Appendix E
Geotechnical Reports

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GeoSoils Consultants Inc.
GEOTECHNICAL GEOLOGIC ENVIRONMENTAL

April 24, 2017
W.O. 6743

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Attention: Richard S. Gable

Subject: Geologic and Geotechnical Report, Proposed Multi-story Buildings with Subterranean Parking, Lots 1 through 12, Tract 42011, Woodland Hills, California

INTRODUCTION

As requested, GeoSoils Consultants (GSC) has prepared this report providing the results of our geotechnical engineering investigation and liquefaction analysis for the proposed development. The project scope consists of ten mixed-use residential/commercial buildings which includes: four high-rise buildings, several apartment buildings, office buildings, a condominium building, and a hotel.

A geotechnical engineering study was originally conducted in June 2014. The findings of the subsurface investigation performed at that time, which consisted of five hollow-stem auger borings and six cone penetrometer tests, remain pertinent and are included in this report. The purpose of the investigation is to evaluate the suitability of the site for the development of the proposed buildings and associated subterranean parking.

This report has been prepared in accordance with generally accepted geotechnical engineering and geologic practices.

MDN 19016

SITE LOCATION AND DESCRIPTION

The site is located on the northwest corner of Burbank Boulevard and De Soto Avenue adjacent to both sides of Warner Center Lane. The legal description consists of Lots 1 through 12 of Tract 42011. A Site Location Map is provided as Figure 1. Currently, the site contains a business park which consists of 12 low-rise buildings and adequate parking for each with an approximate area of 346,000 square feet.

PROPOSED PROJECT

The proposed development will consist of ten buildings as previously described. The conclusions and recommendations contained in this report are based on the expectation of the currently proposed utilization of the project site, as obtained from written and verbal information supplied to us. A table summarizing the proposed buildings is given below. A Site Exploration Map and a Proposed Development Map are included herein as Plates 1A and 1B respectively.

TABLE 1: PROPOSED DEVELOPMENT

Building	Location	Number of Floors	Basement Levels
1	Northeast	7	0
2	Northwest	7	1
3	Northwest	7	1
4	Southwest	24	2
4A	Southwest	2	0
5	South	7	1
6	Southeast	7	1
7	South	15	3
8	Southeast	15	2
9	Southeast	15	2

SITE LOCATION MAP
LOTS 1-12, TRACT 42011, WOODLAND HILLS

FIGURE 1

FIELD EXPLORATION AND LABORATORY TESTING

Surface and subsurface conditions at the project site were explored in June 2014. The exploration and testing plan were as follows:

- A visual surface reconnaissance of the site.
- Five (5) hollow-stem auger borings designated as B-1 through B-5 drilled at strategic locations across the site.
- Six (6) cone penetrometer tests (CPTs) designated as CPT-1 through CPT-6, drilled at strategic locations to correlate with boring data.
- A single hand-dig test pit for the purpose of percolation testing.
- Laboratory analyses performed on select soil samples obtained from the borings.
- A review of published geologic and seismologic maps and literature.

The appropriate locations of the borings and CPTs are depicted on the Site Exploration Map, Plate 1A. Appendix A of this report describes our field exploration procedures and includes descriptive boring and CPT logs of our subsurface explorations. A description of our laboratory testing procedures and graphic results of our laboratory tests are enclosed within Appendix B of this report.

The specific number, locations, and depths of our explorations were selected in relation to the existing site features, under the constraints of surface access, underground utility conflicts, and budget considerations. The locations depicted on Plate 1A should be considered accurate only to the degree permitted by our data sources and implied by our measuring methods.

It should be noted that the explorations performed and utilized for this evaluation reveal subsurface conditions only at discrete locations across the project site and that actual conditions in other areas could vary. Furthermore, the nature and extent of any such variations would not become evident until additional explorations are performed or until construction activities have begun. If significant variations are observed at that time, we may need to modify our conclusions and recommendations contained in this report to reflect the actual site conditions.

GEOLOGIC CONDITIONS

Geologic conditions on the subject site were determined through research and subsurface exploration. The following sections contain our findings concerning subsurface conditions, groundwater conditions, expansion potential, and sulfate content of surficial site soils.

Regional Geologic Setting

This subject property is situated in the southwestern portion of the San Fernando Basin, an elongated trough that runs roughly in an east-west direction. Bordering this area are the Santa Susana Mountains to the north, the Santa Monica Mountains to the south, and the Simi Hills to the west. Subsidence in the San Fernando basin most likely began during the Plio-Pleistocene period as a result of thrust faulting and crustal shortening processes that continue to this day at a slower rate of deformation.

During subsidence of the San Fernando Basin, older Miocene and Pliocene rocks were warped into a faulted synclinal structure. The basin rapidly accumulated thick deposits of clastic terrestrial alluvial deposits during Pleistocene to recent times. In general, the alluvium in the western portion of the basin is derived from weathering of marine sedimentary rocks, while the eastern portion of the basic contains coarser-grained sediments derived from crystalline igneous rocks.

Earth Materials

The following general descriptions of materials were encountered during our exploration:

Alluvium (Qal): Alluvial soil exists on the site above bedrock. Total alluvial thickness is greater than 75 feet, as shown in the boring logs performed on the site, and potentially greater than 100 feet. The alluvium consisted of multiple layers of soft to hard, sandy to clayey silts and silty to sandy clays, with thin lenses of medium-dense sand and silty sands. The alluvial soils have a medium expansion index and are subject to consolidation under load.

Bedrock: Modelo Formation (Tm): This material was not encountered during subsurface exploration; however, bedrock of the Miocene Modelo formation most likely underlies the alluvial soils on the site. Bedrock in this area typically consists of a dark gray to black, very dense, marine siltstone with occasional claystone layering.

Boring logs enclosed in Appendix A provide detailed descriptions of the soil strata encountered during subsurface exploration.

Surface and Subsurface Water Conditions

Surface water on the site is limited to precipitation falling directly on the site and landscape irrigation. Most of the site is covered in hardscape and does not allow penetration of surface water into the subsurface.

At the time of exploration (June 2014), groundwater was encountered in the borings from 21 to 25 feet below the existing ground surface elevation. It is anticipated that the water table is at a nearly constant elevation and differences in surface topography account for the variations to the depth of groundwater below the surface. It should be noted, however, that perched groundwater levels typically fluctuate and may vary in response to season, precipitation patterns, on- or off-site construction activities, site utilization, and other factors.

Hydroconsolidation and Consolidation Settlement

It is understood that the proposed buildings will be founded on a deepened foundation system. As a result, the effects of neither hydroconsolidation nor static settlement will adversely affect the proposed development. Deepened foundation recommendations are included in this report.

Expansion Potential

The expansion potential of near surface materials was tested and an expansion index of 51 (medium expansion) was determined. Results of this test are included in Appendix B.

Sulfate Content

The on-site materials were tested for surface content and the results are presented in Appendix B. The results of 195 parts per million (ppm) indicate that Type II concrete is suitable for the construction of the proposed development.

FAULTING AND SEISMICITY

The site has experienced earthquake-induced ground shaking in the past and is expected to experience further shaking in the future. There are no active faults on or adjacent to the property and it is not within an Alquist-Priolo Earthquake Fault Zone. However, active faults are within close proximity to the site that can cause moderate to intense ground shaking during the lifetime of the proposed development.

Ground shaking produced during an earthquake can result in a number of potentially damaging phenomena classified as secondary earthquake effects. These secondary earthquake effects include ground rupture, landslides, seiches, tsunamis, seismically induced liquefaction and settlement. There are no slopes on the site to warrant landslide hazards nor are there bodies of constant water to consider seiches and tsunamis as hazards.

Ground Rupture

Ground surface rupture results when the movement along a fault is sufficient to cause a surface gap or rupture along the upper edge of the fault zone. Since there are no known active faults on the site, the potential for ground rupture is considered low.

LIQUEFACTION

Liquefaction describes phenomenon where cyclic stresses, which are produced by earthquake-induced ground motions, create excess pore pressures in cohesionless soils. As a result, the soils may acquire a high degree of mobility which can lead to lateral spreading, consolidation, settlement of loose sediments, ground oscillation, flow failure, loss of bearing strength, ground fissuring, sand boils, and other damaging deformations. This phenomenon occurs only below the water table. Once liquefaction has developed, it can propagate upward into overlying, non-saturated soil as excess pore water escapes. Descriptions of these phenomena associated with liquefaction are described below.

Ground Oscillation

Ground oscillation occurs when liquefaction occurs at depth but the slopes are too gentle to permit lateral displacement. In this case, individual blocks may separate and oscillate on a liquefiable layer. Sand boils and fissures are often associated with this phenomenon.

Flow Failure

A more catastrophic mode of ground failure than either lateral spreading or ground oscillation, involves large masses of liquefied sediment or blocks of intact material riding on a liquefied layer moving at high speeds over large distances. Generally flow failures are associated with ground slopes steeper than those associated with either lateral spreading or ground oscillation.

Bearing Strength Loss

Bearing strength decreases as effective stress decreases. Loss of bearing strength occurs when the effective stresses are reduced due to the cyclic loading caused by an earthquake. The soil does not need to liquefy for the bearing of the soil to be reduced below its value either prior to or after the earthquake. If the bearing strength is sufficiently reduced, structures supported on the sediments can settle, tilt, or even float upward in the case of lightly loaded structures such as gas pipelines.

Ground Fissuring and Sand Boils

Ground fissuring and sand boils are surface manifestations associated with liquefaction and lateral spreading, ground oscillation, and flow failure. As apparent from the above descriptions, the likelihood of ground fissures developing is high when lateral spreading, ground oscillations, and flow failure occur. Sand boils occur when the high pore water pressure is relieved by drainage to the surface along weak spots that may have been created by fissuring. As the water flows to the surface, it can carry with it sediments and creating a sand boil at the point of exit.

Liquefaction Evaluation

Research has shown that saturated, loose sands with silt contents less than about 25 percent are most susceptible to liquefaction whereas other soil types are generally considered to have a low susceptibility. Liquefaction susceptibility is related to numerous factors and the following conditions must exist for liquefaction to occur:

- Sediments must be relatively young in age and must not have developed large amounts of cementation.

- Sediments must consist mainly of cohesionless sands and silts.

- The sediment must not have a high relative density.

- Free groundwater must exist in the sediment.

- The site must be exposed to seismic events of a magnitude large enough to induce straining of soil particles.

At the time of exploration, ground water was encountered in the younger alluvial deposits near a depth of 21 to 25 feet. Based on the Department of Conservation, Division of Mines and Geology, Seismic Hazard Evaluation of the Canoga Park 7.5-Minute Quadrangle, the historical high groundwater table is approximately 30 feet below the existing grade. However, as groundwater was encountered higher than 30 feet, the highest water level encountered in the borings, at a depth of 21 feet below grade in boring B-1, was utilized in the liquefaction analysis.

Five borings were drilled with an 8-inch diameter hollow-stem auger drill rig to explore subsurface conditions. The locations of the borings are shown on the Site Exploration Map, Plate 1A. The borings were continuously logged and classified by an engineer by visual examination in accordance with the Unified Soil Classification System. The boring logs are included as Plates A-1 through A-12.

Six cone penetrometer tests (CPTs) were performed on the site for the purpose of evaluating liquefaction potential. Each CPT encountered interbedded sands, silts, and clays. Four of the CPTs reach depths of 50 feet or less with refusal on one. The two other CPTs reached a depth of 75 feet. The liquefaction analyses presented in Appendix C indicates there are layers of materials on-site subject to liquefaction.

Seismic Shaking Settlement

Granular soils, in particular, are susceptible to settlement during seismic shaking, whether the soils liquefy or not. The alluvium underlying the site, in general, consists of multilayers of medium dense to dense, stiff to very stiff layers of sands, sandy silts, and silty clays. Seismically-induced settlement analyses are presented in Appendix C. The differential settlement is based on one-half of the maximum total settlement.

Surface Manifestation

The potential for surface manifestations resulting from liquefaction of the upper granular soils was also investigated. Surface damage in the form of subsidence, fissuring, or heaving of the ground surface can result in settling, crackling, or tilting of buildings and other structures. Generally, surface damage decreases as the thickness of non-liquefiable overburden soil increases, due to energy attenuation within the overburden soil. The potential for liquefaction-induced surface manifestations is developed using an empirical graph developed by Ishihara (1985). Utilizing defined liquefiable zones and a ground acceleration based on two-thirds of the PGAM, the maximum considered earthquake geometric mean peak ground acceleration. Surface manifestation is not considered a hazard to the site.

Lateral Spreading

The procedures utilized in the analysis of seismically induced lateral spread are based on Bartlett and Youd (1995). Lateral spread phenomenon is described as the lateral movement of stiff, surficial, mostly intact blocks of sediment displaced down slope towards a free face along a shear zone that has formed within the liquified sediment. The resulting ground deformation typically has extensional fissures at the head of the failure, shear deformations along the side margins, and compression or buckling of the soil at the toe. The extent of lateral displacement typically ranges from half inch to several feet. Two types of lateral spread can occur: lateral spread towards a free face (e.g., a drainage canal or embankment) and lateral spread down a gentle ground slope where a free face is absent. Factors such as earthquake magnitude, distance from the seismic energy source, thickness of the liquefiable layers, fines content and particle size of those sediments also correlate with ground displacement. While the site contains layers subject to liquefaction, the requirements for lateral spreading as defined above do not. Therefore, lateral spreading is not considered a hazard to the site.

CONCLUSIONS AND RECOMMENDATIONS

Based upon the 2016 CBC (California Building Code), a comprehensive detailed report from the USGS is provided in Appendix E based on the 2010 ASCE-7 Standard. It includes mapped

acceleration parameters, site coefficients and risk-targeted maximum considered earthquake spectral response accelerations, as well as design spectral acceleration parameters. The following table summarizes the design parameters for the subject site, designated as Site Class D (2016 CBC, 1613.3.2) based on subsurface conditions.

TABLE 2: 2016 CBC SECTION 1613, EARTHQUAKE LOADS

Description	Value
Mapped Spectral Response Acceleration Parameter, S_S (Figure 1613.3.1(1) for 0.2 second)	1.971
Mapped Spectral Response Acceleration Parameter, S_1 (Figure 1613.3.1(2) for 1.0 second)	0.700
Site Coefficient, F_a (Table 1613.3.3(1) short period)	1.0
Site Coefficient, F_v (Table 1613.3.3(2) 1-second period)	1.5
Adjusted Maximum Considered Earthquake Spectral Response Acceleration Parameter S_{MS} (Eq. 16-37)	1.971
Adjusted Maximum Considered Earthquake Spectral Response Acceleration Parameter S_{M1} (Eq. 16-38)	1.050
Design Spectral Response Acceleration Parameter, S_{DS} (Eq. 16-39)	1.314
Design Spectral Response Acceleration Parameter, S_{D1} (Eq. 16-40)	0.700

Notes:
Lat: 34.17456, Long: -118.59077
1. S_S, S_{MS}, and S_{DS} are spectral response accelerations for the period of 0.2 second.
2. S_1, S_{M1}, and S_{D1} are spectral response accelerations for the period of 1.0 second.

Conformance to the above criteria for seismic excitation does not constitute any kind of guarantee or assurance that significant structural damage or ground failure will not occur if a maximum level earthquake occurs. The primary goal of seismic design is to protect life and not to avoid all damage, since such design may be economically prohibitive. Following a major earthquake, a properly designed building may be damaged beyond repair, yet not collapse.

Grading Recommendations

Site Grading: Standard grading recommendations and grading details are enclosed in Appendix F. These recommendations should be incorporated into the development plans, where applicable.

Removals: It is anticipated the structures will be founded on deepened foundations and utilize structural slabs. For areas that would require improvements at grade (i.e., slabs, parking, etc.) it is recommended the upper 2 to 3 feet of material be removed and recompacted. Please note as this material is underlain by non-structural fill, this new fill will also be considered non-structural.

Preliminary Foundation and Design Recommendations

It is anticipated that driven piles will be utilized for structural support. Please note that final designs cannot be determined until actual building loads are determined. The following recommendations are presented as a preliminary design for the proposed development. Finalized pile recommendations will be provided once detailed structural information is available.

Deepened Foundations

1. Foundation support may be derived by drilled cast-in-place, reinforced concrete piles designed for frictional resistance or driven piles.

2. Pile foundations should be designed by a Structural Engineer. The piles should extend a minimum depth of five feet into competent material, but not less than the depth required to resist the lateral load by passive resistance.

3. Piles should be tied together in at least one direction with grade and/or tie beams.

4. In determining allowable lateral bearing capacity, any existing fill should be assumed to provide no lateral support. For competent material, passive earth pressures may be computed as an equivalent fluid having a density of 200 pounds per cubic foot, with a maximum earth pressure of 2,000 pounds per square foot. All piles should satisfy section 1810A.2.5 of the 2016 CBC. For isolated piles, the allowable passive pressure may be increased by 100 percent. Piles spaced more than 2.5 pile diameters apart measured center to center may be considered isolated.

5. The allowable frictional resistance to be used for pile design is 500 pounds per square foot, per foot of depth, into competent material. Artificial fill may not be used for structural support.

6. Piles should be a minimum of 24 inches in diameter.

7. All drilling should be observed by the Geotechnical Engineer or Engineering Geologist before placing steel or pouring concrete. The City Inspector should also observe the excavations.

8. Prior to the placement of concrete, all loose material at the bottom of the pile excavation should be removed. If the pile excavation has had standing water for 12 hours or more, prior to concrete placement, the bottom should be redrilled at least two more feet, and cleaned of all loose debris. Standing water should be pumped out prior to pouring concrete.

9. In lieu of removing standing water prior to placing concrete, (i.e., pumping water), the concrete may be placed by the tremie method to displace collected water. The solid tremie tube shall be long enough to reach the bottom of the excavation. When concrete is being placed, the solid tremie tube must be kept full of concrete at all times, with the lower end immersed in the concrete just deposited. The concrete shall at no time be placed through the water. When water over three inches in depth is present in drilled pile holes, a concrete mix with a strength pounds per square inch of 1,000 over the design p.s.i. shall be tremied

from bottom up. An admixture that reduces the problem of segregation of paste/aggregates and dilution of paste shall be included.

Grouped Deep Foundation Recommendations

Grouped deep foundation design should include group effects to meet the requirements of section 1810A.2.5 of the 2016 California Building Code. The following parameters may be used for pile group design.

Bearing Capacity: If the piles center-to-center spacing is less than 3 times the diameter of a pile, the bearing capacity of a pile group should be calculated as the lesser of:

- The number of piles times the bearing capacity of a single element.
- The bearing capacity of the equivalent block defined by the perimeter of the piles group and by the piles length, calculated with generally accepted bearing capacity equations.

Uplift Capacity: If the piles center-to-center spacing is less than 3 times the diameter of a pile, as recommended by the 2016 California Building Code Section 1810A.3.3.1.6, the uplift capacity of a pile group should be calculated as the lesser of:

- The number of piles times the uplift capacity of a single element.
- Two-thirds the weight of the equivalent block defined by the perimeter of the piles group and by the piles length, plus two-thirds the side friction, applied in tension, on the equivalent block.

Lateral Capacity: If the piles center-to-center spacing in a multiple row group is less than 8 times the diameter of a pile, reduction factors should be applied to the lateral capacity of the piles in accordance to the following table.

TABLE 3: LATERAL CAPACITY REDUCTION FACTORS FOR GROUPED PILES

Row Exposition to	Spacing to Diameter Ratio = 2	Spacing to Diameter Ratio ≥ 8
Leading Row	0.76	1
First Trailing Row	0.56	1
Second Trailing Row	0.44	1
Third Trailing Row and Subsequent Rows	0.36	1

The values in Table 3 correspond to reduction factors with s/D ratios equal to 2 and equal to or greater than 8. A linear interpolation should be done to obtain the reduction factors corresponding with s/D ratios between 2 and 8.

If the piles center-to-center spacing in a multiple row group is less than 8 times the diameter of a pile, the design for lateral capacity should also include corner effects. The bending moment and shear forces on corner piles in the leading row should be adjusted with the following factors:

TABLE 4: LATERAL CAPACITY CORNER EFFECTS

Spacing to Diameter Ratio = 2	Corner Pile Factor
2	1.2
≥ 3	1.0

Buoyancy Forces

Based on our subsurface exploration and review of foundation information, the existing groundwater table is higher than the proposed foundation level for buildings with subterranean parking. Therefore, buoyancy forces will require consideration in the structural design. During construction, dewatering of the site may be required. If needed, additional recommendations will be provided at that time. Values for potential buoyancy forces are provided in Table 5. The

calculated values assume a water table at 21 feet below grade with two-story subterranean and three-story subterranean levels at 24 feet and 36 feet below grade, respectively.

TABLE 5: BUOYANCY FORCES

Subterranean Levels	Buoyant Force (psf)
2	187.2
3	936.0

Drilling Safety

1. It is the Contractor's responsibility to provide a safe working area during drilling operations.

2. The Geologist or Geotechnical Engineer should observe all excavations to verify that the foundations are founded to the required depth into the recommended bearing material.

3. All excavations, if not poured immediately after excavation, shall be adequately covered to prevent the curious (any children and pets) from being attracted to the deep excavations. It has been an all too common practice to place inadequate safety covers over excavated piles in the hillside areas.

Retaining Walls and Subterranean

Backfilled concrete retaining walls can be used around the below-grade portions of the on-site structure or to support the proposed cuts and fills for heights up to 15 feet. Pile supported retaining walls may be used for below-grade portions with a retaining heights greater than 15 feet. Our wall design recommendations and comments are discussed below. Appendix D includes retaining wall analyses for the maximum proposed retained height of 36 feet per the preliminary plans.

Wall Drains: To preclude the build-up of hydrostatic pressure, we recommend that a four-inch-diameter perforated drain pipe, wrapped in filter fabric, be installed behind the heel of the wall and that a curtain drain be placed behind the entire wall. This curtain drain should consist of pea gravel, washed rock, or a mixture of these materials wrapped in approved filter material, extending outward at least one foot from the wall and extending from the footing drain upward to within about three feet of the ground surface. The backside of all subterranean walls should be waterproofed.

Backfill Compaction: To prevent the build-up of lateral soil pressures in excess of the recommended design pressures, overcompaction of the fill behind the wall should be avoided; however, a lesser degree of compaction may permit excessive post-construction settlements. Backfill above a 45-degree plane projected upward from the base should be placed in horizontal lifts not exceeding 8 inches in loose depth and compacted by small, hand-operated compaction equipment. Remaining backfill should be compacted to at least 90 percent of the maximum laboratory density for material used.

Applied Loads: Overturning and sliding loads applied to retaining walls can be classified as active, at-rest, and surcharge pressures. The following specific values are offered for design purposes.

Active and At-Rest Pressures: Yielding (cantilever) retaining walls should be designed to withstand an appropriate active lateral earth pressure, whereas non-yielding (restrained) walls should be designed to withstand an appropriate at-rest lateral earth pressure. These pressures act over the entire back of the wall and vary with the backslope inclination. For retaining walls up to 12 feet in height with various backslope angles, we recommend using the following active and at-rest pressures (given as equivalent fluid unit weights).

TABLE 6: RETAINING WALL PRESSURES

Backslope Angle	Static Active Pressure (pcf)	Static At-Rest Pressure (pcf)
Level	30	45
5H:1V	33	50
4H:1V	35	55
3H:1V	38	60
2H:1V	43	67
1.5H:1V	55	85

Surcharge Pressures: Any anticipated, superimposed loading (i.e., upper retaining walls, traffic surcharge or other structures, etc.) within a 45-degree plane projected upward from the wall bottom, except retained earth, shall be considered as surcharge and provided for in the design. For a uniformly distributed load behind the wall, a corresponding uniform distributed lateral soil pressure equal to 30 percent of the surcharge should be added to the equivalent fluid pressure. A vertical component equal to one-third of the horizontal force so obtained may be assumed at the plane of application of the force.

Hydrostatic Pressures: Hydrostatic pressures will act against the subterranean retaining walls, therefore GSC recommends that the walls be designed for hydrostatic pressure, as discussed in Appendix D.

Seismic Loading

The following seismic design criteria must be incorporated in to the design of retaining walls greater than 6 feet.

From the Mononobe-Okabe equation,

$$\Delta P_{ae} = \frac{3}{8}\gamma H^2 k_h$$

where,

$$\gamma = 120\,pcf$$

$$H = height\ of\ wall$$

$$k_h = \frac{1}{3}PGA_m$$

yields the following seismic load with units of lb/ft:

$$\Delta P_{ae} = \frac{3}{8}(120)(0.227)H^2 = 10.2H^2$$

The combined static and seismic load can be expressed using Seed and Whitman's (1970) notation where P_{ae} is the static load and ΔP_{ae} is the seismic load increment:

$$P_{ae} = P_a + \Delta P_{ae}$$

The resultant force (static and seismic loading) acts 1/3H from the base of the wall (Lew et al. 2010).

Temporary Excavations

Safety: Temporary excavation slope stability is a function of factors including soil type, density, cut inclination, depth, groundwater presence, and the length of time that the cut is to remain open. As the cut is deepened, or as the length of time an excavation is open, the likelihood of bank failure increases. For this reason, maintenance of safe

slopes and worker safety should remain the responsibility of the contractor, who is present at the site, able to observe changes in the soil conditions, and monitor the performance of the excavation.

Maintenance: If seepage or surface runoff were not controlled, flatter temporary slopes would be necessary. Larger cobbles and boulders should be scaled from the excavation sidewalls prior to worker entry to prevent injury to workmen from falling rocks. In all cases, cut slopes and any excavation shoring should conform to applicable Federal, State, and/or local safety guidelines.

Excavations: Shallow excavations used for construction that are less than 4 feet in depth and are made in properly engineered fill or firm native soils should stand with vertical sides. Excavations deeper than 4 feet should be sloped at a 2H:1V or 1H:1V or shored. All open excavations and shored excavations shall conform to all applicable Federal, State, and Local regulations.

Surcharge: Surcharge loads should be setback from the top of temporary excavations a minimum horizontal distance of ten feet.

Excavation Inspection: The soils exposed in temporary excavation slopes should be observed by the Geotechnical Engineer so that modifications of the slopes can be made if variations in soil conditions occur.

Limitations: Excavations deeper than 4 feet requiring slope inclinations assume that the slopes will be protected from erosion and that significant drainage will not occur over the face of the slope. It is further assumed that no loads will be imposed above the slope within one half the slope-height from the slope face. The temporary cut/fill slopes should be stabilized and/or supported within three weeks.

EXCAVATIONS AND SHORING

General

Site development calls for approximately 36-foot deep excavations. Soldier piles with wood or mortal lagging may be considered for retaining the vertically excavated banks on the site.

Independent of the method selected, care should be exercised not to disturb/damage any existing facilities. The temporary shoring engineer must determine the impact of the tiebacks on existing foundations and any other underground features.

The Contractor should be solely responsible for safety during construction. A surveying program, or other types of instrumentation, should be implemented to check for movement of the shoring system. The frequency of monitoring should be determined once construction commences. It is anticipated that minor yielding of adjacent soils may occur during construction. Care should be taken to insure that any movements associated with yielding are not excessive to harm any underground utilities or adjacent structures.

GeoSoils Consultants, Inc. request that we be allowed to regularly inspect the excavation as work progresses in order to monitor earth strain and verify the conditions assumed for design remain unchanged. Inspections shall be performed at least once a day.

Most deep excavations tend to exhibit a certain amount of excavation (cut face) wall deflection during construction in a direction toward the excavation. The ground movements associated with a shored excavation depend on many factors including the contractor's procedures and schedule, and therefore, the distribution and magnitude of ground movements are difficult to predict. Based on shoring performance data for documented excavations combined with our engineering judgement, we estimate the ground movements associated with properly designed and carefully constructed shoring system will be as discussed below.

Tieback Anchors: The maximum horizontal wall deflection will equal about 0.1 percent to 0.2 percent of the vertical depth. The maximum horizontal movement should occur near the top of the wall and decrease with depth. The maximum settlement behind the wall should be equal to about 50 percent to 100 percent of the maximum horizontal movement and will probably occur at a distance behind the wall equal to about 25 percent to 50 percent of the excavation depth.

Internal Bracing: The maximum ground movement will be similar to those anticipated with tiebacks. However, the maximum horizontal movement will probably occur near the bottom of the excavation decreasing to about 25 percent of the maximum at the surface.

Soldier Piles with Lagging

Maximum width of pile spacing should be no more than eight feet on center. Materials exposed in the face of any cut should be kept moist, but not saturated, to retard raveling and sloughing during construction. If soldier piles with timber lagging are used, care should be taken to fill all void spaces between the excavation face and lagging. Any materials used for backfill behind the excavation walls must be free-draining material. All lagging should be placed as soon as possible after the excavation is made.

All relatively cohesionless soils (sand and gravel) will be subject to caving and sloughing and require lagging during excavation, and possible casing during drilling of the soldier beams. Due to arching of the soils, a maximum lagging pressure of 400 pounds per square foot may be used for design, providing piles are not spaced further than 8 feet on-center.

The shoring should be designed to withstand any surcharge loading. Excavation depths greater than 36 feet assumed by GSC should be reviewed and recommendations given relative to the new condition.

No surcharge loads may be permitted within ten feet of the top of the excavation unless allowed for in the design of the temporary shoring system. Of particular concern is the possibility of

heavy construction equipment on materials (i.e., trucks, cranes, stockpiles of steel and other materials, etc.) being placed close to the excavation.

We recommend that a traffic loading of 300 pounds per square foot be considered or as determined by the structural engineer. Before placement of equipment close to the excavation edge, GSC must be notified of any potential change so lateral soil pressure distributions may be reviewed.

The shoring system should be designed to withstand lateral soil pressure distributions of 30 pcf, as discussed in further detail in Appendix D for temporary conditions.

Tie-Back Soldier Beam System

The adhesion (frictional resistance) of tiebacks may be assumed to be 600 pounds per square foot for design. Providing tiebacks have a minimum clear spacing of six feet between each other, no reduction in adhesion will be necessary. Additional recommendations for tieback anchor construction and testing are presented in Appendix G of this report.

The anchor holes should be drilled in a manner which will minimize loss of ground and not endanger existing utilities or previously installed anchors. The holes are to be drilled at a negative angle of about 15 to 30± degrees to the horizontal. The vertical component of the tie-back loads should be considered in the vertical bearing design of the soldier piles. Sand layers are relatively low in cohesion and may be subject to collapse. Casing or other methods to prevent loss of ground and collapse of the hole may be required. Less chance of caving will occur with smaller diameter anchor holes.

An approximate failure plane of 35 degrees from the vertical should be considered. Anchor loading is assumed to start behind this failure plane in determining penetration length. A minimum penetration length of 20 feet beyond the failure plane is recommended. The anchor shaft within the failure plane should be filled with sand prior to testing.

Attachment of the anchor to the pile must be done in such a way so as to limit torque in the soldier pile. These recommendations assume the tie-back system is only for temporary shoring.

Dewatering

Excavations up to 36 feet are required for the proposed construction of the three-story subterranean parking structure. As previously discussed, groundwater was encountered between 21 and 25 feet below grade. Therefore, it is anticipated dewatering will be required during construction. Prior to construction, it is recommended dewatering tests be performed to determine the number and spacing of wells required to dewater the planned excavation.

On-Site Drainage

Seasonal precipitation and/or landscape water should not be allowed to pond within the site, especially next to slopes and foundations of any structures. Surface runoff should be collected and disposed of in such a manner as to prevent concentrated erosion. All drainage should be directed toward the street or an approved watercourse area swale via non-erosive channel, pipe, and/or dispersion vehicles. It is recommended that all planters proposed adjacent to structures be self-contained, provided with a subdrain system, and/or allowed to have positive drainage away from the structures to drain excess landscape water.In addition, it is recommended that drainage be verified after construction. At no time should drainage be directed toward any descending slope or allowed to pond.

Leakage from any of the appurtenant plumbing will create an artificial groundwater condition which could likely render settlement or slope stability problems of temporary excavations; therefore, it is imperative that all underground plumbing fixtures be absolutely leak-free.

LIMITATIONS

The findings and recommendations of this report were prepared in accordance with generally accepted professional geotechnical engineering principles and practice for the City of Los Angeles at this time. We make no other warranty, either expressed or implied. The conclusions

and recommendations contained in this report are based on site conditions disclosed in our subsurface investigation. However, soil conditions can vary significantly between borings, therefore, further refinements of our recommendations contained herein may be necessary due to changes in plans or unanticipated materials encountered during site development.

The specific number, locations, and depths of our Boring/CPT explorations were selected in relation to the existing and proposed site features, under the constraints of surface access, and underground utility conflicts. The Boring/CPT locations depicted on the Site Exploration Map, Plate 1A, should be considered accurate only to the degree permitted by our data sources and implied by our measuring methods.

It should be noted that the explorations performed and utilized for this evaluation reveal subsurface conditions only at discrete locations across the project site and that actual conditions in other areas could vary. Furthermore, the nature and extent of any such variations would not become evident until additional explorations are performed or until construction activities have begun. If significant variations are observed at that time, we may need to modify our conclusions and recommendations contained in this report to reflect the actual site conditions.

This investigation was based on the site conditions observed, selected laboratory testing, and engineering analyses, the conclusions and recommendations contained herein are professional opinions. Further, these opinions have been derived in accordance with standard engineering practices, and no warranty is expressed or implied.

CLOSURE

We appreciate this opportunity to be of service to you. If you have any questions regarding the content of this report or any other aspects of the project, please do not hesitate to contact us.

Very truly yours,

GEOSOILS CONSULTANTS, INC.

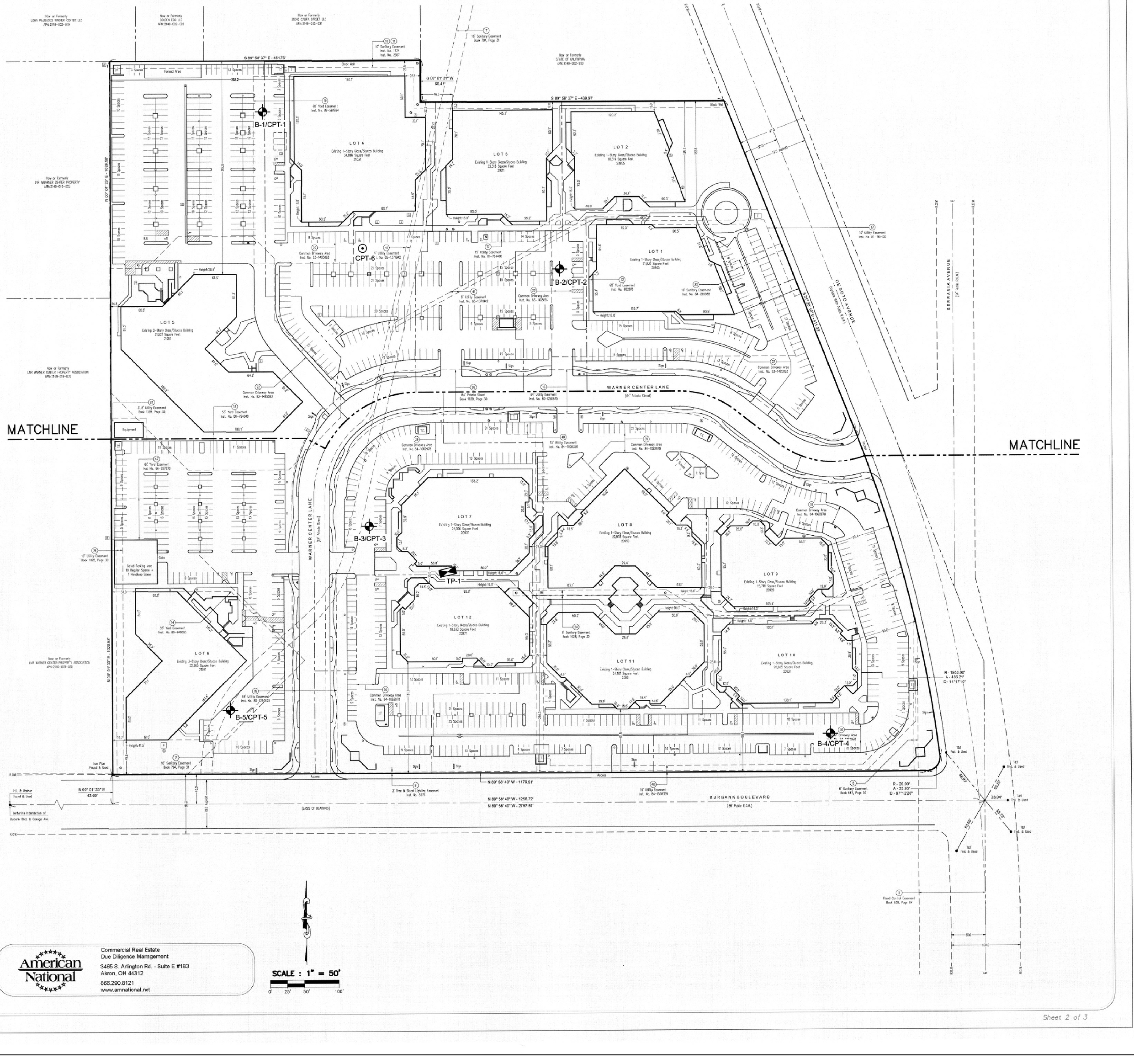
KAREN L. MILLER
GE 2257

JONATHAN GURUNATHAN
Staff Engineer

JG.KLM.W: Geol and Geot Eng Rpt

Encl:
- Plate 1A, Site Exploration Map
- Plate 1B, Proposed Grading Plan
- Appendix A, Field Exploration and Excavation Logs
  - Plates A-1 through A-12, Boring Logs
  - Plates A-13 through A-18, CPT Data (Kehoe Testing)
  - Plate TP-1, Test Pit Log
- Appendix B, Laboratory Testing Procedures and Results
  - Plates M-1 through M-3, Moisture Density Results
  - Plates G-1 through G-5, Grain Size Analysis
  - Plates SH-1 through SH-3, Shear Test Diagrams
  - Plates C-1 through C-8, Consolidation Diagrams
  - Plates L-1, Chemical Test Results
- Appendix C, Liquefaction and Seismic Settlement Analyses
- Appendix D, Retaining Wall Analysis
- Appendix E, USGS Site-Specific Data
- Appendix F, Grading Guidelines
- Appendix G, Procedure for Tie-Back Soldier Beams

cc: (2) Addressee



American National

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Due Diligence Management

3485 S. Arlington Rd. - Suite E #183
Akron, OH 44312

866.290.8121
www.amnational.net

SCALE : 1" = 50'

0' 25' 50' 100'

EXPLANATION

- B-5/CPT-5 — APPROXIMATE LOCATION OF BORING & CONE PENETRATION BORING
- CPT-6 — APPROXIMATE LOCATION OF CONE PENETRATION BORING
- TP-1 — APPROXIMATE LOCATION OF TEST PIT

MDN 19016

GSC GeoSoils Consultants Inc.
6634 Valjean Avenue
Van Nuys, CA 91406

SITE EXPLORATION MAP
WARNER CENTER CORPORATE PARK
ADLER REALTY INVESTMENTS, INC.

WORK ORDER	DATE	SCALE
6743	4/2017	1" = 50'

REVISED ____

PLATE 1A

X:\2001 w.o\gsc-cad\6743\FROM CAD DESKTOP 3-10-17\CURRENT\Drawing1.dwg, 4/25/2017 2:46:51 PM, Adobe PDF

EXPLANATION

B-5/CPT-5 — APPROXIMATE LOCATION OF BORING & CONE PENETRATION BORING

CPT-6 — APPROXIMATE LOCATION OF CONE PENETRATION BORING

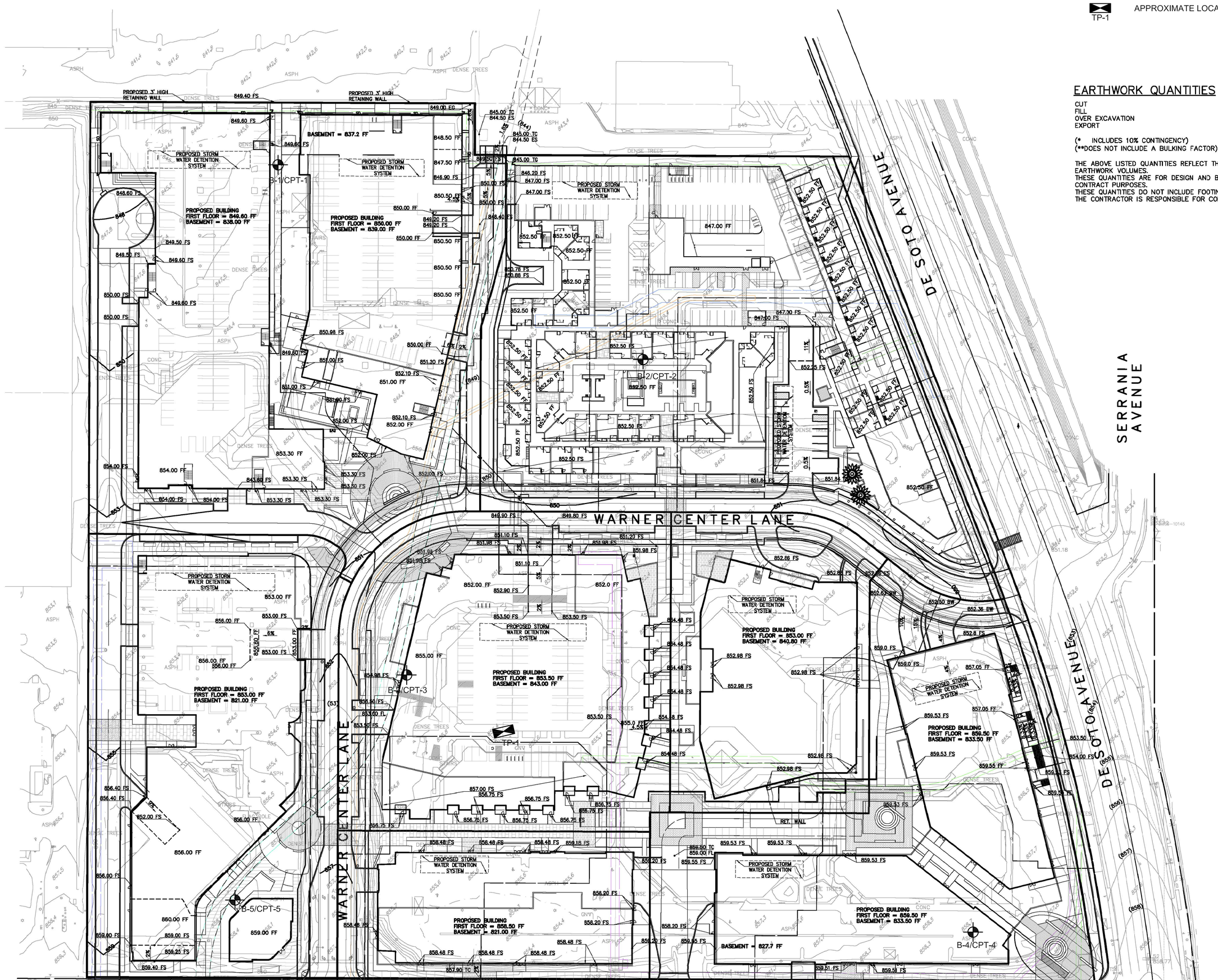
TP-1 — APPROXIMATE LOCATION OF TEST PIT

EARTHWORK QUANTITIES

CUT	400,000 CY*
FILL	25,000 CY*
OVER EXCAVATION	60,000 CY*
EXPORT	375,000 CY**

(* INCLUDES 10% CONTINGENCY)
(**DOES NOT INCLUDE A BULKING FACTOR)

THE ABOVE LISTED QUANTITIES REFLECT THE ENGINEER'S ESTIMATE OF THE EARTHWORK VOLUMES.
THESE QUANTITIES ARE FOR DESIGN AND BONDING PURPOSES ONLY, AND NOT FOR CONTRACT PURPOSES.
THESE QUANTITIES DO NOT INCLUDE FOOTING VOLUMES.
THE CONTRACTOR IS RESPONSIBLE FOR COMPUTING HIS OWN QUANTITIES.



GRAPHIC SCALE: 1"=50'

Note: For reduced sized prints, original scale is in inches

1 OF 2

APRIL 24, 2017

GRADING PLAN

PREPARED FOR:
ADLER REALTY
address1 here
address 2 here

PSOMAS
555 South Flower Street, Suite 4300
Los Angeles, CA 90071
(213) 223-1400 (213) 223-1444 fax
www.psomas.com
ION CRETU DATE
REGISTERED PROFESSIONAL ENGINEER ION CRETU No. C71513 CIVIL STATE OF CALIFORNIA

De Soto Ave. & Burbank Blvd.

Woodland Hills, CA

1735 BERKELEY STREET
SANTA MONICA, CA 90404
TEL 310.394.0273 FAX 310.394.2824
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ARCHITECTURE • PLANNING • URBAN DESIGN

GSC GeoSoils Consultants Inc.
6634 Valjean Avenue
Van Nuys, CA 91406

PROPOSED GRADING PLAN
WARNER CENTER CORPORATE PARK
ADLER REALTY INVESTMENTS, INC.

WORK ORDER	DATE	SCALE
6743	4/2017	1" = 50'

REVISED

PLATE 1B

MDN 19016

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April 24, 2017
W.O. 6743

APPENDIX A
FIELD EXPLORATION AND EXCAVATION LOGS

APPENDIX A

FIELD EXPLORATION PROCEDURES AND EXCAVATION LOGS

Borings

Five (5) borings were drilled with an 8-inch diameter hollow-stem auger drill rig to explore subsurface conditions. The locations of the borings are shown on the Site Exploration Map, Plate 1. The borings were continuously logged and classified by an engineer by visual examination in accordance with the Unified Soil Classification System. The boring logs are included as Plates A-1 through A-12.

Undisturbed soil samples were collected by driving a ring sampler with a 140-pound hammer weight falling 30 inches. The soil samples were retained in a series of brass rings, each having an inside diameter of 2.36 inches (6 centimeters) and a height of 1.00 inch (2.54 centimeters). The central portions of the samples were retained in close-fitting, moisture-tight containers for shipment to our laboratory. Standard Penetration Test samples (SPTs) were also taken to obtain blows per foot to correlate relative density determinations.

Cone Penetrometer Tests

Six (6) cone penetrometer tests (CPTs) were performed to determine the soil stratigraphy. A 30-ton CPT rig is used to push a 15 cm2 cone, part of an integrated electronic cone system, which records soil parameters at approximately 2.5 cm depth intervals. Soil parameters include:

- Cone resistance (qc)
- Sleeve friction (fs)
- Dynamic pore pressure (u)
- Inclination

- Penetration speed

The stratigraphic interpretation uses these parameters to estimate various soil properties. Soil classification utilizes a CPT Classification Chart developed by Robertson. In general, high friction ratios (denoted as Rf, the ratio of sleeve friction to cone resistance), low cone resistance, and excess pore water pressures are associated with cohesive soils such as clays. Low friction ratios, high cone resistance, and little to negative excess pore water pressures infer cohesionless soils such as sands.

The CPT locations are within two feet of their corresponding borings in order to properly correlate both data sets. The liquefaction analysis in Appendix C discusses this correlation in more detail. The CPT soundings are included as plates A-13 through A-18.

Test Pit Excavation

Site drainage from stormwater infiltration was determined by means of a percolation test on a single hand-dug test pit. The test pit was dug to a depth of 7 feet. Artificial fill was observed to a depth of 6 feet and alluvium was present from 6 to 7 feet. A one cubic foot hole (1 foot deep x 1 foot wide x 1 foot long) was then excavated. A perforated bucket was placed inside the cubic foot hole and filled.

The test pit was presoaked for a period of 4 hours prior to conducting infiltration testing. After presoak, the test pit was refilled and absorption was measured. Water level readings were recorded in 30-minute intervals. The test was restarted twice during the process. The average drop of the stabilized rate during the final reading period is the pre-adjusted percolation rate. A reduction factor is implemented to account for non-vertical flow. Based on the results of the percolation tests, the clay soils yield a percolation rate of 0.033 inch per hour (see attached Plate TP-1).

GEOTECHNICAL BORING LOG

PROJECT NAME Warner Center
DRILLING COMPANY Choice | DATE STARTED 6/18/14 | PROJECT No. 6743
TYPE OF DRILL RIG | LOGGED BY JG | BORING No. B-1
DRILLING METHOD HSA | HAMMER WT (LBS) 140 | SHEET 1 of 3
DIAMETER OF HOLE (IN) 8" | DROP (IN) 30" | GROUND ELEVATION (FT)
BORING LOCATION: | GW ELEVATION (FT)

DEPTH FEET	SAMPLE TYPE	BLOWS/ 6 INCHES	GEOTECHNICAL DESCRIPTION	MOISTURE CONTENT %	DRY (PCF) DENSITY	OTHER TESTS
0			**4" ASPHALT** **4" BASE** **ARTIFICIAL FILL (af)**			
5		4 5	@ 5' Brown to orange-brown, sandy CLAY, damp, stiff	20.9	101.5	
			ALLUVIUM (Qal)			
10		7 8	@ 10' Brown, silty, sandy CLAY, damp, stiff	25.2	96.6	
15		2 3	@ 15' Brown, silty, sandy CLAY with some shells, moderately moist, medium stiff	29.4	94.9	
20		2 2	@ 21' Water	23.6 37.6	96.2	
25		1 2 2	@ 25' Brown with some rust, silty CLAY, moderately moist, soft	37.0		
30		3 6	@ 30' Dark brown, silty CLAY, moderately moist, stiff	24.3	102.5	

LEGEND

- STANDARD PENETRATION TEST
- CALIFORNIA RING
- ROCK CORE
- BULK SAMPLE
- SHELBY TUBE
- GROUND WATER (GW)
- WATER SEEPAGE

SIEVE: GRAIN SIZE ANALYSIS
MAX: MAXIMUM DRY DENSITY
DS: DIRECT SHEAR
CONS: CONSOLIDATION
HYDR: HYDROMETER ANALYSIS
EXPAN: EXPANSION INDEX
CHEM: CHEMICAL TESTS

Plate A-1

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FORM: 00/10

X:\Boring Logs\Forms & Data\DATA\6743\B-1 Plate A-1.dwg, 8/6/2014 10:52:30 AM, Letter

GEOTECHNICAL BORING LOG

PROJECT NAME Warner Center

PROJECT No. 6743

BORING No. B-1

SHEET 2 of 3

DEPTH FEET	SAMPLE TYPE	BLOWS/ 6 INCHES	GEOTECHNICAL DESCRIPTION (continued)	MOISTURE CONTENT %	DRY (PCF) DENSITY	OTHER TESTS (Ref. Plate)
35		4 7 8	@ 35' Dark brown, silty CLAY, moderately moist, very stiff	19.2		
40		10 16	@ 40' Brown, silty, fine sandy CLAY, moderately moist, very stiff	22.1	104.6	
45		5 7 9	@ 45' Brown with some rust, fine sandy CLAY, moderately moist, very stiff	24.7		
50		8 13	@ 50' Brown to rust-brown, fine sandy CLAY, moderately moist, very stiff	23.7	103.0	
55		21 20	@ 55' Brown, clayey, fine SAND, moist to wet, dense	22.1	105.3	
60		4 4 6	@ 60' Brown, fine SAND with some clay, moist to wet, medium dense	21.7		
65		11 17	@ 65' Brown to dark brown, SAND with some clay and shells, moist, medium dense	19.6	105.9	

LEGEND

- STANDARD PENETRATION TEST
- CALIFORNIA RING
- ROCK CORE
- BULK SAMPLE
- SHELBY TUBE
- GROUND WATER (GW)
- WATER SEEPAGE

SIEVE: GRAIN SIZE ANALYSIS
MAX: MAXIMUM DRY DENSITY
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CONS: CONSOLIDATION
HYDR: HYDROMETER ANALYSIS
EXPAN: EXPANSION INDEX
CHEM: CHEMICAL TESTS

Plate A-2

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GEOTECHNICAL BORING LOG

PROJECT NAME Warner Center

PROJECT No. 6743

BORING No. B-1

SHEET 3 of 3

DEPTH FEET	SAMPLE TYPE	BLOWS/ 6 INCHES	GEOTECHNICAL DESCRIPTION (continued)	MOISTURE CONTENT %	DRY (PCF) DENSITY	OTHER TESTS
70		6 10 14	@ 70' Brown/rust to brown, CLAY with SAND, moderately moist, very stiff			
75		7 13 19	@ 75' Brown with rust-brown, slightly sandy CLAY, moderately moist, hard	37.4		
			Total Depth @ 75' Groundwater @ 21-75' No Caving			
80						
85						
90						
95						
100						

LEGEND

- STANDARD PENETRATION TEST
- CALIFORNIA RING
- ROCK CORE
- BULK SAMPLE
- SHELBY TUBE
- GROUND WATER (GW)
- WATER SEEPAGE

SIEVE: GRAIN SIZE ANALYSIS
MAX: MAXIMUM DRY DENSITY
DS: DIRECT SHEAR
CONS: CONSOLIDATION
HYDR: HYDROMETER ANALYSIS
EXPAN: EXPANSION INDEX
CHEM: CHEMICAL TESTS

Plate A-3

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GEOTECHNICAL BORING LOG

PROJECT NAME Warner Center
DRILLING COMPANY Choice | DATE STARTED 6/18/14 | PROJECT No. 6743
TYPE OF DRILL RIG | LOGGED BY JG | BORING No. B-2
DRILLING METHOD HSA | HAMMER WT (LBS) 140 | SHEET 1 of 2
DIAMETER OF HOLE (IN) 8" | DROP (IN) 30" | GROUND ELEVATION (FT)
BORING LOCATION: | GW ELEVATION (FT)

DEPTH FEET	SAMPLE TYPE	BLOWS/ 6 INCHES	GEOTECHNICAL DESCRIPTION	MOISTURE CONTENT %	DRY (PCF) DENSITY	OTHER TESTS
0		BULK 0-2.5'	**6-1/2" ASPHALT** **6" BASE** **ARTIFICIAL FILL (af)**			
5		11 14		22.1	102.7	
			ALLUVIUM (Qal)			
10		8 12	@ 9' Dark brown, silty CLAY, damp, very stiff	30.0	90.8	
15		6 6	@ 14' Brown, silty CLAY, moist, stiff	30.5	91.7	
20		8 11	@ 19' Brown, silty, sandy CLAY, moist to very moist, very stiff	22.0	107.8	
			@ 22' Water			
25		10 13	@ 24' Brown, silty CLAY, moist to wet, very stiff	21.1	107.0	
30		3 4 4	@ 30' Brown, silty CLAY, moist to wet, very stiff	20.9		

LEGEND

- STANDARD PENETRATION TEST
- CALIFORNIA RING
- ROCK CORE
- BULK SAMPLE
- SHELBY TUBE
- GROUND WATER (GW)
- WATER SEEPAGE

SIEVE: GRAIN SIZE ANALYSIS
MAX: MAXIMUM DRY DENSITY
DS: DIRECT SHEAR
CONS: CONSOLIDATION
HYDR: HYDROMETER ANALYSIS
EXPAN: EXPANSION INDEX
CHEM: CHEMICAL TESTS

Plate A-4

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GEOTECHNICAL BORING LOG

PROJECT NAME Warner Center

PROJECT No. 6743

BORING No. B-2

SHEET 2 of 2

DEPTH FEET	SAMPLE TYPE	BLOWS/ 6 INCHES	GEOTECHNICAL DESCRIPTION (continued)	MOISTURE CONTENT %	DRY (PCF) DENSITY	OTHER TESTS (Ref. Plate)
35		15 18	@ 35' Brown, silty SAND, moderately moist, dense	26.9	98.6	
40		5 6 8	@ 40' Medium to rust brown, silty SAND, moist, medium dense, with some rock fragments	28.0		
45		20 36	@ 45' Medium, rust brown, silty SAND, moist to wet, very dense	17.5	113.6	
50		6 10 14	@ 50' Brown/rust brown, silty CLAY, moist, very stiff	22.2		
			Total Depth @ 50' Groundwater @ 22' No Caving			
55						
60						
65						

LEGEND

- STANDARD PENETRATION TEST
- CALIFORNIA RING
- ROCK CORE
- BULK SAMPLE
- SHELBY TUBE
- GROUND WATER (GW)
- WATER SEEPAGE

SIEVE: GRAIN SIZE ANALYSIS
MAX: MAXIMUM DRY DENSITY
DS: DIRECT SHEAR
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HYDR: HYDROMETER ANALYSIS
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CHEM: CHEMICAL TESTS

Plate A-5

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GEOTECHNICAL BORING LOG

PROJECT NAME Warner Center
DRILLING COMPANY Choice | DATE STARTED 6/18/14 | PROJECT No. 6743
TYPE OF DRILL RIG | LOGGED BY JG | BORING No. B-3
DRILLING METHOD HSA | HAMMER WT (LBS) 140 | SHEET 1 of 2
DIAMETER OF HOLE (IN) 8" | DROP (IN) 30" | GROUND ELEVATION (FT)
BORING LOCATION: | GW ELEVATION (FT)

DEPTH FEET	SAMPLE TYPE	BLOWS/ 6 INCHES	GEOTECHNICAL DESCRIPTION	MOISTURE CONTENT %	DRY (PCF) DENSITY	OTHER TESTS
0			**ASPHALT** **BASE** **ARTIFICIAL FILL (af)**			
5		9 10 11	@ 5' Dark brown, clayey SILT/sandy CLAY, moderately moist, very stiff	20.6	106.1	
			ALLUVIUM (Qal)			
10		5 10	@ 10' Brown, silty SAND/sandy CLAY, moderately moist, very stiff	26.1	96.4	
15		2 3	@ 15' Brown CLAY, moist to very moist, medium stiff	21.8	107.4	
20		2 3 5	@ 20' Dark brown, CLAY, moist, stiff	25.2		
25		7 8	@ 25' Groundwater, Brown, fine SAND, wet, medium dense	24.4	101.8	
30		1 1 2	@ 30' Brown, fine SAND wet, loose	31.6		

LEGEND

- STANDARD PENETRATION TEST
- CALIFORNIA RING
- ROCK CORE
- BULK SAMPLE
- SHELBY TUBE
- GROUND WATER (GW)
- WATER SEEPAGE

SIEVE: GRAIN SIZE ANALYSIS
MAX: MAXIMUM DRY DENSITY
DS: DIRECT SHEAR
CONS: CONSOLIDATION
HYDR: HYDROMETER ANALYSIS
EXPAN: EXPANSION INDEX
CHEM: CHEMICAL TESTS

Plate A-6

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GEOTECHNICAL BORING LOG

PROJECT NAME Warner Center

PROJECT No. 6743

BORING No. B-3

SHEET 2 of 2

DEPTH FEET	SAMPLE TYPE	BLOWS/ 6 INCHES	GEOTECHNICAL DESCRIPTION (continued)	MOISTURE CONTENT %	DRY (PCF) DENSITY	OTHER TESTS (Ref. Plate)
35		3 3	@ 35' Brown, silty CLAY, moist, medium dense	28.3	95.8	
40		2 4 6	@ 40' Brown, silty, sandy CLAY, moderately moist, stiff	24.1		
45		16 26	@ 45' Brown SAND with some CLAY, moist, dense, with some shells	25.5	97.2	
50		5 5 6	@ 50' Brown, silty SAND, moderately moist, medium dense, some shells	22.5		
55			Total Depth @ 50' Groundwater @ 25' No Caving			
60						
65						

LEGEND

- STANDARD PENETRATION TEST
- CALIFORNIA RING
- ROCK CORE
- BULK SAMPLE
- SHELBY TUBE
- GROUND WATER (GW)
- WATER SEEPAGE

SIEVE: GRAIN SIZE ANALYSIS
MAX: MAXIMUM DRY DENSITY
DS: DIRECT SHEAR
CONS: CONSOLIDATION
HYDR: HYDROMETER ANALYSIS
EXPAN: EXPANSION INDEX
CHEM: CHEMICAL TESTS

Plate A-7

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FORM: 00/10A

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GEOTECHNICAL BORING LOG

PROJECT NAME Warner Center
DRILLING COMPANY Choice | DATE STARTED 6/18/14 | PROJECT No. 6743
TYPE OF DRILL RIG | LOGGED BY JG | BORING No. B-4
DRILLING METHOD HSA | HAMMER WT (LBS) 140 | SHEET 1 of 2
DIAMETER OF HOLE (IN) 8" | DROP (IN) 30" | GROUND ELEVATION (FT)
BORING LOCATION: | GW ELEVATION (FT)

DEPTH FEET	SAMPLE TYPE	BLOWS/ 6 INCHES	GEOTECHNICAL DESCRIPTION	MOISTURE CONTENT %	DRY (PCF) DENSITY	OTHER TESTS
0		BULK 0-2.5'	**4" ASPHALT** **4" BASE** **ARTIFICIAL FILL (af)**			
		15 21	@ 2.5' Dark brown, silty CLAY, damp, stiff	22.0	102.5	
5		8 12	@ 5.5' Brown, silty CLAY, moist, stiff	24.8	96.4	
			ALLUVIUM (Qal)			
10		BULK 10-12'	@ 6' Orange-brown, sandy SILT with siltstone fragments, damp to moist, medium dense			
		6 8	@ 12.5' Brown, sandy CLAY, moist, stiff	25.6	96.4	
15		5 6	@ 17.5' Brown, sandy CLAY, wet, stiff	39.5	81.9	
20		6 8	@ 22.5' Brown, sandy CLAY, moist, stiff	29.7	95.3	
25		5 6	@ 27.5' Wet	20.3	110.6	
30		6 8 11		20.9		

LEGEND
- STANDARD PENETRATION TEST
- CALIFORNIA RING
- ROCK CORE
- BULK SAMPLE
- SHELBY TUBE
- GROUND WATER (GW)
- WATER SEEPAGE

SIEVE: GRAIN SIZE ANALYSIS
MAX: MAXIMUM DRY DENSITY
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CHEM: CHEMICAL TESTS

Plate A-8

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GEOTECHNICAL BORING LOG

PROJECT NAME Warner Center

PROJECT No. 6743

BORING No. B-4

SHEET 2 of 2

DEPTH FEET	SAMPLE TYPE	BLOWS/ 6 INCHES	GEOTECHNICAL DESCRIPTION (continued)	MOISTURE CONTENT %	DRY (PCF) DENSITY	OTHER TESTS (Ref. Plate)
35						
		16 25		22.1	106.1	
40						
		10 14 16	@ 42.5' Brown, sandy CLAY with some shells, damp, hard	20.9		
45						
		20 38	@ 47.5' Possible bedrock? Gray CLAYSTONE, damp to moist, hard	36.4	84.4	
50			Total Depth @ 48.5 Groundwater @ 22.5-47.5' No Caving			
55						
60						
65						

LEGEND

- STANDARD PENETRATION TEST
- CALIFORNIA RING
- ROCK CORE
- BULK SAMPLE
- SHELBY TUBE
- GROUND WATER (GW)
- WATER SEEPAGE

SIEVE: GRAIN SIZE ANALYSIS
MAX: MAXIMUM DRY DENSITY
DS: DIRECT SHEAR
CONS: CONSOLIDATION
HYDR: HYDROMETER ANALYSIS
EXPAN: EXPANSION INDEX
CHEM: CHEMICAL TESTS

Plate A-9

GeoSoils Consultants Inc.
GEOTECHNICAL · GEOLOGIC · ENVIRONMENTAL

FORM: 00/10A

X:\Boring Logs\Forms & Data\DATA\6743\B-4 Plate A-9.dwg, 8/6/2014 11:12:37 AM, Letter

GEOTECHNICAL BORING LOG

PROJECT NAME Warner Center

DRILLING COMPANY Choice | DATE STARTED 6/18/14 | PROJECT No. 6743

TYPE OF DRILL RIG | LOGGED BY JG | BORING No. B-5

DRILLING METHOD HSA | HAMMER WT (LBS) 140 | SHEET 1 of 3

DIAMETER OF HOLE (IN) 8" | DROP (IN) 30" | GROUND ELEVATION (FT)

BORING LOCATION: | GW ELEVATION (FT)

DEPTH FEET	SAMPLE TYPE	BLOWS/ 6 INCHES	GEOTECHNICAL DESCRIPTION	MOISTURE CONTENT %	DRY (PCF) DENSITY	OTHER TESTS
0			**5" ASPHALT** **10.5" BASE** **ARTIFICIAL FILL (af)**			
5	▨	12 20	@ 4' Brown, silty CLAY, damp, hard	15.9	110.6	
			ALLUVIUM (Qal)			
10	▨	9 12	@ 9' Brown, sandy, silty CLAY, moderately moist, very stiff	25.9	96.7	
15	▨	10 15	@ 14' Brown, silty CLAY, moderately moist, very stiff	16.6	94.5	
20	▨	18 30	@ 19' Brown, silty CLAY, moderately moist, hard	18.1	112.3	
25	▨	19 35	@ 24' Brown, silty CLAY, moderately moist, hard @ 25' Groundwater	22.5	103.7	
30	▨	16 22	@ 29' Brown, silty CLAY, moist, hard	23.3	102.9	
	▩	6 8 16	@ 34' Brown, silty CLAY, moist, very stiff	25.2		

LEGEND

- STANDARD PENETRATION TEST
- CALIFORNIA RING
- ROCK CORE
- BULK SAMPLE
- SHELBY TUBE
- GROUND WATER (GW)
- WATER SEEPAGE

SIEVE: GRAIN SIZE ANALYSIS
MAX: MAXIMUM DRY DENSITY
DS: DIRECT SHEAR
CONS: CONSOLIDATION
HYDR: HYDROMETER ANALYSIS
EXPAN: EXPANSION INDEX
CHEM: CHEMICAL TESTS

Plate A-10

GeoSoils Consultants Inc.
GEOTECHNICAL · GEOLOGIC · ENVIRONMENTAL

FORM: 00/10

X:\Boring Logs\Forms & Data\DATA\6743\B-5 Plate A-10.dwg, 8/6/2014 11:15:35 AM, Letter

GEOTECHNICAL BORING LOG

PROJECT NAME Warner Center

PROJECT No. 6743

BORING No. B-5

SHEET 2 of 3

DEPTH FEET	SAMPLE TYPE	BLOWS/ 6 INCHES	GEOTECHNICAL DESCRIPTION (continued)	MOISTURE CONTENT %	DRY (PCF) DENSITY	OTHER TESTS (Ref. Plate)
35						
40		16 24	@ 39' Brown, silty, clayey SAND, moist, dense, with some rock fragments	19.6	109.3	
45		5 6 8	@ 44' Brown CLAY, moist, stiff	28.5		
50		15 20	@ 49' Brown CLAY moderately moist, hard	25.2	101.0	
55		6 8 9	@ 55' Alternating layers of SAND and CLAY, moderately moist, very stiff	24.8		
60		25 38	@ 60' Light brown, silty SAND, moist, hard	23.9	102.2	
65		7 9 10	@ 65' Brown, silty CLAY, moderately moist, very stiff	22.2		

LEGEND

- STANDARD PENETRATION TEST
- CALIFORNIA RING
- ROCK CORE
- BULK SAMPLE
- SHELBY TUBE
- GROUND WATER (GW)
- WATER SEEPAGE

SIEVE: GRAIN SIZE ANALYSIS
MAX: MAXIMUM DRY DENSITY
DS: DIRECT SHEAR
CONS: CONSOLIDATION
HYDR: HYDROMETER ANALYSIS
EXPAN: EXPANSION INDEX
CHEM: CHEMICAL TESTS

Plate A-11

GeoSoils Consultants Inc.
GEOTECHNICAL · GEOLOGIC · ENVIRONMENTAL

FORM: 00/10A

X:\Boring Logs\Forms & Data\DATA\6743\B-5 Plate A-11.dwg, 8/6/2014 11:16:32 AM, Letter

GEOTECHNICAL BORING LOG

PROJECT NAME Warner Center

PROJECT No. 6743

BORING No. B-5

SHEET 3 of 3

DEPTH FEET	SAMPLE TYPE	BLOWS/ 6 INCHES	GEOTECHNICAL DESCRIPTION (continued)	MOISTURE CONTENT %	DRY (PCF) DENSITY	OTHER TESTS
70		19 34	@ 70' Brown to rust brown CLAY, moderately moist, hard	35.3	85.2	
75		10 14 19	@ 75' Brown with rust-brown, silty, sandy CLAY, moderately moist, hard	39.3		
			Total Depth @ 75' Groundwater @ 25' No Caving			
80						
85						
90						
95						
100						

LEGEND

- STANDARD PENETRATION TEST
- CALIFORNIA RING
- ROCK CORE
- BULK SAMPLE
- SHELBY TUBE
- GROUND WATER (GW)
- WATER SEEPAGE

SIEVE: GRAIN SIZE ANALYSIS
MAX: MAXIMUM DRY DENSITY
DS: DIRECT SHEAR
CONS: CONSOLIDATION
HYDR: HYDROMETER ANALYSIS
EXPAN: EXPANSION INDEX
CHEM: CHEMICAL TESTS

Plate A-12

GeoSoils Consultants Inc.
GEOTECHNICAL · GEOLOGIC · ENVIRONMENTAL

FORM: 00/10B

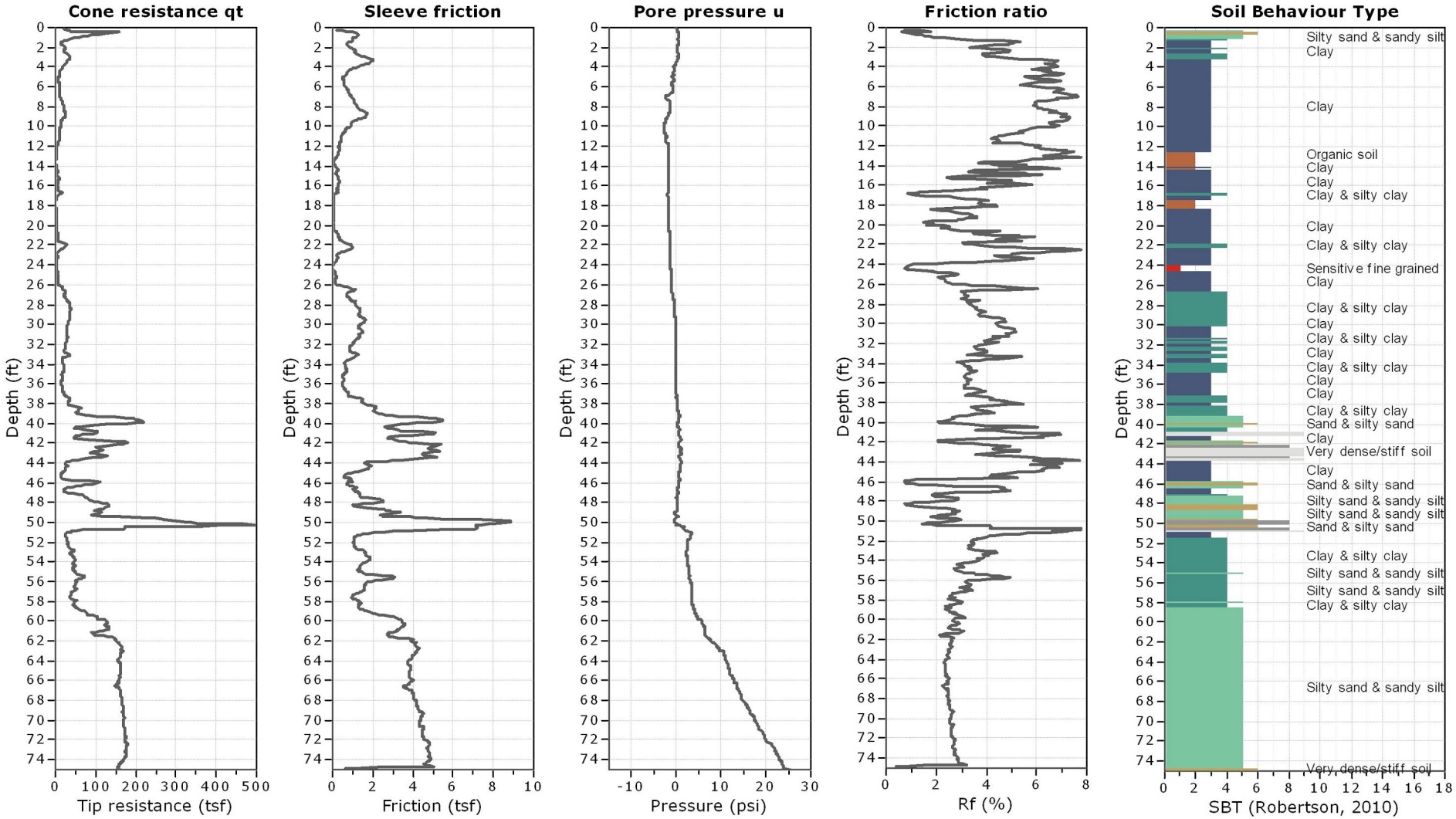
X:\Boring Logs\Forms & Data\DATA\6743\B-5 Plate A-12.dwg, 8/6/2014 11:17:48 AM, Letter

Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: CPT-1

Project: **GeoSoils Consultants, Inc./Warner Center**
Location: **Burbank Blvd. & De Soto Ave. Woodland Hills, CA**

Total depth: 75.05 ft, Date: 6/13/2014
Cone Type: Vertek

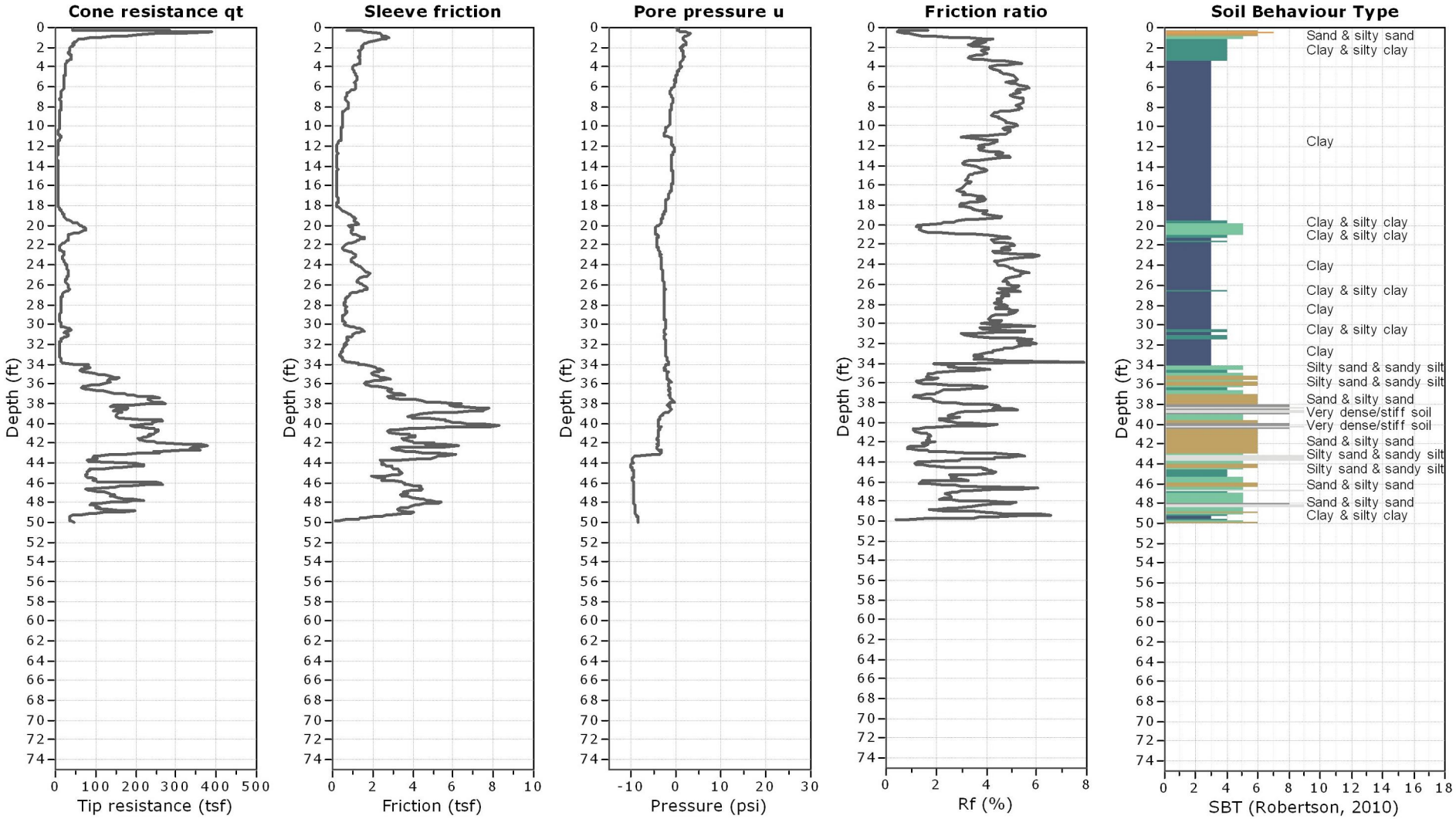


Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: CPT-2

Project: **GeoSoils Consultants, Inc./Warner Center**
Location: **Burbank Blvd. & De Soto Ave. Woodland Hills, CA**

Total depth: 50.07 ft, Date: 6/13/2014
Cone Type: Vertek

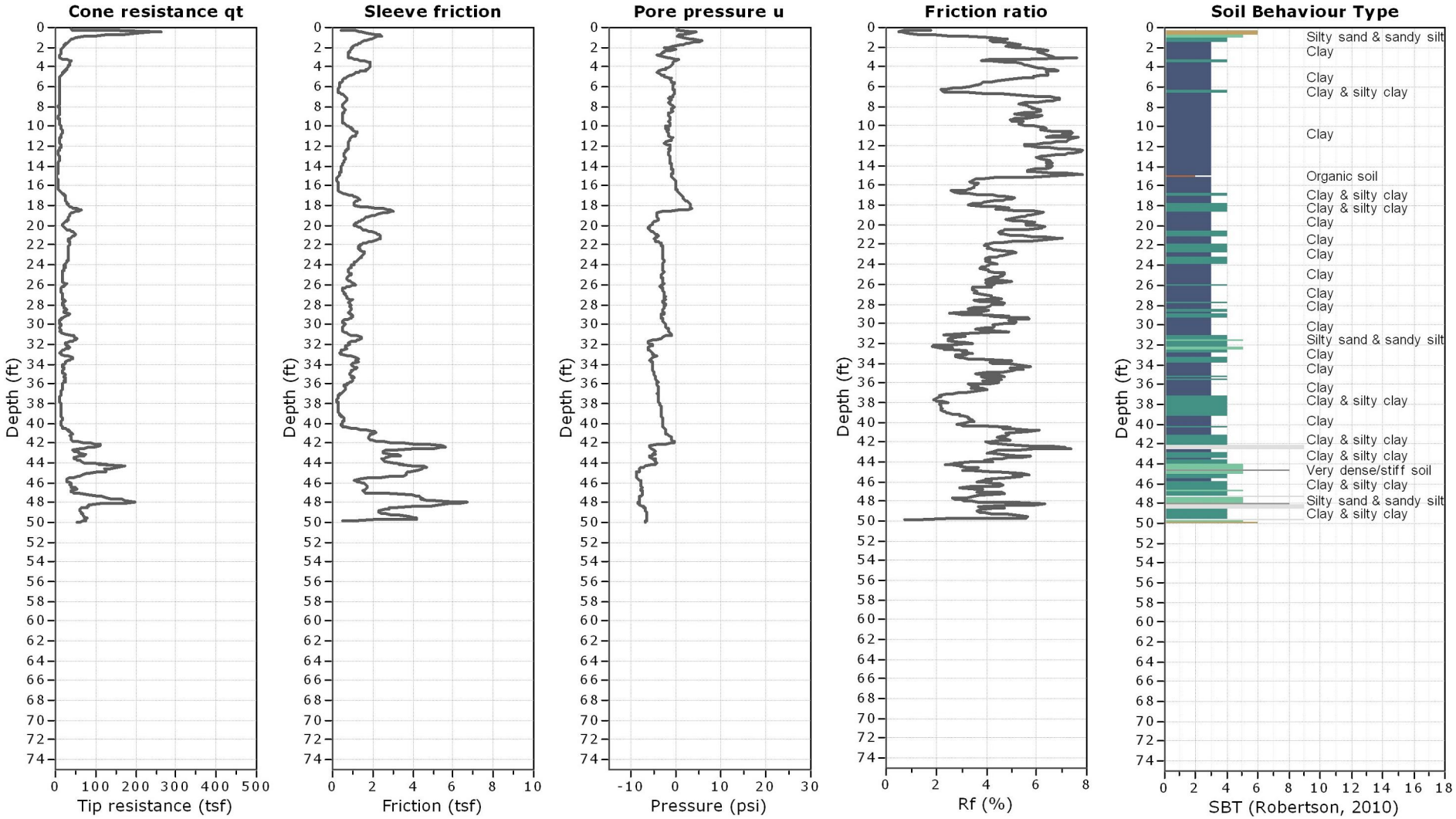


Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: CPT-3

Project: **GeoSoils Consultants, Inc./Warner Center**
Location: **Burbank Blvd. & De Soto Ave. Woodland Hills, CA**

Total depth: 50.06 ft, Date: 6/13/2014
Cone Type: Vertek

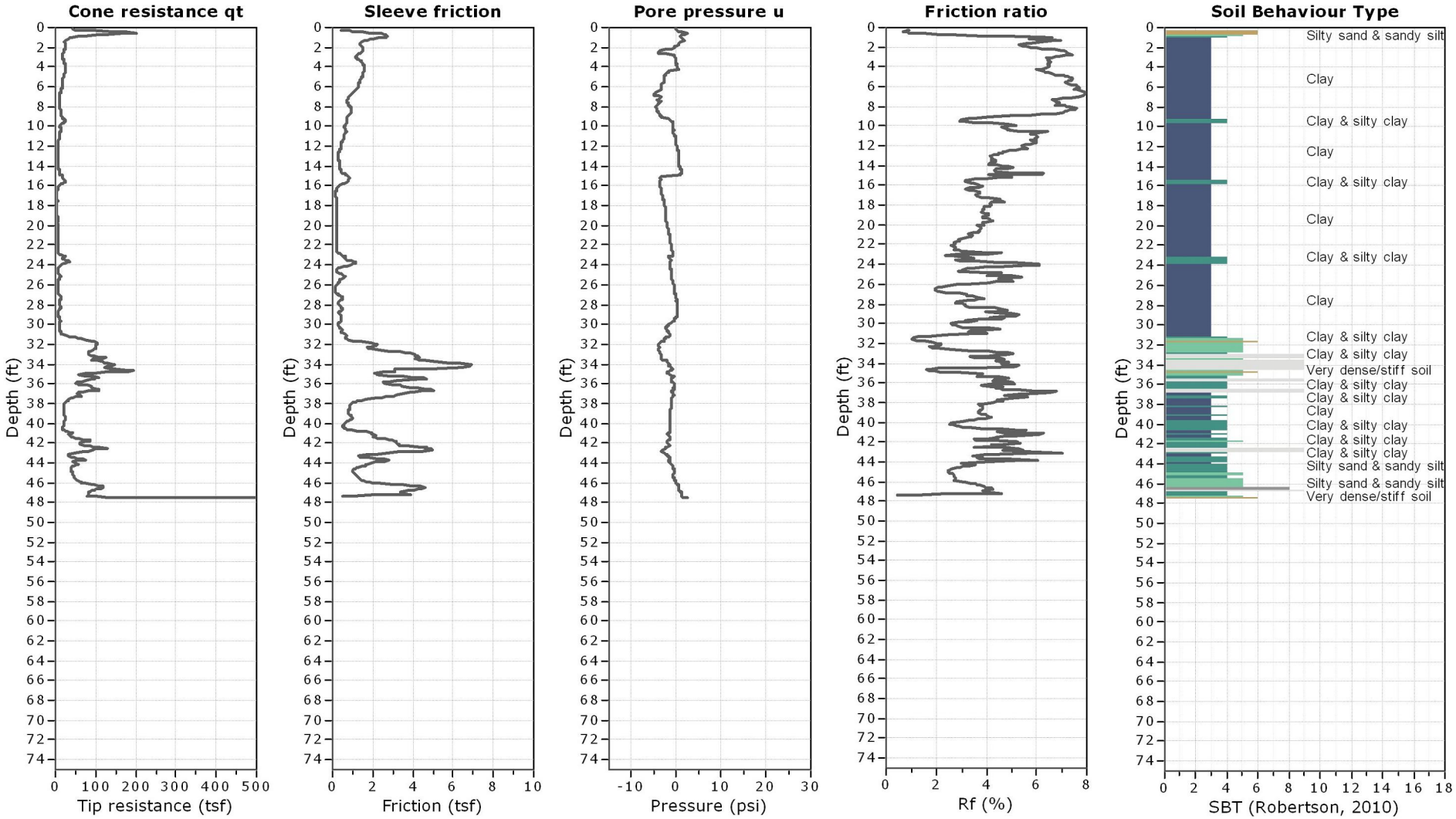


Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: CPT-4

Project: **GeoSoils Consultants, Inc./Warner Center**
Location: **Burbank Blvd. & De Soto Ave. Woodland Hills, CA**

Total depth: 47.57 ft, Date: 6/13/2014
Cone Type: Vertek

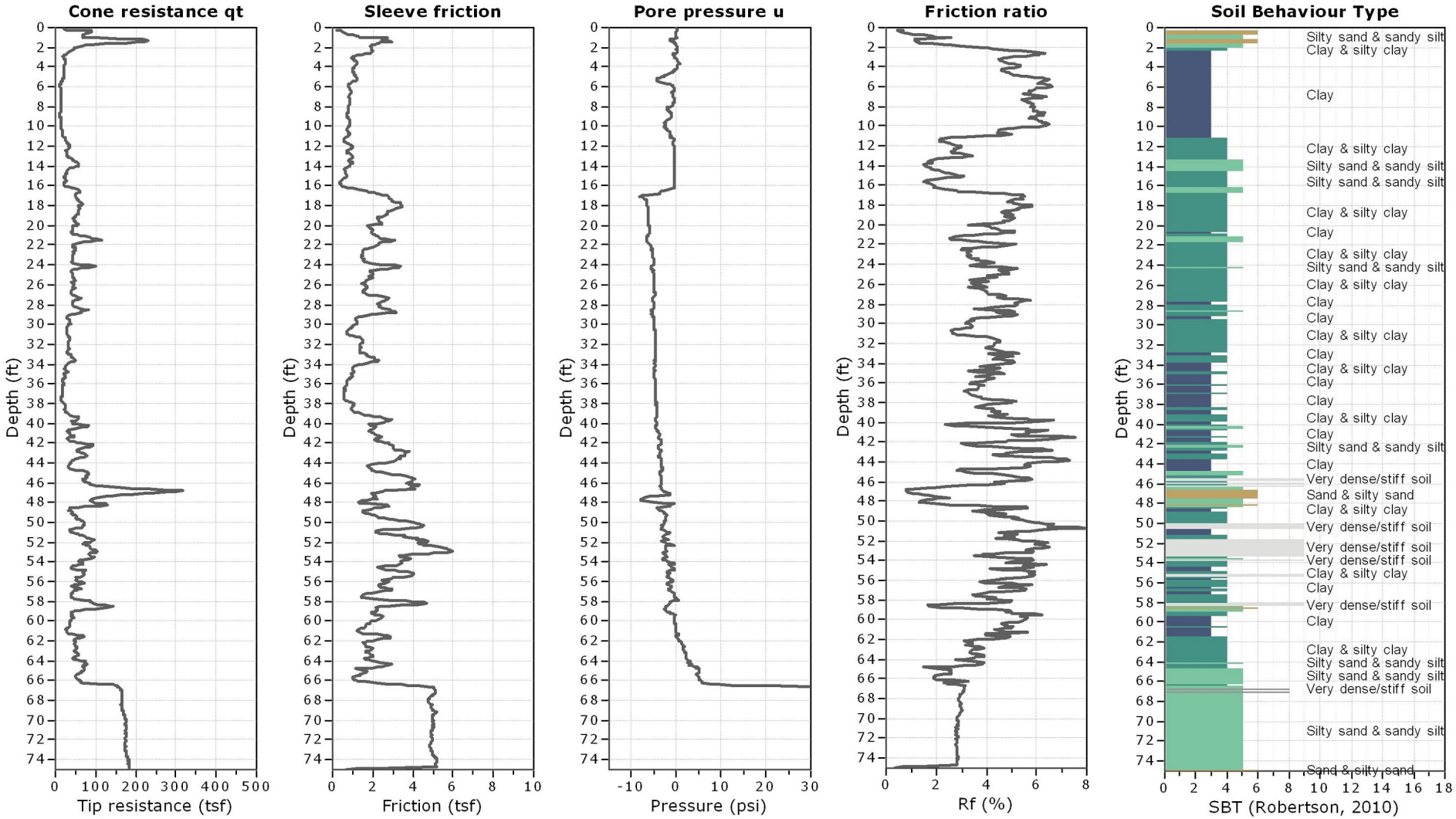


Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: CPT-5

Project: **GeoSoils Consultants, Inc./Warner Center**
Location: **Burbank Blvd. & De Soto Ave. Woodland Hills, CA**

Total depth: 75.08 ft, Date: 6/13/2014
Cone Type: Vertek

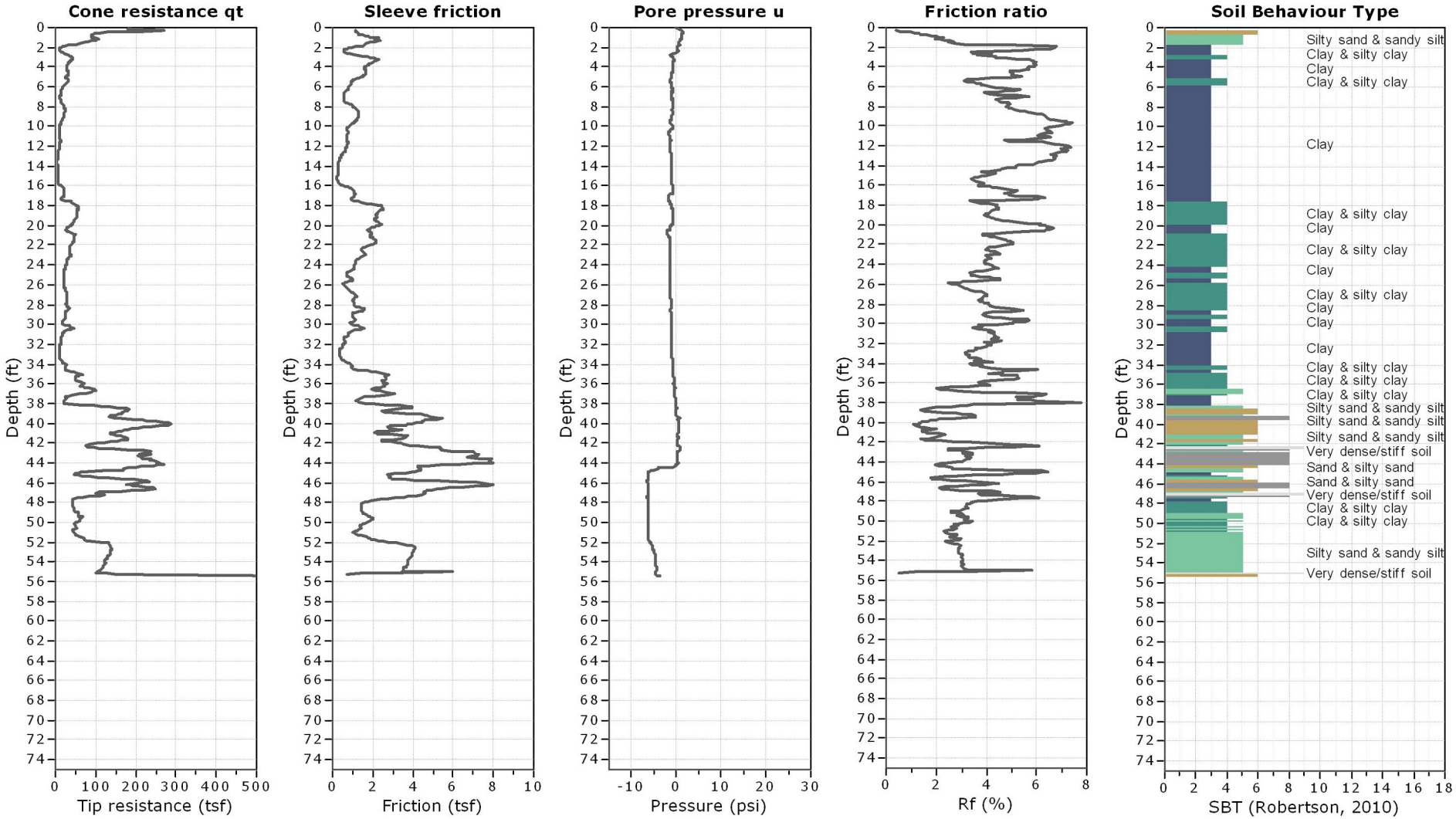


Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: CPT-6

Project: **GeoSoils Consultants, Inc./Warner Center**
Location: **Burbank Blvd. & De Soto Ave. Woodland Hills, CA**

Total depth: 55.42 ft, Date: 6/13/2014
Cone Type: Vertek



TEST PIT LOG 1

GEOSOILS CONSULTANTS, INC.

CLIENT:	SEG Advisors	ELEVATION:		WORK	6743
ADDRESS:		LOGGED BY:	JG	DATE:	6-19-14

Depth	Material Type	Material Description	Comments
0-6'	Artificial Fill (af)	@ 0-5.5', Dark brown to dark gray brown, slightly sandy, silty CLAY to clayey SILT, firm, moist to very moist, top 3' soft (soft scattered concrete fragments), seepage @ 3'6" @ 5.5-6', Medium brown, slightly sandy, silty CLAY to clayey SILT, firm, moist	
6-7'	Alluvium (Qal)	Medium brown, clayey SILT to silty CLAY, moist, firm	

Scale: H:____ V:____ Pit Orient.: _____ Natural Slope: Angle _____ T. D. 8'____

Illustration

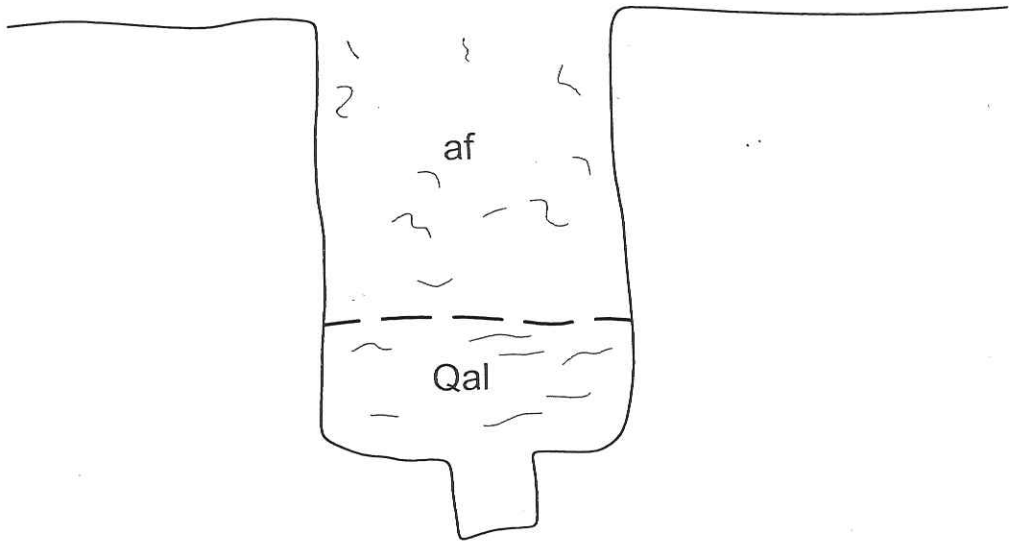


Plate TP-1

APPENDIX B
LABORATORY TESTING PROCEDURES AND RESULTS

APPENDIX B

LABORATORY TESTING PROCEDURES AND RESULTS

Moisture Density

The field moisture content and dry unit weights were determined for each undisturbed ring sample obtained from our subsurface exploration. Moisture contents were also determined for the Standard Penetration Test samples (SPTs). Once the dry unit weights are determined, in-place densities of underlying soil profiles are estimated. The moisture content and dry unit weights are presented on Boring Logs B-1 through B-5 (Plates A-1 through A-12). Detailed sheets of moisture density data are included as Plates M-1 through M-3.

Gradation Analysis

Gradation analyses were used to determine the grain size composition of the younger alluvial deposits. The materials used in the analysis are shown in Table B1. The test results are included at the end of this appendix as Plates G-1 through G-5.

TABLE B1: GRADATION ANALYSIS

Boring	Depth (ft)	Passing 200 Sieve (%)
B-1	30	67.1
B-1	50	69.3
B-2	24	61.4
B-3	35	68.6
B-4	22.5	54.8

Compaction Tests

A compaction test was performed to determine the moisture density relationship of the soils encountered on the site. The laboratory standard used was in accordance with ASTM Test Designation D-1557-12. A summary of the compaction test results are presented in Table B2.

TABLE B2: COMPACTION TEST RESULTS

Boring No. and Sample Depth	Description	Maximum Dry Density (pcf)	Optimum Moisture (%)
B-2 @ 0-2.5’	Dark brown, slightly sandy, silty CLAY	115.0	13.5

Direct Shear Tests

Three (3) direct shear tests were performed in a strain-control type direct shear machine. The samples were sheared under varying confining loads in order to determine the Coulomb shear strength parameters: cohesion (c) and internal friction angle (ϕ) for residual strength conditions.

The samples were tested in an artificially saturated condition. The results are plotted and a linear approximation is drawn of the failure curve. Results are shown on the shear test diagrams, Plates SH-1 through SH-3 of this appendix.

Expansion Index Test

The expansion potential of the on-site soils was determined by performing an expansion index test in accordance with ASTM D4829. The results are presented in Table B3.

TABLE B3: EXPANSION INDEX RESULTS

Boring No.	Depth (ft)	Expansion Index	Expansion Potential
B-2	0-2.5’	51	Medium

Consolidation Tests

Eight (8) consolidation tests were performed on selected ring samples. The samples were inundated at an approximate load of one ton per square foot to monitor the hydroconsolidation. Loads were applied to the samples in several increments in geometric progression and the resulting deformations were recorded at selected time intervals. Results of the consolidation are presented on Plates C-1 through C-8.

Chemical Series Tests

A bulk sample of representative soil was sent to an outside laboratory to determine the composition and concentration of chemicals that could be detrimental to construction. The sample was taken from Boring B-4 at a depth from 0 to 2.5 feet. The results are included on Plate L-1 of this appendix.

GeoSoils Consultants Inc.

RELATIVE COMPACTION DETERMINATION
WORKSHEET

CLIENT : SEG **WORK ORDER NO :** 6743 **DATE :** 07/09/14

SAMPLE			WET DENSITY (PCF)	MOISTURE %	DRY DENSITY (PCF)	MAXIMUM DENSITY (PCF)	OPTIMUM MOISTURE %	RELATIVE COMPACTION	NOTES
B-1	@	5.0	122.7	20.9	101.5				
	@	10.0	120.8	25.2	96.6				
	@	15.0	122.8	29.4	94.9				
	@	20.0	118.9	23.6	96.2				
	@	20.0		37.6					SPT
	@	25.0		37.0					SPT
	@	30.0	127.4	24.3	102.5				
	@	35.0		19.2					SPT
	@	40.0	127.7	22.1	104.6				
	@	45.0		24.7					SPT
	@	50.0	127.4	23.7	103.0				
	@	55.0	128.5	22.1	105.3				
	@	60.0		21.7					SPT
	@	65.0	126.7	19.6	105.9				
	@	75.0		37.4					SPT
B-2	@	4.0	125.4	22.1	102.7				
	@	9.0	118.0	30.0	90.8				
	@	14.0	119.7	30.5	91.7				
	@	19.0	131.5	22.0	107.8				
	@	24.0	129.6	21.1	107.0				
	@	30.0		20.9					SPT

GeoSoils Consultants Inc.

RELATIVE COMPACTION DETERMINATION
WORKSHEET

CLIENT : SEG **WORK ORDER NO :** 6743 **DATE :** 07/09/14

SAMPLE			WET DENSITY (PCF)	MOISTURE %	DRY DENSITY (PCF)	MAXIMUM DENSITY (PCF)	OPTIMUM MOISTURE %	RELATIVE COMPACTION	NOTES
B-2	@	35.0	125.1	26.9	98.6				
	@	40.0		28.0					SPT
	@	45.0	133.5	17.5	113.6				
	@	50.0		22.2					SPT
B-3	@	5.0	127.9	20.6	106.1				
	@	10.0	121.6	26.1	96.4				
	@	15.0	130.8	21.8	107.4				
	@	20.0		25.2					SPT
	@	25.0	126.6	24.4	101.8				
	@	30.0		31.6					SPT
	@	35.0	122.9	28.3	95.8				
	@	40.0		24.1					SPT
	@	45.0	121.9	25.5	97.2				
	@	50.0		22.5					SPT
B-4	@	2.5	125.0	22.0	102.5				
	@	7.5	120.4	24.8	96.4				
	@	12.5	121.1	25.6	96.4				
	@	17.5	114.2	39.5	81.9				
	@	22.5	123.6	29.7	95.3				
	@	27.5	133.0	20.3	110.6				
	@	32.5		20.9					SPT

GeoSoils Consultants Inc.

RELATIVE COMPACTION DETERMINATION
WORKSHEET

CLIENT : SEG **WORK ORDER NO :** 6743 **DATE :** 07/09/14

SAMPLE	WET DENSITY (PCF)	MOISTURE %	DRY DENSITY (PCF)	MAXIMUM DENSITY (PCF)	OPTIMUM MOISTURE %	RELATIVE COMPACTION	NOTES
B-4 @ 37.5	129.5	22.1	106.1				
@ 42.5		20.9					SPT
@ 47.5	115.2	36.4	84.4				
B-5 @ 4.0	128.1	15.9	110.6				
@ 9.0	121.8	25.9	96.7				
@ 14.0	110.1	16.6	94.5				
@ 19.0	132.6	18.1	112.3				
@ 24.0	127.1	22.5	103.7				
@ 29.0	126.9	23.3	102.9				
@ 34.0		25.2					SPT
@ 39.0	130.8	19.6	109.3				
@ 44.0		28.5					SPT
@ 49.0	126.4	25.2	101.0				
@ 55.0		24.8					SPT
@ 60.0	126.6	23.9	102.2				
@ 65.0		22.2					SPT
@ 70.0	115.3	35.3	85.2				
@ 75.0		39.3					SPT

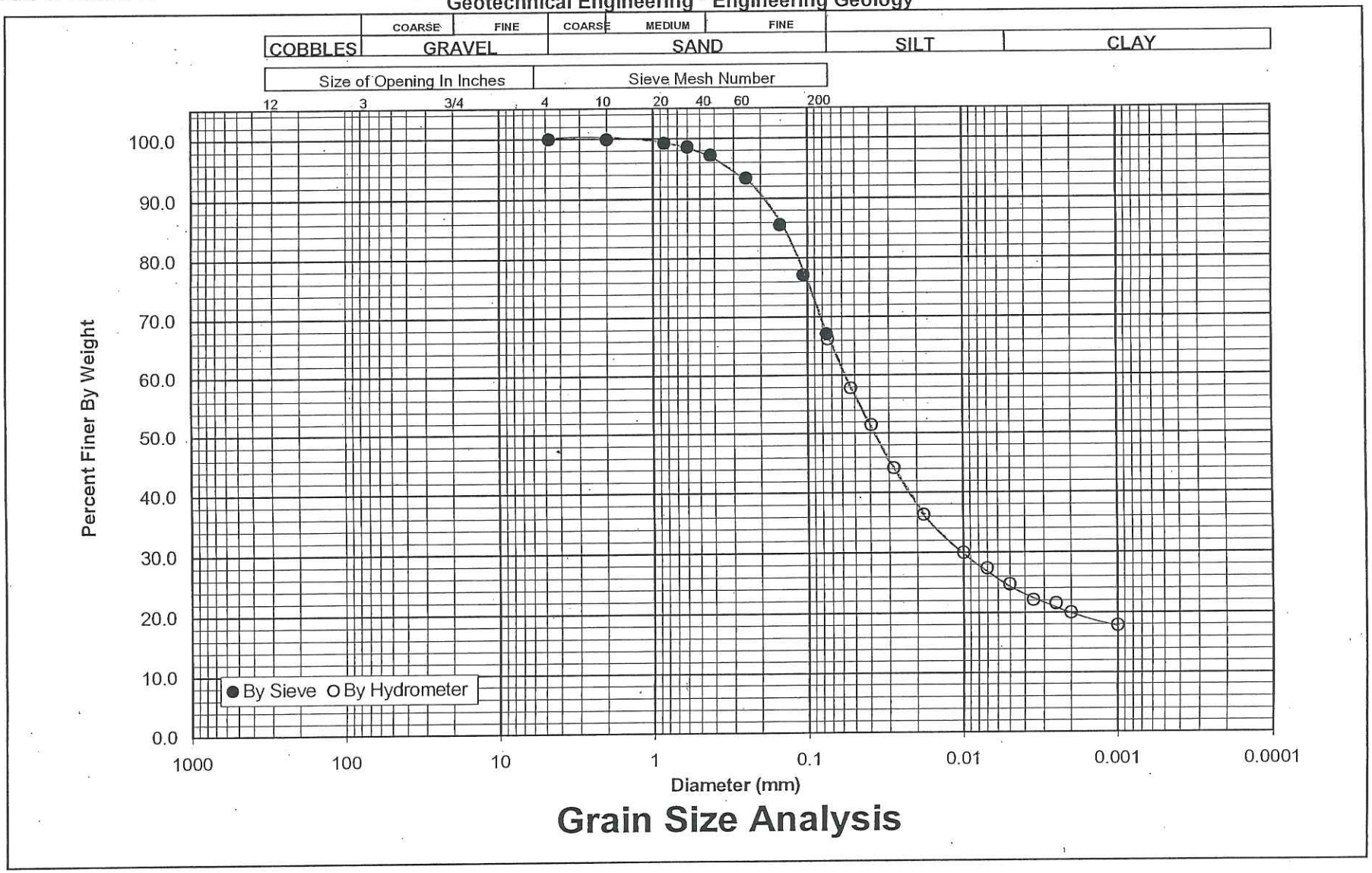
SEC
W.O. 6743

Date of Test: 7/14

GeoSoils Consultants, Inc.

Geotechnical Engineering * Engineering Geology

Moisture (%): 24.3
Liquid Limit (%):
Plastic Limit (%):
Plasticity Index :



Grain Size Analysis

B-1 @ 30.0'
Dark-brown, clayey SILT, w/ fine sand.

SH6743.1

Plate G-1

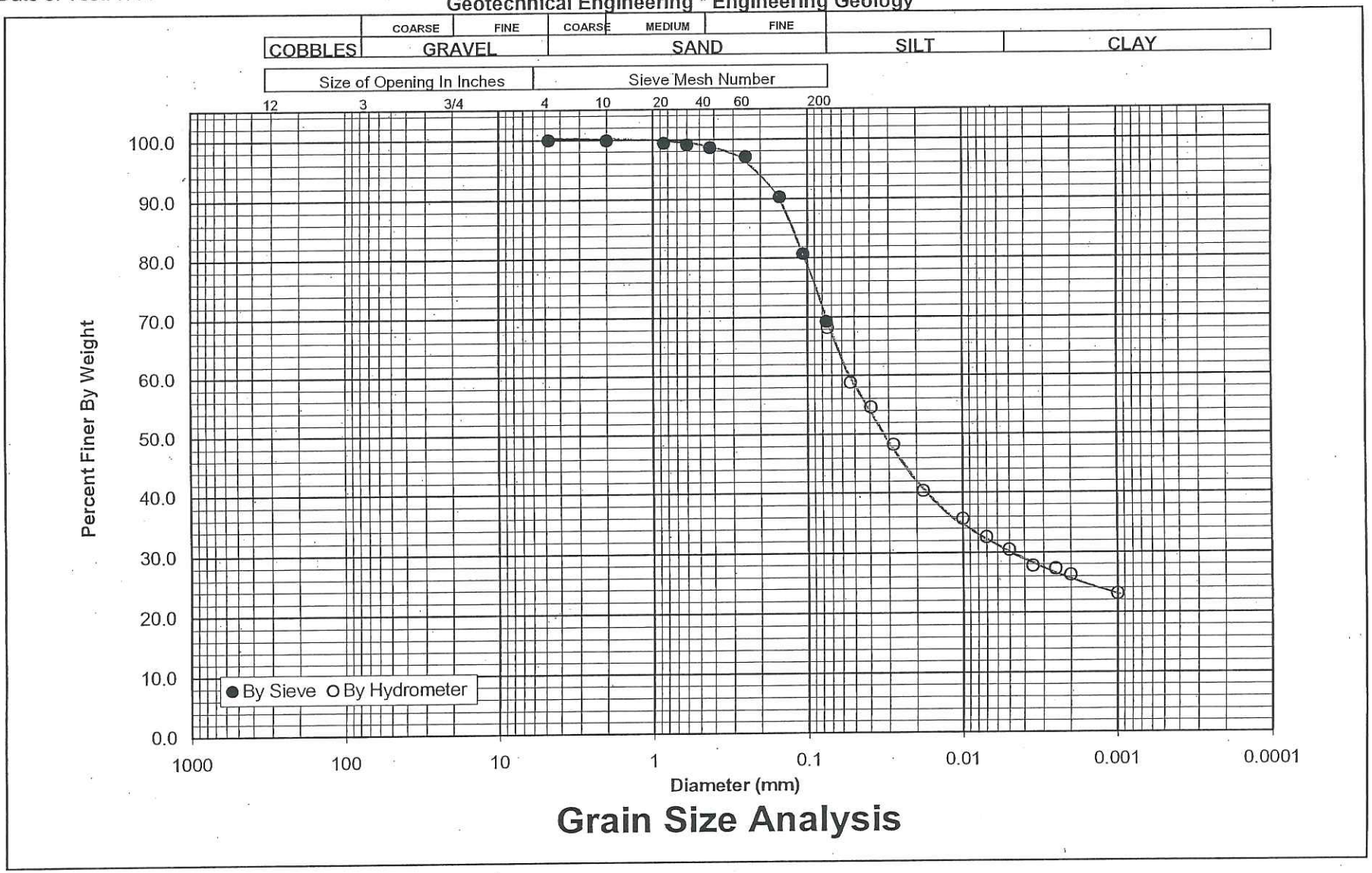
SEC
W.O. 6743

Date of Test: 7/14

GeoSoils Consultants, Inc.

Geotechnical Engineering * Engineering Geology

Moisture (%): 23.7
Liquid Limit (%):
Plastic Limit (%):
Plasticity Index :



Grain Size Analysis

B-1 @ 50.0'
Brown, fine, sandy SILT, w/ clay.

SH6743.2

Plate G-2

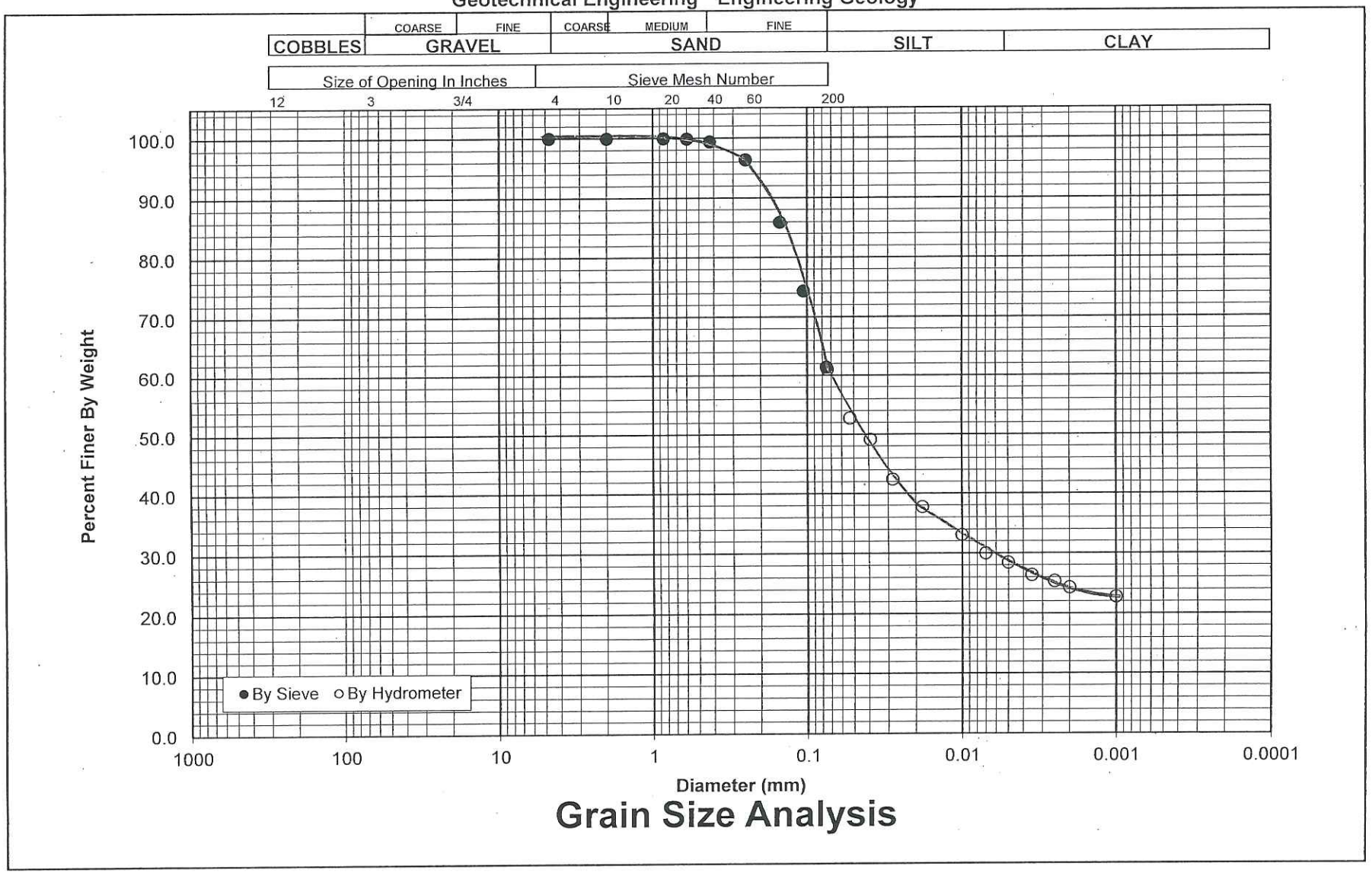
SEC
W.O. 6743

Date of Test: 7/14

GeoSoils Consultants, Inc.

Geotechnical Engineering * Engineering Geology

Moisture (%): 21.1
Liquid Limit (%):
Plastic Limit (%):
Plasticity Index :



Grain Size Analysis

B-2 @ 24.0'
Brown, silty fine SAND, w/ clay.

SH6743.3

Plate G-3

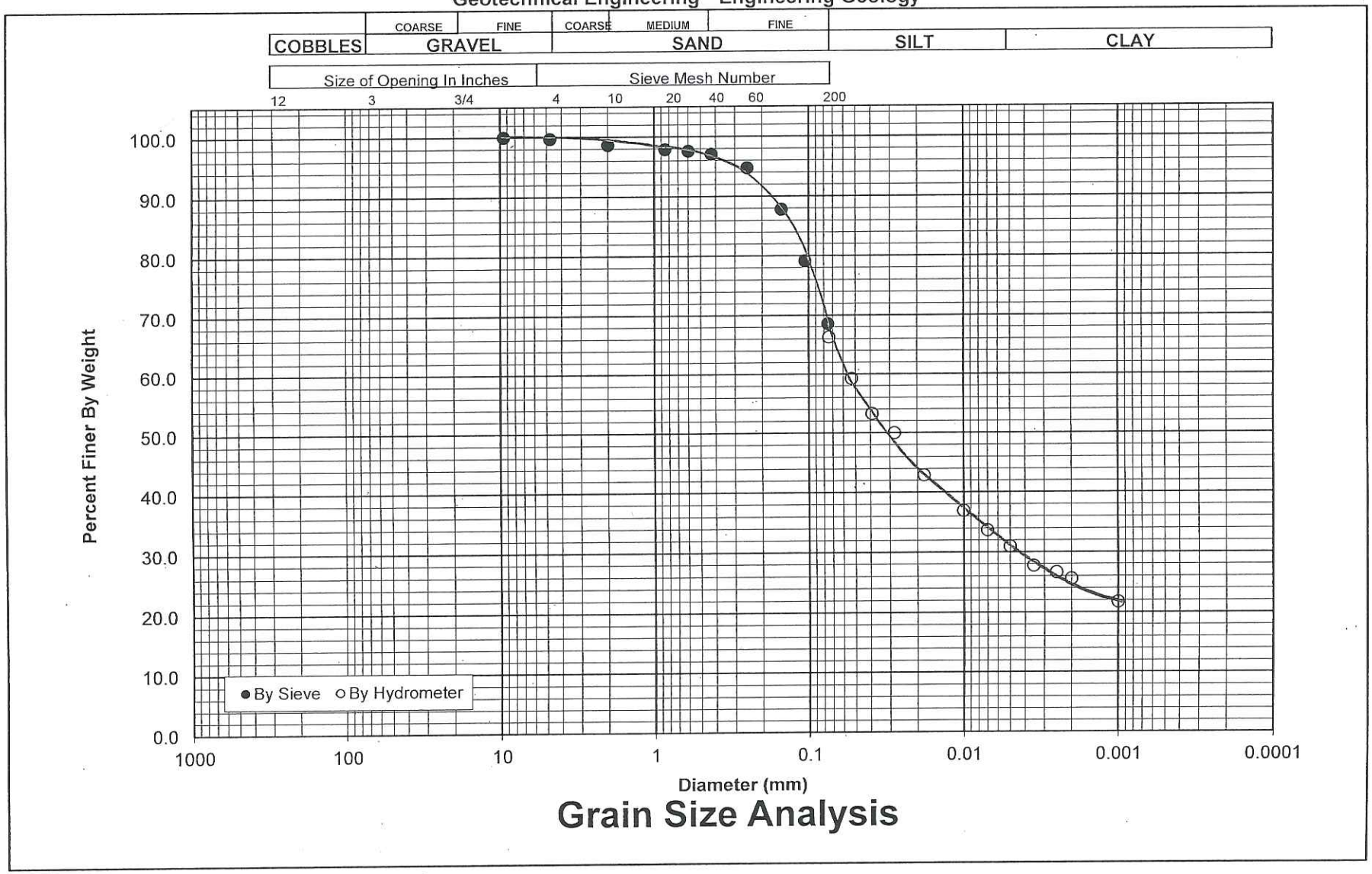
SEC
W.O. 6743

Date of Test: 7/14

GeoSoils Consultants, Inc.

Geotechnical Engineering * Engineering Geology

Moisture (%): 28.3
Liquid Limit (%):
Plastic Limit (%):
Plasticity Index :



Grain Size Analysis

B-3 @ 35.0'
Dark-brown, fine sandy SILT, w/ clay.

SH6743.4

Plate G-4

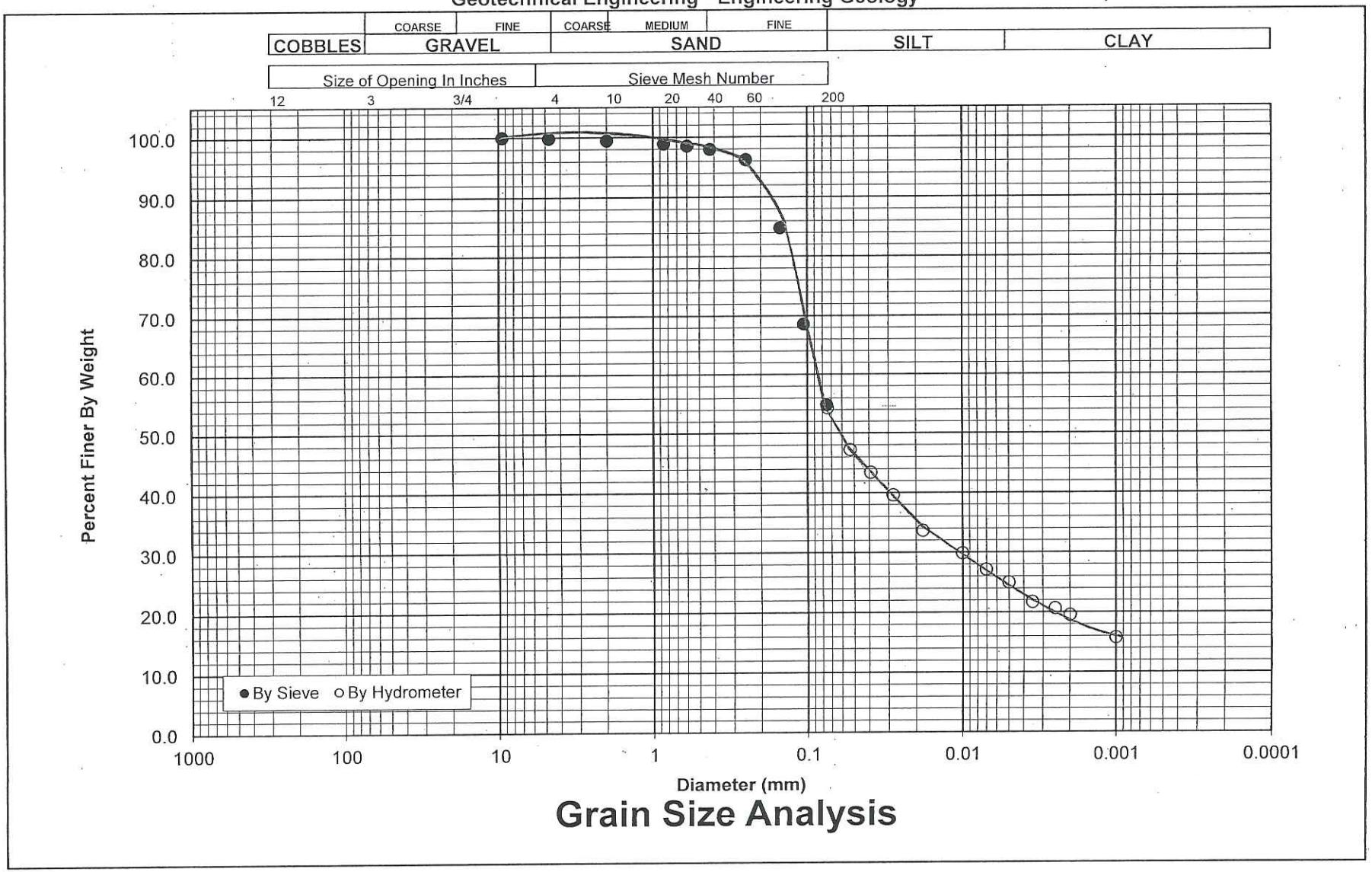
SEC
W.O. 6743

Date of Test: 7/14

GeoSoils Consultants, Inc.

Geotechnical Engineering * Engineering Geology

Moisture (%): 29.7
Liquid Limit (%):
Plastic Limit (%):
Plasticity Index :



Grain Size Analysis

B-4 @ 22.5'
Brown, fine, sandy SILT, w/ clay.

SH6743.5

Plate G-5

SEG
W.O.: 6743

PLATE SH-1

GeoSoils Consultants, Inc.

Geotechnical Engineering * Engineering Geology

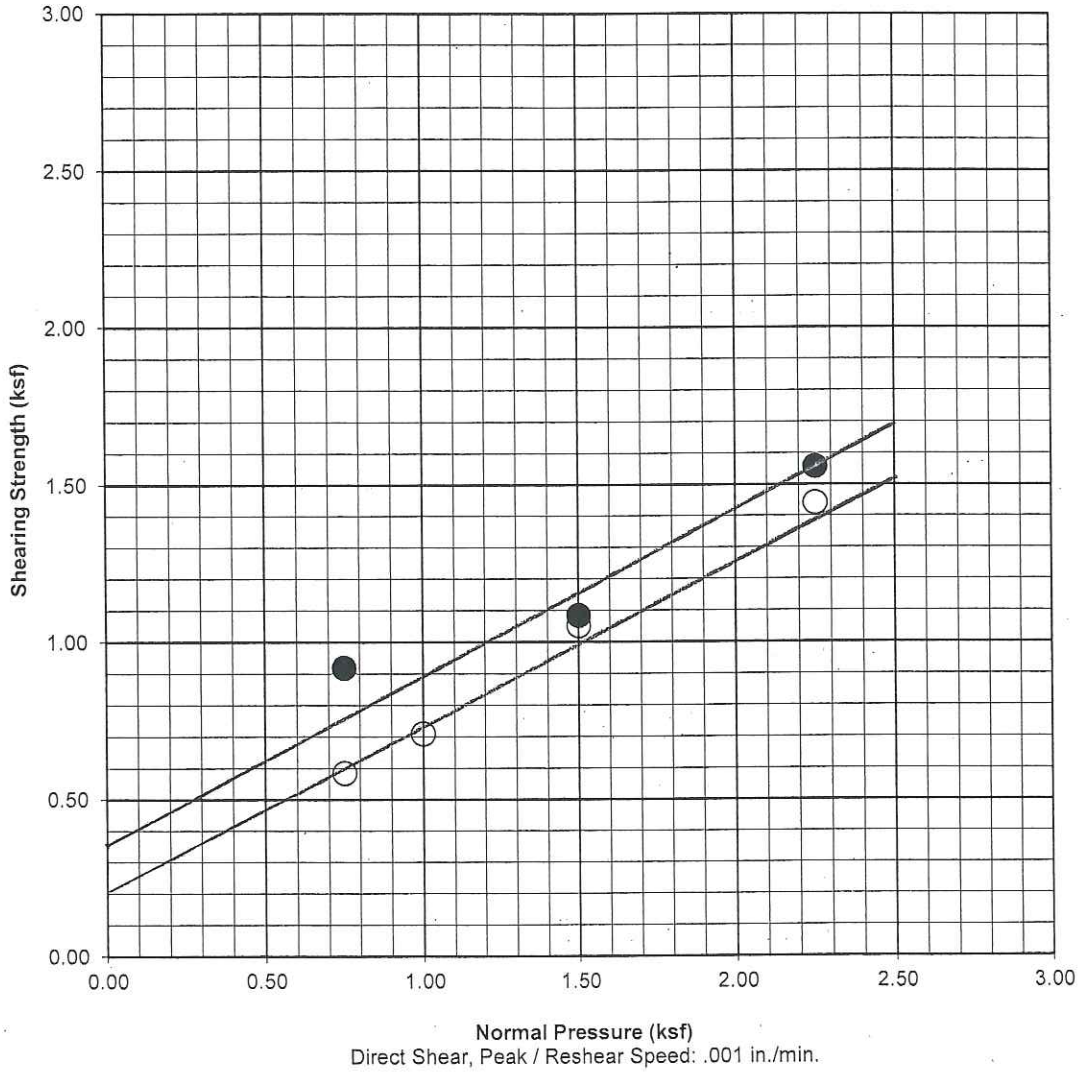
Date of Test: 7/14

Sample: **B-2 @ 0 - 2.5'**

Shear Test Diagram

Peak
C(psf): **360** Phi (degrees): **27.5**

Reshear
C(psf): **200** Phi (degrees): **27.5**



Sample **Remolded** to 90% Relative Density, Saturated.
Remolded Dry Density = 103.5 PCF

Dk-brown, slightly sandy, silty CLAY.

MAX: 115.0 PCF: 13.5%

24.7% Saturated Moisture Content

6743.1

SEG
W.O. 6743

Date of Test: 7/14

Sample: **B-2 @ 19'**

PLATE SH-2

GeoSoils Consultants, Inc.

Geotechnical Engineering * Engineering Geology

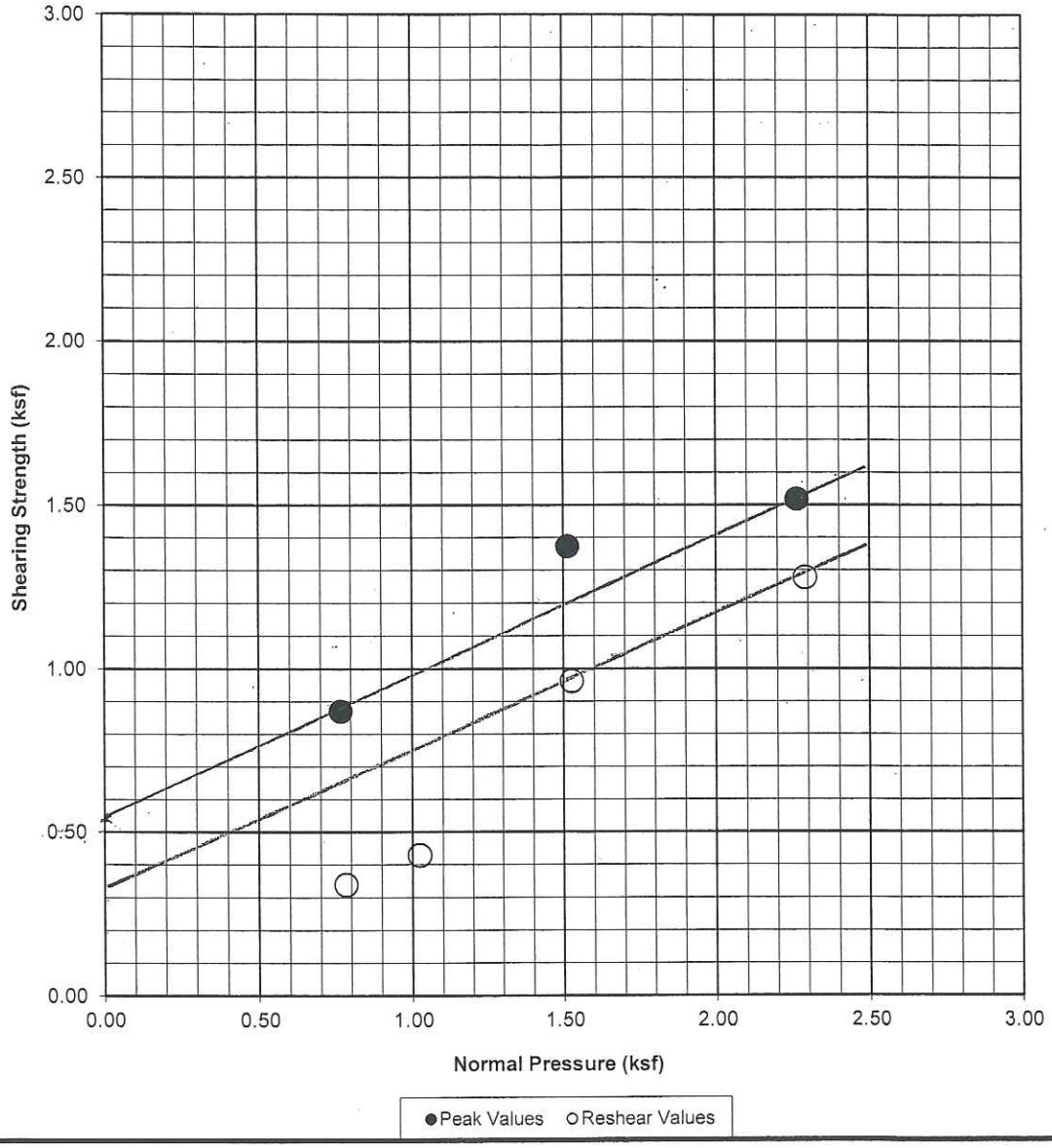
Shear Test Diagram

Peak

C(psf): **540** Phi (degrees): **25.0**

Reshear

C(psf): **330** Phi (degrees): **24.0**



Undisturbed **Natural** Shear-Saturated

Brown, slightly sandy, silty CLAY.

32.3% Saturated Moisture Content

6743.2

SEG
W.O.6743

PLATE SH-3

GeoSoils Consultants, Inc.

Geotechnical Engineering * Engineering Geology

Date of Test: 7/14

Sample: **B-5 @ 39.0'**

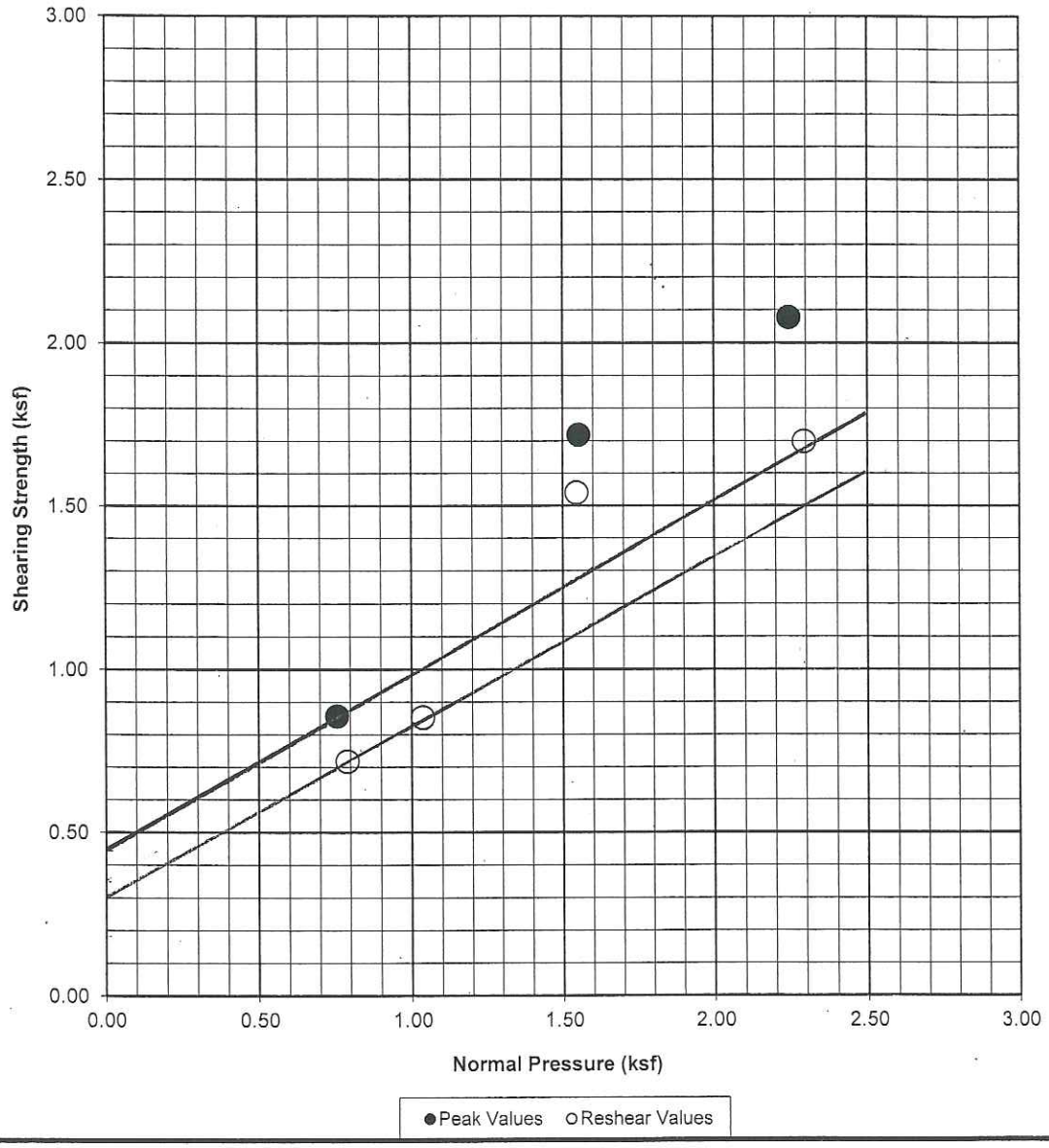
Shear Test Diagram

Peak

C(psf): **460** Phi (degrees): **29.5**

Reshear

C(psf): **300** Phi (degrees): **29.5**



Undisturbed **Natural** Shear-Saturated

Brown, slightly clayey, silty, very fine to fine SAND.

20.8% Saturated Moisture Content

6743.3

Seg
W.O.: 6743

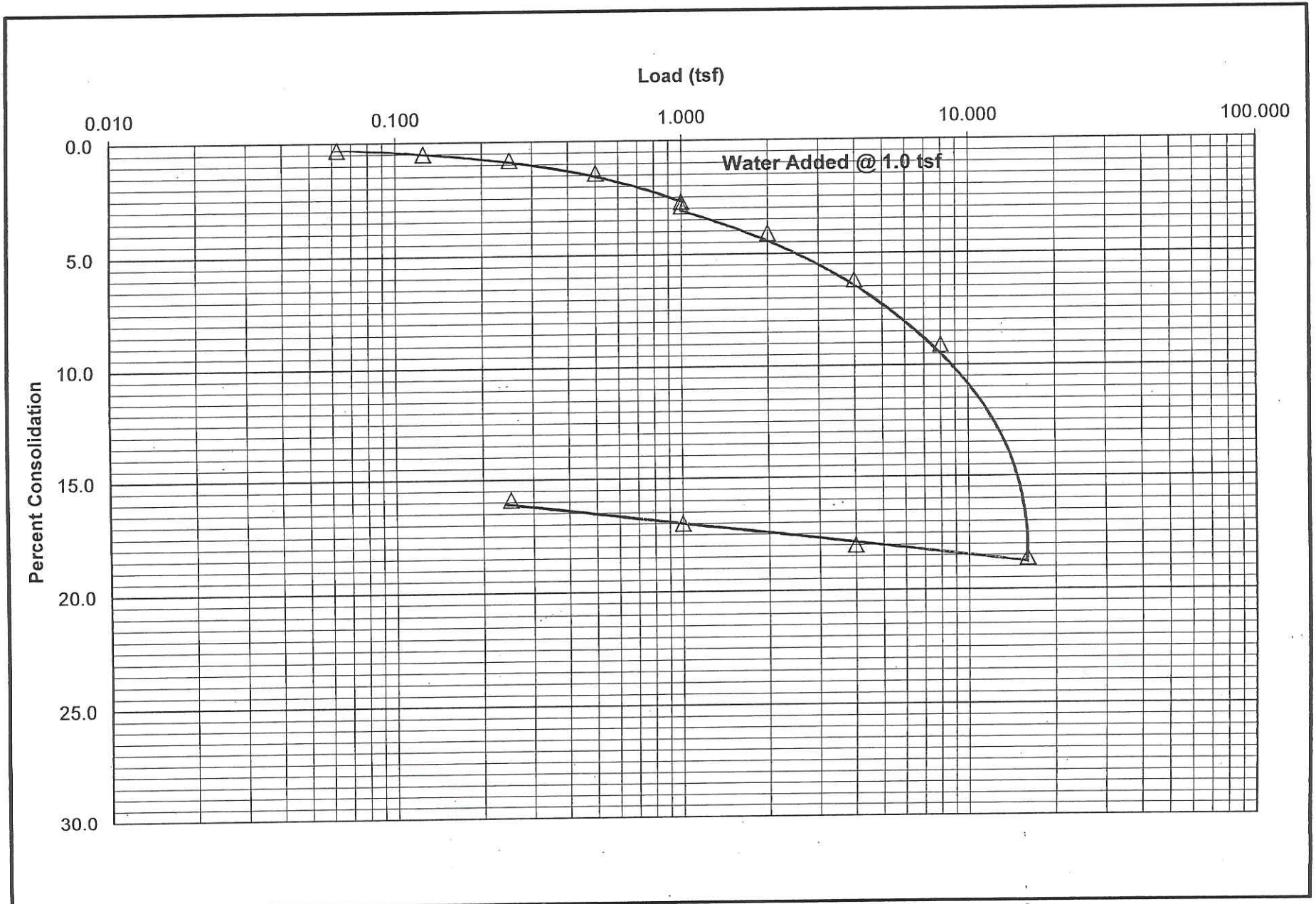
Date of Test: 7/14

GeoSoils Consultants, Inc.

Geotechnical Engineering * Engineering Geology

Moisture(%)
Before: 25.2 After: 23.1

Sample(in.)
Height: 1.00 Diameter: 2.36



B-1 @ 10.0'
Brown, CLAY.

Consolidation Diagram

C6743.1

Plate C-1

Seg
W.O.: 6743

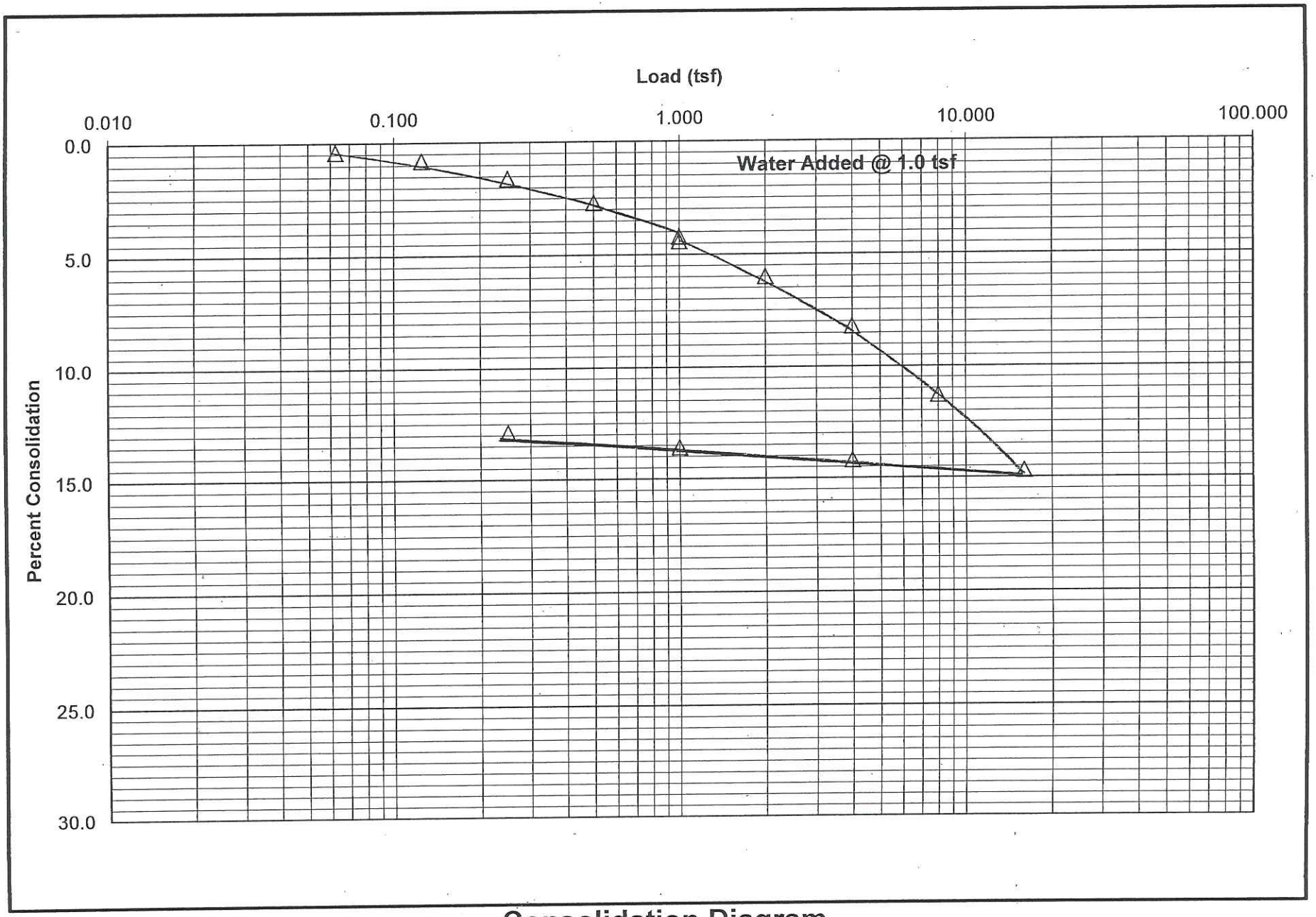
Date of Test: 7/14

GeoSoils Consultants, Inc.

Geotechnical Engineering * Engineering Geology

Moisture(%)
Before: 23.6 After: 21.4

Sample(in.)
Height: 1.00 Diameter: 2.36



Consolidation Diagram

C6743.2

B-1 @ 20.0'
Medium-brown, slightly clayey, silty very fine to fine SAND.

Plate C-2

Seg
W.O.: 6743

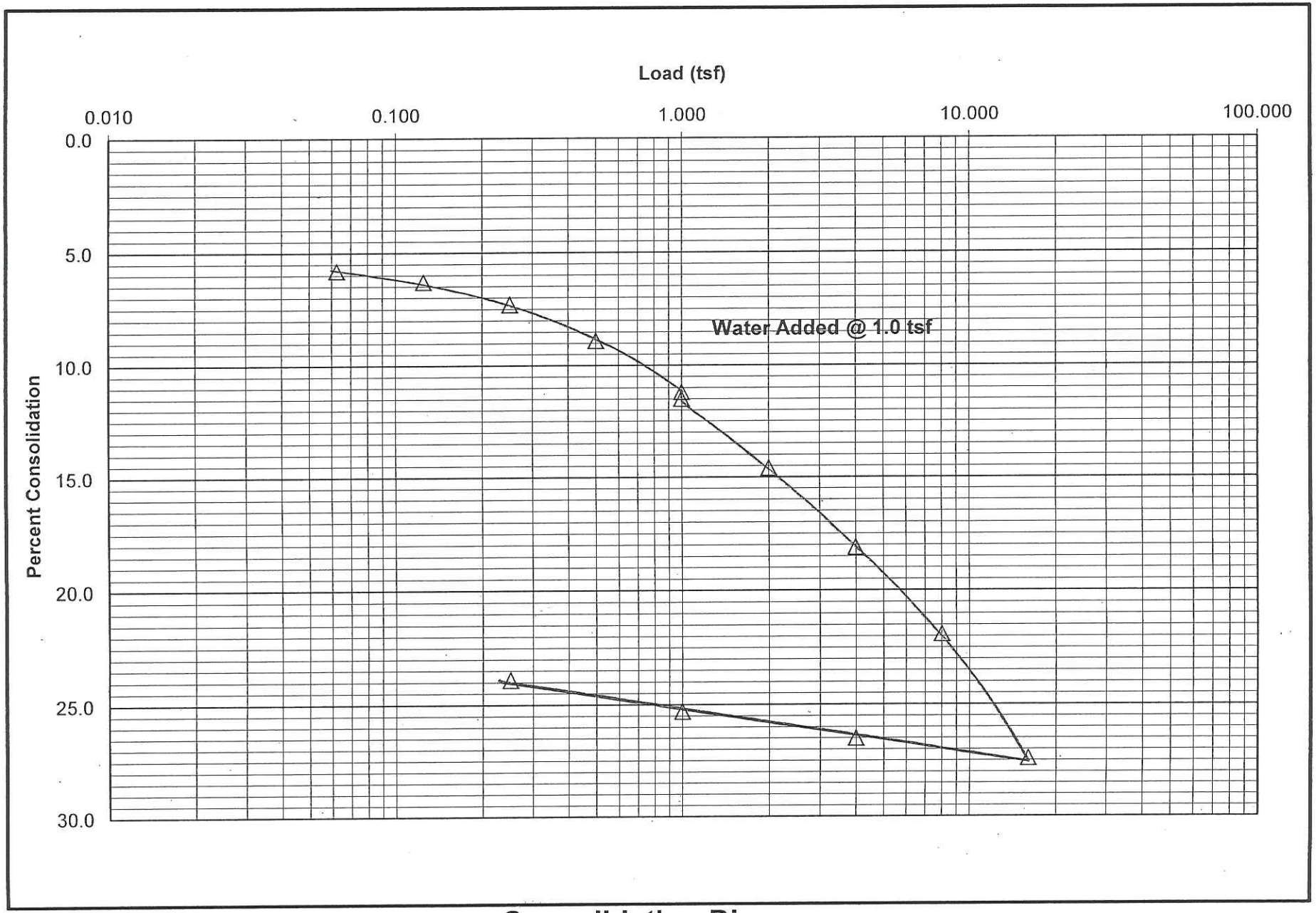
Date of Test: 7/14

GeoSoils Consultants, Inc.

Geotechnical Engineering * Engineering Geology

Moisture(%)
Before: 30.5 After: 22.6

Sample(in.)
Height: 1.00 Diameter: 2.36



B-2 @ 14.0'
Brown, slgihtly sandy, silty CLAY.

Consolidation Diagram

C6743.3

Plate C-3

Seg
W.O.: 6743

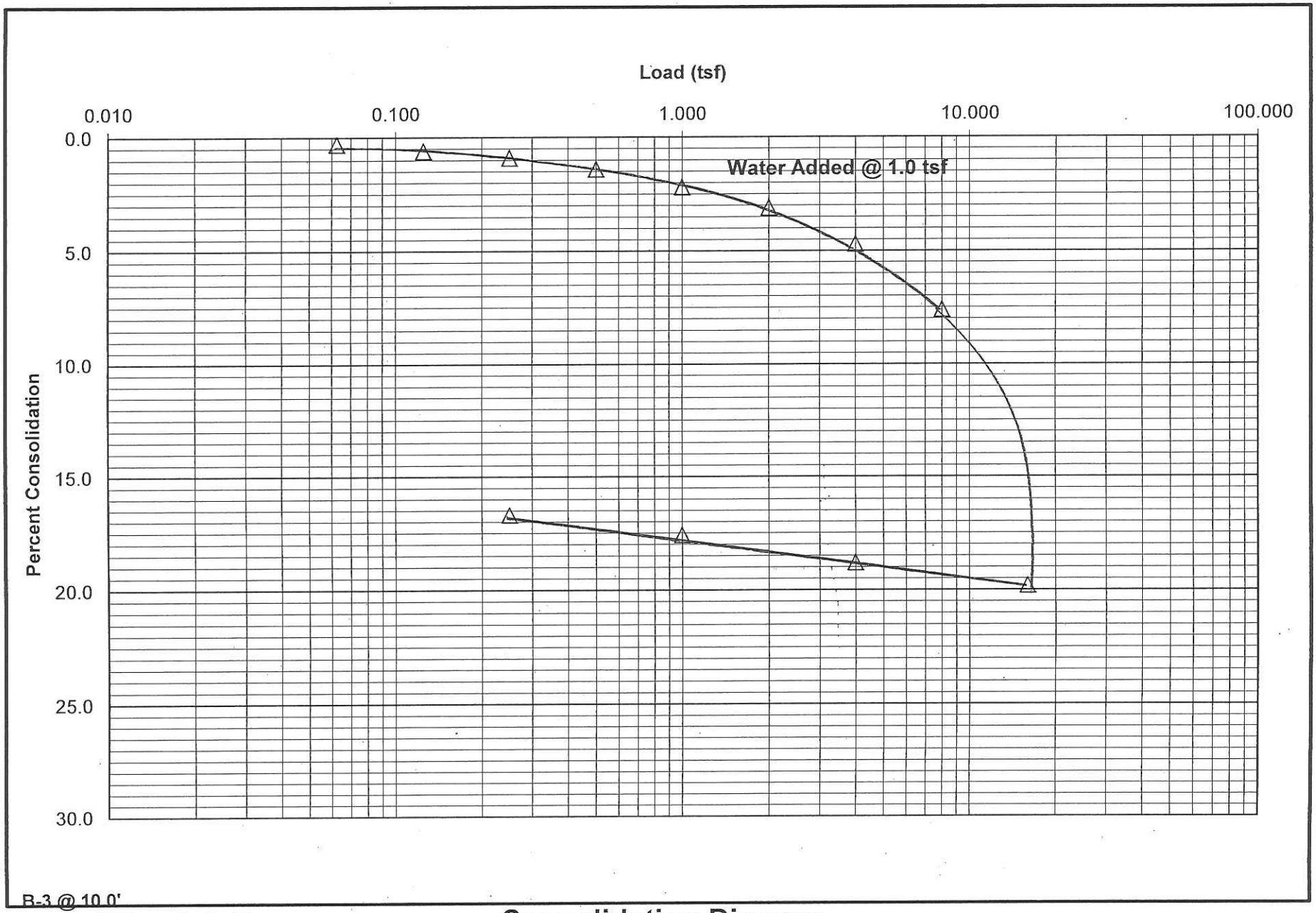
Date of Test: 7/14

GeoSoils Consultants, Inc.

Geotechnical Engineering * Engineering Geology

Moisture(%)
Before: 26.1 After: 26.7

Sample(in.)
Height: 1.00 Diameter: 2.36



B-3 @ 10.0'
Brown, slightly sandy CLAY.

