



Dara Industrial Project

Initial Study

April 2022



INITIAL STUDY

for the

Dara Industrial Project

Prepared for:

City of Hesperia
9700 Seventh Avenue
Hesperia, CA 92345

Prepared by:

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1.0 INTRODUCTION

1.0 INTRODUCTION

1.1 DOCUMENT PURPOSE AND SCOPE

This Initial Study addresses potential environmental impacts associated with construction and operation of the Dara Industrial Project (Project). The Project proposes approximately 750,000 square feet of industrial uses.

This Initial Study (IS) is an informational document, providing the City of Hesperia decision-makers, other public agencies, and the public with an objective assessment of the potential environmental impacts that could result from the Project. This IS was prepared pursuant to Section 15063 of the California Environmental Quality Act Guidelines (*CEQA Guidelines, Guidelines*).

Although this IS was prepared with consultant support, all analysis, conclusions, findings and determinations presented in the IS fully represent the independent judgment and position of the City of Hesperia, acting as Lead Agency under CEQA. In accordance with the provisions of CEQA and the State and local CEQA Guidelines, as the Lead Agency, the City of Hesperia is solely responsible for approval of the Project. As part of the decision-making process, the City is required to review and consider the Project's potential environmental effects.

1.2 DISPOSITION OF THIS DOCUMENT

This IS establishes the appropriate scope and focus of environmental analysis for the Project. Based on the findings and conclusions of this IS, potential environmental impacts of the Project will be evaluated within an Environmental Impact Report (EIR).

The IS and accompanying Notice of Preparation (NOP) for the EIR will be available for review for a total of 30 days, and can be reviewed at:

City of Hesperia
9700 Seventh Avenue
Hesperia, CA 92345

The public is encouraged to contact the City of Hesperia for information regarding the Project and related CEQA processes.

1.3 DOCUMENT ORGANIZATION

This IS includes the following sections:

Introduction: Section 1.0 describes the IS CEQA context and format, and summarizes findings of the IS.

Project Description: Section 2.0 describes the Project and its objectives.

Environmental Evaluation: Section 3.0 provides background information regarding the Project and Lead Agency, and presents responses to each of the IS Checklist topics regarding potential environmental impacts of the Project. Answers provided in the Checklist are substantiated qualitatively in all instances, and quantitatively where feasible and appropriate.

Determination: Section 4.0 summarizes the IS results and presents the determination regarding the appropriate CEQA environmental documentation for the Project.

Source information cited within this IS is available through, or by contacting, the City of Hesperia Planning Department.

1.4 POTENTIAL ENVIRONMENTAL EFFECTS

The analysis presented in this IS indicates that the Project may result in or cause potentially significant effects related to:

- Air Quality;
- Biological Resources;
- Cultural Resources/Tribal Cultural Resources;
- Energy;
- Greenhouse Gas Emissions;
- Noise;
- Transportation/Traffic; and
- Utilities and Service Systems.

Consistent with the conclusion and findings of this IS, the Project EIR will evaluate the Project's potential environmental impacts under the topical areas identified above. Additional issues or concerns that may be raised pursuant to the EIR NOP process and/or scoping meeting(s) conducted for the Project will also be evaluated and addressed in the EIR. Additionally, to provide general context for the Project, the Project EIR will include a discussion of Land Use and Planning.

2.0 PROJECT DESCRIPTION

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2.1 OVERVIEW

The proposed Dara Industrial Project (Project), including all proposed facilities, supporting improvements, and associated discretionary actions comprise the Project considered in this Initial Study (IS). The Project proposes development of a single 750,000-square-foot industrial building. Of this total, 15,000 square feet would be dedicated to office uses associated with the industrial uses.

2.2 PROJECT LOCATION

The approximately 43.28-acre Project site is located at the northwest corner of Highway 395 and Poplar Street, in the City of Hesperia. The Project location is presented at Figure 2.2-1.

2.3 LAND USES and LAND USE DESIGNATIONS

2.3.1 Existing Land Uses

The Project site, and all properties immediately adjacent, are currently vacant. The site evidences past use as a dirt motocross track. Various business park, industrial, and trucking uses are located short distances from the Project site. Existing land uses are illustrated at Figure 2.2-1.



NOT TO SCALE
Source: Google Earth; Applied Planning, Inc.

Figure 2.2-1
Project Location

2.3.2 Land Use Designations

The Hesperia General Plan designates the Project site as Specific Plan (Main Street and Freeway Corridor Specific Plan). Within the Specific Plan, the site is zoned for Commercial/Industrial Business Park (CIBP) uses. This zone is intended to provide for service commercial, light industrial, light manufacturing, and industrial support uses, mainly conducted in enclosed buildings.

The Project is conditionally permitted by the site's existing land use designations. The Project does not propose or require any General Plan or Specific Plan land use modifications.

2.4 PROJECT ELEMENTS

2.4.1 Site Preparation

Project site preparation activities would be required to conform to requirements of the City of Hesperia Municipal Code (Title 15, *Buildings and Construction*). Prior to approval of a development permit, the Project Applicant would be required to submit soils reports, erosion control plans, geologic engineering reports, and any other relevant site information determined necessary by the City Building and Fire Official. Site preparation activities would be undertaken consistent with the Project final soils report, geologic engineering report, erosion control plan, and other required reports and plans as reviewed and approved by the City.

2.4.2 Site Plan Concept

The Project proposes the development of approximately 750,000 square feet of industrial uses (including 15,000 square feet of associated office space) configured as a single pad, to be constructed in a single phase. Figure 2.4-1 presents the Project Site Plan Concept.

The building frontage would be along Poplar Street, the site's southerly boundary. The northern half of Poplar Street would be constructed as part of the Project. Poplar Street would terminate in a cul-de-sac just westerly of the site's westerly driveway. Dock doors would be located along the building's east and west facades. Conceptual building elevations are illustrated at Figure 2.4-2.

The Project also includes two water retention basins to be located at the site's northeasterly (0.6 acre) and southwesterly (2.0 acres) corners. The basins will reduce post-development stormwater flows to levels similar to existing conditions.

2.4.3 Access and Circulation

Access to/from the Project site would be provided by two driveways located along Poplar Street. These full-access (no turn restrictions) driveways would accommodate both passenger cars and trucks. Access to the operational areas of the building would be restricted (gated) at both driveways. Project access shall conform to Main Street and Freeway Corridor Specific Plan Chapter 11: *Industrial Design Standards and Guidelines*, Section D, Item 6.

2.4.4 Landscape/Hardscape

Project landscape/hardscape would be required to conform to City requirements for industrial uses (Main Street and Freeway Corridor Specific Plan Chapter 11: *Industrial Design Standards and Guidelines*, Section D). All final Project landscape/hardscape plans would be subject to review and approval by the City.



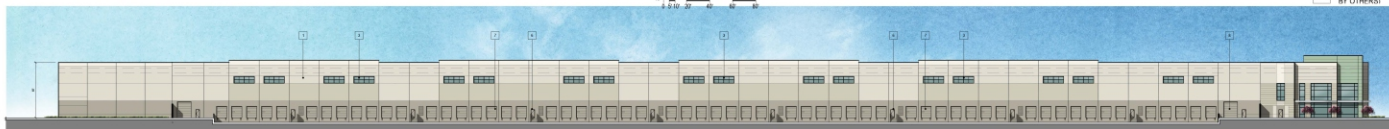
EAST (HIGHWAY 395) ELEVATION



SOUTH (POPLAR ST.) ELEVATION



NORTH ELEVATION



WEST ELEVATION

KEY NOTES:

- 1 CONCRETE TILT-UP PANEL WITH REVEALS
- 2 MEDIUM PERFORMANCE GLASS IN CLEAR ANOD. ALUM. MULLION SYSTEM
- 3 CLERESTORY MEDIUM PERFORMANCE GLASS IN CLEAR ANOD. ALUM. MULLION SYSTEM
- 4 TRELLIS CANOPY WITH LATTICE INFILL AND VERTICAL SUN SHADE DEVICE
- 5 TOP OF ROOF DIAPHRAM
- 6 METAL FIRE ACCESS DOOR
- 7 DOCK DOOR
- 8 GRADE DOOR
- 9 PROPOSED SIGN LOCATION (PERMIT BY OTHERS)



SOUTH ENLARGED (POPLAR ST.) ELEVATION

Source: A+O Architecture

2.4.5 Lighting

All Project lighting would be required to conform to City requirements for industrial uses (Main Street and Freeway Corridor Specific Plan Chapter 11: *Industrial Design Standards and Guidelines*, Section D, Item 14.). All final Project lighting plans would be subject to review and approval by the City.

2.4.6 Signs

All Project signs would be required to conform to applicable City requirements for industrial uses. All final Project sign plans would be subject to review and approval by the City.

2.4.7 Parking

The Project includes parking consistent with City requirements for industrial uses (Main Street and Freeway Corridor Specific Plan Chapter 11: *Industrial Design Standards and Guidelines*, Section D, Item 8). Specifically, the site would provide 339 auto parking spaces (334 required). Additionally, 289 trailer spaces would be provided. All final Project parking plans would be subject to review and approval by the City.

2.4.8 Infrastructure/Utilities

Infrastructure and utilities that would serve the Project site are summarized below.

2.4.8.1 Water/Sewer Services

Water service to the Project would be provided by the Hesperia Water District. The City derives all of its water from underground aquifers through groundwater wells located throughout the City. All Project water service lines and connections to the Water District system would be required to conform to City and Water District requirements. The Project Applicant would also be required to obtain a “Will-Serve” letter for water service.

The Victor Valley Wastewater Reclamation Authority provides wastewater treatment for the City of Hesperia and surrounding jurisdictions. All Project sewer service lines would be required to conform to City requirements.

2.4.8.2 Storm Water Management System

The City's storm drain and flood control systems are administered by Hesperia's Public Works Department. The San Bernardino Flood Control District has also developed an extensive system of facilities including dams, conservation basins, channels, and storm drains within the City and the surrounding area.

The Project storm water management system would be required to incorporate drainage improvements, facilities, and programs to control and treat storm water pollutants. Prior to issuance of grading permits, a detailed Water Quality Management Plan (WQMP) would be required to be submitted to, and approved by, the City. Additionally, a Storm Water Pollution Prevention Plan (SWPPP) would be implemented consistent with the requirements of the City's National Pollutant Discharge Elimination System (NPDES) Permit.

2.4.8.3 Solid Waste Management

Solid waste generated by the Project would be collected by Advanced Disposal Co. and disposed of at the Victorville Sanitary Landfill, operated by the County of San Bernardino Public Works Department.

2.4.8.4 Utilities

The Project would also be provided natural gas, electrical, telecommunications services. Service providers available to the Project are listed below:

- Natural gas (Southwest Gas Corporation);
- Electricity (SCE); and
- Telecommunications (various private services, including AT&T, Time Warner Communications, and Frontier Communications).

All modification of, and connection to, existing services would be accomplished consistent with City and purveyor requirements. It is noted that to allow for, and facilitate Project construction activities, provision of temporary SCE electrical services

improvements would be required. The scope of such temporary improvements is considered to be consistent with, and reflected within the total scope of development proposed by the Project. Similarly, impacts resulting from the provision of temporary SCE services would not be substantively different from, or greater than, impacts resulting from development of the Project in total.

2.4.8.5 Public Services

Fire protection and emergency medical services for the Project would be provided by the San Bernardino County Fire Department. Police protection services for the Project would be provided by the San Bernardino County Sheriff's Department on a contractual basis.

The City also provides or facilitates provision of a range of other services that would be generally available to the Project patrons and employees. These services include, but are not limited to: educational, library, and arts and entertainment services.

2.4.8.6 Energy Efficiency/Sustainability

Energy-saving and sustainable design features and operational programs would be incorporated in the Project facilities pursuant to California Green Building Standards Code (CALGreen; CCR, Title 24, Part 11) as implemented by the City of Hesperia.

2.4.8.7 Construction Traffic Management Plan

Construction traffic would be routed through Joshua Street to Caliente Road and Aspen Street. The Project Applicant would be responsible for the preparation and submittal of a construction area traffic management plan (Plan) to be reviewed and approved by the City. Typical elements and information incorporated in the Plan would include, but would not be limited to:

- **Name of on-site construction superintendent and contact phone number.**

- **Identification of Construction Contract Responsibilities** - For example, for excavation and grading activities, describe the approximate depth of excavation, and quantity of soil import/export (if any).
- **Identification and Description of Truck Routes** - to include the number of trucks and their staging location(s) (if any).
- **Identification and Description of Material Storage Locations (if any).**
- **Location and Description of Construction Trailer (if any).**
- **Identification and Description of Traffic Controls** - Traffic controls shall be provided per the Manual of Uniform Traffic Control Devices (MUTCD) if the occupation or closure of any traffic lanes, parking lanes, parkways or any other public right-of-way is required. If the right-of-way occupation requires configurations or controls not identified in the MUTCD, a separate traffic control plan must be submitted to the City for review and approval. All right-of-way encroachments would require permitting through the City.
- **Identification and Description of Parking** - Estimate the number of workers and identify parking areas for their vehicles.
- **Identification and Description of Maintenance Measures** - Identify and describe measures taken to ensure that the work site and public right-of-way would be maintained (including dust control).

The Plan would be reviewed and approved by the City prior to the issuance of building permits. The Plan and its requirements would also be provided to all contractors as one required component of building plan/contract document packages.

2.4.8.8 Project Opening Year

Under Opening Year Conditions, all Project facilities are assumed to be occupied and fully operational. For analytic purposes, a Project Opening Year of 2024 is assumed.

2.5 PROJECT OBJECTIVES

Project Objectives include the following:

- Implement the City's General Plan through development that is consistent with the site's General Plan land use designation, and applicable General Plan Goals and Implementation Policies;
- Implement the Main Street and Freeway Corridor Specific Plan through development that is consistent with the Specific Plan land uses and development concepts, and in total supports the Specific Plan vision;
- Provide adequate roadway and wet and dry utility infrastructure to serve the Project;
- Provide industrial uses that are compatible with planned adjacent land uses;
- Provide an attractive, efficient and safe environment for industrial uses that is cognizant of natural and man-made conditions;
- Provide industrial uses responsive to current and anticipated market demands;
- Establish new development that would increase locally available employment opportunities; and would further the City's near-term and long-range fiscal goals and objectives.

2.6 DISCRETIONARY APPROVALS AND PERMITS

Discretionary actions, permits and related consultation(s) necessary to approve and implement the Project include, but are not limited to, the following.

2.6.1 Lead Agency Discretionary Actions and Permits

CEQA Guidelines Section 15124 states in pertinent part that if “a public agency must make more than one decision on a project, all its decisions subject to CEQA should be listed...” Requested decisions, or discretionary actions, necessary to realize the Dara Industrial Project would include the following:

- Certification of the Dara Industrial Project EIR;
- Approval of Tentative Parcel Map(s);
- Approval(s) of Conditional Use Permit;
- Site Plan Approval;
- Approval of Infrastructure Improvement Plans including, but not limited to: roads, sewer, water, and storm water management systems; and
- Various other City of Hesperia construction, grading, and encroachment permits are required to allow implementation of the Project facilities.

2.6.2 Other Agency Consultation and Permits

Anticipated consultation(s) and permits from agencies (other than the City) necessary to realize the Project would likely include, but are not limited to, the following:

- Consultation with requesting Tribes as provided for under *AB 52, Gatto. Native Americans: California Environmental Quality Act*; and *SB 18, Burton. Traditional tribal cultural places.*

- Permitting by/through the Mojave Desert Air Quality Management District (MDAQMD) for certain equipment or land uses that may be implemented within the Project area; and
- Various construction, grading, and encroachment permits allowing implementation of the Project facilities.

3.0 ENVIRONMENTAL EVALUATION

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3.1 PROJECT TITLE

Dara Industrial Project

3.2 LEAD AGENCY NAME AND ADDRESS

City of Hesperia, Planning Department

9700 Seventh Avenue

Hesperia, CA 92345

(760) 947-1330

Contact: Edgar Gonzalez, Associate Planner

3.3 PROJECT APPLICANT

SRD Design Studio, Inc.

10501 Wilshire Blvd., Unit 1211

Los Angeles, CA 90024

Contact: David Golkar

3.4 PROJECT LOCATION

The Project site is located at the northwest corner of Highway 395 and Poplar Street, in the City of Hesperia.

3.5 GENERAL PLAN AND ZONING DESIGNATIONS

The Hesperia General Plan designates the Project site as Specific Plan (Main Street and Freeway Corridor Specific Plan). Within the Specific Plan, the site is zoned for Commercial/Industrial Business Park (CIBP) uses. This zone is intended to provide for service commercial, light industrial, light manufacturing, and industrial support uses, mainly conducted in enclosed buildings.

The Project is conditionally permitted by the site's existing land use designations. The Project does not propose or require any General Plan or Specific Plan land use modifications.

3.6 PREVIOUS ENVIRONMENTAL DOCUMENTATION, DOCUMENTS INCORPORATED BY REFERENCE

Section 15150 of the State *CEQA Guidelines* permits and encourages that an environmental document incorporate by reference other documents that provide relevant data. The documents outlined in this Section are hereby incorporated by reference, and the pertinent material is summarized throughout this Initial Study. All documents incorporated by reference are available through the City of Hesperia Planning Department.

- City of Hesperia General Plan 2010;
- *Draft Environmental Impact Report for the City of Hesperia General Plan Update* (Michael Brandman Associates) May 26, 2010;
- *Main Street and Freeway Corridor Specific Plan* (The Arroyo Group) July 15, 2021;
- *Preliminary Geotechnical Investigation for Hesperia Development, APN 3064-551-01 to 3064-551-08, Hesperia, San Bernardino County, California* (Kling Consulting Group, Inc.) December 17, 2021;
- *Hydrology and Hydraulics Analysis, City of Hesperia, San Bernardino County* (David Golkar) December 1, 2021.

3.7 EXPLANATION OF CHECKLIST CATEGORIES

“No Impact” applies where the impact simply does not apply to projects like the one involved. For example, if the project site is not located in a fault rupture zone, then the item asking whether the project would result in or expose people to potential impacts involving fault rupture should be marked as “No Impact.”

“Less-Than-Significant Impact” applies where the impact would occur, but the magnitude of the impact is considered insignificant or negligible. For example, a development which would only slightly increase the amount of surface water runoff generated at a project site would be considered to have a less-than-significant impact on surface water runoff.

“Potentially Significant Unless Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less-Than-Significant Impact.” Incorporated mitigation measures should be outlined within the checklist and a discussion should be provided which explains how the measures reduce the impact to a less-than-significant level. This designation is appropriate for a Mitigated Negative Declaration, where potentially significant issues have been analyzed and mitigation measures have been recommended.

“Potentially Significant Impact” applies where the project has the potential to cause a significant and unmitigable environmental impact. If there are one or more items marked as “Potentially Significant Impact,” an EIR is required.

3.8 INITIAL STUDY CHECKLIST AND SUBSTANTIATION

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
I. AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to trees, rocks, outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) In a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare, which would adversely affect the day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Substantiation:

- a) *Less-Than-Significant Impact.* According to the Hesperia General Plan, scenic open space areas that should be preserved include the Mojave River, and the San Bernardino and San Gabriel Mountain ranges. In addition, numerous washes and other natural water courses traverse the City, providing both physical and visual relief from the urban development. As shown at General Plan Exhibits OS-4 through OS-7, the Project site is not located within any of these areas. There are no scenic vistas within the Project site, nor would the Project otherwise adversely affect a designated scenic vista.

General Plan Goals governing scenic quality (OS-2 and OS-3) ensure protection of scenic resources throughout the City. The City would assure that the proposed Project, as implemented, would conform to these existing provisions. Based on the preceding, the potential for the Project to have a substantial adverse effect on a scenic vista is considered less-than-significant.

- b) *Less-Than-Significant Impact.* Although there are no scenic highways identified within the City of Hesperia, State Highways 173 and 138 are designated as eligible scenic highways. The Draft EIR prepared for the 2010 General Plan Update concluded that buildout of the City consistent with the General Plan would result in less-than-significant impacts with the implementation of General Plan Goals and Implementation Policies.

There are no scenic resources located within the Project site. Nor does the Project propose or require facilities or operations that would otherwise substantially damage such resources. On this basis, the potential for the Project to substantially damage scenic resources, including, but not limited to trees, rocks, outcroppings, and historic buildings within a state scenic highway is considered less-than-significant.

- c) *Less-Than-Significant Impact.* The Project site is located in an urbanized area. The Project represents development anticipated by the City's General Plan and the Main Street and Freeway Corridor Specific Plan, as evidenced by the site's existing industrial land use designation. The Project would be implemented consistent with the visual standards and regulations currently in place for such land uses. As such, the potential for the Project to conflict with applicable zoning and other regulations governing scenic quality is considered less-than-significant.
- d) *Less-Than-Significant Impact.* The Project would create new sources of lighting, including ground, building-mounted, wall-mounted, and pole-mounted lighting fixtures. The Project would also provide illuminated exterior signs. Specific Plan Section II, Chapter 11, Item 14 presents Design Standards and Guidelines addressing

light, glare and overspill. Conformance with the Specific Plan would minimize the potential for the Project to result in adverse light and glare impacts. Based on the preceding, the potential for the Project to create a new source of substantial light or glare, which would adversely affect the day or nighttime views in the area is considered less-than-significant.

Sources: Hesperia General Plan 2010; *Draft Environmental Impact Report for the City of Hesperia General Plan Update* (Michael Brandman Associates) May 26, 2010; *Main Street and Freeway Corridor Specific Plan* (The Arroyo Group) July 15, 2021; Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<p>II. AGRICULTURE AND FOREST RESOURCES - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Project:</p>				
<p>a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Substantiation:

- a) *No Impact.* The Project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The Project would therefore not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The Land Use designation of the Project site is Commercial/Industrial Business Park indicating the City’s planned transition of the vacant site to urban use. Based on the preceding, the Project would have no impact related to conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.
- b) *No Impact.* The Project site is not zoned for agricultural uses, nor are any Williamson Act contracts in place for the site. As such, the Project does not have the potential to conflict with existing zoning for agricultural use, or a Williamson Act contract.

- c, d) *No Impact*. There is currently no land in the City of Hesperia that qualifies as forest land or timberland. As such, the Project will not conflict with existing zoning for, or cause rezoning of, forest land or timberland, or result in the loss or conversion of forest land.
- e) *No Impact*. The Project does not involve other changes to the environment which could result in the conversion of farm land or forest land to other uses beyond those previously identified under the preceding discussions.

Sources: City of Hesperia General Plan 2010; Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
III. AIR QUALITY - Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Substantiation:

- a) *Potentially Significant Impact.* The Project site is located within the Mojave Desert Air Basin (Basin), which is locally responsible for administration and implementation of the Air Quality Management Plan (AQMP). Development of the Project could result in the production of additional criteria air pollutants which may interfere with, or obstruct, implementation of the AQMP. These potential impacts will be addressed in the Project Air Quality Impact Analysis (AQIA) prepared as part of the EIR. Mitigation measures will be developed to address any potentially significant impacts.
- b, c) *Potentially Significant Impact.* Project construction activities would generate fugitive dust and construction equipment emissions.

The implemented Project land uses would generate vehicular trips and associated vehicular-source air pollutant emissions. Project truck traffic would generate diesel emissions and diesel particulate matter (DPM). DPM is a known carcinogen that could result in, or contribute to adverse health effects. On-site Project operations would result in energy consumption and byproduct air pollutant emissions. Construction-source and operational-source emissions resulting from the Project may contribute to existing and projected regional exceedances of criteria pollutants within the Basin. Localized concentrations of construction-source and operational-source emissions could adversely affect sensitive receptors.

These potential impacts will be addressed in the Project AQIA prepared as part of the EIR. Mitigation measures will be developed to address any potentially significant impacts.

- d) *Less-Than-Significant Impact.* Temporary, short-term odor releases are potentially associated with Project construction activities. Potential sources of odors associated with construction activities would include, but not be limited to: asphalt/paving materials, glues, paint, and other architectural coatings. Construction-source odor

impacts are minimized through compliance with established regulations (Code of Federal Regulations [CFR], Subpart H-*Materials Handling, Storage Use and Disposal*, et al.) addressing construction materials storage, use, and disposal. In pertinent part, the isolation/containment devices or mechanisms specified under these regulations prevent significant release of odors. The Project would be required to comply with these regulations.

Uses typically considered to be sources of odors or other emissions that could adversely affect a substantial number of people include agricultural operations, cement plants, wastewater treatment plants, and the like. The Project proposes none of these. Refuse generated by the Project uses could be a source of localized odors. Project refuse is required to be collected, contained, and disposed of as stipulated in the City of Hesperia Municipal Code. Any odors generated would be temporary and transient, with little or no potential to adversely affect a substantial number of people.

Further, all Project construction activities, uses and occupancies would be required to conform to SCAQMD Rule 402. Rule 402 provides in pertinent part that there shall be no “discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.”

Based on the preceding discussion, the potential for the Project to result in other emissions (such as those leading to odors) adversely affecting a substantial number of people is considered less-than-significant.

Sources: City of Hesperia General Plan 2010; Code of Federal Regulations; SCAQMD Rule 402; Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the Project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) though direct removal, filling, hydrological interruption, or other means?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Substantiation:

a – f) *Potentially Significant Impact.* Development of the vacant Project site could potentially have an adverse effect on candidate, sensitive, or special-status species; sensitive natural communities; migratory wildlife corridors; and protected trees. Accordingly, a Project Biological Resources Assessment will be conducted. The Assessment will evaluate all potential on-site and off-site biological resources impacts listed above at Checklist Items IV. a – f, that could result from Project construction and operations. The results of the Assessment, along with any necessary mitigation measures, will be presented in the Project EIR.

Sources: City of Hesperia General Plan 2010; Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Substantiation:

- a, b) *Potentially Significant Impact.* Historic routes, such as the Spanish Trail, the Mormon Trail, the Old Mojave Road and National Old Trails Highway, traverse the City of Hesperia. Additionally, Native American groups, such as the Serrano and Vanyume Tribes, historically inhabited the City. Although there are no known historic or archaeological resources located within the Project site, these resources may persist in a buried context. These resources could be disturbed during development activities proposed by the Project. The Project EIR will include a Cultural Resources Assessment of potential historical and archaeological resources impacts that could result from the Project. The Assessment will evaluate and address all potential on-site and off-site cultural resources impacts that could result from the Project. The results of the Assessment, along with any necessary mitigation measures, will be presented in the Project EIR.
- c) *Less-Than-Significant Impact.* There are no known formal cemeteries or informal burial sites within the Project site. The likelihood of encountering human remains in the course of Project development is therefore considered minimal. However, as required under California Health and Safety Code Section 7050.5 (b) should human remains be encountered in the course of Project development, “there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined . . . that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.”

Additionally, California Health and Safety Code Section 7050.5 (c) provides that “[i]f the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.”

All Project activities would be required to comply with provisions of the California Health and Safety Code and Public Resources Code as summarized above, thereby reducing the potential for the Project to disturb any human remains, including those interred outside of formal cemeteries to levels that would be less-than-significant.

Sources: City of Hesperia General Plan 2010; Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
VI. ENERGY. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Substantiation:

a, b) *Potentially Significant Impact.* When compared to existing conditions, construction and operation of the Project would result in increased consumption of energy resources. The Project EIR will analyze the potential for Project consumption of energy resources to result in environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy. Potential for the Project to conflict with state

or local energy plans for renewable energy or energy efficiency will also be evaluated in the Project EIR. Mitigation measures will be proposed for those impacts determined to be potentially significant.

Sources: Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
VII. GEOLOGY AND SOILS. Would the Project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Substantiation:

a.i) *Less-Than-Significant Impact.* As shown at General Plan Figure SF-1, there are no active faults known within the Project site. The Project site is outside any Fault Rapture Hazard Zone (formerly Alquist-Priolo Zone). The closest active fault zone to the site is the San Andreas Fault Zone, located approximately 10 miles to the southwest. The San Jacinto Fault Zone is located approximately 12.5 miles from the site. The site-specific Geotechnical Investigation determined that the risk of surface fault rupture is considered low. The Project does not propose actions or facilities that would otherwise exacerbate known or probable adverse earthquake fault conditions. Based on the preceding, the potential for the Project to directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving rupture of a known earthquake fault is considered less-than-significant.

a.ii) *Less-Than-Significant Impact.* The Project site is located in a region known to be seismically active and strong seismic ground-shaking could be anticipated during an earthquake event of sufficient magnitude. The California Building Code requires construction methods that minimize the effects of earthquakes on

structures. As part of the City's standard review and approval of development projects, any new development must provide a geotechnical study for review and approval by the Building & Safety Official; and comply with the requirements of the approved geotechnical report, and applicable provisions of the Uniform Building Code (UBC) and California Building Code (CBC). Compliance with these requirements reduces potential strong seismic ground-shaking impacts to levels that are less-than-significant.

- a.iii) *Less-Than-Significant Impact.* Liquefaction and seismically-induced settlement or ground failure are generally associated with strong seismic shaking in areas where ground water tables are at relatively shallow depths (within 50 feet of the ground surface) and/or when the area is underlain by loose, cohesionless deposits. During a strong groundshaking event, saturated, cohesionless soils may acquire a degree of mobility to the extent that the overlying ground surface distorts. In extreme cases, saturated soils become suspended in groundwater and become fluid-like.

Groundwater was not encountered in any borings undertaken as part of the Geotechnical Investigation to the total depth explored of 50 feet. The nearest groundwater observation well, monitored by the California Department of Water Resources, is located directly north of the subject site in the Oro Grande Wash. The highest recorded groundwater was recorded at 648 feet below the ground surface in April 1995.

Based on these considerations, the potential for liquefaction and associated ground deformations beneath the site is very low. Additionally, any site-specific geologic constraints which may be encountered during Project implementation will be addressed by compliance with the recommendations of the final Geotechnical Investigation(s), and existing City/CBC seismic design regulations, standards, and policies.

As supported by the preceding discussions, the potential for the Project to result in exposure of people or structures to potentially substantial adverse effects, including

the risk of loss, injury or death involving seismic-related ground failure, including liquefaction is considered less-than-significant.

- a. iv) *Less-Than-Significant Impact*. Most of Hesperia is on relatively level to gently sloping terrain. Areas within the City of Hesperia impacted by slope failure are identified at General Plan Draft EIR Table 3.6-2. The Project site is not located within any of these impacted areas. The Project does not propose or require construction of substantive slopes. The Project site is not otherwise affected by substantive slopes. Based on the preceding, the potential for the Project to expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving landslides is considered less-than-significant.
- b) *Less-Than-Significant Impact*. Project construction activities would temporarily expose underlying soils, thereby increasing their susceptibility to erosion. Potential erosion impacts incurred during construction activities are mitigated below the level of significance through the Project's mandated compliance with a City-approved Storm Water Pollution Prevention Plan (SWPPP), as well as compliance with SCAQMD Rules that prohibit grading activities and site disturbance during high wind events. At Project completion, potential soil erosion impacts in the area will be resolved, as pavement, roads, buildings, and landscaping are established, overcovering previously exposed soils.

The Project does not propose to significantly alter existing topography in a manner that would result in substantial soil erosion or the loss of topsoil. All Project development plans would be subject to review and approval by the City. As part of this review, the City would ensure that permanent slopes and slope protection would conform to City requirements, thereby minimizing the potential for soil erosion over the life of the Project. City review and approval of development plans would also ensure that stormwater management systems are incorporated that would minimize potential erosion from stormwater runoff, both on-site and off-site.

Based on the preceding, the potential for the Project to result in substantial soil erosion or the loss of topsoil is considered less-than-significant.

- c) *Less-Than-Significant Impact.* The Project site and surrounding properties do not exhibit substantial gradient or elevation differences, or other factors that may cause unstable soils, landslides, or collapse. As previously discussed, the potential for liquefaction or ground subsidence at the site is low. Further, the Geotechnical Investigation includes earthwork and design/construction recommendations to preclude impacts in this regard. The potential for the Project to be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project is considered less-than-significant.
- d) *Less-Than-Significant Impact.* Unmitigated effects of expansive or otherwise unstable soils may adversely affect roadway subgrades, concrete slabs-on-grade, and building foundations. In the event of a severe earthquake in the vicinity, structural foundations and floors may be damaged if constructed in, or over, expansive or unstable soils.

The CBC establishes methodologies and guidelines for identification of expansive soils and establishes responsive design standards which act to avoid potentially adverse effects of expansive soils on facilities. Expansion Index (EI) testing was performed on two representative soil samples as part of the Geotechnical Investigation. Those samples exhibited an Expansion Index between 0 and 2, which is considered Very Low. As such, Project impacts related to expansive soils are considered less-than-significant.

- e) *No Impact.* The Project would be served by municipal sewer services. No septic tanks or other alternative wastewater disposal systems are proposed by the Project. On this basis, there is considered to be no potential for the Project to affect or be affected by soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems.

- f) *Potentially Significant Impact.* No known paleontological resources or unique geological features exist within the Project site. However, the Hesperia General Plan states that the potential for paleontological finds exists within the City. As part of the Project EIR, a Cultural Resources Assessment will be prepared. This Assessment will evaluate and substantiate the potential for the Project to directly or indirectly destroy a unique paleontological resource or site. The EIR will evaluate these impacts and mitigation measures will be proposed for those impacts determined to be potentially significant. The results of the Assessment, along with any necessary mitigation measures, will be presented in the Project EIR within the Cultural Resources section.

Sources: City of Hesperia General Plan 2010; *Preliminary Geotechnical Investigation for Hesperia Development, APN 3064-551-01 to 3064-551-08, Hesperia, San Bernardino County, California* (Kling Consulting Group, Inc.) December 17, 2021; Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Substantiation:

a, b) *Potentially Significant Impact.* Project construction and operations would generate Greenhouse Gas (GHG) emissions. The Project’s contribution to greenhouse gas emissions may be potentially significant, both as a source of environmental impacts and in context of applicable plans, policies and regulations adopted for the purpose of reducing GHGs. Accordingly, a Greenhouse Gas Analysis will be prepared as part of the Project EIR. The findings, together with any necessary mitigation measures, will be presented within the Project EIR.

Source: Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS.				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for the people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Substantiation:

- a) *Less-Than-Significant Impact.* During construction activities, the Project will require limited transport of potentially hazardous materials (e.g., paints, solvents, fertilizer, etc.) to and from the Project site. Additionally, operation of the Project could involve the temporary storage and handling of potentially hazardous materials such as pesticides, fertilizers, or paint products that are pre-packaged for distribution and use. This type of storage, transfer, use and disposal of potentially hazardous materials is extensively regulated at the local, State and federal levels. It is not anticipated that the development of the Project would result in conditions that are not currently addressed by existing regulations. On this basis, potential impacts due to routine transport, use, or disposal of hazardous materials is considered less-than-significant.
- b) *Less-Than-Significant Impact.* As stated above in Item a, the Project could involve the use, temporary storage and handling of potentially hazardous materials such as pesticides, fertilizers, or paint products that are pre-packaged for distribution

and use. Handling of these materials is extensively regulated at the local, State and federal levels. It is not expected that the Project would involve the likely release or upset of these hazardous materials into the environment. On this basis, the likelihood of accidental release of hazardous materials is considered less-than-significant.

