.614     -2.256         8
    130.00     84.00     99.00   1.692     -1.348         8
    130.00     89.00     99.00   2.018     -1.014         8
    135.00     89.00     99.00   1.997     -1.319         8
    140.00     89.00     99.00   1.961     -1.674         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    132.00     81.00     99.00   3.198     -2.502         7
    135.00     81.00     99.00   3.114     -2.714         7
    138.00     81.00     99.00   3.081     -2.849         7
    132.00     84.00     99.00   1.660     -1.488         8
    138.00     84.00     99.00   1.656     -1.657         8
    132.00     87.00     99.00   1.849     -1.312         8
    135.00     87.00     99.00   1.819     -1.497         8
    138.00     87.00     99.00   1.815     -1.643         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    134.00     83.00     99.00   2.601     -2.517         7
    135.00     83.00     99.00   2.589     -2.564         7
    136.00     83.00     99.00   2.583     -2.606         7
    134.00     84.00     99.00   1.646     -1.582         8
    136.00     84.00     99.00   1.645     -1.641         8
    134.00     85.00     99.00   1.694     -1.557         8
    135.00     85.00     99.00   1.694     -1.592         8
    136.00     85.00     99.00   1.698     -1.615         8
----- Critical Circle After the Current Mode of Search -----
X: 135.00     Y: 84.00     Radius: 99.000
Factor of safety: 1.644     Side force inclination: -1.615

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```

TABLE NO. 30
```
***************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
***************************************************

------ Output for Circles Tangent to a Given Horizontal Line ------
------ Tangent line elevation, Y: -15.00

                                1-Stage
Center Coordinates              Factor  Side Force
                                  of    Inclination
     X         Y       Radius   Safety   (degrees)   Iterations          Messages

    105.00     54.00     69.00   2.444     -0.345         8
    135.00     54.00     69.00   1.889     -1.036         8
    165.00     54.00     69.00   2.243     -1.837         8
    105.00     84.00     99.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    165.00     84.00     99.00   2.154     -1.458         8
    105.00    114.00    129.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    135.00    114.00    129.00   1.690     -1.481         8
    165.00    114.00    129.00   2.001     -1.593         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    130.00     79.00     94.00   1.714     -1.265         8
    135.00     79.00     94.00   1.666     -1.558         8
    140.00     79.00     94.00   1.673     -1.719         8
    130.00     84.00     99.00   1.692     -1.348         8
    140.00     84.00     99.00   1.660     -1.714         8
    130.00     89.00    104.00   1.692     -1.369         8
    135.00     89.00    104.00   1.634     -1.637         8
    140.00     89.00    104.00   1.652     -1.701         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    130.00     94.00    109.00   1.704     -1.358         8
    135.00     94.00    109.00   1.634     -1.628         8
    140.00     94.00    109.00   1.635     -1.729         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    130.00     99.00    114.00   1.722     -1.341         8
    135.00     99.00    114.00   1.640     -1.607         8
    140.00     99.00    114.00   1.627     -1.733         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    145.00     94.00    109.00   1.671     -1.766         8
    145.00     99.00    114.00   1.668     -1.740         8
    135.00    104.00    119.00   1.652     -1.572         8
    140.00    104.00    119.00   1.627     -1.725         8
    145.00    104.00    119.00   1.664     -1.728         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    135.00    109.00    124.00   1.669     -1.530         8
    140.00    109.00    124.00   1.632     -1.701         8
    145.00    109.00    124.00   1.655     -1.735         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    137.00    101.00    116.00   1.629     -1.668         8
    140.00    101.00    116.00   1.626     -1.732         8
    143.00    101.00    116.00   1.646     -1.740         8
    137.00    104.00    119.00   1.635     -1.648         8
    143.00    104.00    119.00   1.642     -1.741         8
    137.00    107.00    122.00   1.642     -1.627         8
```

```
    140.00    107.00    122.00   1.629     -1.715         8
    143.00    107.00    122.00   1.639     -1.738         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    137.00     98.00    113.00   1.626     -1.685         8
    140.00     98.00    113.00   1.628     -1.734         8
    143.00     98.00    113.00   1.654     -1.729         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    139.00    100.00    115.00   1.624     -1.718         8
    140.00    100.00    115.00   1.626     -1.733         8
    141.00    100.00    115.00   1.631     -1.742         8
    139.00    101.00    116.00   1.625     -1.717         8
    141.00    101.00    116.00   1.630     -1.741         8
    139.00    102.00    117.00   1.625     -1.716         8
    140.00    102.00    117.00   1.626     -1.730         8
    141.00    102.00    117.00   1.629     -1.739         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    138.00     99.00    114.00   1.625     -1.702         8
    139.00     99.00    114.00   1.624     -1.718         8
    138.00    100.00    115.00   1.625     -1.700         8
    138.00    101.00    116.00   1.626     -1.697         8
----- Critical Circle After the Current Mode of Search -----
X: 139.00     Y: 100.00     Radius: 115.000
Factor of safety: 1.624     Side force inclination: -1.718
```

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SITE 11

TABLE NO. 31

```
***************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
***************************************************

------ Output for Circles with a Given, Constant Radius ------
------ Radius: 115.00

                                1-Stage
Center Coordinates              Factor  Side Force
                                  of    Inclination
     X         Y       Radius   Safety   (degrees)   Iterations          Messages

    109.00     70.00    115.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    139.00     70.00    115.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    169.00     70.00    115.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    109.00    100.00    115.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
```

```
opposite facing slope

    169.00    100.00    115.00   2.253     -1.312         8
    109.00    130.00    115.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

    139.00    130.00    115.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

    169.00    130.00    115.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    134.00     95.00    115.00   3.634     -2.269         7
    139.00     95.00    115.00   3.432     -2.578         7
    144.00     95.00    115.00   3.364     -2.779         7
    134.00    100.00    115.00   1.653     -1.555         8
    144.00    100.00    115.00   1.661     -1.723         8
    134.00    105.00    115.00   1.893     -1.529         8
    139.00    105.00    115.00   1.912     -1.661         8
    144.00    105.00    115.00   1.940     -1.798         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    136.00     97.00    115.00   3.203     -2.533         7
    139.00     97.00    115.00   3.131     -2.698         7
    142.00     97.00    115.00   3.101     -2.810         7
    136.00    100.00    115.00   1.634     -1.640         8
    142.00    100.00    115.00   1.639     -1.745         8
    136.00    103.00    115.00   1.764     -1.671         8
    139.00    103.00    115.00   1.777     -1.715         8
    142.00    103.00    115.00   1.799     -1.751         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    138.00     99.00    115.00   2.591     -2.585         7
    139.00     99.00    115.00   2.582     -2.627         7
    140.00     99.00    115.00   2.577     -2.653         7
    138.00    100.00    115.00   1.625     -1.700         8
    140.00    100.00    115.00   1.626     -1.733         8
    138.00    101.00    115.00   1.666     -1.716         8
    139.00    101.00    115.00   1.668     -1.730         8
    140.00    101.00    115.00   1.672     -1.739         8
----- Critical Circle After the Current Mode of Search -----
X: 139.00     Y: 100.00     Radius: 115.000
Factor of safety: 1.624     Side force inclination: -1.718

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SITE 11

TABLE NO. 33
*********************************************
* 1-STAGE FINAL CRITICAL CIRCLE INFORMATION *
*********************************************
X Coordinate of Center . . . . . . . . . . . . .  139.00
Y Coordinate of Center . . . . . . . . . . . . .  100.00
```

```
Radius . . . . . . . . . . . . . . . . . . . . . . .  115.00
Factor of Safety . . . . . . . . . . . . . . . . . . 1.624
Side Force Inclination (degrees) . . . . . . . . . -1.72
Number of Circles Tried  . . . . . . . . . . . . .  174
Number of Circles F Calculated for . . . . . . . .  151
Time Required for Search (seconds) . . . . . . . .  1.9
```

TABLE NO. 34

```
***************************************************************
* Summary of the 10 Circles with the Lowest Factors of Safety *
***************************************************************
```

Center Coordinates X	Center Coordinates Y	Radius	Elevation of Bottom of Circle	Factor of Safety	Side Force Inclin.	X-Left	X-Right
139.00	100.00	115.00	-15.00	1.624	-1.72	66.13	203.81
139.00	99.00	114.00	-15.00	1.624	-1.72	66.41	203.50
138.00	99.00	114.00	-15.00	1.625	-1.70	65.64	202.50
139.00	101.00	116.00	-15.00	1.625	-1.72	65.86	204.12
138.00	100.00	115.00	-15.00	1.625	-1.70	65.37	202.81
139.00	102.00	117.00	-15.00	1.625	-1.72	65.59	204.42
138.00	101.00	116.00	-15.00	1.626	-1.70	65.09	203.12
140.00	102.00	117.00	-15.00	1.626	-1.73	66.35	205.42
140.00	101.00	116.00	-15.00	1.626	-1.73	66.62	205.12
140.00	100.00	115.00	-15.00	1.626	-1.73	66.90	204.81

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TABLE NO. 43

```
**********************************************************
* Coordinate, Weight, Strength and Pore Water Pressure     *
* Information for Individual Slices for Conventional       *
* Computations or First Stage of Multi-Stage Computations. *
* (Information is for the critical shear surface in the    *
* case of an automatic search.)                            *
**********************************************************
```

Slice No.	X	Y	Slice Weight	Matl. No.	Cohesion	Friction Angle	Pore Pressure
	66.13	11.03					
1	68.07	9.52	774	10	300.0	0.00	0.0
	70.00	8.00					
2	70.68	7.50	609	10	300.0	0.00	0.0
	71.35	7.00					
3	72.77	6.00	1703	9	300.0	0.00	0.0
	74.19	5.00					

4	76.72	3.37	4368	7	45.0	0.00	101.8
	79.25	1.74					
5	80.73	0.87	3292	7	45.0	0.00	257.8
	82.21	0.00					
6	84.87	-1.42	7127	5	85.0	0.00	400.5
	87.52	-2.84					
7	89.81	-3.92	7280	5	85.0	0.00	556.5
	92.10	-5.00					
8	93.55	-5.62	5086	3	125.0	0.00	663.0
	95.00	-6.25					
9	97.81	-7.33	10102	3	125.0	0.00	769.3
	100.62	-8.41					
10	100.81	-8.47	679	3	125.0	0.00	840.8
	101.00	-8.54					
11	103.87	-9.46	10696	3	125.0	0.00	902.3
	106.73	-10.38					
12	109.64	-11.15	11667	3	125.0	0.00	1007.7
	112.55	-11.92					
13	115.50	-12.53	12481	3	125.0	0.00	1094.1
	118.45	-13.15					
14	121.42	-13.61	13125	3	125.0	0.00	1161.2
	124.40	-14.07					
15	125.20	-14.17	3609	3	125.0	0.00	1196.0
	126.00	-14.26					
16	129.00	-14.52	13082	3	125.0	0.00	1218.3
	132.00	-14.79					
17	133.50	-14.86	6180	3	125.0	0.00	1239.2
	135.00	-14.93					
18	137.00	-14.97	8069	3	125.0	0.00	1245.8
	139.00	-15.00					
19	142.01	-14.92	12119	3	125.0	0.00	1243.1
	145.02	-14.84					
20	148.02	-14.61	11931	3	125.0	0.00	1223.4
	151.02	-14.37					
21	154.01	-13.98	11557	3	125.0	0.00	1184.2
	156.99	-13.58					
22	159.95	-13.04	11005	3	125.0	0.00	1125.4
	162.91	-12.49					
23	165.84	-11.78	10282	3	125.0	0.00	1047.3
	168.76	-11.08					
24	171.65	-10.23	9401	3	125.0	0.00	950.1
	174.54	-9.37					
25	177.37	-8.37	8377	3	125.0	0.00	834.1
	180.21	-7.36					
26	182.61	-6.38	6287	3	125.0	0.00	710.1
	185.00	-5.40					
27	185.45	-5.20	1083	3	125.0	0.00	636.5
	185.90	-5.00					
28	187.95	-4.04	4037	5	85.0	0.00	563.9
	190.00	-3.07					
29	192.66	-1.67	3550	5	85.0	0.00	416.1
	195.32	-0.26					
30	195.56	-0.13	238	5	85.0	0.00	320.2
	195.79	0.00					
31	198.37	1.55	1776	7	45.0	0.00	215.0
	200.94	3.11					
32	202.38	4.05	271	7	45.0	0.00	59.0
	203.81	5.00					

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SITE 11

TABLE NO. 44

```
*********************************************************
* Seismic Forces and Forces Due to Distributed Loads for *
* Individual Slices for Conventional Computations or the *
* First Stage of Multi-Stage Computations.               *
* (Information is for the critical shear surface in the  *
* case of an automatic search.)                          *
*********************************************************
```

There are no seismic forces or forces due to distributed loads
for the current shear surface

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SITE 11

TABLE NO. 47

```
*************************************************************
*  Information for the Iterative Solution for the Factor of  *
*  Safety and Side Force Inclination by Spencer's Procedure  *
*************************************************************
```

Allowable force imbalance for convergence: 2
Allowable moment imbalance for convergence: 282

```
        Trial     Trial
       Factor   Side Force     Force       Moment                 Delta
Iter-    of    Inclination   Imbalance   Imbalance    Delta-F     Theta
ation  Safety   (degrees)      (lbs.)    (ft.-lbs.)             (degrees)

   1   3.00000   -17.1887   5.178e+000  -5.795e+005
First-order corrections to F and Theta ............   -2.5401    14.2293
Reduced values - Deltas were too large ............   -0.5000     2.8009

   2   2.50000   -14.3878   2.414e+002  -4.738e+005
First-order corrections to F and Theta ............   -1.3311    11.7704
Reduced values - Deltas were too large ............   -0.3240     2.8648

   3   2.17602   -11.5230   3.502e+002  -3.640e+005
First-order corrections to F and Theta ............   -0.7239     9.2310
Reduced values - Deltas were too large ............   -0.2247     2.8648

   4   1.95136    -8.6582   3.616e+002  -2.548e+005
First-order corrections to F and Theta ............   -0.3833     6.6329
Reduced values - Deltas were too large ............   -0.1656     2.8648

   5   1.78579    -5.7935   2.944e+002  -1.475e+005
First-order corrections to F and Theta ............   -0.1734     3.9583
Reduced values - Deltas were too large ............   -0.1255     2.8648

   6   1.66026    -2.9287   1.466e+002  -4.299e+004
First-order corrections to F and Theta ............   -0.0362     1.1967
Second-order corrections to F and Theta ...........   -0.0360     1.2113

   7   1.62431    -1.7173   2.098e-002   2.505e+001
First-order corrections to F and Theta ............    0.0000    -0.0007
```

```
Second-order corrections to F and Theta ...........    0.0000    -0.0007

   8   1.62434    -1.7180  -1.198e-010  -1.057e-008
First-order corrections to F and Theta ............   -0.0000     0.0000
```

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SITE 11

TABLE NO. 55

```
*********************************************************************
* Check of Computations by Spencer's Procedure (Results are for the *
* critical shear surface in the case of an automatic search.)       *
*********************************************************************
```

Summation of Horizontal Forces: 1.79590e-011

Summation of Vertical Forces: 1.69962e-011

Summation of Moments: 1.46974e-009

Mohr Coulomb Shear Force/Shear Strength Check Summation: 2.58638e-012

***** CAUTION ***** Forces Between Slices are NEGATIVE at Points
Along the UPPER one-half of the Shear Surface -
A Tension Crack may Be Needed

***** CAUTION ***** Some of the Forces Between Slices Act at Points
Above the Surface of the Slope or Below the Shear Surface -
Either a Tension Crack may be Needed or the SOLUTION MAY NOT
BE A VALID SOLUTION

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SITE 11

TABLE NO. 58

```
*************************************************************************
* Final Results for Stresses Along the Shear Surface                    *
* (Results are for the critical shear surface in the case of a search.) *
*************************************************************************
```

SPENCER'S PROCEDURE USED TO COMPUTE THE FACTOR OF SAFETY
Factor of Safety: 1.624   Side Force Inclination: -1.72

-------- VALUES AT CENTER OF BASE OF SLICE --------

Slice No.	X-Center	Y-Center	Total Normal Stress	Effective Normal Stress	Shear Stress
1	68.07	9.52	59.4	59.4	184.7
2	70.68	7.50	312.2	312.2	184.7
3	72.77	6.00	465.6	465.6	184.7
4	76.72	3.37	830.0	728.2	27.7
5	80.73	0.87	1078.6	820.8	27.7

6	84.87	-1.42	1294.7	894.2	52.3
7	89.81	-3.92	1546.6	990.1	52.3
8	93.55	-5.62	1698.5	1035.5	77.0
9	97.81	-7.33	1749.9	980.6	77.0
10	100.81	-8.47	1747.9	907.2	77.0
11	103.87	-9.46	1825.8	923.5	77.0
12	109.64	-11.15	1970.6	962.9	77.0
13	115.50	-12.53	2090.9	996.8	77.0
14	121.42	-13.61	2186.2	1025.0	77.0
15	125.20	-14.17	2236.5	1040.5	77.0
16	129.00	-14.52	2171.0	952.6	77.0
17	133.50	-14.86	2054.1	814.9	77.0
18	137.00	-14.97	2017.1	771.2	77.0
19	142.01	-14.92	2019.4	776.4	77.0
20	148.02	-14.61	2000.8	777.4	77.0
21	154.01	-13.98	1956.3	772.1	77.0
22	159.95	-13.04	1886.0	760.6	77.0
23	165.84	-11.78	1790.0	742.6	77.0
24	171.65	-10.23	1668.5	718.4	77.0
25	177.37	-8.37	1521.8	687.7	77.0
26	182.61	-6.38	1363.8	653.7	77.0
27	185.45	-5.20	1251.1	614.7	77.0
28	187.95	-4.04	1026.2	462.4	52.3
29	192.66	-1.67	707.1	291.1	52.3
30	195.56	-0.13	553.6	233.4	52.3
31	198.37	1.55	368.7	153.8	27.7
32	202.38	4.05	116.0	57.0	27.7

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SITE 11

TABLE NO. 59
```
*************************************************************************
* Final Results for Side Forces and Stresses Between Slices             *
* (Results are for the critical shear surface in the case of a search.) *
*************************************************************************
```

--------------- VALUES AT RIGHT SIDE OF SLICE ---------------

Slice No.	X-Right	Side Force	Y-Coord. of Side Force Location	Fraction of Height	Sigma at Top	Sigma at Bottom
1	70.00	-535	9.46	0.365	-25.1	-242.2
2	71.35	-473	9.67	0.535	-114.1	-74.9
3	74.19	-65	32.15	Above	-198.9	180.2
4	79.25	2503	2.54	0.078	-373.0	860.5
5	82.21	4297	1.77	0.148	-398.4	1114.2
6	87.52	7691	0.24	0.207	-391.7	1428.0
7	92.10	10801	-1.07	0.231	-390.1	1660.3
8	95.00	12701	-1.84	0.242	-381.7	1773.0
9	100.62	16045	-3.13	0.285	-252.7	1983.4
10	101.00	16249	-3.21	0.288	-240.8	1992.8
11	106.73	19168	-4.32	0.297	-203.0	2083.3
12	112.55	21751	-5.30	0.302	-185.7	2169.6
13	118.45	23872	-6.11	0.304	-180.4	2242.0
14	124.40	25427	-6.74	0.305	-182.5	2294.4
15	126.00	25738	-6.88	0.304	-183.9	2304.5

16	132.00	26413	-7.25	0.331	-18.0	2335.2
17	135.00	26478	-7.36	0.345	86.5	2327.1
18	139.00	26310	-7.43	0.344	77.1	2313.7
19	145.02	25528	-7.38	0.341	57.0	2279.5
20	151.02	24121	-7.15	0.338	31.3	2225.1
21	156.99	22123	-6.72	0.334	1.4	2147.2
22	162.91	19597	-6.09	0.328	-31.5	2041.9
23	168.76	16630	-5.27	0.321	-65.4	1904.0
24	174.54	13331	-4.24	0.314	-96.1	1723.9
25	180.21	9834	-2.97	0.306	-112.7	1481.5
26	185.00	6788	-1.61	0.305	-91.9	1186.2
27	185.90	6218	-1.31	0.317	-53.0	1121.1
28	190.00	4025	0.01	0.382	146.8	850.0
29	195.32	1758	1.92	0.415	163.2	504.8
30	195.79	1589	2.12	0.425	174.5	460.6
31	200.94	299	4.10	0.523	179.4	136.4
32	203.81	0	5.00	1.000	0.0	0.0

Read end-of-file on input while looking for another command word.
End of input data assumed - normal termination.

TABLE NO. 1
COMPUTER PROGRAM DESIGNATION: UTEXAS4
Originally Coded By Stephen G. Wright
Version No. 4.0.2.0 - Last Revision Date: 1/29/2005


```
*****************************************************************
* RESULTS OF COMPUTATIONS PERFORMED USING THIS SOFTWARE         *
* SHOULD NOT BE USED FOR DESIGN PURPOSES UNLESS THEY HAVE       *
* BEEN VERIFIED BY INDEPENDENT ANALYSES, EXPERIMENTAL DATA      *
* OR FIELD EXPERIENCE. THE USER SHOULD UNDERSTAND THE ALGORITHMS *
* AND ANALYTICAL PROCEDURES USED IN THIS SOFTWARE AND MUST HAVE  *
* READ ALL DOCUMENTATION FOR THIS SOFTWARE BEFORE ATTEMPTING    *
* TO USE IT.  NEITHER SHINOAK SOFTWARE NOR STEPHEN G. WRIGHT    *
* MAKE OR ASSUME LIABILITY FOR ANY WARRANTIES, EXPRESSED OR      *
* IMPLIED, CONCERNING THE ACCURACY, RELIABILITY, USEFULNESS     *
* OR ADAPTABILITY OF THIS SOFTWARE.                              *
*****************************************************************
```

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SITE 11
SHORT TERM STABILITY CALCULATIONS

TABLE NO. 3

```
*************************
* NEW PROFILE LINE DATA *
*************************
```

```
----------------------------------------------------------
----- Profile Line No. 1 - Material Type (Number): 1 -----
----------------------------------------------------------
```
Description: SOIL 1

Point	X	Y
1	0.00	-15.00
2	135.00	-15.00
3	300.00	-15.00

```
----------------------------------------------------------
----- Profile Line No. 2 - Material Type (Number): 2 -----
----------------------------------------------------------
```
Description: SOIL 2

Point	X	Y
1	0.00	-5.00
2	120.00	-5.00
3	135.00	-15.00

```
----------------------------------------------------------
----- Profile Line No. 3 - Material Type (Number): 3 -----
----------------------------------------------------------
```
Description: SOIL 3

Point	X	Y
1	120.00	-5.00
2	135.00	-5.00

```
   3      300.00       -5.00

----------------------------------------------------------
----- Profile Line No. 4 - Material Type (Number): 4 -----
----------------------------------------------------------
Description: SOIL 4

Point        X            Y

   1        0.00        0.00
   2      120.00        0.00
   3      135.00       -5.00

----------------------------------------------------------
----- Profile Line No. 5 - Material Type (Number): 5 -----
----------------------------------------------------------
Description: SOIL 5

Point        X            Y

   1      120.00        0.00
   2      135.00        0.00
   3      300.00        0.00

----------------------------------------------------------
----- Profile Line No. 6 - Material Type (Number): 6 -----
----------------------------------------------------------
Description: SOIL 6

Point        X            Y

   1        0.00        5.00
   2      120.00        5.00
   3      135.00        0.00

----------------------------------------------------------
----- Profile Line No. 7 - Material Type (Number): 7 -----
----------------------------------------------------------
Description: SOIL 7

Point        X            Y

   1      120.00        5.00
   2      135.00        5.00
   3      300.00        5.00

----------------------------------------------------------
----- Profile Line No. 8 - Material Type (Number): 8 -----
----------------------------------------------------------
Description: SOIL 8

Point        X            Y

   1        0.00        7.00
   2       50.00        7.00
   3       90.00        7.00
   4      120.00        9.00
   5      135.00        5.00

----------------------------------------------------------
----- Profile Line No. 9 - Material Type (Number): 9 -----
----------------------------------------------------------
Description: SOIL 9
```

```
Point        X           Y

   1      120.00        9.00
   2      135.00       10.00
   3      185.00       10.00
   4      190.00        8.00
   5      300.00        8.00

------------------------------------------------------------
----- Profile Line No. 10 - Material Type (Number): 10 -----
------------------------------------------------------------
Description: SOIL 10

Point        X           Y

   1       50.00        7.00
   2       90.00       17.00
   3      105.00       17.00
   4      135.00       10.00

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TABLE NO. 4
**********************************************************************
* NEW MATERIAL PROPERTY DATA - CONVENTIONAL/FIRST-STAGE COMPUTATIONS *
**********************************************************************

------------------------------------------------------------------
------------------- DATA FOR MATERIAL NUMBER 1 -------------------
------------------------------------------------------------------
Description: SOIL 1 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - - 500.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

------------------------------------------------------------------
------------------- DATA FOR MATERIAL NUMBER 2 -------------------
------------------------------------------------------------------
Description: SOIL 2- FOUNDATION LAYER (CH)

Unit weight of soil (material): 72.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - - 335.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.
```

```
-----------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 3 ------------------
-----------------------------------------------------------------
Description: SOIL 3 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 82.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 165.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-----------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 4 ------------------
-----------------------------------------------------------------
Description: SOIL 4 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 250.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-----------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 5 ------------------
-----------------------------------------------------------------
Description: SOIL 5 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 125.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-----------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 6 ------------------
-----------------------------------------------------------------
Description: SOIL 6 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 150.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-----------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 7 ------------------
```

```
-------------------------------------------------------------------
Description: SOIL 7 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 85.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 8 ------------------
-------------------------------------------------------------------
Description: SOIL 8 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 300.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 9 ------------------
-------------------------------------------------------------------
Description: SOIL 9 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 300.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

--------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 10 ------------------
--------------------------------------------------------------------
Description: SOIL 10 - LEVEE (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 300.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

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```

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TABLE NO. 6
```
*******************************************************************
* NEW PIEZOMETRIC LINE DATA - CONVENTIONAL/FIRST-STAGE COMPUTATIONS *
*******************************************************************