Consolidation Diagram

C6743.4

Plate C-4

Seg
W.O.: 6743

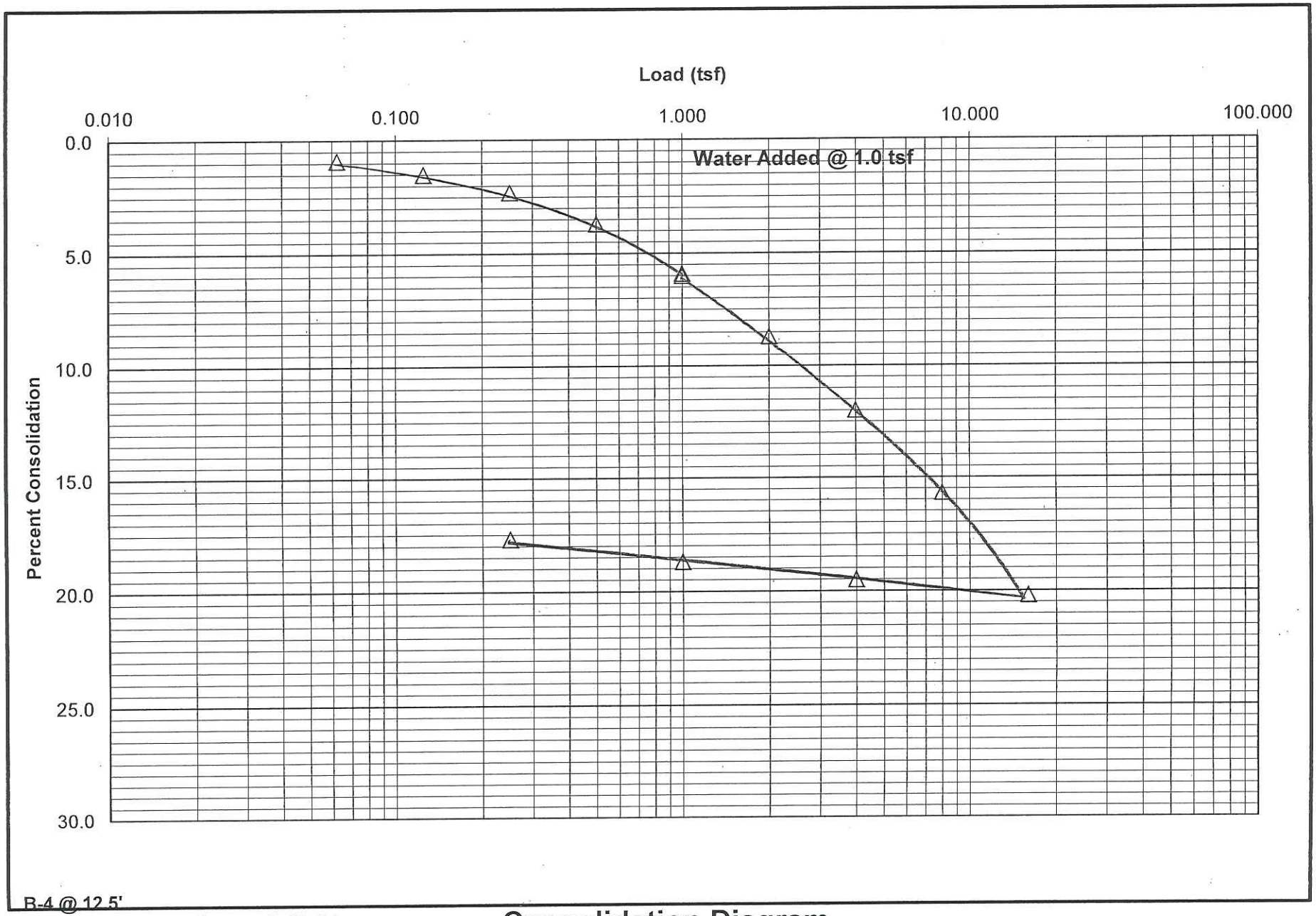
Date of Test: 7/14

GeoSoils Consultants, Inc.

Geotechnical Engineering * Engineering Geology

Moisture(%)
Before: 25.6 After: 21.3

Sample(in.)
Height: 1.00 Diameter: 2.36



B-4 @ 12.5'
Medium-brown, very fine sandy CLAY.

Consolidation Diagram

C6743.5

Plate C-5

Seg
W.O.: 6743

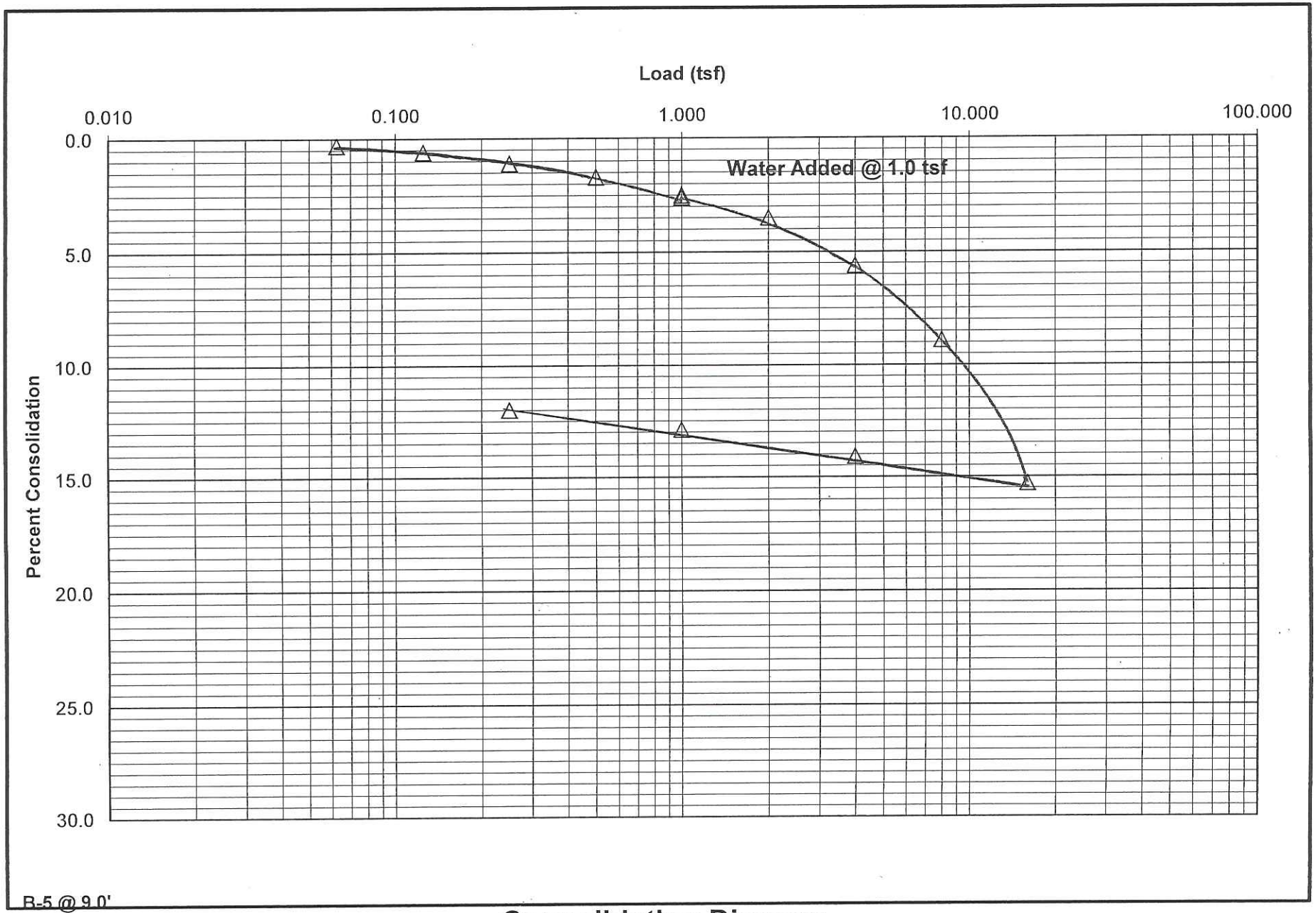
Date of Test: 7/14

GeoSoils Consultants, Inc.

Geotechnical Engineering * Engineering Geology

Moisture(%)
Before: 25.9 After: 24.6

Sample(in.)
Height: 1.00 Diameter: 2.36



B-5 @ 9.0'
Brown,silty CLAY.

Consolidation Diagram

C6743.6

Plate C-6

Seg
W.O.: 6743

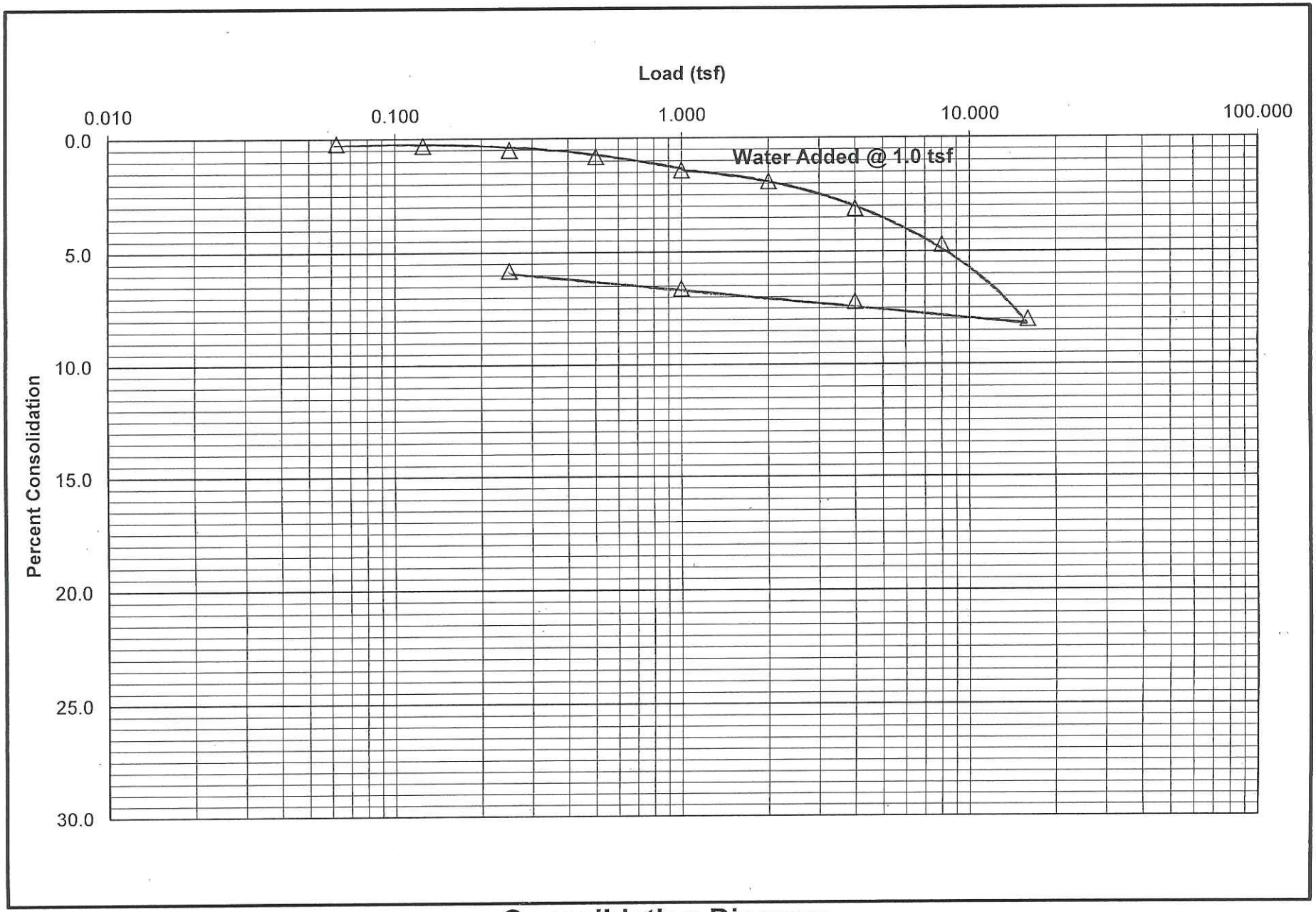
Date of Test: 7/14

GeoSoils Consultants, Inc.

Geotechnical Engineering * Engineering Geology

Moisture(%)
Before: 18.1 After:19.3

Sample(in.)
Height: 1.00 Diameter: 2.36



B-5 @ 19.0'
Brown,clayey sandy, SILT.

Consolidation Diagram

C6743.7

Plate C-7

Seg
W.O.: 6743

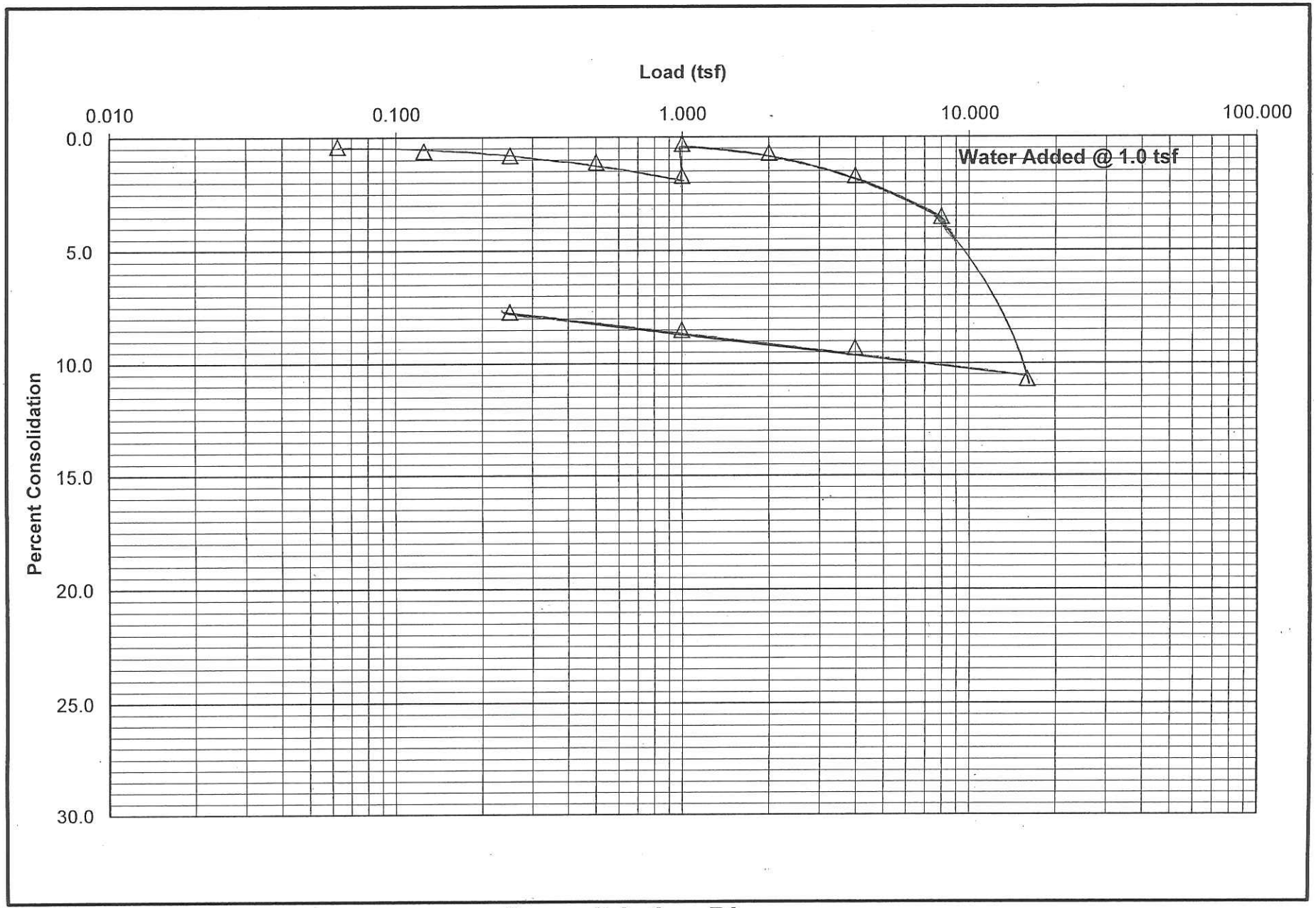
Date of Test: 7/14

GeoSoils Consultants, Inc.

Geotechnical Engineering * Engineering Geology

Moisture(%)
Before: 22.5 After:21.5

Sample(in.)
Height: 1.00 Diameter: 2.36



B-5 @ 24.0'
Brown, slightly sandy CLAY.

Consolidation Diagram

C6743.8

Plate C-8

HDR

Table 1 - Laboratory Tests on Soil Samples

GeoSoils Consultants, Inc.
SEG
Your #6743, HDR Lab #14-0465LAB
30-Jun-14

Sample ID			B-4 @ 0-2.5'
Resistivity		**Units**	
as-received		ohm-cm	1,760
minimum		ohm-cm	936
pH			7.7
Electrical Conductivity		mS/cm	0.25
Chemical Analyses			
Cations			
calcium	Ca^{2+}	mg/kg	142
magnesium	Mg^{2+}	mg/kg	14
sodium	Na^{1+}	mg/kg	68
potassium	K^{1+}	mg/kg	59
Anions			
carbonate	CO_3^{2-}	mg/kg	ND
bicarbonate	HCO_3^{1-}	mg/kg	345
fluoride	F^{1-}	mg/kg	9.4
chloride	Cl^{1-}	mg/kg	11
sulfate	SO_4^{2-}	mg/kg	195
phosphate	PO_4^{3-}	mg/kg	3.1
Other Tests			
ammonium	NH_4^{1+}	mg/kg	9.7
nitrate	NO_3^{1-}	mg/kg	0.9
sulfide	S^{2-}	qual	na
Redox		mV	na

Minimum resistivity per CTM 643, Chlorides per CTM 422, Sulfates per CTM 417
Electrical conductivity in millisiemens/cm and chemical analysis were made on a 1:5 soil-to-water extract.
mg/kg = milligrams per kilogram (parts per million) of dry soil.
Redox = oxidation-reduction potential in millivolts
ND = not detected
na = not analyzed

431 West Baseline Road · Claremont, CA 91711
Phone: 909.626.0967 · Fax: 909.626.3316

Plate L-1

April 24, 2017
W.O. 6743

APPENDIX C
LIQUEFACTION AND SEISMIC SETTLEMENT ANALYSES

APPENDIX C

LIQUEFACTION AND SEISIC SETTLEMENT ANALYSES

Introduction

Liquefaction describes a phenomenon where cyclic stresses, which are produced by earthquake-induced ground motions, create excess pore pressures in predominately cohesionless soils. As a result, the soils may acquire a high degree of mobility, which can lead to lateral spreading, consolidation, and settlement of loose sediments, ground oscillation, flow failure, loss of bearing strength, ground fissuring, sand boils, and other damaging deformations. This phenomenon occurs only below the water table, but after liquefaction has developed and can propagate upward into overlying, non-saturated soil.

Research has shown that saturated, loose sands with silt content less than about 25 percent are most susceptible to liquefaction, whereas other soil types are generally considered to have a low susceptibility. A screening criteria developed by Bray and Sancio (2006) is utilized to determine the potential for liquefaction in a soil and an additional criteria provided by Boulanger and Idriss (2006) determines if soils exhibit sand-like or clay-like behavior.

Seismically-induced settlement in unsaturated (dry) and saturated soils generally occur due to the dissipation of pore pressure in a liquefiable soil layer. The controlling factors affecting settlement in saturated sands consist of the pore pressure drainage path, magnitude and duration of the seismic event, cyclic stresses, maximum shear strains, and the recorded normalized SPT blow-counts, (N1)60, of the soils.

The potential for seismically-induced settlement is greatest in loose granular soils (i.e., sands and silty sands), whereas cohesive soils (i.e., clays and silts) are generally not prone to settlement. It should be noted that granular soils are susceptible to settlement during a seismic event whether the soils liquefy or not.

Procedure

The method of liquefaction assessment in this report is based on the "simplified procedure" originally developed by Seed and Idriss (1971, 1982), with subsequent refinements by Seed et al. (1983), Seed and De Alba (1986), and Seed and Harder (1990). As generally defined by, CGS Special Publication 117A: Guidelines for Analyzing and Mitigating Liquefaction Hazards in California, the procedure compares the cyclic resistance ratio (CRR) with the earthquake-induced cyclic stress ratio (CSR) at that depth from a specified design earthquake. The CRR is the ratio required to induce liquefaction for a cohesionless soil stratum at a given depth and is essentially the capacity of the soil to resist liquefaction. The CSR is defined generally as the seismic demand placed on a soil layer or the peak ground surface acceleration and an associated earthquake moment magnitude.

Values of CRR were established that were empirically correlated using extensive databases for sites that did or did not liquefy during previous earthquakes, values of (N1)60 could be correlated with the liquefied soil zones. The 1997 version of the baseline chart defines values of CRR as a function of (N1)60 for a moment magnitude 7.5 earthquake, CSR, and the percent fines. The factor of safety against liquefaction is obtained by calculating the ratio of CRR and CSR. The potential for seismically-induced settlement occurs when the factor of safety is less than 1.1.

The "Simplified Procedure" was modified by Robertson and Wride (Youd and Idriss, 1977) for determining liquefaction strengths for clean sands from CPT probing data. The correlation developed by Robertson and Wride correlates the CSR and the corrected and normalized CPT resistance, qc1N. Robertson and Wride developed a graph similar to the graph by Youd and Idriss (1977), which determines the CRR from the corrected CPT tip resistance, qc1N, CSR, and the cyclic shear strain potential, γe. The curve separates regions of the plot with data indicative of liquefaction from regions indicative of non-liquefaction. The factor of safety against liquefaction is once again determined by calculating the ratio of CRR and CSR.

The methodology used in estimating probable seismically-induced settlement in unsaturated and saturated soil deposits from SPT data is based on the procedures suggested by CGS Special Publication 117A and Tokimatsu and Seed (1987) with a magnitude scaling factor. Probable seismically-induced settlement from CPT data utilizes methods specified by Robertson and Wride (1997), an iterative process based on the soil behavior type index, Ic. The settlement analysis considers very thin layers for the soil deposit and calculates the settlement for each layer. The total settlement is the sum of these settlements in both dry (soil above the groundwater table) and saturated soils at their respective depths.

The CRR curves are based on clean sands, necessitating fines content correction to accurately assess liquefaction potential. Fines content correction for SPT data is generated using formulas developed by Idriss and Seed (1997). The method employed for CPT data by Robertson and Wride includes fines content correction in the procedure. Table C1 lists conservative values of percent fines for the material types encountered during subsurface exploration. For specific depths where gradation tests were performed, the value of percent fines obtained from testing was used in the analysis. Gradation curves corresponding to those depths are presented in Appendix B. Material types such as clayey silts and silty clays are not prone to liquefaction and were not evaluated unless the previously discussed criteria of Bray and Sancio was not met.

TABLE C1: ESTIMATED PERCENT FINES

Material Type	Percent Fines (%)
Clayey Silt/Silty Clay	50
Silts/Sandy Silts	50
Sandy Clay	45
Silty Sand	15
Clayey Sand	10

Analysis

The assessment of liquefaction potential provided in this report maintains current code requirements and generally accepted practice. The screening process previously described herein was utilized and the results are presented in Table C2. The predominant earthquake magnitude used is based on a 10 percent probability of exceedance in 50 years, obtained from the USGS Interactive Deaggregation website (http://geohazards.usgs.gov/deaggint/2008). The peak ground acceleration corresponds to two-thirds the PGAM, obtained from the USGS Seismic Design Maps website (http://earthquake.usgs.gov/designmaps/us/application.php) detailed report for the site location.

TABLE C2: LIQUEFACTION SUSCEPTIBILITY

Boring	Depth (ft)	Plasticity Index	Liquid Limit	Water Content (%)	Bray & Sancio	Boulanger & Idriss
B-1	30	15.6	31.0	24.3	Susceptible	Clay-like
B-1	50	19.1	34.1	23.7	Not Susceptible	Clay-like
B-2	24	19.3	34.2	21.1	Not Susceptible	Clay-like
B-3	35	24.0	39.5	28.3	Not Susceptible	Clay-like
B-4	22.5	15.9	34.6	29.7	Susceptible	Clay-like

Historical high groundwater for the site is approximately 30 feet below grade according to the Division of Mines and Geology Seismic Hazard Zone Evaluation of the Canoga Park 7.5 minute Quadrangle, Seismic Hazard Zone Report. While performing the borings, however, groundwater was encountered at depths ranging from 21 to 25 feet. This is taken into account in the liquefaction analysis. Table C3 shows a summary of the parameters used in this analysis. Site exploration for the assessment of liquefaction potential is based on Borings B-1 and B-5 as these borings reach depths of 75 feet and provide sufficient SPT data.

TABLE C3: ANALYSIS PARAMETERS

Description	Value
Earthquake Magnitude	6.74
Peak Ground Acceleration	0.453
Design Groundwater Table (ft)	21
Energy Ratio, CE	1.25
Borehole Diameter, CB	1.15
Sampling Method, CS	1.0

Results

Based on the exploration results of this investigation, the potential for liquefaction does exist within the area of study. However, if liquefaction should develop in liquefiable soil layers, the migration of excess pore pressure within these layers (i.e., the movement of water) and potential settlement would be limited due to the confinement of these layers by less permeable silts and clays. Therefore, the potential for liquefaction on the site poses a low risk to site development, provided the conclusions and recommendations contained herein are incorporated into the final design and construction of the project.

The seismically-induced settlement analyses were performed to a depth of 75 feet below existing grade and based on SPT data previously discussed. Table C4 lists the results of the settlement analysis using the Liquefy Pro software. Differential settlement was taken to be 1/2 of the maximum total settlement, results indicate the highest potential settlement value corresponding to Boring B-1. As previously discussed, it is anticipated that driven piles will be used, thereby mitigating serious liquefaction hazards. Output data of the analysis is enclosed in this appendix.

TABLE C4: SEISMIC SETTLEMENT RESULTS

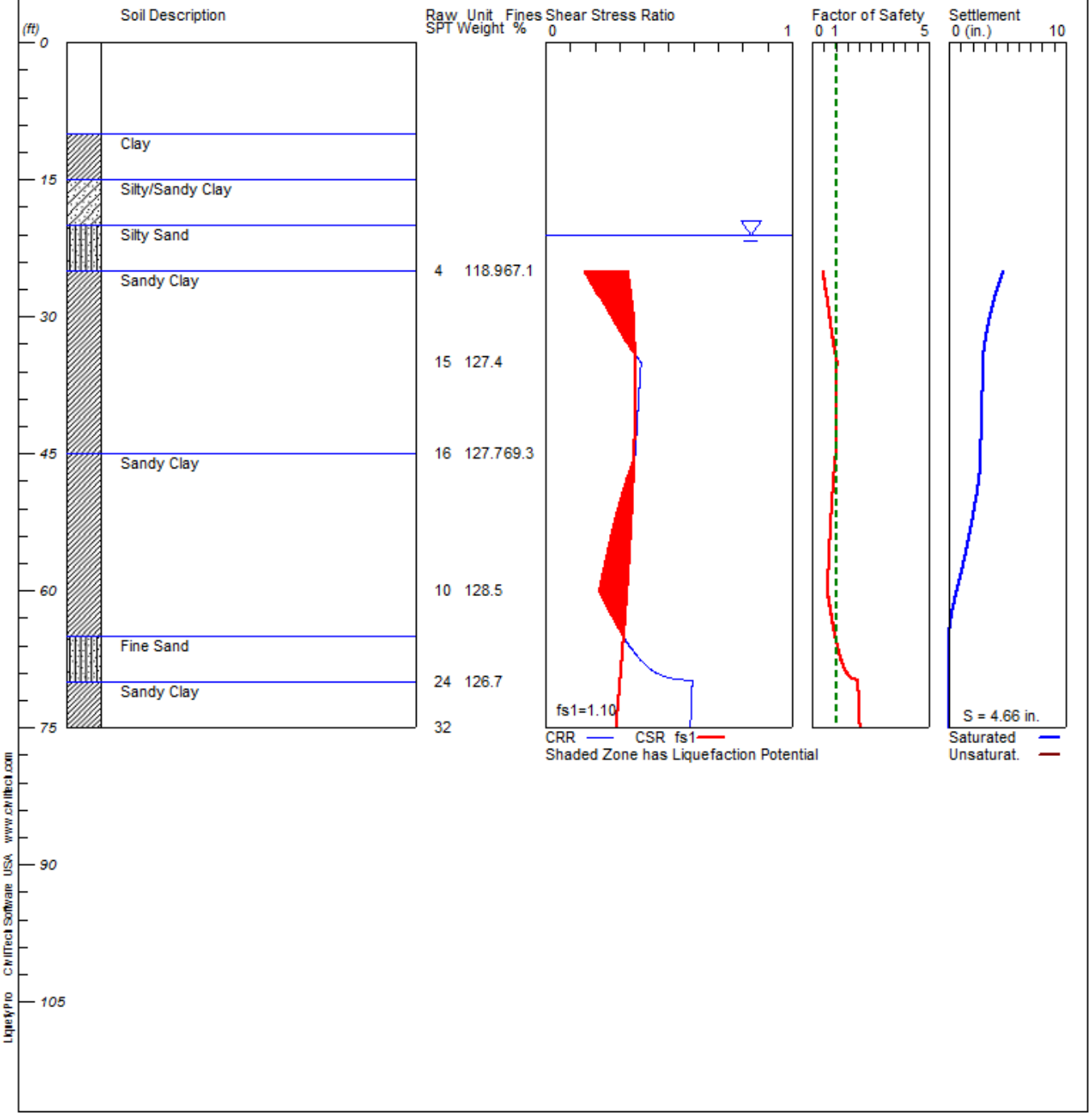
Boring No.	Unsaturated Settlement (in)	Saturated Settlement (in)	Total Settlement (in)	Differential Settlement (in)
B-1	0	4.66	4.66	
				2.33
B-5	0	1.23	1.23	

LIQUEFACTION ANALYSIS

De Soto Ave and Burbank Blvd

Hole No.=B-1 Water Depth=21 ft

Magnitude=6.74
Acceleration=0.453g



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LIQUEFACTION ANALYSIS SUMMARY
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Font: Courier New, Regular, Size 8 is recommended for this report.
Licensed to , 4/24/2017 8:50:54 AM

Input File Name: C:\Users\jgurunathan\Work\2017\6743 Woodland Center\B-1.liq
Title: De Soto Ave and Burbank Blvd
Subtitle: GeoSoils Consultants, Inc. (2017)

Surface Elev.=
Hole No.=B-1
Depth of Hole= 75.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration= 0.45 g
Earthquake Magnitude= 6.74

Input Data:
Surface Elev.=
Hole No.=B-1
Depth of Hole=75.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration=0.45 g
Earthquake Magnitude=6.74
No-Liquefiable Soils: Based on Analysis

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Tokimatsu, M-correction
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.1
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
25.00	4.00	118.90	67.10
35.00	15.00	127.40	67.10
45.00	16.00	127.70	69.30
60.00	10.00	128.50	69.30
70.00	24.00	126.70	69.30
75.00	32.00	126.70	69.30

Output Results:
Settlement of Saturated Sands=4.66 in.
Settlement of Unsaturated Sands=0.00 in.
Total Settlement of Saturated and Unsaturated Sands=4.66 in.
Differential Settlement=2.331 to 3.077 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
25.00	0.15	0.33	0.46*	4.66	0.00	4.66
25.05	0.15	0.33	0.46*	4.65	0.00	4.65
25.10	0.16	0.33	0.47*	4.63	0.00	4.63
25.15	0.16	0.33	0.47*	4.62	0.00	4.62
25.20	0.16	0.33	0.47*	4.60	0.00	4.60
25.25	0.16	0.33	0.47*	4.59	0.00	4.59
25.30	0.16	0.33	0.48*	4.57	0.00	4.57

					LLiquefy.sum	
25.35	0.16	0.33	0.48*	4.56	0.00	4.56
25.40	0.16	0.34	0.48*	4.55	0.00	4.55
25.45	0.16	0.34	0.49*	4.53	0.00	4.53
25.50	0.16	0.34	0.49*	4.52	0.00	4.52
25.55	0.17	0.34	0.49*	4.50	0.00	4.50
25.60	0.17	0.34	0.49*	4.49	0.00	4.49
25.65	0.17	0.34	0.50*	4.47	0.00	4.47
25.70	0.17	0.34	0.50*	4.46	0.00	4.46
25.75	0.17	0.34	0.50*	4.45	0.00	4.45
25.80	0.17	0.34	0.51*	4.43	0.00	4.43
25.85	0.17	0.34	0.51*	4.42	0.00	4.42
25.90	0.17	0.34	0.51*	4.41	0.00	4.41
25.95	0.17	0.34	0.51*	4.39	0.00	4.39
26.00	0.17	0.34	0.52*	4.38	0.00	4.38
26.05	0.18	0.34	0.52*	4.36	0.00	4.36
26.10	0.18	0.34	0.52*	4.35	0.00	4.35
26.15	0.18	0.34	0.52*	4.34	0.00	4.34
26.20	0.18	0.34	0.53*	4.32	0.00	4.32
26.25	0.18	0.34	0.53*	4.31	0.00	4.31
26.30	0.18	0.34	0.53*	4.30	0.00	4.30
26.35	0.18	0.34	0.54*	4.28	0.00	4.28
26.40	0.18	0.34	0.54*	4.27	0.00	4.27
26.45	0.18	0.34	0.54*	4.26	0.00	4.26
26.50	0.19	0.34	0.54*	4.25	0.00	4.25
26.55	0.19	0.34	0.55*	4.23	0.00	4.23
26.60	0.19	0.34	0.55*	4.22	0.00	4.22
26.65	0.19	0.34	0.55*	4.21	0.00	4.21
26.70	0.19	0.34	0.55*	4.19	0.00	4.19
26.75	0.19	0.34	0.56*	4.18	0.00	4.18
26.80	0.19	0.34	0.56*	4.17	0.00	4.17
26.85	0.19	0.34	0.56*	4.16	0.00	4.16
26.90	0.19	0.34	0.57*	4.14	0.00	4.14
26.95	0.19	0.34	0.57*	4.13	0.00	4.13
27.00	0.20	0.34	0.57*	4.12	0.00	4.12
27.05	0.20	0.34	0.57*	4.10	0.00	4.10
27.10	0.20	0.34	0.58*	4.09	0.00	4.09
27.15	0.20	0.34	0.58*	4.08	0.00	4.08
27.20	0.20	0.34	0.58*	4.07	0.00	4.07
27.25	0.20	0.34	0.58*	4.06	0.00	4.06
27.30	0.20	0.35	0.59*	4.04	0.00	4.04
27.35	0.20	0.35	0.59*	4.03	0.00	4.03
27.40	0.20	0.35	0.59*	4.02	0.00	4.02
27.45	0.21	0.35	0.59*	4.01	0.00	4.01
27.50	0.21	0.35	0.60*	4.00	0.00	4.00
27.55	0.21	0.35	0.60*	3.98	0.00	3.98
27.60	0.21	0.35	0.60*	3.97	0.00	3.97
27.65	0.21	0.35	0.60*	3.96	0.00	3.96
27.70	0.21	0.35	0.61*	3.95	0.00	3.95
27.75	0.21	0.35	0.61*	3.94	0.00	3.94
27.80	0.21	0.35	0.61*	3.92	0.00	3.92
27.85	0.21	0.35	0.61*	3.91	0.00	3.91
27.90	0.22	0.35	0.64*	3.90	0.00	3.90
27.95	0.22	0.35	0.64*	3.89	0.00	3.89
28.00	0.22	0.35	0.64*	3.88	0.00	3.88
28.05	0.22	0.35	0.65*	3.87	0.00	3.87
28.10	0.23	0.35	0.65*	3.86	0.00	3.86
28.15	0.23	0.35	0.65*	3.85	0.00	3.85
28.20	0.23	0.35	0.65*	3.84	0.00	3.84
28.25	0.23	0.35	0.66*	3.83	0.00	3.83
28.30	0.23	0.35	0.66*	3.82	0.00	3.82
28.35	0.23	0.35	0.66*	3.80	0.00	3.80
28.40	0.23	0.35	0.66*	3.79	0.00	3.79
28.45	0.23	0.35	0.67*	3.78	0.00	3.78
28.50	0.23	0.35	0.67*	3.77	0.00	3.77
28.55	0.24	0.35	0.67*	3.76	0.00	3.76
28.60	0.24	0.35	0.67*	3.75	0.00	3.75
28.65	0.24	0.35	0.68*	3.74	0.00	3.74
28.70	0.24	0.35	0.68*	3.73	0.00	3.73
28.75	0.24	0.35	0.68*	3.72	0.00	3.72
28.80	0.24	0.35	0.68*	3.71	0.00	3.71
28.85	0.24	0.35	0.69*	3.70	0.00	3.70
28.90	0.24	0.35	0.69*	3.69	0.00	3.69
28.95	0.24	0.35	0.69*	3.68	0.00	3.68

					LLiquefy.sum	
29.00	0.24	0.35	0.69*	3.67	0.00	3.67
29.05	0.25	0.35	0.70*	3.66	0.00	3.66
29.10	0.25	0.35	0.70*	3.66	0.00	3.66
29.15	0.25	0.35	0.70*	3.65	0.00	3.65
29.20	0.25	0.35	0.70*	3.64	0.00	3.64
29.25	0.25	0.35	0.71*	3.63	0.00	3.63
29.30	0.25	0.35	0.71*	3.62	0.00	3.62
29.35	0.25	0.35	0.71*	3.61	0.00	3.61
29.40	0.25	0.35	0.71*	3.60	0.00	3.60
29.45	0.25	0.35	0.72*	3.59	0.00	3.59
29.50	0.26	0.36	0.72*	3.58	0.00	3.58
29.55	0.26	0.36	0.72*	3.57	0.00	3.57
29.60	0.26	0.36	0.72*	3.56	0.00	3.56
29.65	0.26	0.36	0.73*	3.55	0.00	3.55
29.70	0.26	0.36	0.73*	3.54	0.00	3.54
29.75	0.26	0.36	0.73*	3.54	0.00	3.54
29.80	0.26	0.36	0.73*	3.53	0.00	3.53
29.85	0.26	0.36	0.74*	3.52	0.00	3.52
29.90	0.26	0.36	0.74*	3.51	0.00	3.51
29.95	0.26	0.36	0.74*	3.50	0.00	3.50
30.00	0.27	0.36	0.74*	3.49	0.00	3.49
30.05	0.27	0.36	0.75*	3.48	0.00	3.48
30.10	0.27	0.36	0.75*	3.48	0.00	3.48
30.15	0.27	0.36	0.75*	3.47	0.00	3.47
30.20	0.27	0.36	0.75*	3.46	0.00	3.46
30.25	0.27	0.36	0.76*	3.45	0.00	3.45
30.30	0.27	0.36	0.76*	3.44	0.00	3.44
30.35	0.27	0.36	0.76*	3.43	0.00	3.43
30.40	0.27	0.36	0.76*	3.42	0.00	3.42
30.45	0.27	0.36	0.77*	3.42	0.00	3.42
30.50	0.28	0.36	0.77*	3.41	0.00	3.41
30.55	0.28	0.36	0.77*	3.40	0.00	3.40
30.60	0.28	0.36	0.78*	3.39	0.00	3.39
30.65	0.28	0.36	0.78*	3.38	0.00	3.38
30.70	0.28	0.36	0.78*	3.38	0.00	3.38
30.75	0.28	0.36	0.78*	3.37	0.00	3.37
30.80	0.28	0.36	0.79*	3.36	0.00	3.36
30.85	0.28	0.36	0.79*	3.35	0.00	3.35
30.90	0.28	0.36	0.79*	3.34	0.00	3.34
30.95	0.29	0.36	0.80*	3.34	0.00	3.34
31.00	0.29	0.36	0.80*	3.33	0.00	3.33
31.05	0.29	0.36	0.80*	3.32	0.00	3.32
31.10	0.29	0.36	0.80*	3.31	0.00	3.31
31.15	0.29	0.36	0.81*	3.31	0.00	3.31
31.20	0.29	0.36	0.81*	3.30	0.00	3.30
31.25	0.29	0.36	0.81*	3.29	0.00	3.29
31.30	0.29	0.36	0.82*	3.28	0.00	3.28
31.35	0.29	0.36	0.82*	3.27	0.00	3.27
31.40	0.30	0.36	0.82*	3.27	0.00	3.27
31.45	0.30	0.36	0.82*	3.26	0.00	3.26
31.50	0.30	0.36	0.83*	3.25	0.00	3.25
31.55	0.30	0.36	0.83*	3.25	0.00	3.25
31.60	0.30	0.36	0.83*	3.24	0.00	3.24
31.65	0.30	0.36	0.84*	3.23	0.00	3.23
31.70	0.30	0.36	0.84*	3.22	0.00	3.22
31.75	0.30	0.36	0.84*	3.22	0.00	3.22
31.80	0.30	0.36	0.84*	3.21	0.00	3.21
31.85	0.31	0.36	0.85*	3.20	0.00	3.20
31.90	0.31	0.36	0.85*	3.19	0.00	3.19
31.95	0.31	0.36	0.85*	3.19	0.00	3.19
32.00	0.31	0.36	0.86*	3.18	0.00	3.18
32.05	0.31	0.36	0.86*	3.17	0.00	3.17
32.10	0.31	0.36	0.86*	3.17	0.00	3.17
32.15	0.31	0.36	0.86*	3.16	0.00	3.16
32.20	0.31	0.36	0.87*	3.15	0.00	3.15
32.25	0.31	0.36	0.87*	3.15	0.00	3.15
32.30	0.32	0.36	0.87*	3.14	0.00	3.14
32.35	0.32	0.36	0.88*	3.13	0.00	3.13
32.40	0.32	0.36	0.88*	3.13	0.00	3.13
32.45	0.32	0.36	0.88*	3.12	0.00	3.12
32.50	0.32	0.36	0.89*	3.11	0.00	3.11
32.55	0.32	0.36	0.89*	3.11	0.00	3.11
32.60	0.32	0.36	0.89*	3.10	0.00	3.10

					LLiquefy.sum	
32.65	0.32	0.36	0.89*	3.09	0.00	3.09
32.70	0.32	0.36	0.90*	3.09	0.00	3.09
32.75	0.33	0.36	0.90*	3.08	0.00	3.08
32.80	0.33	0.36	0.90*	3.07	0.00	3.07
32.85	0.33	0.36	0.91*	3.07	0.00	3.07
32.90	0.33	0.36	0.91*	3.06	0.00	3.06
32.95	0.33	0.36	0.91*	3.06	0.00	3.06
33.00	0.33	0.36	0.92*	3.05	0.00	3.05
33.05	0.33	0.36	0.92*	3.04	0.00	3.04
33.10	0.33	0.36	0.92*	3.04	0.00	3.04
33.15	0.34	0.36	0.93*	3.03	0.00	3.03
33.20	0.34	0.36	0.93*	3.02	0.00	3.02
33.25	0.34	0.36	0.93*	3.02	0.00	3.02
33.30	0.34	0.36	0.94*	3.01	0.00	3.01
33.35	0.34	0.36	0.94*	3.01	0.00	3.01
33.40	0.34	0.36	0.94*	3.00	0.00	3.00
33.45	0.34	0.36	0.95*	3.00	0.00	3.00
33.50	0.34	0.36	0.95*	2.99	0.00	2.99
33.55	0.35	0.36	0.95*	2.99	0.00	2.99
33.60	0.35	0.36	0.96*	2.98	0.00	2.98
33.65	0.35	0.36	0.96*	2.98	0.00	2.98
33.70	0.35	0.36	0.96*	2.97	0.00	2.97
33.75	0.35	0.36	0.97*	2.97	0.00	2.97
33.80	0.35	0.36	0.97*	2.97	0.00	2.97
33.85	0.36	0.36	0.98*	2.96	0.00	2.96
33.90	0.36	0.36	0.98*	2.96	0.00	2.96
33.95	0.36	0.36	0.99*	2.96	0.00	2.96
34.00	0.36	0.36	0.99*	2.96	0.00	2.96
34.05	0.36	0.36	0.99*	2.95	0.00	2.95
34.10	0.36	0.36	1.00*	2.95	0.00	2.95
34.15	0.36	0.36	1.00	2.95	0.00	2.95
34.20	0.36	0.36	1.00	2.95	0.00	2.95
34.25	0.37	0.36	1.01	2.94	0.00	2.94
34.30	0.37	0.36	1.01	2.94	0.00	2.94
34.35	0.37	0.36	1.01	2.94	0.00	2.94
34.40	0.37	0.36	1.02	2.94	0.00	2.94
34.45	0.37	0.36	1.02	2.94	0.00	2.94
34.50	0.37	0.36	1.02	2.93	0.00	2.93
34.55	0.37	0.36	1.03	2.93	0.00	2.93
34.60	0.37	0.36	1.03	2.93	0.00	2.93
34.65	0.38	0.36	1.04	2.93	0.00	2.93
34.70	0.38	0.36	1.04	2.93	0.00	2.93
34.75	0.38	0.36	1.04	2.93	0.00	2.93
34.80	0.38	0.36	1.05	2.93	0.00	2.93
34.85	0.38	0.36	1.05	2.93	0.00	2.93
34.90	0.38	0.36	1.05	2.92	0.00	2.92
34.95	0.38	0.36	1.06	2.92	0.00	2.92
35.00	0.39	0.36	1.06	2.92	0.00	2.92
35.05	0.39	0.36	1.06	2.92	0.00	2.92
35.10	0.39	0.36	1.06	2.92	0.00	2.92
35.15	0.39	0.36	1.06	2.92	0.00	2.92
35.20	0.39	0.36	1.06	2.92	0.00	2.92
35.25	0.39	0.36	1.06	2.92	0.00	2.92
35.30	0.39	0.36	1.06	2.92	0.00	2.92
35.35	0.39	0.36	1.06	2.91	0.00	2.91
35.40	0.39	0.36	1.06	2.91	0.00	2.91
35.45	0.39	0.36	1.06	2.91	0.00	2.91
35.50	0.38	0.36	1.06	2.91	0.00	2.91
35.55	0.38	0.36	1.06	2.91	0.00	2.91
35.60	0.38	0.36	1.06	2.91	0.00	2.91
35.65	0.38	0.36	1.06	2.91	0.00	2.91
35.70	0.38	0.36	1.06	2.91	0.00	2.91
35.75	0.38	0.36	1.06	2.91	0.00	2.91
35.80	0.38	0.36	1.06	2.91	0.00	2.91
35.85	0.38	0.36	1.06	2.90	0.00	2.90
35.90	0.38	0.36	1.05	2.90	0.00	2.90
35.95	0.38	0.36	1.05	2.90	0.00	2.90
36.00	0.38	0.36	1.05	2.90	0.00	2.90
36.05	0.38	0.36	1.05	2.90	0.00	2.90
36.10	0.38	0.36	1.05	2.90	0.00	2.90
36.15	0.38	0.36	1.05	2.90	0.00	2.90
36.20	0.38	0.36	1.05	2.90	0.00	2.90
36.25	0.38	0.36	1.05	2.90	0.00	2.90

					LLiquefy.sum	
36.30	0.38	0.36	1.05	2.89	0.00	2.89
36.35	0.38	0.36	1.05	2.89	0.00	2.89
36.40	0.38	0.36	1.05	2.89	0.00	2.89
36.45	0.38	0.36	1.05	2.89	0.00	2.89
36.50	0.38	0.36	1.05	2.89	0.00	2.89
36.55	0.38	0.36	1.05	2.89	0.00	2.89
36.60	0.38	0.36	1.05	2.89	0.00	2.89
36.65	0.38	0.36	1.05	2.89	0.00	2.89
36.70	0.38	0.36	1.05	2.89	0.00	2.89
36.75	0.38	0.36	1.05	2.88	0.00	2.88
36.80	0.38	0.36	1.05	2.88	0.00	2.88
36.85	0.38	0.36	1.05	2.88	0.00	2.88
36.90	0.38	0.36	1.05	2.88	0.00	2.88
36.95	0.38	0.36	1.05	2.88	0.00	2.88
37.00	0.38	0.36	1.05	2.88	0.00	2.88
37.05	0.38	0.36	1.05	2.88	0.00	2.88
37.10	0.38	0.36	1.05	2.88	0.00	2.88
37.15	0.38	0.36	1.04	2.88	0.00	2.88
37.20	0.38	0.36	1.04	2.87	0.00	2.87
37.25	0.38	0.36	1.04	2.87	0.00	2.87
37.30	0.38	0.36	1.04	2.87	0.00	2.87
37.35	0.38	0.36	1.04	2.87	0.00	2.87
37.40	0.38	0.36	1.04	2.87	0.00	2.87
37.45	0.38	0.36	1.04	2.87	0.00	2.87
37.50	0.38	0.36	1.04	2.87	0.00	2.87
37.55	0.38	0.36	1.04	2.87	0.00	2.87
37.60	0.38	0.36	1.04	2.87	0.00	2.87
37.65	0.38	0.36	1.04	2.86	0.00	2.86
37.70	0.38	0.36	1.04	2.86	0.00	2.86
37.75	0.38	0.36	1.04	2.86	0.00	2.86
37.80	0.38	0.36	1.04	2.86	0.00	2.86
37.85	0.38	0.36	1.04	2.86	0.00	2.86
37.90	0.38	0.36	1.04	2.86	0.00	2.86
37.95	0.38	0.36	1.04	2.86	0.00	2.86
38.00	0.38	0.36	1.04	2.86	0.00	2.86
38.05	0.38	0.36	1.04	2.86	0.00	2.86
38.10	0.38	0.36	1.04	2.85	0.00	2.85
38.15	0.38	0.36	1.04	2.85	0.00	2.85
38.20	0.38	0.36	1.04	2.85	0.00	2.85
38.25	0.38	0.36	1.04	2.85	0.00	2.85
38.30	0.38	0.36	1.04	2.85	0.00	2.85
38.35	0.38	0.36	1.04	2.85	0.00	2.85
38.40	0.38	0.36	1.04	2.85	0.00	2.85
38.45	0.38	0.36	1.04	2.85	0.00	2.85
38.50	0.38	0.36	1.04	2.85	0.00	2.85
38.55	0.38	0.36	1.04	2.84	0.00	2.84
38.60	0.38	0.36	1.04	2.84	0.00	2.84
38.65	0.38	0.36	1.03	2.84	0.00	2.84
38.70	0.38	0.36	1.03	2.84	0.00	2.84
38.75	0.38	0.36	1.03	2.84	0.00	2.84
38.80	0.38	0.36	1.03	2.84	0.00	2.84
38.85	0.38	0.36	1.03	2.84	0.00	2.84
38.90	0.38	0.36	1.03	2.84	0.00	2.84
38.95	0.38	0.36	1.03	2.84	0.00	2.84
39.00	0.38	0.36	1.03	2.83	0.00	2.83
39.05	0.38	0.36	1.03	2.83	0.00	2.83
39.10	0.38	0.36	1.03	2.83	0.00	2.83
39.15	0.38	0.36	1.03	2.83	0.00	2.83
39.20	0.38	0.36	1.03	2.83	0.00	2.83
39.25	0.38	0.36	1.03	2.83	0.00	2.83
39.30	0.38	0.36	1.03	2.83	0.00	2.83
39.35	0.38	0.36	1.03	2.83	0.00	2.83
39.40	0.38	0.36	1.03	2.83	0.00	2.83
39.45	0.38	0.36	1.03	2.82	0.00	2.82
39.50	0.38	0.36	1.03	2.82	0.00	2.82
39.55	0.37	0.36	1.03	2.82	0.00	2.82
39.60	0.37	0.36	1.03	2.82	0.00	2.82
39.65	0.37	0.36	1.03	2.82	0.00	2.82
39.70	0.37	0.36	1.03	2.82	0.00	2.82
39.75	0.37	0.36	1.03	2.82	0.00	2.82
39.80	0.37	0.36	1.03	2.82	0.00	2.82
39.85	0.37	0.36	1.03	2.81	0.00	2.81
39.90	0.37	0.36	1.03	2.81	0.00	2.81

					LLiquefy.sum	
39.95	0.37	0.36	1.03	2.81	0.00	2.81
40.00	0.37	0.36	1.03	2.81	0.00	2.81
40.05	0.37	0.36	1.03	2.81	0.00	2.81
40.10	0.37	0.36	1.03	2.81	0.00	2.81
40.15	0.37	0.36	1.03	2.81	0.00	2.81
40.20	0.37	0.36	1.03	2.81	0.00	2.81
40.25	0.37	0.36	1.03	2.81	0.00	2.81
40.30	0.37	0.36	1.03	2.80	0.00	2.80
40.35	0.37	0.36	1.03	2.80	0.00	2.80
40.40	0.37	0.36	1.03	2.80	0.00	2.80
40.45	0.37	0.36	1.03	2.80	0.00	2.80
40.50	0.37	0.36	1.02	2.80	0.00	2.80
40.55	0.37	0.36	1.02	2.80	0.00	2.80
40.60	0.37	0.36	1.02	2.80	0.00	2.80
40.65	0.37	0.36	1.02	2.80	0.00	2.80
40.70	0.37	0.36	1.02	2.80	0.00	2.80
40.75	0.37	0.36	1.02	2.79	0.00	2.79
40.80	0.37	0.36	1.02	2.79	0.00	2.79
40.85	0.37	0.36	1.02	2.79	0.00	2.79
40.90	0.37	0.36	1.02	2.79	0.00	2.79
40.95	0.37	0.36	1.02	2.79	0.00	2.79
41.00	0.37	0.36	1.02	2.79	0.00	2.79
41.05	0.37	0.36	1.02	2.79	0.00	2.79
41.10	0.37	0.36	1.02	2.79	0.00	2.79
41.15	0.37	0.36	1.02	2.79	0.00	2.79
41.20	0.37	0.36	1.02	2.78	0.00	2.78
41.25	0.37	0.36	1.02	2.78	0.00	2.78
41.30	0.37	0.36	1.02	2.78	0.00	2.78
41.35	0.37	0.36	1.02	2.78	0.00	2.78
41.40	0.37	0.36	1.02	2.78	0.00	2.78
41.45	0.37	0.36	1.02	2.78	0.00	2.78
41.50	0.37	0.36	1.02	2.78	0.00	2.78
41.55	0.37	0.36	1.02	2.78	0.00	2.78
41.60	0.37	0.36	1.02	2.77	0.00	2.77
41.65	0.37	0.36	1.02	2.77	0.00	2.77
41.70	0.37	0.36	1.02	2.77	0.00	2.77
41.75	0.37	0.36	1.02	2.77	0.00	2.77
41.80	0.37	0.36	1.02	2.77	0.00	2.77
41.85	0.37	0.36	1.02	2.77	0.00	2.77
41.90	0.37	0.36	1.02	2.77	0.00	2.77
41.95	0.37	0.36	1.02	2.77	0.00	2.77
42.00	0.37	0.36	1.02	2.77	0.00	2.77
42.05	0.37	0.36	1.02	2.76	0.00	2.76
42.10	0.37	0.36	1.02	2.76	0.00	2.76
42.15	0.37	0.36	1.02	2.76	0.00	2.76
42.20	0.37	0.36	1.02	2.76	0.00	2.76
42.25	0.37	0.36	1.02	2.76	0.00	2.76
42.30	0.37	0.36	1.02	2.76	0.00	2.76
42.35	0.37	0.36	1.02	2.76	0.00	2.76
42.40	0.37	0.36	1.02	2.76	0.00	2.76
42.45	0.37	0.36	1.02	2.76	0.00	2.76
42.50	0.37	0.36	1.02	2.75	0.00	2.75
42.55	0.37	0.36	1.02	2.75	0.00	2.75
42.60	0.37	0.36	1.02	2.75	0.00	2.75
42.65	0.37	0.36	1.02	2.75	0.00	2.75
42.70	0.37	0.36	1.02	2.75	0.00	2.75
42.75	0.37	0.36	1.02	2.75	0.00	2.75
42.80	0.37	0.36	1.02	2.75	0.00	2.75
42.85	0.37	0.36	1.02	2.75	0.00	2.75
42.90	0.37	0.36	1.02	2.74	0.00	2.74
42.95	0.37	0.36	1.02	2.74	0.00	2.74
43.00	0.37	0.36	1.01	2.74	0.00	2.74
43.05	0.37	0.36	1.01	2.74	0.00	2.74
43.10	0.37	0.36	1.01	2.74	0.00	2.74
43.15	0.37	0.36	1.01	2.74	0.00	2.74
43.20	0.37	0.36	1.01	2.74	0.00	2.74
43.25	0.37	0.36	1.01	2.74	0.00	2.74
43.30	0.37	0.36	1.01	2.74	0.00	2.74
43.35	0.37	0.36	1.01	2.73	0.00	2.73
43.40	0.37	0.36	1.01	2.73	0.00	2.73
43.45	0.37	0.36	1.01	2.73	0.00	2.73
43.50	0.37	0.36	1.01	2.73	0.00	2.73
43.55	0.37	0.36	1.01	2.73	0.00	2.73

					LLiquefy.sum	
43.60	0.37	0.36	1.01	2.73	0.00	2.73
43.65	0.37	0.36	1.01	2.73	0.00	2.73
43.70	0.37	0.36	1.01	2.73	0.00	2.73
43.75	0.37	0.36	1.01	2.73	0.00	2.73
43.80	0.37	0.36	1.01	2.72	0.00	2.72
43.85	0.37	0.36	1.01	2.72	0.00	2.72
43.90	0.37	0.36	1.01	2.72	0.00	2.72
43.95	0.37	0.36	1.01	2.72	0.00	2.72
44.00	0.37	0.36	1.01	2.72	0.00	2.72
44.05	0.37	0.36	1.01	2.72	0.00	2.72
44.10	0.37	0.36	1.01	2.72	0.00	2.72
44.15	0.37	0.36	1.01	2.72	0.00	2.72
44.20	0.37	0.36	1.01	2.71	0.00	2.71
44.25	0.36	0.36	1.01	2.71	0.00	2.71
44.30	0.36	0.36	1.01	2.71	0.00	2.71
44.35	0.36	0.36	1.01	2.71	0.00	2.71
44.40	0.36	0.36	1.01	2.71	0.00	2.71
44.45	0.36	0.36	1.01	2.71	0.00	2.71
44.50	0.36	0.36	1.01	2.71	0.00	2.71
44.55	0.36	0.36	1.01	2.71	0.00	2.71
44.60	0.36	0.36	1.01	2.71	0.00	2.71
44.65	0.36	0.36	1.01	2.70	0.00	2.70
44.70	0.36	0.36	1.01	2.70	0.00	2.70
44.75	0.36	0.36	1.01	2.70	0.00	2.70
44.80	0.36	0.36	1.01	2.70	0.00	2.70
44.85	0.36	0.36	1.01	2.70	0.00	2.70
44.90	0.36	0.36	1.01	2.70	0.00	2.70
44.95	0.36	0.36	1.01	2.70	0.00	2.70
45.00	0.36	0.36	1.01	2.70	0.00	2.70
45.05	0.36	0.36	1.01	2.70	0.00	2.70
45.10	0.36	0.36	1.01	2.69	0.00	2.69
45.15	0.36	0.36	1.00	2.69	0.00	2.69
45.20	0.36	0.36	1.00	2.69	0.00	2.69
45.25	0.36	0.36	1.00*	2.69	0.00	2.69
45.30	0.36	0.36	1.00*	2.69	0.00	2.69
45.35	0.36	0.36	1.00*	2.69	0.00	2.69
45.40	0.36	0.36	0.99*	2.69	0.00	2.69
45.45	0.36	0.36	0.99*	2.69	0.00	2.69
45.50	0.36	0.36	0.99*	2.68	0.00	2.68
45.55	0.36	0.36	0.99*	2.68	0.00	2.68
45.60	0.35	0.36	0.99*	2.68	0.00	2.68
45.65	0.35	0.36	0.99*	2.68	0.00	2.68
45.70	0.35	0.36	0.98*	2.68	0.00	2.68
45.75	0.35	0.36	0.98*	2.68	0.00	2.68
45.80	0.35	0.36	0.98*	2.68	0.00	2.68
45.85	0.35	0.36	0.98*	2.67	0.00	2.67
45.90	0.35	0.36	0.98*	2.67	0.00	2.67
45.95	0.35	0.36	0.97*	2.67	0.00	2.67
46.00	0.35	0.36	0.97*	2.67	0.00	2.67
46.05	0.35	0.36	0.97*	2.67	0.00	2.67
46.10	0.35	0.36	0.97*	2.66	0.00	2.66
46.15	0.35	0.36	0.97*	2.66	0.00	2.66
46.20	0.35	0.36	0.97*	2.66	0.00	2.66
46.25	0.35	0.36	0.96*	2.66	0.00	2.66
46.30	0.34	0.36	0.96*	2.66	0.00	2.66
46.35	0.34	0.36	0.96*	2.65	0.00	2.65
46.40	0.34	0.36	0.96*	2.65	0.00	2.65
46.45	0.34	0.36	0.96*	2.65	0.00	2.65
46.50	0.34	0.36	0.96*	2.65	0.00	2.65
46.55	0.34	0.36	0.95*	2.64	0.00	2.64
46.60	0.34	0.36	0.95*	2.64	0.00	2.64
46.65	0.34	0.36	0.95*	2.64	0.00	2.64
46.70	0.34	0.36	0.95*	2.64	0.00	2.64
46.75	0.34	0.36	0.95*	2.63	0.00	2.63
46.80	0.34	0.36	0.95*	2.63	0.00	2.63
46.85	0.34	0.36	0.94*	2.63	0.00	2.63
46.90	0.34	0.36	0.94*	2.62	0.00	2.62
46.95	0.34	0.36	0.94*	2.62	0.00	2.62
47.00	0.34	0.36	0.94*	2.62	0.00	2.62
47.05	0.34	0.36	0.94*	2.62	0.00	2.62
47.10	0.33	0.36	0.94*	2.61	0.00	2.61
47.15	0.33	0.36	0.93*	2.61	0.00	2.61
47.20	0.33	0.36	0.93*	2.60	0.00	2.60

					LLiquefy.sum	
47.25	0.33	0.36	0.93*	2.60	0.00	2.60
47.30	0.33	0.36	0.93*	2.60	0.00	2.60
47.35	0.33	0.36	0.93*	2.59	0.00	2.59
47.40	0.33	0.36	0.93*	2.59	0.00	2.59
47.45	0.33	0.36	0.92*	2.59	0.00	2.59
47.50	0.33	0.36	0.92*	2.58	0.00	2.58
47.55	0.33	0.36	0.92*	2.58	0.00	2.58
47.60	0.33	0.36	0.92*	2.57	0.00	2.57
47.65	0.33	0.36	0.92*	2.57	0.00	2.57
47.70	0.33	0.36	0.92*	2.56	0.00	2.56
47.75	0.33	0.36	0.92*	2.56	0.00	2.56
47.80	0.33	0.36	0.91*	2.55	0.00	2.55
47.85	0.33	0.36	0.91*	2.55	0.00	2.55
47.90	0.32	0.36	0.91*	2.54	0.00	2.54
47.95	0.32	0.36	0.91*	2.54	0.00	2.54
48.00	0.32	0.36	0.91*	2.53	0.00	2.53
48.05	0.32	0.36	0.91*	2.53	0.00	2.53
48.10	0.32	0.36	0.90*	2.52	0.00	2.52
48.15	0.32	0.36	0.90*	2.52	0.00	2.52
48.20	0.32	0.36	0.90*	2.51	0.00	2.51
48.25	0.32	0.36	0.90*	2.51	0.00	2.51
48.30	0.32	0.36	0.90*	2.50	0.00	2.50
48.35	0.32	0.36	0.90*	2.50	0.00	2.50
48.40	0.32	0.36	0.90*	2.49	0.00	2.49
48.45	0.32	0.36	0.89*	2.48	0.00	2.48
48.50	0.32	0.36	0.89*	2.48	0.00	2.48
48.55	0.32	0.36	0.89*	2.47	0.00	2.47
48.60	0.32	0.36	0.89*	2.47	0.00	2.47
48.65	0.32	0.36	0.89*	2.46	0.00	2.46
48.70	0.32	0.35	0.89*	2.45	0.00	2.45
48.75	0.31	0.35	0.89*	2.45	0.00	2.45
48.80	0.31	0.35	0.88*	2.44	0.00	2.44
48.85	0.31	0.35	0.88*	2.43	0.00	2.43
48.90	0.31	0.35	0.88*	2.43	0.00	2.43
48.95	0.31	0.35	0.88*	2.42	0.00	2.42
49.00	0.31	0.35	0.88*	2.42	0.00	2.42
49.05	0.31	0.35	0.88*	2.41	0.00	2.41
49.10	0.31	0.35	0.88*	2.40	0.00	2.40
49.15	0.31	0.35	0.88*	2.40	0.00	2.40
49.20	0.31	0.35	0.87*	2.39	0.00	2.39
49.25	0.31	0.35	0.87*	2.38	0.00	2.38
49.30	0.31	0.35	0.87*	2.38	0.00	2.38
49.35	0.31	0.35	0.87*	2.37	0.00	2.37
49.40	0.31	0.35	0.87*	2.37	0.00	2.37
49.45	0.31	0.35	0.87*	2.36	0.00	2.36
49.50	0.31	0.35	0.87*	2.35	0.00	2.35
49.55	0.31	0.35	0.86*	2.35	0.00	2.35
49.60	0.31	0.35	0.86*	2.34	0.00	2.34
49.65	0.30	0.35	0.86*	2.33	0.00	2.33
49.70	0.30	0.35	0.86*	2.33	0.00	2.33
49.75	0.30	0.35	0.86*	2.32	0.00	2.32
49.80	0.30	0.35	0.86*	2.31	0.00	2.31
49.85	0.30	0.35	0.86*	2.31	0.00	2.31
49.90	0.30	0.35	0.86*	2.30	0.00	2.30
49.95	0.30	0.35	0.85*	2.30	0.00	2.30
50.00	0.30	0.35	0.85*	2.29	0.00	2.29
50.05	0.30	0.35	0.85*	2.28	0.00	2.28
50.10	0.30	0.35	0.85*	2.28	0.00	2.28
50.15	0.30	0.35	0.85*	2.27	0.00	2.27
50.20	0.30	0.35	0.85*	2.26	0.00	2.26
50.25	0.30	0.35	0.85*	2.26	0.00	2.26
50.30	0.30	0.35	0.84*	2.25	0.00	2.25
50.35	0.30	0.35	0.84*	2.24	0.00	2.24
50.40	0.30	0.35	0.84*	2.24	0.00	2.24
50.45	0.30	0.35	0.84*	2.23	0.00	2.23
50.50	0.30	0.35	0.84*	2.22	0.00	2.22
50.55	0.30	0.35	0.84*	2.22	0.00	2.22
50.60	0.29	0.35	0.84*	2.21	0.00	2.21
50.65	0.29	0.35	0.84*	2.20	0.00	2.20
50.70	0.29	0.35	0.84*	2.20	0.00	2.20
50.75	0.29	0.35	0.83*	2.19	0.00	2.19
50.80	0.29	0.35	0.83*	2.18	0.00	2.18
50.85	0.29	0.35	0.83*	2.17	0.00	2.17

					LLiquefy.sum	
50.90	0.29	0.35	0.83*	2.17	0.00	2.17
50.95	0.29	0.35	0.83*	2.16	0.00	2.16
51.00	0.29	0.35	0.83*	2.15	0.00	2.15
51.05	0.29	0.35	0.83*	2.15	0.00	2.15
51.10	0.29	0.35	0.83*	2.14	0.00	2.14
51.15	0.29	0.35	0.82*	2.13	0.00	2.13
51.20	0.29	0.35	0.82*	2.13	0.00	2.13
51.25	0.29	0.35	0.82*	2.12	0.00	2.12
51.30	0.29	0.35	0.82*	2.11	0.00	2.11
51.35	0.29	0.35	0.82*	2.11	0.00	2.11
51.40	0.29	0.35	0.82*	2.10	0.00	2.10
51.45	0.29	0.35	0.82*	2.09	0.00	2.09
51.50	0.29	0.35	0.82*	2.08	0.00	2.08
51.55	0.29	0.35	0.81*	2.08	0.00	2.08
51.60	0.28	0.35	0.81*	2.07	0.00	2.07
51.65	0.28	0.35	0.81*	2.06	0.00	2.06
51.70	0.28	0.35	0.81*	2.06	0.00	2.06
51.75	0.28	0.35	0.81*	2.05	0.00	2.05
51.80	0.28	0.35	0.81*	2.04	0.00	2.04
51.85	0.28	0.35	0.81*	2.03	0.00	2.03
51.90	0.28	0.35	0.81*	2.03	0.00	2.03
51.95	0.28	0.35	0.81*	2.02	0.00	2.02
52.00	0.28	0.35	0.80*	2.01	0.00	2.01
52.05	0.28	0.35	0.80*	2.01	0.00	2.01
52.10	0.28	0.35	0.80*	2.00	0.00	2.00
52.15	0.28	0.35	0.80*	1.99	0.00	1.99
52.20	0.28	0.35	0.80*	1.98	0.00	1.98
52.25	0.28	0.35	0.80*	1.98	0.00	1.98
52.30	0.28	0.35	0.80*	1.97	0.00	1.97
52.35	0.28	0.35	0.80*	1.96	0.00	1.96
52.40	0.28	0.35	0.80*	1.95	0.00	1.95
52.45	0.28	0.35	0.79*	1.95	0.00	1.95
52.50	0.28	0.35	0.79*	1.94	0.00	1.94
52.55	0.28	0.35	0.79*	1.93	0.00	1.93
52.60	0.28	0.35	0.79*	1.93	0.00	1.93
52.65	0.27	0.35	0.79*	1.92	0.00	1.92
52.70	0.27	0.35	0.79*	1.91	0.00	1.91
52.75	0.27	0.35	0.79*	1.90	0.00	1.90
52.80	0.27	0.35	0.79*	1.90	0.00	1.90
52.85	0.27	0.35	0.79*	1.89	0.00	1.89
52.90	0.27	0.35	0.78*	1.88	0.00	1.88
52.95	0.27	0.35	0.78*	1.87	0.00	1.87
53.00	0.27	0.35	0.78*	1.87	0.00	1.87
53.05	0.27	0.35	0.78*	1.86	0.00	1.86
53.10	0.27	0.35	0.78*	1.85	0.00	1.85
53.15	0.27	0.35	0.78*	1.84	0.00	1.84
53.20	0.27	0.35	0.78*	1.83	0.00	1.83
53.25	0.27	0.35	0.78*	1.83	0.00	1.83
53.30	0.27	0.35	0.78*	1.82	0.00	1.82
53.35	0.27	0.35	0.77*	1.81	0.00	1.81
53.40	0.27	0.35	0.77*	1.80	0.00	1.80
53.45	0.27	0.35	0.77*	1.80	0.00	1.80
53.50	0.27	0.35	0.77*	1.79	0.00	1.79
53.55	0.27	0.35	0.77*	1.78	0.00	1.78
53.60	0.27	0.35	0.77*	1.77	0.00	1.77
53.65	0.27	0.35	0.77*	1.77	0.00	1.77
53.70	0.27	0.35	0.77*	1.76	0.00	1.76
53.75	0.26	0.35	0.77*	1.75	0.00	1.75
53.80	0.26	0.35	0.76*	1.74	0.00	1.74
53.85	0.26	0.35	0.76*	1.73	0.00	1.73
53.90	0.26	0.35	0.76*	1.73	0.00	1.73
53.95	0.26	0.35	0.76*	1.72	0.00	1.72
54.00	0.26	0.35	0.76*	1.71	0.00	1.71
54.05	0.26	0.34	0.76*	1.70	0.00	1.70
54.10	0.26	0.34	0.76*	1.70	0.00	1.70
54.15	0.26	0.34	0.76*	1.69	0.00	1.69
54.20	0.26	0.34	0.76*	1.68	0.00	1.68
54.25	0.26	0.34	0.76*	1.67	0.00	1.67
54.30	0.26	0.34	0.75*	1.66	0.00	1.66
54.35	0.26	0.34	0.75*	1.66	0.00	1.66
54.40	0.26	0.34	0.75*	1.65	0.00	1.65
54.45	0.26	0.34	0.75*	1.64	0.00	1.64
54.50	0.26	0.34	0.75*	1.63	0.00	1.63

					LLiquefy.sum	
54.55	0.26	0.34	0.75*	1.62	0.00	1.62
54.60	0.26	0.34	0.75*	1.62	0.00	1.62
54.65	0.26	0.34	0.75*	1.61	0.00	1.61
54.70	0.26	0.34	0.75*	1.60	0.00	1.60
54.75	0.26	0.34	0.75*	1.59	0.00	1.59
54.80	0.26	0.34	0.74*	1.58	0.00	1.58
54.85	0.26	0.34	0.74*	1.57	0.00	1.57
54.90	0.25	0.34	0.74*	1.57	0.00	1.57
54.95	0.25	0.34	0.74*	1.56	0.00	1.56
55.00	0.25	0.34	0.74*	1.55	0.00	1.55
55.05	0.25	0.34	0.74*	1.54	0.00	1.54
55.10	0.25	0.34	0.74*	1.53	0.00	1.53
55.15	0.25	0.34	0.74*	1.53	0.00	1.53
55.20	0.25	0.34	0.74*	1.52	0.00	1.52
55.25	0.25	0.34	0.74*	1.51	0.00	1.51
55.30	0.25	0.34	0.73*	1.50	0.00	1.50
55.35	0.25	0.34	0.73*	1.49	0.00	1.49
55.40	0.25	0.34	0.73*	1.48	0.00	1.48
55.45	0.25	0.34	0.73*	1.48	0.00	1.48
55.50	0.25	0.34	0.73*	1.47	0.00	1.47
55.55	0.25	0.34	0.73*	1.46	0.00	1.46
55.60	0.25	0.34	0.73*	1.45	0.00	1.45
55.65	0.25	0.34	0.73*	1.44	0.00	1.44
55.70	0.25	0.34	0.73*	1.43	0.00	1.43
55.75	0.25	0.34	0.73*	1.43	0.00	1.43
55.80	0.25	0.34	0.72*	1.42	0.00	1.42
55.85	0.25	0.34	0.72*	1.41	0.00	1.41
55.90	0.25	0.34	0.72*	1.40	0.00	1.40
55.95	0.25	0.34	0.72*	1.39	0.00	1.39
56.00	0.25	0.34	0.72*	1.38	0.00	1.38
56.05	0.25	0.34	0.72*	1.37	0.00	1.37
56.10	0.24	0.34	0.72*	1.37	0.00	1.37
56.15	0.24	0.34	0.72*	1.36	0.00	1.36
56.20	0.24	0.34	0.72*	1.35	0.00	1.35
56.25	0.24	0.34	0.72*	1.34	0.00	1.34
56.30	0.24	0.34	0.72*	1.33	0.00	1.33
56.35	0.24	0.34	0.71*	1.32	0.00	1.32
56.40	0.24	0.34	0.71*	1.31	0.00	1.31
56.45	0.24	0.34	0.71*	1.31	0.00	1.31
56.50	0.24	0.34	0.71*	1.30	0.00	1.30
56.55	0.24	0.34	0.71*	1.29	0.00	1.29
56.60	0.24	0.34	0.71*	1.28	0.00	1.28
56.65	0.24	0.34	0.71*	1.27	0.00	1.27
56.70	0.24	0.34	0.71*	1.26	0.00	1.26
56.75	0.24	0.34	0.71*	1.25	0.00	1.25
56.80	0.24	0.34	0.71*	1.24	0.00	1.24
56.85	0.24	0.34	0.70*	1.24	0.00	1.24
56.90	0.24	0.34	0.70*	1.23	0.00	1.23
56.95	0.24	0.34	0.70*	1.22	0.00	1.22
57.00	0.24	0.34	0.70*	1.21	0.00	1.21
57.05	0.24	0.34	0.70*	1.20	0.00	1.20
57.10	0.24	0.34	0.70*	1.19	0.00	1.19
57.15	0.24	0.34	0.70*	1.18	0.00	1.18
57.20	0.24	0.34	0.70*	1.17	0.00	1.17
57.25	0.24	0.34	0.70*	1.16	0.00	1.16
57.30	0.24	0.34	0.70*	1.16	0.00	1.16
57.35	0.23	0.34	0.70*	1.15	0.00	1.15
57.40	0.23	0.34	0.69*	1.14	0.00	1.14
57.45	0.23	0.34	0.69*	1.13	0.00	1.13
57.50	0.23	0.34	0.69*	1.12	0.00	1.12
57.55	0.23	0.34	0.69*	1.11	0.00	1.11
57.60	0.23	0.34	0.69*	1.10	0.00	1.10
57.65	0.23	0.34	0.69*	1.09	0.00	1.09
57.70	0.23	0.34	0.69*	1.08	0.00	1.08
57.75	0.23	0.34	0.69*	1.07	0.00	1.07
57.80	0.23	0.34	0.69*	1.06	0.00	1.06
57.85	0.23	0.34	0.69*	1.06	0.00	1.06
57.90	0.23	0.34	0.69*	1.05	0.00	1.05
57.95	0.23	0.34	0.68*	1.04	0.00	1.04
58.00	0.23	0.34	0.68*	1.03	0.00	1.03
58.05	0.23	0.34	0.68*	1.02	0.00	1.02
58.10	0.23	0.34	0.68*	1.01	0.00	1.01
58.15	0.23	0.34	0.68*	1.00	0.00	1.00

					LLiquefy.sum	
58.20	0.23	0.34	0.68*	0.99	0.00	0.99
58.25	0.23	0.34	0.68*	0.98	0.00	0.98
58.30	0.23	0.34	0.68*	0.97	0.00	0.97
58.35	0.23	0.34	0.68*	0.96	0.00	0.96
58.40	0.23	0.33	0.68*	0.95	0.00	0.95
58.45	0.23	0.33	0.68*	0.94	0.00	0.94
58.50	0.23	0.33	0.67*	0.93	0.00	0.93
58.55	0.23	0.33	0.67*	0.92	0.00	0.92
58.60	0.23	0.33	0.67*	0.92	0.00	0.92
58.65	0.22	0.33	0.67*	0.91	0.00	0.91
58.70	0.22	0.33	0.67*	0.90	0.00	0.90
58.75	0.22	0.33	0.67*	0.89	0.00	0.89
58.80	0.22	0.33	0.67*	0.88	0.00	0.88
58.85	0.22	0.33	0.67*	0.87	0.00	0.87
58.90	0.22	0.33	0.67*	0.86	0.00	0.86
58.95	0.22	0.33	0.67*	0.85	0.00	0.85
59.00	0.22	0.33	0.67*	0.84	0.00	0.84
59.05	0.22	0.33	0.66*	0.83	0.00	0.83
59.10	0.22	0.33	0.66*	0.82	0.00	0.82
59.15	0.22	0.33	0.66*	0.81	0.00	0.81
59.20	0.22	0.33	0.66*	0.80	0.00	0.80
59.25	0.22	0.33	0.66*	0.79	0.00	0.79
59.30	0.22	0.33	0.66*	0.78	0.00	0.78
59.35	0.22	0.33	0.66*	0.77	0.00	0.77
59.40	0.22	0.33	0.66*	0.76	0.00	0.76
59.45	0.22	0.33	0.66*	0.75	0.00	0.75
59.50	0.22	0.33	0.66*	0.74	0.00	0.74
59.55	0.22	0.33	0.66*	0.73	0.00	0.73
59.60	0.22	0.33	0.66*	0.72	0.00	0.72
59.65	0.22	0.33	0.65*	0.71	0.00	0.71
59.70	0.22	0.33	0.65*	0.70	0.00	0.70
59.75	0.22	0.33	0.65*	0.69	0.00	0.69
59.80	0.22	0.33	0.65*	0.68	0.00	0.68
59.85	0.22	0.33	0.65*	0.67	0.00	0.67
59.90	0.22	0.33	0.65*	0.66	0.00	0.66
59.95	0.21	0.33	0.65*	0.65	0.00	0.65
60.00	0.21	0.33	0.65*	0.64	0.00	0.64
60.05	0.22	0.33	0.65*	0.63	0.00	0.63
60.10	0.22	0.33	0.65*	0.62	0.00	0.62
60.15	0.22	0.33	0.66*	0.61	0.00	0.61
60.20	0.22	0.33	0.66*	0.60	0.00	0.60
60.25	0.22	0.33	0.66*	0.59	0.00	0.59
60.30	0.22	0.33	0.67*	0.58	0.00	0.58
60.35	0.22	0.33	0.67*	0.57	0.00	0.57
60.40	0.22	0.33	0.67*	0.56	0.00	0.56
60.45	0.22	0.33	0.68*	0.55	0.00	0.55
60.50	0.22	0.33	0.68*	0.54	0.00	0.54
60.55	0.22	0.33	0.68*	0.53	0.00	0.53
60.60	0.23	0.33	0.69*	0.52	0.00	0.52
60.65	0.23	0.33	0.69*	0.51	0.00	0.51
60.70	0.23	0.33	0.69*	0.50	0.00	0.50
60.75	0.23	0.33	0.69*	0.49	0.00	0.49
60.80	0.23	0.33	0.70*	0.49	0.00	0.49
60.85	0.23	0.33	0.70*	0.48	0.00	0.48
60.90	0.23	0.33	0.70*	0.47	0.00	0.47
60.95	0.23	0.33	0.71*	0.46	0.00	0.46
61.00	0.23	0.33	0.71*	0.45	0.00	0.45
61.05	0.23	0.33	0.71*	0.44	0.00	0.44
61.10	0.24	0.33	0.72*	0.43	0.00	0.43
61.15	0.24	0.33	0.72*	0.42	0.00	0.42
61.20	0.24	0.33	0.72*	0.42	0.00	0.42
61.25	0.24	0.33	0.73*	0.41	0.00	0.41
61.30	0.24	0.33	0.73*	0.40	0.00	0.40
61.35	0.24	0.33	0.73*	0.39	0.00	0.39
61.40	0.24	0.33	0.74*	0.38	0.00	0.38
61.45	0.24	0.33	0.74*	0.37	0.00	0.37
61.50	0.24	0.33	0.74*	0.36	0.00	0.36
61.55	0.24	0.33	0.74*	0.36	0.00	0.36
61.60	0.24	0.33	0.75*	0.35	0.00	0.35
61.65	0.25	0.33	0.75*	0.34	0.00	0.34
61.70	0.25	0.33	0.75*	0.33	0.00	0.33
61.75	0.25	0.33	0.76*	0.32	0.00	0.32
61.80	0.25	0.33	0.76*	0.32	0.00	0.32

					LLiquefy.sum	
61.85	0.25	0.33	0.76*	0.31	0.00	0.31
61.90	0.25	0.33	0.77*	0.30	0.00	0.30
61.95	0.25	0.33	0.77*	0.29	0.00	0.29
62.00	0.25	0.33	0.77*	0.28	0.00	0.28
62.05	0.25	0.33	0.78*	0.28	0.00	0.28
62.10	0.25	0.33	0.78*	0.27	0.00	0.27
62.15	0.25	0.33	0.78*	0.26	0.00	0.26
62.20	0.26	0.33	0.79*	0.25	0.00	0.25
62.25	0.26	0.32	0.79*	0.25	0.00	0.25
62.30	0.26	0.32	0.79*	0.24	0.00	0.24
62.35	0.26	0.32	0.80*	0.23	0.00	0.23
62.40	0.26	0.32	0.80*	0.23	0.00	0.23
62.45	0.26	0.32	0.80*	0.22	0.00	0.22
62.50	0.26	0.32	0.81*	0.21	0.00	0.21
62.55	0.26	0.32	0.81*	0.20	0.00	0.20
62.60	0.26	0.32	0.81*	0.20	0.00	0.20
62.65	0.26	0.32	0.82*	0.19	0.00	0.19
62.70	0.27	0.32	0.82*	0.18	0.00	0.18
62.75	0.27	0.32	0.82*	0.18	0.00	0.18
62.80	0.27	0.32	0.83*	0.17	0.00	0.17
62.85	0.27	0.32	0.83*	0.16	0.00	0.16
62.90	0.27	0.32	0.83*	0.16	0.00	0.16
62.95	0.27	0.32	0.84*	0.15	0.00	0.15
63.00	0.27	0.32	0.84*	0.14	0.00	0.14
63.05	0.27	0.32	0.84*	0.14	0.00	0.14
63.10	0.27	0.32	0.85*	0.13	0.00	0.13
63.15	0.27	0.32	0.85*	0.12	0.00	0.12
63.20	0.28	0.32	0.85*	0.12	0.00	0.12
63.25	0.28	0.32	0.86*	0.11	0.00	0.11
63.30	0.28	0.32	0.86*	0.10	0.00	0.10
63.35	0.28	0.32	0.86*	0.10	0.00	0.10
63.40	0.28	0.32	0.87*	0.09	0.00	0.09
63.45	0.28	0.32	0.87*	0.08	0.00	0.08
63.50	0.28	0.32	0.88*	0.08	0.00	0.08
63.55	0.28	0.32	0.88*	0.07	0.00	0.07
63.60	0.28	0.32	0.88*	0.07	0.00	0.07
63.65	0.28	0.32	0.89*	0.06	0.00	0.06
63.70	0.29	0.32	0.89*	0.06	0.00	0.06
63.75	0.29	0.32	0.89*	0.05	0.00	0.05
63.80	0.29	0.32	0.90*	0.05	0.00	0.05
63.85	0.29	0.32	0.90*	0.05	0.00	0.05
63.90	0.29	0.32	0.90*	0.05	0.00	0.05
63.95	0.29	0.32	0.91*	0.04	0.00	0.04
64.00	0.29	0.32	0.91*	0.04	0.00	0.04
64.05	0.29	0.32	0.91*	0.04	0.00	0.04
64.10	0.29	0.32	0.92*	0.04	0.00	0.04
64.15	0.29	0.32	0.92*	0.03	0.00	0.03
64.20	0.30	0.32	0.93*	0.03	0.00	0.03
64.25	0.30	0.32	0.93*	0.03	0.00	0.03
64.30	0.30	0.32	0.93*	0.03	0.00	0.03
64.35	0.30	0.32	0.94*	0.03	0.00	0.03
64.40	0.30	0.32	0.94*	0.03	0.00	0.03
64.45	0.30	0.32	0.95*	0.03	0.00	0.03
64.50	0.30	0.32	0.95*	0.02	0.00	0.02
64.55	0.30	0.32	0.95*	0.02	0.00	0.02
64.60	0.30	0.32	0.96*	0.02	0.00	0.02
64.65	0.31	0.32	0.96*	0.02	0.00	0.02
64.70	0.31	0.32	0.96*	0.02	0.00	0.02
64.75	0.31	0.32	0.97*	0.02	0.00	0.02
64.80	0.31	0.32	0.97*	0.02	0.00	0.02
64.85	0.31	0.32	0.98*	0.02	0.00	0.02
64.90	0.31	0.32	0.98*	0.02	0.00	0.02
64.95	0.31	0.32	0.98*	0.01	0.00	0.01
65.00	0.31	0.32	0.99*	0.01	0.00	0.01
65.05	0.31	0.32	0.99*	0.01	0.00	0.01
65.10	0.32	0.32	1.00*	0.01	0.00	0.01
65.15	0.32	0.32	1.00	0.01	0.00	0.01
65.20	0.32	0.32	1.01	0.01	0.00	0.01
65.25	0.32	0.32	1.01	0.01	0.00	0.01
65.30	0.32	0.32	1.01	0.01	0.00	0.01
65.35	0.32	0.32	1.02	0.01	0.00	0.01
65.40	0.32	0.32	1.02	0.01	0.00	0.01
65.45	0.32	0.32	1.03	0.01	0.00	0.01

					LLiquefy.sum	
65.50	0.33	0.32	1.03	0.01	0.00	0.01
65.55	0.33	0.32	1.04	0.00	0.00	0.00
65.60	0.33	0.32	1.04	0.00	0.00	0.00
65.65	0.33	0.32	1.04	0.00	0.00	0.00
65.70	0.33	0.32	1.05	0.00	0.00	0.00
65.75	0.33	0.32	1.05	0.00	0.00	0.00
65.80	0.33	0.31	1.06	0.00	0.00	0.00
65.85	0.33	0.31	1.06	0.00	0.00	0.00
65.90	0.34	0.31	1.07	0.00	0.00	0.00
65.95	0.34	0.31	1.07	0.00	0.00	0.00
66.00	0.34	0.31	1.08	0.00	0.00	0.00
66.05	0.34	0.31	1.08	0.00	0.00	0.00
66.10	0.34	0.31	1.09	0.00	0.00	0.00
66.15	0.34	0.31	1.09	0.00	0.00	0.00
66.20	0.34	0.31	1.09	0.00	0.00	0.00
66.25	0.34	0.31	1.10	0.00	0.00	0.00
66.30	0.35	0.31	1.10	0.00	0.00	0.00
66.35	0.35	0.31	1.11	0.00	0.00	0.00
66.40	0.35	0.31	1.11	0.00	0.00	0.00
66.45	0.35	0.31	1.12	0.00	0.00	0.00
66.50	0.35	0.31	1.12	0.00	0.00	0.00
66.55	0.35	0.31	1.13	0.00	0.00	0.00
66.60	0.35	0.31	1.13	0.00	0.00	0.00
66.65	0.36	0.31	1.14	0.00	0.00	0.00
66.70	0.36	0.31	1.14	0.00	0.00	0.00
66.75	0.36	0.31	1.15	0.00	0.00	0.00
66.80	0.36	0.31	1.16	0.00	0.00	0.00
66.85	0.36	0.31	1.16	0.00	0.00	0.00
66.90	0.36	0.31	1.17	0.00	0.00	0.00
66.95	0.36	0.31	1.17	0.00	0.00	0.00
67.00	0.37	0.31	1.18	0.00	0.00	0.00
67.05	0.37	0.31	1.18	0.00	0.00	0.00
67.10	0.37	0.31	1.19	0.00	0.00	0.00
67.15	0.37	0.31	1.19	0.00	0.00	0.00
67.20	0.37	0.31	1.20	0.00	0.00	0.00
67.25	0.37	0.31	1.20	0.00	0.00	0.00
67.30	0.38	0.31	1.21	0.00	0.00	0.00
67.35	0.38	0.31	1.22	0.00	0.00	0.00
67.40	0.38	0.31	1.22	0.00	0.00	0.00
67.45	0.38	0.31	1.23	0.00	0.00	0.00
67.50	0.38	0.31	1.23	0.00	0.00	0.00
67.55	0.38	0.31	1.24	0.00	0.00	0.00
67.60	0.39	0.31	1.25	0.00	0.00	0.00
67.65	0.39	0.31	1.25	0.00	0.00	0.00
67.70	0.39	0.31	1.26	0.00	0.00	0.00
67.75	0.39	0.31	1.27	0.00	0.00	0.00
67.80	0.39	0.31	1.27	0.00	0.00	0.00
67.85	0.39	0.31	1.28	0.00	0.00	0.00
67.90	0.40	0.31	1.29	0.00	0.00	0.00
67.95	0.40	0.31	1.29	0.00	0.00	0.00
68.00	0.40	0.31	1.30	0.00	0.00	0.00
68.05	0.40	0.31	1.31	0.00	0.00	0.00
68.10	0.40	0.31	1.31	0.00	0.00	0.00
68.15	0.41	0.31	1.32	0.00	0.00	0.00
68.20	0.41	0.31	1.33	0.00	0.00	0.00
68.25	0.41	0.31	1.33	0.00	0.00	0.00
68.30	0.41	0.31	1.34	0.00	0.00	0.00
68.35	0.42	0.31	1.35	0.00	0.00	0.00
68.40	0.42	0.31	1.36	0.00	0.00	0.00
68.45	0.42	0.31	1.37	0.00	0.00	0.00
68.50	0.42	0.31	1.37	0.00	0.00	0.00
68.55	0.42	0.31	1.38	0.00	0.00	0.00
68.60	0.43	0.31	1.39	0.00	0.00	0.00
68.65	0.43	0.31	1.40	0.00	0.00	0.00
68.70	0.43	0.31	1.41	0.00	0.00	0.00
68.75	0.43	0.31	1.42	0.00	0.00	0.00
68.80	0.44	0.31	1.43	0.00	0.00	0.00
68.85	0.44	0.31	1.44	0.00	0.00	0.00
68.90	0.44	0.31	1.45	0.00	0.00	0.00
68.95	0.45	0.31	1.46	0.00	0.00	0.00
69.00	0.45	0.31	1.47	0.00	0.00	0.00
69.05	0.45	0.31	1.48	0.00	0.00	0.00
69.10	0.46	0.31	1.50	0.00	0.00	0.00

					LLiquefy.sum	
69.15	0.46	0.30	1.51	0.00	0.00	0.00
69.20	0.46	0.30	1.52	0.00	0.00	0.00
69.25	0.47	0.30	1.54	0.00	0.00	0.00
69.30	0.47	0.30	1.56	0.00	0.00	0.00
69.35	0.48	0.30	1.57	0.00	0.00	0.00
69.40	0.48	0.30	1.59	0.00	0.00	0.00
69.45	0.49	0.30	1.62	0.00	0.00	0.00
69.50	0.50	0.30	1.64	0.00	0.00	0.00
69.55	0.51	0.30	1.67	0.00	0.00	0.00
69.60	0.52	0.30	1.71	0.00	0.00	0.00
69.65	0.53	0.30	1.75	0.00	0.00	0.00
69.70	0.55	0.30	1.80	0.00	0.00	0.00
69.75	0.57	0.30	1.87	0.00	0.00	0.00
69.80	0.59	0.30	1.96	0.00	0.00	0.00
69.85	0.59	0.30	1.96	0.00	0.00	0.00
69.90	0.59	0.30	1.96	0.00	0.00	0.00
69.95	0.59	0.30	1.96	0.00	0.00	0.00
70.00	0.59	0.30	1.96	0.00	0.00	0.00
70.05	0.59	0.30	1.97	0.00	0.00	0.00
70.10	0.59	0.30	1.97	0.00	0.00	0.00
70.15	0.59	0.30	1.97	0.00	0.00	0.00
70.20	0.59	0.30	1.97	0.00	0.00	0.00
70.25	0.59	0.30	1.97	0.00	0.00	0.00
70.30	0.59	0.30	1.97	0.00	0.00	0.00
70.35	0.59	0.30	1.97	0.00	0.00	0.00
70.40	0.59	0.30	1.97	0.00	0.00	0.00
70.45	0.59	0.30	1.97	0.00	0.00	0.00
70.50	0.59	0.30	1.97	0.00	0.00	0.00
70.55	0.59	0.30	1.97	0.00	0.00	0.00
70.60	0.59	0.30	1.97	0.00	0.00	0.00
70.65	0.59	0.30	1.97	0.00	0.00	0.00
70.70	0.59	0.30	1.98	0.00	0.00	0.00
70.75	0.59	0.30	1.98	0.00	0.00	0.00
70.80	0.59	0.30	1.98	0.00	0.00	0.00
70.85	0.59	0.30	1.98	0.00	0.00	0.00
70.90	0.59	0.30	1.98	0.00	0.00	0.00
70.95	0.59	0.30	1.98	0.00	0.00	0.00
71.00	0.59	0.30	1.98	0.00	0.00	0.00
71.05	0.59	0.30	1.98	0.00	0.00	0.00
71.10	0.59	0.30	1.98	0.00	0.00	0.00
71.15	0.59	0.30	1.98	0.00	0.00	0.00
71.20	0.59	0.30	1.98	0.00	0.00	0.00
71.25	0.59	0.30	1.98	0.00	0.00	0.00
71.30	0.59	0.30	1.98	0.00	0.00	0.00
71.35	0.59	0.30	1.99	0.00	0.00	0.00
71.40	0.59	0.30	1.99	0.00	0.00	0.00
71.45	0.59	0.30	1.99	0.00	0.00	0.00
71.50	0.59	0.30	1.99	0.00	0.00	0.00
71.55	0.59	0.30	1.99	0.00	0.00	0.00
71.60	0.59	0.30	1.99	0.00	0.00	0.00
71.65	0.59	0.30	1.99	0.00	0.00	0.00
71.70	0.59	0.30	1.99	0.00	0.00	0.00
71.75	0.59	0.30	1.99	0.00	0.00	0.00
71.80	0.59	0.30	1.99	0.00	0.00	0.00
71.85	0.59	0.30	1.99	0.00	0.00	0.00
71.90	0.59	0.30	1.99	0.00	0.00	0.00
71.95	0.59	0.30	2.00	0.00	0.00	0.00
72.00	0.59	0.30	2.00	0.00	0.00	0.00
72.05	0.59	0.30	2.00	0.00	0.00	0.00
72.10	0.59	0.30	2.00	0.00	0.00	0.00
72.15	0.59	0.30	2.00	0.00	0.00	0.00
72.20	0.59	0.30	2.00	0.00	0.00	0.00
72.25	0.59	0.30	2.00	0.00	0.00	0.00
72.30	0.59	0.29	2.00	0.00	0.00	0.00
72.35	0.59	0.29	2.00	0.00	0.00	0.00
72.40	0.59	0.29	2.00	0.00	0.00	0.00
72.45	0.59	0.29	2.00	0.00	0.00	0.00
72.50	0.59	0.29	2.00	0.00	0.00	0.00
72.55	0.59	0.29	2.00	0.00	0.00	0.00
72.60	0.59	0.29	2.01	0.00	0.00	0.00
72.65	0.59	0.29	2.01	0.00	0.00	0.00
72.70	0.59	0.29	2.01	0.00	0.00	0.00
72.75	0.59	0.29	2.01	0.00	0.00	0.00

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72.80	0.59	0.29	2.01	0.00	0.00	0.00
72.85	0.59	0.29	2.01	0.00	0.00	0.00
72.90	0.59	0.29	2.01	0.00	0.00	0.00
72.95	0.59	0.29	2.01	0.00	0.00	0.00
73.00	0.59	0.29	2.01	0.00	0.00	0.00
73.05	0.59	0.29	2.01	0.00	0.00	0.00
73.10	0.59	0.29	2.01	0.00	0.00	0.00
73.15	0.59	0.29	2.02	0.00	0.00	0.00
73.20	0.59	0.29	2.02	0.00	0.00	0.00
73.25	0.59	0.29	2.02	0.00	0.00	0.00
73.30	0.59	0.29	2.02	0.00	0.00	0.00
73.35	0.59	0.29	2.02	0.00	0.00	0.00
73.40	0.59	0.29	2.02	0.00	0.00	0.00
73.45	0.59	0.29	2.02	0.00	0.00	0.00
73.50	0.59	0.29	2.02	0.00	0.00	0.00
73.55	0.59	0.29	2.02	0.00	0.00	0.00
73.60	0.59	0.29	2.02	0.00	0.00	0.00
73.65	0.59	0.29	2.02	0.00	0.00	0.00
73.70	0.59	0.29	2.02	0.00	0.00	0.00
73.75	0.59	0.29	2.03	0.00	0.00	0.00
73.80	0.59	0.29	2.03	0.00	0.00	0.00
73.85	0.59	0.29	2.03	0.00	0.00	0.00
73.90	0.59	0.29	2.03	0.00	0.00	0.00
73.95	0.59	0.29	2.03	0.00	0.00	0.00
74.00	0.59	0.29	2.03	0.00	0.00	0.00
74.05	0.59	0.29	2.03	0.00	0.00	0.00
74.10	0.59	0.29	2.03	0.00	0.00	0.00
74.15	0.59	0.29	2.03	0.00	0.00	0.00
74.20	0.59	0.29	2.03	0.00	0.00	0.00
74.25	0.59	0.29	2.03	0.00	0.00	0.00
74.30	0.59	0.29	2.04	0.00	0.00	0.00
74.35	0.59	0.29	2.04	0.00	0.00	0.00
74.40	0.59	0.29	2.04	0.00	0.00	0.00
74.45	0.59	0.29	2.04	0.00	0.00	0.00
74.50	0.59	0.29	2.04	0.00	0.00	0.00
74.55	0.59	0.29	2.04	0.00	0.00	0.00
74.60	0.59	0.29	2.04	0.00	0.00	0.00
74.65	0.59	0.29	2.04	0.00	0.00	0.00
74.70	0.59	0.29	2.04	0.00	0.00	0.00
74.75	0.59	0.29	2.04	0.00	0.00	0.00
74.80	0.59	0.29	2.04	0.00	0.00	0.00
74.85	0.59	0.29	2.05	0.00	0.00	0.00
74.90	0.59	0.29	2.05	0.00	0.00	0.00
74.95	0.59	0.29	2.05	0.00	0.00	0.00
75.00	0.59	0.29	2.05	0.00	0.00	0.00

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* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Welcome to LiquefyPro!

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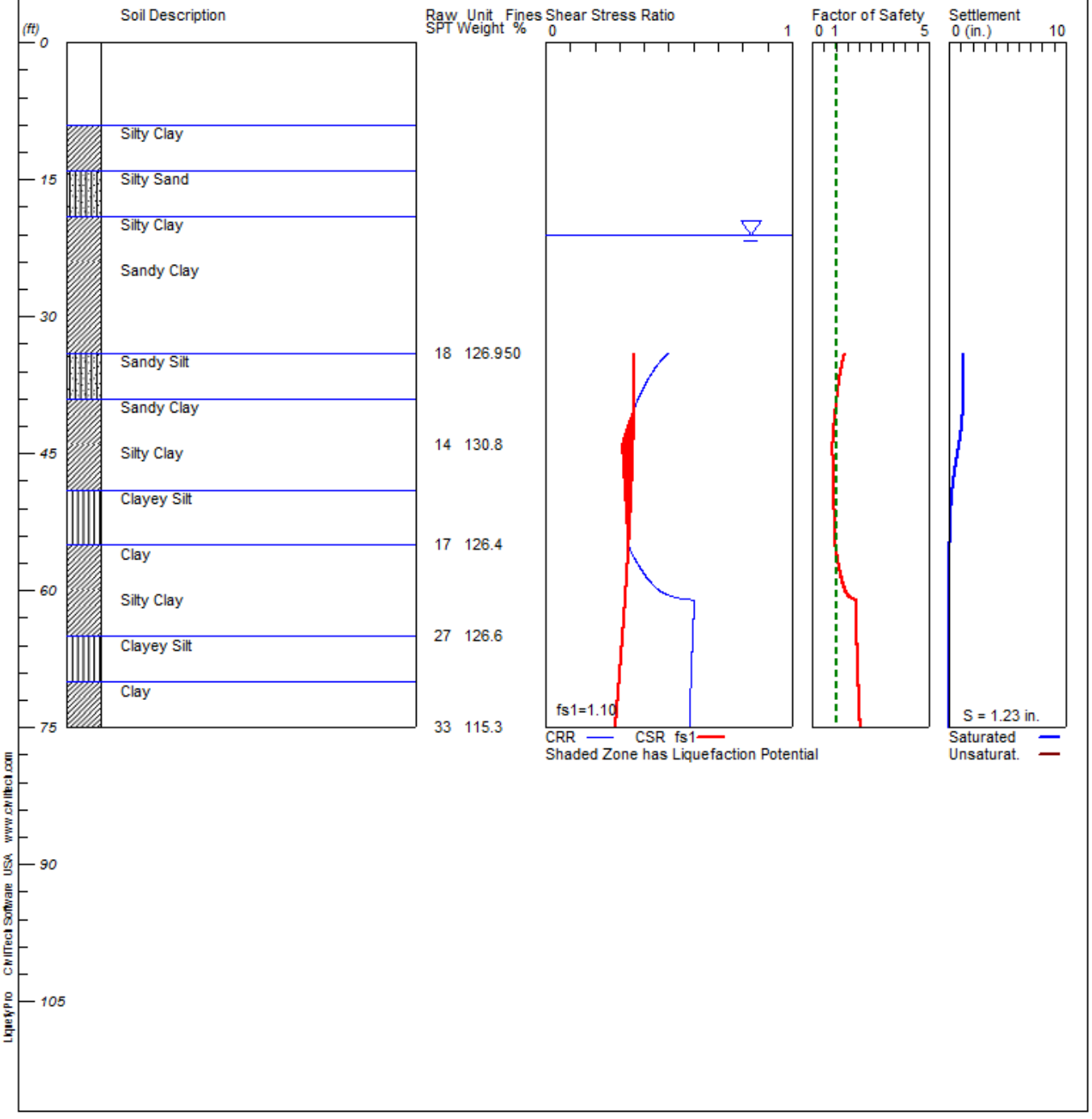
1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

De Soto Ave and Burbank Blvd

Hole No.=B-5 Water Depth=21 ft

Magnitude=6.74
Acceleration=0.453g



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LIQUEFACTION ANALYSIS SUMMARY
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Input File Name: C:\Users\jgurunathan\Work\2017\6743 Woodland Center\Liquefaction\B-5.liq
Title: De Soto Ave and Burbank Blvd
Subtitle: GeoSoils Consultants, Inc. (2017)

Surface Elev.=
Hole No.=B-5
Depth of Hole= 75.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration= 0.45 g
Earthquake Magnitude= 6.74

Input Data:
Surface Elev.=
Hole No.=B-5
Depth of Hole=75.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration=0.45 g
Earthquake Magnitude=6.74
No-Liquefiable Soils: Based on Analysis

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Tokimatsu, M-correction
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.1
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
34.00	18.00	126.90	50.00
44.00	14.00	130.80	50.00
55.00	17.00	126.40	50.00
65.00	27.00	126.60	50.00
75.00	33.00	115.30	50.00

Output Results:
Settlement of Saturated Sands=1.23 in.
Settlement of Unsaturated Sands=0.00 in.
Total Settlement of Saturated and Unsaturated Sands=1.23 in.
Differential Settlement=0.613 to 0.809 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
34.00	0.50	0.36	1.39	1.23	0.00	1.23
34.05	0.49	0.36	1.38	1.23	0.00	1.23
34.10	0.49	0.36	1.38	1.23	0.00	1.23
34.15	0.49	0.36	1.37	1.23	0.00	1.23
34.20	0.49	0.36	1.36	1.23	0.00	1.23
34.25	0.49	0.36	1.36	1.23	0.00	1.23
34.30	0.48	0.36	1.35	1.23	0.00	1.23
34.35	0.48	0.36	1.35	1.23	0.00	1.23

34.40	0.48	0.36	1.34	1.23	0.00	1.23
34.45	0.48	0.36	1.34	1.23	0.00	1.23
34.50	0.48	0.36	1.33	1.23	0.00	1.23
34.55	0.48	0.36	1.33	1.23	0.00	1.23
34.60	0.47	0.36	1.32	1.23	0.00	1.23
34.65	0.47	0.36	1.32	1.23	0.00	1.23
34.70	0.47	0.36	1.31	1.23	0.00	1.23
34.75	0.47	0.36	1.31	1.23	0.00	1.23
34.80	0.47	0.36	1.30	1.23	0.00	1.23
34.85	0.47	0.36	1.30	1.23	0.00	1.23
34.90	0.46	0.36	1.29	1.23	0.00	1.23
34.95	0.46	0.36	1.29	1.23	0.00	1.23
35.00	0.46	0.36	1.28	1.23	0.00	1.23
35.05	0.46	0.36	1.28	1.23	0.00	1.23
35.10	0.46	0.36	1.28	1.23	0.00	1.23
35.15	0.46	0.36	1.27	1.23	0.00	1.23
35.20	0.45	0.36	1.27	1.23	0.00	1.23
35.25	0.45	0.36	1.26	1.23	0.00	1.23
35.30	0.45	0.36	1.26	1.23	0.00	1.23
35.35	0.45	0.36	1.26	1.23	0.00	1.23
35.40	0.45	0.36	1.25	1.23	0.00	1.23
35.45	0.45	0.36	1.25	1.23	0.00	1.23
35.50	0.45	0.36	1.24	1.23	0.00	1.23
35.55	0.45	0.36	1.24	1.23	0.00	1.23
35.60	0.44	0.36	1.24	1.23	0.00	1.23
35.65	0.44	0.36	1.23	1.23	0.00	1.23
35.70	0.44	0.36	1.23	1.23	0.00	1.23
35.75	0.44	0.36	1.23	1.23	0.00	1.23
35.80	0.44	0.36	1.22	1.23	0.00	1.23
35.85	0.44	0.36	1.22	1.23	0.00	1.23
35.90	0.44	0.36	1.22	1.23	0.00	1.23
35.95	0.43	0.36	1.21	1.23	0.00	1.23
36.00	0.43	0.36	1.21	1.23	0.00	1.23
36.05	0.43	0.36	1.20	1.23	0.00	1.23
36.10	0.43	0.36	1.20	1.23	0.00	1.23
36.15	0.43	0.36	1.20	1.23	0.00	1.23
36.20	0.43	0.36	1.19	1.23	0.00	1.23
36.25	0.43	0.36	1.19	1.23	0.00	1.23
36.30	0.43	0.36	1.19	1.23	0.00	1.23
36.35	0.43	0.36	1.19	1.23	0.00	1.23
36.40	0.42	0.36	1.18	1.23	0.00	1.23
36.45	0.42	0.36	1.18	1.23	0.00	1.23
36.50	0.42	0.36	1.18	1.23	0.00	1.23
36.55	0.42	0.36	1.17	1.23	0.00	1.23
36.60	0.42	0.36	1.17	1.22	0.00	1.22
36.65	0.42	0.36	1.17	1.22	0.00	1.22
36.70	0.42	0.36	1.16	1.22	0.00	1.22
36.75	0.42	0.36	1.16	1.22	0.00	1.22
36.80	0.42	0.36	1.16	1.22	0.00	1.22
36.85	0.41	0.36	1.15	1.22	0.00	1.22
36.90	0.41	0.36	1.15	1.22	0.00	1.22
36.95	0.41	0.36	1.15	1.22	0.00	1.22
37.00	0.41	0.36	1.15	1.22	0.00	1.22
37.05	0.41	0.36	1.14	1.22	0.00	1.22
37.10	0.41	0.36	1.14	1.22	0.00	1.22
37.15	0.41	0.36	1.14	1.22	0.00	1.22
37.20	0.41	0.36	1.13	1.22	0.00	1.22
37.25	0.41	0.36	1.13	1.22	0.00	1.22
37.30	0.41	0.36	1.13	1.22	0.00	1.22
37.35	0.40	0.36	1.13	1.21	0.00	1.21
37.40	0.40	0.36	1.12	1.21	0.00	1.21
37.45	0.40	0.36	1.12	1.21	0.00	1.21
37.50	0.40	0.36	1.12	1.21	0.00	1.21
37.55	0.40	0.36	1.12	1.21	0.00	1.21
37.60	0.40	0.36	1.11	1.21	0.00	1.21
37.65	0.40	0.36	1.11	1.21	0.00	1.21
37.70	0.40	0.36	1.11	1.21	0.00	1.21
37.75	0.40	0.36	1.10	1.21	0.00	1.21
37.80	0.40	0.36	1.10	1.21	0.00	1.21
37.85	0.39	0.36	1.10	1.21	0.00	1.21
37.90	0.39	0.36	1.10	1.21	0.00	1.21
37.95	0.39	0.36	1.09	1.20	0.00	1.20
38.00	0.39	0.36	1.09	1.20	0.00	1.20

38.05	0.39	0.36	1.09	1.20	0.00	1.20
38.10	0.39	0.36	1.09	1.20	0.00	1.20
38.15	0.39	0.36	1.08	1.20	0.00	1.20
38.20	0.39	0.36	1.08	1.20	0.00	1.20
38.25	0.39	0.36	1.08	1.20	0.00	1.20
38.30	0.39	0.36	1.08	1.20	0.00	1.20
38.35	0.39	0.36	1.07	1.20	0.00	1.20
38.40	0.38	0.36	1.07	1.20	0.00	1.20
38.45	0.38	0.36	1.07	1.20	0.00	1.20
38.50	0.38	0.36	1.07	1.19	0.00	1.19
38.55	0.38	0.36	1.06	1.19	0.00	1.19
38.60	0.38	0.36	1.06	1.19	0.00	1.19
38.65	0.38	0.36	1.06	1.19	0.00	1.19
38.70	0.38	0.36	1.06	1.19	0.00	1.19
38.75	0.38	0.36	1.06	1.19	0.00	1.19
38.80	0.38	0.36	1.05	1.19	0.00	1.19
38.85	0.38	0.36	1.05	1.19	0.00	1.19
38.90	0.38	0.36	1.05	1.19	0.00	1.19
38.95	0.38	0.36	1.05	1.19	0.00	1.19
39.00	0.37	0.36	1.04	1.19	0.00	1.19
39.05	0.37	0.36	1.04	1.18	0.00	1.18
39.10	0.37	0.36	1.04	1.18	0.00	1.18
39.15	0.37	0.36	1.04	1.18	0.00	1.18
39.20	0.37	0.36	1.04	1.18	0.00	1.18
39.25	0.37	0.36	1.03	1.18	0.00	1.18
39.30	0.37	0.36	1.03	1.18	0.00	1.18
39.35	0.37	0.36	1.03	1.18	0.00	1.18
39.40	0.37	0.36	1.03	1.18	0.00	1.18
39.45	0.37	0.36	1.02	1.18	0.00	1.18
39.50	0.37	0.36	1.02	1.17	0.00	1.17
39.55	0.37	0.36	1.02	1.17	0.00	1.17
39.60	0.36	0.36	1.02	1.17	0.00	1.17
39.65	0.36	0.36	1.02	1.17	0.00	1.17
39.70	0.36	0.36	1.01	1.17	0.00	1.17
39.75	0.36	0.36	1.01	1.17	0.00	1.17
39.80	0.36	0.36	1.01	1.17	0.00	1.17
39.85	0.36	0.36	1.01	1.17	0.00	1.17
39.90	0.36	0.36	1.01	1.17	0.00	1.17
39.95	0.36	0.36	1.00	1.16	0.00	1.16
40.00	0.36	0.36	1.00	1.16	0.00	1.16
40.05	0.36	0.36	1.00*	1.16	0.00	1.16
40.10	0.36	0.36	1.00*	1.16	0.00	1.16
40.15	0.36	0.36	1.00*	1.16	0.00	1.16
40.20	0.36	0.36	0.99*	1.16	0.00	1.16
40.25	0.36	0.36	0.99*	1.16	0.00	1.16
40.30	0.35	0.36	0.99*	1.15	0.00	1.15
40.35	0.35	0.36	0.99*	1.15	0.00	1.15
40.40	0.35	0.36	0.99*	1.15	0.00	1.15
40.45	0.35	0.36	0.98*	1.15	0.00	1.15
40.50	0.35	0.36	0.98*	1.15	0.00	1.15
40.55	0.35	0.36	0.98*	1.15	0.00	1.15
40.60	0.35	0.36	0.98*	1.14	0.00	1.14
40.65	0.35	0.36	0.98*	1.14	0.00	1.14
40.70	0.35	0.36	0.97*	1.14	0.00	1.14
40.75	0.35	0.36	0.97*	1.14	0.00	1.14
40.80	0.35	0.36	0.97*	1.14	0.00	1.14
40.85	0.35	0.36	0.97*	1.13	0.00	1.13
40.90	0.35	0.36	0.97*	1.13	0.00	1.13
40.95	0.35	0.36	0.96*	1.13	0.00	1.13
41.00	0.34	0.36	0.96*	1.13	0.00	1.13
41.05	0.34	0.36	0.96*	1.12	0.00	1.12
41.10	0.34	0.36	0.96*	1.12	0.00	1.12
41.15	0.34	0.36	0.96*	1.12	0.00	1.12
41.20	0.34	0.36	0.96*	1.12	0.00	1.12
41.25	0.34	0.36	0.95*	1.11	0.00	1.11
41.30	0.34	0.36	0.95*	1.11	0.00	1.11
41.35	0.34	0.36	0.95*	1.11	0.00	1.11
41.40	0.34	0.36	0.95*	1.11	0.00	1.11
41.45	0.34	0.36	0.95*	1.10	0.00	1.10
41.50	0.34	0.36	0.94*	1.10	0.00	1.10
41.55	0.34	0.36	0.94*	1.10	0.00	1.10
41.60	0.34	0.36	0.94*	1.09	0.00	1.09
41.65	0.34	0.36	0.94*	1.09	0.00	1.09

41.70	0.34	0.36	0.94*	1.09	0.00	1.09
41.75	0.33	0.36	0.94*	1.08	0.00	1.08
41.80	0.33	0.36	0.93*	1.08	0.00	1.08
41.85	0.33	0.36	0.93*	1.08	0.00	1.08
41.90	0.33	0.36	0.93*	1.07	0.00	1.07
41.95	0.33	0.36	0.93*	1.07	0.00	1.07
42.00	0.33	0.36	0.93*	1.06	0.00	1.06
42.05	0.33	0.36	0.93*	1.06	0.00	1.06
42.10	0.33	0.36	0.92*	1.05	0.00	1.05
42.15	0.33	0.36	0.92*	1.05	0.00	1.05
42.20	0.33	0.36	0.92*	1.05	0.00	1.05
42.25	0.33	0.36	0.92*	1.04	0.00	1.04
42.30	0.33	0.36	0.92*	1.04	0.00	1.04
42.35	0.33	0.36	0.92*	1.03	0.00	1.03
42.40	0.33	0.36	0.91*	1.03	0.00	1.03
42.45	0.33	0.36	0.91*	1.02	0.00	1.02
42.50	0.32	0.36	0.91*	1.02	0.00	1.02
42.55	0.32	0.36	0.91*	1.01	0.00	1.01
42.60	0.32	0.36	0.91*	1.00	0.00	1.00
42.65	0.32	0.36	0.91*	1.00	0.00	1.00
42.70	0.32	0.36	0.90*	0.99	0.00	0.99
42.75	0.32	0.36	0.90*	0.99	0.00	0.99
42.80	0.32	0.36	0.90*	0.98	0.00	0.98
42.85	0.32	0.36	0.90*	0.98	0.00	0.98
42.90	0.32	0.36	0.90*	0.97	0.00	0.97
42.95	0.32	0.36	0.90*	0.96	0.00	0.96
43.00	0.32	0.36	0.90*	0.96	0.00	0.96
43.05	0.32	0.36	0.89*	0.95	0.00	0.95
43.10	0.32	0.36	0.89*	0.95	0.00	0.95
43.15	0.32	0.36	0.89*	0.94	0.00	0.94
43.20	0.32	0.36	0.89*	0.93	0.00	0.93
43.25	0.32	0.36	0.89*	0.93	0.00	0.93
43.30	0.32	0.36	0.89*	0.92	0.00	0.92
43.35	0.31	0.36	0.88*	0.91	0.00	0.91
43.40	0.31	0.36	0.88*	0.91	0.00	0.91
43.45	0.31	0.36	0.88*	0.90	0.00	0.90
43.50	0.31	0.36	0.88*	0.90	0.00	0.90
43.55	0.31	0.36	0.88*	0.89	0.00	0.89
43.60	0.31	0.36	0.88*	0.88	0.00	0.88
43.65	0.31	0.36	0.88*	0.88	0.00	0.88
43.70	0.31	0.36	0.87*	0.87	0.00	0.87
43.75	0.31	0.36	0.87*	0.86	0.00	0.86
43.80	0.31	0.36	0.87*	0.86	0.00	0.86
43.85	0.31	0.36	0.87*	0.85	0.00	0.85
43.90	0.31	0.36	0.87*	0.85	0.00	0.85
43.95	0.31	0.36	0.87*	0.84	0.00	0.84
44.00	0.31	0.36	0.87*	0.83	0.00	0.83
44.05	0.31	0.36	0.87*	0.83	0.00	0.83
44.10	0.31	0.36	0.87*	0.82	0.00	0.82
44.15	0.31	0.36	0.87*	0.81	0.00	0.81
44.20	0.31	0.36	0.87*	0.81	0.00	0.81
44.25	0.31	0.36	0.87*	0.80	0.00	0.80
44.30	0.31	0.35	0.87*	0.79	0.00	0.79
44.35	0.31	0.35	0.87*	0.79	0.00	0.79
44.40	0.31	0.35	0.87*	0.78	0.00	0.78
44.45	0.31	0.35	0.87*	0.77	0.00	0.77
44.50	0.31	0.35	0.87*	0.77	0.00	0.77
44.55	0.31	0.35	0.87*	0.76	0.00	0.76
44.60	0.31	0.35	0.87*	0.76	0.00	0.76
44.65	0.31	0.35	0.87*	0.75	0.00	0.75
44.70	0.31	0.35	0.87*	0.74	0.00	0.74
44.75	0.31	0.35	0.87*	0.74	0.00	0.74
44.80	0.31	0.35	0.87*	0.73	0.00	0.73
44.85	0.31	0.35	0.87*	0.72	0.00	0.72
44.90	0.31	0.35	0.87*	0.72	0.00	0.72
44.95	0.31	0.35	0.87*	0.71	0.00	0.71
45.00	0.31	0.35	0.87*	0.70	0.00	0.70
45.05	0.31	0.35	0.87*	0.70	0.00	0.70
45.10	0.31	0.35	0.87*	0.69	0.00	0.69
45.15	0.31	0.35	0.88*	0.69	0.00	0.69
45.20	0.31	0.35	0.88*	0.68	0.00	0.68
45.25	0.31	0.35	0.88*	0.67	0.00	0.67
45.30	0.31	0.35	0.88*	0.67	0.00	0.67

45.35	0.31	0.35	0.88*	0.66	0.00	0.66
45.40	0.31	0.35	0.88*	0.65	0.00	0.65
45.45	0.31	0.35	0.88*	0.65	0.00	0.65
45.50	0.31	0.35	0.88*	0.64	0.00	0.64
45.55	0.31	0.35	0.88*	0.64	0.00	0.64
45.60	0.31	0.35	0.88*	0.63	0.00	0.63
45.65	0.31	0.35	0.88*	0.62	0.00	0.62
45.70	0.31	0.35	0.88*	0.62	0.00	0.62
45.75	0.31	0.35	0.88*	0.61	0.00	0.61
45.80	0.31	0.35	0.88*	0.60	0.00	0.60
45.85	0.31	0.35	0.88*	0.60	0.00	0.60
45.90	0.31	0.35	0.88*	0.59	0.00	0.59
45.95	0.31	0.35	0.88*	0.59	0.00	0.59
46.00	0.31	0.35	0.88*	0.58	0.00	0.58
46.05	0.31	0.35	0.88*	0.57	0.00	0.57
46.10	0.31	0.35	0.88*	0.57	0.00	0.57
46.15	0.31	0.35	0.88*	0.56	0.00	0.56
46.20	0.31	0.35	0.89*	0.56	0.00	0.56
46.25	0.31	0.35	0.89*	0.55	0.00	0.55
46.30	0.31	0.35	0.89*	0.54	0.00	0.54
46.35	0.31	0.35	0.89*	0.54	0.00	0.54
46.40	0.31	0.35	0.89*	0.53	0.00	0.53
46.45	0.31	0.35	0.89*	0.53	0.00	0.53
46.50	0.31	0.35	0.89*	0.52	0.00	0.52
46.55	0.31	0.35	0.89*	0.51	0.00	0.51
46.60	0.31	0.35	0.89*	0.51	0.00	0.51
46.65	0.31	0.35	0.89*	0.50	0.00	0.50
46.70	0.31	0.35	0.89*	0.49	0.00	0.49
46.75	0.31	0.35	0.89*	0.49	0.00	0.49
46.80	0.31	0.35	0.89*	0.48	0.00	0.48
46.85	0.31	0.35	0.89*	0.48	0.00	0.48
46.90	0.31	0.35	0.89*	0.47	0.00	0.47
46.95	0.31	0.35	0.89*	0.46	0.00	0.46
47.00	0.31	0.35	0.89*	0.46	0.00	0.46
47.05	0.31	0.35	0.89*	0.45	0.00	0.45
47.10	0.31	0.35	0.89*	0.45	0.00	0.45
47.15	0.31	0.35	0.89*	0.44	0.00	0.44
47.20	0.31	0.35	0.89*	0.44	0.00	0.44
47.25	0.31	0.35	0.90*	0.43	0.00	0.43
47.30	0.31	0.35	0.90*	0.42	0.00	0.42
47.35	0.31	0.35	0.90*	0.42	0.00	0.42
47.40	0.31	0.35	0.90*	0.41	0.00	0.41
47.45	0.31	0.35	0.90*	0.41	0.00	0.41
47.50	0.32	0.35	0.90*	0.40	0.00	0.40
47.55	0.32	0.35	0.90*	0.40	0.00	0.40
47.60	0.32	0.35	0.90*	0.39	0.00	0.39
47.65	0.32	0.35	0.90*	0.39	0.00	0.39
47.70	0.32	0.35	0.90*	0.38	0.00	0.38
47.75	0.32	0.35	0.90*	0.37	0.00	0.37
47.80	0.32	0.35	0.90*	0.37	0.00	0.37
47.85	0.32	0.35	0.90*	0.36	0.00	0.36
47.90	0.32	0.35	0.90*	0.36	0.00	0.36
47.95	0.32	0.35	0.90*	0.35	0.00	0.35
48.00	0.32	0.35	0.90*	0.35	0.00	0.35
48.05	0.32	0.35	0.90*	0.34	0.00	0.34
48.10	0.32	0.35	0.90*	0.34	0.00	0.34
48.15	0.32	0.35	0.90*	0.33	0.00	0.33
48.20	0.32	0.35	0.91*	0.33	0.00	0.33
48.25	0.32	0.35	0.91*	0.32	0.00	0.32
48.30	0.32	0.35	0.91*	0.32	0.00	0.32
48.35	0.32	0.35	0.91*	0.32	0.00	0.32
48.40	0.32	0.35	0.91*	0.31	0.00	0.31
48.45	0.32	0.35	0.91*	0.31	0.00	0.31
48.50	0.32	0.35	0.91*	0.30	0.00	0.30
48.55	0.32	0.35	0.91*	0.30	0.00	0.30
48.60	0.32	0.35	0.91*	0.29	0.00	0.29
48.65	0.32	0.35	0.91*	0.29	0.00	0.29
48.70	0.32	0.35	0.91*	0.28	0.00	0.28
48.75	0.32	0.35	0.91*	0.28	0.00	0.28
48.80	0.32	0.35	0.91*	0.28	0.00	0.28
48.85	0.32	0.35	0.91*	0.27	0.00	0.27
48.90	0.32	0.35	0.91*	0.27	0.00	0.27
48.95	0.32	0.35	0.91*	0.26	0.00	0.26

49.00	0.32	0.35	0.91*	0.26	0.00	0.26
49.05	0.32	0.35	0.91*	0.26	0.00	0.26
49.10	0.32	0.35	0.91*	0.25	0.00	0.25
49.15	0.32	0.35	0.92*	0.25	0.00	0.25
49.20	0.32	0.35	0.92*	0.24	0.00	0.24
49.25	0.32	0.35	0.92*	0.24	0.00	0.24
49.30	0.32	0.35	0.92*	0.24	0.00	0.24
49.35	0.32	0.35	0.92*	0.23	0.00	0.23
49.40	0.32	0.35	0.92*	0.23	0.00	0.23
49.45	0.32	0.35	0.92*	0.23	0.00	0.23
49.50	0.32	0.35	0.92*	0.22	0.00	0.22
49.55	0.32	0.35	0.92*	0.22	0.00	0.22
49.60	0.32	0.35	0.92*	0.22	0.00	0.22
49.65	0.32	0.35	0.92*	0.21	0.00	0.21
49.70	0.32	0.35	0.92*	0.21	0.00	0.21
49.75	0.32	0.35	0.92*	0.21	0.00	0.21
49.80	0.32	0.35	0.92*	0.20	0.00	0.20
49.85	0.32	0.35	0.92*	0.20	0.00	0.20
49.90	0.32	0.35	0.92*	0.20	0.00	0.20
49.95	0.32	0.35	0.92*	0.20	0.00	0.20
50.00	0.32	0.35	0.92*	0.19	0.00	0.19
50.05	0.32	0.35	0.93*	0.19	0.00	0.19
50.10	0.32	0.35	0.93*	0.19	0.00	0.19
50.15	0.32	0.35	0.93*	0.18	0.00	0.18
50.20	0.32	0.35	0.93*	0.18	0.00	0.18
50.25	0.32	0.35	0.93*	0.18	0.00	0.18
50.30	0.32	0.35	0.93*	0.18	0.00	0.18
50.35	0.32	0.35	0.93*	0.17	0.00	0.17
50.40	0.32	0.35	0.93*	0.17	0.00	0.17
50.45	0.32	0.35	0.93*	0.17	0.00	0.17
50.50	0.32	0.35	0.93*	0.17	0.00	0.17
50.55	0.32	0.35	0.93*	0.16	0.00	0.16
50.60	0.32	0.35	0.93*	0.16	0.00	0.16
50.65	0.32	0.35	0.93*	0.16	0.00	0.16
50.70	0.32	0.35	0.93*	0.15	0.00	0.15
50.75	0.32	0.35	0.93*	0.15	0.00	0.15
50.80	0.32	0.35	0.93*	0.15	0.00	0.15
50.85	0.32	0.35	0.93*	0.15	0.00	0.15
50.90	0.32	0.35	0.93*	0.15	0.00	0.15
50.95	0.32	0.35	0.94*	0.14	0.00	0.14
51.00	0.32	0.35	0.94*	0.14	0.00	0.14
51.05	0.32	0.34	0.94*	0.14	0.00	0.14
51.10	0.32	0.34	0.94*	0.14	0.00	0.14
51.15	0.32	0.34	0.94*	0.13	0.00	0.13
51.20	0.32	0.34	0.94*	0.13	0.00	0.13
51.25	0.32	0.34	0.94*	0.13	0.00	0.13
51.30	0.32	0.34	0.94*	0.13	0.00	0.13
51.35	0.32	0.34	0.94*	0.13	0.00	0.13
51.40	0.32	0.34	0.94*	0.12	0.00	0.12
51.45	0.32	0.34	0.94*	0.12	0.00	0.12
51.50	0.32	0.34	0.94*	0.12	0.00	0.12
51.55	0.32	0.34	0.94*	0.12	0.00	0.12
51.60	0.32	0.34	0.94*	0.12	0.00	0.12
51.65	0.32	0.34	0.94*	0.11	0.00	0.11
51.70	0.32	0.34	0.94*	0.11	0.00	0.11
51.75	0.32	0.34	0.94*	0.11	0.00	0.11
51.80	0.32	0.34	0.95*	0.11	0.00	0.11
51.85	0.32	0.34	0.95*	0.11	0.00	0.11
51.90	0.33	0.34	0.95*	0.10	0.00	0.10
51.95	0.33	0.34	0.95*	0.10	0.00	0.10
52.00	0.33	0.34	0.95*	0.10	0.00	0.10
52.05	0.33	0.34	0.95*	0.10	0.00	0.10
52.10	0.33	0.34	0.95*	0.10	0.00	0.10
52.15	0.33	0.34	0.95*	0.10	0.00	0.10
52.20	0.33	0.34	0.95*	0.09	0.00	0.09
52.25	0.33	0.34	0.95*	0.09	0.00	0.09
52.30	0.33	0.34	0.95*	0.09	0.00	0.09
52.35	0.33	0.34	0.95*	0.09	0.00	0.09
52.40	0.33	0.34	0.95*	0.09	0.00	0.09
52.45	0.33	0.34	0.95*	0.09	0.00	0.09
52.50	0.33	0.34	0.95*	0.08	0.00	0.08
52.55	0.33	0.34	0.95*	0.08	0.00	0.08
52.60	0.33	0.34	0.96*	0.08	0.00	0.08

52.65	0.33	0.34	0.96*	0.08	0.00	0.08
52.70	0.33	0.34	0.96*	0.08	0.00	0.08
52.75	0.33	0.34	0.96*	0.08	0.00	0.08
52.80	0.33	0.34	0.96*	0.08	0.00	0.08
52.85	0.33	0.34	0.96*	0.08	0.00	0.08
52.90	0.33	0.34	0.96*	0.07	0.00	0.07
52.95	0.33	0.34	0.96*	0.07	0.00	0.07
53.00	0.33	0.34	0.96*	0.07	0.00	0.07
53.05	0.33	0.34	0.96*	0.07	0.00	0.07
53.10	0.33	0.34	0.96*	0.07	0.00	0.07
53.15	0.33	0.34	0.96*	0.07	0.00	0.07
53.20	0.33	0.34	0.96*	0.07	0.00	0.07
53.25	0.33	0.34	0.96*	0.07	0.00	0.07
53.30	0.33	0.34	0.96*	0.06	0.00	0.06
53.35	0.33	0.34	0.96*	0.06	0.00	0.06
53.40	0.33	0.34	0.96*	0.06	0.00	0.06
53.45	0.33	0.34	0.97*	0.06	0.00	0.06
53.50	0.33	0.34	0.97*	0.06	0.00	0.06
53.55	0.33	0.34	0.97*	0.06	0.00	0.06
53.60	0.33	0.34	0.97*	0.06	0.00	0.06
53.65	0.33	0.34	0.97*	0.06	0.00	0.06
53.70	0.33	0.34	0.97*	0.06	0.00	0.06
53.75	0.33	0.34	0.97*	0.05	0.00	0.05
53.80	0.33	0.34	0.97*	0.05	0.00	0.05
53.85	0.33	0.34	0.97*	0.05	0.00	0.05
53.90	0.33	0.34	0.97*	0.05	0.00	0.05
53.95	0.33	0.34	0.97*	0.05	0.00	0.05
54.00	0.33	0.34	0.97*	0.05	0.00	0.05
54.05	0.33	0.34	0.97*	0.05	0.00	0.05
54.10	0.33	0.34	0.97*	0.05	0.00	0.05
54.15	0.33	0.34	0.97*	0.05	0.00	0.05
54.20	0.33	0.34	0.98*	0.04	0.00	0.04
54.25	0.33	0.34	0.98*	0.04	0.00	0.04
54.30	0.33	0.34	0.98*	0.04	0.00	0.04
54.35	0.33	0.34	0.98*	0.04	0.00	0.04
54.40	0.33	0.34	0.98*	0.04	0.00	0.04
54.45	0.33	0.34	0.98*	0.04	0.00	0.04
54.50	0.33	0.34	0.98*	0.04	0.00	0.04
54.55	0.33	0.34	0.98*	0.04	0.00	0.04
54.60	0.33	0.34	0.98*	0.04	0.00	0.04
54.65	0.33	0.34	0.98*	0.03	0.00	0.03
54.70	0.33	0.34	0.98*	0.03	0.00	0.03
54.75	0.33	0.34	0.98*	0.03	0.00	0.03
54.80	0.33	0.34	0.98*	0.03	0.00	0.03
54.85	0.33	0.34	0.98*	0.03	0.00	0.03
54.90	0.33	0.34	0.98*	0.03	0.00	0.03
54.95	0.33	0.34	0.99*	0.03	0.00	0.03
55.00	0.33	0.34	0.99*	0.03	0.00	0.03
55.05	0.33	0.34	0.99*	0.03	0.00	0.03
55.10	0.33	0.34	0.99*	0.03	0.00	0.03
55.15	0.34	0.34	0.99*	0.02	0.00	0.02
55.20	0.34	0.34	1.00*	0.02	0.00	0.02
55.25	0.34	0.34	1.00	0.02	0.00	0.02
55.30	0.34	0.34	1.00	0.02	0.00	0.02
55.35	0.34	0.34	1.01	0.02	0.00	0.02
55.40	0.34	0.34	1.01	0.02	0.00	0.02
55.45	0.34	0.34	1.01	0.02	0.00	0.02
55.50	0.34	0.34	1.02	0.02	0.00	0.02
55.55	0.34	0.34	1.02	0.02	0.00	0.02
55.60	0.34	0.34	1.02	0.02	0.00	0.02
55.65	0.34	0.34	1.03	0.01	0.00	0.01
55.70	0.35	0.34	1.03	0.01	0.00	0.01
55.75	0.35	0.34	1.03	0.01	0.00	0.01
55.80	0.35	0.34	1.03	0.01	0.00	0.01
55.85	0.35	0.34	1.04	0.01	0.00	0.01
55.90	0.35	0.34	1.04	0.01	0.00	0.01
55.95	0.35	0.34	1.04	0.01	0.00	0.01
56.00	0.35	0.34	1.05	0.01	0.00	0.01
56.05	0.35	0.33	1.05	0.01	0.00	0.01
56.10	0.35	0.33	1.05	0.01	0.00	0.01
56.15	0.35	0.33	1.06	0.01	0.00	0.01
56.20	0.35	0.33	1.06	0.01	0.00	0.01
56.25	0.36	0.33	1.06	0.01	0.00	0.01

56.30	0.36	0.33	1.07	0.00	0.00	0.00
56.35	0.36	0.33	1.07	0.00	0.00	0.00
56.40	0.36	0.33	1.07	0.00	0.00	0.00
56.45	0.36	0.33	1.08	0.00	0.00	0.00
56.50	0.36	0.33	1.08	0.00	0.00	0.00
56.55	0.36	0.33	1.08	0.00	0.00	0.00
56.60	0.36	0.33	1.09	0.00	0.00	0.00
56.65	0.36	0.33	1.09	0.00	0.00	0.00
56.70	0.37	0.33	1.09	0.00	0.00	0.00
56.75	0.37	0.33	1.10	0.00	0.00	0.00
56.80	0.37	0.33	1.10	0.00	0.00	0.00
56.85	0.37	0.33	1.11	0.00	0.00	0.00
56.90	0.37	0.33	1.11	0.00	0.00	0.00
56.95	0.37	0.33	1.11	0.00	0.00	0.00
57.00	0.37	0.33	1.12	0.00	0.00	0.00
57.05	0.37	0.33	1.12	0.00	0.00	0.00
57.10	0.37	0.33	1.12	0.00	0.00	0.00
57.15	0.37	0.33	1.13	0.00	0.00	0.00
57.20	0.38	0.33	1.13	0.00	0.00	0.00
57.25	0.38	0.33	1.13	0.00	0.00	0.00
57.30	0.38	0.33	1.14	0.00	0.00	0.00
57.35	0.38	0.33	1.14	0.00	0.00	0.00
57.40	0.38	0.33	1.15	0.00	0.00	0.00
57.45	0.38	0.33	1.15	0.00	0.00	0.00
57.50	0.38	0.33	1.15	0.00	0.00	0.00
57.55	0.38	0.33	1.16	0.00	0.00	0.00
57.60	0.38	0.33	1.16	0.00	0.00	0.00
57.65	0.39	0.33	1.17	0.00	0.00	0.00
57.70	0.39	0.33	1.17	0.00	0.00	0.00
57.75	0.39	0.33	1.17	0.00	0.00	0.00
57.80	0.39	0.33	1.18	0.00	0.00	0.00
57.85	0.39	0.33	1.18	0.00	0.00	0.00
57.90	0.39	0.33	1.19	0.00	0.00	0.00
57.95	0.39	0.33	1.19	0.00	0.00	0.00
58.00	0.39	0.33	1.19	0.00	0.00	0.00
58.05	0.40	0.33	1.20	0.00	0.00	0.00
58.10	0.40	0.33	1.20	0.00	0.00	0.00
58.15	0.40	0.33	1.21	0.00	0.00	0.00
58.20	0.40	0.33	1.21	0.00	0.00	0.00
58.25	0.40	0.33	1.22	0.00	0.00	0.00
58.30	0.40	0.33	1.22	0.00	0.00	0.00
58.35	0.40	0.33	1.22	0.00	0.00	0.00
58.40	0.41	0.33	1.23	0.00	0.00	0.00
58.45	0.41	0.33	1.23	0.00	0.00	0.00
58.50	0.41	0.33	1.24	0.00	0.00	0.00
58.55	0.41	0.33	1.24	0.00	0.00	0.00
58.60	0.41	0.33	1.25	0.00	0.00	0.00
58.65	0.41	0.33	1.25	0.00	0.00	0.00
58.70	0.41	0.33	1.26	0.00	0.00	0.00
58.75	0.42	0.33	1.26	0.00	0.00	0.00
58.80	0.42	0.33	1.27	0.00	0.00	0.00
58.85	0.42	0.33	1.27	0.00	0.00	0.00
58.90	0.42	0.33	1.28	0.00	0.00	0.00
58.95	0.42	0.33	1.28	0.00	0.00	0.00
59.00	0.42	0.33	1.29	0.00	0.00	0.00
59.05	0.42	0.33	1.29	0.00	0.00	0.00
59.10	0.43	0.33	1.30	0.00	0.00	0.00
59.15	0.43	0.33	1.30	0.00	0.00	0.00
59.20	0.43	0.33	1.31	0.00	0.00	0.00
59.25	0.43	0.33	1.32	0.00	0.00	0.00
59.30	0.43	0.33	1.32	0.00	0.00	0.00
59.35	0.43	0.33	1.33	0.00	0.00	0.00
59.40	0.44	0.33	1.33	0.00	0.00	0.00
59.45	0.44	0.33	1.34	0.00	0.00	0.00
59.50	0.44	0.33	1.35	0.00	0.00	0.00
59.55	0.44	0.33	1.35	0.00	0.00	0.00
59.60	0.44	0.33	1.36	0.00	0.00	0.00
59.65	0.45	0.33	1.37	0.00	0.00	0.00
59.70	0.45	0.33	1.37	0.00	0.00	0.00
59.75	0.45	0.33	1.38	0.00	0.00	0.00
59.80	0.45	0.33	1.39	0.00	0.00	0.00
59.85	0.45	0.33	1.39	0.00	0.00	0.00
59.90	0.46	0.33	1.40	0.00	0.00	0.00

59.95	0.46	0.33	1.41	0.00	0.00	0.00
60.00	0.46	0.33	1.42	0.00	0.00	0.00
60.05	0.46	0.33	1.43	0.00	0.00	0.00
60.10	0.47	0.33	1.44	0.00	0.00	0.00
60.15	0.47	0.33	1.44	0.00	0.00	0.00
60.20	0.47	0.33	1.45	0.00	0.00	0.00
60.25	0.48	0.33	1.47	0.00	0.00	0.00
60.30	0.48	0.32	1.48	0.00	0.00	0.00
60.35	0.48	0.32	1.49	0.00	0.00	0.00
60.40	0.49	0.32	1.50	0.00	0.00	0.00
60.45	0.49	0.32	1.51	0.00	0.00	0.00
60.50	0.50	0.32	1.53	0.00	0.00	0.00
60.55	0.50	0.32	1.54	0.00	0.00	0.00
60.60	0.51	0.32	1.56	0.00	0.00	0.00
60.65	0.51	0.32	1.58	0.00	0.00	0.00
60.70	0.52	0.32	1.60	0.00	0.00	0.00
60.75	0.53	0.32	1.63	0.00	0.00	0.00
60.80	0.54	0.32	1.66	0.00	0.00	0.00
60.85	0.55	0.32	1.69	0.00	0.00	0.00
60.90	0.56	0.32	1.73	0.00	0.00	0.00
60.95	0.58	0.32	1.78	0.00	0.00	0.00
61.00	0.60	0.32	1.84	0.00	0.00	0.00
61.05	0.60	0.32	1.86	0.00	0.00	0.00
61.10	0.60	0.32	1.86	0.00	0.00	0.00
61.15	0.60	0.32	1.87	0.00	0.00	0.00
61.20	0.60	0.32	1.87	0.00	0.00	0.00
61.25	0.60	0.32	1.87	0.00	0.00	0.00
61.30	0.60	0.32	1.87	0.00	0.00	0.00
61.35	0.60	0.32	1.87	0.00	0.00	0.00
61.40	0.60	0.32	1.87	0.00	0.00	0.00
61.45	0.60	0.32	1.87	0.00	0.00	0.00
61.50	0.60	0.32	1.87	0.00	0.00	0.00
61.55	0.60	0.32	1.87	0.00	0.00	0.00
61.60	0.60	0.32	1.87	0.00	0.00	0.00
61.65	0.60	0.32	1.87	0.00	0.00	0.00
61.70	0.60	0.32	1.87	0.00	0.00	0.00
61.75	0.60	0.32	1.87	0.00	0.00	0.00
61.80	0.60	0.32	1.87	0.00	0.00	0.00
61.85	0.60	0.32	1.87	0.00	0.00	0.00
61.90	0.60	0.32	1.87	0.00	0.00	0.00
61.95	0.60	0.32	1.87	0.00	0.00	0.00
62.00	0.60	0.32	1.87	0.00	0.00	0.00
62.05	0.60	0.32	1.87	0.00	0.00	0.00
62.10	0.60	0.32	1.87	0.00	0.00	0.00
62.15	0.60	0.32	1.88	0.00	0.00	0.00
62.20	0.60	0.32	1.88	0.00	0.00	0.00
62.25	0.60	0.32	1.88	0.00	0.00	0.00
62.30	0.60	0.32	1.88	0.00	0.00	0.00
62.35	0.60	0.32	1.88	0.00	0.00	0.00
62.40	0.60	0.32	1.88	0.00	0.00	0.00
62.45	0.60	0.32	1.88	0.00	0.00	0.00
62.50	0.60	0.32	1.88	0.00	0.00	0.00
62.55	0.60	0.32	1.88	0.00	0.00	0.00
62.60	0.60	0.32	1.88	0.00	0.00	0.00
62.65	0.60	0.32	1.88	0.00	0.00	0.00
62.70	0.60	0.32	1.88	0.00	0.00	0.00
62.75	0.60	0.32	1.88	0.00	0.00	0.00
62.80	0.60	0.32	1.88	0.00	0.00	0.00
62.85	0.60	0.32	1.88	0.00	0.00	0.00
62.90	0.60	0.32	1.88	0.00	0.00	0.00
62.95	0.60	0.32	1.88	0.00	0.00	0.00
63.00	0.60	0.32	1.88	0.00	0.00	0.00
63.05	0.60	0.32	1.88	0.00	0.00	0.00
63.10	0.60	0.32	1.89	0.00	0.00	0.00
63.15	0.60	0.32	1.89	0.00	0.00	0.00
63.20	0.60	0.32	1.89	0.00	0.00	0.00
63.25	0.60	0.32	1.89	0.00	0.00	0.00
63.30	0.60	0.32	1.89	0.00	0.00	0.00
63.35	0.60	0.32	1.89	0.00	0.00	0.00
63.40	0.60	0.32	1.89	0.00	0.00	0.00
63.45	0.60	0.32	1.89	0.00	0.00	0.00
63.50	0.60	0.32	1.89	0.00	0.00	0.00
63.55	0.60	0.32	1.89	0.00	0.00	0.00

63.60	0.60	0.32	1.89	0.00	0.00	0.00
63.65	0.60	0.32	1.89	0.00	0.00	0.00
63.70	0.60	0.32	1.89	0.00	0.00	0.00
63.75	0.60	0.32	1.89	0.00	0.00	0.00
63.80	0.60	0.32	1.89	0.00	0.00	0.00
63.85	0.60	0.32	1.89	0.00	0.00	0.00
63.90	0.60	0.32	1.89	0.00	0.00	0.00
63.95	0.60	0.32	1.89	0.00	0.00	0.00
64.00	0.60	0.32	1.90	0.00	0.00	0.00
64.05	0.60	0.32	1.90	0.00	0.00	0.00
64.10	0.60	0.32	1.90	0.00	0.00	0.00
64.15	0.60	0.31	1.90	0.00	0.00	0.00
64.20	0.60	0.31	1.90	0.00	0.00	0.00
64.25	0.60	0.31	1.90	0.00	0.00	0.00
64.30	0.60	0.31	1.90	0.00	0.00	0.00
64.35	0.60	0.31	1.90	0.00	0.00	0.00
64.40	0.60	0.31	1.90	0.00	0.00	0.00
64.45	0.60	0.31	1.90	0.00	0.00	0.00
64.50	0.60	0.31	1.90	0.00	0.00	0.00
64.55	0.60	0.31	1.90	0.00	0.00	0.00
64.60	0.60	0.31	1.90	0.00	0.00	0.00
64.65	0.60	0.31	1.90	0.00	0.00	0.00
64.70	0.60	0.31	1.90	0.00	0.00	0.00
64.75	0.60	0.31	1.90	0.00	0.00	0.00
64.80	0.60	0.31	1.90	0.00	0.00	0.00
64.85	0.60	0.31	1.90	0.00	0.00	0.00
64.90	0.60	0.31	1.91	0.00	0.00	0.00
64.95	0.60	0.31	1.91	0.00	0.00	0.00
65.00	0.60	0.31	1.91	0.00	0.00	0.00
65.05	0.60	0.31	1.91	0.00	0.00	0.00
65.10	0.60	0.31	1.91	0.00	0.00	0.00
65.15	0.60	0.31	1.91	0.00	0.00	0.00
65.20	0.60	0.31	1.91	0.00	0.00	0.00
65.25	0.60	0.31	1.91	0.00	0.00	0.00
65.30	0.60	0.31	1.91	0.00	0.00	0.00
65.35	0.60	0.31	1.91	0.00	0.00	0.00
65.40	0.60	0.31	1.91	0.00	0.00	0.00
65.45	0.60	0.31	1.91	0.00	0.00	0.00
65.50	0.60	0.31	1.91	0.00	0.00	0.00
65.55	0.60	0.31	1.91	0.00	0.00	0.00
65.60	0.59	0.31	1.91	0.00	0.00	0.00
65.65	0.59	0.31	1.91	0.00	0.00	0.00
65.70	0.59	0.31	1.92	0.00	0.00	0.00
65.75	0.59	0.31	1.92	0.00	0.00	0.00
65.80	0.59	0.31	1.92	0.00	0.00	0.00
65.85	0.59	0.31	1.92	0.00	0.00	0.00
65.90	0.59	0.31	1.92	0.00	0.00	0.00
65.95	0.59	0.31	1.92	0.00	0.00	0.00
66.00	0.59	0.31	1.92	0.00	0.00	0.00
66.05	0.59	0.31	1.92	0.00	0.00	0.00
66.10	0.59	0.31	1.92	0.00	0.00	0.00
66.15	0.59	0.31	1.92	0.00	0.00	0.00
66.20	0.59	0.31	1.92	0.00	0.00	0.00
66.25	0.59	0.31	1.92	0.00	0.00	0.00
66.30	0.59	0.31	1.92	0.00	0.00	0.00
66.35	0.59	0.31	1.92	0.00	0.00	0.00
66.40	0.59	0.31	1.92	0.00	0.00	0.00
66.45	0.59	0.31	1.92	0.00	0.00	0.00
66.50	0.59	0.31	1.93	0.00	0.00	0.00
66.55	0.59	0.31	1.93	0.00	0.00	0.00
66.60	0.59	0.31	1.93	0.00	0.00	0.00
66.65	0.59	0.31	1.93	0.00	0.00	0.00
66.70	0.59	0.31	1.93	0.00	0.00	0.00
66.75	0.59	0.31	1.93	0.00	0.00	0.00
66.80	0.59	0.31	1.93	0.00	0.00	0.00
66.85	0.59	0.31	1.93	0.00	0.00	0.00
66.90	0.59	0.31	1.93	0.00	0.00	0.00
66.95	0.59	0.31	1.93	0.00	0.00	0.00
67.00	0.59	0.31	1.93	0.00	0.00	0.00
67.05	0.59	0.31	1.93	0.00	0.00	0.00
67.10	0.59	0.31	1.93	0.00	0.00	0.00
67.15	0.59	0.31	1.93	0.00	0.00	0.00
67.20	0.59	0.31	1.93	0.00	0.00	0.00

67.25	0.59	0.31	1.93	0.00	0.00	0.00
67.30	0.59	0.31	1.94	0.00	0.00	0.00
67.35	0.59	0.31	1.94	0.00	0.00	0.00
67.40	0.59	0.31	1.94	0.00	0.00	0.00
67.45	0.59	0.31	1.94	0.00	0.00	0.00
67.50	0.59	0.31	1.94	0.00	0.00	0.00
67.55	0.59	0.31	1.94	0.00	0.00	0.00
67.60	0.59	0.31	1.94	0.00	0.00	0.00
67.65	0.59	0.31	1.94	0.00	0.00	0.00
67.70	0.59	0.30	1.94	0.00	0.00	0.00
67.75	0.59	0.30	1.94	0.00	0.00	0.00
67.80	0.59	0.30	1.94	0.00	0.00	0.00
67.85	0.59	0.30	1.94	0.00	0.00	0.00
67.90	0.59	0.30	1.94	0.00	0.00	0.00
67.95	0.59	0.30	1.94	0.00	0.00	0.00
68.00	0.59	0.30	1.94	0.00	0.00	0.00
68.05	0.59	0.30	1.95	0.00	0.00	0.00
68.10	0.59	0.30	1.95	0.00	0.00	0.00
68.15	0.59	0.30	1.95	0.00	0.00	0.00
68.20	0.59	0.30	1.95	0.00	0.00	0.00
68.25	0.59	0.30	1.95	0.00	0.00	0.00
68.30	0.59	0.30	1.95	0.00	0.00	0.00
68.35	0.59	0.30	1.95	0.00	0.00	0.00
68.40	0.59	0.30	1.95	0.00	0.00	0.00
68.45	0.59	0.30	1.95	0.00	0.00	0.00
68.50	0.59	0.30	1.95	0.00	0.00	0.00
68.55	0.59	0.30	1.95	0.00	0.00	0.00
68.60	0.59	0.30	1.95	0.00	0.00	0.00
68.65	0.59	0.30	1.95	0.00	0.00	0.00
68.70	0.59	0.30	1.95	0.00	0.00	0.00
68.75	0.59	0.30	1.96	0.00	0.00	0.00
68.80	0.59	0.30	1.96	0.00	0.00	0.00
68.85	0.59	0.30	1.96	0.00	0.00	0.00
68.90	0.59	0.30	1.96	0.00	0.00	0.00
68.95	0.59	0.30	1.96	0.00	0.00	0.00
69.00	0.59	0.30	1.96	0.00	0.00	0.00
69.05	0.59	0.30	1.96	0.00	0.00	0.00
69.10	0.59	0.30	1.96	0.00	0.00	0.00
69.15	0.59	0.30	1.96	0.00	0.00	0.00
69.20	0.59	0.30	1.96	0.00	0.00	0.00
69.25	0.59	0.30	1.96	0.00	0.00	0.00
69.30	0.59	0.30	1.96	0.00	0.00	0.00
69.35	0.59	0.30	1.96	0.00	0.00	0.00
69.40	0.59	0.30	1.96	0.00	0.00	0.00
69.45	0.59	0.30	1.97	0.00	0.00	0.00
69.50	0.59	0.30	1.97	0.00	0.00	0.00
69.55	0.59	0.30	1.97	0.00	0.00	0.00
69.60	0.59	0.30	1.97	0.00	0.00	0.00
69.65	0.59	0.30	1.97	0.00	0.00	0.00
69.70	0.59	0.30	1.97	0.00	0.00	0.00
69.75	0.59	0.30	1.97	0.00	0.00	0.00
69.80	0.59	0.30	1.97	0.00	0.00	0.00
69.85	0.59	0.30	1.97	0.00	0.00	0.00
69.90	0.59	0.30	1.97	0.00	0.00	0.00
69.95	0.59	0.30	1.97	0.00	0.00	0.00
70.00	0.59	0.30	1.97	0.00	0.00	0.00
70.05	0.59	0.30	1.97	0.00	0.00	0.00
70.10	0.59	0.30	1.97	0.00	0.00	0.00
70.15	0.59	0.30	1.98	0.00	0.00	0.00
70.20	0.59	0.30	1.98	0.00	0.00	0.00
70.25	0.59	0.30	1.98	0.00	0.00	0.00
70.30	0.59	0.30	1.98	0.00	0.00	0.00
70.35	0.59	0.30	1.98	0.00	0.00	0.00
70.40	0.59	0.30	1.98	0.00	0.00	0.00
70.45	0.59	0.30	1.98	0.00	0.00	0.00
70.50	0.59	0.30	1.98	0.00	0.00	0.00
70.55	0.59	0.30	1.98	0.00	0.00	0.00
70.60	0.59	0.30	1.98	0.00	0.00	0.00
70.65	0.59	0.30	1.98	0.00	0.00	0.00
70.70	0.59	0.30	1.98	0.00	0.00	0.00
70.75	0.59	0.30	1.98	0.00	0.00	0.00
70.80	0.59	0.30	1.99	0.00	0.00	0.00
70.85	0.59	0.30	1.99	0.00	0.00	0.00

70.90	0.59	0.30	1.99	0.00	0.00	0.00
70.95	0.59	0.30	1.99	0.00	0.00	0.00
71.00	0.59	0.30	1.99	0.00	0.00	0.00
71.05	0.59	0.30	1.99	0.00	0.00	0.00
71.10	0.59	0.29	1.99	0.00	0.00	0.00
71.15	0.59	0.29	1.99	0.00	0.00	0.00
71.20	0.59	0.29	1.99	0.00	0.00	0.00
71.25	0.59	0.29	1.99	0.00	0.00	0.00
71.30	0.59	0.29	1.99	0.00	0.00	0.00
71.35	0.59	0.29	1.99	0.00	0.00	0.00
71.40	0.59	0.29	1.99	0.00	0.00	0.00
71.45	0.59	0.29	2.00	0.00	0.00	0.00
71.50	0.59	0.29	2.00	0.00	0.00	0.00
71.55	0.59	0.29	2.00	0.00	0.00	0.00
71.60	0.59	0.29	2.00	0.00	0.00	0.00
71.65	0.59	0.29	2.00	0.00	0.00	0.00
71.70	0.59	0.29	2.00	0.00	0.00	0.00
71.75	0.59	0.29	2.00	0.00	0.00	0.00
71.80	0.59	0.29	2.00	0.00	0.00	0.00
71.85	0.59	0.29	2.00	0.00	0.00	0.00
71.90	0.59	0.29	2.00	0.00	0.00	0.00
71.95	0.59	0.29	2.00	0.00	0.00	0.00
72.00	0.59	0.29	2.00	0.00	0.00	0.00
72.05	0.59	0.29	2.00	0.00	0.00	0.00
72.10	0.59	0.29	2.01	0.00	0.00	0.00
72.15	0.59	0.29	2.01	0.00	0.00	0.00
72.20	0.59	0.29	2.01	0.00	0.00	0.00
72.25	0.59	0.29	2.01	0.00	0.00	0.00
72.30	0.59	0.29	2.01	0.00	0.00	0.00
72.35	0.59	0.29	2.01	0.00	0.00	0.00
72.40	0.59	0.29	2.01	0.00	0.00	0.00
72.45	0.58	0.29	2.01	0.00	0.00	0.00
72.50	0.58	0.29	2.01	0.00	0.00	0.00
72.55	0.58	0.29	2.01	0.00	0.00	0.00
72.60	0.58	0.29	2.01	0.00	0.00	0.00
72.65	0.58	0.29	2.01	0.00	0.00	0.00
72.70	0.58	0.29	2.02	0.00	0.00	0.00
72.75	0.58	0.29	2.02	0.00	0.00	0.00
72.80	0.58	0.29	2.02	0.00	0.00	0.00
72.85	0.58	0.29	2.02	0.00	0.00	0.00
72.90	0.58	0.29	2.02	0.00	0.00	0.00
72.95	0.58	0.29	2.02	0.00	0.00	0.00
73.00	0.58	0.29	2.02	0.00	0.00	0.00
73.05	0.58	0.29	2.02	0.00	0.00	0.00
73.10	0.58	0.29	2.02	0.00	0.00	0.00
73.15	0.58	0.29	2.02	0.00	0.00	0.00
73.20	0.58	0.29	2.02	0.00	0.00	0.00
73.25	0.58	0.29	2.02	0.00	0.00	0.00
73.30	0.58	0.29	2.03	0.00	0.00	0.00
73.35	0.58	0.29	2.03	0.00	0.00	0.00
73.40	0.58	0.29	2.03	0.00	0.00	0.00
73.45	0.58	0.29	2.03	0.00	0.00	0.00
73.50	0.58	0.29	2.03	0.00	0.00	0.00
73.55	0.58	0.29	2.03	0.00	0.00	0.00
73.60	0.58	0.29	2.03	0.00	0.00	0.00
73.65	0.58	0.29	2.03	0.00	0.00	0.00
73.70	0.58	0.29	2.03	0.00	0.00	0.00
73.75	0.58	0.29	2.03	0.00	0.00	0.00
73.80	0.58	0.29	2.03	0.00	0.00	0.00
73.85	0.58	0.29	2.03	0.00	0.00	0.00
73.90	0.58	0.29	2.04	0.00	0.00	0.00
73.95	0.58	0.29	2.04	0.00	0.00	0.00
74.00	0.58	0.29	2.04	0.00	0.00	0.00
74.05	0.58	0.29	2.04	0.00	0.00	0.00
74.10	0.58	0.29	2.04	0.00	0.00	0.00
74.15	0.58	0.29	2.04	0.00	0.00	0.00
74.20	0.58	0.29	2.04	0.00	0.00	0.00
74.25	0.58	0.29	2.04	0.00	0.00	0.00
74.30	0.58	0.29	2.04	0.00	0.00	0.00
74.35	0.58	0.29	2.04	0.00	0.00	0.00
74.40	0.58	0.28	2.04	0.00	0.00	0.00
74.45	0.58	0.28	2.05	0.00	0.00	0.00
74.50	0.58	0.28	2.05	0.00	0.00	0.00

74.55	0.58	0.28	2.05	0.00	0.00	0.00
74.60	0.58	0.28	2.05	0.00	0.00	0.00
74.65	0.58	0.28	2.05	0.00	0.00	0.00
74.70	0.58	0.28	2.05	0.00	0.00	0.00
74.75	0.58	0.28	2.05	0.00	0.00	0.00
74.80	0.58	0.28	2.05	0.00	0.00	0.00
74.85	0.58	0.28	2.05	0.00	0.00	0.00
74.90	0.58	0.28	2.05	0.00	0.00	0.00
74.95	0.58	0.28	2.05	0.00	0.00	0.00
75.00	0.58	0.28	2.06	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

April 24, 2017
W.O. 6743

APPENDIX D
RETAINING WALL ANALYSIS

MDN 19016

APPENDIX D

RETAINING WALL ANALYSIS

Procedure

The retaining wall analysis considers a height of 36 feet as the maximum retained height for the proposed subterranean parking. The equivalent fluid pressure (EFP) required to retain this height was calculated using the slope stability software Slide 7.0 and checked with conventional lateral earth pressure calculations. The shear strengths used for the analysis are based on the alluvium sampled in Boring B-2 at 19 feet, as shown on Plate SH-2. The strength parameters are given in the table below.