- c) *Less-Than-Significant Impact.* No schools are located within one-quarter mile of the Project site. The nearest school is Canyon Ridge High School, which is located approximately one mile southeasterly of the Project site. Additionally, the Project does not include elements or aspects that would create or otherwise result in hazardous emissions. The Project would therefore have a less-than-significant potential to generate hazardous emissions or involve hazardous materials handling within one-quarter mile of an existing or proposed school.
- d) *No Impact.* The Project site is not listed on the hazardous materials site compiled pursuant to Government Code § 65962.5. Therefore, the Project would not create a hazard to the public or the environment and no impact is anticipated.
- e) *Less-Than-Significant Impact.* The Project site is not located within two miles of an airport. The Hesperia Airport, which is located approximately five miles southeasterly of the Project site, is the airport nearest the site. Due to physical separation between the Project site and the closest airport facilities, as well as land use regulations which preclude or restrict development within airport approach/departure zones, potential air safety impacts are considered less-than-significant.
- f) *Less-Than-Significant Impact.* The Project does not propose or require permanent alteration of vehicle circulation routes. Nor does the Project propose or require facilities or operations that would interfere with any identified emergency response or emergency evacuation plan. In accordance with City policies, coordination with the local fire and police departments during construction would ensure that potential interference with emergency response and evacuation efforts

are avoided. Further, potential temporary traffic/access disruption that may occur during Project construction would be addressed through the implementation of the Project Construction Traffic Management Plan (see: IS MND Section 2.0, *Project Description*; 2.4.8.7, *Construction Traffic Management Plan*). The potential for the Project to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan is therefore considered less-than-significant.

- g) *Less-Than-Significant Impact*. Fire protection services are provided to the City and the Project site by the San Bernardino County Fire Department. Pre-construction coordination with Fire Department staff and adherence to local fire regulations during construction and operation of the Project would be required. The City and Fire Department would require that fire prevention/fire suppression measures are incorporated in the Project designs and that water delivery systems serving the Project site provide adequate fire flow. Creation and maintenance of firebreaks and fire-defensible spaces adjacent to building and roadways as required by the City and Fire Department would further reduce the potential for exposure to wildland fires and the spread of wildland fires. The City would also enforce weed abatement measures, minimizing potential fire fuel loads.

Based on the preceding, the potential for the Project to result in significant risk of loss, injury or death involving wildland fires is considered less-than-significant. Please refer also to the discussions at Checklist Item XX., *Wildfire*.

Sources: City of Hesperia General Plan 2010; Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Substantiation:

a, e) *Less-Than-Significant Impact*. Project construction activities have the potential to impact surface water quality as the result of soil erosion during grading and soil stockpiling, and subsequent siltation. Project operations could also affect area water quality through storm water discharge and conveyance of typical urban surface pollutants (e.g., solids; oxygen-demanding substances; nitrogen and phosphorus; pathogens; petroleum hydrocarbon; metals; synthetic organics) to receiving waters.

Discharge of pollutants from the Project site would be minimized through compliance with requirements of the City Municipal Code and conformance with programs and performance standards established under the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System Permit (MS4 permit) issued by the California Water Resources Control Board, Santa Ana Region.

Consistent with MS4 Permit requirements, the Applicant would be required to develop and implement a construction Storm Water Pollution Prevention Program (SWPPP) acting to reduce and control potential erosion, siltation, and discharge of pollutants during Project construction.

Project operations would comply with the Project's mandated City-approved Water Quality Management Plan (WQMP) to minimize storm water pollutants of concern and document implementation of required BMPs.

Compliance with City requirements to include required implementation of the Project SWPPP and WQMP would ensure that construction and operation of the Project would not violate any water quality standards or waste discharge requirements, or conflict with implementation of a water quality control plan. Project impacts in this regard would be less-than-significant.

- b) *Less-Than-Significant Impact.* The groundwater basin underlying the City of Hesperia and the greater region is the Mojave River Groundwater Basin (Basin). Direct additions or withdrawals of groundwater are not proposed by the Project. Further, construction proposed by the Project will not involve substructures or other intrusions at depths that would significantly impair or alter the direction or rate of flow of groundwater. Water is provided throughout the City by the Hesperia Water District. Groundwater which may be consumed by the Project and the City of Hesperia, as a whole, would be recharged pursuant to the District's policies and programs. The Project site is not a designated groundwater recharge area. The Project does not propose or require facilities or operations that would otherwise adversely affect designated recharge areas.

Based on the preceding, the potential for the Project to substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin is considered less-than-significant.

- c) *Less-Than-Significant Impact.* The Project incorporates necessary drainage and stormwater management systems, and would comply with stormwater system design, construction, and operational requirements mandated under the City Municipal Code, and with regulations established by other agencies, including the Lahontan Regional Water Quality Control Board (LRWQCB) and California Department of Water Resources.

The Project would implement a storm drain system that will collect storm and retain stormwater water runoff via strategically dispersed systems and retention basins. The retention basins have been designed to mitigate the impacts of additional runoff that would be generated by the Project. Final design, configuration, and locations of proposed drainage system improvements will be reviewed and approved by the City prior to, or concurrent with, application for grading permits.

Construction-Source Water Quality Impacts

During site preparation activities, any existing groundcover would be removed from the site, exposing the Project area to increased wind and water erosion potentials. Further, construction site runoff may carry increased loads of sediment, heavy metals and petroleum hydrocarbons (from machinery) which could degrade water quality. In accordance with NPDES requirements, the Project Applicant would be required to prepare and implement a Construction Activities Erosion Control Plan to alleviate potential sedimentation and stormwater discharge contamination impacts of the Project.

The Applicant would also be responsible for compliance with the General Construction Permit by filing a Notice of Intent to Commence Construction Activities. Under the General Construction Permit, discharge of materials other than stormwater is prohibited. The General Construction Permit stipulates further that the Applicant shall prepare, retain at the construction site, and implement a SWPPP which identifies the sources of sediments and other pollutants that affect the quality of stormwater discharge, and implement practices to reduce sediment and other pollutants to stormwater discharge. SWPPP requirements include identification of construction and post-construction BMPs that would act to reduce sediments and other pollutants.

Implementation of the Project SWPPP and compliance with applicable NPDES and LRWQCB requirements would ensure that potential construction-source water quality impacts of the Project are reduced to levels that would be less-than-significant.

Operational-Source Water Quality Impacts

Over the life of the Project, contaminants such as oil, fuel and grease that are spilled or left behind by vehicular traffic, collect and concentrate on paved surfaces. During storm events, these contaminants are washed into the storm drain system and may potentially degrade receiving water quality. Stormwater runoff from paved surfaces within the developed Project area could carry a variety of urban wastes, including

greases and oils and small amounts of metals which are common by-products of vehicular travel. In addition, storm runoff will likely contain residual amounts of fertilizers and plant additives washed off from landscaped areas.

Recognizing the potential hazards of such urban runoff, the EPA has issued regulations which require municipalities to participate in the NPDES program. Project compliance with applicable NPDES requirements and performance standards would be achieved through implementation of a Project-specific WQMP.

To ensure adequate and appropriate treatment of stormwater discharges, the Project stormwater management concept and associated WQMP would implement water quality BMPs that would treat stormwaters on-site prior to release to the regional stormwater system or infiltration to groundwater.

In combination, implementation of the Project SWPPP, on-site stormwater management system and associated WQMP, and compliance with NPDES Permit requirements, act to protect local and regional water quality by preventing or minimizing potential stormwater pollutant discharges to the watershed. On this basis, Project impacts in this regard would be less-than-significant.

- d) *Less-Than-Significant Impact.* As shown at General Plan Exhibit SF-2, the Project site is not located within a flood hazard zone. Additionally, the Draft EIR prepared for the General Plan concludes that the City of Hesperia is not located within an area subject to tsunami or seiche hazards. On this basis, Project impacts in this regard would be less-than-significant.

Sources: City of Hesperia General Plan 2010; *Draft Environmental Impact Report for the City of Hesperia General Plan Update* (Michael Brandman Associates) May 26, 2010; *Hydrology and Hydraulics Analysis, City of Hesperia, San Bernardino County* (David Golkar) December 1, 2021; Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XI. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Substantiation:

- a) *Less-Than-Significant Impact.* No residences or other housing exists within the Project site. No residents would be displaced by the Project, nor would the physical arrangement of any neighboring residential communities be modified or divided by the Project. On this basis, the potential for the Project to physically divide an established community is considered less-than-significant.

- b) *Less-Than-Significant Impact.* The Hesperia General Plan designates the Project site as Specific Plan (Main Street and Freeway Corridor Specific Plan). Within the Specific Plan, the site is zoned for Commercial/Industrial Business Park (CIBP) uses. This zone is intended to provide for service commercial, light industrial, light manufacturing, and industrial support uses, mainly conducted in enclosed buildings.

The Project does not propose any modification of these designations. The Project would implement industrial uses within an urbanizing area of the City designated for, and anticipated to develop with, such uses. Based on the preceding, the potential for the Project to conflict with an applicable jurisdictional land use plan, policy, or regulation would be less-than-significant.

Sources: City of Hesperia General Plan 2010; *Main Street and Freeway Corridor Specific Plan* (The Arroyo Group) July 15, 2021; Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XII. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and to the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Substantiation:

a, b) *Less-Than-Significant Impact.* According to the Conservation Element of the City’s General Plan, mineral resources such as sand, gravel, and stone exist within the City. These resources are not considered to be significant due to the vast availability of similar deposits in the region.

Although the City has known mineral resources, the Project would not be located within an area that is zoned for mineral resource extraction operations, and thus, such activities cannot currently occur on the Project site. Therefore, impacts would be less-than-significant.

Sources: City of Hesperia General Plan 2010; Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XIII. NOISE. Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Substantiation:

a, b) *Potentially Significant Impact.* Construction of the Project would temporarily increase localized noise levels, and occupation of Project facilities will establish long-term stationary operational noise sources. These noise sources could adversely affect sensitive receptors. Further, Project-related traffic may increase noise levels along affected area roadways, with potentially adverse effects at receiving land uses.

Accordingly, the EIR will evaluate noise impacts based on a Project-specific Noise Impact Analysis. Mitigation measures will be proposed for impacts determined to be potentially significant.

c) *Less-Than-Significant Impact.* The Project site is not located within two miles of an airport. The Hesperia Airport, which is located approximately five miles southeasterly of the Project site, is the airport nearest the site. While occasional

aircraft overflight may occur, substantive aircraft-related noise would not affect the Project area. The potential for the Project to expose people residing or working in the Project area to excessive noise levels related to airports or airport activities is less-than-significant.

Sources: City of Hesperia General Plan 2010; Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XIV. POPULATION AND HOUSING. Would the project:				
a) Induce substantial unplanned population growth in the area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through the extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Substantiation:

a) *Less-Than-Significant Impact.* Construction of new housing is not a component of the Project. As such, the Project would not directly contribute to population growth. Employment generated by the Project may incidentally contribute to secondary population growth. That is, job opportunities likely arising from the Project would include employment positions that are relatively common throughout Southern California and are unlikely to generate significant population migration (if any). Any Project-related employment demands would likely be filled by the available personnel pools within the City of Hesperia, and/or neighboring communities. The Project’s potential to alter the overall location, distribution, density, or growth rate of City or regional populations is therefore considered less-than-significant.

- b) *Less-Than-Significant Impact.* The Project site is vacant; no residential uses exist within the site. Based on the preceding, the potential for the Project to displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere is considered less-than-significant.

Sources: City of Hesperia General Plan 2010; Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XV. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of the new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Substantiation:

- a) *Less-Than-Significant Impact.* Fire suppression and emergency response services for the Project would be provided by the San Bernardino County Fire Department. The Project does not propose or require construction or modification of fire protection facilities. The Project site is not designated or proposed as the location for new or

modified fire protection facilities. Incremental fire protection service demands generated by the Project are offset through Project payment of City of Hesperia Development Impact Fees. A portion of the City's Development Impact Fees are allocated for fire protection services. The Project Applicant would pay incumbent City Development Impact Fees at issuance of building permit(s).

Additionally, to the satisfaction of the Fire Department, the Project would comply with City and Fire Department fire prevention and suppression requirements, including building/site design requirements, fire flow adequacy, and provisions for emergency access, thereby reducing potential increased demands for fire protection services.

Based on the preceding, the potential for the Project to result in substantial adverse physical impacts associated with the provision of the new or physically altered fire protection facilities is considered less-than-significant.

- b) *Less-Than-Significant Impact.* The City of Hesperia contracts with the San Bernardino County Sheriff's Department for police services. The Project does not propose or require construction or modification of police protection facilities. The Project site is not designated or proposed as the location for new or modified police protection facilities. Incremental police protection service demands generated by the Project are offset through Project payment of City of Hesperia Development Impact Fees. A portion of the City's Development Impact Fees are allocated for police protection services. The Project Applicant would pay incumbent City Development Impact Fees at issuance of building permit(s).

Additionally, the Project site plan concept and proposed building designs would be reviewed by the Sheriff's Department to ensure incorporation of appropriate safety and security elements. Such design features would include secure building designs, defensible spaces, and area and facility security lighting. These design features would act to reduce Project demands for police protection services.

Based on the preceding, the potential for the Project to result in substantial adverse physical impacts associated with the provision of the new or physically altered police protection facilities is considered less-than-significant.

- c) *Less-Than-Significant Impact.* The Project site lies within the Hesperia Unified School District. The Project does not propose residential uses that would result in populations of resident school-aged children requiring public education, and would therefore not directly cause or contribute to a need to construct new or physically altered public school facilities. Indirectly, the Project may contribute to area demands for school services if Project employees and their school age children would relocate to school districts serving the City.

The Project does not propose or require construction or modification of school facilities. The Project site is not designated or proposed as the location for new or modified school facilities. Project incremental impacts to school services would be offset through payment of school impact fees. The Project Applicant would pay incumbent school impact fees at issuance of building permit(s). Payment of school impact fees would reduce the Project's potential impacts to school services to levels that would be less-than-significant.

- d) *Less-Than-Significant Impact.* The Hesperia Recreation and Park District maintains retention basins, public landscaping, street lights, and parks within the City. As discussed at following Checklist Item XVI., *Recreation*, uses proposed by the Project would not increase demands for parks or parks services. The potential for the Project to result in substantial adverse physical impacts associated with the provision of the new or physically altered parks facilities is less-than-significant.
- e) *Less-Than-Significant Impact.* Development of the Project would require established public agency oversight including, but not limited to, various plan check and permitting actions by the City. Impacts of the Project would fall within routine tasks of these agencies/departments and are paid for via plan check and inspection fees. Impacts of the Project would not be of such magnitude that new or physically

altered facilities would be required. There are no known or probable other public facilities that would be substantially affected by the Project. Based on the preceding, the potential for the Project to result in substantial adverse physical impacts associated with the provision of the new or physically altered other public facilities is considered less-than-significant.

Sources: City of Hesperia General Plan 2010; Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XVI. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Substantiation:

a, b) *Less-Than-Significant Impact*. The Project does not propose residential development, and would not directly contribute to resident populations that would increase the use of existing neighborhood and regional parks or other recreational facilities. Job opportunities created by the Project may result in relocation of persons to the City that could indirectly contribute to resident populations, demands for new housing, and resulting increased use of existing neighborhood and regional parks or other recreational facilities. New residential development within the City is required to pay Development Impact Fees, a portion of which would be allocated for parks

facilities, acting to offset incremental demands on neighborhood and regional parks or other recreational facilities.

The Project does not propose recreational facilities, nor would the Project require the construction or expansion of recreational facilities.

Based on the preceding, the potential for the Project to increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial deterioration of the facility would occur or be accelerated; or to require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment is considered less-than-significant.

Sources: City of Hesperia General Plan 2010; Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XVII. TRANSPORTATION. Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Substantiation:

- a) *Potentially Significant Impact.* The Project would increase auto, transit, pedestrian, and bicycle trips to and from the Project site, and create new ingress and egress points to the Project site. The Project has the potential to result in increased demand on the local transportation system, including the roadway network, transit service, pedestrian and bicycle facilities.

New and intensified land uses at the Project site would result in various changes to circulation patterns. Based on the preceding, the Project would have the potential to conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

The Project EIR will evaluate and assess the potential for the Project to conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities, thereby resulting in potentially significant environmental impacts.

- b) *Potentially Significant Impact.* Project traffic may result in substantial additional vehicle miles traveled (VMT). The EIR will evaluate Project VMT impacts against per capita, per service population, or other VMT significance thresholds implemented by the Lead Agency. Mitigation will be developed for impacts determined to be potentially significant.

For informational purposes, and to facilitate Lead Agency planning of area transportation system improvements, the EIR will also present a summary of anticipated level-of-service (LOS) deficiencies, together with recommended improvements to address identified deficiencies.

- c, d) *Potentially Significant Impact.* Although preliminary review of the Project does not indicate elements or aspects that would be considered hazardous design features or result in inadequate emergency access, these considerations will be further

evaluated in the Project EIR. Mitigation will be developed for impacts determined to be potentially significant.

Source: Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES.				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
(i) Listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Substantiation:

- a) *Potentially Significant Impact.* There are no known Tribal Cultural Resources (TCRs) within the Project site. Nor is it anticipated that the Project would adversely affect off-site TCRs. However, detailed surveys confirming the presence or absence of these resources has not yet been conducted. A Tribal Cultural Resources Assessment of the Project site and potentially affected off-site areas will be prepared as an

element of the Project EIR. Tribal Resources consultation with requesting Tribes will be conducted as provided for under *AB 52, Gatto. Native Americans: California Environmental Quality Act*. Pending completion of the Project Cultural Resources Assessment and any requested Tribal Consultation(s), the potential for the Project to cause a substantial adverse change in the significance of a tribal cultural resource is considered potentially significant. The EIR will address these potential impacts. Mitigation will be proposed for impacts determined to be potentially significant.

Source: Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS.				
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Substantiation:

- a) *Potentially Significant Impact.* The Project would require new or altered infrastructure improvements for: water delivery, wastewater collection, storm water management, electric power distribution, natural gas service, and telecommunications service. Construction of or alteration of these facilities has the potential to cause significant environmental effects. The EIR will evaluate these potential impacts. Mitigation will be proposed for impacts determined to be potentially significant.

- b) *Potentially Significant Impact.* The Project uses would increase demands on available water supplies. Water supply and availability are recognized as general issues of concern. A Water Supply Assessment (WSA) will be prepared pursuant to the requirements of SB 610. The results of this Assessment will be summarized within the Project EIR.

Pending completion of the Project WSA, the Project’s potential impacts to water supplies and potential effects on the availability of water are considered potentially significant, and will be further addressed in the Project EIR. Mitigation measures will be proposed for those impacts determined to be potentially significant.

- c) *Potentially Significant Impact.* The Project uses would result in increased wastewater treatment demands that could exceed available wastewater treatment capacities. The EIR will evaluate the potential for the Project to generate

wastewater exceeding available treatment capacities. Mitigation will be proposed for impacts determined to be potentially significant.

- d, e) *Potentially Significant Impact.* Implementation of the Project would result in increased solid waste generation. The EIR will evaluate the potential for Project uses to generate waste in excess of state or local standards, or to conflict with federal, state, and local management and reduction statutes and regulations related to solid waste. Mitigation will be proposed for impacts determined to be potentially significant.

Sources: Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Substantiation:

a-d) *Less-Than-Significant Impact.* CAL FIRE maintains California Fire Hazard Severity Zone Maps, including maps for State responsibility areas, as well as local responsibility areas. The City of Hesperia is located within a local responsibility area. According to the local responsibility map, Hesperia is located in a non-very high fire hazard severity zone (Non-VHFHSZ).¹

As such, the Project is not located within or near a state responsibility area, or within an area classified as a very high fire hazard severity zone. All Project development would be required to comply with City Building and Fire Codes. All building plans within the City are reviewed by the San Bernardino County Fire Department to ensure their compliance with the City’s fire code.

Based on the preceding, the potential for the Project to substantially impair an adopted emergency response or evacuation plan, expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, involve infrastructure that may exacerbate fire risk, or result in significant post-fire risks is considered less-than-significant.

Sources: CAL FIRE; City of Hesperia General Plan 2010; Preliminary Plans for the Dara Industrial Project.

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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XXI. MANDATORY FINDINGS OF SIGNIFICANCE.

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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¹ <https://osfm.fire.ca.gov/media/5945/hesperia.pdf>

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?				
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when reviewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Substantiation:

- a) *Potentially Significant Impact.* Certain biological and cultural resources may be adversely affected by the Project. Potential impacts in this regard will be addressed within the Project EIR.
- b) *Potentially Significant Impact.* The Project has the potential to result in cumulatively considerable impacts. As discussed in the previous environmental evaluation, implementation of the Project may result in potentially significant impacts under the environmental topics of:
- Air Quality;
 - Biological Resources;
 - Cultural Resources/Tribal Cultural Resources;
 - Energy;

- Greenhouse Gas Emissions;
- Noise;
- Transportation/Traffic; and
- Utilities and Service Systems.

To a certain extent, impacts of the Project, together with other known or anticipated projects in the area, will likely have a cumulative effect under all of the aforementioned environmental considerations. The Project EIR will identify the Project's contribution to, and context within, potentially significant cumulative environmental effects influencing the vicinity and region. Additionally, to provide general context for the Project, the Project EIR will include a discussion of Land Use and Planning.

- c) *Potentially Significant Impact.* As indicated by this IS evaluation, the Project may cause or result in certain potentially significant environmental effects, resulting in potentially adverse effects to human beings. While adverse environmental effects that could affect human beings could, to some degree, be substantiated under all CEQA issue areas, Project impacts considered to be potentially significant and that could directly affect human beings include:

- Air Quality;
- Biological Resources;
- Cultural Resources/Tribal Cultural Resources;
- Energy;
- Greenhouse Gas Emissions;
- Noise;
- Transportation/Traffic; and
- Utilities and Service Systems.

The Project EIR will address these environmental topics and present mitigation measures for potentially significant impacts. Additionally, to provide general context for the Project, the Project EIR will include a discussion of Land Use and Planning.


4.0 DETERMINATION

4.0 DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	<input type="checkbox"/>
I find that although the project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described previously have been added to the project. A NEGATIVE DECLARATION will be prepared.	<input type="checkbox"/>
I find that the project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.	<input checked="" type="checkbox"/>
I find that the project MAY have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on an earlier analysis as described on attached sheets. If the effect is a potentially significant impact or potentially significant unless mitigated an ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that need to be addressed.	<input type="checkbox"/>
I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project.	<input type="checkbox"/>

City of Hesperia:

Signature  Date April 4, 2022

Printed Signature Ross S. Geller for Edgar Gonzalez, Associate Planner



**Preliminary Geotechnical Investigation
for Hesperia Development, APN 3064-551-
01 to 3064-551-08, Hesperia, San
Bernardino County, California.**

**PN 21030-00
December 17, 2021**



December 17, 2021

PN 21030-00

David Golkar
SRD Design Studio
P.O. Box 5147
Beverly Hills, CA 90209

Subject: Preliminary Geotechnical Investigation for Hesperia Development, APN 3064-551-01 to 3064-551-08, Hesperia, San Bernardino County, California.

Dear Mr. Golkar,

At your request and authorization, Kling Consulting Group, Inc. (KCG) has performed a preliminary geotechnical investigation for a proposed industrial warehouse located directly west of Freeway 395 in Hesperia, California (see **Figure 1 - Site Location Map**). Our findings from subsurface exploration, laboratory testing, and geotechnical analyses are presented herein. Conclusions and recommendations are provided regarding the existing geotechnical conditions and the design of the proposed remodel. This report is also subject to the limitations presented in Section 6.0 of our report and the ASFE (Associated Soil and Foundation Engineers) insert included in Appendix H.

We appreciate this opportunity to be of continued service and to work with you on this project. Should you have any questions regarding this report, please do not hesitate to call.

Respectfully,

KLING CONSULTING GROUP

A handwritten signature in black ink, appearing to read "S Webb", with a long horizontal flourish underneath.

Sean M. Webb
Senior Staff Geologist/Engineer

A handwritten signature in blue ink, appearing to read "H F Kling", with a long horizontal flourish underneath.

Henry F. Kling
Principal Geotechnical Engineer
GE 2205 Expires 3/31/22



A handwritten signature in blue ink, appearing to read "J P Blake", with a long horizontal flourish underneath.

Jeffrey P. Blake
Associate Engineering Geologist
CEG 2248 Expires 10/31/23



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- Figure 1 – Site Location Map
- Figure 2 – Geotechnical Map
- Figure 3 – Overexcavation and Remedial Grading Map - Detailed
- Figure 3A – Overexcavation and Remedial Grading Map – 2ft Minimum

- Appendix A - References
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- Appendix D - Laboratory Procedures and Test Results
- Appendix E - Slope Stability Analysis
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1.0 INTRODUCTION

1.1 Site Description and Proposed Development

The subject site consists of eight rectangular parcels of varying sizes, totaling approximately 80.6-acres. The eastern and western portions of the site are bordered by U.S. Route 395 and Caliente Road, respectively. The existing site was previously utilized as a dirt motocross track.

The western portion of the site slopes towards the Oro Grande Wash, which consists of gently to moderately steep topography. The central portion of the site consists of a broad ridge which is truncated by two shallow broad gullies which drain north-west towards the Oro Grande Wash. The eastern portion of site contains a broad gently to moderately steep slope which gradually flattens out approximately 200 feet before the property boundary and U.S. Route 395.

An existing 2-story viewing structure with a floor plan size of approximately 225 square feet per floor exists in the southwestern corner of the subject site. An existing 1,650 square foot concrete pad exists in the southeastern portion of the site.

Conceptual development and grading plans and preliminary information provided by SRD Design Studio indicate the proposed development consists of the following:

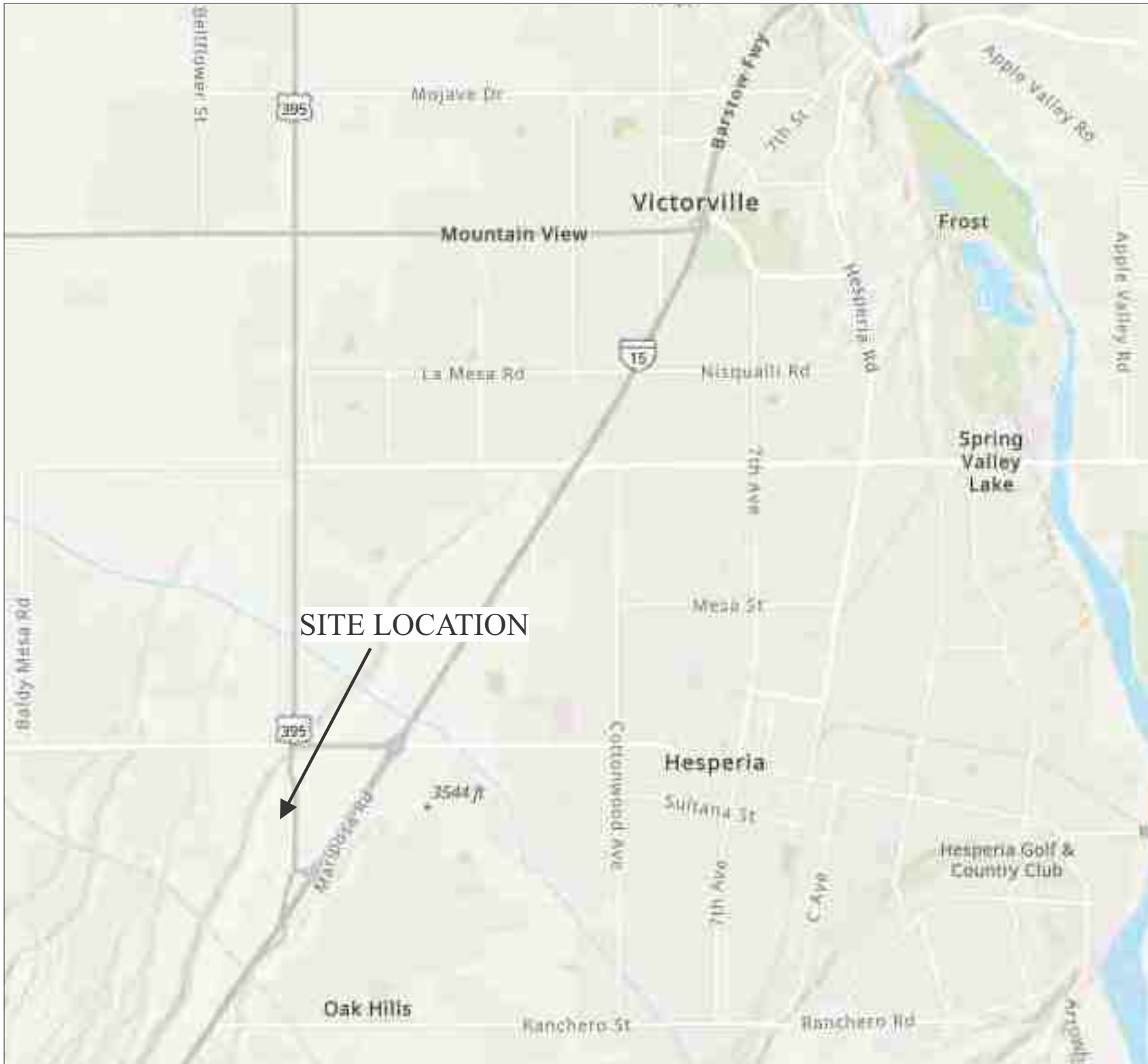
- The existing site will be developed for an industrial warehouse totaling an area of approximately 773,555 square feet.
- Four office buildings will be constructed at the corners of the warehouse structure totaling 20,000 square feet.
- Approximately 892 parking stalls will be developed on the east and west sides of the warehouse for autos and trailers.
- The south-western and south eastern portions of the development will have cuts up to approximately 18 feet totaling 255,765 cubic yards.
- The northern portion of the site will have fills up to approximately 38 feet totaling 638,261 cubic yards.
- Approximately 382,496 cubic yards of import is planned.

No detailed grading plans have been provided at this time. Cut and fill slopes will be constructed at maximum 2:1 (H:V) gradients and the heights will vary, but are not anticipated to be more than 40 feet in height.

1.2 Purpose and Scope

The purpose of our limited geotechnical investigation was to evaluate near-surface soil conditions to provide geotechnical design recommendations for a proposed industrial warehouse facility. The scope of the work undertaken for this investigation included the following tasks:

- Compilation of readily available published and unpublished geologic/geotechnical data, including geologic maps, for the property and immediate surrounding area;
- Coordination with Underground Service Alert to mark and identify known buried utilities;
- Field reconnaissance of the site to include surficial geologic mapping;



Notes:



Scale: 1" = 7050'



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Site Location Map	
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- Excavation and logging of ten (10) backhoe test-pits to depths ranging from 4 to 10 feet. Bulk and drive samples were obtained for testing in our laboratory;
- Drilling and logging of eleven (11) hollow-stem auger borings. These borings were drilled to a maximum depth of approximately 50 feet. Bulk and drive samples were obtained in the field and delivered to our laboratory for testing and evaluation;
- Drilling and logging of two (2) percolation test borings.
- Laboratory testing was performed on select soil samples. Laboratory testing included moisture, density, sieve analysis, direct shear, expansion index, and consolidation;
- Communication with the design team members, as necessary, to facilitate the development concept;
- Preparation of geologic and geotechnical cross-sections to illustrate the proposed design and remedial grading as well as for geotechnical analysis;
- Analysis of the collected data, including settlement and collapse potential of existing alluvial materials under proposed fill areas of the site, differential settlement due to cut/fill transitions, geologic and geotechnical hazard considerations, subsurface water, liquefaction, and slope stability analysis of selected proposed slope configurations;

Preparation of this report summarizing our findings, conclusions, and recommendations. The locations of the borings and test pits are shown in **Figure 2 - Geotechnical Map**. Continuous logs of the subsurface conditions, as encountered in the borings, were recorded and are presented in **Appendix B**. The percolation tests are presented in **Appendix C**. Bulk and drive samples were obtained in the field and delivered to our laboratory for testing and evaluation.

2.0 GEOLOGIC CONDITIONS

2.1 Regional Geologic Setting

The subject site is located in the informally designated High Desert region of Southern California, which resides in northern San Bernardino County. This area is located in the southwestern portion of the Mojave Desert Geomorphic Province. This province is characterized by broad isolated mountain ranges separated by expanses of desert plains. The Mojave Desert province is wedged between the Garlock Fault to the north and the San Andreas Fault to the west.

2.2 Site Specific Geology

The Geologic Map of the Hesperia 15-minute Quadrangle (**Appendix A**, Diblee, Reference 9) indicates the site is underlain by Holocene aged alluvial sand deposits and Pleistocene aged older dissected surficial sediments. Holocene aged alluvial sand deposits comprise alluvial sand and includes alluvial gravel in mountain areas. Pleistocene aged older dissected surficial sediments comprise lower remnants of older alluvium which is generally gray to brown and consists of locally derived detritus. Holocene aged alluvial sand deposits were encountered within all of the subsurface exploratory excavations. The Pleistocene aged older dissected surficial sediments were not encountered during our site subsurface exploration.

As mentioned above, the site was previously utilized as a dirt motocross track. Previous grading within the site has created level tracks for the motorbikes and the placement of minor amounts of incidental fill to create the track edge berms. The track edge berms likely contain up to approximately 1- to 1.5 feet of undocumented, non-engineered fill.

2.3 Subsurface Investigation and Sampling

Eleven borings were advanced using a drill rig equipped with a hollow stem auger and ten test-pits were excavated utilizing a backhoe equipped a California sampler to depths of between 5 to 50 feet and 4 to 10 feet, respectively, between October 26th through October 29th, 2021. Two of the borings were utilized for percolation testing and tests were performed at depths of 5 and 15 feet. The borings and test pits were observed and logged by a geologist from KCG. Logs of the exploratory borings and test pits are included in **Appendix B**. The approximate locations of the borings and test pits are illustrated in **Figure 2 - Geotechnical Map**.

During our field exploration, selected ring and bulk samples were obtained for laboratory testing. Bulk composite samples were collected from drilling excavation spoils. All samples collected were returned to our laboratory for evaluation and testing. Laboratory tests included in-situ moisture and density, direct shear, expansion index, R-value, consolidation, sieve analysis, and sulfate content. Test descriptions and results are presented in the summary of laboratory testing, **Appendix D**.

2.4 Subsurface Conditions

2.4.1 Surficial Soils

The site is mantled by a relatively thin veneer of topsoil and organic silt to depths of approximately 0.2 to 0.7 feet from the existing ground.

The topsoil and organic silt are generally light brown, dry, and contain organic material and roots.

The site is also mantled by undocumented fill associated with the previous motocross track. The track edge berms likely contain up to approximately 1 to 1.5 feet of undocumented, non-engineered fill. Localized areas of undocumented fill could be thicker.