---------------------------------------------------------
--------------- Piezometric Line Number 1 ---------------
---------------------------------------------------------
```
Description: PIEZOMETRIC LINE
Unit weight of fluid (water): 62.4

Point	X	Y
1	0.00	5.00
2	90.00	5.00
3	135.00	7.00
4	300.00	7.00

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TABLE NO. 10
```
***************************
* NEW SLOPE GEOMETRY DATA *
***************************
```

Point	X	Y
1	0.00	7.00
2	50.00	7.00
3	90.00	17.00
4	105.00	17.00
5	135.00	10.00
6	185.00	10.00
7	190.00	8.00
8	300.00	8.00

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TABLE NO. 16
```
*********************************
* NEW ANALYSIS/COMPUTATION DATA *
*********************************
```

Starting Center Coordinate for Search at -
X: 130.00
Y: 35.00

Required accuracy for critical center

(= minimum spacing between grid points): 1.000

Critical shear surface not allowed to pass below Y: -20.00
For the initial mode of search circles are tangent to horizontal line at -
Y: -20.00
Radius: 55.00

Will save the following number of shear surfaces with the lowest factors of safety:10

The following represent default values or values that were prevously defined:
Subtended angle for slice subdivision: 3.00(degrees)
There is no crack.
There is no water in a crack.
Conventional (single-stage) computations will be performed.
Seismic coefficient: 0.000
Unit weight of water (or other fluid) in crack: 62.4
Automatic search output will be in long form.
Search will be continued after the initial mode to find a most critical circle.
Maximum number of trial grids for a given search mode: 50
No restrictions exist on the lateral extent of the search.
Neither slope face was explicitly designated for analysis.
Standard sign convention used for direction of shear stress on shear surface.
Procedure of Analysis: Spencer

Iteration limit: 100
Force imbalance: 1.000000e-005 (fraction of total weight)
Moment imbalance: 1.000000e-005 (fraction of moment due to total weight)
Minimum weight required for computations to be performed: 100
Initial trial factor of safety: 3.000
Initial trial side force inclination: 17.189 (degrees)
Minimum (most negative) side force inclination allowed in Spencer's procedure: -10.00

Search will be conducted for RIGHT face of slope

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TABLE NO. 30
****
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
****

------ Output for Circles Tangent to a Given Horizontal Line ------
------ Tangent line elevation, Y: -20.00

Center Coordinates X	Center Coordinates Y	Radius	1-Stage Factor of Safety	Side Force Inclination (degrees)	Iterations	Messages
100.00	5.00	25.00	Center rejected as follows:			UTEXAS ERROR NUMBER 8050 Center of circle is below the toe (lowest point) of the slope

```
    130.00      5.00     25.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    160.00      5.00     25.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    100.00     35.00     55.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    130.00     35.00     55.00   3.228     -1.662         8
    160.00     35.00     55.00   4.459     -2.862        10
    100.00     65.00     85.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    130.00     65.00     85.00   4.243     -1.106         8
    160.00     65.00     85.00   3.289     -3.302         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    125.00     30.00     50.00   3.250     -1.332         9
    130.00     30.00     50.00   3.141     -1.771         8
    135.00     30.00     50.00   3.225     -2.146         8
    125.00     35.00     55.00   3.423     -1.208         8
    135.00     35.00     55.00   3.214     -2.088         8
    125.00     40.00     60.00   3.652     -1.047         8
    130.00     40.00     60.00   3.370     -1.501         8
    135.00     40.00     60.00   3.247     -2.027         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    125.00     25.00     45.00   3.145     -1.341         9
    130.00     25.00     45.00   3.138     -1.726         9
    135.00     25.00     45.00   3.358     -1.936        10
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    125.00     20.00     40.00   3.149     -0.912        13
    130.00     20.00     40.00   3.287     -0.992        17
    135.00     20.00     40.00   3.619     -1.297        15
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    127.00     22.00     42.00   3.131     -1.323        12
    130.00     22.00     42.00   3.202     -1.476        13
    133.00     22.00     42.00   3.359     -1.556        13
    127.00     25.00     45.00   3.117     -1.501         9
    133.00     25.00     45.00   3.241     -1.888        10
    127.00     28.00     48.00   3.146     -1.530         9
    130.00     28.00     48.00   3.127     -1.782         9
    133.00     28.00     48.00   3.181     -2.003         9
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    124.00     22.00     42.00   3.144     -1.126        12
    124.00     25.00     45.00   3.172     -1.261        10
    124.00     28.00     48.00   3.237     -1.272         9
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    126.00     24.00     44.00   3.122     -1.389        10
    127.00     24.00     44.00   3.116     -1.466        10
    128.00     24.00     44.00   3.120     -1.540        10
    126.00     25.00     45.00   3.127     -1.422         9
    128.00     25.00     45.00   3.116     -1.580         9
    126.00     26.00     46.00   3.137     -1.439         9
    127.00     26.00     46.00   3.123     -1.521         9
    128.00     26.00     46.00   3.117     -1.603         9
```

```
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    129.00     24.00     44.00   3.132     -1.610        10
    129.00     25.00     45.00   3.123     -1.655         9
    129.00     26.00     46.00   3.119     -1.682         9
----- Critical Circle After the Current Mode of Search -----
X: 128.00     Y: 25.00     Radius: 45.000
Factor of safety: 3.116     Side force inclination: -1.580

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TABLE NO. 31
***************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
***************************************************

------ Output for Circles with a Given, Constant Radius ------
------ Radius: 45.00

                                1-Stage
Center Coordinates              Factor  Side Force
                                  of    Inclination
     X         Y       Radius   Safety   (degrees)   Iterations          Messages

     98.00     -5.00     45.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    128.00     -5.00     45.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    158.00     -5.00     45.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

     98.00     25.00     45.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    158.00     25.00     45.00   5.945     -2.438        23
     98.00     55.00     45.00 Center rejected as follows:      UTEXAS ERROR NUMBER
9270
                                                                Solution did not
converge in iteration limit of 100  iterations
                                                                Failed to converge
during stage 1 computations

    128.00     55.00     45.00   7.468     -8.685        12
    158.00     55.00     45.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8130
                                                                Circle intersects
slope 2 times, but there is no segment
                                                                entirely within the
```

slope

- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
123.00 20.00 45.00 Center rejected as follows: UTEXAS WARNING NUMBER 8080
Circle passes below the limiting depth of: -20.000

128.00 20.00 45.00 Center rejected as follows: UTEXAS WARNING NUMBER 8080
Circle passes below the limiting depth of: -20.000

133.00 20.00 45.00 Center rejected as follows: UTEXAS WARNING NUMBER 8080
Circle passes below the limiting depth of: -20.000

```
    123.00     25.00     45.00   3.208     -1.181        10
    133.00     25.00     45.00   3.241     -1.888        10
    123.00     30.00     45.00   2.286     -1.017         8
    128.00     30.00     45.00   2.199     -1.314         8
    133.00     30.00     45.00   2.264     -1.434         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    123.00     35.00     45.00   2.071     -1.391         8
    128.00     35.00     45.00   2.007     -1.582         8
    133.00     35.00     45.00   2.070     -1.559         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    123.00     40.00     45.00   1.919     -1.527         8
    128.00     40.00     45.00   1.946     -1.624         8
    133.00     40.00     45.00   2.082     -1.784         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    118.00     35.00     45.00   2.291     -1.135         8
    118.00     40.00     45.00   2.056     -1.277         8
    118.00     45.00     45.00   1.961     -0.949         8
    123.00     45.00     45.00   1.906     -1.001         8
    128.00     45.00     45.00   2.008     -1.066         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    118.00     50.00     45.00   3.472     -4.549         6
    123.00     50.00     45.00   3.517     -4.708         6
    128.00     50.00     45.00   3.869     -5.078         6
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    120.00     42.00     45.00   1.971     -1.475         8
    123.00     42.00     45.00   1.918     -1.557         8
    126.00     42.00     45.00   1.924     -1.548         8
    120.00     45.00     45.00   1.916     -0.990         8
    126.00     45.00     45.00   1.959     -0.938         8
    120.00     48.00     45.00   2.366     -2.017         8
    123.00     48.00     45.00   2.386     -1.806         8
    126.00     48.00     45.00   2.444     -1.900         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    122.00     44.00     45.00   1.921     -1.344         8
    123.00     44.00     45.00   1.906     -1.290         8
    124.00     44.00     45.00   1.899     -1.217         8
    122.00     45.00     45.00   1.902     -1.009         8
    124.00     45.00     45.00   1.919     -0.970         8
    122.00     46.00     45.00   2.016     -1.218         8
    123.00     46.00     45.00   2.024     -1.179         8
    124.00     46.00     45.00   2.041     -1.114         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    123.00     43.00     45.00   1.913     -1.477         8
    124.00     43.00     45.00   1.909     -1.459         8
    125.00     43.00     45.00   1.913     -1.429         8
```

```
    125.00     44.00     45.00   1.897     -1.108         8
    125.00     45.00     45.00   1.940     -0.914         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    126.00     43.00     45.00   1.923     -1.365         8
    126.00     44.00     45.00   1.903     -0.971         8
----- Critical Circle After the Current Mode of Search -----
X: 125.00     Y: 44.00     Radius: 45.000
Factor of safety: 1.897     Side force inclination: -1.108
```

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TABLE NO. 30

```
***************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
***************************************************

------ Output for Circles Tangent to a Given Horizontal Line ------
------ Tangent line elevation, Y: -1.00

                                1-Stage
Center Coordinates              Factor  Side Force
                                  of    Inclination
     X         Y       Radius   Safety   (degrees)   Iterations          Messages

     95.00     14.00     15.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8140
                                                                Left end of circle
became inverted.
                                                                A vertical crack was
added to prevent inversion.
                                                                UTEXAS WARNING
NUMBER 8250
                                                                Right end of circle
became inverted.
                                                                A vertical crack was
added to prevent inversion.
                                                                UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    125.00     14.00     15.00   2.653    -15.700         9     UTEXAS WARNING
NUMBER 8140
                                                                Left end of circle
became inverted.
                                                                A vertical crack was
added to prevent inversion.

    155.00     14.00     15.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

     95.00     44.00     45.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope
```

```
    155.00     44.00     45.00  13.182     -0.939        28
     95.00     74.00     75.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    125.00     74.00     75.00   2.284     -0.823         8
    155.00     74.00     75.00   4.195     -2.141         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    120.00     39.00     40.00   1.921     -1.436         8
    125.00     39.00     40.00   1.881     -0.937         8
    130.00     39.00     40.00   1.931     -0.821         8
    120.00     44.00     45.00   1.970     -1.400         8
    130.00     44.00     45.00   1.929     -0.867         8
    120.00     49.00     50.00   2.039     -1.283         8
    125.00     49.00     50.00   1.924     -1.210         8
    130.00     49.00     50.00   1.942     -0.877         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    120.00     34.00     35.00   1.910     -1.207         8
    125.00     34.00     35.00   1.871     -0.766         8
    130.00     34.00     35.00   1.962     -0.681         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    120.00     29.00     30.00   1.923     -0.800         8
    125.00     29.00     30.00   1.890     -0.371         8
    130.00     29.00     30.00   2.047     -0.260         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    122.00     31.00     32.00   1.888     -0.793         8
    125.00     31.00     32.00   1.877     -0.572         8
    128.00     31.00     32.00   1.877     -0.195         8
    122.00     34.00     35.00   1.886     -0.966         8
    128.00     34.00     35.00   1.874     -0.504         8
    122.00     37.00     38.00   1.890     -1.112         8
    125.00     37.00     38.00   1.874     -0.884         8
    128.00     37.00     38.00   1.879     -0.694         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    124.00     33.00     34.00   1.873     -0.778         8
    125.00     33.00     34.00   1.872     -0.712         8
    126.00     33.00     34.00   1.872     -0.637         8
    124.00     34.00     35.00   1.873     -0.830         8
    126.00     34.00     35.00   1.871     -0.695         8
    124.00     35.00     36.00   1.874     -0.874         8
    125.00     35.00     36.00   1.871     -0.811         8
    126.00     35.00     36.00   1.871     -0.744         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    127.00     34.00     35.00   1.873     -0.616         8
    127.00     35.00     36.00   1.873     -0.674         8
    125.00     36.00     37.00   1.872     -0.850         8
    126.00     36.00     37.00   1.871     -0.786         8
    127.00     36.00     37.00   1.874     -0.724         8
----- Critical Circle After the Current Mode of Search -----
X: 126.00     Y: 35.00     Radius: 36.000
Factor of safety: 1.871     Side force inclination: -0.744
```

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TABLE NO. 31

```
***************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
***************************************************

------ Output for Circles with a Given, Constant Radius ------
------ Radius: 36.00

                                1-Stage
Center Coordinates              Factor  Side Force
                                  of    Inclination
     X         Y       Radius   Safety   (degrees)   Iterations          Messages

     96.00      5.00     36.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    126.00      5.00     36.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    156.00      5.00     36.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

     96.00     35.00     36.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    156.00     35.00     36.00 Center rejected as follows:      UTEXAS ERROR NUMBER
9270
                                                                Solution did not
converge in iteration limit of 100  iterations
                                                                Failed to converge
during stage 1 computations

     96.00     65.00     36.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

    126.00     65.00     36.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

    156.00     65.00     36.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    121.00     30.00     36.00   1.904     -1.257         8
    126.00     30.00     36.00   1.838     -0.728         8
    131.00     30.00     36.00   1.949     -0.920         8
    121.00     35.00     36.00   1.898     -1.108         8
    131.00     35.00     36.00   2.017     -0.858         8
    121.00     40.00     36.00   2.570     -2.783         7
    126.00     40.00     36.00   2.683     -2.842         7
    131.00     40.00     36.00   3.178     -2.815         7
```

```
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    121.00     25.00     36.00   2.115     -0.930         8
    126.00     25.00     36.00   2.107     -0.767         8
    131.00     25.00     36.00   2.198     -0.889         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    123.00     27.00     36.00   2.000     -1.079         8
    126.00     27.00     36.00   2.010     -0.931         8
    129.00     27.00     36.00   2.042     -0.951         8
    123.00     30.00     36.00   1.870     -1.010         8
    129.00     30.00     36.00   1.858     -0.688         8
    123.00     33.00     36.00   1.895     -1.205         8
    126.00     33.00     36.00   1.922     -1.235         8
    129.00     33.00     36.00   1.990     -1.328         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    125.00     29.00     36.00   1.901     -0.906         8
    126.00     29.00     36.00   1.902     -0.883         8
    127.00     29.00     36.00   1.906     -0.865         8
    125.00     30.00     36.00   1.848     -0.800         8
    127.00     30.00     36.00   1.833     -0.673         8
    125.00     31.00     36.00   1.917     -1.192         8
    126.00     31.00     36.00   1.932     -1.225         8
    127.00     31.00     36.00   1.951     -1.267         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    128.00     29.00     36.00   1.912     -0.851         8
    128.00     30.00     36.00   1.836     -0.640         8
    128.00     31.00     36.00   1.976     -1.316         8
----- Critical Circle After the Current Mode of Search -----
X: 127.00     Y: 30.00     Radius: 36.000
Factor of safety: 1.833     Side force inclination: -0.673

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TABLE NO. 30
***************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
***************************************************

------ Output for Circles Tangent to a Given Horizontal Line ------
------ Tangent line elevation, Y: -6.00

                                1-Stage
Center Coordinates              Factor  Side Force
                                  of    Inclination
     X         Y       Radius   Safety   (degrees)   Iterations          Messages

     97.00      0.00      6.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    127.00      0.00      6.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    157.00      0.00      6.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
```

Center of circle is below the toe (lowest point) of the slope

```
     97.00     30.00     36.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                 Circle is for
opposite facing slope

    157.00     30.00     36.00 Center rejected as follows:      UTEXAS ERROR NUMBER
9270
                                                                 Solution did not
converge in iteration limit of 100  iterations
                                                                 Failed to converge
during stage 1 computations

     97.00     60.00     66.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                 Circle is for
opposite facing slope

    127.00     60.00     66.00   2.086     -1.097         8
    157.00     60.00     66.00   3.280     -2.365         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    122.00     25.00     31.00   1.933     -0.314         8
    127.00     25.00     31.00   1.882      0.144         8
    132.00     25.00     31.00   2.143     -0.451         8
    122.00     30.00     36.00   1.884     -1.154         8
    132.00     30.00     36.00   2.005     -1.039         8
    122.00     35.00     41.00   1.890     -1.395         8
    127.00     35.00     41.00   1.825     -1.027         8
    132.00     35.00     41.00   1.942     -1.257         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    122.00     40.00     46.00   1.939     -1.379         8
    127.00     40.00     46.00   1.829     -1.316         8
    132.00     40.00     46.00   1.918     -1.350         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    124.00     32.00     38.00   1.848     -1.109         8
    127.00     32.00     38.00   1.827     -0.846         8
    130.00     32.00     38.00   1.879     -0.931         8
    124.00     35.00     41.00   1.844     -1.307         8
    130.00     35.00     41.00   1.860     -1.063         8
    124.00     38.00     44.00   1.858     -1.369         8
    127.00     38.00     44.00   1.822     -1.245         8
    130.00     38.00     44.00   1.851     -1.147         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    124.00     41.00     47.00   1.884     -1.363         8
    127.00     41.00     47.00   1.834     -1.336         8
    130.00     41.00     47.00   1.847     -1.228         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    126.00     37.00     43.00   1.822     -1.250         8
    127.00     37.00     43.00   1.822     -1.188         8
    128.00     37.00     43.00   1.827     -1.093         8
    126.00     38.00     44.00   1.825     -1.291         8
    128.00     38.00     44.00   1.825     -1.171         8
    126.00     39.00     45.00   1.829     -1.317         8
    127.00     39.00     45.00   1.825     -1.285         8
    128.00     39.00     45.00   1.825     -1.234         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    126.00     36.00     42.00   1.821     -1.199         8
    127.00     36.00     42.00   1.823     -1.111         8
    128.00     36.00     42.00   1.826     -1.046         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    125.00     35.00     41.00   1.830     -1.230         8
```

```
    126.00     35.00     41.00   1.822     -1.124         8
    125.00     36.00     42.00   1.831     -1.280         8
    125.00     37.00     43.00   1.834     -1.312         8
----- Critical Circle After the Current Mode of Search -----
X: 126.00     Y: 36.00     Radius: 42.000
Factor of safety: 1.821     Side force inclination: -1.199

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TABLE NO. 31
***************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
***************************************************

------ Output for Circles with a Given, Constant Radius ------
------ Radius: 42.00

                                1-Stage
Center Coordinates              Factor  Side Force
                                  of    Inclination
     X         Y       Radius   Safety   (degrees)   Iterations          Messages

     96.00      6.00     42.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    126.00      6.00     42.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    156.00      6.00     42.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

     96.00     36.00     42.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    156.00     36.00     42.00   7.922     -1.325        23
     96.00     66.00     42.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

    126.00     66.00     42.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

    156.00     66.00     42.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.
```

```
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    121.00     31.00     42.00   2.139     -1.231         8
    126.00     31.00     42.00   2.047     -1.428         8
    131.00     31.00     42.00   2.099     -1.418         8
    121.00     36.00     42.00   1.931     -1.419         8
    131.00     36.00     42.00   1.893     -1.187         8
    121.00     41.00     42.00   1.915     -1.389         8
    126.00     41.00     42.00   1.887     -0.921         8
    131.00     41.00     42.00   1.978     -0.974         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    123.00     33.00     42.00   1.999     -1.431         8
    126.00     33.00     42.00   1.967     -1.484         8
    129.00     33.00     42.00   1.989     -1.396         8
    123.00     36.00     42.00   1.869     -1.378         8
    129.00     36.00     42.00   1.827     -1.020         8
    123.00     39.00     42.00   1.897     -1.540         8
    126.00     39.00     42.00   1.923     -1.411         8
    129.00     39.00     42.00   1.971     -1.476         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    125.00     35.00     42.00   1.882     -1.409         8
    126.00     35.00     42.00   1.879     -1.381         8
    127.00     35.00     42.00   1.881     -1.329         8
    125.00     36.00     42.00   1.831     -1.280         8
    127.00     36.00     42.00   1.823     -1.111         8
    125.00     37.00     42.00   1.901     -1.552         8
    126.00     37.00     42.00   1.913     -1.534         8
    127.00     37.00     42.00   1.933     -1.497         8
----- Critical Circle After the Current Mode of Search -----
X: 126.00     Y: 36.00     Radius: 42.000
Factor of safety: 1.821     Side force inclination: -1.199
```

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TABLE NO. 33

```
*********************************************
* 1-STAGE FINAL CRITICAL CIRCLE INFORMATION *
*********************************************
X Coordinate of Center . . . . . . . . . . . . . .  126.00
Y Coordinate of Center . . . . . . . . . . . . . .  36.00
Radius . . . . . . . . . . . . . . . . . . . . . .  42.00
Factor of Safety . . . . . . . . . . . . . . . . . 1.821
Side Force Inclination (degrees) . . . . . . . . . -1.20
Number of Circles Tried  . . . . . . . . . . . . .  256
Number of Circles F Calculated for . . . . . . . .  217
Time Required for Search (seconds) . . . . . . . .  3.9
```

TABLE NO. 34

```
***************************************************************
* Summary of the 10 Circles with the Lowest Factors of Safety *
***************************************************************
```

Center Coordinates X	Center Coordinates Y	Radius	Elevation of Bottom of Circle	Factor of Safety	Side Force Inclin.	X-Left	X-Right
126.00	36.00	42.00	-6.00	1.821	-1.20	88.71	

158.98							
126.00	35.00	41.00	-6.00	1.822	-1.12	89.25	158.50
127.00	37.00	43.00	-6.00	1.822	-1.19	89.06	160.47
126.00	37.00	43.00	-6.00	1.822	-1.25	88.18	159.47
127.00	38.00	44.00	-6.00	1.822	-1.24	88.54	160.94
127.00	36.00	42.00	-6.00	1.823	-1.11	89.59	159.98
127.00	39.00	45.00	-6.00	1.825	-1.28	88.03	161.41
126.00	38.00	44.00	-6.00	1.825	-1.29	87.66	159.94
128.00	38.00	44.00	-6.00	1.825	-1.17	89.41	161.94
127.00	35.00	41.00	-6.00	1.825	-1.03	90.16	159.50

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TABLE NO. 43

```
************************************************************
* Coordinate, Weight, Strength and Pore Water Pressure     *
* Information for Individual Slices for Conventional       *
* Computations or First Stage of Multi-Stage Computations. *
* (Information is for the critical shear surface in the    *
* case of an automatic search.)                            *
************************************************************
```

Slice No.	X	Y	Slice Weight	Matl. No.	Cohesion	Friction Angle	Pore Pressure
	88.71	16.68					
1	89.24	15.71	116	10	300.0	0.00	0.0
	89.77	14.75					
2	89.89	14.56	55	10	300.0	0.00	0.0
	90.00	14.37					
3	90.59	13.44	421	10	300.0	0.00	0.0
	91.18	12.51					
4	91.82	11.62	687	10	300.0	0.00	0.0
	92.46	10.72					
5	93.14	9.86	977	10	300.0	0.00	0.0
	93.83	9.00					
6	94.56	8.18	1285	10	300.0	0.00	0.0
	95.28	7.35					
7	95.29	7.35	2	10	300.0	0.00	0.0
	95.29	7.35					
8	96.06	6.57	1608	8	300.0	0.00	0.0
	96.83	5.78					
9	97.07	5.55	553	8	300.0	0.00	0.0
	97.31	5.32					
10	97.49	5.16	416	8	300.0	0.00	10.6
	97.66	5.00					
11	98.49	4.28	2113	6	150.0	0.00	68.5
	99.32	3.56					
12	100.19	2.88	2448	6	150.0	0.00	160.3

	101.06	2.21					
13	101.96	1.58	2780	6	150.0	0.00	246.7
	102.86	0.95					
14	103.61	0.47	2488	6	150.0	0.00	320.2
	104.37	0.00					
15	104.68	-0.19	1088	4	250.0	0.00	364.4
	105.00	-0.37					
16	105.97	-0.90	3415	4	250.0	0.00	412.3
	106.93	-1.42					
17	107.92	-1.90	3615	4	250.0	0.00	480.0
	108.92	-2.37					
18	109.93	-2.79	3786	4	250.0	0.00	541.4
	110.95	-3.21					
19	111.98	-3.58	3927	4	250.0	0.00	596.2
	113.02	-3.94					
20	114.08	-4.26	4035	4	250.0	0.00	644.4
	115.13	-4.57					
21	116.01	-4.78	3382	4	250.0	0.00	682.7
	116.89	-5.00					
22	117.97	-5.21	4128	2	335.0	0.00	714.7
	119.05	-5.42					
23	119.52	-5.49	1806	2	335.0	0.00	736.8
	120.00	-5.57					
24	120.53	-5.64	2007	2	335.0	0.00	748.6
	121.06	-5.71					
25	122.16	-5.81	4086	3	165.0	0.00	763.7
	123.25	-5.91					
26	124.35	-5.95	4013	3	165.0	0.00	778.7
	125.45	-6.00					
27	125.73	-6.00	989	3	165.0	0.00	785.4
	126.00	-6.00					
28	127.10	-5.97	3877	3	165.0	0.00	787.5
	128.20	-5.94					
29	129.29	-5.86	3734	3	165.0	0.00	786.4
	130.39	-5.77					
30	131.48	-5.63	3561	3	165.0	0.00	778.1
	132.57	-5.48					
31	133.65	-5.28	3361	3	165.0	0.00	762.7
	134.73	-5.08					
32	134.87	-5.05	404	3	165.0	0.00	751.8
	135.00	-5.02					
33	135.06	-5.01	166	3	165.0	0.00	749.6
	135.11	-5.00					
34	136.18	-4.73	3143	5	125.0	0.00	732.2
	137.24	-4.47					
35	138.29	-4.15	2974	5	125.0	0.00	695.5
	139.35	-3.82					
36	140.38	-3.45	2778	5	125.0	0.00	651.9
	141.41	-3.07					
37	142.42	-2.64	2558	5	125.0	0.00	601.5
	143.44	-2.21					
38	144.42	-1.73	2317	5	125.0	0.00	544.6
	145.41	-1.25					
39	146.37	-0.71	2059	5	125.0	0.00	481.2
	147.33	-0.18					
40	147.48	-0.09	302	5	125.0	0.00	442.4
	147.63	0.00					
41	148.56	0.59	1745	7	85.0	0.00	399.9
	149.49	1.18					
42	150.38	1.82	1464	7	85.0	0.00	323.2
	151.28	2.46					
43	152.14	3.14	1180	7	85.0	0.00	240.7
	153.00	3.83					

44	153.67	4.41	748	7	85.0	0.00	161.4
	154.34	5.00					
45	155.13	5.76	671	9	300.0	0.00	77.2
	155.92	6.53					
46	156.15	6.76	149	9	300.0	0.00	14.8
	156.38	7.00					
47	157.12	7.81	323	9	300.0	0.00	0.0
	157.86	8.63					
48	158.42	9.31	77	9	300.0	0.00	0.0
	158.98	10.00					

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SITE 11

TABLE NO. 44