TABLE D1: SHEAR TEST DATA SUMMARY

Soil Description	Reshear		Peak	
	c (psf)	ϕ (psf)	c (psf)	ϕ (psf)
Alluvium	330	24	540	25

The analysis for permanent conditions (F.S. of 1.5) considered a groundwater table 21 feet below grade, the shallowest elevation obtained from the subsurface exploration. For the temporary condition, (F.S. of 1.25) the water table was removed in accordance with the dewatering recommendations included in this report.

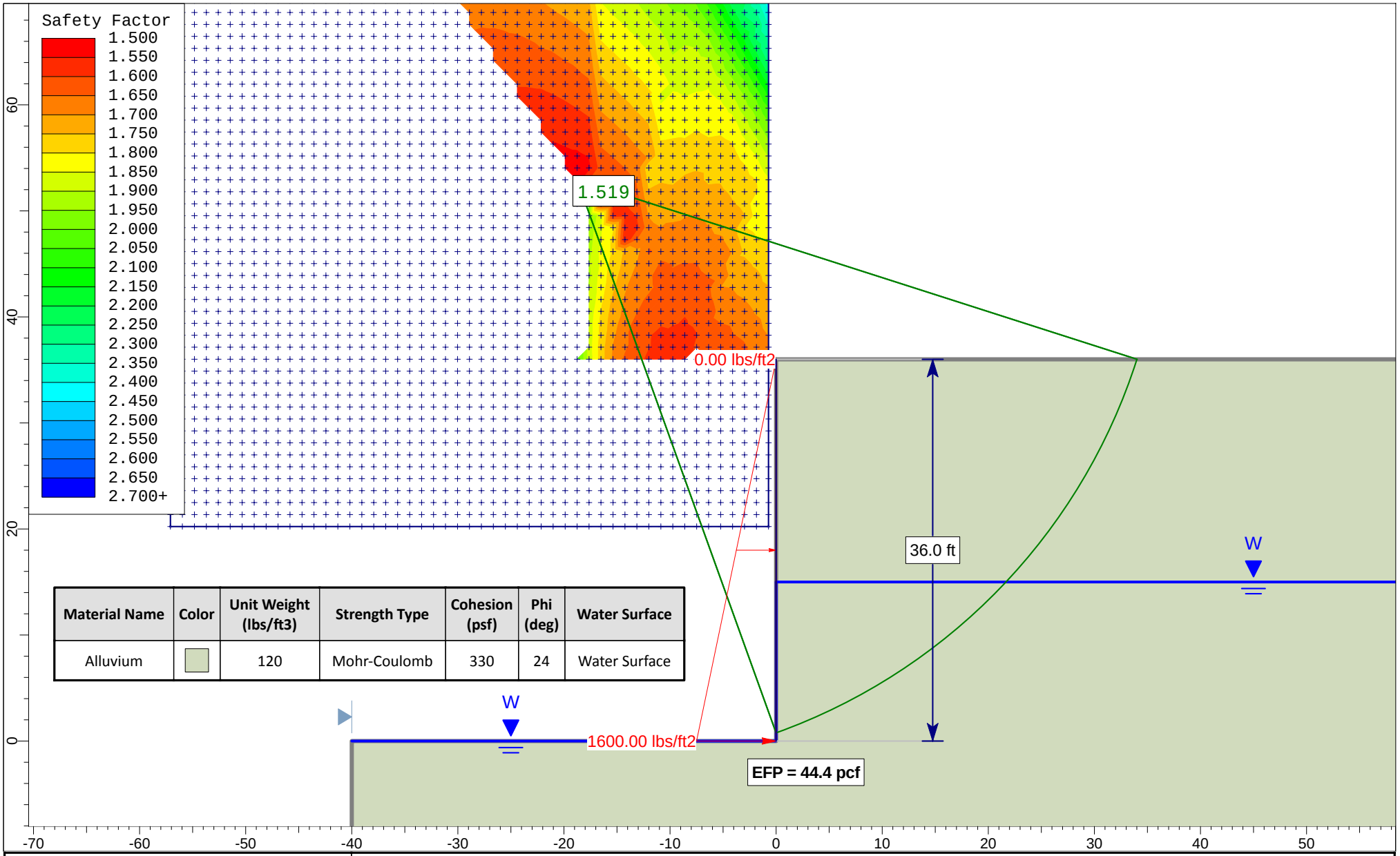
Slide 7.0 analyzes the stability of slip surfaces using vertical slice limit equilibrium methods (e.g., Bishop, Janbu, Spencer, etc). Individual slip surfaces can be analyzed, or search methods can be applied to locate the critical slip surface for a given surface. Deterministic (safety factor) or probabilistic (probability of failure) analyses can also be examined. The analysis included herein utilized a circular surface search to determine the appropriate distributed wall loading that will achieve the required minimum factor of safety.

Results

Table D2 summarizes the results of the analyses. All output data is included in this appendix. The results indicate a maximum equivalent fluid pressure (EFP) of 44.4 pcf for permanent conditions. An EFP of 27.8 pcf was obtained for temporary conditions, however, a design value of 30 pcf is recommended. In summary, for retaining walls greater than 12 feet, an EFP of 45 pcf is recommended for permanent conditions, and 30 pcf for temporary conditions.

TABLE D2: ANALYSIS RESULTS

Retained Height (ft)	Permanent Minimum F.S.	Temporary Minimum F.S.	Permanent EFP (pcf)	Temporary EFP (pcf)
36	1.549	1.274	44.4	27.8



Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)	Water Surface
Alluvium		120	Mohr-Coulomb	330	24	Water Surface

Project	#6743 - De Soto and Burbank			
Analysis Description	36 feet Retained Height (Hydrostatic, Permanent)			
Drawn By	JG	Scale	1:150	Company: GeoSoils Consultants, Inc.
Date	04/24/17			File Name: 6743 Retaining Wall Static.slim

SLIDEINTERPRET 7.009

Slide Analysis Information

#6743 - De Soto and Burbank

Project Summary

File Name:	6743 Retaining Wall Static.slim
Slide Modeler Version:	7.009
Project Title:	#6743 - De Soto and Burbank
Analysis:	36 feet Retained Height (Hydrostatic, Permanent)
Author:	JG
Company:	GeoSoils Consultants, Inc.
Date Created:	04/24/17

General Settings

Units of Measurement:	Imperial Units
Time Units:	days
Permeability Units:	feet/second
Failure Direction:	Right to Left
Data Output:	Standard
Maximum Material Properties:	20
Maximum Support Properties:	20

Analysis Options

Slices Type:	Vertical

Analysis Methods Used
Spencer

Number of slices:	50
Tolerance:	0.005
Maximum number of iterations:	75
Check malpha < 0.2:	Yes
Create Interslice boundaries at intersections with water tables and piezos:	Yes
Initial trial value of FS:	1
Steffensen Iteration:	Yes

Groundwater Analysis

Groundwater Method:	Water Surfaces
Pore Fluid Unit Weight [lbs/ft3]:	62.4
Advanced Groundwater Method:	None

Random Numbers

Pseudo-random Seed:	10116
Random Number Generation Method:	Park and Miller v.3

Surface Options

Surface Type:	Circular
Search Method:	Grid Search
Radius Increment:	10
Composite Surfaces:	Disabled
Reverse Curvature:	Invalid Surfaces
Minimum Elevation:	Not Defined
Minimum Depth:	Not Defined
Minimum Area:	Not Defined
Minimum Weight:	Not Defined

Seismic

Advanced Seismic Analysis:	No
Staged pseudostatic analysis:	No

Loading

1 Distributed Load present

Distributed Load 1	
Distribution:	Triangular
Magnitude 1 [psf]:	0
Magnitude 2 [psf]:	1600
Orientation:	Normal to boundary

Material Properties

Property	Alluvium
Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	120
Cohesion [psf]	330
Friction Angle [deg]	24
Water Surface	Water Table
Hu Value	1

Global Minimums

Method: spencer

FS	1.518720
Center:	-18.759, 52.924
Radius:	55.439
Left Slip Surface Endpoint:	0.000, 0.755
Right Slip Surface Endpoint:	34.034, 36.000
Left Slope Intercept:	0.000 36.000
Right Slope Intercept:	34.034 36.000
Resisting Moment:	.88024e+006 lb-ft
Driving Moment:	.89649e+006 lb-ft
Resisting Horizontal Force:	8787.4 lb
Driving Horizontal Force:	5539.5 lb
Total Slice Area:	88.061 ft2

Valid / Invalid Surfaces

Method: spencer

Number of Valid Surfaces: 5032
Number of Invalid Surfaces: 23579

Error Codes:

Error Code -103 reported for 343 surfaces
Error Code -106 reported for 595 surfaces
Error Code -108 reported for 9749 surfaces
Error Code -111 reported for 4264 surfaces
Error Code -112 reported for 283 surfaces
Error Code -114 reported for 3626 surfaces
Error Code -1000 reported for 4719 surfaces

Error Codes

The following errors were encountered during the computation:

-103 = Two surface / slope intersections, but one or more surface / nonslope external polygon intersections lie between them. This usually occurs when the slip surface extends past the bottom of the soil region, but may also occur on a benched slope model with two sets of Slope Limits.
-106 = Average slice width is less than 0.0001 * (maximum horizontal extent of soil region). This limitation is imposed to avoid numerical errors which may result from too many slices, or too small a slip region.
-108 = Total driving moment or total driving force < 0.1. This is to limit the calculation of extremely high safety factors if the driving force is very small (0.1 is an arbitrary number).
-111 = safety factor equation did not converge
-112 = The coefficient M-Alpha = cos(alpha)(1+tan(alpha)tan(phi)/F) < 0.2 for the final iteration of the safety factor calculation. This screens out some slip surfaces which may not be valid in the context of the analysis, in particular, deep seated slip surfaces with many high negative base angle slices in the passive zone.
-114 = Surface with Reverse Curvature.
-1000 = No valid slip surfaces are generated at a grid center. Unable to draw a surface.

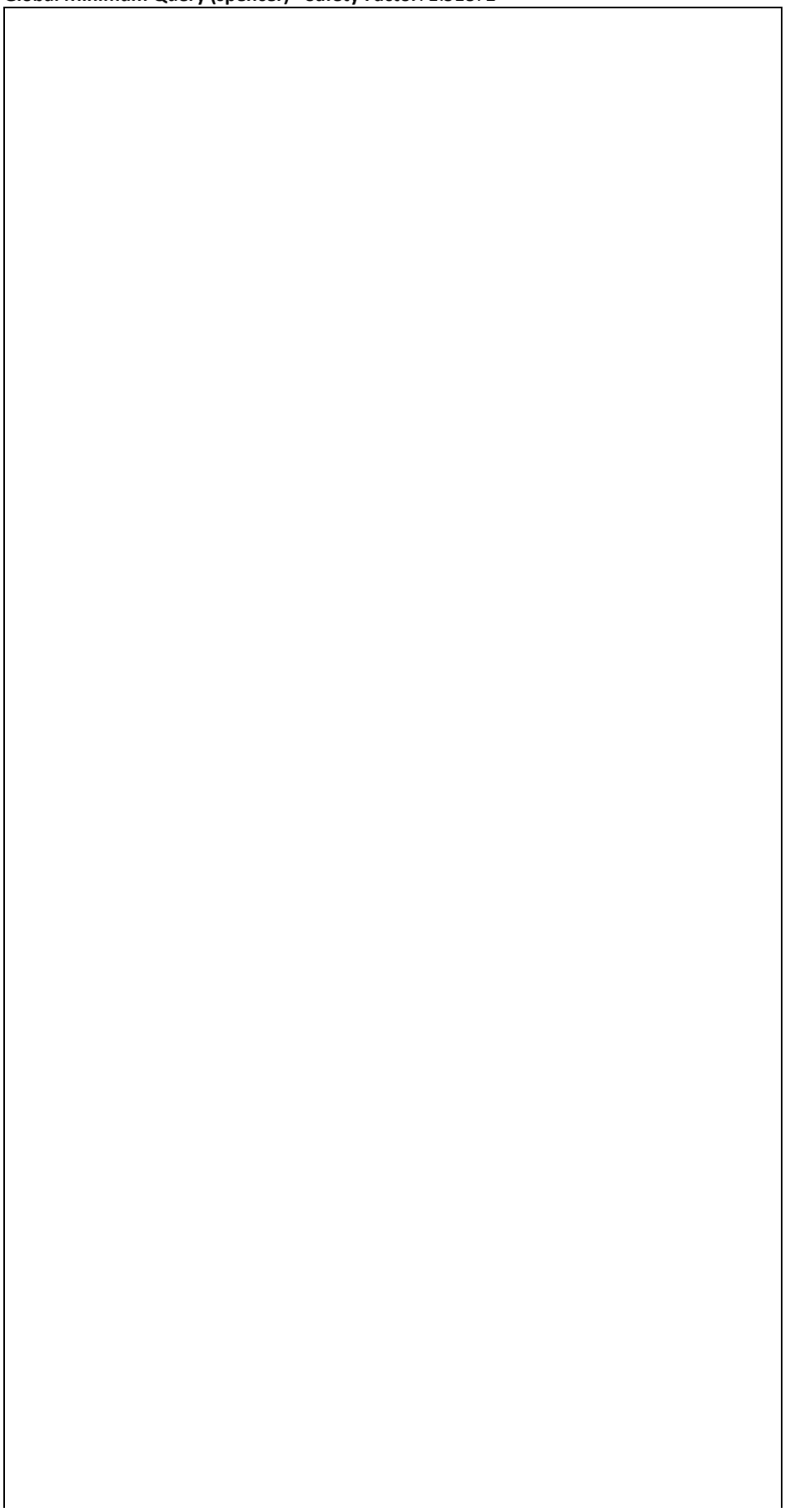
Slice Data

Global Minimum Query (spencer) - Safety Factor: 1.51872

Slice Number	Width [ft]	Weight [lbs]	Angle of Slice Base [degrees]	Base Material	Base Cohesion [psf]	Base Friction Angle [degrees]	Shear Stress [psf]	Shear Strength [psf]	Base Normal Stress [psf]	Pore Pressure [psf]	Effective Normal Stress [psf]
1	0.677502	2855.35	20.1502	Alluvium	330	24	1.42423	2.163	144.818	881.152	-736.334
2	0.677502	2834.72	20.8979	Alluvium	330	24	1080.32	1640.7	3809.2	865.324	2943.88
3	0.677502	2813.28	21.6493	Alluvium	330	24	1073.32	1630.07	3768.86	848.863	2920
4	0.677502	2790.99	22.4047	Alluvium	330	24	1066.13	1619.16	3727.25	831.758	2895.5
5	0.677502	2767.85	23.1641	Alluvium	330	24	1058.76	1607.96	3684.36	814	2870.36
6	0.677502	2743.85	23.928	Alluvium	330	24	1051.2	1596.48	3640.13	795.576	2844.56
7	0.677502	2718.97	24.6963	Alluvium	330	24	1043.44	1584.69	3594.56	776.476	2818.08
8	0.677502	2693.18	25.4694	Alluvium	330	24	1035.48	1572.6	3547.61	756.687	2790.92
9	0.677502	2666.48	26.2476	Alluvium	330	24	1027.31	1560.19	3499.25	736.195	2763.05
10	0.677502	2638.85	27.0309	Alluvium	330	24	1018.92	1547.46	3449.44	714.987	2734.45
11	0.677502	2610.27	27.8198	Alluvium	330	24	1010.32	1534.4	3398.17	693.049	2705.12
12	0.677502	2580.71	28.6145	Alluvium	330	24	1001.5	1521	3345.39	670.363	2675.03
13	0.677502	2550.16	29.4152	Alluvium	330	24	992.441	1507.24	3291.04	646.913	2644.13
14	0.677502	2518.59	30.2223	Alluvium	330	24	983.15	1493.13	3235.12	622.681	2612.44
15	0.677502	2485.97	31.036	Alluvium	330	24	973.616	1478.65	3177.56	597.648	2579.91
16	0.677502	2452.29	31.8568	Alluvium	330	24	963.825	1463.78	3118.3	571.794	2546.51
17	0.677502	2417.5	32.685	Alluvium	330	24	953.77	1448.51	3057.32	545.096	2512.23
18	0.677502	2381.59	33.5209	Alluvium	330	24	943.452	1432.84	2994.54	517.532	2477.01
19	0.677502	2344.51	34.3649	Alluvium	330	24	932.845	1416.73	2929.92	489.075	2440.84
20	0.677502	2306.24	35.2176	Alluvium	330	24	921.954	1400.19	2863.38	459.7	2403.68
21	0.677502	2266.73	36.0793	Alluvium	330	24	910.76	1383.19	2794.87	429.376	2365.5
22	0.677502	2225.95	36.9506	Alluvium	330	24	899.251	1365.71	2724.3	398.074	2326.23
23	0.677502	2183.85	37.8319	Alluvium	330	24	887.412	1347.73	2651.61	365.758	2285.85
24	0.677502	2140.38	38.7239	Alluvium	330	24	875.228	1329.23	2576.69	332.394	2244.3
25	0.677502	2095.49	39.6272	Alluvium	330	24	862.689	1310.18	2499.47	297.941	2201.52
26	0.677502	2049.12	40.5425	Alluvium	330	24	849.773	1290.57	2419.83	262.356	2157.47
27	0.677502	2001.23	41.4704	Alluvium	330	24	836.464	1270.35	2337.66	225.594	2112.07
28	0.677502	1951.73	42.4118	Alluvium	330	24	822.738	1249.51	2252.86	187.602	2065.25
29	0.677502	1900.56	43.3676	Alluvium	330	24	808.574	1228	2165.26	148.326	2016.94
30	0.677502	1847.63	44.3387	Alluvium	330	24	793.946	1205.78	2074.74	107.703	1967.03
31	0.677502	1792.86	45.3261	Alluvium	330	24	778.825	1182.82	1981.13	65.6676	1915.46
32	0.677502	1736.15	46.3311	Alluvium	330	24	763.18	1159.06	1884.23	22.1438	1862.09
33	0.686344	1698.89	47.3618	Alluvium	330	24	741.96	1126.83	1789.71	-23.2563	1789.71
34	0.686344	1636.34	48.4198	Alluvium	330	24	715.092	1086.02	1698.06	-70.6485	1698.06
35	0.686344	1571.39	49.5003	Alluvium	330	24	687.417	1043.99	1603.65	-119.857	1603.65
36	0.686344	1503.88	50.6052	Alluvium	330	24	658.89	1000.67	1506.35	-171.004	1506.35
37	0.686344	1433.63	51.7368	Alluvium	330	24	629.46	955.973	1405.96	-224.23	1405.96
38	0.686344	1360.42	52.8974	Alluvium	330	24	599.066	909.813	1302.28	-279.692	1302.28
39	0.686344	1284.02	54.0901	Alluvium	330	24	567.643	862.091	1195.1	-337.575	1195.1
40	0.686344	1204.15	55.3181	Alluvium	330	24	535.116	812.692	1084.14	-398.093	1084.14
41	0.686344	1120.46	56.5854	Alluvium	330	24	501.398	761.483	969.126	-461.498	969.126
42	0.686344	1032.57	57.8969	Alluvium	330	24	466.388	708.313	849.707	-528.088	849.707
43	0.686344	939.994	59.2581	Alluvium	330	24	429.969	653.003	725.476	-598.226	725.476
44	0.686344	842.154	60.6761	Alluvium	330	24	392.002	595.341	595.965	-672.353	595.965
45	0.686344	738.32	62.1598	Alluvium	330	24	352.318	535.073	460.603	-751.021	460.603
46	0.686344	627.565	63.7203	Alluvium	330	24	310.718	471.894	318.698	-834.934	318.698
47	0.686344	508.67	65.3725	Alluvium	330	24	266.949	405.421	169.398	-925.013	169.398
48	0.686344	379.984	67.1365	Alluvium	330	24	220.696	335.176	11.6257	-1022.51	11.6257
49	0.686344	239.167	69.0409	Alluvium	330	24	171.553	260.541	-156.008	-1129.2	-156.008
50	0.686344	82.6895	71.129	Alluvium	330	24	118.77	180.379	-336.055	-1247.75	-336.055

Interslice Data

Global Minimum Query (spencer) - Safety Factor: 1.51872



Slice Number	X coordinate [ft]	Y coordinate - Bottom [ft]	Interslice Normal Force [lbs]	Interslice Shear Force [lbs]	Interslice Force Angle [degrees]
1	0	0.754678	27605.2	0	0
2	0.677502	1.00328	27570.1	-2757.01	-5.71059
3	1.355	1.26197	27316.5	-2731.65	-5.71059
4	2.0325	1.53088	27029.9	-2702.99	-5.71059
5	2.71001	1.81019	26711	-2671.1	-5.71059
6	3.38751	2.10007	26360.1	-2636.01	-5.71059
7	4.06501	2.40069	25977.8	-2597.78	-5.71059
8	4.74251	2.71226	25564.6	-2556.46	-5.71059
9	5.42001	3.03496	25121	-2512.1	-5.71059
10	6.09751	3.36903	24647.9	-2464.79	-5.71059
11	6.77502	3.7147	24145.6	-2414.56	-5.71059
12	7.45252	4.07221	23615.1	-2361.51	-5.71059
13	8.13002	4.44181	23056.9	-2305.69	-5.71059
14	8.80752	4.8238	22472	-2247.2	-5.71059
15	9.48502	5.21847	21861.1	-2186.11	-5.71059
16	10.1625	5.62614	21225.1	-2122.51	-5.71059
17	10.84	6.04713	20565.1	-2056.51	-5.71059
18	11.5175	6.48183	19882.1	-1988.21	-5.71059
19	12.195	6.93061	19177.2	-1917.72	-5.71059
20	12.8725	7.3939	18451.7	-1845.17	-5.71059
21	13.55	7.87214	17706.7	-1770.67	-5.71059
22	14.2275	8.36581	16943.9	-1694.39	-5.71059
23	14.905	8.87542	16164.6	-1616.46	-5.71059
24	15.5825	9.40155	15370.5	-1537.05	-5.71059
25	16.26	9.9448	14563.6	-1456.36	-5.71059
26	16.9375	10.5058	13745.6	-1374.56	-5.71059
27	17.615	11.0853	12918.9	-1291.89	-5.71059
28	18.2925	11.6841	12085.7	-1208.57	-5.71059
29	18.97	12.303	11248.6	-1124.86	-5.71059
30	19.6475	12.943	10410.6	-1041.06	-5.71059
31	20.325	13.605	9574.8	-957.48	-5.71059
32	21.0025	14.2903	8744.72	-874.472	-5.71059
33	21.6801	15	7924.32	-792.432	-5.71059
34	22.3664	15.7454	7099.38	-709.938	-5.71059
35	23.0527	16.519	6276.45	-627.645	-5.71059
36	23.7391	17.3226	5459.4	-545.94	-5.71059
37	24.4254	18.1583	4652.6	-465.26	-5.71059
38	25.1118	19.0285	3861.03	-386.103	-5.71059
39	25.7981	19.936	3090.35	-309.035	-5.71059
40	26.4845	20.8838	2347.13	-234.713	-5.71059
41	27.1708	21.8756	1638.96	-163.896	-5.71059
42	27.8571	22.916	974.792	-97.4792	-5.71059
43	28.5435	24.0099	365.233	-36.5233	-5.71059
44	29.2298	25.164	-176.952	17.6952	-5.71059
45	29.9162	26.3858	-636.164	63.6164	-5.71059
46	30.6025	27.6854	-992.998	99.2998	-5.71059
47	31.2889	29.0753	-1222.77	122.277	-5.71059
48	31.9752	30.5725	-1293.23	129.323	-5.71059
49	32.6616	32.2002	-1160.72	116.072	-5.71059
50	33.3479	33.992	-763.474	76.3474	-5.71059
51	34.0342	36	0	0	0

List Of Coordinates

Water Table

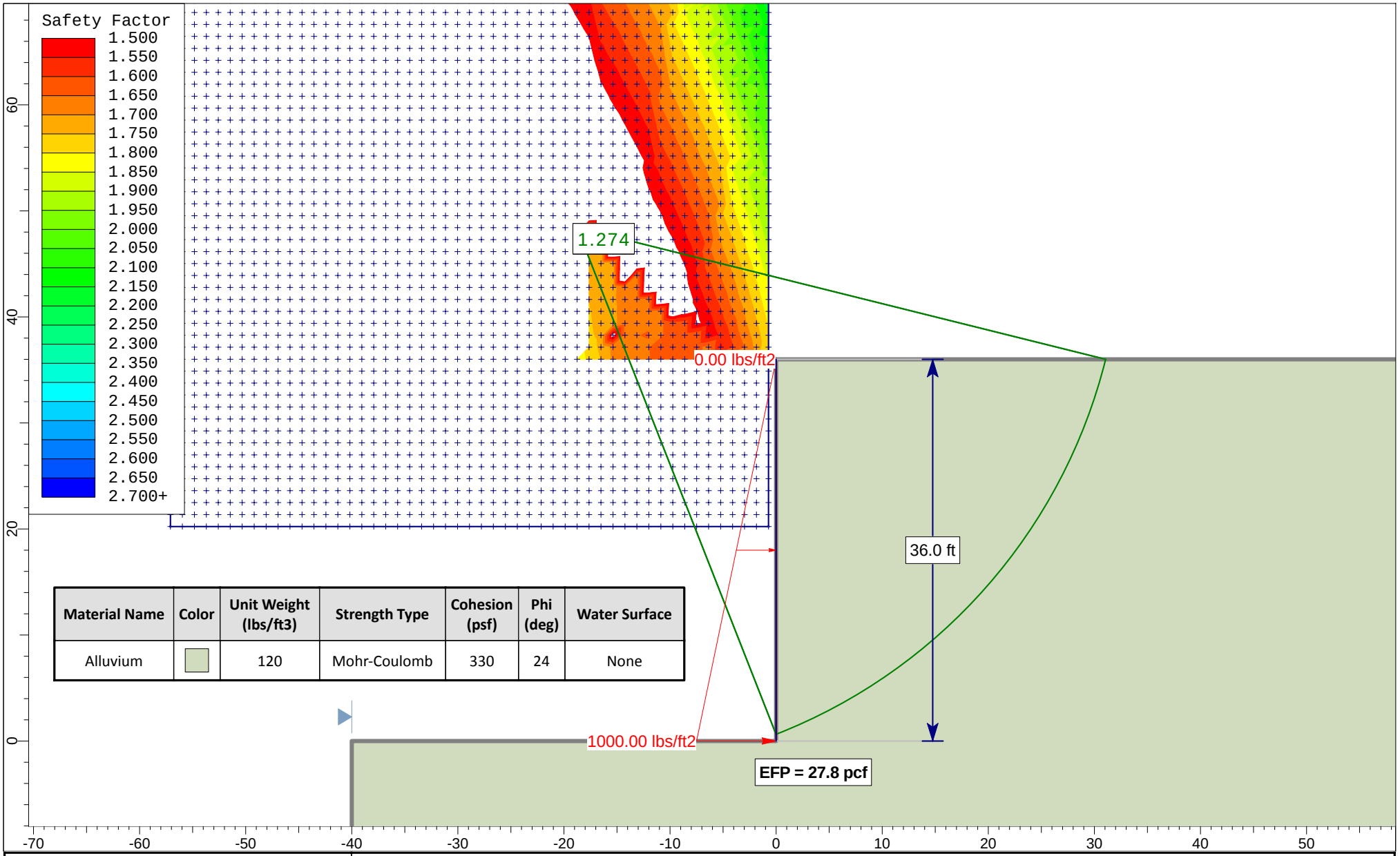
X	Y
-40	0
0	0
0	15
60	15

Distributed Load

X	Y
0	36
0	0

External Boundary

X	Y
0	36
0	0
-40	0
-40	-10
60	-10
60	36



Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)	Water Surface
Alluvium		120	Mohr-Coulomb	330	24	None

SLIDEINTERPRET 7.009

Project	#6743 - De Soto and Burbank		
Analysis Description	36 feet Retained Height (Temporary)		
Drawn By	JG	Scale 1:150	Company GeoSoils Consultants, Inc.
Date	04/24/17		File Name 6743 Retaining Wall Temp.slim

Slide Analysis Information

#6743 - De Soto and Burbank

Project Summary

File Name:	6743 Retaining Wall Temp.slim
Slide Modeler Version:	7.009
Project Title:	#6743 - De Soto and Burbank
Analysis:	36 feet Retained Height (Temporary)
Author:	JG
Company:	GeoSoils Consultants, Inc.
Date Created:	04/24/17

General Settings

Units of Measurement:	Imperial Units
Time Units:	days
Permeability Units:	feet/second
Failure Direction:	Right to Left
Data Output:	Standard
Maximum Material Properties:	20
Maximum Support Properties:	20

Analysis Options

Slices Type:	Vertical
Analysis Methods Used	
	Spencer
Number of slices:	50
Tolerance:	0.005
Maximum number of iterations:	75
Check malpha < 0.2:	Yes
Create Interslice boundaries at intersections with water tables and piezos:	Yes
Initial trial value of FS:	1
Steffensen Iteration:	Yes

Groundwater Analysis

Groundwater Method:	Water Surfaces
Pore Fluid Unit Weight [lbs/ft3]:	62.4
Advanced Groundwater Method:	None

Random Numbers

Pseudo-random Seed:	10116
Random Number Generation Method:	Park and Miller v.3

Surface Options

Surface Type:	Circular
Search Method:	Grid Search
Radius Increment:	10
Composite Surfaces:	Disabled
Reverse Curvature:	Invalid Surfaces
Minimum Elevation:	Not Defined
Minimum Depth:	Not Defined
Minimum Area:	Not Defined
Minimum Weight:	Not Defined

Seismic

Advanced Seismic Analysis:	No
Staged pseudostatic analysis:	No

Loading

1 Distributed Load present

Distributed Load 1	
Distribution:	Triangular
Magnitude 1 [psf]:	0
Magnitude 2 [psf]:	1000
Orientation:	Normal to boundary

Material Properties

Property	Alluvium
Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	120
Cohesion [psf]	330
Friction Angle [deg]	24
Water Surface	None
Ru Value	0

Global Minimums

Method: spencer

FS	1.273620
Center:	-18.759, 48.414
Radius:	51.350
Left Slip Surface Endpoint:	0.000, 0.613
Right Slip Surface Endpoint:	31.068, 36.000
Left Slope Intercept:	0.000 36.000
Right Slope Intercept:	31.068 36.000
Resisting Moment:	.64732e+006 lb-ft
Driving Moment:	.07857e+006 lb-ft
Resisting Horizontal Force:	7893.2 lb
Driving Horizontal Force:	9752.3 lb
Total Slice Area:	31.136 ft2

Valid / Invalid Surfaces

Method: spencer

Number of Valid Surfaces: 4557
Number of Invalid Surfaces: 24054

Error Codes:

Error Code -103 reported for 343 surfaces
Error Code -106 reported for 595 surfaces
Error Code -108 reported for 10138 surfaces
Error Code -111 reported for 4433 surfaces
Error Code -112 reported for 200 surfaces
Error Code -114 reported for 3626 surfaces
Error Code -1000 reported for 4719 surfaces

Error Codes

The following errors were encountered during the computation:

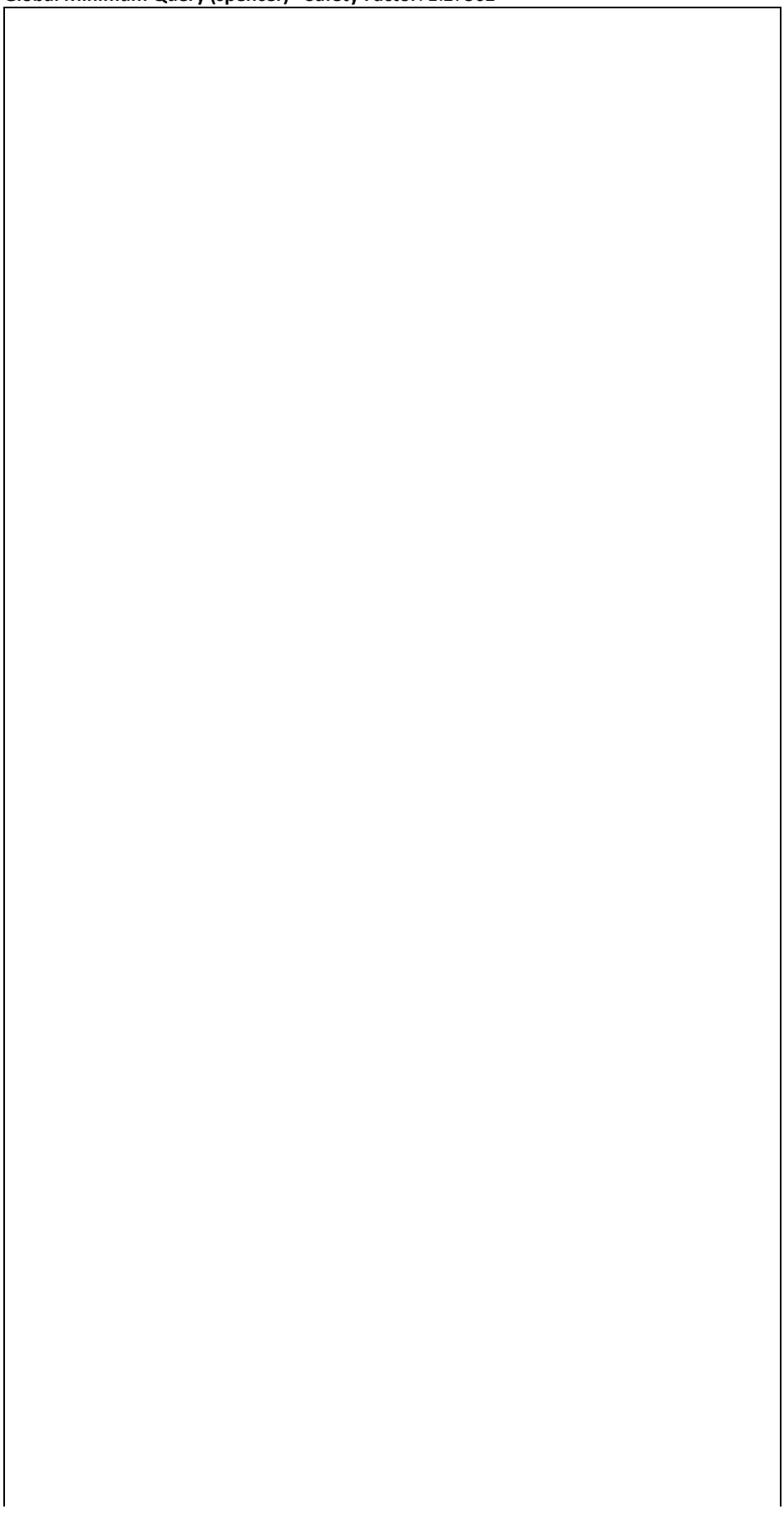
-103 = Two surface / slope intersections, but one or more surface / nonslope external polygon intersections lie between them. This usually occurs when the slip surface extends past the bottom of the soil region, but may also occur on a benched slope model with two sets of Slope Limits.
-106 = Average slice width is less than 0.0001 * (maximum horizontal extent of soil region). This limitation is imposed to avoid numerical errors which may result from too many slices, or too small a slip region.
-108 = Total driving moment or total driving force < 0.1. This is to limit the calculation of extremely high safety factors if the driving force is very small (0.1 is an arbitrary number).
-111 = safety factor equation did not converge
-112 = The coefficient M-Alpha = cos(alpha)(1+tan(alpha)tan(phi)/F) < 0.2 for the final iteration of the safety factor calculation. This screens out some slip surfaces which may not be valid in the context of the analysis, in particular, deep seated slip surfaces with many high negative base angle slices in the passive zone.
-114 = Surface with Reverse Curvature.
-1000 = No valid slip surfaces are generated at a grid center. Unable to draw a surface.

Slice Data

Global Minimum Query (spencer) - Safety Factor: 1.27362

Slice Number	Width [ft]	Weight [lbs]	Angle of Slice Base [degrees]	Base Material	Base Cohesion [psf]	Base Friction Angle [degrees]	Shear Stress [psf]	Shear Strength [psf]	Base Normal Stress [psf]	Pore Pressure [psf]	Effective Normal Stress [psf]
1	0.621367	2629.33	21.8	Alluvium	330	24	660.491	841.214	1148.21	0	1148.21
2	0.621367	2610.45	22.5487	Alluvium	330	24	1507.95	1920.55	3572.43	0	3572.43
3	0.621367	2590.85	23.3015	Alluvium	330	24	1492.84	1901.31	3529.22	0	3529.22
4	0.621367	2570.53	24.0586	Alluvium	330	24	1477.4	1881.64	3485.04	0	3485.04
5	0.621367	2549.47	24.8201	Alluvium	330	24	1461.6	1861.52	3439.84	0	3439.84
6	0.621367	2527.67	25.5864	Alluvium	330	24	1445.44	1840.94	3393.63	0	3393.63
7	0.621367	2505.1	26.3577	Alluvium	330	24	1428.92	1819.9	3346.37	0	3346.37
8	0.621367	2481.75	27.1341	Alluvium	330	24	1412.03	1798.39	3298.06	0	3298.06
9	0.621367	2457.6	27.9159	Alluvium	330	24	1394.77	1776.41	3248.68	0	3248.68
10	0.621367	2432.64	28.7034	Alluvium	330	24	1377.12	1753.93	3198.21	0	3198.21
11	0.621367	2406.85	29.4969	Alluvium	330	24	1359.09	1730.96	3146.6	0	3146.6
12	0.621367	2380.21	30.2967	Alluvium	330	24	1340.65	1707.48	3093.86	0	3093.86
13	0.621367	2352.7	31.1031	Alluvium	330	24	1321.8	1683.47	3039.95	0	3039.95
14	0.621367	2324.3	31.9163	Alluvium	330	24	1302.54	1658.94	2984.84	0	2984.84
15	0.621367	2294.97	32.7368	Alluvium	330	24	1282.85	1633.86	2928.53	0	2928.53
16	0.621367	2264.71	33.565	Alluvium	330	24	1262.72	1608.23	2870.94	0	2870.94
17	0.621367	2233.48	34.4012	Alluvium	330	24	1242.14	1582.02	2812.08	0	2812.08
18	0.621367	2201.25	35.2458	Alluvium	330	24	1221.1	1555.22	2751.9	0	2751.9
19	0.621367	2167.98	36.0993	Alluvium	330	24	1199.59	1527.82	2690.36	0	2690.36
20	0.621367	2133.66	36.9622	Alluvium	330	24	1177.59	1499.8	2627.42	0	2627.42
21	0.621367	2098.23	37.8349	Alluvium	330	24	1155.09	1471.14	2563.05	0	2563.05
22	0.621367	2061.67	38.7182	Alluvium	330	24	1132.06	1441.82	2497.19	0	2497.19
23	0.621367	2023.93	39.6125	Alluvium	330	24	1108.5	1411.81	2429.8	0	2429.8
24	0.621367	1984.96	40.5185	Alluvium	330	24	1084.39	1381.1	2360.82	0	2360.82
25	0.621367	1944.71	41.4369	Alluvium	330	24	1059.7	1349.66	2290.2	0	2290.2
26	0.621367	1903.13	42.3685	Alluvium	330	24	1034.42	1317.46	2217.87	0	2217.87
27	0.621367	1860.16	43.3141	Alluvium	330	24	1008.52	1284.47	2143.77	0	2143.77
28	0.621367	1815.73	44.2747	Alluvium	330	24	981.972	1250.66	2067.84	0	2067.84
29	0.621367	1769.77	45.2513	Alluvium	330	24	954.752	1215.99	1989.97	0	1989.97
30	0.621367	1722.21	46.245	Alluvium	330	24	926.829	1180.43	1910.1	0	1910.1
31	0.621367	1672.94	47.257	Alluvium	330	24	898.169	1143.93	1828.11	0	1828.11
32	0.621367	1621.89	48.2888	Alluvium	330	24	868.736	1106.44	1743.91	0	1743.91
33	0.621367	1568.92	49.3418	Alluvium	330	24	838.488	1067.92	1657.39	0	1657.39
34	0.621367	1513.93	50.4179	Alluvium	330	24	807.38	1028.3	1568.4	0	1568.4
35	0.621367	1456.77	51.5191	Alluvium	330	24	775.361	987.515	1476.81	0	1476.81
36	0.621367	1397.27	52.6476	Alluvium	330	24	742.374	945.502	1382.44	0	1382.44
37	0.621367	1335.26	53.806	Alluvium	330	24	708.355	902.175	1285.12	0	1285.12
38	0.621367	1270.52	54.9974	Alluvium	330	24	673.229	857.438	1184.65	0	1184.65
39	0.621367	1202.8	56.2253	Alluvium	330	24	636.914	811.187	1080.76	0	1080.76
40	0.621367	1131.81	57.4939	Alluvium	330	24	599.312	763.296	973.198	0	973.198
41	0.621367	1057.19	58.8084	Alluvium	330	24	560.309	713.621	861.627	0	861.627
42	0.621367	978.52	60.1748	Alluvium	330	24	519.774	661.994	745.67	0	745.67
43	0.621367	895.267	61.6007	Alluvium	330	24	477.544	608.21	624.869	0	624.869
44	0.621367	806.767	63.0956	Alluvium	330	24	433.429	552.024	498.673	0	498.673
45	0.621367	712.168	64.6721	Alluvium	330	24	387.19	493.133	366.403	0	366.403
46	0.621367	610.332	66.3465	Alluvium	330	24	338.529	431.157	227.202	0	227.202
47	0.621367	499.694	68.1417	Alluvium	330	24	287.058	365.603	79.9663	0	79.9663
48	0.621367	377.983	70.0909	Alluvium	330	24	232.263	295.815	-76.7799	0	-76.7799
49	0.621367	241.668	72.2458	Alluvium	330	24	173.424	220.876	-245.097	0	-245.097
50	0.621367	84.6581	74.6963	Alluvium	330	24	109.418	139.357	-428.191	0	-428.191

Global Minimum Query (spencer) - Safety Factor: 1.27362



Slice Number	X coordinate [ft]	Y coordinate - Bottom [ft]	Interslice Normal Force [lbs]	Interslice Shear Force [lbs]	Interslice Force Angle [degrees]
1	0	0.612992	17392.2	0	0
2	0.621367	0.861521	17517.3	-1751.73	-5.71059
3	1.24273	1.11952	17532.8	-1753.28	-5.71059
4	1.8641	1.38714	17516.1	-1751.61	-5.71059
5	2.48547	1.66455	17467.5	-1746.75	-5.71059
6	3.10683	1.95193	17387.3	-1738.73	-5.71059
7	3.7282	2.24946	17276	-1727.6	-5.71059
8	4.34957	2.55733	17133.7	-1713.37	-5.71059
9	4.97093	2.87577	16961.1	-1696.11	-5.71059
10	5.5923	3.20499	16758.4	-1675.84	-5.71059
11	6.21367	3.54522	16526.1	-1652.61	-5.71059
12	6.83503	3.89673	16264.7	-1626.47	-5.71059
13	7.4564	4.25978	15974.6	-1597.46	-5.71059
14	8.07777	4.63466	15656.5	-1565.65	-5.71059
15	8.69913	5.02167	15310.9	-1531.09	-5.71059
16	9.3205	5.42115	14938.3	-1493.83	-5.71059
17	9.94187	5.83344	14539.4	-1453.94	-5.71059
18	10.5632	6.25891	14114.9	-1411.49	-5.71059
19	11.1846	6.69798	13665.5	-1366.55	-5.71059
20	11.806	7.15108	13192	-1319.2	-5.71059
21	12.4273	7.61867	12695.3	-1269.53	-5.71059
22	13.0487	8.10126	12176.3	-1217.63	-5.71059
23	13.6701	8.59939	11635.9	-1163.59	-5.71059
24	14.2914	9.11366	11075.3	-1107.53	-5.71059
25	14.9128	9.6447	10495.5	-1049.55	-5.71059
26	15.5342	10.1932	9897.88	-989.788	-5.71059
27	16.1555	10.76	9283.76	-928.376	-5.71059
28	16.7769	11.3458	8654.64	-865.464	-5.71059
29	17.3983	11.9516	8012.16	-801.216	-5.71059
30	18.0196	12.5785	7358.13	-735.813	-5.71059
31	18.641	13.2275	6694.54	-669.454	-5.71059
32	19.2624	13.8998	6023.6	-602.36	-5.71059
33	19.8837	14.5969	5347.77	-534.777	-5.71059
34	20.5051	15.3204	4669.81	-466.981	-5.71059
35	21.1265	16.072	3992.8	-399.28	-5.71059
36	21.7478	16.8537	3320.26	-332.026	-5.71059
37	22.3692	17.6678	2656.17	-265.617	-5.71059
38	22.9906	18.517	2005.1	-200.51	-5.71059
39	23.6119	19.4043	1372.35	-137.235	-5.71059
40	24.2333	20.3334	764.075	-76.4075	-5.71059
41	24.8547	21.3085	187.55	-18.755	-5.71059
42	25.476	22.3348	-348.547	34.8547	-5.71059
43	26.0974	23.4187	-833.718	83.3718	-5.71059
44	26.7188	24.5679	-1255.05	125.505	-5.71059
45	27.3401	25.7925	-1596.33	159.633	-5.71059
46	27.9615	27.1053	-1836.73	183.673	-5.71059
47	28.5829	28.524	-1948.66	194.866	-5.71059
48	29.2042	30.0729	-1894.12	189.412	-5.71059
49	29.8256	31.7886	-1618.04	161.804	-5.71059
50	30.447	33.7292	-1034.61	103.461	-5.71059
51	31.0683	36	0	0	0

List Of Coordinates

Distributed Load

X	Y
0	36
0	0

External Boundary

X	Y
0	36
0	0
-40	0
-40	-10
60	-10
60	36

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APPENDIX E
USGS SITE-SPECIFIC DATA

USGS Design Maps Detailed Report

ASCE 7-10 Standard (34.17456°N, 118.59077°W)

Site Class D – "Stiff Soil", Risk Category I/II/III

Section 11.4.1 — Mapped Acceleration Parameters

Note: Ground motion values provided below are for the direction of maximum horizontal spectral response acceleration. They have been converted from corresponding geometric mean ground motions computed by the USGS by applying factors of 1.1 (to obtain S_S) and 1.3 (to obtain S_1). Maps in the 2010 ASCE-7 Standard are provided for Site Class B. Adjustments for other Site Classes are made, as needed, in Section 11.4.3.

From Figure 22-1 [1] $S_S = 1.971$ g

From Figure 22-2 [2] $S_1 = 0.700$ g

Section 11.4.2 — Site Class

The authority having jurisdiction (not the USGS), site-specific geotechnical data, and/or the default has classified the site as Site Class D, based on the site soil properties in accordance with Chapter 20.

Table 20.3–1 Site Classification

Site Class	$\overline{v}_S$	$\overline{N}$ or $\overline{N}_{ch}$	$\overline{s}_u$
A. Hard Rock	>5,000 ft/s	N/A	N/A
B. Rock	2,500 to 5,000 ft/s	N/A	N/A
C. Very dense soil and soft rock	1,200 to 2,500 ft/s	>50	>2,000 psf
D. Stiff Soil	600 to 1,200 ft/s	15 to 50	1,000 to 2,000 psf
E. Soft clay soil	<600 ft/s	<15	<1,000 psf
	Any profile with more than 10 ft of soil having the characteristics: • Plasticity index PI > 20, • Moisture content w ≥ 40%, and • Undrained shear strength $\overline{s}_u$ < 500 psf		
F. Soils requiring site response analysis in accordance with Section 21.1	See Section 20.3.1		

For SI: 1ft/s = 0.3048 m/s 1lb/ft² = 0.0479 kN/m²

Section 11.4.3 — Site Coefficients and Risk–Targeted Maximum Considered Earthquake (MCE_R) Spectral Response Acceleration Parameters

Table 11.4–1: Site Coefficient F_a

Site Class	Mapped MCE_R Spectral Response Acceleration Parameter at Short Period				
	$S_S \le 0.25$	$S_S = 0.50$	$S_S = 0.75$	$S_S = 1.00$	$S_S \ge 1.25$
A	0.8	0.8	0.8	0.8	0.8
B	1.0	1.0	1.0	1.0	1.0
C	1.2	1.2	1.1	1.0	1.0
D	1.6	1.4	1.2	1.1	1.0
E	2.5	1.7	1.2	0.9	0.9
F	See Section 11.4.7 of ASCE 7				

Note: Use straight–line interpolation for intermediate values of S_S

For Site Class = D and S_S = 1.971 g, F_a = 1.000

Table 11.4–2: Site Coefficient F_v

Site Class	Mapped MCE_R Spectral Response Acceleration Parameter at 1–s Period				
	$S_1 \le 0.10$	$S_1 = 0.20$	$S_1 = 0.30$	$S_1 = 0.40$	$S_1 \ge 0.50$
A	0.8	0.8	0.8	0.8	0.8
B	1.0	1.0	1.0	1.0	1.0
C	1.7	1.6	1.5	1.4	1.3
D	2.4	2.0	1.8	1.6	1.5
E	3.5	3.2	2.8	2.4	2.4
F	See Section 11.4.7 of ASCE 7				

Note: Use straight–line interpolation for intermediate values of S_1

For Site Class = D and S_1 = 0.700 g, F_v = 1.500

Equation (11.4–1): $S_{MS} = F_a S_S = 1.000 \times 1.971 = 1.971$ g

Equation (11.4–2): $S_{M1} = F_v S_1 = 1.500 \times 0.700 = 1.050$ g

Section 11.4.4 — Design Spectral Acceleration Parameters

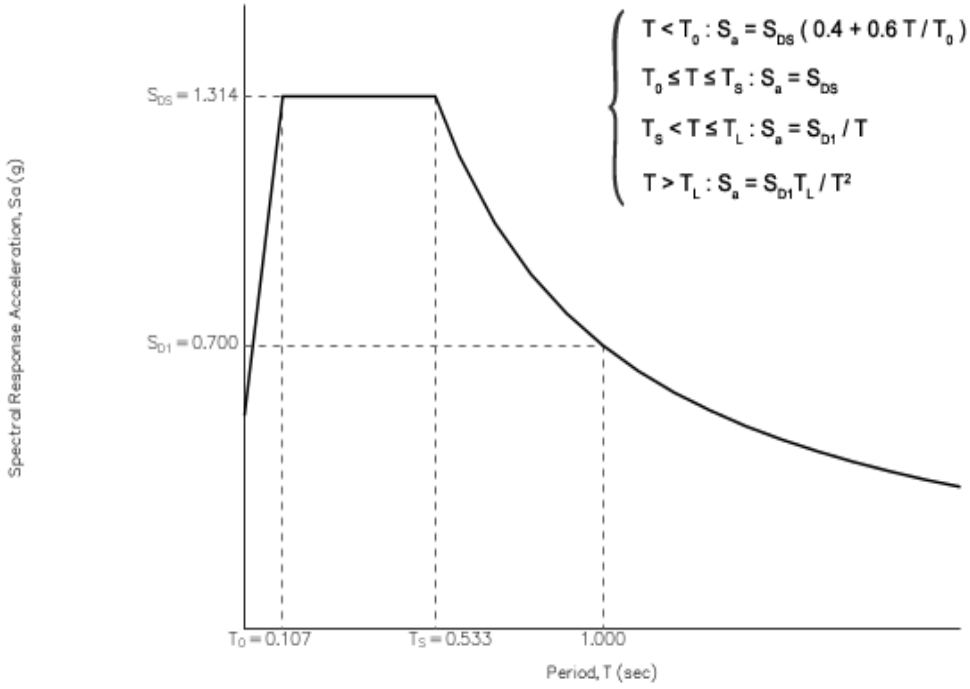
Equation (11.4–3): $S_{DS} = \frac{2}{3} S_{MS} = \frac{2}{3} \times 1.971 = 1.314$ g

Equation (11.4–4): $S_{D1} = \frac{2}{3} S_{M1} = \frac{2}{3} \times 1.050 = 0.700$ g

Section 11.4.5 — Design Response Spectrum

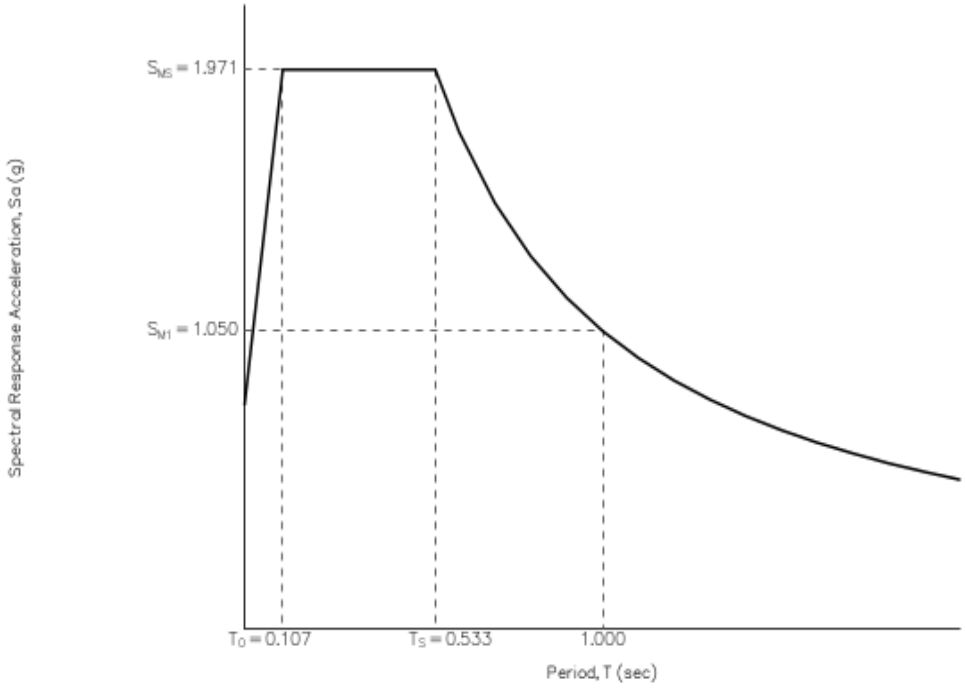
From Figure 22-12 [3] $T_L = 8$ seconds

Figure 11.4–1: Design Response Spectrum



Section 11.4.6 — Risk-Targeted Maximum Considered Earthquake (MCE_R) Response Spectrum

The MCE_R Response Spectrum is determined by multiplying the design response spectrum above by 1.5.



Section 11.8.3 — Additional Geotechnical Investigation Report Requirements for Seismic Design Categories D through F

From Figure 22-7 [4] PGA = 0.680

Equation (11.8–1): $PGA_M = F_{PGA}PGA = 1.000 \times 0.680 = 0.68$ g

Table 11.8–1: Site Coefficient F_{PGA}

Site Class	Mapped MCE Geometric Mean Peak Ground Acceleration, PGA				
	PGA ≤ 0.10	PGA = 0.20	PGA = 0.30	PGA = 0.40	PGA ≥ 0.50
A	0.8	0.8	0.8	0.8	0.8
B	1.0	1.0	1.0	1.0	1.0
C	1.2	1.2	1.1	1.0	1.0
D	1.6	1.4	1.2	1.1	1.0
E	2.5	1.7	1.2	0.9	0.9
F	See Section 11.4.7 of ASCE 7				

Note: Use straight–line interpolation for intermediate values of PGA

For Site Class = D and PGA = 0.680 g, F_{PGA} = 1.000

Section 21.2.1.1 — Method 1 (from Chapter 21 – Site-Specific Ground Motion Procedures for Seismic Design)

From Figure 22-17 [5] C_{RS} = 1.024

From Figure 22-18 [6] C_{R1} = 1.036

Section 11.6 — Seismic Design Category

Table 11.6-1 Seismic Design Category Based on Short Period Response Acceleration Parameter

VALUE OF S_{DS}	RISK CATEGORY		
	I or II	III	IV
$S_{DS} < 0.167g$	A	A	A
$0.167g \le S_{DS} < 0.33g$	B	B	C
$0.33g \le S_{DS} < 0.50g$	C	C	D
$0.50g \le S_{DS}$	D	D	D

For Risk Category = I and S_{DS} = 1.314 g, Seismic Design Category = D

Table 11.6-2 Seismic Design Category Based on 1-S Period Response Acceleration Parameter

VALUE OF S_{D1}	RISK CATEGORY		
	I or II	III	IV
$S_{D1} < 0.067g$	A	A	A
$0.067g \le S_{D1} < 0.133g$	B	B	C
$0.133g \le S_{D1} < 0.20g$	C	C	D
$0.20g \le S_{D1}$	D	D	D

For Risk Category = I and S_{D1} = 0.700 g, Seismic Design Category = D

Note: When S_1 is greater than or equal to 0.75g, the Seismic Design Category is **E** for buildings in Risk Categories I, II, and III, and **F** for those in Risk Category IV, irrespective of the above.

Seismic Design Category ≡ "the more severe design category in accordance with Table 11.6-1 or 11.6-2" = D

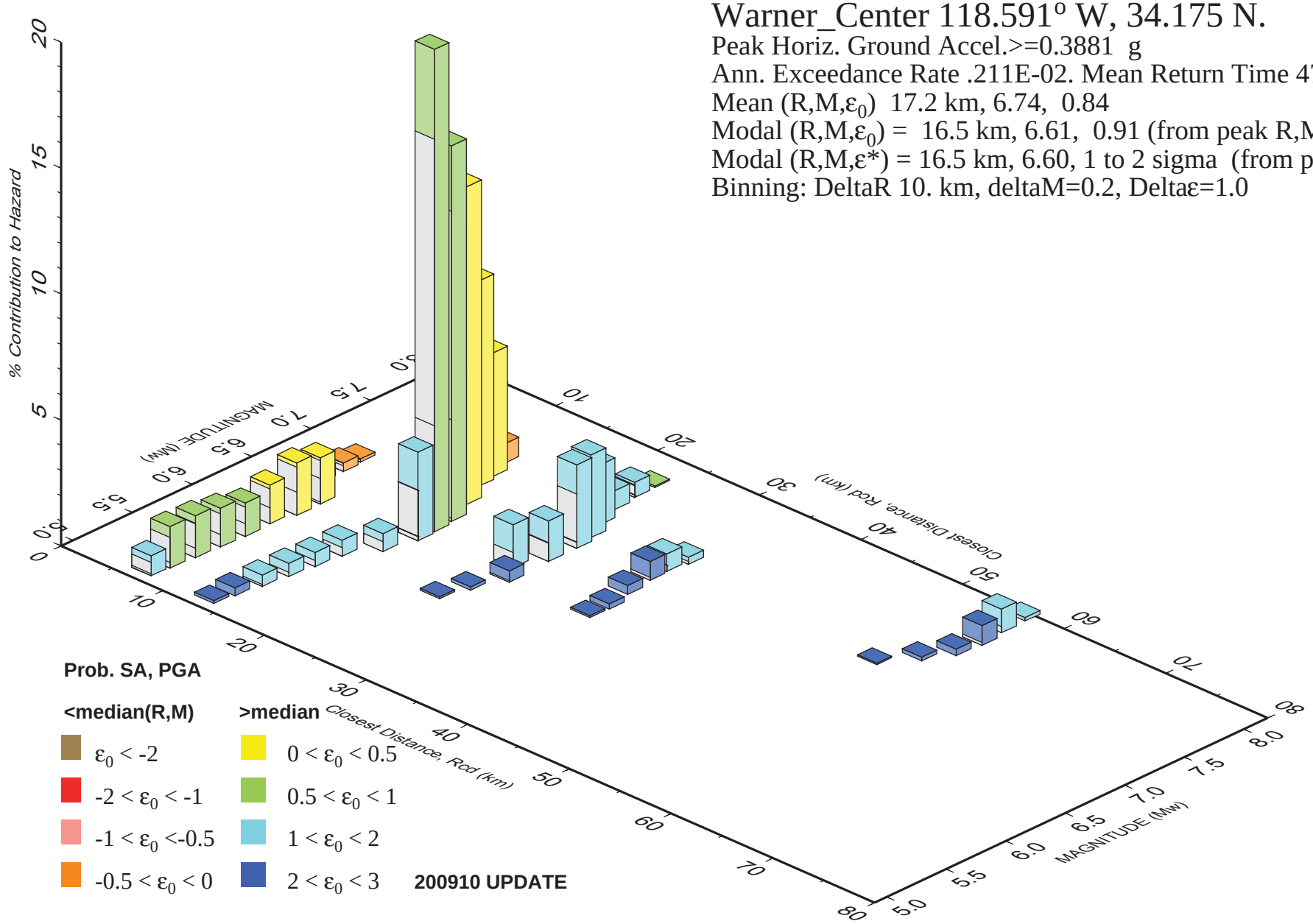
Note: See Section 11.6 for alternative approaches to calculating Seismic Design Category.

References

1. *Figure 22-1*: https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010_ASCE-7_Figure_22-1.pdf
2. *Figure 22-2*: https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010_ASCE-7_Figure_22-2.pdf
3. *Figure 22-12*: https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010_ASCE-7_Figure_22-12.pdf
4. *Figure 22-7*: https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010_ASCE-7_Figure_22-7.pdf
5. *Figure 22-17*: https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010_ASCE-7_Figure_22-17.pdf
6. *Figure 22-18*: https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010_ASCE-7_Figure_22-18.pdf

PSH Deaggregation on NEHRP BC rock
Warner_Center 118.591º W, 34.175 N.

Peak Horiz. Ground Accel.>=0.3881 g
Ann. Exceedance Rate .211E-02. Mean Return Time 475 years
Mean (R,M,ε_0) 17.2 km, 6.74, 0.84
Modal (R,M,ε_0) = 16.5 km, 6.61, 0.91 (from peak R,M bin)
Modal (R,M,ε*) = 16.5 km, 6.60, 1 to 2 sigma (from peak R,M,ε bin)
Binning: DeltaR 10. km, deltaM=0.2, Deltaε=1.0



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APPENDIX F
GRADING GUIDELINES

APPENDIX F

GRADING GUIDELINES

Grading

We offer the following recommendations and construction considerations concerning earthwork grading at the site. No deviation from these specifications should be allowed, except where specifically superseded in an addendum letter or report, or in other written communication signed by the Geotechnical Engineer.

General

Monitoring: We recommend that all earthwork (i.e., clearing, site preparation, fill placement, etc.) should be conducted with engineering control under observation and testing by the Geotechnical Engineer and in accordance with the requirements within the Grading section.

Job Site Safety: At all times, safety would have precedence over production work. If an unsafe job condition is noted by a Geotechnical Engineer's representative, it should be brought to the attention of the Grading Contractor's foreman and/or the on-site developer's representative. Once this condition is noted, it should be corrected as soon as possible, or work related to the unsafe condition may be terminated.

Site Preparation

Existing Structure Location: The Contractor should locate all surface and subsurface structures on the site prior to preparing the ground surface.

Existing Structure Removal: All foundation and concrete slabs from the demolition of the existing structures or any underground structure (e.g., cesspools, old underground storage tanks, foundations, utilities, etc.) that have not been located prior to grading, should be removed or treated in a manner prescribed by the Geotechnical Engineer.

Clearing and Stripping: The construction areas should be cleared and stripped of all vegetation, trees, bushes, sod, topsoil, artificial fill, debris, asphalt, concrete and other deleterious material prior to fill placement.

Over Excavating Non-Structural Areas: In areas to be utilized for non-structural purposes (i.e., landscaping, pavement areas, etc.) it is recommended the overexcavation be extended to a depth of 2 to 3 feet below existing or proposed grade, whichever is lower. Prior to fill placement, the subgrade should be prepared in accordance with the subgrade preparation section of this report.

Subgrade Preparation: We recommend that bottom excavation for pavement areas, overexcavation, and for those areas receiving any additional fill be prepared by scarifying the upper 12 inches and moisture conditioning, as required to obtain at least optimum moisture, but not greater than 120 percent of optimum. The scarified areas shall be compacted to at least 90 percent of the maximum laboratory density, as determined by ASTM D-1557-12 compaction method. All areas to receive fill should be observed by a representative from this office prior to fill placement.

Subgrade Inspection: Prior to placing fill, the ground surface to receive fill should be inspected, tested, and approved by the Geotechnical Engineer.

Grading Control

Grading Inspection — Geotechnical Engineer: Earthwork monitoring and field density testing shall be performed by the Geotechnical Engineer during grading to provide a basis for opinions concerning the degree of soil compaction attained. Each day the Contractor would receive a copy of the Geotechnical Engineer's Daily Field Engineering Report which would indicate the results of field density tests for that day. Where failing tests occur or other field problems arise, the Contractor may be notified of such conditions by written communication from the Geotechnical Engineer in the form of a

conference memorandum, to avoid any misunderstanding arising from oral communication.

Subgrade Inspection: All processed ground to receive fill and overexcavations should be inspected and approved by the Geotechnical Engineer prior to placing any fill. It should be the Contractor's responsibility to notify the Geotechnical Engineer when such areas are ready for inspection. In most jurisdictions, these items must also be inspected by a representative of the controlling governmental agency prior to fill placement.

Subgrade Testing: Density tests should also be made on the prepared subgrade to receive fill, as required by the Geotechnical Engineer.

Fill Placement Inspection: Inspection of the fill placement should be provided by the Geotechnical Engineer during the progress of grading.

Density Testing Intervals: In general, density tests should be made at intervals not exceeding 2 feet of fill height or every 500 cubic yards of fill placed. This criteria would vary depending on soil conditions and the size of the job. In any event, an adequate number of field density tests should be made to verify that the required compaction is being achieved.

Utility Trenching and Backfill

Buried Utilities: Buried utility installation shall conform to all applicable Federal, State, and local regulations for open excavations.

Backfill Placement: Approved on-site or imported fill material shall be evenly placed, watered, processed, and compacted in controlled horizontal layers not exceeding 8 inches in loose thickness, and each layer should be thoroughly compacted with approved equipment. All fill material should be moisture conditioned, as required to obtain at least optimum moisture, but not greater than 120 percent of optimum moisture

content. The fill should be placed and compacted on a horizontal plan, unless otherwise recommended by the Geotechnical Engineer.

Backfill Compaction Criteria: Each layer of utility trench backfill shall be compacted to at least 90 percent of the maximum laboratory density for material used as determined by ASTM D-1557-12. The field density shall be determined by the ASTM D-1556-07 method or equivalent. Where moisture content of the fill or density testing yields compaction results less than 90 percent, additional compaction effort and/or moisture conditioning, as necessary, shall be performed, until the fill material is in accordance with the requirements of the Geotechnical Engineer.

Backfill Compaction Criteria— Alternative: As an alternate, clean sand may be utilized and flooded in-place. No specific relative compaction would be required; however, observation, probing and, if deemed necessary, testing may be required.

Pipe Bedding: We recommend that a minimum of 6 inches of bedding material should be placed in the bottom of the utility trench. All bedding materials shall extend at least 4 inches above the bottom of utilities which require protection during subsequent trench backfilling. All trenches shall be wide enough to allow for compaction around the haunches of the pipe or materials such as pea gravel or controlled density fill (CDF) shall be used below the spring line of the pipes to eliminate the need for mechanical compaction in this portion of the trenches.

Groundwater Migration: Backfilled utility trenches may act as French drains to some extent, and considerable groundwater flow along utility bedding and backfill should be expected. Wherever buried utilities, or structures which they may intersect, could be adversely affected by such drainage, provisions shall be made to collect groundwater migrating along the trench lines. These situations include where buried utilities enter buildings, particularly where they enter below grade mechanical rooms, and where buried utilities enter junction boxes or switching stations that are intended to remain dry.

Mitigation measures include, but are not limited to, placement of perforated drain pipes below and continuous with bedding materials, and placement of seepage barriers such as lean mix concrete or controlled density fill (CDF).

Erosion Control: Erosion control measures, when necessary, should be provided by the Contractor during grading and prior to the completion and construction of permanent drainage controls.

Earthwork Suspension: Upon completion of grading and termination of inspections by the Geotechnical Engineer, no further filling or excavating, including that necessary for footings, foundations, large tree wells, retaining walls, or other features should be performed without the approval and observation of the Geotechnical Engineer or Engineering Geologist.

Final Grading Considerations: Care should be taken by the Contractor during final grading to preserve any berms, drainage terraces, interceptor swales, or other devices of a permanent nature on or adjacent to the property.

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APPENDIX G
PROCEDURE FOR TIE-BACK SOLDIER BEAMS

APPENDIX G

PROCEDURE FOR TIE-BACK SOLDIER BEAMS

1. Piles are to be machined drilled and accurately located so that the soldier beams are in the proper relation to the face of the new retaining wall. Protection shall be provided against sloughing or caving as required.

2. Placed soldier beams or reinforced steel cage as required.

3. Fill pile with concrete (lean for wood lagging or as designed for gunite lagging).

4. Start excavating and placing lagging between beams in lifts.

5. Excavate down to the level of the top tie-back. Drill anchor hole to design depth, install hollow-stem rod or strands, pour or inject concrete to anchor penetration length, and backfill above grout to back of shoring beam with lean slurry or sand.

6. When anchor grout in penetration length has attained minimum design compressive strength, stress rod to 150 percent of the required loads per structural design.

   6.1. Anchors shall be stressed straight and true. Kinking or sharp curvature in anchors under tension shall be cause for rejection.

   6.2. Rod (or strand) shall not show excessive movement during testing, and the testing jack shall be capable of holding the test load with no excessive bleeding off of pressure.

7. Unless otherwise approved by the Geotechnical Engineer, 10 percent of the anchors shall be tested to 200 percent of the design load. In addition, a representative sample of these tie-back anchors shall be tested for a time period of 24 hours.

8. The Geotechnical Engineer shall inspect and approve the testing of all anchors and shall keep a record of all test loads and total anchor movements and certify to their accuracy. This record shall be kept on the job site and shall be available for inspection by the Building Inspector.

9. Repeat steps four to six next tie-back below, as needed.

10. Continue excavation and placement of lagging in lifts until bottom of excavation has been reached.

RESPONSE TO CITY OF LOS ANGELES DEPARTMENT OF BUILDING AND SAFETY GRADING DIVISION SOILS REPORT CORRECTION LETTER DATED MAY 16, 2017, LOG NO. 97858, REGARDING THE PROPOSED MULTI-STORY BUILDINGS WITH SUBTERRANEAN PARKING,

Lots 1 through 12, Tract 42011,
Woodland Hills, California

for

Adler Realty Investments, Inc.

August 26, 2019 W.O. 6743

MDN 20931

GeoSoils Consultants Inc.
GEOTECHNICAL GEOLOGIC ENVIRONMENTAL

August 26, 2019
W.O. 6743

ADLER REALTY INVESTMENTS, INC.
21031 Warner Center Lane, Suite C
Woodland Hills, California 91367

Attention: Richard S. Gable

Subject: Response to City of Los Angeles Department of Building and Safety Grading Division Soils Report Correction Letter dated May 16, 2017, Log No. 97858, Regarding the Proposed Multi-Story Buildings with Subterranean Parking, Lots 1 through 12, Tract 42011, Woodland Hills, California

Reference: GeoSoils Consultants, Inc. dated April 24, 2017, "Geologic and Geotechnical Engineering Report, Proposed Multi-Story Buildings with Subterranean Parking, Lots 1 through 12, Tract 42011, Woodland Hills, California"

INTRODUCTION

As requested, GeoSoils Consultants, Inc. (GSC) has prepared this response to the City of Los Angeles Review Letter dated May 16, 2017 (Log No. 97858). A brief and updated discussion regarding aspects of the proposed development is provided below followed by an itemized response to review comments. GSC previously submitted a Geotechnical Engineering Report dated April 24, 2017. A copy of the City of Los Angeles review letter is included in this report.

6634 Valjean Avenue, Van Nuys, California 91406 Phone: (818) 785-2158 Fax: (818) 785-1548

This report has been prepared in accordance with generally accepted geotechnical engineering and geologic practices.

LIQUEFACTION ANALYSIS

Based on our subsurface explorations, the site is underlain predominately by clay with layers of sandy and clayey silts interbedded with occasional thin layers of sand and silty sand. The silts vary from soft to hard, whereas the sands are predominately medium-dense. At the time of exploration (June 2014), groundwater at the subject site varied from approximately 21 to 25 feet below existing ground surface.

The results of sieve and hydrometer tests, provided in the referenced report as Plates G-1 to G-5, indicate the soil underlying the site to be largely comprised of sandy and clayey silts. Therefore, after review of the gradation curves, the sandy and clayey silts as noted in our boring logs (A-1 through A-12) and cone penetration tests (A-13 through A-18), were considered to have, at a minimum, a fines content of 50 percent. These layers were not ruled out completely from liquefaction consideration but their susceptibly was deemed very low. As a result, a fines content of 50 percent was assigned and utilized in the liquefaction analysis of these layers. However, occasional thin sand and silty sand zones were encountered in most borings, which appear to have the necessary characteristics for liquefaction potential during a large seismic event. The revised analysis included herein only specifies fines content for specific layers which have supporting grain size analysis data.

The liquefaction potential of the materials identified in the borings was analyzed using the LiquefyPro software for empirically predicting earthquake induced liquefaction potential. The analysis presented in the referenced report, dated April 24, 2017, was based entirely on SPT blow-count data obtained during our subsurface exploration; which began at a depth of 25 feet in Boring B-1 and 34 feet in Boring B-5. In an effort to satisfy an examination of the entire soil profile from existing grade, liquefaction analyses for all six CPTs have been performed to supplement the boring SPT data. A more detailed description of the methodologies used and resulting output is provided in Appendix A.

EARTH MATERIALS

The following general descriptions of materials were encountered during our exploration:

Artificial Fill (af): Artificial fill, which consisted primarily of silty clay, was encountered in Borings B-1 through B-5 to depths ranging from approximately 5 to 8 feet below the ground surface. The fill was moderately dense.

Alluvium (Qal): Alluvial soil exists on the site above bedrock. Total alluvial thickness is greater than 75 feet, as shown in the boring logs performed on the site, and potentially greater than 100 feet. The alluvium consisted of multiple layers of soft to hard, sandy to clayey silts and silty to sandy clays, with thin lenses of medium-dense sand and silty sands. The alluvial soils have a medium expansion index and are subject to consolidation under load.

Modelo Formation Bedrock (Tm) : This material was not encountered during subsurface exploration; however, bedrock of the Miocene Modelo formation most likely underlies the alluvial soils on the site. Bedrock in this area typically consists of a dark gray to black, very dense, marine siltstone with occasional claystone layering.

Boring logs are enclosed in Appendix A of the referenced report and provide detailed descriptions of the soil strata encountered during subsurface exploration.

GROUNDWATER DEPTH

At the time of exploration (June 2014), groundwater was encountered within all five borings at depths ranging from 21 to 25 feet below existing ground surface elevation. It is anticipated that the water table is at a nearly constant elevation, and differences in surface topography account for the variations to the depth of groundwater below the surface. However, it should be noted that perched groundwater levels typically fluctuate and may vary in response to season, precipitation patterns, construction activities, site utilization and other factors.

SOIL EXPANSION

Onsite materials were collected during our exploration for laboratory testing of expansion. The expansion tests were performed according to ASTM-D4829-11. The test results indicated an expansion index of 51 (medium expansion). Soil expansion is not considered a hazard to the site. All foundations, however, should be designed for expansive soil conditions and adequate landscape drainage is recommended to maintain the soil at a fairly consistent moisture content. It is recommended that positive drainage be implemented such that runoff surface water can outlet away from on-site structures.

DEEPENED FOUNDATIONS

Deepened foundations may be used; however, the foundation type for the various proposed structures should be determined by the Structural Engineer. Driven piles provide greater load bearing capacity resulting in fewer piles for a given structure. However, minimum penetration requirements may be difficult to achieve given the potential for seismically induced settlement. In such cases, drilled piles may be preferred dependent on the anticipated loads of the proposed structures per the Structural Engineer.

CITY OF LOS ANGELES REVIEW LETTER DATED MAY 16, 2017

A total of 14 comments were made in the City of Los Angeles review letter concerning the proposed project. Each comment is listed followed by our response.

Comment 1

Provide cross sections showing the property lines, the depth below ground surface of the proposed buildings, and the location and depth below ground surface of the adjacent structures. Show the proposed building numbers on the grading plan/geotechnical map.

Response to Comment 1

Cross sections showing the requested information are provided in this report as Plate 2. The proposed building numbers are shown on the Geotechnical Map, Plate 1.

Comment 2

Clarify if the on-site infiltration is proposed for the proposed development. If an infiltration system is proposed, an evaluation on the following items is required:

a. Potential on creating perched ground water conditions.
b. Susceptibility for hydroconsolidation.
c. Influence of the proposed infiltration system on adjacent proposed/existing foundations and retaining walls.
d. Liquefaction analysis in conformance with the most recent version of CGS Special Publication 117 (i.e. SP 117A), Guidelines for Evaluating and Mitigating Seismic Hazards in California (1803.7.2), and with the Department guidelines presented in the Memorandum dated 07/16/2014. Assume the design ground water table (i.e., the ground water during an earthquake) is at the proposed level of infiltration.
e. Setback recommendations from existing structures and property lines.

Response to Comment 2

Acknowledged. The proposed development will include on-site infiltration conforming to the City's LID requirements; however, infiltration BMPs have not been developed at this time. An addendum report addressing the items in Comment 2 will be prepared once further information is provided.

Comment 3

A utility easement is shown on the site exploration map. Show in the cross sections the location of utility pipes/culverts relative to the proposed structures.

Response to Comment 3

The cross-sections provided herein as Plate 2 shows the existing storm drain and its location relative to the proposed structures.

Comment 4

Evaluate the impact of the proposed development on the utility pipes/culverts.

Response to Comment 4

Two storm drain easements exist on-site as shown on Plate 1. Both easements are located outside proposed building areas. At this time, the depth of existing pipes are not known. Once this information becomes available, if the existing pipes are unable to handle traffic loading, recommendations will be provided to protect the pipes in place.

Comment 5

Revise the section titled "Earth materials" to include the existing fill description, in accordance with boring logs.

Response to Comment 5

A revised discussion on Earth Materials is discussed in this report with a description for the existing fill encountered during exploration.

Comment 6

Review and revise the fine content used in the liquefaction analyses. For borings B-1, 69% fines was used for the layer that is described as sand. For boring B-2, although there are no grain size analyses, 50% fines was used for a sand layer.

Response to Comment 6

As previously discussed, a revised liquefaction analyses is provided in Appendix A. Fines content has been specified for specific layers which have supporting grain size analysis data.

Comment 7

Explain why the liquefaction analyses do not address the liquefaction potential above 25 feet (boring B-1) and 34 feet (boring B-5) below ground surface. Although it is apparent these elevations represent the floor elevations for 2 and 3 subterranean levels, the liquefaction analyses shall address the entire soil profile since the results and conclusions from these analyses are used for all proposed structures, including at-grade and 1 subterranean level buildings.

Response to Comment 7

Acknowledged. A revised liquefaction analyses is provided in Appendix A and a discussion on data used to evaluate the soil profile is discussed in this report. Analyses of the six CPTs performed during field exploration is included herein to supplement the boring SPT data.

Comment 8

Provide seismic and static settlement analyses for the pile foundation. The Department has combined static and seismic settlement limits of 1 1/2 inches and 3/4 inches for total and differential settlements, respectively, for the use of conventional foundations. For mat-type foundations, the combined static and seismic settlement limits are 4 inches and 2 inches for total and differential settlements, respectively. If these limits are exceeded, the Department requires the use of other foundation systems or ground improvement.

Response to Comment 8

At this time, building loads for each building have not been determined. Due to the calculated seismic settlement, as discussed in Appendix A, it is anticipated that deepened foundations will be required. Once building loads are available, detailed foundation designs will be prepared and submitted to the City for review.

Comment 9

Provide liquefaction analyses for the predominant earthquake magnitude obtained using a 2% probability of exceedance in 50 years.

Response to Comment 9

Acknowledged. The revised liquefaction analyses included in this report considers both a 2% and 10% probability of exceedance for the borings, and a 10% probability for CPT-based analyses.

Comment 10

Define the competent material. The section titled “Deepened Foundations” specifies that the piles should extend a minimum 5 feet into competent material.

Response to Comment 10

All pile should extend a minimum of 5 feet into alluvium. However, pile depth will be dictated by building loads.

Comment 11

The code requires analysis for group effects on axial behavior where the center-to-center spacing of deep foundation elements is less than three times the least horizontal dimension of an element. Where this occurs for the proposed pile layout, provide said analysis and recommendations for reduction factors as appropriate. (1810.2.5)

Response to Comment 11

Acknowledged. At this time, pile foundation plans have not been received by this office. Once available the requested information will be provided in an addendum report.

Comment 12

Revise the recommendations for retaining wall drainage location. As recommended in the report, the wall drain is located below ground water and its capacity to drain all that volume of water shall be verified. As an alternative, the subdrain system shall be located above the historically high groundwater level.

Response to Comment 12

Acknowledged. See *Response to Comment 14*.

Comment 13

Revise recommendations for uniformly distributed surcharges in accordance with Information Bulletin P/BC 2017-141. The recommended 30% of the vertical surcharge appears to apply to cantilever walls.

Response to Comment 13

Acknowledged. All surcharge loads should be distributed per Information Bulletin P/BC 2017-141.

Comment 14

Clarify if the recommendations for designing the wall for hydrostatic pressure shall apply to the entire wall.

Response to Comment 14

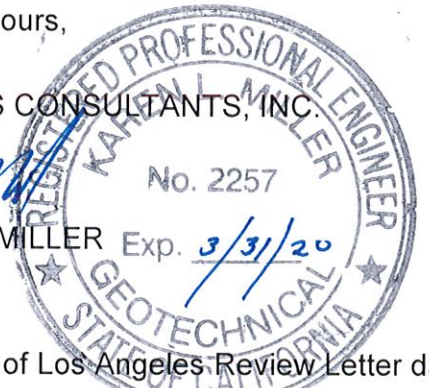
The historical high groundwater table is located approximately 30 feet below existing grade. However, as previously discussed, groundwater was encountered at depths ranging from 21 to 25 feet. Therefore, any buildings/walls extending 21 feet or more below existing grade should be designed to withstand hydrostatic pressure buildup.

CLOSURE

We appreciate this opportunity to be of service to you. If you have any questions regarding the content of this report or any other aspects of the project, please do not hesitate to contact us.

Very truly yours,

GEOSOILS CONSULTANTS, INC.



KAREN L. MILLER
GE 2257

JONATHAN GURUNATHAN
Staff Engineer

Encl: City of Los Angeles Review Letter dated May 16, 2017
Plate 1, Geotechnical Map
Plate 2, Geologic Cross-Sections
Appendix A, Liquefaction and Seismic Settlement Analyses

cc: (2) City of Los Angeles Department of Building & Safety

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EXECUTIVE OFFICER

SOILS REPORT REVIEW LETTER

May 16, 2017

LOG # 97858
SOILS/GEOLOGY FILE - 2
LIQ

Richard S Gable
Adler Realty Investments, Inc.
21031 Warner Center Lane, Suite C
Woodland Hills, CA 91367

TRACT:	TR 42011
LOT(S):	1 / 2 / 3 / 4 / 5 / 7 / 8 / 9 / 6 / 12 / 11 / 10
LOCATION:	20935 / 20955 / 21011 / 21031 / 21051 / 20970 / 20950 / 20920 W Warner Center Lane / 21041 / 20971 / 20951 / 20931 W Burbank Blvd.

CURRENT REFERENCE REPORT/LETTER(S)	REPORT No.	DATE(S) OF DOCUMENT	PREPARED BY
Soils Report	W.O. 6743	04/24/2017	GeoSoils Consultants, Inc.
Oversized Doc(s).	``	``	``

The Grading Division of the Department of Building and Safety has reviewed the referenced report that provides recommendations for the proposed construction of ten mixed-used residential/commercial buildings including four high-rise buildings, several apartment buildings, office buildings, a condominium building and a hotel.

The earth materials at the subsurface exploration locations consist of up to 8 feet of uncertified fill underlain by alluvial deposits. The consultants recommend to support the proposed structures on drilled-*pile* foundations bearing on native undisturbed soils.

The site is located in a designated liquefaction hazard zone as shown on the Seismic Hazard Zones map issued by the State of California.

The review of the subject report cannot be completed at this time and will be continued upon submittal of an addendum to the report which shall include, but not be limited to, the following:

Note: Numbers in parenthesis ( ) refer to applicable sections of the 2017 City of LA Building Code. P/BC numbers refer the applicable Information Bulletin. Information Bulletins can be accessed on the internet at LADBS.ORG.

AN EQUAL EMPLOYMENT OPPORTUNITY - AFFIRMATIVE ACTION EMPLOYER

1. Provide cross sections showing the property lines, the depth below ground surface of the proposed buildings, and the location and depth below ground surface of the adjacent structures. Show the proposed building numbers on the grading plan/geotechnical map.

2. Clarify if the on-site infiltration is proposed for the proposed development. If an infiltration system is proposed, an evaluation on the following items is required:

   a. Potential on creating perched ground water conditions.

   b. Susceptibility for hydroconsolidation.

   c. Influence of the proposed infiltration system on adjacent proposed/existing foundations and retaining walls.

   d. Liquefaction analysis in conformance with the most recent version of CGS Special Publication 117 (i.e. SP 117A), Guidelines for Evaluating and Mitigating Seismic Hazards in California (1803.7.2), and with the Department guidelines presented in the Memorandum dated 07/16/2014. Assume the design ground water table (i.e., the ground water during an earthquake) is at the proposed level of infiltration.

   e. Setback recommendations from existing structures and property lines.

3. A utility easement is shown on the site exploration map. Show in the cross sections the location of the utility pipes/culverts relative to the proposed structures.

4. Evaluate the impact of the proposed development on the utility pipes/culverts.

5. Revise the section titled "Earth materials" to include the existing fill description, in accordance with boring logs.

6. Review and revise the fine content used in the liquefaction analyses. For borings B-1, 69% fines was used for the layer that is described as sand. For boring B-2, although there are no grain size analyses, 50% fines was used for a sand layer.

7. Explain why the liquefaction analyses do not address the liquefaction potential above 25 feet (boring B-1) and 34 feet (boring B-5) below ground surface. Although it is apparent that these elevations represent the floor elevations for 2 and 3 subterranean levels, the liquefaction analyses shall address the entire soil profile since the results and conclusions from these analyses are used for all proposed structures, including at-grade and 1 subterranean level buildings.

8. Provide seismic and static settlement analyses for the pile foundation. The Department has combined static and seismic settlement limits of 1½ inches and ¾ inches for total and differential settlements, respectively, for the use of conventional foundations. For mat-type foundations, the combined static and seismic settlement limits are 4 inches and 2 inches for total and differential settlements, respectively. If these limits are exceeded, the Department requires the use of other foundation systems or ground improvement.

9. Provide liquefaction analyses for the predominant earthquake magnitude obtained using a 2% probability of exceedance in 50 years.

10. Define the competent material. The section titled "Deepened Foundations" specifies that the piles should extend minimum 5 feet into competent material.

11. The Code requires analysis for the group effects on axial behavior where the center-to-center spacing of deep foundation elements is less than three times the least horizontal dimension of an element. Where this occurs for the proposed pile layout, provide said analysis and recommendations for reduction factors as appropriate. (1810.2.5)

12. Revise the recommendations for retaining wall drainage location. As recommended in the report, the wall drain is located below ground water and its capacity to drain all that volume of water shall be verified. As an alternative, the subdrain system shall be located above the historically-high groundwater level.

13. Revise recommendations for uniformly distributed surcharges in accordance with Information Bulletin P/BC 2017-141. The recommended 30% of the vertical surcharge appears to apply to cantilever walls.

14. Clarify if the recommendations for designing the wall for hydrostatic pressure shall apply to the entire wall.

The soils engineer shall prepare a report containing an itemized response to the review items indicated in this letter. If clarification concerning the review letter is necessary, the report review engineer may be contacted. Two copies of the response report, including one unbound wet-signed original for archiving purposes, a pdf-copy of the complete report in a CD or flash drive, and the appropriate fees will be required for submittal.

Dan Stoica

DAN L. STOICA
Geotechnical Engineer I

DLS/dls
Log No. 97858
213-482-0480

cc: GeoSoils Consultants, Inc., Project Consultant
VN District Office

EXPLANATION

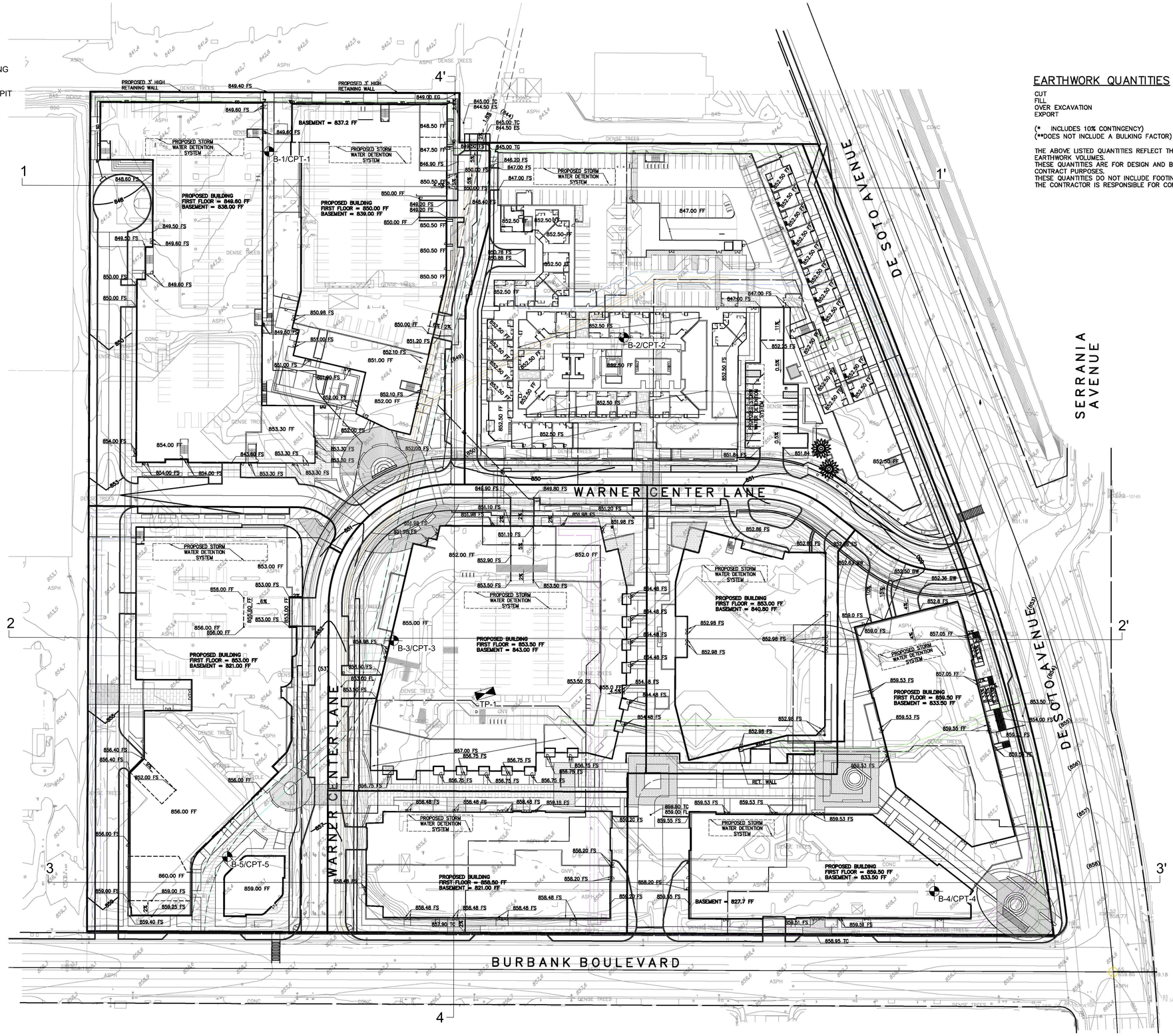
af ARTIFICIAL FILL

Qal ALLUVIUM

4 ——— 4' LINE OF GEOLOGIC SECTION

B-5/CPT-5 APPROXIMATE LOCATION OF BORING

TP-1 APPROXIMATE LOCATION OF TEST PIT



EARTHWORK QUANTITIES

CUT	400,000 CY*
FILL	25,000 CY*
OVER EXCAVATION	60,000 CY*
EXPORT	375,000 CY**

(* INCLUDES 10% CONTINGENCY)
(**DOES NOT INCLUDE A BULKING FACTOR)

THE ABOVE LISTED QUANTITIES REFLECT THE ENGINEER'S ESTIMATE OF THE EARTHWORK VOLUMES.
THESE QUANTITIES ARE FOR DESIGN AND BONDING PURPOSES ONLY, AND NOT FOR CONTRACT PURPOSES.
THESE QUANTITIES DO NOT INCLUDE FOOTING VOLUMES.
THE CONTRACTOR IS RESPONSIBLE FOR COMPUTING HIS OWN QUANTITIES.

N

50 25 0 50 100

GRAPHIC SCALE: 1"=50'

Note: For reduced sized prints, original scale is in inches

GSC GeoSoils Consultants Inc.
GEOTECHNICAL • ENGINEERING GEOLOGY • ENVIRONMENTAL
6634 Valjean Avenue
Van Nuys, CA 91406

GEOTECHNICAL MAP
WARNER CENTER CORPORATE PARK
SEG ADVISORS

WORK ORDER	DATE	SCALE
6743	8/2019	1" = 50'

REVISED ____ ____

PLATE 1

MDN 20931

1 OF 2

APRIL 24, 2017

GRADING PLAN

PREPARED FOR:
ADLER REALTY
address1 here
address 2 here

PSOMAS
555 South Flower Street, Suite 4300
Los Angeles, CA 90071
(213) 223-1400 (213) 223-1444 fax
www.psomas.com
ION CRETU DATE
REGISTERED PROFESSIONAL ENGINEER ION CRETU No. C71513 CIVIL STATE OF CALIFORNIA

De Soto Ave. & Burbank Blvd.

Woodland Hills, CA

VTBS #14019

1758 BERKELEY STREET
SANTA MONICA, CA 90404
TEL 310.594.8273 FAX 310.594.2424
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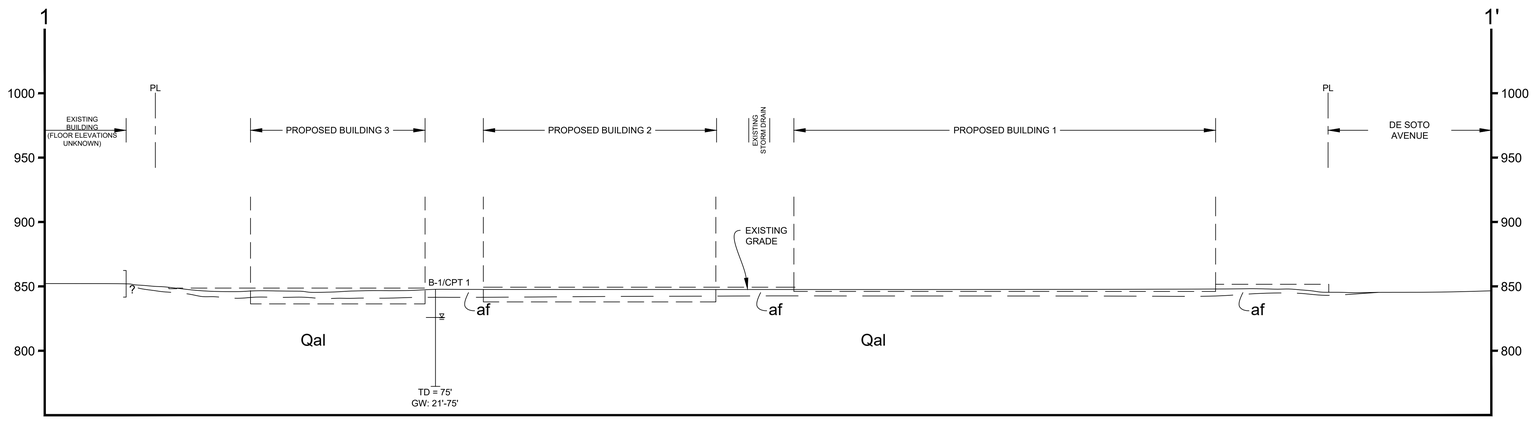

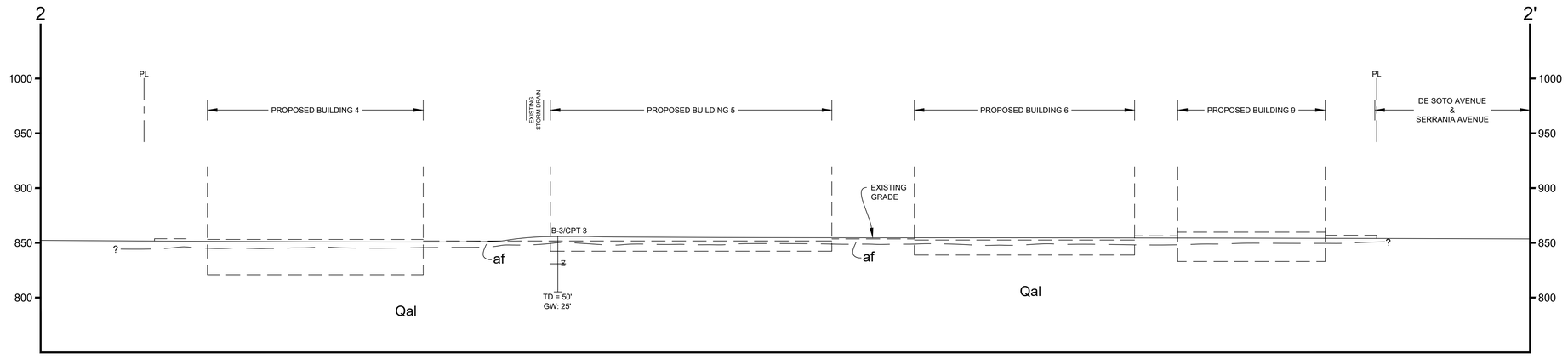

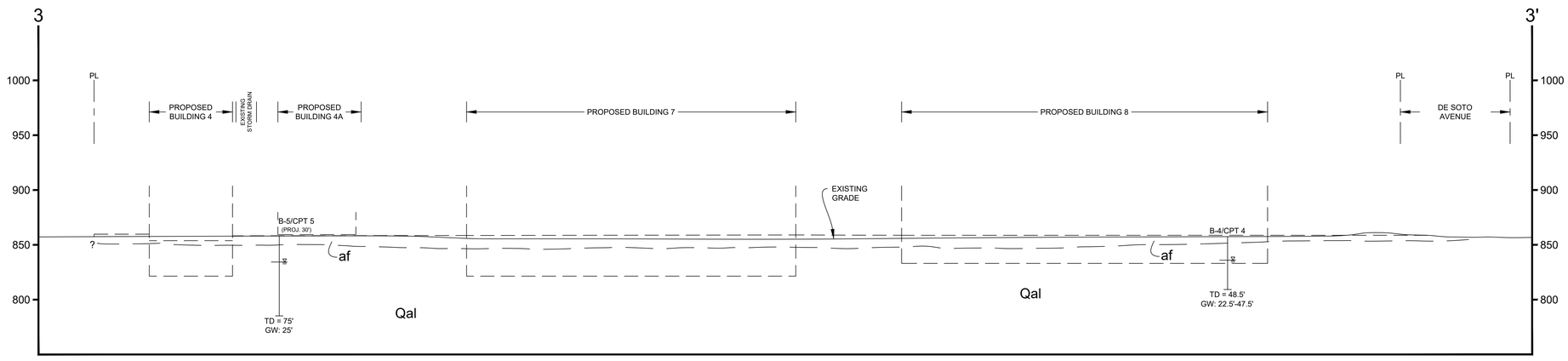

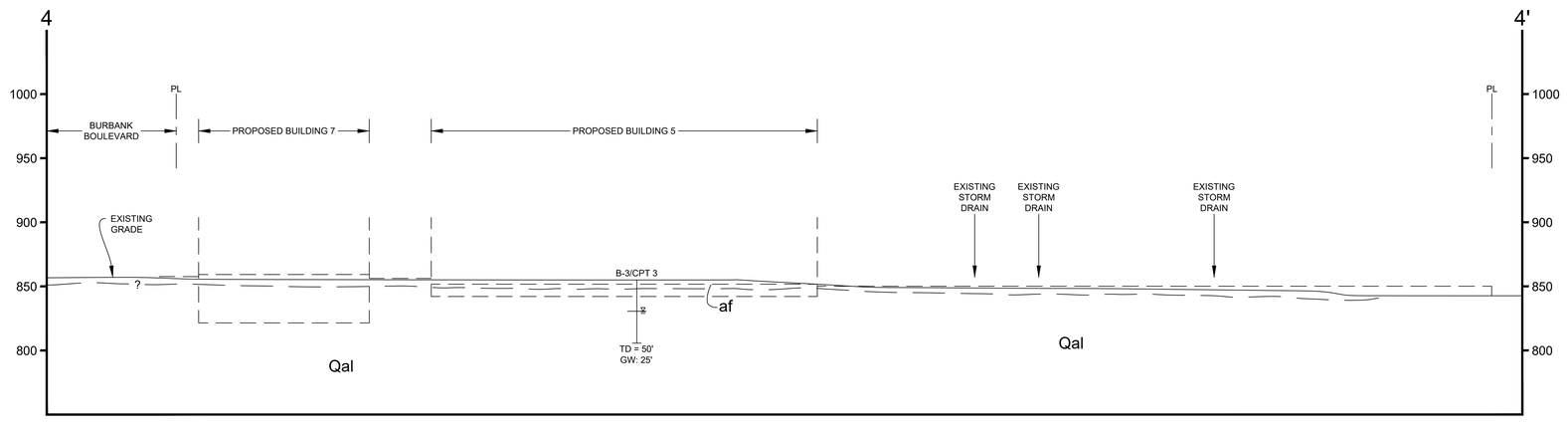

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GEOTECHNICAL • GEOLOGICAL • ENVIRONMENTAL

6634 Valjean Avenue
Van Nuys, CA 91406

GEOLOGIC CROSS-SECTIONS
WARNER CENTER CORPORATE PARK
SEG ADVISORS

WORK ORDER	DATE	SCALE
6743	8/2019	1" = 50'

REVISED

MDN 20931

PLATE 2

August 26, 2019
W.O. 6743

APPENDIX A

LIQUEFACTION AND SEISMIC SETTLEMENT ANALYSES

August 26, 2019
W.O. 6743

APPENDIX A

LIQUEFACTION AND SEISMIC SETTLEMENT ANALYSES

Introduction

Liquefaction describes a phenomenon where cyclic stresses, which are produced by earthquake-induced ground motions, create excess pore pressures in predominately cohesionless soils. As a result, the soils may acquire a high degree of mobility, which can lead to lateral spreading, consolidation, and settlement of loose sediments, ground oscillation, flow failure, loss of bearing strength, ground fissuring, sand boils, and other damaging deformations. This phenomenon occurs only below the water table, but after liquefaction has developed and can propagate upward into overlying, non-saturated soil.

Research has shown that saturated, loose sands with silt content less than about 25 percent are most susceptible to liquefaction, whereas other soil types are generally considered to have a low susceptibility. A screening criteria developed by Bray and Sancio (2006) is utilized to determine the potential for liquefaction in a soil and an additional criteria provided by Boulanger and Idriss (2006) determines if soils exhibit sand-like or clay-like behavior.

Seismically-induced settlement in unsaturated (dry) and saturated soils generally occur due to the dissipation of pore pressure in a liquefiable soil layer. The controlling factors affecting settlement in saturated sands consist of the pore pressure drainage path, magnitude and duration of the seismic event, cyclic stresses, maximum shear strains, and the recorded normalized SPT blow-counts, $(N_1)60$, of the soils.

The potential for seismically-induced settlement is greatest in loose granular soils (i.e., sands and silty sands), whereas cohesive soils (i.e., clays and silts) are generally not prone to settlement. It should be noted that granular soils are susceptible to settlement during a seismic event whether the soils liquefy or not.

Appendix A

Procedure

The method of liquefaction assessment in this report is based on the "simplified procedure" originally developed by Seed and Idriss (1971, 1982), with subsequent refinements by Seed et al. (1983), Seed and De Alba (1986), and Seed and Harder (1990). As generally defined by, CGS Special Publication 117A: Guidelines for Analyzing and Mitigating Liquefaction Hazards in California, the procedure compares the cyclic resistance ratio (CRR) with the earthquake-induced cyclic stress ratio (CSR) at that depth from a specified design earthquake. The CRR is the ratio required to induce liquefaction for a cohesionless soil stratum at a given depth and is essentially the capacity of the soil to resist liquefaction. The CSR is defined generally as the seismic demand placed on a soil layer or the peak ground surface acceleration and an associated earthquake moment magnitude.

Values of CRR were established that were empirically correlated using extensive databases for sites that did or did not liquefy during previous earthquakes, values of (N1)60 could be correlated with the liquefied soil zones. The 1997 version of the baseline chart defines values of CRR as a function of (N1)60 for a moment magnitude 7.5 earthquake, CSR, and the percent fines. The factor of safety against liquefaction is obtained by calculating the ratio of CRR and CSR. The potential for seismically-induced settlement occurs when the factor of safety is less than 1.1 for 10% probability and 1.0 for 2% probability of exceedance.

The "Simplified Procedure" was modified by Robertson and Wride (Youd and Idriss, 1977) for determining liquefaction strengths for clean sands from CPT probing data. The correlation developed by Robertson and Wride correlates the CSR and the corrected and normalized CPT resistance, qc1N. Robertson and Wride developed a graph similar to the graph by Youd and Idriss (1977), which determines the CRR from the corrected CPT tip resistance, qc1N, CSR, and the cyclic shear strain potential, γe. The curve separates regions of the plot with data indicative of liquefaction from regions indicative of non-liquefaction. The factor of safety against liquefaction is once again determined by calculating the ratio of CRR and CSR.

Appendix A

The methodology used in estimating probable seismically-induced settlement in unsaturated and saturated soil deposits from SPT data is based on the procedures suggested by CGS Special Publication 117A and Tokimatsu and Seed (1987) with a magnitude scaling factor. Probable seismically-induced settlement from CPT data utilizes methods specified by Robertson and Wride (1997), an iterative process based on the soil behavior type index, Ic. The settlement analysis considers very thin layers for the soil deposit and calculates the settlement for each layer. The total settlement is the sum of these settlements in both dry (soil above the groundwater table) and saturated soils at their respective depths.

The CRR curves are based on clean sands, necessitating fines content correction to accurately assess liquefaction potential. Fines content correction for SPT data is generated using formulas developed by Idriss and Seed (1997). For specific depths where gradation tests were performed, the value of percent fines obtained from testing was used in the analysis. Gradation curves corresponding to those depths are provided in the referenced report. The method employed for CPT data by Robertson and Wride includes fines content correction in the procedure.

Analysis

The assessment of liquefaction potential provided in this report maintains current code requirements and generally accepted practice. The screening process previously described herein was utilized and the results are presented in Table A-1.

TABLE A-1
LIQUEFACTION SUSCEPTIBILITY

Boring	Depth (ft)	Plasticity Index	Liquid Limit	Water Content (%)	Bray & Sancio	Boulanger & Idriss
B-1	30	15.6	31.0	24.3	Susceptible	Clay-like
	50	19.1	34.1	23.7	Not Susceptible	Clay-like
B-2	24	19.3	34.2	21.1	Not Susceptible	Clay-like
B-3	35	24.0	39.5	28.3	Not Susceptible	Clay-like
B-4	22.5	15.9	34.6	29.7	Susceptible	Clay-like

Appendix A

The liquefaction analyses utilized predominant earthquake magnitudes based on 2 percent and 10 percent probability of exceedance in 50 years, obtained from the USGS. Analyses based on a 2 percent probability utilized the full PGAM with no reduction while analyses based on a 10 percent probability correspond to two-thirds of the PGAM.

Historical high groundwater for the site is approximately 30 feet below grade according to the Division of Mines and Geology Seismic Hazard Zone Evaluation of the Canoga Park 7.5 minute Quadrangle, Seismic Hazard Zone Report. While performing the borings, however, groundwater was encountered at depths ranging from 21 to 25 feet. This is taken into account in the liquefaction analysis. Table A-2 shows a summary of the parameters used in this analysis. Site exploration for the assessment of liquefaction potential is based on Borings B-1 and B-5 as these borings reach depths of 75 feet and provide sufficient SPT data. In addition, supporting analyses was performed on cone penetration tests, CPT-1 and CPT-5 which correspond to the aforementioned borings, as shown on Plate 1.

TABLE A2
ANALYSIS PARAMETERS

Description	Value
2% Earthquake Magnitude	6.78
10% Earthquake Magnitude	6.74
2/3 PGA_M	0.453 g
PGA_M	0.680 g
Design Groundwater Table	21 feet
Energy Ratio, C_E	1.42
Borehole Diameter, C_B	1.0
Sampling Method, C_S	1.2

Results

Based on the exploration results of this investigation, the potential for liquefaction does exist within the area of study. The analyses presented herein do not account for layers of sandy and clayey silts on the site which, based on the results of sieve and hydrometer testing, generally consist of more than 50 percent fines content and as such are not liquefiable, rendering the SPT-based analysis herein considerably conservative. If liquefaction should

Appendix A

develop in liquefiable soil layers, the migration of excess pore pressure within these layers (i.e., the movement of water) and potential settlement would be limited due to the confinement of these layers by these less permeable silts and clays. Therefore, the potential for liquefaction on the site poses a low risk to site development, provided the conclusions and recommendations contained herein are incorporated into the final design and construction of the project.

The seismically-induced settlement analyses were performed to a depth of 75 feet below existing grade and based on SPT and CPT data previously discussed. Table A-3 lists the results of the settlement analyses using the Liquefy Pro software. Differential settlement is approximately 2.4-inches and was taken to be 1/2 of the maximum total settlement. The results indicate the highest potential settlement value correspond to Boring B-1. As previously discussed, it is anticipated that deepened foundations will be used, thereby mitigating serious liquefaction hazards. All data regarding the analysis is enclosed in this appendix.

TABLE A-3
SEISMIC SETTLEMENT

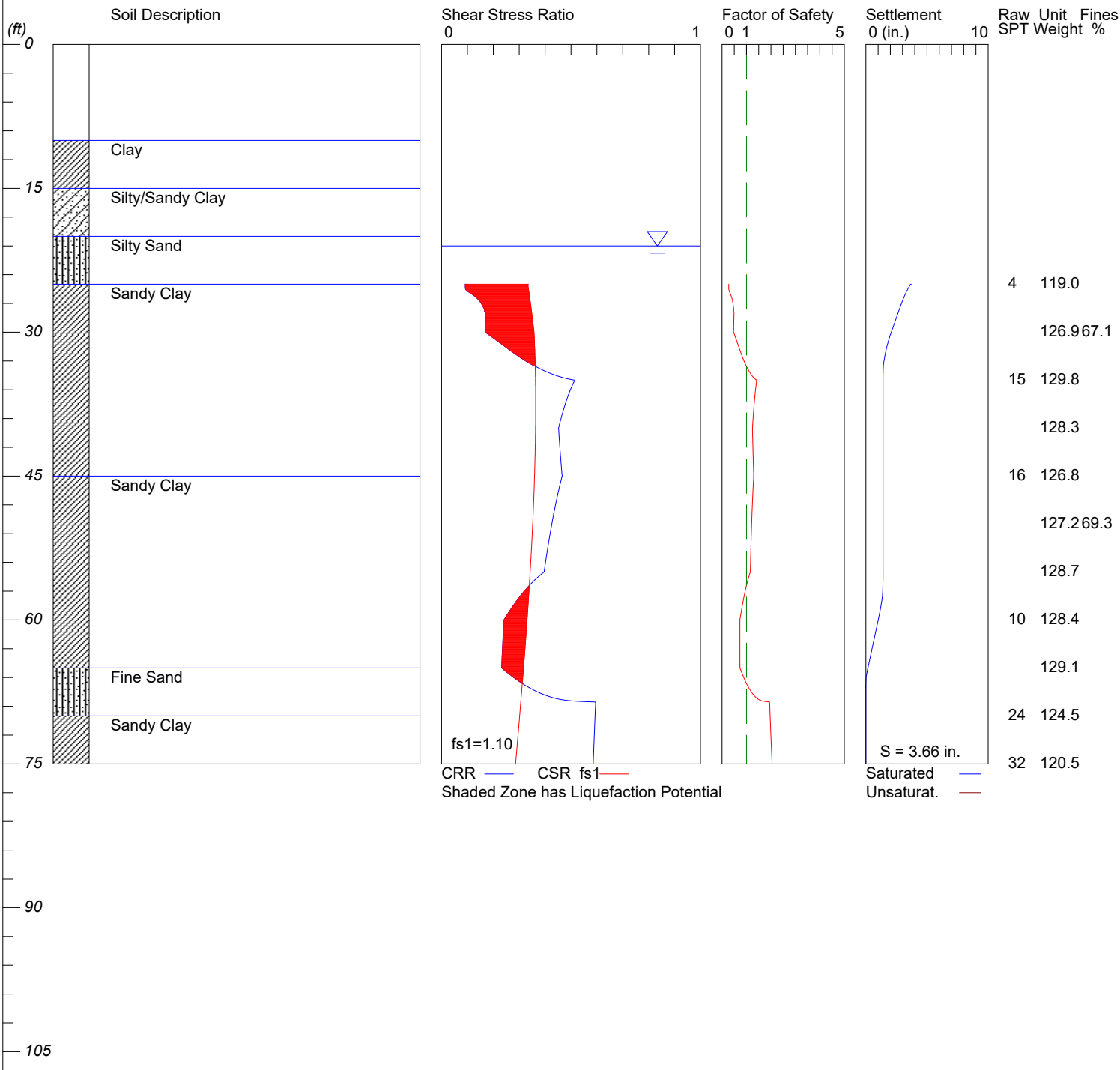
Boring/CPT	REDUCED PGAM at 10% PROBABILITY (FS 1.1)			FULL PGAM at 2% PROBABILITY (FS 1.0)		
	Saturated Settlement (in)	Unsaturated Settlement (in)	Total settlement (in)	Saturated Settlement (in)	Unsaturated Settlement (in)	Total settlement (in)
B-1	3.66	0	3.66	6.39	0	6.39
B-5	4.81	0	4.81	6.16	0	6.16
CPT-1	0.25	0	0.25			
CPT-2	0.11	0.03	0.14			
CPT-3	0.11	0	0.11			
CPT-4	0	0	0			
CPT-5	0.08	0.04	0.12			
CPT-6	0.04	0.01	0.05			

LIQUEFACTION ANALYSIS

De Soto/Burbank

Hole No.=B-1 Water Depth=21 ft

Magnitude=6.74
Acceleration=0.453g



LiquefyPro CivilTech Software USA www.civiltech.com

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LIQUEFACTION ANALYSIS SUMMARY
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www.civiltech.com

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Input File Name: C:\Users\jonne\OneDrive\Work\Projects\6743 -- Adler Realty August 2019 Update\Liquefaction\B-1 Reduced PGA.liq
Title: De Soto/Burbank
Subtitle: 10% Probability - Reduced PGAm

Surface Elev.=
Hole No.=B-1
Depth of Hole= 75.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration= 0.45 g
Earthquake Magnitude= 6.74

Input Data:
Surface Elev.=
Hole No.=B-1
Depth of Hole=75.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration=0.45 g
Earthquake Magnitude=6.74
No-Liquefiable Soils: Based on Analysis

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Tokimatsu, M-correction
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.42
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1.2
9. User request factor of safety (apply to CSR) , User= 1.1
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
25.00	4.00	119.00	0.00
30.00	4.00	126.90	67.10
35.00	15.00	129.80	67.10
40.00	15.00	128.30	67.10
45.00	16.00	126.80	67.10
50.00	16.00	127.20	69.30
55.00	16.00	128.70	69.30
60.00	10.00	128.40	69.30
65.00	10.00	129.10	69.30
70.00	24.00	124.50	69.30
75.00	32.00	120.50	69.30

Output Results:
Settlement of Saturated Sands=3.66 in.
Settlement of Unsaturated Sands=0.00 in.
Total Settlement of Saturated and Unsaturated Sands=3.66 in.
Differential Settlement=1.828 to 2.412 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
25.00	0.09	0.33	0.28*	3.66	0.00	3.66
25.05	0.09	0.33	0.28*	3.63	0.00	3.63
25.10	0.09	0.33	0.28*	3.61	0.00	3.61
25.15	0.09	0.33	0.27*	3.59	0.00	3.59
25.20	0.09	0.33	0.27*	3.57	0.00	3.57

25.25	0.09	0.33	0.27*	3.54	0.00	3.54
25.30	0.09	0.33	0.27*	3.52	0.00	3.52
25.35	0.09	0.33	0.27*	3.50	0.00	3.50
25.40	0.09	0.34	0.27*	3.48	0.00	3.48
25.45	0.09	0.34	0.27*	3.46	0.00	3.46
25.50	0.09	0.34	0.28*	3.43	0.00	3.43
25.55	0.09	0.34	0.28*	3.41	0.00	3.41
25.60	0.10	0.34	0.28*	3.39	0.00	3.39
25.65	0.10	0.34	0.29*	3.37	0.00	3.37
25.70	0.10	0.34	0.29*	3.35	0.00	3.35
25.75	0.10	0.34	0.30*	3.33	0.00	3.33
25.80	0.10	0.34	0.31*	3.31	0.00	3.31
25.85	0.11	0.34	0.32*	3.29	0.00	3.29
25.90	0.11	0.34	0.32*	3.27	0.00	3.27
25.95	0.11	0.34	0.33*	3.25	0.00	3.25
26.00	0.12	0.34	0.34*	3.23	0.00	3.23
26.05	0.12	0.34	0.35*	3.22	0.00	3.22
26.10	0.12	0.34	0.36*	3.20	0.00	3.20
26.15	0.12	0.34	0.36*	3.18	0.00	3.18
26.20	0.13	0.34	0.37*	3.16	0.00	3.16
26.25	0.13	0.34	0.38*	3.15	0.00	3.15
26.30	0.13	0.34	0.38*	3.13	0.00	3.13
26.35	0.13	0.34	0.39*	3.11	0.00	3.11
26.40	0.13	0.34	0.40*	3.10	0.00	3.10
26.45	0.14	0.34	0.40*	3.08	0.00	3.08
26.50	0.14	0.34	0.41*	3.07	0.00	3.07
26.55	0.14	0.34	0.41*	3.05	0.00	3.05
26.60	0.14	0.34	0.42*	3.04	0.00	3.04
26.65	0.14	0.34	0.42*	3.02	0.00	3.02
26.70	0.15	0.34	0.42*	3.00	0.00	3.00
26.75	0.15	0.34	0.43*	2.99	0.00	2.99
26.80	0.15	0.34	0.43*	2.97	0.00	2.97
26.85	0.15	0.34	0.44*	2.96	0.00	2.96
26.90	0.15	0.34	0.44*	2.94	0.00	2.94
26.95	0.15	0.34	0.44*	2.93	0.00	2.93
27.00	0.15	0.34	0.45*	2.92	0.00	2.92
27.05	0.15	0.34	0.45*	2.90	0.00	2.90
27.10	0.16	0.34	0.45*	2.89	0.00	2.89
27.15	0.16	0.34	0.46*	2.87	0.00	2.87
27.20	0.16	0.34	0.46*	2.86	0.00	2.86
27.25	0.16	0.34	0.46*	2.84	0.00	2.84
27.30	0.16	0.34	0.46*	2.83	0.00	2.83
27.35	0.16	0.35	0.47*	2.81	0.00	2.81
27.40	0.16	0.35	0.47*	2.80	0.00	2.80
27.45	0.16	0.35	0.47*	2.78	0.00	2.78
27.50	0.16	0.35	0.47*	2.77	0.00	2.77
27.55	0.16	0.35	0.47*	2.76	0.00	2.76
27.60	0.17	0.35	0.48*	2.74	0.00	2.74
27.65	0.17	0.35	0.48*	2.73	0.00	2.73
27.70	0.17	0.35	0.48*	2.71	0.00	2.71
27.75	0.17	0.35	0.48*	2.70	0.00	2.70
27.80	0.17	0.35	0.48*	2.69	0.00	2.69
27.85	0.17	0.35	0.48*	2.67	0.00	2.67
27.90	0.17	0.35	0.49*	2.66	0.00	2.66
27.95	0.17	0.35	0.49*	2.64	0.00	2.64
28.00	0.17	0.35	0.49*	2.63	0.00	2.63
28.05	0.17	0.35	0.49*	2.62	0.00	2.62
28.10	0.17	0.35	0.49*	2.60	0.00	2.60
28.15	0.17	0.35	0.49*	2.59	0.00	2.59
28.20	0.17	0.35	0.49*	2.58	0.00	2.58
28.25	0.17	0.35	0.49*	2.56	0.00	2.56
28.30	0.17	0.35	0.49*	2.55	0.00	2.55
28.35	0.17	0.35	0.49*	2.53	0.00	2.53
28.40	0.17	0.35	0.49*	2.52	0.00	2.52
28.45	0.17	0.35	0.49*	2.51	0.00	2.51
28.50	0.17	0.35	0.48*	2.49	0.00	2.49
28.55	0.17	0.35	0.48*	2.48	0.00	2.48
28.60	0.17	0.35	0.48*	2.46	0.00	2.46
28.65	0.17	0.35	0.48*	2.45	0.00	2.45
28.70	0.17	0.35	0.48*	2.44	0.00	2.44
28.75	0.17	0.35	0.48*	2.42	0.00	2.42
28.80	0.17	0.35	0.48*	2.41	0.00	2.41
28.85	0.17	0.35	0.48*	2.40	0.00	2.40
28.90	0.17	0.35	0.48*	2.38	0.00	2.38
28.95	0.17	0.35	0.48*	2.37	0.00	2.37

29.00	0.17	0.35	0.48*	2.35	0.00	2.35
29.05	0.17	0.35	0.48*	2.34	0.00	2.34
29.10	0.17	0.35	0.48*	2.33	0.00	2.33
29.15	0.17	0.35	0.48*	2.31	0.00	2.31
29.20	0.17	0.35	0.48*	2.30	0.00	2.30
29.25	0.17	0.35	0.48*	2.28	0.00	2.28
29.30	0.17	0.35	0.48*	2.27	0.00	2.27
29.35	0.17	0.35	0.48*	2.26	0.00	2.26
29.40	0.17	0.35	0.48*	2.24	0.00	2.24
29.45	0.17	0.35	0.48*	2.23	0.00	2.23
29.50	0.17	0.36	0.48*	2.21	0.00	2.21
29.55	0.17	0.36	0.48*	2.20	0.00	2.20
29.60	0.17	0.36	0.47*	2.19	0.00	2.19
29.65	0.17	0.36	0.47*	2.17	0.00	2.17
29.70	0.17	0.36	0.47*	2.16	0.00	2.16
29.75	0.17	0.36	0.47*	2.15	0.00	2.15
29.80	0.17	0.36	0.47*	2.13	0.00	2.13
29.85	0.17	0.36	0.47*	2.12	0.00	2.12
29.90	0.17	0.36	0.47*	2.10	0.00	2.10
29.95	0.17	0.36	0.47*	2.09	0.00	2.09
30.00	0.17	0.36	0.47*	2.08	0.00	2.08
30.05	0.17	0.36	0.48*	2.06	0.00	2.06
30.10	0.17	0.36	0.49*	2.05	0.00	2.05
30.15	0.18	0.36	0.49*	2.03	0.00	2.03
30.20	0.18	0.36	0.50*	2.02	0.00	2.02
30.25	0.18	0.36	0.51*	2.01	0.00	2.01
30.30	0.18	0.36	0.51*	1.99	0.00	1.99
30.35	0.19	0.36	0.52*	1.98	0.00	1.98
30.40	0.19	0.36	0.53*	1.97	0.00	1.97
30.45	0.19	0.36	0.54*	1.96	0.00	1.96
30.50	0.19	0.36	0.54*	1.94	0.00	1.94
30.55	0.20	0.36	0.55*	1.93	0.00	1.93
30.60	0.20	0.36	0.56*	1.92	0.00	1.92
30.65	0.20	0.36	0.56*	1.91	0.00	1.91
30.70	0.20	0.36	0.57*	1.89	0.00	1.89
30.75	0.21	0.36	0.58*	1.88	0.00	1.88
30.80	0.21	0.36	0.59*	1.87	0.00	1.87
30.85	0.21	0.36	0.59*	1.86	0.00	1.86
30.90	0.21	0.36	0.60*	1.85	0.00	1.85
30.95	0.22	0.36	0.61*	1.83	0.00	1.83
31.00	0.22	0.36	0.61*	1.82	0.00	1.82
31.05	0.22	0.36	0.62*	1.81	0.00	1.81
31.10	0.23	0.36	0.63*	1.80	0.00	1.80
31.15	0.23	0.36	0.63*	1.79	0.00	1.79
31.20	0.23	0.36	0.64*	1.78	0.00	1.78
31.25	0.23	0.36	0.65*	1.77	0.00	1.77
31.30	0.24	0.36	0.65*	1.76	0.00	1.76
31.35	0.24	0.36	0.66*	1.75	0.00	1.75
31.40	0.24	0.36	0.67*	1.74	0.00	1.74
31.45	0.24	0.36	0.67*	1.73	0.00	1.73
31.50	0.25	0.36	0.68*	1.72	0.00	1.72
31.55	0.25	0.36	0.69*	1.71	0.00	1.71
31.60	0.25	0.36	0.70*	1.70	0.00	1.70
31.65	0.25	0.36	0.70*	1.69	0.00	1.69
31.70	0.26	0.36	0.71*	1.68	0.00	1.68
31.75	0.26	0.36	0.72*	1.67	0.00	1.67
31.80	0.26	0.36	0.72*	1.66	0.00	1.66
31.85	0.26	0.36	0.73*	1.65	0.00	1.65
31.90	0.27	0.36	0.74*	1.64	0.00	1.64
31.95	0.27	0.36	0.74*	1.64	0.00	1.64
32.00	0.27	0.36	0.75*	1.63	0.00	1.63
32.05	0.27	0.36	0.76*	1.62	0.00	1.62
32.10	0.28	0.36	0.76*	1.61	0.00	1.61
32.15	0.28	0.36	0.77*	1.60	0.00	1.60
32.20	0.28	0.36	0.78*	1.59	0.00	1.59
32.25	0.28	0.36	0.79*	1.59	0.00	1.59
32.30	0.29	0.36	0.79*	1.58	0.00	1.58
32.35	0.29	0.36	0.80*	1.57	0.00	1.57
32.40	0.29	0.36	0.81*	1.56	0.00	1.56
32.45	0.29	0.36	0.81*	1.56	0.00	1.56
32.50	0.30	0.36	0.82*	1.55	0.00	1.55
32.55	0.30	0.36	0.83*	1.54	0.00	1.54
32.60	0.30	0.36	0.84*	1.53	0.00	1.53
32.65	0.30	0.36	0.84*	1.53	0.00	1.53
32.70	0.31	0.36	0.85*	1.52	0.00	1.52

32.75	0.31	0.36	0.86*	1.51	0.00	1.51
32.80	0.31	0.36	0.87*	1.50	0.00	1.50
32.85	0.32	0.36	0.88*	1.50	0.00	1.50
32.90	0.32	0.36	0.88*	1.49	0.00	1.49
32.95	0.32	0.36	0.89*	1.48	0.00	1.48
33.00	0.32	0.36	0.90*	1.48	0.00	1.48
33.05	0.33	0.36	0.91*	1.47	0.00	1.47
33.10	0.33	0.36	0.92*	1.47	0.00	1.47
33.15	0.33	0.36	0.92*	1.46	0.00	1.46
33.20	0.34	0.36	0.93*	1.45	0.00	1.45
33.25	0.34	0.36	0.94*	1.45	0.00	1.45
33.30	0.34	0.36	0.95*	1.44	0.00	1.44
33.35	0.35	0.36	0.96*	1.44	0.00	1.44
33.40	0.35	0.36	0.97*	1.43	0.00	1.43
33.45	0.35	0.36	0.98*	1.43	0.00	1.43
33.50	0.36	0.36	0.99*	1.43	0.00	1.43
33.55	0.36	0.36	1.00	1.42	0.00	1.42
33.60	0.37	0.36	1.01	1.42	0.00	1.42
33.65	0.37	0.36	1.02	1.42	0.00	1.42
33.70	0.37	0.36	1.03	1.42	0.00	1.42
33.75	0.38	0.36	1.04	1.42	0.00	1.42
33.80	0.38	0.36	1.05	1.42	0.00	1.42
33.85	0.38	0.36	1.06	1.42	0.00	1.42
33.90	0.39	0.36	1.07	1.41	0.00	1.41
33.95	0.39	0.36	1.08	1.41	0.00	1.41
34.00	0.40	0.36	1.09	1.41	0.00	1.41
34.05	0.40	0.36	1.10	1.41	0.00	1.41
34.10	0.40	0.36	1.11	1.41	0.00	1.41
34.15	0.41	0.36	1.13	1.41	0.00	1.41
34.20	0.41	0.36	1.14	1.41	0.00	1.41
34.25	0.42	0.36	1.15	1.41	0.00	1.41
34.30	0.42	0.36	1.16	1.41	0.00	1.41
34.35	0.43	0.36	1.18	1.41	0.00	1.41
34.40	0.43	0.36	1.19	1.41	0.00	1.41
34.45	0.44	0.36	1.20	1.40	0.00	1.40
34.50	0.44	0.36	1.22	1.40	0.00	1.40
34.55	0.45	0.36	1.23	1.40	0.00	1.40
34.60	0.45	0.36	1.25	1.40	0.00	1.40
34.65	0.46	0.36	1.26	1.40	0.00	1.40
34.70	0.46	0.36	1.28	1.40	0.00	1.40
34.75	0.47	0.36	1.30	1.40	0.00	1.40
34.80	0.48	0.36	1.32	1.40	0.00	1.40
34.85	0.49	0.36	1.34	1.40	0.00	1.40
34.90	0.49	0.36	1.36	1.40	0.00	1.40
34.95	0.50	0.36	1.39	1.40	0.00	1.40
35.00	0.51	0.36	1.42	1.40	0.00	1.40
35.05	0.51	0.36	1.42	1.40	0.00	1.40
35.10	0.51	0.36	1.41	1.40	0.00	1.40
35.15	0.51	0.36	1.41	1.40	0.00	1.40
35.20	0.51	0.36	1.41	1.40	0.00	1.40
35.25	0.51	0.36	1.41	1.40	0.00	1.40
35.30	0.51	0.36	1.40	1.40	0.00	1.40
35.35	0.51	0.36	1.40	1.40	0.00	1.40
35.40	0.51	0.36	1.40	1.40	0.00	1.40
35.45	0.51	0.36	1.39	1.40	0.00	1.40
35.50	0.51	0.36	1.39	1.40	0.00	1.40
35.55	0.50	0.36	1.39	1.40	0.00	1.40
35.60	0.50	0.36	1.39	1.40	0.00	1.40
35.65	0.50	0.36	1.39	1.40	0.00	1.40
35.70	0.50	0.36	1.38	1.40	0.00	1.40
35.75	0.50	0.36	1.38	1.40	0.00	1.40
35.80	0.50	0.36	1.38	1.40	0.00	1.40
35.85	0.50	0.36	1.38	1.40	0.00	1.40
35.90	0.50	0.36	1.37	1.40	0.00	1.40
35.95	0.50	0.36	1.37	1.40	0.00	1.40
36.00	0.50	0.36	1.37	1.40	0.00	1.40
36.05	0.50	0.36	1.37	1.40	0.00	1.40
36.10	0.50	0.36	1.37	1.40	0.00	1.40
36.15	0.50	0.36	1.36	1.40	0.00	1.40
36.20	0.49	0.36	1.36	1.40	0.00	1.40
36.25	0.49	0.36	1.36	1.40	0.00	1.40
36.30	0.49	0.36	1.36	1.40	0.00	1.40
36.35	0.49	0.36	1.36	1.40	0.00	1.40
36.40	0.49	0.36	1.35	1.40	0.00	1.40
36.45	0.49	0.36	1.35	1.40	0.00	1.40

36.50	0.49	0.36	1.35	1.40	0.00	1.40
36.55	0.49	0.36	1.35	1.40	0.00	1.40
36.60	0.49	0.36	1.35	1.40	0.00	1.40
36.65	0.49	0.36	1.34	1.40	0.00	1.40
36.70	0.49	0.36	1.34	1.40	0.00	1.40
36.75	0.49	0.36	1.34	1.40	0.00	1.40
36.80	0.49	0.36	1.34	1.40	0.00	1.40
36.85	0.49	0.36	1.34	1.40	0.00	1.40
36.90	0.49	0.36	1.33	1.40	0.00	1.40
36.95	0.48	0.36	1.33	1.40	0.00	1.40
37.00	0.48	0.36	1.33	1.40	0.00	1.40
37.05	0.48	0.36	1.33	1.40	0.00	1.40
37.10	0.48	0.36	1.33	1.40	0.00	1.40
37.15	0.48	0.36	1.33	1.40	0.00	1.40
37.20	0.48	0.36	1.32	1.40	0.00	1.40
37.25	0.48	0.36	1.32	1.40	0.00	1.40
37.30	0.48	0.36	1.32	1.40	0.00	1.40
37.35	0.48	0.36	1.32	1.40	0.00	1.40
37.40	0.48	0.36	1.32	1.40	0.00	1.40
37.45	0.48	0.36	1.32	1.40	0.00	1.40
37.50	0.48	0.36	1.31	1.40	0.00	1.40
37.55	0.48	0.36	1.31	1.40	0.00	1.40
37.60	0.48	0.36	1.31	1.40	0.00	1.40
37.65	0.48	0.36	1.31	1.40	0.00	1.40
37.70	0.48	0.36	1.31	1.40	0.00	1.40
37.75	0.47	0.36	1.31	1.40	0.00	1.40
37.80	0.47	0.36	1.30	1.40	0.00	1.40
37.85	0.47	0.36	1.30	1.40	0.00	1.40
37.90	0.47	0.36	1.30	1.40	0.00	1.40
37.95	0.47	0.36	1.30	1.40	0.00	1.40
38.00	0.47	0.36	1.30	1.40	0.00	1.40
38.05	0.47	0.36	1.30	1.40	0.00	1.40
38.10	0.47	0.36	1.29	1.40	0.00	1.40
38.15	0.47	0.36	1.29	1.40	0.00	1.40
38.20	0.47	0.36	1.29	1.40	0.00	1.40
38.25	0.47	0.36	1.29	1.40	0.00	1.40
38.30	0.47	0.36	1.29	1.40	0.00	1.40
38.35	0.47	0.36	1.29	1.40	0.00	1.40
38.40	0.47	0.36	1.29	1.40	0.00	1.40
38.45	0.47	0.36	1.28	1.40	0.00	1.40
38.50	0.47	0.36	1.28	1.40	0.00	1.40
38.55	0.47	0.36	1.28	1.40	0.00	1.40
38.60	0.47	0.36	1.28	1.40	0.00	1.40
38.65	0.46	0.36	1.28	1.40	0.00	1.40
38.70	0.46	0.36	1.28	1.40	0.00	1.40
38.75	0.46	0.36	1.28	1.40	0.00	1.40
38.80	0.46	0.36	1.28	1.40	0.00	1.40
38.85	0.46	0.36	1.27	1.40	0.00	1.40
38.90	0.46	0.36	1.27	1.40	0.00	1.40
38.95	0.46	0.36	1.27	1.40	0.00	1.40
39.00	0.46	0.36	1.27	1.40	0.00	1.40
39.05	0.46	0.36	1.27	1.40	0.00	1.40
39.10	0.46	0.36	1.27	1.40	0.00	1.40
39.15	0.46	0.36	1.27	1.40	0.00	1.40
39.20	0.46	0.36	1.26	1.40	0.00	1.40
39.25	0.46	0.36	1.26	1.40	0.00	1.40
39.30	0.46	0.36	1.26	1.40	0.00	1.40
39.35	0.46	0.36	1.26	1.40	0.00	1.40
39.40	0.46	0.36	1.26	1.40	0.00	1.40
39.45	0.46	0.36	1.26	1.40	0.00	1.40
39.50	0.46	0.36	1.26	1.40	0.00	1.40
39.55	0.46	0.36	1.26	1.40	0.00	1.40
39.60	0.46	0.36	1.25	1.40	0.00	1.40
39.65	0.46	0.36	1.25	1.40	0.00	1.40
39.70	0.45	0.36	1.25	1.40	0.00	1.40
39.75	0.45	0.36	1.25	1.40	0.00	1.40
39.80	0.45	0.36	1.25	1.40	0.00	1.40
39.85	0.45	0.36	1.25	1.40	0.00	1.40
39.90	0.45	0.36	1.25	1.40	0.00	1.40
39.95	0.45	0.36	1.25	1.40	0.00	1.40
40.00	0.45	0.36	1.24	1.40	0.00	1.40
40.05	0.45	0.36	1.25	1.40	0.00	1.40
40.10	0.45	0.36	1.25	1.40	0.00	1.40
40.15	0.45	0.36	1.25	1.40	0.00	1.40
40.20	0.45	0.36	1.25	1.40	0.00	1.40

40.25	0.45	0.36	1.25	1.40	0.00	1.40
40.30	0.45	0.36	1.25	1.40	0.00	1.40
40.35	0.45	0.36	1.25	1.40	0.00	1.40
40.40	0.45	0.36	1.25	1.40	0.00	1.40
40.45	0.45	0.36	1.25	1.40	0.00	1.40
40.50	0.45	0.36	1.25	1.40	0.00	1.40
40.55	0.45	0.36	1.25	1.40	0.00	1.40
40.60	0.45	0.36	1.25	1.40	0.00	1.40
40.65	0.45	0.36	1.25	1.40	0.00	1.40
40.70	0.45	0.36	1.25	1.40	0.00	1.40
40.75	0.45	0.36	1.25	1.40	0.00	1.40
40.80	0.45	0.36	1.25	1.40	0.00	1.40
40.85	0.45	0.36	1.25	1.40	0.00	1.40
40.90	0.45	0.36	1.25	1.40	0.00	1.40
40.95	0.45	0.36	1.25	1.40	0.00	1.40
41.00	0.45	0.36	1.25	1.40	0.00	1.40
41.05	0.45	0.36	1.25	1.40	0.00	1.40
41.10	0.45	0.36	1.25	1.40	0.00	1.40
41.15	0.45	0.36	1.25	1.40	0.00	1.40
41.20	0.45	0.36	1.25	1.40	0.00	1.40
41.25	0.46	0.36	1.26	1.40	0.00	1.40
41.30	0.46	0.36	1.26	1.40	0.00	1.40
41.35	0.46	0.36	1.26	1.40	0.00	1.40
41.40	0.46	0.36	1.26	1.40	0.00	1.40
41.45	0.46	0.36	1.26	1.40	0.00	1.40
41.50	0.46	0.36	1.26	1.40	0.00	1.40
41.55	0.46	0.36	1.26	1.40	0.00	1.40
41.60	0.46	0.36	1.26	1.40	0.00	1.40
41.65	0.46	0.36	1.26	1.40	0.00	1.40
41.70	0.46	0.36	1.26	1.40	0.00	1.40
41.75	0.46	0.36	1.26	1.40	0.00	1.40
41.80	0.46	0.36	1.26	1.40	0.00	1.40
41.85	0.46	0.36	1.26	1.40	0.00	1.40
41.90	0.46	0.36	1.26	1.40	0.00	1.40
41.95	0.46	0.36	1.26	1.40	0.00	1.40
42.00	0.46	0.36	1.26	1.40	0.00	1.40
42.05	0.46	0.36	1.26	1.40	0.00	1.40
42.10	0.46	0.36	1.26	1.40	0.00	1.40
42.15	0.46	0.36	1.26	1.40	0.00	1.40
42.20	0.46	0.36	1.26	1.40	0.00	1.40
42.25	0.46	0.36	1.26	1.40	0.00	1.40
42.30	0.46	0.36	1.27	1.40	0.00	1.40
42.35	0.46	0.36	1.27	1.40	0.00	1.40
42.40	0.46	0.36	1.27	1.40	0.00	1.40
42.45	0.46	0.36	1.27	1.40	0.00	1.40
42.50	0.46	0.36	1.27	1.40	0.00	1.40
42.55	0.46	0.36	1.27	1.40	0.00	1.40
42.60	0.46	0.36	1.27	1.40	0.00	1.40
42.65	0.46	0.36	1.27	1.40	0.00	1.40
42.70	0.46	0.36	1.27	1.40	0.00	1.40
42.75	0.46	0.36	1.27	1.40	0.00	1.40
42.80	0.46	0.36	1.27	1.40	0.00	1.40
42.85	0.46	0.36	1.27	1.40	0.00	1.40
42.90	0.46	0.36	1.27	1.40	0.00	1.40
42.95	0.46	0.36	1.27	1.40	0.00	1.40
43.00	0.46	0.36	1.27	1.40	0.00	1.40
43.05	0.46	0.36	1.27	1.40	0.00	1.40
43.10	0.46	0.36	1.27	1.40	0.00	1.40
43.15	0.46	0.36	1.27	1.40	0.00	1.40
43.20	0.46	0.36	1.28	1.40	0.00	1.40
43.25	0.46	0.36	1.28	1.40	0.00	1.40
43.30	0.46	0.36	1.28	1.40	0.00	1.40
43.35	0.46	0.36	1.28	1.40	0.00	1.40
43.40	0.46	0.36	1.28	1.40	0.00	1.40
43.45	0.46	0.36	1.28	1.40	0.00	1.40
43.50	0.46	0.36	1.28	1.40	0.00	1.40
43.55	0.46	0.36	1.28	1.40	0.00	1.40
43.60	0.46	0.36	1.28	1.40	0.00	1.40
43.65	0.46	0.36	1.28	1.40	0.00	1.40
43.70	0.46	0.36	1.28	1.40	0.00	1.40
43.75	0.46	0.36	1.28	1.40	0.00	1.40
43.80	0.46	0.36	1.28	1.40	0.00	1.40
43.85	0.46	0.36	1.28	1.40	0.00	1.40
43.90	0.46	0.36	1.28	1.40	0.00	1.40
43.95	0.46	0.36	1.28	1.40	0.00	1.40