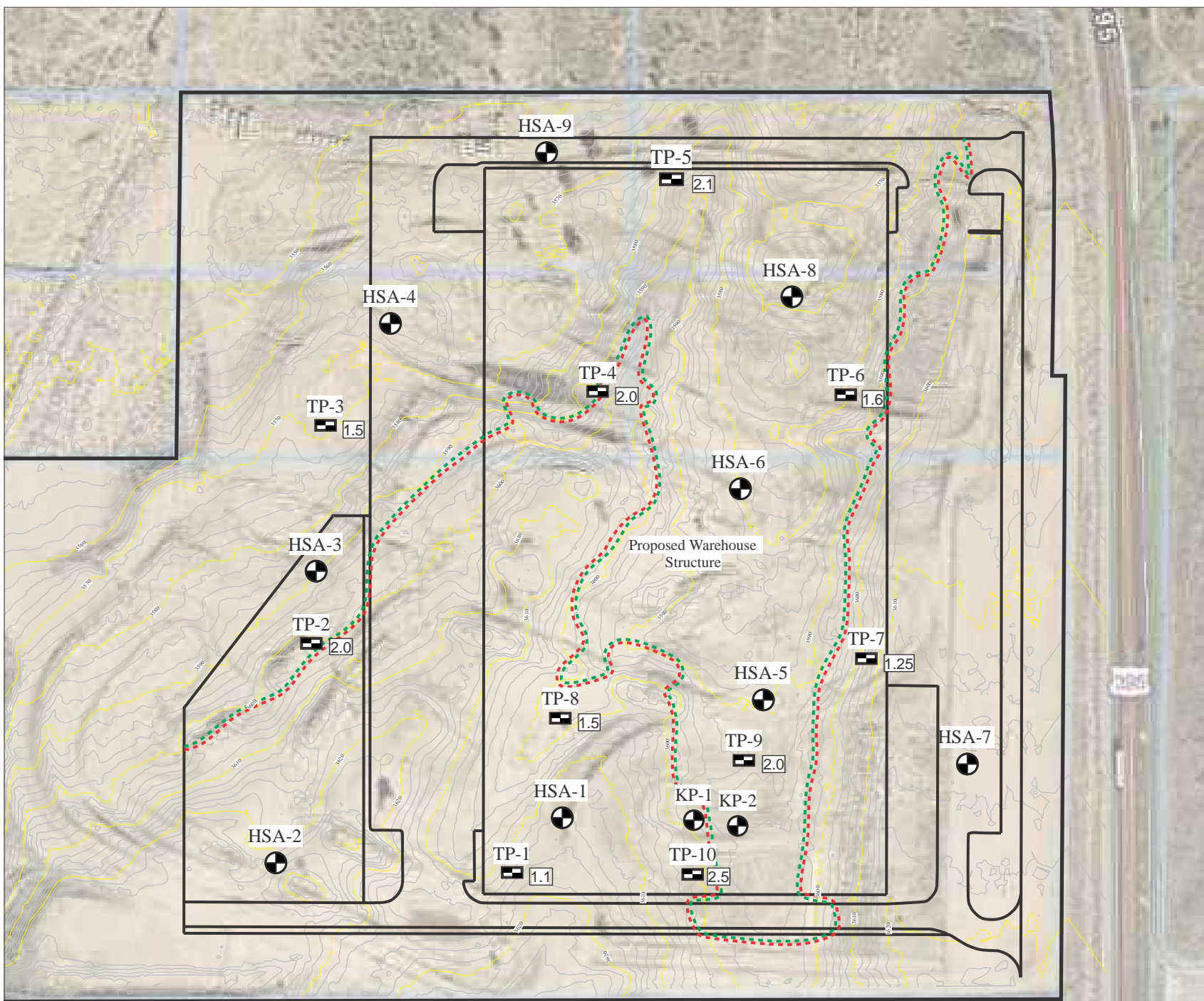
2.4.2 Alluvial Sand Deposits (Qa)

The site is underlain by Holocene aged alluvial sand deposits from 0.5 to 50 feet below the ground surface.





The Holocene aged alluvial sand deposits comprise sand and gravelly sand, which is typically light brown, dry to moist, and medium dense to dense. The gravels are generally subrounded to subangular and typically 2 inches in diameter or smaller.

2.5 Groundwater

Groundwater was not encountered in any borings undertaken to the total depth explored of 50 feet. The nearest groundwater observation well, monitored by the California Department of Water Resources, is located directly north of the subject site in the Oro Grande Wash at a ground surface elevation of 3,535 feet above sea level. The highest recorded groundwater was recorded at 648 feet below the ground surface in April 1995 (Appendix A, Reference 6). The subject site is approximately 600 feet south from this observation well. Typically historical groundwater levels

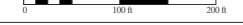


Notes:

-  - Boring Hole Location/Percolation Hole
-  - Test Pit Location
-  - Remedial Depth of Test Pit Soil (feet)
-  - Fill/Cut Transition Line



Scale: 1" = 200'



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Geotechnical Map

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can be obtained via a State of California Hazard Zone Report; however, one has not been established for the Baldy Mesa Quadrangle. Based on this information, we do not expect to encounter groundwater during the proposed construction. It should be noted that variations in groundwater or seepage may result from fluctuations in the ground surface topography, subsurface stratification, rainfall, irrigation, and other factors that may not be evident at the time of our subsurface exploration.

3.0 GEOTECHNICAL ENGINEERING

3.1 Expansive Soil Characteristics

Expansion Index (EI) testing was performed on two representative soil samples that exhibited an Expansion Index of between 0 and 2, which is considered Very Low expansion potential (Non-Expansive, $EI < 20$) according to the CBC.

3.2 Sulfate Content

Sulfate testing was performed on a representative sample of the soil. The soils tested during this investigation indicated a class "S1" sulfate per ACI-318 (Reference 2), with a soluble sulfate content of between 180 and 630 ppm.

3.3 Moisture and Density

Samples were retrieved at various depths below the ground surface from each boring location and used to determine in-place dry density and moisture content. Moisture results indicate the soils to have a moisture content of between 1.8 and 12.9 percent and a dry density of between 94.1 and 132.5 pcf.

3.4 Earthwork Shrinkage and Subsidence

Based on our field and laboratory density tests and observations, the following estimate of shrinkage and subsidence factors of the upper top soil and alluvial materials to be utilized as on-site compacted fill soils are presented for design consideration.

Cut Shrinkage Factor*	-	0% to 5%
Topsoil Shrinkage Factor	-	3% to 10%
Subsidence Factor	-	0.10 feet

*This applies only to excavations made deeper than remedial removals

Although the above values are only approximate, they represent our best estimate of shrinkage and lost yardage which would likely occur during grading.

3.5 Faulting and Surface Rupture

The subject site is not located within the State of California designated Fault-Rupture Hazard Zone (formerly known as Alquist-Priolo Zones), where a site-specific investigation to determine the locations of any active faults would be required. However, the Southern California region is seismically active. Active and potentially active faults within Southern California are capable of producing seismic shaking at the site. It is anticipated that the site will periodically experience ground acceleration due to exposure to moderate to large magnitude earthquakes occurring on distant faults. However, no active faults are known to exist at the site, and the risk of surface fault

rupture is considered low. The closest active fault zone to the subject site is the San Andreas Fault Zone, located approximately 10 miles to the southwest. The San Jacinto Fault Zone is located approximately 12.5 miles from the site.

3.6 Seismic Design Parameters

Presented below are the site seismic parameters utilizing generic geologic, seismic, and geotechnical data gathered for the site and the SEAC Seismic Design Tool (Reference 13). All structures should be designed for earthquake-induced strong ground motions in accordance with the 2019 CBC procedures utilizing the following parameters:

Seismic Design Parameters

Site Class (Soil Profile)	D
Latitude	34.417599
Longitude	-117.404275
Short Period Spectral Acceleration, S_s:	1.5
1-Second Period Spectral Acceleration, S₁:	0.6
Site Coefficient, F_a:	1.0
Site Coefficient, F_v:	1.7
Maximum Considered Earthquake Spectral Response Acceleration, S_{MS}:	1.5
Maximum Considered Earthquake Spectral Response Acceleration, S_{M1}:	1.02
Design Spectral Response Acceleration, S_{DS}:	1.0
Design Spectral Response Acceleration, S_{D1}:	0.68
Site modified peak ground acceleration P_{GA_M}	0.564
Seismic Design Category	D

Note: A site specific ground motion analysis was not included in the scope of this investigation. Per ASCE 7-16, 11.4.8, structures on Site Class D with S₁ greater than or equal to 0.2 may require Site Specific Ground Motion Analysis. However, a site specific ground motion analysis may not be required based on exceptions listed in ASCE 7-16, 11.4.8. The project structural engineer should verify whether exceptions are valid for this site and if a Site Specific Ground Motion Analysis is required.

3.7 Secondary Seismic Hazards

3.7.1 Liquefaction Potential

Based on our review of published geologic data, subsurface data, laboratory testing, the lack of a shallow static groundwater table, and the overall relatively dense nature of the underlying on-site soils, it is our opinion that the site is not susceptible to liquefaction or seismically induced dry settlement. The state of California has not established a seismic hazard zone for the area.

3.7.2 Seismically Induced Settlement

Based on the overall dense nature of the underlying on-site soils, the potential for seismic induced settlement to occur at the site during a seismic event is considered unlikely.

3.7.3 Lateral Spreading

The potential for lateral spreading is unlikely based on information that indicates that the site is not likely to be liquefiable, as discussed above.

3.8 Percolation Testing

3.8.1 Percolation Test Procedure

Percolation testing was performed in general accordance with the San Bernardino County Technical Guidance Document for Water Quality Management Plans (Reference 11). Following the completion of drilling, the percolation test holes were pre-saturated. Following pre-saturation of the percolation test borings, the water level was filled to a minimum of five times the hole's radius and allowed to percolate into the soil. Two consecutive 25-minute readings indicated a change in water level greater than 6 inches, and the test met the criteria for measuring percolation rates of sandy soil. Based on the criteria for sandy soil, measurements were taken at 10-minute intervals for an additional hour. The percolation test results are presented in Appendix C.

Test excavations were drilled using a hollow stem auger with a diameter of 8-inches to a depth 5 feet and 10 feet. Before pre-soaking the test holes, a four-inch diameter slotted pipe was installed into the excavations. A filter pack consisting of 2-inch graded gravel was placed on the bottom of the hole. The excavations were pre-soaked by filling the pipes with a 5-gallon bottle of clear water supported over the hole so that water flow into the hole is constant and fill at least 5 times the hole's radius.

3.8.2 Percolation Test Results

The following table presents a summary of the results for the testing location. The percolation rates obtained during field testing were converted to infiltration rates utilizing the "Porchet Method." A Factor of Safety of 3 has been applied to the rates as per Reference 11. Calculated infiltration rates are tabulated below.

Infiltration Rates

Test Boring Number	Depth Below Existing Ground Surface (ft)	Soil Description	*Infiltration Rate (inches per hour)
KP-1	5	Silty Sand (SM)	0.22
KP-2	15	Gravelly Sand (SP)	0.29

*Factor of Safety of 3 has been applied to this rate.

3.8.3 Slope Stability

3.9 Deep Seated Slope Stability

A deep-seated numerical slope stability analysis was performed on selected geologic cross-sections considered representative of various proposed conceptual 2:1 slope configurations. The computer program Slide version 8.0 by Roc Science was utilized for slope stability calculations. The sections assigned for stability analysis included both proposed fill and cut slopes, up to 48 feet and 30 feet high, respectively. Stability analyses were conducted utilizing conventional limit equilibrium methodologies for both force and moment equilibrium. The results of our analysis are presented below and summarized in **Appendix E**. The cross-section locations are shown in **Figures 2 and 3**, and the cross-sections are presented in **Figures 4-8**.

Samples collected on-site were tested, and the soil strength parameters utilized for analysis are presented in the table below. Direct shear strength parameters used were based on laboratory testing and our past and recent experience with similar materials on projects in the vicinity.

Soil Strength Parameters

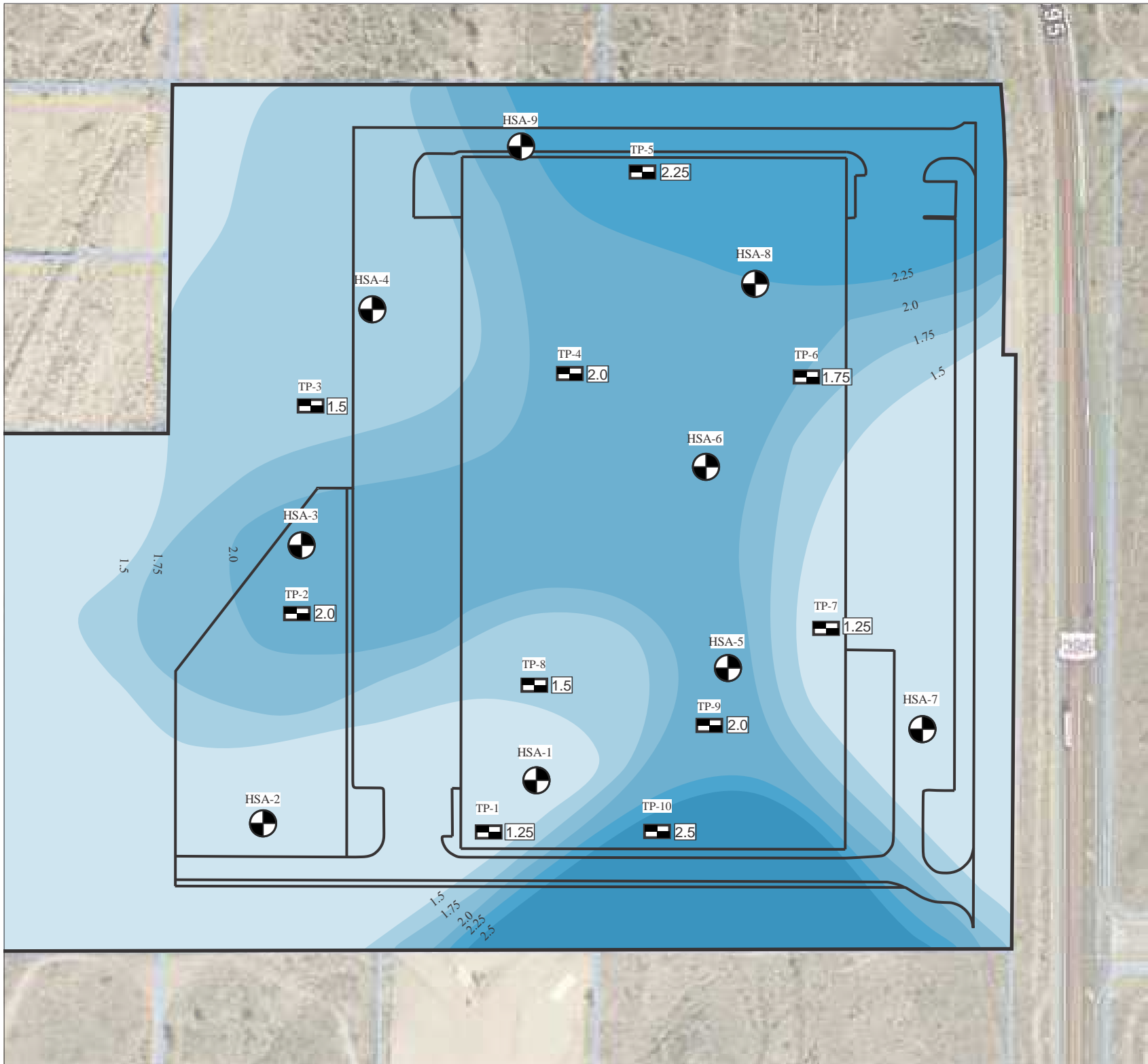
Material Type	Unit Weight (lb/ft ³)	Cohesion (psf)	Phi (°)
Holocene Alluvium- Upper Layer	100	280	30
Holocene Alluvium – Lower Layer	100	120	32
Engineered Fill	100	280	30

Stability analyses were conducted on the geologic cross-sections indicated in the table below. Each cross-section was analyzed for both static and pseudo-static (seismic) conditions with a horizontal acceleration coefficient “K” of 0.15 utilizing a Morgenstein-Price analysis method with a half-sine side function. Minimum factors of safety of 1.5 and 1.1 are considered acceptable for static and pseudo-static conditions, respectively.




Slope Stability Analysis

Cross Section	Case	Deterministic Factor of Safety	
		Static	Pseudo-static (Seismic)
A - A'	Cut Slope	2.272	1.660
B- B'	Fill Slope	1.986	1.467

The results of detailed stability analyses summarized above are presented in **Appendix E**.

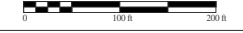


Notes:

-  - Boring Hole Location/
Percolation Hole
-  - Test Pit Location
-  - Remedial Depth



Scale: 1" = 200'



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Geotechnical Map

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3.9.1 Surficial Slope Stability

Proposed 2:1 fill and cut slopes analyzed resulted in a factor of safety against surficial failure greater than 1.5 and are therefore considered surficially stable. Our analysis is summarized in **Appendix E**.

3.10 Erosion Potential

Fill slopes constructed with granular materials derived from on-site Holocene Alluvial Sand Deposits may be susceptible to erosion. In general, surficial soils encountered are typically granular and appear to be readily erodible as evidenced by their soft to loose state and localized erosion gullies.

The erosion potential of cut slopes exposing on-site earth materials may range from low to high depending on the soil exposed on the cut slope.

3.11 Surface Drainage

Surficial drainage of the proposed development could significantly affect the strength and compression characteristics of the proposed engineered fills and the on-site earth materials. Maintenance of positive drainage from proposed roadways, building pad areas, and slopes is paramount to the site improvements' long-term performance, especially erosion on slopes. Recommendations for surface drainage are included in Section 5.4 below.

3.12 Fill Suitability

Materials generated from the excavation of the surficial soils and the Holocene Alluvial Sands is considered suitable for use as engineered fill, provided they are free of deleterious materials such as trash or organics.

3.13 Settlement Potential

The existing Holocene alluvial sand deposits (Qa) have been evaluated on a preliminary basis for settlement. Surficial soils should be removed as recommended in Section 5.3. Relatively competent alluvium can be left in place beneath the proposed design fills for building pads, paved parking and drive areas and fill slopes of variable heights and configurations.

Based on our preliminary analyses, the amount of settlement of the competent alluvial soils left in place should be minor.

The settlement of the proposed deeper fills (less than 40 feet) should be relatively small and should mostly occur during grading.

4.0 CONCLUSIONS

The following preliminary conclusions are based on our review of the available geotechnical data as well as the results of our field investigation, laboratory testing, and engineering analysis. It is our opinion that the subject property investigated herein is considered geotechnically suitable and feasible for the development of proposed improvements discussed above, provided that the recommendations

presented herein are implemented during further design, grading, and construction. If the recommendations in this report are incorporated into design and construction of the project, the proposed grading should not adversely affect adjoining sites.

- Generally, topsoil, undocumented fill, and the upper surficial Holocene alluvial sand deposits on site are considered potentially compressible. Alluvium left in place may support proposed fills provided the recommendations discussed in Section 5.0 are incorporated into grading operations and site development/design;
- The alluvial sand deposits are subject to settlement upon loading by proposed fill soils, and the majority of the settlement is expected to mostly occur during and at worst possibly within a few months following the completion of grading. Stability analyses indicate that cut and fill slopes with maximum gradients of 2:1 (H:V), up to 30 feet high and 48 feet high respectively, are grossly stable under static and pseudo-static conditions and generally should not be subject to earthquake-induced failures or excessive deformation under seismic conditions in the absence of adverse geologic conditions and provided the recommendations in this report are implemented. Stability calculations are included in **Appendix E**;
- Site soils subject to earthwork operations are generally sandy alluvium. Fill materials derived from these types of materials will typically exhibit a very low to low expansion potential;
- No active faulting is known to exist at the site, and the risk of surface fault rupture is considered very low. However, the project site lies within a region of historical seismicity and will likely be subject to seismic shaking in the future;
- Groundwater was not encountered to a depth of 50 feet below the existing ground level.

5.0 RECOMMENDATIONS

Geotechnical recommendations presented below are based on our understanding of the intended site use and the preliminary geotechnical information gathered and analyzed to date for feasibility purposes. Recommendations contained herein are preliminary in that they would be subject to modifications based on additional subsurface exploration to further characterize the site conditions and refine the recommendations, specifically, the alluvial removal and over-excavation requirements which would be intended to reduce the differential settlement that could be experienced at finished pad grades, based on development of detailed rough grading plans.

5.1 Supplemental Subsurface Exploration

Should plan changes occur or when the building plans have been finalized, we recommend that a supplemental geotechnical investigation be considered that may include additional subsurface exploration to further characterize the alluvial sand deposits and refine the foundation and site improvement recommendations.

5.2 General Earthwork and Grading

Grading should be performed in accordance with the General Earthwork and Grading Specifications presented in Appendix F, unless specifically amended below, and should also conform to applicable governing agency requirements. Prior to commencement of grading

operations, all vegetation, organic topsoil, and man-made structures (i.e., tanks, pipes, fences, etc.) should be cleared and disposed of off-site. Areas receiving fill should be scarified about 6 to 12 inches deep and/or over-excavated, moisture-conditioned to at least two percent above optimum moisture content, and compacted to a minimum of 90 percent relative compaction for areas to receive new fills up to 50 vertical feet and 95 percent for areas to receive greater than 50 feet of fill. All earthwork and grading operations should be performed under the observation and testing of the geotechnical consultant.

5.3 Fill Placement and Compaction

5.3.1 Fill Lifts

Fill material shall be placed in near-horizontal layers not exceeding 8 inches in loose thickness. Should abundant cobbles up to 12-inches in diameter be exposed, fill lift thicknesses could be increased to this dimension. Rocks greater than 12 inches should be collected and placed as oversized material. Each fill layer shall be spread evenly and shall be thoroughly mixed during spreading to attain uniformity of material and moisture in each layer.

5.3.2 Fill Moisture

Fill layers at moisture contents less than optimum shall be watered and mixed, and fill layers shall be aerated by scarification or blended with drier material. Moisture-conditioning and mixing of fill layers shall continue until the fill material is uniformly processed at a minimum of two percent above optimum moisture content.

5.3.3 Fill Compaction

After each layer has been evenly spread, moisture-conditioned, to a minimum of two percentage points above optimum moisture content and mixed, it shall be uniformly compacted to not less than 90 percent for fills up to 50 feet in depth, and 95 percent for fills greater than 50 feet in depth, of the maximum dry density. Compaction equipment shall be adequately sized and shall be either specifically designed for soil compaction or of proven reliability, to efficiently achieve the specified degree of compaction.

5.3.4 Remedial Grading

Preliminary remedial grading recommendations for this project are based on the results of our field exploration, soil sampling and laboratory analysis. Geotechnical evaluation of the data thus obtained was performed in order to establish the approximate depth of removals across the site. As such, the remedial grading recommendations presented herein are based on preliminary site-specific project development and site conditions. Topsoil, fill and surficial Alluvial sand deposits should be completely removed and recompacted during remedial earthwork. Remedial removals of the surficial soil and alluvial sands ranges from approximately 1.25 feet to 2.5 feet below existing grades not including the incidental non-engineered fill previously mentioned in section 2.4. A detailed remedial grading map is attached as Figure 3 that illustrates gradation of removal depths from 1.25 feet to 2.5 feet. However, staking and controlling small incremental depth change could be difficult. Therefore for practical considerations, we are including Figure 3a that illustrates the removal depths in two broad categories: 2-foot and 2.5 feet. The majority of the site falls into the 2-foot or less depth category; while the northerly and southerly portions are in the 2.5 foot depth category.

5.3.5 Over-excavation Along Cut/Fill Transitions

Recommended remedial removal depths, as illustrated on Figure 3a, vary from 2.0 feet to 2.5 feet below existing ground level. At the cut fill line, as the proposed cuts become greater, the remedial removals required can be reduced by the amount of cut until they are equal.

5.3.6 Over-excavation of Cut Areas

For the cut areas, no over-excavation is specifically required for the rough grading phase. The material exposed after cutting to grade should consist of moderately dense and competent sandy soil. The only areas recommended for overexcavation is in the transition zone between cut and fill where remedial removals for the fill area would transition to cut. As part of the fine grading operation during construction of the proposed buildings, the exposed soil in cut areas would need to be processed 6- to 12-inches depending on the depth of weathering as determined by the geotechnical consultant.

5.3.7 Manufactured Slopes

All design slopes should be constructed in accordance with City of Hesperia, County of San Bernadino requirements along with recommendations contained herein. Keyway backcuts, if any, greater than 5 feet in height should not be made steeper than a 2:1 slope gradient unless approved by the geotechnical consultant. Vertical benches with a minimum height of 4 feet should be established for all fills placed on ground sloping steeper than 5:1 (horizontal:vertical). Keyways should be constructed as depicted in the Grading Details (Appendix F) or as determined by the geotechnical field representative during grading. Slope maintenance guidelines are provided in Appendix I.

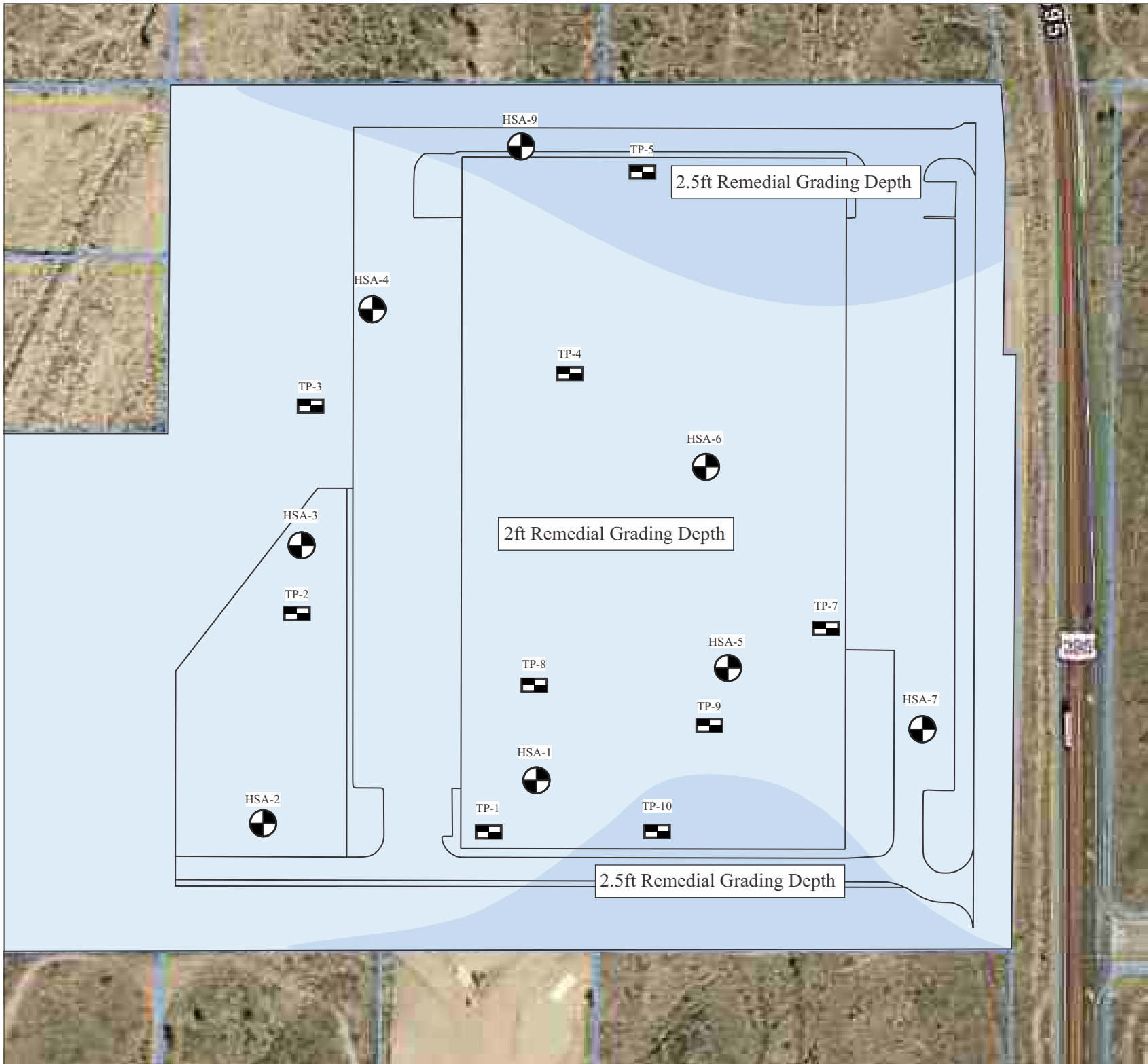
5.3.8 Slope Stabilization and Buttresses

Fill slope stabilizations, if any, should be provided with a subdrainage system as outlined in Appendix F. Keyways should be a minimum of 3 feet deep and a minimum of 15 feet wide, or half the slope height (whichever is greater). The locations of slope stabilization and buttress keyway dimensions should be evaluated during the grading plan review phase and confirmed during grading.

All keyways and backcuts for proposed slope stabilization, if any, should be observed by the geotechnical consultant during grading. Keyway dimensions may be modified based on the actual geotechnical conditions encountered during grading. Stabilization and buttress fills should be provided with backdrains constructed in accordance with the specifications contained in Appendix F and applicable City of Hesperia or County of San Bernardino grading ordinances.

5.3.9 Fill Slopes

All fill slopes should be provided with a fill key excavated to a minimum depth of 3 feet into alluvial materials after removals have been conducted, as determined by the geotechnical consultant during grading. Slopes higher than 30 feet should be provided with a keyway that has a minimum width of one-half the slope height and a depth of at least 3 feet into competent materials as determined by the geotechnical consultant during grading. Larger keyways may be required depending on slope height and soil conditions encountered beneath the proposed fill slopes. Vertical benches with a minimum height of 4 feet should be established for all fills placed on ground sloping steeper than 5:1. Oversize or cohesionless sandy material should not be



Notes:



Client:
SRD Design Studio

Address:
APN 3064-551-01 to 3064-551-08.,
Hesperia, CA 92344

Remedial Grading Map	
Drawn: S.W.	Date: 12/17/2021
P/N: 21030-00	Figure: 3A

utilized near the slope face. Fill slopes should be constructed of well-blended mixtures of sands, silts and clays where possible. Where considered necessary, fill slopes should be provided with backdrains constructed in accordance with the specifications contained in Appendix H and applicable City of Hesperia or County of San Bernadino grading ordinances.

5.3.10 Cut Slopes

In general, cut slopes proposed on site are considered stable when cut to design gradients of 2:1 horizontal to vertical, in the absence of adverse geologic conditions.

All cut slopes should be geologically mapped during grading. Cut slopes that expose adverse geologic features during grading should be provided with replacement stability fills constructed in accordance with the specifications presented herein and in Appendix F. Furthermore, cut slopes exposing earth materials that are susceptible to erosion should be constructed as replacement fill slopes. Keyway backcuts greater than 5 feet in height should not be made steeper than a 2:1 slope gradient. Stabilization fills should be provided with backdrains constructed in accordance with the specifications contained in Appendix F and applicable City of Hesperia and County of San Bernardino grading ordinances.

5.4 Surface Drainage

Appropriate surface drainage measures should be provided by the civil engineer, including terrace drains, surface gradients, and suitable non-erosive collection devices in accordance with the 2019 California Building Code and City of Hesperia regulations. Surface drainage should never be allowed to flow toward or over the top of slopes.

Consideration for the eventual settlement of the canyon areas should also be taken into account while designing local drainage. Currently, the site plan sheet flows across the entire site. However, it may be necessary to consider designing local low spots with area drains over the main canyon.

5.5 Subdrainage

Canyon fills and stabilization fills will require appropriate subdrain installation in accordance with the recommendations described in Appendix F, or as modified by the geotechnical consultant during grading. Subdrains should be installed in canyon bottoms with tributary drainages installed after the overexcavation of unsuitable soil materials, prior to the placement of compacted fills. Subdrainage should also be provided for any significant seepage encountered during grading. The necessity and locations of subdrains should be evaluated during the grading plan review phase after detailed grading plans are available.

5.6 Earthwork Specifications

All grading should be performed in accordance with the General Earthwork and Grading Specifications presented in Appendix F, unless specifically revised or amended below. Grading should also conform to all applicable governing agency requirements. Prior to commencement of grading operations, all vegetation, organic topsoil, and man-made structures (i.e., tanks, pipes, fences, etc.) should be cleared and disposed of off-site. Any undocumented fill or backfill encountered should be removed and recompacted. All areas receiving fill should be scarified to 6 inches and/or over-excavated, moisture-conditioned to between optimum moisture and two to

four percent above optimum moisture content, and re-compacted to a minimum of 90 percent relative compaction as determined by ASTM D1557. Soil material excavated from the site should be adequate for re-use as compacted fill provided it is free of oversize rock, trash, vegetation, and other deleterious material. All earthwork and grading operations should be performed under the observation and testing of the geotechnical consultant of record.

5.7 Deep Fill Areas/Settlement Monitoring

The conceptual plan indicates fill depths of up to 38-feet deep. However, should the plan be revised to require engineered fill deeper than 45 feet, the portion deeper than 45 feet should incorporate a minimum relative compaction of 95 percent and a moisture content of at least two percentage points above optimum moisture content. Compaction requirements may be revised based on hydrocollapse testing conducted while fill is being placed. A settlement monitoring program should be implemented consisting of surveying surface monuments to monitor settlement of alluvial soils left in-place where deemed appropriate and/or proposed fills deeper than 45 feet.

Survey monument readings for deep fill areas and fill over alluvial sand deposits (Qa) deemed necessary should be conducted following fill placement completion. These areas would preliminarily include the fill slopes on the north edge of the residential development. The geotechnical consultant should select survey monument locations. The contractor or the geotechnical consultant may complete the monument construction per our grading details SM-2 and SM-3 (Appendix H). Survey readings should be taken weekly for the first month and every month for a minimum of three months (in total) or until the vertical movement of the fill mass achieves 90 percent of primary compression, has begun secondary compression, or the estimated remaining settlement is estimated to be less than one inch. Construction of proposed structures should not commence until approved by the geotechnical consultant based on the settlement monitoring results.

The survey benchmarks used for the monitoring should be confirmed with the geotechnical consultant before initial readings being performed. Based on our analyses, it is estimated that primary consolidation settlement would likely require only a few months following the completion of fill placement provided that all recommendations presented herein have been implemented. It should also be remembered that the site improvements will need to be designed for a maximum tolerance deflection ratio (for differential settlement) as evaluated by the geotechnical consultant to accommodate the settlement that is expected to occur in the deep canyons and fill areas. This evaluation would be performed upon completion of the settlement monitoring.

5.8 Preliminary Foundation Recommendations

All foundation criteria are considered minimum requirements that may be superseded by more stringent requirements from the architect, structural engineer, or governing agencies.

The following preliminary geotechnical design parameters are provided for the design of proposed foundations for the proposed buildings. The proposed buildings may be supported by continuous and square pad footings utilizing an allowable bearing pressure of 2500 pounds per square foot. The width of the continuous footings should be a minimum of 18 inches and embedded to a minimum depth of 18 inches below the lowest adjacent grade. For square pad footings, it is recommended that the width be at least 24 inches embedded a minimum of 18 inches below the lowest adjacent grade. Bearing pressures may be increased by 250 pounds per square foot per additional foot of width or depth to a maximum allowable bearing pressure of

4,000 pounds per square foot. A coefficient of friction of 0.40 may be used, along with a passive lateral resistance of 275 pounds per square foot per foot of embedment. Footings should bear on at least two feet of compacted fill, or on approved natural ground.

If normal code requirements are used for seismic design, the allowable bearing value and coefficient of friction may be increased by 1/3 for short duration loads, such as the effect of wind or seismic forces.

If any utility lines are within a 1:1 (horizontal: vertical) projection from the bottom of a footing, they may be within the influence zone of the proposed footing load. If this condition exists, the proposed footing should be deepened so that the utility is outside the zone of influence; the utility line could also be relocated or encased with concrete slurry. These conditions should be evaluated on a case by case basis.

5.9 Retaining Walls

General guidelines are provided below for low retaining walls up to ten feet in retained height. For preliminary purposes, retaining walls should be designed to resist an equivalent fluid pressure of 40 pounds per cubic foot for level backfill and 62 pounds per cubic foot for 2:1 sloping backfill. Backfill materials should consist of granular material (S.E. ≥ 30) and drainage systems should be installed as shown on retaining wall details in Appendix J. Please note that drainage recommendations are provided only as a means to create a drained condition behind proposed retaining walls. Surface drains should not be connected to retaining wall sub-drainage. These drains are not intended as a means of waterproofing. If moisture or salt deposition is not desired, or if stone facing, stucco, or paint is to be applied to the wall outer surface, the wall should be provided with suitable waterproofing. The waterproofing system for the wall should be designed by a qualified waterproofing consultant. Any waterproofing or drainage system damaged by soil placement and compaction efforts should be repaired prior to completion of backfilling.

Foundations for proposed retaining and perimeter (non-retaining) walls which are to be founded into compacted fill materials or approved natural soil may be designed utilizing an allowable bearing pressure as presented above for conventional foundations. The friction factor and passive soil pressure presented above may also be assumed. However, for calculating the resistance to sliding utilizing friction and passive soil pressure, one or the other should be reduced by one-half.

5.10 Sulfate Potential

Based on the soluble sulfate test results at this time, the on-site soils possess a sulfate exposure that is considered "Class S0". For preliminary purposes, concrete should be designed per ACI 318, Section 19 Table 3.1.1, utilizing "Class S0" sulfate exposure.