```
**********************************************************
* Seismic Forces and Forces Due to Distributed Loads for *
* Individual Slices for Conventional Computations or the *
* First Stage of Multi-Stage Computations.               *
* (Information is for the critical shear surface in the  *
* case of an automatic search.)                          *
**********************************************************
```

There are no seismic forces or forces due to distributed loads
for the current shear surface

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SITE 11

TABLE NO. 47

```
**************************************************************
*  Information for the Iterative Solution for the Factor of  *
*  Safety and Side Force Inclination by Spencer's Procedure  *
**************************************************************
```

Allowable force imbalance for convergence: 9.3819e-001
Allowable moment imbalance for convergence: 114

Iter-ation	Trial Factor of Safety	Trial Side Force Inclination (degrees)	Force Imbalance (lbs.)	Moment Imbalance (ft.-lbs.)	Delta-F	Delta Theta (degrees)
1	3.00000	-17.1887	1.705e+003	-2.788e+005		
First-order corrections to F and Theta					-1.4876	11.2420
Reduced values - Deltas were too large					-0.3791	2.8648
2	2.62092	-14.3239	1.455e+003	-2.178e+005		
First-order corrections to F and Theta					-0.8872	9.7243
Reduced values - Deltas were too large					-0.2614	2.8648
3	2.35956	-11.4592	1.159e+003	-1.609e+005		
First-order corrections to F and Theta					-0.5527	8.0615
Reduced values - Deltas were too large					-0.1964	2.8648

```
   4   2.16314    -8.5944   8.482e+002  -1.092e+005
First-order corrections to F and Theta ............   -0.3364     6.1825
Reduced values - Deltas were too large ............   -0.1559     2.8648

   5   2.00726    -5.7296   5.361e+002  -6.298e+004
First-order corrections to F and Theta ............   -0.1800     4.0393
Reduced values - Deltas were too large ............   -0.1277     2.8648

   6   1.87958    -2.8648   2.220e+002  -2.185e+004
First-order corrections to F and Theta ............   -0.0570     1.5889
Second-order corrections to F and Theta ...........   -0.0591     1.6715

   7   1.82046    -1.1933   1.596e-001   6.261e+001
First-order corrections to F and Theta ............    0.0003    -0.0054
Second-order corrections to F and Theta ...........    0.0003    -0.0054

   8   1.82077    -1.1987  -7.498e-008  -4.280e-006
First-order corrections to F and Theta ............   -0.0000     0.0000
```

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SITE 11

TABLE NO. 55

```
*********************************************************************
* Check of Computations by Spencer's Procedure (Results are for the *
* critical shear surface in the case of an automatic search.)       *
*********************************************************************
```

Summation of Horizontal Forces: 1.84118e-011

Summation of Vertical Forces: 4.88254e-012

Summation of Moments: -1.67347e-010

Mohr Coulomb Shear Force/Shear Strength Check Summation: 2.65565e-012

***** CAUTION ***** Effective Or Total Normal Stress on Shear Surface is Negative at Points Along the UPPER One-Half of the Shear Surface - A Tension Crack may Be Needed.

***** CAUTION ***** Forces Between Slices are NEGATIVE at Points Along the UPPER one-half of the Shear Surface - A Tension Crack may Be Needed

***** CAUTION ***** Some of the Forces Between Slices Act at Points Above the Surface of the Slope or Below the Shear Surface - Either a Tension Crack may be Needed or the SOLUTION MAY NOT BE A VALID SOLUTION

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SITE 11

TABLE NO. 58

****
* Final Results for Stresses Along the Shear Surface *
* (Results are for the critical shear surface in the case of a search.) *
****

SPENCER'S PROCEDURE USED TO COMPUTE THE FACTOR OF SAFETY
Factor of Safety: 1.821   Side Force Inclination: -1.20

-------- VALUES AT CENTER OF BASE OF SLICE --------

Slice No.	X-Center	Y-Center	Total Normal Stress	Effective Normal Stress	Shear Stress
1	89.24	15.71	-178.8	-178.8	164.8
2	89.89	14.56	-31.8	-31.8	164.8
3	90.59	13.44	97.7	97.7	164.8
4	91.82	11.62	301.9	301.9	164.8
5	93.14	9.86	497.1	497.1	164.8
6	94.56	8.18	683.3	683.3	164.8
7	95.29	7.35	774.1	774.1	164.8
8	96.06	6.57	860.7	860.7	164.8
9	97.07	5.55	972.1	972.1	164.8
10	97.49	5.16	1015.2	1004.6	164.8
11	98.49	4.28	1180.9	1112.4	82.4
12	100.19	2.88	1327.5	1167.2	82.4
13	101.96	1.58	1465.0	1218.3	82.4
14	103.61	0.47	1581.5	1261.4	82.4
15	104.68	-0.19	1620.7	1256.3	137.3
16	105.97	-0.90	1676.5	1264.2	137.3
17	107.92	-1.90	1741.3	1261.3	137.3
18	109.93	-2.79	1794.3	1253.0	137.3
19	111.98	-3.58	1835.4	1239.2	137.3
20	114.08	-4.26	1864.5	1220.2	137.3
21	116.01	-4.78	1881.2	1198.5	137.3
22	117.97	-5.21	1872.9	1158.2	184.0
23	119.52	-5.49	1865.8	1129.0	184.0
24	120.53	-5.64	1861.7	1113.2	184.0
25	122.16	-5.81	1856.0	1092.3	90.6
26	124.35	-5.95	1823.5	1044.7	90.6
27	125.73	-6.00	1799.3	1014.0	90.6
28	127.10	-5.97	1769.2	981.7	90.6
29	129.29	-5.86	1715.2	928.8	90.6
30	131.48	-5.63	1651.9	873.7	90.6
31	133.65	-5.28	1579.5	816.8	90.6
32	134.87	-5.05	1535.9	784.1	90.6
33	135.06	-5.01	1530.0	780.4	90.6
34	136.18	-4.73	1499.8	767.6	68.7
35	138.29	-4.15	1446.2	750.8	68.7
36	140.38	-3.45	1381.7	729.8	68.7
37	142.42	-2.64	1306.2	704.7	68.7
38	144.42	-1.73	1220.2	675.6	68.7
39	146.37	-0.71	1123.7	642.5	68.7
40	147.48	-0.09	1064.5	622.1	68.7
41	148.56	0.59	984.8	584.8	46.7
42	150.38	1.82	865.2	542.0	46.7
43	152.14	3.14	736.1	495.4	46.7
44	153.67	4.41	611.7	450.3	46.7
45	155.13	5.76	598.0	520.7	164.8
46	156.15	6.76	508.0	493.2	164.8
47	157.12	7.81	413.4	413.4	164.8
48	158.42	9.31	279.2	279.2	164.8

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TABLE NO. 59
```
***************************************************************************
* Final Results for Side Forces and Stresses Between Slices              *
* (Results are for the critical shear surface in the case of a search.) *
***************************************************************************
```

--------------- VALUES AT RIGHT SIDE OF SLICE ---------------

Slice No.	X-Right	Side Force	Y-Coord. of Side Force Location	Fraction of Height	Sigma at Top	Sigma at Bottom
1	89.77	-519	15.70	0.434	-143.6	-330.5
2	90.00	-569	15.60	0.468	-174.4	-257.9
3	91.18	-583	15.52	0.671	-263.2	3.5
4	92.46	-253	20.58	Above	-298.8	218.3
5	93.83	377	2.67	Below	-318.1	412.4
6	95.28	1263	6.51	Below	-330.2	591.9
7	95.29	1264	6.51	Below	-330.2	592.2
8	96.83	2360	6.51	0.065	-338.5	759.2
9	97.31	2727	6.38	0.090	-340.9	807.9
10	97.66	2999	6.26	0.105	-342.4	842.1
11	99.32	4563	5.55	0.148	-377.0	1055.9
12	101.06	6215	4.81	0.176	-396.6	1236.7
13	102.86	7912	4.08	0.195	-408.0	1393.6
14	104.37	9288	3.52	0.207	-413.9	1506.4
15	105.00	9806	3.31	0.212	-410.6	1539.2
16	106.93	11300	2.72	0.230	-388.5	1645.8
17	108.92	12676	2.18	0.246	-358.5	1731.9
18	110.95	13907	1.70	0.261	-321.9	1799.3
19	113.02	14970	1.28	0.274	-279.6	1849.1
20	115.13	15845	0.93	0.286	-232.2	1882.0
21	116.89	16415	0.70	0.296	-189.5	1896.7
22	119.05	16806	0.52	0.310	-122.4	1877.9
23	120.00	16908	0.46	0.316	-91.5	1864.4
24	121.06	16972	0.41	0.323	-56.0	1845.8
25	123.25	17147	0.30	0.333	-0.7	1839.0
26	125.45	17105	0.27	0.344	60.4	1816.4
27	126.00	17062	0.28	0.347	76.5	1808.4
28	128.20	16761	0.34	0.359	145.1	1766.8
29	130.39	16266	0.49	0.371	220.4	1710.4
30	132.57	15594	0.70	0.385	303.5	1639.3
31	134.73	14765	0.99	0.401	396.4	1553.1
32	135.00	14652	1.03	0.403	408.7	1541.3
33	135.11	14605	1.05	0.403	409.1	1537.8
34	137.24	13659	1.41	0.406	411.0	1476.9
35	139.35	12583	1.83	0.409	414.5	1405.7
36	141.41	11401	2.34	0.414	420.1	1324.0
37	143.44	10138	2.91	0.419	428.7	1231.6
38	145.41	8825	3.56	0.427	441.0	1128.2
39	147.33	7493	4.27	0.437	458.5	1013.6
40	147.63	7283	4.39	0.439	462.0	994.4
41	149.49	6033	5.14	0.448	472.1	895.9
42	151.28	4844	5.91	0.457	477.5	806.9
43	153.00	3756	6.67	0.460	462.2	754.6

44	154.34	2976	7.23	0.445	398.8	791.3
45	155.92	1803	8.13	0.463	402.6	634.9
46	156.38	1486	8.41	0.472	410.7	579.6
47	157.86	569	9.33	0.509	436.3	393.4
48	158.98	-0	10.00	0.000	0.0	0.0

Read end-of-file on input while looking for another command word.
End of input data assumed - normal termination.

```
TABLE NO. 1
COMPUTER PROGRAM DESIGNATION: UTEXAS4
Originally Coded By Stephen G. Wright
Version No. 4.0.2.0 - Last Revision Date: 1/29/2005
(C) Copyright 1985-2002 S. G. Wright - All rights reserved
******************************************************************
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* BEEN VERIFIED BY INDEPENDENT ANALYSES, EXPERIMENTAL DATA       *
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SITE 13
SHORT TERM STABILITY CALCULATIONS

TABLE NO. 3
*************************
* NEW PROFILE LINE DATA *
*************************

----------------------------------------------------------
----- Profile Line No. 1 - Material Type (Number): 1 -----
----------------------------------------------------------
Description: SOIL 1

Point        X           Y

   1        0.00      -15.00
   2       70.00      -15.00
   3      300.00      -15.00

----------------------------------------------------------
----- Profile Line No. 2 - Material Type (Number): 2 -----
----------------------------------------------------------
Description: SOIL 2

Point        X           Y

   1        0.00       -5.00
   2       50.00       -5.00
   3       70.00      -15.00

----------------------------------------------------------
----- Profile Line No. 3 - Material Type (Number): 3 -----
----------------------------------------------------------
Description: SOIL 3

Point        X           Y

   1       50.00       -5.00
   2       70.00       -5.00
```

```
   3      300.00       -5.00

----------------------------------------------------------
----- Profile Line No. 4 - Material Type (Number): 4 -----
----------------------------------------------------------
Description: SOIL 4

Point        X           Y

   1        0.00        0.00
   2       50.00        0.00
   3       70.00       -5.00

----------------------------------------------------------
----- Profile Line No. 5 - Material Type (Number): 5 -----
----------------------------------------------------------
Description: SOIL 5

Point        X           Y

   1       50.00        0.00
   2       70.00        0.00
   3      300.00        0.00

----------------------------------------------------------
----- Profile Line No. 6 - Material Type (Number): 6 -----
----------------------------------------------------------
Description: SOIL 6

Point        X           Y

   1        0.00        5.00
   2       50.00        5.00
   3       70.00        0.00

----------------------------------------------------------
----- Profile Line No. 7 - Material Type (Number): 7 -----
----------------------------------------------------------
Description: SOIL 7

Point        X           Y

   1       50.00        5.00
   2       70.00        5.00
   3      190.00        5.00
   4      300.00        5.00

----------------------------------------------------------
----- Profile Line No. 8 - Material Type (Number): 8 -----
----------------------------------------------------------
Description: SOIL 8

Point        X           Y

   1        0.00        7.00
   2       50.00        7.00
   3       70.00        5.00

----------------------------------------------------------
----- Profile Line No. 9 - Material Type (Number): 9 -----
----------------------------------------------------------
Description: SOIL 9
```

```
Point        X           Y

   1       50.00        7.00
   2      135.00        7.00
   3      185.00        7.00
   4      190.00        5.00

------------------------------------------------------------
----- Profile Line No. 10 - Material Type (Number): 10 -----
------------------------------------------------------------
Description: SOIL 10

Point        X           Y

   1       50.00        7.00
   2       70.00       12.00
   3       95.00       12.00
   4      101.00       10.00
   5      126.00       10.00
   6      135.00        7.00

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TABLE NO. 4
**********************************************************************
* NEW MATERIAL PROPERTY DATA - CONVENTIONAL/FIRST-STAGE COMPUTATIONS *
**********************************************************************

------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 1 ------------------
------------------------------------------------------------------
Description: SOIL 1 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 500.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 2 ------------------
------------------------------------------------------------------
Description: SOIL 2- FOUNDATION LAYER (CH)

Unit weight of soil (material): 72.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 335.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.
```

```
-------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 3 ------------------
-------------------------------------------------------------------
Description: SOIL 3 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 82.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 105.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 4 ------------------
-------------------------------------------------------------------
Description: SOIL 4 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 250.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 5 ------------------
-------------------------------------------------------------------
Description: SOIL 5 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 85.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 6 ------------------
-------------------------------------------------------------------
Description: SOIL 6 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 150.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 7 ------------------
```

```
-------------------------------------------------------------------
Description: SOIL 7 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 45.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 8 ------------------
-------------------------------------------------------------------
Description: SOIL 8 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 300.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 9 ------------------
-------------------------------------------------------------------
Description: SOIL 9 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 300.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

--------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 10 ------------------
--------------------------------------------------------------------
Description: SOIL 10 - LEVEE (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 300.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

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```

SITE 13

TABLE NO. 6

```
*********************************************************************
* NEW PIEZOMETRIC LINE DATA - CONVENTIONAL/FIRST-STAGE COMPUTATIONS *
*********************************************************************

---------------------------------------------------------
--------------- Piezometric Line Number 1 ---------------
---------------------------------------------------------
Description: PIEZOMETRIC LINE
Unit weight of fluid (water): 62.4

Point        X           Y

  1        0.00        5.00
  2      300.00        5.00
```

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SITE 13

TABLE NO. 10

```
***************************
* NEW SLOPE GEOMETRY DATA *
***************************

     Point       X           Y

        1       0.00        7.00
        2      50.00        7.00
        3      70.00       12.00
        4      95.00       12.00
        5     101.00       10.00
        6     126.00       10.00
        7     135.00        7.00
        8     185.00        7.00
        9     190.00        5.00
       10     300.00        5.00
```

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SITE 13

TABLE NO. 16

```
*********************************
* NEW ANALYSIS/COMPUTATION DATA *
*********************************

Starting Center Coordinate for Search at -
                                             X: 130.00
                                             Y: 35.00

Required accuracy for critical center
```

(= minimum spacing between grid points): 1.000

Critical shear surface not allowed to pass below Y: -20.00
For the initial mode of search circles are tangent to horizontal line at -
Y: -20.00
Radius: 55.00

Will save the following number of shear surfaces with the lowest factors of safety:10

The following represent default values or values that were prevously defined:
Subtended angle for slice subdivision: 3.00(degrees)
There is no crack.
There is no water in a crack.
Conventional (single-stage) computations will be performed.
Seismic coefficient: 0.000
Unit weight of water (or other fluid) in crack: 62.4
Automatic search output will be in long form.
Search will be continued after the initial mode to find a most critical circle.
Maximum number of trial grids for a given search mode: 50
No restrictions exist on the lateral extent of the search.
Neither slope face was explicitly designated for analysis.
Standard sign convention used for direction of shear stress on shear surface.
Procedure of Analysis: Spencer

Iteration limit: 100
Force imbalance: 1.000000e-005 (fraction of total weight)
Moment imbalance: 1.000000e-005 (fraction of moment due to total weight)
Minimum weight required for computations to be performed: 100
Initial trial factor of safety: 3.000
Initial trial side force inclination: 17.189 (degrees)
Minimum (most negative) side force inclination allowed in Spencer's procedure: -10.00

Search will be conducted for RIGHT face of slope

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SITE 13

TABLE NO. 30
****
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
****

------ Output for Circles Tangent to a Given Horizontal Line ------
------ Tangent line elevation, Y: -20.00

Center Coordinates X	Y	Radius	1-Stage Factor of Safety	Side Force Inclination (degrees)	Iterations	Messages
100.00	5.00	25.00	Center rejected as follows:			UTEXAS ERROR NUMBER 8050 Center of circle is below the toe (lowest point) of the slope

```
    130.00      5.00     25.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    160.00      5.00     25.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    100.00     35.00     55.00   6.650     -0.769        14
    130.00     35.00     55.00   3.625     -2.219         8
    160.00     35.00     55.00   4.729     -2.742        10
    100.00     65.00     85.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    130.00     65.00     85.00   3.436     -2.406         8
    160.00     65.00     85.00   4.035     -2.646         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    100.00     95.00    115.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    130.00     95.00    115.00   3.844     -1.960         7
    160.00     95.00    115.00   3.651     -2.770         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    125.00     60.00     80.00   3.635     -1.911         8
    130.00     60.00     80.00   3.466     -2.348         8
    135.00     60.00     80.00   3.378     -2.718         7
    125.00     65.00     85.00   3.730     -1.834         8
    135.00     65.00     85.00   3.319     -2.771         7
    125.00     70.00     90.00   3.823     -1.782         8
    130.00     70.00     90.00   3.448     -2.390         8
    135.00     70.00     90.00   3.293     -2.773         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    140.00     65.00     85.00   3.324     -2.936         7
    140.00     70.00     90.00   3.288     -2.925         7
    130.00     75.00     95.00   3.486     -2.338         8
    135.00     75.00     95.00   3.296     -2.728         7
    140.00     75.00     95.00   3.260     -2.915         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    145.00     70.00     90.00   3.341     -3.002         7
    145.00     75.00     95.00   3.313     -2.974         7
    135.00     80.00    100.00   3.322     -2.656         7
    140.00     80.00    100.00   3.249     -2.881         7
    145.00     80.00    100.00   3.295     -2.941         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    135.00     85.00    105.00   3.366     -2.566         7
    140.00     85.00    105.00   3.261     -2.825         7
    145.00     85.00    105.00   3.284     -2.910         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    137.00     77.00     97.00   3.267     -2.810         7
    140.00     77.00     97.00   3.252     -2.904         7
    143.00     77.00     97.00   3.280     -2.941         7
    137.00     80.00    100.00   3.277     -2.769         7
    143.00     80.00    100.00   3.270     -2.926         7
    137.00     83.00    103.00   3.294     -2.721         7
    140.00     83.00    103.00   3.254     -2.851         7
    143.00     83.00    103.00   3.261     -2.912         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
```

```
    139.00     79.00     99.00   3.252     -2.862         7
    140.00     79.00     99.00   3.249     -2.889         7
    141.00     79.00     99.00   3.252     -2.911         7
    139.00     80.00    100.00   3.253     -2.853         7
    141.00     80.00    100.00   3.251     -2.903         7
    139.00     81.00    101.00   3.256     -2.842         7
    140.00     81.00    101.00   3.250     -2.871         7
    141.00     81.00    101.00   3.250     -2.894         7
----- Critical Circle After the Current Mode of Search -----
X: 140.00     Y: 80.00     Radius: 100.000
Factor of safety: 3.249     Side force inclination: -2.881

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SITE 13

TABLE NO. 31
***************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
***************************************************

------ Output for Circles with a Given, Constant Radius ------
------ Radius: 100.00

                                1-Stage
Center Coordinates              Factor  Side Force
                                  of    Inclination
     X         Y       Radius   Safety   (degrees)   Iterations          Messages

    110.00     50.00    100.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    140.00     50.00    100.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    170.00     50.00    100.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    110.00     80.00    100.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    170.00     80.00    100.00   4.484     -2.294         8
    110.00    110.00    100.00  45.639     -8.820        89
    140.00    110.00    100.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

    170.00    110.00    100.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
```

intersect the slope.

```
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    135.00     75.00    100.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    140.00     75.00    100.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    145.00     75.00    100.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    135.00     80.00    100.00   3.322     -2.656         7
    145.00     80.00    100.00   3.295     -2.941         7
    135.00     85.00    100.00   1.465     -1.415         8
    140.00     85.00    100.00   1.483     -1.490         8
    145.00     85.00    100.00   1.508     -1.586         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    130.00     80.00    100.00   3.545     -2.262         8
    130.00     85.00    100.00   1.502     -1.187         8
    130.00     90.00    100.00   1.851     -0.809         8
    135.00     90.00    100.00   1.822     -1.110         8
    140.00     90.00    100.00   1.789     -1.448         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    132.00     82.00    100.00   3.109     -2.507         7
    135.00     82.00    100.00   3.025     -2.721         7
    138.00     82.00    100.00   2.989     -2.860         7
    132.00     85.00    100.00   1.478     -1.301         8
    138.00     85.00    100.00   1.477     -1.447         8
    132.00     88.00    100.00   1.666     -1.119         8
    135.00     88.00    100.00   1.643     -1.279         8
    138.00     88.00    100.00   1.639     -1.417         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    134.00     84.00    100.00   2.476     -2.506         7
    135.00     84.00    100.00   2.465     -2.554         7
    136.00     84.00    100.00   2.458     -2.596         7
    134.00     85.00    100.00   1.466     -1.388         8
    136.00     85.00    100.00   1.466     -1.435         8
    134.00     86.00    100.00   1.514     -1.357         8
    135.00     86.00    100.00   1.515     -1.389         8
    136.00     86.00    100.00   1.518     -1.410         8
----- Critical Circle After the Current Mode of Search -----
X: 135.00     Y: 85.00     Radius: 100.000
Factor of safety: 1.465     Side force inclination: -1.415

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SITE 13

TABLE NO. 30
***************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
***************************************************
```

------ Output for Circles Tangent to a Given Horizontal Line ------
------ Tangent line elevation, Y: -15.00