44.00	0.46	0.36	1.28	1.40	0.00	1.40
44.05	0.46	0.36	1.28	1.40	0.00	1.40
44.10	0.46	0.36	1.29	1.40	0.00	1.40
44.15	0.46	0.36	1.29	1.40	0.00	1.40
44.20	0.46	0.36	1.29	1.40	0.00	1.40
44.25	0.46	0.36	1.29	1.40	0.00	1.40
44.30	0.46	0.36	1.29	1.40	0.00	1.40
44.35	0.46	0.36	1.29	1.40	0.00	1.40
44.40	0.46	0.36	1.29	1.40	0.00	1.40
44.45	0.46	0.36	1.29	1.40	0.00	1.40
44.50	0.46	0.36	1.29	1.40	0.00	1.40
44.55	0.46	0.36	1.29	1.40	0.00	1.40
44.60	0.46	0.36	1.29	1.40	0.00	1.40
44.65	0.46	0.36	1.29	1.40	0.00	1.40
44.70	0.46	0.36	1.29	1.40	0.00	1.40
44.75	0.47	0.36	1.29	1.40	0.00	1.40
44.80	0.47	0.36	1.29	1.40	0.00	1.40
44.85	0.47	0.36	1.30	1.40	0.00	1.40
44.90	0.47	0.36	1.30	1.40	0.00	1.40
44.95	0.47	0.36	1.30	1.40	0.00	1.40
45.00	0.47	0.36	1.30	1.40	0.00	1.40
45.05	0.47	0.36	1.30	1.40	0.00	1.40
45.10	0.46	0.36	1.29	1.40	0.00	1.40
45.15	0.46	0.36	1.29	1.40	0.00	1.40
45.20	0.46	0.36	1.29	1.40	0.00	1.40
45.25	0.46	0.36	1.29	1.40	0.00	1.40
45.30	0.46	0.36	1.29	1.40	0.00	1.40
45.35	0.46	0.36	1.29	1.40	0.00	1.40
45.40	0.46	0.36	1.29	1.40	0.00	1.40
45.45	0.46	0.36	1.29	1.40	0.00	1.40
45.50	0.46	0.36	1.29	1.40	0.00	1.40
45.55	0.46	0.36	1.28	1.40	0.00	1.40
45.60	0.46	0.36	1.28	1.40	0.00	1.40
45.65	0.46	0.36	1.28	1.40	0.00	1.40
45.70	0.46	0.36	1.28	1.40	0.00	1.40
45.75	0.46	0.36	1.28	1.40	0.00	1.40
45.80	0.46	0.36	1.28	1.40	0.00	1.40
45.85	0.46	0.36	1.28	1.40	0.00	1.40
45.90	0.46	0.36	1.28	1.40	0.00	1.40
45.95	0.46	0.36	1.28	1.40	0.00	1.40
46.00	0.46	0.36	1.28	1.40	0.00	1.40
46.05	0.46	0.36	1.27	1.40	0.00	1.40
46.10	0.46	0.36	1.27	1.40	0.00	1.40
46.15	0.46	0.36	1.27	1.40	0.00	1.40
46.20	0.45	0.36	1.27	1.40	0.00	1.40
46.25	0.45	0.36	1.27	1.40	0.00	1.40
46.30	0.45	0.36	1.27	1.40	0.00	1.40
46.35	0.45	0.36	1.27	1.40	0.00	1.40
46.40	0.45	0.36	1.27	1.40	0.00	1.40
46.45	0.45	0.36	1.27	1.40	0.00	1.40
46.50	0.45	0.36	1.27	1.40	0.00	1.40
46.55	0.45	0.36	1.26	1.40	0.00	1.40
46.60	0.45	0.36	1.26	1.40	0.00	1.40
46.65	0.45	0.36	1.26	1.40	0.00	1.40
46.70	0.45	0.36	1.26	1.40	0.00	1.40
46.75	0.45	0.36	1.26	1.40	0.00	1.40
46.80	0.45	0.36	1.26	1.40	0.00	1.40
46.85	0.45	0.36	1.26	1.40	0.00	1.40
46.90	0.45	0.36	1.26	1.40	0.00	1.40
46.95	0.45	0.36	1.26	1.40	0.00	1.40
47.00	0.45	0.36	1.26	1.40	0.00	1.40
47.05	0.45	0.36	1.25	1.40	0.00	1.40
47.10	0.45	0.36	1.25	1.40	0.00	1.40
47.15	0.45	0.36	1.25	1.40	0.00	1.40
47.20	0.45	0.36	1.25	1.40	0.00	1.40
47.25	0.45	0.36	1.25	1.40	0.00	1.40
47.30	0.45	0.36	1.25	1.40	0.00	1.40
47.35	0.45	0.36	1.25	1.40	0.00	1.40
47.40	0.44	0.36	1.25	1.40	0.00	1.40
47.45	0.44	0.36	1.25	1.40	0.00	1.40
47.50	0.44	0.36	1.25	1.40	0.00	1.40
47.55	0.44	0.36	1.25	1.40	0.00	1.40
47.60	0.44	0.36	1.25	1.40	0.00	1.40
47.65	0.44	0.36	1.24	1.40	0.00	1.40
47.70	0.44	0.36	1.24	1.40	0.00	1.40

47.75	0.44	0.36	1.24	1.40	0.00	1.40
47.80	0.44	0.36	1.24	1.40	0.00	1.40
47.85	0.44	0.36	1.24	1.40	0.00	1.40
47.90	0.44	0.36	1.24	1.40	0.00	1.40
47.95	0.44	0.36	1.24	1.40	0.00	1.40
48.00	0.44	0.36	1.24	1.40	0.00	1.40
48.05	0.44	0.36	1.24	1.40	0.00	1.40
48.10	0.44	0.36	1.24	1.40	0.00	1.40
48.15	0.44	0.36	1.24	1.40	0.00	1.40
48.20	0.44	0.35	1.24	1.40	0.00	1.40
48.25	0.44	0.35	1.23	1.40	0.00	1.40
48.30	0.44	0.35	1.23	1.40	0.00	1.40
48.35	0.44	0.35	1.23	1.40	0.00	1.40
48.40	0.44	0.35	1.23	1.40	0.00	1.40
48.45	0.44	0.35	1.23	1.40	0.00	1.40
48.50	0.44	0.35	1.23	1.40	0.00	1.40
48.55	0.44	0.35	1.23	1.40	0.00	1.40
48.60	0.44	0.35	1.23	1.40	0.00	1.40
48.65	0.44	0.35	1.23	1.40	0.00	1.40
48.70	0.43	0.35	1.23	1.40	0.00	1.40
48.75	0.43	0.35	1.23	1.40	0.00	1.40
48.80	0.43	0.35	1.23	1.40	0.00	1.40
48.85	0.43	0.35	1.23	1.40	0.00	1.40
48.90	0.43	0.35	1.22	1.40	0.00	1.40
48.95	0.43	0.35	1.22	1.40	0.00	1.40
49.00	0.43	0.35	1.22	1.40	0.00	1.40
49.05	0.43	0.35	1.22	1.40	0.00	1.40
49.10	0.43	0.35	1.22	1.40	0.00	1.40
49.15	0.43	0.35	1.22	1.40	0.00	1.40
49.20	0.43	0.35	1.22	1.40	0.00	1.40
49.25	0.43	0.35	1.22	1.40	0.00	1.40
49.30	0.43	0.35	1.22	1.40	0.00	1.40
49.35	0.43	0.35	1.22	1.40	0.00	1.40
49.40	0.43	0.35	1.22	1.40	0.00	1.40
49.45	0.43	0.35	1.22	1.40	0.00	1.40
49.50	0.43	0.35	1.22	1.40	0.00	1.40
49.55	0.43	0.35	1.22	1.40	0.00	1.40
49.60	0.43	0.35	1.21	1.40	0.00	1.40
49.65	0.43	0.35	1.21	1.40	0.00	1.40
49.70	0.43	0.35	1.21	1.40	0.00	1.40
49.75	0.43	0.35	1.21	1.40	0.00	1.40
49.80	0.43	0.35	1.21	1.40	0.00	1.40
49.85	0.43	0.35	1.21	1.40	0.00	1.40
49.90	0.43	0.35	1.21	1.40	0.00	1.40
49.95	0.43	0.35	1.21	1.40	0.00	1.40
50.00	0.43	0.35	1.21	1.40	0.00	1.40
50.05	0.43	0.35	1.21	1.40	0.00	1.40
50.10	0.43	0.35	1.21	1.40	0.00	1.40
50.15	0.42	0.35	1.21	1.40	0.00	1.40
50.20	0.42	0.35	1.21	1.40	0.00	1.40
50.25	0.42	0.35	1.21	1.40	0.00	1.40
50.30	0.42	0.35	1.21	1.40	0.00	1.40
50.35	0.42	0.35	1.21	1.40	0.00	1.40
50.40	0.42	0.35	1.20	1.40	0.00	1.40
50.45	0.42	0.35	1.20	1.40	0.00	1.40
50.50	0.42	0.35	1.20	1.40	0.00	1.40
50.55	0.42	0.35	1.20	1.40	0.00	1.40
50.60	0.42	0.35	1.20	1.40	0.00	1.40
50.65	0.42	0.35	1.20	1.40	0.00	1.40
50.70	0.42	0.35	1.20	1.40	0.00	1.40
50.75	0.42	0.35	1.20	1.40	0.00	1.40
50.80	0.42	0.35	1.20	1.40	0.00	1.40
50.85	0.42	0.35	1.20	1.40	0.00	1.40
50.90	0.42	0.35	1.20	1.40	0.00	1.40
50.95	0.42	0.35	1.20	1.40	0.00	1.40
51.00	0.42	0.35	1.20	1.40	0.00	1.40
51.05	0.42	0.35	1.20	1.40	0.00	1.40
51.10	0.42	0.35	1.20	1.40	0.00	1.40
51.15	0.42	0.35	1.20	1.40	0.00	1.40
51.20	0.42	0.35	1.19	1.40	0.00	1.40
51.25	0.42	0.35	1.19	1.40	0.00	1.40
51.30	0.42	0.35	1.19	1.40	0.00	1.40
51.35	0.42	0.35	1.19	1.40	0.00	1.40
51.40	0.42	0.35	1.19	1.40	0.00	1.40
51.45	0.42	0.35	1.19	1.40	0.00	1.40

51.50	0.42	0.35	1.19	1.40	0.00	1.40
51.55	0.42	0.35	1.19	1.40	0.00	1.40
51.60	0.42	0.35	1.19	1.40	0.00	1.40
51.65	0.42	0.35	1.19	1.40	0.00	1.40
51.70	0.41	0.35	1.19	1.40	0.00	1.40
51.75	0.41	0.35	1.19	1.40	0.00	1.40
51.80	0.41	0.35	1.19	1.40	0.00	1.40
51.85	0.41	0.35	1.19	1.40	0.00	1.40
51.90	0.41	0.35	1.19	1.40	0.00	1.40
51.95	0.41	0.35	1.19	1.40	0.00	1.40
52.00	0.41	0.35	1.19	1.40	0.00	1.40
52.05	0.41	0.35	1.19	1.40	0.00	1.40
52.10	0.41	0.35	1.18	1.40	0.00	1.40
52.15	0.41	0.35	1.18	1.40	0.00	1.40
52.20	0.41	0.35	1.18	1.40	0.00	1.40
52.25	0.41	0.35	1.18	1.40	0.00	1.40
52.30	0.41	0.35	1.18	1.40	0.00	1.40
52.35	0.41	0.35	1.18	1.40	0.00	1.40
52.40	0.41	0.35	1.18	1.40	0.00	1.40
52.45	0.41	0.35	1.18	1.40	0.00	1.40
52.50	0.41	0.35	1.18	1.40	0.00	1.40
52.55	0.41	0.35	1.18	1.40	0.00	1.40
52.60	0.41	0.35	1.18	1.40	0.00	1.40
52.65	0.41	0.35	1.18	1.40	0.00	1.40
52.70	0.41	0.35	1.18	1.40	0.00	1.40
52.75	0.41	0.35	1.18	1.40	0.00	1.40
52.80	0.41	0.35	1.18	1.40	0.00	1.40
52.85	0.41	0.35	1.18	1.40	0.00	1.40
52.90	0.41	0.35	1.18	1.40	0.00	1.40
52.95	0.41	0.35	1.18	1.40	0.00	1.40
53.00	0.41	0.35	1.18	1.40	0.00	1.40
53.05	0.41	0.35	1.17	1.40	0.00	1.40
53.10	0.41	0.35	1.17	1.40	0.00	1.40
53.15	0.41	0.35	1.17	1.40	0.00	1.40
53.20	0.41	0.35	1.17	1.40	0.00	1.40
53.25	0.41	0.35	1.17	1.40	0.00	1.40
53.30	0.41	0.35	1.17	1.40	0.00	1.40
53.35	0.41	0.35	1.17	1.40	0.00	1.40
53.40	0.40	0.35	1.17	1.40	0.00	1.40
53.45	0.40	0.35	1.17	1.40	0.00	1.40
53.50	0.40	0.35	1.17	1.40	0.00	1.40
53.55	0.40	0.35	1.17	1.40	0.00	1.40
53.60	0.40	0.35	1.17	1.40	0.00	1.40
53.65	0.40	0.35	1.17	1.40	0.00	1.40
53.70	0.40	0.35	1.17	1.40	0.00	1.40
53.75	0.40	0.34	1.17	1.40	0.00	1.40
53.80	0.40	0.34	1.17	1.40	0.00	1.40
53.85	0.40	0.34	1.17	1.40	0.00	1.40
53.90	0.40	0.34	1.17	1.40	0.00	1.40
53.95	0.40	0.34	1.17	1.40	0.00	1.40
54.00	0.40	0.34	1.17	1.40	0.00	1.40
54.05	0.40	0.34	1.17	1.40	0.00	1.40
54.10	0.40	0.34	1.17	1.40	0.00	1.40
54.15	0.40	0.34	1.16	1.40	0.00	1.40
54.20	0.40	0.34	1.16	1.40	0.00	1.40
54.25	0.40	0.34	1.16	1.40	0.00	1.40
54.30	0.40	0.34	1.16	1.40	0.00	1.40
54.35	0.40	0.34	1.16	1.40	0.00	1.40
54.40	0.40	0.34	1.16	1.40	0.00	1.40
54.45	0.40	0.34	1.16	1.40	0.00	1.40
54.50	0.40	0.34	1.16	1.40	0.00	1.40
54.55	0.40	0.34	1.16	1.40	0.00	1.40
54.60	0.40	0.34	1.16	1.40	0.00	1.40
54.65	0.40	0.34	1.16	1.40	0.00	1.40
54.70	0.40	0.34	1.16	1.40	0.00	1.40
54.75	0.40	0.34	1.16	1.40	0.00	1.40
54.80	0.40	0.34	1.16	1.40	0.00	1.40
54.85	0.40	0.34	1.16	1.40	0.00	1.40
54.90	0.40	0.34	1.16	1.40	0.00	1.40
54.95	0.40	0.34	1.16	1.40	0.00	1.40
55.00	0.40	0.34	1.16	1.40	0.00	1.40
55.05	0.39	0.34	1.15	1.40	0.00	1.40
55.10	0.39	0.34	1.14	1.40	0.00	1.40
55.15	0.39	0.34	1.14	1.40	0.00	1.40
55.20	0.39	0.34	1.13	1.40	0.00	1.40

55.25	0.38	0.34	1.13	1.40	0.00	1.40
55.30	0.38	0.34	1.12	1.40	0.00	1.40
55.35	0.38	0.34	1.11	1.40	0.00	1.40
55.40	0.38	0.34	1.11	1.40	0.00	1.40
55.45	0.38	0.34	1.10	1.40	0.00	1.40
55.50	0.37	0.34	1.09	1.40	0.00	1.40
55.55	0.37	0.34	1.09	1.40	0.00	1.40
55.60	0.37	0.34	1.08	1.40	0.00	1.40
55.65	0.37	0.34	1.08	1.40	0.00	1.40
55.70	0.37	0.34	1.07	1.40	0.00	1.40
55.75	0.36	0.34	1.07	1.40	0.00	1.40
55.80	0.36	0.34	1.06	1.40	0.00	1.40
55.85	0.36	0.34	1.06	1.40	0.00	1.40
55.90	0.36	0.34	1.05	1.40	0.00	1.40
55.95	0.36	0.34	1.05	1.40	0.00	1.40
56.00	0.35	0.34	1.04	1.40	0.00	1.40
56.05	0.35	0.34	1.03	1.40	0.00	1.40
56.10	0.35	0.34	1.03	1.39	0.00	1.39
56.15	0.35	0.34	1.02	1.39	0.00	1.39
56.20	0.35	0.34	1.02	1.39	0.00	1.39
56.25	0.34	0.34	1.01	1.39	0.00	1.39
56.30	0.34	0.34	1.01	1.39	0.00	1.39
56.35	0.34	0.34	1.00	1.39	0.00	1.39
56.40	0.34	0.34	1.00	1.39	0.00	1.39
56.45	0.34	0.34	1.00*	1.39	0.00	1.39
56.50	0.34	0.34	0.99*	1.39	0.00	1.39
56.55	0.33	0.34	0.99*	1.39	0.00	1.39
56.60	0.33	0.34	0.98*	1.38	0.00	1.38
56.65	0.33	0.34	0.98*	1.38	0.00	1.38
56.70	0.33	0.34	0.97*	1.38	0.00	1.38
56.75	0.33	0.34	0.97*	1.38	0.00	1.38
56.80	0.33	0.34	0.96*	1.38	0.00	1.38
56.85	0.32	0.34	0.96*	1.38	0.00	1.38
56.90	0.32	0.34	0.95*	1.38	0.00	1.38
56.95	0.32	0.34	0.95*	1.38	0.00	1.38
57.00	0.32	0.34	0.95*	1.38	0.00	1.38
57.05	0.32	0.34	0.94*	1.37	0.00	1.37
57.10	0.32	0.34	0.94*	1.37	0.00	1.37
57.15	0.31	0.34	0.93*	1.37	0.00	1.37
57.20	0.31	0.34	0.93*	1.37	0.00	1.37
57.25	0.31	0.34	0.92*	1.37	0.00	1.37
57.30	0.31	0.34	0.92*	1.36	0.00	1.36
57.35	0.31	0.34	0.92*	1.36	0.00	1.36
57.40	0.31	0.34	0.91*	1.36	0.00	1.36
57.45	0.31	0.34	0.91*	1.35	0.00	1.35
57.50	0.30	0.34	0.90*	1.35	0.00	1.35
57.55	0.30	0.34	0.90*	1.35	0.00	1.35
57.60	0.30	0.34	0.90*	1.34	0.00	1.34
57.65	0.30	0.34	0.89*	1.34	0.00	1.34
57.70	0.30	0.34	0.89*	1.33	0.00	1.33
57.75	0.30	0.34	0.88*	1.33	0.00	1.33
57.80	0.30	0.34	0.88*	1.32	0.00	1.32
57.85	0.29	0.34	0.88*	1.32	0.00	1.32
57.90	0.29	0.34	0.87*	1.31	0.00	1.31
57.95	0.29	0.34	0.87*	1.31	0.00	1.31
58.00	0.29	0.34	0.87*	1.30	0.00	1.30
58.05	0.29	0.34	0.86*	1.29	0.00	1.29
58.10	0.29	0.34	0.86*	1.29	0.00	1.29
58.15	0.29	0.33	0.85*	1.28	0.00	1.28
58.20	0.28	0.33	0.85*	1.27	0.00	1.27
58.25	0.28	0.33	0.85*	1.27	0.00	1.27
58.30	0.28	0.33	0.84*	1.26	0.00	1.26
58.35	0.28	0.33	0.84*	1.26	0.00	1.26
58.40	0.28	0.33	0.84*	1.25	0.00	1.25
58.45	0.28	0.33	0.83*	1.24	0.00	1.24
58.50	0.28	0.33	0.83*	1.24	0.00	1.24
58.55	0.28	0.33	0.83*	1.23	0.00	1.23
58.60	0.27	0.33	0.82*	1.22	0.00	1.22
58.65	0.27	0.33	0.82*	1.21	0.00	1.21
58.70	0.27	0.33	0.82*	1.21	0.00	1.21
58.75	0.27	0.33	0.81*	1.20	0.00	1.20
58.80	0.27	0.33	0.81*	1.19	0.00	1.19
58.85	0.27	0.33	0.81*	1.19	0.00	1.19
58.90	0.27	0.33	0.80*	1.18	0.00	1.18
58.95	0.27	0.33	0.80*	1.17	0.00	1.17

59.00	0.26	0.33	0.79*	1.16	0.00	1.16
59.05	0.26	0.33	0.79*	1.16	0.00	1.16
59.10	0.26	0.33	0.79*	1.15	0.00	1.15
59.15	0.26	0.33	0.78*	1.14	0.00	1.14
59.20	0.26	0.33	0.78*	1.14	0.00	1.14
59.25	0.26	0.33	0.78*	1.13	0.00	1.13
59.30	0.26	0.33	0.77*	1.12	0.00	1.12
59.35	0.26	0.33	0.77*	1.11	0.00	1.11
59.40	0.25	0.33	0.77*	1.10	0.00	1.10
59.45	0.25	0.33	0.76*	1.10	0.00	1.10
59.50	0.25	0.33	0.76*	1.09	0.00	1.09
59.55	0.25	0.33	0.76*	1.08	0.00	1.08
59.60	0.25	0.33	0.76*	1.07	0.00	1.07
59.65	0.25	0.33	0.75*	1.07	0.00	1.07
59.70	0.25	0.33	0.75*	1.06	0.00	1.06
59.75	0.25	0.33	0.75*	1.05	0.00	1.05
59.80	0.25	0.33	0.74*	1.04	0.00	1.04
59.85	0.24	0.33	0.74*	1.03	0.00	1.03
59.90	0.24	0.33	0.74*	1.02	0.00	1.02
59.95	0.24	0.33	0.73*	1.02	0.00	1.02
60.00	0.24	0.33	0.73*	1.01	0.00	1.01
60.05	0.24	0.33	0.73*	1.00	0.00	1.00
60.10	0.24	0.33	0.73*	0.99	0.00	0.99
60.15	0.24	0.33	0.73*	0.98	0.00	0.98
60.20	0.24	0.33	0.73*	0.97	0.00	0.97
60.25	0.24	0.33	0.73*	0.97	0.00	0.97
60.30	0.24	0.33	0.73*	0.96	0.00	0.96
60.35	0.24	0.33	0.73*	0.95	0.00	0.95
60.40	0.24	0.33	0.73*	0.94	0.00	0.94
60.45	0.24	0.33	0.73*	0.93	0.00	0.93
60.50	0.24	0.33	0.73*	0.92	0.00	0.92
60.55	0.24	0.33	0.73*	0.92	0.00	0.92
60.60	0.24	0.33	0.73*	0.91	0.00	0.91
60.65	0.24	0.33	0.73*	0.90	0.00	0.90
60.70	0.24	0.33	0.73*	0.89	0.00	0.89
60.75	0.24	0.33	0.73*	0.88	0.00	0.88
60.80	0.24	0.33	0.73*	0.87	0.00	0.87
60.85	0.24	0.33	0.73*	0.86	0.00	0.86
60.90	0.24	0.33	0.73*	0.86	0.00	0.86
60.95	0.24	0.33	0.73*	0.85	0.00	0.85
61.00	0.24	0.33	0.73*	0.84	0.00	0.84
61.05	0.24	0.33	0.73*	0.83	0.00	0.83
61.10	0.24	0.33	0.73*	0.82	0.00	0.82
61.15	0.24	0.33	0.73*	0.81	0.00	0.81
61.20	0.24	0.33	0.73*	0.81	0.00	0.81
61.25	0.24	0.33	0.73*	0.80	0.00	0.80
61.30	0.24	0.33	0.73*	0.79	0.00	0.79
61.35	0.24	0.33	0.73*	0.78	0.00	0.78
61.40	0.24	0.33	0.73*	0.77	0.00	0.77
61.45	0.24	0.33	0.73*	0.76	0.00	0.76
61.50	0.24	0.33	0.73*	0.76	0.00	0.76
61.55	0.24	0.33	0.73*	0.75	0.00	0.75
61.60	0.24	0.33	0.73*	0.74	0.00	0.74
61.65	0.24	0.33	0.73*	0.73	0.00	0.73
61.70	0.24	0.33	0.73*	0.72	0.00	0.72
61.75	0.24	0.33	0.73*	0.71	0.00	0.71
61.80	0.24	0.33	0.73*	0.70	0.00	0.70
61.85	0.24	0.33	0.73*	0.70	0.00	0.70
61.90	0.24	0.33	0.73*	0.69	0.00	0.69
61.95	0.24	0.33	0.73*	0.68	0.00	0.68
62.00	0.24	0.32	0.73*	0.67	0.00	0.67
62.05	0.24	0.32	0.73*	0.66	0.00	0.66
62.10	0.24	0.32	0.73*	0.65	0.00	0.65
62.15	0.24	0.32	0.73*	0.65	0.00	0.65
62.20	0.24	0.32	0.73*	0.64	0.00	0.64
62.25	0.24	0.32	0.73*	0.63	0.00	0.63
62.30	0.24	0.32	0.73*	0.62	0.00	0.62
62.35	0.24	0.32	0.73*	0.61	0.00	0.61
62.40	0.24	0.32	0.73*	0.60	0.00	0.60
62.45	0.24	0.32	0.73*	0.59	0.00	0.59
62.50	0.24	0.32	0.73*	0.59	0.00	0.59
62.55	0.24	0.32	0.73*	0.58	0.00	0.58
62.60	0.24	0.32	0.73*	0.57	0.00	0.57
62.65	0.24	0.32	0.73*	0.56	0.00	0.56
62.70	0.24	0.32	0.73*	0.55	0.00	0.55

62.75	0.24	0.32	0.73*	0.54	0.00	0.54
62.80	0.24	0.32	0.73*	0.54	0.00	0.54
62.85	0.24	0.32	0.73*	0.53	0.00	0.53
62.90	0.24	0.32	0.73*	0.52	0.00	0.52
62.95	0.24	0.32	0.73*	0.51	0.00	0.51
63.00	0.24	0.32	0.73*	0.50	0.00	0.50
63.05	0.24	0.32	0.73*	0.49	0.00	0.49
63.10	0.24	0.32	0.73*	0.49	0.00	0.49
63.15	0.24	0.32	0.73*	0.48	0.00	0.48
63.20	0.24	0.32	0.73*	0.47	0.00	0.47
63.25	0.23	0.32	0.73*	0.46	0.00	0.46
63.30	0.23	0.32	0.73*	0.45	0.00	0.45
63.35	0.23	0.32	0.73*	0.44	0.00	0.44
63.40	0.23	0.32	0.73*	0.43	0.00	0.43
63.45	0.23	0.32	0.73*	0.43	0.00	0.43
63.50	0.23	0.32	0.73*	0.42	0.00	0.42
63.55	0.23	0.32	0.73*	0.41	0.00	0.41
63.60	0.23	0.32	0.73*	0.40	0.00	0.40
63.65	0.23	0.32	0.73*	0.39	0.00	0.39
63.70	0.23	0.32	0.73*	0.38	0.00	0.38
63.75	0.23	0.32	0.73*	0.38	0.00	0.38
63.80	0.23	0.32	0.73*	0.37	0.00	0.37
63.85	0.23	0.32	0.73*	0.36	0.00	0.36
63.90	0.23	0.32	0.73*	0.35	0.00	0.35
63.95	0.23	0.32	0.73*	0.34	0.00	0.34
64.00	0.23	0.32	0.73*	0.33	0.00	0.33
64.05	0.23	0.32	0.73*	0.32	0.00	0.32
64.10	0.23	0.32	0.73*	0.32	0.00	0.32
64.15	0.23	0.32	0.73*	0.31	0.00	0.31
64.20	0.23	0.32	0.73*	0.30	0.00	0.30
64.25	0.23	0.32	0.73*	0.29	0.00	0.29
64.30	0.23	0.32	0.73*	0.28	0.00	0.28
64.35	0.23	0.32	0.73*	0.27	0.00	0.27
64.40	0.23	0.32	0.73*	0.27	0.00	0.27
64.45	0.23	0.32	0.73*	0.26	0.00	0.26
64.50	0.23	0.32	0.73*	0.25	0.00	0.25
64.55	0.23	0.32	0.73*	0.24	0.00	0.24
64.60	0.23	0.32	0.73*	0.23	0.00	0.23
64.65	0.23	0.32	0.73*	0.22	0.00	0.22
64.70	0.23	0.32	0.73*	0.22	0.00	0.22
64.75	0.23	0.32	0.73*	0.21	0.00	0.21
64.80	0.23	0.32	0.73*	0.20	0.00	0.20
64.85	0.23	0.32	0.73*	0.19	0.00	0.19
64.90	0.23	0.32	0.73*	0.18	0.00	0.18
64.95	0.23	0.32	0.73*	0.17	0.00	0.17
65.00	0.23	0.32	0.73*	0.16	0.00	0.16
65.05	0.23	0.32	0.74*	0.16	0.00	0.16
65.10	0.24	0.32	0.75*	0.15	0.00	0.15
65.15	0.24	0.32	0.76*	0.14	0.00	0.14
65.20	0.24	0.32	0.76*	0.13	0.00	0.13
65.25	0.24	0.32	0.77*	0.12	0.00	0.12
65.30	0.25	0.32	0.78*	0.12	0.00	0.12
65.35	0.25	0.32	0.79*	0.11	0.00	0.11
65.40	0.25	0.32	0.79*	0.10	0.00	0.10
65.45	0.25	0.32	0.80*	0.09	0.00	0.09
65.50	0.25	0.32	0.81*	0.09	0.00	0.09
65.55	0.26	0.31	0.82*	0.08	0.00	0.08
65.60	0.26	0.31	0.82*	0.07	0.00	0.07
65.65	0.26	0.31	0.83*	0.07	0.00	0.07
65.70	0.26	0.31	0.84*	0.06	0.00	0.06
65.75	0.27	0.31	0.85*	0.05	0.00	0.05
65.80	0.27	0.31	0.86*	0.05	0.00	0.05
65.85	0.27	0.31	0.86*	0.04	0.00	0.04
65.90	0.27	0.31	0.87*	0.03	0.00	0.03
65.95	0.28	0.31	0.88*	0.03	0.00	0.03
66.00	0.28	0.31	0.89*	0.02	0.00	0.02
66.05	0.28	0.31	0.90*	0.02	0.00	0.02
66.10	0.28	0.31	0.91*	0.02	0.00	0.02
66.15	0.29	0.31	0.91*	0.02	0.00	0.02
66.20	0.29	0.31	0.92*	0.01	0.00	0.01
66.25	0.29	0.31	0.93*	0.01	0.00	0.01
66.30	0.29	0.31	0.94*	0.01	0.00	0.01
66.35	0.30	0.31	0.95*	0.01	0.00	0.01
66.40	0.30	0.31	0.96*	0.01	0.00	0.01
66.45	0.30	0.31	0.97*	0.01	0.00	0.01

66.50	0.31	0.31	0.98*	0.01	0.00	0.01
66.55	0.31	0.31	0.99*	0.01	0.00	0.01
66.60	0.31	0.31	1.00*	0.01	0.00	0.01
66.65	0.31	0.31	1.01	0.00	0.00	0.00
66.70	0.32	0.31	1.02	0.00	0.00	0.00
66.75	0.32	0.31	1.03	0.00	0.00	0.00
66.80	0.32	0.31	1.04	0.00	0.00	0.00
66.85	0.33	0.31	1.05	0.00	0.00	0.00
66.90	0.33	0.31	1.06	0.00	0.00	0.00
66.95	0.33	0.31	1.07	0.00	0.00	0.00
67.00	0.34	0.31	1.08	0.00	0.00	0.00
67.05	0.34	0.31	1.09	0.00	0.00	0.00
67.10	0.34	0.31	1.10	0.00	0.00	0.00
67.15	0.35	0.31	1.11	0.00	0.00	0.00
67.20	0.35	0.31	1.12	0.00	0.00	0.00
67.25	0.35	0.31	1.14	0.00	0.00	0.00
67.30	0.36	0.31	1.15	0.00	0.00	0.00
67.35	0.36	0.31	1.16	0.00	0.00	0.00
67.40	0.36	0.31	1.17	0.00	0.00	0.00
67.45	0.37	0.31	1.19	0.00	0.00	0.00
67.50	0.37	0.31	1.20	0.00	0.00	0.00
67.55	0.38	0.31	1.21	0.00	0.00	0.00
67.60	0.38	0.31	1.23	0.00	0.00	0.00
67.65	0.38	0.31	1.24	0.00	0.00	0.00
67.70	0.39	0.31	1.26	0.00	0.00	0.00
67.75	0.39	0.31	1.27	0.00	0.00	0.00
67.80	0.40	0.31	1.29	0.00	0.00	0.00
67.85	0.40	0.31	1.30	0.00	0.00	0.00
67.90	0.41	0.31	1.32	0.00	0.00	0.00
67.95	0.41	0.31	1.34	0.00	0.00	0.00
68.00	0.42	0.31	1.36	0.00	0.00	0.00
68.05	0.42	0.31	1.38	0.00	0.00	0.00
68.10	0.43	0.31	1.40	0.00	0.00	0.00
68.15	0.44	0.31	1.42	0.00	0.00	0.00
68.20	0.44	0.31	1.45	0.00	0.00	0.00
68.25	0.45	0.31	1.48	0.00	0.00	0.00
68.30	0.46	0.31	1.51	0.00	0.00	0.00
68.35	0.47	0.31	1.55	0.00	0.00	0.00
68.40	0.49	0.31	1.60	0.00	0.00	0.00
68.45	0.51	0.31	1.66	0.00	0.00	0.00
68.50	0.54	0.31	1.77	0.00	0.00	0.00
68.55	0.60	0.31	1.95	0.00	0.00	0.00
68.60	0.60	0.31	1.95	0.00	0.00	0.00
68.65	0.60	0.31	1.95	0.00	0.00	0.00
68.70	0.60	0.31	1.95	0.00	0.00	0.00
68.75	0.59	0.31	1.95	0.00	0.00	0.00
68.80	0.59	0.31	1.95	0.00	0.00	0.00
68.85	0.59	0.31	1.95	0.00	0.00	0.00
68.90	0.59	0.30	1.95	0.00	0.00	0.00
68.95	0.59	0.30	1.95	0.00	0.00	0.00
69.00	0.59	0.30	1.95	0.00	0.00	0.00
69.05	0.59	0.30	1.95	0.00	0.00	0.00
69.10	0.59	0.30	1.95	0.00	0.00	0.00
69.15	0.59	0.30	1.95	0.00	0.00	0.00
69.20	0.59	0.30	1.95	0.00	0.00	0.00
69.25	0.59	0.30	1.95	0.00	0.00	0.00
69.30	0.59	0.30	1.96	0.00	0.00	0.00
69.35	0.59	0.30	1.96	0.00	0.00	0.00
69.40	0.59	0.30	1.96	0.00	0.00	0.00
69.45	0.59	0.30	1.96	0.00	0.00	0.00
69.50	0.59	0.30	1.96	0.00	0.00	0.00
69.55	0.59	0.30	1.96	0.00	0.00	0.00
69.60	0.59	0.30	1.96	0.00	0.00	0.00
69.65	0.59	0.30	1.96	0.00	0.00	0.00
69.70	0.59	0.30	1.96	0.00	0.00	0.00
69.75	0.59	0.30	1.96	0.00	0.00	0.00
69.80	0.59	0.30	1.96	0.00	0.00	0.00
69.85	0.59	0.30	1.96	0.00	0.00	0.00
69.90	0.59	0.30	1.96	0.00	0.00	0.00
69.95	0.59	0.30	1.97	0.00	0.00	0.00
70.00	0.59	0.30	1.97	0.00	0.00	0.00
70.05	0.59	0.30	1.97	0.00	0.00	0.00
70.10	0.59	0.30	1.97	0.00	0.00	0.00
70.15	0.59	0.30	1.97	0.00	0.00	0.00
70.20	0.59	0.30	1.97	0.00	0.00	0.00

70.25	0.59	0.30	1.97	0.00	0.00	0.00
70.30	0.59	0.30	1.97	0.00	0.00	0.00
70.35	0.59	0.30	1.97	0.00	0.00	0.00
70.40	0.59	0.30	1.97	0.00	0.00	0.00
70.45	0.59	0.30	1.97	0.00	0.00	0.00
70.50	0.59	0.30	1.97	0.00	0.00	0.00
70.55	0.59	0.30	1.97	0.00	0.00	0.00
70.60	0.59	0.30	1.98	0.00	0.00	0.00
70.65	0.59	0.30	1.98	0.00	0.00	0.00
70.70	0.59	0.30	1.98	0.00	0.00	0.00
70.75	0.59	0.30	1.98	0.00	0.00	0.00
70.80	0.59	0.30	1.98	0.00	0.00	0.00
70.85	0.59	0.30	1.98	0.00	0.00	0.00
70.90	0.59	0.30	1.98	0.00	0.00	0.00
70.95	0.59	0.30	1.98	0.00	0.00	0.00
71.00	0.59	0.30	1.98	0.00	0.00	0.00
71.05	0.59	0.30	1.98	0.00	0.00	0.00
71.10	0.59	0.30	1.98	0.00	0.00	0.00
71.15	0.59	0.30	1.98	0.00	0.00	0.00
71.20	0.59	0.30	1.98	0.00	0.00	0.00
71.25	0.59	0.30	1.99	0.00	0.00	0.00
71.30	0.59	0.30	1.99	0.00	0.00	0.00
71.35	0.59	0.30	1.99	0.00	0.00	0.00
71.40	0.59	0.30	1.99	0.00	0.00	0.00
71.45	0.59	0.30	1.99	0.00	0.00	0.00
71.50	0.59	0.30	1.99	0.00	0.00	0.00
71.55	0.59	0.30	1.99	0.00	0.00	0.00
71.60	0.59	0.30	1.99	0.00	0.00	0.00
71.65	0.59	0.30	1.99	0.00	0.00	0.00
71.70	0.59	0.30	1.99	0.00	0.00	0.00
71.75	0.59	0.30	1.99	0.00	0.00	0.00
71.80	0.59	0.30	1.99	0.00	0.00	0.00
71.85	0.59	0.30	1.99	0.00	0.00	0.00
71.90	0.59	0.30	2.00	0.00	0.00	0.00
71.95	0.59	0.30	2.00	0.00	0.00	0.00
72.00	0.59	0.30	2.00	0.00	0.00	0.00
72.05	0.59	0.30	2.00	0.00	0.00	0.00
72.10	0.59	0.30	2.00	0.00	0.00	0.00
72.15	0.59	0.29	2.00	0.00	0.00	0.00
72.20	0.59	0.29	2.00	0.00	0.00	0.00
72.25	0.59	0.29	2.00	0.00	0.00	0.00
72.30	0.59	0.29	2.00	0.00	0.00	0.00
72.35	0.59	0.29	2.00	0.00	0.00	0.00
72.40	0.59	0.29	2.00	0.00	0.00	0.00
72.45	0.59	0.29	2.00	0.00	0.00	0.00
72.50	0.59	0.29	2.01	0.00	0.00	0.00
72.55	0.59	0.29	2.01	0.00	0.00	0.00
72.60	0.59	0.29	2.01	0.00	0.00	0.00
72.65	0.59	0.29	2.01	0.00	0.00	0.00
72.70	0.59	0.29	2.01	0.00	0.00	0.00
72.75	0.59	0.29	2.01	0.00	0.00	0.00
72.80	0.59	0.29	2.01	0.00	0.00	0.00
72.85	0.59	0.29	2.01	0.00	0.00	0.00
72.90	0.59	0.29	2.01	0.00	0.00	0.00
72.95	0.59	0.29	2.01	0.00	0.00	0.00
73.00	0.59	0.29	2.01	0.00	0.00	0.00
73.05	0.59	0.29	2.01	0.00	0.00	0.00
73.10	0.59	0.29	2.02	0.00	0.00	0.00
73.15	0.59	0.29	2.02	0.00	0.00	0.00
73.20	0.59	0.29	2.02	0.00	0.00	0.00
73.25	0.59	0.29	2.02	0.00	0.00	0.00
73.30	0.59	0.29	2.02	0.00	0.00	0.00
73.35	0.59	0.29	2.02	0.00	0.00	0.00
73.40	0.59	0.29	2.02	0.00	0.00	0.00
73.45	0.59	0.29	2.02	0.00	0.00	0.00
73.50	0.59	0.29	2.02	0.00	0.00	0.00
73.55	0.59	0.29	2.02	0.00	0.00	0.00
73.60	0.59	0.29	2.02	0.00	0.00	0.00
73.65	0.59	0.29	2.02	0.00	0.00	0.00
73.70	0.59	0.29	2.03	0.00	0.00	0.00
73.75	0.59	0.29	2.03	0.00	0.00	0.00
73.80	0.59	0.29	2.03	0.00	0.00	0.00
73.85	0.59	0.29	2.03	0.00	0.00	0.00
73.90	0.59	0.29	2.03	0.00	0.00	0.00
73.95	0.59	0.29	2.03	0.00	0.00	0.00

74.00	0.59	0.29	2.03	0.00	0.00	0.00
74.05	0.59	0.29	2.03	0.00	0.00	0.00
74.10	0.59	0.29	2.03	0.00	0.00	0.00
74.15	0.59	0.29	2.03	0.00	0.00	0.00
74.20	0.59	0.29	2.03	0.00	0.00	0.00
74.25	0.59	0.29	2.04	0.00	0.00	0.00
74.30	0.59	0.29	2.04	0.00	0.00	0.00
74.35	0.59	0.29	2.04	0.00	0.00	0.00
74.40	0.59	0.29	2.04	0.00	0.00	0.00
74.45	0.59	0.29	2.04	0.00	0.00	0.00
74.50	0.59	0.29	2.04	0.00	0.00	0.00
74.55	0.59	0.29	2.04	0.00	0.00	0.00
74.60	0.59	0.29	2.04	0.00	0.00	0.00
74.65	0.59	0.29	2.04	0.00	0.00	0.00
74.70	0.59	0.29	2.04	0.00	0.00	0.00
74.75	0.59	0.29	2.04	0.00	0.00	0.00
74.80	0.59	0.29	2.04	0.00	0.00	0.00
74.85	0.59	0.29	2.05	0.00	0.00	0.00
74.90	0.59	0.29	2.05	0.00	0.00	0.00
74.95	0.59	0.29	2.05	0.00	0.00	0.00
75.00	0.59	0.29	2.05	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

1 atm (atmosphere) = 1 tsf (ton/ft2)

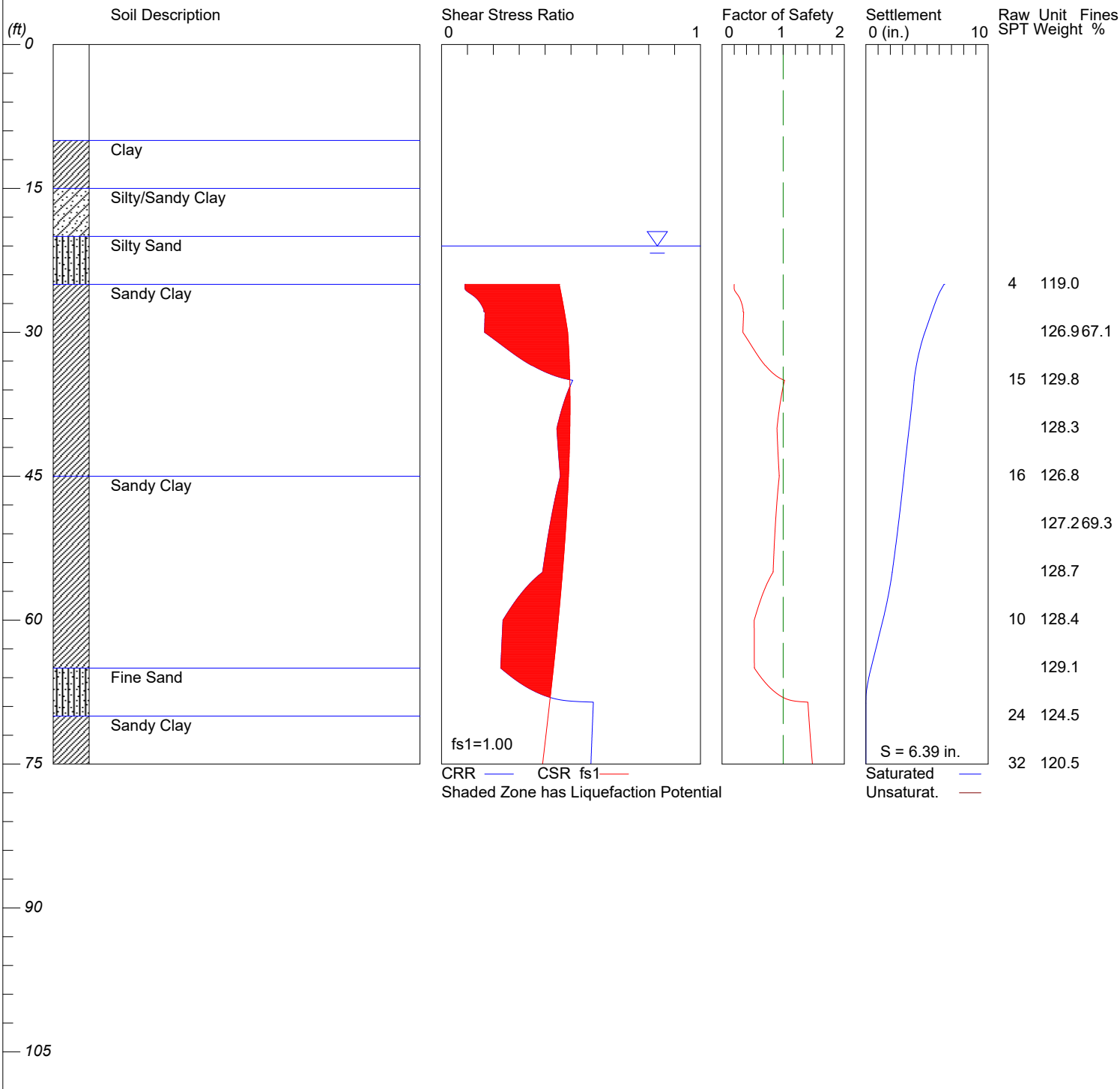
CRRm	Cyclic resistance ratio from soils
CSRsf	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat	Settlement from saturated sands
S_dry	Settlement from Unsaturated Sands
S_all	Total Settlement from Saturated and Unsaturated Sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS

De Soto/Burbank

Hole No.=B-1 Water Depth=21 ft

Magnitude=6.78
Acceleration=0.68g



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LIQUEFACTION ANALYSIS SUMMARY
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Input File Name: C:\Users\jonne\OneDrive\Work\Projects\6743 -- Adler Realty August 2019 Update\Liquefaction\B-1 Full PGA.liq
Title: De Soto/Burbank
Subtitle: 2% Probability - Full PGAm

Surface Elev.=
Hole No.=B-1
Depth of Hole= 75.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration= 0.68 g
Earthquake Magnitude= 6.78

Input Data:
Surface Elev.=
Hole No.=B-1
Depth of Hole=75.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration=0.68 g
Earthquake Magnitude=6.78
No-Liquefiable Soils: Based on Analysis

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Tokimatsu, M-correction
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.42
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1.2
9. User request factor of safety (apply to CSR) , User= 1.0
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
25.00	4.00	119.00	0.00
30.00	4.00	126.90	67.10
35.00	15.00	129.80	67.10
40.00	15.00	128.30	67.10
45.00	16.00	126.80	67.10
50.00	16.00	127.20	69.30
55.00	16.00	128.70	69.30
60.00	10.00	128.40	69.30
65.00	10.00	129.10	69.30
70.00	24.00	124.50	69.30
75.00	32.00	120.50	69.30

Output Results:
Settlement of Saturated Sands=6.39 in.
Settlement of Unsaturated Sands=0.00 in.
Total Settlement of Saturated and Unsaturated Sands=6.39 in.
Differential Settlement=3.195 to 4.218 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
25.00	0.09	0.45	0.20*	6.39	0.00	6.39
25.05	0.09	0.45	0.20*	6.37	0.00	6.37
25.10	0.09	0.46	0.20*	6.35	0.00	6.35
25.15	0.09	0.46	0.20*	6.32	0.00	6.32
25.20	0.09	0.46	0.20*	6.30	0.00	6.30

25.25	0.09	0.46	0.20*	6.28	0.00	6.28
25.30	0.09	0.46	0.20*	6.26	0.00	6.26
25.35	0.09	0.46	0.20*	6.23	0.00	6.23
25.40	0.09	0.46	0.20*	6.21	0.00	6.21
25.45	0.09	0.46	0.20*	6.19	0.00	6.19
25.50	0.09	0.46	0.20*	6.17	0.00	6.17
25.55	0.09	0.46	0.20*	6.14	0.00	6.14
25.60	0.09	0.46	0.20*	6.12	0.00	6.12
25.65	0.10	0.46	0.21*	6.10	0.00	6.10
25.70	0.10	0.46	0.21*	6.08	0.00	6.08
25.75	0.10	0.46	0.22*	6.06	0.00	6.06
25.80	0.10	0.46	0.22*	6.04	0.00	6.04
25.85	0.11	0.46	0.23*	6.02	0.00	6.02
25.90	0.11	0.46	0.23*	6.00	0.00	6.00
25.95	0.11	0.46	0.24*	5.98	0.00	5.98
26.00	0.11	0.46	0.25*	5.96	0.00	5.96
26.05	0.12	0.46	0.25*	5.95	0.00	5.95
26.10	0.12	0.46	0.26*	5.93	0.00	5.93
26.15	0.12	0.46	0.26*	5.91	0.00	5.91
26.20	0.12	0.46	0.27*	5.90	0.00	5.90
26.25	0.13	0.46	0.27*	5.88	0.00	5.88
26.30	0.13	0.46	0.28*	5.86	0.00	5.86
26.35	0.13	0.46	0.28*	5.85	0.00	5.85
26.40	0.13	0.46	0.29*	5.83	0.00	5.83
26.45	0.13	0.46	0.29*	5.81	0.00	5.81
26.50	0.14	0.47	0.29*	5.80	0.00	5.80
26.55	0.14	0.47	0.30*	5.78	0.00	5.78
26.60	0.14	0.47	0.30*	5.77	0.00	5.77
26.65	0.14	0.47	0.30*	5.75	0.00	5.75
26.70	0.14	0.47	0.31*	5.74	0.00	5.74
26.75	0.14	0.47	0.31*	5.72	0.00	5.72
26.80	0.15	0.47	0.31*	5.71	0.00	5.71
26.85	0.15	0.47	0.32*	5.69	0.00	5.69
26.90	0.15	0.47	0.32*	5.68	0.00	5.68
26.95	0.15	0.47	0.32*	5.66	0.00	5.66
27.00	0.15	0.47	0.32*	5.65	0.00	5.65
27.05	0.15	0.47	0.32*	5.63	0.00	5.63
27.10	0.15	0.47	0.33*	5.62	0.00	5.62
27.15	0.15	0.47	0.33*	5.61	0.00	5.61
27.20	0.16	0.47	0.33*	5.59	0.00	5.59
27.25	0.16	0.47	0.33*	5.58	0.00	5.58
27.30	0.16	0.47	0.33*	5.56	0.00	5.56
27.35	0.16	0.47	0.34*	5.55	0.00	5.55
27.40	0.16	0.47	0.34*	5.53	0.00	5.53
27.45	0.16	0.47	0.34*	5.52	0.00	5.52
27.50	0.16	0.47	0.34*	5.51	0.00	5.51
27.55	0.16	0.47	0.34*	5.49	0.00	5.49
27.60	0.16	0.47	0.34*	5.48	0.00	5.48
27.65	0.16	0.47	0.35*	5.46	0.00	5.46
27.70	0.16	0.47	0.35*	5.45	0.00	5.45
27.75	0.16	0.47	0.34*	5.44	0.00	5.44
27.80	0.16	0.47	0.34*	5.42	0.00	5.42
27.85	0.16	0.47	0.34*	5.41	0.00	5.41
27.90	0.17	0.47	0.35*	5.40	0.00	5.40
27.95	0.17	0.48	0.35*	5.38	0.00	5.38
28.00	0.17	0.48	0.35*	5.37	0.00	5.37
28.05	0.17	0.48	0.35*	5.35	0.00	5.35
28.10	0.17	0.48	0.35*	5.34	0.00	5.34
28.15	0.17	0.48	0.35*	5.33	0.00	5.33
28.20	0.17	0.48	0.35*	5.31	0.00	5.31
28.25	0.17	0.48	0.35*	5.30	0.00	5.30
28.30	0.17	0.48	0.35*	5.29	0.00	5.29
28.35	0.17	0.48	0.35*	5.27	0.00	5.27
28.40	0.17	0.48	0.35*	5.26	0.00	5.26
28.45	0.17	0.48	0.35*	5.25	0.00	5.25
28.50	0.17	0.48	0.35*	5.23	0.00	5.23
28.55	0.17	0.48	0.35*	5.22	0.00	5.22
28.60	0.17	0.48	0.35*	5.21	0.00	5.21
28.65	0.17	0.48	0.35*	5.19	0.00	5.19
28.70	0.17	0.48	0.35*	5.18	0.00	5.18
28.75	0.17	0.48	0.35*	5.16	0.00	5.16
28.80	0.17	0.48	0.35*	5.15	0.00	5.15
28.85	0.17	0.48	0.35*	5.14	0.00	5.14
28.90	0.17	0.48	0.35*	5.12	0.00	5.12
28.95	0.17	0.48	0.35*	5.11	0.00	5.11

29.00	0.17	0.48	0.35*	5.10	0.00	5.10
29.05	0.17	0.48	0.35*	5.08	0.00	5.08
29.10	0.17	0.48	0.35*	5.07	0.00	5.07
29.15	0.17	0.48	0.35*	5.06	0.00	5.06
29.20	0.17	0.48	0.35*	5.04	0.00	5.04
29.25	0.17	0.48	0.35*	5.03	0.00	5.03
29.30	0.17	0.48	0.34*	5.01	0.00	5.01
29.35	0.17	0.48	0.34*	5.00	0.00	5.00
29.40	0.17	0.48	0.34*	4.99	0.00	4.99
29.45	0.17	0.48	0.34*	4.97	0.00	4.97
29.50	0.17	0.48	0.34*	4.96	0.00	4.96
29.55	0.17	0.48	0.34*	4.95	0.00	4.95
29.60	0.17	0.49	0.34*	4.93	0.00	4.93
29.65	0.17	0.49	0.34*	4.92	0.00	4.92
29.70	0.17	0.49	0.34*	4.91	0.00	4.91
29.75	0.17	0.49	0.34*	4.89	0.00	4.89
29.80	0.17	0.49	0.34*	4.88	0.00	4.88
29.85	0.17	0.49	0.34*	4.86	0.00	4.86
29.90	0.17	0.49	0.34*	4.85	0.00	4.85
29.95	0.17	0.49	0.34*	4.84	0.00	4.84
30.00	0.17	0.49	0.34*	4.82	0.00	4.82
30.05	0.17	0.49	0.35*	4.81	0.00	4.81
30.10	0.17	0.49	0.35*	4.80	0.00	4.80
30.15	0.17	0.49	0.36*	4.78	0.00	4.78
30.20	0.18	0.49	0.36*	4.77	0.00	4.77
30.25	0.18	0.49	0.37*	4.76	0.00	4.76
30.30	0.18	0.49	0.37*	4.74	0.00	4.74
30.35	0.18	0.49	0.38*	4.73	0.00	4.73
30.40	0.19	0.49	0.38*	4.72	0.00	4.72
30.45	0.19	0.49	0.39*	4.71	0.00	4.71
30.50	0.19	0.49	0.39*	4.69	0.00	4.69
30.55	0.19	0.49	0.40*	4.68	0.00	4.68
30.60	0.20	0.49	0.40*	4.67	0.00	4.67
30.65	0.20	0.49	0.41*	4.66	0.00	4.66
30.70	0.20	0.49	0.41*	4.64	0.00	4.64
30.75	0.20	0.49	0.42*	4.63	0.00	4.63
30.80	0.21	0.49	0.42*	4.62	0.00	4.62
30.85	0.21	0.49	0.43*	4.61	0.00	4.61
30.90	0.21	0.49	0.43*	4.60	0.00	4.60
30.95	0.21	0.49	0.44*	4.59	0.00	4.59
31.00	0.22	0.49	0.44*	4.58	0.00	4.58
31.05	0.22	0.49	0.45*	4.56	0.00	4.56
31.10	0.22	0.49	0.45*	4.55	0.00	4.55
31.15	0.22	0.49	0.46*	4.54	0.00	4.54
31.20	0.23	0.49	0.46*	4.53	0.00	4.53
31.25	0.23	0.49	0.47*	4.52	0.00	4.52
31.30	0.23	0.49	0.47*	4.51	0.00	4.51
31.35	0.23	0.49	0.48*	4.50	0.00	4.50
31.40	0.24	0.49	0.48*	4.49	0.00	4.49
31.45	0.24	0.49	0.49*	4.48	0.00	4.48
31.50	0.24	0.49	0.49*	4.47	0.00	4.47
31.55	0.24	0.49	0.50*	4.46	0.00	4.46
31.60	0.25	0.49	0.50*	4.45	0.00	4.45
31.65	0.25	0.49	0.51*	4.44	0.00	4.44
31.70	0.25	0.49	0.51*	4.43	0.00	4.43
31.75	0.25	0.49	0.52*	4.42	0.00	4.42
31.80	0.26	0.49	0.52*	4.41	0.00	4.41
31.85	0.26	0.49	0.53*	4.40	0.00	4.40
31.90	0.26	0.49	0.53*	4.39	0.00	4.39
31.95	0.26	0.49	0.54*	4.38	0.00	4.38
32.00	0.27	0.49	0.54*	4.37	0.00	4.37
32.05	0.27	0.49	0.55*	4.36	0.00	4.36
32.10	0.27	0.49	0.55*	4.35	0.00	4.35
32.15	0.27	0.49	0.56*	4.34	0.00	4.34
32.20	0.28	0.49	0.56*	4.33	0.00	4.33
32.25	0.28	0.49	0.57*	4.32	0.00	4.32
32.30	0.28	0.49	0.57*	4.31	0.00	4.31
32.35	0.28	0.49	0.58*	4.31	0.00	4.31
32.40	0.29	0.49	0.58*	4.30	0.00	4.30
32.45	0.29	0.49	0.59*	4.29	0.00	4.29
32.50	0.29	0.49	0.59*	4.28	0.00	4.28
32.55	0.29	0.49	0.60*	4.27	0.00	4.27
32.60	0.30	0.49	0.60*	4.26	0.00	4.26
32.65	0.30	0.49	0.61*	4.25	0.00	4.25
32.70	0.30	0.49	0.61*	4.25	0.00	4.25

32.75	0.31	0.49	0.62*	4.24	0.00	4.24
32.80	0.31	0.49	0.63*	4.23	0.00	4.23
32.85	0.31	0.49	0.63*	4.22	0.00	4.22
32.90	0.31	0.49	0.64*	4.21	0.00	4.21
32.95	0.32	0.49	0.64*	4.20	0.00	4.20
33.00	0.32	0.49	0.65*	4.20	0.00	4.20
33.05	0.32	0.49	0.65*	4.19	0.00	4.19
33.10	0.33	0.49	0.66*	4.18	0.00	4.18
33.15	0.33	0.49	0.67*	4.17	0.00	4.17
33.20	0.33	0.49	0.67*	4.17	0.00	4.17
33.25	0.34	0.49	0.68*	4.16	0.00	4.16
33.30	0.34	0.49	0.69*	4.15	0.00	4.15
33.35	0.34	0.49	0.69*	4.14	0.00	4.14
33.40	0.34	0.49	0.70*	4.14	0.00	4.14
33.45	0.35	0.49	0.70*	4.13	0.00	4.13
33.50	0.35	0.49	0.72*	4.12	0.00	4.12
33.55	0.36	0.49	0.72*	4.11	0.00	4.11
33.60	0.36	0.49	0.73*	4.11	0.00	4.11
33.65	0.36	0.49	0.74*	4.10	0.00	4.10
33.70	0.37	0.49	0.74*	4.09	0.00	4.09
33.75	0.37	0.49	0.75*	4.09	0.00	4.09
33.80	0.37	0.49	0.76*	4.08	0.00	4.08
33.85	0.38	0.49	0.76*	4.07	0.00	4.07
33.90	0.38	0.49	0.77*	4.07	0.00	4.07
33.95	0.39	0.49	0.78*	4.06	0.00	4.06
34.00	0.39	0.49	0.79*	4.05	0.00	4.05
34.05	0.39	0.49	0.80*	4.05	0.00	4.05
34.10	0.40	0.49	0.80*	4.04	0.00	4.04
34.15	0.40	0.49	0.81*	4.04	0.00	4.04
34.20	0.41	0.49	0.82*	4.03	0.00	4.03
34.25	0.41	0.49	0.83*	4.02	0.00	4.02
34.30	0.42	0.49	0.84*	4.02	0.00	4.02
34.35	0.42	0.49	0.85*	4.01	0.00	4.01
34.40	0.42	0.49	0.86*	4.01	0.00	4.01
34.45	0.43	0.49	0.87*	4.00	0.00	4.00
34.50	0.43	0.49	0.88*	3.99	0.00	3.99
34.55	0.44	0.49	0.89*	3.99	0.00	3.99
34.60	0.45	0.49	0.90*	3.98	0.00	3.98
34.65	0.45	0.50	0.91*	3.98	0.00	3.98
34.70	0.46	0.50	0.92*	3.97	0.00	3.97
34.75	0.46	0.50	0.94*	3.97	0.00	3.97
34.80	0.47	0.50	0.95*	3.97	0.00	3.97
34.85	0.48	0.50	0.97*	3.96	0.00	3.96
34.90	0.49	0.50	0.98*	3.96	0.00	3.96
34.95	0.50	0.50	1.00	3.95	0.00	3.95
35.00	0.51	0.50	1.02	3.95	0.00	3.95
35.05	0.51	0.50	1.02	3.95	0.00	3.95
35.10	0.51	0.50	1.02	3.94	0.00	3.94
35.15	0.50	0.50	1.02	3.94	0.00	3.94
35.20	0.50	0.50	1.02	3.94	0.00	3.94
35.25	0.50	0.50	1.01	3.93	0.00	3.93
35.30	0.50	0.50	1.01	3.93	0.00	3.93
35.35	0.50	0.50	1.01	3.92	0.00	3.92
35.40	0.50	0.50	1.01	3.92	0.00	3.92
35.45	0.50	0.50	1.01	3.92	0.00	3.92
35.50	0.50	0.50	1.01	3.91	0.00	3.91
35.55	0.50	0.50	1.00	3.91	0.00	3.91
35.60	0.50	0.50	1.00	3.91	0.00	3.91
35.65	0.50	0.50	1.00*	3.90	0.00	3.90
35.70	0.49	0.50	1.00*	3.90	0.00	3.90
35.75	0.49	0.50	1.00*	3.90	0.00	3.90
35.80	0.49	0.50	0.99*	3.89	0.00	3.89
35.85	0.49	0.50	0.99*	3.89	0.00	3.89
35.90	0.49	0.50	0.99*	3.88	0.00	3.88
35.95	0.49	0.50	0.99*	3.88	0.00	3.88
36.00	0.49	0.50	0.99*	3.88	0.00	3.88
36.05	0.49	0.50	0.99*	3.87	0.00	3.87
36.10	0.49	0.50	0.99*	3.87	0.00	3.87
36.15	0.49	0.50	0.98*	3.86	0.00	3.86
36.20	0.49	0.50	0.98*	3.86	0.00	3.86
36.25	0.49	0.50	0.98*	3.86	0.00	3.86
36.30	0.49	0.50	0.98*	3.85	0.00	3.85
36.35	0.49	0.50	0.98*	3.85	0.00	3.85
36.40	0.48	0.50	0.98*	3.85	0.00	3.85
36.45	0.48	0.50	0.98*	3.84	0.00	3.84

36.50	0.48	0.50	0.97*	3.84	0.00	3.84
36.55	0.48	0.50	0.97*	3.83	0.00	3.83
36.60	0.48	0.50	0.97*	3.83	0.00	3.83
36.65	0.48	0.50	0.97*	3.83	0.00	3.83
36.70	0.48	0.50	0.97*	3.82	0.00	3.82
36.75	0.48	0.50	0.97*	3.82	0.00	3.82
36.80	0.48	0.50	0.97*	3.81	0.00	3.81
36.85	0.48	0.50	0.96*	3.81	0.00	3.81
36.90	0.48	0.50	0.96*	3.81	0.00	3.81
36.95	0.48	0.50	0.96*	3.80	0.00	3.80
37.00	0.48	0.50	0.96*	3.80	0.00	3.80
37.05	0.48	0.50	0.96*	3.79	0.00	3.79
37.10	0.48	0.50	0.96*	3.79	0.00	3.79
37.15	0.47	0.50	0.96*	3.79	0.00	3.79
37.20	0.47	0.50	0.96*	3.78	0.00	3.78
37.25	0.47	0.50	0.95*	3.78	0.00	3.78
37.30	0.47	0.50	0.95*	3.77	0.00	3.77
37.35	0.47	0.50	0.95*	3.77	0.00	3.77
37.40	0.47	0.50	0.95*	3.77	0.00	3.77
37.45	0.47	0.50	0.95*	3.76	0.00	3.76
37.50	0.47	0.50	0.95*	3.76	0.00	3.76
37.55	0.47	0.50	0.95*	3.75	0.00	3.75
37.60	0.47	0.50	0.95*	3.75	0.00	3.75
37.65	0.47	0.50	0.94*	3.74	0.00	3.74
37.70	0.47	0.50	0.94*	3.74	0.00	3.74
37.75	0.47	0.50	0.94*	3.74	0.00	3.74
37.80	0.47	0.50	0.94*	3.73	0.00	3.73
37.85	0.47	0.50	0.94*	3.73	0.00	3.73
37.90	0.47	0.50	0.94*	3.72	0.00	3.72
37.95	0.47	0.50	0.94*	3.72	0.00	3.72
38.00	0.46	0.50	0.94*	3.72	0.00	3.72
38.05	0.46	0.50	0.94*	3.71	0.00	3.71
38.10	0.46	0.50	0.93*	3.71	0.00	3.71
38.15	0.46	0.50	0.93*	3.70	0.00	3.70
38.20	0.46	0.50	0.93*	3.70	0.00	3.70
38.25	0.46	0.50	0.93*	3.69	0.00	3.69
38.30	0.46	0.50	0.93*	3.69	0.00	3.69
38.35	0.46	0.50	0.93*	3.69	0.00	3.69
38.40	0.46	0.50	0.93*	3.68	0.00	3.68
38.45	0.46	0.50	0.93*	3.68	0.00	3.68
38.50	0.46	0.50	0.93*	3.67	0.00	3.67
38.55	0.46	0.50	0.93*	3.67	0.00	3.67
38.60	0.46	0.50	0.92*	3.66	0.00	3.66
38.65	0.46	0.50	0.92*	3.66	0.00	3.66
38.70	0.46	0.50	0.92*	3.65	0.00	3.65
38.75	0.46	0.50	0.92*	3.65	0.00	3.65
38.80	0.46	0.50	0.92*	3.65	0.00	3.65
38.85	0.46	0.50	0.92*	3.64	0.00	3.64
38.90	0.46	0.50	0.92*	3.64	0.00	3.64
38.95	0.46	0.50	0.92*	3.63	0.00	3.63
39.00	0.45	0.50	0.92*	3.63	0.00	3.63
39.05	0.45	0.50	0.92*	3.62	0.00	3.62
39.10	0.45	0.50	0.91*	3.62	0.00	3.62
39.15	0.45	0.50	0.91*	3.61	0.00	3.61
39.20	0.45	0.50	0.91*	3.61	0.00	3.61
39.25	0.45	0.50	0.91*	3.61	0.00	3.61
39.30	0.45	0.50	0.91*	3.60	0.00	3.60
39.35	0.45	0.50	0.91*	3.60	0.00	3.60
39.40	0.45	0.50	0.91*	3.59	0.00	3.59
39.45	0.45	0.50	0.91*	3.59	0.00	3.59
39.50	0.45	0.50	0.91*	3.58	0.00	3.58
39.55	0.45	0.50	0.91*	3.58	0.00	3.58
39.60	0.45	0.50	0.91*	3.57	0.00	3.57
39.65	0.45	0.50	0.90*	3.57	0.00	3.57
39.70	0.45	0.50	0.90*	3.56	0.00	3.56
39.75	0.45	0.50	0.90*	3.56	0.00	3.56
39.80	0.45	0.50	0.90*	3.56	0.00	3.56
39.85	0.45	0.50	0.90*	3.55	0.00	3.55
39.90	0.45	0.50	0.90*	3.55	0.00	3.55
39.95	0.45	0.50	0.90*	3.54	0.00	3.54
40.00	0.45	0.50	0.90*	3.54	0.00	3.54
40.05	0.45	0.50	0.90*	3.53	0.00	3.53
40.10	0.45	0.50	0.90*	3.53	0.00	3.53
40.15	0.45	0.50	0.90*	3.52	0.00	3.52
40.20	0.45	0.50	0.90*	3.52	0.00	3.52

40.25	0.45	0.50	0.90*	3.51	0.00	3.51
40.30	0.45	0.50	0.90*	3.51	0.00	3.51
40.35	0.45	0.50	0.90*	3.50	0.00	3.50
40.40	0.45	0.50	0.90*	3.50	0.00	3.50
40.45	0.45	0.50	0.90*	3.49	0.00	3.49
40.50	0.45	0.50	0.90*	3.49	0.00	3.49
40.55	0.45	0.50	0.90*	3.49	0.00	3.49
40.60	0.45	0.50	0.90*	3.48	0.00	3.48
40.65	0.45	0.50	0.90*	3.48	0.00	3.48
40.70	0.45	0.50	0.90*	3.47	0.00	3.47
40.75	0.45	0.50	0.90*	3.47	0.00	3.47
40.80	0.45	0.49	0.90*	3.46	0.00	3.46
40.85	0.45	0.49	0.90*	3.46	0.00	3.46
40.90	0.45	0.49	0.90*	3.45	0.00	3.45
40.95	0.45	0.49	0.90*	3.45	0.00	3.45
41.00	0.45	0.49	0.90*	3.44	0.00	3.44
41.05	0.45	0.49	0.90*	3.44	0.00	3.44
41.10	0.45	0.49	0.91*	3.43	0.00	3.43
41.15	0.45	0.49	0.91*	3.43	0.00	3.43
41.20	0.45	0.49	0.91*	3.43	0.00	3.43
41.25	0.45	0.49	0.91*	3.42	0.00	3.42
41.30	0.45	0.49	0.91*	3.42	0.00	3.42
41.35	0.45	0.49	0.91*	3.41	0.00	3.41
41.40	0.45	0.49	0.91*	3.41	0.00	3.41
41.45	0.45	0.49	0.91*	3.40	0.00	3.40
41.50	0.45	0.49	0.91*	3.40	0.00	3.40
41.55	0.45	0.49	0.91*	3.39	0.00	3.39
41.60	0.45	0.49	0.91*	3.39	0.00	3.39
41.65	0.45	0.49	0.91*	3.39	0.00	3.39
41.70	0.45	0.49	0.91*	3.38	0.00	3.38
41.75	0.45	0.49	0.91*	3.38	0.00	3.38
41.80	0.45	0.49	0.91*	3.37	0.00	3.37
41.85	0.45	0.49	0.91*	3.37	0.00	3.37
41.90	0.45	0.49	0.91*	3.36	0.00	3.36
41.95	0.45	0.49	0.91*	3.36	0.00	3.36
42.00	0.45	0.49	0.91*	3.35	0.00	3.35
42.05	0.45	0.49	0.91*	3.35	0.00	3.35
42.10	0.45	0.49	0.91*	3.35	0.00	3.35
42.15	0.45	0.49	0.91*	3.34	0.00	3.34
42.20	0.45	0.49	0.91*	3.34	0.00	3.34
42.25	0.45	0.49	0.91*	3.33	0.00	3.33
42.30	0.45	0.49	0.91*	3.33	0.00	3.33
42.35	0.45	0.49	0.91*	3.32	0.00	3.32
42.40	0.45	0.49	0.91*	3.32	0.00	3.32
42.45	0.45	0.49	0.91*	3.31	0.00	3.31
42.50	0.45	0.49	0.91*	3.31	0.00	3.31
42.55	0.45	0.49	0.92*	3.31	0.00	3.31
42.60	0.45	0.49	0.92*	3.30	0.00	3.30
42.65	0.45	0.49	0.92*	3.30	0.00	3.30
42.70	0.45	0.49	0.92*	3.29	0.00	3.29
42.75	0.45	0.49	0.92*	3.29	0.00	3.29
42.80	0.45	0.49	0.92*	3.28	0.00	3.28
42.85	0.45	0.49	0.92*	3.28	0.00	3.28
42.90	0.45	0.49	0.92*	3.28	0.00	3.28
42.95	0.45	0.49	0.92*	3.27	0.00	3.27
43.00	0.45	0.49	0.92*	3.27	0.00	3.27
43.05	0.45	0.49	0.92*	3.26	0.00	3.26
43.10	0.45	0.49	0.92*	3.26	0.00	3.26
43.15	0.45	0.49	0.92*	3.25	0.00	3.25
43.20	0.45	0.49	0.92*	3.25	0.00	3.25
43.25	0.45	0.49	0.92*	3.24	0.00	3.24
43.30	0.45	0.49	0.92*	3.24	0.00	3.24
43.35	0.45	0.49	0.92*	3.24	0.00	3.24
43.40	0.45	0.49	0.92*	3.23	0.00	3.23
43.45	0.45	0.49	0.92*	3.23	0.00	3.23
43.50	0.45	0.49	0.92*	3.22	0.00	3.22
43.55	0.45	0.49	0.92*	3.22	0.00	3.22
43.60	0.45	0.49	0.92*	3.22	0.00	3.22
43.65	0.45	0.49	0.92*	3.21	0.00	3.21
43.70	0.45	0.49	0.92*	3.21	0.00	3.21
43.75	0.45	0.49	0.92*	3.20	0.00	3.20
43.80	0.46	0.49	0.93*	3.20	0.00	3.20
43.85	0.46	0.49	0.93*	3.19	0.00	3.19
43.90	0.46	0.49	0.93*	3.19	0.00	3.19
43.95	0.46	0.49	0.93*	3.19	0.00	3.19

44.00	0.46	0.49	0.93*	3.18	0.00	3.18
44.05	0.46	0.49	0.93*	3.18	0.00	3.18
44.10	0.46	0.49	0.93*	3.17	0.00	3.17
44.15	0.46	0.49	0.93*	3.17	0.00	3.17
44.20	0.46	0.49	0.93*	3.16	0.00	3.16
44.25	0.46	0.49	0.93*	3.16	0.00	3.16
44.30	0.46	0.49	0.93*	3.16	0.00	3.16
44.35	0.46	0.49	0.93*	3.15	0.00	3.15
44.40	0.46	0.49	0.93*	3.15	0.00	3.15
44.45	0.46	0.49	0.93*	3.14	0.00	3.14
44.50	0.46	0.49	0.93*	3.14	0.00	3.14
44.55	0.46	0.49	0.93*	3.14	0.00	3.14
44.60	0.46	0.49	0.93*	3.13	0.00	3.13
44.65	0.46	0.49	0.93*	3.13	0.00	3.13
44.70	0.46	0.49	0.93*	3.12	0.00	3.12
44.75	0.46	0.49	0.93*	3.12	0.00	3.12
44.80	0.46	0.49	0.93*	3.12	0.00	3.12
44.85	0.46	0.49	0.93*	3.11	0.00	3.11
44.90	0.46	0.49	0.94*	3.11	0.00	3.11
44.95	0.46	0.49	0.94*	3.10	0.00	3.10
45.00	0.46	0.49	0.94*	3.10	0.00	3.10
45.05	0.46	0.49	0.94*	3.10	0.00	3.10
45.10	0.46	0.49	0.93*	3.09	0.00	3.09
45.15	0.46	0.49	0.93*	3.09	0.00	3.09
45.20	0.46	0.49	0.93*	3.08	0.00	3.08
45.25	0.46	0.49	0.93*	3.08	0.00	3.08
45.30	0.46	0.49	0.93*	3.08	0.00	3.08
45.35	0.46	0.49	0.93*	3.07	0.00	3.07
45.40	0.46	0.49	0.93*	3.07	0.00	3.07
45.45	0.45	0.49	0.93*	3.06	0.00	3.06
45.50	0.45	0.49	0.93*	3.06	0.00	3.06
45.55	0.45	0.49	0.93*	3.05	0.00	3.05
45.60	0.45	0.49	0.93*	3.05	0.00	3.05
45.65	0.45	0.49	0.93*	3.05	0.00	3.05
45.70	0.45	0.49	0.92*	3.04	0.00	3.04
45.75	0.45	0.49	0.92*	3.04	0.00	3.04
45.80	0.45	0.49	0.92*	3.03	0.00	3.03
45.85	0.45	0.49	0.92*	3.03	0.00	3.03
45.90	0.45	0.49	0.92*	3.03	0.00	3.03
45.95	0.45	0.49	0.92*	3.02	0.00	3.02
46.00	0.45	0.49	0.92*	3.02	0.00	3.02
46.05	0.45	0.49	0.92*	3.01	0.00	3.01
46.10	0.45	0.49	0.92*	3.01	0.00	3.01
46.15	0.45	0.49	0.92*	3.01	0.00	3.01
46.20	0.45	0.49	0.92*	3.00	0.00	3.00
46.25	0.45	0.49	0.92*	3.00	0.00	3.00
46.30	0.45	0.49	0.92*	2.99	0.00	2.99
46.35	0.45	0.49	0.92*	2.99	0.00	2.99
46.40	0.45	0.49	0.91*	2.98	0.00	2.98
46.45	0.45	0.49	0.91*	2.98	0.00	2.98
46.50	0.45	0.49	0.91*	2.98	0.00	2.98
46.55	0.44	0.49	0.91*	2.97	0.00	2.97
46.60	0.44	0.49	0.91*	2.97	0.00	2.97
46.65	0.44	0.49	0.91*	2.96	0.00	2.96
46.70	0.44	0.49	0.91*	2.96	0.00	2.96
46.75	0.44	0.49	0.91*	2.95	0.00	2.95
46.80	0.44	0.49	0.91*	2.95	0.00	2.95
46.85	0.44	0.49	0.91*	2.95	0.00	2.95
46.90	0.44	0.49	0.91*	2.94	0.00	2.94
46.95	0.44	0.49	0.91*	2.94	0.00	2.94
47.00	0.44	0.49	0.91*	2.93	0.00	2.93
47.05	0.44	0.49	0.91*	2.93	0.00	2.93
47.10	0.44	0.49	0.91*	2.92	0.00	2.92
47.15	0.44	0.49	0.90*	2.92	0.00	2.92
47.20	0.44	0.49	0.90*	2.92	0.00	2.92
47.25	0.44	0.49	0.90*	2.91	0.00	2.91
47.30	0.44	0.49	0.90*	2.91	0.00	2.91
47.35	0.44	0.49	0.90*	2.90	0.00	2.90
47.40	0.44	0.49	0.90*	2.90	0.00	2.90
47.45	0.44	0.49	0.90*	2.89	0.00	2.89
47.50	0.44	0.49	0.90*	2.89	0.00	2.89
47.55	0.44	0.49	0.90*	2.88	0.00	2.88
47.60	0.44	0.49	0.90*	2.88	0.00	2.88
47.65	0.44	0.49	0.90*	2.88	0.00	2.88
47.70	0.44	0.49	0.90*	2.87	0.00	2.87

47.75	0.44	0.49	0.90*	2.87	0.00	2.87
47.80	0.43	0.49	0.90*	2.86	0.00	2.86
47.85	0.43	0.49	0.90*	2.86	0.00	2.86
47.90	0.43	0.49	0.90*	2.85	0.00	2.85
47.95	0.43	0.48	0.89*	2.85	0.00	2.85
48.00	0.43	0.48	0.89*	2.84	0.00	2.84
48.05	0.43	0.48	0.89*	2.84	0.00	2.84
48.10	0.43	0.48	0.89*	2.84	0.00	2.84
48.15	0.43	0.48	0.89*	2.83	0.00	2.83
48.20	0.43	0.48	0.89*	2.83	0.00	2.83
48.25	0.43	0.48	0.89*	2.82	0.00	2.82
48.30	0.43	0.48	0.89*	2.82	0.00	2.82
48.35	0.43	0.48	0.89*	2.81	0.00	2.81
48.40	0.43	0.48	0.89*	2.81	0.00	2.81
48.45	0.43	0.48	0.89*	2.80	0.00	2.80
48.50	0.43	0.48	0.89*	2.80	0.00	2.80
48.55	0.43	0.48	0.89*	2.80	0.00	2.80
48.60	0.43	0.48	0.89*	2.79	0.00	2.79
48.65	0.43	0.48	0.89*	2.79	0.00	2.79
48.70	0.43	0.48	0.89*	2.78	0.00	2.78
48.75	0.43	0.48	0.89*	2.78	0.00	2.78
48.80	0.43	0.48	0.89*	2.77	0.00	2.77
48.85	0.43	0.48	0.88*	2.77	0.00	2.77
48.90	0.43	0.48	0.88*	2.76	0.00	2.76
48.95	0.43	0.48	0.88*	2.76	0.00	2.76
49.00	0.43	0.48	0.88*	2.75	0.00	2.75
49.05	0.43	0.48	0.88*	2.75	0.00	2.75
49.10	0.43	0.48	0.88*	2.74	0.00	2.74
49.15	0.43	0.48	0.88*	2.74	0.00	2.74
49.20	0.42	0.48	0.88*	2.74	0.00	2.74
49.25	0.42	0.48	0.88*	2.73	0.00	2.73
49.30	0.42	0.48	0.88*	2.73	0.00	2.73
49.35	0.42	0.48	0.88*	2.72	0.00	2.72
49.40	0.42	0.48	0.88*	2.72	0.00	2.72
49.45	0.42	0.48	0.88*	2.71	0.00	2.71
49.50	0.42	0.48	0.88*	2.71	0.00	2.71
49.55	0.42	0.48	0.88*	2.70	0.00	2.70
49.60	0.42	0.48	0.88*	2.70	0.00	2.70
49.65	0.42	0.48	0.88*	2.69	0.00	2.69
49.70	0.42	0.48	0.88*	2.69	0.00	2.69
49.75	0.42	0.48	0.88*	2.68	0.00	2.68
49.80	0.42	0.48	0.87*	2.68	0.00	2.68
49.85	0.42	0.48	0.87*	2.67	0.00	2.67
49.90	0.42	0.48	0.87*	2.67	0.00	2.67
49.95	0.42	0.48	0.87*	2.67	0.00	2.67
50.00	0.42	0.48	0.87*	2.66	0.00	2.66
50.05	0.42	0.48	0.87*	2.66	0.00	2.66
50.10	0.42	0.48	0.87*	2.65	0.00	2.65
50.15	0.42	0.48	0.87*	2.65	0.00	2.65
50.20	0.42	0.48	0.87*	2.64	0.00	2.64
50.25	0.42	0.48	0.87*	2.64	0.00	2.64
50.30	0.42	0.48	0.87*	2.63	0.00	2.63
50.35	0.42	0.48	0.87*	2.63	0.00	2.63
50.40	0.42	0.48	0.87*	2.62	0.00	2.62
50.45	0.42	0.48	0.87*	2.62	0.00	2.62
50.50	0.42	0.48	0.87*	2.61	0.00	2.61
50.55	0.42	0.48	0.87*	2.61	0.00	2.61
50.60	0.42	0.48	0.87*	2.60	0.00	2.60
50.65	0.42	0.48	0.87*	2.60	0.00	2.60
50.70	0.41	0.48	0.87*	2.59	0.00	2.59
50.75	0.41	0.48	0.87*	2.59	0.00	2.59
50.80	0.41	0.48	0.87*	2.58	0.00	2.58
50.85	0.41	0.48	0.87*	2.58	0.00	2.58
50.90	0.41	0.48	0.86*	2.57	0.00	2.57
50.95	0.41	0.48	0.86*	2.57	0.00	2.57
51.00	0.41	0.48	0.86*	2.56	0.00	2.56
51.05	0.41	0.48	0.86*	2.56	0.00	2.56
51.10	0.41	0.48	0.86*	2.55	0.00	2.55
51.15	0.41	0.48	0.86*	2.55	0.00	2.55
51.20	0.41	0.48	0.86*	2.54	0.00	2.54
51.25	0.41	0.48	0.86*	2.54	0.00	2.54
51.30	0.41	0.48	0.86*	2.54	0.00	2.54
51.35	0.41	0.48	0.86*	2.53	0.00	2.53
51.40	0.41	0.48	0.86*	2.53	0.00	2.53
51.45	0.41	0.48	0.86*	2.52	0.00	2.52

51.50	0.41	0.48	0.86*	2.52	0.00	2.52
51.55	0.41	0.48	0.86*	2.51	0.00	2.51
51.60	0.41	0.48	0.86*	2.51	0.00	2.51
51.65	0.41	0.48	0.86*	2.50	0.00	2.50
51.70	0.41	0.48	0.86*	2.50	0.00	2.50
51.75	0.41	0.48	0.86*	2.49	0.00	2.49
51.80	0.41	0.48	0.86*	2.49	0.00	2.49
51.85	0.41	0.48	0.86*	2.48	0.00	2.48
51.90	0.41	0.48	0.86*	2.48	0.00	2.48
51.95	0.41	0.48	0.86*	2.47	0.00	2.47
52.00	0.41	0.48	0.86*	2.47	0.00	2.47
52.05	0.41	0.48	0.86*	2.46	0.00	2.46
52.10	0.41	0.48	0.86*	2.46	0.00	2.46
52.15	0.41	0.48	0.85*	2.45	0.00	2.45
52.20	0.41	0.47	0.85*	2.45	0.00	2.45
52.25	0.41	0.47	0.85*	2.44	0.00	2.44
52.30	0.41	0.47	0.85*	2.44	0.00	2.44
52.35	0.40	0.47	0.85*	2.43	0.00	2.43
52.40	0.40	0.47	0.85*	2.43	0.00	2.43
52.45	0.40	0.47	0.85*	2.42	0.00	2.42
52.50	0.40	0.47	0.85*	2.42	0.00	2.42
52.55	0.40	0.47	0.85*	2.41	0.00	2.41
52.60	0.40	0.47	0.85*	2.41	0.00	2.41
52.65	0.40	0.47	0.85*	2.40	0.00	2.40
52.70	0.40	0.47	0.85*	2.40	0.00	2.40
52.75	0.40	0.47	0.85*	2.39	0.00	2.39
52.80	0.40	0.47	0.85*	2.39	0.00	2.39
52.85	0.40	0.47	0.85*	2.38	0.00	2.38
52.90	0.40	0.47	0.85*	2.38	0.00	2.38
52.95	0.40	0.47	0.85*	2.37	0.00	2.37
53.00	0.40	0.47	0.85*	2.36	0.00	2.36
53.05	0.40	0.47	0.85*	2.36	0.00	2.36
53.10	0.40	0.47	0.85*	2.35	0.00	2.35
53.15	0.40	0.47	0.85*	2.35	0.00	2.35
53.20	0.40	0.47	0.85*	2.34	0.00	2.34
53.25	0.40	0.47	0.85*	2.34	0.00	2.34
53.30	0.40	0.47	0.85*	2.33	0.00	2.33
53.35	0.40	0.47	0.85*	2.33	0.00	2.33
53.40	0.40	0.47	0.85*	2.32	0.00	2.32
53.45	0.40	0.47	0.85*	2.32	0.00	2.32
53.50	0.40	0.47	0.84*	2.31	0.00	2.31
53.55	0.40	0.47	0.84*	2.31	0.00	2.31
53.60	0.40	0.47	0.84*	2.30	0.00	2.30
53.65	0.40	0.47	0.84*	2.30	0.00	2.30
53.70	0.40	0.47	0.84*	2.29	0.00	2.29
53.75	0.40	0.47	0.84*	2.29	0.00	2.29
53.80	0.40	0.47	0.84*	2.28	0.00	2.28
53.85	0.40	0.47	0.84*	2.28	0.00	2.28
53.90	0.40	0.47	0.84*	2.27	0.00	2.27
53.95	0.40	0.47	0.84*	2.27	0.00	2.27
54.00	0.40	0.47	0.84*	2.26	0.00	2.26
54.05	0.40	0.47	0.84*	2.26	0.00	2.26
54.10	0.40	0.47	0.84*	2.25	0.00	2.25
54.15	0.39	0.47	0.84*	2.25	0.00	2.25
54.20	0.39	0.47	0.84*	2.24	0.00	2.24
54.25	0.39	0.47	0.84*	2.24	0.00	2.24
54.30	0.39	0.47	0.84*	2.23	0.00	2.23
54.35	0.39	0.47	0.84*	2.22	0.00	2.22
54.40	0.39	0.47	0.84*	2.22	0.00	2.22
54.45	0.39	0.47	0.84*	2.21	0.00	2.21
54.50	0.39	0.47	0.84*	2.21	0.00	2.21
54.55	0.39	0.47	0.84*	2.20	0.00	2.20
54.60	0.39	0.47	0.84*	2.20	0.00	2.20
54.65	0.39	0.47	0.84*	2.19	0.00	2.19
54.70	0.39	0.47	0.84*	2.19	0.00	2.19
54.75	0.39	0.47	0.84*	2.18	0.00	2.18
54.80	0.39	0.47	0.84*	2.18	0.00	2.18
54.85	0.39	0.47	0.84*	2.17	0.00	2.17
54.90	0.39	0.47	0.84*	2.17	0.00	2.17
54.95	0.39	0.47	0.84*	2.16	0.00	2.16
55.00	0.39	0.47	0.84*	2.16	0.00	2.16
55.05	0.39	0.47	0.83*	2.15	0.00	2.15
55.10	0.39	0.47	0.83*	2.15	0.00	2.15
55.15	0.38	0.47	0.82*	2.14	0.00	2.14
55.20	0.38	0.47	0.82*	2.13	0.00	2.13

55.25	0.38	0.47	0.81*	2.13	0.00	2.13
55.30	0.38	0.47	0.81*	2.12	0.00	2.12
55.35	0.37	0.47	0.80*	2.12	0.00	2.12
55.40	0.37	0.47	0.80*	2.11	0.00	2.11
55.45	0.37	0.47	0.79*	2.10	0.00	2.10
55.50	0.37	0.47	0.79*	2.10	0.00	2.10
55.55	0.37	0.47	0.79*	2.09	0.00	2.09
55.60	0.36	0.47	0.78*	2.09	0.00	2.09
55.65	0.36	0.47	0.78*	2.08	0.00	2.08
55.70	0.36	0.46	0.77*	2.07	0.00	2.07
55.75	0.36	0.46	0.77*	2.07	0.00	2.07
55.80	0.36	0.46	0.77*	2.06	0.00	2.06
55.85	0.35	0.46	0.76*	2.05	0.00	2.05
55.90	0.35	0.46	0.76*	2.05	0.00	2.05
55.95	0.35	0.46	0.75*	2.04	0.00	2.04
56.00	0.35	0.46	0.75*	2.04	0.00	2.04
56.05	0.35	0.46	0.75*	2.03	0.00	2.03
56.10	0.34	0.46	0.74*	2.02	0.00	2.02
56.15	0.34	0.46	0.74*	2.02	0.00	2.02
56.20	0.34	0.46	0.74*	2.01	0.00	2.01
56.25	0.34	0.46	0.73*	2.00	0.00	2.00
56.30	0.34	0.46	0.73*	2.00	0.00	2.00
56.35	0.34	0.46	0.73*	1.99	0.00	1.99
56.40	0.33	0.46	0.72*	1.98	0.00	1.98
56.45	0.33	0.46	0.72*	1.98	0.00	1.98
56.50	0.33	0.46	0.71*	1.97	0.00	1.97
56.55	0.33	0.46	0.71*	1.96	0.00	1.96
56.60	0.33	0.46	0.71*	1.95	0.00	1.95
56.65	0.33	0.46	0.70*	1.95	0.00	1.95
56.70	0.32	0.46	0.70*	1.94	0.00	1.94
56.75	0.32	0.46	0.70*	1.93	0.00	1.93
56.80	0.32	0.46	0.70*	1.93	0.00	1.93
56.85	0.32	0.46	0.69*	1.92	0.00	1.92
56.90	0.32	0.46	0.69*	1.91	0.00	1.91
56.95	0.32	0.46	0.69*	1.90	0.00	1.90
57.00	0.31	0.46	0.68*	1.90	0.00	1.90
57.05	0.31	0.46	0.68*	1.89	0.00	1.89
57.10	0.31	0.46	0.68*	1.88	0.00	1.88
57.15	0.31	0.46	0.67*	1.88	0.00	1.88
57.20	0.31	0.46	0.67*	1.87	0.00	1.87
57.25	0.31	0.46	0.67*	1.86	0.00	1.86
57.30	0.31	0.46	0.66*	1.85	0.00	1.85
57.35	0.30	0.46	0.66*	1.85	0.00	1.85
57.40	0.30	0.46	0.66*	1.84	0.00	1.84
57.45	0.30	0.46	0.66*	1.83	0.00	1.83
57.50	0.30	0.46	0.65*	1.82	0.00	1.82
57.55	0.30	0.46	0.65*	1.82	0.00	1.82
57.60	0.30	0.46	0.65*	1.81	0.00	1.81
57.65	0.30	0.46	0.64*	1.80	0.00	1.80
57.70	0.29	0.46	0.64*	1.79	0.00	1.79
57.75	0.29	0.46	0.64*	1.78	0.00	1.78
57.80	0.29	0.46	0.64*	1.78	0.00	1.78
57.85	0.29	0.46	0.63*	1.77	0.00	1.77
57.90	0.29	0.46	0.63*	1.76	0.00	1.76
57.95	0.29	0.46	0.63*	1.75	0.00	1.75
58.00	0.29	0.46	0.62*	1.74	0.00	1.74
58.05	0.28	0.46	0.62*	1.74	0.00	1.74
58.10	0.28	0.46	0.62*	1.73	0.00	1.73
58.15	0.28	0.46	0.62*	1.72	0.00	1.72
58.20	0.28	0.46	0.61*	1.71	0.00	1.71
58.25	0.28	0.46	0.61*	1.70	0.00	1.70
58.30	0.28	0.46	0.61*	1.70	0.00	1.70
58.35	0.28	0.46	0.61*	1.69	0.00	1.69
58.40	0.28	0.46	0.60*	1.68	0.00	1.68
58.45	0.27	0.46	0.60*	1.67	0.00	1.67
58.50	0.27	0.46	0.60*	1.66	0.00	1.66
58.55	0.27	0.46	0.60*	1.65	0.00	1.65
58.60	0.27	0.46	0.59*	1.65	0.00	1.65
58.65	0.27	0.46	0.59*	1.64	0.00	1.64
58.70	0.27	0.46	0.59*	1.63	0.00	1.63
58.75	0.27	0.45	0.59*	1.62	0.00	1.62
58.80	0.27	0.45	0.58*	1.61	0.00	1.61
58.85	0.26	0.45	0.58*	1.60	0.00	1.60
58.90	0.26	0.45	0.58*	1.59	0.00	1.59
58.95	0.26	0.45	0.58*	1.59	0.00	1.59

59.00	0.26	0.45	0.57*	1.58	0.00	1.58
59.05	0.26	0.45	0.57*	1.57	0.00	1.57
59.10	0.26	0.45	0.57*	1.56	0.00	1.56
59.15	0.26	0.45	0.57*	1.55	0.00	1.55
59.20	0.26	0.45	0.56*	1.54	0.00	1.54
59.25	0.25	0.45	0.56*	1.53	0.00	1.53
59.30	0.25	0.45	0.56*	1.52	0.00	1.52
59.35	0.25	0.45	0.56*	1.51	0.00	1.51
59.40	0.25	0.45	0.55*	1.51	0.00	1.51
59.45	0.25	0.45	0.55*	1.50	0.00	1.50
59.50	0.25	0.45	0.55*	1.49	0.00	1.49
59.55	0.25	0.45	0.55*	1.48	0.00	1.48
59.60	0.25	0.45	0.54*	1.47	0.00	1.47
59.65	0.25	0.45	0.54*	1.46	0.00	1.46
59.70	0.24	0.45	0.54*	1.45	0.00	1.45
59.75	0.24	0.45	0.54*	1.44	0.00	1.44
59.80	0.24	0.45	0.54*	1.43	0.00	1.43
59.85	0.24	0.45	0.53*	1.42	0.00	1.42
59.90	0.24	0.45	0.53*	1.41	0.00	1.41
59.95	0.24	0.45	0.53*	1.40	0.00	1.40
60.00	0.24	0.45	0.53*	1.39	0.00	1.39
60.05	0.24	0.45	0.53*	1.38	0.00	1.38
60.10	0.24	0.45	0.53*	1.37	0.00	1.37
60.15	0.24	0.45	0.53*	1.36	0.00	1.36
60.20	0.24	0.45	0.53*	1.35	0.00	1.35
60.25	0.24	0.45	0.53*	1.34	0.00	1.34
60.30	0.24	0.45	0.53*	1.34	0.00	1.34
60.35	0.24	0.45	0.53*	1.33	0.00	1.33
60.40	0.24	0.45	0.53*	1.32	0.00	1.32
60.45	0.24	0.45	0.53*	1.31	0.00	1.31
60.50	0.24	0.45	0.53*	1.30	0.00	1.30
60.55	0.24	0.45	0.53*	1.29	0.00	1.29
60.60	0.24	0.45	0.53*	1.28	0.00	1.28
60.65	0.24	0.45	0.53*	1.27	0.00	1.27
60.70	0.24	0.45	0.53*	1.26	0.00	1.26
60.75	0.24	0.45	0.53*	1.25	0.00	1.25
60.80	0.24	0.45	0.53*	1.24	0.00	1.24
60.85	0.24	0.45	0.53*	1.23	0.00	1.23
60.90	0.24	0.45	0.53*	1.22	0.00	1.22
60.95	0.24	0.45	0.53*	1.21	0.00	1.21
61.00	0.24	0.45	0.53*	1.20	0.00	1.20
61.05	0.24	0.45	0.53*	1.19	0.00	1.19
61.10	0.24	0.45	0.53*	1.18	0.00	1.18
61.15	0.24	0.45	0.53*	1.17	0.00	1.17
61.20	0.24	0.45	0.53*	1.16	0.00	1.16
61.25	0.23	0.45	0.53*	1.15	0.00	1.15
61.30	0.23	0.45	0.53*	1.14	0.00	1.14
61.35	0.23	0.45	0.53*	1.13	0.00	1.13
61.40	0.23	0.45	0.53*	1.12	0.00	1.12
61.45	0.23	0.45	0.53*	1.11	0.00	1.11
61.50	0.23	0.45	0.53*	1.10	0.00	1.10
61.55	0.23	0.45	0.53*	1.09	0.00	1.09
61.60	0.23	0.44	0.53*	1.08	0.00	1.08
61.65	0.23	0.44	0.53*	1.07	0.00	1.07
61.70	0.23	0.44	0.53*	1.06	0.00	1.06
61.75	0.23	0.44	0.53*	1.05	0.00	1.05
61.80	0.23	0.44	0.53*	1.04	0.00	1.04
61.85	0.23	0.44	0.53*	1.03	0.00	1.03
61.90	0.23	0.44	0.53*	1.02	0.00	1.02
61.95	0.23	0.44	0.53*	1.01	0.00	1.01
62.00	0.23	0.44	0.53*	1.00	0.00	1.00
62.05	0.23	0.44	0.53*	1.00	0.00	1.00
62.10	0.23	0.44	0.53*	0.99	0.00	0.99
62.15	0.23	0.44	0.53*	0.98	0.00	0.98
62.20	0.23	0.44	0.53*	0.97	0.00	0.97
62.25	0.23	0.44	0.53*	0.96	0.00	0.96
62.30	0.23	0.44	0.53*	0.95	0.00	0.95
62.35	0.23	0.44	0.53*	0.94	0.00	0.94
62.40	0.23	0.44	0.53*	0.93	0.00	0.93
62.45	0.23	0.44	0.53*	0.92	0.00	0.92
62.50	0.23	0.44	0.53*	0.91	0.00	0.91
62.55	0.23	0.44	0.53*	0.90	0.00	0.90
62.60	0.23	0.44	0.53*	0.89	0.00	0.89
62.65	0.23	0.44	0.53*	0.88	0.00	0.88
62.70	0.23	0.44	0.53*	0.87	0.00	0.87

62.75	0.23	0.44	0.53*	0.86	0.00	0.86
62.80	0.23	0.44	0.53*	0.85	0.00	0.85
62.85	0.23	0.44	0.53*	0.84	0.00	0.84
62.90	0.23	0.44	0.53*	0.83	0.00	0.83
62.95	0.23	0.44	0.53*	0.82	0.00	0.82
63.00	0.23	0.44	0.53*	0.81	0.00	0.81
63.05	0.23	0.44	0.53*	0.80	0.00	0.80
63.10	0.23	0.44	0.53*	0.79	0.00	0.79
63.15	0.23	0.44	0.53*	0.78	0.00	0.78
63.20	0.23	0.44	0.53*	0.77	0.00	0.77
63.25	0.23	0.44	0.53*	0.76	0.00	0.76
63.30	0.23	0.44	0.53*	0.75	0.00	0.75
63.35	0.23	0.44	0.53*	0.74	0.00	0.74
63.40	0.23	0.44	0.53*	0.73	0.00	0.73
63.45	0.23	0.44	0.53*	0.72	0.00	0.72
63.50	0.23	0.44	0.53*	0.71	0.00	0.71
63.55	0.23	0.44	0.53*	0.70	0.00	0.70
63.60	0.23	0.44	0.53*	0.69	0.00	0.69
63.65	0.23	0.44	0.53*	0.68	0.00	0.68
63.70	0.23	0.44	0.53*	0.67	0.00	0.67
63.75	0.23	0.44	0.53*	0.66	0.00	0.66
63.80	0.23	0.44	0.53*	0.65	0.00	0.65
63.85	0.23	0.44	0.53*	0.64	0.00	0.64
63.90	0.23	0.44	0.53*	0.63	0.00	0.63
63.95	0.23	0.44	0.53*	0.62	0.00	0.62
64.00	0.23	0.44	0.53*	0.61	0.00	0.61
64.05	0.23	0.44	0.53*	0.60	0.00	0.60
64.10	0.23	0.44	0.53*	0.59	0.00	0.59
64.15	0.23	0.44	0.53*	0.58	0.00	0.58
64.20	0.23	0.44	0.53*	0.57	0.00	0.57
64.25	0.23	0.43	0.53*	0.56	0.00	0.56
64.30	0.23	0.43	0.53*	0.55	0.00	0.55
64.35	0.23	0.43	0.53*	0.54	0.00	0.54
64.40	0.23	0.43	0.53*	0.53	0.00	0.53
64.45	0.23	0.43	0.53*	0.53	0.00	0.53
64.50	0.23	0.43	0.53*	0.52	0.00	0.52
64.55	0.23	0.43	0.53*	0.51	0.00	0.51
64.60	0.23	0.43	0.53*	0.50	0.00	0.50
64.65	0.23	0.43	0.53*	0.49	0.00	0.49
64.70	0.23	0.43	0.53*	0.48	0.00	0.48
64.75	0.23	0.43	0.53*	0.47	0.00	0.47
64.80	0.23	0.43	0.53*	0.46	0.00	0.46
64.85	0.23	0.43	0.53*	0.45	0.00	0.45
64.90	0.23	0.43	0.53*	0.44	0.00	0.44
64.95	0.23	0.43	0.53*	0.43	0.00	0.43
65.00	0.23	0.43	0.53*	0.42	0.00	0.42
65.05	0.23	0.43	0.53*	0.41	0.00	0.41
65.10	0.23	0.43	0.54*	0.40	0.00	0.40
65.15	0.24	0.43	0.54*	0.39	0.00	0.39
65.20	0.24	0.43	0.55*	0.38	0.00	0.38
65.25	0.24	0.43	0.56*	0.37	0.00	0.37
65.30	0.24	0.43	0.56*	0.36	0.00	0.36
65.35	0.24	0.43	0.57*	0.35	0.00	0.35
65.40	0.25	0.43	0.57*	0.34	0.00	0.34
65.45	0.25	0.43	0.58*	0.33	0.00	0.33
65.50	0.25	0.43	0.58*	0.32	0.00	0.32
65.55	0.25	0.43	0.59*	0.31	0.00	0.31
65.60	0.26	0.43	0.59*	0.31	0.00	0.31
65.65	0.26	0.43	0.60*	0.30	0.00	0.30
65.70	0.26	0.43	0.61*	0.29	0.00	0.29
65.75	0.26	0.43	0.61*	0.28	0.00	0.28
65.80	0.26	0.43	0.62*	0.27	0.00	0.27
65.85	0.27	0.43	0.62*	0.26	0.00	0.26
65.90	0.27	0.43	0.63*	0.25	0.00	0.25
65.95	0.27	0.43	0.64*	0.25	0.00	0.25
66.00	0.27	0.43	0.64*	0.24	0.00	0.24
66.05	0.28	0.43	0.65*	0.23	0.00	0.23
66.10	0.28	0.43	0.65*	0.22	0.00	0.22
66.15	0.28	0.43	0.66*	0.21	0.00	0.21
66.20	0.28	0.43	0.67*	0.21	0.00	0.21
66.25	0.29	0.43	0.67*	0.20	0.00	0.20
66.30	0.29	0.43	0.68*	0.19	0.00	0.19
66.35	0.29	0.43	0.69*	0.18	0.00	0.18
66.40	0.30	0.43	0.69*	0.18	0.00	0.18
66.45	0.30	0.43	0.70*	0.17	0.00	0.17

66.50	0.30	0.43	0.71*	0.16	0.00	0.16
66.55	0.30	0.43	0.71*	0.15	0.00	0.15
66.60	0.31	0.43	0.72*	0.15	0.00	0.15
66.65	0.31	0.43	0.73*	0.14	0.00	0.14
66.70	0.31	0.43	0.73*	0.13	0.00	0.13
66.75	0.31	0.42	0.74*	0.13	0.00	0.13
66.80	0.32	0.42	0.75*	0.12	0.00	0.12
66.85	0.32	0.42	0.76*	0.11	0.00	0.11
66.90	0.32	0.42	0.76*	0.11	0.00	0.11
66.95	0.33	0.42	0.77*	0.10	0.00	0.10
67.00	0.33	0.42	0.78*	0.09	0.00	0.09
67.05	0.33	0.42	0.79*	0.09	0.00	0.09
67.10	0.34	0.42	0.79*	0.08	0.00	0.08
67.15	0.34	0.42	0.80*	0.08	0.00	0.08
67.20	0.34	0.42	0.81*	0.07	0.00	0.07
67.25	0.35	0.42	0.82*	0.06	0.00	0.06
67.30	0.35	0.42	0.83*	0.06	0.00	0.06
67.35	0.35	0.42	0.84*	0.05	0.00	0.05
67.40	0.36	0.42	0.85*	0.05	0.00	0.05
67.45	0.36	0.42	0.86*	0.04	0.00	0.04
67.50	0.37	0.42	0.87*	0.04	0.00	0.04
67.55	0.37	0.42	0.88*	0.03	0.00	0.03
67.60	0.37	0.42	0.89*	0.03	0.00	0.03
67.65	0.38	0.42	0.90*	0.03	0.00	0.03
67.70	0.38	0.42	0.91*	0.02	0.00	0.02
67.75	0.39	0.42	0.92*	0.02	0.00	0.02
67.80	0.39	0.42	0.93*	0.02	0.00	0.02
67.85	0.40	0.42	0.94*	0.02	0.00	0.02
67.90	0.40	0.42	0.95*	0.01	0.00	0.01
67.95	0.41	0.42	0.97*	0.01	0.00	0.01
68.00	0.41	0.42	0.98*	0.01	0.00	0.01
68.05	0.42	0.42	1.00*	0.01	0.00	0.01
68.10	0.42	0.42	1.01	0.01	0.00	0.01
68.15	0.43	0.42	1.03	0.01	0.00	0.01
68.20	0.44	0.42	1.05	0.01	0.00	0.01
68.25	0.45	0.42	1.07	0.01	0.00	0.01
68.30	0.46	0.42	1.09	0.01	0.00	0.01
68.35	0.47	0.42	1.12	0.00	0.00	0.00
68.40	0.48	0.42	1.15	0.00	0.00	0.00
68.45	0.50	0.42	1.20	0.00	0.00	0.00
68.50	0.53	0.42	1.28	0.00	0.00	0.00
68.55	0.59	0.42	1.40	0.00	0.00	0.00
68.60	0.59	0.42	1.40	0.00	0.00	0.00
68.65	0.59	0.42	1.40	0.00	0.00	0.00
68.70	0.59	0.42	1.41	0.00	0.00	0.00
68.75	0.59	0.42	1.41	0.00	0.00	0.00
68.80	0.59	0.42	1.41	0.00	0.00	0.00
68.85	0.59	0.42	1.41	0.00	0.00	0.00
68.90	0.59	0.42	1.41	0.00	0.00	0.00
68.95	0.59	0.42	1.41	0.00	0.00	0.00
69.00	0.59	0.42	1.41	0.00	0.00	0.00
69.05	0.59	0.42	1.41	0.00	0.00	0.00
69.10	0.59	0.42	1.41	0.00	0.00	0.00
69.15	0.59	0.42	1.41	0.00	0.00	0.00
69.20	0.59	0.41	1.41	0.00	0.00	0.00
69.25	0.59	0.41	1.41	0.00	0.00	0.00
69.30	0.59	0.41	1.41	0.00	0.00	0.00
69.35	0.59	0.41	1.41	0.00	0.00	0.00
69.40	0.59	0.41	1.41	0.00	0.00	0.00
69.45	0.58	0.41	1.41	0.00	0.00	0.00
69.50	0.58	0.41	1.41	0.00	0.00	0.00
69.55	0.58	0.41	1.41	0.00	0.00	0.00
69.60	0.58	0.41	1.41	0.00	0.00	0.00
69.65	0.58	0.41	1.42	0.00	0.00	0.00
69.70	0.58	0.41	1.42	0.00	0.00	0.00
69.75	0.58	0.41	1.42	0.00	0.00	0.00
69.80	0.58	0.41	1.42	0.00	0.00	0.00
69.85	0.58	0.41	1.42	0.00	0.00	0.00
69.90	0.58	0.41	1.42	0.00	0.00	0.00
69.95	0.58	0.41	1.42	0.00	0.00	0.00
70.00	0.58	0.41	1.42	0.00	0.00	0.00
70.05	0.58	0.41	1.42	0.00	0.00	0.00
70.10	0.58	0.41	1.42	0.00	0.00	0.00
70.15	0.58	0.41	1.42	0.00	0.00	0.00
70.20	0.58	0.41	1.42	0.00	0.00	0.00

70.25	0.58	0.41	1.42	0.00	0.00	0.00
70.30	0.58	0.41	1.42	0.00	0.00	0.00
70.35	0.58	0.41	1.42	0.00	0.00	0.00
70.40	0.58	0.41	1.42	0.00	0.00	0.00
70.45	0.58	0.41	1.42	0.00	0.00	0.00
70.50	0.58	0.41	1.42	0.00	0.00	0.00
70.55	0.58	0.41	1.42	0.00	0.00	0.00
70.60	0.58	0.41	1.43	0.00	0.00	0.00
70.65	0.58	0.41	1.43	0.00	0.00	0.00
70.70	0.58	0.41	1.43	0.00	0.00	0.00
70.75	0.58	0.41	1.43	0.00	0.00	0.00
70.80	0.58	0.41	1.43	0.00	0.00	0.00
70.85	0.58	0.41	1.43	0.00	0.00	0.00
70.90	0.58	0.41	1.43	0.00	0.00	0.00
70.95	0.58	0.41	1.43	0.00	0.00	0.00
71.00	0.58	0.41	1.43	0.00	0.00	0.00
71.05	0.58	0.41	1.43	0.00	0.00	0.00
71.10	0.58	0.41	1.43	0.00	0.00	0.00
71.15	0.58	0.41	1.43	0.00	0.00	0.00
71.20	0.58	0.41	1.43	0.00	0.00	0.00
71.25	0.58	0.41	1.43	0.00	0.00	0.00
71.30	0.58	0.41	1.43	0.00	0.00	0.00
71.35	0.58	0.41	1.43	0.00	0.00	0.00
71.40	0.58	0.41	1.43	0.00	0.00	0.00
71.45	0.58	0.41	1.44	0.00	0.00	0.00
71.50	0.58	0.41	1.44	0.00	0.00	0.00
71.55	0.58	0.41	1.44	0.00	0.00	0.00
71.60	0.58	0.40	1.44	0.00	0.00	0.00
71.65	0.58	0.40	1.44	0.00	0.00	0.00
71.70	0.58	0.40	1.44	0.00	0.00	0.00
71.75	0.58	0.40	1.44	0.00	0.00	0.00
71.80	0.58	0.40	1.44	0.00	0.00	0.00
71.85	0.58	0.40	1.44	0.00	0.00	0.00
71.90	0.58	0.40	1.44	0.00	0.00	0.00
71.95	0.58	0.40	1.44	0.00	0.00	0.00
72.00	0.58	0.40	1.44	0.00	0.00	0.00
72.05	0.58	0.40	1.44	0.00	0.00	0.00
72.10	0.58	0.40	1.44	0.00	0.00	0.00
72.15	0.58	0.40	1.44	0.00	0.00	0.00
72.20	0.58	0.40	1.44	0.00	0.00	0.00
72.25	0.58	0.40	1.44	0.00	0.00	0.00
72.30	0.58	0.40	1.44	0.00	0.00	0.00
72.35	0.58	0.40	1.45	0.00	0.00	0.00
72.40	0.58	0.40	1.45	0.00	0.00	0.00
72.45	0.58	0.40	1.45	0.00	0.00	0.00
72.50	0.58	0.40	1.45	0.00	0.00	0.00
72.55	0.58	0.40	1.45	0.00	0.00	0.00
72.60	0.58	0.40	1.45	0.00	0.00	0.00
72.65	0.58	0.40	1.45	0.00	0.00	0.00
72.70	0.58	0.40	1.45	0.00	0.00	0.00
72.75	0.58	0.40	1.45	0.00	0.00	0.00
72.80	0.58	0.40	1.45	0.00	0.00	0.00
72.85	0.58	0.40	1.45	0.00	0.00	0.00
72.90	0.58	0.40	1.45	0.00	0.00	0.00
72.95	0.58	0.40	1.45	0.00	0.00	0.00
73.00	0.58	0.40	1.45	0.00	0.00	0.00
73.05	0.58	0.40	1.45	0.00	0.00	0.00
73.10	0.58	0.40	1.45	0.00	0.00	0.00
73.15	0.58	0.40	1.46	0.00	0.00	0.00
73.20	0.58	0.40	1.46	0.00	0.00	0.00
73.25	0.58	0.40	1.46	0.00	0.00	0.00
73.30	0.58	0.40	1.46	0.00	0.00	0.00
73.35	0.58	0.40	1.46	0.00	0.00	0.00
73.40	0.58	0.40	1.46	0.00	0.00	0.00
73.45	0.58	0.40	1.46	0.00	0.00	0.00
73.50	0.58	0.40	1.46	0.00	0.00	0.00
73.55	0.58	0.40	1.46	0.00	0.00	0.00
73.60	0.58	0.40	1.46	0.00	0.00	0.00
73.65	0.58	0.40	1.46	0.00	0.00	0.00
73.70	0.58	0.40	1.46	0.00	0.00	0.00
73.75	0.58	0.40	1.46	0.00	0.00	0.00
73.80	0.58	0.40	1.46	0.00	0.00	0.00
73.85	0.58	0.40	1.46	0.00	0.00	0.00
73.90	0.58	0.39	1.46	0.00	0.00	0.00
73.95	0.58	0.39	1.47	0.00	0.00	0.00

74.00	0.58	0.39	1.47	0.00	0.00	0.00
74.05	0.58	0.39	1.47	0.00	0.00	0.00
74.10	0.58	0.39	1.47	0.00	0.00	0.00
74.15	0.58	0.39	1.47	0.00	0.00	0.00
74.20	0.58	0.39	1.47	0.00	0.00	0.00
74.25	0.58	0.39	1.47	0.00	0.00	0.00
74.30	0.58	0.39	1.47	0.00	0.00	0.00
74.35	0.58	0.39	1.47	0.00	0.00	0.00
74.40	0.58	0.39	1.47	0.00	0.00	0.00
74.45	0.58	0.39	1.47	0.00	0.00	0.00
74.50	0.58	0.39	1.47	0.00	0.00	0.00
74.55	0.58	0.39	1.47	0.00	0.00	0.00
74.60	0.58	0.39	1.47	0.00	0.00	0.00
74.65	0.58	0.39	1.47	0.00	0.00	0.00
74.70	0.58	0.39	1.47	0.00	0.00	0.00
74.75	0.58	0.39	1.48	0.00	0.00	0.00
74.80	0.58	0.39	1.48	0.00	0.00	0.00
74.85	0.58	0.39	1.48	0.00	0.00	0.00
74.90	0.58	0.39	1.48	0.00	0.00	0.00
74.95	0.58	0.39	1.48	0.00	0.00	0.00
75.00	0.58	0.39	1.48	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

1 atm (atmosphere) = 1 tsf (ton/ft2)

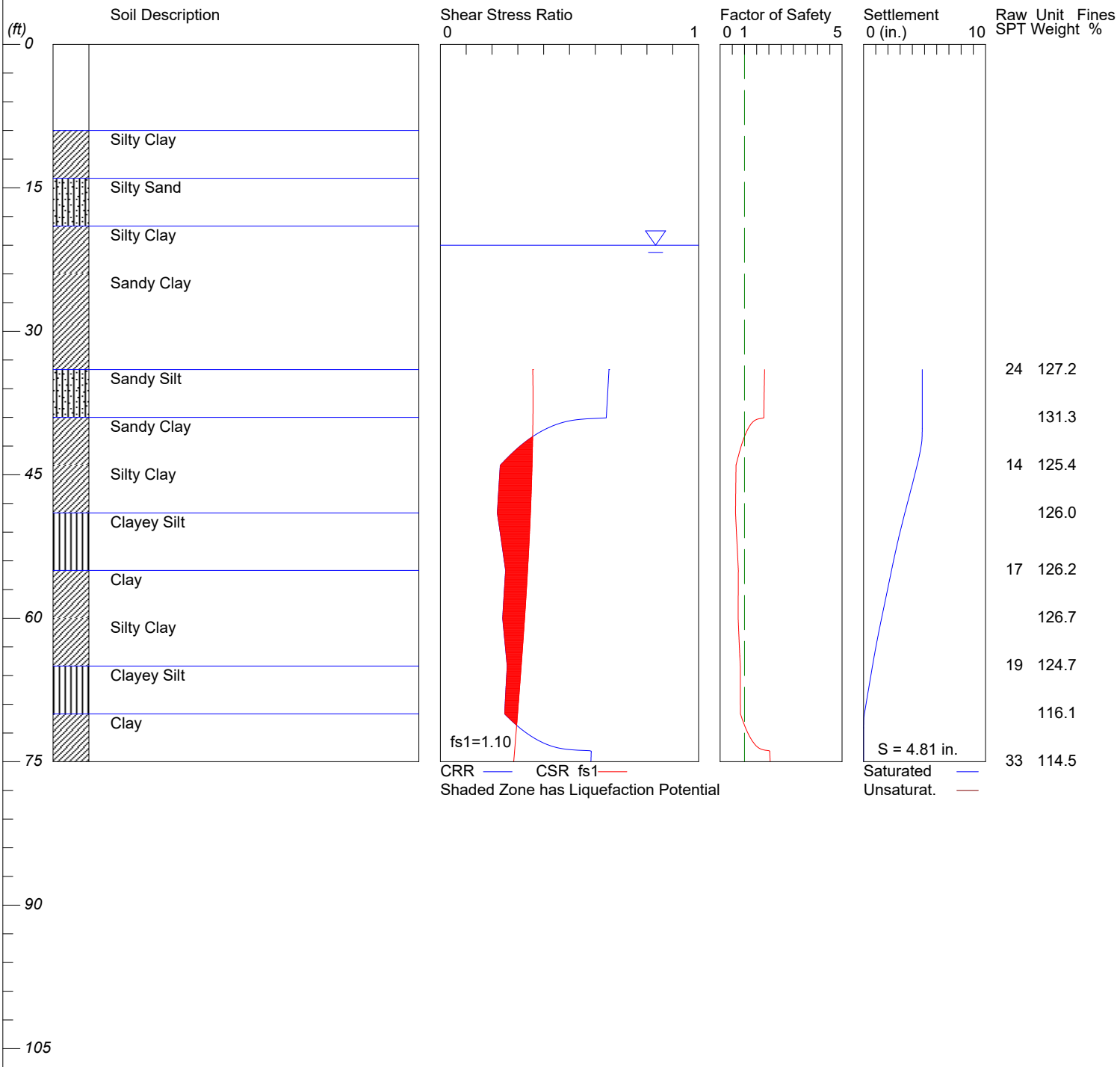
CRRm	Cyclic resistance ratio from soils
CSRsf	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat	Settlement from saturated sands
S_dry	Settlement from Unsaturated Sands
S_all	Total Settlement from Saturated and Unsaturated Sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS

De Soto/Burbank

Hole No.=B-5 Water Depth=21 ft

Magnitude=6.74
Acceleration=0.453g



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LIQUEFACTION ANALYSIS SUMMARY
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Input File Name: C:\Users\jonne\OneDrive\Work\Projects\6743 -- Adler Realty August 2019 Update\Liquefaction\B-5 Reduced PGA.liq
Title: De Soto/Burbank
Subtitle: 10% Probability - Reduced PGAm

Surface Elev.=
Hole No.=B-5
Depth of Hole= 75.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration= 0.45 g
Earthquake Magnitude= 6.74

Input Data:
Surface Elev.=
Hole No.=B-5
Depth of Hole=75.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration=0.45 g
Earthquake Magnitude=6.74
No-Liquefiable Soils: Based on Analysis

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Tokimatsu, M-correction
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.42
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1.2
9. User request factor of safety (apply to CSR) , User= 1.1
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
34.00	24.00	127.20	0.00
39.00	24.00	131.30	0.00
44.00	14.00	125.40	0.00
49.00	14.00	126.00	0.00
55.00	17.00	126.20	0.00
60.00	17.00	126.70	0.00
65.00	19.00	124.70	0.00
70.00	19.00	116.10	0.00
75.00	33.00	114.50	0.00

Output Results:
Settlement of Saturated Sands=4.81 in.
Settlement of Unsaturated Sands=0.00 in.
Total Settlement of Saturated and Unsaturated Sands=4.81 in.
Differential Settlement=2.407 to 3.177 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
34.00	0.65	0.36	1.83	4.81	0.00	4.81
34.05	0.65	0.36	1.82	4.81	0.00	4.81
34.10	0.65	0.36	1.82	4.81	0.00	4.81
34.15	0.65	0.36	1.82	4.81	0.00	4.81
34.20	0.65	0.36	1.82	4.81	0.00	4.81
34.25	0.65	0.36	1.82	4.81	0.00	4.81
34.30	0.65	0.36	1.82	4.81	0.00	4.81

34.35	0.65	0.36	1.82	4.81	0.00	4.81
34.40	0.65	0.36	1.82	4.81	0.00	4.81
34.45	0.65	0.36	1.82	4.81	0.00	4.81
34.50	0.65	0.36	1.82	4.81	0.00	4.81
34.55	0.65	0.36	1.82	4.81	0.00	4.81
34.60	0.65	0.36	1.82	4.81	0.00	4.81
34.65	0.65	0.36	1.82	4.81	0.00	4.81
34.70	0.65	0.36	1.82	4.81	0.00	4.81
34.75	0.65	0.36	1.82	4.81	0.00	4.81
34.80	0.65	0.36	1.82	4.81	0.00	4.81
34.85	0.65	0.36	1.82	4.81	0.00	4.81
34.90	0.65	0.36	1.82	4.81	0.00	4.81
34.95	0.65	0.36	1.82	4.81	0.00	4.81
35.00	0.65	0.36	1.82	4.81	0.00	4.81
35.05	0.65	0.36	1.82	4.81	0.00	4.81
35.10	0.65	0.36	1.82	4.81	0.00	4.81
35.15	0.65	0.36	1.82	4.81	0.00	4.81
35.20	0.65	0.36	1.81	4.81	0.00	4.81
35.25	0.65	0.36	1.81	4.81	0.00	4.81
35.30	0.65	0.36	1.81	4.81	0.00	4.81
35.35	0.65	0.36	1.81	4.81	0.00	4.81
35.40	0.65	0.36	1.81	4.81	0.00	4.81
35.45	0.65	0.36	1.81	4.81	0.00	4.81
35.50	0.65	0.36	1.81	4.81	0.00	4.81
35.55	0.65	0.36	1.81	4.81	0.00	4.81
35.60	0.65	0.36	1.81	4.81	0.00	4.81
35.65	0.65	0.36	1.81	4.81	0.00	4.81
35.70	0.65	0.36	1.81	4.81	0.00	4.81
35.75	0.65	0.36	1.81	4.81	0.00	4.81
35.80	0.65	0.36	1.81	4.81	0.00	4.81
35.85	0.65	0.36	1.81	4.81	0.00	4.81
35.90	0.65	0.36	1.81	4.81	0.00	4.81
35.95	0.65	0.36	1.81	4.81	0.00	4.81
36.00	0.65	0.36	1.81	4.81	0.00	4.81
36.05	0.65	0.36	1.81	4.81	0.00	4.81
36.10	0.65	0.36	1.81	4.81	0.00	4.81
36.15	0.65	0.36	1.81	4.81	0.00	4.81
36.20	0.65	0.36	1.81	4.81	0.00	4.81
36.25	0.65	0.36	1.81	4.81	0.00	4.81
36.30	0.65	0.36	1.81	4.81	0.00	4.81
36.35	0.65	0.36	1.81	4.81	0.00	4.81
36.40	0.65	0.36	1.81	4.81	0.00	4.81
36.45	0.65	0.36	1.81	4.81	0.00	4.81
36.50	0.65	0.36	1.81	4.81	0.00	4.81
36.55	0.65	0.36	1.81	4.81	0.00	4.81
36.60	0.65	0.36	1.81	4.81	0.00	4.81
36.65	0.65	0.36	1.80	4.81	0.00	4.81
36.70	0.65	0.36	1.80	4.81	0.00	4.81
36.75	0.65	0.36	1.80	4.81	0.00	4.81
36.80	0.65	0.36	1.80	4.81	0.00	4.81
36.85	0.65	0.36	1.80	4.81	0.00	4.81
36.90	0.65	0.36	1.80	4.81	0.00	4.81
36.95	0.65	0.36	1.80	4.81	0.00	4.81
37.00	0.65	0.36	1.80	4.81	0.00	4.81
37.05	0.65	0.36	1.80	4.81	0.00	4.81
37.10	0.65	0.36	1.80	4.81	0.00	4.81
37.15	0.65	0.36	1.80	4.81	0.00	4.81
37.20	0.65	0.36	1.80	4.81	0.00	4.81
37.25	0.65	0.36	1.80	4.81	0.00	4.81
37.30	0.65	0.36	1.80	4.81	0.00	4.81
37.35	0.65	0.36	1.80	4.81	0.00	4.81
37.40	0.65	0.36	1.80	4.81	0.00	4.81
37.45	0.65	0.36	1.80	4.81	0.00	4.81
37.50	0.65	0.36	1.80	4.81	0.00	4.81
37.55	0.65	0.36	1.80	4.81	0.00	4.81
37.60	0.65	0.36	1.80	4.81	0.00	4.81
37.65	0.65	0.36	1.80	4.81	0.00	4.81
37.70	0.65	0.36	1.80	4.81	0.00	4.81
37.75	0.65	0.36	1.80	4.81	0.00	4.81
37.80	0.65	0.36	1.80	4.81	0.00	4.81
37.85	0.64	0.36	1.80	4.81	0.00	4.81
37.90	0.64	0.36	1.80	4.81	0.00	4.81
37.95	0.64	0.36	1.80	4.81	0.00	4.81
38.00	0.64	0.36	1.80	4.81	0.00	4.81
38.05	0.64	0.36	1.80	4.81	0.00	4.81

38.10	0.64	0.36	1.80	4.81	0.00	4.81
38.15	0.64	0.36	1.80	4.81	0.00	4.81
38.20	0.64	0.36	1.80	4.81	0.00	4.81
38.25	0.64	0.36	1.80	4.81	0.00	4.81
38.30	0.64	0.36	1.80	4.81	0.00	4.81
38.35	0.64	0.36	1.80	4.81	0.00	4.81
38.40	0.64	0.36	1.80	4.81	0.00	4.81
38.45	0.64	0.36	1.80	4.81	0.00	4.81
38.50	0.64	0.36	1.79	4.81	0.00	4.81
38.55	0.64	0.36	1.79	4.81	0.00	4.81
38.60	0.64	0.36	1.79	4.81	0.00	4.81
38.65	0.64	0.36	1.79	4.81	0.00	4.81
38.70	0.64	0.36	1.79	4.81	0.00	4.81
38.75	0.64	0.36	1.79	4.81	0.00	4.81
38.80	0.64	0.36	1.79	4.81	0.00	4.81
38.85	0.64	0.36	1.79	4.81	0.00	4.81
38.90	0.64	0.36	1.79	4.81	0.00	4.81
38.95	0.64	0.36	1.79	4.81	0.00	4.81
39.00	0.64	0.36	1.79	4.81	0.00	4.81
39.05	0.64	0.36	1.79	4.81	0.00	4.81
39.10	0.61	0.36	1.69	4.81	0.00	4.81
39.15	0.57	0.36	1.58	4.81	0.00	4.81
39.20	0.54	0.36	1.52	4.81	0.00	4.81
39.25	0.53	0.36	1.47	4.81	0.00	4.81
39.30	0.51	0.36	1.43	4.81	0.00	4.81
39.35	0.50	0.36	1.40	4.81	0.00	4.81
39.40	0.49	0.36	1.38	4.81	0.00	4.81
39.45	0.49	0.36	1.35	4.81	0.00	4.81
39.50	0.48	0.36	1.33	4.81	0.00	4.81
39.55	0.47	0.36	1.31	4.81	0.00	4.81
39.60	0.46	0.36	1.30	4.81	0.00	4.81
39.65	0.46	0.36	1.28	4.81	0.00	4.81
39.70	0.45	0.36	1.27	4.81	0.00	4.81
39.75	0.45	0.36	1.25	4.81	0.00	4.81
39.80	0.44	0.36	1.24	4.81	0.00	4.81
39.85	0.44	0.36	1.22	4.81	0.00	4.81
39.90	0.43	0.36	1.21	4.81	0.00	4.81
39.95	0.43	0.36	1.20	4.81	0.00	4.81
40.00	0.43	0.36	1.19	4.81	0.00	4.81
40.05	0.42	0.36	1.18	4.81	0.00	4.81
40.10	0.42	0.36	1.17	4.81	0.00	4.81
40.15	0.41	0.36	1.15	4.81	0.00	4.81
40.20	0.41	0.36	1.14	4.81	0.00	4.81
40.25	0.41	0.36	1.13	4.81	0.00	4.81
40.30	0.40	0.36	1.12	4.81	0.00	4.81
40.35	0.40	0.36	1.11	4.81	0.00	4.81
40.40	0.39	0.36	1.10	4.81	0.00	4.81
40.45	0.39	0.36	1.09	4.81	0.00	4.81
40.50	0.39	0.36	1.08	4.81	0.00	4.81
40.55	0.38	0.36	1.08	4.81	0.00	4.81
40.60	0.38	0.36	1.07	4.81	0.00	4.81
40.65	0.38	0.36	1.06	4.81	0.00	4.81
40.70	0.38	0.36	1.05	4.81	0.00	4.81
40.75	0.37	0.36	1.04	4.80	0.00	4.80
40.80	0.37	0.36	1.03	4.80	0.00	4.80
40.85	0.37	0.36	1.02	4.80	0.00	4.80
40.90	0.36	0.36	1.02	4.80	0.00	4.80
40.95	0.36	0.36	1.01	4.80	0.00	4.80
41.00	0.36	0.36	1.00	4.80	0.00	4.80
41.05	0.35	0.36	0.99*	4.80	0.00	4.80
41.10	0.35	0.36	0.99*	4.80	0.00	4.80
41.15	0.35	0.36	0.98*	4.80	0.00	4.80
41.20	0.35	0.36	0.97*	4.79	0.00	4.79
41.25	0.34	0.36	0.96*	4.79	0.00	4.79
41.30	0.34	0.36	0.96*	4.79	0.00	4.79
41.35	0.34	0.36	0.95*	4.79	0.00	4.79
41.40	0.34	0.36	0.94*	4.78	0.00	4.78
41.45	0.33	0.36	0.94*	4.78	0.00	4.78
41.50	0.33	0.36	0.93*	4.78	0.00	4.78
41.55	0.33	0.36	0.92*	4.77	0.00	4.77
41.60	0.33	0.36	0.92*	4.77	0.00	4.77
41.65	0.32	0.36	0.91*	4.76	0.00	4.76
41.70	0.32	0.36	0.90*	4.76	0.00	4.76
41.75	0.32	0.36	0.90*	4.75	0.00	4.75
41.80	0.32	0.36	0.89*	4.74	0.00	4.74

41.85	0.32	0.36	0.88*	4.74	0.00	4.74
41.90	0.31	0.36	0.88*	4.73	0.00	4.73
41.95	0.31	0.36	0.87*	4.73	0.00	4.73
42.00	0.31	0.36	0.86*	4.72	0.00	4.72
42.05	0.31	0.36	0.86*	4.71	0.00	4.71
42.10	0.30	0.36	0.85*	4.71	0.00	4.71
42.15	0.30	0.36	0.85*	4.70	0.00	4.70
42.20	0.30	0.36	0.84*	4.69	0.00	4.69
42.25	0.30	0.36	0.84*	4.69	0.00	4.69
42.30	0.30	0.36	0.83*	4.68	0.00	4.68
42.35	0.29	0.36	0.82*	4.67	0.00	4.67
42.40	0.29	0.36	0.82*	4.66	0.00	4.66
42.45	0.29	0.36	0.81*	4.66	0.00	4.66
42.50	0.29	0.36	0.81*	4.65	0.00	4.65
42.55	0.29	0.36	0.80*	4.64	0.00	4.64
42.60	0.28	0.36	0.80*	4.64	0.00	4.64
42.65	0.28	0.36	0.79*	4.63	0.00	4.63
42.70	0.28	0.36	0.78*	4.62	0.00	4.62
42.75	0.28	0.36	0.78*	4.61	0.00	4.61
42.80	0.28	0.36	0.77*	4.61	0.00	4.61
42.85	0.27	0.36	0.77*	4.60	0.00	4.60
42.90	0.27	0.36	0.76*	4.59	0.00	4.59
42.95	0.27	0.36	0.76*	4.58	0.00	4.58
43.00	0.27	0.36	0.75*	4.57	0.00	4.57
43.05	0.27	0.36	0.75*	4.57	0.00	4.57
43.10	0.26	0.36	0.74*	4.56	0.00	4.56
43.15	0.26	0.36	0.74*	4.55	0.00	4.55
43.20	0.26	0.36	0.73*	4.54	0.00	4.54
43.25	0.26	0.36	0.73*	4.53	0.00	4.53
43.30	0.26	0.36	0.72*	4.52	0.00	4.52
43.35	0.26	0.36	0.72*	4.52	0.00	4.52
43.40	0.25	0.36	0.71*	4.51	0.00	4.51
43.45	0.25	0.36	0.71*	4.50	0.00	4.50
43.50	0.25	0.36	0.70*	4.49	0.00	4.49
43.55	0.25	0.36	0.70*	4.48	0.00	4.48
43.60	0.25	0.36	0.69*	4.47	0.00	4.47
43.65	0.24	0.36	0.69*	4.46	0.00	4.46
43.70	0.24	0.36	0.68*	4.45	0.00	4.45
43.75	0.24	0.36	0.68*	4.44	0.00	4.44
43.80	0.24	0.36	0.67*	4.44	0.00	4.44
43.85	0.24	0.36	0.67*	4.43	0.00	4.43
43.90	0.24	0.36	0.66*	4.42	0.00	4.42
43.95	0.23	0.36	0.66*	4.41	0.00	4.41
44.00	0.23	0.36	0.65*	4.40	0.00	4.40
44.05	0.23	0.36	0.65*	4.39	0.00	4.39
44.10	0.23	0.35	0.65*	4.38	0.00	4.38
44.15	0.23	0.35	0.65*	4.37	0.00	4.37
44.20	0.23	0.35	0.65*	4.36	0.00	4.36
44.25	0.23	0.35	0.65*	4.35	0.00	4.35
44.30	0.23	0.35	0.65*	4.34	0.00	4.34
44.35	0.23	0.35	0.65*	4.33	0.00	4.33
44.40	0.23	0.35	0.65*	4.32	0.00	4.32
44.45	0.23	0.35	0.65*	4.31	0.00	4.31
44.50	0.23	0.35	0.65*	4.30	0.00	4.30
44.55	0.23	0.35	0.65*	4.29	0.00	4.29
44.60	0.23	0.35	0.65*	4.28	0.00	4.28
44.65	0.23	0.35	0.65*	4.27	0.00	4.27
44.70	0.23	0.35	0.65*	4.26	0.00	4.26
44.75	0.23	0.35	0.65*	4.25	0.00	4.25
44.80	0.23	0.35	0.65*	4.24	0.00	4.24
44.85	0.23	0.35	0.65*	4.23	0.00	4.23
44.90	0.23	0.35	0.65*	4.22	0.00	4.22
44.95	0.23	0.35	0.65*	4.21	0.00	4.21
45.00	0.23	0.35	0.65*	4.20	0.00	4.20
45.05	0.23	0.35	0.65*	4.19	0.00	4.19
45.10	0.23	0.35	0.65*	4.18	0.00	4.18
45.15	0.23	0.35	0.65*	4.17	0.00	4.17
45.20	0.23	0.35	0.65*	4.16	0.00	4.16
45.25	0.23	0.35	0.65*	4.15	0.00	4.15
45.30	0.23	0.35	0.65*	4.14	0.00	4.14
45.35	0.23	0.35	0.65*	4.13	0.00	4.13
45.40	0.23	0.35	0.65*	4.12	0.00	4.12
45.45	0.23	0.35	0.65*	4.11	0.00	4.11
45.50	0.23	0.35	0.65*	4.10	0.00	4.10
45.55	0.23	0.35	0.65*	4.09	0.00	4.09

45.60	0.23	0.35	0.65*	4.08	0.00	4.08
45.65	0.23	0.35	0.65*	4.07	0.00	4.07
45.70	0.23	0.35	0.65*	4.06	0.00	4.06
45.75	0.23	0.35	0.64*	4.05	0.00	4.05
45.80	0.23	0.35	0.64*	4.04	0.00	4.04
45.85	0.23	0.35	0.64*	4.03	0.00	4.03
45.90	0.23	0.35	0.64*	4.02	0.00	4.02
45.95	0.23	0.35	0.64*	4.01	0.00	4.01
46.00	0.23	0.35	0.64*	4.00	0.00	4.00
46.05	0.23	0.35	0.64*	3.99	0.00	3.99
46.10	0.23	0.35	0.64*	3.98	0.00	3.98
46.15	0.23	0.35	0.64*	3.97	0.00	3.97
46.20	0.23	0.35	0.64*	3.96	0.00	3.96
46.25	0.23	0.35	0.64*	3.95	0.00	3.95
46.30	0.23	0.35	0.64*	3.94	0.00	3.94
46.35	0.23	0.35	0.64*	3.93	0.00	3.93
46.40	0.23	0.35	0.64*	3.92	0.00	3.92
46.45	0.23	0.35	0.64*	3.91	0.00	3.91
46.50	0.23	0.35	0.64*	3.90	0.00	3.90
46.55	0.23	0.35	0.64*	3.89	0.00	3.89
46.60	0.23	0.35	0.64*	3.88	0.00	3.88
46.65	0.23	0.35	0.64*	3.87	0.00	3.87
46.70	0.23	0.35	0.64*	3.86	0.00	3.86
46.75	0.23	0.35	0.64*	3.85	0.00	3.85
46.80	0.23	0.35	0.64*	3.84	0.00	3.84
46.85	0.23	0.35	0.64*	3.83	0.00	3.83
46.90	0.23	0.35	0.64*	3.82	0.00	3.82
46.95	0.23	0.35	0.64*	3.81	0.00	3.81
47.00	0.22	0.35	0.64*	3.80	0.00	3.80
47.05	0.22	0.35	0.64*	3.79	0.00	3.79
47.10	0.22	0.35	0.64*	3.78	0.00	3.78
47.15	0.22	0.35	0.64*	3.76	0.00	3.76
47.20	0.22	0.35	0.64*	3.75	0.00	3.75
47.25	0.22	0.35	0.64*	3.74	0.00	3.74
47.30	0.22	0.35	0.64*	3.73	0.00	3.73
47.35	0.22	0.35	0.64*	3.72	0.00	3.72
47.40	0.22	0.35	0.64*	3.71	0.00	3.71
47.45	0.22	0.35	0.64*	3.70	0.00	3.70
47.50	0.22	0.35	0.64*	3.69	0.00	3.69
47.55	0.22	0.35	0.64*	3.68	0.00	3.68
47.60	0.22	0.35	0.64*	3.67	0.00	3.67
47.65	0.22	0.35	0.64*	3.66	0.00	3.66
47.70	0.22	0.35	0.64*	3.65	0.00	3.65
47.75	0.22	0.35	0.64*	3.64	0.00	3.64
47.80	0.22	0.35	0.64*	3.63	0.00	3.63
47.85	0.22	0.35	0.64*	3.62	0.00	3.62
47.90	0.22	0.35	0.64*	3.61	0.00	3.61
47.95	0.22	0.35	0.64*	3.60	0.00	3.60
48.00	0.22	0.35	0.64*	3.59	0.00	3.59
48.05	0.22	0.35	0.64*	3.58	0.00	3.58
48.10	0.22	0.35	0.64*	3.57	0.00	3.57
48.15	0.22	0.35	0.64*	3.56	0.00	3.56
48.20	0.22	0.35	0.64*	3.55	0.00	3.55
48.25	0.22	0.35	0.63*	3.54	0.00	3.54
48.30	0.22	0.35	0.63*	3.53	0.00	3.53
48.35	0.22	0.35	0.63*	3.52	0.00	3.52
48.40	0.22	0.35	0.63*	3.51	0.00	3.51
48.45	0.22	0.35	0.63*	3.50	0.00	3.50
48.50	0.22	0.35	0.63*	3.49	0.00	3.49
48.55	0.22	0.35	0.63*	3.48	0.00	3.48
48.60	0.22	0.35	0.63*	3.47	0.00	3.47
48.65	0.22	0.35	0.63*	3.46	0.00	3.46
48.70	0.22	0.35	0.63*	3.45	0.00	3.45
48.75	0.22	0.35	0.63*	3.44	0.00	3.44
48.80	0.22	0.35	0.63*	3.43	0.00	3.43
48.85	0.22	0.35	0.63*	3.42	0.00	3.42
48.90	0.22	0.35	0.63*	3.41	0.00	3.41
48.95	0.22	0.35	0.63*	3.40	0.00	3.40
49.00	0.22	0.35	0.63*	3.39	0.00	3.39
49.05	0.22	0.35	0.63*	3.38	0.00	3.38
49.10	0.22	0.35	0.63*	3.37	0.00	3.37
49.15	0.22	0.35	0.64*	3.35	0.00	3.35
49.20	0.22	0.35	0.64*	3.34	0.00	3.34
49.25	0.22	0.35	0.64*	3.33	0.00	3.33
49.30	0.22	0.35	0.64*	3.32	0.00	3.32

49.35	0.22	0.35	0.64*	3.31	0.00	3.31
49.40	0.22	0.35	0.64*	3.30	0.00	3.30
49.45	0.22	0.35	0.64*	3.29	0.00	3.29
49.50	0.22	0.35	0.64*	3.28	0.00	3.28
49.55	0.22	0.35	0.64*	3.27	0.00	3.27
49.60	0.22	0.35	0.64*	3.26	0.00	3.26
49.65	0.22	0.35	0.64*	3.25	0.00	3.25
49.70	0.22	0.35	0.65*	3.24	0.00	3.24
49.75	0.22	0.35	0.65*	3.23	0.00	3.23
49.80	0.22	0.35	0.65*	3.22	0.00	3.22
49.85	0.23	0.35	0.65*	3.21	0.00	3.21
49.90	0.23	0.35	0.65*	3.20	0.00	3.20
49.95	0.23	0.35	0.65*	3.19	0.00	3.19
50.00	0.23	0.35	0.65*	3.18	0.00	3.18
50.05	0.23	0.35	0.65*	3.17	0.00	3.17
50.10	0.23	0.35	0.65*	3.16	0.00	3.16
50.15	0.23	0.35	0.65*	3.15	0.00	3.15
50.20	0.23	0.35	0.65*	3.14	0.00	3.14
50.25	0.23	0.35	0.66*	3.13	0.00	3.13
50.30	0.23	0.35	0.66*	3.12	0.00	3.12
50.35	0.23	0.35	0.66*	3.11	0.00	3.11
50.40	0.23	0.35	0.66*	3.10	0.00	3.10
50.45	0.23	0.35	0.66*	3.10	0.00	3.10
50.50	0.23	0.35	0.66*	3.09	0.00	3.09
50.55	0.23	0.35	0.66*	3.08	0.00	3.08
50.60	0.23	0.35	0.66*	3.07	0.00	3.07
50.65	0.23	0.35	0.66*	3.06	0.00	3.06
50.70	0.23	0.35	0.66*	3.05	0.00	3.05
50.75	0.23	0.35	0.67*	3.04	0.00	3.04
50.80	0.23	0.35	0.67*	3.03	0.00	3.03
50.85	0.23	0.35	0.67*	3.02	0.00	3.02
50.90	0.23	0.35	0.67*	3.01	0.00	3.01
50.95	0.23	0.35	0.67*	3.00	0.00	3.00
51.00	0.23	0.35	0.67*	2.99	0.00	2.99
51.05	0.23	0.35	0.67*	2.98	0.00	2.98
51.10	0.23	0.35	0.67*	2.97	0.00	2.97
51.15	0.23	0.35	0.67*	2.96	0.00	2.96
51.20	0.23	0.35	0.67*	2.95	0.00	2.95
51.25	0.23	0.34	0.67*	2.94	0.00	2.94
51.30	0.23	0.34	0.68*	2.93	0.00	2.93
51.35	0.23	0.34	0.68*	2.92	0.00	2.92
51.40	0.23	0.34	0.68*	2.91	0.00	2.91
51.45	0.23	0.34	0.68*	2.91	0.00	2.91
51.50	0.23	0.34	0.68*	2.90	0.00	2.90
51.55	0.23	0.34	0.68*	2.89	0.00	2.89
51.60	0.23	0.34	0.68*	2.88	0.00	2.88
51.65	0.23	0.34	0.68*	2.87	0.00	2.87
51.70	0.24	0.34	0.68*	2.86	0.00	2.86
51.75	0.24	0.34	0.68*	2.85	0.00	2.85
51.80	0.24	0.34	0.69*	2.84	0.00	2.84
51.85	0.24	0.34	0.69*	2.83	0.00	2.83
51.90	0.24	0.34	0.69*	2.82	0.00	2.82
51.95	0.24	0.34	0.69*	2.81	0.00	2.81
52.00	0.24	0.34	0.69*	2.80	0.00	2.80
52.05	0.24	0.34	0.69*	2.80	0.00	2.80
52.10	0.24	0.34	0.69*	2.79	0.00	2.79
52.15	0.24	0.34	0.69*	2.78	0.00	2.78
52.20	0.24	0.34	0.69*	2.77	0.00	2.77
52.25	0.24	0.34	0.69*	2.76	0.00	2.76
52.30	0.24	0.34	0.69*	2.75	0.00	2.75
52.35	0.24	0.34	0.70*	2.74	0.00	2.74
52.40	0.24	0.34	0.70*	2.73	0.00	2.73
52.45	0.24	0.34	0.70*	2.72	0.00	2.72
52.50	0.24	0.34	0.70*	2.71	0.00	2.71
52.55	0.24	0.34	0.70*	2.71	0.00	2.71
52.60	0.24	0.34	0.70*	2.70	0.00	2.70
52.65	0.24	0.34	0.70*	2.69	0.00	2.69
52.70	0.24	0.34	0.70*	2.68	0.00	2.68
52.75	0.24	0.34	0.70*	2.67	0.00	2.67
52.80	0.24	0.34	0.70*	2.66	0.00	2.66
52.85	0.24	0.34	0.71*	2.65	0.00	2.65
52.90	0.24	0.34	0.71*	2.64	0.00	2.64
52.95	0.24	0.34	0.71*	2.64	0.00	2.64
53.00	0.24	0.34	0.71*	2.63	0.00	2.63
53.05	0.24	0.34	0.71*	2.62	0.00	2.62

53.10	0.24	0.34	0.71*	2.61	0.00	2.61
53.15	0.24	0.34	0.71*	2.60	0.00	2.60
53.20	0.24	0.34	0.71*	2.59	0.00	2.59
53.25	0.24	0.34	0.71*	2.58	0.00	2.58
53.30	0.24	0.34	0.71*	2.57	0.00	2.57
53.35	0.24	0.34	0.72*	2.57	0.00	2.57
53.40	0.24	0.34	0.72*	2.56	0.00	2.56
53.45	0.24	0.34	0.72*	2.55	0.00	2.55
53.50	0.24	0.34	0.72*	2.54	0.00	2.54
53.55	0.24	0.34	0.72*	2.53	0.00	2.53
53.60	0.25	0.34	0.72*	2.52	0.00	2.52
53.65	0.25	0.34	0.72*	2.51	0.00	2.51
53.70	0.25	0.34	0.72*	2.51	0.00	2.51
53.75	0.25	0.34	0.72*	2.50	0.00	2.50
53.80	0.25	0.34	0.72*	2.49	0.00	2.49
53.85	0.25	0.34	0.73*	2.48	0.00	2.48
53.90	0.25	0.34	0.73*	2.47	0.00	2.47
53.95	0.25	0.34	0.73*	2.46	0.00	2.46
54.00	0.25	0.34	0.73*	2.46	0.00	2.46
54.05	0.25	0.34	0.73*	2.45	0.00	2.45
54.10	0.25	0.34	0.73*	2.44	0.00	2.44
54.15	0.25	0.34	0.73*	2.43	0.00	2.43
54.20	0.25	0.34	0.73*	2.42	0.00	2.42
54.25	0.25	0.34	0.73*	2.41	0.00	2.41
54.30	0.25	0.34	0.73*	2.41	0.00	2.41
54.35	0.25	0.34	0.74*	2.40	0.00	2.40
54.40	0.25	0.34	0.74*	2.39	0.00	2.39
54.45	0.25	0.34	0.74*	2.38	0.00	2.38
54.50	0.25	0.34	0.74*	2.37	0.00	2.37
54.55	0.25	0.34	0.74*	2.36	0.00	2.36
54.60	0.25	0.34	0.74*	2.36	0.00	2.36
54.65	0.25	0.34	0.74*	2.35	0.00	2.35
54.70	0.25	0.34	0.74*	2.34	0.00	2.34
54.75	0.25	0.34	0.74*	2.33	0.00	2.33
54.80	0.25	0.34	0.74*	2.32	0.00	2.32
54.85	0.25	0.34	0.74*	2.32	0.00	2.32
54.90	0.25	0.34	0.75*	2.31	0.00	2.31
54.95	0.25	0.34	0.75*	2.30	0.00	2.30
55.00	0.25	0.34	0.75*	2.29	0.00	2.29
55.05	0.25	0.34	0.75*	2.28	0.00	2.28
55.10	0.25	0.34	0.75*	2.28	0.00	2.28
55.15	0.25	0.34	0.75*	2.27	0.00	2.27
55.20	0.25	0.34	0.75*	2.26	0.00	2.26
55.25	0.25	0.34	0.75*	2.25	0.00	2.25
55.30	0.25	0.34	0.75*	2.24	0.00	2.24
55.35	0.25	0.34	0.75*	2.24	0.00	2.24
55.40	0.25	0.34	0.75*	2.23	0.00	2.23
55.45	0.25	0.34	0.75*	2.22	0.00	2.22
55.50	0.25	0.34	0.75*	2.21	0.00	2.21
55.55	0.25	0.34	0.75*	2.20	0.00	2.20
55.60	0.25	0.34	0.75*	2.19	0.00	2.19
55.65	0.25	0.34	0.75*	2.19	0.00	2.19
55.70	0.25	0.34	0.75*	2.18	0.00	2.18
55.75	0.25	0.34	0.75*	2.17	0.00	2.17
55.80	0.25	0.34	0.75*	2.16	0.00	2.16
55.85	0.25	0.34	0.75*	2.15	0.00	2.15
55.90	0.25	0.34	0.75*	2.15	0.00	2.15
55.95	0.25	0.34	0.75*	2.14	0.00	2.14
56.00	0.25	0.34	0.75*	2.13	0.00	2.13
56.05	0.25	0.34	0.75*	2.12	0.00	2.12
56.10	0.25	0.34	0.75*	2.11	0.00	2.11
56.15	0.25	0.34	0.75*	2.11	0.00	2.11
56.20	0.25	0.34	0.75*	2.10	0.00	2.10
56.25	0.25	0.33	0.75*	2.09	0.00	2.09
56.30	0.25	0.33	0.75*	2.08	0.00	2.08
56.35	0.25	0.33	0.74*	2.07	0.00	2.07
56.40	0.25	0.33	0.74*	2.07	0.00	2.07
56.45	0.25	0.33	0.74*	2.06	0.00	2.06
56.50	0.25	0.33	0.74*	2.05	0.00	2.05
56.55	0.25	0.33	0.74*	2.04	0.00	2.04
56.60	0.25	0.33	0.74*	2.03	0.00	2.03
56.65	0.25	0.33	0.74*	2.02	0.00	2.02
56.70	0.25	0.33	0.74*	2.02	0.00	2.02
56.75	0.25	0.33	0.74*	2.01	0.00	2.01
56.80	0.25	0.33	0.74*	2.00	0.00	2.00