5.11 Preliminary Pavement Design

For "preliminary" design, parameters are provided below. We have assumed an R-Value of 30 for preliminary design purposes and to account for soil variability. Additional R-Value testing should be performed on subgrade soils at the completion of rough grading to confirm final structural pavement sections. The selection of actual traffic index should be the purview of the project civil or traffic engineer.

Preliminary Pavement Section Design

R-Value	Traffic Index	Multiple Layered	
		Asphalt Concrete (inches)	Aggregate Base* (inches)
30	4.0	3.0	4.0
30	5.0	3.0	6.0
30	6.0	4.0	7.0
39	7.0	4.0	11.0

*Aggregate base material should consist of Class 2 aggregate base materials or Crushed Miscellaneous Base (CMB).

5.12 Temporary Excavations

Temporary excavations and trench walls to a depth of four feet may be made vertically without shoring, subject to verification of safety by the contractor. Deeper excavations should be no steeper than 1.5:1 (horizontal to vertical) or braced or shored in accordance with CAL OSHA standards and guidelines. The contractor is assumed responsible for maintaining safety at the jobsite. All excavation work should be in compliance with current CAL OSHA standards. Under no circumstances should excavations be made deeper than four feet or below groundwater without shoring, bracing or laying-back, in accordance with CAL OSHA standards and guidelines. No surcharge loads should be allowed within five feet from the top of the cuts.

Existing utility lines, roadways and other easements/right-of-ways may be impacted by the temporary excavations may require shoring to obtain the full depth of the excavation.

5.13 Grading Plan Review

Our office should review the 40-scale grading plans, produced in the future. Grading plan review will be necessary to verify that our recommendations in this report remain relevant and to provide refined and updated geotechnical recommendations specific to the plans as necessary.

5.14 Geotechnical Testing and Observation

Geotechnical observation and testing should be conducted during the following stages of grading:

- Upon the completion of clearing and grubbing;
- During all phases of grading, including benching, backcut and key excavation, cut slope excavation, remedial removals of surficial soils, backdrain/subdrain/filter material installation and engineered fill placement;
- During Settlement Monument placement;
- During roadway subgrade preparation and compaction of roadway aggregate base;
- When any unusual conditions are encountered during grading.

6.0 PROFESSIONAL LIMITATIONS

Geotechnical services are provided by KCG in accordance with generally accepted professional engineering and geologic practice in the area where these services are to be rendered. Client acknowledges that the present standard in the engineering and geologic and environmental profession does not include a guarantee of perfection and, except as expressly set forth in the conditions above, no warranty, expressed or implied, is extended by KCG.

Geotechnical reports are based on the project description and proposed scope of work as described in the proposal. Our conclusions and recommendations are based on the results of the field, laboratory, and office studies, combined with an interpolation and extrapolation of soil conditions as described in the report. The results reflect our geotechnical interpretation of the limited direct evidence obtained. Our conclusions and recommendations are made contingent upon the opportunity for KCG to continue to provide geotechnical services beyond the scope in the proposal to include all geotechnical services. If parties other than KCG are engaged to provide such services, they must be notified that they will be required to assume complete responsibility for the geotechnical work of the project by concurring with the recommendations in our report or providing alternate recommendations.

It is the reader's responsibility to verify the correct interpretation and intention of the recommendations presented herein. KCG assumes no responsibility for misunderstandings or improper interpretations that result in unsatisfactory or unsafe work products. It is the reader's further responsibility to acquire copies of any supplemental reports, addenda, or responses to public agency reviews that may supersede recommendations in this report.

APPENDIX A
REFERENCES

APPENDIX A

REFERENCES

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APPENDIX A

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APPENDIX B

EXPLORATION BORING AND TEST PIT LOGS

LOG OF EXPLORATORY BORING

Project: **Dara Industrial Center, Hesperia, CA**
 Project Number: **21030-00**
 Date Drilled: **10/27/21**
 Logged By: **S.W. and J.H.**

Boring No.: **HSA-1**
 Driller: **CAL PAC DRILLING**
 Drill Type: **Hollow Stem Auger**
 Hammer Wt. / Drop: **140lb / 18in**
 Ground Elev. [ft]: **---**

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> ☐ Standard Split Spoon ☒ California </div> <div style="width: 45%;"> ■ Shelby Tube ☒ Bulk Sample </div> </div>	<div style="display: flex; justify-content: space-between;"> ▽ Water Level ATD ▼ Static Water Table </div>	Pocket Pen. [tsf]	Lab Tests	Remarks				
SOIL DESCRIPTION and CLASSIFICATION (USCS)														
<u>Alluvial Sand Deposits (Qa)</u>														
<p>@ 0 feet - <u>Top Soil</u>: organic silt, dry brush and shrub</p> <p>@ 0.5 feet - <u>Silty Sand (SM)</u>: light brown, fine grained, dry.</p>														
5	[14]	[21]	[25]	4.4	116.4	<p>@ 5 feet - <u>Silty Sand (SM)</u>: brown, medium grained, minor gravel: subrounded to subangular, up to 0.25", moist, dense.</p>				> 4.5				
10	[14]	[16]	[21]	2.9	116.6					<p>@ 10 feet - <u>Gravelly Sand (SP)</u>: brown, medium to coarse grained, gravel: up to 1.0", dense.</p>				> 4.5
15	[7]	[9]	[13]	5.1	114.2									<p>@ 15 feet - <u>Gravelly Sand (SP)</u>: brown, medium to coarse grained, major gravel: up to 1.0", medium dense.</p>
<p>Total Depth: 15 feet. No Groundwater encountered. No Caving.</p>										> 4.5				
<p>Blow count in bracket represents (N1)60 value. LaCroix & Horn conversion factor of 0.64 used to convert California Sampler blow counts to SPT values.</p>														

HS-BA-TP-21030-00 Hesperia_GPJ_Kling Consulting Group, Inc. 11/02/21

LOG OF EXPLORATORY BORING

Project: **Dara Industrial Center, Hesperia, CA**
 Project Number: **21030-00**
 Date Drilled: **10/27/21**
 Logged By: **S.W. and J.H.**

Boring No.: **HSA-2**
 Driller: **CAL PAC DRILLING**
 Drill Type: **Hollow Stem Auger**
 Hammer Wt. / Drop: **140lb / 18in**
 Ground Elev. [ft]: **---**

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> ▣ Standard Split Spoon ▣ California </div> <div style="width: 45%;"> ▣ Shelby Tube ⊠ Bulk Sample </div> </div>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> ▽ Water Level ATD ▽ Static Water Table </div> </div>	Pocket Pen. [tsf]	Lab Tests	Remarks	
SOIL DESCRIPTION and CLASSIFICATION (USCS)											
<u>Alluvial Sand Deposits (Qa)</u>											
<p>@ 0 feet - <u>Top Soil</u>: organic silt, dry brush and shrub</p> <p>@ 0.5 feet - <u>Silty Sand (SM)</u>: light brown, fine to medium grained, dry.</p>											
5	[11]	[18]	5.9	117.5	<p>@ 5 feet - <u>Silty Sand (SM)</u>: light brown, fine to medium grained, moist, dense.</p>					> 4.5	
10	[13]	[24]	10.6	124.3	<p>@ 10 feet - <u>Gravelly Sand (SP)</u>: brown, medium grained, minor gravel: up to 0.5", very dense.</p>					> 4.5	
15	[14]	[15]	5.5	112.4	<p>@ 15 feet - <u>Silty Sand (SM)</u>: dark reddish brown, trace clay, micaceous, medium dense.</p>					> 4.5	
20	[14]	[14]	6.6	111.8	<p>Total Depth: 20 feet. No Groundwater encountered. No Caving.</p>					> 4.5	
25	[9]	[12]			<p>Blow count in bracket represents (N1)60 value. LaCroix & Horn conversion factor of 0.64 used to convert California Sampler blow counts to SPT values.</p>						

HS-BA-TP-21030-00 Hesperia.GPJ Kling Consulting Group, Inc. 11/02/21

LOG OF EXPLORATORY BORING

Project: **Dara Industrial Center, Hesperia, CA**
 Project Number: **21030-00**
 Date Drilled: **10/27/21**
 Logged By: **S.W. and J.H.**

Boring No.: **HSA-3**
 Driller: **CAL PAC DRILLING**
 Drill Type: **Hollow Stem Auger**
 Hammer Wt. / Drop: **140lb / 18in**
 Ground Elev. [ft]: **---**

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> ▣ Standard Split Spoon ▣ Shelby Tube ▣ California ⊠ Bulk Sample </div> <div style="width: 45%;"> ▽ Water Level ATD ▽ Static Water Table </div> </div>	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)									

5	12 12 13 15 15	3.2	118.0	<p><u>Alluvial Sand Deposits (Qa)</u></p> <p>@ 0 feet - <u>Top Soil</u>: organic silt, dry brush and shrub</p> <p>@ 0.5 feet - <u>Silty Sand (SM)</u>: light brown, fine to medium grained, dry.</p> <p>@ 5 feet - <u>Silty Sand (SM)</u>: light brown, medium grained, moist, medium dense.</p>		> 4.5		
10	12 29 37 11 25 32	1.9	127.6	<p>@ 10 feet - <u>Gravelly Sand (SP)</u>: brown, medium to coarse grained, major gravel: up to 2.0", subangular, very dense.</p>				
15	8 17 27 5 12 19	12.9	123.5	<p>@ 15 feet - <u>Sandy Gravel (GP)</u>: light brown and grey, coarse grained. gravel: up to 1.5", dense.</p> <p>@ 16 feet - <u>Sandy Claystone (SC)</u>: light brown, moist, micaceous.</p> <p>@ 17 feet - <u>Gravelly Sand (SP)</u>: light brown, fine to medium grained, moist, gravel: up to 1.0", subangular, very dense.</p>		> 4.5		
20	20 21 27 12 12 16	3.4	130.2	<p>@ 25 feet - <u>Silty Sand (SM)</u>: dark brown, fine grained, moist, medium dense.</p>		> 4.5		
25								

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LOG OF EXPLORATORY BORING

Project: **Dara Industrial Center, Hesperia, CA**
 Project Number: **21030-00**
 Date Drilled: **10/27/21**
 Logged By: **S.W. and J.H.**

Boring No.: **HSA-3**
 Driller: **CAL PAC DRILLING**
 Drill Type: **Hollow Stem Auger**
 Hammer Wt. / Drop: **140lb / 18in**
 Ground Elev. [ft]: **---**

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	<input checked="" type="checkbox"/> Standard Split Spoon <input type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> California <input type="checkbox"/> Bulk Sample <input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)									
9 11 24 5 6 13 30 35 40 45 50			9 11 24 5 6 13	5.8	129.6	Total Depth: 25 feet. No Groundwater encountered. No Caving.	> 4.5		
Blow count in bracket represents (N1)60 value. LaCroix & Horn conversion factor of 0.64 used to convert California Sampler blow counts to SPT values.									

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LOG OF EXPLORATORY BORING

Project: **Dara Industrial Center, Hesperia, CA**
 Project Number: **21030-00**
 Date Drilled: **10/27/21**
 Logged By: **S.W. and J.H.**

Boring No.: **HSA-4**
 Driller: **CAL PAC DRILLING**
 Drill Type: **Hollow Stem Auger**
 Hammer Wt. / Drop: **140lb / 18in**
 Ground Elev. [ft]: **---**

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	<div style="display: flex; justify-content: space-between; font-size: small;"> Standard Split Spoon Shelby Tube Water Level ATD </div> <div style="display: flex; justify-content: space-between; font-size: small;"> California Bulk Sample Static Water Table </div>	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)									
<u>Alluvial Sand Deposits (Qa)</u>									
<p>@ 0 feet - <u>Top Soil</u>: organic silt, dry brush and shrub</p> <p>@ 0.5 feet - <u>Silty Sand (SM)</u>: light brown, fine to medium grained, dry.</p> <p>@ 5 feet - <u>Silty Sand (SM)</u>: light brown, medium grained, moist, medium dense.</p> <p>@ 10 feet - <u>Gravelly Sand (SP)</u>: light brown, medium grained, gravel: up to 1.0", subangular, medium dense.</p> <p>@ 15 feet - <u>Sandy Gravel (GP)</u>: light brown and grey, coarse grained, gravel: up to 3.0", subangular, medium dense.</p> <p>@ 20 feet - <u>Silty Sand (SM)</u>: dark brown, coarse grained, moist micaceous, dense.</p> <p>@ 25 feet - <u>Silty Sand (SM)</u>: dark brown, fine grained, moist minor clay, medium dense.</p>									
5	[9]	[15]	[24]	1.8	94.1				
10	[7]	[9]	[9]	4.4	109.7				
15	[7]	[9]	[13]	3.4	117.7		> 4.5		
20	[14]	[15]	[19]	3.3	126.4		> 4.5		
25									

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LOG OF EXPLORATORY BORING

Project: **Dara Industrial Center, Hesperia, CA**
 Project Number: **21030-00**
 Date Drilled: **10/28/21**
 Logged By: **S.W. and J.H.**

Boring No.: **HSA-5**
 Driller: **CAL PAC DRILLING**
 Drill Type: **Hollow Stem Auger**
 Hammer Wt. / Drop: **140lb / 18in**
 Ground Elev. [ft]: **---**

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> ▣ Standard Split Spoon ▣ California </div> <div style="width: 45%;"> ▣ Shelby Tube ⊠ Bulk Sample </div> </div>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> ▽ Water Level ATD ▽ Static Water Table </div> </div>	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)										
						<p>Alluvial Sand Deposits (Qa)</p> <p>@ 0 feet - <u>Top Soil</u>: organic silt, dry brush and shrub</p> <p>@ 0.5 feet - <u>Silty Sand (SM)</u>: light brown, fine to medium grained, dry.</p> <p>@ 2.0 feet - <u>Silty Sand (SM)</u>: dark brown, medium grained, moist, minor gravel: up to 1/8", angular.</p> <p>@ 6 feet - <u>Gravelly Sand (SP)</u>: dark brown, medium grained, gravel: up to 2.0", rounded, medium dense.</p> <p>@ 15 feet - <u>Silty Sand (SM)</u>: dark brown, medium grained, moist minor gravel: up to 0.5", rounded, very dense.</p>				
5	▣		5							
			6	6.3	122.9					> 4.5
			8							
			[6]							
			8							
			[9]							
10	▣		8							
			10	4.0	117.3					> 4.5
			13							
			[7]							
			8							
			[11]							
15	▣		16							
			23	4.4	132.5					> 4.5
			46							
			[11]							
			16							
			[31]							
20	▣		16							
			21	5.9	115.3					
			26							
			[9]							
			12							
			[16]							
25						<p>Total Depth: 20 feet. No Groundwater encountered. No Caving.</p> <p>Blow count in bracket represents (N1)60 value. LaCroix & Horn conversion factor of 0.64 used to convert California Sampler blow counts to SPT values.</p>				

HS-BA-TP-21030-00 Hesperia.GPJ Kling Consulting Group, Inc. 11/02/21



LOG OF EXPLORATORY BORING

Project: **Dara Industrial Center, Hesperia, CA**
 Project Number: **21030-00**
 Date Drilled: **10/28/21**
 Logged By: **S.W. and J.H.**

Boring No.: **HSA-6**
 Driller: **CAL PAC DRILLING**
 Drill Type: **Hollow Stem Auger**
 Hammer Wt. / Drop: **140lb / 18in**
 Ground Elev. [ft]: **---**

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	<input checked="" type="checkbox"/> Standard Split Spoon <input type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> California <input type="checkbox"/> Bulk Sample <input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)									
11 15 26 30 35 40 45 50			11 15 26 6 9 15	2.5	121.4	Total Depth: 25 feet. No Groundwater encountered. No Caving.			
						Blow count in bracket represents (N1)60 value. LaCroix & Horn conversion factor of 0.64 used to convert California Sampler blow counts to SPT values.			

HS-BA-TP-21030-00 Hesperia.GPJ Kling Consulting Group, Inc. 11/02/21

LOG OF EXPLORATORY BORING

Project: **Dara Industrial Center, Hesperia, CA**
 Project Number: **21030-00**
 Date Drilled: **10/28/21**
 Logged By: **S.W. and J.H.**

Boring No.: **HSA-7**
 Driller: **CAL PAC DRILLING**
 Drill Type: **Hollow Stem Auger**
 Hammer Wt. / Drop: **140lb / 18in**
 Ground Elev. [ft]: **---**

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> ▣ Standard Split Spoon ▣ California </div> <div style="width: 45%;"> ▣ Shelby Tube ⊠ Bulk Sample </div> </div>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> ▽ Water Level ATD ▽ Static Water Table </div> </div>	Pocket Pen. [tsf]	Lab Tests	Remarks		
SOIL DESCRIPTION and CLASSIFICATION (USCS)												
						<p><u>Alluvial Sand Deposits (Qa)</u></p> <p>@ 0 feet - <u>Top Soil</u>: organic silt, dry brush and shrub</p> <p>@ 0.5 feet - <u>Silty Sand (SM)</u>: light brown, fine grained, dry.</p> <p>@ 4 feet - <u>Gravelly Sand (SP)</u>: light brown, medium grained, moist, gravel: subangular to angular, up to 0.25", medium dense.</p> <p>@ 10 feet - <u>Gravelly Sand (SP)</u>: brown, medium to coarse grained, moist, gravel: subrounded, up to 2.0", medium dense.</p> <p>@ 15 feet - <u>Gravelly Sand (SP)</u>: brown, coarse grained, moist, major gravel: subrounded, up to 2.0", dense.</p> <p>Total Depth: 15 feet. No Groundwater encountered. No Caving.</p>				> 4.5		
Blow count in bracket represents (N1)60 value. LaCroix & Horn conversion factor of 0.64 used to convert California Sampler blow counts to SPT values.												

HS-BA-TP-21030-00 Hesperia.GPJ Kling Consulting Group, Inc. 11/02/21



LOG OF EXPLORATORY BORING

Project: **Dara Industrial Center, Hesperia, CA**
 Project Number: **21030-00**
 Date Drilled: **10/29/21**
 Logged By: **S.W. and J.H.**

Boring No.: **HSA-8**
 Driller: **CAL PAC DRILLING**
 Drill Type: **Hollow Stem Auger**
 Hammer Wt. / Drop: **140lb / 18in**
 Ground Elev. [ft]: **---**

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> ☐ Standard Split Spoon ☒ California </div> <div style="width: 45%;"> ■ Shelby Tube ☒ Bulk Sample </div> </div>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> ▽ Water Level ATD </div> <div style="width: 45%;"> ▼ Static Water Table </div> </div>	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)										
<p>Alluvial Sand Deposits (Qa)</p> <p>@ 0 feet - <u>Top Soil</u>: organic silt, dry brush and shrub</p> <p>@ 0.5 feet - <u>Silty Sand (SM)</u>: light brown, fine grained, dry.</p> <p>@ 3.5 feet - <u>Poorly Graded Sand (SP)</u>: light brown, fine to medium grained, minimum silt content, moist, medium dense.</p> <p>@ 7 feet - <u>Gravelly Sand (SP)</u>: dark brown, medium grained, moist gravel: up to 1/8", angular, medium dense.</p> <p>@ 15 feet - <u>Gravelly Sand (SP)</u>: dark brown, coarse grained, moist, gravel: up to 2.0", subrounded to rounded, medium dense.</p> <p>@ 20 feet - <u>Silty Sand (SM)</u>: dark brown, fine to medium grained, minor clay content, moist, loose.</p> <p>@ 25 feet - <u>Clayey Sand (SC)</u>: dark brown, coarse grained, moist, minor clay content, gravel: up to 2.0", subangular, dense.</p>										
5		7 11 12 8 14 16	2.9	111.7				> 4.5		
10		8 12 13 7 11 11	5.0	119.5				> 4.5		
15		5 8 12 3 6 9	6.4	113.5				4.5		
20		4 4 7 3 3 4	9.2	116.8				4.25		
25										

HS-BA TP 21030-00 Hesperia.GPJ Kling Consulting Group, Inc. 11/02/21

LOG OF EXPLORATORY BORING

Project: **Dara Industrial Center, Hesperia, CA**
 Project Number: **21030-00**
 Date Drilled: **10/29/21**
 Logged By: **S.W. and J.H.**

Boring No.: **HSA-8**
 Driller: **CAL PAC DRILLING**
 Drill Type: **Hollow Stem Auger**
 Hammer Wt. / Drop: **140lb / 18in**
 Ground Elev. [ft]: **---**

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> ▣ Standard Split Spoon ▣ California </div> <div style="width: 45%;"> ▣ Shelby Tube ⊠ Bulk Sample </div> </div>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> ▽ Water Level ATD ▼ Static Water Table </div> </div>	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)										
12 21 35 [7] 11 [19]	▣			8.4	129.2					
30 11 13 11 [9] 10 [9]	▣									<p>@ 30 feet - <u>Silty Sand (SM)</u>: dark brown, fine to medium grained, moist, gravel: up to 0.25", subrounded, medium dense.</p>
35 12 14 13 [9] 10 [9]	▣									<p>@ 35 feet - <u>Silty Sand (SM)</u>: dark brown, fine to medium grained, moist, gravel: up to 0.25", subrounded, medium dense.</p>
40 15 24 30 [7] 10 [13]	▣			5.0	115.3					<p>@ 40 feet - <u>Silty Sand (SM)</u>: dark brown, coarse grained, moist, gravel: up to 0.25", subrounded, dense.</p>
45 10 13 14 [6] 8 [9]	▣									<p>@ 45 feet - <u>Silty Sand (SM)</u>: dark brown, coarse grained, moist, gravel: up to 0.25", subrounded to subangular, medium dense.</p>
50	▣									<p>@ 50 feet - <u>Silty Sand (SM)</u>: dark brown, medium to coarse grained, moist, minor gravel: up to 0.25", angular, medium dense.</p>

HS-BA TP 21030-00 Hesperia_GPJ_Kling Consulting Group, Inc. 11/02/21

LOG OF EXPLORATORY BORING

Project: **Dara Industrial Center, Hesperia, CA**
 Project Number: **21030-00**
 Date Drilled: **10/29/21**
 Logged By: **S.W. and J.H.**

Boring No.: **HSA-9**
 Driller: **CAL PAC DRILLING**
 Drill Type: **Hollow Stem Auger**
 Hammer Wt. / Drop: **140lb / 18in**
 Ground Elev. [ft]: **---**

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> ▣ Standard Split Spoon ▣ California </div> <div style="width: 45%;"> ▣ Shelby Tube ⊠ Bulk Sample </div> </div>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> ▽ Water Level ATD ▽ Static Water Table </div> </div>	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)										
<p style="text-align: center;"><u>Alluvial Sand Deposits (Qa)</u></p> <p>@ 0 feet - <u>Top Soil</u>: organic silt, dry brush and shrub</p> <p>@ 0.5 feet - <u>Silty Sand (SM)</u>: light brown, fine grained, dry.</p> <p>@ 5 feet - <u>Gravelly Sand (SP)</u>: dark brown, medium grained, moist gravel: up to 1/8", subangular, medium dense.</p> <p>@ 10 feet - <u>Gravelly Sand (SP)</u>: dark brown, coarse grained, moist gravel: up to 1/4", subangular to subrounded, medium dense.</p> <p>@ 15 feet - <u>Silty Sand (SM)</u>: dark brown, medium to coarse grained, moist, minor gravel: up to 1/2", subrounded to rounded, medium dense.</p> <p>@ 20 feet - <u>Silty Sand (SM)</u>: dark brown, medium to coarse grained, moist, minor gravel: up to 1.0", subrounded, dense.</p> <p>@ 25 feet - <u>Gravelly Sand (SP)</u>: dark brown, coarse grained, moist, gravel: up to 2.0", dense.</p>										

HS BA TP 21030-00 Hesperia.GPJ Kling Consulting Group, Inc. 11/02/21

LOG OF EXPLORATORY BORING

Project: **Dara Industrial Center, Hesperia, CA**
 Project Number: **21030-00**
 Date Drilled: **10/29/21**
 Logged By: **S.W. and J.H.**

Boring No.: **HSA-9**
 Driller: **CAL PAC DRILLING**
 Drill Type: **Hollow Stem Auger**
 Hammer Wt. / Drop: **140lb / 18in**
 Ground Elev. [ft]: **---**

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> ▣ Standard Split Spoon ▣ California </div> <div style="width: 45%;"> ▣ Shelby Tube ⊠ Bulk Sample </div> </div>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> ▽ Water Level ATD ▽ Static Water Table </div> </div>	Pocket Pen. [tsf]	Lab Tests	Remarks
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SOIL DESCRIPTION and CLASSIFICATION (USCS)

19			19			<p>@ 30 feet - <u>Gravelly Sand (SP)</u>: light brown, medium to coarse grained, moist, gravel: up to 2.0", subangular, medium dense.</p> <p>@ 35 feet - <u>Gravelly Sand (SP)</u>: light brown, medium to coarse grained, moist, gravel: up to 2.0", subangular, medium dense.</p> <p>@ 40 feet - <u>Gravelly Sand (SP)</u>: light brown, medium to coarse grained, moist, gravel: up to 2.0", subangular, dense.</p> <p>@ 45 feet - <u>Gravelly Sand (SP)</u>: light brown, medium to coarse grained, moist, gravel: up to 2.0", subangular, dense.</p> <p>Total Depth: 45 feet. No Groundwater encountered. No Caving.</p> <p style="font-size: small;">Blow count in bracket represents (N1)60 value. LaCroix & Horn conversion factor of 0.64 used to convert California Sampler blow counts to SPT values.</p>			
21			21	3.5	123.0		> 4.5		
22			22						
10			10						
11			11						
12			12						
30			30						
11			11						
14			14						
15			15						
9			9						
11			11						
12			12						
35			35						
11			11						
13			13						
16			16						
8			8						
9			9						
11			11						
40			40						
11			11						
14			14						
17			17						
7			7						
9			9						
11			11						
45			45						
13			13						
14			14						
15			15						
8			8						
9			9						
9			9						
50			50						

HS-BA-TP-21030-00 Hesperia-GPJ Kling Consulting Group, Inc. 11/02/21



LOG OF EXPLORATORY BORING

Project: **Dara Industrial Center, Hesperia, CA**
 Project Number: **21030-00**
 Date Drilled: **10/28/21**
 Logged By: **S.W. and J.H.**

Boring No.: **KP-1**
 Driller: **CAL PAC DRILLING**
 Drill Type: **Hollow Stem Auger**
 Hammer Wt. / Drop: **140lb / 18in**
 Ground Elev. [ft]: **---**

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	<input checked="" type="checkbox"/> Standard Split Spoon <input type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> California <input type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)										

5	10	15	20	25						
<p><u>Alluvial Sand Deposits (Qa)</u></p> <p>@ 0 feet - <u>Top Soil</u>: organic silt, dry brush and shrub</p> <p>@ 0.5 feet - <u>Silty Sand (SM)</u>: light brown, fine grained, dry.</p> <p>@ 5 feet - <u>Silty Sand (SM)</u>: light brown, medium grained, moist.</p> <hr/> <p>Total Depth: 5 feet. No Groundwater encountered. No Caving.</p>										

HS BA TP 21030-00 Hesperia.GPJ Kling Consulting Group, Inc. 11/02/21


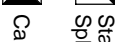
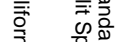
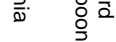


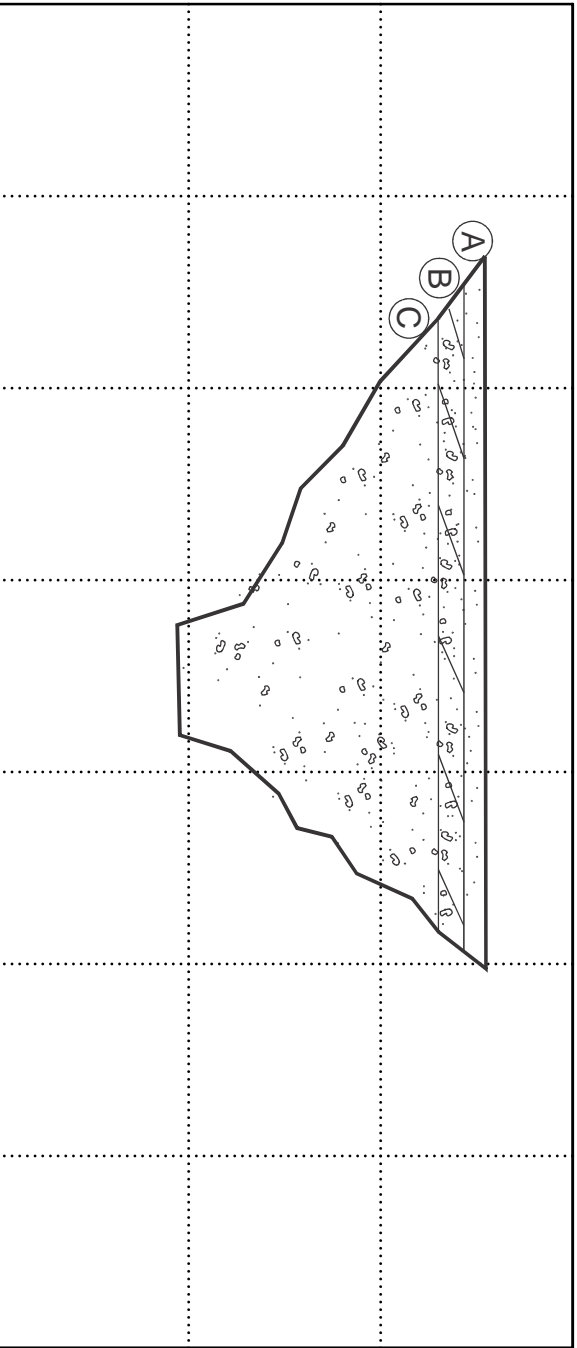
LOG OF EXPLORATORY TEST PIT

Sheet 1 of 1

Project: Dara Industrial Center, Hesperia, CA
Project Number: 21030-00
Date Drilled: 10/26/21
Logged By: SW/JH

Test Pit No.: TP-01
Contractor: Jess Engineering
Backhoe: John Deere 410K
Hammer Wt. / Drop: ---
Ground Elev. [ft]: ---

Depth [ft]	Graphic Log	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	SOIL DESCRIPTION and CLASSIFICATION (USCS)	Pocket Pen. [tsf]	Lab Tests
0 - 1.1						Surficial Soils (A) Topsoil (ML): Organic SILT and intermixed coarse sub-angular gravels Old Alluvial Fan Deposits (Qof): very dense. (B) Cemented Gravelly Sand (SP): dark brown, dry, very dense. (C) Gravelly SAND (SP): dark brown, medium grained sand, trace clay, coarse-grained light greyish-white gravels: up to 1/4", sub-rounded, loose, moist at 2.5 ft depth.	> 4.5	
1.1 - 3.9		4	3.9	121.7			3.0	
3.9 - 8.0		5				Total depth: 8.0 feet No groundwater. No caving. Trench backfilled with spoils on 10/26/2021.		
8.0 - 10.0								

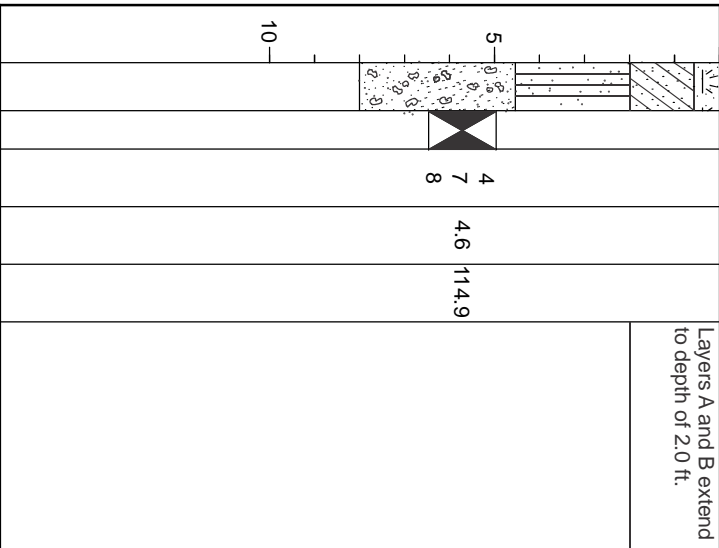


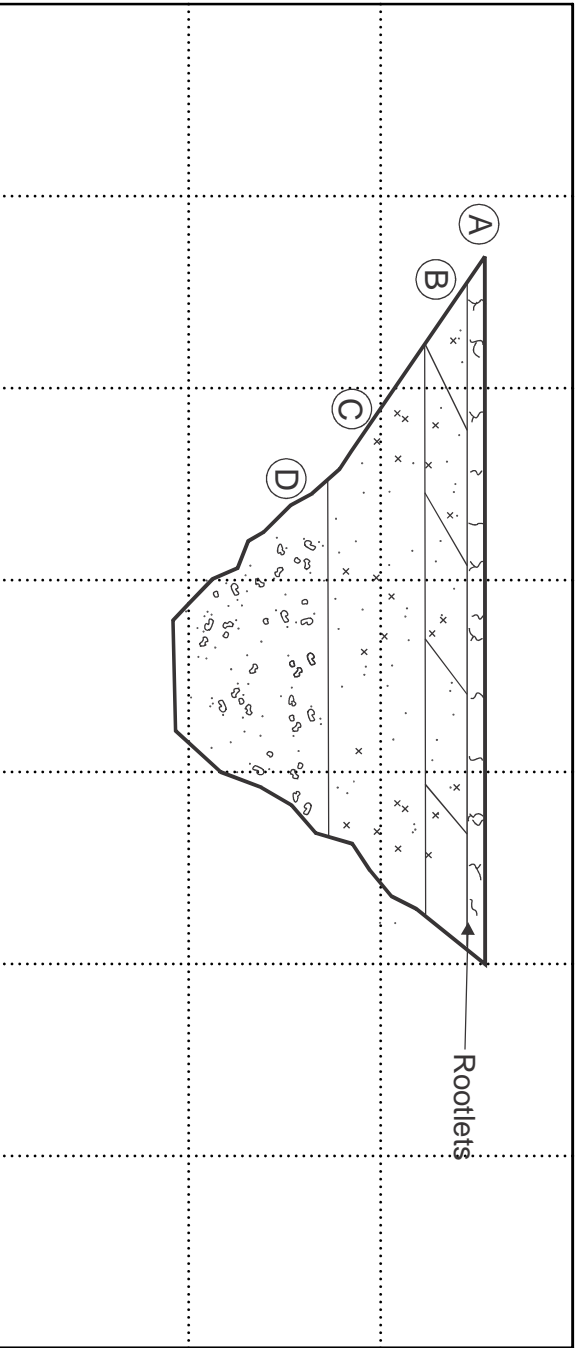
LOG OF EXPLORATORY TEST PIT

Sheet 1 of 1

Project: Dara Industrial Center, Hesperia, CA
Project Number: 21030-00
Date Drilled: 10/26/21
Logged By: SW/JH

Test Pit No.: TP-02
Contractor: Jess Engineering
Backhoe: John Deere 410K
Hammer Wt. / Drop: ---
Ground Elev. [ft]: ---

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	SOIL DESCRIPTION and CLASSIFICATION (USCS)	Pocket Pen. [tsf]	Lab Tests
0 - 10			4 7 8	4.6	114.9	Layers A and B extend to depth of 2.0 ft.	<p>Standard <input checked="" type="checkbox"/> Split Spoon <input type="checkbox"/> Shelby Tube <input type="checkbox"/> Water Level <input type="checkbox"/></p> <p>California <input checked="" type="checkbox"/> Bulk Sample <input type="checkbox"/> Static Water Table <input type="checkbox"/></p> <p>SOIL DESCRIPTION and CLASSIFICATION (USCS)</p> <p>Surficial Soils</p> <p>(A) Topsoil (ML): Organic SILT and intermixed coarse sub-angular gravels, rootlets.</p> <p>Old Alluvial Fan Deposits (Qof):</p> <p>(B) Cemented Sandy Silt (ML): brown, dry, very hard.</p> <p>(C) Sandy Silt (ML): brown, medium to coarse grained sand, trace clay, moist, medium stiff.</p> <p>(D) Gravelly SAND (SP): brown, coarse grained sand, no clay, moist, coarse-grained light greyish-white gravels: up to 1/8", sub-rounded, medium dense.</p> <p>Total depth: 8.0 feet No groundwater. No caving. Trench backfilled with spoils on 10/26/2021.</p>	> 4.5	



Rootlets

LOG OF EXPLORATORY TEST PIT

Sheet 1 of 1

Project: Dara Industrial Center, Hesperia, CA
Project Number: 21030-00
Date Drilled: 10/26/21
Logged By: SW/JH

Test Pit No.: TP-04
Contractor: Jess Engineering
Backhoe: John Deere 410K
Hammer Wt. / Drop: ---
Ground Elev. [ft]: ---

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	SOIL DESCRIPTION and CLASSIFICATION (USCS)	Pocket Pen. [tsf]	Lab Tests
							<p>Surficial Soils (A) Topsoil (ML): Organic SILT and intermixed coarse sub-angular gravels Old Alluvial Fan Deposits (Qof): (B) Cemented Silty Sand (SM): light brown, dry, very dense. (C) Poorly graded Sands (SP): light brown, medium graded sand, some coarse grained gravel, moist, medium dense.</p> <p>Total depth: 6.0 feet No groundwater. No caving. Trench backfilled with spoils on 10/26/2021.</p>		
			8 10 11	3.7	121.1	Layers A and B extend to depth of 2.0 ft.	> 4.5		
							2.2		



LOG OF EXPLORATORY TEST PIT

Sheet 1 of 1

Project: Dara Industrial Center, Hesperia, CA
Project Number: 21030-00
Date Drilled: 10/26/21
Logged By: SW/JH

Test Pit No.: TP-05
Contractor: Jess Engineering
Backhoe: John Deere 410K
Hammer Wt. / Drop: ---
Ground Elev. [ft]: ---

Depth [ft]	Graphic Log	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	Pocket Pen. [tsf]	Lab Tests
					Layers A, B and C extend to depth of 2.1 ft.		
5		3	3.0	113.6			> 4.5
6		6			Layers A, B and C extend to depth of 2.1 ft.		
6		6					2.1
10							

SOIL DESCRIPTION and CLASSIFICATION (USCS)

Surficial Soils
(A) Topsoil (ML): Organic SILT and intermixed coarse sub-angular gravels

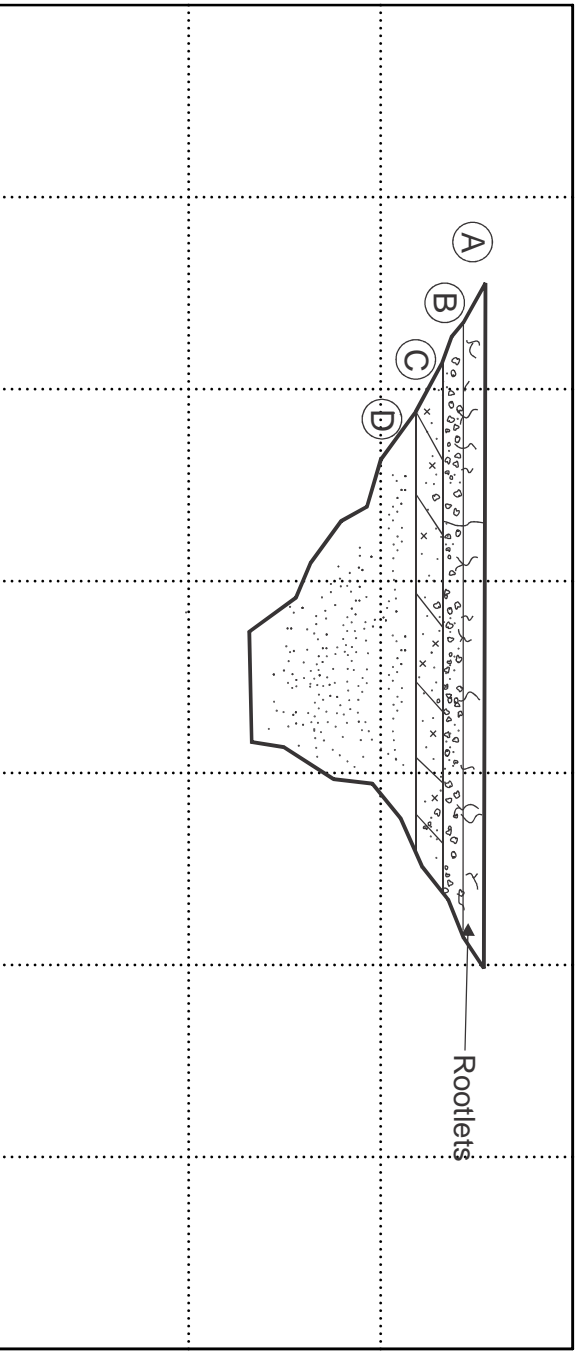
Old Alluvial Fan Deposits (Qof):

(B) Gravelly Sand (SP): light brown, dry, fine to medium grained, some coarse grained gravel, loose.