Center Coordinates X	Y	Radius	1-Stage Factor of Safety	Side Force Inclination (degrees)	Iterations	Messages
105.00	55.00	70.00	2.224	-0.181	8	
135.00	55.00	70.00	1.692	-0.825	8	
165.00	55.00	70.00	1.985	-1.653	8	
105.00	85.00	100.00	Center rejected as follows:			UTEXAS ERROR NUMBER 8070 Circle is for opposite facing slope
165.00	85.00	100.00	1.927	-1.254	8	
105.00	115.00	130.00	Center rejected as follows:			UTEXAS ERROR NUMBER 8070 Circle is for opposite facing slope
135.00	115.00	130.00	1.502	-1.313	8	
165.00	115.00	130.00	1.786	-1.403	8	
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -						
130.00	80.00	95.00	1.526	-1.091	8	
135.00	80.00	95.00	1.484	-1.361	8	
140.00	80.00	95.00	1.494	-1.496	8	
130.00	85.00	100.00	1.502	-1.187	8	
140.00	85.00	100.00	1.483	-1.490	8	
130.00	90.00	105.00	1.506	-1.196	8	
135.00	90.00	105.00	1.456	-1.440	8	
140.00	90.00	105.00	1.474	-1.486	8	
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -						
130.00	95.00	110.00	1.516	-1.192	8	
135.00	95.00	110.00	1.455	-1.436	8	
140.00	95.00	110.00	1.458	-1.519	8	
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -						
130.00	100.00	115.00	1.531	-1.180	8	
135.00	100.00	115.00	1.460	-1.420	8	
140.00	100.00	115.00	1.451	-1.530	8	
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -						
145.00	95.00	110.00	1.494	-1.541	8	
145.00	100.00	115.00	1.491	-1.517	8	
135.00	105.00	120.00	1.471	-1.391	8	
140.00	105.00	120.00	1.450	-1.527	8	
145.00	105.00	120.00	1.485	-1.519	8	
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -						
135.00	110.00	125.00	1.485	-1.356	8	
140.00	110.00	125.00	1.455	-1.506	8	
145.00	110.00	125.00	1.477	-1.528	8	
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -						
137.00	102.00	117.00	1.452	-1.475	8	
140.00	102.00	117.00	1.450	-1.530	8	
143.00	102.00	117.00	1.469	-1.530	8	
137.00	105.00	120.00	1.456	-1.458	8	
143.00	105.00	120.00	1.465	-1.534	8	
137.00	108.00	123.00	1.462	-1.441	8	
140.00	108.00	123.00	1.452	-1.519	8	
143.00	108.00	123.00	1.462	-1.534	8	
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -						
137.00	99.00	114.00	1.449	-1.488	8	

```
    140.00     99.00    114.00   1.452     -1.529         8
    143.00     99.00    114.00   1.476     -1.518         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    134.00     96.00    111.00   1.463     -1.395         8
    137.00     96.00    111.00   1.449     -1.492         8
    140.00     96.00    111.00   1.456     -1.522         8
    134.00     99.00    114.00   1.467     -1.383         8
    134.00    102.00    117.00   1.474     -1.368         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    134.00     93.00    108.00   1.460     -1.406         8
    137.00     93.00    108.00   1.451     -1.486         8
    140.00     93.00    108.00   1.463     -1.510         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    136.00     95.00    110.00   1.451     -1.470         8
    137.00     95.00    110.00   1.449     -1.491         8
    138.00     95.00    110.00   1.450     -1.503         8
    136.00     96.00    111.00   1.451     -1.468         8
    138.00     96.00    111.00   1.449     -1.505         8
    136.00     97.00    112.00   1.452     -1.466         8
    137.00     97.00    112.00   1.449     -1.493         8
    138.00     97.00    112.00   1.448     -1.505         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    139.00     96.00    111.00   1.451     -1.513         8
    139.00     97.00    112.00   1.450     -1.515         8
    137.00     98.00    113.00   1.449     -1.491         8
    138.00     98.00    113.00   1.448     -1.506         8
    139.00     98.00    113.00   1.449     -1.516         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    138.00     99.00    114.00   1.448     -1.506         8
    139.00     99.00    114.00   1.449     -1.518         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    137.00    100.00    115.00   1.450     -1.484         8
    138.00    100.00    115.00   1.448     -1.505         8
    139.00    100.00    115.00   1.448     -1.519         8
----- Critical Circle After the Current Mode of Search -----
X: 138.00     Y: 99.00     Radius: 114.000
Factor of safety: 1.448     Side force inclination: -1.506
```

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SITE 13

TABLE NO. 31

```
***************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
***************************************************

------ Output for Circles with a Given, Constant Radius ------
------ Radius: 114.00

                                1-Stage
Center Coordinates              Factor  Side Force
                                  of    Inclination
     X         Y       Radius   Safety   (degrees)   Iterations          Messages

    108.00     69.00    114.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                 Circle passes below
the limiting depth of: -20.000
```

```
    138.00     69.00    114.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    168.00     69.00    114.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    108.00     99.00    114.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    168.00     99.00    114.00   1.978     -1.170         8
    108.00    129.00    114.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

    138.00    129.00    114.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

    168.00    129.00    114.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    133.00     94.00    114.00   3.593     -2.237         7
    138.00     94.00    114.00   3.371     -2.568         7
    143.00     94.00    114.00   3.287     -2.789         7
    133.00     99.00    114.00   1.478     -1.338         8
    143.00     99.00    114.00   1.476     -1.518         8
    133.00    104.00    114.00   1.739     -1.250         8
    138.00    104.00    114.00   1.748     -1.391         8
    143.00    104.00    114.00   1.767     -1.547         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    135.00     96.00    114.00   3.128     -2.510         7
    138.00     96.00    114.00   3.048     -2.684         7
    141.00     96.00    114.00   3.009     -2.813         7
    135.00     99.00    114.00   1.459     -1.424         8
    141.00     99.00    114.00   1.458     -1.534         8
    135.00    102.00    114.00   1.594     -1.428         8
    138.00    102.00    114.00   1.601     -1.488         8
    141.00    102.00    114.00   1.623     -1.503         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    137.00     98.00    114.00   2.473     -2.544         7
    138.00     98.00    114.00   2.462     -2.593         7
    139.00     98.00    114.00   2.455     -2.631         7
    137.00     99.00    114.00   1.449     -1.488         8
    139.00     99.00    114.00   1.449     -1.518         8
    137.00    100.00    114.00   1.491     -1.496         8
    138.00    100.00    114.00   1.491     -1.511         8
    139.00    100.00    114.00   1.494     -1.521         8
----- Critical Circle After the Current Mode of Search -----
X: 138.00     Y: 99.00     Radius: 114.000
Factor of safety: 1.448     Side force inclination: -1.506
```

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SITE 13

TABLE NO. 33

```
*********************************************
* 1-STAGE FINAL CRITICAL CIRCLE INFORMATION *
*********************************************
X Coordinate of Center . . . . . . . . . . . . . .  138.00
Y Coordinate of Center . . . . . . . . . . . . . .  99.00
Radius . . . . . . . . . . . . . . . . . . . . . .  114.00
Factor of Safety . . . . . . . . . . . . . . . . . 1.448
Side Force Inclination (degrees) . . . . . . . . . -1.51
Number of Circles Tried  . . . . . . . . . . . . .  185
Number of Circles F Calculated for . . . . . . . .  162
Time Required for Search (seconds) . . . . . . . .  2.1
```

TABLE NO. 34

```
***************************************************************
* Summary of the 10 Circles with the Lowest Factors of Safety *
***************************************************************
```

Center Coordinates X	Y	Radius	Elevation of Bottom of Circle	Factor of Safety	Side Force Inclin.	X-Left	X-Right
138.00	99.00	114.00	-15.00	1.448	-1.51	65.64	202.50
138.00	98.00	113.00	-15.00	1.448	-1.51	65.91	202.19
138.00	100.00	115.00	-15.00	1.448	-1.50	65.37	202.81
139.00	100.00	115.00	-15.00	1.448	-1.52	66.13	203.81
138.00	97.00	112.00	-15.00	1.448	-1.51	66.19	201.87
139.00	99.00	114.00	-15.00	1.449	-1.52	66.41	203.50
137.00	97.00	112.00	-15.00	1.449	-1.49	65.42	200.87
137.00	96.00	111.00	-15.00	1.449	-1.49	65.70	200.56
138.00	96.00	111.00	-15.00	1.449	-1.50	66.47	201.56
137.00	98.00	113.00	-15.00	1.449	-1.49	65.15	201.19

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SITE 13

TABLE NO. 43

```
***********************************************************
* Coordinate, Weight, Strength and Pore Water Pressure    *
* Information for Individual Slices for Conventional      *
```

```
* Computations or First Stage of Multi-Stage Computations. *
* (Information is for the critical shear surface in the    *
* case of an automatic search.)                             *
*************************************************************
```

Slice No.	X	Y	Slice Weight	Matl. No.	Cohesion	Friction Angle	Pore Pressure
	65.64	10.91					
1	67.82	9.21	981	10	300.0	0.00	0.0
	70.00	7.50					
2	70.34	7.25	323	10	300.0	0.00	0.0
	70.68	7.00					
3	72.09	6.00	1693	9	300.0	0.00	0.0
	73.50	5.00					
4	76.01	3.38	4319	7	45.0	0.00	101.3
	78.51	1.75					
5	79.99	0.88	3299	7	45.0	0.00	257.3
	81.48	0.00					
6	84.11	-1.41	7053	5	85.0	0.00	400.1
	86.73	-2.82					
7	89.02	-3.91	7280	5	85.0	0.00	556.1
	91.31	-5.00					
8	93.15	-5.79	6513	3	105.0	0.00	673.3
	95.00	-6.58					
9	97.79	-7.63	10179	3	105.0	0.00	788.3
	100.58	-8.69					
10	100.79	-8.76	754	3	105.0	0.00	858.4
	101.00	-8.83					
11	103.85	-9.72	10746	3	105.0	0.00	918.7
	106.69	-10.62					
12	109.58	-11.36	11685	3	105.0	0.00	1020.9
	112.47	-12.11					
13	115.40	-12.70	12467	3	105.0	0.00	1104.3
	118.32	-13.29					
14	121.28	-13.73	13080	3	105.0	0.00	1168.6
	124.23	-14.16					
15	125.11	-14.27	4006	3	105.0	0.00	1202.2
	126.00	-14.37					
16	128.97	-14.60	13019	3	105.0	0.00	1223.2
	131.95	-14.84					
17	133.47	-14.90	6292	3	105.0	0.00	1241.8
	135.00	-14.96					
18	136.50	-14.98	6055	3	105.0	0.00	1246.8
	138.00	-15.00					
19	140.98	-14.92	12014	3	105.0	0.00	1243.1
	143.97	-14.84					
20	146.94	-14.61	11828	3	105.0	0.00	1223.6
	149.92	-14.38					
21	152.87	-13.99	11461	3	105.0	0.00	1184.7
	155.83	-13.60					
22	158.77	-13.05	10917	3	105.0	0.00	1126.5
	161.70	-12.51					
23	164.60	-11.81	10206	3	105.0	0.00	1049.1
	167.51	-11.12					
24	170.37	-10.27	9339	3	105.0	0.00	952.7
	173.23	-9.42					
25	176.04	-8.42	8331	3	105.0	0.00	837.7
	178.85	-7.43					
26	181.61	-6.29	7198	3	105.0	0.00	704.3
	184.37	-5.14					
27	184.53	-5.07	389	3	105.0	0.00	628.5
	184.69	-5.00					
28	184.85	-4.93	369	5	85.0	0.00	619.6

```
         185.00     -4.86
  29     187.50     -3.65          4827    5         85.0     0.00       540.1
         190.00     -2.45
  30     192.26     -1.22          2816    5         85.0     0.00       388.4
         194.52      0.00
  31     197.08      1.55          1762    7         45.0     0.00       215.5
         199.63      3.09
  32     201.06      4.05           274    7         45.0     0.00        59.5
         202.50      5.00
```

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SITE 13

TABLE NO. 44

```
**********************************************************
* Seismic Forces and Forces Due to Distributed Loads for *
* Individual Slices for Conventional Computations or the *
* First Stage of Multi-Stage Computations.               *
* (Information is for the critical shear surface in the  *
* case of an automatic search.)                          *
**********************************************************
```

There are no seismic forces or forces due to distributed loads
for the current shear surface

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SITE 13

TABLE NO. 47

```
**************************************************************
*  Information for the Iterative Solution for the Factor of  *
*  Safety and Side Force Inclination by Spencer's Procedure  *
**************************************************************
```

Allowable force imbalance for convergence: 2
Allowable moment imbalance for convergence: 279

```
        Trial     Trial
       Factor   Side Force     Force       Moment                  Delta
Iter-    of    Inclination   Imbalance   Imbalance    Delta-F      Theta
ation  Safety   (degrees)      (lbs.)    (ft.-lbs.)              (degrees)

   1   3.00000   -17.1887  -5.918e+002  -5.623e+005
First-order corrections to F and Theta ............   -3.2944    14.8400
Reduced values - Deltas were too large ............   -0.5000     2.2523

   2   2.50000   -14.9364  -2.968e+002  -4.836e+005
First-order corrections to F and Theta ............   -1.8412    12.7534
Reduced values - Deltas were too large ............   -0.4136     2.8648

   3   2.08641   -12.0716   1.333e+001  -3.817e+005
First-order corrections to F and Theta ............   -0.9193    10.0701
Reduced values - Deltas were too large ............   -0.2615     2.8648
```

```
   4   1.82487    -9.2068   1.723e+002  -2.771e+005
First-order corrections to F and Theta ............   -0.4701     7.4000
Reduced values - Deltas were too large ............   -0.1820     2.8648

   5   1.64289    -6.3421   2.217e+002  -1.725e+005
First-order corrections to F and Theta ............   -0.2177     4.6981
Reduced values - Deltas were too large ............   -0.1328     2.8648

   6   1.51012    -3.4773   1.701e+002  -6.934e+004
First-order corrections to F and Theta ............   -0.0639     1.9413
Second-order corrections to F and Theta ...........   -0.0624     1.9754

   7   1.44774    -1.5018   4.762e-001   1.306e+002
First-order corrections to F and Theta ............    0.0002    -0.0037
Second-order corrections to F and Theta ...........    0.0002    -0.0037

   8   1.44795    -1.5055  -3.746e-008  -2.306e-006
First-order corrections to F and Theta ............   -0.0000     0.0000
```

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SITE 13

TABLE NO. 55

```
*********************************************************************
* Check of Computations by Spencer's Procedure (Results are for the *
* critical shear surface in the case of an automatic search.)       *
*********************************************************************
```

Summation of Horizontal Forces: 1.58842e-011

Summation of Vertical Forces: 1.47793e-011

Summation of Moments: -1.66619e-009

Mohr Coulomb Shear Force/Shear Strength Check Summation: 3.86535e-012

***** CAUTION ***** Forces Between Slices are NEGATIVE at Points
Along the UPPER one-half of the Shear Surface -
A Tension Crack may Be Needed

***** CAUTION ***** Some of the Forces Between Slices Act at Points
Above the Surface of the Slope or Below the Shear Surface -
Either a Tension Crack may be Needed or the SOLUTION MAY NOT
BE A VALID SOLUTION

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SITE 13

TABLE NO. 58

```
*************************************************************************
* Final Results for Stresses Along the Shear Surface                    *
* (Results are for the critical shear surface in the case of a search.) *
*************************************************************************
```

SPENCER'S PROCEDURE USED TO COMPUTE THE FACTOR OF SAFETY
Factor of Safety: 1.448   Side Force Inclination: -1.51

-------- VALUES AT CENTER OF BASE OF SLICE --------

Slice No.	X-Center	Y-Center	Total Normal Stress	Effective Normal Stress	Shear Stress
1	67.82	9.21	67.1	67.1	207.2
2	70.34	7.25	321.4	321.4	207.2
3	72.09	6.00	450.2	450.2	207.2
4	76.01	3.38	828.9	727.6	31.1
5	79.99	0.88	1078.0	820.7	31.1
6	84.11	-1.41	1292.9	892.9	58.7
7	89.02	-3.91	1545.4	989.3	58.7
8	93.15	-5.79	1716.3	1043.0	72.5
9	97.79	-7.63	1779.7	991.4	72.5
10	100.79	-8.76	1775.7	917.3	72.5
11	103.85	-9.72	1851.1	932.4	72.5
12	109.58	-11.36	1991.4	970.4	72.5
13	115.40	-12.70	2107.2	1002.9	72.5
14	121.28	-13.73	2198.2	1029.6	72.5
15	125.11	-14.27	2246.7	1044.5	72.5
16	128.97	-14.60	2179.9	956.7	72.5
17	133.47	-14.90	2059.5	817.8	72.5
18	136.50	-14.98	2018.6	771.9	72.5
19	140.98	-14.92	2018.8	775.7	72.5
20	146.94	-14.61	1999.7	776.1	72.5
21	152.87	-13.99	1955.1	770.3	72.5
22	158.77	-13.05	1884.8	758.4	72.5
23	164.60	-11.81	1789.2	740.1	72.5
24	170.37	-10.27	1668.4	715.6	72.5
25	176.04	-8.42	1522.5	684.9	72.5
26	181.61	-6.29	1352.1	647.9	72.5
27	184.53	-5.07	1255.0	626.5	72.5
28	184.85	-4.93	1235.7	616.0	58.7
29	187.50	-3.65	1008.1	468.1	58.7
30	192.26	-1.22	665.3	276.8	58.7
31	197.08	1.55	370.9	155.4	31.1
32	201.06	4.05	118.8	59.4	31.1

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SITE 13

TABLE NO. 59
****
* Final Results for Side Forces and Stresses Between Slices   *
* (Results are for the critical shear surface in the case of a search.) *
****

--------------- VALUES AT RIGHT SIDE OF SLICE ---------------

Slice No.	X-Right	Side Force	Y-Coord. of Side Force Location	Fraction of Height	Sigma at Top	Sigma at Bottom
1	70.00	-675	9.15	0.366	-29.5	-270.6

2	70.68	-655	9.19	0.438	-82.0	-179.8
3	73.50	-339	12.05	Above	-195.8	98.9
4	78.51	2197	1.98	0.022	-400.0	828.7
5	81.48	3996	1.42	0.119	-428.7	1094.4
6	86.73	7338	0.03	0.192	-419.1	1408.8
7	91.31	10435	-1.24	0.221	-414.0	1641.3
8	95.00	12879	-2.20	0.236	-404.8	1790.7
9	100.58	16223	-3.45	0.278	-284.8	2007.8
10	101.00	16448	-3.53	0.281	-272.3	2018.8
11	106.69	19347	-4.60	0.292	-232.7	2108.8
12	112.47	21892	-5.53	0.298	-212.2	2192.2
13	118.32	23963	-6.29	0.300	-203.4	2260.5
14	124.23	25461	-6.88	0.301	-201.7	2308.2
15	126.00	25785	-7.02	0.301	-202.2	2317.9
16	131.95	26384	-7.35	0.328	-38.4	2346.3
17	135.00	26413	-7.44	0.343	67.2	2337.4
18	138.00	26275	-7.48	0.342	62.4	2325.4
19	143.97	25526	-7.42	0.340	47.0	2289.3
20	149.92	24158	-7.17	0.337	25.7	2233.9
21	155.83	22205	-6.73	0.333	-0.4	2155.9
22	161.70	19729	-6.10	0.328	-30.1	2052.0
23	167.51	16814	-5.28	0.322	-62.0	1917.7
24	173.23	13570	-4.25	0.315	-92.8	1745.0
25	178.85	10128	-3.01	0.306	-114.1	1517.5
26	184.37	6638	-1.47	0.302	-101.1	1194.0
27	184.69	6434	-1.36	0.303	-97.8	1169.7
28	185.00	6243	-1.26	0.303	-95.1	1147.5
29	190.00	3518	0.40	0.383	141.2	803.0
30	194.52	1622	2.12	0.424	176.9	471.8
31	199.63	316	4.08	0.520	185.3	146.0
32	202.50	-0	5.00	0.000	0.0	0.0

Read end-of-file on input while looking for another command word.
End of input data assumed - normal termination.

```
TABLE NO. 1
COMPUTER PROGRAM DESIGNATION: UTEXAS4
Originally Coded By Stephen G. Wright
Version No. 4.0.2.0 - Last Revision Date: 1/29/2005
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*******************************************************************
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SITE 13
SHORT TERM STABILITY CALCULATIONS

TABLE NO. 3
*************************
* NEW PROFILE LINE DATA *
*************************

-----------------------------------------------------------
----- Profile Line No. 1 - Material Type (Number): 1 -----
-----------------------------------------------------------
Description: SOIL 1

Point         X            Y

   1        0.00      -15.00
   2      135.00      -15.00
   3      300.00      -15.00

-----------------------------------------------------------
----- Profile Line No. 2 - Material Type (Number): 2 -----
-----------------------------------------------------------
Description: SOIL 2

Point         X            Y

   1        0.00       -5.00
   2      120.00       -5.00
   3      135.00      -15.00

-----------------------------------------------------------
----- Profile Line No. 3 - Material Type (Number): 3 -----
-----------------------------------------------------------
Description: SOIL 3

Point         X            Y

   1      120.00       -5.00
   2      135.00       -5.00
```

3	300.00	-5.00

----- Profile Line No. 4 - Material Type (Number): 4 -----

Description: SOIL 4

Point	X	Y
1	0.00	0.00
2	120.00	0.00
3	135.00	-5.00

----- Profile Line No. 5 - Material Type (Number): 5 -----

Description: SOIL 5

Point	X	Y
1	120.00	0.00
2	135.00	0.00
3	300.00	0.00

----- Profile Line No. 6 - Material Type (Number): 6 -----

Description: SOIL 6

Point	X	Y
1	0.00	5.00
2	120.00	5.00
3	135.00	0.00

----- Profile Line No. 7 - Material Type (Number): 7 -----

Description: SOIL 7

Point	X	Y
1	120.00	5.00
2	135.00	5.00
3	300.00	5.00

----- Profile Line No. 8 - Material Type (Number): 8 -----

Description: SOIL 8

Point	X	Y
1	0.00	7.00
2	50.00	7.00
3	90.00	7.00
4	120.00	9.00
5	135.00	5.00

----- Profile Line No. 9 - Material Type (Number): 9 -----

Description: SOIL 9

Point	X	Y
1	120.00	9.00
2	135.00	10.00
3	185.00	10.00
4	190.00	8.00
5	300.00	8.00

----- Profile Line No. 10 - Material Type (Number): 10 -----

Description: SOIL 10

Point	X	Y
1	50.00	7.00
2	90.00	17.00
3	105.00	17.00
4	135.00	10.00

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SITE 11

TABLE NO. 4

****
* NEW MATERIAL PROPERTY DATA - CONVENTIONAL/FIRST-STAGE COMPUTATIONS *
****

------------------- DATA FOR MATERIAL NUMBER 1 -------------------
----

Description: SOIL 1 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 500.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

------------------- DATA FOR MATERIAL NUMBER 2 -------------------
----

Description: SOIL 2- FOUNDATION LAYER (CH)

Unit weight of soil (material): 72.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 335.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

```
-----------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 3 -------------------
-----------------------------------------------------------------
Description: SOIL 3 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 82.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 145.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-----------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 4 -------------------
-----------------------------------------------------------------
Description: SOIL 4 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 250.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-----------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 5 -------------------
-----------------------------------------------------------------
Description: SOIL 5 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 125.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-----------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 6 -------------------
-----------------------------------------------------------------
Description: SOIL 6 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 150.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-----------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 7 -------------------
```

```
-------------------------------------------------------------------
Description: SOIL 7 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 85.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 8 ------------------
-------------------------------------------------------------------
Description: SOIL 8 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 300.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 9 ------------------
-------------------------------------------------------------------
Description: SOIL 9 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 300.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

--------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 10 ------------------
--------------------------------------------------------------------
Description: SOIL 10 - LEVEE (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 300.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

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```

SITE 11

TABLE NO. 6

```
*******************************************************************
* NEW PIEZOMETRIC LINE DATA - CONVENTIONAL/FIRST-STAGE COMPUTATIONS *
*******************************************************************

--------------------------------------------------------
--------------- Piezometric Line Number 1 ---------------
--------------------------------------------------------
Description: PIEZOMETRIC LINE
Unit weight of fluid (water): 62.4

Point        X           Y

  1        0.00        5.00
  2       90.00        5.00
  3      135.00        7.00
  4      300.00        7.00
```

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SITE 11

TABLE NO. 10

```
***************************
* NEW SLOPE GEOMETRY DATA *
***************************

     Point       X           Y

        1       0.00        7.00
        2      50.00        7.00
        3      90.00       17.00
        4     105.00       17.00
        5     135.00       10.00
        6     185.00       10.00
        7     190.00        8.00
        8     300.00        8.00
```

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SITE 11

TABLE NO. 16

```
*********************************
* NEW ANALYSIS/COMPUTATION DATA *
*********************************

Starting Center Coordinate for Search at -
                                             X: 130.00
                                             Y: 35.00

Required accuracy for critical center
```

(= minimum spacing between grid points): 1.000

Critical shear surface not allowed to pass below Y: -20.00
For the initial mode of search circles are tangent to horizontal line at -
Y: -20.00
Radius: 55.00

Will save the following number of shear surfaces with the lowest factors of safety:10

The following represent default values or values that were prevously defined:
Subtended angle for slice subdivision: 3.00(degrees)
There is no crack.
There is no water in a crack.
Conventional (single-stage) computations will be performed.
Seismic coefficient: 0.000
Unit weight of water (or other fluid) in crack: 62.4
Automatic search output will be in long form.
Search will be continued after the initial mode to find a most critical circle.
Maximum number of trial grids for a given search mode: 50
No restrictions exist on the lateral extent of the search.
Neither slope face was explicitly designated for analysis.
Standard sign convention used for direction of shear stress on shear surface.
Procedure of Analysis: Spencer

Iteration limit: 100
Force imbalance: 1.000000e-005 (fraction of total weight)
Moment imbalance: 1.000000e-005 (fraction of moment due to total weight)
Minimum weight required for computations to be performed: 100
Initial trial factor of safety: 3.000
Initial trial side force inclination: 17.189 (degrees)
Minimum (most negative) side force inclination allowed in Spencer's procedure: -10.00

Search will be conducted for RIGHT face of slope

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SITE 11

TABLE NO. 30
****
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
****

------ Output for Circles Tangent to a Given Horizontal Line ------
------ Tangent line elevation, Y: -20.00

Center Coordinates X	Center Coordinates Y	Radius	1-Stage Factor of Safety	Side Force Inclination (degrees)	Iterations	Messages
100.00	5.00	25.00	Center rejected as follows:			UTEXAS ERROR NUMBER 8050 Center of circle is below the toe (lowest point) of the slope