56.85	0.25	0.33	0.74*	1.99	0.00	1.99
56.90	0.25	0.33	0.74*	1.98	0.00	1.98
56.95	0.25	0.33	0.74*	1.98	0.00	1.98
57.00	0.25	0.33	0.74*	1.97	0.00	1.97
57.05	0.25	0.33	0.74*	1.96	0.00	1.96
57.10	0.25	0.33	0.74*	1.95	0.00	1.95
57.15	0.25	0.33	0.74*	1.94	0.00	1.94
57.20	0.25	0.33	0.74*	1.94	0.00	1.94
57.25	0.25	0.33	0.74*	1.93	0.00	1.93
57.30	0.25	0.33	0.74*	1.92	0.00	1.92
57.35	0.25	0.33	0.74*	1.91	0.00	1.91
57.40	0.25	0.33	0.74*	1.90	0.00	1.90
57.45	0.25	0.33	0.74*	1.89	0.00	1.89
57.50	0.25	0.33	0.74*	1.89	0.00	1.89
57.55	0.25	0.33	0.74*	1.88	0.00	1.88
57.60	0.25	0.33	0.74*	1.87	0.00	1.87
57.65	0.25	0.33	0.74*	1.86	0.00	1.86
57.70	0.25	0.33	0.74*	1.85	0.00	1.85
57.75	0.25	0.33	0.74*	1.85	0.00	1.85
57.80	0.25	0.33	0.74*	1.84	0.00	1.84
57.85	0.25	0.33	0.74*	1.83	0.00	1.83
57.90	0.25	0.33	0.74*	1.82	0.00	1.82
57.95	0.25	0.33	0.74*	1.81	0.00	1.81
58.00	0.25	0.33	0.74*	1.81	0.00	1.81
58.05	0.25	0.33	0.74*	1.80	0.00	1.80
58.10	0.25	0.33	0.74*	1.79	0.00	1.79
58.15	0.25	0.33	0.74*	1.78	0.00	1.78
58.20	0.25	0.33	0.74*	1.77	0.00	1.77
58.25	0.25	0.33	0.74*	1.76	0.00	1.76
58.30	0.24	0.33	0.74*	1.76	0.00	1.76
58.35	0.24	0.33	0.74*	1.75	0.00	1.75
58.40	0.24	0.33	0.74*	1.74	0.00	1.74
58.45	0.24	0.33	0.74*	1.73	0.00	1.73
58.50	0.24	0.33	0.74*	1.72	0.00	1.72
58.55	0.24	0.33	0.74*	1.72	0.00	1.72
58.60	0.24	0.33	0.74*	1.71	0.00	1.71
58.65	0.24	0.33	0.74*	1.70	0.00	1.70
58.70	0.24	0.33	0.74*	1.69	0.00	1.69
58.75	0.24	0.33	0.74*	1.68	0.00	1.68
58.80	0.24	0.33	0.74*	1.67	0.00	1.67
58.85	0.24	0.33	0.74*	1.67	0.00	1.67
58.90	0.24	0.33	0.74*	1.66	0.00	1.66
58.95	0.24	0.33	0.74*	1.65	0.00	1.65
59.00	0.24	0.33	0.74*	1.64	0.00	1.64
59.05	0.24	0.33	0.74*	1.63	0.00	1.63
59.10	0.24	0.33	0.74*	1.63	0.00	1.63
59.15	0.24	0.33	0.74*	1.62	0.00	1.62
59.20	0.24	0.33	0.74*	1.61	0.00	1.61
59.25	0.24	0.33	0.74*	1.60	0.00	1.60
59.30	0.24	0.33	0.74*	1.59	0.00	1.59
59.35	0.24	0.33	0.74*	1.58	0.00	1.58
59.40	0.24	0.33	0.74*	1.58	0.00	1.58
59.45	0.24	0.33	0.74*	1.57	0.00	1.57
59.50	0.24	0.33	0.74*	1.56	0.00	1.56
59.55	0.24	0.33	0.74*	1.55	0.00	1.55
59.60	0.24	0.33	0.74*	1.54	0.00	1.54
59.65	0.24	0.33	0.74*	1.54	0.00	1.54
59.70	0.24	0.33	0.74*	1.53	0.00	1.53
59.75	0.24	0.33	0.74*	1.52	0.00	1.52
59.80	0.24	0.33	0.74*	1.51	0.00	1.51
59.85	0.24	0.33	0.74*	1.50	0.00	1.50
59.90	0.24	0.33	0.74*	1.49	0.00	1.49
59.95	0.24	0.33	0.74*	1.49	0.00	1.49
60.00	0.24	0.33	0.74*	1.48	0.00	1.48
60.05	0.24	0.33	0.74*	1.47	0.00	1.47
60.10	0.24	0.33	0.74*	1.46	0.00	1.46
60.15	0.24	0.33	0.74*	1.45	0.00	1.45
60.20	0.24	0.33	0.74*	1.45	0.00	1.45
60.25	0.24	0.33	0.74*	1.44	0.00	1.44
60.30	0.24	0.33	0.74*	1.43	0.00	1.43
60.35	0.24	0.33	0.75*	1.42	0.00	1.42
60.40	0.24	0.33	0.75*	1.41	0.00	1.41
60.45	0.24	0.32	0.75*	1.40	0.00	1.40
60.50	0.24	0.32	0.75*	1.40	0.00	1.40
60.55	0.24	0.32	0.75*	1.39	0.00	1.39

60.60	0.24	0.32	0.75*	1.38	0.00	1.38
60.65	0.24	0.32	0.75*	1.37	0.00	1.37
60.70	0.24	0.32	0.75*	1.36	0.00	1.36
60.75	0.24	0.32	0.75*	1.36	0.00	1.36
60.80	0.24	0.32	0.75*	1.35	0.00	1.35
60.85	0.24	0.32	0.75*	1.34	0.00	1.34
60.90	0.24	0.32	0.75*	1.33	0.00	1.33
60.95	0.24	0.32	0.76*	1.32	0.00	1.32
61.00	0.24	0.32	0.76*	1.32	0.00	1.32
61.05	0.24	0.32	0.76*	1.31	0.00	1.31
61.10	0.25	0.32	0.76*	1.30	0.00	1.30
61.15	0.25	0.32	0.76*	1.29	0.00	1.29
61.20	0.25	0.32	0.76*	1.28	0.00	1.28
61.25	0.25	0.32	0.76*	1.28	0.00	1.28
61.30	0.25	0.32	0.76*	1.27	0.00	1.27
61.35	0.25	0.32	0.76*	1.26	0.00	1.26
61.40	0.25	0.32	0.76*	1.25	0.00	1.25
61.45	0.25	0.32	0.76*	1.25	0.00	1.25
61.50	0.25	0.32	0.76*	1.24	0.00	1.24
61.55	0.25	0.32	0.77*	1.23	0.00	1.23
61.60	0.25	0.32	0.77*	1.22	0.00	1.22
61.65	0.25	0.32	0.77*	1.21	0.00	1.21
61.70	0.25	0.32	0.77*	1.21	0.00	1.21
61.75	0.25	0.32	0.77*	1.20	0.00	1.20
61.80	0.25	0.32	0.77*	1.19	0.00	1.19
61.85	0.25	0.32	0.77*	1.18	0.00	1.18
61.90	0.25	0.32	0.77*	1.18	0.00	1.18
61.95	0.25	0.32	0.77*	1.17	0.00	1.17
62.00	0.25	0.32	0.77*	1.16	0.00	1.16
62.05	0.25	0.32	0.77*	1.15	0.00	1.15
62.10	0.25	0.32	0.77*	1.15	0.00	1.15
62.15	0.25	0.32	0.78*	1.14	0.00	1.14
62.20	0.25	0.32	0.78*	1.13	0.00	1.13
62.25	0.25	0.32	0.78*	1.12	0.00	1.12
62.30	0.25	0.32	0.78*	1.12	0.00	1.12
62.35	0.25	0.32	0.78*	1.11	0.00	1.11
62.40	0.25	0.32	0.78*	1.10	0.00	1.10
62.45	0.25	0.32	0.78*	1.09	0.00	1.09
62.50	0.25	0.32	0.78*	1.09	0.00	1.09
62.55	0.25	0.32	0.78*	1.08	0.00	1.08
62.60	0.25	0.32	0.78*	1.07	0.00	1.07
62.65	0.25	0.32	0.78*	1.06	0.00	1.06
62.70	0.25	0.32	0.79*	1.06	0.00	1.06
62.75	0.25	0.32	0.79*	1.05	0.00	1.05
62.80	0.25	0.32	0.79*	1.04	0.00	1.04
62.85	0.25	0.32	0.79*	1.03	0.00	1.03
62.90	0.25	0.32	0.79*	1.03	0.00	1.03
62.95	0.25	0.32	0.79*	1.02	0.00	1.02
63.00	0.25	0.32	0.79*	1.01	0.00	1.01
63.05	0.25	0.32	0.79*	1.00	0.00	1.00
63.10	0.25	0.32	0.79*	1.00	0.00	1.00
63.15	0.25	0.32	0.79*	0.99	0.00	0.99
63.20	0.25	0.32	0.79*	0.98	0.00	0.98
63.25	0.25	0.32	0.80*	0.97	0.00	0.97
63.30	0.25	0.32	0.80*	0.97	0.00	0.97
63.35	0.25	0.32	0.80*	0.96	0.00	0.96
63.40	0.25	0.32	0.80*	0.95	0.00	0.95
63.45	0.25	0.32	0.80*	0.95	0.00	0.95
63.50	0.25	0.32	0.80*	0.94	0.00	0.94
63.55	0.25	0.32	0.80*	0.93	0.00	0.93
63.60	0.25	0.32	0.80*	0.92	0.00	0.92
63.65	0.25	0.32	0.80*	0.92	0.00	0.92
63.70	0.25	0.32	0.80*	0.91	0.00	0.91
63.75	0.25	0.32	0.80*	0.90	0.00	0.90
63.80	0.25	0.32	0.80*	0.90	0.00	0.90
63.85	0.25	0.32	0.81*	0.89	0.00	0.89
63.90	0.25	0.32	0.81*	0.88	0.00	0.88
63.95	0.26	0.32	0.81*	0.87	0.00	0.87
64.00	0.26	0.32	0.81*	0.87	0.00	0.87
64.05	0.26	0.32	0.81*	0.86	0.00	0.86
64.10	0.26	0.32	0.81*	0.85	0.00	0.85
64.15	0.26	0.32	0.81*	0.85	0.00	0.85
64.20	0.26	0.32	0.81*	0.84	0.00	0.84
64.25	0.26	0.32	0.81*	0.83	0.00	0.83
64.30	0.26	0.31	0.81*	0.83	0.00	0.83

64.35	0.26	0.31	0.81*	0.82	0.00	0.82
64.40	0.26	0.31	0.82*	0.81	0.00	0.81
64.45	0.26	0.31	0.82*	0.80	0.00	0.80
64.50	0.26	0.31	0.82*	0.80	0.00	0.80
64.55	0.26	0.31	0.82*	0.79	0.00	0.79
64.60	0.26	0.31	0.82*	0.78	0.00	0.78
64.65	0.26	0.31	0.82*	0.78	0.00	0.78
64.70	0.26	0.31	0.82*	0.77	0.00	0.77
64.75	0.26	0.31	0.82*	0.76	0.00	0.76
64.80	0.26	0.31	0.82*	0.76	0.00	0.76
64.85	0.26	0.31	0.82*	0.75	0.00	0.75
64.90	0.26	0.31	0.82*	0.74	0.00	0.74
64.95	0.26	0.31	0.83*	0.74	0.00	0.74
65.00	0.26	0.31	0.83*	0.73	0.00	0.73
65.05	0.26	0.31	0.83*	0.72	0.00	0.72
65.10	0.26	0.31	0.83*	0.72	0.00	0.72
65.15	0.26	0.31	0.83*	0.71	0.00	0.71
65.20	0.26	0.31	0.83*	0.70	0.00	0.70
65.25	0.26	0.31	0.83*	0.70	0.00	0.70
65.30	0.26	0.31	0.83*	0.69	0.00	0.69
65.35	0.26	0.31	0.83*	0.68	0.00	0.68
65.40	0.26	0.31	0.83*	0.68	0.00	0.68
65.45	0.26	0.31	0.83*	0.67	0.00	0.67
65.50	0.26	0.31	0.83*	0.66	0.00	0.66
65.55	0.26	0.31	0.83*	0.66	0.00	0.66
65.60	0.26	0.31	0.83*	0.65	0.00	0.65
65.65	0.26	0.31	0.83*	0.64	0.00	0.64
65.70	0.26	0.31	0.83*	0.64	0.00	0.64
65.75	0.26	0.31	0.83*	0.63	0.00	0.63
65.80	0.26	0.31	0.83*	0.62	0.00	0.62
65.85	0.26	0.31	0.83*	0.62	0.00	0.62
65.90	0.26	0.31	0.83*	0.61	0.00	0.61
65.95	0.26	0.31	0.83*	0.60	0.00	0.60
66.00	0.26	0.31	0.83*	0.60	0.00	0.60
66.05	0.26	0.31	0.83*	0.59	0.00	0.59
66.10	0.26	0.31	0.83*	0.58	0.00	0.58
66.15	0.26	0.31	0.83*	0.58	0.00	0.58
66.20	0.26	0.31	0.83*	0.57	0.00	0.57
66.25	0.26	0.31	0.83*	0.56	0.00	0.56
66.30	0.26	0.31	0.83*	0.56	0.00	0.56
66.35	0.26	0.31	0.83*	0.55	0.00	0.55
66.40	0.26	0.31	0.83*	0.54	0.00	0.54
66.45	0.26	0.31	0.83*	0.54	0.00	0.54
66.50	0.26	0.31	0.83*	0.53	0.00	0.53
66.55	0.26	0.31	0.83*	0.52	0.00	0.52
66.60	0.26	0.31	0.83*	0.52	0.00	0.52
66.65	0.26	0.31	0.83*	0.51	0.00	0.51
66.70	0.26	0.31	0.83*	0.50	0.00	0.50
66.75	0.26	0.31	0.83*	0.50	0.00	0.50
66.80	0.25	0.31	0.83*	0.49	0.00	0.49
66.85	0.25	0.31	0.83*	0.48	0.00	0.48
66.90	0.25	0.31	0.83*	0.48	0.00	0.48
66.95	0.25	0.31	0.83*	0.47	0.00	0.47
67.00	0.25	0.31	0.83*	0.46	0.00	0.46
67.05	0.25	0.31	0.83*	0.46	0.00	0.46
67.10	0.25	0.31	0.83*	0.45	0.00	0.45
67.15	0.25	0.31	0.83*	0.44	0.00	0.44
67.20	0.25	0.31	0.83*	0.44	0.00	0.44
67.25	0.25	0.31	0.83*	0.43	0.00	0.43
67.30	0.25	0.31	0.83*	0.42	0.00	0.42
67.35	0.25	0.31	0.83*	0.42	0.00	0.42
67.40	0.25	0.31	0.83*	0.41	0.00	0.41
67.45	0.25	0.31	0.83*	0.40	0.00	0.40
67.50	0.25	0.31	0.83*	0.40	0.00	0.40
67.55	0.25	0.31	0.83*	0.39	0.00	0.39
67.60	0.25	0.31	0.83*	0.38	0.00	0.38
67.65	0.25	0.31	0.83*	0.38	0.00	0.38
67.70	0.25	0.31	0.83*	0.37	0.00	0.37
67.75	0.25	0.31	0.83*	0.36	0.00	0.36
67.80	0.25	0.31	0.83*	0.36	0.00	0.36
67.85	0.25	0.31	0.83*	0.35	0.00	0.35
67.90	0.25	0.30	0.83*	0.34	0.00	0.34
67.95	0.25	0.30	0.83*	0.34	0.00	0.34
68.00	0.25	0.30	0.83*	0.33	0.00	0.33
68.05	0.25	0.30	0.83*	0.32	0.00	0.32

68.10	0.25	0.30	0.83*	0.32	0.00	0.32
68.15	0.25	0.30	0.83*	0.31	0.00	0.31
68.20	0.25	0.30	0.83*	0.30	0.00	0.30
68.25	0.25	0.30	0.83*	0.30	0.00	0.30
68.30	0.25	0.30	0.83*	0.29	0.00	0.29
68.35	0.25	0.30	0.83*	0.28	0.00	0.28
68.40	0.25	0.30	0.83*	0.28	0.00	0.28
68.45	0.25	0.30	0.83*	0.27	0.00	0.27
68.50	0.25	0.30	0.83*	0.26	0.00	0.26
68.55	0.25	0.30	0.83*	0.26	0.00	0.26
68.60	0.25	0.30	0.83*	0.25	0.00	0.25
68.65	0.25	0.30	0.83*	0.24	0.00	0.24
68.70	0.25	0.30	0.83*	0.24	0.00	0.24
68.75	0.25	0.30	0.83*	0.23	0.00	0.23
68.80	0.25	0.30	0.83*	0.22	0.00	0.22
68.85	0.25	0.30	0.83*	0.22	0.00	0.22
68.90	0.25	0.30	0.83*	0.21	0.00	0.21
68.95	0.25	0.30	0.83*	0.20	0.00	0.20
69.00	0.25	0.30	0.83*	0.20	0.00	0.20
69.05	0.25	0.30	0.83*	0.19	0.00	0.19
69.10	0.25	0.30	0.83*	0.19	0.00	0.19
69.15	0.25	0.30	0.83*	0.18	0.00	0.18
69.20	0.25	0.30	0.83*	0.17	0.00	0.17
69.25	0.25	0.30	0.83*	0.17	0.00	0.17
69.30	0.25	0.30	0.83*	0.16	0.00	0.16
69.35	0.25	0.30	0.83*	0.15	0.00	0.15
69.40	0.25	0.30	0.83*	0.15	0.00	0.15
69.45	0.25	0.30	0.83*	0.14	0.00	0.14
69.50	0.25	0.30	0.83*	0.13	0.00	0.13
69.55	0.25	0.30	0.83*	0.13	0.00	0.13
69.60	0.25	0.30	0.83*	0.12	0.00	0.12
69.65	0.25	0.30	0.83*	0.11	0.00	0.11
69.70	0.25	0.30	0.83*	0.11	0.00	0.11
69.75	0.25	0.30	0.83*	0.10	0.00	0.10
69.80	0.25	0.30	0.83*	0.09	0.00	0.09
69.85	0.25	0.30	0.83*	0.09	0.00	0.09
69.90	0.25	0.30	0.83*	0.08	0.00	0.08
69.95	0.25	0.30	0.83*	0.07	0.00	0.07
70.00	0.25	0.30	0.83*	0.07	0.00	0.07
70.05	0.25	0.30	0.84*	0.06	0.00	0.06
70.10	0.25	0.30	0.85*	0.05	0.00	0.05
70.15	0.25	0.30	0.85*	0.05	0.00	0.05
70.20	0.26	0.30	0.86*	0.04	0.00	0.04
70.25	0.26	0.30	0.87*	0.04	0.00	0.04
70.30	0.26	0.30	0.87*	0.03	0.00	0.03
70.35	0.26	0.30	0.88*	0.03	0.00	0.03
70.40	0.26	0.30	0.89*	0.02	0.00	0.02
70.45	0.27	0.30	0.89*	0.02	0.00	0.02
70.50	0.27	0.30	0.90*	0.02	0.00	0.02
70.55	0.27	0.30	0.91*	0.02	0.00	0.02
70.60	0.27	0.30	0.91*	0.02	0.00	0.02
70.65	0.27	0.30	0.92*	0.01	0.00	0.01
70.70	0.28	0.30	0.93*	0.01	0.00	0.01
70.75	0.28	0.30	0.93*	0.01	0.00	0.01
70.80	0.28	0.30	0.94*	0.01	0.00	0.01
70.85	0.28	0.30	0.95*	0.01	0.00	0.01
70.90	0.28	0.30	0.96*	0.01	0.00	0.01
70.95	0.29	0.30	0.96*	0.01	0.00	0.01
71.00	0.29	0.30	0.97*	0.01	0.00	0.01
71.05	0.29	0.30	0.98*	0.01	0.00	0.01
71.10	0.29	0.30	0.99*	0.01	0.00	0.01
71.15	0.29	0.30	0.99*	0.00	0.00	0.00
71.20	0.30	0.30	1.00	0.00	0.00	0.00
71.25	0.30	0.30	1.01	0.00	0.00	0.00
71.30	0.30	0.30	1.02	0.00	0.00	0.00
71.35	0.30	0.29	1.02	0.00	0.00	0.00
71.40	0.30	0.29	1.03	0.00	0.00	0.00
71.45	0.31	0.29	1.04	0.00	0.00	0.00
71.50	0.31	0.29	1.05	0.00	0.00	0.00
71.55	0.31	0.29	1.06	0.00	0.00	0.00
71.60	0.31	0.29	1.07	0.00	0.00	0.00
71.65	0.32	0.29	1.07	0.00	0.00	0.00
71.70	0.32	0.29	1.08	0.00	0.00	0.00
71.75	0.32	0.29	1.09	0.00	0.00	0.00
71.80	0.32	0.29	1.10	0.00	0.00	0.00

71.85	0.33	0.29	1.11	0.00	0.00	0.00
71.90	0.33	0.29	1.12	0.00	0.00	0.00
71.95	0.33	0.29	1.13	0.00	0.00	0.00
72.00	0.33	0.29	1.14	0.00	0.00	0.00
72.05	0.34	0.29	1.15	0.00	0.00	0.00
72.10	0.34	0.29	1.16	0.00	0.00	0.00
72.15	0.34	0.29	1.17	0.00	0.00	0.00
72.20	0.34	0.29	1.18	0.00	0.00	0.00
72.25	0.35	0.29	1.19	0.00	0.00	0.00
72.30	0.35	0.29	1.20	0.00	0.00	0.00
72.35	0.35	0.29	1.21	0.00	0.00	0.00
72.40	0.36	0.29	1.22	0.00	0.00	0.00
72.45	0.36	0.29	1.23	0.00	0.00	0.00
72.50	0.36	0.29	1.24	0.00	0.00	0.00
72.55	0.36	0.29	1.25	0.00	0.00	0.00
72.60	0.37	0.29	1.26	0.00	0.00	0.00
72.65	0.37	0.29	1.27	0.00	0.00	0.00
72.70	0.37	0.29	1.29	0.00	0.00	0.00
72.75	0.38	0.29	1.30	0.00	0.00	0.00
72.80	0.38	0.29	1.31	0.00	0.00	0.00
72.85	0.38	0.29	1.32	0.00	0.00	0.00
72.90	0.39	0.29	1.34	0.00	0.00	0.00
72.95	0.39	0.29	1.35	0.00	0.00	0.00
73.00	0.40	0.29	1.37	0.00	0.00	0.00
73.05	0.40	0.29	1.38	0.00	0.00	0.00
73.10	0.40	0.29	1.40	0.00	0.00	0.00
73.15	0.41	0.29	1.41	0.00	0.00	0.00
73.20	0.41	0.29	1.43	0.00	0.00	0.00
73.25	0.42	0.29	1.44	0.00	0.00	0.00
73.30	0.42	0.29	1.46	0.00	0.00	0.00
73.35	0.43	0.29	1.48	0.00	0.00	0.00
73.40	0.43	0.29	1.50	0.00	0.00	0.00
73.45	0.44	0.29	1.52	0.00	0.00	0.00
73.50	0.45	0.29	1.55	0.00	0.00	0.00
73.55	0.45	0.29	1.58	0.00	0.00	0.00
73.60	0.46	0.29	1.61	0.00	0.00	0.00
73.65	0.47	0.29	1.65	0.00	0.00	0.00
73.70	0.49	0.29	1.69	0.00	0.00	0.00
73.75	0.51	0.29	1.76	0.00	0.00	0.00
73.80	0.53	0.29	1.85	0.00	0.00	0.00
73.85	0.58	0.29	2.01	0.00	0.00	0.00
73.90	0.58	0.29	2.03	0.00	0.00	0.00
73.95	0.58	0.29	2.03	0.00	0.00	0.00
74.00	0.58	0.29	2.04	0.00	0.00	0.00
74.05	0.58	0.29	2.04	0.00	0.00	0.00
74.10	0.58	0.29	2.04	0.00	0.00	0.00
74.15	0.58	0.29	2.04	0.00	0.00	0.00
74.20	0.58	0.29	2.04	0.00	0.00	0.00
74.25	0.58	0.29	2.04	0.00	0.00	0.00
74.30	0.58	0.29	2.04	0.00	0.00	0.00
74.35	0.58	0.29	2.04	0.00	0.00	0.00
74.40	0.58	0.29	2.04	0.00	0.00	0.00
74.45	0.58	0.29	2.04	0.00	0.00	0.00
74.50	0.58	0.29	2.04	0.00	0.00	0.00
74.55	0.58	0.29	2.05	0.00	0.00	0.00
74.60	0.58	0.29	2.05	0.00	0.00	0.00
74.65	0.58	0.29	2.05	0.00	0.00	0.00
74.70	0.58	0.28	2.05	0.00	0.00	0.00
74.75	0.58	0.28	2.05	0.00	0.00	0.00
74.80	0.58	0.28	2.05	0.00	0.00	0.00
74.85	0.58	0.28	2.05	0.00	0.00	0.00
74.90	0.58	0.28	2.05	0.00	0.00	0.00
74.95	0.58	0.28	2.05	0.00	0.00	0.00
75.00	0.58	0.28	2.05	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)

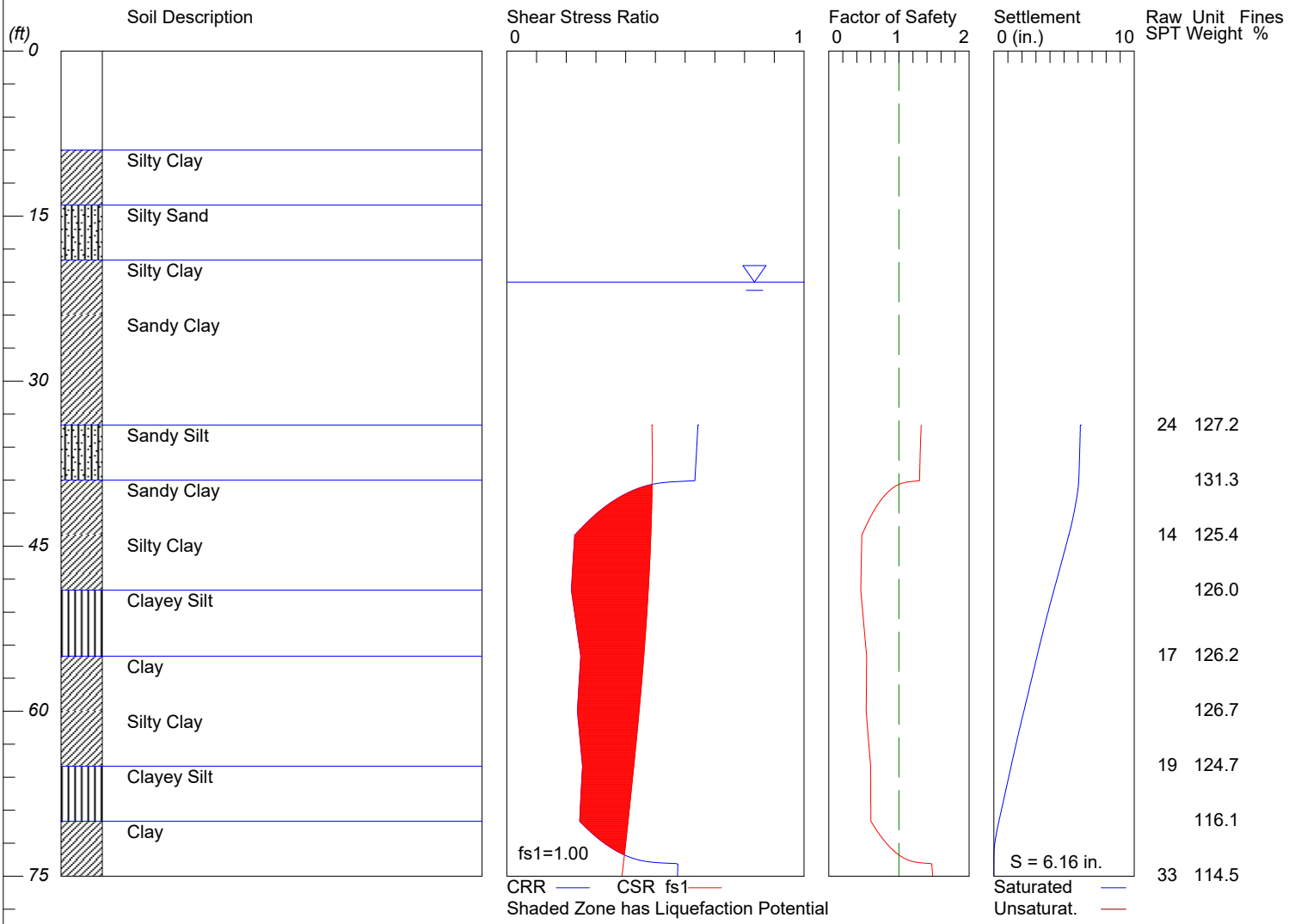
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat	Settlement from saturated sands
S_dry	Settlement from Unsaturated Sands
S_all	Total Settlement from Saturated and Unsaturated Sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS

De Soto/Burbank

Hole No.=B-5 Water Depth=21 ft

Magnitude=6.78
Acceleration=0.68g



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LIQUEFACTION ANALYSIS SUMMARY
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Input File Name: C:\Users\jonne\OneDrive\Work\Projects\6743 -- Adler Realty August 2019 Update\Liquefaction\B-5 Full PGA.liq
Title: De Soto/Burbank
Subtitle: 2% Probability - Full PGAm

Surface Elev.=
Hole No.=B-5
Depth of Hole= 75.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration= 0.68 g
Earthquake Magnitude= 6.78

Input Data:
Surface Elev.=
Hole No.=B-5
Depth of Hole=75.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration=0.68 g
Earthquake Magnitude=6.78
No-Liquefiable Soils: Based on Analysis

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Tokimatsu, M-correction
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.42
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1.2
9. User request factor of safety (apply to CSR) , User= 1.0
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
34.00	24.00	127.20	0.00
39.00	24.00	131.30	0.00
44.00	14.00	125.40	0.00
49.00	14.00	126.00	0.00
55.00	17.00	126.20	0.00
60.00	17.00	126.70	0.00
65.00	19.00	124.70	0.00
70.00	19.00	116.10	0.00
75.00	33.00	114.50	0.00

Output Results:
Settlement of Saturated Sands=6.16 in.
Settlement of Unsaturated Sands=0.00 in.
Total Settlement of Saturated and Unsaturated Sands=6.16 in.
Differential Settlement=3.082 to 4.068 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
34.00	0.64	0.49	1.32	6.16	0.00	6.16
34.05	0.64	0.49	1.32	6.16	0.00	6.16
34.10	0.64	0.49	1.32	6.16	0.00	6.16
34.15	0.64	0.49	1.32	6.16	0.00	6.16
34.20	0.64	0.49	1.32	6.16	0.00	6.16
34.25	0.64	0.49	1.32	6.16	0.00	6.16
34.30	0.64	0.49	1.32	6.16	0.00	6.16

34.35	0.64	0.49	1.32	6.16	0.00	6.16
34.40	0.64	0.49	1.31	6.16	0.00	6.16
34.45	0.64	0.49	1.31	6.16	0.00	6.16
34.50	0.64	0.49	1.31	6.15	0.00	6.15
34.55	0.64	0.49	1.31	6.15	0.00	6.15
34.60	0.64	0.49	1.31	6.15	0.00	6.15
34.65	0.64	0.49	1.31	6.15	0.00	6.15
34.70	0.64	0.49	1.31	6.15	0.00	6.15
34.75	0.64	0.49	1.31	6.15	0.00	6.15
34.80	0.64	0.49	1.31	6.15	0.00	6.15
34.85	0.64	0.49	1.31	6.15	0.00	6.15
34.90	0.64	0.49	1.31	6.15	0.00	6.15
34.95	0.64	0.49	1.31	6.15	0.00	6.15
35.00	0.64	0.49	1.31	6.14	0.00	6.14
35.05	0.64	0.49	1.31	6.14	0.00	6.14
35.10	0.64	0.49	1.31	6.14	0.00	6.14
35.15	0.64	0.49	1.31	6.14	0.00	6.14
35.20	0.64	0.49	1.31	6.14	0.00	6.14
35.25	0.64	0.49	1.31	6.14	0.00	6.14
35.30	0.64	0.49	1.31	6.14	0.00	6.14
35.35	0.64	0.49	1.31	6.14	0.00	6.14
35.40	0.64	0.49	1.31	6.14	0.00	6.14
35.45	0.64	0.49	1.31	6.14	0.00	6.14
35.50	0.64	0.49	1.31	6.13	0.00	6.13
35.55	0.64	0.49	1.31	6.13	0.00	6.13
35.60	0.64	0.49	1.31	6.13	0.00	6.13
35.65	0.64	0.49	1.31	6.13	0.00	6.13
35.70	0.64	0.49	1.31	6.13	0.00	6.13
35.75	0.64	0.49	1.31	6.13	0.00	6.13
35.80	0.64	0.49	1.31	6.13	0.00	6.13
35.85	0.64	0.49	1.31	6.13	0.00	6.13
35.90	0.64	0.49	1.31	6.13	0.00	6.13
35.95	0.64	0.49	1.31	6.13	0.00	6.13
36.00	0.64	0.49	1.31	6.12	0.00	6.12
36.05	0.64	0.49	1.31	6.12	0.00	6.12
36.10	0.64	0.49	1.31	6.12	0.00	6.12
36.15	0.64	0.49	1.30	6.12	0.00	6.12
36.20	0.64	0.49	1.30	6.12	0.00	6.12
36.25	0.64	0.49	1.30	6.12	0.00	6.12
36.30	0.64	0.49	1.30	6.12	0.00	6.12
36.35	0.64	0.49	1.30	6.12	0.00	6.12
36.40	0.64	0.49	1.30	6.12	0.00	6.12
36.45	0.64	0.49	1.30	6.11	0.00	6.11
36.50	0.64	0.49	1.30	6.11	0.00	6.11
36.55	0.64	0.49	1.30	6.11	0.00	6.11
36.60	0.64	0.49	1.30	6.11	0.00	6.11
36.65	0.64	0.49	1.30	6.11	0.00	6.11
36.70	0.64	0.49	1.30	6.11	0.00	6.11
36.75	0.64	0.49	1.30	6.11	0.00	6.11
36.80	0.64	0.49	1.30	6.11	0.00	6.11
36.85	0.64	0.49	1.30	6.11	0.00	6.11
36.90	0.64	0.49	1.30	6.10	0.00	6.10
36.95	0.64	0.49	1.30	6.10	0.00	6.10
37.00	0.64	0.49	1.30	6.10	0.00	6.10
37.05	0.64	0.49	1.30	6.10	0.00	6.10
37.10	0.64	0.49	1.30	6.10	0.00	6.10
37.15	0.64	0.49	1.30	6.10	0.00	6.10
37.20	0.64	0.49	1.30	6.10	0.00	6.10
37.25	0.64	0.49	1.30	6.10	0.00	6.10
37.30	0.64	0.49	1.30	6.09	0.00	6.09
37.35	0.64	0.49	1.30	6.09	0.00	6.09
37.40	0.64	0.49	1.30	6.09	0.00	6.09
37.45	0.64	0.49	1.30	6.09	0.00	6.09
37.50	0.64	0.49	1.30	6.09	0.00	6.09
37.55	0.64	0.49	1.30	6.09	0.00	6.09
37.60	0.64	0.49	1.30	6.09	0.00	6.09
37.65	0.64	0.49	1.30	6.09	0.00	6.09
37.70	0.64	0.49	1.30	6.09	0.00	6.09
37.75	0.64	0.49	1.30	6.08	0.00	6.08
37.80	0.64	0.49	1.30	6.08	0.00	6.08
37.85	0.64	0.49	1.30	6.08	0.00	6.08
37.90	0.64	0.49	1.30	6.08	0.00	6.08
37.95	0.64	0.49	1.30	6.08	0.00	6.08
38.00	0.63	0.49	1.30	6.08	0.00	6.08
38.05	0.63	0.49	1.30	6.08	0.00	6.08

38.10	0.63	0.49	1.30	6.08	0.00	6.08
38.15	0.63	0.49	1.30	6.07	0.00	6.07
38.20	0.63	0.49	1.30	6.07	0.00	6.07
38.25	0.63	0.49	1.30	6.07	0.00	6.07
38.30	0.63	0.49	1.30	6.07	0.00	6.07
38.35	0.63	0.49	1.30	6.07	0.00	6.07
38.40	0.63	0.49	1.30	6.07	0.00	6.07
38.45	0.63	0.49	1.30	6.07	0.00	6.07
38.50	0.63	0.49	1.30	6.06	0.00	6.06
38.55	0.63	0.49	1.30	6.06	0.00	6.06
38.60	0.63	0.49	1.30	6.06	0.00	6.06
38.65	0.63	0.49	1.29	6.06	0.00	6.06
38.70	0.63	0.49	1.29	6.06	0.00	6.06
38.75	0.63	0.49	1.29	6.06	0.00	6.06
38.80	0.63	0.49	1.29	6.05	0.00	6.05
38.85	0.63	0.49	1.29	6.05	0.00	6.05
38.90	0.63	0.49	1.29	6.05	0.00	6.05
38.95	0.63	0.49	1.29	6.05	0.00	6.05
39.00	0.63	0.49	1.29	6.05	0.00	6.05
39.05	0.63	0.49	1.29	6.05	0.00	6.05
39.10	0.60	0.49	1.22	6.04	0.00	6.04
39.15	0.56	0.49	1.14	6.04	0.00	6.04
39.20	0.54	0.49	1.09	6.04	0.00	6.04
39.25	0.52	0.49	1.06	6.04	0.00	6.04
39.30	0.51	0.49	1.03	6.03	0.00	6.03
39.35	0.49	0.49	1.01	6.03	0.00	6.03
39.40	0.49	0.49	0.99*	6.03	0.00	6.03
39.45	0.48	0.49	0.98*	6.02	0.00	6.02
39.50	0.47	0.49	0.96*	6.02	0.00	6.02
39.55	0.46	0.49	0.95*	6.01	0.00	6.01
39.60	0.46	0.49	0.94*	6.01	0.00	6.01
39.65	0.45	0.49	0.93*	6.01	0.00	6.01
39.70	0.45	0.49	0.91*	6.00	0.00	6.00
39.75	0.44	0.49	0.90*	6.00	0.00	6.00
39.80	0.44	0.49	0.89*	5.99	0.00	5.99
39.85	0.43	0.49	0.88*	5.99	0.00	5.99
39.90	0.43	0.49	0.87*	5.98	0.00	5.98
39.95	0.42	0.49	0.87*	5.98	0.00	5.98
40.00	0.42	0.49	0.86*	5.97	0.00	5.97
40.05	0.41	0.49	0.85*	5.97	0.00	5.97
40.10	0.41	0.49	0.84*	5.96	0.00	5.96
40.15	0.41	0.49	0.83*	5.96	0.00	5.96
40.20	0.40	0.49	0.83*	5.95	0.00	5.95
40.25	0.40	0.49	0.82*	5.95	0.00	5.95
40.30	0.40	0.49	0.81*	5.94	0.00	5.94
40.35	0.39	0.49	0.80*	5.93	0.00	5.93
40.40	0.39	0.49	0.80*	5.93	0.00	5.93
40.45	0.39	0.49	0.79*	5.92	0.00	5.92
40.50	0.38	0.49	0.78*	5.92	0.00	5.92
40.55	0.38	0.49	0.78*	5.91	0.00	5.91
40.60	0.38	0.49	0.77*	5.90	0.00	5.90
40.65	0.37	0.49	0.76*	5.90	0.00	5.90
40.70	0.37	0.49	0.76*	5.89	0.00	5.89
40.75	0.37	0.49	0.75*	5.88	0.00	5.88
40.80	0.36	0.49	0.75*	5.88	0.00	5.88
40.85	0.36	0.49	0.74*	5.87	0.00	5.87
40.90	0.36	0.49	0.73*	5.86	0.00	5.86
40.95	0.36	0.49	0.73*	5.86	0.00	5.86
41.00	0.35	0.49	0.72*	5.85	0.00	5.85
41.05	0.35	0.49	0.72*	5.84	0.00	5.84
41.10	0.35	0.49	0.71*	5.84	0.00	5.84
41.15	0.34	0.49	0.71*	5.83	0.00	5.83
41.20	0.34	0.49	0.70*	5.82	0.00	5.82
41.25	0.34	0.49	0.70*	5.82	0.00	5.82
41.30	0.34	0.49	0.69*	5.81	0.00	5.81
41.35	0.33	0.49	0.69*	5.80	0.00	5.80
41.40	0.33	0.49	0.68*	5.79	0.00	5.79
41.45	0.33	0.49	0.68*	5.79	0.00	5.79
41.50	0.33	0.49	0.67*	5.78	0.00	5.78
41.55	0.32	0.49	0.67*	5.77	0.00	5.77
41.60	0.32	0.49	0.66*	5.77	0.00	5.77
41.65	0.32	0.49	0.66*	5.76	0.00	5.76
41.70	0.32	0.49	0.65*	5.75	0.00	5.75
41.75	0.31	0.49	0.65*	5.74	0.00	5.74
41.80	0.31	0.49	0.64*	5.73	0.00	5.73

41.85	0.31	0.49	0.64*	5.73	0.00	5.73
41.90	0.31	0.49	0.63*	5.72	0.00	5.72
41.95	0.31	0.49	0.63*	5.71	0.00	5.71
42.00	0.30	0.49	0.62*	5.70	0.00	5.70
42.05	0.30	0.49	0.62*	5.70	0.00	5.70
42.10	0.30	0.49	0.62*	5.69	0.00	5.69
42.15	0.30	0.49	0.61*	5.68	0.00	5.68
42.20	0.30	0.49	0.61*	5.67	0.00	5.67
42.25	0.29	0.49	0.60*	5.66	0.00	5.66
42.30	0.29	0.49	0.60*	5.65	0.00	5.65
42.35	0.29	0.49	0.59*	5.65	0.00	5.65
42.40	0.29	0.49	0.59*	5.64	0.00	5.64
42.45	0.29	0.49	0.59*	5.63	0.00	5.63
42.50	0.28	0.49	0.58*	5.62	0.00	5.62
42.55	0.28	0.49	0.58*	5.61	0.00	5.61
42.60	0.28	0.49	0.57*	5.60	0.00	5.60
42.65	0.28	0.49	0.57*	5.60	0.00	5.60
42.70	0.28	0.49	0.57*	5.59	0.00	5.59
42.75	0.27	0.49	0.56*	5.58	0.00	5.58
42.80	0.27	0.49	0.56*	5.57	0.00	5.57
42.85	0.27	0.49	0.55*	5.56	0.00	5.56
42.90	0.27	0.49	0.55*	5.55	0.00	5.55
42.95	0.27	0.49	0.55*	5.54	0.00	5.54
43.00	0.26	0.49	0.54*	5.53	0.00	5.53
43.05	0.26	0.49	0.54*	5.52	0.00	5.52
43.10	0.26	0.49	0.54*	5.52	0.00	5.52
43.15	0.26	0.49	0.53*	5.51	0.00	5.51
43.20	0.26	0.49	0.53*	5.50	0.00	5.50
43.25	0.25	0.49	0.52*	5.49	0.00	5.49
43.30	0.25	0.49	0.52*	5.48	0.00	5.48
43.35	0.25	0.49	0.52*	5.47	0.00	5.47
43.40	0.25	0.49	0.51*	5.46	0.00	5.46
43.45	0.25	0.49	0.51*	5.45	0.00	5.45
43.50	0.25	0.49	0.51*	5.44	0.00	5.44
43.55	0.24	0.49	0.50*	5.43	0.00	5.43
43.60	0.24	0.49	0.50*	5.42	0.00	5.42
43.65	0.24	0.48	0.50*	5.41	0.00	5.41
43.70	0.24	0.48	0.49*	5.40	0.00	5.40
43.75	0.24	0.48	0.49*	5.39	0.00	5.39
43.80	0.24	0.48	0.49*	5.38	0.00	5.38
43.85	0.23	0.48	0.48*	5.37	0.00	5.37
43.90	0.23	0.48	0.48*	5.36	0.00	5.36
43.95	0.23	0.48	0.47*	5.35	0.00	5.35
44.00	0.23	0.48	0.47*	5.34	0.00	5.34
44.05	0.23	0.48	0.47*	5.33	0.00	5.33
44.10	0.23	0.48	0.47*	5.32	0.00	5.32
44.15	0.23	0.48	0.47*	5.31	0.00	5.31
44.20	0.23	0.48	0.47*	5.30	0.00	5.30
44.25	0.23	0.48	0.47*	5.29	0.00	5.29
44.30	0.23	0.48	0.47*	5.28	0.00	5.28
44.35	0.23	0.48	0.47*	5.27	0.00	5.27
44.40	0.23	0.48	0.47*	5.26	0.00	5.26
44.45	0.23	0.48	0.47*	5.24	0.00	5.24
44.50	0.23	0.48	0.47*	5.23	0.00	5.23
44.55	0.23	0.48	0.47*	5.22	0.00	5.22
44.60	0.23	0.48	0.47*	5.21	0.00	5.21
44.65	0.23	0.48	0.47*	5.20	0.00	5.20
44.70	0.23	0.48	0.47*	5.19	0.00	5.19
44.75	0.23	0.48	0.47*	5.18	0.00	5.18
44.80	0.23	0.48	0.47*	5.17	0.00	5.17
44.85	0.23	0.48	0.47*	5.16	0.00	5.16
44.90	0.23	0.48	0.47*	5.15	0.00	5.15
44.95	0.23	0.48	0.47*	5.14	0.00	5.14
45.00	0.23	0.48	0.47*	5.13	0.00	5.13
45.05	0.23	0.48	0.47*	5.12	0.00	5.12
45.10	0.23	0.48	0.47*	5.11	0.00	5.11
45.15	0.23	0.48	0.47*	5.10	0.00	5.10
45.20	0.23	0.48	0.47*	5.09	0.00	5.09
45.25	0.23	0.48	0.47*	5.08	0.00	5.08
45.30	0.23	0.48	0.47*	5.07	0.00	5.07
45.35	0.23	0.48	0.47*	5.06	0.00	5.06
45.40	0.23	0.48	0.47*	5.05	0.00	5.05
45.45	0.23	0.48	0.47*	5.03	0.00	5.03
45.50	0.22	0.48	0.47*	5.02	0.00	5.02
45.55	0.22	0.48	0.47*	5.01	0.00	5.01

45.60	0.22	0.48	0.47*	5.00	0.00	5.00
45.65	0.22	0.48	0.47*	4.99	0.00	4.99
45.70	0.22	0.48	0.47*	4.98	0.00	4.98
45.75	0.22	0.48	0.47*	4.97	0.00	4.97
45.80	0.22	0.48	0.47*	4.96	0.00	4.96
45.85	0.22	0.48	0.47*	4.95	0.00	4.95
45.90	0.22	0.48	0.47*	4.94	0.00	4.94
45.95	0.22	0.48	0.46*	4.93	0.00	4.93
46.00	0.22	0.48	0.46*	4.92	0.00	4.92
46.05	0.22	0.48	0.46*	4.91	0.00	4.91
46.10	0.22	0.48	0.46*	4.90	0.00	4.90
46.15	0.22	0.48	0.46*	4.89	0.00	4.89
46.20	0.22	0.48	0.46*	4.88	0.00	4.88
46.25	0.22	0.48	0.46*	4.87	0.00	4.87
46.30	0.22	0.48	0.46*	4.86	0.00	4.86
46.35	0.22	0.48	0.46*	4.84	0.00	4.84
46.40	0.22	0.48	0.46*	4.83	0.00	4.83
46.45	0.22	0.48	0.46*	4.82	0.00	4.82
46.50	0.22	0.48	0.46*	4.81	0.00	4.81
46.55	0.22	0.48	0.46*	4.80	0.00	4.80
46.60	0.22	0.48	0.46*	4.79	0.00	4.79
46.65	0.22	0.48	0.46*	4.78	0.00	4.78
46.70	0.22	0.48	0.46*	4.77	0.00	4.77
46.75	0.22	0.48	0.46*	4.76	0.00	4.76
46.80	0.22	0.48	0.46*	4.75	0.00	4.75
46.85	0.22	0.48	0.46*	4.74	0.00	4.74
46.90	0.22	0.48	0.46*	4.73	0.00	4.73
46.95	0.22	0.48	0.46*	4.72	0.00	4.72
47.00	0.22	0.48	0.46*	4.71	0.00	4.71
47.05	0.22	0.48	0.46*	4.70	0.00	4.70
47.10	0.22	0.48	0.46*	4.69	0.00	4.69
47.15	0.22	0.48	0.46*	4.68	0.00	4.68
47.20	0.22	0.48	0.46*	4.66	0.00	4.66
47.25	0.22	0.48	0.46*	4.65	0.00	4.65
47.30	0.22	0.48	0.46*	4.64	0.00	4.64
47.35	0.22	0.48	0.46*	4.63	0.00	4.63
47.40	0.22	0.48	0.46*	4.62	0.00	4.62
47.45	0.22	0.48	0.46*	4.61	0.00	4.61
47.50	0.22	0.48	0.46*	4.60	0.00	4.60
47.55	0.22	0.48	0.46*	4.59	0.00	4.59
47.60	0.22	0.48	0.46*	4.58	0.00	4.58
47.65	0.22	0.48	0.46*	4.57	0.00	4.57
47.70	0.22	0.48	0.46*	4.56	0.00	4.56
47.75	0.22	0.48	0.46*	4.55	0.00	4.55
47.80	0.22	0.48	0.46*	4.54	0.00	4.54
47.85	0.22	0.48	0.46*	4.53	0.00	4.53
47.90	0.22	0.48	0.46*	4.52	0.00	4.52
47.95	0.22	0.48	0.46*	4.50	0.00	4.50
48.00	0.22	0.48	0.46*	4.49	0.00	4.49
48.05	0.22	0.48	0.46*	4.48	0.00	4.48
48.10	0.22	0.48	0.46*	4.47	0.00	4.47
48.15	0.22	0.48	0.46*	4.46	0.00	4.46
48.20	0.22	0.48	0.46*	4.45	0.00	4.45
48.25	0.22	0.48	0.46*	4.44	0.00	4.44
48.30	0.22	0.48	0.46*	4.43	0.00	4.43
48.35	0.22	0.48	0.46*	4.42	0.00	4.42
48.40	0.22	0.48	0.46*	4.41	0.00	4.41
48.45	0.22	0.48	0.46*	4.40	0.00	4.40
48.50	0.22	0.48	0.46*	4.39	0.00	4.39
48.55	0.22	0.48	0.46*	4.38	0.00	4.38
48.60	0.22	0.48	0.46*	4.37	0.00	4.37
48.65	0.22	0.48	0.46*	4.35	0.00	4.35
48.70	0.22	0.48	0.46*	4.34	0.00	4.34
48.75	0.22	0.48	0.46*	4.33	0.00	4.33
48.80	0.22	0.48	0.46*	4.32	0.00	4.32
48.85	0.22	0.48	0.46*	4.31	0.00	4.31
48.90	0.22	0.48	0.46*	4.30	0.00	4.30
48.95	0.22	0.48	0.46*	4.29	0.00	4.29
49.00	0.22	0.48	0.46*	4.28	0.00	4.28
49.05	0.22	0.48	0.46*	4.27	0.00	4.27
49.10	0.22	0.48	0.46*	4.26	0.00	4.26
49.15	0.22	0.48	0.46*	4.25	0.00	4.25
49.20	0.22	0.48	0.46*	4.24	0.00	4.24
49.25	0.22	0.48	0.46*	4.23	0.00	4.23
49.30	0.22	0.48	0.46*	4.21	0.00	4.21

49.35	0.22	0.48	0.46*	4.20	0.00	4.20
49.40	0.22	0.48	0.46*	4.19	0.00	4.19
49.45	0.22	0.47	0.46*	4.18	0.00	4.18
49.50	0.22	0.47	0.46*	4.17	0.00	4.17
49.55	0.22	0.47	0.46*	4.16	0.00	4.16
49.60	0.22	0.47	0.46*	4.15	0.00	4.15
49.65	0.22	0.47	0.47*	4.14	0.00	4.14
49.70	0.22	0.47	0.47*	4.13	0.00	4.13
49.75	0.22	0.47	0.47*	4.12	0.00	4.12
49.80	0.22	0.47	0.47*	4.11	0.00	4.11
49.85	0.22	0.47	0.47*	4.10	0.00	4.10
49.90	0.22	0.47	0.47*	4.09	0.00	4.09
49.95	0.22	0.47	0.47*	4.08	0.00	4.08
50.00	0.22	0.47	0.47*	4.07	0.00	4.07
50.05	0.22	0.47	0.47*	4.06	0.00	4.06
50.10	0.22	0.47	0.47*	4.05	0.00	4.05
50.15	0.22	0.47	0.47*	4.03	0.00	4.03
50.20	0.22	0.47	0.47*	4.02	0.00	4.02
50.25	0.22	0.47	0.47*	4.01	0.00	4.01
50.30	0.22	0.47	0.47*	4.00	0.00	4.00
50.35	0.22	0.47	0.47*	3.99	0.00	3.99
50.40	0.22	0.47	0.48*	3.98	0.00	3.98
50.45	0.23	0.47	0.48*	3.97	0.00	3.97
50.50	0.23	0.47	0.48*	3.96	0.00	3.96
50.55	0.23	0.47	0.48*	3.95	0.00	3.95
50.60	0.23	0.47	0.48*	3.94	0.00	3.94
50.65	0.23	0.47	0.48*	3.93	0.00	3.93
50.70	0.23	0.47	0.48*	3.92	0.00	3.92
50.75	0.23	0.47	0.48*	3.91	0.00	3.91
50.80	0.23	0.47	0.48*	3.90	0.00	3.90
50.85	0.23	0.47	0.48*	3.89	0.00	3.89
50.90	0.23	0.47	0.48*	3.88	0.00	3.88
50.95	0.23	0.47	0.48*	3.87	0.00	3.87
51.00	0.23	0.47	0.48*	3.86	0.00	3.86
51.05	0.23	0.47	0.48*	3.85	0.00	3.85
51.10	0.23	0.47	0.49*	3.84	0.00	3.84
51.15	0.23	0.47	0.49*	3.83	0.00	3.83
51.20	0.23	0.47	0.49*	3.82	0.00	3.82
51.25	0.23	0.47	0.49*	3.81	0.00	3.81
51.30	0.23	0.47	0.49*	3.80	0.00	3.80
51.35	0.23	0.47	0.49*	3.79	0.00	3.79
51.40	0.23	0.47	0.49*	3.78	0.00	3.78
51.45	0.23	0.47	0.49*	3.77	0.00	3.77
51.50	0.23	0.47	0.49*	3.76	0.00	3.76
51.55	0.23	0.47	0.49*	3.75	0.00	3.75
51.60	0.23	0.47	0.49*	3.74	0.00	3.74
51.65	0.23	0.47	0.49*	3.73	0.00	3.73
51.70	0.23	0.47	0.49*	3.72	0.00	3.72
51.75	0.23	0.47	0.49*	3.71	0.00	3.71
51.80	0.23	0.47	0.49*	3.70	0.00	3.70
51.85	0.23	0.47	0.50*	3.69	0.00	3.69
51.90	0.23	0.47	0.50*	3.68	0.00	3.68
51.95	0.23	0.47	0.50*	3.67	0.00	3.67
52.00	0.23	0.47	0.50*	3.66	0.00	3.66
52.05	0.23	0.47	0.50*	3.65	0.00	3.65
52.10	0.23	0.47	0.50*	3.64	0.00	3.64
52.15	0.23	0.47	0.50*	3.63	0.00	3.63
52.20	0.23	0.47	0.50*	3.62	0.00	3.62
52.25	0.23	0.47	0.50*	3.61	0.00	3.61
52.30	0.23	0.47	0.50*	3.60	0.00	3.60
52.35	0.24	0.47	0.50*	3.59	0.00	3.59
52.40	0.24	0.47	0.50*	3.58	0.00	3.58
52.45	0.24	0.47	0.50*	3.57	0.00	3.57
52.50	0.24	0.47	0.50*	3.56	0.00	3.56
52.55	0.24	0.47	0.51*	3.55	0.00	3.55
52.60	0.24	0.47	0.51*	3.54	0.00	3.54
52.65	0.24	0.47	0.51*	3.53	0.00	3.53
52.70	0.24	0.47	0.51*	3.52	0.00	3.52
52.75	0.24	0.47	0.51*	3.51	0.00	3.51
52.80	0.24	0.47	0.51*	3.50	0.00	3.50
52.85	0.24	0.47	0.51*	3.49	0.00	3.49
52.90	0.24	0.47	0.51*	3.48	0.00	3.48
52.95	0.24	0.47	0.51*	3.47	0.00	3.47
53.00	0.24	0.47	0.51*	3.46	0.00	3.46
53.05	0.24	0.47	0.51*	3.45	0.00	3.45

53.10	0.24	0.47	0.51*	3.44	0.00	3.44
53.15	0.24	0.47	0.51*	3.43	0.00	3.43
53.20	0.24	0.47	0.51*	3.42	0.00	3.42
53.25	0.24	0.47	0.51*	3.41	0.00	3.41
53.30	0.24	0.47	0.52*	3.40	0.00	3.40
53.35	0.24	0.47	0.52*	3.39	0.00	3.39
53.40	0.24	0.47	0.52*	3.38	0.00	3.38
53.45	0.24	0.47	0.52*	3.37	0.00	3.37
53.50	0.24	0.46	0.52*	3.36	0.00	3.36
53.55	0.24	0.46	0.52*	3.35	0.00	3.35
53.60	0.24	0.46	0.52*	3.34	0.00	3.34
53.65	0.24	0.46	0.52*	3.33	0.00	3.33
53.70	0.24	0.46	0.52*	3.32	0.00	3.32
53.75	0.24	0.46	0.52*	3.31	0.00	3.31
53.80	0.24	0.46	0.52*	3.30	0.00	3.30
53.85	0.24	0.46	0.52*	3.29	0.00	3.29
53.90	0.24	0.46	0.52*	3.28	0.00	3.28
53.95	0.24	0.46	0.52*	3.27	0.00	3.27
54.00	0.24	0.46	0.53*	3.26	0.00	3.26
54.05	0.24	0.46	0.53*	3.26	0.00	3.26
54.10	0.24	0.46	0.53*	3.25	0.00	3.25
54.15	0.24	0.46	0.53*	3.24	0.00	3.24
54.20	0.24	0.46	0.53*	3.23	0.00	3.23
54.25	0.24	0.46	0.53*	3.22	0.00	3.22
54.30	0.25	0.46	0.53*	3.21	0.00	3.21
54.35	0.25	0.46	0.53*	3.20	0.00	3.20
54.40	0.25	0.46	0.53*	3.19	0.00	3.19
54.45	0.25	0.46	0.53*	3.18	0.00	3.18
54.50	0.25	0.46	0.53*	3.17	0.00	3.17
54.55	0.25	0.46	0.53*	3.16	0.00	3.16
54.60	0.25	0.46	0.53*	3.15	0.00	3.15
54.65	0.25	0.46	0.53*	3.14	0.00	3.14
54.70	0.25	0.46	0.54*	3.13	0.00	3.13
54.75	0.25	0.46	0.54*	3.12	0.00	3.12
54.80	0.25	0.46	0.54*	3.11	0.00	3.11
54.85	0.25	0.46	0.54*	3.10	0.00	3.10
54.90	0.25	0.46	0.54*	3.10	0.00	3.10
54.95	0.25	0.46	0.54*	3.09	0.00	3.09
55.00	0.25	0.46	0.54*	3.08	0.00	3.08
55.05	0.25	0.46	0.54*	3.07	0.00	3.07
55.10	0.25	0.46	0.54*	3.06	0.00	3.06
55.15	0.25	0.46	0.54*	3.05	0.00	3.05
55.20	0.25	0.46	0.54*	3.04	0.00	3.04
55.25	0.25	0.46	0.54*	3.03	0.00	3.03
55.30	0.25	0.46	0.54*	3.02	0.00	3.02
55.35	0.25	0.46	0.54*	3.01	0.00	3.01
55.40	0.25	0.46	0.54*	3.00	0.00	3.00
55.45	0.25	0.46	0.54*	2.99	0.00	2.99
55.50	0.25	0.46	0.54*	2.98	0.00	2.98
55.55	0.25	0.46	0.54*	2.97	0.00	2.97
55.60	0.25	0.46	0.54*	2.97	0.00	2.97
55.65	0.25	0.46	0.54*	2.96	0.00	2.96
55.70	0.25	0.46	0.54*	2.95	0.00	2.95
55.75	0.25	0.46	0.54*	2.94	0.00	2.94
55.80	0.25	0.46	0.54*	2.93	0.00	2.93
55.85	0.25	0.46	0.54*	2.92	0.00	2.92
55.90	0.25	0.46	0.54*	2.91	0.00	2.91
55.95	0.25	0.46	0.54*	2.90	0.00	2.90
56.00	0.25	0.46	0.54*	2.89	0.00	2.89
56.05	0.25	0.46	0.54*	2.88	0.00	2.88
56.10	0.25	0.46	0.54*	2.87	0.00	2.87
56.15	0.25	0.46	0.54*	2.86	0.00	2.86
56.20	0.25	0.46	0.54*	2.85	0.00	2.85
56.25	0.25	0.46	0.54*	2.84	0.00	2.84
56.30	0.25	0.46	0.54*	2.83	0.00	2.83
56.35	0.25	0.46	0.54*	2.83	0.00	2.83
56.40	0.25	0.46	0.54*	2.82	0.00	2.82
56.45	0.25	0.46	0.54*	2.81	0.00	2.81
56.50	0.25	0.46	0.54*	2.80	0.00	2.80
56.55	0.25	0.46	0.54*	2.79	0.00	2.79
56.60	0.25	0.46	0.54*	2.78	0.00	2.78
56.65	0.24	0.46	0.54*	2.77	0.00	2.77
56.70	0.24	0.46	0.54*	2.76	0.00	2.76
56.75	0.24	0.46	0.54*	2.75	0.00	2.75
56.80	0.24	0.46	0.54*	2.74	0.00	2.74

56.85	0.24	0.46	0.54*	2.73	0.00	2.73
56.90	0.24	0.46	0.54*	2.72	0.00	2.72
56.95	0.24	0.45	0.54*	2.71	0.00	2.71
57.00	0.24	0.45	0.54*	2.70	0.00	2.70
57.05	0.24	0.45	0.54*	2.69	0.00	2.69
57.10	0.24	0.45	0.54*	2.68	0.00	2.68
57.15	0.24	0.45	0.54*	2.68	0.00	2.68
57.20	0.24	0.45	0.54*	2.67	0.00	2.67
57.25	0.24	0.45	0.54*	2.66	0.00	2.66
57.30	0.24	0.45	0.54*	2.65	0.00	2.65
57.35	0.24	0.45	0.54*	2.64	0.00	2.64
57.40	0.24	0.45	0.54*	2.63	0.00	2.63
57.45	0.24	0.45	0.54*	2.62	0.00	2.62
57.50	0.24	0.45	0.54*	2.61	0.00	2.61
57.55	0.24	0.45	0.54*	2.60	0.00	2.60
57.60	0.24	0.45	0.54*	2.59	0.00	2.59
57.65	0.24	0.45	0.54*	2.58	0.00	2.58
57.70	0.24	0.45	0.54*	2.57	0.00	2.57
57.75	0.24	0.45	0.54*	2.56	0.00	2.56
57.80	0.24	0.45	0.54*	2.55	0.00	2.55
57.85	0.24	0.45	0.54*	2.54	0.00	2.54
57.90	0.24	0.45	0.54*	2.53	0.00	2.53
57.95	0.24	0.45	0.54*	2.52	0.00	2.52
58.00	0.24	0.45	0.54*	2.52	0.00	2.52
58.05	0.24	0.45	0.54*	2.51	0.00	2.51
58.10	0.24	0.45	0.54*	2.50	0.00	2.50
58.15	0.24	0.45	0.54*	2.49	0.00	2.49
58.20	0.24	0.45	0.54*	2.48	0.00	2.48
58.25	0.24	0.45	0.54*	2.47	0.00	2.47
58.30	0.24	0.45	0.54*	2.46	0.00	2.46
58.35	0.24	0.45	0.54*	2.45	0.00	2.45
58.40	0.24	0.45	0.54*	2.44	0.00	2.44
58.45	0.24	0.45	0.54*	2.43	0.00	2.43
58.50	0.24	0.45	0.54*	2.42	0.00	2.42
58.55	0.24	0.45	0.53*	2.41	0.00	2.41
58.60	0.24	0.45	0.53*	2.40	0.00	2.40
58.65	0.24	0.45	0.53*	2.39	0.00	2.39
58.70	0.24	0.45	0.53*	2.38	0.00	2.38
58.75	0.24	0.45	0.53*	2.37	0.00	2.37
58.80	0.24	0.45	0.53*	2.36	0.00	2.36
58.85	0.24	0.45	0.53*	2.35	0.00	2.35
58.90	0.24	0.45	0.53*	2.34	0.00	2.34
58.95	0.24	0.45	0.53*	2.34	0.00	2.34
59.00	0.24	0.45	0.53*	2.33	0.00	2.33
59.05	0.24	0.45	0.53*	2.32	0.00	2.32
59.10	0.24	0.45	0.53*	2.31	0.00	2.31
59.15	0.24	0.45	0.53*	2.30	0.00	2.30
59.20	0.24	0.45	0.53*	2.29	0.00	2.29
59.25	0.24	0.45	0.53*	2.28	0.00	2.28
59.30	0.24	0.45	0.53*	2.27	0.00	2.27
59.35	0.24	0.45	0.53*	2.26	0.00	2.26
59.40	0.24	0.45	0.53*	2.25	0.00	2.25
59.45	0.24	0.45	0.53*	2.24	0.00	2.24
59.50	0.24	0.45	0.53*	2.23	0.00	2.23
59.55	0.24	0.45	0.53*	2.22	0.00	2.22
59.60	0.24	0.45	0.53*	2.21	0.00	2.21
59.65	0.24	0.45	0.53*	2.20	0.00	2.20
59.70	0.24	0.45	0.53*	2.19	0.00	2.19
59.75	0.24	0.45	0.53*	2.18	0.00	2.18
59.80	0.24	0.45	0.53*	2.17	0.00	2.17
59.85	0.24	0.45	0.53*	2.16	0.00	2.16
59.90	0.24	0.45	0.53*	2.15	0.00	2.15
59.95	0.24	0.45	0.53*	2.14	0.00	2.14
60.00	0.24	0.45	0.53*	2.14	0.00	2.14
60.05	0.24	0.44	0.53*	2.13	0.00	2.13
60.10	0.24	0.44	0.53*	2.12	0.00	2.12
60.15	0.24	0.44	0.54*	2.11	0.00	2.11
60.20	0.24	0.44	0.54*	2.10	0.00	2.10
60.25	0.24	0.44	0.54*	2.09	0.00	2.09
60.30	0.24	0.44	0.54*	2.08	0.00	2.08
60.35	0.24	0.44	0.54*	2.07	0.00	2.07
60.40	0.24	0.44	0.54*	2.06	0.00	2.06
60.45	0.24	0.44	0.54*	2.05	0.00	2.05
60.50	0.24	0.44	0.54*	2.04	0.00	2.04
60.55	0.24	0.44	0.54*	2.03	0.00	2.03

60.60	0.24	0.44	0.54*	2.02	0.00	2.02
60.65	0.24	0.44	0.54*	2.01	0.00	2.01
60.70	0.24	0.44	0.54*	2.00	0.00	2.00
60.75	0.24	0.44	0.54*	1.99	0.00	1.99
60.80	0.24	0.44	0.54*	1.98	0.00	1.98
60.85	0.24	0.44	0.54*	1.97	0.00	1.97
60.90	0.24	0.44	0.54*	1.96	0.00	1.96
60.95	0.24	0.44	0.55*	1.96	0.00	1.96
61.00	0.24	0.44	0.55*	1.95	0.00	1.95
61.05	0.24	0.44	0.55*	1.94	0.00	1.94
61.10	0.24	0.44	0.55*	1.93	0.00	1.93
61.15	0.24	0.44	0.55*	1.92	0.00	1.92
61.20	0.24	0.44	0.55*	1.91	0.00	1.91
61.25	0.24	0.44	0.55*	1.90	0.00	1.90
61.30	0.24	0.44	0.55*	1.89	0.00	1.89
61.35	0.24	0.44	0.55*	1.88	0.00	1.88
61.40	0.24	0.44	0.55*	1.87	0.00	1.87
61.45	0.24	0.44	0.55*	1.86	0.00	1.86
61.50	0.24	0.44	0.55*	1.85	0.00	1.85
61.55	0.24	0.44	0.55*	1.84	0.00	1.84
61.60	0.24	0.44	0.55*	1.83	0.00	1.83
61.65	0.24	0.44	0.55*	1.83	0.00	1.83
61.70	0.24	0.44	0.55*	1.82	0.00	1.82
61.75	0.24	0.44	0.55*	1.81	0.00	1.81
61.80	0.24	0.44	0.56*	1.80	0.00	1.80
61.85	0.24	0.44	0.56*	1.79	0.00	1.79
61.90	0.24	0.44	0.56*	1.78	0.00	1.78
61.95	0.24	0.44	0.56*	1.77	0.00	1.77
62.00	0.24	0.44	0.56*	1.76	0.00	1.76
62.05	0.24	0.44	0.56*	1.75	0.00	1.75
62.10	0.24	0.44	0.56*	1.74	0.00	1.74
62.15	0.24	0.44	0.56*	1.73	0.00	1.73
62.20	0.25	0.44	0.56*	1.72	0.00	1.72
62.25	0.25	0.44	0.56*	1.72	0.00	1.72
62.30	0.25	0.44	0.56*	1.71	0.00	1.71
62.35	0.25	0.44	0.56*	1.70	0.00	1.70
62.40	0.25	0.44	0.56*	1.69	0.00	1.69
62.45	0.25	0.44	0.56*	1.68	0.00	1.68
62.50	0.25	0.44	0.56*	1.67	0.00	1.67
62.55	0.25	0.44	0.56*	1.66	0.00	1.66
62.60	0.25	0.44	0.57*	1.65	0.00	1.65
62.65	0.25	0.44	0.57*	1.64	0.00	1.64
62.70	0.25	0.44	0.57*	1.63	0.00	1.63
62.75	0.25	0.44	0.57*	1.62	0.00	1.62
62.80	0.25	0.44	0.57*	1.62	0.00	1.62
62.85	0.25	0.44	0.57*	1.61	0.00	1.61
62.90	0.25	0.43	0.57*	1.60	0.00	1.60
62.95	0.25	0.43	0.57*	1.59	0.00	1.59
63.00	0.25	0.43	0.57*	1.58	0.00	1.58
63.05	0.25	0.43	0.57*	1.57	0.00	1.57
63.10	0.25	0.43	0.57*	1.56	0.00	1.56
63.15	0.25	0.43	0.57*	1.55	0.00	1.55
63.20	0.25	0.43	0.57*	1.54	0.00	1.54
63.25	0.25	0.43	0.57*	1.54	0.00	1.54
63.30	0.25	0.43	0.57*	1.53	0.00	1.53
63.35	0.25	0.43	0.58*	1.52	0.00	1.52
63.40	0.25	0.43	0.58*	1.51	0.00	1.51
63.45	0.25	0.43	0.58*	1.50	0.00	1.50
63.50	0.25	0.43	0.58*	1.49	0.00	1.49
63.55	0.25	0.43	0.58*	1.48	0.00	1.48
63.60	0.25	0.43	0.58*	1.47	0.00	1.47
63.65	0.25	0.43	0.58*	1.46	0.00	1.46
63.70	0.25	0.43	0.58*	1.46	0.00	1.46
63.75	0.25	0.43	0.58*	1.45	0.00	1.45
63.80	0.25	0.43	0.58*	1.44	0.00	1.44
63.85	0.25	0.43	0.58*	1.43	0.00	1.43
63.90	0.25	0.43	0.58*	1.42	0.00	1.42
63.95	0.25	0.43	0.58*	1.41	0.00	1.41
64.00	0.25	0.43	0.58*	1.40	0.00	1.40
64.05	0.25	0.43	0.58*	1.39	0.00	1.39
64.10	0.25	0.43	0.58*	1.38	0.00	1.38
64.15	0.25	0.43	0.59*	1.38	0.00	1.38
64.20	0.25	0.43	0.59*	1.37	0.00	1.37
64.25	0.25	0.43	0.59*	1.36	0.00	1.36
64.30	0.25	0.43	0.59*	1.35	0.00	1.35

64.35	0.25	0.43	0.59*	1.34	0.00	1.34
64.40	0.25	0.43	0.59*	1.33	0.00	1.33
64.45	0.25	0.43	0.59*	1.32	0.00	1.32
64.50	0.25	0.43	0.59*	1.31	0.00	1.31
64.55	0.25	0.43	0.59*	1.31	0.00	1.31
64.60	0.25	0.43	0.59*	1.30	0.00	1.30
64.65	0.25	0.43	0.59*	1.29	0.00	1.29
64.70	0.25	0.43	0.59*	1.28	0.00	1.28
64.75	0.25	0.43	0.59*	1.27	0.00	1.27
64.80	0.25	0.43	0.59*	1.26	0.00	1.26
64.85	0.25	0.43	0.59*	1.25	0.00	1.25
64.90	0.25	0.43	0.60*	1.25	0.00	1.25
64.95	0.25	0.43	0.60*	1.24	0.00	1.24
65.00	0.25	0.43	0.60*	1.23	0.00	1.23
65.05	0.25	0.43	0.60*	1.22	0.00	1.22
65.10	0.25	0.43	0.60*	1.21	0.00	1.21
65.15	0.25	0.43	0.60*	1.20	0.00	1.20
65.20	0.25	0.43	0.60*	1.19	0.00	1.19
65.25	0.25	0.43	0.60*	1.18	0.00	1.18
65.30	0.25	0.43	0.60*	1.18	0.00	1.18
65.35	0.25	0.43	0.60*	1.17	0.00	1.17
65.40	0.25	0.43	0.60*	1.16	0.00	1.16
65.45	0.25	0.43	0.60*	1.15	0.00	1.15
65.50	0.25	0.43	0.60*	1.14	0.00	1.14
65.55	0.25	0.43	0.60*	1.13	0.00	1.13
65.60	0.25	0.42	0.60*	1.12	0.00	1.12
65.65	0.25	0.42	0.60*	1.12	0.00	1.12
65.70	0.25	0.42	0.60*	1.11	0.00	1.11
65.75	0.25	0.42	0.60*	1.10	0.00	1.10
65.80	0.25	0.42	0.60*	1.09	0.00	1.09
65.85	0.25	0.42	0.60*	1.08	0.00	1.08
65.90	0.25	0.42	0.60*	1.07	0.00	1.07
65.95	0.25	0.42	0.60*	1.06	0.00	1.06
66.00	0.25	0.42	0.60*	1.06	0.00	1.06
66.05	0.25	0.42	0.60*	1.05	0.00	1.05
66.10	0.25	0.42	0.60*	1.04	0.00	1.04
66.15	0.25	0.42	0.60*	1.03	0.00	1.03
66.20	0.25	0.42	0.60*	1.02	0.00	1.02
66.25	0.25	0.42	0.60*	1.01	0.00	1.01
66.30	0.25	0.42	0.60*	1.00	0.00	1.00
66.35	0.25	0.42	0.60*	0.99	0.00	0.99
66.40	0.25	0.42	0.60*	0.99	0.00	0.99
66.45	0.25	0.42	0.60*	0.98	0.00	0.98
66.50	0.25	0.42	0.60*	0.97	0.00	0.97
66.55	0.25	0.42	0.60*	0.96	0.00	0.96
66.60	0.25	0.42	0.60*	0.95	0.00	0.95
66.65	0.25	0.42	0.60*	0.94	0.00	0.94
66.70	0.25	0.42	0.60*	0.93	0.00	0.93
66.75	0.25	0.42	0.60*	0.93	0.00	0.93
66.80	0.25	0.42	0.60*	0.92	0.00	0.92
66.85	0.25	0.42	0.60*	0.91	0.00	0.91
66.90	0.25	0.42	0.60*	0.90	0.00	0.90
66.95	0.25	0.42	0.60*	0.89	0.00	0.89
67.00	0.25	0.42	0.60*	0.88	0.00	0.88
67.05	0.25	0.42	0.60*	0.87	0.00	0.87
67.10	0.25	0.42	0.60*	0.86	0.00	0.86
67.15	0.25	0.42	0.60*	0.86	0.00	0.86
67.20	0.25	0.42	0.60*	0.85	0.00	0.85
67.25	0.25	0.42	0.60*	0.84	0.00	0.84
67.30	0.25	0.42	0.60*	0.83	0.00	0.83
67.35	0.25	0.42	0.60*	0.82	0.00	0.82
67.40	0.25	0.42	0.60*	0.81	0.00	0.81
67.45	0.25	0.42	0.60*	0.80	0.00	0.80
67.50	0.25	0.42	0.60*	0.80	0.00	0.80
67.55	0.25	0.42	0.60*	0.79	0.00	0.79
67.60	0.25	0.42	0.60*	0.78	0.00	0.78
67.65	0.25	0.42	0.60*	0.77	0.00	0.77
67.70	0.25	0.42	0.60*	0.76	0.00	0.76
67.75	0.25	0.42	0.60*	0.75	0.00	0.75
67.80	0.25	0.42	0.60*	0.74	0.00	0.74
67.85	0.25	0.42	0.60*	0.73	0.00	0.73
67.90	0.25	0.42	0.60*	0.73	0.00	0.73
67.95	0.25	0.42	0.60*	0.72	0.00	0.72
68.00	0.25	0.42	0.60*	0.71	0.00	0.71
68.05	0.25	0.42	0.60*	0.70	0.00	0.70

68.10	0.25	0.42	0.60*	0.69	0.00	0.69
68.15	0.25	0.42	0.60*	0.68	0.00	0.68
68.20	0.25	0.41	0.60*	0.67	0.00	0.67
68.25	0.25	0.41	0.60*	0.66	0.00	0.66
68.30	0.25	0.41	0.60*	0.66	0.00	0.66
68.35	0.25	0.41	0.60*	0.65	0.00	0.65
68.40	0.25	0.41	0.60*	0.64	0.00	0.64
68.45	0.25	0.41	0.60*	0.63	0.00	0.63
68.50	0.25	0.41	0.60*	0.62	0.00	0.62
68.55	0.25	0.41	0.60*	0.61	0.00	0.61
68.60	0.25	0.41	0.60*	0.60	0.00	0.60
68.65	0.25	0.41	0.60*	0.59	0.00	0.59
68.70	0.25	0.41	0.60*	0.59	0.00	0.59
68.75	0.25	0.41	0.60*	0.58	0.00	0.58
68.80	0.25	0.41	0.60*	0.57	0.00	0.57
68.85	0.25	0.41	0.60*	0.56	0.00	0.56
68.90	0.25	0.41	0.60*	0.55	0.00	0.55
68.95	0.25	0.41	0.60*	0.54	0.00	0.54
69.00	0.25	0.41	0.60*	0.53	0.00	0.53
69.05	0.25	0.41	0.60*	0.53	0.00	0.53
69.10	0.25	0.41	0.60*	0.52	0.00	0.52
69.15	0.25	0.41	0.60*	0.51	0.00	0.51
69.20	0.25	0.41	0.60*	0.50	0.00	0.50
69.25	0.25	0.41	0.60*	0.49	0.00	0.49
69.30	0.25	0.41	0.60*	0.48	0.00	0.48
69.35	0.25	0.41	0.60*	0.47	0.00	0.47
69.40	0.25	0.41	0.60*	0.46	0.00	0.46
69.45	0.25	0.41	0.60*	0.46	0.00	0.46
69.50	0.25	0.41	0.60*	0.45	0.00	0.45
69.55	0.25	0.41	0.60*	0.44	0.00	0.44
69.60	0.25	0.41	0.60*	0.43	0.00	0.43
69.65	0.25	0.41	0.60*	0.42	0.00	0.42
69.70	0.25	0.41	0.60*	0.41	0.00	0.41
69.75	0.25	0.41	0.60*	0.40	0.00	0.40
69.80	0.25	0.41	0.60*	0.39	0.00	0.39
69.85	0.25	0.41	0.60*	0.39	0.00	0.39
69.90	0.25	0.41	0.60*	0.38	0.00	0.38
69.95	0.25	0.41	0.60*	0.37	0.00	0.37
70.00	0.25	0.41	0.60*	0.36	0.00	0.36
70.05	0.25	0.41	0.61*	0.35	0.00	0.35
70.10	0.25	0.41	0.61*	0.34	0.00	0.34
70.15	0.25	0.41	0.62*	0.33	0.00	0.33
70.20	0.25	0.41	0.62*	0.32	0.00	0.32
70.25	0.25	0.41	0.62*	0.32	0.00	0.32
70.30	0.26	0.41	0.63*	0.31	0.00	0.31
70.35	0.26	0.41	0.63*	0.30	0.00	0.30
70.40	0.26	0.41	0.64*	0.29	0.00	0.29
70.45	0.26	0.41	0.64*	0.28	0.00	0.28
70.50	0.26	0.41	0.65*	0.27	0.00	0.27
70.55	0.27	0.41	0.65*	0.27	0.00	0.27
70.60	0.27	0.41	0.66*	0.26	0.00	0.26
70.65	0.27	0.41	0.66*	0.25	0.00	0.25
70.70	0.27	0.41	0.67*	0.24	0.00	0.24
70.75	0.27	0.40	0.67*	0.24	0.00	0.24
70.80	0.27	0.40	0.68*	0.23	0.00	0.23
70.85	0.28	0.40	0.68*	0.22	0.00	0.22
70.90	0.28	0.40	0.69*	0.21	0.00	0.21
70.95	0.28	0.40	0.70*	0.21	0.00	0.21
71.00	0.28	0.40	0.70*	0.20	0.00	0.20
71.05	0.29	0.40	0.71*	0.19	0.00	0.19
71.10	0.29	0.40	0.71*	0.18	0.00	0.18
71.15	0.29	0.40	0.72*	0.18	0.00	0.18
71.20	0.29	0.40	0.72*	0.17	0.00	0.17
71.25	0.29	0.40	0.73*	0.16	0.00	0.16
71.30	0.30	0.40	0.73*	0.15	0.00	0.15
71.35	0.30	0.40	0.74*	0.15	0.00	0.15
71.40	0.30	0.40	0.75*	0.14	0.00	0.14
71.45	0.30	0.40	0.75*	0.13	0.00	0.13
71.50	0.30	0.40	0.76*	0.13	0.00	0.13
71.55	0.31	0.40	0.76*	0.12	0.00	0.12
71.60	0.31	0.40	0.77*	0.11	0.00	0.11
71.65	0.31	0.40	0.78*	0.11	0.00	0.11
71.70	0.31	0.40	0.78*	0.10	0.00	0.10
71.75	0.32	0.40	0.79*	0.10	0.00	0.10
71.80	0.32	0.40	0.79*	0.09	0.00	0.09

71.85	0.32	0.40	0.80*	0.08	0.00	0.08
71.90	0.32	0.40	0.81*	0.08	0.00	0.08
71.95	0.33	0.40	0.81*	0.07	0.00	0.07
72.00	0.33	0.40	0.82*	0.07	0.00	0.07
72.05	0.33	0.40	0.83*	0.06	0.00	0.06
72.10	0.33	0.40	0.83*	0.05	0.00	0.05
72.15	0.34	0.40	0.84*	0.05	0.00	0.05
72.20	0.34	0.40	0.85*	0.05	0.00	0.05
72.25	0.34	0.40	0.86*	0.04	0.00	0.04
72.30	0.34	0.40	0.86*	0.04	0.00	0.04
72.35	0.35	0.40	0.87*	0.03	0.00	0.03
72.40	0.35	0.40	0.88*	0.03	0.00	0.03
72.45	0.35	0.40	0.89*	0.03	0.00	0.03
72.50	0.36	0.40	0.89*	0.02	0.00	0.02
72.55	0.36	0.40	0.90*	0.02	0.00	0.02
72.60	0.36	0.40	0.91*	0.02	0.00	0.02
72.65	0.37	0.40	0.92*	0.02	0.00	0.02
72.70	0.37	0.40	0.93*	0.02	0.00	0.02
72.75	0.37	0.40	0.94*	0.02	0.00	0.02
72.80	0.38	0.40	0.95*	0.01	0.00	0.01
72.85	0.38	0.40	0.96*	0.01	0.00	0.01
72.90	0.38	0.40	0.97*	0.01	0.00	0.01
72.95	0.39	0.40	0.98*	0.01	0.00	0.01
73.00	0.39	0.40	0.99*	0.01	0.00	0.01
73.05	0.39	0.40	1.00*	0.01	0.00	0.01
73.10	0.40	0.40	1.01	0.01	0.00	0.01
73.15	0.40	0.40	1.02	0.01	0.00	0.01
73.20	0.41	0.39	1.03	0.01	0.00	0.01
73.25	0.41	0.39	1.04	0.00	0.00	0.00
73.30	0.42	0.39	1.06	0.00	0.00	0.00
73.35	0.42	0.39	1.07	0.00	0.00	0.00
73.40	0.43	0.39	1.08	0.00	0.00	0.00
73.45	0.43	0.39	1.10	0.00	0.00	0.00
73.50	0.44	0.39	1.12	0.00	0.00	0.00
73.55	0.45	0.39	1.14	0.00	0.00	0.00
73.60	0.46	0.39	1.16	0.00	0.00	0.00
73.65	0.47	0.39	1.19	0.00	0.00	0.00
73.70	0.48	0.39	1.22	0.00	0.00	0.00
73.75	0.50	0.39	1.27	0.00	0.00	0.00
73.80	0.52	0.39	1.33	0.00	0.00	0.00
73.85	0.57	0.39	1.45	0.00	0.00	0.00
73.90	0.58	0.39	1.47	0.00	0.00	0.00
73.95	0.58	0.39	1.47	0.00	0.00	0.00
74.00	0.58	0.39	1.47	0.00	0.00	0.00
74.05	0.58	0.39	1.47	0.00	0.00	0.00
74.10	0.58	0.39	1.47	0.00	0.00	0.00
74.15	0.58	0.39	1.47	0.00	0.00	0.00
74.20	0.58	0.39	1.47	0.00	0.00	0.00
74.25	0.58	0.39	1.47	0.00	0.00	0.00
74.30	0.58	0.39	1.47	0.00	0.00	0.00
74.35	0.57	0.39	1.47	0.00	0.00	0.00
74.40	0.57	0.39	1.47	0.00	0.00	0.00
74.45	0.57	0.39	1.47	0.00	0.00	0.00
74.50	0.57	0.39	1.48	0.00	0.00	0.00
74.55	0.57	0.39	1.48	0.00	0.00	0.00
74.60	0.57	0.39	1.48	0.00	0.00	0.00
74.65	0.57	0.39	1.48	0.00	0.00	0.00
74.70	0.57	0.39	1.48	0.00	0.00	0.00
74.75	0.57	0.39	1.48	0.00	0.00	0.00
74.80	0.57	0.39	1.48	0.00	0.00	0.00
74.85	0.57	0.39	1.48	0.00	0.00	0.00
74.90	0.57	0.39	1.48	0.00	0.00	0.00
74.95	0.57	0.39	1.48	0.00	0.00	0.00
75.00	0.57	0.39	1.48	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)

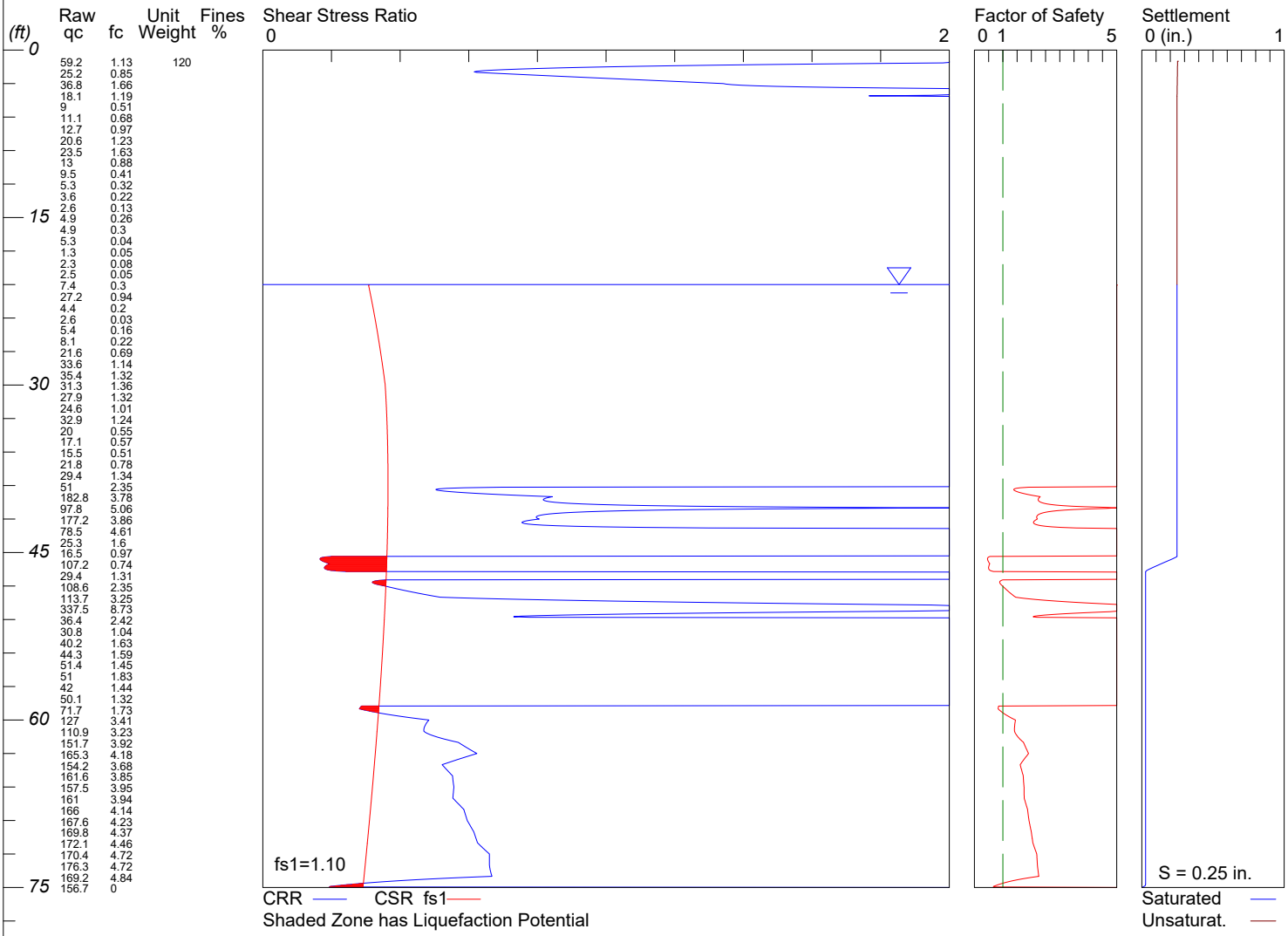
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat	Settlement from saturated sands
S_dry	Settlement from Unsaturated Sands
S_all	Total Settlement from Saturated and Unsaturated Sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS

De Soto/Burbank

Hole No.=CPT-1 Water Depth=21 ft

Magnitude=6.74
Acceleration=0.453g



(ft)	Raw qc	fc	Unit Weight	Fines %
0	59.2	1.13	120	
	25.2	0.85		
	36.8	1.66		
	18.1	1.19		
	9	0.51		
	11.1	0.68		
	12.7	0.97		
	20.6	1.23		
	23.5	1.63		
	13	0.88		
	9.5	0.41		
	5.3	0.32		
	3.6	0.22		
	2.6	0.13		
15	4.9	0.26		
	4.9	0.3		
	5.3	0.04		
	1.3	0.05		
	2.3	0.08		
	2.5	0.05		
	7.4	0.3		
	27.2	0.94		
	4.4	0.2		
	2.6	0.03		
	5.4	0.16		
	8.1	0.22		
	21.6	0.69		
	33.6	1.14		
30	35.4	1.32		
	31.3	1.36		
	27.9	1.32		
	24.6	1.01		
	32.9	1.24		
	20	0.55		
	17.1	0.57		
	15.5	0.51		
	21.8	0.78		
	29.4	1.34		
	51	2.35		
	182.8	3.78		
	97.8	5.06		
	177.2	3.86		
	78.5	4.61		
	25.3	1.6		
45	16.5	0.97		
	107.2	0.74		
	29.4	1.31		
	108.6	2.35		
	113.7	3.25		
	337.5	8.73		
	36.4	2.42		
	30.8	1.04		
	40.2	1.63		
	44.3	1.59		
	51.4	1.45		
	51	1.83		
	42	1.44		
	50.1	1.32		
	71.7	1.73		
60	127	3.41		
	110.9	3.23		
	151.7	3.92		
	165.3	4.18		
	154.2	3.68		
	161.6	3.85		
	157.5	3.95		
	161	3.94		
	166	4.14		
	167.6	4.23		
	169.8	4.37		
	172.1	4.46		
	170.4	4.72		
	176.3	4.72		
75	169.2	4.84		
	156.7	0		

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LIQUEFACTION ANALYSIS SUMMARY
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Input File Name: C:\Users\jonne\OneDrive\Work\Projects\6743 -- Adler Realty August 2019 Update\Liquefaction\CPT-1 Reduced PGA.liq
Title: De Soto/Burbank
Subtitle: 10% Probability - Reduced PGAm

Surface Elev.=
Hole No.=CPT-1
Depth of Hole= 75.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration= 0.45 g
Earthquake Magnitude= 6.74

Input Data:
Surface Elev.=
Hole No.=CPT-1
Depth of Hole=75.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration=0.45 g
Earthquake Magnitude=6.74
No-Liquefiable Soils: Based on Analysis

1. CPT Calculation Method: Modify Robertson*
2. Settlement Analysis Method: Tokimatsu, M-correction
3. Fines Correction for Liquefaction: Stark/Olson et al.*
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
9. User request factor of safety (apply to CSR) , User= 1.1
Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	qc atm	fs atm	Rf pcf	gamma %	Fines mm	D50
1.00	59.20	1.13	1.91	120.00	0.00	0.50
2.00	25.20	0.85	3.37	120.00	0.00	0.50
3.00	36.80	1.66	4.51	120.00	0.00	0.50
4.00	18.10	1.19	6.57	120.00	0.00	0.50
5.00	9.00	0.51	5.67	120.00	0.00	0.50
6.00	11.10	0.68	6.13	120.00	0.00	0.50
7.00	12.70	0.97	7.64	120.00	0.00	0.50
8.00	20.60	1.23	5.97	120.00	0.00	0.50
9.00	23.50	1.63	6.94	120.00	0.00	0.50
10.00	13.00	0.88	6.77	120.00	0.00	0.50
11.00	9.50	0.41	4.32	120.00	0.00	0.50
12.00	5.30	0.32	6.04	120.00	0.00	0.50
13.00	3.60	0.22	6.11	120.00	0.00	0.50
14.00	2.60	0.13	5.00	120.00	0.00	0.50
15.00	4.90	0.26	5.31	120.00	0.00	0.50
16.00	4.90	0.30	6.12	120.00	0.00	0.50
17.00	5.30	0.04	0.75	120.00	0.00	0.50
18.00	1.30	0.05	3.85	120.00	0.00	0.50
19.00	2.30	0.08	3.48	120.00	0.00	0.50
20.00	2.50	0.05	2.00	120.00	0.00	0.50
21.00	7.40	0.30	4.05	120.00	0.00	0.50
22.00	27.20	0.94	3.46	120.00	0.00	0.50
23.00	4.40	0.20	4.55	120.00	0.00	0.50
24.00	2.60	0.03	1.15	120.00	0.00	0.50
25.00	5.40	0.16	2.96	120.00	0.00	0.50
26.00	8.10	0.22	2.72	120.00	0.00	0.50
27.00	21.60	0.69	3.19	120.00	0.00	0.50
28.00	33.60	1.14	3.39	120.00	0.00	0.50
29.00	35.40	1.32	3.73	120.00	0.00	0.50
30.00	31.30	1.36	4.35	120.00	0.00	0.50

31.00	27.90	1.32	4.73	120.00	0.00	0.50
32.00	24.60	1.01	4.11	120.00	0.00	0.50
33.00	32.90	1.24	3.77	120.00	0.00	0.50
34.00	20.00	0.55	2.75	120.00	0.00	0.50
35.00	17.10	0.57	3.33	120.00	0.00	0.50
36.00	15.50	0.51	3.29	120.00	0.00	0.50
37.00	21.80	0.78	3.58	120.00	0.00	0.50
38.00	29.40	1.34	4.56	120.00	0.00	0.50
39.00	51.00	2.35	4.61	120.00	0.00	0.50
40.00	182.80	3.78	2.07	120.00	0.00	0.50
41.00	97.80	5.06	5.17	120.00	0.00	0.50
42.00	177.20	3.86	2.18	120.00	0.00	0.50
43.00	78.50	4.61	5.87	120.00	0.00	0.50
44.00	25.30	1.60	6.32	120.00	0.00	0.50
45.00	16.50	0.97	5.88	120.00	0.00	0.50
46.00	107.20	0.74	0.69	120.00	0.00	0.50
47.00	29.40	1.31	4.46	120.00	0.00	0.50
48.00	108.60	2.35	2.16	120.00	0.00	0.50
49.00	113.70	3.25	2.86	120.00	0.00	0.50
50.00	337.50	8.73	2.59	120.00	0.00	0.50
51.00	36.40	2.42	6.65	120.00	0.00	0.50
52.00	30.80	1.04	3.38	120.00	0.00	0.50
53.00	40.20	1.63	4.05	120.00	0.00	0.50
54.00	44.30	1.59	3.59	120.00	0.00	0.50
55.00	51.40	1.45	2.82	120.00	0.00	0.50
56.00	51.00	1.83	3.59	120.00	0.00	0.50
57.00	42.00	1.44	3.43	120.00	0.00	0.50
58.00	50.10	1.32	2.63	120.00	0.00	0.50
59.00	71.70	1.73	2.41	120.00	0.00	0.50
60.00	127.00	3.41	2.69	120.00	0.00	0.50
61.00	110.90	3.23	2.91	120.00	0.00	0.50
62.00	151.70	3.92	2.58	120.00	0.00	0.50
63.00	165.30	4.18	2.53	120.00	0.00	0.50
64.00	154.20	3.68	2.39	120.00	0.00	0.50
65.00	161.60	3.85	2.38	120.00	0.00	0.50
66.00	157.50	3.95	2.51	120.00	0.00	0.50
67.00	161.00	3.94	2.45	120.00	0.00	0.50
68.00	166.00	4.14	2.49	120.00	0.00	0.50
69.00	167.60	4.23	2.52	120.00	0.00	0.50
70.00	169.80	4.37	2.57	120.00	0.00	0.50
71.00	172.10	4.46	2.59	120.00	0.00	0.50
72.00	170.40	4.72	2.77	120.00	0.00	0.50
73.00	176.30	4.72	2.68	120.00	0.00	0.50
74.00	169.20	4.84	2.86	120.00	0.00	0.50
75.00	156.70	0.00	0.00	120.00	0.00	0.50

Modify Robertson method generates Fines from qc/fs. Inputted Fines are not relevant.

Output Results:

Settlement of Saturated Sands=0.25 in.
Settlement of Unsaturated Sands=0.00 in.
Total Settlement of Saturated and Unsaturated Sands=0.25 in.
Differential Settlement=0.125 to 0.165 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
1.00	2.73	0.32	5.00	0.25	0.00	0.25
1.05	2.47	0.32	5.00	0.25	0.00	0.25
1.10	2.21	0.32	5.00	0.25	0.00	0.25
1.15	1.98	0.32	5.00	0.25	0.00	0.25
1.20	1.78	0.32	5.00	0.25	0.00	0.25
1.25	1.61	0.32	5.00	0.25	0.00	0.25
1.30	1.46	0.32	5.00	0.25	0.00	0.25
1.35	1.32	0.32	5.00	0.25	0.00	0.25
1.40	1.20	0.32	5.00	0.25	0.00	0.25
1.45	1.10	0.32	5.00	0.25	0.00	0.25
1.50	1.01	0.32	5.00	0.25	0.00	0.25
1.55	0.93	0.32	5.00	0.25	0.00	0.25
1.60	0.86	0.32	5.00	0.25	0.00	0.25
1.65	0.80	0.32	5.00	0.25	0.00	0.25
1.70	0.75	0.32	5.00	0.25	0.00	0.25
1.75	0.70	0.32	5.00	0.25	0.00	0.25
1.80	0.67	0.32	5.00	0.25	0.00	0.25
1.85	0.64	0.32	5.00	0.25	0.00	0.25

1.90	0.62	0.32	5.00	0.25	0.00	0.25
1.95	0.62	0.32	5.00	0.25	0.00	0.25
2.00	0.62	0.32	5.00	0.25	0.00	0.25
2.05	0.66	0.32	5.00	0.25	0.00	0.25
2.10	0.69	0.32	5.00	0.25	0.00	0.25
2.15	0.73	0.32	5.00	0.25	0.00	0.25
2.20	0.76	0.32	5.00	0.25	0.00	0.25
2.25	0.80	0.32	5.00	0.25	0.00	0.25
2.30	0.83	0.32	5.00	0.25	0.00	0.25
2.35	0.87	0.32	5.00	0.25	0.00	0.25
2.40	0.90	0.32	5.00	0.25	0.00	0.25
2.45	0.94	0.32	5.00	0.25	0.00	0.25
2.50	0.98	0.32	5.00	0.25	0.00	0.25
2.55	1.01	0.32	5.00	0.25	0.00	0.25
2.60	1.05	0.32	5.00	0.25	0.00	0.25
2.65	1.09	0.32	5.00	0.25	0.00	0.25
2.70	1.12	0.32	5.00	0.25	0.00	0.25
2.75	1.16	0.32	5.00	0.25	0.00	0.25
2.80	1.20	0.32	5.00	0.25	0.00	0.25
2.85	1.23	0.32	5.00	0.25	0.00	0.25
2.90	1.27	0.32	5.00	0.25	0.00	0.25
2.95	1.31	0.32	5.00	0.25	0.00	0.25
3.00	1.34	0.32	5.00	0.25	0.00	0.25
3.05	1.35	0.32	5.00	0.25	0.00	0.25
3.10	1.37	0.32	5.00	0.25	0.00	0.25
3.15	1.40	0.32	5.00	0.25	0.00	0.25
3.20	1.44	0.32	5.00	0.25	0.00	0.25
3.25	1.49	0.32	5.00	0.25	0.00	0.25
3.30	1.57	0.32	5.00	0.25	0.00	0.25
3.35	1.68	0.32	5.00	0.25	0.00	0.25
3.40	1.83	0.32	5.00	0.25	0.00	0.25
3.45	2.04	0.32	5.00	0.25	0.00	0.25
3.50	2.34	0.32	5.00	0.25	0.00	0.25
3.55	2.73	0.32	5.00	0.25	0.00	0.25
3.60	2.26	0.32	5.00	0.25	0.00	0.25
3.65	2.52	0.32	5.00	0.25	0.00	0.25
3.70	2.73	0.32	5.00	0.25	0.00	0.25
3.75	2.73	0.32	5.00	0.25	0.00	0.25
3.80	2.73	0.32	5.00	0.25	0.00	0.25
3.85	2.73	0.32	5.00	0.25	0.00	0.25
3.90	2.73	0.32	5.00	0.25	0.00	0.25
3.95	2.54	0.32	5.00	0.25	0.00	0.25
4.00	2.15	0.32	5.00	0.25	0.00	0.25
4.05	1.95	0.32	5.00	0.25	0.00	0.25
4.10	1.77	0.32	5.00	0.25	0.00	0.25
4.15	2.00	0.32	5.00	0.25	0.00	0.25
4.20	2.00	0.32	5.00	0.25	0.00	0.25
4.25	2.00	0.32	5.00	0.25	0.00	0.25
4.30	2.00	0.32	5.00	0.25	0.00	0.25
4.35	2.00	0.32	5.00	0.25	0.00	0.25
4.40	2.00	0.32	5.00	0.25	0.00	0.25
4.45	2.00	0.32	5.00	0.25	0.00	0.25
4.50	2.00	0.32	5.00	0.25	0.00	0.25
4.55	2.00	0.32	5.00	0.25	0.00	0.25
4.60	2.00	0.32	5.00	0.25	0.00	0.25
4.65	2.00	0.32	5.00	0.25	0.00	0.25
4.70	2.00	0.32	5.00	0.25	0.00	0.25
4.75	2.00	0.32	5.00	0.25	0.00	0.25
4.80	2.00	0.32	5.00	0.25	0.00	0.25
4.85	2.00	0.32	5.00	0.25	0.00	0.25
4.90	2.00	0.32	5.00	0.25	0.00	0.25
4.95	2.00	0.32	5.00	0.25	0.00	0.25
5.00	2.00	0.32	5.00	0.25	0.00	0.25
5.05	2.00	0.32	5.00	0.25	0.00	0.25
5.10	2.00	0.32	5.00	0.25	0.00	0.25
5.15	2.00	0.32	5.00	0.25	0.00	0.25
5.20	2.00	0.32	5.00	0.25	0.00	0.25
5.25	2.00	0.32	5.00	0.25	0.00	0.25
5.30	2.00	0.32	5.00	0.25	0.00	0.25
5.35	2.00	0.32	5.00	0.25	0.00	0.25
5.40	2.00	0.32	5.00	0.25	0.00	0.25
5.45	2.00	0.32	5.00	0.25	0.00	0.25
5.50	2.00	0.32	5.00	0.25	0.00	0.25
5.55	2.00	0.32	5.00	0.25	0.00	0.25
5.60	2.00	0.32	5.00	0.25	0.00	0.25

5.65	2.00	0.32	5.00	0.25	0.00	0.25
5.70	2.00	0.32	5.00	0.25	0.00	0.25
5.75	2.00	0.32	5.00	0.25	0.00	0.25
5.80	2.00	0.32	5.00	0.25	0.00	0.25
5.85	2.00	0.32	5.00	0.25	0.00	0.25
5.90	2.00	0.32	5.00	0.25	0.00	0.25
5.95	2.00	0.32	5.00	0.25	0.00	0.25
6.00	2.00	0.32	5.00	0.25	0.00	0.25
6.05	2.00	0.32	5.00	0.25	0.00	0.25
6.10	2.00	0.32	5.00	0.25	0.00	0.25
6.15	2.00	0.32	5.00	0.25	0.00	0.25
6.20	2.00	0.32	5.00	0.25	0.00	0.25
6.25	2.00	0.32	5.00	0.25	0.00	0.25
6.30	2.00	0.32	5.00	0.25	0.00	0.25
6.35	2.00	0.32	5.00	0.25	0.00	0.25
6.40	2.00	0.32	5.00	0.25	0.00	0.25
6.45	2.00	0.32	5.00	0.25	0.00	0.25
6.50	2.00	0.32	5.00	0.25	0.00	0.25
6.55	2.00	0.32	5.00	0.25	0.00	0.25
6.60	2.00	0.32	5.00	0.25	0.00	0.25
6.65	2.00	0.32	5.00	0.25	0.00	0.25
6.70	2.00	0.32	5.00	0.25	0.00	0.25
6.75	2.00	0.32	5.00	0.25	0.00	0.25
6.80	2.00	0.32	5.00	0.25	0.00	0.25
6.85	2.00	0.32	5.00	0.25	0.00	0.25
6.90	2.00	0.32	5.00	0.25	0.00	0.25
6.95	2.00	0.32	5.00	0.25	0.00	0.25
7.00	2.00	0.32	5.00	0.25	0.00	0.25
7.05	2.00	0.32	5.00	0.25	0.00	0.25
7.10	2.00	0.32	5.00	0.25	0.00	0.25
7.15	2.00	0.32	5.00	0.25	0.00	0.25
7.20	2.00	0.32	5.00	0.25	0.00	0.25
7.25	2.00	0.32	5.00	0.25	0.00	0.25
7.30	2.00	0.32	5.00	0.25	0.00	0.25
7.35	2.00	0.32	5.00	0.25	0.00	0.25
7.40	2.00	0.32	5.00	0.25	0.00	0.25
7.45	2.00	0.32	5.00	0.25	0.00	0.25
7.50	2.00	0.32	5.00	0.25	0.00	0.25
7.55	2.00	0.32	5.00	0.25	0.00	0.25
7.60	2.00	0.32	5.00	0.25	0.00	0.25
7.65	2.00	0.32	5.00	0.25	0.00	0.25
7.70	2.00	0.32	5.00	0.25	0.00	0.25
7.75	2.00	0.32	5.00	0.25	0.00	0.25
7.80	2.00	0.32	5.00	0.25	0.00	0.25
7.85	2.00	0.32	5.00	0.25	0.00	0.25
7.90	2.00	0.32	5.00	0.25	0.00	0.25
7.95	2.00	0.32	5.00	0.25	0.00	0.25
8.00	2.00	0.32	5.00	0.25	0.00	0.25
8.05	2.00	0.32	5.00	0.25	0.00	0.25
8.10	2.00	0.32	5.00	0.25	0.00	0.25
8.15	2.00	0.32	5.00	0.25	0.00	0.25
8.20	2.00	0.32	5.00	0.25	0.00	0.25
8.25	2.00	0.32	5.00	0.25	0.00	0.25
8.30	2.00	0.32	5.00	0.25	0.00	0.25
8.35	2.00	0.32	5.00	0.25	0.00	0.25
8.40	2.00	0.32	5.00	0.25	0.00	0.25
8.45	2.00	0.32	5.00	0.25	0.00	0.25
8.50	2.00	0.32	5.00	0.25	0.00	0.25
8.55	2.00	0.32	5.00	0.25	0.00	0.25
8.60	2.00	0.32	5.00	0.25	0.00	0.25
8.65	2.00	0.32	5.00	0.25	0.00	0.25
8.70	2.00	0.32	5.00	0.25	0.00	0.25
8.75	2.00	0.32	5.00	0.25	0.00	0.25
8.80	2.00	0.32	5.00	0.25	0.00	0.25
8.85	2.00	0.32	5.00	0.25	0.00	0.25
8.90	2.00	0.32	5.00	0.25	0.00	0.25
8.95	2.00	0.32	5.00	0.25	0.00	0.25
9.00	2.00	0.32	5.00	0.25	0.00	0.25
9.05	2.00	0.32	5.00	0.25	0.00	0.25
9.10	2.00	0.32	5.00	0.25	0.00	0.25
9.15	2.00	0.32	5.00	0.25	0.00	0.25
9.20	2.00	0.32	5.00	0.25	0.00	0.25
9.25	2.00	0.32	5.00	0.25	0.00	0.25
9.30	2.00	0.32	5.00	0.25	0.00	0.25
9.35	2.00	0.32	5.00	0.25	0.00	0.25

9.40	2.00	0.32	5.00	0.25	0.00	0.25
9.45	2.00	0.32	5.00	0.25	0.00	0.25
9.50	2.00	0.32	5.00	0.25	0.00	0.25
9.55	2.00	0.32	5.00	0.25	0.00	0.25
9.60	2.00	0.32	5.00	0.25	0.00	0.25
9.65	2.00	0.32	5.00	0.25	0.00	0.25
9.70	2.00	0.32	5.00	0.25	0.00	0.25
9.75	2.00	0.32	5.00	0.25	0.00	0.25
9.80	2.00	0.32	5.00	0.25	0.00	0.25
9.85	2.00	0.32	5.00	0.25	0.00	0.25
9.90	2.00	0.32	5.00	0.25	0.00	0.25
9.95	2.00	0.32	5.00	0.25	0.00	0.25
10.00	2.00	0.32	5.00	0.25	0.00	0.25
10.05	2.00	0.32	5.00	0.25	0.00	0.25
10.10	2.00	0.32	5.00	0.25	0.00	0.25
10.15	2.00	0.32	5.00	0.25	0.00	0.25
10.20	2.00	0.32	5.00	0.25	0.00	0.25
10.25	2.00	0.32	5.00	0.25	0.00	0.25
10.30	2.00	0.32	5.00	0.25	0.00	0.25
10.35	2.00	0.32	5.00	0.25	0.00	0.25
10.40	2.00	0.32	5.00	0.25	0.00	0.25
10.45	2.00	0.32	5.00	0.25	0.00	0.25
10.50	2.00	0.32	5.00	0.25	0.00	0.25
10.55	2.00	0.32	5.00	0.25	0.00	0.25
10.60	2.00	0.32	5.00	0.25	0.00	0.25
10.65	2.00	0.32	5.00	0.25	0.00	0.25
10.70	2.00	0.32	5.00	0.25	0.00	0.25
10.75	2.00	0.32	5.00	0.25	0.00	0.25
10.80	2.00	0.32	5.00	0.25	0.00	0.25
10.85	2.00	0.32	5.00	0.25	0.00	0.25
10.90	2.00	0.32	5.00	0.25	0.00	0.25
10.95	2.00	0.32	5.00	0.25	0.00	0.25
11.00	2.00	0.32	5.00	0.25	0.00	0.25
11.05	2.00	0.32	5.00	0.25	0.00	0.25
11.10	2.00	0.32	5.00	0.25	0.00	0.25
11.15	2.00	0.32	5.00	0.25	0.00	0.25
11.20	2.00	0.32	5.00	0.25	0.00	0.25
11.25	2.00	0.32	5.00	0.25	0.00	0.25
11.30	2.00	0.32	5.00	0.25	0.00	0.25
11.35	2.00	0.32	5.00	0.25	0.00	0.25
11.40	2.00	0.32	5.00	0.25	0.00	0.25
11.45	2.00	0.32	5.00	0.25	0.00	0.25
11.50	2.00	0.32	5.00	0.25	0.00	0.25
11.55	2.00	0.32	5.00	0.25	0.00	0.25
11.60	2.00	0.32	5.00	0.25	0.00	0.25
11.65	2.00	0.32	5.00	0.25	0.00	0.25
11.70	2.00	0.32	5.00	0.25	0.00	0.25
11.75	2.00	0.32	5.00	0.25	0.00	0.25
11.80	2.00	0.31	5.00	0.25	0.00	0.25
11.85	2.00	0.31	5.00	0.25	0.00	0.25
11.90	2.00	0.31	5.00	0.25	0.00	0.25
11.95	2.00	0.31	5.00	0.25	0.00	0.25
12.00	2.00	0.31	5.00	0.25	0.00	0.25
12.05	2.00	0.31	5.00	0.25	0.00	0.25
12.10	2.00	0.31	5.00	0.25	0.00	0.25
12.15	2.00	0.31	5.00	0.25	0.00	0.25
12.20	2.00	0.31	5.00	0.25	0.00	0.25
12.25	2.00	0.31	5.00	0.25	0.00	0.25
12.30	2.00	0.31	5.00	0.25	0.00	0.25
12.35	2.00	0.31	5.00	0.25	0.00	0.25
12.40	2.00	0.31	5.00	0.25	0.00	0.25
12.45	2.00	0.31	5.00	0.25	0.00	0.25
12.50	2.00	0.31	5.00	0.25	0.00	0.25
12.55	2.00	0.31	5.00	0.25	0.00	0.25
12.60	2.00	0.31	5.00	0.25	0.00	0.25
12.65	2.00	0.31	5.00	0.25	0.00	0.25
12.70	2.00	0.31	5.00	0.25	0.00	0.25
12.75	2.00	0.31	5.00	0.25	0.00	0.25
12.80	2.00	0.31	5.00	0.25	0.00	0.25
12.85	2.00	0.31	5.00	0.25	0.00	0.25
12.90	2.00	0.31	5.00	0.25	0.00	0.25
12.95	2.00	0.31	5.00	0.25	0.00	0.25
13.00	2.00	0.31	5.00	0.25	0.00	0.25
13.05	2.00	0.31	5.00	0.25	0.00	0.25
13.10	2.00	0.31	5.00	0.25	0.00	0.25

13.15	2.00	0.31	5.00	0.25	0.00	0.25
13.20	2.00	0.31	5.00	0.25	0.00	0.25
13.25	2.00	0.31	5.00	0.25	0.00	0.25
13.30	2.00	0.31	5.00	0.25	0.00	0.25
13.35	2.00	0.31	5.00	0.25	0.00	0.25
13.40	2.00	0.31	5.00	0.25	0.00	0.25
13.45	2.00	0.31	5.00	0.25	0.00	0.25
13.50	2.00	0.31	5.00	0.25	0.00	0.25
13.55	2.00	0.31	5.00	0.25	0.00	0.25
13.60	2.00	0.31	5.00	0.25	0.00	0.25
13.65	2.00	0.31	5.00	0.25	0.00	0.25
13.70	2.00	0.31	5.00	0.25	0.00	0.25
13.75	2.00	0.31	5.00	0.25	0.00	0.25
13.80	2.00	0.31	5.00	0.25	0.00	0.25
13.85	2.00	0.31	5.00	0.25	0.00	0.25
13.90	2.00	0.31	5.00	0.25	0.00	0.25
13.95	2.00	0.31	5.00	0.25	0.00	0.25
14.00	2.00	0.31	5.00	0.25	0.00	0.25
14.05	2.00	0.31	5.00	0.25	0.00	0.25
14.10	2.00	0.31	5.00	0.25	0.00	0.25
14.15	2.00	0.31	5.00	0.25	0.00	0.25
14.20	2.00	0.31	5.00	0.25	0.00	0.25
14.25	2.00	0.31	5.00	0.25	0.00	0.25
14.30	2.00	0.31	5.00	0.25	0.00	0.25
14.35	2.00	0.31	5.00	0.25	0.00	0.25
14.40	2.00	0.31	5.00	0.25	0.00	0.25
14.45	2.00	0.31	5.00	0.25	0.00	0.25
14.50	2.00	0.31	5.00	0.25	0.00	0.25
14.55	2.00	0.31	5.00	0.25	0.00	0.25
14.60	2.00	0.31	5.00	0.25	0.00	0.25
14.65	2.00	0.31	5.00	0.25	0.00	0.25
14.70	2.00	0.31	5.00	0.25	0.00	0.25
14.75	2.00	0.31	5.00	0.25	0.00	0.25
14.80	2.00	0.31	5.00	0.25	0.00	0.25
14.85	2.00	0.31	5.00	0.25	0.00	0.25
14.90	2.00	0.31	5.00	0.25	0.00	0.25
14.95	2.00	0.31	5.00	0.25	0.00	0.25
15.00	2.00	0.31	5.00	0.25	0.00	0.25
15.05	2.00	0.31	5.00	0.25	0.00	0.25
15.10	2.00	0.31	5.00	0.25	0.00	0.25
15.15	2.00	0.31	5.00	0.25	0.00	0.25
15.20	2.00	0.31	5.00	0.25	0.00	0.25
15.25	2.00	0.31	5.00	0.25	0.00	0.25
15.30	2.00	0.31	5.00	0.25	0.00	0.25
15.35	2.00	0.31	5.00	0.25	0.00	0.25
15.40	2.00	0.31	5.00	0.25	0.00	0.25
15.45	2.00	0.31	5.00	0.25	0.00	0.25
15.50	2.00	0.31	5.00	0.25	0.00	0.25
15.55	2.00	0.31	5.00	0.25	0.00	0.25
15.60	2.00	0.31	5.00	0.25	0.00	0.25
15.65	2.00	0.31	5.00	0.25	0.00	0.25
15.70	2.00	0.31	5.00	0.25	0.00	0.25
15.75	2.00	0.31	5.00	0.25	0.00	0.25
15.80	2.00	0.31	5.00	0.25	0.00	0.25
15.85	2.00	0.31	5.00	0.25	0.00	0.25
15.90	2.00	0.31	5.00	0.25	0.00	0.25
15.95	2.00	0.31	5.00	0.25	0.00	0.25
16.00	2.00	0.31	5.00	0.25	0.00	0.25
16.05	2.00	0.31	5.00	0.25	0.00	0.25
16.10	2.00	0.31	5.00	0.25	0.00	0.25
16.15	2.00	0.31	5.00	0.25	0.00	0.25
16.20	2.00	0.31	5.00	0.25	0.00	0.25
16.25	2.00	0.31	5.00	0.25	0.00	0.25
16.30	2.00	0.31	5.00	0.25	0.00	0.25
16.35	2.00	0.31	5.00	0.25	0.00	0.25
16.40	2.00	0.31	5.00	0.25	0.00	0.25
16.45	2.00	0.31	5.00	0.25	0.00	0.25
16.50	2.00	0.31	5.00	0.25	0.00	0.25
16.55	2.00	0.31	5.00	0.25	0.00	0.25
16.60	2.00	0.31	5.00	0.25	0.00	0.25
16.65	2.00	0.31	5.00	0.25	0.00	0.25
16.70	2.00	0.31	5.00	0.25	0.00	0.25
16.75	2.00	0.31	5.00	0.25	0.00	0.25
16.80	2.00	0.31	5.00	0.25	0.00	0.25
16.85	2.00	0.31	5.00	0.25	0.00	0.25

16.90	2.00	0.31	5.00	0.25	0.00	0.25
16.95	2.00	0.31	5.00	0.25	0.00	0.25
17.00	2.00	0.31	5.00	0.25	0.00	0.25
17.05	2.00	0.31	5.00	0.25	0.00	0.25
17.10	2.00	0.31	5.00	0.25	0.00	0.25
17.15	2.00	0.31	5.00	0.25	0.00	0.25
17.20	2.00	0.31	5.00	0.25	0.00	0.25
17.25	2.00	0.31	5.00	0.25	0.00	0.25
17.30	2.00	0.31	5.00	0.25	0.00	0.25
17.35	2.00	0.31	5.00	0.25	0.00	0.25
17.40	2.00	0.31	5.00	0.25	0.00	0.25
17.45	2.00	0.31	5.00	0.25	0.00	0.25
17.50	2.00	0.31	5.00	0.25	0.00	0.25
17.55	2.00	0.31	5.00	0.25	0.00	0.25
17.60	2.00	0.31	5.00	0.25	0.00	0.25
17.65	2.00	0.31	5.00	0.25	0.00	0.25
17.70	2.00	0.31	5.00	0.25	0.00	0.25
17.75	2.00	0.31	5.00	0.25	0.00	0.25
17.80	2.00	0.31	5.00	0.25	0.00	0.25
17.85	2.00	0.31	5.00	0.25	0.00	0.25
17.90	2.00	0.31	5.00	0.25	0.00	0.25
17.95	2.00	0.31	5.00	0.25	0.00	0.25
18.00	2.00	0.31	5.00	0.25	0.00	0.25
18.05	2.00	0.31	5.00	0.25	0.00	0.25
18.10	2.00	0.31	5.00	0.25	0.00	0.25
18.15	2.00	0.31	5.00	0.25	0.00	0.25
18.20	2.00	0.31	5.00	0.25	0.00	0.25
18.25	2.00	0.31	5.00	0.25	0.00	0.25
18.30	2.00	0.31	5.00	0.25	0.00	0.25
18.35	2.00	0.31	5.00	0.25	0.00	0.25
18.40	2.00	0.31	5.00	0.25	0.00	0.25
18.45	2.00	0.31	5.00	0.25	0.00	0.25
18.50	2.00	0.31	5.00	0.25	0.00	0.25
18.55	2.00	0.31	5.00	0.25	0.00	0.25
18.60	2.00	0.31	5.00	0.25	0.00	0.25
18.65	2.00	0.31	5.00	0.25	0.00	0.25
18.70	2.00	0.31	5.00	0.25	0.00	0.25
18.75	2.00	0.31	5.00	0.25	0.00	0.25
18.80	2.00	0.31	5.00	0.25	0.00	0.25
18.85	2.00	0.31	5.00	0.25	0.00	0.25
18.90	2.00	0.31	5.00	0.25	0.00	0.25
18.95	2.00	0.31	5.00	0.25	0.00	0.25
19.00	2.00	0.31	5.00	0.25	0.00	0.25
19.05	2.00	0.31	5.00	0.25	0.00	0.25
19.10	2.00	0.31	5.00	0.25	0.00	0.25
19.15	2.00	0.31	5.00	0.25	0.00	0.25
19.20	2.00	0.31	5.00	0.25	0.00	0.25
19.25	2.00	0.31	5.00	0.25	0.00	0.25
19.30	2.00	0.31	5.00	0.25	0.00	0.25
19.35	2.00	0.31	5.00	0.25	0.00	0.25
19.40	2.00	0.31	5.00	0.25	0.00	0.25
19.45	2.00	0.31	5.00	0.25	0.00	0.25
19.50	2.00	0.31	5.00	0.25	0.00	0.25
19.55	2.00	0.31	5.00	0.25	0.00	0.25
19.60	2.00	0.31	5.00	0.25	0.00	0.25
19.65	2.00	0.31	5.00	0.25	0.00	0.25
19.70	2.00	0.31	5.00	0.25	0.00	0.25
19.75	2.00	0.31	5.00	0.25	0.00	0.25
19.80	2.00	0.31	5.00	0.25	0.00	0.25
19.85	2.00	0.31	5.00	0.25	0.00	0.25
19.90	2.00	0.31	5.00	0.25	0.00	0.25
19.95	2.00	0.31	5.00	0.25	0.00	0.25
20.00	2.00	0.31	5.00	0.25	0.00	0.25
20.05	2.00	0.31	5.00	0.25	0.00	0.25
20.10	2.00	0.31	5.00	0.25	0.00	0.25
20.15	2.00	0.31	5.00	0.25	0.00	0.25
20.20	2.00	0.31	5.00	0.25	0.00	0.25
20.25	2.00	0.31	5.00	0.25	0.00	0.25
20.30	2.00	0.31	5.00	0.25	0.00	0.25
20.35	2.00	0.31	5.00	0.25	0.00	0.25
20.40	2.00	0.31	5.00	0.25	0.00	0.25
20.45	2.00	0.31	5.00	0.25	0.00	0.25
20.50	2.00	0.31	5.00	0.25	0.00	0.25
20.55	2.00	0.31	5.00	0.25	0.00	0.25
20.60	2.00	0.31	5.00	0.25	0.00	0.25

20.65	2.00	0.31	5.00	0.25	0.00	0.25
20.70	2.00	0.31	5.00	0.25	0.00	0.25
20.75	2.00	0.31	5.00	0.25	0.00	0.25
20.80	2.00	0.31	5.00	0.25	0.00	0.25
20.85	2.00	0.31	5.00	0.25	0.00	0.25
20.90	2.00	0.31	5.00	0.25	0.00	0.25
20.95	2.00	0.31	5.00	0.25	0.00	0.25
21.00	2.00	0.31	5.00	0.25	0.00	0.25
21.05	2.00	0.31	5.00	0.25	0.00	0.25
21.10	2.00	0.31	5.00	0.25	0.00	0.25
21.15	2.00	0.31	5.00	0.25	0.00	0.25
21.20	2.00	0.31	5.00	0.25	0.00	0.25
21.25	2.00	0.31	5.00	0.25	0.00	0.25
21.30	2.00	0.31	5.00	0.25	0.00	0.25
21.35	2.00	0.31	5.00	0.25	0.00	0.25
21.40	2.00	0.31	5.00	0.25	0.00	0.25
21.45	2.00	0.31	5.00	0.25	0.00	0.25
21.50	2.00	0.31	5.00	0.25	0.00	0.25
21.55	2.00	0.31	5.00	0.25	0.00	0.25
21.60	2.00	0.31	5.00	0.25	0.00	0.25
21.65	2.00	0.31	5.00	0.25	0.00	0.25
21.70	2.00	0.31	5.00	0.25	0.00	0.25
21.75	2.00	0.31	5.00	0.25	0.00	0.25
21.80	2.00	0.31	5.00	0.25	0.00	0.25
21.85	2.00	0.31	5.00	0.25	0.00	0.25
21.90	2.00	0.31	5.00	0.25	0.00	0.25
21.95	2.00	0.31	5.00	0.25	0.00	0.25
22.00	2.00	0.31	5.00	0.25	0.00	0.25
22.05	2.00	0.31	5.00	0.25	0.00	0.25
22.10	2.00	0.31	5.00	0.25	0.00	0.25
22.15	2.00	0.32	5.00	0.25	0.00	0.25
22.20	2.00	0.32	5.00	0.25	0.00	0.25
22.25	2.00	0.32	5.00	0.25	0.00	0.25
22.30	2.00	0.32	5.00	0.25	0.00	0.25
22.35	2.00	0.32	5.00	0.25	0.00	0.25
22.40	2.00	0.32	5.00	0.25	0.00	0.25
22.45	2.00	0.32	5.00	0.25	0.00	0.25
22.50	2.00	0.32	5.00	0.25	0.00	0.25
22.55	2.00	0.32	5.00	0.25	0.00	0.25
22.60	2.00	0.32	5.00	0.25	0.00	0.25
22.65	2.00	0.32	5.00	0.25	0.00	0.25
22.70	2.00	0.32	5.00	0.25	0.00	0.25
22.75	2.00	0.32	5.00	0.25	0.00	0.25
22.80	2.00	0.32	5.00	0.25	0.00	0.25
22.85	2.00	0.32	5.00	0.25	0.00	0.25
22.90	2.00	0.32	5.00	0.25	0.00	0.25
22.95	2.00	0.32	5.00	0.25	0.00	0.25
23.00	2.00	0.32	5.00	0.25	0.00	0.25
23.05	2.00	0.32	5.00	0.25	0.00	0.25
23.10	2.00	0.32	5.00	0.25	0.00	0.25
23.15	2.00	0.32	5.00	0.25	0.00	0.25
23.20	2.00	0.32	5.00	0.25	0.00	0.25
23.25	2.00	0.32	5.00	0.25	0.00	0.25
23.30	2.00	0.32	5.00	0.25	0.00	0.25
23.35	2.00	0.32	5.00	0.25	0.00	0.25
23.40	2.00	0.32	5.00	0.25	0.00	0.25
23.45	2.00	0.32	5.00	0.25	0.00	0.25
23.50	2.00	0.32	5.00	0.25	0.00	0.25
23.55	2.00	0.32	5.00	0.25	0.00	0.25
23.60	2.00	0.32	5.00	0.25	0.00	0.25
23.65	2.00	0.32	5.00	0.25	0.00	0.25
23.70	2.00	0.32	5.00	0.25	0.00	0.25
23.75	2.00	0.33	5.00	0.25	0.00	0.25
23.80	2.00	0.33	5.00	0.25	0.00	0.25
23.85	2.00	0.33	5.00	0.25	0.00	0.25
23.90	2.00	0.33	5.00	0.25	0.00	0.25
23.95	2.00	0.33	5.00	0.25	0.00	0.25
24.00	2.00	0.33	5.00	0.25	0.00	0.25
24.05	2.00	0.33	5.00	0.25	0.00	0.25
24.10	2.00	0.33	5.00	0.25	0.00	0.25
24.15	2.00	0.33	5.00	0.25	0.00	0.25
24.20	2.00	0.33	5.00	0.25	0.00	0.25
24.25	2.00	0.33	5.00	0.25	0.00	0.25
24.30	2.00	0.33	5.00	0.25	0.00	0.25
24.35	2.00	0.33	5.00	0.25	0.00	0.25

24.40	2.00	0.33	5.00	0.25	0.00	0.25
24.45	2.00	0.33	5.00	0.25	0.00	0.25
24.50	2.00	0.33	5.00	0.25	0.00	0.25
24.55	2.00	0.33	5.00	0.25	0.00	0.25
24.60	2.00	0.33	5.00	0.25	0.00	0.25
24.65	2.00	0.33	5.00	0.25	0.00	0.25
24.70	2.00	0.33	5.00	0.25	0.00	0.25
24.75	2.00	0.33	5.00	0.25	0.00	0.25
24.80	2.00	0.33	5.00	0.25	0.00	0.25
24.85	2.00	0.33	5.00	0.25	0.00	0.25
24.90	2.00	0.33	5.00	0.25	0.00	0.25
24.95	2.00	0.33	5.00	0.25	0.00	0.25
25.00	2.00	0.33	5.00	0.25	0.00	0.25
25.05	2.00	0.33	5.00	0.25	0.00	0.25
25.10	2.00	0.33	5.00	0.25	0.00	0.25
25.15	2.00	0.33	5.00	0.25	0.00	0.25
25.20	2.00	0.33	5.00	0.25	0.00	0.25
25.25	2.00	0.33	5.00	0.25	0.00	0.25
25.30	2.00	0.33	5.00	0.25	0.00	0.25
25.35	2.00	0.33	5.00	0.25	0.00	0.25
25.40	2.00	0.33	5.00	0.25	0.00	0.25
25.45	2.00	0.33	5.00	0.25	0.00	0.25
25.50	2.00	0.34	5.00	0.25	0.00	0.25
25.55	2.00	0.34	5.00	0.25	0.00	0.25
25.60	2.00	0.34	5.00	0.25	0.00	0.25
25.65	2.00	0.34	5.00	0.25	0.00	0.25
25.70	2.00	0.34	5.00	0.25	0.00	0.25
25.75	2.00	0.34	5.00	0.25	0.00	0.25
25.80	2.00	0.34	5.00	0.25	0.00	0.25
25.85	2.00	0.34	5.00	0.25	0.00	0.25
25.90	2.00	0.34	5.00	0.25	0.00	0.25
25.95	2.00	0.34	5.00	0.25	0.00	0.25
26.00	2.00	0.34	5.00	0.25	0.00	0.25
26.05	2.00	0.34	5.00	0.25	0.00	0.25
26.10	2.00	0.34	5.00	0.25	0.00	0.25
26.15	2.00	0.34	5.00	0.25	0.00	0.25
26.20	2.00	0.34	5.00	0.25	0.00	0.25
26.25	2.00	0.34	5.00	0.25	0.00	0.25
26.30	2.00	0.34	5.00	0.25	0.00	0.25
26.35	2.00	0.34	5.00	0.25	0.00	0.25
26.40	2.00	0.34	5.00	0.25	0.00	0.25
26.45	2.00	0.34	5.00	0.25	0.00	0.25
26.50	2.00	0.34	5.00	0.25	0.00	0.25
26.55	2.00	0.34	5.00	0.25	0.00	0.25
26.60	2.00	0.34	5.00	0.25	0.00	0.25
26.65	2.00	0.34	5.00	0.25	0.00	0.25
26.70	2.00	0.34	5.00	0.25	0.00	0.25
26.75	2.00	0.34	5.00	0.25	0.00	0.25
26.80	2.00	0.34	5.00	0.25	0.00	0.25
26.85	2.00	0.34	5.00	0.25	0.00	0.25
26.90	2.00	0.34	5.00	0.25	0.00	0.25
26.95	2.00	0.34	5.00	0.25	0.00	0.25
27.00	2.00	0.34	5.00	0.25	0.00	0.25
27.05	2.00	0.34	5.00	0.25	0.00	0.25
27.10	2.00	0.34	5.00	0.25	0.00	0.25
27.15	2.00	0.34	5.00	0.25	0.00	0.25
27.20	2.00	0.34	5.00	0.25	0.00	0.25
27.25	2.00	0.34	5.00	0.25	0.00	0.25
27.30	2.00	0.34	5.00	0.25	0.00	0.25
27.35	2.00	0.34	5.00	0.25	0.00	0.25
27.40	2.00	0.34	5.00	0.25	0.00	0.25
27.45	2.00	0.34	5.00	0.25	0.00	0.25
27.50	2.00	0.35	5.00	0.25	0.00	0.25
27.55	2.00	0.35	5.00	0.25	0.00	0.25
27.60	2.00	0.35	5.00	0.25	0.00	0.25
27.65	2.00	0.35	5.00	0.25	0.00	0.25
27.70	2.00	0.35	5.00	0.25	0.00	0.25
27.75	2.00	0.35	5.00	0.25	0.00	0.25
27.80	2.00	0.35	5.00	0.25	0.00	0.25
27.85	2.00	0.35	5.00	0.25	0.00	0.25
27.90	2.00	0.35	5.00	0.25	0.00	0.25
27.95	2.00	0.35	5.00	0.25	0.00	0.25
28.00	2.00	0.35	5.00	0.25	0.00	0.25
28.05	2.00	0.35	5.00	0.25	0.00	0.25
28.10	2.00	0.35	5.00	0.25	0.00	0.25

28.15	2.00	0.35	5.00	0.25	0.00	0.25
28.20	2.00	0.35	5.00	0.25	0.00	0.25
28.25	2.00	0.35	5.00	0.25	0.00	0.25
28.30	2.00	0.35	5.00	0.25	0.00	0.25
28.35	2.00	0.35	5.00	0.25	0.00	0.25
28.40	2.00	0.35	5.00	0.25	0.00	0.25
28.45	2.00	0.35	5.00	0.25	0.00	0.25
28.50	2.00	0.35	5.00	0.25	0.00	0.25
28.55	2.00	0.35	5.00	0.25	0.00	0.25
28.60	2.00	0.35	5.00	0.25	0.00	0.25
28.65	2.00	0.35	5.00	0.25	0.00	0.25
28.70	2.00	0.35	5.00	0.25	0.00	0.25
28.75	2.00	0.35	5.00	0.25	0.00	0.25
28.80	2.00	0.35	5.00	0.25	0.00	0.25
28.85	2.00	0.35	5.00	0.25	0.00	0.25
28.90	2.00	0.35	5.00	0.25	0.00	0.25
28.95	2.00	0.35	5.00	0.25	0.00	0.25
29.00	2.00	0.35	5.00	0.25	0.00	0.25
29.05	2.00	0.35	5.00	0.25	0.00	0.25
29.10	2.00	0.35	5.00	0.25	0.00	0.25
29.15	2.00	0.35	5.00	0.25	0.00	0.25
29.20	2.00	0.35	5.00	0.25	0.00	0.25
29.25	2.00	0.35	5.00	0.25	0.00	0.25
29.30	2.00	0.35	5.00	0.25	0.00	0.25
29.35	2.00	0.35	5.00	0.25	0.00	0.25
29.40	2.00	0.35	5.00	0.25	0.00	0.25
29.45	2.00	0.35	5.00	0.25	0.00	0.25
29.50	2.00	0.35	5.00	0.25	0.00	0.25
29.55	2.00	0.35	5.00	0.25	0.00	0.25
29.60	2.00	0.35	5.00	0.25	0.00	0.25
29.65	2.00	0.36	5.00	0.25	0.00	0.25
29.70	2.00	0.36	5.00	0.25	0.00	0.25
29.75	2.00	0.36	5.00	0.25	0.00	0.25
29.80	2.00	0.36	5.00	0.25	0.00	0.25
29.85	2.00	0.36	5.00	0.25	0.00	0.25
29.90	2.00	0.36	5.00	0.25	0.00	0.25
29.95	2.00	0.36	5.00	0.25	0.00	0.25
30.00	2.00	0.36	5.00	0.25	0.00	0.25
30.05	2.00	0.36	5.00	0.25	0.00	0.25
30.10	2.00	0.36	5.00	0.25	0.00	0.25
30.15	2.00	0.36	5.00	0.25	0.00	0.25
30.20	2.00	0.36	5.00	0.25	0.00	0.25
30.25	2.00	0.36	5.00	0.25	0.00	0.25
30.30	2.00	0.36	5.00	0.25	0.00	0.25
30.35	2.00	0.36	5.00	0.25	0.00	0.25
30.40	2.00	0.36	5.00	0.25	0.00	0.25
30.45	2.00	0.36	5.00	0.25	0.00	0.25
30.50	2.00	0.36	5.00	0.25	0.00	0.25
30.55	2.00	0.36	5.00	0.25	0.00	0.25
30.60	2.00	0.36	5.00	0.25	0.00	0.25
30.65	2.00	0.36	5.00	0.25	0.00	0.25
30.70	2.00	0.36	5.00	0.25	0.00	0.25
30.75	2.00	0.36	5.00	0.25	0.00	0.25
30.80	2.00	0.36	5.00	0.25	0.00	0.25
30.85	2.00	0.36	5.00	0.25	0.00	0.25
30.90	2.00	0.36	5.00	0.25	0.00	0.25
30.95	2.00	0.36	5.00	0.25	0.00	0.25
31.00	2.00	0.36	5.00	0.25	0.00	0.25
31.05	2.00	0.36	5.00	0.25	0.00	0.25
31.10	2.00	0.36	5.00	0.25	0.00	0.25
31.15	2.00	0.36	5.00	0.25	0.00	0.25
31.20	2.00	0.36	5.00	0.25	0.00	0.25
31.25	2.00	0.36	5.00	0.25	0.00	0.25
31.30	2.00	0.36	5.00	0.25	0.00	0.25
31.35	2.00	0.36	5.00	0.25	0.00	0.25
31.40	2.00	0.36	5.00	0.25	0.00	0.25
31.45	2.00	0.36	5.00	0.25	0.00	0.25
31.50	2.00	0.36	5.00	0.25	0.00	0.25
31.55	2.00	0.36	5.00	0.25	0.00	0.25
31.60	2.00	0.36	5.00	0.25	0.00	0.25
31.65	2.00	0.36	5.00	0.25	0.00	0.25
31.70	2.00	0.36	5.00	0.25	0.00	0.25
31.75	2.00	0.36	5.00	0.25	0.00	0.25
31.80	2.00	0.36	5.00	0.25	0.00	0.25
31.85	2.00	0.36	5.00	0.25	0.00	0.25

31.90	2.00	0.36	5.00	0.25	0.00	0.25
31.95	2.00	0.36	5.00	0.25	0.00	0.25
32.00	2.00	0.36	5.00	0.25	0.00	0.25
32.05	2.00	0.36	5.00	0.25	0.00	0.25
32.10	2.00	0.36	5.00	0.25	0.00	0.25
32.15	2.00	0.36	5.00	0.25	0.00	0.25
32.20	2.00	0.36	5.00	0.25	0.00	0.25
32.25	2.00	0.36	5.00	0.25	0.00	0.25
32.30	2.00	0.36	5.00	0.25	0.00	0.25
32.35	2.00	0.36	5.00	0.25	0.00	0.25
32.40	2.00	0.36	5.00	0.25	0.00	0.25
32.45	2.00	0.36	5.00	0.25	0.00	0.25
32.50	2.00	0.36	5.00	0.25	0.00	0.25
32.55	2.00	0.36	5.00	0.25	0.00	0.25
32.60	2.00	0.36	5.00	0.25	0.00	0.25
32.65	2.00	0.36	5.00	0.25	0.00	0.25
32.70	2.00	0.36	5.00	0.25	0.00	0.25
32.75	2.00	0.36	5.00	0.25	0.00	0.25
32.80	2.00	0.36	5.00	0.25	0.00	0.25
32.85	2.00	0.36	5.00	0.25	0.00	0.25
32.90	2.00	0.36	5.00	0.25	0.00	0.25
32.95	2.00	0.36	5.00	0.25	0.00	0.25
33.00	2.00	0.36	5.00	0.25	0.00	0.25
33.05	2.00	0.36	5.00	0.25	0.00	0.25
33.10	2.00	0.36	5.00	0.25	0.00	0.25
33.15	2.00	0.36	5.00	0.25	0.00	0.25
33.20	2.00	0.36	5.00	0.25	0.00	0.25
33.25	2.00	0.36	5.00	0.25	0.00	0.25
33.30	2.00	0.36	5.00	0.25	0.00	0.25
33.35	2.00	0.36	5.00	0.25	0.00	0.25
33.40	2.00	0.36	5.00	0.25	0.00	0.25
33.45	2.00	0.36	5.00	0.25	0.00	0.25
33.50	2.00	0.36	5.00	0.25	0.00	0.25
33.55	2.00	0.36	5.00	0.25	0.00	0.25
33.60	2.00	0.36	5.00	0.25	0.00	0.25
33.65	2.00	0.36	5.00	0.25	0.00	0.25
33.70	2.00	0.36	5.00	0.25	0.00	0.25
33.75	2.00	0.36	5.00	0.25	0.00	0.25
33.80	2.00	0.36	5.00	0.25	0.00	0.25
33.85	2.00	0.36	5.00	0.25	0.00	0.25
33.90	2.00	0.36	5.00	0.25	0.00	0.25
33.95	2.00	0.36	5.00	0.25	0.00	0.25
34.00	2.00	0.36	5.00	0.25	0.00	0.25
34.05	2.00	0.36	5.00	0.25	0.00	0.25
34.10	2.00	0.36	5.00	0.25	0.00	0.25
34.15	2.00	0.36	5.00	0.25	0.00	0.25
34.20	2.00	0.36	5.00	0.25	0.00	0.25
34.25	2.00	0.36	5.00	0.25	0.00	0.25
34.30	2.00	0.36	5.00	0.25	0.00	0.25
34.35	2.00	0.36	5.00	0.25	0.00	0.25
34.40	2.00	0.36	5.00	0.25	0.00	0.25
34.45	2.00	0.36	5.00	0.25	0.00	0.25
34.50	2.00	0.36	5.00	0.25	0.00	0.25
34.55	2.00	0.36	5.00	0.25	0.00	0.25
34.60	2.00	0.36	5.00	0.25	0.00	0.25
34.65	2.00	0.36	5.00	0.25	0.00	0.25
34.70	2.00	0.36	5.00	0.25	0.00	0.25
34.75	2.00	0.36	5.00	0.25	0.00	0.25
34.80	2.00	0.36	5.00	0.25	0.00	0.25
34.85	2.00	0.36	5.00	0.25	0.00	0.25
34.90	2.00	0.36	5.00	0.25	0.00	0.25
34.95	2.00	0.36	5.00	0.25	0.00	0.25
35.00	2.00	0.36	5.00	0.25	0.00	0.25
35.05	2.00	0.36	5.00	0.25	0.00	0.25
35.10	2.00	0.36	5.00	0.25	0.00	0.25
35.15	2.00	0.36	5.00	0.25	0.00	0.25
35.20	2.00	0.36	5.00	0.25	0.00	0.25
35.25	2.00	0.36	5.00	0.25	0.00	0.25
35.30	2.00	0.36	5.00	0.25	0.00	0.25
35.35	2.00	0.36	5.00	0.25	0.00	0.25
35.40	2.00	0.36	5.00	0.25	0.00	0.25
35.45	2.00	0.36	5.00	0.25	0.00	0.25
35.50	2.00	0.36	5.00	0.25	0.00	0.25
35.55	2.00	0.36	5.00	0.25	0.00	0.25
35.60	2.00	0.36	5.00	0.25	0.00	0.25

35.65	2.00	0.36	5.00	0.25	0.00	0.25
35.70	2.00	0.36	5.00	0.25	0.00	0.25
35.75	2.00	0.36	5.00	0.25	0.00	0.25
35.80	2.00	0.36	5.00	0.25	0.00	0.25
35.85	2.00	0.36	5.00	0.25	0.00	0.25
35.90	2.00	0.36	5.00	0.25	0.00	0.25
35.95	2.00	0.36	5.00	0.25	0.00	0.25
36.00	2.00	0.36	5.00	0.25	0.00	0.25
36.05	2.00	0.36	5.00	0.25	0.00	0.25
36.10	2.00	0.36	5.00	0.25	0.00	0.25
36.15	2.00	0.36	5.00	0.25	0.00	0.25
36.20	2.00	0.36	5.00	0.25	0.00	0.25
36.25	2.00	0.36	5.00	0.25	0.00	0.25
36.30	2.00	0.36	5.00	0.25	0.00	0.25
36.35	2.00	0.36	5.00	0.25	0.00	0.25
36.40	2.00	0.36	5.00	0.25	0.00	0.25
36.45	2.00	0.36	5.00	0.25	0.00	0.25
36.50	2.00	0.36	5.00	0.25	0.00	0.25
36.55	2.00	0.36	5.00	0.25	0.00	0.25
36.60	2.00	0.36	5.00	0.25	0.00	0.25
36.65	2.00	0.36	5.00	0.25	0.00	0.25
36.70	2.00	0.36	5.00	0.25	0.00	0.25
36.75	2.00	0.36	5.00	0.25	0.00	0.25
36.80	2.00	0.36	5.00	0.25	0.00	0.25
36.85	2.00	0.36	5.00	0.25	0.00	0.25
36.90	2.00	0.36	5.00	0.25	0.00	0.25
36.95	2.00	0.36	5.00	0.25	0.00	0.25
37.00	2.00	0.36	5.00	0.25	0.00	0.25
37.05	2.00	0.36	5.00	0.25	0.00	0.25
37.10	2.00	0.36	5.00	0.25	0.00	0.25
37.15	2.00	0.36	5.00	0.25	0.00	0.25
37.20	2.00	0.36	5.00	0.25	0.00	0.25
37.25	2.00	0.36	5.00	0.25	0.00	0.25
37.30	2.00	0.36	5.00	0.25	0.00	0.25
37.35	2.00	0.36	5.00	0.25	0.00	0.25
37.40	2.00	0.36	5.00	0.25	0.00	0.25
37.45	2.00	0.36	5.00	0.25	0.00	0.25
37.50	2.00	0.36	5.00	0.25	0.00	0.25
37.55	2.00	0.36	5.00	0.25	0.00	0.25
37.60	2.00	0.36	5.00	0.25	0.00	0.25
37.65	2.00	0.36	5.00	0.25	0.00	0.25
37.70	2.00	0.36	5.00	0.25	0.00	0.25
37.75	2.00	0.36	5.00	0.25	0.00	0.25
37.80	2.00	0.36	5.00	0.25	0.00	0.25
37.85	2.00	0.36	5.00	0.25	0.00	0.25
37.90	2.00	0.36	5.00	0.25	0.00	0.25
37.95	2.00	0.36	5.00	0.25	0.00	0.25
38.00	2.00	0.36	5.00	0.25	0.00	0.25
38.05	2.00	0.36	5.00	0.25	0.00	0.25
38.10	2.00	0.36	5.00	0.25	0.00	0.25
38.15	2.00	0.36	5.00	0.25	0.00	0.25
38.20	2.00	0.36	5.00	0.25	0.00	0.25
38.25	2.00	0.36	5.00	0.25	0.00	0.25
38.30	2.00	0.36	5.00	0.25	0.00	0.25
38.35	2.00	0.36	5.00	0.25	0.00	0.25
38.40	2.00	0.36	5.00	0.25	0.00	0.25
38.45	2.00	0.36	5.00	0.25	0.00	0.25
38.50	2.00	0.36	5.00	0.25	0.00	0.25
38.55	2.00	0.36	5.00	0.25	0.00	0.25
38.60	2.00	0.36	5.00	0.25	0.00	0.25
38.65	2.00	0.36	5.00	0.25	0.00	0.25
38.70	2.00	0.36	5.00	0.25	0.00	0.25
38.75	2.00	0.36	5.00	0.25	0.00	0.25
38.80	2.00	0.36	5.00	0.25	0.00	0.25
38.85	2.00	0.36	5.00	0.25	0.00	0.25
38.90	2.00	0.36	5.00	0.25	0.00	0.25
38.95	2.00	0.36	5.00	0.25	0.00	0.25
39.00	2.00	0.36	5.00	0.25	0.00	0.25
39.05	2.00	0.36	5.00	0.25	0.00	0.25
39.10	2.00	0.36	5.00	0.25	0.00	0.25
39.15	0.70	0.36	1.91	0.25	0.00	0.25
39.20	0.59	0.36	1.61	0.25	0.00	0.25
39.25	0.54	0.36	1.47	0.25	0.00	0.25
39.30	0.51	0.36	1.40	0.25	0.00	0.25
39.35	0.50	0.36	1.38	0.25	0.00	0.25

39.40	0.51	0.36	1.39	0.25	0.00	0.25
39.45	0.51	0.36	1.41	0.25	0.00	0.25
39.50	0.53	0.36	1.45	0.25	0.00	0.25
39.55	0.55	0.36	1.50	0.25	0.00	0.25
39.60	0.57	0.36	1.56	0.25	0.00	0.25
39.65	0.59	0.36	1.63	0.25	0.00	0.25
39.70	0.62	0.36	1.70	0.25	0.00	0.25
39.75	0.65	0.36	1.79	0.25	0.00	0.25
39.80	0.69	0.36	1.88	0.25	0.00	0.25
39.85	0.72	0.36	1.98	0.25	0.00	0.25
39.90	0.76	0.36	2.08	0.25	0.00	0.25
39.95	0.80	0.36	2.19	0.25	0.00	0.25
40.00	0.84	0.36	2.31	0.25	0.00	0.25
40.05	0.84	0.36	2.29	0.25	0.00	0.25
40.10	0.83	0.36	2.27	0.25	0.00	0.25
40.15	0.82	0.36	2.26	0.25	0.00	0.25
40.20	0.82	0.36	2.25	0.25	0.00	0.25
40.25	0.82	0.36	2.24	0.25	0.00	0.25
40.30	0.82	0.36	2.24	0.25	0.00	0.25
40.35	0.82	0.36	2.25	0.25	0.00	0.25
40.40	0.83	0.36	2.27	0.25	0.00	0.25
40.45	0.84	0.36	2.29	0.25	0.00	0.25
40.50	0.85	0.36	2.33	0.25	0.00	0.25
40.55	0.87	0.36	2.39	0.25	0.00	0.25
40.60	0.90	0.36	2.46	0.25	0.00	0.25
40.65	0.93	0.36	2.56	0.25	0.00	0.25
40.70	0.98	0.36	2.68	0.25	0.00	0.25
40.75	1.04	0.36	2.86	0.25	0.00	0.25
40.80	1.13	0.36	3.09	0.25	0.00	0.25
40.85	1.25	0.36	3.42	0.25	0.00	0.25
40.90	1.41	0.36	3.88	0.25	0.00	0.25
40.95	1.66	0.36	4.57	0.25	0.00	0.25
41.00	2.00	0.36	5.00	0.25	0.00	0.25
41.05	1.69	0.36	4.63	0.25	0.00	0.25
41.10	1.44	0.36	3.96	0.25	0.00	0.25
41.15	1.27	0.36	3.49	0.25	0.00	0.25
41.20	1.15	0.36	3.16	0.25	0.00	0.25
41.25	1.06	0.36	2.92	0.25	0.00	0.25
41.30	1.00	0.36	2.73	0.25	0.00	0.25
41.35	0.94	0.36	2.59	0.25	0.00	0.25
41.40	0.91	0.36	2.49	0.25	0.00	0.25
41.45	0.87	0.36	2.40	0.25	0.00	0.25
41.50	0.85	0.36	2.34	0.25	0.00	0.25
41.55	0.83	0.36	2.29	0.25	0.00	0.25
41.60	0.82	0.36	2.25	0.25	0.00	0.25
41.65	0.81	0.36	2.22	0.25	0.00	0.25
41.70	0.80	0.36	2.21	0.25	0.00	0.25
41.75	0.80	0.36	2.19	0.25	0.00	0.25
41.80	0.80	0.36	2.19	0.25	0.00	0.25
41.85	0.80	0.36	2.19	0.25	0.00	0.25
41.90	0.80	0.36	2.19	0.25	0.00	0.25
41.95	0.80	0.36	2.20	0.25	0.00	0.25
42.00	0.81	0.36	2.21	0.25	0.00	0.25
42.05	0.79	0.36	2.18	0.25	0.00	0.25
42.10	0.78	0.36	2.14	0.25	0.00	0.25
42.15	0.77	0.36	2.12	0.25	0.00	0.25
42.20	0.76	0.36	2.09	0.25	0.00	0.25
42.25	0.76	0.36	2.08	0.25	0.00	0.25
42.30	0.75	0.36	2.08	0.25	0.00	0.25
42.35	0.76	0.36	2.08	0.25	0.00	0.25
42.40	0.76	0.36	2.09	0.25	0.00	0.25
42.45	0.77	0.36	2.12	0.25	0.00	0.25
42.50	0.79	0.36	2.17	0.25	0.00	0.25
42.55	0.82	0.36	2.24	0.25	0.00	0.25
42.60	0.85	0.36	2.35	0.25	0.00	0.25
42.65	0.91	0.36	2.50	0.25	0.00	0.25
42.70	0.99	0.36	2.73	0.25	0.00	0.25
42.75	1.11	0.36	3.06	0.25	0.00	0.25
42.80	1.30	0.36	3.57	0.25	0.00	0.25
42.85	2.00	0.36	5.00	0.25	0.00	0.25
42.90	2.00	0.36	5.00	0.25	0.00	0.25
42.95	2.00	0.36	5.00	0.25	0.00	0.25
43.00	2.00	0.36	5.00	0.25	0.00	0.25
43.05	2.00	0.36	5.00	0.25	0.00	0.25
43.10	2.00	0.36	5.00	0.25	0.00	0.25