(C) Cemented Silty Sand (SM): brown, dry, conglomerate, gravel: clasts up to 1.0", subangular, 1.2 ft layer thickness, very dense.

(D) Poorly graded Sands (SP): light brown, medium grained sand, loose to medium dense.

Total depth: 6.0 feet
 No groundwater.
 No caving.
 Trench backfilled with spoils on 10/26/2021.



LOG OF EXPLORATORY TEST PIT

Sheet 1 of 1

Project: Dara Industrial Center, Hesperia, CA
Project Number: 21030-00
Date Drilled: 10/26/21
Logged By: SW/JH

Test Pit No.: TP-07
Contractor: Jess Engineering
Backhoe: John Deere 410K
Hammer Wt. / Drop: ---
Ground Elev. [ft]: ---

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	SOIL DESCRIPTION and CLASSIFICATION (USCS)	Pocket Pen. [tsf]	Lab Tests
10	5						<p>Surficial Soils</p> <p>(A) Topsoil (ML): Organic SILT and intermixed coarse sub-angular gravels</p> <p>Alluvial Sand Deposits (Qa):</p> <p>(B) Cemented Silty Sand (SM): light brown, dry, fine grained, friable, dense.</p> <p>(C) Gravelly Sand (SP): brown, gravel: up to 1.0", subrounded to subangular, loose to medium dense.</p> <p>Total depth: 6.0 feet No groundwater. No caving. Trench backfilled with spoils on 10/26/2021.</p>	> 4.5	
						Layers A and B extend to depth of 1.25 ft.		> 4.5	



LOG OF EXPLORATORY TEST PIT

Sheet 1 of 1

Project: Dara Industrial Center, Hesperia, CA
Project Number: 21030-00
Date Drilled: 10/26/21
Logged By: SW/JH

Test Pit No.: TP-08
Contractor: Jess Engineering
Backhoe: John Deere 410K
Hammer Wt. / Drop: ---
Ground Elev. [ft]: ---

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	SOIL DESCRIPTION and CLASSIFICATION (USCS)	Pocket Pen. [tsf]	Lab Tests
0 - 1.5							Surficial Soils (A) Topsoil (ML): Organic SILT and intermixed coarse sub-angular gravels Old Alluvial Fan Deposits (Qof): (B) Cemented Silty Sand (SM): light brown, dry, medium grained, very dense. (C) Silty Sand (SM): dark brown, medium grained, trace amount of clay, moist, medium dense. Total depth: 5.5 feet No groundwater. No caving. Trench backfilled with spoils on 10/26/2021.	> 4.5	
1.5 - 5.5			5	3.9	117.0			> 4.5	
5.5 - 10			5						
10 - 15			10						



Scale: H 5 [ft]
 V 5 [ft]

Pit Orientation:
 Natural Slope Angle:

B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear



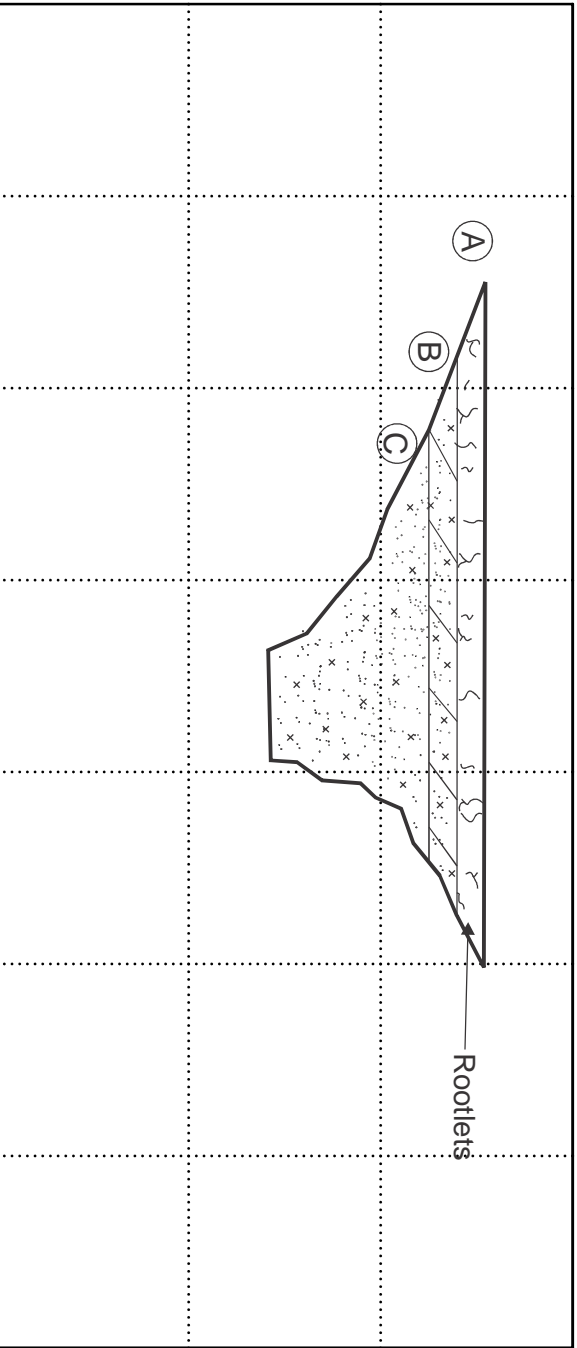
LOG OF EXPLORATORY TEST PIT

Sheet 1 of 1

Project: Dara Industrial Center, Hesperia, CA
Project Number: 21030-00
Date Drilled: 10/26/21
Logged By: SW/JH

TP-09
Test Pit No.:
Contractor: Jess Engineering
Backhoe: John Deere 410K
Hammer Wt. / Drop:
Ground Elev. [ft]: ---

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	SOIL DESCRIPTION and CLASSIFICATION (USCS)	Pocket Pen. [tsf]	Lab Tests
10	5						<p>Standard <input type="checkbox"/> Shelby Tube <input type="checkbox"/> Water Level <input type="checkbox"/></p> <p>Split Spoon <input type="checkbox"/> Bulk Sample <input type="checkbox"/> ATD <input type="checkbox"/></p> <p>California <input type="checkbox"/> Static Water Table <input type="checkbox"/></p>		
						Layers A and B extend to depth of 2.0 ft.	<p>Surficial Soils</p> <p>(A) Topsoil (ML): Organic SILT and intermixed coarse sub-angular gravels</p> <p>Alluvial Sand Deposits (Qa):</p> <p>(B) Cemented Silty Sand (SM): light brown, dry, medium grained, very dense.</p> <p>(C) Silty Sand (SM): dark brown, medium grained, trace amount of clay, moist, medium dense.</p> <p>Total depth: 5.5 feet No groundwater. No caving. Trench backfilled with spoils on 10/26/2021.</p>	> 4.5	
								> 4.5	



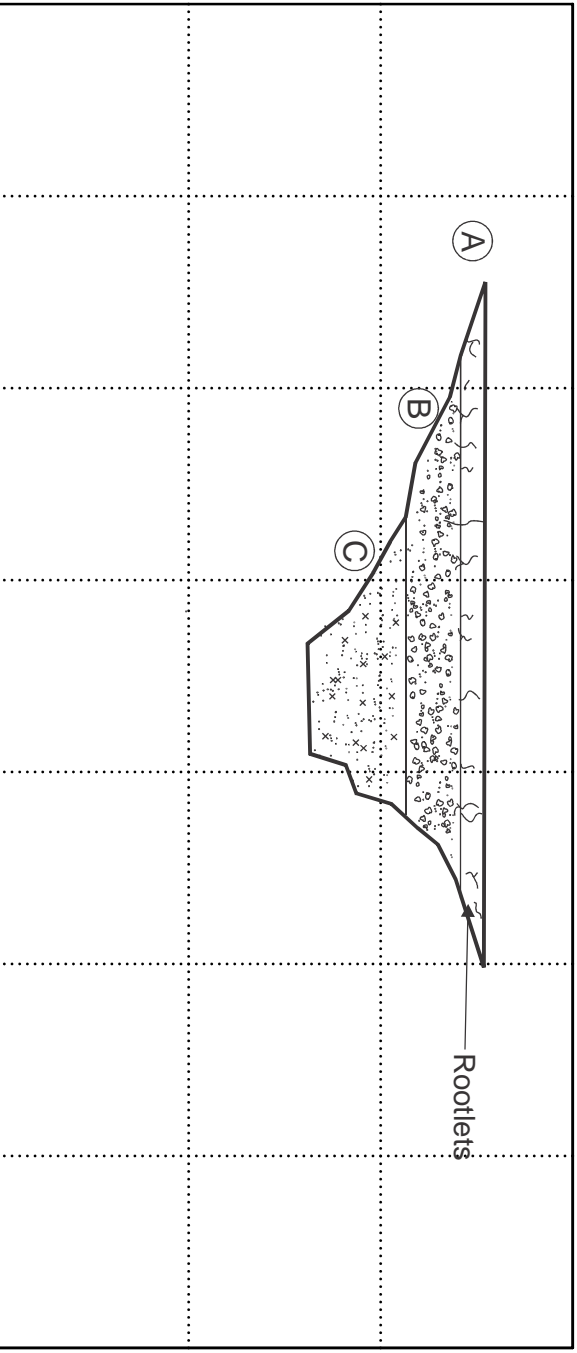
LOG OF EXPLORATORY TEST PIT

Sheet 1 of 1

Project: Dara Industrial Center, Hesperia, CA
Project Number: 21030-00
Date Drilled: 10/26/21
Logged By: SW/JH

Test Pit No.: TP-10
Contractor: Jess Engineering
Backhoe: John Deere 410K
Hammer Wt. / Drop: ---
Ground Elev. [ft]: ---

Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	SOIL DESCRIPTION and CLASSIFICATION (USCS)	Pocket Pen. [tsf]	Lab Tests
10	5						<p>Surficial Soils</p> <p>(A) Topsoil (ML): Organic SILT and intermixed coarse sub-angular gravels</p> <p>Alluvial Sand Deposits (qa):</p> <p>(B) Cemented Gravelly Sand (SP): brown, dry, medium grained, gravel: angular clasts up to 2.0", very dense.</p> <p>(C) Silty Sand (SM): dark brown, medium grained, trace amount of clay, moist, dense.</p> <p>Total depth: 4.5 feet No groundwater. No caving. Trench backfilled with spoils on 10/26/2021.</p>	> 4.5	
						Layers A and B extend to depth of 2.5 ft.			



APPENDIX C

PERCOLATION TESTING FIELD MEASUREMENTS

APPENDIX D

LABORATORY TEST PROCEDURES AND RESULTS

APPENDIX D

LABORATORY TEST PROCEDURES

VISUAL CLASSIFICATION OF SOILS

As a part of the routine laboratory soil testing, the soil samples are visually classified in accordance with the Unified Soil Classification System by experienced laboratory technicians. If necessary, in order to verify the visual classification, selected samples are classified utilizing the results of Standard Classification tests performed in accordance with ASTM D2487-00.

MOISTURE CONTENT AND DRY DENSITY DETERMINATION

Moisture content and dry density determinations were performed on relatively undisturbed samples obtained during our field exploration. The field moisture content is obtained by methods described in ASTM D2216-05. The in-situ dry unit weight was computed using the net weight and volume of the relatively undisturbed samples. The results of these tests are presented on the borings logs in Appendix B.

DIRECT SHEAR TESTS

Direct shear tests were performed in general accordance with ASTM D3080-98 on selected remolded and relatively undisturbed samples that were pre-soaked for a minimum of 24 hours. The samples were then tested under various normal loads with a different specimen being used for each normal load. The samples were sheared in a motor driven, strain-controlled direct shear testing apparatus at a strain rate of 0.05 inches per minute. The results of this test are presented in the Laboratory Summary.

GRAIN SIZE DISTRIBUTION

A representative sample was dried, weighed, and soaked in water until individual soil particles were separated and then washed on the No. 200 sieve. That portion of the material retained on the No. 200 sieve was oven-dried and then run through a standard set of sieves in accordance with ASTM D422-63. The grain size distribution curves are attached to the Laboratory Summary.

EXPANSION INDEX

The expansion potential of selected materials was evaluated by the Expansion Index Test, U.B.C. Standard No. 18-2. The specimen was molded under a given compactive energy and moisture content to achieve approximately 50 percent saturation. The prepared 1-inch thick by 4-inch diameter specimen was then loaded with a 144 psf surcharge and inundated with water until volumetric equilibrium is reached. The result of this test is presented in the Laboratory Summary.

SOLUBLE SULFATES

Soluble sulfate tests determined in general accordance with California Test Method No. 417 were also performed on representative samples collected during the field investigation. Soils with a sulfate concentration greater than 0.07% may be corrosive to metals; concentrations greater than 0.10% are considered potentially harmful to concrete and would require following the current ACI or CBC for "moderate" or more severe sulfate exposure requirements. The results of this test are presented in the Laboratory Summary.

CONSOLIDATION TESTS

Consolidation tests were performed in general accordance with ASTM D2435-96 on selected, relatively undisturbed, ring samples recovered from the exploratory excavations. Samples are placed in a consolidometer where increasing load increments are applied in geometric progression. The soil specimen is placed between porous stones that allow water to infiltrate and flow on the soil sample. During the loading stages prior to the addition of water, the soil sample is sealed in order to prevent evaporation of soil water. The load increment where water was added is indicated on the consolidation pressure curves. The percent consolidation for each load cycle is recorded as the ratio of the amount of vertical compression to the original 1-inch height. The time-rate of consolidation was also performed on each soil specimen tested. The results of this test are presented graphically as an attachment in this Appendix.

R-VALUE

The suitability of selected soil samples for support of flexible pavement was evaluated by conducting stabilometer resistance (R-Value) testing. R-value testing was performed in accordance with California Standard Test Method No. 301. The results of this test are presented in the Laboratory Summary.

PROJECT:		HESPERIA		NO.:		21030-00		TECHNICIAN :		RB		DATE :		02-Nov-21	
Hole No.		B3						B4							
Sample No.															
Sample Depth:		5'		10'		15'		20'		25'		5'		10'	
Visual Soil Classification		Top		BROWN SILTY SAND (SM)		LT. BROWN SILTY SAND W/ GRAVEL (SP/SM)		REDDISH BROWN CLAYEY SAND (SC)		BROWN SILTY SAND W/ LITTLE GRAVEL (SM)		DK. BROWN SILTY FINE SAND (SM)		LT. BROWN GRAVELLY SAND (SP)	
		Bottom		DK. BROWN SILTY SAND (SM)		SAME		BROWN SILTY FINE SAND W/ GRAVEL AND 1 ROCK (SM)		DK. BROWN SILTY FINE SAND (SM)					
Pocket Penetrometer Reading, (tsf)		>4.5		-		>4.5		>4.5		>4.5		-		-	
Weight of Moist Soil and Rings, (gms.)		957.30		1006.50		1062.80		1034.20		1049.00		801.20		913.20	
No. of Rings		5		5		5		5		5		5		4	
Dish No.		A23		B11		B19		B1		A11		B14		A3	
Weight of Moist Soil and Dish, (gms.)		157.57		141.38		168.54		122.02		149.80		145.00		144.75	
Weight of Dry Soil and Dish, (gms.)		153.44		139.16		152.19		118.82		142.96		142.92		139.75	
Weight of Dish, (gms.)		25.55		25.13		25.51		25.54		25.76		25.48		25.37	
Weight of Dry Soil, (gms.)		127.89		114.03		126.68		93.28		117.20		117.44		114.38	
Wet Density, (pcf)		121.8		130.1		139.5		134.7		137.2		95.8		114.5	
Moisture Content, (%)		3.2		1.9		12.9		3.4		5.8		1.8		4.4	
Dry Density, (pcf)		118.0		127.6		123.5		130.2		129.6		94.1		109.7	
Degree of Saturation, (%) (G =2.68)		20.8		16.8		97.7		32.3		53.8		6.1		22.3	
Void Ratio		0.417		0.311		0.354		0.284		0.290		0.777		0.525	
Porosity		0.294		0.237		0.261		0.221		0.225		0.437		0.344	
Remarks :															



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MOISTURE - DENSITY TEST

PROJECT:		HESPERIA			NO.:		21030-00		TECHNICIAN :		RB		DATE :		03-Nov-21							
Hole No.		B5							B6													
Sample No.																						
Sample Depth:		5'			10'		15'		20'		5'		10'		15'		20'		25'			
Visual Soil Classification		Top			REDDISH BROWN SILTY SAND (SM)		REDDISH BROWN SILTY SAND W/ GRAVEL (SP/SM)		SAME		REDDISH BROWN SILTY SAND (SM)		SAME		DK. BROWN SILTY SAND W/ GRAVEL (SP/SM)		SAME		DK. BROWN SILTY SAND W/ TRACE OF CLAY (SM)		DK. BROWN SILTY SAND W/ GRAVEL (SP/SM)	
		Bottom			REDDISH BROWN SILTY SAND (SM)		REDDISH BROWN SILTY SAND W/ GRAVEL (SP/SM)		SAME		REDDISH BROWN SILTY SAND (SM)		SAME		DK. BROWN SILTY SAND W/ GRAVEL (SP/SM)		DK. BROWN SILTY SAND W/ TRACE OF CLAY (SM)		DK. BROWN SILTY SAND W/ GRAVEL (SP/SM)			
Pocket Penetrometer Reading, (tsf)		>4.5			>4.5		>4.5		-		3.50		-		-		>4.5		-			
Weight of Moist Soil and Rings, (gms.)		1010.40			957.90		1056.10		958.70		926.30		908.90		893.40		783.99		973.20			
No. of Rings		5			5		5		5		5		5		5		4		5			
Dish No.		B8			B16		A24		A10		A4		A22		A13		A19		A21			
Weight of Moist Soil and Dish, (gms.)		133.31			158.34		146.45		141.76		138.73		153.29		147.60		174.21		154.03			
Weight of Dry Soil and Dish, (gms.)		126.81			153.20		141.37		135.27		135.56		150.15		144.40		162.38		150.87			
Weight of Dish, (gms.)		24.26			24.14		25.45		25.46		25.33		25.61		25.63		25.23		25.40			
Weight of Dry Soil, (gms.)		102.55			129.06		115.92		109.81		110.23		124.54		118.77		137.15		125.47			
Wet Density, (pcf)		130.7			121.9		138.3		122.1		116.7		113.8		111.2		125.6		124.5			
Moisture Content, (%)		6.3			4.0		4.4		5.9		2.9		2.5		2.7		8.6		2.5			
Dry Density, (pcf)		122.9			117.3		132.5		115.3		113.4		111.0		108.3		115.7		121.4			
Degree of Saturation, (%) (G =2.68)		47.1			25.0		44.8		35.1		16.2		13.3		13.3		51.8		17.9			
Void Ratio		0.361			0.426		0.262		0.451		0.475		0.507		0.545		0.446		0.377			
Porosity		0.265			0.299		0.208		0.311		0.322		0.336		0.353		0.308		0.274			
Remarks :																						



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MOISTURE - DENSITY TEST


PROJECT:		HESPERIA		NO.:		21030-00		TECHNICIAN :		RB		DATE :		03-Nov-21	
Hole No.		B7				B8									
Sample No.															
Sample Depth:		5'		10'		15'		5'		10'		15'		20'	
Visual Soil Classification		Top		REDDISH BROWN SILTY SAND (SM)		REDDISH BROWN SILTY SAND W/ LITTLE GRAVEL (SP/SM)		SAME		REDDISH BROWN SILTY SAND (SM)		SAME		SAME	
		Bottom		REDDISH BROWN SILTY SAND (SM)		REDDISH BROWN SILTY SAND W/ LITTLE GRAVEL (SP/SM)		SAME		REDDISH BROWN SILTY SAND (SM)		DK. BROWN SILTY FINE SAND (SM)		DK. BROWN CLAYEY SAND W/ LITTLE GRAVEL (SC)	
Pocket Penetrometer Reading, (tsf)		>4.5		-		-		>4.5		>4.5		4.50		4.25	
Weight of Moist Soil and Rings, (gms.)		944.00		701.78		980.70		915.50		979.40		951.20		991.50	
No. of Rings		5		4		5		5		5		5		5	
Dish No.		A9		A6		A17		B13		A15		B20		A7	
Weight of Moist Soil and Dish, (gms.)		130.26		151.95		160.71		125.88		158.56		163.96		141.89	
Weight of Dry Soil and Dish, (gms.)		126.24		148.71		156.42		123.08		152.19		155.58		132.10	
Weight of Dish, (gms.)		25.10		25.17		25.50		25.67		25.61		25.62		25.45	
Weight of Dry Soil, (gms.)		101.14		123.54		130.92		97.41		126.58		129.96		106.65	
Wet Density, (pcf)		119.6		108.5		125.7		114.9		125.5		120.8		127.6	
Moisture Content, (%)		4.0		2.6		3.3		2.9		5.0		6.4		9.2	
Dry Density, (pcf)		115.0		105.7		121.8		111.7		119.5		113.5		116.8	
Degree of Saturation, (%) (G =2.68)		23.5		12.1		23.5		15.5		33.8		36.5		57.0	
Void Ratio		0.454		0.582		0.373		0.498		0.399		0.473		0.431	
Porosity		0.312		0.368		0.272		0.332		0.285		0.321		0.301	
Remarks :															



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MOISTURE - DENSITY TEST

PROJECT:		HESPERIA		NO.:		21030-00		TECHNICIAN :		RB		DATE :		03-Nov-21	
Hole No.		B9						B1		B4		B8			
Sample No.															
Sample Depth:		5'		10'		15'		20'		25'		10'-15'		20'-25'	
Visual Soil Classification		Top		DK. BROWN SILTY SAND W/ LITTLE GRAVEL (SM)		SAME		BROWN SILTY FINE SAND (SM)		OLIVE BROWN SILTY SAND W/ LITTLE GRAVEL (SM)		SAME		REDDISH BROWN SILTY SAND W/ GRAVEL (SP/SM)	
		Bottom		DK. BROWN SILTY SAND W/ LITTLE GRAVEL (SM)		BR. CLAYEY SAND (SC)		OLIVE BROWN SILTY SAND W/ LITTLE GRAVEL (SM)		SAME		REDDISH BROWN SILTY SAND W/ GRAVEL (SP/SM)		SAME	
Pocket Penetrometer Reading, (tsf)		>4.5		>4.5		>4.5		>4.5		>4.5					
Weight of Moist Soil and Rings, (gms.)		975.50		987.90		1001.10		976.70		989.80					
No. of Rings		5		5		5		5		5					
Dish No.		B5		B21		A14		B2		B12					
Weight of Moist Soil and Dish, (gms.)		148.15		121.48		142.28		157.79		144.01		306.92		326.45	
Weight of Dry Soil and Dish, (gms.)		144.28		118.04		135.25		151.73		139.99		296.72		314.33	
Weight of Dish, (gms.)		25.18		24.08		23.93		24.16		24.30		0.00		0.00	
Weight of Dry Soil, (gms.)		119.10		93.96		111.32		127.57		115.69					
Wet Density, (pcf)		124.9		126.9		129.2		125.1		127.3					
Moisture Content, (%)		3.2		3.7		6.3		4.8		3.5		3.4		3.9	
Dry Density, (pcf)		120.9		122.5		121.5		119.4		123.0					
Degree of Saturation, (%) (G =2.68)		22.8		26.8		44.9		31.8		25.9					
Void Ratio		0.383		0.366		0.377		0.401		0.360					
Porosity		0.277		0.268		0.274		0.286		0.265					
Remarks :															

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PROJECT:		HESPERIA		NO.:		21030-00		TECHNICIAN :		RB		DATE :		02-Nov-21	
Hole No.		TP1	TP2	TP4	TP5	TP6	TP8								
Sample No.															
Sample Depth:		4'	4'	4'	4'	5'	5.5'								
Visual Soil Classification	Top	REDDISH BROWN SILTY SAND (SM)	SAME	SAME	SAME	SAME	SAME								
	Bottom														
Pocket Penetrometer Reading, (tsf)		>4.5	>4.5	>4.5	>4.5	2.50	4.50								
Weight of Moist Soil and Rings, (gms.)		984.70	947.40	979.50	928.10	898.20	955.80								
No. of Rings		5	5	5	5	5	5								
Dish No.		B6	B9	A20	A12	A1	A2								
Weight of Moist Soil and Dish, (gms.)		128.59	157.20	92.85	132.29	134.68	101.15								
Weight of Dry Soil and Dish, (gms.)		124.73	151.38	90.45	129.21	130.46	98.26								
Weight of Dish, (gms.)		25.44	24.15	25.49	25.48	25.54	24.94								
Weight of Dry Soil, (gms.)		99.29	127.23	64.96	103.73	104.92	73.32								
Wet Density, (pcf)		126.4	120.2	125.5	117.0	112.0	121.6								
Moisture Content, (%)		3.9	4.6	3.7	3.0	4.0	3.9								
Dry Density, (pcf)		121.7	114.9	121.1	113.6	107.6	117.0								
Degree of Saturation, (%) (G =2.68)		27.8	26.9	26.0	16.8	19.5	24.6								
Void Ratio		0.374	0.455	0.381	0.472	0.554	0.430								
Porosity		0.272	0.313	0.276	0.321	0.356	0.300								
Remarks :															



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MOISTURE - DENSITY TEST

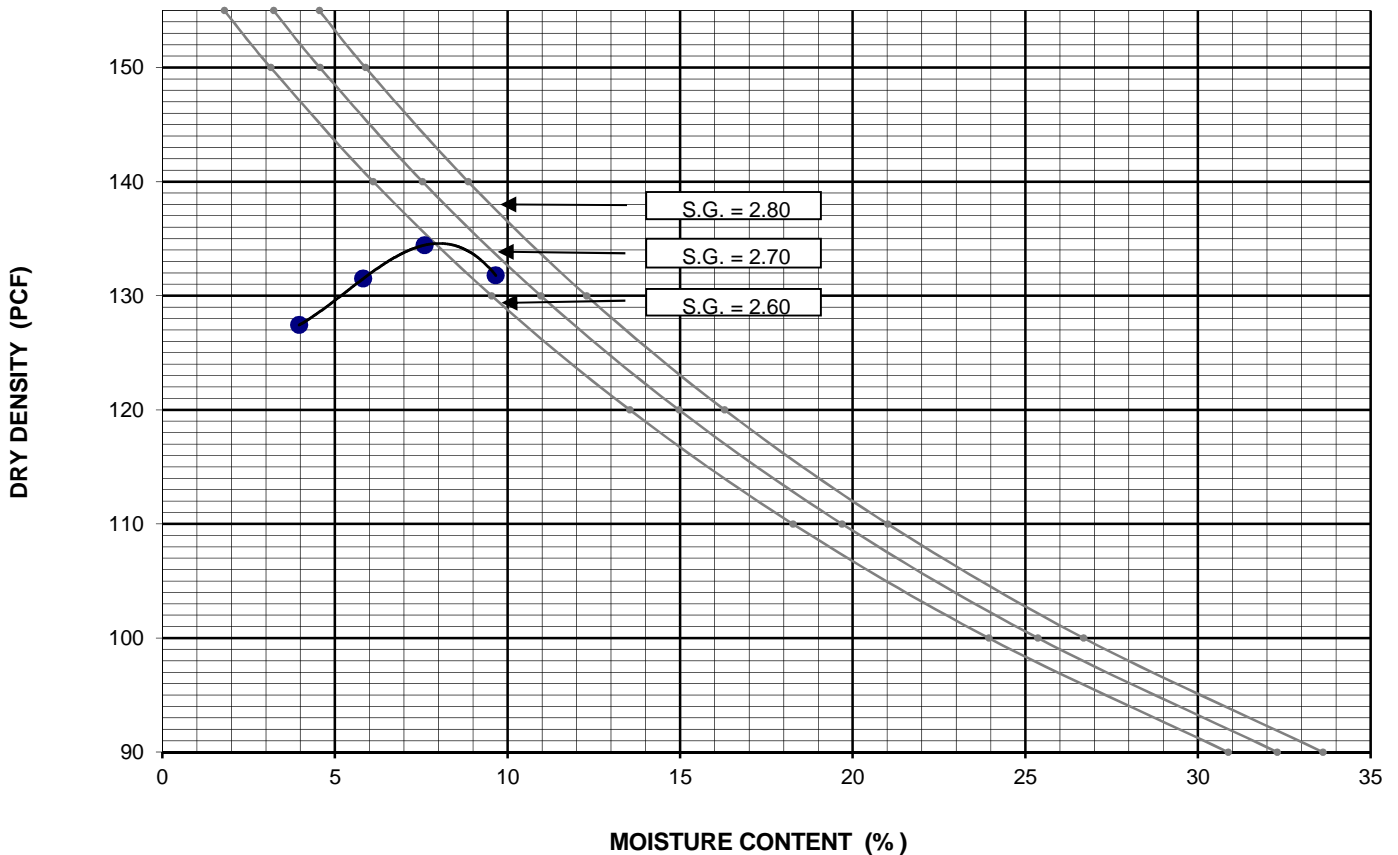
PROJECT:		HESPERIA		NO.:		21030-00		TECHNICIAN :		RB		DATE :		02-Nov-21			
Hole No.		B1				B2											
Sample No.																	
Sample Depth:		5'		10'		15'		5'		10'		15'		20'			
Visual Soil Classification		Top		REDDISH BROWN SILTY SAND (SM)		SAME		SAME		DK. BROWN SILTY SAND W/ TRACE OF CLAY (SM)		REDDISH BROWN CALYEY SAND (SC)		REDDISH BROWN SILTY SAND (SM)		SAME	
		Bottom															
Pocket Penetrometer Reading, (tsf)		>4.5		>4.5		>4.5		>4.5		>4.5		>4.5		>4.5			
Weight of Moist Soil and Rings, (gms.)		955.70		946.10		946.50		972.80		1050.60		937.30		941.50			
No. of Rings		5		5		5		5		5		5		5			
Dish No.		A14		B2		A5		B12		B22		A8		A5			
Weight of Moist Soil and Dish, (gms.)		131.78		149.30		162.46		167.52		178.96		136.36		127.66			
Weight of Dry Soil and Dish, (gms.)		127.19		145.76		155.85		159.59		164.15		130.62		121.35			
Weight of Dish, (gms.)		23.92		24.16		25.57		24.29		24.08		25.48		25.57			
Weight of Dry Soil, (gms.)		103.27		121.60		130.28		135.30		140.07		105.14		95.78			
Wet Density, (pcf)		121.6		120.0		120.0		124.4		137.4		118.5		119.2			
Moisture Content, (%)		4.4		2.9		5.1		5.9		10.6		5.5		6.6			
Dry Density, (pcf)		116.4		116.6		114.2		117.5		124.3		112.4		111.8			
Degree of Saturation, (%) (G =2.68)		27.3		18.0		29.3		37.1		82.0		30.0		35.6			
Void Ratio		0.437		0.435		0.464		0.423		0.346		0.488		0.495			
Porosity		0.304		0.303		0.317		0.297		0.257		0.328		0.331			
Remarks :																	



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MOISTURE - DENSITY TEST

JOB NAME :	HESPERIA			JOB NUMBER:	21030-00	
SAMPLE NUMBER :				TESTED BY :	RB	
SAMPLE LOCATION :	B1 @ 10' - 15'			DATE :	29-Nov-21	
SAMPLE DESCRIPTIONS / CLASSIFICATION :	REDDISH BROWN SILTY SAND W/ GRAVEL (SM)					
TEST STANDARD	ASTM D-698 - 00			ASTM D 1557-02		
METHOD	A	B	C	A	B	C
TRIAL NUMBER	1	2	3	4	5	
WATER ADDED (ML)	0	50	100	150		
WT. SOIL + MOLD (GMS)	3970	4071	4154	4152		
WT.OF MOLD (GMS)	1967	1967	1967	1967		
WT. OF WET SOIL (GMS)	2003	2104	2187	2185		
WET DENSITY (PCF)	132.5	139.2	144.6	144.5		
CAN NUMBER						
WET SOIL + TARE (GMS)	304.60	315.18	325.06	331.95		
DRY SOIL + TARE (GMS)	292.99	297.84	302.11	302.71		
TARE (GMS)	0.00	0.00	0.00	0.00		
DRY SOIL (GMS)	292.99	297.84	302.11	302.71		
WATER (GMS)	11.61	17.34	22.95	29.24		
MOISTURE CONTENT (%)	4.0	5.8	7.6	9.7		
DRY DENSITY (PCF)	127.4	131.5	134.4	131.8		
						DIAMETER OF MOLD: 4 In.
						VOLUME OF MOLD: 0.0333 Cu.Ft.
						SCALPED ON SIEVE SIZE/NO.: #4
						PERCENT RETAINED,(%) : 8.8
						MAXIMUM DRY DENSITY: 134.5 Pcf.
						OPT. MOIST. CONTENT : 8.0 %
						FOR OVERSIZE CORRECTION (ASTM D4718):
						%,Finer Fraction = 91.2 % Moisture = 4.00
						%,Oversize Fraction = 8.8 Assumed Sp.Gr. 2.64
						Corrected MDD of Total Materials,(PCF) = 136.7
						Corrected OMC of Total Materials, (%) = 7.3
						REMARKS :



Project Name : **HESPERIA**

Project No. : **21030-00**

Boring / Sample No : **B8**

Depth : **10'** (ft.)