```
    130.00      5.00     25.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    160.00      5.00     25.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    100.00     35.00     55.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    130.00     35.00     55.00   3.200     -1.662         8
    160.00     35.00     55.00   4.375     -2.858        10
    100.00     65.00     85.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    130.00     65.00     85.00   4.205     -1.111         8
    160.00     65.00     85.00   3.260     -3.309         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    125.00     30.00     50.00   3.222     -1.331         9
    130.00     30.00     50.00   3.114     -1.769         8
    135.00     30.00     50.00   3.198     -2.143         8
    125.00     35.00     55.00   3.393     -1.209         8
    135.00     35.00     55.00   3.186     -2.087         8
    125.00     40.00     60.00   3.620     -1.049         8
    130.00     40.00     60.00   3.341     -1.502         8
    135.00     40.00     60.00   3.219     -2.028         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    125.00     25.00     45.00   3.118     -1.336         9
    130.00     25.00     45.00   3.112     -1.720         9
    135.00     25.00     45.00   3.330     -1.929        10
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    125.00     20.00     40.00   3.122     -0.898        13
    130.00     20.00     40.00   3.259     -0.973        14
    135.00     20.00     40.00   3.589     -1.281        15
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    127.00     22.00     42.00   3.104     -1.313        12
    130.00     22.00     42.00   3.175     -1.465        12
    133.00     22.00     42.00   3.331     -1.544        13
    127.00     25.00     45.00   3.091     -1.495         9
    133.00     25.00     45.00   3.214     -1.881        10
    127.00     28.00     48.00   3.119     -1.527         9
    130.00     28.00     48.00   3.101     -1.778         9
    133.00     28.00     48.00   3.153     -2.000         9
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    124.00     22.00     42.00   3.117     -1.117        12
    124.00     25.00     45.00   3.145     -1.256         9
    124.00     28.00     48.00   3.209     -1.269         9
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    126.00     24.00     44.00   3.095     -1.383        10
    127.00     24.00     44.00   3.090     -1.459        10
    128.00     24.00     44.00   3.093     -1.533        10
    126.00     25.00     45.00   3.100     -1.416         9
    128.00     25.00     45.00   3.089     -1.574         9
    126.00     26.00     46.00   3.110     -1.435         9
    127.00     26.00     46.00   3.096     -1.517         9
    128.00     26.00     46.00   3.090     -1.598         9
```

```
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    129.00     24.00     44.00   3.105     -1.603        10
    129.00     25.00     45.00   3.096     -1.649         9
    129.00     26.00     46.00   3.093     -1.677         9
----- Critical Circle After the Current Mode of Search -----
X: 128.00     Y: 25.00     Radius: 45.000
Factor of safety: 3.089     Side force inclination: -1.574
```

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SITE 11

TABLE NO. 31

```
**************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
**************************************************

------ Output for Circles with a Given, Constant Radius ------
------ Radius: 45.00

                                1-Stage
Center Coordinates              Factor  Side Force
                                  of    Inclination
     X         Y       Radius   Safety   (degrees)   Iterations          Messages

     98.00     -5.00     45.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    128.00     -5.00     45.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    158.00     -5.00     45.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

     98.00     25.00     45.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    158.00     25.00     45.00   5.832     -2.432        22
     98.00     55.00     45.00 Center rejected as follows:      UTEXAS ERROR NUMBER
9270
                                                                Solution did not
converge in iteration limit of 100  iterations
                                                                Failed to converge
during stage 1 computations

    128.00     55.00     45.00   7.468     -8.685        12
    158.00     55.00     45.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8130
                                                                Circle intersects
slope 2 times, but there is no segment
                                                                entirely within the
```

slope

- - - - - - New 9-Point Grid (only new points calculated) - - - - - -

123.00 20.00 45.00 Center rejected as follows: UTEXAS WARNING NUMBER 8080

Circle passes below the limiting depth of: -20.000

128.00 20.00 45.00 Center rejected as follows: UTEXAS WARNING NUMBER 8080

Circle passes below the limiting depth of: -20.000

133.00 20.00 45.00 Center rejected as follows: UTEXAS WARNING NUMBER 8080

Circle passes below the limiting depth of: -20.000

123.00	25.00	45.00	3.180	-1.176	10
133.00	25.00	45.00	3.214	-1.881	10
123.00	30.00	45.00	2.251	-0.979	8
128.00	30.00	45.00	2.158	-1.258	8
133.00	30.00	45.00	2.213	-1.356	8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -					
123.00	35.00	45.00	2.038	-1.331	8
128.00	35.00	45.00	1.967	-1.490	8
133.00	35.00	45.00	2.015	-1.428	8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -					
123.00	40.00	45.00	1.919	-1.527	8
128.00	40.00	45.00	1.946	-1.624	8
133.00	40.00	45.00	2.082	-1.784	8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -					
118.00	35.00	45.00	2.265	-1.100	8
118.00	40.00	45.00	2.056	-1.277	8
118.00	45.00	45.00	1.961	-0.949	8
123.00	45.00	45.00	1.906	-1.001	8
128.00	45.00	45.00	2.008	-1.066	8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -					
118.00	50.00	45.00	3.472	-4.549	6
123.00	50.00	45.00	3.517	-4.708	6
128.00	50.00	45.00	3.869	-5.078	6
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -					
120.00	42.00	45.00	1.971	-1.475	8
123.00	42.00	45.00	1.918	-1.557	8
126.00	42.00	45.00	1.924	-1.548	8
120.00	45.00	45.00	1.916	-0.990	8
126.00	45.00	45.00	1.959	-0.938	8
120.00	48.00	45.00	2.366	-2.017	8
123.00	48.00	45.00	2.386	-1.806	8
126.00	48.00	45.00	2.444	-1.900	8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -					
122.00	44.00	45.00	1.921	-1.344	8
123.00	44.00	45.00	1.906	-1.290	8
124.00	44.00	45.00	1.899	-1.217	8
122.00	45.00	45.00	1.902	-1.009	8
124.00	45.00	45.00	1.919	-0.970	8
122.00	46.00	45.00	2.016	-1.218	8
123.00	46.00	45.00	2.024	-1.179	8
124.00	46.00	45.00	2.041	-1.114	8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -					
123.00	43.00	45.00	1.913	-1.477	8
124.00	43.00	45.00	1.909	-1.459	8
125.00	43.00	45.00	1.913	-1.429	8

```
    125.00     44.00     45.00   1.897     -1.108         8
    125.00     45.00     45.00   1.940     -0.914         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    126.00     43.00     45.00   1.923     -1.365         8
    126.00     44.00     45.00   1.903     -0.971         8
----- Critical Circle After the Current Mode of Search -----
X: 125.00     Y: 44.00     Radius: 45.000
Factor of safety: 1.897     Side force inclination: -1.108

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SITE 11

TABLE NO. 30
***************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
***************************************************

------ Output for Circles Tangent to a Given Horizontal Line ------
------ Tangent line elevation, Y: -1.00

                                 1-Stage
Center Coordinates               Factor  Side Force
                                   of    Inclination
     X         Y       Radius   Safety   (degrees)   Iterations          Messages

     95.00     14.00     15.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8140
                                                                Left end of circle
became inverted.
                                                                A vertical crack was
added to prevent inversion.
                                                                UTEXAS WARNING
NUMBER 8250
                                                                Right end of circle
became inverted.
                                                                A vertical crack was
added to prevent inversion.
                                                                UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    125.00     14.00     15.00   2.653    -15.700         9     UTEXAS WARNING
NUMBER 8140
                                                                Left end of circle
became inverted.
                                                                A vertical crack was
added to prevent inversion.

    155.00     14.00     15.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

     95.00     44.00     45.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope
```

```
    155.00     44.00     45.00  13.182     -0.939        28
     95.00     74.00     75.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    125.00     74.00     75.00   2.284     -0.823         8
    155.00     74.00     75.00   4.195     -2.141         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    120.00     39.00     40.00   1.921     -1.436         8
    125.00     39.00     40.00   1.881     -0.937         8
    130.00     39.00     40.00   1.931     -0.821         8
    120.00     44.00     45.00   1.970     -1.400         8
    130.00     44.00     45.00   1.929     -0.867         8
    120.00     49.00     50.00   2.039     -1.283         8
    125.00     49.00     50.00   1.924     -1.210         8
    130.00     49.00     50.00   1.942     -0.877         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    120.00     34.00     35.00   1.910     -1.207         8
    125.00     34.00     35.00   1.871     -0.766         8
    130.00     34.00     35.00   1.962     -0.681         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    120.00     29.00     30.00   1.923     -0.800         8
    125.00     29.00     30.00   1.890     -0.371         8
    130.00     29.00     30.00   2.047     -0.260         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    122.00     31.00     32.00   1.888     -0.793         8
    125.00     31.00     32.00   1.877     -0.572         8
    128.00     31.00     32.00   1.877     -0.195         8
    122.00     34.00     35.00   1.886     -0.966         8
    128.00     34.00     35.00   1.874     -0.504         8
    122.00     37.00     38.00   1.890     -1.112         8
    125.00     37.00     38.00   1.874     -0.884         8
    128.00     37.00     38.00   1.879     -0.694         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    124.00     33.00     34.00   1.873     -0.778         8
    125.00     33.00     34.00   1.872     -0.712         8
    126.00     33.00     34.00   1.872     -0.637         8
    124.00     34.00     35.00   1.873     -0.830         8
    126.00     34.00     35.00   1.871     -0.695         8
    124.00     35.00     36.00   1.874     -0.874         8
    125.00     35.00     36.00   1.871     -0.811         8
    126.00     35.00     36.00   1.871     -0.744         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    127.00     34.00     35.00   1.873     -0.616         8
    127.00     35.00     36.00   1.873     -0.674         8
    125.00     36.00     37.00   1.872     -0.850         8
    126.00     36.00     37.00   1.871     -0.786         8
    127.00     36.00     37.00   1.874     -0.724         8
----- Critical Circle After the Current Mode of Search -----
X: 126.00     Y: 35.00     Radius: 36.000
Factor of safety: 1.871     Side force inclination: -0.744

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SITE 11

TABLE NO. 31
```

```
**************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
**************************************************

------ Output for Circles with a Given, Constant Radius ------
------ Radius: 36.00

                                1-Stage
Center Coordinates              Factor  Side Force
                                  of    Inclination
     X         Y       Radius   Safety   (degrees)   Iterations          Messages

     96.00      5.00     36.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    126.00      5.00     36.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    156.00      5.00     36.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

     96.00     35.00     36.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    156.00     35.00     36.00 Center rejected as follows:      UTEXAS ERROR NUMBER
9270
                                                                Solution did not
converge in iteration limit of 100  iterations
                                                                Failed to converge
during stage 1 computations

     96.00     65.00     36.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

    126.00     65.00     36.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

    156.00     65.00     36.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    121.00     30.00     36.00   1.887     -1.189         8
    126.00     30.00     36.00   1.807     -0.584         8
    131.00     30.00     36.00   1.906     -0.742         8
    121.00     35.00     36.00   1.898     -1.108         8
    131.00     35.00     36.00   2.017     -0.858         8
    121.00     40.00     36.00   2.570     -2.783         7
    126.00     40.00     36.00   2.683     -2.842         7
    131.00     40.00     36.00   3.178     -2.815         7
```

```
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    121.00     25.00     36.00   2.087     -0.866         8
    126.00     25.00     36.00   2.071     -0.663         8
    131.00     25.00     36.00   2.147     -0.751         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    123.00     27.00     36.00   1.971     -0.990         8
    126.00     27.00     36.00   1.974     -0.813         8
    129.00     27.00     36.00   1.998     -0.805         8
    123.00     30.00     36.00   1.848     -0.915         8
    129.00     30.00     36.00   1.818     -0.500         8
    123.00     33.00     36.00   1.895     -1.205         8
    126.00     33.00     36.00   1.922     -1.235         8
    129.00     33.00     36.00   1.990     -1.328         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    125.00     29.00     36.00   1.871     -0.781         8
    126.00     29.00     36.00   1.869     -0.746         8
    127.00     29.00     36.00   1.869     -0.714         8
    125.00     30.00     36.00   1.820     -0.673         8
    127.00     30.00     36.00   1.799     -0.511         8
    125.00     31.00     36.00   1.917     -1.192         8
    126.00     31.00     36.00   1.932     -1.225         8
    127.00     31.00     36.00   1.951     -1.267         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    128.00     29.00     36.00   1.872     -0.686         8
    128.00     30.00     36.00   1.797     -0.459         8
    128.00     31.00     36.00   1.976     -1.316         8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    129.00     29.00     36.00   1.876     -0.657         8
    129.00     31.00     36.00   2.005     -1.370         8
----- Critical Circle After the Current Mode of Search -----
X: 128.00     Y: 30.00     Radius: 36.000
Factor of safety: 1.797     Side force inclination: -0.459

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SITE 11

TABLE NO. 30
***************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
***************************************************

------ Output for Circles Tangent to a Given Horizontal Line ------
------ Tangent line elevation, Y: -6.00

                                 1-Stage
Center Coordinates               Factor  Side Force
                                   of    Inclination
     X         Y       Radius   Safety   (degrees)   Iterations          Messages

     98.00      0.00      6.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    128.00      0.00      6.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope
```

```
    158.00      0.00      6.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

     98.00     30.00     36.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    158.00     30.00     36.00 Center rejected as follows:      UTEXAS ERROR NUMBER
9270
                                                                Solution did not
converge in iteration limit of 100  iterations
                                                                Failed to converge
during stage 1 computations

     98.00     60.00     66.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8070
                                                                Circle is for
opposite facing slope

    128.00     60.00     66.00   2.018     -1.052          8
    158.00     60.00     66.00   3.312     -2.209          8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    123.00     25.00     31.00   1.894     -0.094          8
    128.00     25.00     31.00   1.852      0.397          9
    133.00     25.00     31.00   2.187     -0.383          8
    123.00     30.00     36.00   1.848     -0.915          8
    133.00     30.00     36.00   2.024     -0.989          8
    123.00     35.00     41.00   1.842     -1.281          8
    128.00     35.00     41.00   1.789     -0.845          8
    133.00     35.00     41.00   1.949     -1.204          8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    123.00     40.00     46.00   1.881     -1.307          8
    128.00     40.00     46.00   1.792     -1.145          8
    133.00     40.00     46.00   1.916     -1.289          8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    125.00     32.00     38.00   1.814     -0.838          8
    128.00     32.00     38.00   1.791     -0.646          8
    131.00     32.00     38.00   1.881     -0.868          8
    125.00     35.00     41.00   1.803     -1.122          8
    131.00     35.00     41.00   1.857     -0.995          8
    125.00     38.00     44.00   1.810     -1.234          8
    128.00     38.00     44.00   1.789     -1.029          8
    131.00     38.00     44.00   1.844     -1.075          8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    127.00     34.00     40.00   1.792     -0.832          8
    128.00     34.00     40.00   1.789     -0.787          8
    129.00     34.00     40.00   1.790     -0.757          8
    127.00     35.00     41.00   1.792     -0.888          8
    129.00     35.00     41.00   1.787     -0.801          8
    127.00     36.00     42.00   1.790     -0.976          8
    128.00     36.00     42.00   1.790     -0.896          8
    129.00     36.00     42.00   1.787     -0.854          8
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    130.00     34.00     40.00   1.824     -0.855          8
    130.00     35.00     41.00   1.819     -0.896          8
    130.00     36.00     42.00   1.815     -0.930          8
----- Critical Circle After the Current Mode of Search -----
X: 129.00     Y: 35.00     Radius: 41.000
Factor of safety: 1.787     Side force inclination: -0.801
```

```
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TABLE NO. 31
***************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
***************************************************

------ Output for Circles with a Given, Constant Radius ------
------ Radius: 41.00

                                  1-Stage
Center Coordinates                Factor  Side Force
                                    of    Inclination
     X         Y       Radius    Safety   (degrees)   Iterations          Messages

     99.00      5.00     41.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    129.00      5.00     41.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    159.00      5.00     41.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

     99.00     35.00     41.00  33.458     -0.080        97
    159.00     35.00     41.00   9.557     -1.217        31
     99.00     65.00     41.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

    129.00     65.00     41.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

    159.00     65.00     41.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    124.00     30.00     41.00   2.029     -1.269         8
    129.00     30.00     41.00   2.035     -1.228         8
    134.00     30.00     41.00   2.122     -1.290         8
    124.00     35.00     41.00   1.820     -1.213         8
    134.00     35.00     41.00   2.004     -1.309         8
    124.00     40.00     41.00   1.889     -1.014         8
    129.00     40.00     41.00   1.884     -0.708         8
    134.00     40.00     41.00   2.193     -1.337         8
```

- - - - - - New 9-Point Grid (only new points calculated) - - - - - -

126.00	32.00	41.00	1.934	-1.342	8
129.00	32.00	41.00	1.951	-1.223	8
132.00	32.00	41.00	1.983	-1.216	8
126.00	35.00	41.00	1.792	-1.000	8
132.00	35.00	41.00	1.900	-1.098	8
126.00	38.00	41.00	1.921	-1.392	8
129.00	38.00	41.00	1.971	-1.461	8
132.00	38.00	41.00	2.058	-1.540	8

- - - - - - New 9-Point Grid (only new points calculated) - - - - - -

128.00	34.00	41.00	1.851	-1.063	8
129.00	34.00	41.00	1.853	-1.037	8
130.00	34.00	41.00	1.856	-1.012	8
128.00	35.00	41.00	1.789	-0.845	8
130.00	35.00	41.00	1.819	-0.896	8
128.00	36.00	41.00	1.952	-1.508	8
129.00	36.00	41.00	1.974	-1.550	8
130.00	36.00	41.00	2.001	-1.597	8

----- Critical Circle After the Current Mode of Search -----
X: 129.00 Y: 35.00 Radius: 41.000
Factor of safety: 1.787 Side force inclination: -0.801

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TABLE NO. 33
****
* 1-STAGE FINAL CRITICAL CIRCLE INFORMATION *
****
X Coordinate of Center 129.00
Y Coordinate of Center 35.00
Radius 41.00
Factor of Safety 1.787
Side Force Inclination (degrees) . . . . -0.80
Number of Circles Tried 251
Number of Circles F Calculated for 213
Time Required for Search (seconds) 4.0

TABLE NO. 34
****
* Summary of the 10 Circles with the Lowest Factors of Safety *
****

Center Coordinates X	Y	Radius	Elevation of Bottom of Circle	Factor of Safety	Side Force Inclin.	X-Left	X-Right
129.00	35.00	41.00	-6.00	1.787	-0.80	92.16	161.50
129.00	36.00	42.00	-6.00	1.787	-0.85	91.54	161.98
128.00	34.00	40.00	-6.00	1.789	-0.79	91.79	160.00
128.00	35.00	41.00	-6.00	1.789	-0.85	91.16	160.50
128.00	38.00	44.00	-6.00	1.789	-1.03	89.41	161.94
128.00	36.00	42.00	-6.00	1.790	-0.90	90.54	

```
160.98
     129.00      34.00      40.00      -6.00    1.790    -0.76        92.79
161.00
     127.00      36.00      42.00      -6.00    1.790    -0.98        89.59
159.98
     128.00      32.00      38.00      -6.00    1.791    -0.65        93.09
158.98
     128.00      40.00      46.00      -6.00    1.792    -1.14        88.40
162.87
```

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TABLE NO. 43

```
************************************************************
* Coordinate, Weight, Strength and Pore Water Pressure     *
* Information for Individual Slices for Conventional       *
* Computations or First Stage of Multi-Stage Computations. *
* (Information is for the critical shear surface in the    *
* case of an automatic search.)                            *
************************************************************
```

Slice No.	X	Y	Slice Weight	Matl. No.	Cohesion	Friction Angle	Pore Pressure
	92.16	17.00					
1	92.66	16.05	94	10	300.0	0.00	0.0
	93.16	15.10					
2	93.70	14.17	308	10	300.0	0.00	0.0
	94.25	13.25					
3	94.84	12.35	551	10	300.0	0.00	0.0
	95.43	11.46					
4	96.07	10.60	818	10	300.0	0.00	0.0
	96.71	9.73					
5	97.39	8.91	1106	10	300.0	0.00	0.0
	98.08	8.08					
6	98.30	7.82	415	10	300.0	0.00	0.0
	98.53	7.57					
7	99.27	6.79	1508	8	300.0	0.00	0.0
	100.01	6.01					
8	100.28	5.74	622	8	300.0	0.00	0.0
	100.56	5.47					
9	100.81	5.23	583	8	300.0	0.00	15.3
	101.05	5.00					
10	101.86	4.29	2044	6	150.0	0.00	77.2
	102.66	3.58					
11	103.50	2.91	2368	6	150.0	0.00	167.8
	104.34	2.24					
12	104.67	2.00	986	6	150.0	0.00	227.8
	105.00	1.76					
13	105.89	1.15	2772	6	150.0	0.00	284.1
	106.77	0.55					
14	107.21	0.27	1416	6	150.0	0.00	342.6
	107.65	0.00					
15	108.58	-0.53	3108	4	250.0	0.00	396.9
	109.51	-1.07					
16	110.46	-1.56	3308	4	250.0	0.00	465.8
	111.42	-2.04					
17	112.40	-2.48	3483	4	250.0	0.00	528.6

	113.38	-2.91					
18	114.39	-3.29	3630	4	250.0	0.00	585.1
	115.39	-3.67					
19	116.41	-4.00	3747	4	250.0	0.00	635.1
	117.43	-4.33					
20	118.47	-4.61	3831	4	250.0	0.00	678.6
	119.51	-4.89					
21	119.75	-4.94	913	4	250.0	0.00	703.0
	120.00	-5.00					
22	120.00	-5.00	0	2	335.0	0.00	707.2
	120.00	-5.00					
23	121.05	-5.21	3880	3	145.0	0.00	723.1
	122.11	-5.42					
24	123.17	-5.57	3873	3	145.0	0.00	751.5
	124.23	-5.72					
25	125.30	-5.82	3834	3	145.0	0.00	773.0
	126.37	-5.92					
26	127.44	-5.96	3764	3	145.0	0.00	787.5
	128.51	-6.00					
27	128.76	-6.00	841	3	145.0	0.00	793.8
	129.00	-6.00					
28	130.07	-5.97	3636	3	145.0	0.00	795.8
	131.15	-5.94					
29	132.22	-5.86	3500	3	145.0	0.00	794.7
	133.29	-5.78					
30	134.14	-5.67	2700	3	145.0	0.00	788.0
	135.00	-5.56					
31	136.06	-5.37	3236	3	145.0	0.00	772.1
	137.11	-5.19					
32	137.56	-5.09	1335	3	145.0	0.00	754.7
	138.00	-5.00					
33	139.04	-4.74	3067	5	125.0	0.00	732.4
	140.08	-4.47					
34	141.11	-4.16	2903	5	125.0	0.00	696.2
	142.13	-3.84					
35	143.14	-3.47	2714	5	125.0	0.00	653.3
	144.15	-3.10					
36	145.13	-2.68	2501	5	125.0	0.00	603.9
	146.12	-2.25					
37	147.08	-1.78	2269	5	125.0	0.00	547.9
	148.05	-1.31					
38	148.98	-0.78	2021	5	125.0	0.00	485.7
	149.92	-0.26					
39	150.14	-0.13	440	5	125.0	0.00	444.9
	150.35	0.00					
40	151.26	0.58	1697	7	85.0	0.00	400.4
	152.16	1.17					
41	153.03	1.79	1427	7	85.0	0.00	324.8
	153.90	2.42					
42	154.73	3.10	1153	7	85.0	0.00	243.5
	155.57	3.77					
43	156.26	4.39	775	7	85.0	0.00	163.1
	156.95	5.00					
44	157.71	5.75	651	9	300.0	0.00	77.9
	158.48	6.50					
45	158.71	6.75	153	9	300.0	0.00	15.5
	158.95	7.00					
46	159.66	7.80	313	9	300.0	0.00	0.0
	160.37	8.61					
47	160.94	9.30	78	9	300.0	0.00	0.0
	161.50	10.00					

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TABLE NO. 44

```
********************************************************
* Seismic Forces and Forces Due to Distributed Loads for *
* Individual Slices for Conventional Computations or the *
* First Stage of Multi-Stage Computations.               *
* (Information is for the critical shear surface in the  *
* case of an automatic search.)                          *
********************************************************
```

There are no seismic forces or forces due to distributed loads for the current shear surface

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TABLE NO. 47

```
************************************************************
*  Information for the Iterative Solution for the Factor of  *
*  Safety and Side Force Inclination by Spencer's Procedure  *
************************************************************
```

Allowable force imbalance for convergence: 9.0375e-001
Allowable moment imbalance for convergence: 113

```
        Trial     Trial
       Factor   Side Force     Force       Moment                  Delta
Iter-    of    Inclination   Imbalance   Imbalance    Delta-F      Theta
ation  Safety   (degrees)     (lbs.)    (ft.-lbs.)               (degrees)

   1   3.00000   -17.1887   1.886e+003  -2.847e+005
First-order corrections to F and Theta ............   -1.4789    11.0393
Reduced values - Deltas were too large ............   -0.3838     2.8648

   2   2.61620   -14.3239   1.582e+003  -2.215e+005
First-order corrections to F and Theta ............   -0.8936     9.6568
Reduced values - Deltas were too large ............   -0.2651     2.8648

   3   2.35110   -11.4592   1.247e+003  -1.636e+005
First-order corrections to F and Theta ............   -0.5664     8.1171
Reduced values - Deltas were too large ............   -0.1999     2.8648

   4   2.15121    -8.5944   9.108e+002  -1.118e+005
First-order corrections to F and Theta ............   -0.3526     6.3493
Reduced values - Deltas were too large ............   -0.1591     2.8648

   5   1.99213    -5.7296   5.840e+002  -6.604e+004
First-order corrections to F and Theta ............   -0.1963     4.3049
Reduced values - Deltas were too large ............   -0.1306     2.8648

   6   1.86152    -2.8648   2.653e+002  -2.588e+004
First-order corrections to F and Theta ............   -0.0721     1.9386
Second-order corrections to F and Theta ...........   -0.0756     2.0754
```

```
   7   1.78592    -0.7894   5.115e-001   1.278e+002
First-order corrections to F and Theta ............    0.0007    -0.0118
Second-order corrections to F and Theta ...........    0.0007    -0.0118

   8   1.78663    -0.8012  -9.496e-007  -4.898e-005
First-order corrections to F and Theta ............   -0.0000     0.0000
```

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TABLE NO. 55