43.15	2.00	0.36	5.00	0.25	0.00	0.25
43.20	2.00	0.36	5.00	0.25	0.00	0.25
43.25	2.00	0.36	5.00	0.25	0.00	0.25
43.30	2.00	0.36	5.00	0.25	0.00	0.25
43.35	2.00	0.36	5.00	0.25	0.00	0.25
43.40	2.00	0.36	5.00	0.25	0.00	0.25
43.45	2.00	0.36	5.00	0.25	0.00	0.25
43.50	2.00	0.36	5.00	0.25	0.00	0.25
43.55	2.00	0.36	5.00	0.25	0.00	0.25
43.60	2.00	0.36	5.00	0.25	0.00	0.25
43.65	2.00	0.36	5.00	0.25	0.00	0.25
43.70	2.00	0.36	5.00	0.25	0.00	0.25
43.75	2.00	0.36	5.00	0.25	0.00	0.25
43.80	2.00	0.36	5.00	0.25	0.00	0.25
43.85	2.00	0.36	5.00	0.25	0.00	0.25
43.90	2.00	0.36	5.00	0.25	0.00	0.25
43.95	2.00	0.36	5.00	0.25	0.00	0.25
44.00	2.00	0.36	5.00	0.25	0.00	0.25
44.05	2.00	0.36	5.00	0.25	0.00	0.25
44.10	2.00	0.36	5.00	0.25	0.00	0.25
44.15	2.00	0.36	5.00	0.25	0.00	0.25
44.20	2.00	0.36	5.00	0.25	0.00	0.25
44.25	2.00	0.36	5.00	0.25	0.00	0.25
44.30	2.00	0.36	5.00	0.25	0.00	0.25
44.35	2.00	0.36	5.00	0.25	0.00	0.25
44.40	2.00	0.36	5.00	0.25	0.00	0.25
44.45	2.00	0.36	5.00	0.25	0.00	0.25
44.50	2.00	0.36	5.00	0.25	0.00	0.25
44.55	2.00	0.36	5.00	0.25	0.00	0.25
44.60	2.00	0.36	5.00	0.25	0.00	0.25
44.65	2.00	0.36	5.00	0.25	0.00	0.25
44.70	2.00	0.36	5.00	0.25	0.00	0.25
44.75	2.00	0.36	5.00	0.25	0.00	0.25
44.80	2.00	0.36	5.00	0.25	0.00	0.25
44.85	2.00	0.36	5.00	0.25	0.00	0.25
44.90	2.00	0.36	5.00	0.25	0.00	0.25
44.95	2.00	0.36	5.00	0.25	0.00	0.25
45.00	2.00	0.36	5.00	0.25	0.00	0.25
45.05	2.00	0.36	5.00	0.25	0.00	0.25
45.10	2.00	0.36	5.00	0.25	0.00	0.25
45.15	2.00	0.36	5.00	0.25	0.00	0.25
45.20	2.00	0.36	5.00	0.25	0.00	0.25
45.25	2.00	0.36	5.00	0.25	0.00	0.25
45.30	2.00	0.36	5.00	0.25	0.00	0.25
45.35	0.20	0.36	0.55*	0.25	0.00	0.25
45.40	0.18	0.36	0.50*	0.24	0.00	0.24
45.45	0.17	0.36	0.48*	0.23	0.00	0.23
45.50	0.17	0.36	0.46*	0.23	0.00	0.23
45.55	0.17	0.36	0.46*	0.22	0.00	0.22
45.60	0.17	0.36	0.46*	0.21	0.00	0.21
45.65	0.17	0.36	0.46*	0.20	0.00	0.20
45.70	0.17	0.36	0.47*	0.19	0.00	0.19
45.75	0.17	0.36	0.48*	0.18	0.00	0.18
45.80	0.18	0.36	0.49*	0.17	0.00	0.17
45.85	0.18	0.36	0.50*	0.16	0.00	0.16
45.90	0.18	0.36	0.51*	0.16	0.00	0.16
45.95	0.19	0.36	0.52*	0.15	0.00	0.15
46.00	0.19	0.36	0.54*	0.14	0.00	0.14
46.05	0.19	0.36	0.53*	0.13	0.00	0.13
46.10	0.19	0.36	0.52*	0.12	0.00	0.12
46.15	0.19	0.36	0.51*	0.11	0.00	0.11
46.20	0.18	0.36	0.51*	0.10	0.00	0.10
46.25	0.18	0.36	0.50*	0.09	0.00	0.09
46.30	0.18	0.36	0.50*	0.08	0.00	0.08
46.35	0.18	0.36	0.50*	0.08	0.00	0.08
46.40	0.18	0.36	0.50*	0.07	0.00	0.07
46.45	0.18	0.36	0.50*	0.06	0.00	0.06
46.50	0.18	0.36	0.51*	0.05	0.00	0.05
46.55	0.19	0.36	0.52*	0.04	0.00	0.04
46.60	0.20	0.36	0.55*	0.04	0.00	0.04
46.65	0.21	0.36	0.59*	0.03	0.00	0.03
46.70	0.24	0.36	0.67*	0.03	0.00	0.03
46.75	2.00	0.36	5.00	0.03	0.00	0.03
46.80	2.00	0.36	5.00	0.03	0.00	0.03
46.85	2.00	0.36	5.00	0.03	0.00	0.03

46.90	2.00	0.36	5.00	0.03	0.00	0.03
46.95	2.00	0.36	5.00	0.03	0.00	0.03
47.00	2.00	0.36	5.00	0.03	0.00	0.03
47.05	2.00	0.36	5.00	0.03	0.00	0.03
47.10	2.00	0.36	5.00	0.03	0.00	0.03
47.15	2.00	0.36	5.00	0.03	0.00	0.03
47.20	2.00	0.36	5.00	0.03	0.00	0.03
47.25	2.00	0.36	5.00	0.03	0.00	0.03
47.30	2.00	0.36	5.00	0.03	0.00	0.03
47.35	2.00	0.36	5.00	0.03	0.00	0.03
47.40	2.00	0.36	5.00	0.03	0.00	0.03
47.45	0.36	0.36	0.99*	0.03	0.00	0.03
47.50	0.34	0.36	0.94*	0.03	0.00	0.03
47.55	0.33	0.36	0.91*	0.03	0.00	0.03
47.60	0.32	0.36	0.89*	0.03	0.00	0.03
47.65	0.32	0.36	0.89*	0.03	0.00	0.03
47.70	0.32	0.36	0.89*	0.03	0.00	0.03
47.75	0.32	0.36	0.90*	0.03	0.00	0.03
47.80	0.33	0.36	0.91*	0.03	0.00	0.03
47.85	0.33	0.36	0.93*	0.03	0.00	0.03
47.90	0.34	0.36	0.95*	0.03	0.00	0.03
47.95	0.35	0.36	0.97*	0.03	0.00	0.03
48.00	0.36	0.36	0.99*	0.03	0.00	0.03
48.05	0.36	0.36	1.01	0.03	0.00	0.03
48.10	0.37	0.36	1.03	0.03	0.00	0.03
48.15	0.38	0.36	1.05	0.03	0.00	0.03
48.20	0.38	0.36	1.07	0.03	0.00	0.03
48.25	0.39	0.36	1.09	0.03	0.00	0.03
48.30	0.40	0.36	1.11	0.03	0.00	0.03
48.35	0.41	0.36	1.13	0.03	0.00	0.03
48.40	0.41	0.36	1.16	0.03	0.00	0.03
48.45	0.42	0.36	1.18	0.03	0.00	0.03
48.50	0.43	0.36	1.20	0.03	0.00	0.03
48.55	0.44	0.36	1.22	0.03	0.00	0.03
48.60	0.45	0.36	1.25	0.03	0.00	0.03
48.65	0.45	0.36	1.27	0.03	0.00	0.03
48.70	0.46	0.36	1.29	0.03	0.00	0.03
48.75	0.47	0.36	1.32	0.03	0.00	0.03
48.80	0.48	0.36	1.34	0.03	0.00	0.03
48.85	0.49	0.36	1.37	0.03	0.00	0.03
48.90	0.50	0.36	1.39	0.03	0.00	0.03
48.95	0.51	0.36	1.42	0.03	0.00	0.03
49.00	0.52	0.36	1.45	0.03	0.00	0.03
49.05	0.56	0.36	1.58	0.03	0.00	0.03
49.10	0.62	0.36	1.74	0.03	0.00	0.03
49.15	0.69	0.36	1.92	0.03	0.00	0.03
49.20	0.76	0.36	2.12	0.03	0.00	0.03
49.25	0.84	0.36	2.35	0.03	0.00	0.03
49.30	0.93	0.36	2.60	0.03	0.00	0.03
49.35	1.02	0.36	2.87	0.03	0.00	0.03
49.40	1.13	0.36	3.17	0.03	0.00	0.03
49.45	1.24	0.36	3.49	0.03	0.00	0.03
49.50	1.36	0.36	3.83	0.03	0.00	0.03
49.55	1.50	0.36	4.20	0.03	0.00	0.03
49.60	1.64	0.36	4.60	0.03	0.00	0.03
49.65	1.79	0.36	5.00	0.03	0.00	0.03
49.70	1.95	0.36	5.00	0.03	0.00	0.03
49.75	2.12	0.36	5.00	0.03	0.00	0.03
49.80	2.30	0.36	5.00	0.03	0.00	0.03
49.85	2.49	0.36	5.00	0.03	0.00	0.03
49.90	2.63	0.36	5.00	0.03	0.00	0.03
49.95	2.63	0.36	5.00	0.03	0.00	0.03
50.00	2.63	0.36	5.00	0.03	0.00	0.03
50.05	2.63	0.36	5.00	0.03	0.00	0.03
50.10	2.58	0.36	5.00	0.03	0.00	0.03
50.15	2.33	0.36	5.00	0.03	0.00	0.03
50.20	2.10	0.36	5.00	0.03	0.00	0.03
50.25	1.89	0.36	5.00	0.03	0.00	0.03
50.30	1.69	0.36	4.76	0.03	0.00	0.03
50.35	1.51	0.35	4.27	0.03	0.00	0.03
50.40	1.35	0.35	3.82	0.03	0.00	0.03
50.45	1.21	0.35	3.41	0.03	0.00	0.03
50.50	1.08	0.35	3.06	0.03	0.00	0.03
50.55	0.97	0.35	2.74	0.03	0.00	0.03
50.60	0.88	0.35	2.48	0.03	0.00	0.03

50.65	0.80	0.35	2.27	0.03	0.00	0.03
50.70	0.75	0.35	2.12	0.03	0.00	0.03
50.75	0.73	0.35	2.06	0.03	0.00	0.03
50.80	0.78	0.35	2.19	0.03	0.00	0.03
50.85	2.00	0.35	5.00	0.03	0.00	0.03
50.90	2.00	0.35	5.00	0.03	0.00	0.03
50.95	2.00	0.35	5.00	0.03	0.00	0.03
51.00	2.00	0.35	5.00	0.03	0.00	0.03
51.05	2.00	0.35	5.00	0.03	0.00	0.03
51.10	2.00	0.35	5.00	0.03	0.00	0.03
51.15	2.00	0.35	5.00	0.03	0.00	0.03
51.20	2.00	0.35	5.00	0.03	0.00	0.03
51.25	2.00	0.35	5.00	0.03	0.00	0.03
51.30	2.00	0.35	5.00	0.03	0.00	0.03
51.35	2.00	0.35	5.00	0.03	0.00	0.03
51.40	2.00	0.35	5.00	0.03	0.00	0.03
51.45	2.00	0.35	5.00	0.03	0.00	0.03
51.50	2.00	0.35	5.00	0.03	0.00	0.03
51.55	2.00	0.35	5.00	0.03	0.00	0.03
51.60	2.00	0.35	5.00	0.03	0.00	0.03
51.65	2.00	0.35	5.00	0.03	0.00	0.03
51.70	2.00	0.35	5.00	0.03	0.00	0.03
51.75	2.00	0.35	5.00	0.03	0.00	0.03
51.80	2.00	0.35	5.00	0.03	0.00	0.03
51.85	2.00	0.35	5.00	0.03	0.00	0.03
51.90	2.00	0.35	5.00	0.03	0.00	0.03
51.95	2.00	0.35	5.00	0.03	0.00	0.03
52.00	2.00	0.35	5.00	0.03	0.00	0.03
52.05	2.00	0.35	5.00	0.03	0.00	0.03
52.10	2.00	0.35	5.00	0.03	0.00	0.03
52.15	2.00	0.35	5.00	0.03	0.00	0.03
52.20	2.00	0.35	5.00	0.03	0.00	0.03
52.25	2.00	0.35	5.00	0.03	0.00	0.03
52.30	2.00	0.35	5.00	0.03	0.00	0.03
52.35	2.00	0.35	5.00	0.03	0.00	0.03
52.40	2.00	0.35	5.00	0.03	0.00	0.03
52.45	2.00	0.35	5.00	0.03	0.00	0.03
52.50	2.00	0.35	5.00	0.03	0.00	0.03
52.55	2.00	0.35	5.00	0.03	0.00	0.03
52.60	2.00	0.35	5.00	0.03	0.00	0.03
52.65	2.00	0.35	5.00	0.03	0.00	0.03
52.70	2.00	0.35	5.00	0.03	0.00	0.03
52.75	2.00	0.35	5.00	0.03	0.00	0.03
52.80	2.00	0.35	5.00	0.03	0.00	0.03
52.85	2.00	0.35	5.00	0.03	0.00	0.03
52.90	2.00	0.35	5.00	0.03	0.00	0.03
52.95	2.00	0.35	5.00	0.03	0.00	0.03
53.00	2.00	0.35	5.00	0.03	0.00	0.03
53.05	2.00	0.35	5.00	0.03	0.00	0.03
53.10	2.00	0.35	5.00	0.03	0.00	0.03
53.15	2.00	0.35	5.00	0.03	0.00	0.03
53.20	2.00	0.35	5.00	0.03	0.00	0.03
53.25	2.00	0.35	5.00	0.03	0.00	0.03
53.30	2.00	0.35	5.00	0.03	0.00	0.03
53.35	2.00	0.35	5.00	0.03	0.00	0.03
53.40	2.00	0.35	5.00	0.03	0.00	0.03
53.45	2.00	0.35	5.00	0.03	0.00	0.03
53.50	2.00	0.35	5.00	0.03	0.00	0.03
53.55	2.00	0.35	5.00	0.03	0.00	0.03
53.60	2.00	0.35	5.00	0.03	0.00	0.03
53.65	2.00	0.35	5.00	0.03	0.00	0.03
53.70	2.00	0.35	5.00	0.03	0.00	0.03
53.75	2.00	0.35	5.00	0.03	0.00	0.03
53.80	2.00	0.35	5.00	0.03	0.00	0.03
53.85	2.00	0.35	5.00	0.03	0.00	0.03
53.90	2.00	0.35	5.00	0.03	0.00	0.03
53.95	2.00	0.35	5.00	0.03	0.00	0.03
54.00	2.00	0.35	5.00	0.03	0.00	0.03
54.05	2.00	0.35	5.00	0.03	0.00	0.03
54.10	2.00	0.35	5.00	0.03	0.00	0.03
54.15	2.00	0.35	5.00	0.03	0.00	0.03
54.20	2.00	0.35	5.00	0.03	0.00	0.03
54.25	2.00	0.35	5.00	0.03	0.00	0.03
54.30	2.00	0.35	5.00	0.03	0.00	0.03
54.35	2.00	0.35	5.00	0.03	0.00	0.03

54.40	2.00	0.35	5.00	0.03	0.00	0.03
54.45	2.00	0.35	5.00	0.03	0.00	0.03
54.50	2.00	0.35	5.00	0.03	0.00	0.03
54.55	2.00	0.35	5.00	0.03	0.00	0.03
54.60	2.00	0.35	5.00	0.03	0.00	0.03
54.65	2.00	0.35	5.00	0.03	0.00	0.03
54.70	2.00	0.35	5.00	0.03	0.00	0.03
54.75	2.00	0.35	5.00	0.03	0.00	0.03
54.80	2.00	0.35	5.00	0.03	0.00	0.03
54.85	2.00	0.35	5.00	0.03	0.00	0.03
54.90	2.00	0.35	5.00	0.03	0.00	0.03
54.95	2.00	0.35	5.00	0.03	0.00	0.03
55.00	2.00	0.35	5.00	0.03	0.00	0.03
55.05	2.00	0.35	5.00	0.03	0.00	0.03
55.10	2.00	0.35	5.00	0.03	0.00	0.03
55.15	2.00	0.35	5.00	0.03	0.00	0.03
55.20	2.00	0.35	5.00	0.03	0.00	0.03
55.25	2.00	0.35	5.00	0.03	0.00	0.03
55.30	2.00	0.35	5.00	0.03	0.00	0.03
55.35	2.00	0.35	5.00	0.03	0.00	0.03
55.40	2.00	0.35	5.00	0.03	0.00	0.03
55.45	2.00	0.35	5.00	0.03	0.00	0.03
55.50	2.00	0.35	5.00	0.03	0.00	0.03
55.55	2.00	0.35	5.00	0.03	0.00	0.03
55.60	2.00	0.35	5.00	0.03	0.00	0.03
55.65	2.00	0.35	5.00	0.03	0.00	0.03
55.70	2.00	0.35	5.00	0.03	0.00	0.03
55.75	2.00	0.34	5.00	0.03	0.00	0.03
55.80	2.00	0.34	5.00	0.03	0.00	0.03
55.85	2.00	0.34	5.00	0.03	0.00	0.03
55.90	2.00	0.34	5.00	0.03	0.00	0.03
55.95	2.00	0.34	5.00	0.03	0.00	0.03
56.00	2.00	0.34	5.00	0.03	0.00	0.03
56.05	2.00	0.34	5.00	0.03	0.00	0.03
56.10	2.00	0.34	5.00	0.03	0.00	0.03
56.15	2.00	0.34	5.00	0.03	0.00	0.03
56.20	2.00	0.34	5.00	0.03	0.00	0.03
56.25	2.00	0.34	5.00	0.03	0.00	0.03
56.30	2.00	0.34	5.00	0.03	0.00	0.03
56.35	2.00	0.34	5.00	0.03	0.00	0.03
56.40	2.00	0.34	5.00	0.03	0.00	0.03
56.45	2.00	0.34	5.00	0.03	0.00	0.03
56.50	2.00	0.34	5.00	0.03	0.00	0.03
56.55	2.00	0.34	5.00	0.03	0.00	0.03
56.60	2.00	0.34	5.00	0.03	0.00	0.03
56.65	2.00	0.34	5.00	0.03	0.00	0.03
56.70	2.00	0.34	5.00	0.03	0.00	0.03
56.75	2.00	0.34	5.00	0.03	0.00	0.03
56.80	2.00	0.34	5.00	0.03	0.00	0.03
56.85	2.00	0.34	5.00	0.03	0.00	0.03
56.90	2.00	0.34	5.00	0.03	0.00	0.03
56.95	2.00	0.34	5.00	0.03	0.00	0.03
57.00	2.00	0.34	5.00	0.03	0.00	0.03
57.05	2.00	0.34	5.00	0.03	0.00	0.03
57.10	2.00	0.34	5.00	0.03	0.00	0.03
57.15	2.00	0.34	5.00	0.03	0.00	0.03
57.20	2.00	0.34	5.00	0.03	0.00	0.03
57.25	2.00	0.34	5.00	0.03	0.00	0.03
57.30	2.00	0.34	5.00	0.03	0.00	0.03
57.35	2.00	0.34	5.00	0.03	0.00	0.03
57.40	2.00	0.34	5.00	0.03	0.00	0.03
57.45	2.00	0.34	5.00	0.03	0.00	0.03
57.50	2.00	0.34	5.00	0.03	0.00	0.03
57.55	2.00	0.34	5.00	0.03	0.00	0.03
57.60	2.00	0.34	5.00	0.03	0.00	0.03
57.65	2.00	0.34	5.00	0.03	0.00	0.03
57.70	2.00	0.34	5.00	0.03	0.00	0.03
57.75	2.00	0.34	5.00	0.03	0.00	0.03
57.80	2.00	0.34	5.00	0.03	0.00	0.03
57.85	2.00	0.34	5.00	0.03	0.00	0.03
57.90	2.00	0.34	5.00	0.03	0.00	0.03
57.95	2.00	0.34	5.00	0.03	0.00	0.03
58.00	2.00	0.34	5.00	0.03	0.00	0.03
58.05	2.00	0.34	5.00	0.03	0.00	0.03
58.10	2.00	0.34	5.00	0.03	0.00	0.03

58.15	2.00	0.34	5.00	0.03	0.00	0.03
58.20	2.00	0.34	5.00	0.03	0.00	0.03
58.25	2.00	0.34	5.00	0.03	0.00	0.03
58.30	2.00	0.34	5.00	0.03	0.00	0.03
58.35	2.00	0.34	5.00	0.03	0.00	0.03
58.40	2.00	0.34	5.00	0.03	0.00	0.03
58.45	2.00	0.34	5.00	0.03	0.00	0.03
58.50	2.00	0.34	5.00	0.03	0.00	0.03
58.55	2.00	0.34	5.00	0.03	0.00	0.03
58.60	2.00	0.34	5.00	0.03	0.00	0.03
58.65	2.00	0.34	5.00	0.03	0.00	0.03
58.70	2.00	0.34	5.00	0.03	0.00	0.03
58.75	0.29	0.34	0.85*	0.03	0.00	0.03
58.80	0.29	0.34	0.85*	0.03	0.00	0.03
58.85	0.28	0.34	0.84*	0.03	0.00	0.03
58.90	0.28	0.34	0.84*	0.03	0.00	0.03
58.95	0.28	0.34	0.84*	0.03	0.00	0.03
59.00	0.28	0.34	0.83*	0.03	0.00	0.03
59.05	0.29	0.34	0.85*	0.03	0.00	0.03
59.10	0.29	0.34	0.87*	0.03	0.00	0.03
59.15	0.30	0.34	0.90*	0.03	0.00	0.03
59.20	0.31	0.34	0.92*	0.03	0.00	0.03
59.25	0.32	0.34	0.94*	0.03	0.00	0.03
59.30	0.33	0.34	0.97*	0.03	0.00	0.03
59.35	0.34	0.34	1.00*	0.03	0.00	0.03
59.40	0.34	0.34	1.02	0.03	0.00	0.03
59.45	0.35	0.34	1.05	0.03	0.00	0.03
59.50	0.36	0.34	1.08	0.03	0.00	0.03
59.55	0.37	0.34	1.11	0.03	0.00	0.03
59.60	0.39	0.34	1.15	0.03	0.00	0.03
59.65	0.40	0.34	1.18	0.03	0.00	0.03
59.70	0.41	0.34	1.21	0.03	0.00	0.03
59.75	0.42	0.34	1.25	0.03	0.00	0.03
59.80	0.43	0.34	1.29	0.03	0.00	0.03
59.85	0.44	0.34	1.32	0.03	0.00	0.03
59.90	0.46	0.34	1.36	0.03	0.00	0.03
59.95	0.47	0.34	1.40	0.03	0.00	0.03
60.00	0.48	0.34	1.44	0.03	0.00	0.03
60.05	0.48	0.34	1.44	0.03	0.00	0.03
60.10	0.48	0.34	1.44	0.03	0.00	0.03
60.15	0.48	0.33	1.43	0.03	0.00	0.03
60.20	0.48	0.33	1.43	0.03	0.00	0.03
60.25	0.48	0.33	1.43	0.03	0.00	0.03
60.30	0.48	0.33	1.42	0.03	0.00	0.03
60.35	0.48	0.33	1.42	0.03	0.00	0.03
60.40	0.47	0.33	1.42	0.03	0.00	0.03
60.45	0.47	0.33	1.42	0.03	0.00	0.03
60.50	0.47	0.33	1.41	0.03	0.00	0.03
60.55	0.47	0.33	1.41	0.03	0.00	0.03
60.60	0.47	0.33	1.41	0.03	0.00	0.03
60.65	0.47	0.33	1.41	0.03	0.00	0.03
60.70	0.47	0.33	1.41	0.03	0.00	0.03
60.75	0.47	0.33	1.41	0.03	0.00	0.03
60.80	0.47	0.33	1.41	0.03	0.00	0.03
60.85	0.47	0.33	1.41	0.03	0.00	0.03
60.90	0.47	0.33	1.41	0.03	0.00	0.03
60.95	0.47	0.33	1.41	0.03	0.00	0.03
61.00	0.47	0.33	1.41	0.03	0.00	0.03
61.05	0.47	0.33	1.42	0.03	0.00	0.03
61.10	0.47	0.33	1.42	0.03	0.00	0.03
61.15	0.48	0.33	1.43	0.03	0.00	0.03
61.20	0.48	0.33	1.44	0.03	0.00	0.03
61.25	0.48	0.33	1.45	0.03	0.00	0.03
61.30	0.49	0.33	1.47	0.03	0.00	0.03
61.35	0.49	0.33	1.48	0.03	0.00	0.03
61.40	0.50	0.33	1.49	0.03	0.00	0.03
61.45	0.50	0.33	1.51	0.03	0.00	0.03
61.50	0.51	0.33	1.52	0.03	0.00	0.03
61.55	0.51	0.33	1.54	0.03	0.00	0.03
61.60	0.52	0.33	1.56	0.03	0.00	0.03
61.65	0.52	0.33	1.58	0.03	0.00	0.03
61.70	0.53	0.33	1.60	0.03	0.00	0.03
61.75	0.53	0.33	1.61	0.03	0.00	0.03
61.80	0.54	0.33	1.64	0.03	0.00	0.03
61.85	0.55	0.33	1.66	0.03	0.00	0.03

61.90	0.55	0.33	1.68	0.03	0.00	0.03
61.95	0.56	0.33	1.70	0.03	0.00	0.03
62.00	0.57	0.33	1.72	0.03	0.00	0.03
62.05	0.57	0.33	1.73	0.03	0.00	0.03
62.10	0.57	0.33	1.74	0.03	0.00	0.03
62.15	0.58	0.33	1.75	0.03	0.00	0.03
62.20	0.58	0.33	1.76	0.03	0.00	0.03
62.25	0.58	0.33	1.77	0.03	0.00	0.03
62.30	0.58	0.33	1.77	0.03	0.00	0.03
62.35	0.59	0.33	1.78	0.03	0.00	0.03
62.40	0.59	0.33	1.79	0.03	0.00	0.03
62.45	0.59	0.33	1.80	0.03	0.00	0.03
62.50	0.60	0.33	1.81	0.03	0.00	0.03
62.55	0.60	0.33	1.82	0.03	0.00	0.03
62.60	0.60	0.33	1.83	0.03	0.00	0.03
62.65	0.60	0.33	1.84	0.03	0.00	0.03
62.70	0.61	0.33	1.85	0.03	0.00	0.03
62.75	0.61	0.33	1.86	0.03	0.00	0.03
62.80	0.61	0.33	1.87	0.03	0.00	0.03
62.85	0.61	0.33	1.87	0.03	0.00	0.03
62.90	0.62	0.33	1.88	0.03	0.00	0.03
62.95	0.62	0.33	1.89	0.03	0.00	0.03
63.00	0.62	0.33	1.90	0.03	0.00	0.03
63.05	0.62	0.33	1.89	0.03	0.00	0.03
63.10	0.61	0.33	1.87	0.03	0.00	0.03
63.15	0.61	0.33	1.86	0.03	0.00	0.03
63.20	0.60	0.33	1.84	0.03	0.00	0.03
63.25	0.60	0.33	1.83	0.03	0.00	0.03
63.30	0.59	0.33	1.81	0.03	0.00	0.03
63.35	0.59	0.33	1.80	0.03	0.00	0.03
63.40	0.58	0.33	1.78	0.03	0.00	0.03
63.45	0.58	0.33	1.77	0.03	0.00	0.03
63.50	0.57	0.33	1.75	0.03	0.00	0.03
63.55	0.57	0.33	1.74	0.03	0.00	0.03
63.60	0.56	0.33	1.72	0.03	0.00	0.03
63.65	0.56	0.33	1.71	0.03	0.00	0.03
63.70	0.55	0.33	1.69	0.03	0.00	0.03
63.75	0.55	0.33	1.68	0.03	0.00	0.03
63.80	0.54	0.33	1.66	0.03	0.00	0.03
63.85	0.54	0.33	1.65	0.03	0.00	0.03
63.90	0.53	0.33	1.64	0.03	0.00	0.03
63.95	0.53	0.33	1.62	0.03	0.00	0.03
64.00	0.52	0.32	1.61	0.03	0.00	0.03
64.05	0.52	0.32	1.61	0.03	0.00	0.03
64.10	0.53	0.32	1.62	0.03	0.00	0.03
64.15	0.53	0.32	1.62	0.03	0.00	0.03
64.20	0.53	0.32	1.63	0.03	0.00	0.03
64.25	0.53	0.32	1.63	0.03	0.00	0.03
64.30	0.53	0.32	1.64	0.03	0.00	0.03
64.35	0.53	0.32	1.64	0.03	0.00	0.03
64.40	0.53	0.32	1.65	0.03	0.00	0.03
64.45	0.54	0.32	1.66	0.03	0.00	0.03
64.50	0.54	0.32	1.66	0.03	0.00	0.03
64.55	0.54	0.32	1.67	0.03	0.00	0.03
64.60	0.54	0.32	1.67	0.03	0.00	0.03
64.65	0.54	0.32	1.68	0.03	0.00	0.03
64.70	0.54	0.32	1.68	0.03	0.00	0.03
64.75	0.54	0.32	1.69	0.03	0.00	0.03
64.80	0.55	0.32	1.69	0.03	0.00	0.03
64.85	0.55	0.32	1.70	0.03	0.00	0.03
64.90	0.55	0.32	1.70	0.03	0.00	0.03
64.95	0.55	0.32	1.71	0.03	0.00	0.03
65.00	0.55	0.32	1.72	0.03	0.00	0.03
65.05	0.55	0.32	1.72	0.03	0.00	0.03
65.10	0.55	0.32	1.72	0.03	0.00	0.03
65.15	0.55	0.32	1.72	0.03	0.00	0.03
65.20	0.55	0.32	1.72	0.03	0.00	0.03
65.25	0.55	0.32	1.72	0.03	0.00	0.03
65.30	0.55	0.32	1.72	0.03	0.00	0.03
65.35	0.55	0.32	1.72	0.03	0.00	0.03
65.40	0.55	0.32	1.73	0.03	0.00	0.03
65.45	0.55	0.32	1.73	0.03	0.00	0.03
65.50	0.55	0.32	1.73	0.03	0.00	0.03
65.55	0.55	0.32	1.73	0.03	0.00	0.03
65.60	0.55	0.32	1.73	0.03	0.00	0.03

65.65	0.55	0.32	1.73	0.03	0.00	0.03
65.70	0.56	0.32	1.73	0.03	0.00	0.03
65.75	0.56	0.32	1.74	0.03	0.00	0.03
65.80	0.56	0.32	1.74	0.03	0.00	0.03
65.85	0.56	0.32	1.74	0.03	0.00	0.03
65.90	0.56	0.32	1.74	0.03	0.00	0.03
65.95	0.56	0.32	1.74	0.03	0.00	0.03
66.00	0.56	0.32	1.74	0.03	0.00	0.03
66.05	0.56	0.32	1.74	0.03	0.00	0.03
66.10	0.56	0.32	1.74	0.03	0.00	0.03
66.15	0.56	0.32	1.74	0.03	0.00	0.03
66.20	0.56	0.32	1.74	0.03	0.00	0.03
66.25	0.56	0.32	1.74	0.03	0.00	0.03
66.30	0.56	0.32	1.74	0.03	0.00	0.03
66.35	0.56	0.32	1.74	0.03	0.00	0.03
66.40	0.56	0.32	1.75	0.03	0.00	0.03
66.45	0.56	0.32	1.75	0.03	0.00	0.03
66.50	0.56	0.32	1.75	0.03	0.00	0.03
66.55	0.55	0.32	1.75	0.03	0.00	0.03
66.60	0.55	0.32	1.75	0.03	0.00	0.03
66.65	0.55	0.32	1.75	0.03	0.00	0.03
66.70	0.55	0.32	1.75	0.03	0.00	0.03
66.75	0.55	0.32	1.75	0.03	0.00	0.03
66.80	0.55	0.32	1.75	0.03	0.00	0.03
66.85	0.55	0.32	1.75	0.03	0.00	0.03
66.90	0.55	0.32	1.75	0.03	0.00	0.03
66.95	0.55	0.32	1.75	0.03	0.00	0.03
67.00	0.55	0.32	1.75	0.03	0.00	0.03
67.05	0.56	0.32	1.75	0.03	0.00	0.03
67.10	0.56	0.32	1.76	0.03	0.00	0.03
67.15	0.56	0.32	1.77	0.03	0.00	0.03
67.20	0.56	0.32	1.77	0.03	0.00	0.03
67.25	0.56	0.32	1.78	0.03	0.00	0.03
67.30	0.56	0.32	1.78	0.03	0.00	0.03
67.35	0.56	0.32	1.79	0.03	0.00	0.03
67.40	0.57	0.32	1.80	0.03	0.00	0.03
67.45	0.57	0.32	1.80	0.03	0.00	0.03
67.50	0.57	0.32	1.81	0.03	0.00	0.03
67.55	0.57	0.31	1.81	0.03	0.00	0.03
67.60	0.57	0.31	1.82	0.03	0.00	0.03
67.65	0.57	0.31	1.82	0.03	0.00	0.03
67.70	0.58	0.31	1.83	0.03	0.00	0.03
67.75	0.58	0.31	1.84	0.03	0.00	0.03
67.80	0.58	0.31	1.84	0.03	0.00	0.03
67.85	0.58	0.31	1.85	0.03	0.00	0.03
67.90	0.58	0.31	1.85	0.03	0.00	0.03
67.95	0.58	0.31	1.86	0.03	0.00	0.03
68.00	0.59	0.31	1.87	0.03	0.00	0.03
68.05	0.59	0.31	1.87	0.03	0.00	0.03
68.10	0.59	0.31	1.87	0.03	0.00	0.03
68.15	0.59	0.31	1.87	0.03	0.00	0.03
68.20	0.59	0.31	1.88	0.03	0.00	0.03
68.25	0.59	0.31	1.88	0.03	0.00	0.03
68.30	0.59	0.31	1.88	0.03	0.00	0.03
68.35	0.59	0.31	1.88	0.03	0.00	0.03
68.40	0.59	0.31	1.89	0.03	0.00	0.03
68.45	0.59	0.31	1.89	0.03	0.00	0.03
68.50	0.59	0.31	1.89	0.03	0.00	0.03
68.55	0.59	0.31	1.89	0.03	0.00	0.03
68.60	0.59	0.31	1.90	0.03	0.00	0.03
68.65	0.59	0.31	1.90	0.03	0.00	0.03
68.70	0.59	0.31	1.90	0.03	0.00	0.03
68.75	0.59	0.31	1.90	0.03	0.00	0.03
68.80	0.59	0.31	1.91	0.03	0.00	0.03
68.85	0.59	0.31	1.91	0.03	0.00	0.03
68.90	0.59	0.31	1.91	0.03	0.00	0.03
68.95	0.60	0.31	1.91	0.03	0.00	0.03
69.00	0.60	0.31	1.92	0.03	0.00	0.03
69.05	0.60	0.31	1.92	0.03	0.00	0.03
69.10	0.60	0.31	1.92	0.03	0.00	0.03
69.15	0.60	0.31	1.93	0.03	0.00	0.03
69.20	0.60	0.31	1.93	0.03	0.00	0.03
69.25	0.60	0.31	1.94	0.03	0.00	0.03
69.30	0.60	0.31	1.94	0.03	0.00	0.03
69.35	0.60	0.31	1.94	0.03	0.00	0.03

69.40	0.60	0.31	1.95	0.03	0.00	0.03
69.45	0.60	0.31	1.95	0.03	0.00	0.03
69.50	0.60	0.31	1.96	0.03	0.00	0.03
69.55	0.61	0.31	1.96	0.03	0.00	0.03
69.60	0.61	0.31	1.96	0.03	0.00	0.03
69.65	0.61	0.31	1.97	0.03	0.00	0.03
69.70	0.61	0.31	1.97	0.03	0.00	0.03
69.75	0.61	0.31	1.98	0.03	0.00	0.03
69.80	0.61	0.31	1.98	0.03	0.00	0.03
69.85	0.61	0.31	1.99	0.03	0.00	0.03
69.90	0.61	0.31	1.99	0.03	0.00	0.03
69.95	0.61	0.31	1.99	0.03	0.00	0.03
70.00	0.61	0.31	2.00	0.03	0.00	0.03
70.05	0.61	0.31	2.00	0.03	0.00	0.03
70.10	0.62	0.31	2.00	0.03	0.00	0.03
70.15	0.62	0.31	2.01	0.03	0.00	0.03
70.20	0.62	0.31	2.01	0.03	0.00	0.03
70.25	0.62	0.31	2.01	0.03	0.00	0.03
70.30	0.62	0.31	2.01	0.03	0.00	0.03
70.35	0.62	0.31	2.02	0.03	0.00	0.03
70.40	0.62	0.31	2.02	0.03	0.00	0.03
70.45	0.62	0.31	2.02	0.03	0.00	0.03
70.50	0.62	0.31	2.03	0.03	0.00	0.03
70.55	0.62	0.31	2.03	0.03	0.00	0.03
70.60	0.62	0.31	2.03	0.03	0.00	0.03
70.65	0.62	0.31	2.03	0.03	0.00	0.03
70.70	0.62	0.31	2.04	0.03	0.00	0.03
70.75	0.62	0.31	2.04	0.03	0.00	0.03
70.80	0.62	0.31	2.04	0.03	0.00	0.03
70.85	0.62	0.30	2.05	0.03	0.00	0.03
70.90	0.62	0.30	2.05	0.03	0.00	0.03
70.95	0.62	0.30	2.05	0.03	0.00	0.03
71.00	0.63	0.30	2.05	0.03	0.00	0.03
71.05	0.63	0.30	2.06	0.03	0.00	0.03
71.10	0.63	0.30	2.07	0.03	0.00	0.03
71.15	0.63	0.30	2.07	0.03	0.00	0.03
71.20	0.63	0.30	2.08	0.03	0.00	0.03
71.25	0.63	0.30	2.09	0.03	0.00	0.03
71.30	0.64	0.30	2.09	0.03	0.00	0.03
71.35	0.64	0.30	2.10	0.03	0.00	0.03
71.40	0.64	0.30	2.11	0.03	0.00	0.03
71.45	0.64	0.30	2.11	0.03	0.00	0.03
71.50	0.64	0.30	2.12	0.03	0.00	0.03
71.55	0.64	0.30	2.13	0.03	0.00	0.03
71.60	0.65	0.30	2.13	0.03	0.00	0.03
71.65	0.65	0.30	2.14	0.03	0.00	0.03
71.70	0.65	0.30	2.15	0.03	0.00	0.03
71.75	0.65	0.30	2.16	0.03	0.00	0.03
71.80	0.65	0.30	2.16	0.03	0.00	0.03
71.85	0.65	0.30	2.17	0.03	0.00	0.03
71.90	0.66	0.30	2.18	0.03	0.00	0.03
71.95	0.66	0.30	2.18	0.03	0.00	0.03
72.00	0.66	0.30	2.19	0.03	0.00	0.03
72.05	0.66	0.30	2.19	0.03	0.00	0.03
72.10	0.66	0.30	2.19	0.03	0.00	0.03
72.15	0.66	0.30	2.19	0.03	0.00	0.03
72.20	0.66	0.30	2.19	0.03	0.00	0.03
72.25	0.66	0.30	2.20	0.03	0.00	0.03
72.30	0.66	0.30	2.20	0.03	0.00	0.03
72.35	0.66	0.30	2.20	0.03	0.00	0.03
72.40	0.66	0.30	2.20	0.03	0.00	0.03
72.45	0.66	0.30	2.20	0.03	0.00	0.03
72.50	0.66	0.30	2.20	0.03	0.00	0.03
72.55	0.66	0.30	2.20	0.03	0.00	0.03
72.60	0.66	0.30	2.20	0.03	0.00	0.03
72.65	0.66	0.30	2.20	0.03	0.00	0.03
72.70	0.66	0.30	2.21	0.03	0.00	0.03
72.75	0.66	0.30	2.21	0.03	0.00	0.03
72.80	0.66	0.30	2.21	0.03	0.00	0.03
72.85	0.66	0.30	2.21	0.03	0.00	0.03
72.90	0.66	0.30	2.21	0.03	0.00	0.03
72.95	0.66	0.30	2.21	0.03	0.00	0.03
73.00	0.66	0.30	2.21	0.03	0.00	0.03
73.05	0.66	0.30	2.22	0.03	0.00	0.03
73.10	0.66	0.30	2.22	0.03	0.00	0.03

73.15	0.66	0.30	2.22	0.03	0.00	0.03
73.20	0.66	0.30	2.22	0.03	0.00	0.03
73.25	0.66	0.30	2.22	0.03	0.00	0.03
73.30	0.66	0.30	2.23	0.03	0.00	0.03
73.35	0.66	0.30	2.23	0.03	0.00	0.03
73.40	0.66	0.30	2.23	0.03	0.00	0.03
73.45	0.66	0.30	2.23	0.03	0.00	0.03
73.50	0.66	0.30	2.24	0.03	0.00	0.03
73.55	0.66	0.30	2.24	0.03	0.00	0.03
73.60	0.66	0.30	2.24	0.03	0.00	0.03
73.65	0.66	0.30	2.24	0.03	0.00	0.03
73.70	0.66	0.30	2.25	0.03	0.00	0.03
73.75	0.67	0.30	2.25	0.03	0.00	0.03
73.80	0.67	0.30	2.25	0.03	0.00	0.03
73.85	0.67	0.30	2.25	0.03	0.00	0.03
73.90	0.67	0.30	2.26	0.03	0.00	0.03
73.95	0.67	0.30	2.26	0.03	0.00	0.03
74.00	0.67	0.29	2.26	0.03	0.00	0.03
74.05	0.63	0.29	2.12	0.03	0.00	0.03
74.10	0.59	0.29	1.99	0.03	0.00	0.03
74.15	0.55	0.29	1.86	0.03	0.00	0.03
74.20	0.51	0.29	1.74	0.03	0.00	0.03
74.25	0.48	0.29	1.63	0.03	0.00	0.03
74.30	0.45	0.29	1.53	0.03	0.00	0.03
74.35	0.42	0.29	1.43	0.03	0.00	0.03
74.40	0.39	0.29	1.34	0.03	0.00	0.03
74.45	0.37	0.29	1.25	0.03	0.00	0.03
74.50	0.34	0.29	1.17	0.03	0.00	0.03
74.55	0.32	0.29	1.10	0.03	0.00	0.03
74.60	0.30	0.29	1.02	0.03	0.00	0.03
74.65	0.28	0.29	0.96*	0.03	0.00	0.03
74.70	0.26	0.29	0.89*	0.03	0.00	0.03
74.75	0.24	0.29	0.83*	0.03	0.00	0.03
74.80	0.23	0.29	0.78*	0.02	0.00	0.02
74.85	0.21	0.29	0.72*	0.02	0.00	0.02
74.90	0.20	0.29	0.67*	0.02	0.00	0.02
74.95	0.19	0.29	0.66*	0.01	0.00	0.01
75.00	2.00	0.29	5.00	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

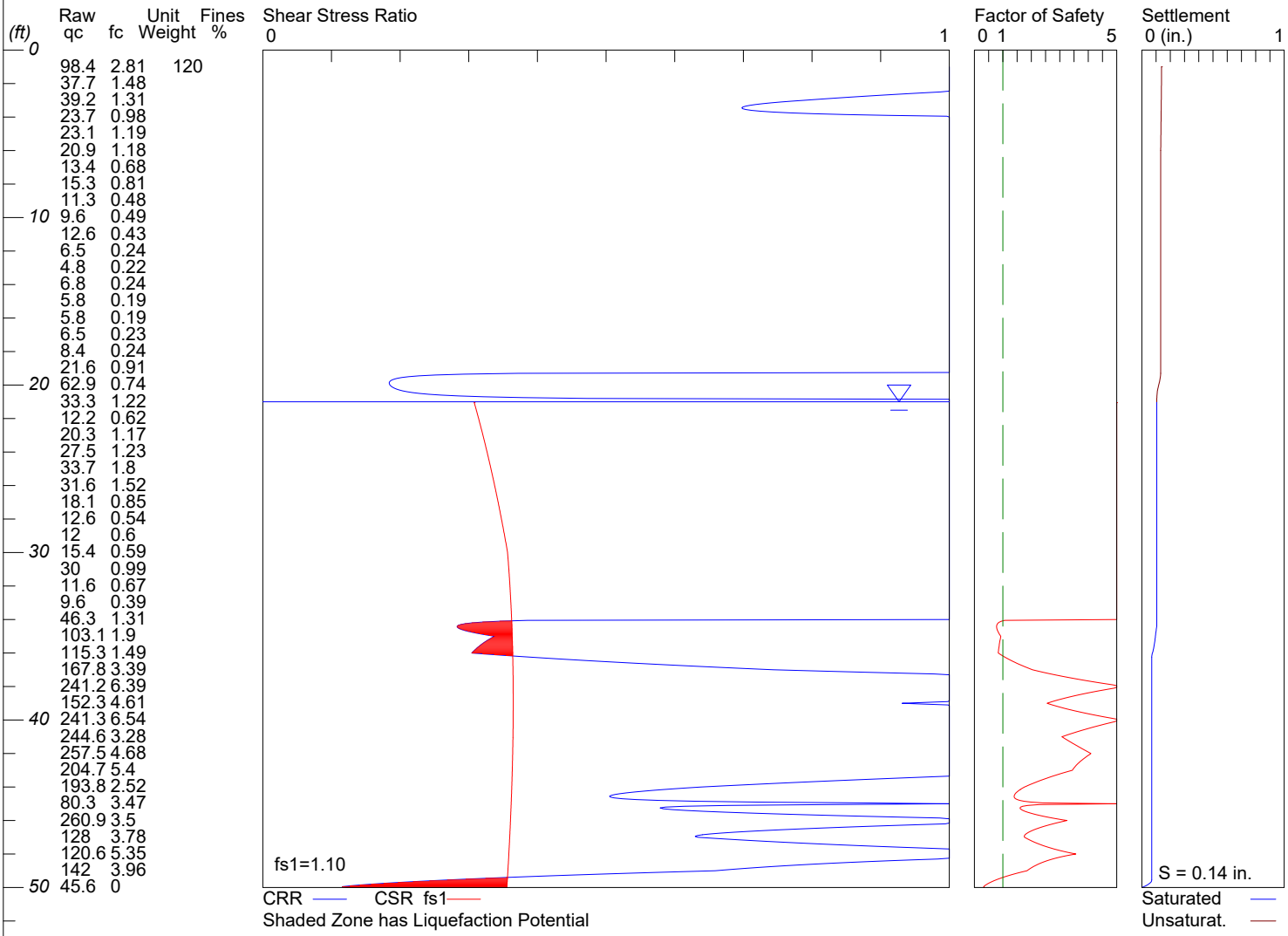
1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

De Soto/Burbank

Hole No.=CPT-2 Water Depth=21 ft

Magnitude=6.74
Acceleration=0.453g



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LIQUEFACTION ANALYSIS SUMMARY
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Input File Name: C:\Users\jonne\OneDrive\Work\Projects\6743 -- Adler Realty August 2019 Update\Liquefaction\CPT-2 Reduced PGA.liq
Title: De Soto/Burbank
Subtitle: 10% Probability - Reduced PGAm

Surface Elev.=
Hole No.=CPT-2
Depth of Hole= 50.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration= 0.45 g
Earthquake Magnitude= 6.74

Input Data:
Surface Elev.=
Hole No.=CPT-2
Depth of Hole=50.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration=0.45 g
Earthquake Magnitude=6.74
No-Liquefiable Soils: Based on Analysis

1. CPT Calculation Method: Modify Robertson*
2. Settlement Analysis Method: Tokimatsu, M-correction
3. Fines Correction for Liquefaction: Stark/Olson et al.*
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
9. User request factor of safety (apply to CSR) , User= 1.1
Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	qc atm	fs atm	Rf pcf	gamma %	Fines mm	D50
1.00	98.40	2.81	2.86	120.00	0.00	0.50
2.00	37.70	1.48	3.93	120.00	0.00	0.50
3.00	39.20	1.31	3.34	120.00	0.00	0.50
4.00	23.70	0.98	4.14	120.00	0.00	0.50
5.00	23.10	1.19	5.15	120.00	0.00	0.50
6.00	20.90	1.18	5.65	120.00	0.00	0.50
7.00	13.40	0.68	5.07	120.00	0.00	0.50
8.00	15.30	0.81	5.29	120.00	0.00	0.50
9.00	11.30	0.48	4.25	120.00	0.00	0.50
10.00	9.60	0.49	5.10	120.00	0.00	0.50
11.00	12.60	0.43	3.41	120.00	0.00	0.50
12.00	6.50	0.24	3.69	120.00	0.00	0.50
13.00	4.80	0.22	4.58	120.00	0.00	0.50
14.00	6.80	0.24	3.53	120.00	0.00	0.50
15.00	5.80	0.19	3.28	120.00	0.00	0.50
16.00	5.80	0.19	3.28	120.00	0.00	0.50
17.00	6.50	0.23	3.54	120.00	0.00	0.50
18.00	8.40	0.24	2.86	120.00	0.00	0.50
19.00	21.60	0.91	4.21	120.00	0.00	0.50
20.00	62.90	0.74	1.18	120.00	0.00	0.50
21.00	33.30	1.22	3.66	120.00	0.00	0.50
22.00	12.20	0.62	5.08	120.00	0.00	0.50
23.00	20.30	1.17	5.76	120.00	0.00	0.50
24.00	27.50	1.23	4.47	120.00	0.00	0.50
25.00	33.70	1.80	5.34	120.00	0.00	0.50
26.00	31.60	1.52	4.81	120.00	0.00	0.50
27.00	18.10	0.85	4.70	120.00	0.00	0.50
28.00	12.60	0.54	4.29	120.00	0.00	0.50
29.00	12.00	0.60	5.00	120.00	0.00	0.50
30.00	15.40	0.59	3.83	120.00	0.00	0.50

31.00	30.00	0.99	3.30	120.00	0.00	0.50
32.00	11.60	0.67	5.78	120.00	0.00	0.50
33.00	9.60	0.39	4.06	120.00	0.00	0.50
34.00	46.30	1.31	2.83	120.00	0.00	0.50
35.00	103.10	1.90	1.84	120.00	0.00	0.50
36.00	115.30	1.49	1.29	120.00	0.00	0.50
37.00	167.80	3.39	2.02	120.00	0.00	0.50
38.00	241.20	6.39	2.65	120.00	0.00	0.50
39.00	152.30	4.61	3.03	120.00	0.00	0.50
40.00	241.30	6.54	2.71	120.00	0.00	0.50
41.00	244.60	3.28	1.34	120.00	0.00	0.50
42.00	257.50	4.68	1.82	120.00	0.00	0.50
43.00	204.70	5.40	2.64	120.00	0.00	0.50
44.00	193.80	2.52	1.30	120.00	0.00	0.50
45.00	80.30	3.47	4.32	120.00	0.00	0.50
46.00	260.90	3.50	1.34	120.00	0.00	0.50
47.00	128.00	3.78	2.95	120.00	0.00	0.50
48.00	120.60	5.35	4.44	120.00	0.00	0.50
49.00	142.00	3.96	2.79	120.00	0.00	0.50
50.00	45.60	0.00	0.00	120.00	0.00	0.50

Modify Robertson method generates Fines from qc/fs. Inputted Fines are not relevant.

Output Results:

Settlement of Saturated Sands=0.11 in.
Settlement of Unsaturated Sands=0.03 in.
Total Settlement of Saturated and Unsaturated Sands=0.14 in.
Differential Settlement=0.069 to 0.091 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
1.00	2.73	0.32	5.00	0.11	0.03	0.14
1.05	2.73	0.32	5.00	0.11	0.03	0.14
1.10	2.73	0.32	5.00	0.11	0.03	0.14
1.15	2.73	0.32	5.00	0.11	0.03	0.14
1.20	2.73	0.32	5.00	0.11	0.03	0.14
1.25	2.73	0.32	5.00	0.11	0.03	0.14
1.30	2.73	0.32	5.00	0.11	0.03	0.14
1.35	2.73	0.32	5.00	0.11	0.03	0.14
1.40	2.73	0.32	5.00	0.11	0.03	0.14
1.45	2.73	0.32	5.00	0.11	0.03	0.14
1.50	2.73	0.32	5.00	0.11	0.03	0.14
1.55	2.73	0.32	5.00	0.11	0.03	0.14
1.60	2.73	0.32	5.00	0.11	0.03	0.14
1.65	2.57	0.32	5.00	0.11	0.03	0.14
1.70	2.29	0.32	5.00	0.11	0.03	0.14
1.75	2.05	0.32	5.00	0.11	0.03	0.14
1.80	1.83	0.32	5.00	0.11	0.03	0.14
1.85	1.65	0.32	5.00	0.11	0.03	0.14
1.90	1.50	0.32	5.00	0.11	0.03	0.14
1.95	1.37	0.32	5.00	0.11	0.03	0.14
2.00	1.28	0.32	5.00	0.11	0.03	0.14
2.05	1.24	0.32	5.00	0.11	0.03	0.14
2.10	1.21	0.32	5.00	0.11	0.03	0.14
2.15	1.18	0.32	5.00	0.11	0.03	0.14
2.20	1.15	0.32	5.00	0.11	0.03	0.14
2.25	1.12	0.32	5.00	0.11	0.03	0.14
2.30	1.09	0.32	5.00	0.11	0.03	0.14
2.35	1.06	0.32	5.00	0.11	0.03	0.14
2.40	1.04	0.32	5.00	0.11	0.03	0.14
2.45	1.01	0.32	5.00	0.11	0.03	0.14
2.50	0.99	0.32	5.00	0.11	0.03	0.14
2.55	0.96	0.32	5.00	0.11	0.03	0.14
2.60	0.94	0.32	5.00	0.11	0.03	0.14
2.65	0.92	0.32	5.00	0.11	0.03	0.14
2.70	0.90	0.32	5.00	0.11	0.03	0.14
2.75	0.88	0.32	5.00	0.11	0.03	0.14
2.80	0.86	0.32	5.00	0.11	0.03	0.14
2.85	0.84	0.32	5.00	0.11	0.03	0.14
2.90	0.82	0.32	5.00	0.11	0.03	0.14
2.95	0.81	0.32	5.00	0.11	0.03	0.14
3.00	0.79	0.32	5.00	0.11	0.03	0.14
3.05	0.77	0.32	5.00	0.11	0.03	0.14
3.10	0.75	0.32	5.00	0.11	0.03	0.14

3.15	0.74	0.32	5.00	0.11	0.03	0.14
3.20	0.73	0.32	5.00	0.11	0.03	0.14
3.25	0.72	0.32	5.00	0.11	0.03	0.14
3.30	0.71	0.32	5.00	0.11	0.03	0.14
3.35	0.70	0.32	5.00	0.11	0.03	0.14
3.40	0.70	0.32	5.00	0.11	0.03	0.14
3.45	0.70	0.32	5.00	0.11	0.03	0.14
3.50	0.70	0.32	5.00	0.11	0.03	0.14
3.55	0.70	0.32	5.00	0.11	0.03	0.14
3.60	0.71	0.32	5.00	0.11	0.03	0.14
3.65	0.72	0.32	5.00	0.11	0.03	0.14
3.70	0.74	0.32	5.00	0.11	0.03	0.14
3.75	0.77	0.32	5.00	0.11	0.03	0.14
3.80	0.80	0.32	5.00	0.11	0.03	0.14
3.85	0.85	0.32	5.00	0.11	0.03	0.14
3.90	0.91	0.32	5.00	0.11	0.03	0.14
3.95	1.00	0.32	5.00	0.11	0.03	0.14
4.00	1.12	0.32	5.00	0.11	0.03	0.14
4.05	1.19	0.32	5.00	0.11	0.03	0.14
4.10	1.27	0.32	5.00	0.11	0.03	0.14
4.15	1.37	0.32	5.00	0.11	0.03	0.13
4.20	1.47	0.32	5.00	0.11	0.03	0.13
4.25	1.59	0.32	5.00	0.11	0.03	0.13
4.30	1.73	0.32	5.00	0.11	0.03	0.13
4.35	1.72	0.32	5.00	0.11	0.03	0.13
4.40	1.31	0.32	5.00	0.11	0.03	0.13
4.45	1.37	0.32	5.00	0.11	0.03	0.13
4.50	1.44	0.32	5.00	0.11	0.03	0.13
4.55	1.52	0.32	5.00	0.11	0.03	0.13
4.60	1.61	0.32	5.00	0.11	0.03	0.13
4.65	1.71	0.32	5.00	0.11	0.03	0.13
4.70	1.82	0.32	5.00	0.11	0.03	0.13
4.75	1.94	0.32	5.00	0.11	0.03	0.13
4.80	2.07	0.32	5.00	0.11	0.03	0.13
4.85	2.22	0.32	5.00	0.11	0.03	0.13
4.90	2.40	0.32	5.00	0.11	0.03	0.13
4.95	2.59	0.32	5.00	0.11	0.03	0.13
5.00	2.73	0.32	5.00	0.11	0.03	0.13
5.05	2.67	0.32	5.00	0.11	0.03	0.13
5.10	2.58	0.32	5.00	0.11	0.03	0.13
5.15	2.50	0.32	5.00	0.11	0.03	0.13
5.20	2.41	0.32	5.00	0.11	0.03	0.13
5.25	2.34	0.32	5.00	0.11	0.03	0.13
5.30	2.26	0.32	5.00	0.11	0.03	0.13
5.35	2.19	0.32	5.00	0.11	0.03	0.13
5.40	2.12	0.32	5.00	0.11	0.03	0.13
5.45	2.05	0.32	5.00	0.11	0.03	0.13
5.50	1.98	0.32	5.00	0.11	0.03	0.13
5.55	1.92	0.32	5.00	0.11	0.03	0.13
5.60	1.86	0.32	5.00	0.11	0.03	0.13
5.65	1.80	0.32	5.00	0.11	0.03	0.13
5.70	1.75	0.32	5.00	0.11	0.03	0.13
5.75	1.69	0.32	5.00	0.11	0.03	0.13
5.80	1.64	0.32	5.00	0.11	0.03	0.13
5.85	1.59	0.32	5.00	0.11	0.03	0.13
5.90	1.54	0.32	5.00	0.11	0.03	0.13
5.95	1.49	0.32	5.00	0.11	0.03	0.13
6.00	2.00	0.32	5.00	0.11	0.03	0.13
6.05	2.00	0.32	5.00	0.11	0.03	0.13
6.10	2.00	0.32	5.00	0.11	0.03	0.13
6.15	2.00	0.32	5.00	0.11	0.03	0.13
6.20	2.00	0.32	5.00	0.11	0.03	0.13
6.25	2.00	0.32	5.00	0.11	0.03	0.13
6.30	2.00	0.32	5.00	0.11	0.03	0.13
6.35	2.00	0.32	5.00	0.11	0.03	0.13
6.40	2.00	0.32	5.00	0.11	0.03	0.13
6.45	2.00	0.32	5.00	0.11	0.03	0.13
6.50	2.00	0.32	5.00	0.11	0.03	0.13
6.55	2.00	0.32	5.00	0.11	0.03	0.13
6.60	2.00	0.32	5.00	0.11	0.03	0.13
6.65	2.00	0.32	5.00	0.11	0.03	0.13
6.70	2.00	0.32	5.00	0.11	0.03	0.13
6.75	2.00	0.32	5.00	0.11	0.03	0.13
6.80	2.00	0.32	5.00	0.11	0.03	0.13
6.85	2.00	0.32	5.00	0.11	0.03	0.13

6.90	2.00	0.32	5.00	0.11	0.03	0.13
6.95	2.00	0.32	5.00	0.11	0.03	0.13
7.00	2.00	0.32	5.00	0.11	0.03	0.13
7.05	2.00	0.32	5.00	0.11	0.03	0.13
7.10	2.00	0.32	5.00	0.11	0.03	0.13
7.15	2.00	0.32	5.00	0.11	0.03	0.13
7.20	2.00	0.32	5.00	0.11	0.03	0.13
7.25	2.00	0.32	5.00	0.11	0.03	0.13
7.30	2.00	0.32	5.00	0.11	0.03	0.13
7.35	2.00	0.32	5.00	0.11	0.03	0.13
7.40	2.00	0.32	5.00	0.11	0.03	0.13
7.45	2.00	0.32	5.00	0.11	0.03	0.13
7.50	2.00	0.32	5.00	0.11	0.03	0.13
7.55	2.00	0.32	5.00	0.11	0.03	0.13
7.60	2.00	0.32	5.00	0.11	0.03	0.13
7.65	2.00	0.32	5.00	0.11	0.03	0.13
7.70	2.00	0.32	5.00	0.11	0.03	0.13
7.75	2.00	0.32	5.00	0.11	0.03	0.13
7.80	2.00	0.32	5.00	0.11	0.03	0.13
7.85	2.00	0.32	5.00	0.11	0.03	0.13
7.90	2.00	0.32	5.00	0.11	0.03	0.13
7.95	2.00	0.32	5.00	0.11	0.03	0.13
8.00	2.00	0.32	5.00	0.11	0.03	0.13
8.05	2.00	0.32	5.00	0.11	0.03	0.13
8.10	2.00	0.32	5.00	0.11	0.03	0.13
8.15	2.00	0.32	5.00	0.11	0.03	0.13
8.20	2.00	0.32	5.00	0.11	0.03	0.13
8.25	2.00	0.32	5.00	0.11	0.03	0.13
8.30	2.00	0.32	5.00	0.11	0.03	0.13
8.35	2.00	0.32	5.00	0.11	0.03	0.13
8.40	2.00	0.32	5.00	0.11	0.03	0.13
8.45	2.00	0.32	5.00	0.11	0.03	0.13
8.50	2.00	0.32	5.00	0.11	0.03	0.13
8.55	2.00	0.32	5.00	0.11	0.03	0.13
8.60	2.00	0.32	5.00	0.11	0.03	0.13
8.65	2.00	0.32	5.00	0.11	0.03	0.13
8.70	2.00	0.32	5.00	0.11	0.03	0.13
8.75	2.00	0.32	5.00	0.11	0.03	0.13
8.80	2.00	0.32	5.00	0.11	0.03	0.13
8.85	2.00	0.32	5.00	0.11	0.03	0.13
8.90	2.00	0.32	5.00	0.11	0.03	0.13
8.95	2.00	0.32	5.00	0.11	0.03	0.13
9.00	2.00	0.32	5.00	0.11	0.03	0.13
9.05	2.00	0.32	5.00	0.11	0.03	0.13
9.10	2.00	0.32	5.00	0.11	0.03	0.13
9.15	2.00	0.32	5.00	0.11	0.03	0.13
9.20	2.00	0.32	5.00	0.11	0.03	0.13
9.25	2.00	0.32	5.00	0.11	0.03	0.13
9.30	2.00	0.32	5.00	0.11	0.03	0.13
9.35	2.00	0.32	5.00	0.11	0.03	0.13
9.40	2.00	0.32	5.00	0.11	0.03	0.13
9.45	2.00	0.32	5.00	0.11	0.03	0.13
9.50	2.00	0.32	5.00	0.11	0.03	0.13
9.55	2.00	0.32	5.00	0.11	0.03	0.13
9.60	2.00	0.32	5.00	0.11	0.03	0.13
9.65	2.00	0.32	5.00	0.11	0.03	0.13
9.70	2.00	0.32	5.00	0.11	0.03	0.13
9.75	2.00	0.32	5.00	0.11	0.03	0.13
9.80	2.00	0.32	5.00	0.11	0.03	0.13
9.85	2.00	0.32	5.00	0.11	0.03	0.13
9.90	2.00	0.32	5.00	0.11	0.03	0.13
9.95	2.00	0.32	5.00	0.11	0.03	0.13
10.00	2.00	0.32	5.00	0.11	0.03	0.13
10.05	2.00	0.32	5.00	0.11	0.03	0.13
10.10	2.00	0.32	5.00	0.11	0.03	0.13
10.15	2.00	0.32	5.00	0.11	0.03	0.13
10.20	2.00	0.32	5.00	0.11	0.03	0.13
10.25	2.00	0.32	5.00	0.11	0.03	0.13
10.30	2.00	0.32	5.00	0.11	0.03	0.13
10.35	2.00	0.32	5.00	0.11	0.03	0.13
10.40	2.00	0.32	5.00	0.11	0.03	0.13
10.45	2.00	0.32	5.00	0.11	0.03	0.13
10.50	2.00	0.32	5.00	0.11	0.03	0.13
10.55	2.00	0.32	5.00	0.11	0.03	0.13
10.60	2.00	0.32	5.00	0.11	0.03	0.13

10.65	2.00	0.32	5.00	0.11	0.03	0.13
10.70	2.00	0.32	5.00	0.11	0.03	0.13
10.75	2.00	0.32	5.00	0.11	0.03	0.13
10.80	2.00	0.32	5.00	0.11	0.03	0.13
10.85	2.00	0.32	5.00	0.11	0.03	0.13
10.90	2.00	0.32	5.00	0.11	0.03	0.13
10.95	2.00	0.32	5.00	0.11	0.03	0.13
11.00	2.00	0.32	5.00	0.11	0.03	0.13
11.05	2.00	0.32	5.00	0.11	0.03	0.13
11.10	2.00	0.32	5.00	0.11	0.03	0.13
11.15	2.00	0.32	5.00	0.11	0.03	0.13
11.20	2.00	0.32	5.00	0.11	0.03	0.13
11.25	2.00	0.32	5.00	0.11	0.03	0.13
11.30	2.00	0.32	5.00	0.11	0.03	0.13
11.35	2.00	0.32	5.00	0.11	0.03	0.13
11.40	2.00	0.32	5.00	0.11	0.03	0.13
11.45	2.00	0.32	5.00	0.11	0.03	0.13
11.50	2.00	0.32	5.00	0.11	0.03	0.13
11.55	2.00	0.32	5.00	0.11	0.03	0.13
11.60	2.00	0.32	5.00	0.11	0.03	0.13
11.65	2.00	0.32	5.00	0.11	0.03	0.13
11.70	2.00	0.32	5.00	0.11	0.03	0.13
11.75	2.00	0.32	5.00	0.11	0.03	0.13
11.80	2.00	0.31	5.00	0.11	0.03	0.13
11.85	2.00	0.31	5.00	0.11	0.03	0.13
11.90	2.00	0.31	5.00	0.11	0.03	0.13
11.95	2.00	0.31	5.00	0.11	0.03	0.13
12.00	2.00	0.31	5.00	0.11	0.03	0.13
12.05	2.00	0.31	5.00	0.11	0.03	0.13
12.10	2.00	0.31	5.00	0.11	0.03	0.13
12.15	2.00	0.31	5.00	0.11	0.03	0.13
12.20	2.00	0.31	5.00	0.11	0.03	0.13
12.25	2.00	0.31	5.00	0.11	0.03	0.13
12.30	2.00	0.31	5.00	0.11	0.03	0.13
12.35	2.00	0.31	5.00	0.11	0.03	0.13
12.40	2.00	0.31	5.00	0.11	0.03	0.13
12.45	2.00	0.31	5.00	0.11	0.03	0.13
12.50	2.00	0.31	5.00	0.11	0.03	0.13
12.55	2.00	0.31	5.00	0.11	0.03	0.13
12.60	2.00	0.31	5.00	0.11	0.03	0.13
12.65	2.00	0.31	5.00	0.11	0.03	0.13
12.70	2.00	0.31	5.00	0.11	0.03	0.13
12.75	2.00	0.31	5.00	0.11	0.03	0.13
12.80	2.00	0.31	5.00	0.11	0.03	0.13
12.85	2.00	0.31	5.00	0.11	0.03	0.13
12.90	2.00	0.31	5.00	0.11	0.03	0.13
12.95	2.00	0.31	5.00	0.11	0.03	0.13
13.00	2.00	0.31	5.00	0.11	0.03	0.13
13.05	2.00	0.31	5.00	0.11	0.03	0.13
13.10	2.00	0.31	5.00	0.11	0.03	0.13
13.15	2.00	0.31	5.00	0.11	0.03	0.13
13.20	2.00	0.31	5.00	0.11	0.03	0.13
13.25	2.00	0.31	5.00	0.11	0.03	0.13
13.30	2.00	0.31	5.00	0.11	0.03	0.13
13.35	2.00	0.31	5.00	0.11	0.03	0.13
13.40	2.00	0.31	5.00	0.11	0.03	0.13
13.45	2.00	0.31	5.00	0.11	0.03	0.13
13.50	2.00	0.31	5.00	0.11	0.03	0.13
13.55	2.00	0.31	5.00	0.11	0.03	0.13
13.60	2.00	0.31	5.00	0.11	0.03	0.13
13.65	2.00	0.31	5.00	0.11	0.03	0.13
13.70	2.00	0.31	5.00	0.11	0.03	0.13
13.75	2.00	0.31	5.00	0.11	0.03	0.13
13.80	2.00	0.31	5.00	0.11	0.03	0.13
13.85	2.00	0.31	5.00	0.11	0.03	0.13
13.90	2.00	0.31	5.00	0.11	0.03	0.13
13.95	2.00	0.31	5.00	0.11	0.03	0.13
14.00	2.00	0.31	5.00	0.11	0.03	0.13
14.05	2.00	0.31	5.00	0.11	0.03	0.13
14.10	2.00	0.31	5.00	0.11	0.03	0.13
14.15	2.00	0.31	5.00	0.11	0.03	0.13
14.20	2.00	0.31	5.00	0.11	0.03	0.13
14.25	2.00	0.31	5.00	0.11	0.03	0.13
14.30	2.00	0.31	5.00	0.11	0.03	0.13
14.35	2.00	0.31	5.00	0.11	0.03	0.13

14.40	2.00	0.31	5.00	0.11	0.03	0.13
14.45	2.00	0.31	5.00	0.11	0.03	0.13
14.50	2.00	0.31	5.00	0.11	0.03	0.13
14.55	2.00	0.31	5.00	0.11	0.03	0.13
14.60	2.00	0.31	5.00	0.11	0.03	0.13
14.65	2.00	0.31	5.00	0.11	0.03	0.13
14.70	2.00	0.31	5.00	0.11	0.03	0.13
14.75	2.00	0.31	5.00	0.11	0.03	0.13
14.80	2.00	0.31	5.00	0.11	0.03	0.13
14.85	2.00	0.31	5.00	0.11	0.03	0.13
14.90	2.00	0.31	5.00	0.11	0.03	0.13
14.95	2.00	0.31	5.00	0.11	0.03	0.13
15.00	2.00	0.31	5.00	0.11	0.03	0.13
15.05	2.00	0.31	5.00	0.11	0.03	0.13
15.10	2.00	0.31	5.00	0.11	0.03	0.13
15.15	2.00	0.31	5.00	0.11	0.03	0.13
15.20	2.00	0.31	5.00	0.11	0.03	0.13
15.25	2.00	0.31	5.00	0.11	0.03	0.13
15.30	2.00	0.31	5.00	0.11	0.03	0.13
15.35	2.00	0.31	5.00	0.11	0.03	0.13
15.40	2.00	0.31	5.00	0.11	0.03	0.13
15.45	2.00	0.31	5.00	0.11	0.03	0.13
15.50	2.00	0.31	5.00	0.11	0.03	0.13
15.55	2.00	0.31	5.00	0.11	0.03	0.13
15.60	2.00	0.31	5.00	0.11	0.03	0.13
15.65	2.00	0.31	5.00	0.11	0.03	0.13
15.70	2.00	0.31	5.00	0.11	0.03	0.13
15.75	2.00	0.31	5.00	0.11	0.03	0.13
15.80	2.00	0.31	5.00	0.11	0.03	0.13
15.85	2.00	0.31	5.00	0.11	0.03	0.13
15.90	2.00	0.31	5.00	0.11	0.03	0.13
15.95	2.00	0.31	5.00	0.11	0.03	0.13
16.00	2.00	0.31	5.00	0.11	0.03	0.13
16.05	2.00	0.31	5.00	0.11	0.03	0.13
16.10	2.00	0.31	5.00	0.11	0.03	0.13
16.15	2.00	0.31	5.00	0.11	0.03	0.13
16.20	2.00	0.31	5.00	0.11	0.03	0.13
16.25	2.00	0.31	5.00	0.11	0.03	0.13
16.30	2.00	0.31	5.00	0.11	0.03	0.13
16.35	2.00	0.31	5.00	0.11	0.03	0.13
16.40	2.00	0.31	5.00	0.11	0.03	0.13
16.45	2.00	0.31	5.00	0.11	0.03	0.13
16.50	2.00	0.31	5.00	0.11	0.03	0.13
16.55	2.00	0.31	5.00	0.11	0.03	0.13
16.60	2.00	0.31	5.00	0.11	0.03	0.13
16.65	2.00	0.31	5.00	0.11	0.03	0.13
16.70	2.00	0.31	5.00	0.11	0.03	0.13
16.75	2.00	0.31	5.00	0.11	0.03	0.13
16.80	2.00	0.31	5.00	0.11	0.03	0.13
16.85	2.00	0.31	5.00	0.11	0.03	0.13
16.90	2.00	0.31	5.00	0.11	0.03	0.13
16.95	2.00	0.31	5.00	0.11	0.03	0.13
17.00	2.00	0.31	5.00	0.11	0.03	0.13
17.05	2.00	0.31	5.00	0.11	0.03	0.13
17.10	2.00	0.31	5.00	0.11	0.03	0.13
17.15	2.00	0.31	5.00	0.11	0.03	0.13
17.20	2.00	0.31	5.00	0.11	0.03	0.13
17.25	2.00	0.31	5.00	0.11	0.03	0.13
17.30	2.00	0.31	5.00	0.11	0.03	0.13
17.35	2.00	0.31	5.00	0.11	0.03	0.13
17.40	2.00	0.31	5.00	0.11	0.03	0.13
17.45	2.00	0.31	5.00	0.11	0.03	0.13
17.50	2.00	0.31	5.00	0.11	0.03	0.13
17.55	2.00	0.31	5.00	0.11	0.03	0.13
17.60	2.00	0.31	5.00	0.11	0.03	0.13
17.65	2.00	0.31	5.00	0.11	0.03	0.13
17.70	2.00	0.31	5.00	0.11	0.03	0.13
17.75	2.00	0.31	5.00	0.11	0.03	0.13
17.80	2.00	0.31	5.00	0.11	0.03	0.13
17.85	2.00	0.31	5.00	0.11	0.03	0.13
17.90	2.00	0.31	5.00	0.11	0.03	0.13
17.95	2.00	0.31	5.00	0.11	0.03	0.13
18.00	2.00	0.31	5.00	0.11	0.03	0.13
18.05	2.00	0.31	5.00	0.11	0.03	0.13
18.10	2.00	0.31	5.00	0.11	0.03	0.13

18.15	2.00	0.31	5.00	0.11	0.03	0.13
18.20	2.00	0.31	5.00	0.11	0.03	0.13
18.25	2.00	0.31	5.00	0.11	0.03	0.13
18.30	2.00	0.31	5.00	0.11	0.03	0.13
18.35	2.00	0.31	5.00	0.11	0.03	0.13
18.40	2.00	0.31	5.00	0.11	0.03	0.13
18.45	2.00	0.31	5.00	0.11	0.03	0.13
18.50	2.00	0.31	5.00	0.11	0.03	0.13
18.55	2.00	0.31	5.00	0.11	0.03	0.13
18.60	2.00	0.31	5.00	0.11	0.03	0.13
18.65	2.00	0.31	5.00	0.11	0.03	0.13
18.70	2.00	0.31	5.00	0.11	0.03	0.13
18.75	2.00	0.31	5.00	0.11	0.03	0.13
18.80	2.00	0.31	5.00	0.11	0.03	0.13
18.85	2.00	0.31	5.00	0.11	0.03	0.13
18.90	2.00	0.31	5.00	0.11	0.03	0.13
18.95	2.00	0.31	5.00	0.11	0.03	0.13
19.00	2.00	0.31	5.00	0.11	0.03	0.13
19.05	2.00	0.31	5.00	0.11	0.03	0.13
19.10	2.00	0.31	5.00	0.11	0.03	0.13
19.15	2.00	0.31	5.00	0.11	0.03	0.13
19.20	2.00	0.31	5.00	0.11	0.03	0.13
19.25	2.00	0.31	5.00	0.11	0.03	0.13
19.30	0.37	0.31	5.00	0.11	0.03	0.13
19.35	0.29	0.31	5.00	0.11	0.03	0.13
19.40	0.25	0.31	5.00	0.11	0.03	0.13
19.45	0.23	0.31	5.00	0.11	0.03	0.13
19.50	0.21	0.31	5.00	0.11	0.03	0.13
19.55	0.20	0.31	5.00	0.11	0.02	0.13
19.60	0.20	0.31	5.00	0.11	0.02	0.13
19.65	0.19	0.31	5.00	0.11	0.02	0.13
19.70	0.19	0.31	5.00	0.11	0.02	0.13
19.75	0.19	0.31	5.00	0.11	0.02	0.13
19.80	0.18	0.31	5.00	0.11	0.02	0.12
19.85	0.18	0.31	5.00	0.11	0.02	0.12
19.90	0.18	0.31	5.00	0.11	0.02	0.12
19.95	0.18	0.31	5.00	0.11	0.01	0.12
20.00	0.19	0.31	5.00	0.11	0.01	0.12
20.05	0.19	0.31	5.00	0.11	0.01	0.12
20.10	0.19	0.31	5.00	0.11	0.01	0.12
20.15	0.19	0.31	5.00	0.11	0.01	0.11
20.20	0.19	0.31	5.00	0.11	0.01	0.11
20.25	0.20	0.31	5.00	0.11	0.01	0.11
20.30	0.20	0.31	5.00	0.11	0.01	0.11
20.35	0.20	0.31	5.00	0.11	0.00	0.11
20.40	0.21	0.31	5.00	0.11	0.00	0.11
20.45	0.22	0.31	5.00	0.11	0.00	0.11
20.50	0.23	0.31	5.00	0.11	0.00	0.11
20.55	0.24	0.31	5.00	0.11	0.00	0.11
20.60	0.26	0.31	5.00	0.11	0.00	0.11
20.65	0.29	0.31	5.00	0.11	0.00	0.11
20.70	0.32	0.31	5.00	0.11	0.00	0.11
20.75	0.38	0.31	5.00	0.11	0.00	0.11
20.80	0.47	0.31	5.00	0.11	0.00	0.11
20.85	2.00	0.31	5.00	0.11	0.00	0.11
20.90	2.00	0.31	5.00	0.11	0.00	0.11
20.95	2.00	0.31	5.00	0.11	0.00	0.11
21.00	2.00	0.31	5.00	0.11	0.00	0.11
21.05	2.00	0.31	5.00	0.11	0.00	0.11
21.10	2.00	0.31	5.00	0.11	0.00	0.11
21.15	2.00	0.31	5.00	0.11	0.00	0.11
21.20	2.00	0.31	5.00	0.11	0.00	0.11
21.25	2.00	0.31	5.00	0.11	0.00	0.11
21.30	2.00	0.31	5.00	0.11	0.00	0.11
21.35	2.00	0.31	5.00	0.11	0.00	0.11
21.40	2.00	0.31	5.00	0.11	0.00	0.11
21.45	2.00	0.31	5.00	0.11	0.00	0.11
21.50	2.00	0.31	5.00	0.11	0.00	0.11
21.55	2.00	0.31	5.00	0.11	0.00	0.11
21.60	2.00	0.31	5.00	0.11	0.00	0.11
21.65	2.00	0.31	5.00	0.11	0.00	0.11
21.70	2.00	0.31	5.00	0.11	0.00	0.11
21.75	2.00	0.31	5.00	0.11	0.00	0.11
21.80	2.00	0.31	5.00	0.11	0.00	0.11
21.85	2.00	0.31	5.00	0.11	0.00	0.11

21.90	2.00	0.31	5.00	0.11	0.00	0.11
21.95	2.00	0.31	5.00	0.11	0.00	0.11
22.00	2.00	0.31	5.00	0.11	0.00	0.11
22.05	2.00	0.31	5.00	0.11	0.00	0.11
22.10	2.00	0.31	5.00	0.11	0.00	0.11
22.15	2.00	0.32	5.00	0.11	0.00	0.11
22.20	2.00	0.32	5.00	0.11	0.00	0.11
22.25	2.00	0.32	5.00	0.11	0.00	0.11
22.30	2.00	0.32	5.00	0.11	0.00	0.11
22.35	2.00	0.32	5.00	0.11	0.00	0.11
22.40	2.00	0.32	5.00	0.11	0.00	0.11
22.45	2.00	0.32	5.00	0.11	0.00	0.11
22.50	2.00	0.32	5.00	0.11	0.00	0.11
22.55	2.00	0.32	5.00	0.11	0.00	0.11
22.60	2.00	0.32	5.00	0.11	0.00	0.11
22.65	2.00	0.32	5.00	0.11	0.00	0.11
22.70	2.00	0.32	5.00	0.11	0.00	0.11
22.75	2.00	0.32	5.00	0.11	0.00	0.11
22.80	2.00	0.32	5.00	0.11	0.00	0.11
22.85	2.00	0.32	5.00	0.11	0.00	0.11
22.90	2.00	0.32	5.00	0.11	0.00	0.11
22.95	2.00	0.32	5.00	0.11	0.00	0.11
23.00	2.00	0.32	5.00	0.11	0.00	0.11
23.05	2.00	0.32	5.00	0.11	0.00	0.11
23.10	2.00	0.32	5.00	0.11	0.00	0.11
23.15	2.00	0.32	5.00	0.11	0.00	0.11
23.20	2.00	0.32	5.00	0.11	0.00	0.11
23.25	2.00	0.32	5.00	0.11	0.00	0.11
23.30	2.00	0.32	5.00	0.11	0.00	0.11
23.35	2.00	0.32	5.00	0.11	0.00	0.11
23.40	2.00	0.32	5.00	0.11	0.00	0.11
23.45	2.00	0.32	5.00	0.11	0.00	0.11
23.50	2.00	0.32	5.00	0.11	0.00	0.11
23.55	2.00	0.32	5.00	0.11	0.00	0.11
23.60	2.00	0.32	5.00	0.11	0.00	0.11
23.65	2.00	0.32	5.00	0.11	0.00	0.11
23.70	2.00	0.32	5.00	0.11	0.00	0.11
23.75	2.00	0.33	5.00	0.11	0.00	0.11
23.80	2.00	0.33	5.00	0.11	0.00	0.11
23.85	2.00	0.33	5.00	0.11	0.00	0.11
23.90	2.00	0.33	5.00	0.11	0.00	0.11
23.95	2.00	0.33	5.00	0.11	0.00	0.11
24.00	2.00	0.33	5.00	0.11	0.00	0.11
24.05	2.00	0.33	5.00	0.11	0.00	0.11
24.10	2.00	0.33	5.00	0.11	0.00	0.11
24.15	2.00	0.33	5.00	0.11	0.00	0.11
24.20	2.00	0.33	5.00	0.11	0.00	0.11
24.25	2.00	0.33	5.00	0.11	0.00	0.11
24.30	2.00	0.33	5.00	0.11	0.00	0.11
24.35	2.00	0.33	5.00	0.11	0.00	0.11
24.40	2.00	0.33	5.00	0.11	0.00	0.11
24.45	2.00	0.33	5.00	0.11	0.00	0.11
24.50	2.00	0.33	5.00	0.11	0.00	0.11
24.55	2.00	0.33	5.00	0.11	0.00	0.11
24.60	2.00	0.33	5.00	0.11	0.00	0.11
24.65	2.00	0.33	5.00	0.11	0.00	0.11
24.70	2.00	0.33	5.00	0.11	0.00	0.11
24.75	2.00	0.33	5.00	0.11	0.00	0.11
24.80	2.00	0.33	5.00	0.11	0.00	0.11
24.85	2.00	0.33	5.00	0.11	0.00	0.11
24.90	2.00	0.33	5.00	0.11	0.00	0.11
24.95	2.00	0.33	5.00	0.11	0.00	0.11
25.00	2.00	0.33	5.00	0.11	0.00	0.11
25.05	2.00	0.33	5.00	0.11	0.00	0.11
25.10	2.00	0.33	5.00	0.11	0.00	0.11
25.15	2.00	0.33	5.00	0.11	0.00	0.11
25.20	2.00	0.33	5.00	0.11	0.00	0.11
25.25	2.00	0.33	5.00	0.11	0.00	0.11
25.30	2.00	0.33	5.00	0.11	0.00	0.11
25.35	2.00	0.33	5.00	0.11	0.00	0.11
25.40	2.00	0.33	5.00	0.11	0.00	0.11
25.45	2.00	0.33	5.00	0.11	0.00	0.11
25.50	2.00	0.34	5.00	0.11	0.00	0.11
25.55	2.00	0.34	5.00	0.11	0.00	0.11
25.60	2.00	0.34	5.00	0.11	0.00	0.11

25.65	2.00	0.34	5.00	0.11	0.00	0.11
25.70	2.00	0.34	5.00	0.11	0.00	0.11
25.75	2.00	0.34	5.00	0.11	0.00	0.11
25.80	2.00	0.34	5.00	0.11	0.00	0.11
25.85	2.00	0.34	5.00	0.11	0.00	0.11
25.90	2.00	0.34	5.00	0.11	0.00	0.11
25.95	2.00	0.34	5.00	0.11	0.00	0.11
26.00	2.00	0.34	5.00	0.11	0.00	0.11
26.05	2.00	0.34	5.00	0.11	0.00	0.11
26.10	2.00	0.34	5.00	0.11	0.00	0.11
26.15	2.00	0.34	5.00	0.11	0.00	0.11
26.20	2.00	0.34	5.00	0.11	0.00	0.11
26.25	2.00	0.34	5.00	0.11	0.00	0.11
26.30	2.00	0.34	5.00	0.11	0.00	0.11
26.35	2.00	0.34	5.00	0.11	0.00	0.11
26.40	2.00	0.34	5.00	0.11	0.00	0.11
26.45	2.00	0.34	5.00	0.11	0.00	0.11
26.50	2.00	0.34	5.00	0.11	0.00	0.11
26.55	2.00	0.34	5.00	0.11	0.00	0.11
26.60	2.00	0.34	5.00	0.11	0.00	0.11
26.65	2.00	0.34	5.00	0.11	0.00	0.11
26.70	2.00	0.34	5.00	0.11	0.00	0.11
26.75	2.00	0.34	5.00	0.11	0.00	0.11
26.80	2.00	0.34	5.00	0.11	0.00	0.11
26.85	2.00	0.34	5.00	0.11	0.00	0.11
26.90	2.00	0.34	5.00	0.11	0.00	0.11
26.95	2.00	0.34	5.00	0.11	0.00	0.11
27.00	2.00	0.34	5.00	0.11	0.00	0.11
27.05	2.00	0.34	5.00	0.11	0.00	0.11
27.10	2.00	0.34	5.00	0.11	0.00	0.11
27.15	2.00	0.34	5.00	0.11	0.00	0.11
27.20	2.00	0.34	5.00	0.11	0.00	0.11
27.25	2.00	0.34	5.00	0.11	0.00	0.11
27.30	2.00	0.34	5.00	0.11	0.00	0.11
27.35	2.00	0.34	5.00	0.11	0.00	0.11
27.40	2.00	0.34	5.00	0.11	0.00	0.11
27.45	2.00	0.34	5.00	0.11	0.00	0.11
27.50	2.00	0.35	5.00	0.11	0.00	0.11
27.55	2.00	0.35	5.00	0.11	0.00	0.11
27.60	2.00	0.35	5.00	0.11	0.00	0.11
27.65	2.00	0.35	5.00	0.11	0.00	0.11
27.70	2.00	0.35	5.00	0.11	0.00	0.11
27.75	2.00	0.35	5.00	0.11	0.00	0.11
27.80	2.00	0.35	5.00	0.11	0.00	0.11
27.85	2.00	0.35	5.00	0.11	0.00	0.11
27.90	2.00	0.35	5.00	0.11	0.00	0.11
27.95	2.00	0.35	5.00	0.11	0.00	0.11
28.00	2.00	0.35	5.00	0.11	0.00	0.11
28.05	2.00	0.35	5.00	0.11	0.00	0.11
28.10	2.00	0.35	5.00	0.11	0.00	0.11
28.15	2.00	0.35	5.00	0.11	0.00	0.11
28.20	2.00	0.35	5.00	0.11	0.00	0.11
28.25	2.00	0.35	5.00	0.11	0.00	0.11
28.30	2.00	0.35	5.00	0.11	0.00	0.11
28.35	2.00	0.35	5.00	0.11	0.00	0.11
28.40	2.00	0.35	5.00	0.11	0.00	0.11
28.45	2.00	0.35	5.00	0.11	0.00	0.11
28.50	2.00	0.35	5.00	0.11	0.00	0.11
28.55	2.00	0.35	5.00	0.11	0.00	0.11
28.60	2.00	0.35	5.00	0.11	0.00	0.11
28.65	2.00	0.35	5.00	0.11	0.00	0.11
28.70	2.00	0.35	5.00	0.11	0.00	0.11
28.75	2.00	0.35	5.00	0.11	0.00	0.11
28.80	2.00	0.35	5.00	0.11	0.00	0.11
28.85	2.00	0.35	5.00	0.11	0.00	0.11
28.90	2.00	0.35	5.00	0.11	0.00	0.11
28.95	2.00	0.35	5.00	0.11	0.00	0.11
29.00	2.00	0.35	5.00	0.11	0.00	0.11
29.05	2.00	0.35	5.00	0.11	0.00	0.11
29.10	2.00	0.35	5.00	0.11	0.00	0.11
29.15	2.00	0.35	5.00	0.11	0.00	0.11
29.20	2.00	0.35	5.00	0.11	0.00	0.11
29.25	2.00	0.35	5.00	0.11	0.00	0.11
29.30	2.00	0.35	5.00	0.11	0.00	0.11
29.35	2.00	0.35	5.00	0.11	0.00	0.11

29.40	2.00	0.35	5.00	0.11	0.00	0.11
29.45	2.00	0.35	5.00	0.11	0.00	0.11
29.50	2.00	0.35	5.00	0.11	0.00	0.11
29.55	2.00	0.35	5.00	0.11	0.00	0.11
29.60	2.00	0.35	5.00	0.11	0.00	0.11
29.65	2.00	0.36	5.00	0.11	0.00	0.11
29.70	2.00	0.36	5.00	0.11	0.00	0.11
29.75	2.00	0.36	5.00	0.11	0.00	0.11
29.80	2.00	0.36	5.00	0.11	0.00	0.11
29.85	2.00	0.36	5.00	0.11	0.00	0.11
29.90	2.00	0.36	5.00	0.11	0.00	0.11
29.95	2.00	0.36	5.00	0.11	0.00	0.11
30.00	2.00	0.36	5.00	0.11	0.00	0.11
30.05	2.00	0.36	5.00	0.11	0.00	0.11
30.10	2.00	0.36	5.00	0.11	0.00	0.11
30.15	2.00	0.36	5.00	0.11	0.00	0.11
30.20	2.00	0.36	5.00	0.11	0.00	0.11
30.25	2.00	0.36	5.00	0.11	0.00	0.11
30.30	2.00	0.36	5.00	0.11	0.00	0.11
30.35	2.00	0.36	5.00	0.11	0.00	0.11
30.40	2.00	0.36	5.00	0.11	0.00	0.11
30.45	2.00	0.36	5.00	0.11	0.00	0.11
30.50	2.00	0.36	5.00	0.11	0.00	0.11
30.55	2.00	0.36	5.00	0.11	0.00	0.11
30.60	2.00	0.36	5.00	0.11	0.00	0.11
30.65	2.00	0.36	5.00	0.11	0.00	0.11
30.70	2.00	0.36	5.00	0.11	0.00	0.11
30.75	2.00	0.36	5.00	0.11	0.00	0.11
30.80	2.00	0.36	5.00	0.11	0.00	0.11
30.85	2.00	0.36	5.00	0.11	0.00	0.11
30.90	2.00	0.36	5.00	0.11	0.00	0.11
30.95	2.00	0.36	5.00	0.11	0.00	0.11
31.00	2.00	0.36	5.00	0.11	0.00	0.11
31.05	2.00	0.36	5.00	0.11	0.00	0.11
31.10	2.00	0.36	5.00	0.11	0.00	0.11
31.15	2.00	0.36	5.00	0.11	0.00	0.11
31.20	2.00	0.36	5.00	0.11	0.00	0.11
31.25	2.00	0.36	5.00	0.11	0.00	0.11
31.30	2.00	0.36	5.00	0.11	0.00	0.11
31.35	2.00	0.36	5.00	0.11	0.00	0.11
31.40	2.00	0.36	5.00	0.11	0.00	0.11
31.45	2.00	0.36	5.00	0.11	0.00	0.11
31.50	2.00	0.36	5.00	0.11	0.00	0.11
31.55	2.00	0.36	5.00	0.11	0.00	0.11
31.60	2.00	0.36	5.00	0.11	0.00	0.11
31.65	2.00	0.36	5.00	0.11	0.00	0.11
31.70	2.00	0.36	5.00	0.11	0.00	0.11
31.75	2.00	0.36	5.00	0.11	0.00	0.11
31.80	2.00	0.36	5.00	0.11	0.00	0.11
31.85	2.00	0.36	5.00	0.11	0.00	0.11
31.90	2.00	0.36	5.00	0.11	0.00	0.11
31.95	2.00	0.36	5.00	0.11	0.00	0.11
32.00	2.00	0.36	5.00	0.11	0.00	0.11
32.05	2.00	0.36	5.00	0.11	0.00	0.11
32.10	2.00	0.36	5.00	0.11	0.00	0.11
32.15	2.00	0.36	5.00	0.11	0.00	0.11
32.20	2.00	0.36	5.00	0.11	0.00	0.11
32.25	2.00	0.36	5.00	0.11	0.00	0.11
32.30	2.00	0.36	5.00	0.11	0.00	0.11
32.35	2.00	0.36	5.00	0.11	0.00	0.11
32.40	2.00	0.36	5.00	0.11	0.00	0.11
32.45	2.00	0.36	5.00	0.11	0.00	0.11
32.50	2.00	0.36	5.00	0.11	0.00	0.11
32.55	2.00	0.36	5.00	0.11	0.00	0.11
32.60	2.00	0.36	5.00	0.11	0.00	0.11
32.65	2.00	0.36	5.00	0.11	0.00	0.11
32.70	2.00	0.36	5.00	0.11	0.00	0.11
32.75	2.00	0.36	5.00	0.11	0.00	0.11
32.80	2.00	0.36	5.00	0.11	0.00	0.11
32.85	2.00	0.36	5.00	0.11	0.00	0.11
32.90	2.00	0.36	5.00	0.11	0.00	0.11
32.95	2.00	0.36	5.00	0.11	0.00	0.11
33.00	2.00	0.36	5.00	0.11	0.00	0.11
33.05	2.00	0.36	5.00	0.11	0.00	0.11
33.10	2.00	0.36	5.00	0.11	0.00	0.11

33.15	2.00	0.36	5.00	0.11	0.00	0.11
33.20	2.00	0.36	5.00	0.11	0.00	0.11
33.25	2.00	0.36	5.00	0.11	0.00	0.11
33.30	2.00	0.36	5.00	0.11	0.00	0.11
33.35	2.00	0.36	5.00	0.11	0.00	0.11
33.40	2.00	0.36	5.00	0.11	0.00	0.11
33.45	2.00	0.36	5.00	0.11	0.00	0.11
33.50	2.00	0.36	5.00	0.11	0.00	0.11
33.55	2.00	0.36	5.00	0.11	0.00	0.11
33.60	2.00	0.36	5.00	0.11	0.00	0.11
33.65	2.00	0.36	5.00	0.11	0.00	0.11
33.70	2.00	0.36	5.00	0.11	0.00	0.11
33.75	2.00	0.36	5.00	0.11	0.00	0.11
33.80	2.00	0.36	5.00	0.11	0.00	0.11
33.85	2.00	0.36	5.00	0.11	0.00	0.11
33.90	2.00	0.36	5.00	0.11	0.00	0.11
33.95	2.00	0.36	5.00	0.11	0.00	0.11
34.00	2.00	0.36	5.00	0.11	0.00	0.11
34.05	0.39	0.36	1.06	0.11	0.00	0.11
34.10	0.35	0.36	0.95*	0.11	0.00	0.11
34.15	0.32	0.36	0.88*	0.11	0.00	0.11
34.20	0.30	0.36	0.84*	0.11	0.00	0.11
34.25	0.29	0.36	0.81*	0.11	0.00	0.11
34.30	0.29	0.36	0.79*	0.11	0.00	0.11
34.35	0.28	0.36	0.78*	0.11	0.00	0.11
34.40	0.28	0.36	0.78*	0.10	0.00	0.10
34.45	0.28	0.36	0.78*	0.10	0.00	0.10
34.50	0.28	0.36	0.78*	0.10	0.00	0.10
34.55	0.29	0.36	0.79*	0.10	0.00	0.10
34.60	0.29	0.36	0.80*	0.10	0.00	0.10
34.65	0.29	0.36	0.81*	0.10	0.00	0.10
34.70	0.30	0.36	0.82*	0.10	0.00	0.10
34.75	0.30	0.36	0.84*	0.10	0.00	0.10
34.80	0.31	0.36	0.85*	0.10	0.00	0.10
34.85	0.32	0.36	0.87*	0.10	0.00	0.10
34.90	0.32	0.36	0.89*	0.10	0.00	0.10
34.95	0.33	0.36	0.91*	0.10	0.00	0.10
35.00	0.34	0.36	0.93*	0.10	0.00	0.10
35.05	0.34	0.36	0.92*	0.09	0.00	0.09
35.10	0.33	0.36	0.92*	0.09	0.00	0.09
35.15	0.33	0.36	0.91*	0.09	0.00	0.09
35.20	0.33	0.36	0.90*	0.09	0.00	0.09
35.25	0.33	0.36	0.90*	0.09	0.00	0.09
35.30	0.32	0.36	0.89*	0.09	0.00	0.09
35.35	0.32	0.36	0.89*	0.09	0.00	0.09
35.40	0.32	0.36	0.88*	0.09	0.00	0.09
35.45	0.32	0.36	0.88*	0.09	0.00	0.09
35.50	0.32	0.36	0.87*	0.09	0.00	0.09
35.55	0.32	0.36	0.87*	0.09	0.00	0.09
35.60	0.31	0.36	0.87*	0.09	0.00	0.09
35.65	0.31	0.36	0.86*	0.08	0.00	0.08
35.70	0.31	0.36	0.86*	0.08	0.00	0.08
35.75	0.31	0.36	0.85*	0.08	0.00	0.08
35.80	0.31	0.36	0.85*	0.08	0.00	0.08
35.85	0.31	0.36	0.85*	0.08	0.00	0.08
35.90	0.31	0.36	0.84*	0.08	0.00	0.08
35.95	0.31	0.36	0.84*	0.08	0.00	0.08
36.00	0.30	0.36	0.84*	0.07	0.00	0.07
36.05	0.32	0.36	0.88*	0.07	0.00	0.07
36.10	0.34	0.36	0.93*	0.07	0.00	0.07
36.15	0.35	0.36	0.97*	0.07	0.00	0.07
36.20	0.37	0.36	1.02	0.07	0.00	0.07
36.25	0.39	0.36	1.07	0.07	0.00	0.07
36.30	0.41	0.36	1.13	0.07	0.00	0.07
36.35	0.43	0.36	1.18	0.07	0.00	0.07
36.40	0.45	0.36	1.24	0.07	0.00	0.07
36.45	0.47	0.36	1.29	0.07	0.00	0.07
36.50	0.49	0.36	1.35	0.07	0.00	0.07
36.55	0.52	0.36	1.41	0.07	0.00	0.07
36.60	0.54	0.36	1.48	0.07	0.00	0.07
36.65	0.56	0.36	1.54	0.07	0.00	0.07
36.70	0.59	0.36	1.61	0.07	0.00	0.07
36.75	0.61	0.36	1.68	0.07	0.00	0.07
36.80	0.64	0.36	1.75	0.07	0.00	0.07
36.85	0.66	0.36	1.82	0.07	0.00	0.07

36.90	0.69	0.36	1.89	0.07	0.00	0.07
36.95	0.72	0.36	1.96	0.07	0.00	0.07
37.00	0.74	0.36	2.04	0.07	0.00	0.07
37.05	0.79	0.36	2.16	0.07	0.00	0.07
37.10	0.83	0.36	2.29	0.07	0.00	0.07
37.15	0.88	0.36	2.41	0.07	0.00	0.07
37.20	0.93	0.36	2.55	0.07	0.00	0.07
37.25	0.98	0.36	2.68	0.07	0.00	0.07
37.30	1.03	0.36	2.82	0.07	0.00	0.07
37.35	1.08	0.36	2.97	0.07	0.00	0.07
37.40	1.14	0.36	3.12	0.07	0.00	0.07
37.45	1.19	0.36	3.27	0.07	0.00	0.07
37.50	1.25	0.36	3.43	0.07	0.00	0.07
37.55	1.31	0.36	3.59	0.07	0.00	0.07
37.60	1.37	0.36	3.76	0.07	0.00	0.07
37.65	1.43	0.36	3.93	0.07	0.00	0.07
37.70	1.50	0.36	4.11	0.07	0.00	0.07
37.75	1.56	0.36	4.29	0.07	0.00	0.07
37.80	1.63	0.36	4.48	0.07	0.00	0.07
37.85	1.70	0.36	4.67	0.07	0.00	0.07
37.90	1.77	0.36	4.86	0.07	0.00	0.07
37.95	1.85	0.36	5.00	0.07	0.00	0.07
38.00	1.92	0.36	5.00	0.07	0.00	0.07
38.05	1.85	0.36	5.00	0.07	0.00	0.07
38.10	1.79	0.36	4.90	0.07	0.00	0.07
38.15	1.73	0.36	4.73	0.07	0.00	0.07
38.20	1.66	0.36	4.56	0.07	0.00	0.07
38.25	1.60	0.36	4.40	0.07	0.00	0.07
38.30	1.55	0.36	4.24	0.07	0.00	0.07
38.35	1.49	0.36	4.09	0.07	0.00	0.07
38.40	1.44	0.36	3.94	0.07	0.00	0.07
38.45	1.39	0.36	3.80	0.07	0.00	0.07
38.50	1.34	0.36	3.66	0.07	0.00	0.07
38.55	1.29	0.36	3.53	0.07	0.00	0.07
38.60	1.24	0.36	3.40	0.07	0.00	0.07
38.65	1.20	0.36	3.28	0.07	0.00	0.07
38.70	1.15	0.36	3.16	0.07	0.00	0.07
38.75	1.11	0.36	3.05	0.07	0.00	0.07
38.80	1.07	0.36	2.94	0.07	0.00	0.07
38.85	1.03	0.36	2.83	0.07	0.00	0.07
38.90	1.00	0.36	2.74	0.07	0.00	0.07
38.95	0.96	0.36	2.64	0.07	0.00	0.07
39.00	0.93	0.36	2.55	0.07	0.00	0.07
39.05	0.96	0.36	2.64	0.07	0.00	0.07
39.10	1.00	0.36	2.74	0.07	0.00	0.07
39.15	1.03	0.36	2.84	0.07	0.00	0.07
39.20	1.07	0.36	2.94	0.07	0.00	0.07
39.25	1.11	0.36	3.05	0.07	0.00	0.07
39.30	1.15	0.36	3.16	0.07	0.00	0.07
39.35	1.19	0.36	3.28	0.07	0.00	0.07
39.40	1.24	0.36	3.40	0.07	0.00	0.07
39.45	1.28	0.36	3.52	0.07	0.00	0.07
39.50	1.33	0.36	3.65	0.07	0.00	0.07
39.55	1.38	0.36	3.78	0.07	0.00	0.07
39.60	1.43	0.36	3.92	0.07	0.00	0.07
39.65	1.48	0.36	4.06	0.07	0.00	0.07
39.70	1.54	0.36	4.21	0.07	0.00	0.07
39.75	1.59	0.36	4.36	0.07	0.00	0.07
39.80	1.65	0.36	4.52	0.07	0.00	0.07
39.85	1.71	0.36	4.68	0.07	0.00	0.07
39.90	1.77	0.36	4.84	0.07	0.00	0.07
39.95	1.83	0.36	5.00	0.07	0.00	0.07
40.00	1.89	0.36	5.00	0.07	0.00	0.07
40.05	1.84	0.36	5.00	0.07	0.00	0.07
40.10	1.80	0.36	4.93	0.07	0.00	0.07
40.15	1.75	0.36	4.80	0.07	0.00	0.07
40.20	1.71	0.36	4.68	0.07	0.00	0.07
40.25	1.66	0.36	4.57	0.07	0.00	0.07
40.30	1.62	0.36	4.45	0.07	0.00	0.07
40.35	1.58	0.36	4.34	0.07	0.00	0.07
40.40	1.54	0.36	4.23	0.07	0.00	0.07
40.45	1.50	0.36	4.12	0.07	0.00	0.07
40.50	1.46	0.36	4.01	0.07	0.00	0.07
40.55	1.43	0.36	3.91	0.07	0.00	0.07
40.60	1.39	0.36	3.81	0.07	0.00	0.07

40.65	1.35	0.36	3.71	0.07	0.00	0.07
40.70	1.32	0.36	3.61	0.07	0.00	0.07
40.75	1.28	0.36	3.52	0.07	0.00	0.07
40.80	1.25	0.36	3.43	0.07	0.00	0.07
40.85	1.22	0.36	3.34	0.07	0.00	0.07
40.90	1.18	0.36	3.25	0.07	0.00	0.07
40.95	1.15	0.36	3.16	0.07	0.00	0.07
41.00	1.12	0.36	3.07	0.07	0.00	0.07
41.05	1.14	0.36	3.12	0.07	0.00	0.07
41.10	1.15	0.36	3.17	0.07	0.00	0.07
41.15	1.17	0.36	3.22	0.07	0.00	0.07
41.20	1.19	0.36	3.26	0.07	0.00	0.07
41.25	1.21	0.36	3.31	0.07	0.00	0.07
41.30	1.23	0.36	3.36	0.07	0.00	0.07
41.35	1.24	0.36	3.41	0.07	0.00	0.07
41.40	1.26	0.36	3.46	0.07	0.00	0.07
41.45	1.28	0.36	3.51	0.07	0.00	0.07
41.50	1.30	0.36	3.56	0.07	0.00	0.07
41.55	1.32	0.36	3.62	0.07	0.00	0.07
41.60	1.34	0.36	3.67	0.07	0.00	0.07
41.65	1.35	0.36	3.72	0.07	0.00	0.07
41.70	1.37	0.36	3.77	0.07	0.00	0.07
41.75	1.39	0.36	3.82	0.07	0.00	0.07
41.80	1.41	0.36	3.88	0.07	0.00	0.07
41.85	1.43	0.36	3.93	0.07	0.00	0.07
41.90	1.45	0.36	3.99	0.07	0.00	0.07
41.95	1.47	0.36	4.04	0.07	0.00	0.07
42.00	1.49	0.36	4.10	0.07	0.00	0.07
42.05	1.47	0.36	4.05	0.07	0.00	0.07
42.10	1.46	0.36	4.01	0.07	0.00	0.07
42.15	1.44	0.36	3.97	0.07	0.00	0.07
42.20	1.43	0.36	3.93	0.07	0.00	0.07
42.25	1.41	0.36	3.89	0.07	0.00	0.07
42.30	1.40	0.36	3.85	0.07	0.00	0.07
42.35	1.39	0.36	3.81	0.07	0.00	0.07
42.40	1.37	0.36	3.77	0.07	0.00	0.07
42.45	1.36	0.36	3.74	0.07	0.00	0.07
42.50	1.35	0.36	3.70	0.07	0.00	0.07
42.55	1.33	0.36	3.67	0.07	0.00	0.07
42.60	1.32	0.36	3.64	0.07	0.00	0.07
42.65	1.31	0.36	3.61	0.07	0.00	0.07
42.70	1.30	0.36	3.58	0.07	0.00	0.07
42.75	1.29	0.36	3.55	0.07	0.00	0.07
42.80	1.28	0.36	3.53	0.07	0.00	0.07
42.85	1.27	0.36	3.50	0.07	0.00	0.07
42.90	1.27	0.36	3.48	0.07	0.00	0.07
42.95	1.26	0.36	3.46	0.07	0.00	0.07
43.00	1.25	0.36	3.44	0.07	0.00	0.07
43.05	1.21	0.36	3.34	0.07	0.00	0.07
43.10	1.18	0.36	3.23	0.07	0.00	0.07
43.15	1.14	0.36	3.13	0.07	0.00	0.07
43.20	1.10	0.36	3.04	0.07	0.00	0.07
43.25	1.07	0.36	2.94	0.07	0.00	0.07
43.30	1.03	0.36	2.85	0.07	0.00	0.07
43.35	1.00	0.36	2.76	0.07	0.00	0.07
43.40	0.97	0.36	2.67	0.07	0.00	0.07
43.45	0.94	0.36	2.58	0.07	0.00	0.07
43.50	0.91	0.36	2.50	0.07	0.00	0.07
43.55	0.88	0.36	2.42	0.07	0.00	0.07
43.60	0.85	0.36	2.34	0.07	0.00	0.07
43.65	0.82	0.36	2.26	0.07	0.00	0.07
43.70	0.79	0.36	2.18	0.07	0.00	0.07
43.75	0.76	0.36	2.11	0.07	0.00	0.07
43.80	0.74	0.36	2.03	0.07	0.00	0.07
43.85	0.71	0.36	1.96	0.07	0.00	0.07
43.90	0.69	0.36	1.89	0.07	0.00	0.07
43.95	0.66	0.36	1.83	0.07	0.00	0.07
44.00	0.64	0.36	1.76	0.07	0.00	0.07
44.05	0.62	0.36	1.71	0.07	0.00	0.07
44.10	0.60	0.36	1.66	0.07	0.00	0.07
44.15	0.58	0.36	1.61	0.07	0.00	0.07
44.20	0.57	0.36	1.57	0.07	0.00	0.07
44.25	0.55	0.36	1.53	0.07	0.00	0.07
44.30	0.54	0.36	1.49	0.07	0.00	0.07
44.35	0.53	0.36	1.46	0.07	0.00	0.07

44.40	0.52	0.36	1.44	0.07	0.00	0.07
44.45	0.51	0.36	1.42	0.07	0.00	0.07
44.50	0.51	0.36	1.40	0.07	0.00	0.07
44.55	0.51	0.36	1.39	0.07	0.00	0.07
44.60	0.51	0.36	1.40	0.07	0.00	0.07
44.65	0.51	0.36	1.41	0.07	0.00	0.07
44.70	0.52	0.36	1.45	0.07	0.00	0.07
44.75	0.54	0.36	1.50	0.07	0.00	0.07
44.80	0.58	0.36	1.59	0.07	0.00	0.07
44.85	0.63	0.36	1.74	0.07	0.00	0.07
44.90	0.72	0.36	1.99	0.07	0.00	0.07
44.95	0.87	0.36	2.42	0.07	0.00	0.07
45.00	2.00	0.36	5.00	0.07	0.00	0.07
45.05	0.82	0.36	2.27	0.07	0.00	0.07
45.10	0.68	0.36	1.87	0.07	0.00	0.07
45.15	0.61	0.36	1.70	0.07	0.00	0.07
45.20	0.59	0.36	1.62	0.07	0.00	0.07
45.25	0.58	0.36	1.60	0.07	0.00	0.07
45.30	0.58	0.36	1.61	0.07	0.00	0.07
45.35	0.60	0.36	1.65	0.07	0.00	0.07
45.40	0.62	0.36	1.71	0.07	0.00	0.07
45.45	0.64	0.36	1.78	0.07	0.00	0.07
45.50	0.67	0.36	1.86	0.07	0.00	0.07
45.55	0.71	0.36	1.95	0.07	0.00	0.07
45.60	0.74	0.36	2.06	0.07	0.00	0.07
45.65	0.79	0.36	2.17	0.07	0.00	0.07
45.70	0.83	0.36	2.30	0.07	0.00	0.07
45.75	0.88	0.36	2.43	0.07	0.00	0.07
45.80	0.93	0.36	2.58	0.07	0.00	0.07
45.85	0.99	0.36	2.73	0.07	0.00	0.07
45.90	1.04	0.36	2.90	0.07	0.00	0.07
45.95	1.11	0.36	3.07	0.07	0.00	0.07
46.00	1.17	0.36	3.25	0.07	0.00	0.07
46.05	1.13	0.36	3.12	0.07	0.00	0.07
46.10	1.08	0.36	2.99	0.07	0.00	0.07
46.15	1.04	0.36	2.87	0.07	0.00	0.07
46.20	0.99	0.36	2.76	0.07	0.00	0.07
46.25	0.95	0.36	2.65	0.07	0.00	0.07
46.30	0.92	0.36	2.54	0.07	0.00	0.07
46.35	0.88	0.36	2.44	0.07	0.00	0.07
46.40	0.85	0.36	2.35	0.07	0.00	0.07
46.45	0.81	0.36	2.26	0.07	0.00	0.07
46.50	0.78	0.36	2.18	0.07	0.00	0.07
46.55	0.76	0.36	2.10	0.07	0.00	0.07
46.60	0.73	0.36	2.03	0.07	0.00	0.07
46.65	0.71	0.36	1.96	0.07	0.00	0.07
46.70	0.69	0.36	1.91	0.07	0.00	0.07
46.75	0.67	0.36	1.86	0.07	0.00	0.07
46.80	0.65	0.36	1.81	0.07	0.00	0.07
46.85	0.64	0.36	1.78	0.07	0.00	0.07
46.90	0.63	0.36	1.76	0.07	0.00	0.07
46.95	0.63	0.36	1.75	0.07	0.00	0.07
47.00	0.63	0.36	1.76	0.07	0.00	0.07
47.05	0.65	0.36	1.81	0.07	0.00	0.07
47.10	0.67	0.36	1.87	0.07	0.00	0.07
47.15	0.69	0.36	1.93	0.07	0.00	0.07
47.20	0.71	0.36	1.99	0.07	0.00	0.07
47.25	0.74	0.36	2.05	0.07	0.00	0.07
47.30	0.76	0.36	2.11	0.07	0.00	0.07
47.35	0.78	0.36	2.18	0.07	0.00	0.07
47.40	0.81	0.36	2.26	0.07	0.00	0.07
47.45	0.84	0.36	2.34	0.07	0.00	0.07
47.50	0.87	0.36	2.42	0.07	0.00	0.07
47.55	0.90	0.36	2.50	0.07	0.00	0.07
47.60	0.93	0.36	2.60	0.07	0.00	0.07
47.65	0.97	0.36	2.69	0.07	0.00	0.07
47.70	1.00	0.36	2.80	0.07	0.00	0.07
47.75	1.04	0.36	2.91	0.07	0.00	0.07
47.80	1.08	0.36	3.02	0.07	0.00	0.07
47.85	1.13	0.36	3.14	0.07	0.00	0.07
47.90	1.17	0.36	3.28	0.07	0.00	0.07
47.95	1.22	0.36	3.42	0.07	0.00	0.07
48.00	1.28	0.36	3.57	0.07	0.00	0.07
48.05	1.22	0.36	3.40	0.07	0.00	0.07
48.10	1.16	0.36	3.24	0.07	0.00	0.07

48.15	1.11	0.36	3.10	0.07	0.00	0.07
48.20	1.06	0.36	2.97	0.07	0.00	0.07
48.25	1.02	0.36	2.85	0.07	0.00	0.07
48.30	0.98	0.36	2.75	0.07	0.00	0.07
48.35	0.95	0.36	2.65	0.07	0.00	0.07
48.40	0.91	0.36	2.56	0.07	0.00	0.07
48.45	0.88	0.36	2.47	0.07	0.00	0.07
48.50	0.86	0.36	2.39	0.07	0.00	0.07
48.55	0.83	0.36	2.32	0.07	0.00	0.07
48.60	0.81	0.36	2.25	0.07	0.00	0.07
48.65	0.78	0.36	2.19	0.07	0.00	0.07
48.70	0.76	0.36	2.13	0.07	0.00	0.07
48.75	0.74	0.36	2.07	0.07	0.00	0.07
48.80	0.72	0.36	2.02	0.07	0.00	0.07
48.85	0.71	0.36	1.97	0.07	0.00	0.07
48.90	0.69	0.36	1.93	0.07	0.00	0.07
48.95	0.67	0.36	1.89	0.07	0.00	0.07
49.00	0.66	0.36	1.85	0.07	0.00	0.07
49.05	0.61	0.36	1.72	0.07	0.00	0.07
49.10	0.57	0.36	1.60	0.07	0.00	0.07
49.15	0.53	0.36	1.49	0.07	0.00	0.07
49.20	0.49	0.36	1.38	0.07	0.00	0.07
49.25	0.46	0.36	1.28	0.07	0.00	0.07
49.30	0.42	0.36	1.18	0.07	0.00	0.07
49.35	0.39	0.36	1.09	0.07	0.00	0.07
49.40	0.35	0.36	1.00*	0.07	0.00	0.07
49.45	0.32	0.36	0.91*	0.07	0.00	0.07
49.50	0.30	0.36	0.83*	0.07	0.00	0.07
49.55	0.27	0.36	0.75*	0.07	0.00	0.07
49.60	0.24	0.36	0.68*	0.07	0.00	0.07
49.65	0.22	0.36	0.62*	0.07	0.00	0.07
49.70	0.20	0.36	0.55*	0.06	0.00	0.06
49.75	0.18	0.36	0.50*	0.06	0.00	0.06
49.80	0.16	0.36	0.44*	0.05	0.00	0.05
49.85	0.14	0.36	0.40*	0.04	0.00	0.04
49.90	0.13	0.36	0.36*	0.03	0.00	0.03
49.95	0.12	0.36	0.33*	0.01	0.00	0.01
50.00	0.12	0.36	0.35*	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

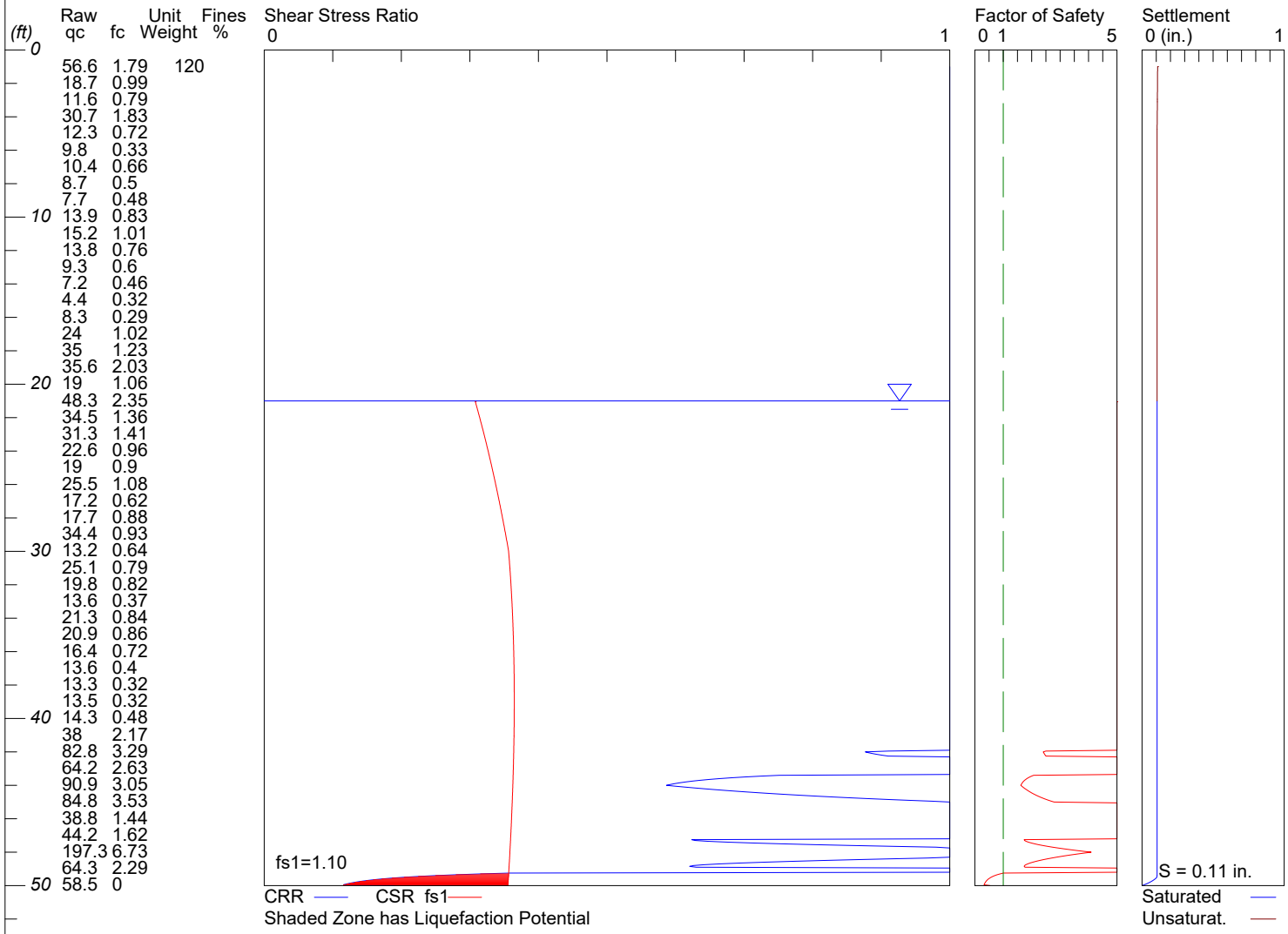
1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

De Soto/Burbank

Hole No.=CPT-3 Water Depth=21 ft

Magnitude=6.74
Acceleration=0.453g



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LIQUEFACTION ANALYSIS SUMMARY
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Input File Name: C:\Users\jonne\OneDrive\Work\Projects\6743 -- Adler Realty August 2019 Update\Liquefaction\CPT-3 Reduced PGA.liq
Title: De Soto/Burbank
Subtitle: 10% Probability - Reduced PGAm

Surface Elev.=
Hole No.=CPT-3
Depth of Hole= 50.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration= 0.45 g
Earthquake Magnitude= 6.74

Input Data:
Surface Elev.=
Hole No.=CPT-3
Depth of Hole=50.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration=0.45 g
Earthquake Magnitude=6.74
No-Liquefiable Soils: Based on Analysis

1. CPT Calculation Method: Modify Robertson*
2. Settlement Analysis Method: Tokimatsu, M-correction
3. Fines Correction for Liquefaction: Stark/Olson et al.*
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
9. User request factor of safety (apply to CSR) , User= 1.1
Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	qc atm	fs atm	Rf pcf	gamma %	Fines mm	D50
1.00	56.60	1.79	3.16	120.00	0.00	0.50
2.00	18.70	0.99	5.29	120.00	0.00	0.50
3.00	11.60	0.79	6.81	120.00	0.00	0.50
4.00	30.70	1.83	5.96	120.00	0.00	0.50
5.00	12.30	0.72	5.85	120.00	0.00	0.50
6.00	9.80	0.33	3.37	120.00	0.00	0.50
7.00	10.40	0.66	6.35	120.00	0.00	0.50
8.00	8.70	0.50	5.75	120.00	0.00	0.50
9.00	7.70	0.48	6.23	120.00	0.00	0.50
10.00	13.90	0.83	5.97	120.00	0.00	0.50
11.00	15.20	1.01	6.64	120.00	0.00	0.50
12.00	13.80	0.76	5.51	120.00	0.00	0.50
13.00	9.30	0.60	6.45	120.00	0.00	0.50
14.00	7.20	0.46	6.39	120.00	0.00	0.50
15.00	4.40	0.32	7.27	120.00	0.00	0.50
16.00	8.30	0.29	3.49	120.00	0.00	0.50
17.00	24.00	1.02	4.25	120.00	0.00	0.50
18.00	35.00	1.23	3.51	120.00	0.00	0.50
19.00	35.60	2.03	5.70	120.00	0.00	0.50
20.00	19.00	1.06	5.58	120.00	0.00	0.50
21.00	48.30	2.35	4.87	120.00	0.00	0.50
22.00	34.50	1.36	3.94	120.00	0.00	0.50
23.00	31.30	1.41	4.50	120.00	0.00	0.50
24.00	22.60	0.96	4.25	120.00	0.00	0.50
25.00	19.00	0.90	4.74	120.00	0.00	0.50
26.00	25.50	1.08	4.24	120.00	0.00	0.50
27.00	17.20	0.62	3.60	120.00	0.00	0.50
28.00	17.70	0.88	4.97	120.00	0.00	0.50
29.00	34.40	0.93	2.70	120.00	0.00	0.50
30.00	13.20	0.64	4.85	120.00	0.00	0.50

31.00	25.10	0.79	3.15	120.00	0.00	0.50
32.00	19.80	0.82	4.14	120.00	0.00	0.50
33.00	13.60	0.37	2.72	120.00	0.00	0.50
34.00	21.30	0.84	3.94	120.00	0.00	0.50
35.00	20.90	0.86	4.11	120.00	0.00	0.50
36.00	16.40	0.72	4.39	120.00	0.00	0.50
37.00	13.60	0.40	2.94	120.00	0.00	0.50
38.00	13.30	0.32	2.41	120.00	0.00	0.50
39.00	13.50	0.32	2.37	120.00	0.00	0.50
40.00	14.30	0.48	3.36	120.00	0.00	0.50
41.00	38.00	2.17	5.71	120.00	0.00	0.50
42.00	82.80	3.29	3.97	120.00	0.00	0.50
43.00	64.20	2.63	4.10	120.00	0.00	0.50
44.00	90.90	3.05	3.36	120.00	0.00	0.50
45.00	84.80	3.53	4.16	120.00	0.00	0.50
46.00	38.80	1.44	3.71	120.00	0.00	0.50
47.00	44.20	1.62	3.67	120.00	0.00	0.50
48.00	197.30	6.73	3.41	120.00	0.00	0.50
49.00	64.30	2.29	3.56	120.00	0.00	0.50
50.00	58.50	0.00	0.00	120.00	0.00	0.50

Modify Robertson method generates Fines from qc/fs. Inputted Fines are not relevant.

Output Results:

Settlement of Saturated Sands=0.11 in.
Settlement of Unsaturated Sands=0.00 in.
Total Settlement of Saturated and Unsaturated Sands=0.11 in.
Differential Settlement=0.055 to 0.072 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
1.00	2.73	0.32	5.00	0.11	0.00	0.11
1.05	2.73	0.32	5.00	0.11	0.00	0.11
1.10	2.73	0.32	5.00	0.11	0.00	0.11
1.15	2.73	0.32	5.00	0.11	0.00	0.11
1.20	2.46	0.32	5.00	0.11	0.00	0.11
1.25	2.22	0.32	5.00	0.11	0.00	0.11
1.30	2.01	0.32	5.00	0.11	0.00	0.11
1.35	1.83	0.32	5.00	0.11	0.00	0.11
1.40	1.67	0.32	5.00	0.11	0.00	0.11
1.45	1.54	0.32	5.00	0.11	0.00	0.11
1.50	1.42	0.32	5.00	0.11	0.00	0.11
1.55	1.33	0.32	5.00	0.11	0.00	0.11
1.60	1.25	0.32	5.00	0.11	0.00	0.11
1.65	1.19	0.32	5.00	0.11	0.00	0.11
1.70	1.16	0.32	5.00	0.11	0.00	0.11
1.75	1.15	0.32	5.00	0.11	0.00	0.11
1.80	1.17	0.32	5.00	0.11	0.00	0.11
1.85	1.26	0.32	5.00	0.11	0.00	0.11
1.90	1.46	0.32	5.00	0.11	0.00	0.11
1.95	1.92	0.32	5.00	0.11	0.00	0.11
2.00	2.10	0.32	5.00	0.11	0.00	0.11
2.05	2.16	0.32	5.00	0.11	0.00	0.11
2.10	2.25	0.32	5.00	0.11	0.00	0.11
2.15	2.36	0.32	5.00	0.11	0.00	0.11
2.20	2.51	0.32	5.00	0.11	0.00	0.11
2.25	2.71	0.32	5.00	0.11	0.00	0.11
2.30	2.73	0.32	5.00	0.11	0.00	0.11
2.35	2.73	0.32	5.00	0.11	0.00	0.11
2.40	2.73	0.32	5.00	0.11	0.00	0.11
2.45	2.73	0.32	5.00	0.11	0.00	0.11
2.50	2.73	0.32	5.00	0.11	0.00	0.11
2.55	2.73	0.32	5.00	0.11	0.00	0.11
2.60	2.67	0.32	5.00	0.11	0.00	0.11
2.65	2.39	0.32	5.00	0.11	0.00	0.11
2.70	2.14	0.32	5.00	0.11	0.00	0.11
2.75	1.92	0.32	5.00	0.11	0.00	0.11
2.80	1.71	0.32	5.00	0.11	0.00	0.11
2.85	1.53	0.32	5.00	0.11	0.00	0.11
2.90	1.37	0.32	5.00	0.11	0.00	0.11
2.95	2.00	0.32	5.00	0.11	0.00	0.11
3.00	2.00	0.32	5.00	0.11	0.00	0.11
3.05	2.00	0.32	5.00	0.11	0.00	0.11
3.10	1.56	0.32	5.00	0.11	0.00	0.11

3.15	1.83	0.32	5.00	0.11	0.00	0.11
3.20	2.12	0.32	5.00	0.11	0.00	0.11
3.25	2.44	0.32	5.00	0.11	0.00	0.11
3.30	2.73	0.32	5.00	0.11	0.00	0.11
3.35	2.73	0.32	5.00	0.11	0.00	0.11
3.40	2.73	0.32	5.00	0.11	0.00	0.11
3.45	2.73	0.32	5.00	0.11	0.00	0.11
3.50	2.73	0.32	5.00	0.11	0.00	0.11
3.55	2.73	0.32	5.00	0.11	0.00	0.11
3.60	2.73	0.32	5.00	0.11	0.00	0.11
3.65	2.73	0.32	5.00	0.11	0.00	0.11
3.70	2.73	0.32	5.00	0.11	0.00	0.11
3.75	2.73	0.32	5.00	0.11	0.00	0.11
3.80	2.73	0.32	5.00	0.11	0.00	0.11
3.85	2.73	0.32	5.00	0.11	0.00	0.11
3.90	2.73	0.32	5.00	0.11	0.00	0.11
3.95	2.73	0.32	5.00	0.11	0.00	0.11
4.00	2.73	0.32	5.00	0.11	0.00	0.11
4.05	2.73	0.32	5.00	0.11	0.00	0.11
4.10	2.73	0.32	5.00	0.11	0.00	0.11
4.15	2.73	0.32	5.00	0.11	0.00	0.11
4.20	2.73	0.32	5.00	0.11	0.00	0.11
4.25	2.73	0.32	5.00	0.11	0.00	0.11
4.30	2.73	0.32	5.00	0.11	0.00	0.11
4.35	2.73	0.32	5.00	0.11	0.00	0.11
4.40	2.73	0.32	5.00	0.11	0.00	0.11
4.45	2.73	0.32	5.00	0.11	0.00	0.11
4.50	2.73	0.32	5.00	0.11	0.00	0.11
4.55	2.40	0.32	5.00	0.11	0.00	0.11
4.60	2.06	0.32	5.00	0.11	0.00	0.11
4.65	1.76	0.32	5.00	0.11	0.00	0.11
4.70	1.49	0.32	5.00	0.11	0.00	0.11
4.75	2.00	0.32	5.00	0.11	0.00	0.11
4.80	2.00	0.32	5.00	0.11	0.00	0.11
4.85	2.00	0.32	5.00	0.11	0.00	0.11
4.90	2.00	0.32	5.00	0.11	0.00	0.11
4.95	2.00	0.32	5.00	0.11	0.00	0.11
5.00	2.00	0.32	5.00	0.11	0.00	0.11
5.05	2.00	0.32	5.00	0.11	0.00	0.11
5.10	2.00	0.32	5.00	0.11	0.00	0.11
5.15	2.00	0.32	5.00	0.11	0.00	0.11
5.20	2.00	0.32	5.00	0.11	0.00	0.11
5.25	2.00	0.32	5.00	0.11	0.00	0.11
5.30	2.00	0.32	5.00	0.11	0.00	0.11
5.35	2.00	0.32	5.00	0.11	0.00	0.11
5.40	2.00	0.32	5.00	0.11	0.00	0.11
5.45	2.00	0.32	5.00	0.11	0.00	0.11
5.50	2.00	0.32	5.00	0.11	0.00	0.11
5.55	2.00	0.32	5.00	0.11	0.00	0.11
5.60	2.00	0.32	5.00	0.11	0.00	0.11
5.65	2.00	0.32	5.00	0.11	0.00	0.11
5.70	2.00	0.32	5.00	0.11	0.00	0.11
5.75	2.00	0.32	5.00	0.11	0.00	0.11
5.80	2.00	0.32	5.00	0.11	0.00	0.11
5.85	2.00	0.32	5.00	0.11	0.00	0.11
5.90	2.00	0.32	5.00	0.11	0.00	0.11
5.95	2.00	0.32	5.00	0.11	0.00	0.11
6.00	2.00	0.32	5.00	0.11	0.00	0.11
6.05	2.00	0.32	5.00	0.11	0.00	0.11
6.10	2.00	0.32	5.00	0.11	0.00	0.11
6.15	2.00	0.32	5.00	0.11	0.00	0.11
6.20	2.00	0.32	5.00	0.11	0.00	0.11
6.25	2.00	0.32	5.00	0.11	0.00	0.11
6.30	2.00	0.32	5.00	0.11	0.00	0.11
6.35	2.00	0.32	5.00	0.11	0.00	0.11
6.40	2.00	0.32	5.00	0.11	0.00	0.11
6.45	2.00	0.32	5.00	0.11	0.00	0.11
6.50	2.00	0.32	5.00	0.11	0.00	0.11
6.55	2.00	0.32	5.00	0.11	0.00	0.11
6.60	2.00	0.32	5.00	0.11	0.00	0.11
6.65	2.00	0.32	5.00	0.11	0.00	0.11
6.70	2.00	0.32	5.00	0.11	0.00	0.11
6.75	2.00	0.32	5.00	0.11	0.00	0.11
6.80	2.00	0.32	5.00	0.11	0.00	0.11
6.85	2.00	0.32	5.00	0.11	0.00	0.11

6.90	2.00	0.32	5.00	0.11	0.00	0.11
6.95	2.00	0.32	5.00	0.11	0.00	0.11
7.00	2.00	0.32	5.00	0.11	0.00	0.11
7.05	2.00	0.32	5.00	0.11	0.00	0.11
7.10	2.00	0.32	5.00	0.11	0.00	0.11
7.15	2.00	0.32	5.00	0.11	0.00	0.11
7.20	2.00	0.32	5.00	0.11	0.00	0.11
7.25	2.00	0.32	5.00	0.11	0.00	0.11
7.30	2.00	0.32	5.00	0.11	0.00	0.11
7.35	2.00	0.32	5.00	0.11	0.00	0.11
7.40	2.00	0.32	5.00	0.11	0.00	0.11
7.45	2.00	0.32	5.00	0.11	0.00	0.11
7.50	2.00	0.32	5.00	0.11	0.00	0.11
7.55	2.00	0.32	5.00	0.11	0.00	0.11
7.60	2.00	0.32	5.00	0.11	0.00	0.11
7.65	2.00	0.32	5.00	0.11	0.00	0.11
7.70	2.00	0.32	5.00	0.11	0.00	0.11
7.75	2.00	0.32	5.00	0.11	0.00	0.11
7.80	2.00	0.32	5.00	0.11	0.00	0.11
7.85	2.00	0.32	5.00	0.11	0.00	0.11
7.90	2.00	0.32	5.00	0.11	0.00	0.11
7.95	2.00	0.32	5.00	0.11	0.00	0.11
8.00	2.00	0.32	5.00	0.11	0.00	0.11
8.05	2.00	0.32	5.00	0.11	0.00	0.11
8.10	2.00	0.32	5.00	0.11	0.00	0.11
8.15	2.00	0.32	5.00	0.11	0.00	0.11
8.20	2.00	0.32	5.00	0.11	0.00	0.11
8.25	2.00	0.32	5.00	0.11	0.00	0.11
8.30	2.00	0.32	5.00	0.11	0.00	0.11
8.35	2.00	0.32	5.00	0.11	0.00	0.11
8.40	2.00	0.32	5.00	0.11	0.00	0.11
8.45	2.00	0.32	5.00	0.11	0.00	0.11
8.50	2.00	0.32	5.00	0.11	0.00	0.11
8.55	2.00	0.32	5.00	0.11	0.00	0.11
8.60	2.00	0.32	5.00	0.11	0.00	0.11
8.65	2.00	0.32	5.00	0.11	0.00	0.11
8.70	2.00	0.32	5.00	0.11	0.00	0.11
8.75	2.00	0.32	5.00	0.11	0.00	0.11
8.80	2.00	0.32	5.00	0.11	0.00	0.11
8.85	2.00	0.32	5.00	0.11	0.00	0.11
8.90	2.00	0.32	5.00	0.11	0.00	0.11
8.95	2.00	0.32	5.00	0.11	0.00	0.11
9.00	2.00	0.32	5.00	0.11	0.00	0.11
9.05	2.00	0.32	5.00	0.11	0.00	0.11
9.10	2.00	0.32	5.00	0.11	0.00	0.11
9.15	2.00	0.32	5.00	0.11	0.00	0.11
9.20	2.00	0.32	5.00	0.11	0.00	0.11
9.25	2.00	0.32	5.00	0.11	0.00	0.11
9.30	2.00	0.32	5.00	0.11	0.00	0.11
9.35	2.00	0.32	5.00	0.11	0.00	0.11
9.40	2.00	0.32	5.00	0.11	0.00	0.11
9.45	2.00	0.32	5.00	0.11	0.00	0.11
9.50	2.00	0.32	5.00	0.11	0.00	0.11
9.55	2.00	0.32	5.00	0.11	0.00	0.11
9.60	2.00	0.32	5.00	0.11	0.00	0.11
9.65	2.00	0.32	5.00	0.11	0.00	0.11
9.70	2.00	0.32	5.00	0.11	0.00	0.11
9.75	2.00	0.32	5.00	0.11	0.00	0.11
9.80	2.00	0.32	5.00	0.11	0.00	0.11
9.85	2.00	0.32	5.00	0.11	0.00	0.11
9.90	2.00	0.32	5.00	0.11	0.00	0.11
9.95	2.00	0.32	5.00	0.11	0.00	0.11
10.00	2.00	0.32	5.00	0.11	0.00	0.11
10.05	2.00	0.32	5.00	0.11	0.00	0.11
10.10	2.00	0.32	5.00	0.11	0.00	0.11
10.15	2.00	0.32	5.00	0.11	0.00	0.11
10.20	2.00	0.32	5.00	0.11	0.00	0.11
10.25	2.00	0.32	5.00	0.11	0.00	0.11
10.30	2.00	0.32	5.00	0.11	0.00	0.11
10.35	2.00	0.32	5.00	0.11	0.00	0.11
10.40	2.00	0.32	5.00	0.11	0.00	0.11
10.45	2.00	0.32	5.00	0.11	0.00	0.11
10.50	2.00	0.32	5.00	0.11	0.00	0.11
10.55	2.00	0.32	5.00	0.11	0.00	0.11
10.60	2.00	0.32	5.00	0.11	0.00	0.11

10.65	2.00	0.32	5.00	0.11	0.00	0.11
10.70	2.00	0.32	5.00	0.11	0.00	0.11
10.75	2.00	0.32	5.00	0.11	0.00	0.11
10.80	2.00	0.32	5.00	0.11	0.00	0.11
10.85	2.00	0.32	5.00	0.11	0.00	0.11
10.90	2.00	0.32	5.00	0.11	0.00	0.11
10.95	2.00	0.32	5.00	0.11	0.00	0.11
11.00	2.00	0.32	5.00	0.11	0.00	0.11
11.05	2.00	0.32	5.00	0.11	0.00	0.11
11.10	2.00	0.32	5.00	0.11	0.00	0.11
11.15	2.00	0.32	5.00	0.11	0.00	0.11
11.20	2.00	0.32	5.00	0.11	0.00	0.11
11.25	2.00	0.32	5.00	0.11	0.00	0.11
11.30	2.00	0.32	5.00	0.11	0.00	0.11
11.35	2.00	0.32	5.00	0.11	0.00	0.11
11.40	2.00	0.32	5.00	0.11	0.00	0.11
11.45	2.00	0.32	5.00	0.11	0.00	0.11
11.50	2.00	0.32	5.00	0.11	0.00	0.11
11.55	2.00	0.32	5.00	0.11	0.00	0.11
11.60	2.00	0.32	5.00	0.11	0.00	0.11
11.65	2.00	0.32	5.00	0.11	0.00	0.11
11.70	2.00	0.32	5.00	0.11	0.00	0.11
11.75	2.00	0.32	5.00	0.11	0.00	0.11
11.80	2.00	0.31	5.00	0.11	0.00	0.11
11.85	2.00	0.31	5.00	0.11	0.00	0.11
11.90	2.00	0.31	5.00	0.11	0.00	0.11
11.95	2.00	0.31	5.00	0.11	0.00	0.11
12.00	2.00	0.31	5.00	0.11	0.00	0.11
12.05	2.00	0.31	5.00	0.11	0.00	0.11
12.10	2.00	0.31	5.00	0.11	0.00	0.11
12.15	2.00	0.31	5.00	0.11	0.00	0.11
12.20	2.00	0.31	5.00	0.11	0.00	0.11
12.25	2.00	0.31	5.00	0.11	0.00	0.11
12.30	2.00	0.31	5.00	0.11	0.00	0.11
12.35	2.00	0.31	5.00	0.11	0.00	0.11
12.40	2.00	0.31	5.00	0.11	0.00	0.11
12.45	2.00	0.31	5.00	0.11	0.00	0.11
12.50	2.00	0.31	5.00	0.11	0.00	0.11
12.55	2.00	0.31	5.00	0.11	0.00	0.11
12.60	2.00	0.31	5.00	0.11	0.00	0.11
12.65	2.00	0.31	5.00	0.11	0.00	0.11
12.70	2.00	0.31	5.00	0.11	0.00	0.11
12.75	2.00	0.31	5.00	0.11	0.00	0.11
12.80	2.00	0.31	5.00	0.11	0.00	0.11
12.85	2.00	0.31	5.00	0.11	0.00	0.11
12.90	2.00	0.31	5.00	0.11	0.00	0.11
12.95	2.00	0.31	5.00	0.11	0.00	0.11
13.00	2.00	0.31	5.00	0.11	0.00	0.11
13.05	2.00	0.31	5.00	0.11	0.00	0.11
13.10	2.00	0.31	5.00	0.11	0.00	0.11
13.15	2.00	0.31	5.00	0.11	0.00	0.11
13.20	2.00	0.31	5.00	0.11	0.00	0.11
13.25	2.00	0.31	5.00	0.11	0.00	0.11
13.30	2.00	0.31	5.00	0.11	0.00	0.11
13.35	2.00	0.31	5.00	0.11	0.00	0.11
13.40	2.00	0.31	5.00	0.11	0.00	0.11
13.45	2.00	0.31	5.00	0.11	0.00	0.11
13.50	2.00	0.31	5.00	0.11	0.00	0.11
13.55	2.00	0.31	5.00	0.11	0.00	0.11
13.60	2.00	0.31	5.00	0.11	0.00	0.11
13.65	2.00	0.31	5.00	0.11	0.00	0.11
13.70	2.00	0.31	5.00	0.11	0.00	0.11
13.75	2.00	0.31	5.00	0.11	0.00	0.11
13.80	2.00	0.31	5.00	0.11	0.00	0.11
13.85	2.00	0.31	5.00	0.11	0.00	0.11
13.90	2.00	0.31	5.00	0.11	0.00	0.11
13.95	2.00	0.31	5.00	0.11	0.00	0.11
14.00	2.00	0.31	5.00	0.11	0.00	0.11
14.05	2.00	0.31	5.00	0.11	0.00	0.11
14.10	2.00	0.31	5.00	0.11	0.00	0.11
14.15	2.00	0.31	5.00	0.11	0.00	0.11
14.20	2.00	0.31	5.00	0.11	0.00	0.11
14.25	2.00	0.31	5.00	0.11	0.00	0.11
14.30	2.00	0.31	5.00	0.11	0.00	0.11
14.35	2.00	0.31	5.00	0.11	0.00	0.11

14.40	2.00	0.31	5.00	0.11	0.00	0.11
14.45	2.00	0.31	5.00	0.11	0.00	0.11
14.50	2.00	0.31	5.00	0.11	0.00	0.11
14.55	2.00	0.31	5.00	0.11	0.00	0.11
14.60	2.00	0.31	5.00	0.11	0.00	0.11
14.65	2.00	0.31	5.00	0.11	0.00	0.11
14.70	2.00	0.31	5.00	0.11	0.00	0.11
14.75	2.00	0.31	5.00	0.11	0.00	0.11
14.80	2.00	0.31	5.00	0.11	0.00	0.11
14.85	2.00	0.31	5.00	0.11	0.00	0.11
14.90	2.00	0.31	5.00	0.11	0.00	0.11
14.95	2.00	0.31	5.00	0.11	0.00	0.11
15.00	2.00	0.31	5.00	0.11	0.00	0.11
15.05	2.00	0.31	5.00	0.11	0.00	0.11
15.10	2.00	0.31	5.00	0.11	0.00	0.11
15.15	2.00	0.31	5.00	0.11	0.00	0.11
15.20	2.00	0.31	5.00	0.11	0.00	0.11
15.25	2.00	0.31	5.00	0.11	0.00	0.11
15.30	2.00	0.31	5.00	0.11	0.00	0.11
15.35	2.00	0.31	5.00	0.11	0.00	0.11
15.40	2.00	0.31	5.00	0.11	0.00	0.11
15.45	2.00	0.31	5.00	0.11	0.00	0.11
15.50	2.00	0.31	5.00	0.11	0.00	0.11
15.55	2.00	0.31	5.00	0.11	0.00	0.11
15.60	2.00	0.31	5.00	0.11	0.00	0.11
15.65	2.00	0.31	5.00	0.11	0.00	0.11
15.70	2.00	0.31	5.00	0.11	0.00	0.11
15.75	2.00	0.31	5.00	0.11	0.00	0.11
15.80	2.00	0.31	5.00	0.11	0.00	0.11
15.85	2.00	0.31	5.00	0.11	0.00	0.11
15.90	2.00	0.31	5.00	0.11	0.00	0.11
15.95	2.00	0.31	5.00	0.11	0.00	0.11
16.00	2.00	0.31	5.00	0.11	0.00	0.11
16.05	2.00	0.31	5.00	0.11	0.00	0.11
16.10	2.00	0.31	5.00	0.11	0.00	0.11
16.15	2.00	0.31	5.00	0.11	0.00	0.11
16.20	2.00	0.31	5.00	0.11	0.00	0.11
16.25	2.00	0.31	5.00	0.11	0.00	0.11
16.30	2.00	0.31	5.00	0.11	0.00	0.11
16.35	2.00	0.31	5.00	0.11	0.00	0.11
16.40	2.00	0.31	5.00	0.11	0.00	0.11
16.45	2.00	0.31	5.00	0.11	0.00	0.11
16.50	2.00	0.31	5.00	0.11	0.00	0.11
16.55	2.00	0.31	5.00	0.11	0.00	0.11
16.60	2.00	0.31	5.00	0.11	0.00	0.11
16.65	2.00	0.31	5.00	0.11	0.00	0.11
16.70	2.00	0.31	5.00	0.11	0.00	0.11
16.75	2.00	0.31	5.00	0.11	0.00	0.11
16.80	2.00	0.31	5.00	0.11	0.00	0.11
16.85	2.00	0.31	5.00	0.11	0.00	0.11
16.90	2.00	0.31	5.00	0.11	0.00	0.11
16.95	2.00	0.31	5.00	0.11	0.00	0.11
17.00	2.00	0.31	5.00	0.11	0.00	0.11
17.05	2.00	0.31	5.00	0.11	0.00	0.11
17.10	2.00	0.31	5.00	0.11	0.00	0.11
17.15	2.00	0.31	5.00	0.11	0.00	0.11
17.20	2.00	0.31	5.00	0.11	0.00	0.11
17.25	2.00	0.31	5.00	0.11	0.00	0.11
17.30	2.00	0.31	5.00	0.11	0.00	0.11
17.35	2.00	0.31	5.00	0.11	0.00	0.11
17.40	2.00	0.31	5.00	0.11	0.00	0.11
17.45	2.00	0.31	5.00	0.11	0.00	0.11
17.50	2.00	0.31	5.00	0.11	0.00	0.11
17.55	2.00	0.31	5.00	0.11	0.00	0.11
17.60	2.00	0.31	5.00	0.11	0.00	0.11
17.65	2.00	0.31	5.00	0.11	0.00	0.11
17.70	2.00	0.31	5.00	0.11	0.00	0.11
17.75	2.00	0.31	5.00	0.11	0.00	0.11
17.80	2.00	0.31	5.00	0.11	0.00	0.11
17.85	2.00	0.31	5.00	0.11	0.00	0.11
17.90	2.00	0.31	5.00	0.11	0.00	0.11
17.95	2.00	0.31	5.00	0.11	0.00	0.11
18.00	2.00	0.31	5.00	0.11	0.00	0.11
18.05	2.00	0.31	5.00	0.11	0.00	0.11
18.10	2.00	0.31	5.00	0.11	0.00	0.11