Tested By : **RB** Date: **16-Nov-21**

Sample Descriptions / Classification : **REDDISH BROWN SILTY SAND (SM)**

Applied Normal Load (ksf)	1.0		2.0		4.0	
Shear Stress,(Peak) (ksf)	0.756		1.380		2.712	
Shear Stress,(Ultimate) (ksf)	0.604		1.344		2.364	
Density and Saturation	Initial	Final	Initial	Final	Initial	Final
Wet Weight of Soil + Ring (gms)	186.80	200.29	188.79	202.01	189.29	201.52
Dry Weight of Soil + Ring (gms)		180.00		181.98		182.43
Weight of Water (gms)	-	46.54	-	47.28	-	45.81
Weight of Ring (gms)	-	43.99	-	45.77	-	45.2
Weight of Dry Soil (gms)	-	136.01	-	136.21	-	137.23
Moisture Content (%)	5.0	34.2	5.0	34.7	5.0	33.4
Wet Density (pcf)	119.2	130.5	119.4	130.4	120.3	130.5
Dry Density (pcf)	-	97.2	-	96.8	-	97.8
Specific Gravity, G_s (Assumed)	2.68					
Thickness of Specimen, (in.)	1.00					
Degree of Saturation, (%)	18.6	127.3	18.4	127.9	18.9	126.1
Void Ratio	-	0.720	-	0.727	-	0.710

Lateral Displacement, d_h 0.36 (in.)

Displacement Rate, d_r 0.05 (in./min.)

Elapsed Time of Test, t_e 7.20 (min.)

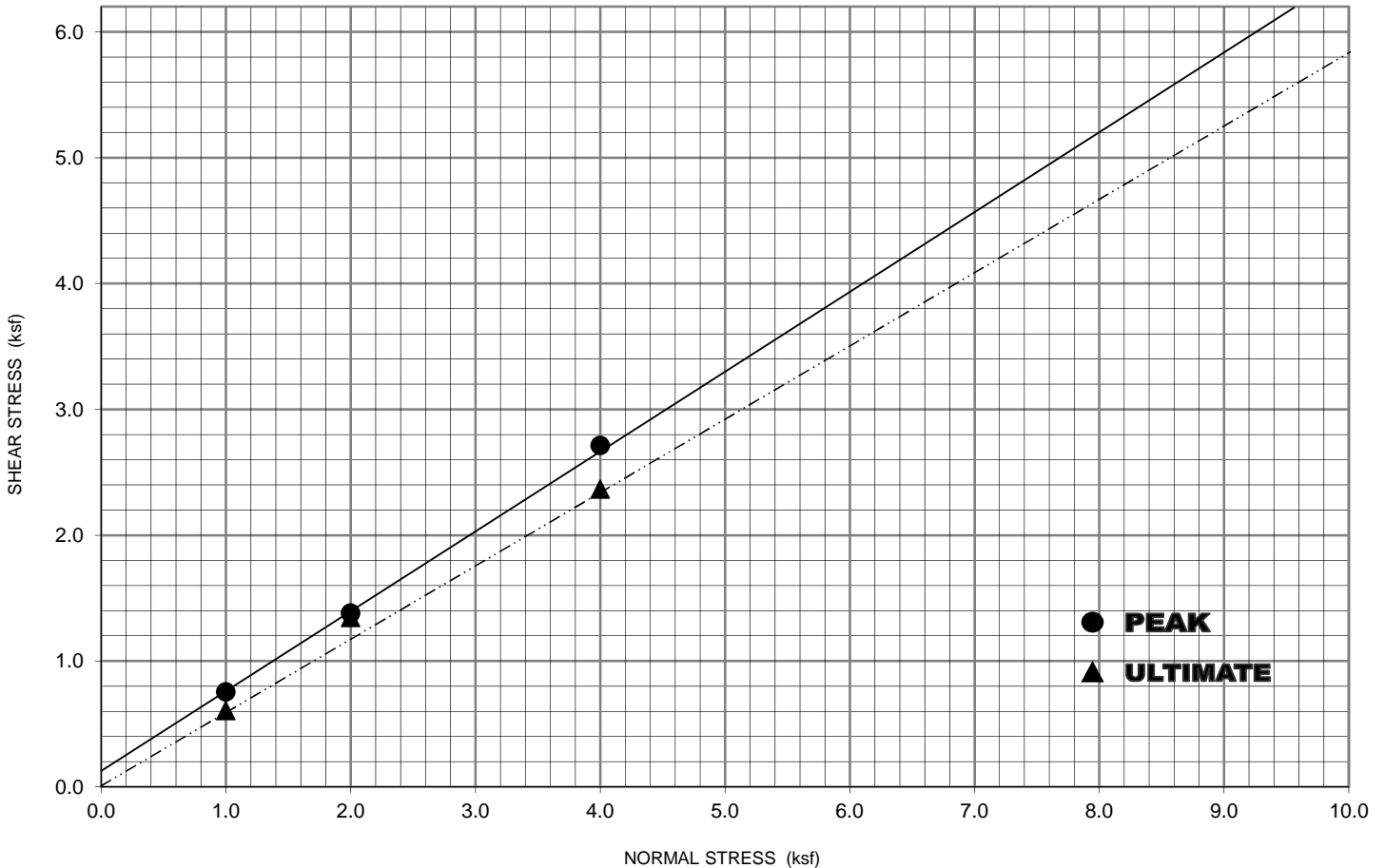
Specimen : Undisturbed : -

Remolded : X

Reconstituted : -

	PEAK	ULTIMATE
Cohesion, c (psf)	120	0
Friction Angle, ϕ	32	30

Remarks : _____



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DIRECT SHEAR TEST
 (ASTM D3080)

Project Name : **HESPERIA**

Project No. : **21030-00**

Boring / Sample No : **TP2**

Depth : **4'** (ft.)

Tested By : **RB** Date: **9-Nov-21**

Sample Descriptions / Classification : **REDDISH BROWN SILTY SAND (SM)**

Applied Normal Load (ksf)	1.0		2.0		4.0	
Shear Stress,(Peak) (ksf)	0.960		1.476		2.760	
Shear Stress,(Ultimate) (ksf)	0.888		1.260		2.508	
Density and Saturation	Initial	Final	Initial	Final	Initial	Final
Wet Weight of Soil + Ring (gms)	188.68	202.65	186.92	199.60	182.59	198.96
Dry Weight of Soil + Ring (gms)		182.38		180.48		176.43
Weight of Water (gms)	-	46.54	-	47.28	-	45.81
Weight of Ring (gms)	-	45.42	-	40.5	-	42.51
Weight of Dry Soil (gms)	-	136.96	-	139.98	-	133.92
Moisture Content (%)	4.6	34.0	4.6	33.8	4.6	34.2
Wet Density (pcf)	119.6	131.2	122.3	132.8	117.0	130.6
Dry Density (pcf)	-	98.0	-	99.3	-	97.3
Specific Gravity, G_s (Assumed)	2.68					
Thickness of Specimen, (in.)	1.00					
Degree of Saturation, (%)	17.4	128.7	18.0	132.2	17.2	127.5
Void Ratio	-	0.707	-	0.685	-	0.719

Lateral Displacement, d_h 0.36 (in.)

Displacement Rate, d_r 0.05 (in./min.)

Elapsed Time of Test, t_e 7.20 (min.)

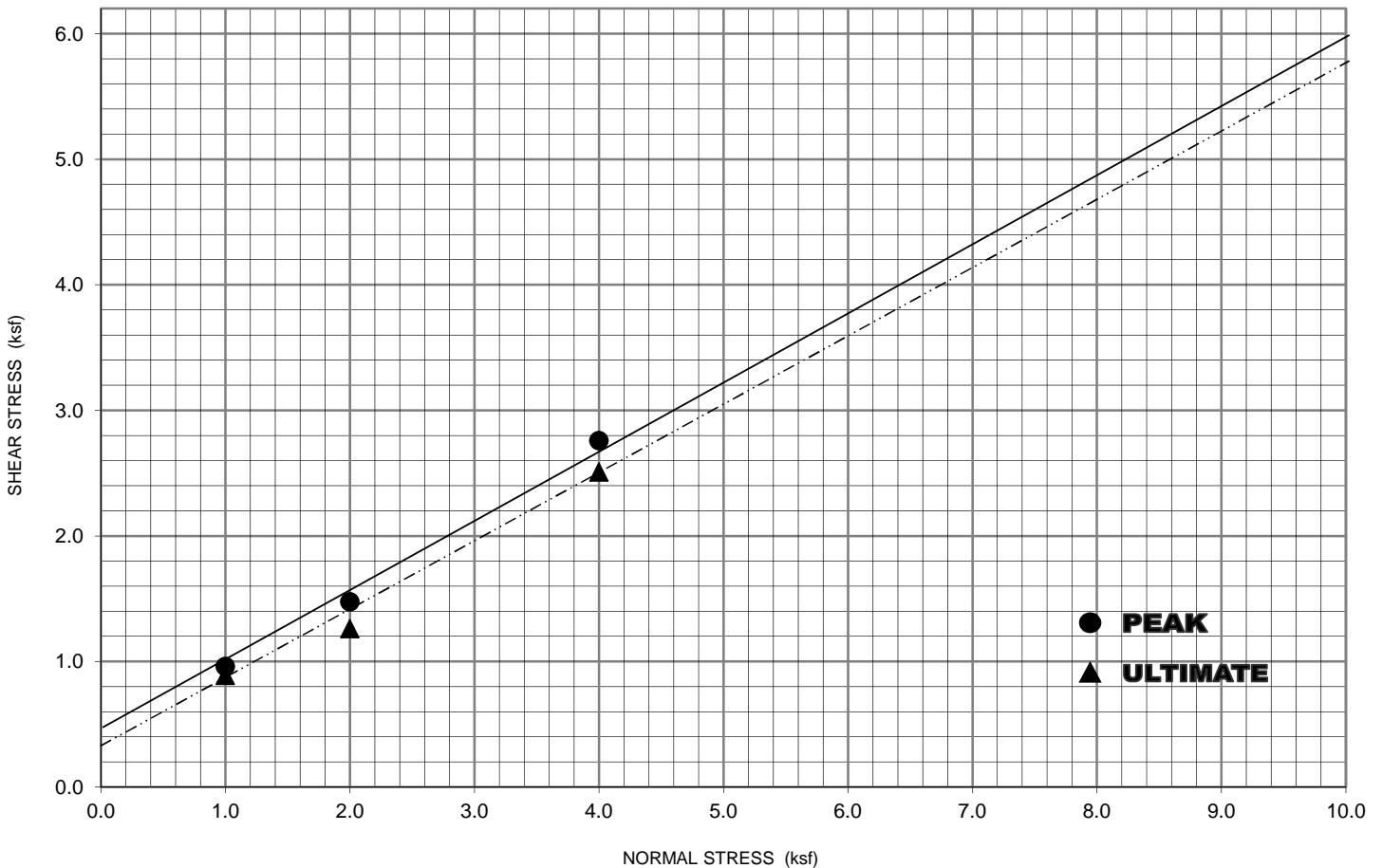
Specimen : Undisturbed : -

Remolded : X

Reconstituted : -

	PEAK	ULTIMATE
Cohesion, c (psf)	480	320
Friction Angle, ϕ	29	29

Remarks : _____



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DIRECT SHEAR TEST
 (ASTM D3080)

Project Name : **HESPERIA**

Project No. : **21030-00**

Boring / Sample No : **TP8**

Depth : **5.5'** (ft.)

Tested By : **RB** Date: **10-Nov-21**

Sample Descriptions / Classification : **REDDISH BROWN SILTY SAND (SM)**

Applied Normal Load (ksf)	1.0		2.0		4.0	
Shear Stress,(Peak) (ksf)	0.780		1.272		2.640	
Shear Stress,(Ultimate) (ksf)	0.708		1.272		2.568	
Density and Saturation	Initial	Final	Initial	Final	Initial	Final
Wet Weight of Soil + Ring (gms)	184.92	199.69	187.62	201.76	188.58	202.10
Dry Weight of Soil + Ring (gms)		179.57		182.27		183.12
Weight of Water (gms)	-	46.54	-	47.28	-	45.81
Weight of Ring (gms)	-	42.45	-	44.98	-	43.23
Weight of Dry Soil (gms)	-	137.12	-	137.29	-	139.89
Moisture Content (%)	3.9	33.9	3.9	34.4	3.9	32.7
Wet Density (pcf)	119.0	131.2	119.1	130.9	121.4	132.6
Dry Density (pcf)	-	98.0	-	97.3	-	99.9
Specific Gravity, G _s (Assumed)	2.68					
Thickness of Specimen, (in.)	1.00					
Degree of Saturation, (%)	14.8	128.7	14.6	128.5	15.5	130.2
Void Ratio	-	0.707	-	0.718	-	0.674

Lateral Displacement, d_h 0.36 (in.)

Displacement Rate, d_r 0.05 (in./min.)

Elapsed Time of Test, t_e 7.20 (min.)

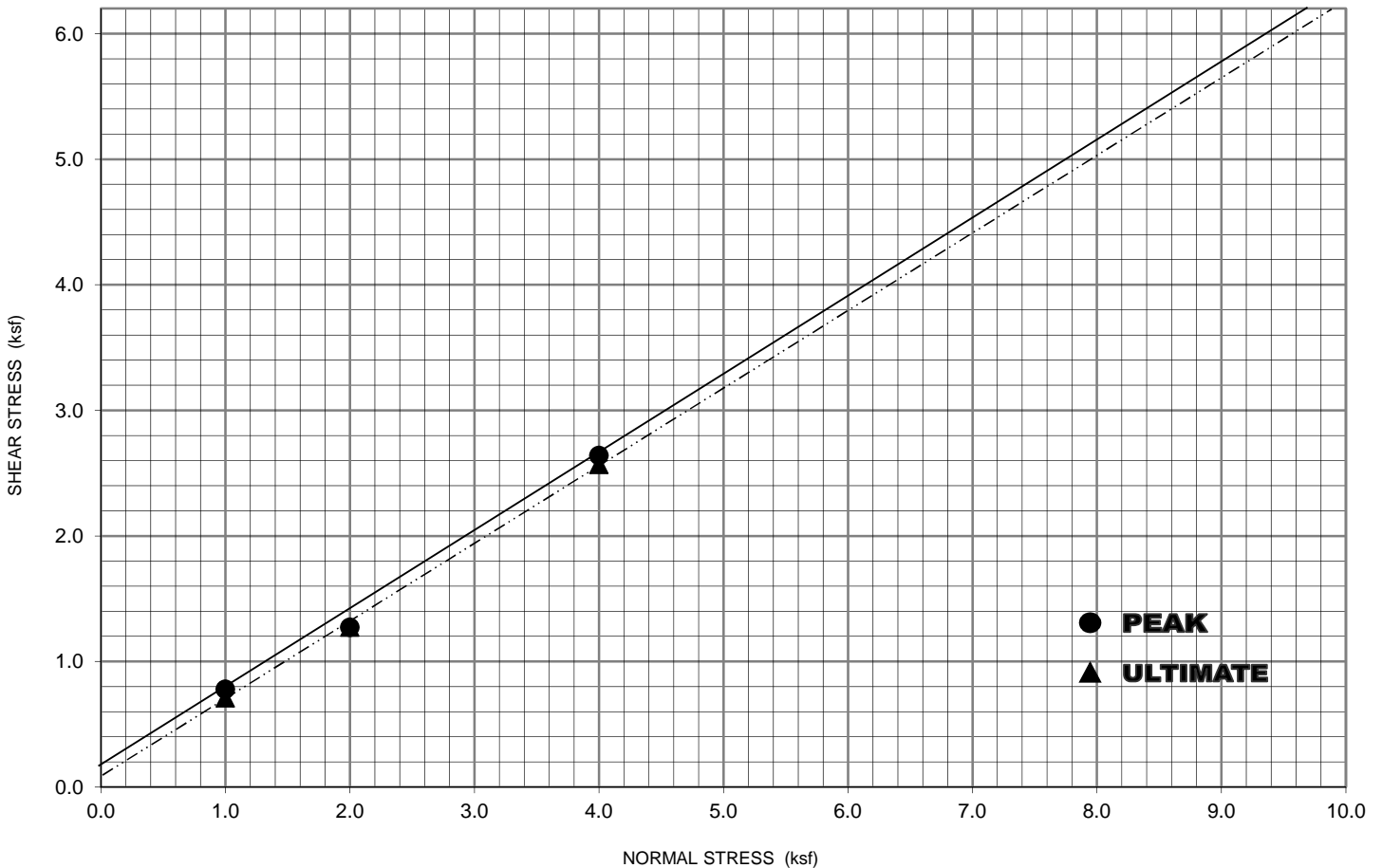
Specimen : Undisturbed : -

Remolded : X

Reconstituted : -

	PEAK	ULTIMATE
Cohesion, c (psf)	170	100
Friction Angle, φ	32	32

Remarks : _____



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DIRECT SHEAR TEST
 (ASTM D3080)

Project Name : **HESPERIA**

Project No. : **21030-00**

Boring / Sample No : **B5**

Depth : **5'** (ft.)

Tested By : **RB**

Date: **15-Nov-21**

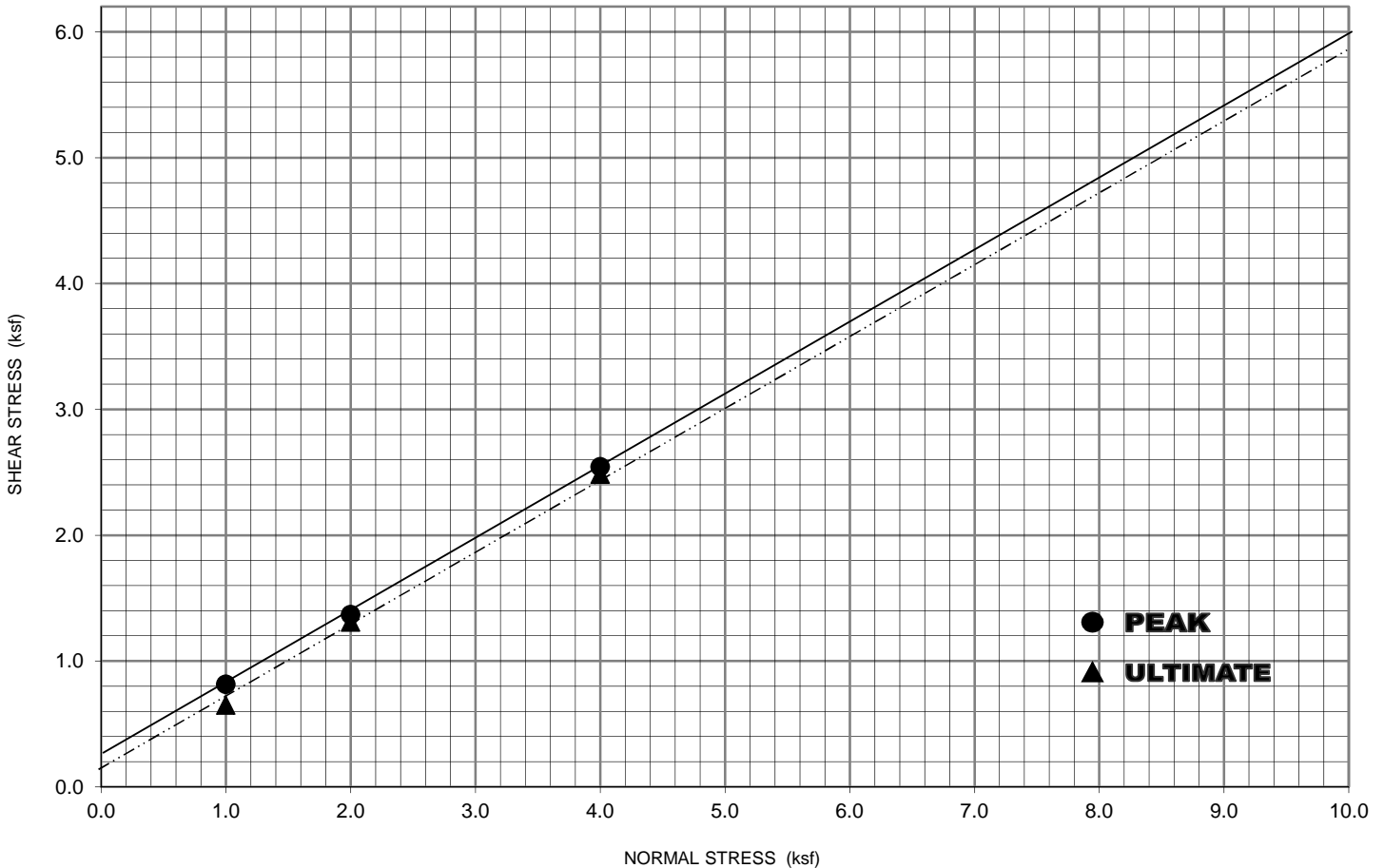
Sample Descriptions / Classification : **REDDISH BROWN SILTY SAND (SM)**

Applied Normal Load (ksf)	1.0		2.0		4.0	
Shear Stress,(Peak) (ksf)	0.816		1.368		2.544	
Shear Stress,(Ultimate) (ksf)	0.649		1.308		2.484	
Density and Saturation	Initial	Final	Initial	Final	Initial	Final
Wet Weight of Soil + Ring (gms)	194.13	203.02	196.86	205.67	203.74	211.7
Dry Weight of Soil + Ring (gms)		185.15		187.62		194.41
Weight of Water (gms)	-	46.54	-	47.28	-	45.81
Weight of Ring (gms)	-	42.68	-	40.97	-	46.39
Weight of Dry Soil (gms)	-	142.47	-	146.65	-	148.02
Moisture Content (%)	6.3	32.7	6.3	32.2	6.3	30.9
Wet Density (pcf)	126.5	133.8	130.2	137.5	131.4	138.0
Dry Density (pcf)	-	100.9	-	104.0	-	105.4
Specific Gravity, G _s (Assumed)	2.68					
Thickness of Specimen, (in.)	1.00					
Degree of Saturation, (%)	25.7	133.1	27.7	141.9	28.8	141.3
Void Ratio	-	0.658	-	0.609	-	0.587

Lateral Displacement, d_h 0.36 (in.)
 Displacement Rate, d_r 0.05 (in./min.)
 Elapsed Time of Test, t_e 7.20 (min.)
 Specimen : Undisturbed : -
 Remolded : X
 Reconstituted : -

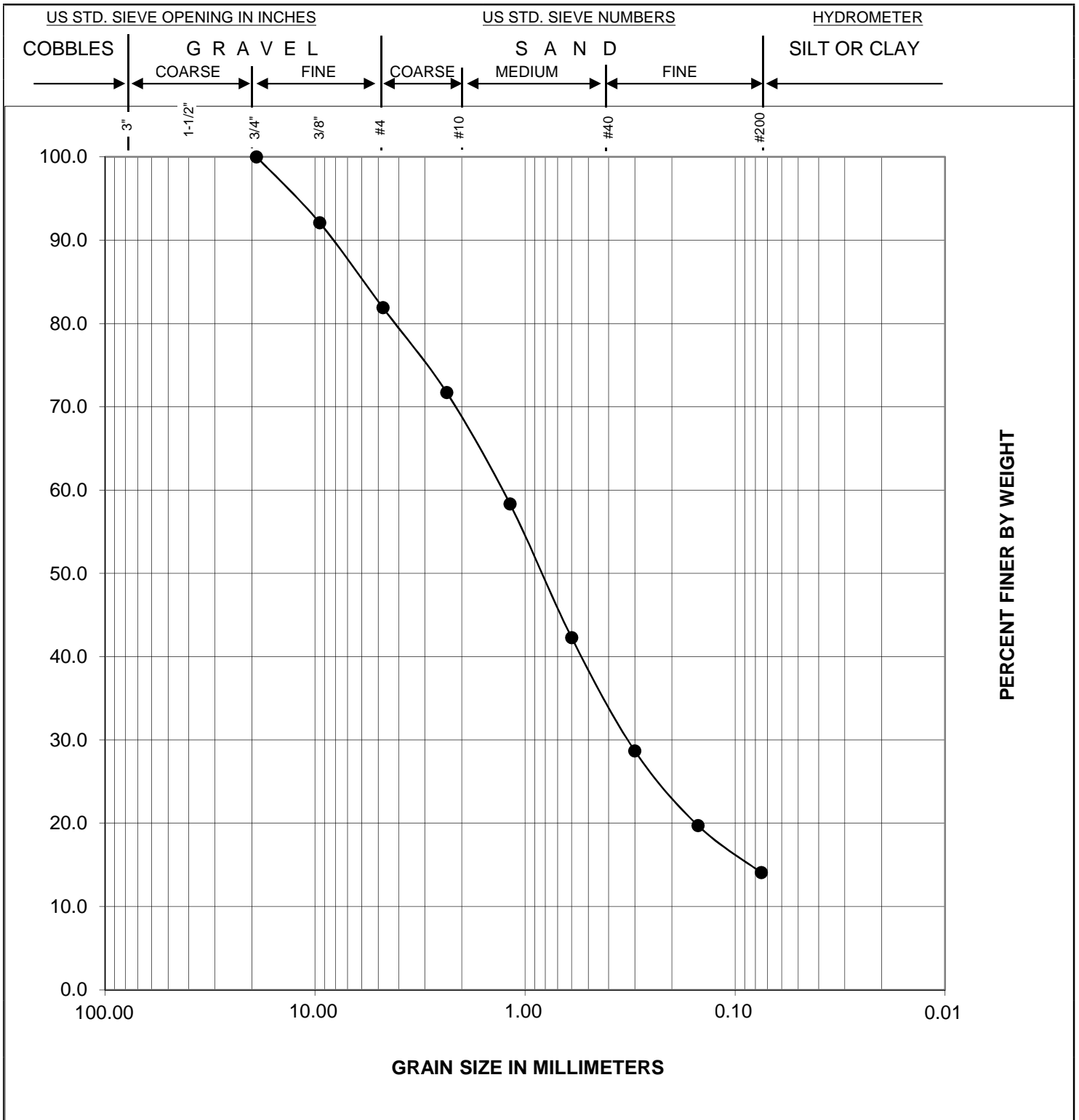
	PEAK	ULTIMATE
Cohesion, c (psf)	280	150
Friction Angle, φ	30	30

Remarks : _____



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DIRECT SHEAR TEST
 (ASTM D3080)



PROJECT NUMBER : 21030-00

PROJECT NAME : HESPERIA

SAMPLE NO.	DEPTH	SYMBOL	CLASSIFICATION	NAT.W%	LL	PL	PI
B4	20' - 25'	SM	BROWN SILTY SAND		-	-	-



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**GRAIN - SIZE
 CURVE**

Project Number : 21030-00 Tested by RB Date 10-Nov-21
 Project Name : HESPERIA Sampled by SW Date 29-Oct-21
 Sample No. B4 Depth/Elev. 20' - 25' Location: _____
 Sample Descriptions / Classification : BROWN SILTY SAND (SM)

HYDROMETER ANALYSIS (ASTM STD HYDROMETER 152H)

Temp.(°C)	Hydro.Rdg.Cor.	K Value	Hygroscopic Moisture		Wt.of Air Dry Sample, (g)	-
			Wet Weight of Soil,(g)	301.26	Wt.of Oven Dry Sample, (g)	-
			Dry Weight of Soil,(g)	291.35	Material Passing Sieve No.	10
			Moisture Content,(%)	3.40		

Specific Gravity (γ) = 2.7 (Assumed) Correction Factor (α) = 0.99

Date	Time	Elapsed	Temp.	R'	C	R	% P	% P	L	k	L/T	Diameter
								Corrected				
		0.25										
		0.50										
		1.00										
		2.00										
		4.00										
		5.00										
		15.0										
		30.0										
		60.0										
		240.0										
		1440.0										

N/A

SIEVE ANALYSIS

Sieve		Weight Retained		Cummulative		Specification % Passing
Size	Opening (mm)	Individual (g)	Cummulative (g)	% Retained	% Passing	
3"	75.0					
2"	50.0					
1-1/2"	38.1					
1"	25.0					
3/4"	19.0		0	0.0	100.0	
1/2"	12.5					
3/8"	9.5		85.03	7.9	92.1	
#4	4.75		194.52	18.1	81.9	
#8	2.36		304.05	28.3	71.7	
#10	2.00					
#16	1.18		447.60	41.7	58.3	
#30	0.600		620.06	57.7	42.3	
#50	0.300		766.3	71.3	28.7	
#100	0.150		862.7	80.3	19.7	
#200	0.075		923.20	85.9	14.1	

Total Wt. of Dry Soil,(g) 1074.40

	Moist	Dry
(+)#10 Sieve,(g)	-	-
(-)#10 Sieve,(g)	-	-

Sand & Gravel Particle Descriptions

Shape	Rounded	X
	Angular	
Hardness	Hard & Durable	
	Soft	
	Weathered & Friable	X

D₁₀ _____ D₆₀ _____
 D₃₀ _____
 Coefficient of Uniformity, C_u _____ #DIV/0!
 Coefficient of Curvature, C_c _____ #DIV/0!

Remarks : _____

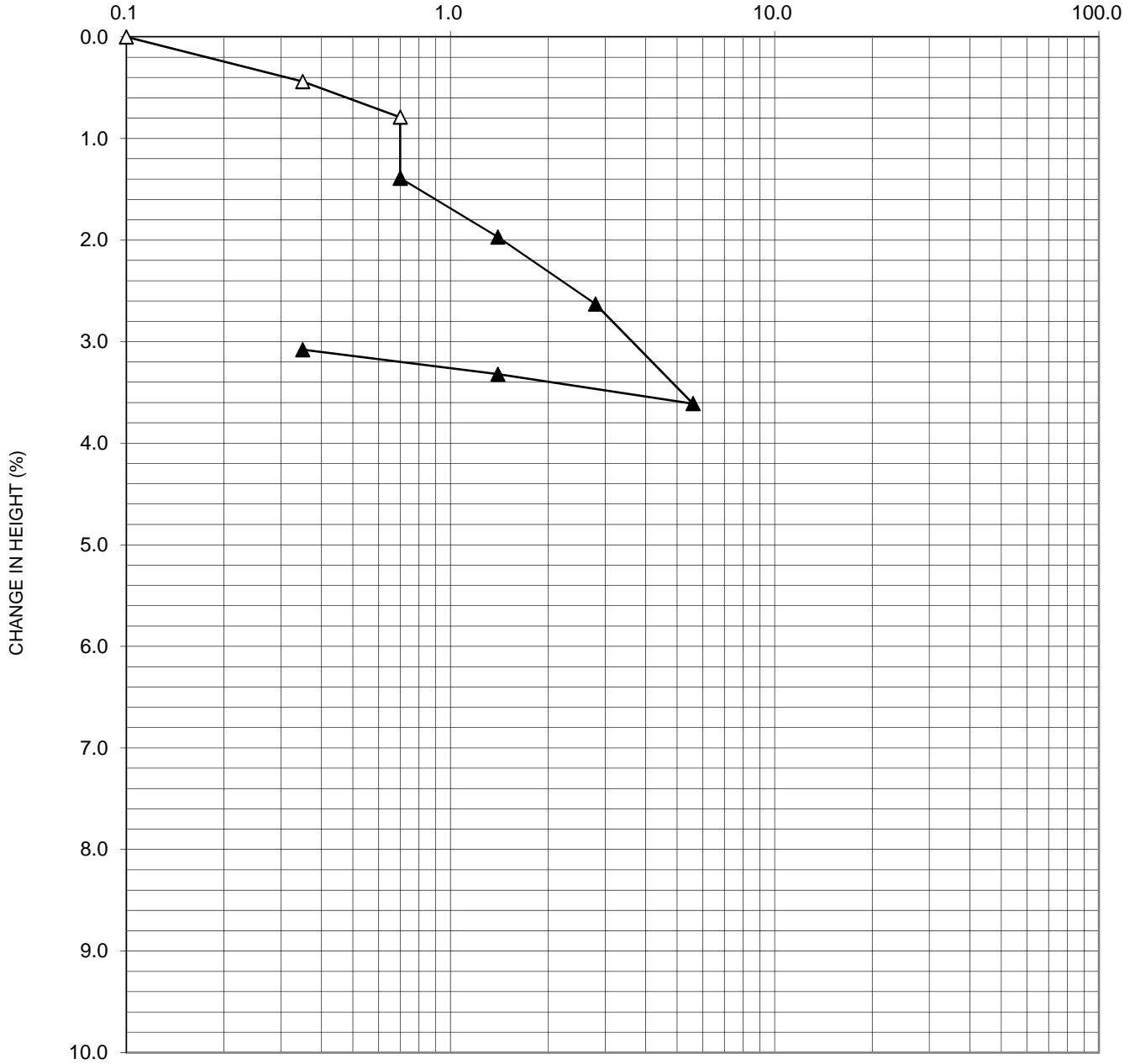
SIEVE		% PASSING
(IN./NO.)	(MM)	
1/1/2"	38.10	
3/4"	19.00	100.0
3/8"	9.50	92.1
#4	4.75	81.9
#8	2.36	71.7
#16	1.18	58.3
#30	0.600	42.3
#50	0.300	28.7
#100	0.150	19.7
#200	0.075	14.1

TO USE IN SMALLER SIEVE SIZES - JUST DELETE THE % PASSING COLUMN ABOVE THE 100 % SO AS NOT TO CHANGE THE SCALE ON THE CURVE.