```
*********************************************************************
* Check of Computations by Spencer's Procedure (Results are for the *
* critical shear surface in the case of an automatic search.)       *
*********************************************************************
```

Summation of Horizontal Forces: 1.74813e-011

Summation of Vertical Forces: 5.82136e-012

Summation of Moments: 1.72804e-010

Mohr Coulomb Shear Force/Shear Strength Check Summation: 2.25953e-012

***** CAUTION ***** Effective Or Total Normal Stress on Shear Surface is Negative at Points Along the UPPER One-Half of the Shear Surface - A Tension Crack may Be Needed.

***** CAUTION ***** Forces Between Slices are NEGATIVE at Points Along the UPPER one-half of the Shear Surface - A Tension Crack may Be Needed

***** CAUTION ***** Some of the Forces Between Slices Act at Points Above the Surface of the Slope or Below the Shear Surface - Either a Tension Crack may be Needed or the SOLUTION MAY NOT BE A VALID SOLUTION

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TABLE NO. 58

```
*************************************************************************
* Final Results for Stresses Along the Shear Surface                    *
* (Results are for the critical shear surface in the case of a search.) *
*************************************************************************
```

SPENCER'S PROCEDURE USED TO COMPUTE THE FACTOR OF SAFETY
Factor of Safety: 1.787   Side Force Inclination: -0.80

```
       -------- VALUES AT CENTER OF BASE OF SLICE --------
                                 Total     Effective
Slice                            Normal     Normal       Shear
```

No.	X-Center	Y-Center	Stress	Stress	Stress
1	92.66	16.05	-218.6	-218.6	167.9
2	93.70	14.17	0.5	0.5	167.9
3	94.84	12.35	209.3	209.3	167.9
4	96.07	10.60	408.4	408.4	167.9
5	97.39	8.91	598.1	598.1	167.9
6	98.30	7.82	718.9	718.9	167.9
7	99.27	6.79	834.1	834.1	167.9
8	100.28	5.74	950.5	950.5	167.9
9	100.81	5.23	1006.5	991.2	167.9
10	101.86	4.29	1183.4	1106.2	84.0
11	103.50	2.91	1328.6	1160.8	84.0
12	104.67	2.00	1424.5	1196.7	84.0
13	105.89	1.15	1493.6	1209.5	84.0
14	107.21	0.27	1555.9	1213.3	84.0
15	108.58	-0.53	1578.9	1182.0	139.9
16	110.46	-1.56	1647.3	1181.5	139.9
17	112.40	-2.48	1704.2	1175.6	139.9
18	114.39	-3.29	1749.4	1164.4	139.9
19	116.41	-4.00	1783.0	1147.8	139.9
20	118.47	-4.61	1804.8	1126.1	139.9
21	119.75	-4.94	1813.7	1110.8	139.9
22	120.00	-5.00	1746.7	1039.5	187.5
23	121.05	-5.21	1822.6	1099.4	81.2
24	123.17	-5.57	1808.6	1057.1	81.2
25	125.30	-5.82	1785.0	1012.0	81.2
26	127.44	-5.96	1751.9	964.4	81.2
27	128.76	-6.00	1728.1	934.3	81.2
28	130.07	-5.97	1698.5	902.8	81.2
29	132.22	-5.86	1644.8	850.1	81.2
30	134.14	-5.67	1588.9	800.9	81.2
31	136.06	-5.37	1549.8	777.6	81.2
32	137.56	-5.09	1530.8	776.1	81.2
33	139.04	-4.74	1497.7	765.3	70.0
34	141.11	-4.16	1444.6	748.4	70.0
35	143.14	-3.47	1380.8	727.5	70.0
36	145.13	-2.68	1306.5	702.6	70.0
37	147.08	-1.78	1221.9	673.9	70.0
38	148.98	-0.78	1127.3	641.5	70.0
39	150.14	-0.13	1065.1	620.1	70.0
40	151.26	0.58	982.0	581.6	47.6
41	153.03	1.79	864.4	539.6	47.6
42	154.73	3.10	737.6	494.1	47.6
43	156.26	4.39	612.1	448.9	47.6
44	157.71	5.75	600.2	522.4	167.9
45	158.71	6.75	511.3	495.8	167.9
46	159.66	7.80	418.0	418.0	167.9
47	160.94	9.30	285.7	285.7	167.9

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SITE 11

TABLE NO. 59

```
*************************************************************************
* Final Results for Side Forces and Stresses Between Slices            *
* (Results are for the critical shear surface in the case of a search.) *
*************************************************************************
```

--------------- VALUES AT RIGHT SIDE OF SLICE ---------------

Slice No.	X-Right	Side Force	Y-Coord. of Side Force Location	Fraction of Height	Sigma at Top	Sigma at Bottom
1	93.16	-583	16.04	0.496	-299.5	-312.9
2	94.25	-765	15.58	0.622	-353.5	-54.3
3	95.43	-590	16.52	0.914	-370.8	158.0
4	96.71	-100	45.50	Above	-378.8	351.3
5	98.08	661	3.36	Below	-383.1	531.2
6	98.53	952	4.72	Below	-384.6	586.5
7	100.01	2003	5.79	Below	-386.3	750.8
8	100.56	2425	5.78	0.027	-387.1	807.7
9	101.05	2814	5.69	0.058	-387.6	856.6
10	102.66	4362	5.18	0.119	-417.6	1067.5
11	104.34	5995	4.54	0.156	-433.1	1245.6
12	105.00	6630	4.29	0.166	-436.9	1306.8
13	106.77	8290	3.64	0.193	-436.2	1469.8
14	107.65	9069	3.34	0.204	-430.5	1537.6
15	109.51	10498	2.79	0.227	-395.1	1628.7
16	111.42	11829	2.27	0.246	-354.0	1702.5
17	113.38	13036	1.81	0.263	-307.8	1759.8
18	115.39	14094	1.40	0.278	-256.9	1801.3
19	117.43	14984	1.05	0.292	-201.6	1827.2
20	119.51	15689	0.77	0.305	-141.8	1837.7
21	120.00	15827	0.71	0.309	-127.0	1837.9
22	120.00	15827	0.71	0.309	-127.0	1837.9
23	122.11	16415	0.47	0.319	-74.7	1856.3
24	124.23	16795	0.30	0.330	-16.5	1858.4
25	126.37	16967	0.21	0.342	47.2	1845.3
26	128.51	16936	0.19	0.353	116.5	1817.7
27	129.00	16902	0.20	0.356	133.0	1809.5
28	131.15	16632	0.27	0.369	209.8	1765.0
29	133.29	16182	0.41	0.382	293.4	1707.1
30	135.00	15698	0.57	0.394	366.7	1651.0
31	137.11	14953	0.84	0.397	374.0	1594.8
32	138.00	14592	0.97	0.398	377.4	1568.1
33	140.08	13659	1.33	0.401	383.0	1504.2
34	142.13	12599	1.76	0.405	389.9	1430.7
35	144.15	11436	2.26	0.409	398.6	1347.2
36	146.12	10194	2.84	0.415	409.9	1253.7
37	148.05	8902	3.48	0.423	424.5	1149.8
38	149.92	7591	4.19	0.433	444.0	1035.4
39	150.35	7282	4.36	0.436	449.6	1006.7
40	152.16	6052	5.10	0.446	461.8	908.1
41	153.90	4881	5.87	0.455	469.3	819.1
42	155.57	3808	6.62	0.458	457.1	765.5
43	156.95	2990	7.21	0.443	392.7	803.2
44	158.48	1830	8.11	0.460	398.2	648.7
45	158.95	1497	8.41	0.469	406.9	591.1
46	160.37	587	9.31	0.506	435.0	406.6
47	161.50	0	10.00	0.000	0.0	0.0

Read end-of-file on input while looking for another command word.
End of input data assumed - normal termination.

```
TABLE NO. 1
COMPUTER PROGRAM DESIGNATION: UTEXAS4
Originally Coded By Stephen G. Wright
Version No. 4.0.2.0 - Last Revision Date: 1/29/2005
(C) Copyright 1985-2002 S. G. Wright - All rights reserved
*******************************************************************
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* SHOULD NOT BE USED FOR DESIGN PURPOSES UNLESS THEY HAVE         *
* BEEN VERIFIED BY INDEPENDENT ANALYSES, EXPERIMENTAL DATA        *
* OR FIELD EXPERIENCE. THE USER SHOULD UNDERSTAND THE ALGORITHMS *
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*******************************************************************

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Name of input data file: C:\UTEXAS4\HG-06-17340 Calcasieu Ship Channel\_All Sites
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SITE 11
SHORT TERM STABILITY CALCULATIONS

TABLE NO. 3
************************
* NEW PROFILE LINE DATA *
************************

-----------------------------------------------------------
----- Profile Line No. 1 - Material Type (Number): 1 -----
-----------------------------------------------------------
Description: SOIL 1

Point        X           Y

   1        0.00      -15.00
   2      150.00      -15.00
   3      300.00      -15.00

-----------------------------------------------------------
----- Profile Line No. 2 - Material Type (Number): 2 -----
-----------------------------------------------------------
Description: SOIL 2

Point        X           Y

   1        0.00       -5.00
   2      125.00       -5.00
   3      150.00      -15.00

-----------------------------------------------------------
----- Profile Line No. 3 - Material Type (Number): 3 -----
-----------------------------------------------------------
Description: SOIL 3

Point        X           Y

   1      125.00       -5.00
   2      150.00       -5.00
```

3	300.00	-5.00

----- Profile Line No. 4 - Material Type (Number): 4 -----

Description: SOIL 4

Point	X	Y
1	0.00	0.00
2	125.00	0.00
3	150.00	-5.00

----- Profile Line No. 5 - Material Type (Number): 5 -----

Description: SOIL 5

Point	X	Y
1	125.00	0.00
2	150.00	0.00
3	300.00	0.00

----- Profile Line No. 6 - Material Type (Number): 6 -----

Description: SOIL 6

Point	X	Y
1	0.00	5.00
2	125.00	5.00
3	150.00	0.00

----- Profile Line No. 7 - Material Type (Number): 7 -----

Description: SOIL 7

Point	X	Y
1	125.00	5.00
2	150.00	5.00
3	185.00	5.00
4	300.00	5.00

----- Profile Line No. 8 - Material Type (Number): 8 -----

Description: SOIL 8

Point	X	Y
1	0.00	10.00
2	74.00	10.00
3	125.00	10.00
4	150.00	5.00

----- Profile Line No. 9 - Material Type (Number): 9 -----

Description: SOIL 9

```
Point        X           Y

   1      125.00       10.00
   2      138.00       10.00
   3      150.00        7.00
   4      170.00        7.00
   5      185.00        5.00

------------------------------------------------------------
----- Profile Line No. 10 - Material Type (Number): 10 -----
------------------------------------------------------------
Description: SOIL 10

Point        X           Y

   1       74.00       10.00
   2       89.00       15.00
   3       95.00       17.00
   4      110.00       17.00
   5      138.00       10.00

------------------------------------------------------------
----- Profile Line No. 11 - Material Type (Number): 11 -----
------------------------------------------------------------
Description: SOIL 11

Point        X           Y

   1        0.00       15.00
   2       89.00       15.00

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SITE 11

TABLE NO. 4
**********************************************************************
* NEW MATERIAL PROPERTY DATA - CONVENTIONAL/FIRST-STAGE COMPUTATIONS *
**********************************************************************

------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 1 ------------------
------------------------------------------------------------------
Description: SOIL 1 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 500.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 2 ------------------
------------------------------------------------------------------
```

```
Description: SOIL 2- FOUNDATION LAYER (CH)

Unit weight of soil (material): 72.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 275.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-----------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 3 ------------------
-----------------------------------------------------------------
Description: SOIL 3 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 82.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 335.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-----------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 4 ------------------
-----------------------------------------------------------------
Description: SOIL 4 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 195.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-----------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 5 ------------------
-----------------------------------------------------------------
Description: SOIL 5 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 250.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-----------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 6 ------------------
-----------------------------------------------------------------
Description: SOIL 6 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0
```

```
CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 110.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-----------------------------------------------------------------
------------------- DATA FOR MATERIAL NUMBER 7 -------------------
-----------------------------------------------------------------
Description: SOIL 7 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 150.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-----------------------------------------------------------------
------------------- DATA FOR MATERIAL NUMBER 8 -------------------
-----------------------------------------------------------------
Description: SOIL 8 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 300.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-----------------------------------------------------------------
------------------- DATA FOR MATERIAL NUMBER 9 -------------------
-----------------------------------------------------------------
Description: SOIL 9 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 300.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

------------------------------------------------------------------
------------------- DATA FOR MATERIAL NUMBER 10 -------------------
------------------------------------------------------------------
Description: SOIL 10 - LEVEE (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 300.0
```

Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

------------------- DATA FOR MATERIAL NUMBER 11 -------------------
----
Description: SOIL 11 - DREDGE (CH)

Unit weight of soil (material): 80.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 0.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

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SITE 11

TABLE NO. 6
****
* NEW PIEZOMETRIC LINE DATA - CONVENTIONAL/FIRST-STAGE COMPUTATIONS *
****

--------------- Piezometric Line Number 1 ---------------

Description: PIEZOMETRIC LINE
Unit weight of fluid (water): 62.4

Point	X	Y
1	0.00	15.00
2	110.00	15.00
3	150.00	5.00
4	170.00	5.00
5	185.00	3.00
6	300.00	3.00

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SITE 11

TABLE NO. 10
****
* NEW SLOPE GEOMETRY DATA *
****

Point X Y

```
        1        0.00       15.00
        2       89.00       15.00
        3       95.00       17.00
        4      110.00       17.00
        5      138.00       10.00
        6      150.00        7.00
        7      170.00        7.00
        8      185.00        5.00
        9      300.00        5.00
```

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SITE 11

TABLE NO. 16

```
*********************************
* NEW ANALYSIS/COMPUTATION DATA *
*********************************
```

Starting Center Coordinate for Search at -
X: 80.00
Y: 35.00

Required accuracy for critical center
(= minimum spacing between grid points): 1.000

Critical shear surface not allowed to pass below Y: -20.00
For the initial mode of search circles are tangent to horizontal line at -
Y: -20.00
Radius: 55.00

Will save the following number of shear surfaces with the lowest factors of safety:10

The following represent default values or values that were prevously defined:
Subtended angle for slice subdivision: 3.00(degrees)
There is no crack.
There is no water in a crack.
Conventional (single-stage) computations will be performed.
Seismic coefficient: 0.000
Unit weight of water (or other fluid) in crack: 62.4
Automatic search output will be in long form.
Search will be continued after the initial mode to find a most critical circle.
Maximum number of trial grids for a given search mode: 50
No restrictions exist on the lateral extent of the search.
Neither slope face was explicitly designated for analysis.
Standard sign convention used for direction of shear stress on shear surface.
Procedure of Analysis: Spencer

Iteration limit: 100
Force imbalance: 1.000000e-005 (fraction of total weight)
Moment imbalance: 1.000000e-005 (fraction of moment due to total weight)
Minimum weight required for computations to be performed: 100
Initial trial factor of safety: 3.000
Initial trial side force inclination: 17.189 (degrees)
Minimum (most negative) side force inclination allowed in Spencer's procedure: -10.00

```
********** ERROR(S) OR WARNING(S) IN MATERIAL PROPERTY DATA **********
UTEXAS WARNING NUMBER 3620
Both cohesion and friction angle are zero for material 11
This is a WARNING ONLY - not a fatal error

Search will be conducted for RIGHT face of slope

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SITE 11

TABLE NO. 30
***************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
***************************************************

------ Output for Circles Tangent to a Given Horizontal Line ------
------ Tangent line elevation, Y: -20.00

                                1-Stage
Center Coordinates              Factor  Side Force
                                  of    Inclination
     X         Y       Radius   Safety   (degrees)   Iterations          Messages

     50.00      5.00     25.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

     80.00      5.00     25.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    110.00      5.00     25.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

     50.00     35.00     55.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

     80.00     35.00     55.00 Center rejected as follows:      UTEXAS ERROR NUMBER
9270
                                                                Solution did not
converge in iteration limit of 100  iterations
                                                                Failed to converge
during stage 1 computations

    110.00     35.00     55.00   3.543     -2.826         8
     50.00     65.00     85.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

     80.00     65.00     85.00  18.005     -1.594        32
```

```
    110.00     65.00     85.00   3.412     -2.670          7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    140.00     35.00     55.00   2.092     -3.888          7
    140.00     65.00     85.00   2.213     -3.528          7
     80.00     95.00    115.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

    110.00     95.00    115.00   3.418     -2.693          7
    140.00     95.00    115.00   2.471     -3.064          7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    140.00      5.00     25.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    170.00      5.00     25.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    170.00     35.00     55.00   3.746     -3.559          8
    170.00     65.00     85.00   2.683     -4.298          7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    135.00     30.00     50.00   2.180     -3.194          7
    140.00     30.00     50.00   2.129     -3.836          7
    145.00     30.00     50.00   2.182     -4.165          7
    135.00     35.00     55.00   2.170     -3.349          7
    145.00     35.00     55.00   2.102     -4.321          7
    135.00     40.00     60.00   2.168     -3.458          7
    140.00     40.00     60.00   2.092     -3.834          7
    145.00     40.00     60.00   2.072     -4.255          7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    150.00     35.00     55.00   2.208     -4.459          7
    150.00     40.00     60.00   2.144     -4.470          7
    140.00     45.00     65.00   2.104     -3.783          7
    145.00     45.00     65.00   2.079     -4.086          7
    150.00     45.00     65.00   2.109     -4.429          7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    142.00     37.00     57.00   2.076     -4.069          7
    145.00     37.00     57.00   2.084     -4.319          7
    148.00     37.00     57.00   2.133     -4.417          7
    142.00     40.00     60.00   2.077     -3.994          7
    148.00     40.00     60.00   2.102     -4.435          7
    142.00     43.00     63.00   2.082     -3.930          7
    145.00     43.00     63.00   2.074     -4.152          7
    148.00     43.00     63.00   2.088     -4.375          7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    144.00     39.00     59.00   2.071     -4.201          7
    145.00     39.00     59.00   2.075     -4.282          7
    146.00     39.00     59.00   2.082     -4.349          7
    144.00     40.00     60.00   2.071     -4.172          7
    146.00     40.00     60.00   2.078     -4.328          7
    144.00     41.00     61.00   2.072     -4.137          7
    145.00     41.00     61.00   2.072     -4.224          7
    146.00     41.00     61.00   2.076     -4.303          7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    143.00     39.00     59.00   2.072     -4.111          7
    143.00     40.00     60.00   2.073     -4.077          7
    143.00     41.00     61.00   2.074     -4.050          7
----- Critical Circle After the Current Mode of Search -----
X: 144.00     Y: 40.00     Radius: 60.000
```

Factor of safety: 2.071   Side force inclination: -4.172

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SITE 11

TABLE NO. 31

```
***************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
***************************************************

------ Output for Circles with a Given, Constant Radius ------
------ Radius: 60.00

                                1-Stage
Center Coordinates              Factor  Side Force
                                  of    Inclination
     X         Y       Radius   Safety   (degrees)   Iterations          Messages

    114.00     10.00     60.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8140
                                                                Left end of circle
became inverted.
                                                                A vertical crack was
added to prevent inversion.
                                                                UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    144.00     10.00     60.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8140
                                                                Left end of circle
became inverted.
                                                                A vertical crack was
added to prevent inversion.
                                                                UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    174.00     10.00     60.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8140
                                                                Left end of circle
became inverted.
                                                                A vertical crack was
added to prevent inversion.
                                                                UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    114.00     40.00     60.00   3.084     -2.786          7
    174.00     40.00     60.00   4.072     -3.412          8
    114.00     70.00     60.00   8.023     -3.180         14
    144.00     70.00     60.00 Center rejected as follows:      UTEXAS ERROR NUMBER
9270
                                                                Solution did not
converge in iteration limit of 100  iterations
```

Failed to converge during stage 1 computations

174.00 70.00 60.00 Center rejected as follows: UTEXAS NOTICE NUMBER 8060
Circle does not intersect the slope.

- - - - - - New 9-Point Grid (only new points calculated) - - - - - -

139.00 35.00 60.00 Center rejected as follows: UTEXAS WARNING NUMBER 8080
Circle passes below the limiting depth of: -20.000

144.00 35.00 60.00 Center rejected as follows: UTEXAS WARNING NUMBER 8080
Circle passes below the limiting depth of: -20.000

149.00 35.00 60.00 Center rejected as follows: UTEXAS WARNING NUMBER 8080
Circle passes below the limiting depth of: -20.000

139.00	40.00	60.00	2.102	-3.762	7
149.00	40.00	60.00	2.121	-4.462	7
139.00	45.00	60.00	1.604	-3.320	7
144.00	45.00	60.00	1.606	-3.870	7
149.00	45.00	60.00	1.692	-4.088	7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -					
134.00	40.00	60.00	2.191	-3.381	7
134.00	45.00	60.00	1.652	-2.834	7
134.00	50.00	60.00	1.672	-3.211	7
139.00	50.00	60.00	1.649	-3.868	7
144.00	50.00	60.00	1.696	-4.466	7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -					
136.00	42.00	60.00	2.051	-3.620	7
139.00	42.00	60.00	2.007	-3.893	7
142.00	42.00	60.00	1.984	-4.171	7
136.00	45.00	60.00	1.629	-3.001	7
142.00	45.00	60.00	1.595	-3.682	7
136.00	48.00	60.00	1.645	-3.250	7
139.00	48.00	60.00	1.627	-3.638	7
142.00	48.00	60.00	1.628	-4.053	7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -					
145.00	42.00	60.00	1.985	-4.443	7
145.00	45.00	60.00	1.617	-3.940	7
145.00	48.00	60.00	1.663	-4.323	7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -					
141.00	44.00	60.00	1.841	-4.086	7
142.00	44.00	60.00	1.837	-4.198	7
143.00	44.00	60.00	1.836	-4.299	7
141.00	45.00	60.00	1.595	-3.569	7
143.00	45.00	60.00	1.599	-3.780	7
141.00	46.00	60.00	1.602	-3.700	7
142.00	46.00	60.00	1.603	-3.817	7
143.00	46.00	60.00	1.608	-3.920	7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -					
140.00	44.00	60.00	1.848	-3.981	7
140.00	45.00	60.00	1.598	-3.445	7
140.00	46.00	60.00	1.606	-3.553	7

----- Critical Circle After the Current Mode of Search -----
X: 141.00 Y: 45.00 Radius: 60.000

Factor of safety: 1.595   Side force inclination: -3.569

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SITE 11

TABLE NO. 30

```
***************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
***************************************************
```

------ Output for Circles Tangent to a Given Horizontal Line ------
------ Tangent line elevation, Y: -15.00

Center Coordinates X	Y	Radius	1-Stage Factor of Safety	Side Force Inclination (degrees)	Iterations	Messages
111.00	15.00	30.00	3.770	-13.385	15	
141.00	15.00	30.00	2.252	-16.119	8	UTEXAS WARNING NUMBER 8140 Left end of circle became inverted. A vertical crack was added to prevent inversion.
171.00	15.00	30.00	7.010	-1.474	46	
111.00	45.00	60.00	2.505	-2.611	7	
171.00	45.00	60.00	3.305	-3.469	7	
111.00	75.00	90.00	2.566	-2.374	7	
141.00	75.00	90.00	1.718	-3.210	7	
171.00	75.00	90.00	2.459	-4.137	7	
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -						
136.00	40.00	55.00	1.621	-2.923	7	
141.00	40.00	55.00	1.603	-3.579	7	
146.00	40.00	55.00	1.666	-3.923	7	
136.00	45.00	60.00	1.629	-3.001	7	
146.00	45.00	60.00	1.631	-3.994	7	
136.00	50.00	65.00	1.641	-3.076	7	
141.00	50.00	65.00	1.607	-3.485	7	
146.00	50.00	65.00	1.621	-3.931	7	
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -						
138.00	42.00	57.00	1.608	-3.185	7	
141.00	42.00	57.00	1.596	-3.594	7	
144.00	42.00	57.00	1.617	-3.872	7	
138.00	45.00	60.00	1.612	-3.204	7	
144.00	45.00	60.00	1.606	-3.870	7	
138.00	48.00	63.00	1.616	-3.229	7	
141.00	48.00	63.00	1.601	-3.516	7	
144.00	48.00	63.00	1.605	-3.812	7	
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -						
140.00	44.00	59.00	1.598	-3.448	7	
141.00	44.00	59.00	1.594	-3.587	7	
142.00	44.00	59.00	1.595	-3.697	7	
140.00	45.00	60.00	1.598	-3.445	7	
142.00	45.00	60.00	1.595	-3.682	7	
140.00	46.00	61.00	1.599	-3.443	7	
141.00	46.00	61.00	1.597	-3.548	7	

```
    142.00     46.00     61.00   1.596     -3.661         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    140.00     43.00     58.00   1.597     -3.456         7
    141.00     43.00     58.00   1.594     -3.596         7
    142.00     43.00     58.00   1.596     -3.709         7
----- Critical Circle After the Current Mode of Search -----
X: 141.00     Y: 44.00     Radius: 59.000
Factor of safety: 1.594     Side force inclination: -3.587

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TABLE NO. 31
***************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
***************************************************

------ Output for Circles with a Given, Constant Radius ------
------ Radius: 59.00

                                1-Stage
Center Coordinates              Factor  Side Force
                                  of    Inclination
     X         Y       Radius   Safety   (degrees)   Iterations          Messages

    111.00     14.00     59.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8140
                                                                 Left end of circle
became inverted.
                                                                 A vertical crack was
added to prevent inversion.
                                                                 UTEXAS WARNING
NUMBER 8080
                                                                 Circle passes below
the limiting depth of: -20.000

    141.00     14.00     59.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8140
                                                                 Left end of circle
became inverted.
                                                                 A vertical crack was
added to prevent inversion.
                                                                 UTEXAS WARNING
NUMBER 8080
                                                                 Circle passes below
the limiting depth of: -20.000