18.15	2.00	0.31	5.00	0.11	0.00	0.11
18.20	2.00	0.31	5.00	0.11	0.00	0.11
18.25	2.00	0.31	5.00	0.11	0.00	0.11
18.30	2.00	0.31	5.00	0.11	0.00	0.11
18.35	2.00	0.31	5.00	0.11	0.00	0.11
18.40	2.00	0.31	5.00	0.11	0.00	0.11
18.45	2.00	0.31	5.00	0.11	0.00	0.11
18.50	2.00	0.31	5.00	0.11	0.00	0.11
18.55	2.00	0.31	5.00	0.11	0.00	0.11
18.60	2.00	0.31	5.00	0.11	0.00	0.11
18.65	2.00	0.31	5.00	0.11	0.00	0.11
18.70	2.00	0.31	5.00	0.11	0.00	0.11
18.75	2.00	0.31	5.00	0.11	0.00	0.11
18.80	2.00	0.31	5.00	0.11	0.00	0.11
18.85	2.00	0.31	5.00	0.11	0.00	0.11
18.90	2.00	0.31	5.00	0.11	0.00	0.11
18.95	2.00	0.31	5.00	0.11	0.00	0.11
19.00	2.00	0.31	5.00	0.11	0.00	0.11
19.05	2.00	0.31	5.00	0.11	0.00	0.11
19.10	2.00	0.31	5.00	0.11	0.00	0.11
19.15	2.00	0.31	5.00	0.11	0.00	0.11
19.20	2.00	0.31	5.00	0.11	0.00	0.11
19.25	2.00	0.31	5.00	0.11	0.00	0.11
19.30	2.00	0.31	5.00	0.11	0.00	0.11
19.35	2.00	0.31	5.00	0.11	0.00	0.11
19.40	2.00	0.31	5.00	0.11	0.00	0.11
19.45	2.00	0.31	5.00	0.11	0.00	0.11
19.50	2.00	0.31	5.00	0.11	0.00	0.11
19.55	2.00	0.31	5.00	0.11	0.00	0.11
19.60	2.00	0.31	5.00	0.11	0.00	0.11
19.65	2.00	0.31	5.00	0.11	0.00	0.11
19.70	2.00	0.31	5.00	0.11	0.00	0.11
19.75	2.00	0.31	5.00	0.11	0.00	0.11
19.80	2.00	0.31	5.00	0.11	0.00	0.11
19.85	2.00	0.31	5.00	0.11	0.00	0.11
19.90	2.00	0.31	5.00	0.11	0.00	0.11
19.95	2.00	0.31	5.00	0.11	0.00	0.11
20.00	2.00	0.31	5.00	0.11	0.00	0.11
20.05	2.00	0.31	5.00	0.11	0.00	0.11
20.10	2.00	0.31	5.00	0.11	0.00	0.11
20.15	2.00	0.31	5.00	0.11	0.00	0.11
20.20	2.00	0.31	5.00	0.11	0.00	0.11
20.25	2.00	0.31	5.00	0.11	0.00	0.11
20.30	2.00	0.31	5.00	0.11	0.00	0.11
20.35	2.00	0.31	5.00	0.11	0.00	0.11
20.40	2.00	0.31	5.00	0.11	0.00	0.11
20.45	2.00	0.31	5.00	0.11	0.00	0.11
20.50	2.00	0.31	5.00	0.11	0.00	0.11
20.55	2.00	0.31	5.00	0.11	0.00	0.11
20.60	2.00	0.31	5.00	0.11	0.00	0.11
20.65	2.00	0.31	5.00	0.11	0.00	0.11
20.70	2.00	0.31	5.00	0.11	0.00	0.11
20.75	2.00	0.31	5.00	0.11	0.00	0.11
20.80	2.00	0.31	5.00	0.11	0.00	0.11
20.85	2.00	0.31	5.00	0.11	0.00	0.11
20.90	2.00	0.31	5.00	0.11	0.00	0.11
20.95	2.00	0.31	5.00	0.11	0.00	0.11
21.00	2.00	0.31	5.00	0.11	0.00	0.11
21.05	2.00	0.31	5.00	0.11	0.00	0.11
21.10	2.00	0.31	5.00	0.11	0.00	0.11
21.15	2.00	0.31	5.00	0.11	0.00	0.11
21.20	2.00	0.31	5.00	0.11	0.00	0.11
21.25	2.00	0.31	5.00	0.11	0.00	0.11
21.30	2.00	0.31	5.00	0.11	0.00	0.11
21.35	2.00	0.31	5.00	0.11	0.00	0.11
21.40	2.00	0.31	5.00	0.11	0.00	0.11
21.45	2.00	0.31	5.00	0.11	0.00	0.11
21.50	2.00	0.31	5.00	0.11	0.00	0.11
21.55	2.00	0.31	5.00	0.11	0.00	0.11
21.60	2.00	0.31	5.00	0.11	0.00	0.11
21.65	2.00	0.31	5.00	0.11	0.00	0.11
21.70	2.00	0.31	5.00	0.11	0.00	0.11
21.75	2.00	0.31	5.00	0.11	0.00	0.11
21.80	2.00	0.31	5.00	0.11	0.00	0.11
21.85	2.00	0.31	5.00	0.11	0.00	0.11

21.90	2.00	0.31	5.00	0.11	0.00	0.11
21.95	2.00	0.31	5.00	0.11	0.00	0.11
22.00	2.00	0.31	5.00	0.11	0.00	0.11
22.05	2.00	0.31	5.00	0.11	0.00	0.11
22.10	2.00	0.31	5.00	0.11	0.00	0.11
22.15	2.00	0.32	5.00	0.11	0.00	0.11
22.20	2.00	0.32	5.00	0.11	0.00	0.11
22.25	2.00	0.32	5.00	0.11	0.00	0.11
22.30	2.00	0.32	5.00	0.11	0.00	0.11
22.35	2.00	0.32	5.00	0.11	0.00	0.11
22.40	2.00	0.32	5.00	0.11	0.00	0.11
22.45	2.00	0.32	5.00	0.11	0.00	0.11
22.50	2.00	0.32	5.00	0.11	0.00	0.11
22.55	2.00	0.32	5.00	0.11	0.00	0.11
22.60	2.00	0.32	5.00	0.11	0.00	0.11
22.65	2.00	0.32	5.00	0.11	0.00	0.11
22.70	2.00	0.32	5.00	0.11	0.00	0.11
22.75	2.00	0.32	5.00	0.11	0.00	0.11
22.80	2.00	0.32	5.00	0.11	0.00	0.11
22.85	2.00	0.32	5.00	0.11	0.00	0.11
22.90	2.00	0.32	5.00	0.11	0.00	0.11
22.95	2.00	0.32	5.00	0.11	0.00	0.11
23.00	2.00	0.32	5.00	0.11	0.00	0.11
23.05	2.00	0.32	5.00	0.11	0.00	0.11
23.10	2.00	0.32	5.00	0.11	0.00	0.11
23.15	2.00	0.32	5.00	0.11	0.00	0.11
23.20	2.00	0.32	5.00	0.11	0.00	0.11
23.25	2.00	0.32	5.00	0.11	0.00	0.11
23.30	2.00	0.32	5.00	0.11	0.00	0.11
23.35	2.00	0.32	5.00	0.11	0.00	0.11
23.40	2.00	0.32	5.00	0.11	0.00	0.11
23.45	2.00	0.32	5.00	0.11	0.00	0.11
23.50	2.00	0.32	5.00	0.11	0.00	0.11
23.55	2.00	0.32	5.00	0.11	0.00	0.11
23.60	2.00	0.32	5.00	0.11	0.00	0.11
23.65	2.00	0.32	5.00	0.11	0.00	0.11
23.70	2.00	0.32	5.00	0.11	0.00	0.11
23.75	2.00	0.33	5.00	0.11	0.00	0.11
23.80	2.00	0.33	5.00	0.11	0.00	0.11
23.85	2.00	0.33	5.00	0.11	0.00	0.11
23.90	2.00	0.33	5.00	0.11	0.00	0.11
23.95	2.00	0.33	5.00	0.11	0.00	0.11
24.00	2.00	0.33	5.00	0.11	0.00	0.11
24.05	2.00	0.33	5.00	0.11	0.00	0.11
24.10	2.00	0.33	5.00	0.11	0.00	0.11
24.15	2.00	0.33	5.00	0.11	0.00	0.11
24.20	2.00	0.33	5.00	0.11	0.00	0.11
24.25	2.00	0.33	5.00	0.11	0.00	0.11
24.30	2.00	0.33	5.00	0.11	0.00	0.11
24.35	2.00	0.33	5.00	0.11	0.00	0.11
24.40	2.00	0.33	5.00	0.11	0.00	0.11
24.45	2.00	0.33	5.00	0.11	0.00	0.11
24.50	2.00	0.33	5.00	0.11	0.00	0.11
24.55	2.00	0.33	5.00	0.11	0.00	0.11
24.60	2.00	0.33	5.00	0.11	0.00	0.11
24.65	2.00	0.33	5.00	0.11	0.00	0.11
24.70	2.00	0.33	5.00	0.11	0.00	0.11
24.75	2.00	0.33	5.00	0.11	0.00	0.11
24.80	2.00	0.33	5.00	0.11	0.00	0.11
24.85	2.00	0.33	5.00	0.11	0.00	0.11
24.90	2.00	0.33	5.00	0.11	0.00	0.11
24.95	2.00	0.33	5.00	0.11	0.00	0.11
25.00	2.00	0.33	5.00	0.11	0.00	0.11
25.05	2.00	0.33	5.00	0.11	0.00	0.11
25.10	2.00	0.33	5.00	0.11	0.00	0.11
25.15	2.00	0.33	5.00	0.11	0.00	0.11
25.20	2.00	0.33	5.00	0.11	0.00	0.11
25.25	2.00	0.33	5.00	0.11	0.00	0.11
25.30	2.00	0.33	5.00	0.11	0.00	0.11
25.35	2.00	0.33	5.00	0.11	0.00	0.11
25.40	2.00	0.33	5.00	0.11	0.00	0.11
25.45	2.00	0.33	5.00	0.11	0.00	0.11
25.50	2.00	0.34	5.00	0.11	0.00	0.11
25.55	2.00	0.34	5.00	0.11	0.00	0.11
25.60	2.00	0.34	5.00	0.11	0.00	0.11

25.65	2.00	0.34	5.00	0.11	0.00	0.11
25.70	2.00	0.34	5.00	0.11	0.00	0.11
25.75	2.00	0.34	5.00	0.11	0.00	0.11
25.80	2.00	0.34	5.00	0.11	0.00	0.11
25.85	2.00	0.34	5.00	0.11	0.00	0.11
25.90	2.00	0.34	5.00	0.11	0.00	0.11
25.95	2.00	0.34	5.00	0.11	0.00	0.11
26.00	2.00	0.34	5.00	0.11	0.00	0.11
26.05	2.00	0.34	5.00	0.11	0.00	0.11
26.10	2.00	0.34	5.00	0.11	0.00	0.11
26.15	2.00	0.34	5.00	0.11	0.00	0.11
26.20	2.00	0.34	5.00	0.11	0.00	0.11
26.25	2.00	0.34	5.00	0.11	0.00	0.11
26.30	2.00	0.34	5.00	0.11	0.00	0.11
26.35	2.00	0.34	5.00	0.11	0.00	0.11
26.40	2.00	0.34	5.00	0.11	0.00	0.11
26.45	2.00	0.34	5.00	0.11	0.00	0.11
26.50	2.00	0.34	5.00	0.11	0.00	0.11
26.55	2.00	0.34	5.00	0.11	0.00	0.11
26.60	2.00	0.34	5.00	0.11	0.00	0.11
26.65	2.00	0.34	5.00	0.11	0.00	0.11
26.70	2.00	0.34	5.00	0.11	0.00	0.11
26.75	2.00	0.34	5.00	0.11	0.00	0.11
26.80	2.00	0.34	5.00	0.11	0.00	0.11
26.85	2.00	0.34	5.00	0.11	0.00	0.11
26.90	2.00	0.34	5.00	0.11	0.00	0.11
26.95	2.00	0.34	5.00	0.11	0.00	0.11
27.00	2.00	0.34	5.00	0.11	0.00	0.11
27.05	2.00	0.34	5.00	0.11	0.00	0.11
27.10	2.00	0.34	5.00	0.11	0.00	0.11
27.15	2.00	0.34	5.00	0.11	0.00	0.11
27.20	2.00	0.34	5.00	0.11	0.00	0.11
27.25	2.00	0.34	5.00	0.11	0.00	0.11
27.30	2.00	0.34	5.00	0.11	0.00	0.11
27.35	2.00	0.34	5.00	0.11	0.00	0.11
27.40	2.00	0.34	5.00	0.11	0.00	0.11
27.45	2.00	0.34	5.00	0.11	0.00	0.11
27.50	2.00	0.35	5.00	0.11	0.00	0.11
27.55	2.00	0.35	5.00	0.11	0.00	0.11
27.60	2.00	0.35	5.00	0.11	0.00	0.11
27.65	2.00	0.35	5.00	0.11	0.00	0.11
27.70	2.00	0.35	5.00	0.11	0.00	0.11
27.75	2.00	0.35	5.00	0.11	0.00	0.11
27.80	2.00	0.35	5.00	0.11	0.00	0.11
27.85	2.00	0.35	5.00	0.11	0.00	0.11
27.90	2.00	0.35	5.00	0.11	0.00	0.11
27.95	2.00	0.35	5.00	0.11	0.00	0.11
28.00	2.00	0.35	5.00	0.11	0.00	0.11
28.05	2.00	0.35	5.00	0.11	0.00	0.11
28.10	2.00	0.35	5.00	0.11	0.00	0.11
28.15	2.00	0.35	5.00	0.11	0.00	0.11
28.20	2.00	0.35	5.00	0.11	0.00	0.11
28.25	2.00	0.35	5.00	0.11	0.00	0.11
28.30	2.00	0.35	5.00	0.11	0.00	0.11
28.35	2.00	0.35	5.00	0.11	0.00	0.11
28.40	2.00	0.35	5.00	0.11	0.00	0.11
28.45	2.00	0.35	5.00	0.11	0.00	0.11
28.50	2.00	0.35	5.00	0.11	0.00	0.11
28.55	2.00	0.35	5.00	0.11	0.00	0.11
28.60	2.00	0.35	5.00	0.11	0.00	0.11
28.65	2.00	0.35	5.00	0.11	0.00	0.11
28.70	2.00	0.35	5.00	0.11	0.00	0.11
28.75	2.00	0.35	5.00	0.11	0.00	0.11
28.80	2.00	0.35	5.00	0.11	0.00	0.11
28.85	2.00	0.35	5.00	0.11	0.00	0.11
28.90	2.00	0.35	5.00	0.11	0.00	0.11
28.95	2.00	0.35	5.00	0.11	0.00	0.11
29.00	2.00	0.35	5.00	0.11	0.00	0.11
29.05	2.00	0.35	5.00	0.11	0.00	0.11
29.10	2.00	0.35	5.00	0.11	0.00	0.11
29.15	2.00	0.35	5.00	0.11	0.00	0.11
29.20	2.00	0.35	5.00	0.11	0.00	0.11
29.25	2.00	0.35	5.00	0.11	0.00	0.11
29.30	2.00	0.35	5.00	0.11	0.00	0.11
29.35	2.00	0.35	5.00	0.11	0.00	0.11

29.40	2.00	0.35	5.00	0.11	0.00	0.11
29.45	2.00	0.35	5.00	0.11	0.00	0.11
29.50	2.00	0.35	5.00	0.11	0.00	0.11
29.55	2.00	0.35	5.00	0.11	0.00	0.11
29.60	2.00	0.35	5.00	0.11	0.00	0.11
29.65	2.00	0.36	5.00	0.11	0.00	0.11
29.70	2.00	0.36	5.00	0.11	0.00	0.11
29.75	2.00	0.36	5.00	0.11	0.00	0.11
29.80	2.00	0.36	5.00	0.11	0.00	0.11
29.85	2.00	0.36	5.00	0.11	0.00	0.11
29.90	2.00	0.36	5.00	0.11	0.00	0.11
29.95	2.00	0.36	5.00	0.11	0.00	0.11
30.00	2.00	0.36	5.00	0.11	0.00	0.11
30.05	2.00	0.36	5.00	0.11	0.00	0.11
30.10	2.00	0.36	5.00	0.11	0.00	0.11
30.15	2.00	0.36	5.00	0.11	0.00	0.11
30.20	2.00	0.36	5.00	0.11	0.00	0.11
30.25	2.00	0.36	5.00	0.11	0.00	0.11
30.30	2.00	0.36	5.00	0.11	0.00	0.11
30.35	2.00	0.36	5.00	0.11	0.00	0.11
30.40	2.00	0.36	5.00	0.11	0.00	0.11
30.45	2.00	0.36	5.00	0.11	0.00	0.11
30.50	2.00	0.36	5.00	0.11	0.00	0.11
30.55	2.00	0.36	5.00	0.11	0.00	0.11
30.60	2.00	0.36	5.00	0.11	0.00	0.11
30.65	2.00	0.36	5.00	0.11	0.00	0.11
30.70	2.00	0.36	5.00	0.11	0.00	0.11
30.75	2.00	0.36	5.00	0.11	0.00	0.11
30.80	2.00	0.36	5.00	0.11	0.00	0.11
30.85	2.00	0.36	5.00	0.11	0.00	0.11
30.90	2.00	0.36	5.00	0.11	0.00	0.11
30.95	2.00	0.36	5.00	0.11	0.00	0.11
31.00	2.00	0.36	5.00	0.11	0.00	0.11
31.05	2.00	0.36	5.00	0.11	0.00	0.11
31.10	2.00	0.36	5.00	0.11	0.00	0.11
31.15	2.00	0.36	5.00	0.11	0.00	0.11
31.20	2.00	0.36	5.00	0.11	0.00	0.11
31.25	2.00	0.36	5.00	0.11	0.00	0.11
31.30	2.00	0.36	5.00	0.11	0.00	0.11
31.35	2.00	0.36	5.00	0.11	0.00	0.11
31.40	2.00	0.36	5.00	0.11	0.00	0.11
31.45	2.00	0.36	5.00	0.11	0.00	0.11
31.50	2.00	0.36	5.00	0.11	0.00	0.11
31.55	2.00	0.36	5.00	0.11	0.00	0.11
31.60	2.00	0.36	5.00	0.11	0.00	0.11
31.65	2.00	0.36	5.00	0.11	0.00	0.11
31.70	2.00	0.36	5.00	0.11	0.00	0.11
31.75	2.00	0.36	5.00	0.11	0.00	0.11
31.80	2.00	0.36	5.00	0.11	0.00	0.11
31.85	2.00	0.36	5.00	0.11	0.00	0.11
31.90	2.00	0.36	5.00	0.11	0.00	0.11
31.95	2.00	0.36	5.00	0.11	0.00	0.11
32.00	2.00	0.36	5.00	0.11	0.00	0.11
32.05	2.00	0.36	5.00	0.11	0.00	0.11
32.10	2.00	0.36	5.00	0.11	0.00	0.11
32.15	2.00	0.36	5.00	0.11	0.00	0.11
32.20	2.00	0.36	5.00	0.11	0.00	0.11
32.25	2.00	0.36	5.00	0.11	0.00	0.11
32.30	2.00	0.36	5.00	0.11	0.00	0.11
32.35	2.00	0.36	5.00	0.11	0.00	0.11
32.40	2.00	0.36	5.00	0.11	0.00	0.11
32.45	2.00	0.36	5.00	0.11	0.00	0.11
32.50	2.00	0.36	5.00	0.11	0.00	0.11
32.55	2.00	0.36	5.00	0.11	0.00	0.11
32.60	2.00	0.36	5.00	0.11	0.00	0.11
32.65	2.00	0.36	5.00	0.11	0.00	0.11
32.70	2.00	0.36	5.00	0.11	0.00	0.11
32.75	2.00	0.36	5.00	0.11	0.00	0.11
32.80	2.00	0.36	5.00	0.11	0.00	0.11
32.85	2.00	0.36	5.00	0.11	0.00	0.11
32.90	2.00	0.36	5.00	0.11	0.00	0.11
32.95	2.00	0.36	5.00	0.11	0.00	0.11
33.00	2.00	0.36	5.00	0.11	0.00	0.11
33.05	2.00	0.36	5.00	0.11	0.00	0.11
33.10	2.00	0.36	5.00	0.11	0.00	0.11

33.15	2.00	0.36	5.00	0.11	0.00	0.11
33.20	2.00	0.36	5.00	0.11	0.00	0.11
33.25	2.00	0.36	5.00	0.11	0.00	0.11
33.30	2.00	0.36	5.00	0.11	0.00	0.11
33.35	2.00	0.36	5.00	0.11	0.00	0.11
33.40	2.00	0.36	5.00	0.11	0.00	0.11
33.45	2.00	0.36	5.00	0.11	0.00	0.11
33.50	2.00	0.36	5.00	0.11	0.00	0.11
33.55	2.00	0.36	5.00	0.11	0.00	0.11
33.60	2.00	0.36	5.00	0.11	0.00	0.11
33.65	2.00	0.36	5.00	0.11	0.00	0.11
33.70	2.00	0.36	5.00	0.11	0.00	0.11
33.75	2.00	0.36	5.00	0.11	0.00	0.11
33.80	2.00	0.36	5.00	0.11	0.00	0.11
33.85	2.00	0.36	5.00	0.11	0.00	0.11
33.90	2.00	0.36	5.00	0.11	0.00	0.11
33.95	2.00	0.36	5.00	0.11	0.00	0.11
34.00	2.00	0.36	5.00	0.11	0.00	0.11
34.05	2.00	0.36	5.00	0.11	0.00	0.11
34.10	2.00	0.36	5.00	0.11	0.00	0.11
34.15	2.00	0.36	5.00	0.11	0.00	0.11
34.20	2.00	0.36	5.00	0.11	0.00	0.11
34.25	2.00	0.36	5.00	0.11	0.00	0.11
34.30	2.00	0.36	5.00	0.11	0.00	0.11
34.35	2.00	0.36	5.00	0.11	0.00	0.11
34.40	2.00	0.36	5.00	0.11	0.00	0.11
34.45	2.00	0.36	5.00	0.11	0.00	0.11
34.50	2.00	0.36	5.00	0.11	0.00	0.11
34.55	2.00	0.36	5.00	0.11	0.00	0.11
34.60	2.00	0.36	5.00	0.11	0.00	0.11
34.65	2.00	0.36	5.00	0.11	0.00	0.11
34.70	2.00	0.36	5.00	0.11	0.00	0.11
34.75	2.00	0.36	5.00	0.11	0.00	0.11
34.80	2.00	0.36	5.00	0.11	0.00	0.11
34.85	2.00	0.36	5.00	0.11	0.00	0.11
34.90	2.00	0.36	5.00	0.11	0.00	0.11
34.95	2.00	0.36	5.00	0.11	0.00	0.11
35.00	2.00	0.36	5.00	0.11	0.00	0.11
35.05	2.00	0.36	5.00	0.11	0.00	0.11
35.10	2.00	0.36	5.00	0.11	0.00	0.11
35.15	2.00	0.36	5.00	0.11	0.00	0.11
35.20	2.00	0.36	5.00	0.11	0.00	0.11
35.25	2.00	0.36	5.00	0.11	0.00	0.11
35.30	2.00	0.36	5.00	0.11	0.00	0.11
35.35	2.00	0.36	5.00	0.11	0.00	0.11
35.40	2.00	0.36	5.00	0.11	0.00	0.11
35.45	2.00	0.36	5.00	0.11	0.00	0.11
35.50	2.00	0.36	5.00	0.11	0.00	0.11
35.55	2.00	0.36	5.00	0.11	0.00	0.11
35.60	2.00	0.36	5.00	0.11	0.00	0.11
35.65	2.00	0.36	5.00	0.11	0.00	0.11
35.70	2.00	0.36	5.00	0.11	0.00	0.11
35.75	2.00	0.36	5.00	0.11	0.00	0.11
35.80	2.00	0.36	5.00	0.11	0.00	0.11
35.85	2.00	0.36	5.00	0.11	0.00	0.11
35.90	2.00	0.36	5.00	0.11	0.00	0.11
35.95	2.00	0.36	5.00	0.11	0.00	0.11
36.00	2.00	0.36	5.00	0.11	0.00	0.11
36.05	2.00	0.36	5.00	0.11	0.00	0.11
36.10	2.00	0.36	5.00	0.11	0.00	0.11
36.15	2.00	0.36	5.00	0.11	0.00	0.11
36.20	2.00	0.36	5.00	0.11	0.00	0.11
36.25	2.00	0.36	5.00	0.11	0.00	0.11
36.30	2.00	0.36	5.00	0.11	0.00	0.11
36.35	2.00	0.36	5.00	0.11	0.00	0.11
36.40	2.00	0.36	5.00	0.11	0.00	0.11
36.45	2.00	0.36	5.00	0.11	0.00	0.11
36.50	2.00	0.36	5.00	0.11	0.00	0.11
36.55	2.00	0.36	5.00	0.11	0.00	0.11
36.60	2.00	0.36	5.00	0.11	0.00	0.11
36.65	2.00	0.36	5.00	0.11	0.00	0.11
36.70	2.00	0.36	5.00	0.11	0.00	0.11
36.75	2.00	0.36	5.00	0.11	0.00	0.11
36.80	2.00	0.36	5.00	0.11	0.00	0.11
36.85	2.00	0.36	5.00	0.11	0.00	0.11

36.90	2.00	0.36	5.00	0.11	0.00	0.11
36.95	2.00	0.36	5.00	0.11	0.00	0.11
37.00	2.00	0.36	5.00	0.11	0.00	0.11
37.05	2.00	0.36	5.00	0.11	0.00	0.11
37.10	2.00	0.36	5.00	0.11	0.00	0.11
37.15	2.00	0.36	5.00	0.11	0.00	0.11
37.20	2.00	0.36	5.00	0.11	0.00	0.11
37.25	2.00	0.36	5.00	0.11	0.00	0.11
37.30	2.00	0.36	5.00	0.11	0.00	0.11
37.35	2.00	0.36	5.00	0.11	0.00	0.11
37.40	2.00	0.36	5.00	0.11	0.00	0.11
37.45	2.00	0.36	5.00	0.11	0.00	0.11
37.50	2.00	0.36	5.00	0.11	0.00	0.11
37.55	2.00	0.36	5.00	0.11	0.00	0.11
37.60	2.00	0.36	5.00	0.11	0.00	0.11
37.65	2.00	0.36	5.00	0.11	0.00	0.11
37.70	2.00	0.36	5.00	0.11	0.00	0.11
37.75	2.00	0.36	5.00	0.11	0.00	0.11
37.80	2.00	0.36	5.00	0.11	0.00	0.11
37.85	2.00	0.36	5.00	0.11	0.00	0.11
37.90	2.00	0.36	5.00	0.11	0.00	0.11
37.95	2.00	0.36	5.00	0.11	0.00	0.11
38.00	2.00	0.36	5.00	0.11	0.00	0.11
38.05	2.00	0.36	5.00	0.11	0.00	0.11
38.10	2.00	0.36	5.00	0.11	0.00	0.11
38.15	2.00	0.36	5.00	0.11	0.00	0.11
38.20	2.00	0.36	5.00	0.11	0.00	0.11
38.25	2.00	0.36	5.00	0.11	0.00	0.11
38.30	2.00	0.36	5.00	0.11	0.00	0.11
38.35	2.00	0.36	5.00	0.11	0.00	0.11
38.40	2.00	0.36	5.00	0.11	0.00	0.11
38.45	2.00	0.36	5.00	0.11	0.00	0.11
38.50	2.00	0.36	5.00	0.11	0.00	0.11
38.55	2.00	0.36	5.00	0.11	0.00	0.11
38.60	2.00	0.36	5.00	0.11	0.00	0.11
38.65	2.00	0.36	5.00	0.11	0.00	0.11
38.70	2.00	0.36	5.00	0.11	0.00	0.11
38.75	2.00	0.36	5.00	0.11	0.00	0.11
38.80	2.00	0.36	5.00	0.11	0.00	0.11
38.85	2.00	0.36	5.00	0.11	0.00	0.11
38.90	2.00	0.36	5.00	0.11	0.00	0.11
38.95	2.00	0.36	5.00	0.11	0.00	0.11
39.00	2.00	0.36	5.00	0.11	0.00	0.11
39.05	2.00	0.36	5.00	0.11	0.00	0.11
39.10	2.00	0.36	5.00	0.11	0.00	0.11
39.15	2.00	0.36	5.00	0.11	0.00	0.11
39.20	2.00	0.36	5.00	0.11	0.00	0.11
39.25	2.00	0.36	5.00	0.11	0.00	0.11
39.30	2.00	0.36	5.00	0.11	0.00	0.11
39.35	2.00	0.36	5.00	0.11	0.00	0.11
39.40	2.00	0.36	5.00	0.11	0.00	0.11
39.45	2.00	0.36	5.00	0.11	0.00	0.11
39.50	2.00	0.36	5.00	0.11	0.00	0.11
39.55	2.00	0.36	5.00	0.11	0.00	0.11
39.60	2.00	0.36	5.00	0.11	0.00	0.11
39.65	2.00	0.36	5.00	0.11	0.00	0.11
39.70	2.00	0.36	5.00	0.11	0.00	0.11
39.75	2.00	0.36	5.00	0.11	0.00	0.11
39.80	2.00	0.36	5.00	0.11	0.00	0.11
39.85	2.00	0.36	5.00	0.11	0.00	0.11
39.90	2.00	0.36	5.00	0.11	0.00	0.11
39.95	2.00	0.36	5.00	0.11	0.00	0.11
40.00	2.00	0.36	5.00	0.11	0.00	0.11
40.05	2.00	0.36	5.00	0.11	0.00	0.11
40.10	2.00	0.36	5.00	0.11	0.00	0.11
40.15	2.00	0.36	5.00	0.11	0.00	0.11
40.20	2.00	0.36	5.00	0.11	0.00	0.11
40.25	2.00	0.36	5.00	0.11	0.00	0.11
40.30	2.00	0.36	5.00	0.11	0.00	0.11
40.35	2.00	0.36	5.00	0.11	0.00	0.11
40.40	2.00	0.36	5.00	0.11	0.00	0.11
40.45	2.00	0.36	5.00	0.11	0.00	0.11
40.50	2.00	0.36	5.00	0.11	0.00	0.11
40.55	2.00	0.36	5.00	0.11	0.00	0.11
40.60	2.00	0.36	5.00	0.11	0.00	0.11

40.65	2.00	0.36	5.00	0.11	0.00	0.11
40.70	2.00	0.36	5.00	0.11	0.00	0.11
40.75	2.00	0.36	5.00	0.11	0.00	0.11
40.80	2.00	0.36	5.00	0.11	0.00	0.11
40.85	2.00	0.36	5.00	0.11	0.00	0.11
40.90	2.00	0.36	5.00	0.11	0.00	0.11
40.95	2.00	0.36	5.00	0.11	0.00	0.11
41.00	2.00	0.36	5.00	0.11	0.00	0.11
41.05	2.00	0.36	5.00	0.11	0.00	0.11
41.10	2.00	0.36	5.00	0.11	0.00	0.11
41.15	2.00	0.36	5.00	0.11	0.00	0.11
41.20	2.00	0.36	5.00	0.11	0.00	0.11
41.25	2.00	0.36	5.00	0.11	0.00	0.11
41.30	2.00	0.36	5.00	0.11	0.00	0.11
41.35	2.00	0.36	5.00	0.11	0.00	0.11
41.40	2.00	0.36	5.00	0.11	0.00	0.11
41.45	2.00	0.36	5.00	0.11	0.00	0.11
41.50	2.00	0.36	5.00	0.11	0.00	0.11
41.55	2.00	0.36	5.00	0.11	0.00	0.11
41.60	2.00	0.36	5.00	0.11	0.00	0.11
41.65	2.00	0.36	5.00	0.11	0.00	0.11
41.70	2.00	0.36	5.00	0.11	0.00	0.11
41.75	2.00	0.36	5.00	0.11	0.00	0.11
41.80	2.00	0.36	5.00	0.11	0.00	0.11
41.85	2.00	0.36	5.00	0.11	0.00	0.11
41.90	2.00	0.36	5.00	0.11	0.00	0.11
41.95	0.91	0.36	2.50	0.11	0.00	0.11
42.00	0.88	0.36	2.41	0.11	0.00	0.11
42.05	0.88	0.36	2.42	0.11	0.00	0.11
42.10	0.89	0.36	2.44	0.11	0.00	0.11
42.15	0.89	0.36	2.46	0.11	0.00	0.11
42.20	0.90	0.36	2.48	0.11	0.00	0.11
42.25	0.91	0.36	2.50	0.11	0.00	0.11
42.30	2.00	0.36	5.00	0.11	0.00	0.11
42.35	2.00	0.36	5.00	0.11	0.00	0.11
42.40	2.00	0.36	5.00	0.11	0.00	0.11
42.45	2.00	0.36	5.00	0.11	0.00	0.11
42.50	2.00	0.36	5.00	0.11	0.00	0.11
42.55	2.00	0.36	5.00	0.11	0.00	0.11
42.60	2.00	0.36	5.00	0.11	0.00	0.11
42.65	2.00	0.36	5.00	0.11	0.00	0.11
42.70	2.00	0.36	5.00	0.11	0.00	0.11
42.75	2.00	0.36	5.00	0.11	0.00	0.11
42.80	2.00	0.36	5.00	0.11	0.00	0.11
42.85	2.00	0.36	5.00	0.11	0.00	0.11
42.90	2.00	0.36	5.00	0.11	0.00	0.11
42.95	2.00	0.36	5.00	0.11	0.00	0.11
43.00	2.00	0.36	5.00	0.11	0.00	0.11
43.05	2.00	0.36	5.00	0.11	0.00	0.11
43.10	2.00	0.36	5.00	0.11	0.00	0.11
43.15	2.00	0.36	5.00	0.11	0.00	0.11
43.20	2.00	0.36	5.00	0.11	0.00	0.11
43.25	2.00	0.36	5.00	0.11	0.00	0.11
43.30	2.00	0.36	5.00	0.11	0.00	0.11
43.35	2.00	0.36	5.00	0.11	0.00	0.11
43.40	0.75	0.36	2.07	0.11	0.00	0.11
43.45	0.72	0.36	1.99	0.11	0.00	0.11
43.50	0.70	0.36	1.93	0.11	0.00	0.11
43.55	0.68	0.36	1.88	0.11	0.00	0.11
43.60	0.66	0.36	1.83	0.11	0.00	0.11
43.65	0.65	0.36	1.79	0.11	0.00	0.11
43.70	0.64	0.36	1.75	0.11	0.00	0.11
43.75	0.62	0.36	1.72	0.11	0.00	0.11
43.80	0.61	0.36	1.69	0.11	0.00	0.11
43.85	0.61	0.36	1.67	0.11	0.00	0.11
43.90	0.60	0.36	1.65	0.11	0.00	0.11
43.95	0.59	0.36	1.63	0.11	0.00	0.11
44.00	0.59	0.36	1.62	0.11	0.00	0.11
44.05	0.60	0.36	1.65	0.11	0.00	0.11
44.10	0.61	0.36	1.69	0.11	0.00	0.11
44.15	0.63	0.36	1.73	0.11	0.00	0.11
44.20	0.64	0.36	1.77	0.11	0.00	0.11
44.25	0.66	0.36	1.81	0.11	0.00	0.11
44.30	0.67	0.36	1.85	0.11	0.00	0.11
44.35	0.69	0.36	1.90	0.11	0.00	0.11

44.40	0.70	0.36	1.95	0.11	0.00	0.11
44.45	0.72	0.36	2.00	0.11	0.00	0.11
44.50	0.74	0.36	2.05	0.11	0.00	0.11
44.55	0.76	0.36	2.11	0.11	0.00	0.11
44.60	0.78	0.36	2.17	0.11	0.00	0.11
44.65	0.81	0.36	2.23	0.11	0.00	0.11
44.70	0.83	0.36	2.30	0.11	0.00	0.11
44.75	0.86	0.36	2.37	0.11	0.00	0.11
44.80	0.88	0.36	2.44	0.11	0.00	0.11
44.85	0.91	0.36	2.52	0.11	0.00	0.11
44.90	0.94	0.36	2.60	0.11	0.00	0.11
44.95	0.97	0.36	2.69	0.11	0.00	0.11
45.00	1.01	0.36	2.79	0.11	0.00	0.11
45.05	2.00	0.36	5.00	0.11	0.00	0.11
45.10	2.00	0.36	5.00	0.11	0.00	0.11
45.15	2.00	0.36	5.00	0.11	0.00	0.11
45.20	2.00	0.36	5.00	0.11	0.00	0.11
45.25	2.00	0.36	5.00	0.11	0.00	0.11
45.30	2.00	0.36	5.00	0.11	0.00	0.11
45.35	2.00	0.36	5.00	0.11	0.00	0.11
45.40	2.00	0.36	5.00	0.11	0.00	0.11
45.45	2.00	0.36	5.00	0.11	0.00	0.11
45.50	2.00	0.36	5.00	0.11	0.00	0.11
45.55	2.00	0.36	5.00	0.11	0.00	0.11
45.60	2.00	0.36	5.00	0.11	0.00	0.11
45.65	2.00	0.36	5.00	0.11	0.00	0.11
45.70	2.00	0.36	5.00	0.11	0.00	0.11
45.75	2.00	0.36	5.00	0.11	0.00	0.11
45.80	2.00	0.36	5.00	0.11	0.00	0.11
45.85	2.00	0.36	5.00	0.11	0.00	0.11
45.90	2.00	0.36	5.00	0.11	0.00	0.11
45.95	2.00	0.36	5.00	0.11	0.00	0.11
46.00	2.00	0.36	5.00	0.11	0.00	0.11
46.05	2.00	0.36	5.00	0.11	0.00	0.11
46.10	2.00	0.36	5.00	0.11	0.00	0.11
46.15	2.00	0.36	5.00	0.11	0.00	0.11
46.20	2.00	0.36	5.00	0.11	0.00	0.11
46.25	2.00	0.36	5.00	0.11	0.00	0.11
46.30	2.00	0.36	5.00	0.11	0.00	0.11
46.35	2.00	0.36	5.00	0.11	0.00	0.11
46.40	2.00	0.36	5.00	0.11	0.00	0.11
46.45	2.00	0.36	5.00	0.11	0.00	0.11
46.50	2.00	0.36	5.00	0.11	0.00	0.11
46.55	2.00	0.36	5.00	0.11	0.00	0.11
46.60	2.00	0.36	5.00	0.11	0.00	0.11
46.65	2.00	0.36	5.00	0.11	0.00	0.11
46.70	2.00	0.36	5.00	0.11	0.00	0.11
46.75	2.00	0.36	5.00	0.11	0.00	0.11
46.80	2.00	0.36	5.00	0.11	0.00	0.11
46.85	2.00	0.36	5.00	0.11	0.00	0.11
46.90	2.00	0.36	5.00	0.11	0.00	0.11
46.95	2.00	0.36	5.00	0.11	0.00	0.11
47.00	2.00	0.36	5.00	0.11	0.00	0.11
47.05	2.00	0.36	5.00	0.11	0.00	0.11
47.10	2.00	0.36	5.00	0.11	0.00	0.11
47.15	2.00	0.36	5.00	0.11	0.00	0.11
47.20	2.00	0.36	5.00	0.11	0.00	0.11
47.25	0.62	0.36	1.74	0.11	0.00	0.11
47.30	0.63	0.36	1.75	0.11	0.00	0.11
47.35	0.65	0.36	1.80	0.11	0.00	0.11
47.40	0.68	0.36	1.88	0.11	0.00	0.11
47.45	0.71	0.36	1.98	0.11	0.00	0.11
47.50	0.75	0.36	2.10	0.11	0.00	0.11
47.55	0.80	0.36	2.24	0.11	0.00	0.11
47.60	0.86	0.36	2.39	0.11	0.00	0.11
47.65	0.92	0.36	2.55	0.11	0.00	0.11
47.70	0.98	0.36	2.73	0.11	0.00	0.11
47.75	1.05	0.36	2.92	0.11	0.00	0.11
47.80	1.12	0.36	3.13	0.11	0.00	0.11
47.85	1.20	0.36	3.35	0.11	0.00	0.11
47.90	1.29	0.36	3.58	0.11	0.00	0.11
47.95	1.37	0.36	3.83	0.11	0.00	0.11
48.00	1.47	0.36	4.10	0.11	0.00	0.11
48.05	1.39	0.36	3.87	0.11	0.00	0.11
48.10	1.31	0.36	3.65	0.11	0.00	0.11

48.15	1.23	0.36	3.44	0.11	0.00	0.11
48.20	1.16	0.36	3.24	0.11	0.00	0.11
48.25	1.09	0.36	3.05	0.11	0.00	0.11
48.30	1.03	0.36	2.87	0.11	0.00	0.11
48.35	0.97	0.36	2.70	0.11	0.00	0.11
48.40	0.91	0.36	2.55	0.11	0.00	0.11
48.45	0.86	0.36	2.40	0.11	0.00	0.11
48.50	0.81	0.36	2.27	0.11	0.00	0.11
48.55	0.77	0.36	2.15	0.11	0.00	0.11
48.60	0.73	0.36	2.04	0.11	0.00	0.11
48.65	0.69	0.36	1.94	0.11	0.00	0.11
48.70	0.66	0.36	1.86	0.11	0.00	0.11
48.75	0.64	0.36	1.80	0.11	0.00	0.11
48.80	0.63	0.36	1.75	0.11	0.00	0.11
48.85	0.62	0.36	1.74	0.11	0.00	0.11
48.90	0.63	0.36	1.76	0.11	0.00	0.11
48.95	2.00	0.36	5.00	0.11	0.00	0.11
49.00	2.00	0.36	5.00	0.11	0.00	0.11
49.05	2.00	0.36	5.00	0.11	0.00	0.11
49.10	2.00	0.36	5.00	0.11	0.00	0.11
49.15	2.00	0.36	5.00	0.11	0.00	0.11
49.20	2.00	0.36	5.00	0.11	0.00	0.11
49.25	0.36	0.36	1.00	0.11	0.00	0.11
49.30	0.32	0.36	0.88*	0.11	0.00	0.11
49.35	0.28	0.36	0.79*	0.11	0.00	0.11
49.40	0.25	0.36	0.70*	0.11	0.00	0.11
49.45	0.23	0.36	0.63*	0.11	0.00	0.11
49.50	0.20	0.36	0.57*	0.10	0.00	0.10
49.55	0.19	0.36	0.52*	0.10	0.00	0.10
49.60	0.17	0.36	0.48*	0.09	0.00	0.09
49.65	0.16	0.36	0.45*	0.08	0.00	0.08
49.70	0.15	0.36	0.42*	0.08	0.00	0.08
49.75	0.14	0.36	0.39*	0.07	0.00	0.07
49.80	0.13	0.36	0.37*	0.05	0.00	0.05
49.85	0.13	0.36	0.35*	0.04	0.00	0.04
49.90	0.12	0.36	0.34*	0.03	0.00	0.03
49.95	0.12	0.36	0.33*	0.02	0.00	0.02
50.00	0.19	0.36	0.54*	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

1 atm (atmosphere) = 1 tsf (ton/ft2)

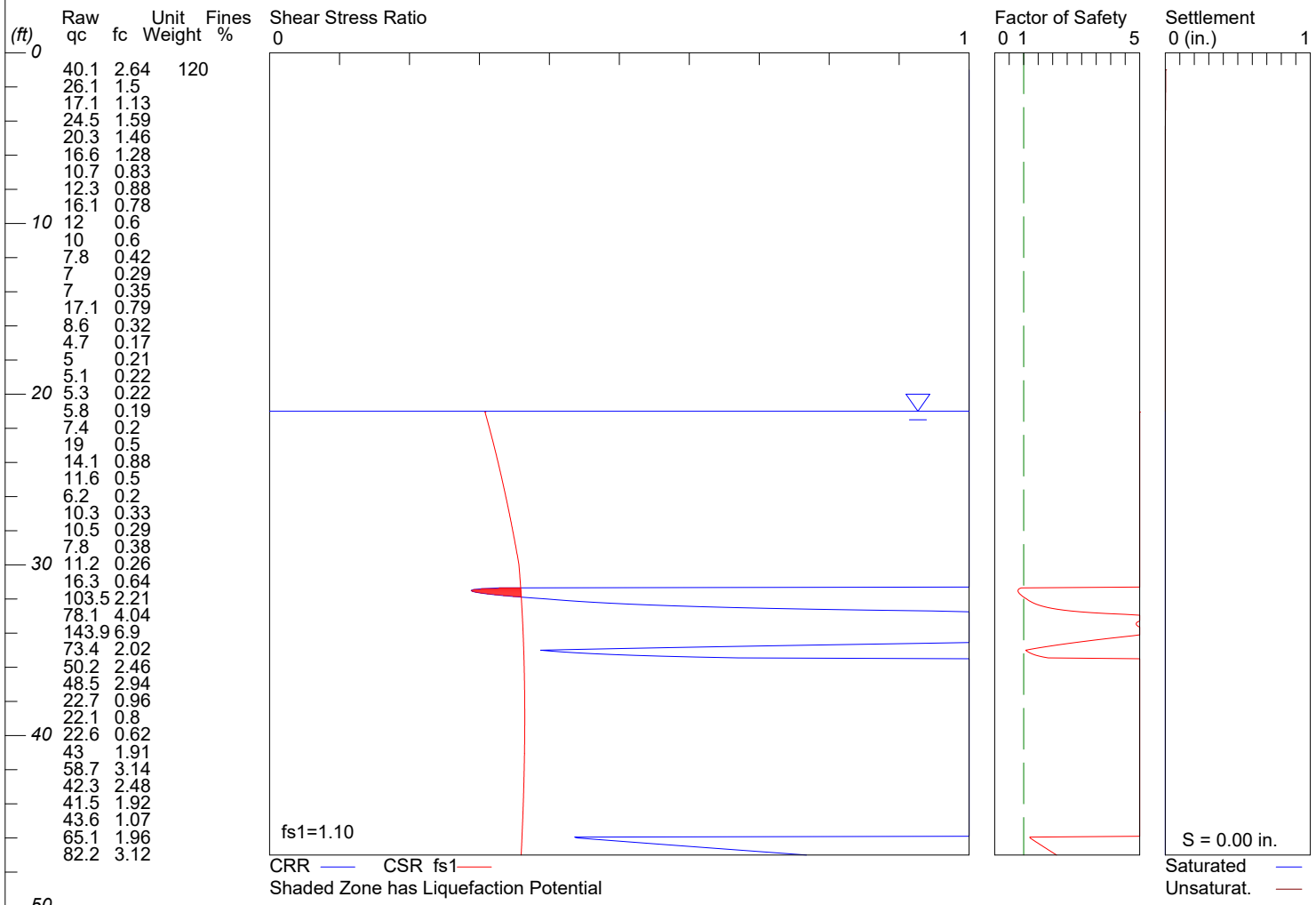
CRRm	Cyclic resistance ratio from soils
CSRsf	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat	Settlement from saturated sands
S_dry	Settlement from Unsaturated Sands
S_all	Total Settlement from Saturated and Unsaturated Sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS

De Soto/Burbank

Hole No.=CPT-4 Water Depth=21 ft

Magnitude=6.74
Acceleration=0.453g



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LIQUEFACTION ANALYSIS SUMMARY
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Input File Name: C:\Users\jonne\OneDrive\Work\Projects\6743 -- Adler Realty August 2019 Update\Liquefaction\CPT-4 Reduced PGA.liq
Title: De Soto/Burbank
Subtitle: 10% Probability - Reduced PGAm

Surface Elev.=
Hole No.=CPT-4
Depth of Hole= 47.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration= 0.45 g
Earthquake Magnitude= 6.74

Input Data:
Surface Elev.=
Hole No.=CPT-4
Depth of Hole=47.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration=0.45 g
Earthquake Magnitude=6.74
No-Liquefiable Soils: Based on Analysis

1. CPT Calculation Method: Modify Robertson*
2. Settlement Analysis Method: Tokimatsu, M-correction
3. Fines Correction for Liquefaction: Stark/Olson et al.*
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
9. User request factor of safety (apply to CSR) , User= 1.1
Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	qc atm	fs atm	Rf pcf	gamma %	Fines mm	D50
1.00	40.10	2.64	6.58	120.00	0.00	0.50
2.00	26.10	1.50	5.75	120.00	0.00	0.50
3.00	17.10	1.13	6.61	120.00	0.00	0.50
4.00	24.50	1.59	6.49	120.00	0.00	0.50
5.00	20.30	1.46	7.19	120.00	0.00	0.50
6.00	16.60	1.28	7.71	120.00	0.00	0.50
7.00	10.70	0.83	7.76	120.00	0.00	0.50
8.00	12.30	0.88	7.15	120.00	0.00	0.50
9.00	16.10	0.78	4.84	120.00	0.00	0.50
10.00	12.00	0.60	5.00	120.00	0.00	0.50
11.00	10.00	0.60	6.00	120.00	0.00	0.50
12.00	7.80	0.42	5.38	120.00	0.00	0.50
13.00	7.00	0.29	4.14	120.00	0.00	0.50
14.00	7.00	0.35	5.00	120.00	0.00	0.50
15.00	17.10	0.79	4.62	120.00	0.00	0.50
16.00	8.60	0.32	3.72	120.00	0.00	0.50
17.00	4.70	0.17	3.62	120.00	0.00	0.50
18.00	5.00	0.21	4.20	120.00	0.00	0.50
19.00	5.10	0.22	4.31	120.00	0.00	0.50
20.00	5.30	0.22	4.15	120.00	0.00	0.50
21.00	5.80	0.19	3.28	120.00	0.00	0.50
22.00	7.40	0.20	2.70	120.00	0.00	0.50
23.00	19.00	0.50	2.63	120.00	0.00	0.50
24.00	14.10	0.88	6.24	120.00	0.00	0.50
25.00	11.60	0.50	4.31	120.00	0.00	0.50
26.00	6.20	0.20	3.23	120.00	0.00	0.50
27.00	10.30	0.33	3.20	120.00	0.00	0.50
28.00	10.50	0.29	2.76	120.00	0.00	0.50
29.00	7.80	0.38	4.87	120.00	0.00	0.50
30.00	11.20	0.26	2.32	120.00	0.00	0.50

31.00	16.30	0.64	3.93	120.00	0.00	0.50
32.00	103.50	2.21	2.14	120.00	0.00	0.50
33.00	78.10	4.04	5.17	120.00	0.00	0.50
34.00	143.90	6.90	4.79	120.00	0.00	0.50
35.00	73.40	2.02	2.75	120.00	0.00	0.50
36.00	50.20	2.46	4.90	120.00	0.00	0.50
37.00	48.50	2.94	6.06	120.00	0.00	0.50
38.00	22.70	0.96	4.23	120.00	0.00	0.50
39.00	22.10	0.80	3.62	120.00	0.00	0.50
40.00	22.60	0.62	2.74	120.00	0.00	0.50
41.00	43.00	1.91	4.44	120.00	0.00	0.50
42.00	58.70	3.14	5.35	120.00	0.00	0.50
43.00	42.30	2.48	5.86	120.00	0.00	0.50
44.00	41.50	1.92	4.63	120.00	0.00	0.50
45.00	43.60	1.07	2.45	120.00	0.00	0.50
46.00	65.10	1.96	3.01	120.00	0.00	0.50
47.00	82.20	3.12	3.80	120.00	0.00	0.50

Modify Robertson method generates Fines from qc/fs. Inputted Fines are not relevant.

Output Results:

Settlement of Saturated Sands=0.00 in.
Settlement of Unsaturated Sands=0.00 in.
Total Settlement of Saturated and Unsaturated Sands=0.00 in.
Differential Settlement=0.002 to 0.002 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
1.00	2.73	0.32	5.00	0.00	0.00	0.00
1.05	2.73	0.32	5.00	0.00	0.00	0.00
1.10	2.73	0.32	5.00	0.00	0.00	0.00
1.15	2.73	0.32	5.00	0.00	0.00	0.00
1.20	2.73	0.32	5.00	0.00	0.00	0.00
1.25	2.73	0.32	5.00	0.00	0.00	0.00
1.30	2.73	0.32	5.00	0.00	0.00	0.00
1.35	2.73	0.32	5.00	0.00	0.00	0.00
1.40	2.73	0.32	5.00	0.00	0.00	0.00
1.45	2.73	0.32	5.00	0.00	0.00	0.00
1.50	2.73	0.32	5.00	0.00	0.00	0.00
1.55	2.73	0.32	5.00	0.00	0.00	0.00
1.60	2.73	0.32	5.00	0.00	0.00	0.00
1.65	2.73	0.32	5.00	0.00	0.00	0.00
1.70	2.73	0.32	5.00	0.00	0.00	0.00
1.75	2.73	0.32	5.00	0.00	0.00	0.00
1.80	2.73	0.32	5.00	0.00	0.00	0.00
1.85	2.73	0.32	5.00	0.00	0.00	0.00
1.90	2.73	0.32	5.00	0.00	0.00	0.00
1.95	2.73	0.32	5.00	0.00	0.00	0.00
2.00	2.73	0.32	5.00	0.00	0.00	0.00
2.05	2.73	0.32	5.00	0.00	0.00	0.00
2.10	2.73	0.32	5.00	0.00	0.00	0.00
2.15	2.73	0.32	5.00	0.00	0.00	0.00
2.20	2.73	0.32	5.00	0.00	0.00	0.00
2.25	2.73	0.32	5.00	0.00	0.00	0.00
2.30	2.73	0.32	5.00	0.00	0.00	0.00
2.35	2.73	0.32	5.00	0.00	0.00	0.00
2.40	2.73	0.32	5.00	0.00	0.00	0.00
2.45	2.73	0.32	5.00	0.00	0.00	0.00
2.50	2.73	0.32	5.00	0.00	0.00	0.00
2.55	2.73	0.32	5.00	0.00	0.00	0.00
2.60	2.73	0.32	5.00	0.00	0.00	0.00
2.65	2.73	0.32	5.00	0.00	0.00	0.00
2.70	2.73	0.32	5.00	0.00	0.00	0.00
2.75	2.73	0.32	5.00	0.00	0.00	0.00
2.80	2.73	0.32	5.00	0.00	0.00	0.00
2.85	2.73	0.32	5.00	0.00	0.00	0.00
2.90	2.73	0.32	5.00	0.00	0.00	0.00
2.95	2.73	0.32	5.00	0.00	0.00	0.00
3.00	2.73	0.32	5.00	0.00	0.00	0.00
3.05	2.73	0.32	5.00	0.00	0.00	0.00
3.10	2.73	0.32	5.00	0.00	0.00	0.00
3.15	2.73	0.32	5.00	0.00	0.00	0.00
3.20	2.73	0.32	5.00	0.00	0.00	0.00
3.25	2.73	0.32	5.00	0.00	0.00	0.00

3.30	2.73	0.32	5.00	0.00	0.00	0.00
3.35	2.73	0.32	5.00	0.00	0.00	0.00
3.40	2.73	0.32	5.00	0.00	0.00	0.00
3.45	2.73	0.32	5.00	0.00	0.00	0.00
3.50	2.73	0.32	5.00	0.00	0.00	0.00
3.55	2.73	0.32	5.00	0.00	0.00	0.00
3.60	2.73	0.32	5.00	0.00	0.00	0.00
3.65	2.73	0.32	5.00	0.00	0.00	0.00
3.70	2.73	0.32	5.00	0.00	0.00	0.00
3.75	2.73	0.32	5.00	0.00	0.00	0.00
3.80	2.73	0.32	5.00	0.00	0.00	0.00
3.85	2.73	0.32	5.00	0.00	0.00	0.00
3.90	2.73	0.32	5.00	0.00	0.00	0.00
3.95	2.73	0.32	5.00	0.00	0.00	0.00
4.00	2.73	0.32	5.00	0.00	0.00	0.00
4.05	2.73	0.32	5.00	0.00	0.00	0.00
4.10	2.73	0.32	5.00	0.00	0.00	0.00
4.15	2.73	0.32	5.00	0.00	0.00	0.00
4.20	2.73	0.32	5.00	0.00	0.00	0.00
4.25	2.73	0.32	5.00	0.00	0.00	0.00
4.30	2.73	0.32	5.00	0.00	0.00	0.00
4.35	2.73	0.32	5.00	0.00	0.00	0.00
4.40	2.73	0.32	5.00	0.00	0.00	0.00
4.45	2.73	0.32	5.00	0.00	0.00	0.00
4.50	2.73	0.32	5.00	0.00	0.00	0.00
4.55	2.73	0.32	5.00	0.00	0.00	0.00
4.60	2.73	0.32	5.00	0.00	0.00	0.00
4.65	2.70	0.32	5.00	0.00	0.00	0.00
4.70	2.57	0.32	5.00	0.00	0.00	0.00
4.75	2.00	0.32	5.00	0.00	0.00	0.00
4.80	2.00	0.32	5.00	0.00	0.00	0.00
4.85	2.00	0.32	5.00	0.00	0.00	0.00
4.90	2.00	0.32	5.00	0.00	0.00	0.00
4.95	2.00	0.32	5.00	0.00	0.00	0.00
5.00	2.00	0.32	5.00	0.00	0.00	0.00
5.05	2.00	0.32	5.00	0.00	0.00	0.00
5.10	2.00	0.32	5.00	0.00	0.00	0.00
5.15	2.00	0.32	5.00	0.00	0.00	0.00
5.20	2.00	0.32	5.00	0.00	0.00	0.00
5.25	2.00	0.32	5.00	0.00	0.00	0.00
5.30	2.00	0.32	5.00	0.00	0.00	0.00
5.35	2.00	0.32	5.00	0.00	0.00	0.00
5.40	2.00	0.32	5.00	0.00	0.00	0.00
5.45	2.00	0.32	5.00	0.00	0.00	0.00
5.50	2.00	0.32	5.00	0.00	0.00	0.00
5.55	2.00	0.32	5.00	0.00	0.00	0.00
5.60	2.00	0.32	5.00	0.00	0.00	0.00
5.65	2.00	0.32	5.00	0.00	0.00	0.00
5.70	2.00	0.32	5.00	0.00	0.00	0.00
5.75	2.00	0.32	5.00	0.00	0.00	0.00
5.80	2.00	0.32	5.00	0.00	0.00	0.00
5.85	2.00	0.32	5.00	0.00	0.00	0.00
5.90	2.00	0.32	5.00	0.00	0.00	0.00
5.95	2.00	0.32	5.00	0.00	0.00	0.00
6.00	2.00	0.32	5.00	0.00	0.00	0.00
6.05	2.00	0.32	5.00	0.00	0.00	0.00
6.10	2.00	0.32	5.00	0.00	0.00	0.00
6.15	2.00	0.32	5.00	0.00	0.00	0.00
6.20	2.00	0.32	5.00	0.00	0.00	0.00
6.25	2.00	0.32	5.00	0.00	0.00	0.00
6.30	2.00	0.32	5.00	0.00	0.00	0.00
6.35	2.00	0.32	5.00	0.00	0.00	0.00
6.40	2.00	0.32	5.00	0.00	0.00	0.00
6.45	2.00	0.32	5.00	0.00	0.00	0.00
6.50	2.00	0.32	5.00	0.00	0.00	0.00
6.55	2.00	0.32	5.00	0.00	0.00	0.00
6.60	2.00	0.32	5.00	0.00	0.00	0.00
6.65	2.00	0.32	5.00	0.00	0.00	0.00
6.70	2.00	0.32	5.00	0.00	0.00	0.00
6.75	2.00	0.32	5.00	0.00	0.00	0.00
6.80	2.00	0.32	5.00	0.00	0.00	0.00
6.85	2.00	0.32	5.00	0.00	0.00	0.00
6.90	2.00	0.32	5.00	0.00	0.00	0.00
6.95	2.00	0.32	5.00	0.00	0.00	0.00
7.00	2.00	0.32	5.00	0.00	0.00	0.00

7.05	2.00	0.32	5.00	0.00	0.00	0.00
7.10	2.00	0.32	5.00	0.00	0.00	0.00
7.15	2.00	0.32	5.00	0.00	0.00	0.00
7.20	2.00	0.32	5.00	0.00	0.00	0.00
7.25	2.00	0.32	5.00	0.00	0.00	0.00
7.30	2.00	0.32	5.00	0.00	0.00	0.00
7.35	2.00	0.32	5.00	0.00	0.00	0.00
7.40	2.00	0.32	5.00	0.00	0.00	0.00
7.45	2.00	0.32	5.00	0.00	0.00	0.00
7.50	2.00	0.32	5.00	0.00	0.00	0.00
7.55	2.00	0.32	5.00	0.00	0.00	0.00
7.60	2.00	0.32	5.00	0.00	0.00	0.00
7.65	2.00	0.32	5.00	0.00	0.00	0.00
7.70	2.00	0.32	5.00	0.00	0.00	0.00
7.75	2.00	0.32	5.00	0.00	0.00	0.00
7.80	2.00	0.32	5.00	0.00	0.00	0.00
7.85	2.00	0.32	5.00	0.00	0.00	0.00
7.90	2.00	0.32	5.00	0.00	0.00	0.00
7.95	2.00	0.32	5.00	0.00	0.00	0.00
8.00	2.00	0.32	5.00	0.00	0.00	0.00
8.05	2.00	0.32	5.00	0.00	0.00	0.00
8.10	2.00	0.32	5.00	0.00	0.00	0.00
8.15	2.00	0.32	5.00	0.00	0.00	0.00
8.20	2.00	0.32	5.00	0.00	0.00	0.00
8.25	2.00	0.32	5.00	0.00	0.00	0.00
8.30	2.00	0.32	5.00	0.00	0.00	0.00
8.35	2.00	0.32	5.00	0.00	0.00	0.00
8.40	2.00	0.32	5.00	0.00	0.00	0.00
8.45	2.00	0.32	5.00	0.00	0.00	0.00
8.50	2.00	0.32	5.00	0.00	0.00	0.00
8.55	2.00	0.32	5.00	0.00	0.00	0.00
8.60	2.00	0.32	5.00	0.00	0.00	0.00
8.65	2.00	0.32	5.00	0.00	0.00	0.00
8.70	2.00	0.32	5.00	0.00	0.00	0.00
8.75	2.00	0.32	5.00	0.00	0.00	0.00
8.80	2.00	0.32	5.00	0.00	0.00	0.00
8.85	2.00	0.32	5.00	0.00	0.00	0.00
8.90	2.00	0.32	5.00	0.00	0.00	0.00
8.95	2.00	0.32	5.00	0.00	0.00	0.00
9.00	2.00	0.32	5.00	0.00	0.00	0.00
9.05	2.00	0.32	5.00	0.00	0.00	0.00
9.10	2.00	0.32	5.00	0.00	0.00	0.00
9.15	2.00	0.32	5.00	0.00	0.00	0.00
9.20	2.00	0.32	5.00	0.00	0.00	0.00
9.25	2.00	0.32	5.00	0.00	0.00	0.00
9.30	2.00	0.32	5.00	0.00	0.00	0.00
9.35	2.00	0.32	5.00	0.00	0.00	0.00
9.40	2.00	0.32	5.00	0.00	0.00	0.00
9.45	2.00	0.32	5.00	0.00	0.00	0.00
9.50	2.00	0.32	5.00	0.00	0.00	0.00
9.55	2.00	0.32	5.00	0.00	0.00	0.00
9.60	2.00	0.32	5.00	0.00	0.00	0.00
9.65	2.00	0.32	5.00	0.00	0.00	0.00
9.70	2.00	0.32	5.00	0.00	0.00	0.00
9.75	2.00	0.32	5.00	0.00	0.00	0.00
9.80	2.00	0.32	5.00	0.00	0.00	0.00
9.85	2.00	0.32	5.00	0.00	0.00	0.00
9.90	2.00	0.32	5.00	0.00	0.00	0.00
9.95	2.00	0.32	5.00	0.00	0.00	0.00
10.00	2.00	0.32	5.00	0.00	0.00	0.00
10.05	2.00	0.32	5.00	0.00	0.00	0.00
10.10	2.00	0.32	5.00	0.00	0.00	0.00
10.15	2.00	0.32	5.00	0.00	0.00	0.00
10.20	2.00	0.32	5.00	0.00	0.00	0.00
10.25	2.00	0.32	5.00	0.00	0.00	0.00
10.30	2.00	0.32	5.00	0.00	0.00	0.00
10.35	2.00	0.32	5.00	0.00	0.00	0.00
10.40	2.00	0.32	5.00	0.00	0.00	0.00
10.45	2.00	0.32	5.00	0.00	0.00	0.00
10.50	2.00	0.32	5.00	0.00	0.00	0.00
10.55	2.00	0.32	5.00	0.00	0.00	0.00
10.60	2.00	0.32	5.00	0.00	0.00	0.00
10.65	2.00	0.32	5.00	0.00	0.00	0.00
10.70	2.00	0.32	5.00	0.00	0.00	0.00
10.75	2.00	0.32	5.00	0.00	0.00	0.00

10.80	2.00	0.32	5.00	0.00	0.00	0.00
10.85	2.00	0.32	5.00	0.00	0.00	0.00
10.90	2.00	0.32	5.00	0.00	0.00	0.00
10.95	2.00	0.32	5.00	0.00	0.00	0.00
11.00	2.00	0.32	5.00	0.00	0.00	0.00
11.05	2.00	0.32	5.00	0.00	0.00	0.00
11.10	2.00	0.32	5.00	0.00	0.00	0.00
11.15	2.00	0.32	5.00	0.00	0.00	0.00
11.20	2.00	0.32	5.00	0.00	0.00	0.00
11.25	2.00	0.32	5.00	0.00	0.00	0.00
11.30	2.00	0.32	5.00	0.00	0.00	0.00
11.35	2.00	0.32	5.00	0.00	0.00	0.00
11.40	2.00	0.32	5.00	0.00	0.00	0.00
11.45	2.00	0.32	5.00	0.00	0.00	0.00
11.50	2.00	0.32	5.00	0.00	0.00	0.00
11.55	2.00	0.32	5.00	0.00	0.00	0.00
11.60	2.00	0.32	5.00	0.00	0.00	0.00
11.65	2.00	0.32	5.00	0.00	0.00	0.00
11.70	2.00	0.32	5.00	0.00	0.00	0.00
11.75	2.00	0.32	5.00	0.00	0.00	0.00
11.80	2.00	0.31	5.00	0.00	0.00	0.00
11.85	2.00	0.31	5.00	0.00	0.00	0.00
11.90	2.00	0.31	5.00	0.00	0.00	0.00
11.95	2.00	0.31	5.00	0.00	0.00	0.00
12.00	2.00	0.31	5.00	0.00	0.00	0.00
12.05	2.00	0.31	5.00	0.00	0.00	0.00
12.10	2.00	0.31	5.00	0.00	0.00	0.00
12.15	2.00	0.31	5.00	0.00	0.00	0.00
12.20	2.00	0.31	5.00	0.00	0.00	0.00
12.25	2.00	0.31	5.00	0.00	0.00	0.00
12.30	2.00	0.31	5.00	0.00	0.00	0.00
12.35	2.00	0.31	5.00	0.00	0.00	0.00
12.40	2.00	0.31	5.00	0.00	0.00	0.00
12.45	2.00	0.31	5.00	0.00	0.00	0.00
12.50	2.00	0.31	5.00	0.00	0.00	0.00
12.55	2.00	0.31	5.00	0.00	0.00	0.00
12.60	2.00	0.31	5.00	0.00	0.00	0.00
12.65	2.00	0.31	5.00	0.00	0.00	0.00
12.70	2.00	0.31	5.00	0.00	0.00	0.00
12.75	2.00	0.31	5.00	0.00	0.00	0.00
12.80	2.00	0.31	5.00	0.00	0.00	0.00
12.85	2.00	0.31	5.00	0.00	0.00	0.00
12.90	2.00	0.31	5.00	0.00	0.00	0.00
12.95	2.00	0.31	5.00	0.00	0.00	0.00
13.00	2.00	0.31	5.00	0.00	0.00	0.00
13.05	2.00	0.31	5.00	0.00	0.00	0.00
13.10	2.00	0.31	5.00	0.00	0.00	0.00
13.15	2.00	0.31	5.00	0.00	0.00	0.00
13.20	2.00	0.31	5.00	0.00	0.00	0.00
13.25	2.00	0.31	5.00	0.00	0.00	0.00
13.30	2.00	0.31	5.00	0.00	0.00	0.00
13.35	2.00	0.31	5.00	0.00	0.00	0.00
13.40	2.00	0.31	5.00	0.00	0.00	0.00
13.45	2.00	0.31	5.00	0.00	0.00	0.00
13.50	2.00	0.31	5.00	0.00	0.00	0.00
13.55	2.00	0.31	5.00	0.00	0.00	0.00
13.60	2.00	0.31	5.00	0.00	0.00	0.00
13.65	2.00	0.31	5.00	0.00	0.00	0.00
13.70	2.00	0.31	5.00	0.00	0.00	0.00
13.75	2.00	0.31	5.00	0.00	0.00	0.00
13.80	2.00	0.31	5.00	0.00	0.00	0.00
13.85	2.00	0.31	5.00	0.00	0.00	0.00
13.90	2.00	0.31	5.00	0.00	0.00	0.00
13.95	2.00	0.31	5.00	0.00	0.00	0.00
14.00	2.00	0.31	5.00	0.00	0.00	0.00
14.05	2.00	0.31	5.00	0.00	0.00	0.00
14.10	2.00	0.31	5.00	0.00	0.00	0.00
14.15	2.00	0.31	5.00	0.00	0.00	0.00
14.20	2.00	0.31	5.00	0.00	0.00	0.00
14.25	2.00	0.31	5.00	0.00	0.00	0.00
14.30	2.00	0.31	5.00	0.00	0.00	0.00
14.35	2.00	0.31	5.00	0.00	0.00	0.00
14.40	2.00	0.31	5.00	0.00	0.00	0.00
14.45	2.00	0.31	5.00	0.00	0.00	0.00
14.50	2.00	0.31	5.00	0.00	0.00	0.00

14.55	2.00	0.31	5.00	0.00	0.00	0.00
14.60	2.00	0.31	5.00	0.00	0.00	0.00
14.65	2.00	0.31	5.00	0.00	0.00	0.00
14.70	2.00	0.31	5.00	0.00	0.00	0.00
14.75	2.00	0.31	5.00	0.00	0.00	0.00
14.80	2.00	0.31	5.00	0.00	0.00	0.00
14.85	2.00	0.31	5.00	0.00	0.00	0.00
14.90	2.00	0.31	5.00	0.00	0.00	0.00
14.95	2.00	0.31	5.00	0.00	0.00	0.00
15.00	2.00	0.31	5.00	0.00	0.00	0.00
15.05	2.00	0.31	5.00	0.00	0.00	0.00
15.10	2.00	0.31	5.00	0.00	0.00	0.00
15.15	2.00	0.31	5.00	0.00	0.00	0.00
15.20	2.00	0.31	5.00	0.00	0.00	0.00
15.25	2.00	0.31	5.00	0.00	0.00	0.00
15.30	2.00	0.31	5.00	0.00	0.00	0.00
15.35	2.00	0.31	5.00	0.00	0.00	0.00
15.40	2.00	0.31	5.00	0.00	0.00	0.00
15.45	2.00	0.31	5.00	0.00	0.00	0.00
15.50	2.00	0.31	5.00	0.00	0.00	0.00
15.55	2.00	0.31	5.00	0.00	0.00	0.00
15.60	2.00	0.31	5.00	0.00	0.00	0.00
15.65	2.00	0.31	5.00	0.00	0.00	0.00
15.70	2.00	0.31	5.00	0.00	0.00	0.00
15.75	2.00	0.31	5.00	0.00	0.00	0.00
15.80	2.00	0.31	5.00	0.00	0.00	0.00
15.85	2.00	0.31	5.00	0.00	0.00	0.00
15.90	2.00	0.31	5.00	0.00	0.00	0.00
15.95	2.00	0.31	5.00	0.00	0.00	0.00
16.00	2.00	0.31	5.00	0.00	0.00	0.00
16.05	2.00	0.31	5.00	0.00	0.00	0.00
16.10	2.00	0.31	5.00	0.00	0.00	0.00
16.15	2.00	0.31	5.00	0.00	0.00	0.00
16.20	2.00	0.31	5.00	0.00	0.00	0.00
16.25	2.00	0.31	5.00	0.00	0.00	0.00
16.30	2.00	0.31	5.00	0.00	0.00	0.00
16.35	2.00	0.31	5.00	0.00	0.00	0.00
16.40	2.00	0.31	5.00	0.00	0.00	0.00
16.45	2.00	0.31	5.00	0.00	0.00	0.00
16.50	2.00	0.31	5.00	0.00	0.00	0.00
16.55	2.00	0.31	5.00	0.00	0.00	0.00
16.60	2.00	0.31	5.00	0.00	0.00	0.00
16.65	2.00	0.31	5.00	0.00	0.00	0.00
16.70	2.00	0.31	5.00	0.00	0.00	0.00
16.75	2.00	0.31	5.00	0.00	0.00	0.00
16.80	2.00	0.31	5.00	0.00	0.00	0.00
16.85	2.00	0.31	5.00	0.00	0.00	0.00
16.90	2.00	0.31	5.00	0.00	0.00	0.00
16.95	2.00	0.31	5.00	0.00	0.00	0.00
17.00	2.00	0.31	5.00	0.00	0.00	0.00
17.05	2.00	0.31	5.00	0.00	0.00	0.00
17.10	2.00	0.31	5.00	0.00	0.00	0.00
17.15	2.00	0.31	5.00	0.00	0.00	0.00
17.20	2.00	0.31	5.00	0.00	0.00	0.00
17.25	2.00	0.31	5.00	0.00	0.00	0.00
17.30	2.00	0.31	5.00	0.00	0.00	0.00
17.35	2.00	0.31	5.00	0.00	0.00	0.00
17.40	2.00	0.31	5.00	0.00	0.00	0.00
17.45	2.00	0.31	5.00	0.00	0.00	0.00
17.50	2.00	0.31	5.00	0.00	0.00	0.00
17.55	2.00	0.31	5.00	0.00	0.00	0.00
17.60	2.00	0.31	5.00	0.00	0.00	0.00
17.65	2.00	0.31	5.00	0.00	0.00	0.00
17.70	2.00	0.31	5.00	0.00	0.00	0.00
17.75	2.00	0.31	5.00	0.00	0.00	0.00
17.80	2.00	0.31	5.00	0.00	0.00	0.00
17.85	2.00	0.31	5.00	0.00	0.00	0.00
17.90	2.00	0.31	5.00	0.00	0.00	0.00
17.95	2.00	0.31	5.00	0.00	0.00	0.00
18.00	2.00	0.31	5.00	0.00	0.00	0.00
18.05	2.00	0.31	5.00	0.00	0.00	0.00
18.10	2.00	0.31	5.00	0.00	0.00	0.00
18.15	2.00	0.31	5.00	0.00	0.00	0.00
18.20	2.00	0.31	5.00	0.00	0.00	0.00
18.25	2.00	0.31	5.00	0.00	0.00	0.00

18.30	2.00	0.31	5.00	0.00	0.00	0.00
18.35	2.00	0.31	5.00	0.00	0.00	0.00
18.40	2.00	0.31	5.00	0.00	0.00	0.00
18.45	2.00	0.31	5.00	0.00	0.00	0.00
18.50	2.00	0.31	5.00	0.00	0.00	0.00
18.55	2.00	0.31	5.00	0.00	0.00	0.00
18.60	2.00	0.31	5.00	0.00	0.00	0.00
18.65	2.00	0.31	5.00	0.00	0.00	0.00
18.70	2.00	0.31	5.00	0.00	0.00	0.00
18.75	2.00	0.31	5.00	0.00	0.00	0.00
18.80	2.00	0.31	5.00	0.00	0.00	0.00
18.85	2.00	0.31	5.00	0.00	0.00	0.00
18.90	2.00	0.31	5.00	0.00	0.00	0.00
18.95	2.00	0.31	5.00	0.00	0.00	0.00
19.00	2.00	0.31	5.00	0.00	0.00	0.00
19.05	2.00	0.31	5.00	0.00	0.00	0.00
19.10	2.00	0.31	5.00	0.00	0.00	0.00
19.15	2.00	0.31	5.00	0.00	0.00	0.00
19.20	2.00	0.31	5.00	0.00	0.00	0.00
19.25	2.00	0.31	5.00	0.00	0.00	0.00
19.30	2.00	0.31	5.00	0.00	0.00	0.00
19.35	2.00	0.31	5.00	0.00	0.00	0.00
19.40	2.00	0.31	5.00	0.00	0.00	0.00
19.45	2.00	0.31	5.00	0.00	0.00	0.00
19.50	2.00	0.31	5.00	0.00	0.00	0.00
19.55	2.00	0.31	5.00	0.00	0.00	0.00
19.60	2.00	0.31	5.00	0.00	0.00	0.00
19.65	2.00	0.31	5.00	0.00	0.00	0.00
19.70	2.00	0.31	5.00	0.00	0.00	0.00
19.75	2.00	0.31	5.00	0.00	0.00	0.00
19.80	2.00	0.31	5.00	0.00	0.00	0.00
19.85	2.00	0.31	5.00	0.00	0.00	0.00
19.90	2.00	0.31	5.00	0.00	0.00	0.00
19.95	2.00	0.31	5.00	0.00	0.00	0.00
20.00	2.00	0.31	5.00	0.00	0.00	0.00
20.05	2.00	0.31	5.00	0.00	0.00	0.00
20.10	2.00	0.31	5.00	0.00	0.00	0.00
20.15	2.00	0.31	5.00	0.00	0.00	0.00
20.20	2.00	0.31	5.00	0.00	0.00	0.00
20.25	2.00	0.31	5.00	0.00	0.00	0.00
20.30	2.00	0.31	5.00	0.00	0.00	0.00
20.35	2.00	0.31	5.00	0.00	0.00	0.00
20.40	2.00	0.31	5.00	0.00	0.00	0.00
20.45	2.00	0.31	5.00	0.00	0.00	0.00
20.50	2.00	0.31	5.00	0.00	0.00	0.00
20.55	2.00	0.31	5.00	0.00	0.00	0.00
20.60	2.00	0.31	5.00	0.00	0.00	0.00
20.65	2.00	0.31	5.00	0.00	0.00	0.00
20.70	2.00	0.31	5.00	0.00	0.00	0.00
20.75	2.00	0.31	5.00	0.00	0.00	0.00
20.80	2.00	0.31	5.00	0.00	0.00	0.00
20.85	2.00	0.31	5.00	0.00	0.00	0.00
20.90	2.00	0.31	5.00	0.00	0.00	0.00
20.95	2.00	0.31	5.00	0.00	0.00	0.00
21.00	2.00	0.31	5.00	0.00	0.00	0.00
21.05	2.00	0.31	5.00	0.00	0.00	0.00
21.10	2.00	0.31	5.00	0.00	0.00	0.00
21.15	2.00	0.31	5.00	0.00	0.00	0.00
21.20	2.00	0.31	5.00	0.00	0.00	0.00
21.25	2.00	0.31	5.00	0.00	0.00	0.00
21.30	2.00	0.31	5.00	0.00	0.00	0.00
21.35	2.00	0.31	5.00	0.00	0.00	0.00
21.40	2.00	0.31	5.00	0.00	0.00	0.00
21.45	2.00	0.31	5.00	0.00	0.00	0.00
21.50	2.00	0.31	5.00	0.00	0.00	0.00
21.55	2.00	0.31	5.00	0.00	0.00	0.00
21.60	2.00	0.31	5.00	0.00	0.00	0.00
21.65	2.00	0.31	5.00	0.00	0.00	0.00
21.70	2.00	0.31	5.00	0.00	0.00	0.00
21.75	2.00	0.31	5.00	0.00	0.00	0.00
21.80	2.00	0.31	5.00	0.00	0.00	0.00
21.85	2.00	0.31	5.00	0.00	0.00	0.00
21.90	2.00	0.31	5.00	0.00	0.00	0.00
21.95	2.00	0.31	5.00	0.00	0.00	0.00
22.00	2.00	0.31	5.00	0.00	0.00	0.00

22.05	2.00	0.31	5.00	0.00	0.00	0.00
22.10	2.00	0.31	5.00	0.00	0.00	0.00
22.15	2.00	0.32	5.00	0.00	0.00	0.00
22.20	2.00	0.32	5.00	0.00	0.00	0.00
22.25	2.00	0.32	5.00	0.00	0.00	0.00
22.30	2.00	0.32	5.00	0.00	0.00	0.00
22.35	2.00	0.32	5.00	0.00	0.00	0.00
22.40	2.00	0.32	5.00	0.00	0.00	0.00
22.45	2.00	0.32	5.00	0.00	0.00	0.00
22.50	2.00	0.32	5.00	0.00	0.00	0.00
22.55	2.00	0.32	5.00	0.00	0.00	0.00
22.60	2.00	0.32	5.00	0.00	0.00	0.00
22.65	2.00	0.32	5.00	0.00	0.00	0.00
22.70	2.00	0.32	5.00	0.00	0.00	0.00
22.75	2.00	0.32	5.00	0.00	0.00	0.00
22.80	2.00	0.32	5.00	0.00	0.00	0.00
22.85	2.00	0.32	5.00	0.00	0.00	0.00
22.90	2.00	0.32	5.00	0.00	0.00	0.00
22.95	2.00	0.32	5.00	0.00	0.00	0.00
23.00	2.00	0.32	5.00	0.00	0.00	0.00
23.05	2.00	0.32	5.00	0.00	0.00	0.00
23.10	2.00	0.32	5.00	0.00	0.00	0.00
23.15	2.00	0.32	5.00	0.00	0.00	0.00
23.20	2.00	0.32	5.00	0.00	0.00	0.00
23.25	2.00	0.32	5.00	0.00	0.00	0.00
23.30	2.00	0.32	5.00	0.00	0.00	0.00
23.35	2.00	0.32	5.00	0.00	0.00	0.00
23.40	2.00	0.32	5.00	0.00	0.00	0.00
23.45	2.00	0.32	5.00	0.00	0.00	0.00
23.50	2.00	0.32	5.00	0.00	0.00	0.00
23.55	2.00	0.32	5.00	0.00	0.00	0.00
23.60	2.00	0.32	5.00	0.00	0.00	0.00
23.65	2.00	0.32	5.00	0.00	0.00	0.00
23.70	2.00	0.32	5.00	0.00	0.00	0.00
23.75	2.00	0.33	5.00	0.00	0.00	0.00
23.80	2.00	0.33	5.00	0.00	0.00	0.00
23.85	2.00	0.33	5.00	0.00	0.00	0.00
23.90	2.00	0.33	5.00	0.00	0.00	0.00
23.95	2.00	0.33	5.00	0.00	0.00	0.00
24.00	2.00	0.33	5.00	0.00	0.00	0.00
24.05	2.00	0.33	5.00	0.00	0.00	0.00
24.10	2.00	0.33	5.00	0.00	0.00	0.00
24.15	2.00	0.33	5.00	0.00	0.00	0.00
24.20	2.00	0.33	5.00	0.00	0.00	0.00
24.25	2.00	0.33	5.00	0.00	0.00	0.00
24.30	2.00	0.33	5.00	0.00	0.00	0.00
24.35	2.00	0.33	5.00	0.00	0.00	0.00
24.40	2.00	0.33	5.00	0.00	0.00	0.00
24.45	2.00	0.33	5.00	0.00	0.00	0.00
24.50	2.00	0.33	5.00	0.00	0.00	0.00
24.55	2.00	0.33	5.00	0.00	0.00	0.00
24.60	2.00	0.33	5.00	0.00	0.00	0.00
24.65	2.00	0.33	5.00	0.00	0.00	0.00
24.70	2.00	0.33	5.00	0.00	0.00	0.00
24.75	2.00	0.33	5.00	0.00	0.00	0.00
24.80	2.00	0.33	5.00	0.00	0.00	0.00
24.85	2.00	0.33	5.00	0.00	0.00	0.00
24.90	2.00	0.33	5.00	0.00	0.00	0.00
24.95	2.00	0.33	5.00	0.00	0.00	0.00
25.00	2.00	0.33	5.00	0.00	0.00	0.00
25.05	2.00	0.33	5.00	0.00	0.00	0.00
25.10	2.00	0.33	5.00	0.00	0.00	0.00
25.15	2.00	0.33	5.00	0.00	0.00	0.00
25.20	2.00	0.33	5.00	0.00	0.00	0.00
25.25	2.00	0.33	5.00	0.00	0.00	0.00
25.30	2.00	0.33	5.00	0.00	0.00	0.00
25.35	2.00	0.33	5.00	0.00	0.00	0.00
25.40	2.00	0.33	5.00	0.00	0.00	0.00
25.45	2.00	0.33	5.00	0.00	0.00	0.00
25.50	2.00	0.34	5.00	0.00	0.00	0.00
25.55	2.00	0.34	5.00	0.00	0.00	0.00
25.60	2.00	0.34	5.00	0.00	0.00	0.00
25.65	2.00	0.34	5.00	0.00	0.00	0.00
25.70	2.00	0.34	5.00	0.00	0.00	0.00
25.75	2.00	0.34	5.00	0.00	0.00	0.00

25.80	2.00	0.34	5.00	0.00	0.00	0.00
25.85	2.00	0.34	5.00	0.00	0.00	0.00
25.90	2.00	0.34	5.00	0.00	0.00	0.00
25.95	2.00	0.34	5.00	0.00	0.00	0.00
26.00	2.00	0.34	5.00	0.00	0.00	0.00
26.05	2.00	0.34	5.00	0.00	0.00	0.00
26.10	2.00	0.34	5.00	0.00	0.00	0.00
26.15	2.00	0.34	5.00	0.00	0.00	0.00
26.20	2.00	0.34	5.00	0.00	0.00	0.00
26.25	2.00	0.34	5.00	0.00	0.00	0.00
26.30	2.00	0.34	5.00	0.00	0.00	0.00
26.35	2.00	0.34	5.00	0.00	0.00	0.00
26.40	2.00	0.34	5.00	0.00	0.00	0.00
26.45	2.00	0.34	5.00	0.00	0.00	0.00
26.50	2.00	0.34	5.00	0.00	0.00	0.00
26.55	2.00	0.34	5.00	0.00	0.00	0.00
26.60	2.00	0.34	5.00	0.00	0.00	0.00
26.65	2.00	0.34	5.00	0.00	0.00	0.00
26.70	2.00	0.34	5.00	0.00	0.00	0.00
26.75	2.00	0.34	5.00	0.00	0.00	0.00
26.80	2.00	0.34	5.00	0.00	0.00	0.00
26.85	2.00	0.34	5.00	0.00	0.00	0.00
26.90	2.00	0.34	5.00	0.00	0.00	0.00
26.95	2.00	0.34	5.00	0.00	0.00	0.00
27.00	2.00	0.34	5.00	0.00	0.00	0.00
27.05	2.00	0.34	5.00	0.00	0.00	0.00
27.10	2.00	0.34	5.00	0.00	0.00	0.00
27.15	2.00	0.34	5.00	0.00	0.00	0.00
27.20	2.00	0.34	5.00	0.00	0.00	0.00
27.25	2.00	0.34	5.00	0.00	0.00	0.00
27.30	2.00	0.34	5.00	0.00	0.00	0.00
27.35	2.00	0.34	5.00	0.00	0.00	0.00
27.40	2.00	0.34	5.00	0.00	0.00	0.00
27.45	2.00	0.34	5.00	0.00	0.00	0.00
27.50	2.00	0.35	5.00	0.00	0.00	0.00
27.55	2.00	0.35	5.00	0.00	0.00	0.00
27.60	2.00	0.35	5.00	0.00	0.00	0.00
27.65	2.00	0.35	5.00	0.00	0.00	0.00
27.70	2.00	0.35	5.00	0.00	0.00	0.00
27.75	2.00	0.35	5.00	0.00	0.00	0.00
27.80	2.00	0.35	5.00	0.00	0.00	0.00
27.85	2.00	0.35	5.00	0.00	0.00	0.00
27.90	2.00	0.35	5.00	0.00	0.00	0.00
27.95	2.00	0.35	5.00	0.00	0.00	0.00
28.00	2.00	0.35	5.00	0.00	0.00	0.00
28.05	2.00	0.35	5.00	0.00	0.00	0.00
28.10	2.00	0.35	5.00	0.00	0.00	0.00
28.15	2.00	0.35	5.00	0.00	0.00	0.00
28.20	2.00	0.35	5.00	0.00	0.00	0.00
28.25	2.00	0.35	5.00	0.00	0.00	0.00
28.30	2.00	0.35	5.00	0.00	0.00	0.00
28.35	2.00	0.35	5.00	0.00	0.00	0.00
28.40	2.00	0.35	5.00	0.00	0.00	0.00
28.45	2.00	0.35	5.00	0.00	0.00	0.00
28.50	2.00	0.35	5.00	0.00	0.00	0.00
28.55	2.00	0.35	5.00	0.00	0.00	0.00
28.60	2.00	0.35	5.00	0.00	0.00	0.00
28.65	2.00	0.35	5.00	0.00	0.00	0.00
28.70	2.00	0.35	5.00	0.00	0.00	0.00
28.75	2.00	0.35	5.00	0.00	0.00	0.00
28.80	2.00	0.35	5.00	0.00	0.00	0.00
28.85	2.00	0.35	5.00	0.00	0.00	0.00
28.90	2.00	0.35	5.00	0.00	0.00	0.00
28.95	2.00	0.35	5.00	0.00	0.00	0.00
29.00	2.00	0.35	5.00	0.00	0.00	0.00
29.05	2.00	0.35	5.00	0.00	0.00	0.00
29.10	2.00	0.35	5.00	0.00	0.00	0.00
29.15	2.00	0.35	5.00	0.00	0.00	0.00
29.20	2.00	0.35	5.00	0.00	0.00	0.00
29.25	2.00	0.35	5.00	0.00	0.00	0.00
29.30	2.00	0.35	5.00	0.00	0.00	0.00
29.35	2.00	0.35	5.00	0.00	0.00	0.00
29.40	2.00	0.35	5.00	0.00	0.00	0.00
29.45	2.00	0.35	5.00	0.00	0.00	0.00
29.50	2.00	0.35	5.00	0.00	0.00	0.00

29.55	2.00	0.35	5.00	0.00	0.00	0.00
29.60	2.00	0.35	5.00	0.00	0.00	0.00
29.65	2.00	0.36	5.00	0.00	0.00	0.00
29.70	2.00	0.36	5.00	0.00	0.00	0.00
29.75	2.00	0.36	5.00	0.00	0.00	0.00
29.80	2.00	0.36	5.00	0.00	0.00	0.00
29.85	2.00	0.36	5.00	0.00	0.00	0.00
29.90	2.00	0.36	5.00	0.00	0.00	0.00
29.95	2.00	0.36	5.00	0.00	0.00	0.00
30.00	2.00	0.36	5.00	0.00	0.00	0.00
30.05	2.00	0.36	5.00	0.00	0.00	0.00
30.10	2.00	0.36	5.00	0.00	0.00	0.00
30.15	2.00	0.36	5.00	0.00	0.00	0.00
30.20	2.00	0.36	5.00	0.00	0.00	0.00
30.25	2.00	0.36	5.00	0.00	0.00	0.00
30.30	2.00	0.36	5.00	0.00	0.00	0.00
30.35	2.00	0.36	5.00	0.00	0.00	0.00
30.40	2.00	0.36	5.00	0.00	0.00	0.00
30.45	2.00	0.36	5.00	0.00	0.00	0.00
30.50	2.00	0.36	5.00	0.00	0.00	0.00
30.55	2.00	0.36	5.00	0.00	0.00	0.00
30.60	2.00	0.36	5.00	0.00	0.00	0.00
30.65	2.00	0.36	5.00	0.00	0.00	0.00
30.70	2.00	0.36	5.00	0.00	0.00	0.00
30.75	2.00	0.36	5.00	0.00	0.00	0.00
30.80	2.00	0.36	5.00	0.00	0.00	0.00
30.85	2.00	0.36	5.00	0.00	0.00	0.00
30.90	2.00	0.36	5.00	0.00	0.00	0.00
30.95	2.00	0.36	5.00	0.00	0.00	0.00
31.00	2.00	0.36	5.00	0.00	0.00	0.00
31.05	2.00	0.36	5.00	0.00	0.00	0.00
31.10	2.00	0.36	5.00	0.00	0.00	0.00
31.15	2.00	0.36	5.00	0.00	0.00	0.00
31.20	2.00	0.36	5.00	0.00	0.00	0.00
31.25	2.00	0.36	5.00	0.00	0.00	0.00
31.30	2.00	0.36	5.00	0.00	0.00	0.00
31.35	0.33	0.36	0.91*	0.00	0.00	0.00
31.40	0.30	0.36	0.84*	0.00	0.00	0.00
31.45	0.29	0.36	0.81*	0.00	0.00	0.00
31.50	0.29	0.36	0.80*	0.00	0.00	0.00
31.55	0.29	0.36	0.81*	0.00	0.00	0.00
31.60	0.29	0.36	0.82*	0.00	0.00	0.00
31.65	0.30	0.36	0.84*	0.00	0.00	0.00
31.70	0.31	0.36	0.86*	0.00	0.00	0.00
31.75	0.32	0.36	0.89*	0.00	0.00	0.00
31.80	0.33	0.36	0.93*	0.00	0.00	0.00
31.85	0.35	0.36	0.97*	0.00	0.00	0.00
31.90	0.36	0.36	1.01	0.00	0.00	0.00
31.95	0.38	0.36	1.05	0.00	0.00	0.00
32.00	0.40	0.36	1.10	0.00	0.00	0.00
32.05	0.41	0.36	1.14	0.00	0.00	0.00
32.10	0.43	0.36	1.19	0.00	0.00	0.00
32.15	0.45	0.36	1.24	0.00	0.00	0.00
32.20	0.47	0.36	1.29	0.00	0.00	0.00
32.25	0.49	0.36	1.36	0.00	0.00	0.00
32.30	0.51	0.36	1.43	0.00	0.00	0.00
32.35	0.54	0.36	1.51	0.00	0.00	0.00
32.40	0.58	0.36	1.60	0.00	0.00	0.00
32.45	0.62	0.36	1.71	0.00	0.00	0.00
32.50	0.66	0.36	1.83	0.00	0.00	0.00
32.55	0.72	0.36	1.98	0.00	0.00	0.00
32.60	0.78	0.36	2.16	0.00	0.00	0.00
32.65	0.85	0.36	2.37	0.00	0.00	0.00
32.70	0.95	0.36	2.62	0.00	0.00	0.00
32.75	1.06	0.36	2.94	0.00	0.00	0.00
32.80	1.20	0.36	3.34	0.00	0.00	0.00
32.85	1.39	0.36	3.84	0.00	0.00	0.00
32.90	1.63	0.36	4.51	0.00	0.00	0.00
32.95	2.00	0.36	5.00	0.00	0.00	0.00
33.00	2.00	0.36	5.00	0.00	0.00	0.00
33.05	2.00	0.36	5.00	0.00	0.00	0.00
33.10	2.00	0.36	5.00	0.00	0.00	0.00
33.15	1.96	0.36	5.00	0.00	0.00	0.00
33.20	1.89	0.36	5.00	0.00	0.00	0.00
33.25	1.84	0.36	5.00	0.00	0.00	0.00

33.30	1.80	0.36	4.98	0.00	0.00	0.00
33.35	1.78	0.36	4.92	0.00	0.00	0.00
33.40	1.77	0.36	4.89	0.00	0.00	0.00
33.45	1.76	0.36	4.88	0.00	0.00	0.00
33.50	1.77	0.36	4.88	0.00	0.00	0.00
33.55	1.78	0.36	4.91	0.00	0.00	0.00
33.60	1.79	0.36	4.95	0.00	0.00	0.00
33.65	1.81	0.36	5.00	0.00	0.00	0.00
33.70	1.83	0.36	5.00	0.00	0.00	0.00
33.75	1.87	0.36	5.00	0.00	0.00	0.00
33.80	1.90	0.36	5.00	0.00	0.00	0.00
33.85	1.93	0.36	5.00	0.00	0.00	0.00
33.90	1.97	0.36	5.00	0.00	0.00	0.00
33.95	2.01	0.36	5.00	0.00	0.00	0.00
34.00	2.05	0.36	5.00	0.00	0.00	0.00
34.05	1.94	0.36	5.00	0.00	0.00	0.00
34.10	1.84	0.36	5.00	0.00	0.00	0.00
34.15	1.73	0.36	4.78	0.00	0.00	0.00
34.20	1.63	0.36	4.51	0.00	0.00	0.00
34.25	1.54	0.36	4.24	0.00	0.00	0.00
34.30	1.44	0.36	3.98	0.00	0.00	0.00
34.35	1.35	0.36	3.72	0.00	0.00	0.00
34.40	1.26	0.36	3.48	0.00	0.00	0.00
34.45	1.17	0.36	3.24	0.00	0.00	0.00
34.50	1.09	0.36	3.00	0.00	0.00	0.00
34.55	1.01	0.36	2.78	0.00	0.00	0.00
34.60	0.93	0.36	2.56	0.00	0.00	0.00
34.65	0.85	0.36	2.35	0.00	0.00	0.00
34.70	0.78	0.36	2.14	0.00	0.00	0.00
34.75	0.70	0.36	1.94	0.00	0.00	0.00
34.80	0.63	0.36	1.75	0.00	0.00	0.00
34.85	0.57	0.36	1.56	0.00	0.00	0.00
34.90	0.50	0.36	1.39	0.00	0.00	0.00
34.95	0.44	0.36	1.22	0.00	0.00	0.00
35.00	0.39	0.36	1.07	0.00	0.00	0.00
35.05	0.40	0.36	1.10	0.00	0.00	0.00
35.10	0.42	0.36	1.15	0.00	0.00	0.00
35.15	0.44	0.36	1.20	0.00	0.00	0.00
35.20	0.46	0.36	1.27	0.00	0.00	0.00
35.25	0.49	0.36	1.34	0.00	0.00	0.00
35.30	0.52	0.36	1.43	0.00	0.00	0.00
35.35	0.56	0.36	1.54	0.00	0.00	0.00
35.40	0.61	0.36	1.68	0.00	0.00	0.00
35.45	0.67	0.36	1.84	0.00	0.00	0.00
35.50	2.00	0.36	5.00	0.00	0.00	0.00
35.55	2.00	0.36	5.00	0.00	0.00	0.00
35.60	2.00	0.36	5.00	0.00	0.00	0.00
35.65	2.00	0.36	5.00	0.00	0.00	0.00
35.70	2.00	0.36	5.00	0.00	0.00	0.00
35.75	2.00	0.36	5.00	0.00	0.00	0.00
35.80	2.00	0.36	5.00	0.00	0.00	0.00
35.85	2.00	0.36	5.00	0.00	0.00	0.00
35.90	2.00	0.36	5.00	0.00	0.00	0.00
35.95	2.00	0.36	5.00	0.00	0.00	0.00
36.00	2.00	0.36	5.00	0.00	0.00	0.00
36.05	2.00	0.36	5.00	0.00	0.00	0.00
36.10	2.00	0.36	5.00	0.00	0.00	0.00
36.15	2.00	0.36	5.00	0.00	0.00	0.00
36.20	2.00	0.36	5.00	0.00	0.00	0.00
36.25	2.00	0.36	5.00	0.00	0.00	0.00
36.30	2.00	0.36	5.00	0.00	0.00	0.00
36.35	2.00	0.36	5.00	0.00	0.00	0.00
36.40	2.00	0.36	5.00	0.00	0.00	0.00
36.45	2.00	0.36	5.00	0.00	0.00	0.00
36.50	2.00	0.36	5.00	0.00	0.00	0.00
36.55	2.00	0.36	5.00	0.00	0.00	0.00
36.60	2.00	0.36	5.00	0.00	0.00	0.00
36.65	2.00	0.36	5.00	0.00	0.00	0.00
36.70	2.00	0.36	5.00	0.00	0.00	0.00
36.75	2.00	0.36	5.00	0.00	0.00	0.00
36.80	2.00	0.36	5.00	0.00	0.00	0.00
36.85	2.00	0.36	5.00	0.00	0.00	0.00
36.90	2.00	0.36	5.00	0.00	0.00	0.00
36.95	2.00	0.36	5.00	0.00	0.00	0.00
37.00	2.00	0.36	5.00	0.00	0.00	0.00

37.05	2.00	0.36	5.00	0.00	0.00	0.00
37.10	2.00	0.36	5.00	0.00	0.00	0.00
37.15	2.00	0.36	5.00	0.00	0.00	0.00
37.20	2.00	0.36	5.00	0.00	0.00	0.00
37.25	2.00	0.36	5.00	0.00	0.00	0.00
37.30	2.00	0.36	5.00	0.00	0.00	0.00
37.35	2.00	0.36	5.00	0.00	0.00	0.00
37.40	2.00	0.36	5.00	0.00	0.00	0.00
37.45	2.00	0.36	5.00	0.00	0.00	0.00
37.50	2.00	0.36	5.00	0.00	0.00	0.00
37.55	2.00	0.36	5.00	0.00	0.00	0.00
37.60	2.00	0.36	5.00	0.00	0.00	0.00
37.65	2.00	0.36	5.00	0.00	0.00	0.00
37.70	2.00	0.36	5.00	0.00	0.00	0.00
37.75	2.00	0.36	5.00	0.00	0.00	0.00
37.80	2.00	0.36	5.00	0.00	0.00	0.00
37.85	2.00	0.36	5.00	0.00	0.00	0.00
37.90	2.00	0.36	5.00	0.00	0.00	0.00
37.95	2.00	0.36	5.00	0.00	0.00	0.00
38.00	2.00	0.36	5.00	0.00	0.00	0.00
38.05	2.00	0.36	5.00	0.00	0.00	0.00
38.10	2.00	0.36	5.00	0.00	0.00	0.00
38.15	2.00	0.36	5.00	0.00	0.00	0.00
38.20	2.00	0.36	5.00	0.00	0.00	0.00
38.25	2.00	0.36	5.00	0.00	0.00	0.00
38.30	2.00	0.36	5.00	0.00	0.00	0.00
38.35	2.00	0.36	5.00	0.00	0.00	0.00
38.40	2.00	0.36	5.00	0.00	0.00	0.00
38.45	2.00	0.36	5.00	0.00	0.00	0.00
38.50	2.00	0.36	5.00	0.00	0.00	0.00
38.55	2.00	0.36	5.00	0.00	0.00	0.00
38.60	2.00	0.36	5.00	0.00	0.00	0.00
38.65	2.00	0.36	5.00	0.00	0.00	0.00
38.70	2.00	0.36	5.00	0.00	0.00	0.00
38.75	2.00	0.36	5.00	0.00	0.00	0.00
38.80	2.00	0.36	5.00	0.00	0.00	0.00
38.85	2.00	0.36	5.00	0.00	0.00	0.00
38.90	2.00	0.36	5.00	0.00	0.00	0.00
38.95	2.00	0.36	5.00	0.00	0.00	0.00
39.00	2.00	0.36	5.00	0.00	0.00	0.00
39.05	2.00	0.36	5.00	0.00	0.00	0.00
39.10	2.00	0.36	5.00	0.00	0.00	0.00
39.15	2.00	0.36	5.00	0.00	0.00	0.00
39.20	2.00	0.36	5.00	0.00	0.00	0.00
39.25	2.00	0.36	5.00	0.00	0.00	0.00
39.30	2.00	0.36	5.00	0.00	0.00	0.00
39.35	2.00	0.36	5.00	0.00	0.00	0.00
39.40	2.00	0.36	5.00	0.00	0.00	0.00
39.45	2.00	0.36	5.00	0.00	0.00	0.00
39.50	2.00	0.36	5.00	0.00	0.00	0.00
39.55	2.00	0.36	5.00	0.00	0.00	0.00
39.60	2.00	0.36	5.00	0.00	0.00	0.00
39.65	2.00	0.36	5.00	0.00	0.00	0.00
39.70	2.00	0.36	5.00	0.00	0.00	0.00
39.75	2.00	0.36	5.00	0.00	0.00	0.00
39.80	2.00	0.36	5.00	0.00	0.00	0.00
39.85	2.00	0.36	5.00	0.00	0.00	0.00
39.90	2.00	0.36	5.00	0.00	0.00	0.00
39.95	2.00	0.36	5.00	0.00	0.00	0.00
40.00	2.00	0.36	5.00	0.00	0.00	0.00
40.05	2.00	0.36	5.00	0.00	0.00	0.00
40.10	2.00	0.36	5.00	0.00	0.00	0.00
40.15	2.00	0.36	5.00	0.00	0.00	0.00
40.20	2.00	0.36	5.00	0.00	0.00	0.00
40.25	2.00	0.36	5.00	0.00	0.00	0.00
40.30	2.00	0.36	5.00	0.00	0.00	0.00
40.35	2.00	0.36	5.00	0.00	0.00	0.00
40.40	2.00	0.36	5.00	0.00	0.00	0.00
40.45	2.00	0.36	5.00	0.00	0.00	0.00
40.50	2.00	0.36	5.00	0.00	0.00	0.00
40.55	2.00	0.36	5.00	0.00	0.00	0.00
40.60	2.00	0.36	5.00	0.00	0.00	0.00
40.65	2.00	0.36	5.00	0.00	0.00	0.00
40.70	2.00	0.36	5.00	0.00	0.00	0.00
40.75	2.00	0.36	5.00	0.00	0.00	0.00

40.80	2.00	0.36	5.00	0.00	0.00	0.00
40.85	2.00	0.36	5.00	0.00	0.00	0.00
40.90	2.00	0.36	5.00	0.00	0.00	0.00
40.95	2.00	0.36	5.00	0.00	0.00	0.00
41.00	2.00	0.36	5.00	0.00	0.00	0.00
41.05	2.00	0.36	5.00	0.00	0.00	0.00
41.10	2.00	0.36	5.00	0.00	0.00	0.00
41.15	2.00	0.36	5.00	0.00	0.00	0.00
41.20	2.00	0.36	5.00	0.00	0.00	0.00
41.25	2.00	0.36	5.00	0.00	0.00	0.00
41.30	2.00	0.36	5.00	0.00	0.00	0.00
41.35	2.00	0.36	5.00	0.00	0.00	0.00
41.40	2.00	0.36	5.00	0.00	0.00	0.00
41.45	2.00	0.36	5.00	0.00	0.00	0.00
41.50	2.00	0.36	5.00	0.00	0.00	0.00
41.55	2.00	0.36	5.00	0.00	0.00	0.00
41.60	2.00	0.36	5.00	0.00	0.00	0.00
41.65	2.00	0.36	5.00	0.00	0.00	0.00
41.70	2.00	0.36	5.00	0.00	0.00	0.00
41.75	2.00	0.36	5.00	0.00	0.00	0.00
41.80	2.00	0.36	5.00	0.00	0.00	0.00
41.85	2.00	0.36	5.00	0.00	0.00	0.00
41.90	2.00	0.36	5.00	0.00	0.00	0.00
41.95	2.00	0.36	5.00	0.00	0.00	0.00
42.00	2.00	0.36	5.00	0.00	0.00	0.00
42.05	2.00	0.36	5.00	0.00	0.00	0.00
42.10	2.00	0.36	5.00	0.00	0.00	0.00
42.15	2.00	0.36	5.00	0.00	0.00	0.00
42.20	2.00	0.36	5.00	0.00	0.00	0.00
42.25	2.00	0.36	5.00	0.00	0.00	0.00
42.30	2.00	0.36	5.00	0.00	0.00	0.00
42.35	2.00	0.36	5.00	0.00	0.00	0.00
42.40	2.00	0.36	5.00	0.00	0.00	0.00
42.45	2.00	0.36	5.00	0.00	0.00	0.00
42.50	2.00	0.36	5.00	0.00	0.00	0.00
42.55	2.00	0.36	5.00	0.00	0.00	0.00
42.60	2.00	0.36	5.00	0.00	0.00	0.00
42.65	2.00	0.36	5.00	0.00	0.00	0.00
42.70	2.00	0.36	5.00	0.00	0.00	0.00
42.75	2.00	0.36	5.00	0.00	0.00	0.00
42.80	2.00	0.36	5.00	0.00	0.00	0.00
42.85	2.00	0.36	5.00	0.00	0.00	0.00
42.90	2.00	0.36	5.00	0.00	0.00	0.00
42.95	2.00	0.36	5.00	0.00	0.00	0.00
43.00	2.00	0.36	5.00	0.00	0.00	0.00
43.05	2.00	0.36	5.00	0.00	0.00	0.00
43.10	2.00	0.36	5.00	0.00	0.00	0.00
43.15	2.00	0.36	5.00	0.00	0.00	0.00
43.20	2.00	0.36	5.00	0.00	0.00	0.00
43.25	2.00	0.36	5.00	0.00	0.00	0.00
43.30	2.00	0.36	5.00	0.00	0.00	0.00
43.35	2.00	0.36	5.00	0.00	0.00	0.00
43.40	2.00	0.36	5.00	0.00	0.00	0.00
43.45	2.00	0.36	5.00	0.00	0.00	0.00
43.50	2.00	0.36	5.00	0.00	0.00	0.00
43.55	2.00	0.36	5.00	0.00	0.00	0.00
43.60	2.00	0.36	5.00	0.00	0.00	0.00
43.65	2.00	0.36	5.00	0.00	0.00	0.00
43.70	2.00	0.36	5.00	0.00	0.00	0.00
43.75	2.00	0.36	5.00	0.00	0.00	0.00
43.80	2.00	0.36	5.00	0.00	0.00	0.00
43.85	2.00	0.36	5.00	0.00	0.00	0.00
43.90	2.00	0.36	5.00	0.00	0.00	0.00
43.95	2.00	0.36	5.00	0.00	0.00	0.00
44.00	2.00	0.36	5.00	0.00	0.00	0.00
44.05	2.00	0.36	5.00	0.00	0.00	0.00
44.10	2.00	0.36	5.00	0.00	0.00	0.00
44.15	2.00	0.36	5.00	0.00	0.00	0.00
44.20	2.00	0.36	5.00	0.00	0.00	0.00
44.25	2.00	0.36	5.00	0.00	0.00	0.00
44.30	2.00	0.36	5.00	0.00	0.00	0.00
44.35	2.00	0.36	5.00	0.00	0.00	0.00
44.40	2.00	0.36	5.00	0.00	0.00	0.00
44.45	2.00	0.36	5.00	0.00	0.00	0.00
44.50	2.00	0.36	5.00	0.00	0.00	0.00

44.55	2.00	0.36	5.00	0.00	0.00	0.00
44.60	2.00	0.36	5.00	0.00	0.00	0.00
44.65	2.00	0.36	5.00	0.00	0.00	0.00
44.70	2.00	0.36	5.00	0.00	0.00	0.00
44.75	2.00	0.36	5.00	0.00	0.00	0.00
44.80	2.00	0.36	5.00	0.00	0.00	0.00
44.85	2.00	0.36	5.00	0.00	0.00	0.00
44.90	2.00	0.36	5.00	0.00	0.00	0.00
44.95	2.00	0.36	5.00	0.00	0.00	0.00
45.00	2.00	0.36	5.00	0.00	0.00	0.00
45.05	2.00	0.36	5.00	0.00	0.00	0.00
45.10	2.00	0.36	5.00	0.00	0.00	0.00
45.15	2.00	0.36	5.00	0.00	0.00	0.00
45.20	2.00	0.36	5.00	0.00	0.00	0.00
45.25	2.00	0.36	5.00	0.00	0.00	0.00
45.30	2.00	0.36	5.00	0.00	0.00	0.00
45.35	2.00	0.36	5.00	0.00	0.00	0.00
45.40	2.00	0.36	5.00	0.00	0.00	0.00
45.45	2.00	0.36	5.00	0.00	0.00	0.00
45.50	2.00	0.36	5.00	0.00	0.00	0.00
45.55	2.00	0.36	5.00	0.00	0.00	0.00
45.60	2.00	0.36	5.00	0.00	0.00	0.00
45.65	2.00	0.36	5.00	0.00	0.00	0.00
45.70	2.00	0.36	5.00	0.00	0.00	0.00
45.75	2.00	0.36	5.00	0.00	0.00	0.00
45.80	2.00	0.36	5.00	0.00	0.00	0.00
45.85	2.00	0.36	5.00	0.00	0.00	0.00
45.90	2.00	0.36	5.00	0.00	0.00	0.00
45.95	0.44	0.36	1.21	0.00	0.00	0.00
46.00	0.44	0.36	1.22	0.00	0.00	0.00
46.05	0.46	0.36	1.26	0.00	0.00	0.00
46.10	0.47	0.36	1.31	0.00	0.00	0.00
46.15	0.49	0.36	1.35	0.00	0.00	0.00
46.20	0.50	0.36	1.40	0.00	0.00	0.00
46.25	0.52	0.36	1.44	0.00	0.00	0.00
46.30	0.54	0.36	1.49	0.00	0.00	0.00
46.35	0.55	0.36	1.53	0.00	0.00	0.00
46.40	0.57	0.36	1.58	0.00	0.00	0.00
46.45	0.59	0.36	1.63	0.00	0.00	0.00
46.50	0.60	0.36	1.67	0.00	0.00	0.00
46.55	0.62	0.36	1.72	0.00	0.00	0.00
46.60	0.63	0.36	1.76	0.00	0.00	0.00
46.65	0.65	0.36	1.81	0.00	0.00	0.00
46.70	0.67	0.36	1.86	0.00	0.00	0.00
46.75	0.68	0.36	1.90	0.00	0.00	0.00
46.80	0.70	0.36	1.95	0.00	0.00	0.00
46.85	0.72	0.36	1.99	0.00	0.00	0.00
46.90	0.73	0.36	2.04	0.00	0.00	0.00
46.95	0.75	0.36	2.09	0.00	0.00	0.00
47.00	0.77	0.36	2.13	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

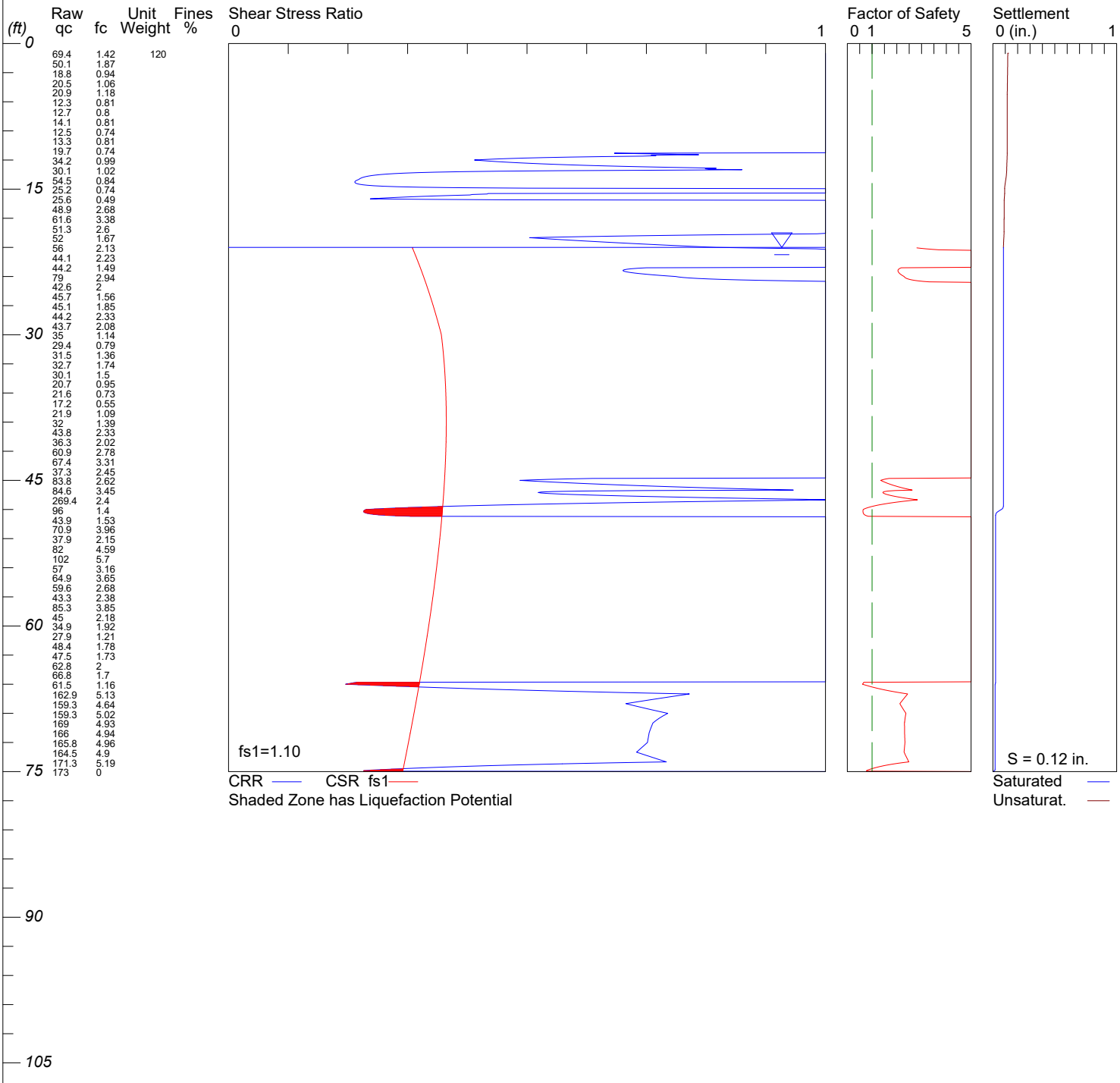
1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

De Soto/Burbank

Hole No.=CPT-5 Water Depth=21 ft

Magnitude=6.74
Acceleration=0.453g



qc	fc
69.4	1.42
50.1	1.87
18.8	0.94
20.5	1.06
20.9	1.18
12.3	0.81
12.7	0.8
14.1	0.81
12.5	0.74
13.3	0.81
19.7	0.74
34.2	0.99
30.1	1.02
54.5	0.84
25.2	0.74
25.6	0.49
48.9	2.68
61.6	3.38
51.3	2.6
52	1.67
56	2.13
44.1	2.23
44.2	1.49
79	2.94
42.6	2
45.7	1.56
45.1	1.85
44.2	2.33
43.7	2.08
35	1.14
29.4	0.79
31.5	1.36
32.7	1.74
30.1	1.5
20.7	0.95
21.6	0.73
17.2	0.55
21.9	1.09
32	1.39
43.8	2.33
36.3	2.02
60.9	2.78
67.4	3.31
37.3	2.45
83.8	2.62
84.6	3.45
269.4	2.4
96	1.4
43.9	1.53
70.9	3.96
37.9	2.15
82	4.59
102	5.7
57	3.16
64.9	3.65
59.6	2.68
43.3	2.38
85.3	3.85
45	2.18
34.9	1.92
27.9	1.21
48.4	1.78
47.5	1.73
62.8	2
66.8	1.7
61.5	1.16
162.9	5.13
159.3	4.64
159.3	5.02
169	4.93
166	4.94
165.8	4.96
164.5	4.9
171.3	5.19
173	0

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LIQUEFACTION ANALYSIS SUMMARY
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Input File Name: C:\Users\jonne\OneDrive\Work\Projects\6743 -- Adler Realty August 2019 Update\Liquefaction\CPT-5 Reduced PGA.liq
Title: De Soto/Burbank
Subtitle: 10% Probability - Reduced PGAm

Surface Elev.=
Hole No.=CPT-5
Depth of Hole= 75.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration= 0.45 g
Earthquake Magnitude= 6.74

Input Data:
Surface Elev.=
Hole No.=CPT-5
Depth of Hole=75.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration=0.45 g
Earthquake Magnitude=6.74
No-Liquefiable Soils: Based on Analysis

1. CPT Calculation Method: Modify Robertson*
2. Settlement Analysis Method: Tokimatsu, M-correction
3. Fines Correction for Liquefaction: Stark/Olson et al.*
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
9. User request factor of safety (apply to CSR) , User= 1.1
Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	qc atm	fs atm	Rf pcf	gamma %	Fines mm	D50
1.00	69.40	1.42	2.05	120.00	0.00	0.50
2.00	50.10	1.87	3.73	120.00	0.00	0.50
3.00	18.80	0.94	5.00	120.00	0.00	0.50
4.00	20.50	1.06	5.17	120.00	0.00	0.50
5.00	20.90	1.18	5.65	120.00	0.00	0.50
6.00	12.30	0.81	6.59	120.00	0.00	0.50
7.00	12.70	0.80	6.30	120.00	0.00	0.50
8.00	14.10	0.81	5.74	120.00	0.00	0.50
9.00	12.50	0.74	5.92	120.00	0.00	0.50
10.00	13.30	0.81	6.09	120.00	0.00	0.50
11.00	19.70	0.74	3.76	120.00	0.00	0.50
12.00	34.20	0.99	2.89	120.00	0.00	0.50
13.00	30.10	1.02	3.39	120.00	0.00	0.50
14.00	54.50	0.84	1.54	120.00	0.00	0.50
15.00	25.20	0.74	2.94	120.00	0.00	0.50
16.00	25.60	0.49	1.91	120.00	0.00	0.50
17.00	48.90	2.68	5.48	120.00	0.00	0.50
18.00	61.60	3.38	5.49	120.00	0.00	0.50
19.00	51.30	2.60	5.07	120.00	0.00	0.50
20.00	52.00	1.67	3.21	120.00	0.00	0.50
21.00	56.00	2.13	3.80	120.00	0.00	0.50
22.00	44.10	2.23	5.06	120.00	0.00	0.50
23.00	44.20	1.49	3.37	120.00	0.00	0.50
24.00	79.00	2.94	3.72	120.00	0.00	0.50
25.00	42.60	2.00	4.69	120.00	0.00	0.50
26.00	45.70	1.56	3.41	120.00	0.00	0.50
27.00	45.10	1.85	4.10	120.00	0.00	0.50
28.00	44.20	2.33	5.27	120.00	0.00	0.50
29.00	43.70	2.08	4.76	120.00	0.00	0.50
30.00	35.00	1.14	3.26	120.00	0.00	0.50

31.00	29.40	0.79	2.69	120.00	0.00	0.50
32.00	31.50	1.36	4.32	120.00	0.00	0.50
33.00	32.70	1.74	5.32	120.00	0.00	0.50
34.00	30.10	1.50	4.98	120.00	0.00	0.50
35.00	20.70	0.95	4.59	120.00	0.00	0.50
36.00	21.60	0.73	3.38	120.00	0.00	0.50
37.00	17.20	0.55	3.20	120.00	0.00	0.50
38.00	21.90	1.09	4.98	120.00	0.00	0.50
39.00	32.00	1.39	4.34	120.00	0.00	0.50
40.00	43.80	2.33	5.32	120.00	0.00	0.50
41.00	36.30	2.02	5.56	120.00	0.00	0.50
42.00	60.90	2.78	4.56	120.00	0.00	0.50
43.00	67.40	3.31	4.91	120.00	0.00	0.50
44.00	37.30	2.45	6.57	120.00	0.00	0.50
45.00	83.80	2.62	3.13	120.00	0.00	0.50
46.00	84.60	3.45	4.08	120.00	0.00	0.50
47.00	269.40	2.40	0.89	120.00	0.00	0.50
48.00	96.00	1.40	1.46	120.00	0.00	0.50
49.00	43.90	1.53	3.49	120.00	0.00	0.50
50.00	70.90	3.96	5.59	120.00	0.00	0.50
51.00	37.90	2.15	5.67	120.00	0.00	0.50
52.00	82.00	4.59	5.60	120.00	0.00	0.50
53.00	102.00	5.70	5.59	120.00	0.00	0.50
54.00	57.00	3.16	5.54	120.00	0.00	0.50
55.00	64.90	3.65	5.62	120.00	0.00	0.50
56.00	59.60	2.68	4.50	120.00	0.00	0.50
57.00	43.30	2.38	5.50	120.00	0.00	0.50
58.00	85.30	3.85	4.51	120.00	0.00	0.50
59.00	45.00	2.18	4.84	120.00	0.00	0.50
60.00	34.90	1.92	5.50	120.00	0.00	0.50
61.00	27.90	1.21	4.34	120.00	0.00	0.50
62.00	48.40	1.78	3.68	120.00	0.00	0.50
63.00	47.50	1.73	3.64	120.00	0.00	0.50
64.00	62.80	2.00	3.18	120.00	0.00	0.50
65.00	66.80	1.70	2.54	120.00	0.00	0.50
66.00	61.50	1.16	1.89	120.00	0.00	0.50
67.00	162.90	5.13	3.15	120.00	0.00	0.50
68.00	159.30	4.64	2.91	120.00	0.00	0.50
69.00	159.30	5.02	3.15	120.00	0.00	0.50
70.00	169.00	4.93	2.92	120.00	0.00	0.50
71.00	166.00	4.94	2.98	120.00	0.00	0.50
72.00	165.80	4.96	2.99	120.00	0.00	0.50
73.00	164.50	4.90	2.98	120.00	0.00	0.50
74.00	171.30	5.19	3.03	120.00	0.00	0.50
75.00	173.00	0.00	0.00	120.00	0.00	0.50

Modify Robertson method generates Fines from qc/fs. Inputted Fines are not relevant.

Output Results:

Settlement of Saturated Sands=0.08 in.
Settlement of Unsaturated Sands=0.04 in.
Total Settlement of Saturated and Unsaturated Sands=0.12 in.
Differential Settlement=0.060 to 0.079 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
1.00	2.73	0.32	5.00	0.08	0.04	0.12
1.05	2.73	0.32	5.00	0.08	0.04	0.12
1.10	2.73	0.32	5.00	0.08	0.04	0.12
1.15	2.73	0.32	5.00	0.08	0.04	0.12
1.20	2.73	0.32	5.00	0.08	0.04	0.12
1.25	2.73	0.32	5.00	0.08	0.04	0.12
1.30	2.73	0.32	5.00	0.08	0.04	0.12
1.35	2.73	0.32	5.00	0.08	0.04	0.12
1.40	2.64	0.32	5.00	0.08	0.04	0.12
1.45	2.52	0.32	5.00	0.08	0.04	0.12
1.50	2.41	0.32	5.00	0.08	0.03	0.12
1.55	2.31	0.32	5.00	0.08	0.03	0.12
1.60	2.23	0.32	5.00	0.08	0.03	0.12
1.65	2.15	0.32	5.00	0.08	0.03	0.12
1.70	2.08	0.32	5.00	0.08	0.03	0.12
1.75	2.02	0.32	5.00	0.08	0.03	0.12
1.80	1.97	0.32	5.00	0.08	0.03	0.12
1.85	1.93	0.32	5.00	0.08	0.03	0.12

1.90	1.89	0.32	5.00	0.08	0.03	0.12
1.95	1.86	0.32	5.00	0.08	0.03	0.12
2.00	1.84	0.32	5.00	0.08	0.03	0.12
2.05	1.72	0.32	5.00	0.08	0.03	0.12
2.10	1.61	0.32	5.00	0.08	0.03	0.12
2.15	1.52	0.32	5.00	0.08	0.03	0.12
2.20	1.43	0.32	5.00	0.08	0.03	0.12
2.25	1.35	0.32	5.00	0.08	0.03	0.12
2.30	1.28	0.32	5.00	0.08	0.03	0.12
2.35	1.22	0.32	5.00	0.08	0.03	0.12
2.40	1.17	0.32	5.00	0.08	0.03	0.12
2.45	1.12	0.32	5.00	0.08	0.03	0.12
2.50	1.09	0.32	5.00	0.08	0.03	0.12
2.55	1.06	0.32	5.00	0.08	0.03	0.12
2.60	1.05	0.32	5.00	0.08	0.03	0.12
2.65	1.05	0.32	5.00	0.08	0.03	0.12
2.70	1.08	0.32	5.00	0.08	0.03	0.12
2.75	1.13	0.32	5.00	0.08	0.03	0.12
2.80	1.23	0.32	5.00	0.08	0.03	0.12
2.85	1.42	0.32	5.00	0.08	0.03	0.12
2.90	1.78	0.32	5.00	0.08	0.03	0.12
2.95	1.56	0.32	5.00	0.08	0.03	0.12
3.00	1.86	0.32	5.00	0.08	0.03	0.12
3.05	1.89	0.32	5.00	0.08	0.03	0.12
3.10	1.91	0.32	5.00	0.08	0.03	0.12
3.15	1.94	0.32	5.00	0.08	0.03	0.12
3.20	1.97	0.32	5.00	0.08	0.03	0.12
3.25	2.01	0.32	5.00	0.08	0.03	0.12
3.30	2.04	0.32	5.00	0.08	0.03	0.12
3.35	2.07	0.32	5.00	0.08	0.03	0.12
3.40	2.11	0.32	5.00	0.08	0.03	0.12
3.45	2.14	0.32	5.00	0.08	0.03	0.12
3.50	2.18	0.32	5.00	0.08	0.03	0.12
3.55	2.22	0.32	5.00	0.08	0.03	0.12
3.60	2.26	0.32	5.00	0.08	0.03	0.12
3.65	2.30	0.32	5.00	0.08	0.03	0.12
3.70	2.34	0.32	5.00	0.08	0.03	0.12
3.75	2.38	0.32	5.00	0.08	0.03	0.12
3.80	2.43	0.32	5.00	0.08	0.03	0.12
3.85	2.47	0.32	5.00	0.08	0.03	0.12
3.90	2.52	0.32	5.00	0.08	0.03	0.12
3.95	2.57	0.32	5.00	0.08	0.03	0.12
4.00	2.62	0.32	5.00	0.08	0.03	0.12
4.05	2.73	0.32	5.00	0.08	0.03	0.12
4.10	2.73	0.32	5.00	0.08	0.03	0.12
4.15	2.73	0.32	5.00	0.08	0.03	0.12
4.20	2.73	0.32	5.00	0.08	0.03	0.12
4.25	2.73	0.32	5.00	0.08	0.03	0.12
4.30	2.70	0.32	5.00	0.08	0.03	0.12
4.35	2.64	0.32	5.00	0.08	0.03	0.12
4.40	2.59	0.32	5.00	0.08	0.03	0.12
4.45	2.54	0.32	5.00	0.08	0.03	0.12
4.50	2.49	0.32	5.00	0.08	0.03	0.12
4.55	2.44	0.32	5.00	0.08	0.03	0.12
4.60	2.40	0.32	5.00	0.08	0.03	0.12
4.65	2.35	0.32	5.00	0.08	0.03	0.12
4.70	2.31	0.32	5.00	0.08	0.03	0.12
4.75	2.27	0.32	5.00	0.08	0.03	0.12
4.80	2.22	0.32	5.00	0.08	0.03	0.12
4.85	2.19	0.32	5.00	0.08	0.03	0.12
4.90	2.15	0.32	5.00	0.08	0.03	0.12
4.95	2.11	0.32	5.00	0.08	0.03	0.12
5.00	2.07	0.32	5.00	0.08	0.03	0.12
5.05	1.92	0.32	5.00	0.08	0.03	0.12
5.10	1.77	0.32	5.00	0.08	0.03	0.12
5.15	1.63	0.32	5.00	0.08	0.03	0.12
5.20	1.51	0.32	5.00	0.08	0.03	0.12
5.25	2.00	0.32	5.00	0.08	0.03	0.12
5.30	2.00	0.32	5.00	0.08	0.03	0.12
5.35	2.00	0.32	5.00	0.08	0.03	0.12
5.40	2.00	0.32	5.00	0.08	0.03	0.12
5.45	2.00	0.32	5.00	0.08	0.03	0.12
5.50	2.00	0.32	5.00	0.08	0.03	0.12
5.55	2.00	0.32	5.00	0.08	0.03	0.12
5.60	2.00	0.32	5.00	0.08	0.03	0.12

5.65	2.00	0.32	5.00	0.08	0.03	0.12
5.70	2.00	0.32	5.00	0.08	0.03	0.12
5.75	2.00	0.32	5.00	0.08	0.03	0.12
5.80	2.00	0.32	5.00	0.08	0.03	0.12
5.85	2.00	0.32	5.00	0.08	0.03	0.12
5.90	2.00	0.32	5.00	0.08	0.03	0.12
5.95	2.00	0.32	5.00	0.08	0.03	0.12
6.00	2.00	0.32	5.00	0.08	0.03	0.12
6.05	2.00	0.32	5.00	0.08	0.03	0.12
6.10	2.00	0.32	5.00	0.08	0.03	0.12
6.15	2.00	0.32	5.00	0.08	0.03	0.12
6.20	2.00	0.32	5.00	0.08	0.03	0.12
6.25	2.00	0.32	5.00	0.08	0.03	0.12
6.30	2.00	0.32	5.00	0.08	0.03	0.12
6.35	2.00	0.32	5.00	0.08	0.03	0.12
6.40	2.00	0.32	5.00	0.08	0.03	0.12
6.45	2.00	0.32	5.00	0.08	0.03	0.12
6.50	2.00	0.32	5.00	0.08	0.03	0.12
6.55	2.00	0.32	5.00	0.08	0.03	0.12
6.60	2.00	0.32	5.00	0.08	0.03	0.12
6.65	2.00	0.32	5.00	0.08	0.03	0.12
6.70	2.00	0.32	5.00	0.08	0.03	0.12
6.75	2.00	0.32	5.00	0.08	0.03	0.12
6.80	2.00	0.32	5.00	0.08	0.03	0.12
6.85	2.00	0.32	5.00	0.08	0.03	0.12
6.90	2.00	0.32	5.00	0.08	0.03	0.12
6.95	2.00	0.32	5.00	0.08	0.03	0.12
7.00	2.00	0.32	5.00	0.08	0.03	0.12
7.05	2.00	0.32	5.00	0.08	0.03	0.12
7.10	2.00	0.32	5.00	0.08	0.03	0.12
7.15	2.00	0.32	5.00	0.08	0.03	0.12
7.20	2.00	0.32	5.00	0.08	0.03	0.12
7.25	2.00	0.32	5.00	0.08	0.03	0.12
7.30	2.00	0.32	5.00	0.08	0.03	0.12
7.35	2.00	0.32	5.00	0.08	0.03	0.12
7.40	2.00	0.32	5.00	0.08	0.03	0.12
7.45	2.00	0.32	5.00	0.08	0.03	0.12
7.50	2.00	0.32	5.00	0.08	0.03	0.12
7.55	2.00	0.32	5.00	0.08	0.03	0.12
7.60	2.00	0.32	5.00	0.08	0.03	0.12
7.65	2.00	0.32	5.00	0.08	0.03	0.12
7.70	2.00	0.32	5.00	0.08	0.03	0.12
7.75	2.00	0.32	5.00	0.08	0.03	0.12
7.80	2.00	0.32	5.00	0.08	0.03	0.12
7.85	2.00	0.32	5.00	0.08	0.03	0.12
7.90	2.00	0.32	5.00	0.08	0.03	0.12
7.95	2.00	0.32	5.00	0.08	0.03	0.12
8.00	2.00	0.32	5.00	0.08	0.03	0.12
8.05	2.00	0.32	5.00	0.08	0.03	0.12
8.10	2.00	0.32	5.00	0.08	0.03	0.12
8.15	2.00	0.32	5.00	0.08	0.03	0.12
8.20	2.00	0.32	5.00	0.08	0.03	0.12
8.25	2.00	0.32	5.00	0.08	0.03	0.12
8.30	2.00	0.32	5.00	0.08	0.03	0.12
8.35	2.00	0.32	5.00	0.08	0.03	0.12
8.40	2.00	0.32	5.00	0.08	0.03	0.12
8.45	2.00	0.32	5.00	0.08	0.03	0.12
8.50	2.00	0.32	5.00	0.08	0.03	0.12
8.55	2.00	0.32	5.00	0.08	0.03	0.12
8.60	2.00	0.32	5.00	0.08	0.03	0.12
8.65	2.00	0.32	5.00	0.08	0.03	0.12
8.70	2.00	0.32	5.00	0.08	0.03	0.12
8.75	2.00	0.32	5.00	0.08	0.03	0.12
8.80	2.00	0.32	5.00	0.08	0.03	0.12
8.85	2.00	0.32	5.00	0.08	0.03	0.12
8.90	2.00	0.32	5.00	0.08	0.03	0.12
8.95	2.00	0.32	5.00	0.08	0.03	0.12
9.00	2.00	0.32	5.00	0.08	0.03	0.12
9.05	2.00	0.32	5.00	0.08	0.03	0.12
9.10	2.00	0.32	5.00	0.08	0.03	0.12
9.15	2.00	0.32	5.00	0.08	0.03	0.12
9.20	2.00	0.32	5.00	0.08	0.03	0.12
9.25	2.00	0.32	5.00	0.08	0.03	0.12
9.30	2.00	0.32	5.00	0.08	0.03	0.12
9.35	2.00	0.32	5.00	0.08	0.03	0.12

9.40	2.00	0.32	5.00	0.08	0.03	0.12
9.45	2.00	0.32	5.00	0.08	0.03	0.12
9.50	2.00	0.32	5.00	0.08	0.03	0.12
9.55	2.00	0.32	5.00	0.08	0.03	0.12
9.60	2.00	0.32	5.00	0.08	0.03	0.12
9.65	2.00	0.32	5.00	0.08	0.03	0.12
9.70	2.00	0.32	5.00	0.08	0.03	0.12
9.75	2.00	0.32	5.00	0.08	0.03	0.12
9.80	2.00	0.32	5.00	0.08	0.03	0.12
9.85	2.00	0.32	5.00	0.08	0.03	0.12
9.90	2.00	0.32	5.00	0.08	0.03	0.12
9.95	2.00	0.32	5.00	0.08	0.03	0.12
10.00	2.00	0.32	5.00	0.08	0.03	0.12
10.05	2.00	0.32	5.00	0.08	0.03	0.12
10.10	2.00	0.32	5.00	0.08	0.03	0.12
10.15	2.00	0.32	5.00	0.08	0.03	0.12
10.20	2.00	0.32	5.00	0.08	0.03	0.12
10.25	2.00	0.32	5.00	0.08	0.03	0.12
10.30	2.00	0.32	5.00	0.08	0.03	0.12
10.35	2.00	0.32	5.00	0.08	0.03	0.12
10.40	2.00	0.32	5.00	0.08	0.03	0.12
10.45	2.00	0.32	5.00	0.08	0.03	0.12
10.50	2.00	0.32	5.00	0.08	0.03	0.12
10.55	2.00	0.32	5.00	0.08	0.03	0.12
10.60	2.00	0.32	5.00	0.08	0.03	0.12
10.65	2.00	0.32	5.00	0.08	0.03	0.12
10.70	2.00	0.32	5.00	0.08	0.03	0.12
10.75	2.00	0.32	5.00	0.08	0.03	0.12
10.80	2.00	0.32	5.00	0.08	0.03	0.12
10.85	2.00	0.32	5.00	0.08	0.03	0.12
10.90	2.00	0.32	5.00	0.08	0.03	0.12
10.95	2.00	0.32	5.00	0.08	0.03	0.12
11.00	2.00	0.32	5.00	0.08	0.03	0.12
11.05	2.00	0.32	5.00	0.08	0.03	0.12
11.10	2.00	0.32	5.00	0.08	0.03	0.12
11.15	2.00	0.32	5.00	0.08	0.03	0.12
11.20	2.00	0.32	5.00	0.08	0.03	0.12
11.25	2.00	0.32	5.00	0.08	0.03	0.12
11.30	0.65	0.32	5.00	0.08	0.03	0.12
11.35	0.69	0.32	5.00	0.08	0.03	0.12
11.40	0.74	0.32	5.00	0.08	0.03	0.12
11.45	0.79	0.32	5.00	0.08	0.03	0.12
11.50	0.71	0.32	5.00	0.08	0.03	0.12
11.55	0.72	0.32	5.00	0.08	0.03	0.12
11.60	0.69	0.32	5.00	0.08	0.03	0.12
11.65	0.62	0.32	5.00	0.08	0.03	0.12
11.70	0.57	0.32	5.00	0.08	0.03	0.11
11.75	0.53	0.32	5.00	0.08	0.03	0.11
11.80	0.50	0.31	5.00	0.08	0.03	0.11
11.85	0.47	0.31	5.00	0.08	0.03	0.11
11.90	0.45	0.31	5.00	0.08	0.03	0.11
11.95	0.43	0.31	5.00	0.08	0.03	0.11
12.00	0.41	0.31	5.00	0.08	0.03	0.11
12.05	0.42	0.31	5.00	0.08	0.03	0.11
12.10	0.43	0.31	5.00	0.08	0.03	0.11
12.15	0.45	0.31	5.00	0.08	0.03	0.11
12.20	0.46	0.31	5.00	0.08	0.03	0.11
12.25	0.47	0.31	5.00	0.08	0.03	0.11
12.30	0.49	0.31	5.00	0.08	0.03	0.11
12.35	0.51	0.31	5.00	0.08	0.03	0.11
12.40	0.53	0.31	5.00	0.08	0.03	0.11
12.45	0.55	0.31	5.00	0.08	0.03	0.11
12.50	0.57	0.31	5.00	0.08	0.03	0.11
12.55	0.60	0.31	5.00	0.08	0.03	0.11
12.60	0.63	0.31	5.00	0.08	0.03	0.11
12.65	0.66	0.31	5.00	0.08	0.03	0.11
12.70	0.70	0.31	5.00	0.08	0.03	0.11
12.75	0.74	0.31	5.00	0.08	0.03	0.11
12.80	0.78	0.31	5.00	0.08	0.03	0.11
12.85	0.82	0.31	5.00	0.08	0.03	0.11
12.90	0.80	0.31	5.00	0.08	0.03	0.11
12.95	0.81	0.31	5.00	0.08	0.03	0.11
13.00	0.86	0.31	5.00	0.08	0.03	0.11
13.05	0.72	0.31	5.00	0.08	0.03	0.11
13.10	0.55	0.31	5.00	0.08	0.03	0.11

13.15	0.45	0.31	5.00	0.08	0.03	0.11
13.20	0.39	0.31	5.00	0.08	0.03	0.11
13.25	0.35	0.31	5.00	0.08	0.03	0.11
13.30	0.32	0.31	5.00	0.08	0.03	0.11
13.35	0.29	0.31	5.00	0.08	0.03	0.11
13.40	0.28	0.31	5.00	0.08	0.02	0.11
13.45	0.26	0.31	5.00	0.08	0.02	0.11
13.50	0.25	0.31	5.00	0.08	0.02	0.11
13.55	0.25	0.31	5.00	0.08	0.02	0.11
13.60	0.24	0.31	5.00	0.08	0.02	0.11
13.65	0.23	0.31	5.00	0.08	0.02	0.11
13.70	0.23	0.31	5.00	0.08	0.02	0.11
13.75	0.23	0.31	5.00	0.08	0.02	0.11
13.80	0.22	0.31	5.00	0.08	0.02	0.11
13.85	0.22	0.31	5.00	0.08	0.02	0.11
13.90	0.22	0.31	5.00	0.08	0.02	0.11
13.95	0.22	0.31	5.00	0.08	0.02	0.10
14.00	0.22	0.31	5.00	0.08	0.02	0.10
14.05	0.22	0.31	5.00	0.08	0.02	0.10
14.10	0.21	0.31	5.00	0.08	0.02	0.10
14.15	0.21	0.31	5.00	0.08	0.02	0.10
14.20	0.21	0.31	5.00	0.08	0.02	0.10
14.25	0.21	0.31	5.00	0.08	0.02	0.10
14.30	0.21	0.31	5.00	0.08	0.02	0.10
14.35	0.21	0.31	5.00	0.08	0.01	0.10
14.40	0.21	0.31	5.00	0.08	0.01	0.10
14.45	0.22	0.31	5.00	0.08	0.01	0.10
14.50	0.22	0.31	5.00	0.08	0.01	0.10
14.55	0.22	0.31	5.00	0.08	0.01	0.10
14.60	0.23	0.31	5.00	0.08	0.01	0.10
14.65	0.24	0.31	5.00	0.08	0.01	0.10
14.70	0.26	0.31	5.00	0.08	0.01	0.10
14.75	0.28	0.31	5.00	0.08	0.01	0.10
14.80	0.32	0.31	5.00	0.08	0.01	0.10
14.85	0.38	0.31	5.00	0.08	0.01	0.10
14.90	0.50	0.31	5.00	0.08	0.01	0.10
14.95	2.00	0.31	5.00	0.08	0.01	0.09
15.00	2.00	0.31	5.00	0.08	0.01	0.09
15.05	2.00	0.31	5.00	0.08	0.01	0.09
15.10	2.00	0.31	5.00	0.08	0.01	0.09
15.15	2.00	0.31	5.00	0.08	0.01	0.09
15.20	2.00	0.31	5.00	0.08	0.01	0.09
15.25	2.00	0.31	5.00	0.08	0.01	0.09
15.30	2.00	0.31	5.00	0.08	0.01	0.09
15.35	2.00	0.31	5.00	0.08	0.01	0.09
15.40	2.00	0.31	5.00	0.08	0.01	0.09
15.45	0.43	0.31	5.00	0.08	0.01	0.09
15.50	0.43	0.31	5.00	0.08	0.01	0.09
15.55	0.41	0.31	5.00	0.08	0.01	0.09
15.60	0.40	0.31	5.00	0.08	0.01	0.09
15.65	0.37	0.31	5.00	0.08	0.01	0.09
15.70	0.35	0.31	5.00	0.08	0.01	0.09
15.75	0.32	0.31	5.00	0.08	0.01	0.09
15.80	0.30	0.31	5.00	0.08	0.01	0.09
15.85	0.28	0.31	5.00	0.08	0.01	0.09
15.90	0.27	0.31	5.00	0.08	0.01	0.09
15.95	0.25	0.31	5.00	0.08	0.01	0.09
16.00	0.24	0.31	5.00	0.08	0.01	0.09
16.05	0.33	0.31	5.00	0.08	0.01	0.09
16.10	0.47	0.31	5.00	0.08	0.01	0.09
16.15	2.00	0.31	5.00	0.08	0.01	0.09
16.20	2.00	0.31	5.00	0.08	0.01	0.09
16.25	2.00	0.31	5.00	0.08	0.01	0.09
16.30	2.00	0.31	5.00	0.08	0.01	0.09
16.35	2.00	0.31	5.00	0.08	0.01	0.09
16.40	2.00	0.31	5.00	0.08	0.01	0.09
16.45	2.00	0.31	5.00	0.08	0.01	0.09
16.50	2.00	0.31	5.00	0.08	0.01	0.09
16.55	2.00	0.31	5.00	0.08	0.01	0.09
16.60	2.00	0.31	5.00	0.08	0.01	0.09
16.65	2.00	0.31	5.00	0.08	0.01	0.09
16.70	2.00	0.31	5.00	0.08	0.01	0.09
16.75	2.00	0.31	5.00	0.08	0.01	0.09
16.80	2.00	0.31	5.00	0.08	0.01	0.09
16.85	2.00	0.31	5.00	0.08	0.01	0.09

16.90	2.00	0.31	5.00	0.08	0.01	0.09
16.95	2.00	0.31	5.00	0.08	0.01	0.09
17.00	2.00	0.31	5.00	0.08	0.01	0.09
17.05	2.00	0.31	5.00	0.08	0.01	0.09
17.10	2.00	0.31	5.00	0.08	0.01	0.09
17.15	2.00	0.31	5.00	0.08	0.01	0.09
17.20	2.00	0.31	5.00	0.08	0.01	0.09
17.25	2.00	0.31	5.00	0.08	0.01	0.09
17.30	2.00	0.31	5.00	0.08	0.01	0.09
17.35	2.00	0.31	5.00	0.08	0.01	0.09
17.40	2.00	0.31	5.00	0.08	0.01	0.09
17.45	2.00	0.31	5.00	0.08	0.01	0.09
17.50	2.00	0.31	5.00	0.08	0.01	0.09
17.55	2.00	0.31	5.00	0.08	0.01	0.09
17.60	2.00	0.31	5.00	0.08	0.01	0.09
17.65	2.00	0.31	5.00	0.08	0.01	0.09
17.70	2.00	0.31	5.00	0.08	0.01	0.09
17.75	2.00	0.31	5.00	0.08	0.01	0.09
17.80	2.00	0.31	5.00	0.08	0.01	0.09
17.85	2.00	0.31	5.00	0.08	0.01	0.09
17.90	2.00	0.31	5.00	0.08	0.01	0.09
17.95	2.73	0.31	5.00	0.08	0.01	0.09
18.00	2.73	0.31	5.00	0.08	0.01	0.09
18.05	2.73	0.31	5.00	0.08	0.01	0.09
18.10	2.00	0.31	5.00	0.08	0.01	0.09
18.15	2.00	0.31	5.00	0.08	0.01	0.09
18.20	2.00	0.31	5.00	0.08	0.01	0.09
18.25	2.00	0.31	5.00	0.08	0.01	0.09
18.30	2.00	0.31	5.00	0.08	0.01	0.09
18.35	2.00	0.31	5.00	0.08	0.01	0.09
18.40	2.00	0.31	5.00	0.08	0.01	0.09
18.45	2.00	0.31	5.00	0.08	0.01	0.09
18.50	2.00	0.31	5.00	0.08	0.01	0.09
18.55	2.00	0.31	5.00	0.08	0.01	0.09
18.60	2.00	0.31	5.00	0.08	0.01	0.09
18.65	2.00	0.31	5.00	0.08	0.01	0.09
18.70	2.00	0.31	5.00	0.08	0.01	0.09
18.75	2.00	0.31	5.00	0.08	0.01	0.09
18.80	2.00	0.31	5.00	0.08	0.01	0.09
18.85	2.00	0.31	5.00	0.08	0.01	0.09
18.90	2.00	0.31	5.00	0.08	0.01	0.09
18.95	2.00	0.31	5.00	0.08	0.01	0.09
19.00	2.00	0.31	5.00	0.08	0.01	0.09
19.05	2.00	0.31	5.00	0.08	0.01	0.09
19.10	2.00	0.31	5.00	0.08	0.01	0.09
19.15	2.00	0.31	5.00	0.08	0.01	0.09
19.20	2.00	0.31	5.00	0.08	0.01	0.09
19.25	2.00	0.31	5.00	0.08	0.01	0.09
19.30	2.00	0.31	5.00	0.08	0.01	0.09
19.35	2.00	0.31	5.00	0.08	0.01	0.09
19.40	1.48	0.31	5.00	0.08	0.01	0.09
19.45	1.33	0.31	5.00	0.08	0.01	0.09
19.50	1.20	0.31	5.00	0.08	0.01	0.09
19.55	1.09	0.31	5.00	0.08	0.01	0.09
19.60	0.99	0.31	5.00	0.08	0.01	0.09
19.65	0.90	0.31	5.00	0.08	0.00	0.09
19.70	0.82	0.31	5.00	0.08	0.00	0.09
19.75	0.75	0.31	5.00	0.08	0.00	0.09
19.80	0.69	0.31	5.00	0.08	0.00	0.09
19.85	0.64	0.31	5.00	0.08	0.00	0.09
19.90	0.59	0.31	5.00	0.08	0.00	0.09
19.95	0.54	0.31	5.00	0.08	0.00	0.09
20.00	0.50	0.31	5.00	0.08	0.00	0.09
20.05	0.52	0.31	5.00	0.08	0.00	0.09
20.10	0.53	0.31	5.00	0.08	0.00	0.09
20.15	0.54	0.31	5.00	0.08	0.00	0.09
20.20	0.56	0.31	5.00	0.08	0.00	0.09
20.25	0.57	0.31	5.00	0.08	0.00	0.09
20.30	0.58	0.31	5.00	0.08	0.00	0.09
20.35	0.60	0.31	5.00	0.08	0.00	0.09
20.40	0.61	0.31	5.00	0.08	0.00	0.09
20.45	0.63	0.31	5.00	0.08	0.00	0.09
20.50	0.64	0.31	5.00	0.08	0.00	0.09
20.55	0.66	0.31	5.00	0.08	0.00	0.09
20.60	0.68	0.31	5.00	0.08	0.00	0.09

20.65	0.69	0.31	5.00	0.08	0.00	0.09
20.70	0.71	0.31	5.00	0.08	0.00	0.09
20.75	0.73	0.31	5.00	0.08	0.00	0.09
20.80	0.74	0.31	5.00	0.08	0.00	0.09
20.85	0.76	0.31	5.00	0.08	0.00	0.09
20.90	0.78	0.31	5.00	0.08	0.00	0.09
20.95	0.80	0.31	5.00	0.08	0.00	0.09
21.00	0.82	0.31	5.00	0.08	0.00	0.09
21.05	0.87	0.31	2.81	0.08	0.00	0.08
21.10	0.92	0.31	2.99	0.08	0.00	0.08
21.15	0.98	0.31	3.19	0.08	0.00	0.08
21.20	1.06	0.31	3.42	0.08	0.00	0.08
21.25	1.14	0.31	3.70	0.08	0.00	0.08
21.30	2.00	0.31	5.00	0.08	0.00	0.08
21.35	2.00	0.31	5.00	0.08	0.00	0.08
21.40	2.00	0.31	5.00	0.08	0.00	0.08
21.45	2.00	0.31	5.00	0.08	0.00	0.08
21.50	2.00	0.31	5.00	0.08	0.00	0.08
21.55	2.00	0.31	5.00	0.08	0.00	0.08
21.60	2.00	0.31	5.00	0.08	0.00	0.08
21.65	2.00	0.31	5.00	0.08	0.00	0.08
21.70	2.00	0.31	5.00	0.08	0.00	0.08
21.75	2.00	0.31	5.00	0.08	0.00	0.08
21.80	2.00	0.31	5.00	0.08	0.00	0.08
21.85	2.00	0.31	5.00	0.08	0.00	0.08
21.90	2.00	0.31	5.00	0.08	0.00	0.08
21.95	2.00	0.31	5.00	0.08	0.00	0.08
22.00	2.00	0.31	5.00	0.08	0.00	0.08
22.05	2.00	0.31	5.00	0.08	0.00	0.08
22.10	2.00	0.31	5.00	0.08	0.00	0.08
22.15	2.00	0.32	5.00	0.08	0.00	0.08
22.20	2.00	0.32	5.00	0.08	0.00	0.08
22.25	2.00	0.32	5.00	0.08	0.00	0.08
22.30	2.00	0.32	5.00	0.08	0.00	0.08
22.35	2.00	0.32	5.00	0.08	0.00	0.08
22.40	2.00	0.32	5.00	0.08	0.00	0.08
22.45	2.00	0.32	5.00	0.08	0.00	0.08
22.50	2.00	0.32	5.00	0.08	0.00	0.08
22.55	2.00	0.32	5.00	0.08	0.00	0.08
22.60	2.00	0.32	5.00	0.08	0.00	0.08
22.65	2.00	0.32	5.00	0.08	0.00	0.08
22.70	2.00	0.32	5.00	0.08	0.00	0.08
22.75	2.00	0.32	5.00	0.08	0.00	0.08
22.80	2.00	0.32	5.00	0.08	0.00	0.08
22.85	2.00	0.32	5.00	0.08	0.00	0.08
22.90	2.00	0.32	5.00	0.08	0.00	0.08
22.95	2.00	0.32	5.00	0.08	0.00	0.08
23.00	2.00	0.32	5.00	0.08	0.00	0.08
23.05	2.00	0.32	5.00	0.08	0.00	0.08
23.10	0.70	0.32	2.18	0.08	0.00	0.08
23.15	0.69	0.32	2.13	0.08	0.00	0.08
23.20	0.67	0.32	2.10	0.08	0.00	0.08
23.25	0.67	0.32	2.07	0.08	0.00	0.08
23.30	0.66	0.32	2.06	0.08	0.00	0.08
23.35	0.66	0.32	2.05	0.08	0.00	0.08
23.40	0.66	0.32	2.05	0.08	0.00	0.08
23.45	0.66	0.32	2.05	0.08	0.00	0.08
23.50	0.67	0.32	2.06	0.08	0.00	0.08
23.55	0.67	0.32	2.07	0.08	0.00	0.08
23.60	0.67	0.32	2.08	0.08	0.00	0.08
23.65	0.68	0.32	2.10	0.08	0.00	0.08
23.70	0.69	0.32	2.12	0.08	0.00	0.08
23.75	0.70	0.33	2.14	0.08	0.00	0.08
23.80	0.71	0.33	2.17	0.08	0.00	0.08
23.85	0.72	0.33	2.20	0.08	0.00	0.08
23.90	0.73	0.33	2.23	0.08	0.00	0.08
23.95	0.74	0.33	2.26	0.08	0.00	0.08
24.00	0.75	0.33	2.29	0.08	0.00	0.08
24.05	0.75	0.33	2.31	0.08	0.00	0.08
24.10	0.76	0.33	2.33	0.08	0.00	0.08
24.15	0.77	0.33	2.36	0.08	0.00	0.08
24.20	0.79	0.33	2.40	0.08	0.00	0.08
24.25	0.80	0.33	2.45	0.08	0.00	0.08
24.30	0.83	0.33	2.52	0.08	0.00	0.08
24.35	0.86	0.33	2.61	0.08	0.00	0.08