PERMEABILITY, (k) = 100 (D₁₀)² (estimate) (ALLEN HAZEN)

Where : D₁₀ = HAZEN'S EFFECTIVE SIZE IN CENTIMETER

VERTICAL STRESS (TSF)



PROJECT NO.: 21030-00 SOIL DESCRIPTIONS: REDDISH BROWN SILTY SAND (SM)

BORING NO./LOCATION : B1 DEPTH / ELEV. : 10' LIQUID LIMIT : -

SPECIFIC GRAVITY : 2.68 (Assumed) PLASTIC LIMIT: -

REMARKS :

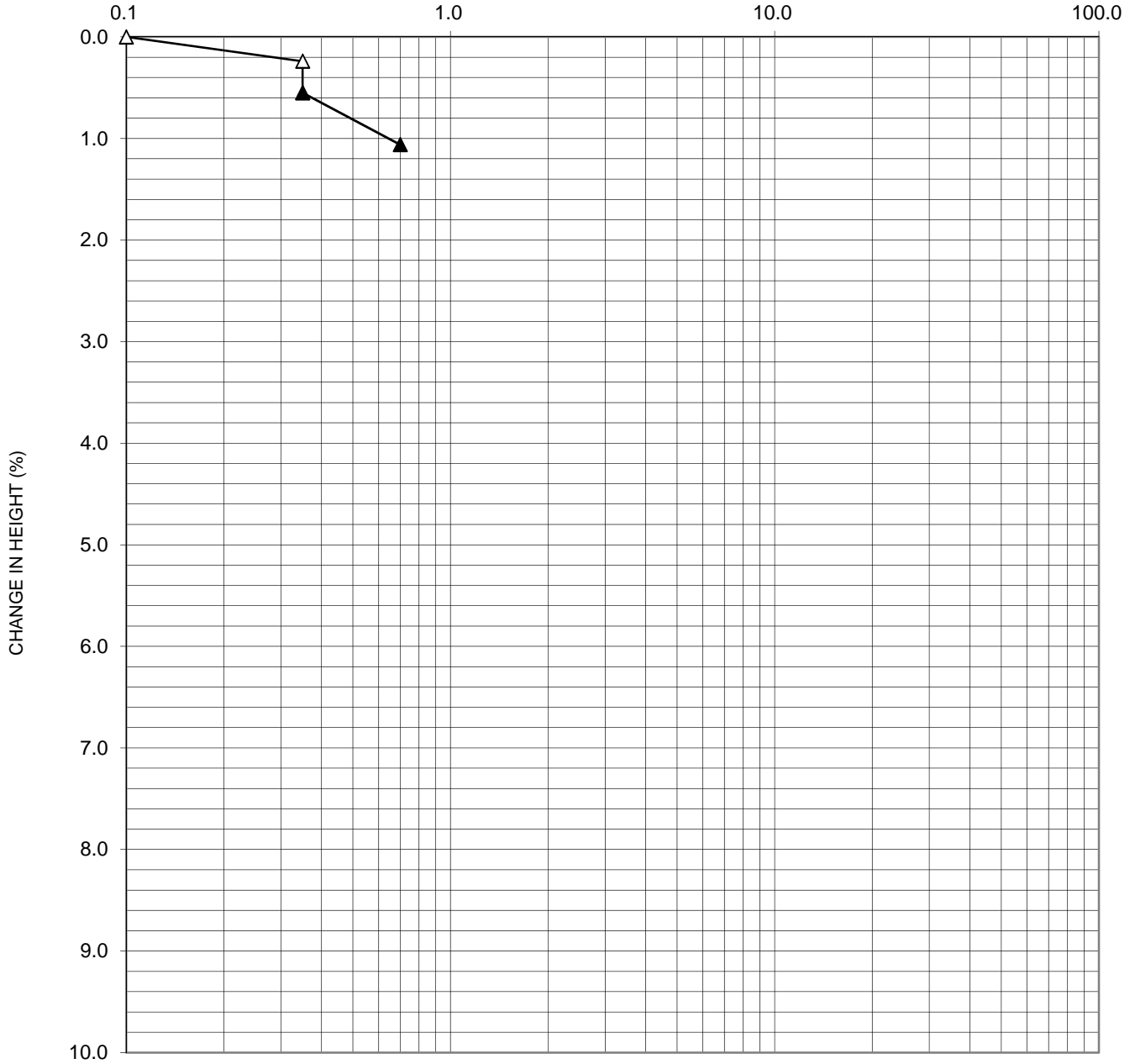
	SPECIMEN HEIGHT (INCHES)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SATURATION (%)	VOID RATIO
INITIAL	1.0000	3.3	115.9	20.1	0.443
FINAL	0.9692	18.7	119.5	125.7	0.399



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CONSOLIDATION TEST
CURVE

VERTICAL STRESS (TSF)



PROJECT NO.: 21030-00

SOIL DESCRIPTIONS: DK. BR. SILTY SAND W/ TRACE OF CLAY (SM)

BORING NO./LOCATION : B2

DEPTH / ELEV. : 5'

LIQUID LIMIT : -

SPECIFIC GRAVITY : 2.68 (Assumed)

PLASTIC LIMIT: -

REMARKS :

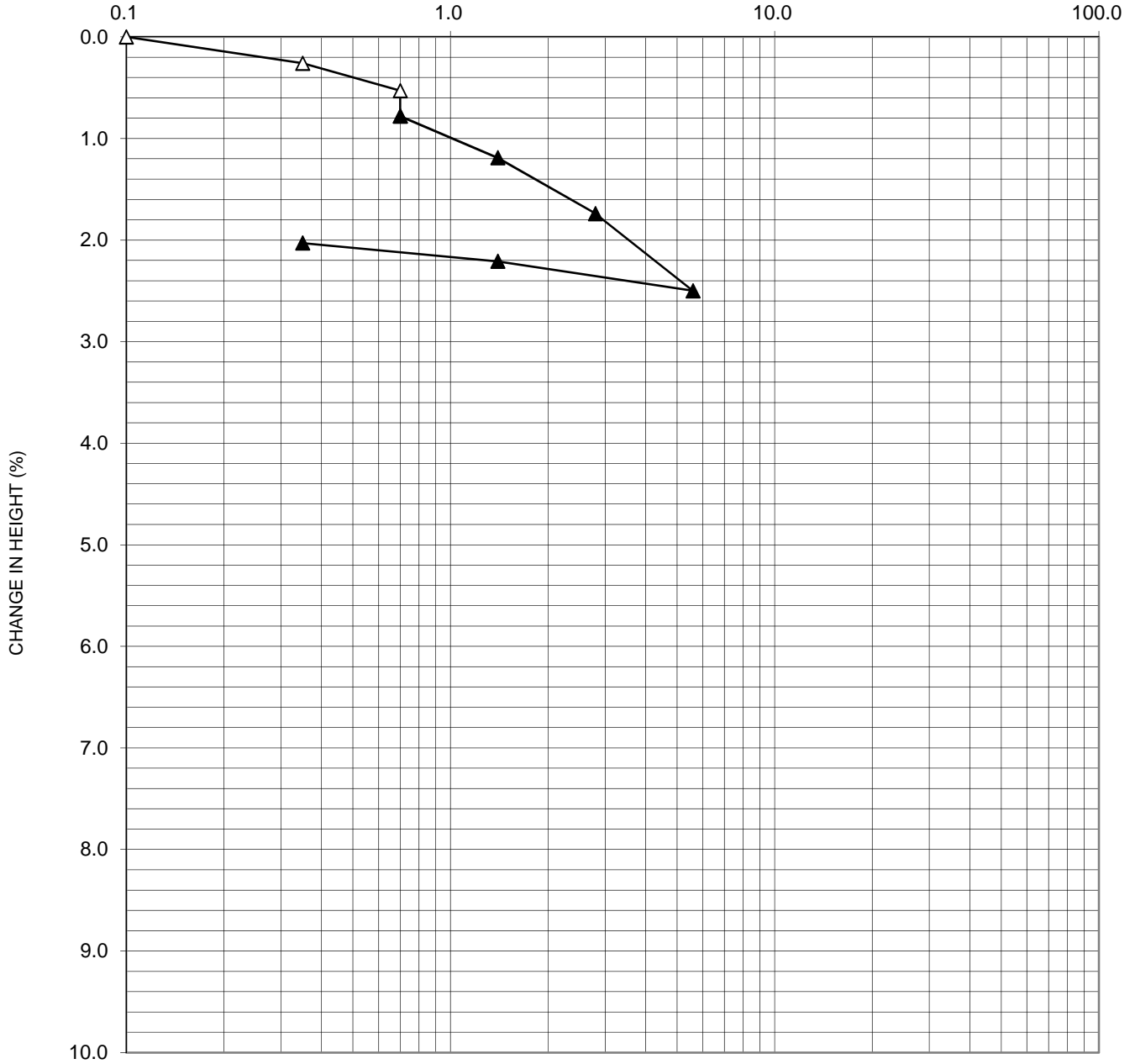
	SPECIMEN HEIGHT (INCHES)	MOISTURE CONTENT	DRY DENSITY (PCF)	SATURATION (%)	VOID RATIO
INITIAL	1.0000		118.8	35.9	0.408
FINAL	0.9894		120.0	109.3	0.394



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**CONSOLIDATION TEST
CURVE**

VERTICAL STRESS (TSF)



PROJECT NO.: 21030-00 SOIL DESCRIPTIONS: REDDIH BROWN SILTY SAND (SM)

BORING NO./LOCATION : B2 DEPTH / ELEV. : 20' LIQUID LIMIT : -

SPECIFIC GRAVITY : 2.68 (Assumed) PLASTIC LIMIT: -

REMARKS :

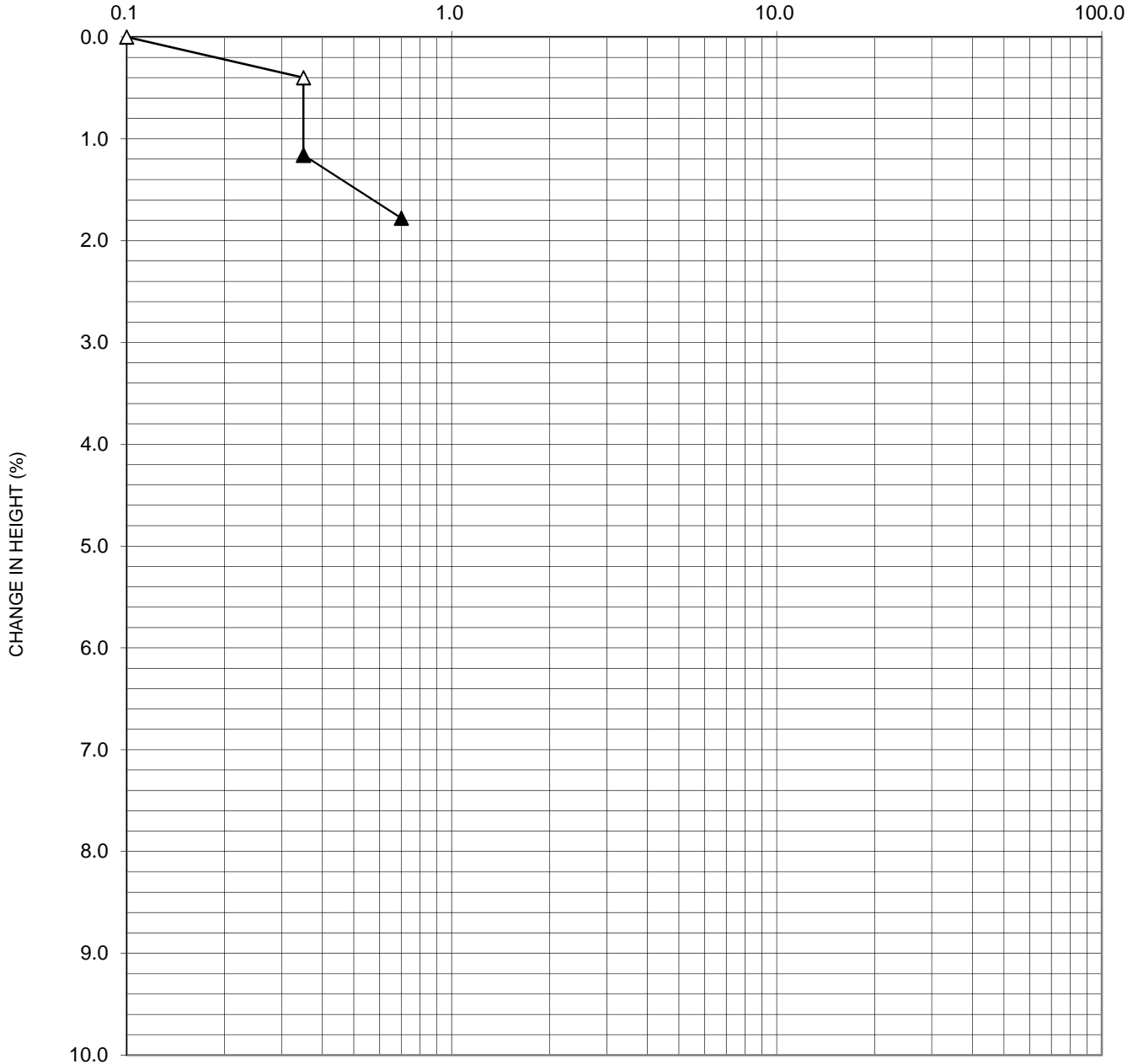
	SPECIMEN HEIGHT (INCHES)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SATURATION (%)	VOID RATIO
INITIAL	1.0000	5.7	115.3	34.2	0.450
FINAL	0.9797	20.2	117.6	128.2	0.421



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**CONSOLIDATION TEST
CURVE**

VERTICAL STRESS (TSF)



PROJECT NO.: 21030-00 SOIL DESCRIPTIONS: BROWN SILTY SAND (SM)

BORING NO./LOCATION : B3 DEPTH / ELEV. : 5' LIQUID LIMIT : PLASTIC-

SPECIFIC GRAVITY : 2.68 (Assumed) LIMIT: -

REMARKS :

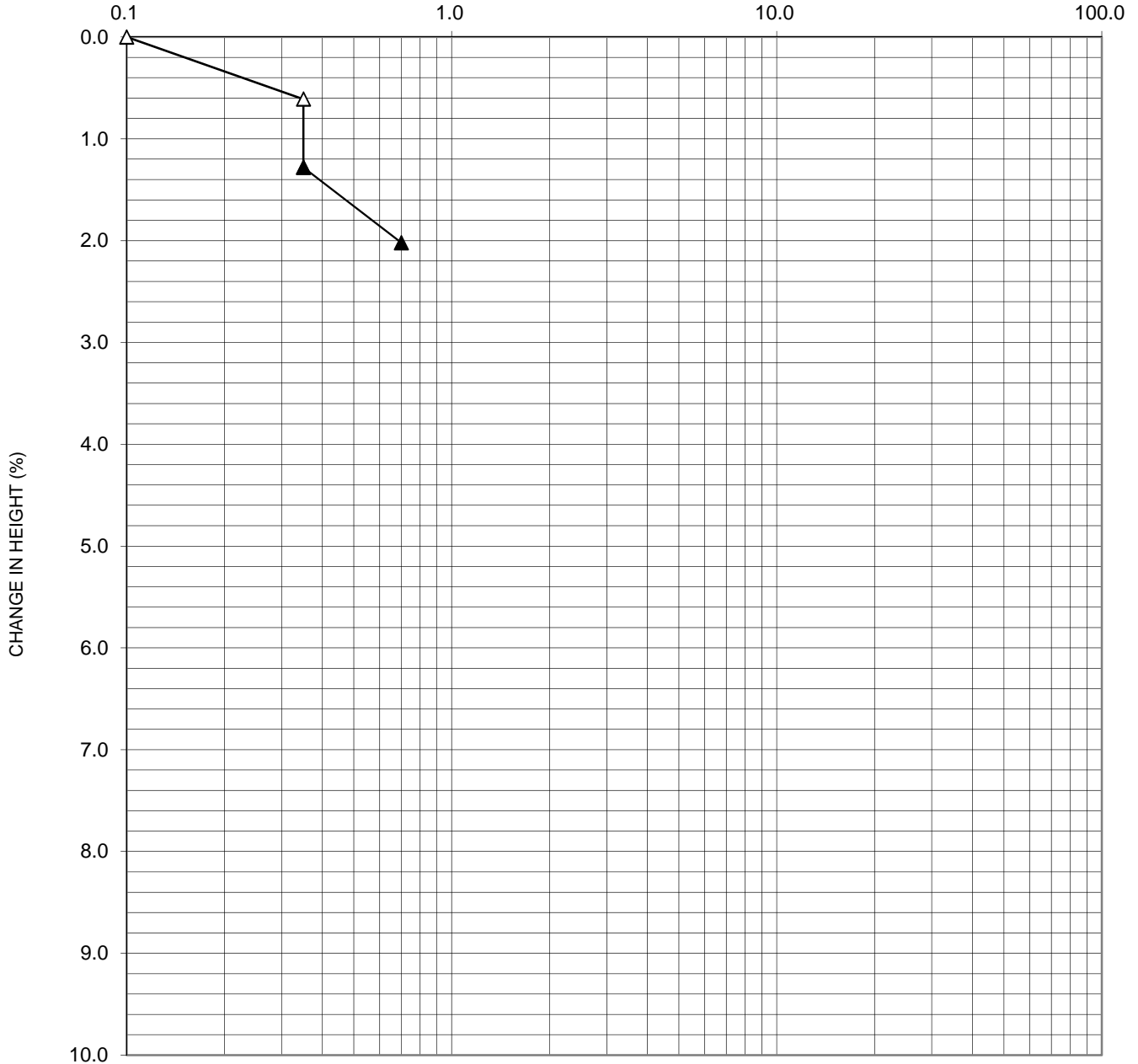
	SPECIMEN HEIGHT (INCHES)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SATURATION (%)	VOID RATIO
INITIAL	1.0000	4.0	117.2	25.1	0.427
FINAL	0.9822	16.6	119.2	110.2	0.403



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**CONSOLIDATION TEST
CURVE**

VERTICAL STRESS (TSF)



PROJECT NO.: 21030-00 SOIL DESCRIPTIONS: LT. BROWN GRAVELLY SAND (SP)

BORING NO./LOCATION : B4 DEPTH / ELEV. : 5' LIQUID LIMIT : -

SPECIFIC GRAVITY : 2.68 (Assumed) PLASTIC LIMIT: -

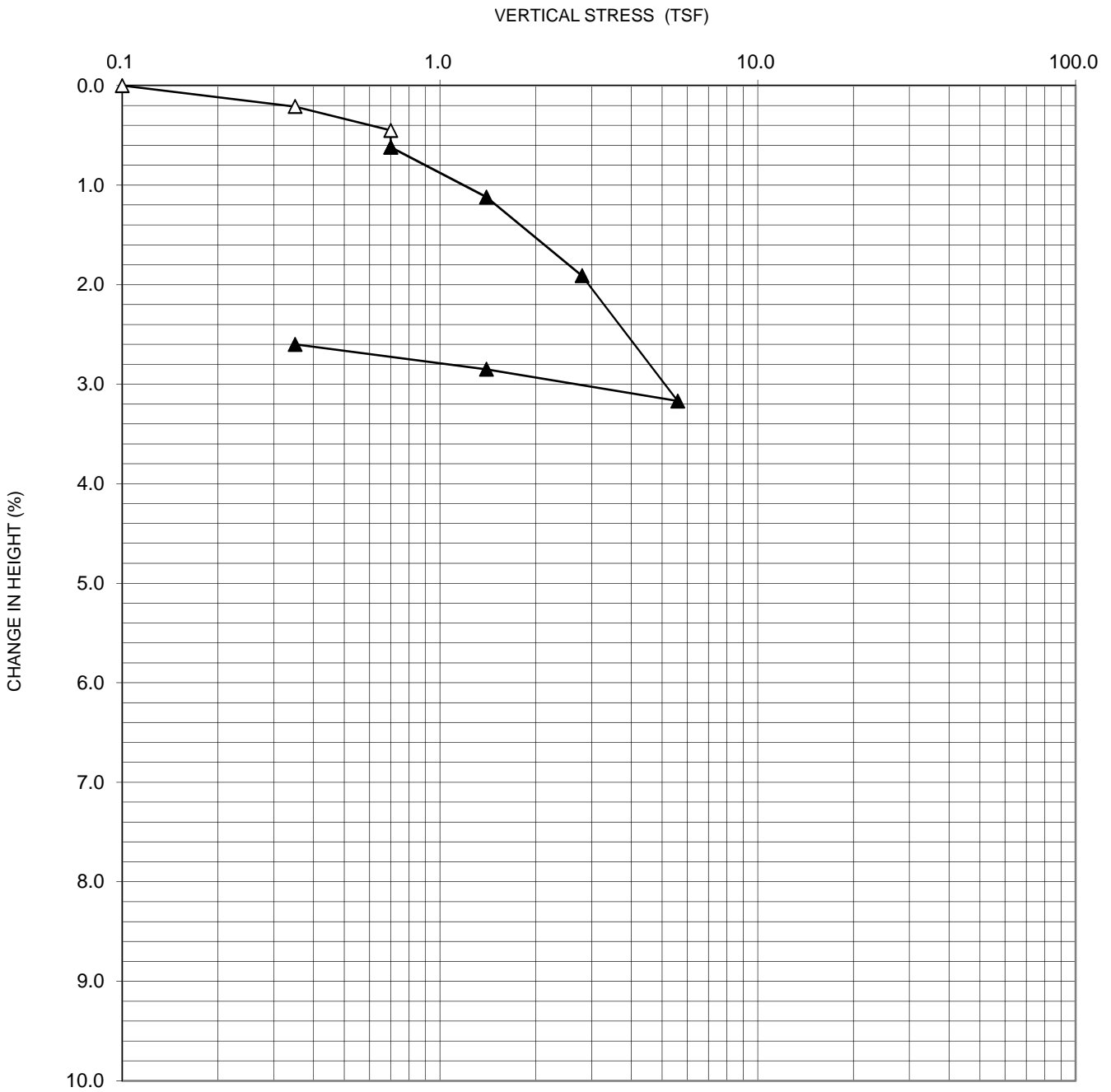
REMARKS :

	SPECIMEN HEIGHT (INCHES)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SATURATION (%)	VOID RATIO
INITIAL	1.0000	2.5	122.8	18.4	0.362
FINAL	0.9798	17.0	125.3	135.9	0.335



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**CONSOLIDATION TEST
CURVE**



PROJECT NO.: 21030-00 SOIL DESCRIPTIONS: DK. BR. SILTY SAND W/ TR. OF CLAY (SM)

BORING NO./LOCATION : B6 DEPTH / ELEV. : 20' LIQUID LIMIT : -

SPECIFIC GRAVITY : 2.68 (Assumed) PLASTIC LIMIT: -

REMARKS :

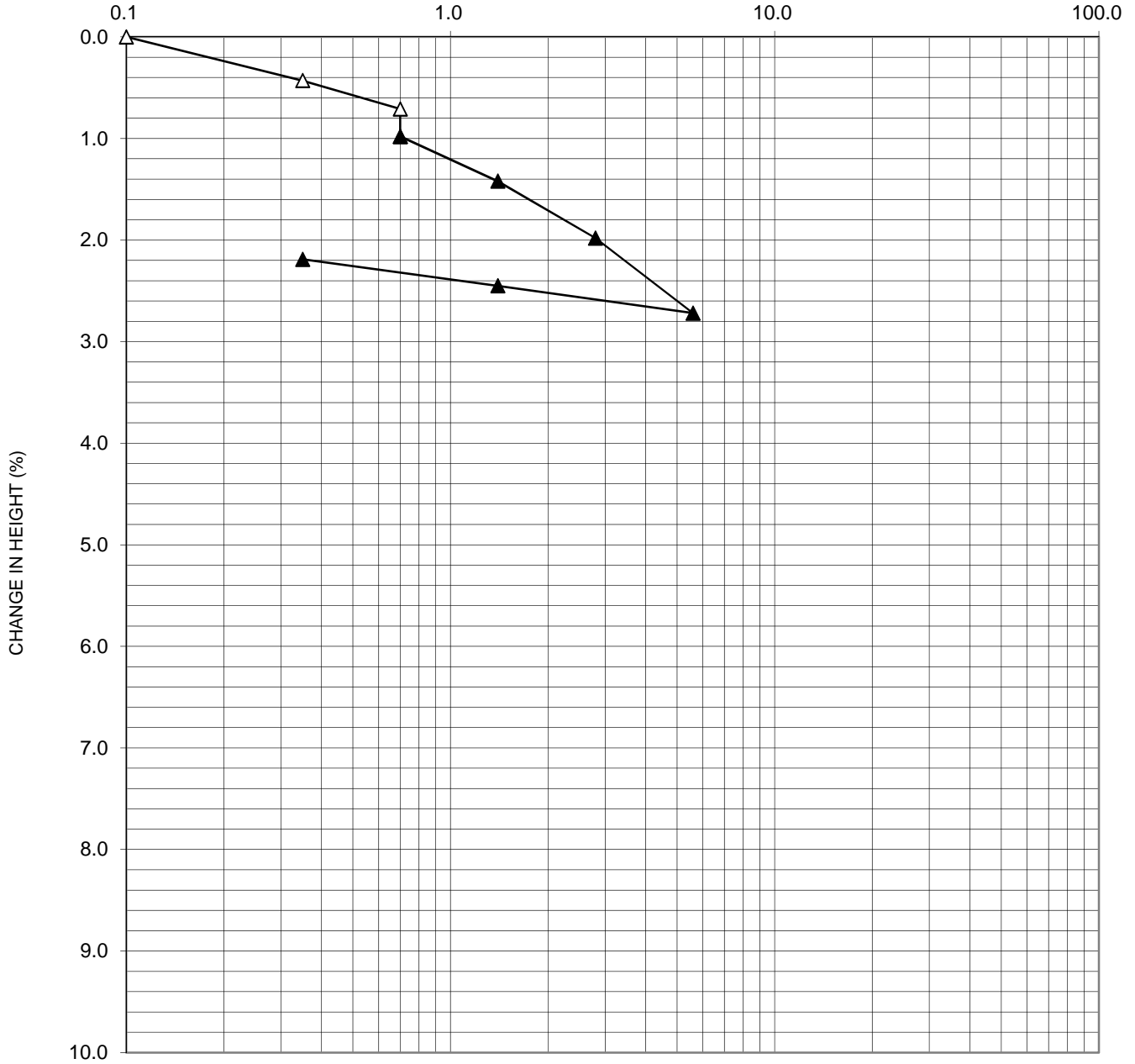
	SPECIMEN HEIGHT (INCHES)	MOISTURE CONTENT (%)	(PCF)	SATURATION (%)	VOID RATIO
INITIAL	1.0000	8.4	115.0	49.3	0.455
FINAL	0.9740	17.2	118.0	110.5	0.417



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**CONSOLIDATION TEST
CURVE**

VERTICAL STRESS (TSF)



PROJECT NO.: 21030-00 SOIL DESCRIPTIONS: OLIVE BR. SILTY SAND W/ LITTLE GRAVEL (SM)

BORING NO./LOCATION : B9 DEPTH / ELEV. : 25' LIQUID LIMIT : -

SPECIFIC GRAVITY : 2.68 (Assumed) PLASTIC LIMIT: -

REMARKS :

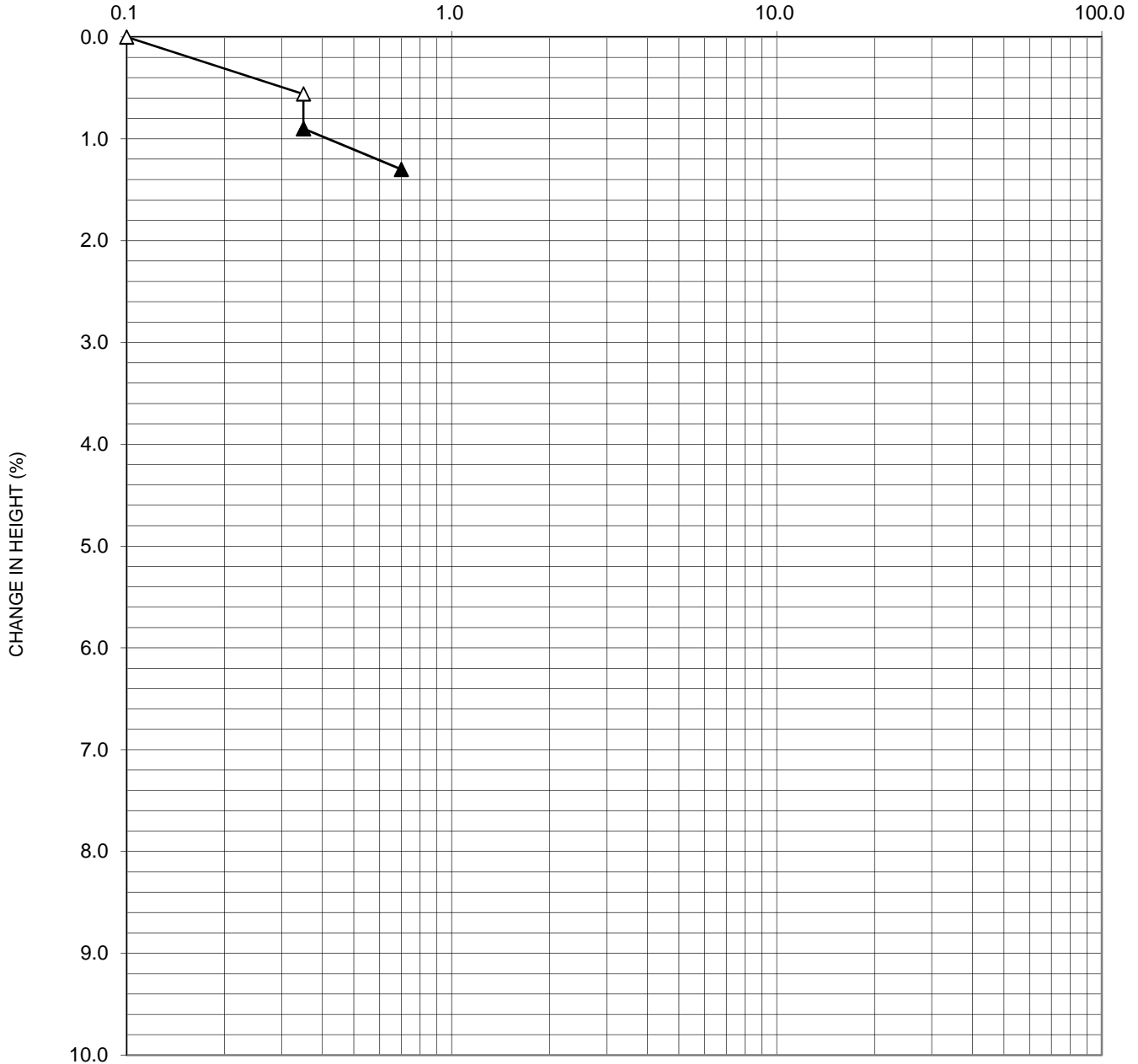
	SPECIMEN HEIGHT (INCHES)	MOISTURE CONTENT (%)	(PCF)	SATURATION (%)	VOID RATIO
INITIAL	1.0000	3.5	121.3	25.0	0.379
FINAL	0.9781	22.0	123.9	168.4	0.349



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**CONSOLIDATION TEST
CURVE**

VERTICAL STRESS (TSF)



PROJECT NO.: 21030-00 SOIL DESCRIPTIONS: REDDISH BROWN SILTY SAND (SM)

BORING NO./LOCATION : TP1 DEPTH / ELEV. : 4' LIQUID LIMIT : -

SPECIFIC GRAVITY : 2.68 (Assumed) PLASTIC LIMIT: -

REMARKS :

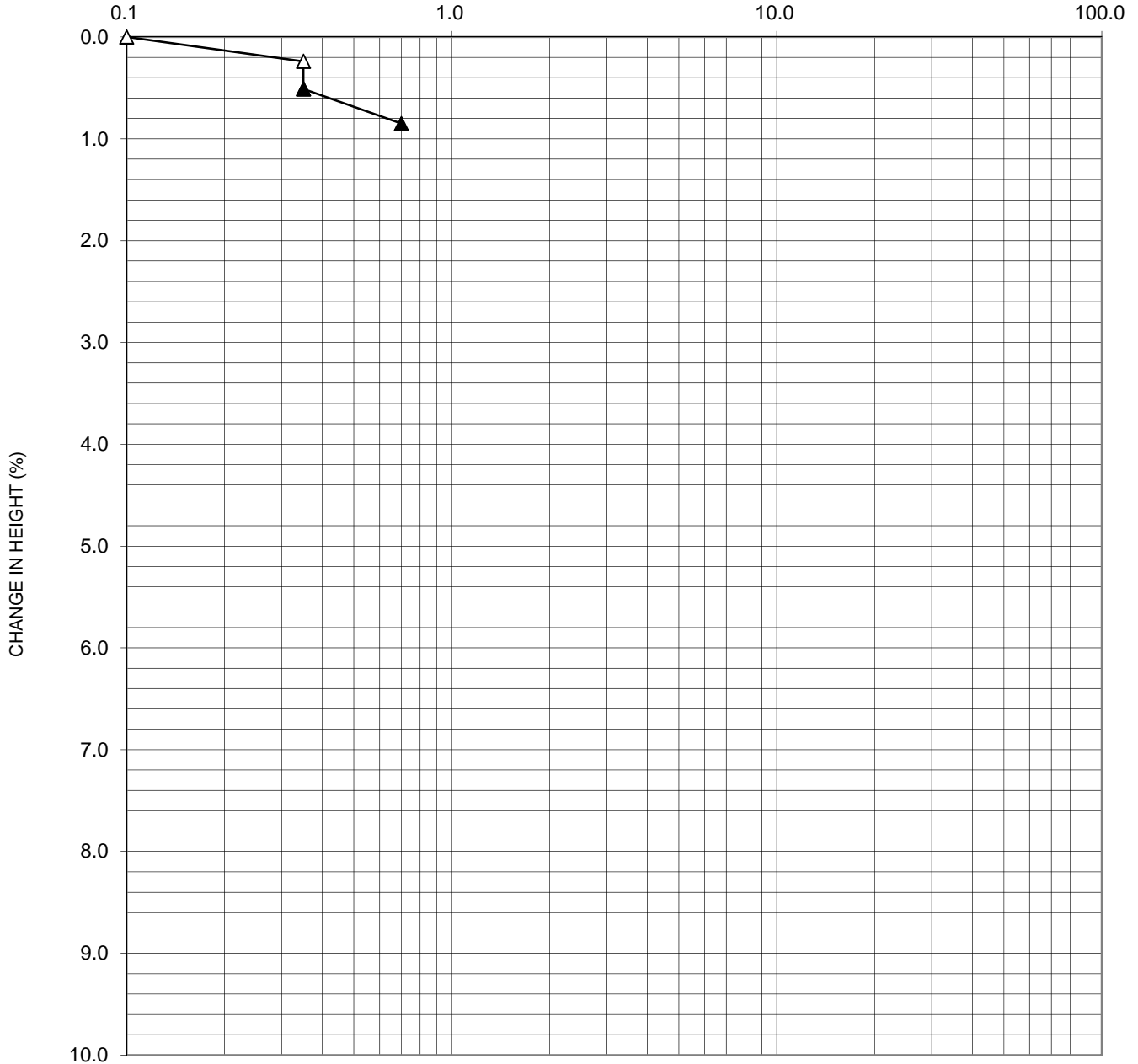
	SPECIMEN HEIGHT (INCHES)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SATURATION (%)	VOID RATIO
INITIAL	1.0000	5.9	122.2	42.9	0.369
FINAL	0.9870	14.4	123.7	109.4	0.352



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**CONSOLIDATION TEST
CURVE**

VERTICAL STRESS (TSF)



PROJECT NO.: 21030-00 SOIL DESCRIPTIONS: REDDISH BROWN SILTY SAND (SM)