    171.00     14.00     59.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8140
                                                                 Left end of circle
became inverted.
                                                                 A vertical crack was
added to prevent inversion.
                                                                 UTEXAS WARNING
NUMBER 8080
                                                                 Circle passes below
the limiting depth of: -20.000
```

```
    111.00     44.00     59.00   2.509     -2.613         7
    171.00     44.00     59.00   3.355     -3.431         7
    111.00     74.00     59.00  35.911     -2.849        69
    141.00     74.00     59.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

    171.00     74.00     59.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    136.00     39.00     59.00   2.147     -3.523         7
    141.00     39.00     59.00   2.082     -3.927         7
    146.00     39.00     59.00   2.082     -4.349         7
    136.00     44.00     59.00   1.627     -2.984         7
    146.00     44.00     59.00   1.636     -3.987         7
    136.00     49.00     59.00   1.653     -3.441         7
    141.00     49.00     59.00   1.658     -4.141         7
    146.00     49.00     59.00   1.744     -4.650         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    138.00     41.00     59.00   2.017     -3.803         7
    141.00     41.00     59.00   1.988     -4.096         7
    144.00     41.00     59.00   1.982     -4.391         7
    138.00     44.00     59.00   1.610     -3.195         7
    144.00     44.00     59.00   1.608     -3.877         7
    138.00     47.00     59.00   1.629     -3.501         7
    141.00     47.00     59.00   1.625     -3.931         7
    144.00     47.00     59.00   1.650     -4.254         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    140.00     43.00     59.00   1.846     -3.996         7
    141.00     43.00     59.00   1.839     -4.113         7
    142.00     43.00     59.00   1.836     -4.225         7
    140.00     44.00     59.00   1.598     -3.448         7
    142.00     44.00     59.00   1.595     -3.697         7
    140.00     45.00     59.00   1.605     -3.565         7
    141.00     45.00     59.00   1.602     -3.705         7
    142.00     45.00     59.00   1.603     -3.831         7
----- Critical Circle After the Current Mode of Search -----
X: 141.00     Y: 44.00     Radius: 59.000
Factor of safety: 1.594     Side force inclination: -3.587

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TABLE NO. 33
*********************************************
* 1-STAGE FINAL CRITICAL CIRCLE INFORMATION *
*********************************************
X Coordinate of Center . . . . . . . . . . . . . .  141.00
Y Coordinate of Center . . . . . . . . . . . . . .  44.00
Radius . . . . . . . . . . . . . . . . . . . . . .  59.00
Factor of Safety . . . . . . . . . . . . . . . . . 1.594
Side Force Inclination (degrees) . . . . . . . . . -3.59
Number of Circles Tried  . . . . . . . . . . . . .  160
Number of Circles F Calculated for . . . . . . . .  138
```

Time Required for Search (seconds) 2.5

TABLE NO. 34
****
* Summary of the 10 Circles with the Lowest Factors of Safety *
****

Center Coordinates X	Center Coordinates Y	Radius	Elevation of Bottom of Circle	Factor of Safety	Side Force Inclin.	X-Left	X-Right
141.00	44.00	59.00	-15.00	1.594	-3.59	89.52	185.27
141.00	43.00	58.00	-15.00	1.594	-3.60	90.02	184.84
141.00	45.00	60.00	-15.00	1.595	-3.57	89.03	185.72
142.00	44.00	59.00	-15.00	1.595	-3.70	90.36	186.27
142.00	45.00	60.00	-15.00	1.595	-3.68	89.87	186.72
141.00	42.00	57.00	-15.00	1.596	-3.59	90.53	184.42
142.00	43.00	58.00	-15.00	1.596	-3.71	90.87	185.82
142.00	46.00	61.00	-15.00	1.596	-3.66	89.39	187.17
141.00	46.00	61.00	-15.00	1.597	-3.55	88.46	186.17
140.00	43.00	58.00	-15.00	1.597	-3.46	89.17	183.94

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SITE 11

TABLE NO. 43
****
* Coordinate, Weight, Strength and Pore Water Pressure *
* Information for Individual Slices for Conventional *
* Computations or First Stage of Multi-Stage Computations. *
* (Information is for the critical shear surface in the *
* case of an automatic search.) *
****

Slice No.	X	Y	Slice Weight	Matl. No.	Cohesion	Friction Angle	Pore Pressure
	89.52	15.17					
1	89.57	15.09	1	10	300.0	0.00	0.0
	89.62	15.00					
2	90.41	13.68	285	10	300.0	0.00	82.7
	91.21	12.35					
3	91.99	11.18	759	10	300.0	0.00	238.7
	92.78	10.00					
4	93.70	8.76	1441	8	300.0	0.00	389.3
	94.63	7.52					
5	94.81	7.29	360	8	300.0	0.00	481.2
	95.00	7.05					
6	95.86	6.03	1896	8	300.0	0.00	559.9

	96.73	5.00					
7	97.78	3.87	2760	6	110.0	0.00	694.6
	98.83	2.74					
8	99.94	1.66	3401	6	110.0	0.00	832.3
	101.05	0.59					
9	101.37	0.29	1080	6	110.0	0.00	917.7
	101.69	0.00					
10	102.87	-1.00	4242	4	195.0	0.00	998.3
	104.05	-2.00					
11	105.28	-2.93	4899	4	195.0	0.00	1119.0
	106.51	-3.87					
12	107.32	-4.43	3491	4	195.0	0.00	1212.7
	108.14	-5.00					
13	109.07	-5.60	4180	2	275.0	0.00	1285.4
	110.00	-6.20					
14	111.33	-6.98	6164	2	275.0	0.00	1350.5
	112.67	-7.75					
15	114.04	-8.46	6451	2	275.0	0.00	1400.8
	115.42	-9.16					
16	116.83	-9.80	6691	2	275.0	0.00	1440.9
	118.23	-10.43					
17	119.67	-10.99	6881	2	275.0	0.00	1470.8
	121.11	-11.55					
18	122.58	-12.03	7018	2	275.0	0.00	1490.4
	124.05	-12.51					
19	124.52	-12.65	2271	2	275.0	0.00	1498.8
	125.00	-12.79					
20	126.50	-13.17	7131	2	275.0	0.00	1500.4
	127.99	-13.55					
21	129.51	-13.85	7173	2	275.0	0.00	1495.9
	131.02	-14.15					
22	132.55	-14.37	7157	2	275.0	0.00	1481.0
	134.08	-14.59					
23	135.62	-14.73	7084	2	275.0	0.00	1455.7
	137.16	-14.87					
24	137.58	-14.90	1917	2	275.0	0.00	1435.5
	138.00	-14.92					
25	139.50	-14.96	6713	2	275.0	0.00	1409.4
	141.00	-15.00					
26	142.54	-14.96	6712	2	275.0	0.00	1361.8
	144.09	-14.92					
27	145.63	-14.80	6458	2	275.0	0.00	1303.6
	147.17	-14.68					
28	147.95	-14.58	3175	2	275.0	0.00	1254.1
	148.73	-14.49					
29	149.36	-14.40	2525	3	335.0	0.00	1220.5
	150.00	-14.31					
30	151.52	-14.03	5899	3	335.0	0.00	1187.7
	153.04	-13.76					
31	154.54	-13.40	5679	3	335.0	0.00	1148.4
	156.05	-13.05					
32	157.53	-12.62	5410	3	335.0	0.00	1099.3
	159.01	-12.18					
33	160.47	-11.67	5095	3	335.0	0.00	1040.5
	161.93	-11.16					
34	163.36	-10.58	4738	3	335.0	0.00	972.1
	164.78	-9.99					
35	166.18	-9.33	4344	3	335.0	0.00	894.4
	167.58	-8.67					
36	168.79	-8.03	3508	3	335.0	0.00	812.9
	170.00	-7.38					
37	171.32	-6.59	3477	3	335.0	0.00	712.0
	172.65	-5.79					

38	173.26	-5.40	1444	3	335.0	0.00	621.6
	173.86	-5.00					
39	175.12	-4.11	2626	5	250.0	0.00	525.6
	176.38	-3.21					
40	177.59	-2.25	1997	5	250.0	0.00	389.5
	178.81	-1.30					
41	179.56	-0.65	957	5	250.0	0.00	272.9
	180.31	0.00					
42	181.43	1.06	993	7	150.0	0.00	150.8
	182.56	2.12					
43	183.08	2.65	273	7	150.0	0.00	37.7
	183.61	3.19					
44	184.30	3.94	161	7	150.0	0.00	0.0
	185.00	4.69					
45	185.14	4.85	4	7	150.0	0.00	0.0
	185.27	5.00					

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SITE 11

TABLE NO. 44

```
*********************************************************
* Seismic Forces and Forces Due to Distributed Loads for *
* Individual Slices for Conventional Computations or the *
* First Stage of Multi-Stage Computations.               *
* (Information is for the critical shear surface in the  *
* case of an automatic search.)                          *
*********************************************************
```

There are no seismic forces or forces due to distributed loads
for the current shear surface

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TABLE NO. 47

```
*************************************************************
*  Information for the Iterative Solution for the Factor of  *
*  Safety and Side Force Inclination by Spencer's Procedure  *
*************************************************************
```

Allowable force imbalance for convergence: 2
Allowable moment imbalance for convergence: 224

```
        Trial     Trial
       Factor   Side Force     Force       Moment                   Delta
Iter-    of    Inclination   Imbalance   Imbalance    Delta-F       Theta
ation  Safety   (degrees)      (lbs.)    (ft.-lbs.)              (degrees)

   1   3.00000   -17.1887  -9.073e+002  -4.444e+005
First-order corrections to F and Theta ............   -2.7781    13.4720
Reduced values - Deltas were too large ............   -0.5000     2.4246

   2   2.50000   -14.7641  -3.130e+002  -3.778e+005
```

```
First-order corrections to F and Theta ............   -1.4471    10.8565
Reduced values - Deltas were too large ............   -0.3819     2.8648

   3   2.11814   -11.8993   1.971e+002  -2.890e+005
First-order corrections to F and Theta ............   -0.6875     7.9507
Reduced values - Deltas were too large ............   -0.2477     2.8648

   4   1.87041    -9.0345   4.132e+002  -1.912e+005
First-order corrections to F and Theta ............   -0.3145     5.2090
Reduced values - Deltas were too large ............   -0.1730     2.8648

   5   1.69745    -6.1697   3.851e+002  -9.034e+004
First-order corrections to F and Theta ............   -0.1064     2.4996
Second-order corrections to F and Theta ...........   -0.1046     2.6020

   6   1.59286    -3.5677   2.986e+000   6.471e+002
First-order corrections to F and Theta ............    0.0012    -0.0196
Second-order corrections to F and Theta ...........    0.0012    -0.0196

   7   1.59402    -3.5873  -8.667e-006  -5.525e-004
First-order corrections to F and Theta ............   -0.0000     0.0000
```

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SITE 11

TABLE NO. 55

```
*********************************************************************
* Check of Computations by Spencer's Procedure (Results are for the *
* critical shear surface in the case of an automatic search.)       *
*********************************************************************
```

Summation of Horizontal Forces: 3.07416e-011

Summation of Vertical Forces: 1.43303e-011

Summation of Moments: 1.29148e-010

Mohr Coulomb Shear Force/Shear Strength Check Summation: 3.87956e-012

***** CAUTION ***** Effective Or Total Normal Stress on Shear Surface is Negative at Points Along the UPPER One-Half of the Shear Surface - A Tension Crack may Be Needed.

***** CAUTION ***** Forces Between Slices are NEGATIVE at Points Along the UPPER one-half of the Shear Surface - A Tension Crack may Be Needed

***** CAUTION ***** Some of the Forces Between Slices Act at Points Above the Surface of the Slope or Below the Shear Surface - Either a Tension Crack may be Needed or the SOLUTION MAY NOT BE A VALID SOLUTION

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Name of input data file: C:\UTEXAS4\HG-06-17340 Calcasieu Ship Channel_All Sites (09-05-07)\xofrbrd.txt

SITE 11

TABLE NO. 58

```
**************************************************************************
* Final Results for Stresses Along the Shear Surface                     *
* (Results are for the critical shear surface in the case of a search.) *
**************************************************************************
```

SPENCER'S PROCEDURE USED TO COMPUTE THE FACTOR OF SAFETY
Factor of Safety: 1.594   Side Force Inclination: -3.59

-------- VALUES AT CENTER OF BASE OF SLICE --------

Slice No.	X-Center	Y-Center	Total Normal Stress	Effective Normal Stress	Shear Stress
1	89.57	15.09	-281.3	-281.3	188.2
2	90.41	13.68	-111.0	-193.6	188.2
3	91.99	11.18	194.9	-43.8	188.2
4	93.70	8.76	498.0	108.7	188.2
5	94.81	7.29	685.9	204.7	188.2
6	95.86	6.03	824.0	264.1	188.2
7	97.78	3.87	1164.6	469.9	69.0
8	99.94	1.66	1387.0	554.6	69.0
9	101.37	0.29	1525.7	608.0	69.0
10	102.87	-1.00	1617.9	619.6	122.3
11	105.28	-2.93	1820.9	701.9	122.3
12	107.32	-4.43	1979.7	767.0	122.3
13	109.07	-5.60	2059.8	774.4	172.5
14	111.33	-6.98	2141.2	790.7	172.5
15	114.04	-8.46	2199.3	798.5	172.5
16	116.83	-9.80	2244.9	804.0	172.5
17	119.67	-10.99	2277.9	807.1	172.5
18	122.58	-12.03	2298.4	808.0	172.5
19	124.52	-12.65	2306.3	807.5	172.5
20	126.50	-13.17	2312.0	811.6	172.5
21	129.51	-13.85	2315.2	819.3	172.5
22	132.55	-14.37	2306.1	825.1	172.5
23	135.62	-14.73	2284.7	829.0	172.5
24	137.58	-14.90	2266.1	830.6	172.5
25	139.50	-14.96	2240.6	831.2	172.5
26	142.54	-14.96	2192.6	830.8	172.5
27	145.63	-14.80	2132.2	828.6	172.5
28	147.95	-14.58	2079.9	825.8	172.5
29	149.36	-14.40	2048.4	827.9	210.2
30	151.52	-14.03	2015.0	827.2	210.2
31	154.54	-13.40	1981.2	832.8	210.2
32	157.53	-12.62	1934.5	835.2	210.2
33	160.47	-11.67	1875.0	834.6	210.2
34	163.36	-10.58	1803.0	830.9	210.2
35	166.18	-9.33	1718.7	824.2	210.2
36	168.79	-8.03	1628.2	815.3	210.2
37	171.32	-6.59	1508.3	796.3	210.2
38	173.26	-5.40	1396.7	775.0	210.2
39	175.12	-4.11	1217.6	691.9	156.8
40	177.59	-2.25	1008.1	618.6	156.8
41	179.56	-0.65	827.5	554.5	156.8
42	181.43	1.06	569.9	419.0	94.1
43	183.08	2.65	386.8	349.1	94.1
44	184.30	3.94	239.1	239.1	94.1
45	185.14	4.85	137.0	137.0	94.1

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SITE 11

TABLE NO. 59

```
**************************************************************************
* Final Results for Side Forces and Stresses Between Slices              *
* (Results are for the critical shear surface in the case of a search.) *
**************************************************************************
```

--------------- VALUES AT RIGHT SIDE OF SLICE ---------------

Slice No.	X-Right	Side Force	Y-Coord. of Side Force Location	Fraction of Height	Sigma at Top	Sigma at Bottom
1	89.62	-67	15.08	0.406	-142.6	-509.4
2	91.21	-661	13.76	0.418	-98.5	-291.5
3	92.78	-499	14.49	0.717	-183.3	24.1
4	94.63	388	1.41	Below	-245.4	328.3
5	95.00	640	3.71	Below	-258.3	386.8
6	96.73	2010	5.22	0.018	-316.3	650.7
7	98.83	4506	4.37	0.115	-413.4	1044.0
8	101.05	7341	3.21	0.160	-463.9	1356.7
9	101.69	8193	2.87	0.169	-474.3	1436.3
10	104.05	11141	1.72	0.196	-483.5	1654.1
11	106.51	14253	0.57	0.213	-494.2	1857.5
12	108.14	16299	-0.16	0.220	-502.1	1981.0
13	110.00	18453	-0.90	0.228	-500.0	2087.7
14	112.67	21325	-1.88	0.244	-473.6	2240.8
15	115.42	23961	-2.76	0.258	-435.5	2363.2
16	118.23	26321	-3.56	0.271	-389.1	2459.8
17	121.11	28373	-4.27	0.282	-336.6	2534.3
18	124.05	30087	-4.89	0.293	-279.5	2589.3
19	125.00	30561	-5.07	0.296	-260.4	2603.1
20	127.99	31803	-5.57	0.306	-198.9	2635.9
21	131.02	32676	-5.98	0.315	-135.3	2654.1
22	134.08	33170	-6.30	0.324	-69.5	2658.6
23	137.16	33283	-6.52	0.333	-1.9	2650.3
24	138.00	33248	-6.56	0.335	16.9	2645.9
25	141.00	32901	-6.66	0.344	84.8	2623.4
26	144.09	32190	-6.68	0.352	156.4	2589.8
27	147.17	31140	-6.60	0.361	229.5	2547.2
28	148.73	30484	-6.53	0.365	267.3	2522.8
29	150.00	29843	-6.44	0.369	302.9	2492.5
30	153.04	28090	-6.16	0.366	265.4	2435.7
31	156.05	26049	-5.79	0.362	224.6	2368.9
32	159.01	23747	-5.32	0.358	181.1	2289.8
33	161.93	21218	-4.76	0.353	135.9	2195.8
34	164.78	18501	-4.09	0.347	90.1	2083.0
35	167.58	15641	-3.33	0.341	46.7	1945.2
36	170.00	13021	-2.55	0.336	14.7	1792.6
37	172.65	10063	-1.55	0.341	36.8	1577.9
38	173.86	8698	-1.03	0.346	55.8	1455.9
39	176.38	6122	0.07	0.351	69.0	1236.2
40	178.81	3805	1.29	0.363	96.0	970.4
41	180.31	2495	2.19	0.390	149.4	735.7
42	182.56	1074	3.46	0.418	169.0	498.9
43	183.61	560	4.10	0.457	207.0	352.3
44	185.00	68	4.86	0.528	257.2	183.7

```
                                                  xofrbrd
  45      185.27           -0          5.00     0.000          0.0         0.0

Read end-of-file on input while looking for another command word.
End of input data assumed - normal termination.
```

TABLE NO. 1
COMPUTER PROGRAM DESIGNATION: UTEXAS4
Originally Coded By Stephen G. Wright
Version No. 4.0.2.0 - Last Revision Date: 1/29/2005


```
*******************************************************************
* RESULTS OF COMPUTATIONS PERFORMED USING THIS SOFTWARE           *
* SHOULD NOT BE USED FOR DESIGN PURPOSES UNLESS THEY HAVE         *
* BEEN VERIFIED BY INDEPENDENT ANALYSES, EXPERIMENTAL DATA        *
* OR FIELD EXPERIENCE. THE USER SHOULD UNDERSTAND THE ALGORITHMS *
* AND ANALYTICAL PROCEDURES USED IN THIS SOFTWARE AND MUST HAVE  *
* READ ALL DOCUMENTATION FOR THIS SOFTWARE BEFORE ATTEMPTING      *
* TO USE IT.  NEITHER SHINOAK SOFTWARE NOR STEPHEN G. WRIGHT      *
* MAKE OR ASSUME LIABILITY FOR ANY WARRANTIES, EXPRESSED OR       *
* IMPLIED, CONCERNING THE ACCURACY, RELIABILITY, USEFULNESS       *
* OR ADAPTABILITY OF THIS SOFTWARE.                               *
*******************************************************************
```

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Time and date of run: Wed Sep 05 16:22:58 2007
Name of input data file: C:\UTEXAS4\HG-06-17340 Calcasieu Ship Channel_All Sites (09-05-07)\xofull.txt

SITE 11
SHORT TERM STABILITY CALCULATIONS

TABLE NO. 3

```
*************************
* NEW PROFILE LINE DATA *
*************************

----------------------------------------------------------
----- Profile Line No. 1 - Material Type (Number): 1 -----
----------------------------------------------------------
```

Description: SOIL 1

Point	X	Y
1	0.00	-15.00
2	150.00	-15.00
3	300.00	-15.00

```
----------------------------------------------------------
----- Profile Line No. 2 - Material Type (Number): 2 -----
----------------------------------------------------------
```

Description: SOIL 2

Point	X	Y
1	0.00	-5.00
2	125.00	-5.00
3	150.00	-15.00

```
----------------------------------------------------------
----- Profile Line No. 3 - Material Type (Number): 3 -----
----------------------------------------------------------
```

Description: SOIL 3

Point	X	Y
1	125.00	-5.00
2	150.00	-5.00

3	300.00	-5.00

----- Profile Line No. 4 - Material Type (Number): 4 -----

Description: SOIL 4

Point	X	Y
1	0.00	0.00
2	125.00	0.00
3	150.00	-5.00

----- Profile Line No. 5 - Material Type (Number): 5 -----

Description: SOIL 5

Point	X	Y
1	125.00	0.00
2	150.00	0.00
3	300.00	0.00

----- Profile Line No. 6 - Material Type (Number): 6 -----

Description: SOIL 6

Point	X	Y
1	0.00	5.00
2	125.00	5.00
3	150.00	0.00

----- Profile Line No. 7 - Material Type (Number): 7 -----

Description: SOIL 7

Point	X	Y
1	125.00	5.00
2	150.00	5.00
3	185.00	5.00
4	300.00	5.00

----- Profile Line No. 8 - Material Type (Number): 8 -----

Description: SOIL 8

Point	X	Y
1	0.00	10.00
2	74.00	10.00
3	125.00	10.00
4	150.00	5.00

----- Profile Line No. 9 - Material Type (Number): 9 -----

Description: SOIL 9

```
Point        X           Y

   1      125.00       10.00
   2      138.00       10.00
   3      150.00        7.00
   4      170.00        7.00
   5      185.00        5.00

----------------------------------------------------------------
----- Profile Line No. 10 - Material Type (Number): 10 -----
----------------------------------------------------------------
Description: SOIL 10

Point        X           Y

   1       74.00       10.00
   2       89.00       15.00
   3       95.00       17.00
   4      110.00       17.00
   5      138.00       10.00

----------------------------------------------------------------
----- Profile Line No. 11 - Material Type (Number): 11 -----
----------------------------------------------------------------
Description: SOIL 11

Point        X           Y

   1        0.00       17.00
   2       95.00       17.00

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SITE 11

TABLE NO. 4
**********************************************************************
* NEW MATERIAL PROPERTY DATA - CONVENTIONAL/FIRST-STAGE COMPUTATIONS *
**********************************************************************

-------------------------------------------------------------------
------------------- DATA FOR MATERIAL NUMBER 1 -------------------
-------------------------------------------------------------------
Description: SOIL 1 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 500.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-------------------------------------------------------------------
------------------- DATA FOR MATERIAL NUMBER 2 -------------------
-------------------------------------------------------------------
```

Description: SOIL 2- FOUNDATION LAYER (CH)

Unit weight of soil (material): 72.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - - 275.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

------------------ DATA FOR MATERIAL NUMBER 3 ------------------
----
Description: SOIL 3 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 82.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - - 335.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

------------------ DATA FOR MATERIAL NUMBER 4 ------------------
----
Description: SOIL 4 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - - 195.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

------------------ DATA FOR MATERIAL NUMBER 5 ------------------
----
Description: SOIL 5 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - - 250.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

------------------ DATA FOR MATERIAL NUMBER 6 ------------------
----
Description: SOIL 6 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

```
CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 110.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 7 ------------------
------------------------------------------------------------------
Description: SOIL 7 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 150.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 8 ------------------
------------------------------------------------------------------
Description: SOIL 8 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 300.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 9 ------------------
------------------------------------------------------------------
Description: SOIL 9 - FOUNDATION LAYER (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 300.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-------------------------------------------------------------------
------------------ DATA FOR MATERIAL NUMBER 10 ------------------
-------------------------------------------------------------------
Description: SOIL 10 - LEVEE (CH)

Unit weight of soil (material): 100.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 300.0
```

```
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

-------------------------------------------------------------------
------------------- DATA FOR MATERIAL NUMBER 11 -------------------
-------------------------------------------------------------------
Description: SOIL 11 - DREDGE (CH)

Unit weight of soil (material): 80.0

CONVENTIONAL (ISOTROPIC) SHEAR STRENGTHS
Cohesion - - - - - - - - 0.0
Friction angle - - - - - 0.00 (degrees)

Pore water pressures are defined by a piezometric line.
Piezometric line number: 1
Negative pore water pressures are NOT allowed - set to zero.