24.40	0.90	0.33	2.72	0.08	0.00	0.08
24.45	0.94	0.33	2.87	0.08	0.00	0.08
24.50	1.01	0.33	3.06	0.08	0.00	0.08
24.55	1.09	0.33	3.30	0.08	0.00	0.08
24.60	2.00	0.33	5.00	0.08	0.00	0.08
24.65	2.00	0.33	5.00	0.08	0.00	0.08
24.70	2.00	0.33	5.00	0.08	0.00	0.08
24.75	2.00	0.33	5.00	0.08	0.00	0.08
24.80	2.00	0.33	5.00	0.08	0.00	0.08
24.85	2.00	0.33	5.00	0.08	0.00	0.08
24.90	2.00	0.33	5.00	0.08	0.00	0.08
24.95	2.00	0.33	5.00	0.08	0.00	0.08
25.00	2.00	0.33	5.00	0.08	0.00	0.08
25.05	2.00	0.33	5.00	0.08	0.00	0.08
25.10	2.00	0.33	5.00	0.08	0.00	0.08
25.15	2.00	0.33	5.00	0.08	0.00	0.08
25.20	2.00	0.33	5.00	0.08	0.00	0.08
25.25	2.00	0.33	5.00	0.08	0.00	0.08
25.30	2.00	0.33	5.00	0.08	0.00	0.08
25.35	2.00	0.33	5.00	0.08	0.00	0.08
25.40	2.00	0.33	5.00	0.08	0.00	0.08
25.45	2.00	0.33	5.00	0.08	0.00	0.08
25.50	2.00	0.34	5.00	0.08	0.00	0.08
25.55	2.00	0.34	5.00	0.08	0.00	0.08
25.60	2.00	0.34	5.00	0.08	0.00	0.08
25.65	2.00	0.34	5.00	0.08	0.00	0.08
25.70	2.00	0.34	5.00	0.08	0.00	0.08
25.75	2.00	0.34	5.00	0.08	0.00	0.08
25.80	2.00	0.34	5.00	0.08	0.00	0.08
25.85	2.00	0.34	5.00	0.08	0.00	0.08
25.90	2.00	0.34	5.00	0.08	0.00	0.08
25.95	2.00	0.34	5.00	0.08	0.00	0.08
26.00	2.00	0.34	5.00	0.08	0.00	0.08
26.05	2.00	0.34	5.00	0.08	0.00	0.08
26.10	2.00	0.34	5.00	0.08	0.00	0.08
26.15	2.00	0.34	5.00	0.08	0.00	0.08
26.20	2.00	0.34	5.00	0.08	0.00	0.08
26.25	2.00	0.34	5.00	0.08	0.00	0.08
26.30	2.00	0.34	5.00	0.08	0.00	0.08
26.35	2.00	0.34	5.00	0.08	0.00	0.08
26.40	2.00	0.34	5.00	0.08	0.00	0.08
26.45	2.00	0.34	5.00	0.08	0.00	0.08
26.50	2.00	0.34	5.00	0.08	0.00	0.08
26.55	2.00	0.34	5.00	0.08	0.00	0.08
26.60	2.00	0.34	5.00	0.08	0.00	0.08
26.65	2.00	0.34	5.00	0.08	0.00	0.08
26.70	2.00	0.34	5.00	0.08	0.00	0.08
26.75	2.00	0.34	5.00	0.08	0.00	0.08
26.80	2.00	0.34	5.00	0.08	0.00	0.08
26.85	2.00	0.34	5.00	0.08	0.00	0.08
26.90	2.00	0.34	5.00	0.08	0.00	0.08
26.95	2.00	0.34	5.00	0.08	0.00	0.08
27.00	2.00	0.34	5.00	0.08	0.00	0.08
27.05	2.00	0.34	5.00	0.08	0.00	0.08
27.10	2.00	0.34	5.00	0.08	0.00	0.08
27.15	2.00	0.34	5.00	0.08	0.00	0.08
27.20	2.00	0.34	5.00	0.08	0.00	0.08
27.25	2.00	0.34	5.00	0.08	0.00	0.08
27.30	2.00	0.34	5.00	0.08	0.00	0.08
27.35	2.00	0.34	5.00	0.08	0.00	0.08
27.40	2.00	0.34	5.00	0.08	0.00	0.08
27.45	2.00	0.34	5.00	0.08	0.00	0.08
27.50	2.00	0.35	5.00	0.08	0.00	0.08
27.55	2.00	0.35	5.00	0.08	0.00	0.08
27.60	2.00	0.35	5.00	0.08	0.00	0.08
27.65	2.00	0.35	5.00	0.08	0.00	0.08
27.70	2.00	0.35	5.00	0.08	0.00	0.08
27.75	2.00	0.35	5.00	0.08	0.00	0.08
27.80	2.00	0.35	5.00	0.08	0.00	0.08
27.85	2.00	0.35	5.00	0.08	0.00	0.08
27.90	2.00	0.35	5.00	0.08	0.00	0.08
27.95	2.00	0.35	5.00	0.08	0.00	0.08
28.00	2.00	0.35	5.00	0.08	0.00	0.08
28.05	2.00	0.35	5.00	0.08	0.00	0.08
28.10	2.00	0.35	5.00	0.08	0.00	0.08

28.15	2.00	0.35	5.00	0.08	0.00	0.08
28.20	2.00	0.35	5.00	0.08	0.00	0.08
28.25	2.00	0.35	5.00	0.08	0.00	0.08
28.30	2.00	0.35	5.00	0.08	0.00	0.08
28.35	2.00	0.35	5.00	0.08	0.00	0.08
28.40	2.00	0.35	5.00	0.08	0.00	0.08
28.45	2.00	0.35	5.00	0.08	0.00	0.08
28.50	2.00	0.35	5.00	0.08	0.00	0.08
28.55	2.00	0.35	5.00	0.08	0.00	0.08
28.60	2.00	0.35	5.00	0.08	0.00	0.08
28.65	2.00	0.35	5.00	0.08	0.00	0.08
28.70	2.00	0.35	5.00	0.08	0.00	0.08
28.75	2.00	0.35	5.00	0.08	0.00	0.08
28.80	2.00	0.35	5.00	0.08	0.00	0.08
28.85	2.00	0.35	5.00	0.08	0.00	0.08
28.90	2.00	0.35	5.00	0.08	0.00	0.08
28.95	2.00	0.35	5.00	0.08	0.00	0.08
29.00	2.00	0.35	5.00	0.08	0.00	0.08
29.05	2.00	0.35	5.00	0.08	0.00	0.08
29.10	2.00	0.35	5.00	0.08	0.00	0.08
29.15	2.00	0.35	5.00	0.08	0.00	0.08
29.20	2.00	0.35	5.00	0.08	0.00	0.08
29.25	2.00	0.35	5.00	0.08	0.00	0.08
29.30	2.00	0.35	5.00	0.08	0.00	0.08
29.35	2.00	0.35	5.00	0.08	0.00	0.08
29.40	2.00	0.35	5.00	0.08	0.00	0.08
29.45	2.00	0.35	5.00	0.08	0.00	0.08
29.50	2.00	0.35	5.00	0.08	0.00	0.08
29.55	2.00	0.35	5.00	0.08	0.00	0.08
29.60	2.00	0.35	5.00	0.08	0.00	0.08
29.65	2.00	0.36	5.00	0.08	0.00	0.08
29.70	2.00	0.36	5.00	0.08	0.00	0.08
29.75	2.00	0.36	5.00	0.08	0.00	0.08
29.80	2.00	0.36	5.00	0.08	0.00	0.08
29.85	2.00	0.36	5.00	0.08	0.00	0.08
29.90	2.00	0.36	5.00	0.08	0.00	0.08
29.95	2.00	0.36	5.00	0.08	0.00	0.08
30.00	2.00	0.36	5.00	0.08	0.00	0.08
30.05	2.00	0.36	5.00	0.08	0.00	0.08
30.10	2.00	0.36	5.00	0.08	0.00	0.08
30.15	2.00	0.36	5.00	0.08	0.00	0.08
30.20	2.00	0.36	5.00	0.08	0.00	0.08
30.25	2.00	0.36	5.00	0.08	0.00	0.08
30.30	2.00	0.36	5.00	0.08	0.00	0.08
30.35	2.00	0.36	5.00	0.08	0.00	0.08
30.40	2.00	0.36	5.00	0.08	0.00	0.08
30.45	2.00	0.36	5.00	0.08	0.00	0.08
30.50	2.00	0.36	5.00	0.08	0.00	0.08
30.55	2.00	0.36	5.00	0.08	0.00	0.08
30.60	2.00	0.36	5.00	0.08	0.00	0.08
30.65	2.00	0.36	5.00	0.08	0.00	0.08
30.70	2.00	0.36	5.00	0.08	0.00	0.08
30.75	2.00	0.36	5.00	0.08	0.00	0.08
30.80	2.00	0.36	5.00	0.08	0.00	0.08
30.85	2.00	0.36	5.00	0.08	0.00	0.08
30.90	2.00	0.36	5.00	0.08	0.00	0.08
30.95	2.00	0.36	5.00	0.08	0.00	0.08
31.00	2.00	0.36	5.00	0.08	0.00	0.08
31.05	2.00	0.36	5.00	0.08	0.00	0.08
31.10	2.00	0.36	5.00	0.08	0.00	0.08
31.15	2.00	0.36	5.00	0.08	0.00	0.08
31.20	2.00	0.36	5.00	0.08	0.00	0.08
31.25	2.00	0.36	5.00	0.08	0.00	0.08
31.30	2.00	0.36	5.00	0.08	0.00	0.08
31.35	2.00	0.36	5.00	0.08	0.00	0.08
31.40	2.00	0.36	5.00	0.08	0.00	0.08
31.45	2.00	0.36	5.00	0.08	0.00	0.08
31.50	2.00	0.36	5.00	0.08	0.00	0.08
31.55	2.00	0.36	5.00	0.08	0.00	0.08
31.60	2.00	0.36	5.00	0.08	0.00	0.08
31.65	2.00	0.36	5.00	0.08	0.00	0.08
31.70	2.00	0.36	5.00	0.08	0.00	0.08
31.75	2.00	0.36	5.00	0.08	0.00	0.08
31.80	2.00	0.36	5.00	0.08	0.00	0.08
31.85	2.00	0.36	5.00	0.08	0.00	0.08

31.90	2.00	0.36	5.00	0.08	0.00	0.08
31.95	2.00	0.36	5.00	0.08	0.00	0.08
32.00	2.00	0.36	5.00	0.08	0.00	0.08
32.05	2.00	0.36	5.00	0.08	0.00	0.08
32.10	2.00	0.36	5.00	0.08	0.00	0.08
32.15	2.00	0.36	5.00	0.08	0.00	0.08
32.20	2.00	0.36	5.00	0.08	0.00	0.08
32.25	2.00	0.36	5.00	0.08	0.00	0.08
32.30	2.00	0.36	5.00	0.08	0.00	0.08
32.35	2.00	0.36	5.00	0.08	0.00	0.08
32.40	2.00	0.36	5.00	0.08	0.00	0.08
32.45	2.00	0.36	5.00	0.08	0.00	0.08
32.50	2.00	0.36	5.00	0.08	0.00	0.08
32.55	2.00	0.36	5.00	0.08	0.00	0.08
32.60	2.00	0.36	5.00	0.08	0.00	0.08
32.65	2.00	0.36	5.00	0.08	0.00	0.08
32.70	2.00	0.36	5.00	0.08	0.00	0.08
32.75	2.00	0.36	5.00	0.08	0.00	0.08
32.80	2.00	0.36	5.00	0.08	0.00	0.08
32.85	2.00	0.36	5.00	0.08	0.00	0.08
32.90	2.00	0.36	5.00	0.08	0.00	0.08
32.95	2.00	0.36	5.00	0.08	0.00	0.08
33.00	2.00	0.36	5.00	0.08	0.00	0.08
33.05	2.00	0.36	5.00	0.08	0.00	0.08
33.10	2.00	0.36	5.00	0.08	0.00	0.08
33.15	2.00	0.36	5.00	0.08	0.00	0.08
33.20	2.00	0.36	5.00	0.08	0.00	0.08
33.25	2.00	0.36	5.00	0.08	0.00	0.08
33.30	2.00	0.36	5.00	0.08	0.00	0.08
33.35	2.00	0.36	5.00	0.08	0.00	0.08
33.40	2.00	0.36	5.00	0.08	0.00	0.08
33.45	2.00	0.36	5.00	0.08	0.00	0.08
33.50	2.00	0.36	5.00	0.08	0.00	0.08
33.55	2.00	0.36	5.00	0.08	0.00	0.08
33.60	2.00	0.36	5.00	0.08	0.00	0.08
33.65	2.00	0.36	5.00	0.08	0.00	0.08
33.70	2.00	0.36	5.00	0.08	0.00	0.08
33.75	2.00	0.36	5.00	0.08	0.00	0.08
33.80	2.00	0.36	5.00	0.08	0.00	0.08
33.85	2.00	0.36	5.00	0.08	0.00	0.08
33.90	2.00	0.36	5.00	0.08	0.00	0.08
33.95	2.00	0.36	5.00	0.08	0.00	0.08
34.00	2.00	0.36	5.00	0.08	0.00	0.08
34.05	2.00	0.36	5.00	0.08	0.00	0.08
34.10	2.00	0.36	5.00	0.08	0.00	0.08
34.15	2.00	0.36	5.00	0.08	0.00	0.08
34.20	2.00	0.36	5.00	0.08	0.00	0.08
34.25	2.00	0.36	5.00	0.08	0.00	0.08
34.30	2.00	0.36	5.00	0.08	0.00	0.08
34.35	2.00	0.36	5.00	0.08	0.00	0.08
34.40	2.00	0.36	5.00	0.08	0.00	0.08
34.45	2.00	0.36	5.00	0.08	0.00	0.08
34.50	2.00	0.36	5.00	0.08	0.00	0.08
34.55	2.00	0.36	5.00	0.08	0.00	0.08
34.60	2.00	0.36	5.00	0.08	0.00	0.08
34.65	2.00	0.36	5.00	0.08	0.00	0.08
34.70	2.00	0.36	5.00	0.08	0.00	0.08
34.75	2.00	0.36	5.00	0.08	0.00	0.08
34.80	2.00	0.36	5.00	0.08	0.00	0.08
34.85	2.00	0.36	5.00	0.08	0.00	0.08
34.90	2.00	0.36	5.00	0.08	0.00	0.08
34.95	2.00	0.36	5.00	0.08	0.00	0.08
35.00	2.00	0.36	5.00	0.08	0.00	0.08
35.05	2.00	0.36	5.00	0.08	0.00	0.08
35.10	2.00	0.36	5.00	0.08	0.00	0.08
35.15	2.00	0.36	5.00	0.08	0.00	0.08
35.20	2.00	0.36	5.00	0.08	0.00	0.08
35.25	2.00	0.36	5.00	0.08	0.00	0.08
35.30	2.00	0.36	5.00	0.08	0.00	0.08
35.35	2.00	0.36	5.00	0.08	0.00	0.08
35.40	2.00	0.36	5.00	0.08	0.00	0.08
35.45	2.00	0.36	5.00	0.08	0.00	0.08
35.50	2.00	0.36	5.00	0.08	0.00	0.08
35.55	2.00	0.36	5.00	0.08	0.00	0.08
35.60	2.00	0.36	5.00	0.08	0.00	0.08

35.65	2.00	0.36	5.00	0.08	0.00	0.08
35.70	2.00	0.36	5.00	0.08	0.00	0.08
35.75	2.00	0.36	5.00	0.08	0.00	0.08
35.80	2.00	0.36	5.00	0.08	0.00	0.08
35.85	2.00	0.36	5.00	0.08	0.00	0.08
35.90	2.00	0.36	5.00	0.08	0.00	0.08
35.95	2.00	0.36	5.00	0.08	0.00	0.08
36.00	2.00	0.36	5.00	0.08	0.00	0.08
36.05	2.00	0.36	5.00	0.08	0.00	0.08
36.10	2.00	0.36	5.00	0.08	0.00	0.08
36.15	2.00	0.36	5.00	0.08	0.00	0.08
36.20	2.00	0.36	5.00	0.08	0.00	0.08
36.25	2.00	0.36	5.00	0.08	0.00	0.08
36.30	2.00	0.36	5.00	0.08	0.00	0.08
36.35	2.00	0.36	5.00	0.08	0.00	0.08
36.40	2.00	0.36	5.00	0.08	0.00	0.08
36.45	2.00	0.36	5.00	0.08	0.00	0.08
36.50	2.00	0.36	5.00	0.08	0.00	0.08
36.55	2.00	0.36	5.00	0.08	0.00	0.08
36.60	2.00	0.36	5.00	0.08	0.00	0.08
36.65	2.00	0.36	5.00	0.08	0.00	0.08
36.70	2.00	0.36	5.00	0.08	0.00	0.08
36.75	2.00	0.36	5.00	0.08	0.00	0.08
36.80	2.00	0.36	5.00	0.08	0.00	0.08
36.85	2.00	0.36	5.00	0.08	0.00	0.08
36.90	2.00	0.36	5.00	0.08	0.00	0.08
36.95	2.00	0.36	5.00	0.08	0.00	0.08
37.00	2.00	0.36	5.00	0.08	0.00	0.08
37.05	2.00	0.36	5.00	0.08	0.00	0.08
37.10	2.00	0.36	5.00	0.08	0.00	0.08
37.15	2.00	0.36	5.00	0.08	0.00	0.08
37.20	2.00	0.36	5.00	0.08	0.00	0.08
37.25	2.00	0.36	5.00	0.08	0.00	0.08
37.30	2.00	0.36	5.00	0.08	0.00	0.08
37.35	2.00	0.36	5.00	0.08	0.00	0.08
37.40	2.00	0.36	5.00	0.08	0.00	0.08
37.45	2.00	0.36	5.00	0.08	0.00	0.08
37.50	2.00	0.36	5.00	0.08	0.00	0.08
37.55	2.00	0.36	5.00	0.08	0.00	0.08
37.60	2.00	0.36	5.00	0.08	0.00	0.08
37.65	2.00	0.36	5.00	0.08	0.00	0.08
37.70	2.00	0.36	5.00	0.08	0.00	0.08
37.75	2.00	0.36	5.00	0.08	0.00	0.08
37.80	2.00	0.36	5.00	0.08	0.00	0.08
37.85	2.00	0.36	5.00	0.08	0.00	0.08
37.90	2.00	0.36	5.00	0.08	0.00	0.08
37.95	2.00	0.36	5.00	0.08	0.00	0.08
38.00	2.00	0.36	5.00	0.08	0.00	0.08
38.05	2.00	0.36	5.00	0.08	0.00	0.08
38.10	2.00	0.36	5.00	0.08	0.00	0.08
38.15	2.00	0.36	5.00	0.08	0.00	0.08
38.20	2.00	0.36	5.00	0.08	0.00	0.08
38.25	2.00	0.36	5.00	0.08	0.00	0.08
38.30	2.00	0.36	5.00	0.08	0.00	0.08
38.35	2.00	0.36	5.00	0.08	0.00	0.08
38.40	2.00	0.36	5.00	0.08	0.00	0.08
38.45	2.00	0.36	5.00	0.08	0.00	0.08
38.50	2.00	0.36	5.00	0.08	0.00	0.08
38.55	2.00	0.36	5.00	0.08	0.00	0.08
38.60	2.00	0.36	5.00	0.08	0.00	0.08
38.65	2.00	0.36	5.00	0.08	0.00	0.08
38.70	2.00	0.36	5.00	0.08	0.00	0.08
38.75	2.00	0.36	5.00	0.08	0.00	0.08
38.80	2.00	0.36	5.00	0.08	0.00	0.08
38.85	2.00	0.36	5.00	0.08	0.00	0.08
38.90	2.00	0.36	5.00	0.08	0.00	0.08
38.95	2.00	0.36	5.00	0.08	0.00	0.08
39.00	2.00	0.36	5.00	0.08	0.00	0.08
39.05	2.00	0.36	5.00	0.08	0.00	0.08
39.10	2.00	0.36	5.00	0.08	0.00	0.08
39.15	2.00	0.36	5.00	0.08	0.00	0.08
39.20	2.00	0.36	5.00	0.08	0.00	0.08
39.25	2.00	0.36	5.00	0.08	0.00	0.08
39.30	2.00	0.36	5.00	0.08	0.00	0.08
39.35	2.00	0.36	5.00	0.08	0.00	0.08

39.40	2.00	0.36	5.00	0.08	0.00	0.08
39.45	2.00	0.36	5.00	0.08	0.00	0.08
39.50	2.00	0.36	5.00	0.08	0.00	0.08
39.55	2.00	0.36	5.00	0.08	0.00	0.08
39.60	2.00	0.36	5.00	0.08	0.00	0.08
39.65	2.00	0.36	5.00	0.08	0.00	0.08
39.70	2.00	0.36	5.00	0.08	0.00	0.08
39.75	2.00	0.36	5.00	0.08	0.00	0.08
39.80	2.00	0.36	5.00	0.08	0.00	0.08
39.85	2.00	0.36	5.00	0.08	0.00	0.08
39.90	2.00	0.36	5.00	0.08	0.00	0.08
39.95	2.00	0.36	5.00	0.08	0.00	0.08
40.00	2.00	0.36	5.00	0.08	0.00	0.08
40.05	2.00	0.36	5.00	0.08	0.00	0.08
40.10	2.00	0.36	5.00	0.08	0.00	0.08
40.15	2.00	0.36	5.00	0.08	0.00	0.08
40.20	2.00	0.36	5.00	0.08	0.00	0.08
40.25	2.00	0.36	5.00	0.08	0.00	0.08
40.30	2.00	0.36	5.00	0.08	0.00	0.08
40.35	2.00	0.36	5.00	0.08	0.00	0.08
40.40	2.00	0.36	5.00	0.08	0.00	0.08
40.45	2.00	0.36	5.00	0.08	0.00	0.08
40.50	2.00	0.36	5.00	0.08	0.00	0.08
40.55	2.00	0.36	5.00	0.08	0.00	0.08
40.60	2.00	0.36	5.00	0.08	0.00	0.08
40.65	2.00	0.36	5.00	0.08	0.00	0.08
40.70	2.00	0.36	5.00	0.08	0.00	0.08
40.75	2.00	0.36	5.00	0.08	0.00	0.08
40.80	2.00	0.36	5.00	0.08	0.00	0.08
40.85	2.00	0.36	5.00	0.08	0.00	0.08
40.90	2.00	0.36	5.00	0.08	0.00	0.08
40.95	2.00	0.36	5.00	0.08	0.00	0.08
41.00	2.00	0.36	5.00	0.08	0.00	0.08
41.05	2.00	0.36	5.00	0.08	0.00	0.08
41.10	2.00	0.36	5.00	0.08	0.00	0.08
41.15	2.00	0.36	5.00	0.08	0.00	0.08
41.20	2.00	0.36	5.00	0.08	0.00	0.08
41.25	2.00	0.36	5.00	0.08	0.00	0.08
41.30	2.00	0.36	5.00	0.08	0.00	0.08
41.35	2.00	0.36	5.00	0.08	0.00	0.08
41.40	2.00	0.36	5.00	0.08	0.00	0.08
41.45	2.00	0.36	5.00	0.08	0.00	0.08
41.50	2.00	0.36	5.00	0.08	0.00	0.08
41.55	2.00	0.36	5.00	0.08	0.00	0.08
41.60	2.00	0.36	5.00	0.08	0.00	0.08
41.65	2.00	0.36	5.00	0.08	0.00	0.08
41.70	2.00	0.36	5.00	0.08	0.00	0.08
41.75	2.00	0.36	5.00	0.08	0.00	0.08
41.80	2.00	0.36	5.00	0.08	0.00	0.08
41.85	2.00	0.36	5.00	0.08	0.00	0.08
41.90	2.00	0.36	5.00	0.08	0.00	0.08
41.95	2.00	0.36	5.00	0.08	0.00	0.08
42.00	2.00	0.36	5.00	0.08	0.00	0.08
42.05	2.00	0.36	5.00	0.08	0.00	0.08
42.10	2.00	0.36	5.00	0.08	0.00	0.08
42.15	2.00	0.36	5.00	0.08	0.00	0.08
42.20	2.00	0.36	5.00	0.08	0.00	0.08
42.25	2.00	0.36	5.00	0.08	0.00	0.08
42.30	2.00	0.36	5.00	0.08	0.00	0.08
42.35	2.00	0.36	5.00	0.08	0.00	0.08
42.40	2.00	0.36	5.00	0.08	0.00	0.08
42.45	2.00	0.36	5.00	0.08	0.00	0.08
42.50	2.00	0.36	5.00	0.08	0.00	0.08
42.55	2.00	0.36	5.00	0.08	0.00	0.08
42.60	2.00	0.36	5.00	0.08	0.00	0.08
42.65	2.00	0.36	5.00	0.08	0.00	0.08
42.70	2.00	0.36	5.00	0.08	0.00	0.08
42.75	2.00	0.36	5.00	0.08	0.00	0.08
42.80	2.00	0.36	5.00	0.08	0.00	0.08
42.85	2.00	0.36	5.00	0.08	0.00	0.08
42.90	2.00	0.36	5.00	0.08	0.00	0.08
42.95	2.00	0.36	5.00	0.08	0.00	0.08
43.00	2.00	0.36	5.00	0.08	0.00	0.08
43.05	2.00	0.36	5.00	0.08	0.00	0.08
43.10	2.00	0.36	5.00	0.08	0.00	0.08

43.15	2.00	0.36	5.00	0.08	0.00	0.08
43.20	2.00	0.36	5.00	0.08	0.00	0.08
43.25	2.00	0.36	5.00	0.08	0.00	0.08
43.30	2.00	0.36	5.00	0.08	0.00	0.08
43.35	2.00	0.36	5.00	0.08	0.00	0.08
43.40	2.00	0.36	5.00	0.08	0.00	0.08
43.45	2.00	0.36	5.00	0.08	0.00	0.08
43.50	2.00	0.36	5.00	0.08	0.00	0.08
43.55	2.00	0.36	5.00	0.08	0.00	0.08
43.60	2.00	0.36	5.00	0.08	0.00	0.08
43.65	2.00	0.36	5.00	0.08	0.00	0.08
43.70	2.00	0.36	5.00	0.08	0.00	0.08
43.75	2.00	0.36	5.00	0.08	0.00	0.08
43.80	2.00	0.36	5.00	0.08	0.00	0.08
43.85	2.00	0.36	5.00	0.08	0.00	0.08
43.90	2.00	0.36	5.00	0.08	0.00	0.08
43.95	2.00	0.36	5.00	0.08	0.00	0.08
44.00	2.00	0.36	5.00	0.08	0.00	0.08
44.05	2.00	0.36	5.00	0.08	0.00	0.08
44.10	2.00	0.36	5.00	0.08	0.00	0.08
44.15	2.00	0.36	5.00	0.08	0.00	0.08
44.20	2.00	0.36	5.00	0.08	0.00	0.08
44.25	2.00	0.36	5.00	0.08	0.00	0.08
44.30	2.00	0.36	5.00	0.08	0.00	0.08
44.35	2.00	0.36	5.00	0.08	0.00	0.08
44.40	2.00	0.36	5.00	0.08	0.00	0.08
44.45	2.00	0.36	5.00	0.08	0.00	0.08
44.50	2.00	0.36	5.00	0.08	0.00	0.08
44.55	2.00	0.36	5.00	0.08	0.00	0.08
44.60	2.00	0.36	5.00	0.08	0.00	0.08
44.65	2.00	0.36	5.00	0.08	0.00	0.08
44.70	2.00	0.36	5.00	0.08	0.00	0.08
44.75	2.00	0.36	5.00	0.08	0.00	0.08
44.80	0.61	0.36	1.69	0.08	0.00	0.08
44.85	0.57	0.36	1.57	0.08	0.00	0.08
44.90	0.53	0.36	1.48	0.08	0.00	0.08
44.95	0.51	0.36	1.41	0.08	0.00	0.08
45.00	0.49	0.36	1.35	0.08	0.00	0.08
45.05	0.50	0.36	1.39	0.08	0.00	0.08
45.10	0.52	0.36	1.43	0.08	0.00	0.08
45.15	0.53	0.36	1.48	0.08	0.00	0.08
45.20	0.55	0.36	1.52	0.08	0.00	0.08
45.25	0.57	0.36	1.57	0.08	0.00	0.08
45.30	0.59	0.36	1.62	0.08	0.00	0.08
45.35	0.61	0.36	1.68	0.08	0.00	0.08
45.40	0.63	0.36	1.73	0.08	0.00	0.08
45.45	0.65	0.36	1.79	0.08	0.00	0.08
45.50	0.67	0.36	1.85	0.08	0.00	0.08
45.55	0.69	0.36	1.91	0.08	0.00	0.08
45.60	0.71	0.36	1.98	0.08	0.00	0.08
45.65	0.74	0.36	2.05	0.08	0.00	0.08
45.70	0.76	0.36	2.12	0.08	0.00	0.08
45.75	0.79	0.36	2.19	0.08	0.00	0.08
45.80	0.82	0.36	2.27	0.08	0.00	0.08
45.85	0.85	0.36	2.35	0.08	0.00	0.08
45.90	0.88	0.36	2.44	0.08	0.00	0.08
45.95	0.91	0.36	2.53	0.08	0.00	0.08
46.00	0.95	0.36	2.62	0.08	0.00	0.08
46.05	0.70	0.36	1.93	0.08	0.00	0.08
46.10	0.59	0.36	1.64	0.08	0.00	0.08
46.15	0.54	0.36	1.51	0.08	0.00	0.08
46.20	0.52	0.36	1.45	0.08	0.00	0.08
46.25	0.52	0.36	1.44	0.08	0.00	0.08
46.30	0.52	0.36	1.45	0.08	0.00	0.08
46.35	0.54	0.36	1.49	0.08	0.00	0.08
46.40	0.55	0.36	1.53	0.08	0.00	0.08
46.45	0.57	0.36	1.59	0.08	0.00	0.08
46.50	0.60	0.36	1.66	0.08	0.00	0.08
46.55	0.63	0.36	1.74	0.08	0.00	0.08
46.60	0.66	0.36	1.83	0.08	0.00	0.08
46.65	0.70	0.36	1.93	0.08	0.00	0.08
46.70	0.73	0.36	2.04	0.08	0.00	0.08
46.75	0.77	0.36	2.15	0.08	0.00	0.08
46.80	0.82	0.36	2.27	0.08	0.00	0.08
46.85	0.86	0.36	2.40	0.08	0.00	0.08

46.90	0.91	0.36	2.54	0.08	0.00	0.08
46.95	0.96	0.36	2.68	0.08	0.00	0.08
47.00	1.02	0.36	2.84	0.08	0.00	0.08
47.05	0.95	0.36	2.65	0.08	0.00	0.08
47.10	0.89	0.36	2.46	0.08	0.00	0.08
47.15	0.82	0.36	2.29	0.08	0.00	0.08
47.20	0.76	0.36	2.13	0.08	0.00	0.08
47.25	0.71	0.36	1.97	0.08	0.00	0.08
47.30	0.66	0.36	1.83	0.08	0.00	0.08
47.35	0.61	0.36	1.69	0.08	0.00	0.08
47.40	0.56	0.36	1.57	0.08	0.00	0.08
47.45	0.52	0.36	1.45	0.08	0.00	0.08
47.50	0.48	0.36	1.34	0.08	0.00	0.08
47.55	0.44	0.36	1.24	0.08	0.00	0.08
47.60	0.41	0.36	1.14	0.08	0.00	0.08
47.65	0.38	0.36	1.06	0.08	0.00	0.08
47.70	0.35	0.36	0.98*	0.08	0.00	0.08
47.75	0.32	0.36	0.90*	0.08	0.00	0.08
47.80	0.30	0.36	0.84*	0.08	0.00	0.08
47.85	0.28	0.36	0.78*	0.08	0.00	0.08
47.90	0.26	0.36	0.73*	0.08	0.00	0.08
47.95	0.24	0.36	0.68*	0.07	0.00	0.07
48.00	0.23	0.36	0.64*	0.07	0.00	0.07
48.05	0.23	0.36	0.64*	0.06	0.00	0.06
48.10	0.23	0.36	0.63*	0.06	0.00	0.06
48.15	0.23	0.36	0.63*	0.05	0.00	0.05
48.20	0.23	0.36	0.63*	0.04	0.00	0.04
48.25	0.23	0.36	0.63*	0.04	0.00	0.04
48.30	0.23	0.36	0.64*	0.03	0.00	0.03
48.35	0.23	0.36	0.64*	0.03	0.00	0.03
48.40	0.23	0.36	0.65*	0.03	0.00	0.03
48.45	0.24	0.36	0.66*	0.02	0.00	0.02
48.50	0.24	0.36	0.68*	0.02	0.00	0.02
48.55	0.25	0.36	0.70*	0.02	0.00	0.02
48.60	0.26	0.36	0.73*	0.02	0.00	0.02
48.65	0.28	0.36	0.78*	0.02	0.00	0.02
48.70	0.30	0.36	0.85*	0.02	0.00	0.02
48.75	2.00	0.36	5.00	0.02	0.00	0.02
48.80	2.00	0.36	5.00	0.02	0.00	0.02
48.85	2.00	0.36	5.00	0.02	0.00	0.02
48.90	2.00	0.36	5.00	0.02	0.00	0.02
48.95	2.00	0.36	5.00	0.02	0.00	0.02
49.00	2.00	0.36	5.00	0.02	0.00	0.02
49.05	2.00	0.36	5.00	0.02	0.00	0.02
49.10	2.00	0.36	5.00	0.02	0.00	0.02
49.15	2.00	0.36	5.00	0.02	0.00	0.02
49.20	2.00	0.36	5.00	0.02	0.00	0.02
49.25	2.00	0.36	5.00	0.02	0.00	0.02
49.30	2.00	0.36	5.00	0.02	0.00	0.02
49.35	2.00	0.36	5.00	0.02	0.00	0.02
49.40	2.00	0.36	5.00	0.02	0.00	0.02
49.45	2.00	0.36	5.00	0.02	0.00	0.02
49.50	2.00	0.36	5.00	0.02	0.00	0.02
49.55	2.00	0.36	5.00	0.02	0.00	0.02
49.60	2.00	0.36	5.00	0.02	0.00	0.02
49.65	2.00	0.36	5.00	0.02	0.00	0.02
49.70	2.00	0.36	5.00	0.02	0.00	0.02
49.75	2.00	0.36	5.00	0.02	0.00	0.02
49.80	2.00	0.36	5.00	0.02	0.00	0.02
49.85	2.00	0.36	5.00	0.02	0.00	0.02
49.90	2.00	0.36	5.00	0.02	0.00	0.02
49.95	2.00	0.36	5.00	0.02	0.00	0.02
50.00	2.00	0.36	5.00	0.02	0.00	0.02
50.05	2.00	0.36	5.00	0.02	0.00	0.02
50.10	2.00	0.36	5.00	0.02	0.00	0.02
50.15	2.00	0.36	5.00	0.02	0.00	0.02
50.20	2.00	0.36	5.00	0.02	0.00	0.02
50.25	2.00	0.36	5.00	0.02	0.00	0.02
50.30	2.00	0.36	5.00	0.02	0.00	0.02
50.35	2.00	0.35	5.00	0.02	0.00	0.02
50.40	2.00	0.35	5.00	0.02	0.00	0.02
50.45	2.00	0.35	5.00	0.02	0.00	0.02
50.50	2.00	0.35	5.00	0.02	0.00	0.02
50.55	2.00	0.35	5.00	0.02	0.00	0.02
50.60	2.00	0.35	5.00	0.02	0.00	0.02

50.65	2.00	0.35	5.00	0.02	0.00	0.02
50.70	2.00	0.35	5.00	0.02	0.00	0.02
50.75	2.00	0.35	5.00	0.02	0.00	0.02
50.80	2.00	0.35	5.00	0.02	0.00	0.02
50.85	2.00	0.35	5.00	0.02	0.00	0.02
50.90	2.00	0.35	5.00	0.02	0.00	0.02
50.95	2.00	0.35	5.00	0.02	0.00	0.02
51.00	2.00	0.35	5.00	0.02	0.00	0.02
51.05	2.00	0.35	5.00	0.02	0.00	0.02
51.10	2.00	0.35	5.00	0.02	0.00	0.02
51.15	2.00	0.35	5.00	0.02	0.00	0.02
51.20	2.00	0.35	5.00	0.02	0.00	0.02
51.25	2.00	0.35	5.00	0.02	0.00	0.02
51.30	2.00	0.35	5.00	0.02	0.00	0.02
51.35	2.00	0.35	5.00	0.02	0.00	0.02
51.40	2.00	0.35	5.00	0.02	0.00	0.02
51.45	2.00	0.35	5.00	0.02	0.00	0.02
51.50	2.00	0.35	5.00	0.02	0.00	0.02
51.55	2.00	0.35	5.00	0.02	0.00	0.02
51.60	2.00	0.35	5.00	0.02	0.00	0.02
51.65	2.00	0.35	5.00	0.02	0.00	0.02
51.70	2.00	0.35	5.00	0.02	0.00	0.02
51.75	2.00	0.35	5.00	0.02	0.00	0.02
51.80	2.00	0.35	5.00	0.02	0.00	0.02
51.85	2.00	0.35	5.00	0.02	0.00	0.02
51.90	2.00	0.35	5.00	0.02	0.00	0.02
51.95	2.00	0.35	5.00	0.02	0.00	0.02
52.00	2.00	0.35	5.00	0.02	0.00	0.02
52.05	2.00	0.35	5.00	0.02	0.00	0.02
52.10	2.00	0.35	5.00	0.02	0.00	0.02
52.15	2.00	0.35	5.00	0.02	0.00	0.02
52.20	2.00	0.35	5.00	0.02	0.00	0.02
52.25	2.00	0.35	5.00	0.02	0.00	0.02
52.30	2.00	0.35	5.00	0.02	0.00	0.02
52.35	2.00	0.35	5.00	0.02	0.00	0.02
52.40	2.00	0.35	5.00	0.02	0.00	0.02
52.45	2.00	0.35	5.00	0.02	0.00	0.02
52.50	2.00	0.35	5.00	0.02	0.00	0.02
52.55	2.00	0.35	5.00	0.02	0.00	0.02
52.60	2.00	0.35	5.00	0.02	0.00	0.02
52.65	2.00	0.35	5.00	0.02	0.00	0.02
52.70	2.00	0.35	5.00	0.02	0.00	0.02
52.75	2.00	0.35	5.00	0.02	0.00	0.02
52.80	2.00	0.35	5.00	0.02	0.00	0.02
52.85	2.00	0.35	5.00	0.02	0.00	0.02
52.90	2.00	0.35	5.00	0.02	0.00	0.02
52.95	2.00	0.35	5.00	0.02	0.00	0.02
53.00	2.00	0.35	5.00	0.02	0.00	0.02
53.05	2.00	0.35	5.00	0.02	0.00	0.02
53.10	2.00	0.35	5.00	0.02	0.00	0.02
53.15	2.00	0.35	5.00	0.02	0.00	0.02
53.20	2.00	0.35	5.00	0.02	0.00	0.02
53.25	2.00	0.35	5.00	0.02	0.00	0.02
53.30	2.00	0.35	5.00	0.02	0.00	0.02
53.35	2.00	0.35	5.00	0.02	0.00	0.02
53.40	2.00	0.35	5.00	0.02	0.00	0.02
53.45	2.00	0.35	5.00	0.02	0.00	0.02
53.50	2.00	0.35	5.00	0.02	0.00	0.02
53.55	2.00	0.35	5.00	0.02	0.00	0.02
53.60	2.00	0.35	5.00	0.02	0.00	0.02
53.65	2.00	0.35	5.00	0.02	0.00	0.02
53.70	2.00	0.35	5.00	0.02	0.00	0.02
53.75	2.00	0.35	5.00	0.02	0.00	0.02
53.80	2.00	0.35	5.00	0.02	0.00	0.02
53.85	2.00	0.35	5.00	0.02	0.00	0.02
53.90	2.00	0.35	5.00	0.02	0.00	0.02
53.95	2.00	0.35	5.00	0.02	0.00	0.02
54.00	2.00	0.35	5.00	0.02	0.00	0.02
54.05	2.00	0.35	5.00	0.02	0.00	0.02
54.10	2.00	0.35	5.00	0.02	0.00	0.02
54.15	2.00	0.35	5.00	0.02	0.00	0.02
54.20	2.00	0.35	5.00	0.02	0.00	0.02
54.25	2.00	0.35	5.00	0.02	0.00	0.02
54.30	2.00	0.35	5.00	0.02	0.00	0.02
54.35	2.00	0.35	5.00	0.02	0.00	0.02

54.40	2.00	0.35	5.00	0.02	0.00	0.02
54.45	2.00	0.35	5.00	0.02	0.00	0.02
54.50	2.00	0.35	5.00	0.02	0.00	0.02
54.55	2.00	0.35	5.00	0.02	0.00	0.02
54.60	2.00	0.35	5.00	0.02	0.00	0.02
54.65	2.00	0.35	5.00	0.02	0.00	0.02
54.70	2.00	0.35	5.00	0.02	0.00	0.02
54.75	2.00	0.35	5.00	0.02	0.00	0.02
54.80	2.00	0.35	5.00	0.02	0.00	0.02
54.85	2.00	0.35	5.00	0.02	0.00	0.02
54.90	2.00	0.35	5.00	0.02	0.00	0.02
54.95	2.00	0.35	5.00	0.02	0.00	0.02
55.00	2.00	0.35	5.00	0.02	0.00	0.02
55.05	2.00	0.35	5.00	0.02	0.00	0.02
55.10	2.00	0.35	5.00	0.02	0.00	0.02
55.15	2.00	0.35	5.00	0.02	0.00	0.02
55.20	2.00	0.35	5.00	0.02	0.00	0.02
55.25	2.00	0.35	5.00	0.02	0.00	0.02
55.30	2.00	0.35	5.00	0.02	0.00	0.02
55.35	2.00	0.35	5.00	0.02	0.00	0.02
55.40	2.00	0.35	5.00	0.02	0.00	0.02
55.45	2.00	0.35	5.00	0.02	0.00	0.02
55.50	2.00	0.35	5.00	0.02	0.00	0.02
55.55	2.00	0.35	5.00	0.02	0.00	0.02
55.60	2.00	0.35	5.00	0.02	0.00	0.02
55.65	2.00	0.35	5.00	0.02	0.00	0.02
55.70	2.00	0.35	5.00	0.02	0.00	0.02
55.75	2.00	0.34	5.00	0.02	0.00	0.02
55.80	2.00	0.34	5.00	0.02	0.00	0.02
55.85	2.00	0.34	5.00	0.02	0.00	0.02
55.90	2.00	0.34	5.00	0.02	0.00	0.02
55.95	2.00	0.34	5.00	0.02	0.00	0.02
56.00	2.00	0.34	5.00	0.02	0.00	0.02
56.05	2.00	0.34	5.00	0.02	0.00	0.02
56.10	2.00	0.34	5.00	0.02	0.00	0.02
56.15	2.00	0.34	5.00	0.02	0.00	0.02
56.20	2.00	0.34	5.00	0.02	0.00	0.02
56.25	2.00	0.34	5.00	0.02	0.00	0.02
56.30	2.00	0.34	5.00	0.02	0.00	0.02
56.35	2.00	0.34	5.00	0.02	0.00	0.02
56.40	2.00	0.34	5.00	0.02	0.00	0.02
56.45	2.00	0.34	5.00	0.02	0.00	0.02
56.50	2.00	0.34	5.00	0.02	0.00	0.02
56.55	2.00	0.34	5.00	0.02	0.00	0.02
56.60	2.00	0.34	5.00	0.02	0.00	0.02
56.65	2.00	0.34	5.00	0.02	0.00	0.02
56.70	2.00	0.34	5.00	0.02	0.00	0.02
56.75	2.00	0.34	5.00	0.02	0.00	0.02
56.80	2.00	0.34	5.00	0.02	0.00	0.02
56.85	2.00	0.34	5.00	0.02	0.00	0.02
56.90	2.00	0.34	5.00	0.02	0.00	0.02
56.95	2.00	0.34	5.00	0.02	0.00	0.02
57.00	2.00	0.34	5.00	0.02	0.00	0.02
57.05	2.00	0.34	5.00	0.02	0.00	0.02
57.10	2.00	0.34	5.00	0.02	0.00	0.02
57.15	2.00	0.34	5.00	0.02	0.00	0.02
57.20	2.00	0.34	5.00	0.02	0.00	0.02
57.25	2.00	0.34	5.00	0.02	0.00	0.02
57.30	2.00	0.34	5.00	0.02	0.00	0.02
57.35	2.00	0.34	5.00	0.02	0.00	0.02
57.40	2.00	0.34	5.00	0.02	0.00	0.02
57.45	2.00	0.34	5.00	0.02	0.00	0.02
57.50	2.00	0.34	5.00	0.02	0.00	0.02
57.55	2.00	0.34	5.00	0.02	0.00	0.02
57.60	2.00	0.34	5.00	0.02	0.00	0.02
57.65	2.00	0.34	5.00	0.02	0.00	0.02
57.70	2.00	0.34	5.00	0.02	0.00	0.02
57.75	2.00	0.34	5.00	0.02	0.00	0.02
57.80	2.00	0.34	5.00	0.02	0.00	0.02
57.85	2.00	0.34	5.00	0.02	0.00	0.02
57.90	2.00	0.34	5.00	0.02	0.00	0.02
57.95	2.00	0.34	5.00	0.02	0.00	0.02
58.00	2.00	0.34	5.00	0.02	0.00	0.02
58.05	2.00	0.34	5.00	0.02	0.00	0.02
58.10	2.00	0.34	5.00	0.02	0.00	0.02

58.15	2.00	0.34	5.00	0.02	0.00	0.02
58.20	2.00	0.34	5.00	0.02	0.00	0.02
58.25	2.00	0.34	5.00	0.02	0.00	0.02
58.30	2.00	0.34	5.00	0.02	0.00	0.02
58.35	2.00	0.34	5.00	0.02	0.00	0.02
58.40	2.00	0.34	5.00	0.02	0.00	0.02
58.45	2.00	0.34	5.00	0.02	0.00	0.02
58.50	2.00	0.34	5.00	0.02	0.00	0.02
58.55	2.00	0.34	5.00	0.02	0.00	0.02
58.60	2.00	0.34	5.00	0.02	0.00	0.02
58.65	2.00	0.34	5.00	0.02	0.00	0.02
58.70	2.00	0.34	5.00	0.02	0.00	0.02
58.75	2.00	0.34	5.00	0.02	0.00	0.02
58.80	2.00	0.34	5.00	0.02	0.00	0.02
58.85	2.00	0.34	5.00	0.02	0.00	0.02
58.90	2.00	0.34	5.00	0.02	0.00	0.02
58.95	2.00	0.34	5.00	0.02	0.00	0.02
59.00	2.00	0.34	5.00	0.02	0.00	0.02
59.05	2.00	0.34	5.00	0.02	0.00	0.02
59.10	2.00	0.34	5.00	0.02	0.00	0.02
59.15	2.00	0.34	5.00	0.02	0.00	0.02
59.20	2.00	0.34	5.00	0.02	0.00	0.02
59.25	2.00	0.34	5.00	0.02	0.00	0.02
59.30	2.00	0.34	5.00	0.02	0.00	0.02
59.35	2.00	0.34	5.00	0.02	0.00	0.02
59.40	2.00	0.34	5.00	0.02	0.00	0.02
59.45	2.00	0.34	5.00	0.02	0.00	0.02
59.50	2.00	0.34	5.00	0.02	0.00	0.02
59.55	2.00	0.34	5.00	0.02	0.00	0.02
59.60	2.00	0.34	5.00	0.02	0.00	0.02
59.65	2.00	0.34	5.00	0.02	0.00	0.02
59.70	2.00	0.34	5.00	0.02	0.00	0.02
59.75	2.00	0.34	5.00	0.02	0.00	0.02
59.80	2.00	0.34	5.00	0.02	0.00	0.02
59.85	2.00	0.34	5.00	0.02	0.00	0.02
59.90	2.00	0.34	5.00	0.02	0.00	0.02
59.95	2.00	0.34	5.00	0.02	0.00	0.02
60.00	2.00	0.34	5.00	0.02	0.00	0.02
60.05	2.00	0.34	5.00	0.02	0.00	0.02
60.10	2.00	0.34	5.00	0.02	0.00	0.02
60.15	2.00	0.33	5.00	0.02	0.00	0.02
60.20	2.00	0.33	5.00	0.02	0.00	0.02
60.25	2.00	0.33	5.00	0.02	0.00	0.02
60.30	2.00	0.33	5.00	0.02	0.00	0.02
60.35	2.00	0.33	5.00	0.02	0.00	0.02
60.40	2.00	0.33	5.00	0.02	0.00	0.02
60.45	2.00	0.33	5.00	0.02	0.00	0.02
60.50	2.00	0.33	5.00	0.02	0.00	0.02
60.55	2.00	0.33	5.00	0.02	0.00	0.02
60.60	2.00	0.33	5.00	0.02	0.00	0.02
60.65	2.00	0.33	5.00	0.02	0.00	0.02
60.70	2.00	0.33	5.00	0.02	0.00	0.02
60.75	2.00	0.33	5.00	0.02	0.00	0.02
60.80	2.00	0.33	5.00	0.02	0.00	0.02
60.85	2.00	0.33	5.00	0.02	0.00	0.02
60.90	2.00	0.33	5.00	0.02	0.00	0.02
60.95	2.00	0.33	5.00	0.02	0.00	0.02
61.00	2.00	0.33	5.00	0.02	0.00	0.02
61.05	2.00	0.33	5.00	0.02	0.00	0.02
61.10	2.00	0.33	5.00	0.02	0.00	0.02
61.15	2.00	0.33	5.00	0.02	0.00	0.02
61.20	2.00	0.33	5.00	0.02	0.00	0.02
61.25	2.00	0.33	5.00	0.02	0.00	0.02
61.30	2.00	0.33	5.00	0.02	0.00	0.02
61.35	2.00	0.33	5.00	0.02	0.00	0.02
61.40	2.00	0.33	5.00	0.02	0.00	0.02
61.45	2.00	0.33	5.00	0.02	0.00	0.02
61.50	2.00	0.33	5.00	0.02	0.00	0.02
61.55	2.00	0.33	5.00	0.02	0.00	0.02
61.60	2.00	0.33	5.00	0.02	0.00	0.02
61.65	2.00	0.33	5.00	0.02	0.00	0.02
61.70	2.00	0.33	5.00	0.02	0.00	0.02
61.75	2.00	0.33	5.00	0.02	0.00	0.02
61.80	2.00	0.33	5.00	0.02	0.00	0.02
61.85	2.00	0.33	5.00	0.02	0.00	0.02

61.90	2.00	0.33	5.00	0.02	0.00	0.02
61.95	2.00	0.33	5.00	0.02	0.00	0.02
62.00	2.00	0.33	5.00	0.02	0.00	0.02
62.05	2.00	0.33	5.00	0.02	0.00	0.02
62.10	2.00	0.33	5.00	0.02	0.00	0.02
62.15	2.00	0.33	5.00	0.02	0.00	0.02
62.20	2.00	0.33	5.00	0.02	0.00	0.02
62.25	2.00	0.33	5.00	0.02	0.00	0.02
62.30	2.00	0.33	5.00	0.02	0.00	0.02
62.35	2.00	0.33	5.00	0.02	0.00	0.02
62.40	2.00	0.33	5.00	0.02	0.00	0.02
62.45	2.00	0.33	5.00	0.02	0.00	0.02
62.50	2.00	0.33	5.00	0.02	0.00	0.02
62.55	2.00	0.33	5.00	0.02	0.00	0.02
62.60	2.00	0.33	5.00	0.02	0.00	0.02
62.65	2.00	0.33	5.00	0.02	0.00	0.02
62.70	2.00	0.33	5.00	0.02	0.00	0.02
62.75	2.00	0.33	5.00	0.02	0.00	0.02
62.80	2.00	0.33	5.00	0.02	0.00	0.02
62.85	2.00	0.33	5.00	0.02	0.00	0.02
62.90	2.00	0.33	5.00	0.02	0.00	0.02
62.95	2.00	0.33	5.00	0.02	0.00	0.02
63.00	2.00	0.33	5.00	0.02	0.00	0.02
63.05	2.00	0.33	5.00	0.02	0.00	0.02
63.10	2.00	0.33	5.00	0.02	0.00	0.02
63.15	2.00	0.33	5.00	0.02	0.00	0.02
63.20	2.00	0.33	5.00	0.02	0.00	0.02
63.25	2.00	0.33	5.00	0.02	0.00	0.02
63.30	2.00	0.33	5.00	0.02	0.00	0.02
63.35	2.00	0.33	5.00	0.02	0.00	0.02
63.40	2.00	0.33	5.00	0.02	0.00	0.02
63.45	2.00	0.33	5.00	0.02	0.00	0.02
63.50	2.00	0.33	5.00	0.02	0.00	0.02
63.55	2.00	0.33	5.00	0.02	0.00	0.02
63.60	2.00	0.33	5.00	0.02	0.00	0.02
63.65	2.00	0.33	5.00	0.02	0.00	0.02
63.70	2.00	0.33	5.00	0.02	0.00	0.02
63.75	2.00	0.33	5.00	0.02	0.00	0.02
63.80	2.00	0.33	5.00	0.02	0.00	0.02
63.85	2.00	0.33	5.00	0.02	0.00	0.02
63.90	2.00	0.33	5.00	0.02	0.00	0.02
63.95	2.00	0.33	5.00	0.02	0.00	0.02
64.00	2.00	0.32	5.00	0.02	0.00	0.02
64.05	2.00	0.32	5.00	0.02	0.00	0.02
64.10	2.00	0.32	5.00	0.02	0.00	0.02
64.15	2.00	0.32	5.00	0.02	0.00	0.02
64.20	2.00	0.32	5.00	0.02	0.00	0.02
64.25	2.00	0.32	5.00	0.02	0.00	0.02
64.30	2.00	0.32	5.00	0.02	0.00	0.02
64.35	2.00	0.32	5.00	0.02	0.00	0.02
64.40	2.00	0.32	5.00	0.02	0.00	0.02
64.45	2.00	0.32	5.00	0.02	0.00	0.02
64.50	2.00	0.32	5.00	0.02	0.00	0.02
64.55	2.00	0.32	5.00	0.02	0.00	0.02
64.60	2.00	0.32	5.00	0.02	0.00	0.02
64.65	2.00	0.32	5.00	0.02	0.00	0.02
64.70	2.00	0.32	5.00	0.02	0.00	0.02
64.75	2.00	0.32	5.00	0.02	0.00	0.02
64.80	2.00	0.32	5.00	0.02	0.00	0.02
64.85	2.00	0.32	5.00	0.02	0.00	0.02
64.90	2.00	0.32	5.00	0.02	0.00	0.02
64.95	2.00	0.32	5.00	0.02	0.00	0.02
65.00	2.00	0.32	5.00	0.02	0.00	0.02
65.05	2.00	0.32	5.00	0.02	0.00	0.02
65.10	2.00	0.32	5.00	0.02	0.00	0.02
65.15	2.00	0.32	5.00	0.02	0.00	0.02
65.20	2.00	0.32	5.00	0.02	0.00	0.02
65.25	2.00	0.32	5.00	0.02	0.00	0.02
65.30	2.00	0.32	5.00	0.02	0.00	0.02
65.35	2.00	0.32	5.00	0.02	0.00	0.02
65.40	2.00	0.32	5.00	0.02	0.00	0.02
65.45	2.00	0.32	5.00	0.02	0.00	0.02
65.50	2.00	0.32	5.00	0.02	0.00	0.02
65.55	2.00	0.32	5.00	0.02	0.00	0.02
65.60	2.00	0.32	5.00	0.02	0.00	0.02

65.65	2.00	0.32	5.00	0.02	0.00	0.02
65.70	2.00	0.32	5.00	0.02	0.00	0.02
65.75	2.00	0.32	5.00	0.02	0.00	0.02
65.80	0.21	0.32	0.67*	0.02	0.00	0.02
65.85	0.21	0.32	0.65*	0.02	0.00	0.02
65.90	0.20	0.32	0.64*	0.02	0.00	0.02
65.95	0.20	0.32	0.63*	0.02	0.00	0.02
66.00	0.20	0.32	0.61*	0.02	0.00	0.02
66.05	0.22	0.32	0.68*	0.02	0.00	0.02
66.10	0.24	0.32	0.74*	0.02	0.00	0.02
66.15	0.26	0.32	0.81*	0.02	0.00	0.02
66.20	0.28	0.32	0.88*	0.02	0.00	0.02
66.25	0.30	0.32	0.95*	0.02	0.00	0.02
66.30	0.33	0.32	1.03	0.02	0.00	0.02
66.35	0.35	0.32	1.10	0.02	0.00	0.02
66.40	0.38	0.32	1.18	0.02	0.00	0.02
66.45	0.40	0.32	1.27	0.02	0.00	0.02
66.50	0.43	0.32	1.35	0.02	0.00	0.02
66.55	0.46	0.32	1.44	0.02	0.00	0.02
66.60	0.49	0.32	1.54	0.02	0.00	0.02
66.65	0.52	0.32	1.63	0.02	0.00	0.02
66.70	0.55	0.32	1.74	0.02	0.00	0.02
66.75	0.58	0.32	1.84	0.02	0.00	0.02
66.80	0.62	0.32	1.95	0.02	0.00	0.02
66.85	0.66	0.32	2.07	0.02	0.00	0.02
66.90	0.69	0.32	2.19	0.02	0.00	0.02
66.95	0.73	0.32	2.31	0.02	0.00	0.02
67.00	0.77	0.32	2.44	0.02	0.00	0.02
67.05	0.77	0.32	2.42	0.02	0.00	0.02
67.10	0.76	0.32	2.41	0.02	0.00	0.02
67.15	0.76	0.32	2.39	0.02	0.00	0.02
67.20	0.75	0.32	2.37	0.02	0.00	0.02
67.25	0.74	0.32	2.36	0.02	0.00	0.02
67.30	0.74	0.32	2.34	0.02	0.00	0.02
67.35	0.73	0.32	2.33	0.02	0.00	0.02
67.40	0.73	0.32	2.31	0.02	0.00	0.02
67.45	0.72	0.32	2.29	0.02	0.00	0.02
67.50	0.72	0.32	2.28	0.02	0.00	0.02
67.55	0.71	0.31	2.26	0.02	0.00	0.02
67.60	0.71	0.31	2.25	0.02	0.00	0.02
67.65	0.70	0.31	2.23	0.02	0.00	0.02
67.70	0.70	0.31	2.21	0.02	0.00	0.02
67.75	0.69	0.31	2.20	0.02	0.00	0.02
67.80	0.69	0.31	2.18	0.02	0.00	0.02
67.85	0.68	0.31	2.17	0.02	0.00	0.02
67.90	0.68	0.31	2.15	0.02	0.00	0.02
67.95	0.67	0.31	2.14	0.02	0.00	0.02
68.00	0.67	0.31	2.12	0.02	0.00	0.02
68.05	0.67	0.31	2.13	0.02	0.00	0.02
68.10	0.67	0.31	2.15	0.02	0.00	0.02
68.15	0.68	0.31	2.16	0.02	0.00	0.02
68.20	0.68	0.31	2.17	0.02	0.00	0.02
68.25	0.68	0.31	2.18	0.02	0.00	0.02
68.30	0.69	0.31	2.19	0.02	0.00	0.02
68.35	0.69	0.31	2.20	0.02	0.00	0.02
68.40	0.69	0.31	2.22	0.02	0.00	0.02
68.45	0.70	0.31	2.23	0.02	0.00	0.02
68.50	0.70	0.31	2.24	0.02	0.00	0.02
68.55	0.70	0.31	2.25	0.02	0.00	0.02
68.60	0.71	0.31	2.27	0.02	0.00	0.02
68.65	0.71	0.31	2.28	0.02	0.00	0.02
68.70	0.71	0.31	2.29	0.02	0.00	0.02
68.75	0.72	0.31	2.30	0.02	0.00	0.02
68.80	0.72	0.31	2.32	0.02	0.00	0.02
68.85	0.72	0.31	2.33	0.02	0.00	0.02
68.90	0.73	0.31	2.34	0.02	0.00	0.02
68.95	0.73	0.31	2.36	0.02	0.00	0.02
69.00	0.74	0.31	2.37	0.02	0.00	0.02
69.05	0.73	0.31	2.36	0.02	0.00	0.02
69.10	0.73	0.31	2.36	0.02	0.00	0.02
69.15	0.73	0.31	2.36	0.02	0.00	0.02
69.20	0.73	0.31	2.35	0.02	0.00	0.02
69.25	0.73	0.31	2.35	0.02	0.00	0.02
69.30	0.73	0.31	2.35	0.02	0.00	0.02
69.35	0.73	0.31	2.34	0.02	0.00	0.02

69.40	0.72	0.31	2.34	0.02	0.00	0.02
69.45	0.72	0.31	2.34	0.02	0.00	0.02
69.50	0.72	0.31	2.33	0.02	0.00	0.02
69.55	0.72	0.31	2.33	0.02	0.00	0.02
69.60	0.72	0.31	2.33	0.02	0.00	0.02
69.65	0.72	0.31	2.33	0.02	0.00	0.02
69.70	0.72	0.31	2.32	0.02	0.00	0.02
69.75	0.72	0.31	2.32	0.02	0.00	0.02
69.80	0.71	0.31	2.32	0.02	0.00	0.02
69.85	0.71	0.31	2.32	0.02	0.00	0.02
69.90	0.71	0.31	2.31	0.02	0.00	0.02
69.95	0.71	0.31	2.31	0.02	0.00	0.02
70.00	0.71	0.31	2.31	0.02	0.00	0.02
70.05	0.71	0.31	2.31	0.02	0.00	0.02
70.10	0.71	0.31	2.31	0.02	0.00	0.02
70.15	0.71	0.31	2.31	0.02	0.00	0.02
70.20	0.71	0.31	2.31	0.02	0.00	0.02
70.25	0.71	0.31	2.31	0.02	0.00	0.02
70.30	0.71	0.31	2.31	0.02	0.00	0.02
70.35	0.71	0.31	2.31	0.02	0.00	0.02
70.40	0.71	0.31	2.31	0.02	0.00	0.02
70.45	0.71	0.31	2.31	0.02	0.00	0.02
70.50	0.71	0.31	2.31	0.02	0.00	0.02
70.55	0.71	0.31	2.31	0.02	0.00	0.02
70.60	0.71	0.31	2.31	0.02	0.00	0.02
70.65	0.71	0.31	2.31	0.02	0.00	0.02
70.70	0.71	0.31	2.31	0.02	0.00	0.02
70.75	0.71	0.31	2.31	0.02	0.00	0.02
70.80	0.71	0.31	2.31	0.02	0.00	0.02
70.85	0.71	0.30	2.31	0.02	0.00	0.02
70.90	0.71	0.30	2.31	0.02	0.00	0.02
70.95	0.70	0.30	2.31	0.02	0.00	0.02
71.00	0.70	0.30	2.31	0.02	0.00	0.02
71.05	0.70	0.30	2.31	0.02	0.00	0.02
71.10	0.70	0.30	2.32	0.02	0.00	0.02
71.15	0.70	0.30	2.32	0.02	0.00	0.02
71.20	0.70	0.30	2.32	0.02	0.00	0.02
71.25	0.70	0.30	2.32	0.02	0.00	0.02
71.30	0.70	0.30	2.32	0.02	0.00	0.02
71.35	0.70	0.30	2.32	0.02	0.00	0.02
71.40	0.70	0.30	2.32	0.02	0.00	0.02
71.45	0.70	0.30	2.32	0.02	0.00	0.02
71.50	0.70	0.30	2.32	0.02	0.00	0.02
71.55	0.70	0.30	2.32	0.02	0.00	0.02
71.60	0.70	0.30	2.32	0.02	0.00	0.02
71.65	0.70	0.30	2.32	0.02	0.00	0.02
71.70	0.70	0.30	2.32	0.02	0.00	0.02
71.75	0.70	0.30	2.32	0.02	0.00	0.02
71.80	0.70	0.30	2.33	0.02	0.00	0.02
71.85	0.70	0.30	2.33	0.02	0.00	0.02
71.90	0.70	0.30	2.33	0.02	0.00	0.02
71.95	0.70	0.30	2.33	0.02	0.00	0.02
72.00	0.70	0.30	2.33	0.02	0.00	0.02
72.05	0.70	0.30	2.33	0.02	0.00	0.02
72.10	0.70	0.30	2.32	0.02	0.00	0.02
72.15	0.70	0.30	2.32	0.02	0.00	0.02
72.20	0.70	0.30	2.32	0.02	0.00	0.02
72.25	0.70	0.30	2.32	0.02	0.00	0.02
72.30	0.70	0.30	2.32	0.02	0.00	0.02
72.35	0.70	0.30	2.32	0.02	0.00	0.02
72.40	0.69	0.30	2.31	0.02	0.00	0.02
72.45	0.69	0.30	2.31	0.02	0.00	0.02
72.50	0.69	0.30	2.31	0.02	0.00	0.02
72.55	0.69	0.30	2.31	0.02	0.00	0.02
72.60	0.69	0.30	2.31	0.02	0.00	0.02
72.65	0.69	0.30	2.30	0.02	0.00	0.02
72.70	0.69	0.30	2.30	0.02	0.00	0.02
72.75	0.69	0.30	2.30	0.02	0.00	0.02
72.80	0.69	0.30	2.30	0.02	0.00	0.02
72.85	0.69	0.30	2.30	0.02	0.00	0.02
72.90	0.69	0.30	2.30	0.02	0.00	0.02
72.95	0.68	0.30	2.29	0.02	0.00	0.02
73.00	0.68	0.30	2.29	0.02	0.00	0.02
73.05	0.69	0.30	2.30	0.02	0.00	0.02
73.10	0.69	0.30	2.31	0.02	0.00	0.02

73.15	0.69	0.30	2.32	0.02	0.00	0.02
73.20	0.69	0.30	2.33	0.02	0.00	0.02
73.25	0.70	0.30	2.34	0.02	0.00	0.02
73.30	0.70	0.30	2.35	0.02	0.00	0.02
73.35	0.70	0.30	2.36	0.02	0.00	0.02
73.40	0.70	0.30	2.37	0.02	0.00	0.02
73.45	0.71	0.30	2.38	0.02	0.00	0.02
73.50	0.71	0.30	2.39	0.02	0.00	0.02
73.55	0.71	0.30	2.40	0.02	0.00	0.02
73.60	0.71	0.30	2.41	0.02	0.00	0.02
73.65	0.72	0.30	2.42	0.02	0.00	0.02
73.70	0.72	0.30	2.43	0.02	0.00	0.02
73.75	0.72	0.30	2.44	0.02	0.00	0.02
73.80	0.72	0.30	2.45	0.02	0.00	0.02
73.85	0.73	0.30	2.46	0.02	0.00	0.02
73.90	0.73	0.30	2.47	0.02	0.00	0.02
73.95	0.73	0.30	2.48	0.02	0.00	0.02
74.00	0.73	0.29	2.49	0.02	0.00	0.02
74.05	0.68	0.29	2.32	0.02	0.00	0.02
74.10	0.64	0.29	2.17	0.02	0.00	0.02
74.15	0.60	0.29	2.03	0.02	0.00	0.02
74.20	0.56	0.29	1.90	0.02	0.00	0.02
74.25	0.52	0.29	1.78	0.02	0.00	0.02
74.30	0.49	0.29	1.67	0.02	0.00	0.02
74.35	0.46	0.29	1.56	0.02	0.00	0.02
74.40	0.43	0.29	1.46	0.02	0.00	0.02
74.45	0.40	0.29	1.37	0.02	0.00	0.02
74.50	0.38	0.29	1.29	0.02	0.00	0.02
74.55	0.35	0.29	1.21	0.02	0.00	0.02
74.60	0.33	0.29	1.13	0.02	0.00	0.02
74.65	0.31	0.29	1.06	0.02	0.00	0.02
74.70	0.29	0.29	0.99*	0.02	0.00	0.02
74.75	0.27	0.29	0.93*	0.02	0.00	0.02
74.80	0.25	0.29	0.87*	0.02	0.00	0.02
74.85	0.24	0.29	0.81*	0.02	0.00	0.02
74.90	0.23	0.29	0.78*	0.01	0.00	0.01
74.95	0.23	0.29	0.78*	0.01	0.00	0.01
75.00	2.00	0.29	5.00	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

1 atm (atmosphere) = 1 tsf (ton/ft2)

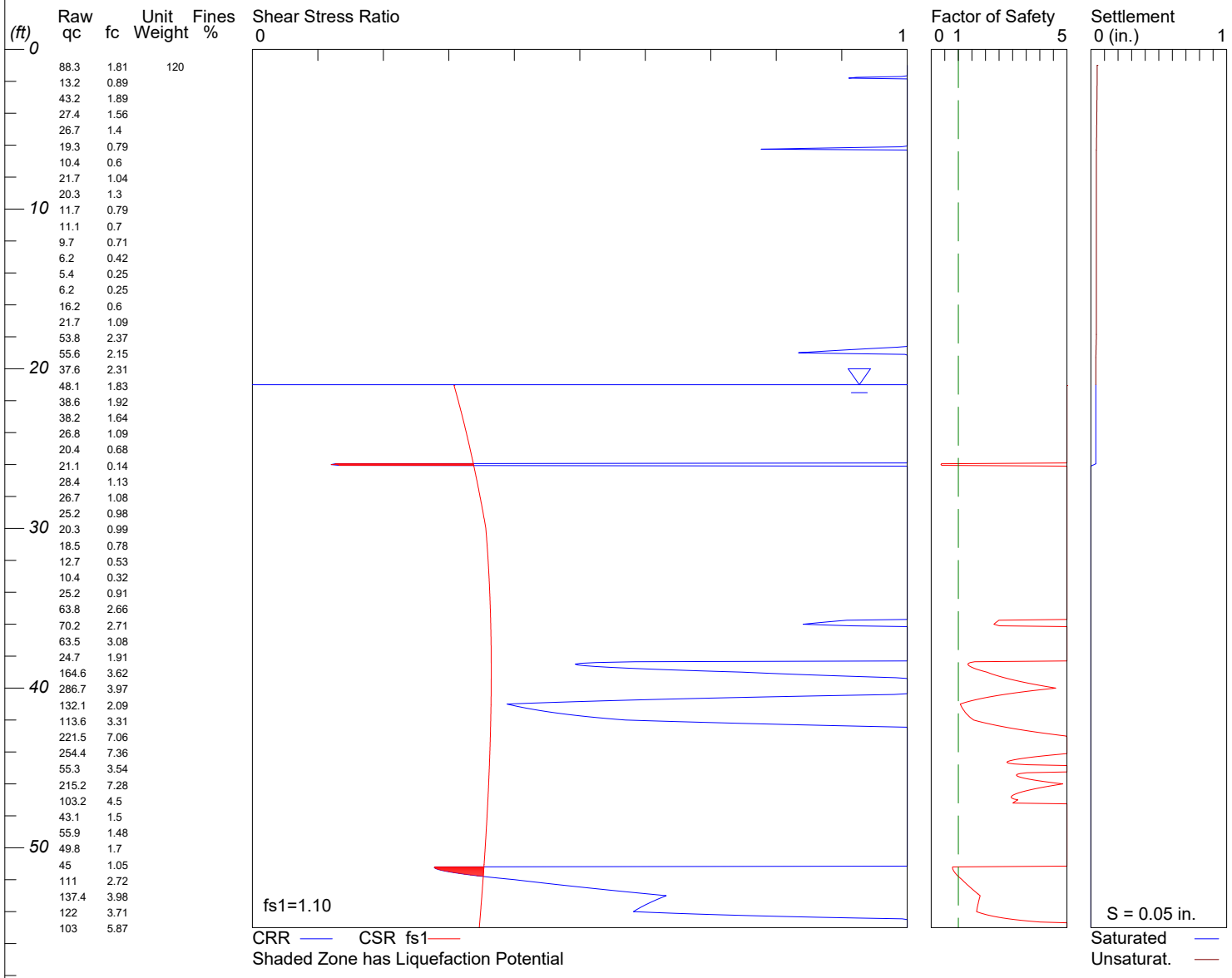
CRRm	Cyclic resistance ratio from soils
CSRsf	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat	Settlement from saturated sands
S_dry	Settlement from Unsaturated Sands
S_all	Total Settlement from Saturated and Unsaturated Sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS

De Soto/Burbank

Hole No.=CPT-6 ***Water Depth=21 ft***

Magnitude=6.74
Acceleration=0.453g



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LIQUEFACTION ANALYSIS SUMMARY
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Input File Name: C:\Users\jonne\OneDrive\Work\Projects\6743 -- Adler Realty August 2019 Update\Liquefaction\CPT-6 Reduced PGA.liq
Title: De Soto/Burbank
Subtitle: 10% Probability - Reduced PGAm

Surface Elev.=
Hole No.=CPT-6
Depth of Hole= 55.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration= 0.45 g
Earthquake Magnitude= 6.74

Input Data:
Surface Elev.=
Hole No.=CPT-6
Depth of Hole=55.00 ft
Water Table during Earthquake= 21.00 ft
Water Table during In-Situ Testing= 21.00 ft
Max. Acceleration=0.45 g
Earthquake Magnitude=6.74
No-Liquefiable Soils: Based on Analysis

1. CPT Calculation Method: Modify Robertson*
2. Settlement Analysis Method: Tokimatsu, M-correction
3. Fines Correction for Liquefaction: Stark/Olson et al.*
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
9. User request factor of safety (apply to CSR) , User= 1.1
Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	qc atm	fs atm	Rf pcf	gamma %	Fines mm	D50
1.00	88.30	1.81	2.05	120.00	0.00	0.50
2.00	13.20	0.89	6.74	120.00	0.00	0.50
3.00	43.20	1.89	4.38	120.00	0.00	0.50
4.00	27.40	1.56	5.69	120.00	0.00	0.50
5.00	26.70	1.40	5.24	120.00	0.00	0.50
6.00	19.30	0.79	4.09	120.00	0.00	0.50
7.00	10.40	0.60	5.77	120.00	0.00	0.50
8.00	21.70	1.04	4.79	120.00	0.00	0.50
9.00	20.30	1.30	6.40	120.00	0.00	0.50
10.00	11.70	0.79	6.75	120.00	0.00	0.50
11.00	11.10	0.70	6.31	120.00	0.00	0.50
12.00	9.70	0.71	7.32	120.00	0.00	0.50
13.00	6.20	0.42	6.77	120.00	0.00	0.50
14.00	5.40	0.25	4.63	120.00	0.00	0.50
15.00	6.20	0.25	4.03	120.00	0.00	0.50
16.00	16.20	0.60	3.70	120.00	0.00	0.50
17.00	21.70	1.09	5.02	120.00	0.00	0.50
18.00	53.80	2.37	4.41	120.00	0.00	0.50
19.00	55.60	2.15	3.87	120.00	0.00	0.50
20.00	37.60	2.31	6.14	120.00	0.00	0.50
21.00	48.10	1.83	3.80	120.00	0.00	0.50
22.00	38.60	1.92	4.97	120.00	0.00	0.50
23.00	38.20	1.64	4.29	120.00	0.00	0.50
24.00	26.80	1.09	4.07	120.00	0.00	0.50
25.00	20.40	0.68	3.33	120.00	0.00	0.50
26.00	21.10	0.14	0.66	120.00	0.00	0.50
27.00	28.40	1.13	3.98	120.00	0.00	0.50
28.00	26.70	1.08	4.04	120.00	0.00	0.50
29.00	25.20	0.98	3.89	120.00	0.00	0.50
30.00	20.30	0.99	4.88	120.00	0.00	0.50

31.00	18.50	0.78	4.22	120.00	0.00	0.50
32.00	12.70	0.53	4.17	120.00	0.00	0.50
33.00	10.40	0.32	3.08	120.00	0.00	0.50
34.00	25.20	0.91	3.61	120.00	0.00	0.50
35.00	63.80	2.66	4.17	120.00	0.00	0.50
36.00	70.20	2.71	3.86	120.00	0.00	0.50
37.00	63.50	3.08	4.85	120.00	0.00	0.50
38.00	24.70	1.91	7.73	120.00	0.00	0.50
39.00	164.60	3.62	2.20	120.00	0.00	0.50
40.00	286.70	3.97	1.38	120.00	0.00	0.50
41.00	132.10	2.09	1.58	120.00	0.00	0.50
42.00	113.60	3.31	2.91	120.00	0.00	0.50
43.00	221.50	7.06	3.19	120.00	0.00	0.50
44.00	254.40	7.36	2.89	120.00	0.00	0.50
45.00	55.30	3.54	6.40	120.00	0.00	0.50
46.00	215.20	7.28	3.38	120.00	0.00	0.50
47.00	103.20	4.50	4.36	120.00	0.00	0.50
48.00	43.10	1.50	3.48	120.00	0.00	0.50
49.00	55.90	1.48	2.65	120.00	0.00	0.50
50.00	49.80	1.70	3.41	120.00	0.00	0.50
51.00	45.00	1.05	2.33	120.00	0.00	0.50
52.00	111.00	2.72	2.45	120.00	0.00	0.50
53.00	137.40	3.98	2.90	120.00	0.00	0.50
54.00	122.00	3.71	3.04	120.00	0.00	0.50
55.00	103.00	5.87	5.70	120.00	0.00	0.50

Modify Robertson method generates Fines from qc/fs. Inputted Fines are not relevant.

Output Results:

Settlement of Saturated Sands=0.04 in.
Settlement of Unsaturated Sands=0.01 in.
Total Settlement of Saturated and Unsaturated Sands=0.05 in.
Differential Settlement=0.023 to 0.031 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
1.00	2.73	0.32	5.00	0.04	0.01	0.05
1.05	2.73	0.32	5.00	0.04	0.01	0.05
1.10	2.73	0.32	5.00	0.04	0.01	0.05
1.15	2.73	0.32	5.00	0.04	0.01	0.05
1.20	2.73	0.32	5.00	0.04	0.01	0.05
1.25	2.73	0.32	5.00	0.04	0.01	0.05
1.30	2.73	0.32	5.00	0.04	0.01	0.05
1.35	2.60	0.32	5.00	0.04	0.01	0.05
1.40	2.22	0.32	5.00	0.04	0.01	0.05
1.45	1.91	0.32	5.00	0.04	0.01	0.05
1.50	1.65	0.32	5.00	0.04	0.01	0.05
1.55	1.43	0.32	5.00	0.04	0.01	0.05
1.60	1.25	0.32	5.00	0.04	0.01	0.05
1.65	1.10	0.32	5.00	0.04	0.01	0.05
1.70	0.99	0.32	5.00	0.04	0.01	0.05
1.75	0.92	0.32	5.00	0.04	0.01	0.05
1.80	0.91	0.32	5.00	0.04	0.01	0.05
1.85	1.01	0.32	5.00	0.04	0.01	0.05
1.90	1.50	0.32	5.00	0.04	0.01	0.05
1.95	2.46	0.32	5.00	0.04	0.01	0.05
2.00	2.73	0.32	5.00	0.04	0.01	0.05
2.05	2.73	0.32	5.00	0.04	0.01	0.05
2.10	2.73	0.32	5.00	0.04	0.01	0.05
2.15	2.73	0.32	5.00	0.04	0.01	0.05
2.20	2.72	0.32	5.00	0.04	0.01	0.05
2.25	2.42	0.32	5.00	0.04	0.01	0.05
2.30	2.73	0.32	5.00	0.04	0.01	0.05
2.35	2.24	0.32	5.00	0.04	0.01	0.05
2.40	1.94	0.32	5.00	0.04	0.01	0.05
2.45	1.75	0.32	5.00	0.04	0.01	0.05
2.50	1.63	0.32	5.00	0.04	0.01	0.05
2.55	1.54	0.32	5.00	0.04	0.01	0.05
2.60	1.49	0.32	5.00	0.04	0.01	0.05
2.65	1.45	0.32	5.00	0.04	0.01	0.05
2.70	1.43	0.32	5.00	0.04	0.01	0.05
2.75	1.42	0.32	5.00	0.04	0.01	0.05
2.80	1.41	0.32	5.00	0.04	0.01	0.05
2.85	1.42	0.32	5.00	0.04	0.01	0.04

2.90	1.42	0.32	5.00	0.04	0.01	0.04
2.95	1.44	0.32	5.00	0.04	0.01	0.04
3.00	1.45	0.32	5.00	0.04	0.01	0.04
3.05	1.44	0.32	5.00	0.04	0.01	0.04
3.10	1.43	0.32	5.00	0.04	0.01	0.04
3.15	1.43	0.32	5.00	0.04	0.01	0.04
3.20	1.43	0.32	5.00	0.04	0.01	0.04
3.25	1.44	0.32	5.00	0.04	0.01	0.04
3.30	1.45	0.32	5.00	0.04	0.01	0.04
3.35	1.47	0.32	5.00	0.04	0.01	0.04
3.40	1.50	0.32	5.00	0.04	0.01	0.04
3.45	1.54	0.32	5.00	0.04	0.01	0.04
3.50	1.59	0.32	5.00	0.04	0.01	0.04
3.55	1.66	0.32	5.00	0.04	0.01	0.04
3.60	1.74	0.32	5.00	0.04	0.01	0.04
3.65	1.85	0.32	5.00	0.04	0.01	0.04
3.70	1.98	0.32	5.00	0.04	0.01	0.04
3.75	2.17	0.32	5.00	0.04	0.01	0.04
3.80	2.41	0.32	5.00	0.04	0.01	0.04
3.85	2.73	0.32	5.00	0.04	0.01	0.04
3.90	2.73	0.32	5.00	0.04	0.01	0.04
3.95	2.73	0.32	5.00	0.04	0.01	0.04
4.00	2.73	0.32	5.00	0.04	0.01	0.04
4.05	2.73	0.32	5.00	0.04	0.01	0.04
4.10	2.73	0.32	5.00	0.04	0.01	0.04
4.15	2.73	0.32	5.00	0.04	0.01	0.04
4.20	2.73	0.32	5.00	0.04	0.01	0.04
4.25	2.72	0.32	5.00	0.04	0.01	0.04
4.30	2.69	0.32	5.00	0.04	0.01	0.04
4.35	2.66	0.32	5.00	0.04	0.01	0.04
4.40	2.64	0.32	5.00	0.04	0.01	0.04
4.45	2.61	0.32	5.00	0.04	0.01	0.04
4.50	2.59	0.32	5.00	0.04	0.01	0.04
4.55	2.56	0.32	5.00	0.04	0.01	0.04
4.60	2.54	0.32	5.00	0.04	0.01	0.04
4.65	2.51	0.32	5.00	0.04	0.01	0.04
4.70	2.49	0.32	5.00	0.04	0.01	0.04
4.75	2.46	0.32	5.00	0.04	0.01	0.04
4.80	2.44	0.32	5.00	0.04	0.01	0.04
4.85	2.41	0.32	5.00	0.04	0.01	0.04
4.90	2.39	0.32	5.00	0.04	0.01	0.04
4.95	2.37	0.32	5.00	0.04	0.01	0.04
5.00	2.34	0.32	5.00	0.04	0.01	0.04
5.05	2.32	0.32	5.00	0.04	0.01	0.04
5.10	2.29	0.32	5.00	0.04	0.01	0.04
5.15	2.27	0.32	5.00	0.04	0.01	0.04
5.20	2.25	0.32	5.00	0.04	0.01	0.04
5.25	2.23	0.32	5.00	0.04	0.01	0.04
5.30	2.21	0.32	5.00	0.04	0.01	0.04
5.35	2.18	0.32	5.00	0.04	0.01	0.04
5.40	2.16	0.32	5.00	0.04	0.01	0.04
5.45	2.14	0.32	5.00	0.04	0.01	0.04
5.50	2.12	0.32	5.00	0.04	0.01	0.04
5.55	2.10	0.32	5.00	0.04	0.01	0.04
5.60	1.98	0.32	5.00	0.04	0.01	0.04
5.65	1.85	0.32	5.00	0.04	0.01	0.04
5.70	1.74	0.32	5.00	0.04	0.01	0.04
5.75	1.63	0.32	5.00	0.04	0.01	0.04
5.80	1.52	0.32	5.00	0.04	0.01	0.04
5.85	1.42	0.32	5.00	0.04	0.00	0.04
5.90	1.33	0.32	5.00	0.04	0.00	0.04
5.95	1.24	0.32	5.00	0.04	0.00	0.04
6.00	1.16	0.32	5.00	0.04	0.00	0.04
6.05	1.07	0.32	5.00	0.04	0.00	0.04
6.10	0.99	0.32	5.00	0.04	0.00	0.04
6.15	0.91	0.32	5.00	0.04	0.00	0.04
6.20	0.84	0.32	5.00	0.04	0.00	0.04
6.25	0.78	0.32	5.00	0.04	0.00	0.04
6.30	2.00	0.32	5.00	0.04	0.00	0.04
6.35	2.00	0.32	5.00	0.04	0.00	0.04
6.40	2.00	0.32	5.00	0.04	0.00	0.04
6.45	2.00	0.32	5.00	0.04	0.00	0.04
6.50	2.00	0.32	5.00	0.04	0.00	0.04
6.55	2.00	0.32	5.00	0.04	0.00	0.04
6.60	2.00	0.32	5.00	0.04	0.00	0.04

6.65	2.00	0.32	5.00	0.04	0.00	0.04
6.70	2.00	0.32	5.00	0.04	0.00	0.04
6.75	2.00	0.32	5.00	0.04	0.00	0.04
6.80	2.00	0.32	5.00	0.04	0.00	0.04
6.85	2.00	0.32	5.00	0.04	0.00	0.04
6.90	2.00	0.32	5.00	0.04	0.00	0.04
6.95	2.00	0.32	5.00	0.04	0.00	0.04
7.00	2.00	0.32	5.00	0.04	0.00	0.04
7.05	2.00	0.32	5.00	0.04	0.00	0.04
7.10	2.00	0.32	5.00	0.04	0.00	0.04
7.15	2.00	0.32	5.00	0.04	0.00	0.04
7.20	2.00	0.32	5.00	0.04	0.00	0.04
7.25	2.00	0.32	5.00	0.04	0.00	0.04
7.30	2.00	0.32	5.00	0.04	0.00	0.04
7.35	2.00	0.32	5.00	0.04	0.00	0.04
7.40	2.00	0.32	5.00	0.04	0.00	0.04
7.45	2.00	0.32	5.00	0.04	0.00	0.04
7.50	2.00	0.32	5.00	0.04	0.00	0.04
7.55	2.00	0.32	5.00	0.04	0.00	0.04
7.60	2.00	0.32	5.00	0.04	0.00	0.04
7.65	2.00	0.32	5.00	0.04	0.00	0.04
7.70	2.00	0.32	5.00	0.04	0.00	0.04
7.75	2.00	0.32	5.00	0.04	0.00	0.04
7.80	2.00	0.32	5.00	0.04	0.00	0.04
7.85	2.00	0.32	5.00	0.04	0.00	0.04
7.90	2.00	0.32	5.00	0.04	0.00	0.04
7.95	2.00	0.32	5.00	0.04	0.00	0.04
8.00	2.00	0.32	5.00	0.04	0.00	0.04
8.05	2.00	0.32	5.00	0.04	0.00	0.04
8.10	2.00	0.32	5.00	0.04	0.00	0.04
8.15	2.00	0.32	5.00	0.04	0.00	0.04
8.20	2.00	0.32	5.00	0.04	0.00	0.04
8.25	2.00	0.32	5.00	0.04	0.00	0.04
8.30	2.00	0.32	5.00	0.04	0.00	0.04
8.35	2.00	0.32	5.00	0.04	0.00	0.04
8.40	2.00	0.32	5.00	0.04	0.00	0.04
8.45	2.00	0.32	5.00	0.04	0.00	0.04
8.50	2.00	0.32	5.00	0.04	0.00	0.04
8.55	2.00	0.32	5.00	0.04	0.00	0.04
8.60	2.00	0.32	5.00	0.04	0.00	0.04
8.65	2.00	0.32	5.00	0.04	0.00	0.04
8.70	2.00	0.32	5.00	0.04	0.00	0.04
8.75	2.00	0.32	5.00	0.04	0.00	0.04
8.80	2.00	0.32	5.00	0.04	0.00	0.04
8.85	2.00	0.32	5.00	0.04	0.00	0.04
8.90	2.00	0.32	5.00	0.04	0.00	0.04
8.95	2.00	0.32	5.00	0.04	0.00	0.04
9.00	2.00	0.32	5.00	0.04	0.00	0.04
9.05	2.00	0.32	5.00	0.04	0.00	0.04
9.10	2.00	0.32	5.00	0.04	0.00	0.04
9.15	2.00	0.32	5.00	0.04	0.00	0.04
9.20	2.00	0.32	5.00	0.04	0.00	0.04
9.25	2.00	0.32	5.00	0.04	0.00	0.04
9.30	2.00	0.32	5.00	0.04	0.00	0.04
9.35	2.00	0.32	5.00	0.04	0.00	0.04
9.40	2.00	0.32	5.00	0.04	0.00	0.04
9.45	2.00	0.32	5.00	0.04	0.00	0.04
9.50	2.00	0.32	5.00	0.04	0.00	0.04
9.55	2.00	0.32	5.00	0.04	0.00	0.04
9.60	2.00	0.32	5.00	0.04	0.00	0.04
9.65	2.00	0.32	5.00	0.04	0.00	0.04
9.70	2.00	0.32	5.00	0.04	0.00	0.04
9.75	2.00	0.32	5.00	0.04	0.00	0.04
9.80	2.00	0.32	5.00	0.04	0.00	0.04
9.85	2.00	0.32	5.00	0.04	0.00	0.04
9.90	2.00	0.32	5.00	0.04	0.00	0.04
9.95	2.00	0.32	5.00	0.04	0.00	0.04
10.00	2.00	0.32	5.00	0.04	0.00	0.04
10.05	2.00	0.32	5.00	0.04	0.00	0.04
10.10	2.00	0.32	5.00	0.04	0.00	0.04
10.15	2.00	0.32	5.00	0.04	0.00	0.04
10.20	2.00	0.32	5.00	0.04	0.00	0.04
10.25	2.00	0.32	5.00	0.04	0.00	0.04
10.30	2.00	0.32	5.00	0.04	0.00	0.04
10.35	2.00	0.32	5.00	0.04	0.00	0.04

10.40	2.00	0.32	5.00	0.04	0.00	0.04
10.45	2.00	0.32	5.00	0.04	0.00	0.04
10.50	2.00	0.32	5.00	0.04	0.00	0.04
10.55	2.00	0.32	5.00	0.04	0.00	0.04
10.60	2.00	0.32	5.00	0.04	0.00	0.04
10.65	2.00	0.32	5.00	0.04	0.00	0.04
10.70	2.00	0.32	5.00	0.04	0.00	0.04
10.75	2.00	0.32	5.00	0.04	0.00	0.04
10.80	2.00	0.32	5.00	0.04	0.00	0.04
10.85	2.00	0.32	5.00	0.04	0.00	0.04
10.90	2.00	0.32	5.00	0.04	0.00	0.04
10.95	2.00	0.32	5.00	0.04	0.00	0.04
11.00	2.00	0.32	5.00	0.04	0.00	0.04
11.05	2.00	0.32	5.00	0.04	0.00	0.04
11.10	2.00	0.32	5.00	0.04	0.00	0.04
11.15	2.00	0.32	5.00	0.04	0.00	0.04
11.20	2.00	0.32	5.00	0.04	0.00	0.04
11.25	2.00	0.32	5.00	0.04	0.00	0.04
11.30	2.00	0.32	5.00	0.04	0.00	0.04
11.35	2.00	0.32	5.00	0.04	0.00	0.04
11.40	2.00	0.32	5.00	0.04	0.00	0.04
11.45	2.00	0.32	5.00	0.04	0.00	0.04
11.50	2.00	0.32	5.00	0.04	0.00	0.04
11.55	2.00	0.32	5.00	0.04	0.00	0.04
11.60	2.00	0.32	5.00	0.04	0.00	0.04
11.65	2.00	0.32	5.00	0.04	0.00	0.04
11.70	2.00	0.32	5.00	0.04	0.00	0.04
11.75	2.00	0.32	5.00	0.04	0.00	0.04
11.80	2.00	0.31	5.00	0.04	0.00	0.04
11.85	2.00	0.31	5.00	0.04	0.00	0.04
11.90	2.00	0.31	5.00	0.04	0.00	0.04
11.95	2.00	0.31	5.00	0.04	0.00	0.04
12.00	2.00	0.31	5.00	0.04	0.00	0.04
12.05	2.00	0.31	5.00	0.04	0.00	0.04
12.10	2.00	0.31	5.00	0.04	0.00	0.04
12.15	2.00	0.31	5.00	0.04	0.00	0.04
12.20	2.00	0.31	5.00	0.04	0.00	0.04
12.25	2.00	0.31	5.00	0.04	0.00	0.04
12.30	2.00	0.31	5.00	0.04	0.00	0.04
12.35	2.00	0.31	5.00	0.04	0.00	0.04
12.40	2.00	0.31	5.00	0.04	0.00	0.04
12.45	2.00	0.31	5.00	0.04	0.00	0.04
12.50	2.00	0.31	5.00	0.04	0.00	0.04
12.55	2.00	0.31	5.00	0.04	0.00	0.04
12.60	2.00	0.31	5.00	0.04	0.00	0.04
12.65	2.00	0.31	5.00	0.04	0.00	0.04
12.70	2.00	0.31	5.00	0.04	0.00	0.04
12.75	2.00	0.31	5.00	0.04	0.00	0.04
12.80	2.00	0.31	5.00	0.04	0.00	0.04
12.85	2.00	0.31	5.00	0.04	0.00	0.04
12.90	2.00	0.31	5.00	0.04	0.00	0.04
12.95	2.00	0.31	5.00	0.04	0.00	0.04
13.00	2.00	0.31	5.00	0.04	0.00	0.04
13.05	2.00	0.31	5.00	0.04	0.00	0.04
13.10	2.00	0.31	5.00	0.04	0.00	0.04
13.15	2.00	0.31	5.00	0.04	0.00	0.04
13.20	2.00	0.31	5.00	0.04	0.00	0.04
13.25	2.00	0.31	5.00	0.04	0.00	0.04
13.30	2.00	0.31	5.00	0.04	0.00	0.04
13.35	2.00	0.31	5.00	0.04	0.00	0.04
13.40	2.00	0.31	5.00	0.04	0.00	0.04
13.45	2.00	0.31	5.00	0.04	0.00	0.04
13.50	2.00	0.31	5.00	0.04	0.00	0.04
13.55	2.00	0.31	5.00	0.04	0.00	0.04
13.60	2.00	0.31	5.00	0.04	0.00	0.04
13.65	2.00	0.31	5.00	0.04	0.00	0.04
13.70	2.00	0.31	5.00	0.04	0.00	0.04
13.75	2.00	0.31	5.00	0.04	0.00	0.04
13.80	2.00	0.31	5.00	0.04	0.00	0.04
13.85	2.00	0.31	5.00	0.04	0.00	0.04
13.90	2.00	0.31	5.00	0.04	0.00	0.04
13.95	2.00	0.31	5.00	0.04	0.00	0.04
14.00	2.00	0.31	5.00	0.04	0.00	0.04
14.05	2.00	0.31	5.00	0.04	0.00	0.04
14.10	2.00	0.31	5.00	0.04	0.00	0.04

14.15	2.00	0.31	5.00	0.04	0.00	0.04
14.20	2.00	0.31	5.00	0.04	0.00	0.04
14.25	2.00	0.31	5.00	0.04	0.00	0.04
14.30	2.00	0.31	5.00	0.04	0.00	0.04
14.35	2.00	0.31	5.00	0.04	0.00	0.04
14.40	2.00	0.31	5.00	0.04	0.00	0.04
14.45	2.00	0.31	5.00	0.04	0.00	0.04
14.50	2.00	0.31	5.00	0.04	0.00	0.04
14.55	2.00	0.31	5.00	0.04	0.00	0.04
14.60	2.00	0.31	5.00	0.04	0.00	0.04
14.65	2.00	0.31	5.00	0.04	0.00	0.04
14.70	2.00	0.31	5.00	0.04	0.00	0.04
14.75	2.00	0.31	5.00	0.04	0.00	0.04
14.80	2.00	0.31	5.00	0.04	0.00	0.04
14.85	2.00	0.31	5.00	0.04	0.00	0.04
14.90	2.00	0.31	5.00	0.04	0.00	0.04
14.95	2.00	0.31	5.00	0.04	0.00	0.04
15.00	2.00	0.31	5.00	0.04	0.00	0.04
15.05	2.00	0.31	5.00	0.04	0.00	0.04
15.10	2.00	0.31	5.00	0.04	0.00	0.04
15.15	2.00	0.31	5.00	0.04	0.00	0.04
15.20	2.00	0.31	5.00	0.04	0.00	0.04
15.25	2.00	0.31	5.00	0.04	0.00	0.04
15.30	2.00	0.31	5.00	0.04	0.00	0.04
15.35	2.00	0.31	5.00	0.04	0.00	0.04
15.40	2.00	0.31	5.00	0.04	0.00	0.04
15.45	2.00	0.31	5.00	0.04	0.00	0.04
15.50	2.00	0.31	5.00	0.04	0.00	0.04
15.55	2.00	0.31	5.00	0.04	0.00	0.04
15.60	2.00	0.31	5.00	0.04	0.00	0.04
15.65	2.00	0.31	5.00	0.04	0.00	0.04
15.70	2.00	0.31	5.00	0.04	0.00	0.04
15.75	2.00	0.31	5.00	0.04	0.00	0.04
15.80	2.00	0.31	5.00	0.04	0.00	0.04
15.85	2.00	0.31	5.00	0.04	0.00	0.04
15.90	2.00	0.31	5.00	0.04	0.00	0.04
15.95	2.00	0.31	5.00	0.04	0.00	0.04
16.00	2.00	0.31	5.00	0.04	0.00	0.04
16.05	2.00	0.31	5.00	0.04	0.00	0.04
16.10	2.00	0.31	5.00	0.04	0.00	0.04
16.15	2.00	0.31	5.00	0.04	0.00	0.04
16.20	2.00	0.31	5.00	0.04	0.00	0.04
16.25	2.00	0.31	5.00	0.04	0.00	0.04
16.30	2.00	0.31	5.00	0.04	0.00	0.04
16.35	2.00	0.31	5.00	0.04	0.00	0.04
16.40	2.00	0.31	5.00	0.04	0.00	0.04
16.45	2.00	0.31	5.00	0.04	0.00	0.04
16.50	2.00	0.31	5.00	0.04	0.00	0.04
16.55	2.00	0.31	5.00	0.04	0.00	0.04
16.60	2.00	0.31	5.00	0.04	0.00	0.04
16.65	2.00	0.31	5.00	0.04	0.00	0.04
16.70	2.00	0.31	5.00	0.04	0.00	0.04
16.75	2.00	0.31	5.00	0.04	0.00	0.04
16.80	2.00	0.31	5.00	0.04	0.00	0.04
16.85	2.00	0.31	5.00	0.04	0.00	0.04
16.90	2.00	0.31	5.00	0.04	0.00	0.04
16.95	2.00	0.31	5.00	0.04	0.00	0.04
17.00	2.00	0.31	5.00	0.04	0.00	0.04
17.05	2.00	0.31	5.00	0.04	0.00	0.04
17.10	2.00	0.31	5.00	0.04	0.00	0.04
17.15	2.00	0.31	5.00	0.04	0.00	0.04
17.20	2.00	0.31	5.00	0.04	0.00	0.04
17.25	2.00	0.31	5.00	0.04	0.00	0.04
17.30	2.00	0.31	5.00	0.04	0.00	0.04
17.35	2.00	0.31	5.00	0.04	0.00	0.04
17.40	2.00	0.31	5.00	0.04	0.00	0.04
17.45	2.00	0.31	5.00	0.04	0.00	0.04
17.50	2.00	0.31	5.00	0.04	0.00	0.04
17.55	2.00	0.31	5.00	0.04	0.00	0.04
17.60	2.00	0.31	5.00	0.04	0.00	0.04
17.65	2.00	0.31	5.00	0.04	0.00	0.04
17.70	2.00	0.31	5.00	0.04	0.00	0.04
17.75	2.00	0.31	5.00	0.04	0.00	0.04
17.80	2.00	0.31	5.00	0.04	0.00	0.04
17.85	1.76	0.31	5.00	0.04	0.00	0.04

17.90	1.61	0.31	5.00	0.04	0.00	0.04
17.95	1.49	0.31	5.00	0.04	0.00	0.04
18.00	1.40	0.31	5.00	0.04	0.00	0.04
18.05	1.36	0.31	5.00	0.04	0.00	0.04
18.10	1.32	0.31	5.00	0.04	0.00	0.04
18.15	1.28	0.31	5.00	0.04	0.00	0.04
18.20	1.25	0.31	5.00	0.04	0.00	0.04
18.25	1.21	0.31	5.00	0.04	0.00	0.04
18.30	1.18	0.31	5.00	0.04	0.00	0.04
18.35	1.15	0.31	5.00	0.04	0.00	0.04
18.40	1.12	0.31	5.00	0.04	0.00	0.04
18.45	1.09	0.31	5.00	0.04	0.00	0.04
18.50	1.06	0.31	5.00	0.04	0.00	0.04
18.55	1.04	0.31	5.00	0.04	0.00	0.04
18.60	1.01	0.31	5.00	0.04	0.00	0.04
18.65	0.99	0.31	5.00	0.04	0.00	0.04
18.70	0.96	0.31	5.00	0.04	0.00	0.04
18.75	0.94	0.31	5.00	0.04	0.00	0.04
18.80	0.92	0.31	5.00	0.04	0.00	0.04
18.85	0.89	0.31	5.00	0.04	0.00	0.04
18.90	0.87	0.31	5.00	0.04	0.00	0.04
18.95	0.85	0.31	5.00	0.04	0.00	0.04
19.00	0.83	0.31	5.00	0.04	0.00	0.04
19.05	0.91	0.31	5.00	0.04	0.00	0.04
19.10	1.00	0.31	5.00	0.04	0.00	0.04
19.15	1.11	0.31	5.00	0.04	0.00	0.04
19.20	1.25	0.31	5.00	0.04	0.00	0.04
19.25	1.44	0.31	5.00	0.04	0.00	0.04
19.30	2.00	0.31	5.00	0.04	0.00	0.04
19.35	2.00	0.31	5.00	0.04	0.00	0.04
19.40	2.00	0.31	5.00	0.04	0.00	0.04
19.45	2.00	0.31	5.00	0.04	0.00	0.04
19.50	2.00	0.31	5.00	0.04	0.00	0.04
19.55	2.00	0.31	5.00	0.04	0.00	0.04
19.60	2.00	0.31	5.00	0.04	0.00	0.04
19.65	2.00	0.31	5.00	0.04	0.00	0.04
19.70	2.00	0.31	5.00	0.04	0.00	0.04
19.75	2.00	0.31	5.00	0.04	0.00	0.04
19.80	2.00	0.31	5.00	0.04	0.00	0.04
19.85	2.00	0.31	5.00	0.04	0.00	0.04
19.90	2.00	0.31	5.00	0.04	0.00	0.04
19.95	2.00	0.31	5.00	0.04	0.00	0.04
20.00	2.00	0.31	5.00	0.04	0.00	0.04
20.05	2.00	0.31	5.00	0.04	0.00	0.04
20.10	2.00	0.31	5.00	0.04	0.00	0.04
20.15	2.00	0.31	5.00	0.04	0.00	0.04
20.20	2.00	0.31	5.00	0.04	0.00	0.04
20.25	2.00	0.31	5.00	0.04	0.00	0.04
20.30	2.00	0.31	5.00	0.04	0.00	0.04
20.35	2.00	0.31	5.00	0.04	0.00	0.04
20.40	2.00	0.31	5.00	0.04	0.00	0.04
20.45	2.00	0.31	5.00	0.04	0.00	0.04
20.50	2.00	0.31	5.00	0.04	0.00	0.04
20.55	2.00	0.31	5.00	0.04	0.00	0.04
20.60	2.00	0.31	5.00	0.04	0.00	0.04
20.65	2.00	0.31	5.00	0.04	0.00	0.04
20.70	2.00	0.31	5.00	0.04	0.00	0.04
20.75	2.00	0.31	5.00	0.04	0.00	0.04
20.80	2.00	0.31	5.00	0.04	0.00	0.04
20.85	2.00	0.31	5.00	0.04	0.00	0.04
20.90	2.00	0.31	5.00	0.04	0.00	0.04
20.95	2.00	0.31	5.00	0.04	0.00	0.04
21.00	2.00	0.31	5.00	0.04	0.00	0.04
21.05	2.00	0.31	5.00	0.04	0.00	0.04
21.10	2.00	0.31	5.00	0.04	0.00	0.04
21.15	2.00	0.31	5.00	0.04	0.00	0.04
21.20	2.00	0.31	5.00	0.04	0.00	0.04
21.25	2.00	0.31	5.00	0.04	0.00	0.04
21.30	2.00	0.31	5.00	0.04	0.00	0.04
21.35	2.00	0.31	5.00	0.04	0.00	0.04
21.40	2.00	0.31	5.00	0.04	0.00	0.04
21.45	2.00	0.31	5.00	0.04	0.00	0.04
21.50	2.00	0.31	5.00	0.04	0.00	0.04
21.55	2.00	0.31	5.00	0.04	0.00	0.04
21.60	2.00	0.31	5.00	0.04	0.00	0.04

21.65	2.00	0.31	5.00	0.04	0.00	0.04
21.70	2.00	0.31	5.00	0.04	0.00	0.04
21.75	2.00	0.31	5.00	0.04	0.00	0.04
21.80	2.00	0.31	5.00	0.04	0.00	0.04
21.85	2.00	0.31	5.00	0.04	0.00	0.04
21.90	2.00	0.31	5.00	0.04	0.00	0.04
21.95	2.00	0.31	5.00	0.04	0.00	0.04
22.00	2.00	0.31	5.00	0.04	0.00	0.04
22.05	2.00	0.31	5.00	0.04	0.00	0.04
22.10	2.00	0.31	5.00	0.04	0.00	0.04
22.15	2.00	0.32	5.00	0.04	0.00	0.04
22.20	2.00	0.32	5.00	0.04	0.00	0.04
22.25	2.00	0.32	5.00	0.04	0.00	0.04
22.30	2.00	0.32	5.00	0.04	0.00	0.04
22.35	2.00	0.32	5.00	0.04	0.00	0.04
22.40	2.00	0.32	5.00	0.04	0.00	0.04
22.45	2.00	0.32	5.00	0.04	0.00	0.04
22.50	2.00	0.32	5.00	0.04	0.00	0.04
22.55	2.00	0.32	5.00	0.04	0.00	0.04
22.60	2.00	0.32	5.00	0.04	0.00	0.04
22.65	2.00	0.32	5.00	0.04	0.00	0.04
22.70	2.00	0.32	5.00	0.04	0.00	0.04
22.75	2.00	0.32	5.00	0.04	0.00	0.04
22.80	2.00	0.32	5.00	0.04	0.00	0.04
22.85	2.00	0.32	5.00	0.04	0.00	0.04
22.90	2.00	0.32	5.00	0.04	0.00	0.04
22.95	2.00	0.32	5.00	0.04	0.00	0.04
23.00	2.00	0.32	5.00	0.04	0.00	0.04
23.05	2.00	0.32	5.00	0.04	0.00	0.04
23.10	2.00	0.32	5.00	0.04	0.00	0.04
23.15	2.00	0.32	5.00	0.04	0.00	0.04
23.20	2.00	0.32	5.00	0.04	0.00	0.04
23.25	2.00	0.32	5.00	0.04	0.00	0.04
23.30	2.00	0.32	5.00	0.04	0.00	0.04
23.35	2.00	0.32	5.00	0.04	0.00	0.04
23.40	2.00	0.32	5.00	0.04	0.00	0.04
23.45	2.00	0.32	5.00	0.04	0.00	0.04
23.50	2.00	0.32	5.00	0.04	0.00	0.04
23.55	2.00	0.32	5.00	0.04	0.00	0.04
23.60	2.00	0.32	5.00	0.04	0.00	0.04
23.65	2.00	0.32	5.00	0.04	0.00	0.04
23.70	2.00	0.32	5.00	0.04	0.00	0.04
23.75	2.00	0.33	5.00	0.04	0.00	0.04
23.80	2.00	0.33	5.00	0.04	0.00	0.04
23.85	2.00	0.33	5.00	0.04	0.00	0.04
23.90	2.00	0.33	5.00	0.04	0.00	0.04
23.95	2.00	0.33	5.00	0.04	0.00	0.04
24.00	2.00	0.33	5.00	0.04	0.00	0.04
24.05	2.00	0.33	5.00	0.04	0.00	0.04
24.10	2.00	0.33	5.00	0.04	0.00	0.04
24.15	2.00	0.33	5.00	0.04	0.00	0.04
24.20	2.00	0.33	5.00	0.04	0.00	0.04
24.25	2.00	0.33	5.00	0.04	0.00	0.04
24.30	2.00	0.33	5.00	0.04	0.00	0.04
24.35	2.00	0.33	5.00	0.04	0.00	0.04
24.40	2.00	0.33	5.00	0.04	0.00	0.04
24.45	2.00	0.33	5.00	0.04	0.00	0.04
24.50	2.00	0.33	5.00	0.04	0.00	0.04
24.55	2.00	0.33	5.00	0.04	0.00	0.04
24.60	2.00	0.33	5.00	0.04	0.00	0.04
24.65	2.00	0.33	5.00	0.04	0.00	0.04
24.70	2.00	0.33	5.00	0.04	0.00	0.04
24.75	2.00	0.33	5.00	0.04	0.00	0.04
24.80	2.00	0.33	5.00	0.04	0.00	0.04
24.85	2.00	0.33	5.00	0.04	0.00	0.04
24.90	2.00	0.33	5.00	0.04	0.00	0.04
24.95	2.00	0.33	5.00	0.04	0.00	0.04
25.00	2.00	0.33	5.00	0.04	0.00	0.04
25.05	2.00	0.33	5.00	0.04	0.00	0.04
25.10	2.00	0.33	5.00	0.04	0.00	0.04
25.15	2.00	0.33	5.00	0.04	0.00	0.04
25.20	2.00	0.33	5.00	0.04	0.00	0.04
25.25	2.00	0.33	5.00	0.04	0.00	0.04
25.30	2.00	0.33	5.00	0.04	0.00	0.04
25.35	2.00	0.33	5.00	0.04	0.00	0.04

25.40	2.00	0.33	5.00	0.04	0.00	0.04
25.45	2.00	0.33	5.00	0.04	0.00	0.04
25.50	2.00	0.34	5.00	0.04	0.00	0.04
25.55	2.00	0.34	5.00	0.04	0.00	0.04
25.60	2.00	0.34	5.00	0.04	0.00	0.04
25.65	2.00	0.34	5.00	0.04	0.00	0.04
25.70	2.00	0.34	5.00	0.04	0.00	0.04
25.75	2.00	0.34	5.00	0.04	0.00	0.04
25.80	2.00	0.34	5.00	0.04	0.00	0.04
25.85	2.00	0.34	5.00	0.04	0.00	0.04
25.90	2.00	0.34	5.00	0.04	0.00	0.04
25.95	0.13	0.34	0.38*	0.04	0.00	0.04
26.00	0.12	0.34	0.36*	0.02	0.00	0.02
26.05	0.13	0.34	0.39*	0.01	0.00	0.01
26.10	2.00	0.34	5.00	0.00	0.00	0.00
26.15	2.00	0.34	5.00	0.00	0.00	0.00
26.20	2.00	0.34	5.00	0.00	0.00	0.00
26.25	2.00	0.34	5.00	0.00	0.00	0.00
26.30	2.00	0.34	5.00	0.00	0.00	0.00
26.35	2.00	0.34	5.00	0.00	0.00	0.00
26.40	2.00	0.34	5.00	0.00	0.00	0.00
26.45	2.00	0.34	5.00	0.00	0.00	0.00
26.50	2.00	0.34	5.00	0.00	0.00	0.00
26.55	2.00	0.34	5.00	0.00	0.00	0.00
26.60	2.00	0.34	5.00	0.00	0.00	0.00
26.65	2.00	0.34	5.00	0.00	0.00	0.00
26.70	2.00	0.34	5.00	0.00	0.00	0.00
26.75	2.00	0.34	5.00	0.00	0.00	0.00
26.80	2.00	0.34	5.00	0.00	0.00	0.00
26.85	2.00	0.34	5.00	0.00	0.00	0.00
26.90	2.00	0.34	5.00	0.00	0.00	0.00
26.95	2.00	0.34	5.00	0.00	0.00	0.00
27.00	2.00	0.34	5.00	0.00	0.00	0.00
27.05	2.00	0.34	5.00	0.00	0.00	0.00
27.10	2.00	0.34	5.00	0.00	0.00	0.00
27.15	2.00	0.34	5.00	0.00	0.00	0.00
27.20	2.00	0.34	5.00	0.00	0.00	0.00
27.25	2.00	0.34	5.00	0.00	0.00	0.00
27.30	2.00	0.34	5.00	0.00	0.00	0.00
27.35	2.00	0.34	5.00	0.00	0.00	0.00
27.40	2.00	0.34	5.00	0.00	0.00	0.00
27.45	2.00	0.34	5.00	0.00	0.00	0.00
27.50	2.00	0.35	5.00	0.00	0.00	0.00
27.55	2.00	0.35	5.00	0.00	0.00	0.00
27.60	2.00	0.35	5.00	0.00	0.00	0.00
27.65	2.00	0.35	5.00	0.00	0.00	0.00
27.70	2.00	0.35	5.00	0.00	0.00	0.00
27.75	2.00	0.35	5.00	0.00	0.00	0.00
27.80	2.00	0.35	5.00	0.00	0.00	0.00
27.85	2.00	0.35	5.00	0.00	0.00	0.00
27.90	2.00	0.35	5.00	0.00	0.00	0.00
27.95	2.00	0.35	5.00	0.00	0.00	0.00
28.00	2.00	0.35	5.00	0.00	0.00	0.00
28.05	2.00	0.35	5.00	0.00	0.00	0.00
28.10	2.00	0.35	5.00	0.00	0.00	0.00
28.15	2.00	0.35	5.00	0.00	0.00	0.00
28.20	2.00	0.35	5.00	0.00	0.00	0.00
28.25	2.00	0.35	5.00	0.00	0.00	0.00
28.30	2.00	0.35	5.00	0.00	0.00	0.00
28.35	2.00	0.35	5.00	0.00	0.00	0.00
28.40	2.00	0.35	5.00	0.00	0.00	0.00
28.45	2.00	0.35	5.00	0.00	0.00	0.00
28.50	2.00	0.35	5.00	0.00	0.00	0.00
28.55	2.00	0.35	5.00	0.00	0.00	0.00
28.60	2.00	0.35	5.00	0.00	0.00	0.00
28.65	2.00	0.35	5.00	0.00	0.00	0.00
28.70	2.00	0.35	5.00	0.00	0.00	0.00
28.75	2.00	0.35	5.00	0.00	0.00	0.00
28.80	2.00	0.35	5.00	0.00	0.00	0.00
28.85	2.00	0.35	5.00	0.00	0.00	0.00
28.90	2.00	0.35	5.00	0.00	0.00	0.00
28.95	2.00	0.35	5.00	0.00	0.00	0.00
29.00	2.00	0.35	5.00	0.00	0.00	0.00
29.05	2.00	0.35	5.00	0.00	0.00	0.00
29.10	2.00	0.35	5.00	0.00	0.00	0.00

29.15	2.00	0.35	5.00	0.00	0.00	0.00
29.20	2.00	0.35	5.00	0.00	0.00	0.00
29.25	2.00	0.35	5.00	0.00	0.00	0.00
29.30	2.00	0.35	5.00	0.00	0.00	0.00
29.35	2.00	0.35	5.00	0.00	0.00	0.00
29.40	2.00	0.35	5.00	0.00	0.00	0.00
29.45	2.00	0.35	5.00	0.00	0.00	0.00
29.50	2.00	0.35	5.00	0.00	0.00	0.00
29.55	2.00	0.35	5.00	0.00	0.00	0.00
29.60	2.00	0.35	5.00	0.00	0.00	0.00
29.65	2.00	0.36	5.00	0.00	0.00	0.00
29.70	2.00	0.36	5.00	0.00	0.00	0.00
29.75	2.00	0.36	5.00	0.00	0.00	0.00
29.80	2.00	0.36	5.00	0.00	0.00	0.00
29.85	2.00	0.36	5.00	0.00	0.00	0.00
29.90	2.00	0.36	5.00	0.00	0.00	0.00
29.95	2.00	0.36	5.00	0.00	0.00	0.00
30.00	2.00	0.36	5.00	0.00	0.00	0.00
30.05	2.00	0.36	5.00	0.00	0.00	0.00
30.10	2.00	0.36	5.00	0.00	0.00	0.00
30.15	2.00	0.36	5.00	0.00	0.00	0.00
30.20	2.00	0.36	5.00	0.00	0.00	0.00
30.25	2.00	0.36	5.00	0.00	0.00	0.00
30.30	2.00	0.36	5.00	0.00	0.00	0.00
30.35	2.00	0.36	5.00	0.00	0.00	0.00
30.40	2.00	0.36	5.00	0.00	0.00	0.00
30.45	2.00	0.36	5.00	0.00	0.00	0.00
30.50	2.00	0.36	5.00	0.00	0.00	0.00
30.55	2.00	0.36	5.00	0.00	0.00	0.00
30.60	2.00	0.36	5.00	0.00	0.00	0.00
30.65	2.00	0.36	5.00	0.00	0.00	0.00
30.70	2.00	0.36	5.00	0.00	0.00	0.00
30.75	2.00	0.36	5.00	0.00	0.00	0.00
30.80	2.00	0.36	5.00	0.00	0.00	0.00
30.85	2.00	0.36	5.00	0.00	0.00	0.00
30.90	2.00	0.36	5.00	0.00	0.00	0.00
30.95	2.00	0.36	5.00	0.00	0.00	0.00
31.00	2.00	0.36	5.00	0.00	0.00	0.00
31.05	2.00	0.36	5.00	0.00	0.00	0.00
31.10	2.00	0.36	5.00	0.00	0.00	0.00
31.15	2.00	0.36	5.00	0.00	0.00	0.00
31.20	2.00	0.36	5.00	0.00	0.00	0.00
31.25	2.00	0.36	5.00	0.00	0.00	0.00
31.30	2.00	0.36	5.00	0.00	0.00	0.00
31.35	2.00	0.36	5.00	0.00	0.00	0.00
31.40	2.00	0.36	5.00	0.00	0.00	0.00
31.45	2.00	0.36	5.00	0.00	0.00	0.00
31.50	2.00	0.36	5.00	0.00	0.00	0.00
31.55	2.00	0.36	5.00	0.00	0.00	0.00
31.60	2.00	0.36	5.00	0.00	0.00	0.00
31.65	2.00	0.36	5.00	0.00	0.00	0.00
31.70	2.00	0.36	5.00	0.00	0.00	0.00
31.75	2.00	0.36	5.00	0.00	0.00	0.00
31.80	2.00	0.36	5.00	0.00	0.00	0.00
31.85	2.00	0.36	5.00	0.00	0.00	0.00
31.90	2.00	0.36	5.00	0.00	0.00	0.00
31.95	2.00	0.36	5.00	0.00	0.00	0.00
32.00	2.00	0.36	5.00	0.00	0.00	0.00
32.05	2.00	0.36	5.00	0.00	0.00	0.00
32.10	2.00	0.36	5.00	0.00	0.00	0.00
32.15	2.00	0.36	5.00	0.00	0.00	0.00
32.20	2.00	0.36	5.00	0.00	0.00	0.00
32.25	2.00	0.36	5.00	0.00	0.00	0.00
32.30	2.00	0.36	5.00	0.00	0.00	0.00
32.35	2.00	0.36	5.00	0.00	0.00	0.00
32.40	2.00	0.36	5.00	0.00	0.00	0.00
32.45	2.00	0.36	5.00	0.00	0.00	0.00
32.50	2.00	0.36	5.00	0.00	0.00	0.00
32.55	2.00	0.36	5.00	0.00	0.00	0.00
32.60	2.00	0.36	5.00	0.00	0.00	0.00
32.65	2.00	0.36	5.00	0.00	0.00	0.00
32.70	2.00	0.36	5.00	0.00	0.00	0.00
32.75	2.00	0.36	5.00	0.00	0.00	0.00
32.80	2.00	0.36	5.00	0.00	0.00	0.00
32.85	2.00	0.36	5.00	0.00	0.00	0.00

32.90	2.00	0.36	5.00	0.00	0.00	0.00
32.95	2.00	0.36	5.00	0.00	0.00	0.00
33.00	2.00	0.36	5.00	0.00	0.00	0.00
33.05	2.00	0.36	5.00	0.00	0.00	0.00
33.10	2.00	0.36	5.00	0.00	0.00	0.00
33.15	2.00	0.36	5.00	0.00	0.00	0.00
33.20	2.00	0.36	5.00	0.00	0.00	0.00
33.25	2.00	0.36	5.00	0.00	0.00	0.00
33.30	2.00	0.36	5.00	0.00	0.00	0.00
33.35	2.00	0.36	5.00	0.00	0.00	0.00
33.40	2.00	0.36	5.00	0.00	0.00	0.00
33.45	2.00	0.36	5.00	0.00	0.00	0.00
33.50	2.00	0.36	5.00	0.00	0.00	0.00
33.55	2.00	0.36	5.00	0.00	0.00	0.00
33.60	2.00	0.36	5.00	0.00	0.00	0.00
33.65	2.00	0.36	5.00	0.00	0.00	0.00
33.70	2.00	0.36	5.00	0.00	0.00	0.00
33.75	2.00	0.36	5.00	0.00	0.00	0.00
33.80	2.00	0.36	5.00	0.00	0.00	0.00
33.85	2.00	0.36	5.00	0.00	0.00	0.00
33.90	2.00	0.36	5.00	0.00	0.00	0.00
33.95	2.00	0.36	5.00	0.00	0.00	0.00
34.00	2.00	0.36	5.00	0.00	0.00	0.00
34.05	2.00	0.36	5.00	0.00	0.00	0.00
34.10	2.00	0.36	5.00	0.00	0.00	0.00
34.15	2.00	0.36	5.00	0.00	0.00	0.00
34.20	2.00	0.36	5.00	0.00	0.00	0.00
34.25	2.00	0.36	5.00	0.00	0.00	0.00
34.30	2.00	0.36	5.00	0.00	0.00	0.00
34.35	2.00	0.36	5.00	0.00	0.00	0.00
34.40	2.00	0.36	5.00	0.00	0.00	0.00
34.45	2.00	0.36	5.00	0.00	0.00	0.00
34.50	2.00	0.36	5.00	0.00	0.00	0.00
34.55	2.00	0.36	5.00	0.00	0.00	0.00
34.60	2.00	0.36	5.00	0.00	0.00	0.00
34.65	2.00	0.36	5.00	0.00	0.00	0.00
34.70	2.00	0.36	5.00	0.00	0.00	0.00
34.75	2.00	0.36	5.00	0.00	0.00	0.00
34.80	2.00	0.36	5.00	0.00	0.00	0.00
34.85	2.00	0.36	5.00	0.00	0.00	0.00
34.90	2.00	0.36	5.00	0.00	0.00	0.00
34.95	2.00	0.36	5.00	0.00	0.00	0.00
35.00	2.00	0.36	5.00	0.00	0.00	0.00
35.05	2.00	0.36	5.00	0.00	0.00	0.00
35.10	2.00	0.36	5.00	0.00	0.00	0.00
35.15	2.00	0.36	5.00	0.00	0.00	0.00
35.20	2.00	0.36	5.00	0.00	0.00	0.00
35.25	2.00	0.36	5.00	0.00	0.00	0.00
35.30	2.00	0.36	5.00	0.00	0.00	0.00
35.35	2.00	0.36	5.00	0.00	0.00	0.00
35.40	2.00	0.36	5.00	0.00	0.00	0.00
35.45	2.00	0.36	5.00	0.00	0.00	0.00
35.50	2.00	0.36	5.00	0.00	0.00	0.00
35.55	2.00	0.36	5.00	0.00	0.00	0.00
35.60	2.00	0.36	5.00	0.00	0.00	0.00
35.65	2.00	0.36	5.00	0.00	0.00	0.00
35.70	2.00	0.36	5.00	0.00	0.00	0.00
35.75	0.91	0.36	2.50	0.00	0.00	0.00
35.80	0.89	0.36	2.45	0.00	0.00	0.00
35.85	0.88	0.36	2.42	0.00	0.00	0.00
35.90	0.87	0.36	2.38	0.00	0.00	0.00
35.95	0.85	0.36	2.34	0.00	0.00	0.00
36.00	0.84	0.36	2.31	0.00	0.00	0.00
36.05	0.88	0.36	2.41	0.00	0.00	0.00
36.10	0.91	0.36	2.51	0.00	0.00	0.00
36.15	2.00	0.36	5.00	0.00	0.00	0.00
36.20	2.00	0.36	5.00	0.00	0.00	0.00
36.25	2.00	0.36	5.00	0.00	0.00	0.00
36.30	2.00	0.36	5.00	0.00	0.00	0.00
36.35	2.00	0.36	5.00	0.00	0.00	0.00
36.40	2.00	0.36	5.00	0.00	0.00	0.00
36.45	2.00	0.36	5.00	0.00	0.00	0.00
36.50	2.00	0.36	5.00	0.00	0.00	0.00
36.55	2.00	0.36	5.00	0.00	0.00	0.00
36.60	2.00	0.36	5.00	0.00	0.00	0.00

36.65	2.00	0.36	5.00	0.00	0.00	0.00
36.70	2.00	0.36	5.00	0.00	0.00	0.00
36.75	2.00	0.36	5.00	0.00	0.00	0.00
36.80	2.00	0.36	5.00	0.00	0.00	0.00
36.85	2.00	0.36	5.00	0.00	0.00	0.00
36.90	2.00	0.36	5.00	0.00	0.00	0.00
36.95	2.00	0.36	5.00	0.00	0.00	0.00
37.00	2.00	0.36	5.00	0.00	0.00	0.00
37.05	2.00	0.36	5.00	0.00	0.00	0.00
37.10	2.00	0.36	5.00	0.00	0.00	0.00
37.15	2.00	0.36	5.00	0.00	0.00	0.00
37.20	2.00	0.36	5.00	0.00	0.00	0.00
37.25	2.00	0.36	5.00	0.00	0.00	0.00
37.30	2.00	0.36	5.00	0.00	0.00	0.00
37.35	2.00	0.36	5.00	0.00	0.00	0.00
37.40	2.00	0.36	5.00	0.00	0.00	0.00
37.45	2.00	0.36	5.00	0.00	0.00	0.00
37.50	2.00	0.36	5.00	0.00	0.00	0.00
37.55	2.00	0.36	5.00	0.00	0.00	0.00
37.60	2.00	0.36	5.00	0.00	0.00	0.00
37.65	2.00	0.36	5.00	0.00	0.00	0.00
37.70	2.00	0.36	5.00	0.00	0.00	0.00
37.75	2.00	0.36	5.00	0.00	0.00	0.00
37.80	2.00	0.36	5.00	0.00	0.00	0.00
37.85	2.00	0.36	5.00	0.00	0.00	0.00
37.90	2.00	0.36	5.00	0.00	0.00	0.00
37.95	2.00	0.36	5.00	0.00	0.00	0.00
38.00	2.00	0.36	5.00	0.00	0.00	0.00
38.05	2.00	0.36	5.00	0.00	0.00	0.00
38.10	2.00	0.36	5.00	0.00	0.00	0.00
38.15	2.00	0.36	5.00	0.00	0.00	0.00
38.20	2.00	0.36	5.00	0.00	0.00	0.00
38.25	2.00	0.36	5.00	0.00	0.00	0.00
38.30	2.00	0.36	5.00	0.00	0.00	0.00
38.35	0.58	0.36	1.60	0.00	0.00	0.00
38.40	0.53	0.36	1.44	0.00	0.00	0.00
38.45	0.50	0.36	1.37	0.00	0.00	0.00
38.50	0.49	0.36	1.35	0.00	0.00	0.00
38.55	0.50	0.36	1.36	0.00	0.00	0.00
38.60	0.51	0.36	1.39	0.00	0.00	0.00
38.65	0.52	0.36	1.44	0.00	0.00	0.00
38.70	0.55	0.36	1.50	0.00	0.00	0.00
38.75	0.57	0.36	1.57	0.00	0.00	0.00
38.80	0.60	0.36	1.65	0.00	0.00	0.00
38.85	0.63	0.36	1.74	0.00	0.00	0.00
38.90	0.67	0.36	1.83	0.00	0.00	0.00
38.95	0.71	0.36	1.94	0.00	0.00	0.00
39.00	0.75	0.36	2.05	0.00	0.00	0.00
39.05	0.78	0.36	2.13	0.00	0.00	0.00
39.10	0.80	0.36	2.21	0.00	0.00	0.00
39.15	0.84	0.36	2.29	0.00	0.00	0.00
39.20	0.87	0.36	2.39	0.00	0.00	0.00
39.25	0.91	0.36	2.48	0.00	0.00	0.00
39.30	0.94	0.36	2.59	0.00	0.00	0.00
39.35	0.98	0.36	2.69	0.00	0.00	0.00
39.40	1.02	0.36	2.81	0.00	0.00	0.00
39.45	1.07	0.36	2.93	0.00	0.00	0.00
39.50	1.11	0.36	3.05	0.00	0.00	0.00
39.55	1.16	0.36	3.18	0.00	0.00	0.00
39.60	1.21	0.36	3.31	0.00	0.00	0.00
39.65	1.26	0.36	3.45	0.00	0.00	0.00
39.70	1.31	0.36	3.60	0.00	0.00	0.00
39.75	1.37	0.36	3.75	0.00	0.00	0.00
39.80	1.43	0.36	3.91	0.00	0.00	0.00
39.85	1.48	0.36	4.07	0.00	0.00	0.00
39.90	1.55	0.36	4.24	0.00	0.00	0.00
39.95	1.61	0.36	4.41	0.00	0.00	0.00
40.00	1.67	0.36	4.59	0.00	0.00	0.00
40.05	1.57	0.36	4.31	0.00	0.00	0.00
40.10	1.47	0.36	4.04	0.00	0.00	0.00
40.15	1.38	0.36	3.79	0.00	0.00	0.00
40.20	1.29	0.36	3.54	0.00	0.00	0.00
40.25	1.21	0.36	3.31	0.00	0.00	0.00
40.30	1.13	0.36	3.09	0.00	0.00	0.00
40.35	1.05	0.36	2.88	0.00	0.00	0.00

40.40	0.98	0.36	2.69	0.00	0.00	0.00
40.45	0.91	0.36	2.50	0.00	0.00	0.00
40.50	0.85	0.36	2.32	0.00	0.00	0.00
40.55	0.79	0.36	2.16	0.00	0.00	0.00
40.60	0.73	0.36	2.00	0.00	0.00	0.00
40.65	0.68	0.36	1.85	0.00	0.00	0.00
40.70	0.63	0.36	1.72	0.00	0.00	0.00
40.75	0.58	0.36	1.59	0.00	0.00	0.00
40.80	0.53	0.36	1.47	0.00	0.00	0.00
40.85	0.49	0.36	1.36	0.00	0.00	0.00
40.90	0.46	0.36	1.25	0.00	0.00	0.00
40.95	0.42	0.36	1.16	0.00	0.00	0.00
41.00	0.39	0.36	1.07	0.00	0.00	0.00
41.05	0.39	0.36	1.08	0.00	0.00	0.00
41.10	0.40	0.36	1.10	0.00	0.00	0.00
41.15	0.41	0.36	1.11	0.00	0.00	0.00
41.20	0.41	0.36	1.13	0.00	0.00	0.00
41.25	0.42	0.36	1.15	0.00	0.00	0.00
41.30	0.42	0.36	1.16	0.00	0.00	0.00
41.35	0.43	0.36	1.18	0.00	0.00	0.00
41.40	0.44	0.36	1.20	0.00	0.00	0.00
41.45	0.45	0.36	1.22	0.00	0.00	0.00
41.50	0.45	0.36	1.25	0.00	0.00	0.00
41.55	0.46	0.36	1.27	0.00	0.00	0.00
41.60	0.47	0.36	1.30	0.00	0.00	0.00
41.65	0.48	0.36	1.32	0.00	0.00	0.00
41.70	0.49	0.36	1.35	0.00	0.00	0.00
41.75	0.50	0.36	1.38	0.00	0.00	0.00
41.80	0.51	0.36	1.41	0.00	0.00	0.00
41.85	0.53	0.36	1.45	0.00	0.00	0.00
41.90	0.54	0.36	1.48	0.00	0.00	0.00
41.95	0.55	0.36	1.52	0.00	0.00	0.00
42.00	0.57	0.36	1.57	0.00	0.00	0.00
42.05	0.61	0.36	1.67	0.00	0.00	0.00
42.10	0.65	0.36	1.78	0.00	0.00	0.00
42.15	0.69	0.36	1.90	0.00	0.00	0.00
42.20	0.74	0.36	2.03	0.00	0.00	0.00
42.25	0.79	0.36	2.16	0.00	0.00	0.00
42.30	0.84	0.36	2.30	0.00	0.00	0.00
42.35	0.89	0.36	2.44	0.00	0.00	0.00
42.40	0.94	0.36	2.59	0.00	0.00	0.00
42.45	1.00	0.36	2.75	0.00	0.00	0.00
42.50	1.06	0.36	2.91	0.00	0.00	0.00
42.55	1.12	0.36	3.09	0.00	0.00	0.00
42.60	1.19	0.36	3.26	0.00	0.00	0.00
42.65	1.25	0.36	3.45	0.00	0.00	0.00
42.70	1.32	0.36	3.64	0.00	0.00	0.00
42.75	1.40	0.36	3.84	0.00	0.00	0.00
42.80	1.47	0.36	4.05	0.00	0.00	0.00
42.85	1.55	0.36	4.27	0.00	0.00	0.00
42.90	1.63	0.36	4.49	0.00	0.00	0.00
42.95	1.72	0.36	4.72	0.00	0.00	0.00
43.00	1.80	0.36	4.96	0.00	0.00	0.00
43.05	1.82	0.36	5.00	0.00	0.00	0.00
43.10	1.83	0.36	5.00	0.00	0.00	0.00
43.15	1.84	0.36	5.00	0.00	0.00	0.00
43.20	1.85	0.36	5.00	0.00	0.00	0.00
43.25	1.87	0.36	5.00	0.00	0.00	0.00
43.30	1.88	0.36	5.00	0.00	0.00	0.00
43.35	1.90	0.36	5.00	0.00	0.00	0.00
43.40	1.91	0.36	5.00	0.00	0.00	0.00
43.45	1.93	0.36	5.00	0.00	0.00	0.00
43.50	1.94	0.36	5.00	0.00	0.00	0.00
43.55	1.95	0.36	5.00	0.00	0.00	0.00
43.60	1.97	0.36	5.00	0.00	0.00	0.00
43.65	1.98	0.36	5.00	0.00	0.00	0.00
43.70	2.00	0.36	5.00	0.00	0.00	0.00
43.75	2.02	0.36	5.00	0.00	0.00	0.00
43.80	2.03	0.36	5.00	0.00	0.00	0.00
43.85	2.05	0.36	5.00	0.00	0.00	0.00
43.90	2.06	0.36	5.00	0.00	0.00	0.00
43.95	2.08	0.36	5.00	0.00	0.00	0.00
44.00	2.10	0.36	5.00	0.00	0.00	0.00
44.05	1.96	0.36	5.00	0.00	0.00	0.00
44.10	1.83	0.36	5.00	0.00	0.00	0.00

44.15	1.71	0.36	4.70	0.00	0.00	0.00
44.20	1.59	0.36	4.39	0.00	0.00	0.00
44.25	1.49	0.36	4.10	0.00	0.00	0.00
44.30	1.39	0.36	3.84	0.00	0.00	0.00
44.35	1.30	0.36	3.59	0.00	0.00	0.00
44.40	1.22	0.36	3.38	0.00	0.00	0.00
44.45	1.15	0.36	3.19	0.00	0.00	0.00
44.50	1.10	0.36	3.03	0.00	0.00	0.00
44.55	1.05	0.36	2.90	0.00	0.00	0.00
44.60	1.02	0.36	2.82	0.00	0.00	0.00
44.65	1.01	0.36	2.79	0.00	0.00	0.00
44.70	1.03	0.36	2.84	0.00	0.00	0.00
44.75	1.10	0.36	3.05	0.00	0.00	0.00
44.80	1.29	0.36	3.55	0.00	0.00	0.00
44.85	2.00	0.36	5.00	0.00	0.00	0.00
44.90	2.00	0.36	5.00	0.00	0.00	0.00
44.95	2.00	0.36	5.00	0.00	0.00	0.00
45.00	2.00	0.36	5.00	0.00	0.00	0.00
45.05	2.00	0.36	5.00	0.00	0.00	0.00
45.10	2.00	0.36	5.00	0.00	0.00	0.00
45.15	2.00	0.36	5.00	0.00	0.00	0.00
45.20	2.00	0.36	5.00	0.00	0.00	0.00
45.25	2.00	0.36	5.00	0.00	0.00	0.00
45.30	1.28	0.36	3.54	0.00	0.00	0.00
45.35	1.19	0.36	3.28	0.00	0.00	0.00
45.40	1.14	0.36	3.17	0.00	0.00	0.00
45.45	1.13	0.36	3.14	0.00	0.00	0.00
45.50	1.14	0.36	3.16	0.00	0.00	0.00
45.55	1.17	0.36	3.23	0.00	0.00	0.00
45.60	1.20	0.36	3.32	0.00	0.00	0.00
45.65	1.25	0.36	3.45	0.00	0.00	0.00
45.70	1.30	0.36	3.59	0.00	0.00	0.00
45.75	1.36	0.36	3.76	0.00	0.00	0.00
45.80	1.42	0.36	3.95	0.00	0.00	0.00
45.85	1.50	0.36	4.15	0.00	0.00	0.00
45.90	1.58	0.36	4.37	0.00	0.00	0.00
45.95	1.66	0.36	4.60	0.00	0.00	0.00
46.00	1.75	0.36	4.85	0.00	0.00	0.00
46.05	1.68	0.36	4.66	0.00	0.00	0.00
46.10	1.62	0.36	4.48	0.00	0.00	0.00
46.15	1.55	0.36	4.31	0.00	0.00	0.00
46.20	1.50	0.36	4.15	0.00	0.00	0.00
46.25	1.44	0.36	3.99	0.00	0.00	0.00
46.30	1.39	0.36	3.84	0.00	0.00	0.00
46.35	1.34	0.36	3.71	0.00	0.00	0.00
46.40	1.29	0.36	3.58	0.00	0.00	0.00
46.45	1.25	0.36	3.46	0.00	0.00	0.00
46.50	1.21	0.36	3.35	0.00	0.00	0.00
46.55	1.17	0.36	3.25	0.00	0.00	0.00
46.60	1.14	0.36	3.16	0.00	0.00	0.00
46.65	1.11	0.36	3.08	0.00	0.00	0.00
46.70	1.09	0.36	3.02	0.00	0.00	0.00
46.75	1.07	0.36	2.97	0.00	0.00	0.00
46.80	1.06	0.36	2.95	0.00	0.00	0.00
46.85	1.06	0.36	2.95	0.00	0.00	0.00
46.90	1.07	0.36	2.98	0.00	0.00	0.00
46.95	1.10	0.36	3.05	0.00	0.00	0.00
47.00	1.15	0.36	3.19	0.00	0.00	0.00
47.05	1.13	0.36	3.14	0.00	0.00	0.00
47.10	1.11	0.36	3.09	0.00	0.00	0.00
47.15	1.09	0.36	3.04	0.00	0.00	0.00
47.20	1.08	0.36	3.01	0.00	0.00	0.00
47.25	2.00	0.36	5.00	0.00	0.00	0.00
47.30	2.00	0.36	5.00	0.00	0.00	0.00
47.35	2.00	0.36	5.00	0.00	0.00	0.00
47.40	2.00	0.36	5.00	0.00	0.00	0.00
47.45	2.00	0.36	5.00	0.00	0.00	0.00
47.50	2.00	0.36	5.00	0.00	0.00	0.00
47.55	2.00	0.36	5.00	0.00	0.00	0.00
47.60	2.00	0.36	5.00	0.00	0.00	0.00
47.65	2.00	0.36	5.00	0.00	0.00	0.00
47.70	2.00	0.36	5.00	0.00	0.00	0.00
47.75	2.00	0.36	5.00	0.00	0.00	0.00
47.80	2.00	0.36	5.00	0.00	0.00	0.00
47.85	2.00	0.36	5.00	0.00	0.00	0.00

47.90	2.00	0.36	5.00	0.00	0.00	0.00
47.95	2.00	0.36	5.00	0.00	0.00	0.00
48.00	2.00	0.36	5.00	0.00	0.00	0.00
48.05	2.00	0.36	5.00	0.00	0.00	0.00
48.10	2.00	0.36	5.00	0.00	0.00	0.00
48.15	2.00	0.36	5.00	0.00	0.00	0.00
48.20	2.00	0.36	5.00	0.00	0.00	0.00
48.25	2.00	0.36	5.00	0.00	0.00	0.00
48.30	2.00	0.36	5.00	0.00	0.00	0.00
48.35	2.00	0.36	5.00	0.00	0.00	0.00
48.40	2.00	0.36	5.00	0.00	0.00	0.00
48.45	2.00	0.36	5.00	0.00	0.00	0.00
48.50	2.00	0.36	5.00	0.00	0.00	0.00
48.55	2.00	0.36	5.00	0.00	0.00	0.00
48.60	2.00	0.36	5.00	0.00	0.00	0.00
48.65	2.00	0.36	5.00	0.00	0.00	0.00
48.70	2.00	0.36	5.00	0.00	0.00	0.00
48.75	2.00	0.36	5.00	0.00	0.00	0.00
48.80	2.00	0.36	5.00	0.00	0.00	0.00
48.85	2.00	0.36	5.00	0.00	0.00	0.00
48.90	2.00	0.36	5.00	0.00	0.00	0.00
48.95	2.00	0.36	5.00	0.00	0.00	0.00
49.00	2.00	0.36	5.00	0.00	0.00	0.00
49.05	2.00	0.36	5.00	0.00	0.00	0.00
49.10	2.00	0.36	5.00	0.00	0.00	0.00
49.15	2.00	0.36	5.00	0.00	0.00	0.00
49.20	2.00	0.36	5.00	0.00	0.00	0.00
49.25	2.00	0.36	5.00	0.00	0.00	0.00
49.30	2.00	0.36	5.00	0.00	0.00	0.00
49.35	2.00	0.36	5.00	0.00	0.00	0.00
49.40	2.00	0.36	5.00	0.00	0.00	0.00
49.45	2.00	0.36	5.00	0.00	0.00	0.00
49.50	2.00	0.36	5.00	0.00	0.00	0.00
49.55	2.00	0.36	5.00	0.00	0.00	0.00
49.60	2.00	0.36	5.00	0.00	0.00	0.00
49.65	2.00	0.36	5.00	0.00	0.00	0.00
49.70	2.00	0.36	5.00	0.00	0.00	0.00
49.75	2.00	0.36	5.00	0.00	0.00	0.00
49.80	2.00	0.36	5.00	0.00	0.00	0.00
49.85	2.00	0.36	5.00	0.00	0.00	0.00
49.90	2.00	0.36	5.00	0.00	0.00	0.00
49.95	2.00	0.36	5.00	0.00	0.00	0.00
50.00	2.00	0.36	5.00	0.00	0.00	0.00
50.05	2.00	0.36	5.00	0.00	0.00	0.00
50.10	2.00	0.36	5.00	0.00	0.00	0.00
50.15	2.00	0.36	5.00	0.00	0.00	0.00
50.20	2.00	0.36	5.00	0.00	0.00	0.00
50.25	2.00	0.36	5.00	0.00	0.00	0.00
50.30	2.00	0.36	5.00	0.00	0.00	0.00
50.35	2.00	0.35	5.00	0.00	0.00	0.00
50.40	2.00	0.35	5.00	0.00	0.00	0.00
50.45	2.00	0.35	5.00	0.00	0.00	0.00
50.50	2.00	0.35	5.00	0.00	0.00	0.00
50.55	2.00	0.35	5.00	0.00	0.00	0.00
50.60	2.00	0.35	5.00	0.00	0.00	0.00
50.65	2.00	0.35	5.00	0.00	0.00	0.00
50.70	2.00	0.35	5.00	0.00	0.00	0.00
50.75	2.00	0.35	5.00	0.00	0.00	0.00
50.80	2.00	0.35	5.00	0.00	0.00	0.00
50.85	2.00	0.35	5.00	0.00	0.00	0.00
50.90	2.00	0.35	5.00	0.00	0.00	0.00
50.95	2.00	0.35	5.00	0.00	0.00	0.00
51.00	2.00	0.35	5.00	0.00	0.00	0.00
51.05	2.00	0.35	5.00	0.00	0.00	0.00
51.10	2.00	0.35	5.00	0.00	0.00	0.00
51.15	2.00	0.35	5.00	0.00	0.00	0.00
51.20	0.28	0.35	0.79*	0.00	0.00	0.00
51.25	0.28	0.35	0.79*	0.00	0.00	0.00
51.30	0.28	0.35	0.79*	0.00	0.00	0.00
51.35	0.28	0.35	0.80*	0.00	0.00	0.00
51.40	0.29	0.35	0.81*	0.00	0.00	0.00
51.45	0.29	0.35	0.83*	0.00	0.00	0.00
51.50	0.30	0.35	0.85*	0.00	0.00	0.00
51.55	0.31	0.35	0.87*	0.00	0.00	0.00
51.60	0.31	0.35	0.89*	0.00	0.00	0.00

51.65	0.32	0.35	0.92*	0.00	0.00	0.00
51.70	0.33	0.35	0.94*	0.00	0.00	0.00
51.75	0.34	0.35	0.97*	0.00	0.00	0.00
51.80	0.35	0.35	1.00	0.00	0.00	0.00
51.85	0.36	0.35	1.03	0.00	0.00	0.00
51.90	0.38	0.35	1.07	0.00	0.00	0.00
51.95	0.39	0.35	1.10	0.00	0.00	0.00
52.00	0.40	0.35	1.14	0.00	0.00	0.00
52.05	0.41	0.35	1.17	0.00	0.00	0.00
52.10	0.42	0.35	1.20	0.00	0.00	0.00
52.15	0.43	0.35	1.23	0.00	0.00	0.00
52.20	0.44	0.35	1.26	0.00	0.00	0.00
52.25	0.45	0.35	1.29	0.00	0.00	0.00
52.30	0.46	0.35	1.32	0.00	0.00	0.00
52.35	0.48	0.35	1.35	0.00	0.00	0.00
52.40	0.49	0.35	1.39	0.00	0.00	0.00
52.45	0.50	0.35	1.42	0.00	0.00	0.00
52.50	0.51	0.35	1.45	0.00	0.00	0.00
52.55	0.52	0.35	1.48	0.00	0.00	0.00
52.60	0.53	0.35	1.52	0.00	0.00	0.00
52.65	0.54	0.35	1.55	0.00	0.00	0.00
52.70	0.56	0.35	1.59	0.00	0.00	0.00
52.75	0.57	0.35	1.62	0.00	0.00	0.00
52.80	0.58	0.35	1.66	0.00	0.00	0.00
52.85	0.59	0.35	1.69	0.00	0.00	0.00
52.90	0.61	0.35	1.73	0.00	0.00	0.00
52.95	0.62	0.35	1.77	0.00	0.00	0.00
53.00	0.63	0.35	1.80	0.00	0.00	0.00
53.05	0.63	0.35	1.80	0.00	0.00	0.00
53.10	0.63	0.35	1.79	0.00	0.00	0.00
53.15	0.62	0.35	1.78	0.00	0.00	0.00
53.20	0.62	0.35	1.77	0.00	0.00	0.00
53.25	0.62	0.35	1.76	0.00	0.00	0.00
53.30	0.61	0.35	1.76	0.00	0.00	0.00
53.35	0.61	0.35	1.75	0.00	0.00	0.00
53.40	0.61	0.35	1.74	0.00	0.00	0.00
53.45	0.61	0.35	1.74	0.00	0.00	0.00
53.50	0.60	0.35	1.73	0.00	0.00	0.00
53.55	0.60	0.35	1.72	0.00	0.00	0.00
53.60	0.60	0.35	1.72	0.00	0.00	0.00
53.65	0.60	0.35	1.71	0.00	0.00	0.00
53.70	0.59	0.35	1.70	0.00	0.00	0.00
53.75	0.59	0.35	1.70	0.00	0.00	0.00
53.80	0.59	0.35	1.69	0.00	0.00	0.00
53.85	0.59	0.35	1.69	0.00	0.00	0.00
53.90	0.59	0.35	1.68	0.00	0.00	0.00
53.95	0.58	0.35	1.67	0.00	0.00	0.00
54.00	0.58	0.35	1.67	0.00	0.00	0.00
54.05	0.61	0.35	1.75	0.00	0.00	0.00
54.10	0.64	0.35	1.84	0.00	0.00	0.00
54.15	0.68	0.35	1.94	0.00	0.00	0.00
54.20	0.72	0.35	2.06	0.00	0.00	0.00
54.25	0.76	0.35	2.18	0.00	0.00	0.00
54.30	0.81	0.35	2.32	0.00	0.00	0.00
54.35	0.86	0.35	2.48	0.00	0.00	0.00
54.40	0.92	0.35	2.65	0.00	0.00	0.00
54.45	0.99	0.35	2.85	0.00	0.00	0.00
54.50	1.07	0.35	3.08	0.00	0.00	0.00
54.55	1.16	0.35	3.35	0.00	0.00	0.00
54.60	1.27	0.35	3.65	0.00	0.00	0.00
54.65	1.39	0.35	4.01	0.00	0.00	0.00
54.70	2.00	0.35	5.00	0.00	0.00	0.00
54.75	2.00	0.35	5.00	0.00	0.00	0.00
54.80	2.00	0.35	5.00	0.00	0.00	0.00
54.85	2.00	0.35	5.00	0.00	0.00	0.00
54.90	2.00	0.35	5.00	0.00	0.00	0.00
54.95	2.00	0.35	5.00	0.00	0.00	0.00
55.00	2.00	0.35	5.00	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

1 atm (atmosphere) = 1 tsf (ton/ft2)

CRRm	Cyclic resistance ratio from soils
CSRsf	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat	Settlement from saturated sands
S_dry	Settlement from Unsaturated Sands
S_all	Total Settlement from Saturated and Unsaturated Sands
NoLiq	No-Liquefy Soils