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SITE 11

TABLE NO. 6
*********************************************************************
* NEW PIEZOMETRIC LINE DATA - CONVENTIONAL/FIRST-STAGE COMPUTATIONS *
*********************************************************************

---------------------------------------------------------
--------------- Piezometric Line Number 1 ---------------
---------------------------------------------------------
Description: PIEZOMETRIC LINE
Unit weight of fluid (water): 62.4

Point        X           Y

  1        0.00       17.00
  2       95.00       17.00
  3      150.00        5.00
  4      170.00        5.00
  5      185.00        3.00
  6      300.00        3.00

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SITE 11

TABLE NO. 10
***************************
* NEW SLOPE GEOMETRY DATA *
***************************

     Point       X           Y
```

```
        1        0.00       17.00
        2       95.00       17.00
        3      110.00       17.00
        4      138.00       10.00
        5      150.00        7.00
        6      170.00        7.00
        7      185.00        5.00
        8      300.00        5.00
```

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SITE 11

TABLE NO. 16
```
*********************************
* NEW ANALYSIS/COMPUTATION DATA *
*********************************
```

Starting Center Coordinate for Search at -
X: 80.00
Y: 35.00

Required accuracy for critical center
(= minimum spacing between grid points): 1.000

Critical shear surface not allowed to pass below Y: -20.00
For the initial mode of search circles are tangent to horizontal line at -
Y: -20.00
Radius: 55.00

Will save the following number of shear surfaces with the lowest factors of safety:10

The following represent default values or values that were prevously defined:
Subtended angle for slice subdivision: 3.00(degrees)
There is no crack.
There is no water in a crack.
Conventional (single-stage) computations will be performed.
Seismic coefficient: 0.000
Unit weight of water (or other fluid) in crack: 62.4
Automatic search output will be in long form.
Search will be continued after the initial mode to find a most critical circle.
Maximum number of trial grids for a given search mode: 50
No restrictions exist on the lateral extent of the search.
Neither slope face was explicitly designated for analysis.
Standard sign convention used for direction of shear stress on shear surface.
Procedure of Analysis: Spencer

Iteration limit: 100
Force imbalance: 1.000000e-005 (fraction of total weight)
Moment imbalance: 1.000000e-005 (fraction of moment due to total weight)
Minimum weight required for computations to be performed: 100
Initial trial factor of safety: 3.000
Initial trial side force inclination: 17.189 (degrees)
Minimum (most negative) side force inclination allowed in Spencer's procedure: -10.00

```
********** ERROR(S) OR WARNING(S) IN MATERIAL PROPERTY DATA **********
UTEXAS WARNING NUMBER 3620
Both cohesion and friction angle are zero for material 11
This is a WARNING ONLY - not a fatal error

Search will be conducted for RIGHT face of slope

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SITE 11

TABLE NO. 30
***************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
***************************************************

------ Output for Circles Tangent to a Given Horizontal Line ------
------ Tangent line elevation, Y: -20.00

                                1-Stage
Center Coordinates              Factor  Side Force
                                  of    Inclination
     X         Y       Radius   Safety   (degrees)   Iterations          Messages

     50.00      5.00     25.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

     80.00      5.00     25.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

    110.00      5.00     25.00 Center rejected as follows:      UTEXAS ERROR NUMBER
8050
                                                                Center of circle is
below the toe (lowest point) of the slope

     50.00     35.00     55.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

     80.00     35.00     55.00  34.338     -1.223        89
    110.00     35.00     55.00   2.741     -3.532         7
     50.00     65.00     85.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

     80.00     65.00     85.00   6.979     -2.189        10
    110.00     65.00     85.00   2.656     -3.308         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    140.00     35.00     55.00   2.041     -4.258         7
    140.00     65.00     85.00   2.005     -4.197         7
     80.00     95.00    115.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
```

intersect the slope.

```
    110.00     95.00    115.00   2.687     -3.270         7
    140.00     95.00    115.00   2.171     -3.699         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    170.00     35.00     55.00   3.746     -3.559         8
    170.00     65.00     85.00   2.683     -4.298         7
    170.00     95.00    115.00   2.522     -4.037         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    135.00     60.00     80.00   2.014     -4.144         7
    140.00     60.00     80.00   1.990     -4.259         7
    145.00     60.00     80.00   2.005     -4.335         7
    135.00     65.00     85.00   2.038     -4.062         7
    145.00     65.00     85.00   2.016     -4.263         7
    135.00     70.00     90.00   2.063     -3.982         7
    140.00     70.00     90.00   2.027     -4.114         7
    145.00     70.00     90.00   2.031     -4.192         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    135.00     55.00     75.00   1.997     -4.209         7
    140.00     55.00     75.00   1.980     -4.317         7
    145.00     55.00     75.00   2.000     -4.400         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    135.00     50.00     70.00   1.991     -4.232         7
    140.00     50.00     70.00   1.977     -4.361         7
    145.00     50.00     70.00   2.002     -4.452         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    135.00     45.00     65.00   1.995     -4.222         7
    140.00     45.00     65.00   1.982     -4.383         7
    145.00     45.00     65.00   2.015     -4.480         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    137.00     47.00     67.00   1.982     -4.296         7
    140.00     47.00     67.00   1.979     -4.377         7
    143.00     47.00     67.00   1.991     -4.441         7
    137.00     50.00     70.00   1.981     -4.289         7
    143.00     50.00     70.00   1.987     -4.420         7
    137.00     53.00     73.00   1.983     -4.271         7
    140.00     53.00     73.00   1.978     -4.336         7
    143.00     53.00     73.00   1.986     -4.390         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    139.00     49.00     69.00   1.976     -4.342         7
    140.00     49.00     69.00   1.977     -4.368         7
    141.00     49.00     69.00   1.979     -4.390         7
    139.00     50.00     70.00   1.976     -4.337         7
    141.00     50.00     70.00   1.978     -4.383         7
    139.00     51.00     71.00   1.977     -4.331         7
    140.00     51.00     71.00   1.977     -4.353         7
    141.00     51.00     71.00   1.978     -4.374         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    138.00     49.00     69.00   1.978     -4.321         7
    138.00     50.00     70.00   1.978     -4.316         7
    138.00     51.00     71.00   1.978     -4.309         7
----- Critical Circle After the Current Mode of Search -----
X: 139.00     Y: 50.00     Radius: 70.000
Factor of safety: 1.976     Side force inclination: -4.337
```

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TABLE NO. 31

```
**************************************************
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
**************************************************

------ Output for Circles with a Given, Constant Radius ------
------ Radius: 70.00

                                1-Stage
Center Coordinates              Factor  Side Force
                                 of     Inclination
     X         Y       Radius   Safety   (degrees)   Iterations          Messages

    109.00     20.00     70.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    139.00     20.00     70.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    169.00     20.00     70.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    109.00     50.00     70.00   2.692     -3.449          7
    169.00     50.00     70.00   2.895     -4.279          7
    109.00     80.00     70.00   8.641     -3.820         14
    139.00     80.00     70.00  10.107    -10.251         18
    169.00     80.00     70.00 Center rejected as follows:      UTEXAS NOTICE NUMBER
8060
                                                                Circle does not
intersect the slope.

- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    134.00     45.00     70.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    139.00     45.00     70.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    144.00     45.00     70.00 Center rejected as follows:      UTEXAS WARNING
NUMBER 8080
                                                                Circle passes below
the limiting depth of: -20.000

    134.00     50.00     70.00   1.999     -4.200          7
    144.00     50.00     70.00   1.994     -4.438          7
    134.00     55.00     70.00   1.528     -3.750          7
    139.00     55.00     70.00   1.526     -3.959          7
    144.00     55.00     70.00   1.564     -4.082          7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    134.00     60.00     70.00   1.587     -4.049          7
    139.00     60.00     70.00   1.601     -4.355          7
    144.00     60.00     70.00   1.656     -4.639          7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
```

136.00	52.00	70.00	1.905	-4.375	7
139.00	52.00	70.00	1.898	-4.464	7
142.00	52.00	70.00	1.906	-4.536	7
136.00	55.00	70.00	1.520	-3.859	7
142.00	55.00	70.00	1.544	-4.038	7
136.00	58.00	70.00	1.559	-4.045	7
139.00	58.00	70.00	1.563	-4.228	7
142.00	58.00	70.00	1.586	-4.349	7

- - - - - - New 9-Point Grid (only new points calculated) - - - - - -

133.00	52.00	70.00	1.926	-4.259	7
133.00	55.00	70.00	1.533	-3.701	7
133.00	58.00	70.00	1.564	-3.882	7

- - - - - - New 9-Point Grid (only new points calculated) - - - - - -

135.00	54.00	70.00	1.767	-4.296	7
136.00	54.00	70.00	1.765	-4.341	7
137.00	54.00	70.00	1.764	-4.377	7
135.00	55.00	70.00	1.524	-3.805	7
137.00	55.00	70.00	1.521	-3.896	7
135.00	56.00	70.00	1.535	-3.865	7
136.00	56.00	70.00	1.532	-3.922	7
137.00	56.00	70.00	1.531	-3.982	7

----- Critical Circle After the Current Mode of Search -----
X: 136.00   Y: 55.00   Radius: 70.000
Factor of safety: 1.520   Side force inclination: -3.859

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TABLE NO. 30
****
* OUTPUT FOR TYPE 1 AUTOMATIC SEARCH WITH CIRCLES *
****

------ Output for Circles Tangent to a Given Horizontal Line ------
------ Tangent line elevation, Y: -15.00

Center Coordinates X	Y	Radius	1-Stage Factor of Safety	Side Force Inclination (degrees)	Iterations	Messages
106.00	25.00	40.00	2.951	-2.478	9	
136.00	25.00	40.00	1.711	-1.774	8	
166.00	25.00	40.00	3.926	-3.007	9	
106.00	55.00	70.00	2.165	-3.242	7	
166.00	55.00	70.00	2.417	-4.269	7	
106.00	85.00	100.00	2.176	-2.934	7	
136.00	85.00	100.00	1.606	-3.644	7	
166.00	85.00	100.00	2.080	-4.030	7	

- - - - - - New 9-Point Grid (only new points calculated) - - - - - -

131.00	50.00	65.00	1.544	-3.530	7
136.00	50.00	65.00	1.526	-3.777	7
141.00	50.00	65.00	1.542	-3.996	7
131.00	55.00	70.00	1.545	-3.608	7
141.00	55.00	70.00	1.537	-4.014	7
131.00	60.00	75.00	1.548	-3.668	7
136.00	60.00	75.00	1.524	-3.875	7
141.00	60.00	75.00	1.538	-4.001	7

```
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    133.00     52.00     67.00   1.533     -3.654         7
    136.00     52.00     67.00   1.523     -3.813         7
    139.00     52.00     67.00   1.527     -3.948         7
    133.00     55.00     70.00   1.533     -3.701         7
    139.00     55.00     70.00   1.526     -3.959         7
    133.00     58.00     73.00   1.533     -3.739         7
    136.00     58.00     73.00   1.522     -3.874         7
    139.00     58.00     73.00   1.527     -3.963         7
- - - - - - New 9-Point Grid (only new points calculated) - - - - - -
    135.00     54.00     69.00   1.524     -3.791         7
    136.00     54.00     69.00   1.521     -3.844         7
    137.00     54.00     69.00   1.521     -3.891         7
    135.00     55.00     70.00   1.524     -3.805         7
    137.00     55.00     70.00   1.521     -3.896         7
    135.00     56.00     71.00   1.523     -3.818         7
    136.00     56.00     71.00   1.521     -3.866         7
    137.00     56.00     71.00   1.521     -3.899         7
----- Critical Circle After the Current Mode of Search -----
X: 136.00     Y: 55.00     Radius: 70.000
Factor of safety: 1.520     Side force inclination: -3.859
```

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TABLE NO. 33

```
*********************************************
* 1-STAGE FINAL CRITICAL CIRCLE INFORMATION *
*********************************************
X Coordinate of Center . . . . . . . . . . . . . .  136.00
Y Coordinate of Center . . . . . . . . . . . . . .  55.00
Radius . . . . . . . . . . . . . . . . . . . . . .  70.00
Factor of Safety . . . . . . . . . . . . . . . . . 1.520
Side Force Inclination (degrees) . . . . . . . . . -3.86
Number of Circles Tried  . . . . . . . . . . . . .  123
Number of Circles F Calculated for . . . . . . . .  110
Time Required for Search (seconds) . . . . . . . .  1.6
```

TABLE NO. 34

```
***************************************************************
* Summary of the 10 Circles with the Lowest Factors of Safety *
***************************************************************
```

Center Coordinates X	Y	Radius	Elevation of Bottom of Circle	Factor of Safety	Side Force Inclin.	X-Left	X-Right
136.00	55.00	70.00	-15.00	1.520	-3.86	77.21	184.99
137.00	54.00	69.00	-15.00	1.521	-3.89	78.76	185.58
136.00	56.00	71.00	-15.00	1.521	-3.87	76.67	185.40
137.00	55.00	70.00	-15.00	1.521	-3.90	78.21	185.99
137.00	56.00	71.00	-15.00	1.521	-3.90	77.67	186.40
136.00	54.00	69.00	-15.00	1.521	-3.84	77.76	

```
184.63
     136.00      58.00       73.00      -15.00    1.522    -3.87         75.60
186.20
     135.00      56.00       71.00      -15.00    1.523    -3.82         75.67
184.47
     136.00      52.00       67.00      -15.00    1.523    -3.81         78.87
183.89
     135.00      55.00       70.00      -15.00    1.524    -3.81         76.21
184.11
```

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TABLE NO. 43

```
************************************************************
* Coordinate, Weight, Strength and Pore Water Pressure     *
* Information for Individual Slices for Conventional       *
* Computations or First Stage of Multi-Stage Computations. *
* (Information is for the critical shear surface in the    *
* case of an automatic search.)                            *
************************************************************
```

Slice No.	X	Y	Slice Weight	Matl. No.	Cohesion	Friction Angle	Pore Pressure
	77.21	17.00					
1	78.25	15.49	250	11	0.0	0.00	94.4
	79.28	13.98					
2	79.94	13.09	415	11	0.0	0.00	244.1
	80.61	12.20					
3	81.49	11.10	887	10	300.0	0.00	368.1
	82.38	10.00					
4	83.60	8.63	1849	8	300.0	0.00	522.4
	84.81	7.26					
5	85.91	6.13	2259	8	300.0	0.00	678.4
	87.01	5.00					
6	88.01	4.06	2481	6	110.0	0.00	807.3
	89.00	3.13					
7	90.39	1.93	4103	6	110.0	0.00	940.3
	91.78	0.74					
8	92.24	0.37	1512	6	110.0	0.00	1037.8
	92.70	0.00					
9	93.85	-0.87	4094	4	195.0	0.00	1115.0
	95.00	-1.74					
10	96.51	-2.77	5982	4	195.0	0.00	1213.1
	98.03	-3.80					
11	98.99	-4.40	4107	4	195.0	0.00	1281.2
	99.94	-5.00					
12	101.54	-5.90	7224	2	275.0	0.00	1340.1
	103.13	-6.80					
13	104.77	-7.62	7834	2	275.0	0.00	1403.4
	106.41	-8.44					
14	108.09	-9.17	8403	2	275.0	0.00	1454.8
	109.77	-9.90					
15	109.89	-9.95	577	2	275.0	0.00	1478.8
	110.00	-9.99					
16	111.72	-10.63	8807	2	275.0	0.00	1496.4
	113.44	-11.26					
17	115.19	-11.81	8959	2	275.0	0.00	1522.9

	116.94	-12.35					
18	118.71	-12.81	9035	2	275.0	0.00	1537.1
	120.49	-13.26					
19	122.28	-13.62	9033	2	275.0	0.00	1539.1
	124.08	-13.98					
20	124.54	-14.05	2287	2	275.0	0.00	1535.6
	125.00	-14.13					
21	126.82	-14.37	8943	2	275.0	0.00	1524.4
	128.63	-14.61					
22	130.46	-14.76	8815	2	275.0	0.00	1498.8
	132.29	-14.90					
23	134.12	-14.95	8609	2	275.0	0.00	1461.1
	135.95	-15.00					
24	135.97	-15.00	116	2	275.0	0.00	1438.9
	136.00	-15.00					
25	137.00	-14.99	4584	2	275.0	0.00	1424.1
	138.00	-14.97					
26	139.83	-14.87	8139	2	275.0	0.00	1378.4
	141.66	-14.77					
27	143.48	-14.57	7748	2	275.0	0.00	1310.2
	145.30	-14.38					
28	146.44	-14.21	4652	2	275.0	0.00	1246.9
	147.59	-14.03					
29	148.79	-13.81	4713	3	335.0	0.00	1190.2
	150.00	-13.59					
30	151.79	-13.17	6677	3	335.0	0.00	1134.0
	153.57	-12.76					
31	155.33	-12.25	6321	3	335.0	0.00	1076.6
	157.09	-11.75					
32	158.82	-11.15	5904	3	335.0	0.00	1007.7
	160.56	-10.55					
33	162.26	-9.86	5431	3	335.0	0.00	927.5
	163.95	-9.18					
34	165.61	-8.40	4910	3	335.0	0.00	836.2
	167.27	-7.63					
35	168.64	-6.91	3697	3	335.0	0.00	743.0
	170.00	-6.19					
36	171.03	-5.59	2539	3	335.0	0.00	652.5
	172.06	-5.00					
37	173.60	-4.02	3256	5	250.0	0.00	532.6
	175.15	-3.03					
38	176.64	-1.97	2411	5	250.0	0.00	379.5
	178.13	-0.90					
39	178.72	-0.45	737	5	250.0	0.00	267.6
	179.30	0.00					
40	180.71	1.17	1241	7	150.0	0.00	149.8
	182.12	2.34					
41	182.63	2.80	256	7	150.0	0.00	32.5
	183.14	3.25					
42	184.06	4.12	186	7	150.0	0.00	0.0
	184.99	5.00					
43	184.99	5.00	0	9	300.0	0.00	0.0
	184.99	5.00					

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TABLE NO. 44

```
**********************************************************
* Seismic Forces and Forces Due to Distributed Loads for *
* Individual Slices for Conventional Computations or the *
* First Stage of Multi-Stage Computations.               *
* (Information is for the critical shear surface in the  *
* case of an automatic search.)                          *
**********************************************************
```

There are no seismic forces or forces due to distributed loads
for the current shear surface

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TABLE NO. 47

```
**************************************************************
*  Information for the Iterative Solution for the Factor of  *
*  Safety and Side Force Inclination by Spencer's Procedure  *
**************************************************************
```

Allowable force imbalance for convergence: 2
Allowable moment imbalance for convergence: 244

```
        Trial     Trial
       Factor   Side Force     Force       Moment                    Delta
Iter-    of    Inclination   Imbalance   Imbalance    Delta-F       Theta
ation  Safety   (degrees)      (lbs.)    (ft.-lbs.)               (degrees)

   1   3.00000   -17.1887  -2.885e+003  -4.404e+005
First-order corrections to F and Theta ............   -3.2782    15.2052
Reduced values - Deltas were too large ............   -0.5000     2.3192

   2   2.50000   -14.8696  -2.030e+003  -3.837e+005
First-order corrections to F and Theta ............   -1.7546    12.0927
Reduced values - Deltas were too large ............   -0.4157     2.8648

   3   2.08434   -12.0048  -1.061e+003  -3.013e+005
First-order corrections to F and Theta ............   -0.8113     8.5471
Reduced values - Deltas were too large ............   -0.2719     2.8648

   4   1.81240    -9.1400  -3.618e+002  -2.038e+005
First-order corrections to F and Theta ............   -0.3544     5.3629
Reduced values - Deltas were too large ............   -0.1893     2.8648

   5   1.62308    -6.2752   7.539e+001  -9.601e+004
First-order corrections to F and Theta ............   -0.1091     2.4034
Second-order corrections to F and Theta ...........   -0.1036     2.4318

   6   1.51952    -3.8434   4.265e+000   6.006e+002
First-order corrections to F and Theta ............    0.0009    -0.0154
Second-order corrections to F and Theta ...........    0.0009    -0.0154

   7   1.52045    -3.8588  -5.115e-006  -3.090e-004
First-order corrections to F and Theta ............   -0.0000     0.0000
```

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TABLE NO. 55
```
*********************************************************************
* Check of Computations by Spencer's Procedure (Results are for the *
* critical shear surface in the case of an automatic search.)       *
*********************************************************************
```

Summation of Horizontal Forces: 3.34598e-011

Summation of Vertical Forces: 1.31735e-011

Summation of Moments: -3.90544e-010

Mohr Coulomb Shear Force/Shear Strength Check Summation: 3.49587e-012

***** CAUTION ***** Effective Or Total Normal Stress on Shear
Surface is Negative at Points Along the UPPER One-Half of the
Shear Surface - A Tension Crack may Be Needed.

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TABLE NO. 58
```
*************************************************************************
* Final Results for Stresses Along the Shear Surface                    *
* (Results are for the critical shear surface in the case of a search.) *
*************************************************************************
```

SPENCER'S PROCEDURE USED TO COMPUTE THE FACTOR OF SAFETY
Factor of Safety: 1.520   Side Force Inclination: -3.86

-------- VALUES AT CENTER OF BASE OF SLICE --------

Slice No.	X-Center	Y-Center	Total Normal Stress	Effective Normal Stress	Shear Stress
1	78.25	15.49	110.1	15.8	0.0
2	79.94	13.09	287.0	42.9	0.0
3	81.49	11.10	247.4	-120.6	197.3
4	83.60	8.63	512.5	-10.0	197.3
5	85.91	6.13	783.5	105.1	197.3
6	88.01	4.06	1113.1	305.8	72.3
7	90.39	1.93	1341.1	400.8	72.3
8	92.24	0.37	1510.1	472.3	72.3
9	93.85	-0.87	1609.1	494.2	128.3
10	96.51	-2.77	1814.4	601.3	128.3
11	98.99	-4.40	1985.5	704.3	128.3
12	101.54	-5.90	2094.9	754.8	180.9
13	104.77	-7.62	2235.6	832.3	180.9
14	108.09	-9.17	2364.5	909.7	180.9
15	109.89	-9.95	2429.8	951.0	180.9
16	111.72	-10.63	2446.5	950.1	180.9
17	115.19	-11.81	2464.6	941.8	180.9
18	118.71	-12.81	2467.9	930.8	180.9
19	122.28	-13.62	2456.4	917.2	180.9

20	124.54	-14.05	2443.2	907.6	180.9
21	126.82	-14.37	2428.1	903.8	180.9
22	130.46	-14.76	2397.8	899.0	180.9
23	134.12	-14.95	2353.0	891.9	180.9
24	135.97	-15.00	2326.6	887.7	180.9
25	137.00	-14.99	2309.0	884.9	180.9
26	139.83	-14.87	2254.7	876.3	180.9
27	143.48	-14.57	2173.7	863.5	180.9
28	146.44	-14.21	2098.4	851.5	180.9
29	148.79	-13.81	2033.9	843.8	220.3
30	151.79	-13.17	1966.7	832.8	220.3
31	155.33	-12.25	1910.0	833.4	220.3
32	158.82	-11.15	1837.9	830.2	220.3
33	162.26	-9.86	1750.7	823.2	220.3
34	165.61	-8.40	1648.6	812.4	220.3
35	168.64	-6.91	1542.2	799.2	220.3
36	171.03	-5.59	1433.1	780.6	220.3
37	173.60	-4.02	1221.9	689.3	164.4
38	176.64	-1.97	983.9	604.4	164.4
39	178.72	-0.45	808.7	541.0	164.4
40	180.71	1.17	560.1	410.3	98.7
41	182.63	2.80	369.1	336.6	98.7
42	184.06	4.12	213.5	213.5	98.7
43	184.99	5.00	221.3	221.3	197.3

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Time and date of run: Wed Sep 05 16:22:58 2007
Name of input data file: C:\UTEXAS4\HG-06-17340 Calcasieu Ship Channel_All Sites (09-05-07)\xofull.txt

SITE 11

TABLE NO. 59

```
*************************************************************************
* Final Results for Side Forces and Stresses Between Slices             *
* (Results are for the critical shear surface in the case of a search.) *
*************************************************************************
```

--------------- VALUES AT RIGHT SIDE OF SLICE ---------------

Slice No.	X-Right	Side Force	Y-Coord. of Side Force Location	Fraction of Height	Sigma at Top	Sigma at Bottom
1	79.28	334	15.42	0.477	94.9	125.4
2	80.61	844	13.95	0.364	32.1	318.9
3	82.38	1039	13.30	0.472	123.3	173.0
4	84.81	1969	10.97	0.381	58.0	345.1
5	87.01	3305	8.89	0.325	-14.5	564.0
6	89.00	5252	6.99	0.279	-123.5	878.9
7	91.78	8261	5.00	0.262	-217.2	1230.8
8	92.70	9309	4.42	0.260	-241.0	1333.8
9	95.00	11814	3.16	0.261	-272.3	1530.5
10	98.03	15185	1.66	0.263	-308.9	1765.4
11	99.94	17318	0.79	0.263	-330.2	1901.0
12	103.13	20530	-0.45	0.267	-343.5	2064.4
13	106.41	23599	-1.59	0.269	-356.4	2207.5
14	109.77	26454	-2.63	0.270	-369.9	2332.2
15	110.00	26634	-2.69	0.271	-370.9	2339.8
16	113.44	29129	-3.59	0.280	-339.6	2460.6
17	116.94	31187	-4.36	0.289	-297.3	2550.5
18	120.49	32783	-5.01	0.299	-246.7	2613.6

19	124.08	33900	-5.53	0.308	-189.5	2653.1
20	125.00	34107	-5.64	0.310	-174.1	2659.7
21	128.63	34619	-6.01	0.319	-110.7	2673.7
22	132.29	34654	-6.27	0.328	-43.5	2669.8
23	135.95	34222	-6.41	0.337	27.3	2649.4
24	136.00	34213	-6.41	0.337	28.2	2649.1
25	138.00	33784	-6.44	0.342	68.2	2631.5
26	141.66	32668	-6.40	0.351	143.9	2588.6
27	145.30	31154	-6.25	0.360	222.5	2533.9
28	147.59	30015	-6.11	0.366	273.3	2494.7
29	150.00	28567	-5.89	0.374	337.9	2431.2
30	153.57	26149	-5.46	0.369	283.9	2356.9
31	157.09	23433	-4.93	0.364	226.9	2267.4
32	160.56	20466	-4.28	0.357	168.1	2158.8
33	163.95	17304	-3.51	0.350	109.6	2024.9
34	167.27	14008	-2.61	0.343	56.4	1854.8
35	170.00	11184	-1.73	0.338	24.8	1667.5
36	172.06	9024	-0.96	0.345	52.7	1482.9
37	175.15	6103	0.25	0.351	68.6	1234.6
38	178.13	3512	1.61	0.368	106.6	921.3
39	179.30	2588	2.25	0.390	153.1	743.4
40	182.12	995	3.63	0.424	176.9	475.4
41	183.14	559	4.19	0.470	227.8	329.6
42	184.99	1	5.00	0.470	306.0	438.1
43	184.99	-0	5.00	0.000	0.0	0.0

Read end-of-file on input while looking for another command word.
End of input data assumed - normal termination.