BORING NO./LOCATION : TP4 DEPTH / ELEV. : 4' LIQUID LIMIT : -

SPECIFIC GRAVITY : 2.68 (Assumed) PLASTIC LIMIT: -

REMARKS :

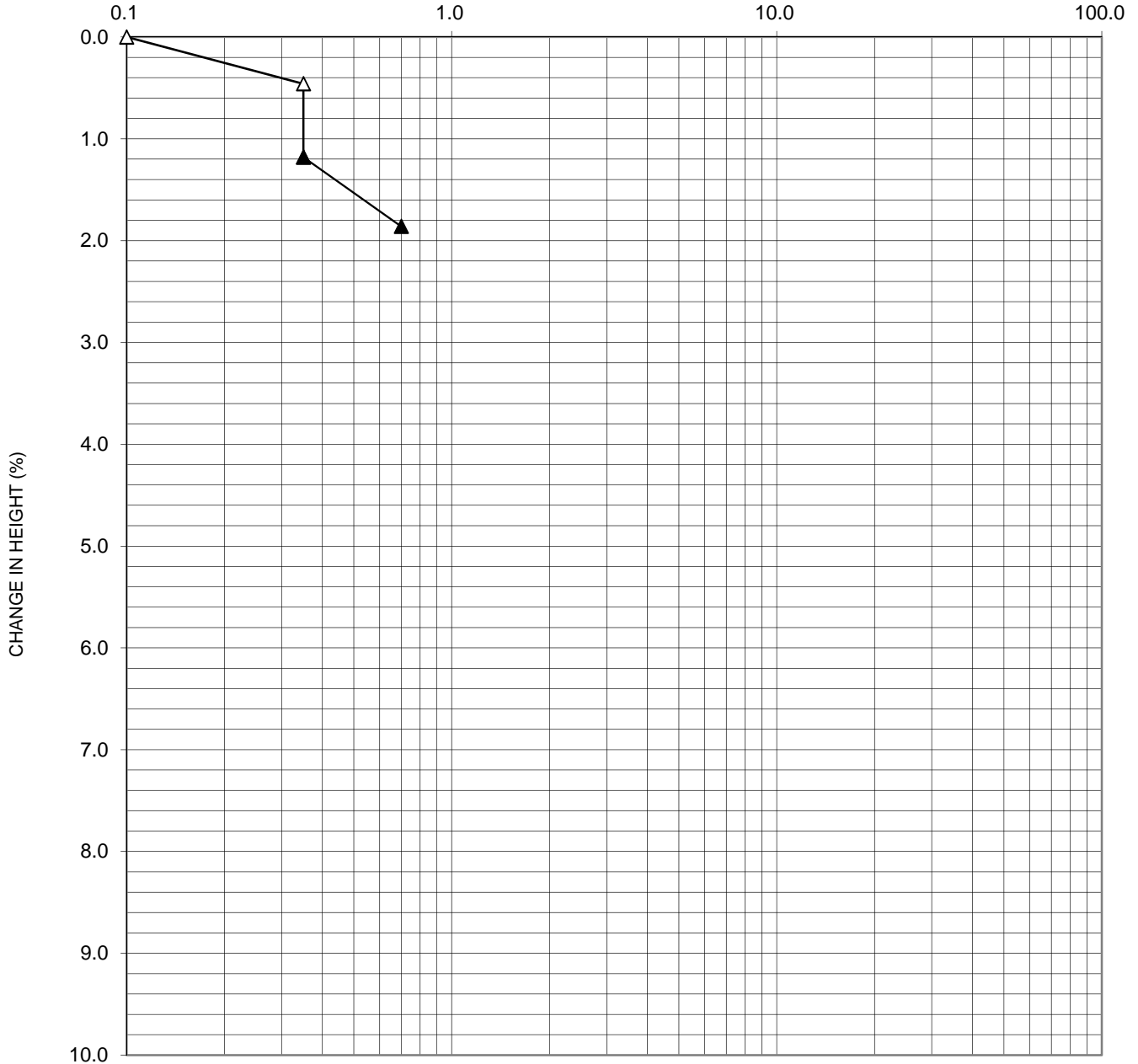
	SPECIMEN HEIGHT (INCHES)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SATURATION (%)	VOID RATIO
INITIAL	1.0000	4.4	121.2	31.1	0.380
FINAL	0.9915	14.8	122.1	107.8	0.369



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**CONSOLIDATION TEST
CURVE**

VERTICAL STRESS (TSF)



PROJECT NO.: 21030-00 SOIL DESCRIPTIONS: REDDISH BROWN SILTY SAND (SM)

BORING NO./LOCATION : TP6 DEPTH / ELEV. : 5' LIQUID LIMIT : -

SPECIFIC GRAVITY : 2.68 (Assumed) PLASTIC LIMIT: -

REMARKS :

	SPECIMEN HEIGHT (INCHES)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SATURATION (%)	VOID RATIO
INITIAL	1.0000	4.0	110.9	21.3	0.508
FINAL	0.9814	19.1	113.0	106.6	0.480



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**CONSOLIDATION TEST
CURVE**



R - VALUE DATA SHEET

PROJECT No. 47771

DATE: 11/10/2021

BORING NO. B-4 @ 20'-25'

Hesperia

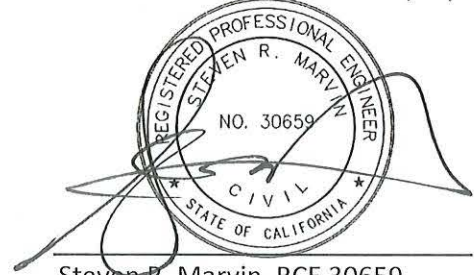
P.N. 21030-00

SAMPLE DESCRIPTION: Brown Gravelly Silty Sand

R-VALUE TESTING DATA CA TEST 301			
	SPECIMEN ID		
	a	b	c
Mold ID Number	16	17	18
Water added, grams	42	52	75
Initial Test Water, %	7.1	8.0	10.1
Compact Gage Pressure, psi	350	350	150
Exudation Pressure, psi	611	421	168
Height Sample, Inches	2.43	2.41	2.45
Gross Weight Mold, grams	3105	3105	3124
Tare Weight Mold, grams	1946	1940	1954
Sample Wet Weight, grams	1159	1165	1170
Expansion, Inches x 10exp-4	6	5	0
Stability 2,000 lbs (160psi)	15 / 26	22 / 42	60 / 132
Turns Displacement	4.00	4.05	4.10
R-Value Uncorrected	76	63	11
R-Value Corrected	75	61	11
Dry Density, pcf	134.9	135.6	131.4

DESIGN CALCULATION DATA

Traffic Index	Assumed:	4.0	4.0	4.0
G.E. by Stability		0.26	0.40	0.91
G. E. by Expansion		0.20	0.17	0.00

Equilibrium R-Value	47 by EXUDATION	Examined & Checked: 11 /10/ 21
REMARKS:	<p>Gf = <u>1.25</u></p> <p><u>3.4%</u> Retained on the</p> <p><u>3/4"</u> Sieve.</p>	 Steven R. Marvin, RCE 30659

The data above is based upon processing and testing samples as received from the field. Test procedures in accordance with latest revisions to Department of Transportation, State of California, Materials & Research Test Method No. 301.



R-VALUE GRAPHICAL PRESENTATION

PROJECT NO. 47771

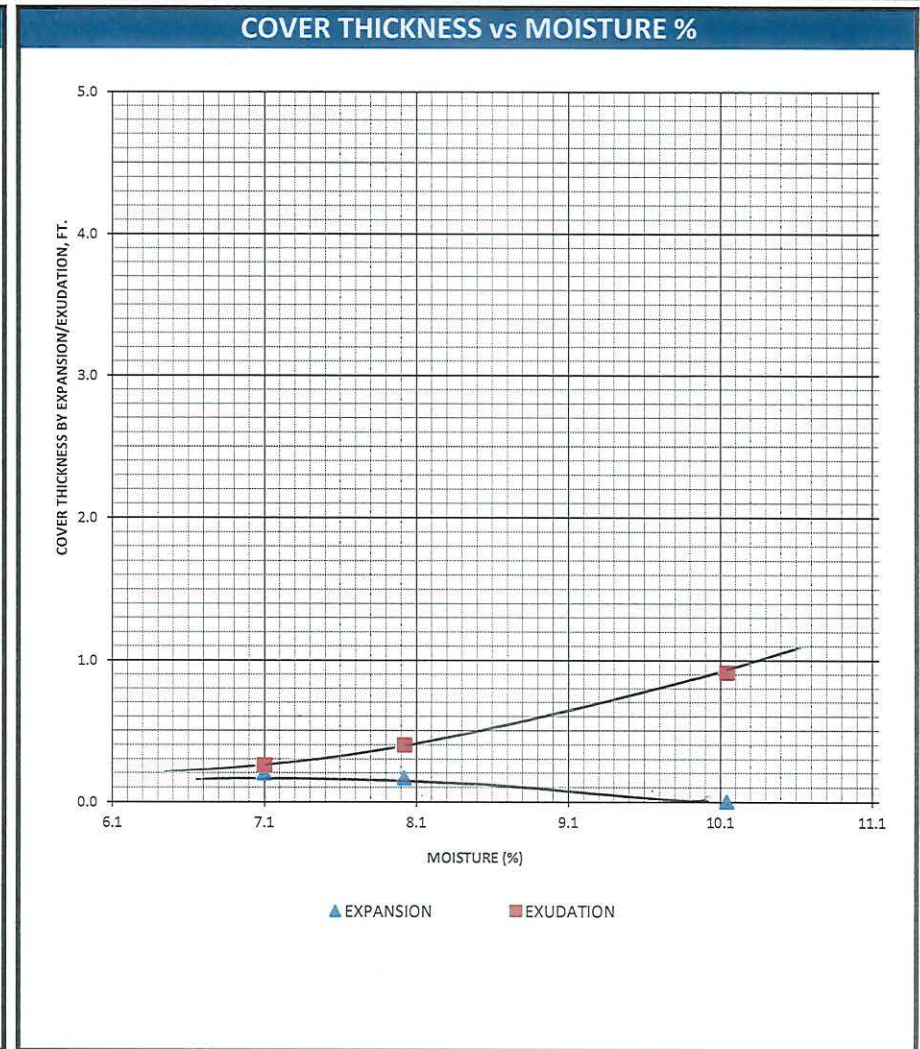
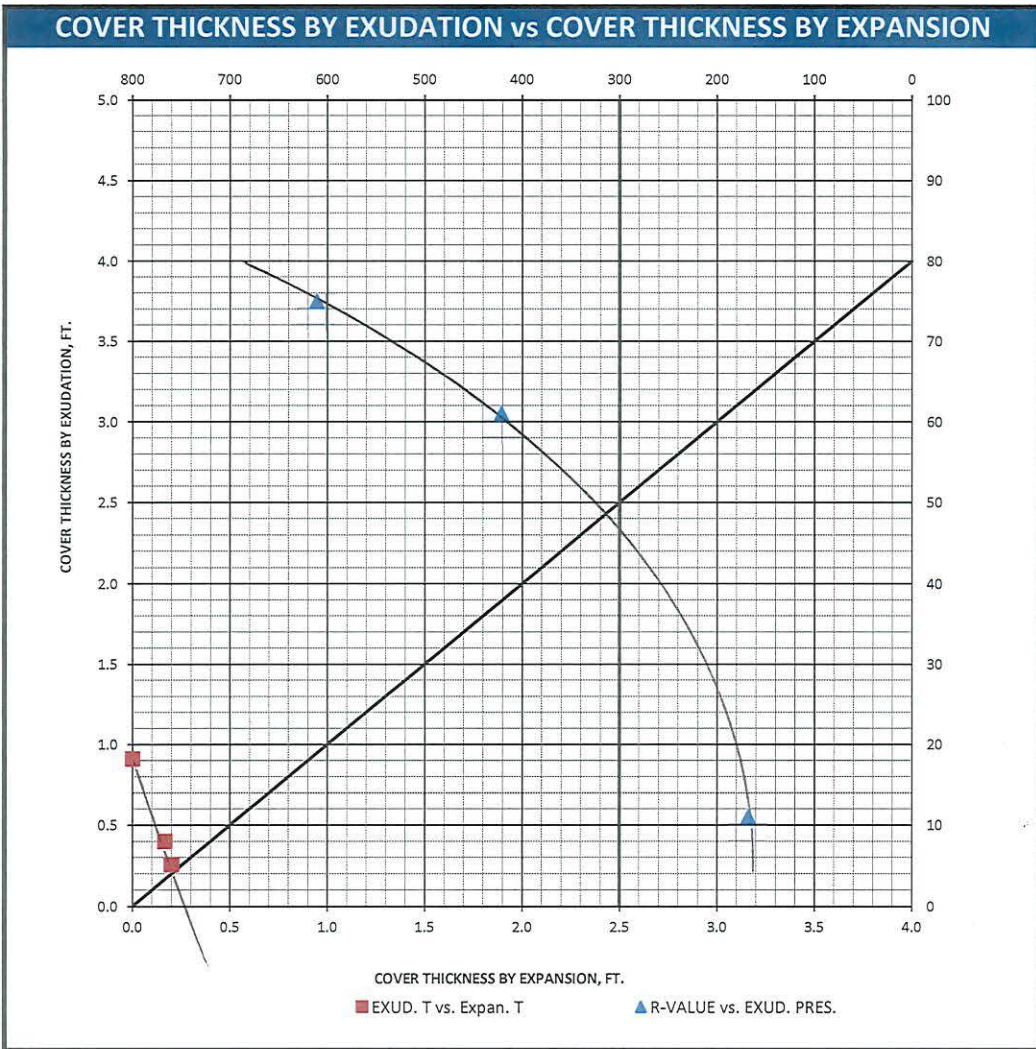
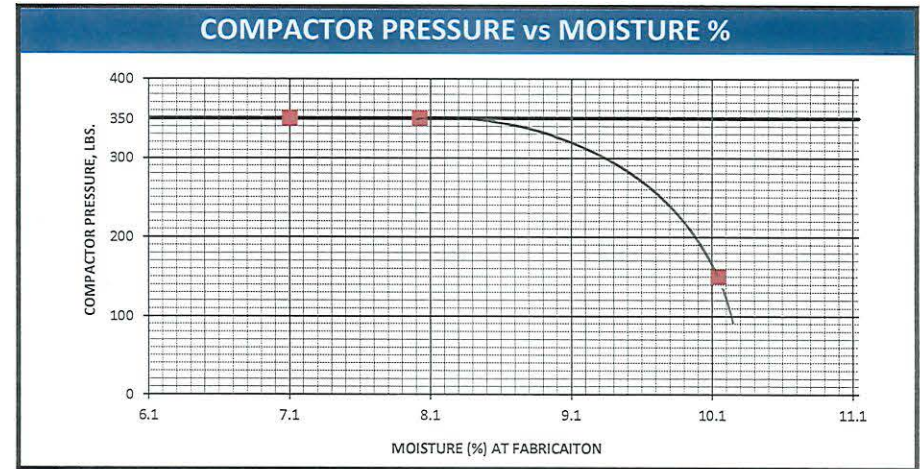
DATE: 11 /10/ 2021

REMARKS: _____

BORING NO. B-4 @ 20'-25'

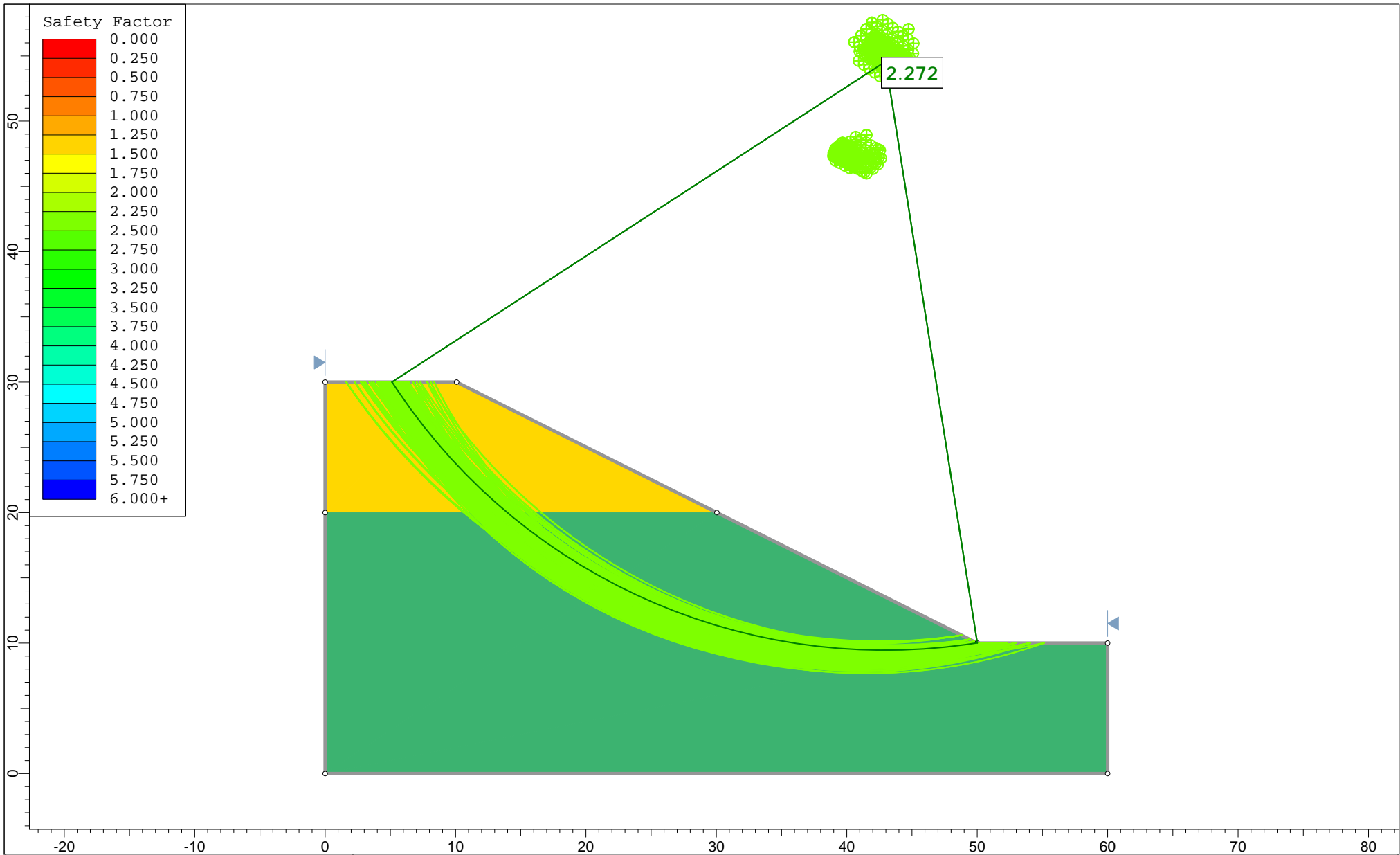
Hesperia


P.N. 21030-00

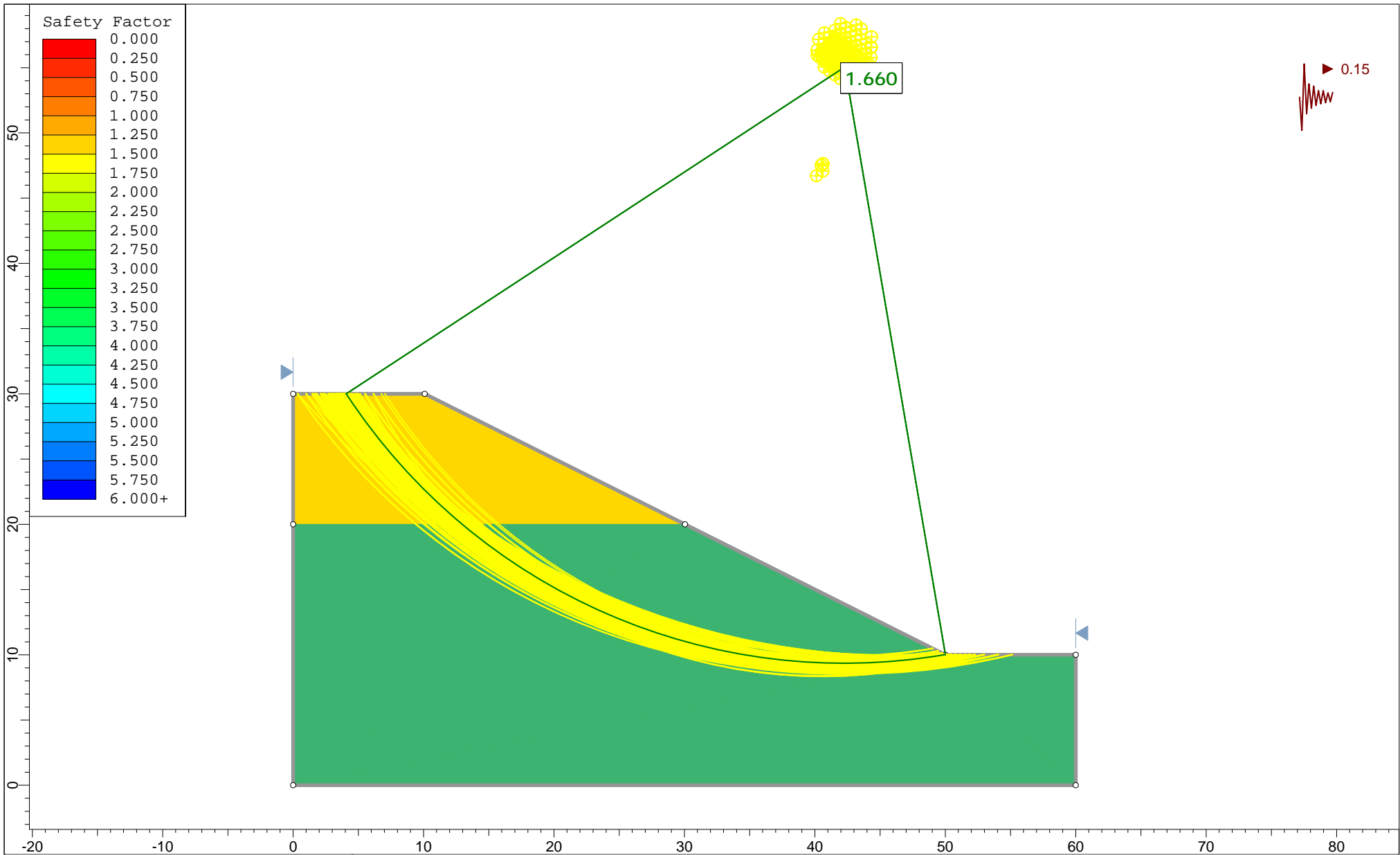


APPENDIX E

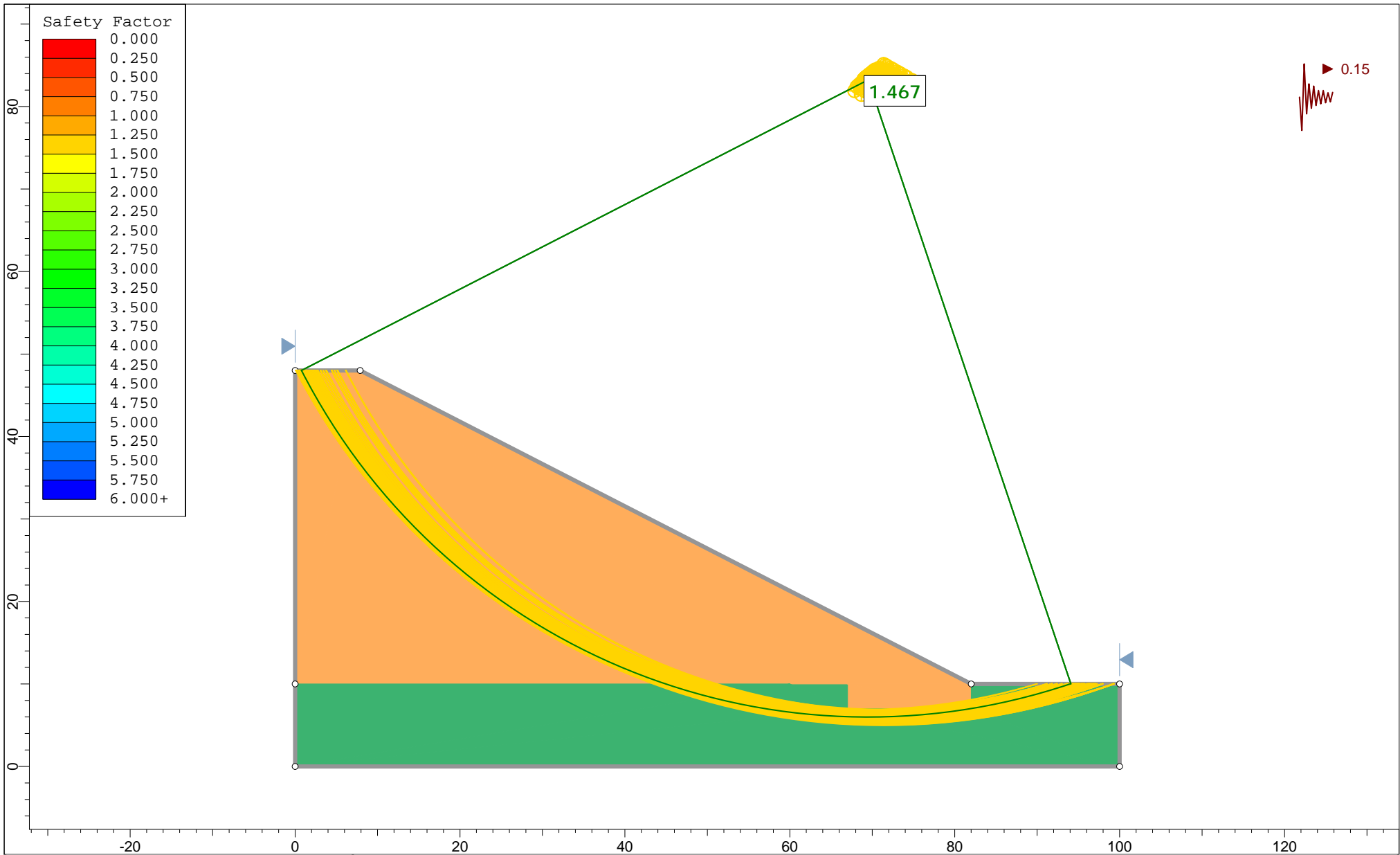
GENERAL EARTHWORK AND GRADING SPECIFICATIONS



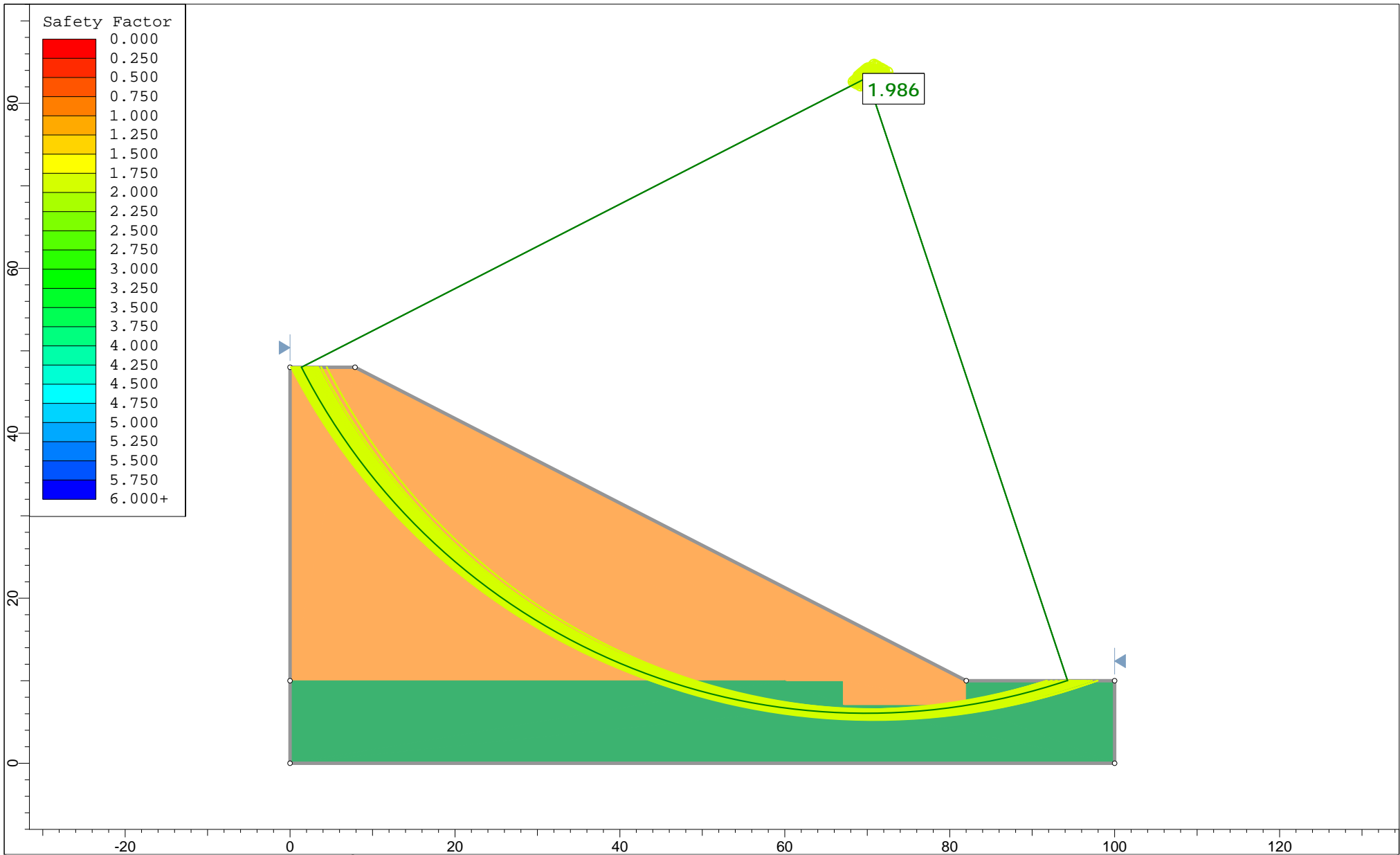
	SRD Design Studio - Hesperia		
	<i>Analysis Type</i> Numerical Slope Stability Assessment		
	<i>Drawn By</i> Sean Webb		<i>Company:</i> Kling Consulting Group
	<i>Date</i> 12/17/2021 10:10:02 AM		<i>File Name</i> Slide1.sldm




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	<i>Analysis Type</i> Numerical Slope Stability Assessment		
	<i>Drawn By</i> Sean Webb		<i>Company:</i> Kling Consulting Group
	<i>Date</i> 12/17/2021 10:10:54 AM		<i>File Name</i> Slide1.sldm

GENERAL EARTHWORK AND GRADING SPECIFICATIONS

1.0 GENERAL INTENT

These specifications present general procedures and requirements for grading and earthwork as shown on the project grading plans, including preparation of areas to be filled, placement of fill, installation of subsurface drainage, and excavations. The recommendations contained in the geotechnical report(s) are a part of the earthwork and grading specifications and shall supersede the provisions contained hereinafter in the case of conflict. Evaluations performed by the geotechnical consultant during the course of grading may result in new specifications or recommendations in addition to those contained in the geotechnical report(s).

2.0 EARTHWORK OBSERVATION AND TESTING

Prior to the commencement of grading, a qualified geotechnical consultant (soils engineer and engineering geologist, and their representatives) shall be employed for the purpose of observing earthwork procedures and testing the fills for conformance with the recommendations of the geotechnical report and these specifications. It will be necessary that the geotechnical consultant provide adequate testing and observation so that he may determine that the work was accomplished as specified. If conditions exposed during grading differ significantly from those interpreted during the preliminary design investigation, the geotechnical consultant shall inform the client, recommend appropriate changes in the geotechnical design to account for the observed conditions, and notify City or County grading authorities, as necessary. It shall be the responsibility of the contractor to assist the geotechnical consultant and keep him apprised of work schedules and changes so that he may schedule his personnel accordingly.

The Project Geotechnical Consultant shall observe processing, moisture conditioning, and compaction of fill and subgrade materials. Testing of compacted fill in representative locations shall be performed by the Project Geotechnical Consultant's field representative. Daily reports and test results shall be provided to the client representative on a regular and frequent basis. Maximum dry density tests used to determine the degree of compaction and optimum moisture content shall be performed in accordance with the American Society for Testing and Materials test method ASTM D1557.

It shall be the sole responsibility of the contractor to provide adequate equipment and methods to accomplish the work in accordance with the geotechnical report(s) applicable grading codes and project grading plans. If, in the opinion of the geotechnical consultant, unsatisfactory conditions, such as questionable soil, poor moisture condition, inadequate compaction, adverse weather, etc., are resulting in the quality of work less than required in these specifications, the geotechnical consultant will be empowered to reject the work and recommend that construction be stopped until the conditions are rectified.

3.0 PREPARATION OF AREA TO BE FILLED

3.1 Clearing and Grubbing

All brush, vegetation, trash, debris and other deleterious material shall be removed from fill areas and disposed of off site. Vegetation cleared from the site shall not be placed within engineered compacted fill areas.

3.2 Processing

The existing ground which is determined to be satisfactory for support of fill shall be scarified to a minimum depth of six (6) inches. Existing ground which is not satisfactory shall be overexcavated as specified in the following section. Scarification shall continue until the soils are broken down and free of large clay lumps or clods and until the working surface is reasonably uniform and free of uneven features which would inhibit uniform compaction.

3.3 Overexcavation

Soft, dry, spongy, highly fractured or otherwise unsuitable ground, extending to such a depth that surface processing cannot adequately improve the condition, shall be overexcavated to firm ground, and verified by the project geotechnical consultant.

3.4 Moisture Conditioning

Overexcavated and processed soils shall be watered, dried-back, blended, and/or mixed as required to attain a uniform moisture content near optimum.

3.5 Recomaction

Overexcavated and processed soils which have been properly mixed and moisture-conditioned shall be recomacted to a minimum relative compaction of 90 percent, ASTM D1557.

3.6 Benching

Where fills are to be placed on ground with slopes steeper than 5:1 (horizontal: vertical units), the ground shall be stepped or benched. The lowest bench shall be a minimum of 15 feet wide, shall be at least 2 feet deep, shall expose firm material, and shall be verified by the geotechnical consultant. Other benches shall be excavated in firm material for a minimum width of 4 feet. Ground sloping flatter than 5:1 shall be benched or otherwise overexcavated when considered necessary by the geotechnical consultant.

3.7 Evaluation of Areas to Receive Fill

All areas to receive fill, including processed areas, removal areas and toe-of-fill benches shall be observed, tested, and/or mapped by the geotechnical consultant prior to fill placement. A written evaluation of the area to be filled shall be obtained by the Contractor prior to placement of fill.

4.0 FILL MATERIAL

4.1 General

Material to be placed as fill shall be free of roots, grasses, branches, wood or other organic matter and other deleterious materials, and shall be tested by the geotechnical consultant prior to use as fill. Soils of poor gradation, expansion, or strength characteristics shall be placed in areas designated by the geotechnical consultant or shall be mixed with other soils to serve as satisfactory fill material.

4.2 Oversize Material

Oversize material defined as rock, or other irreducible material with a maximum dimension greater than 12 inches, shall not be buried or placed in fills, unless the location, materials, and disposal methods are specifically recommended by the geotechnical consultant. Oversized disposal operations shall be such that nesting of oversize material does not occur, and such that the oversize material is completely surrounded by compacted or densified fill. Oversize material shall not be placed within 10 feet vertically of finish grade or construction, unless specifically recommended by the geotechnical consultant.

4.3 Import

If importing of fill material is required for grading, the import material shall meet the requirements of Section 4.1. Samples of import soils shall be provided for testing a minimum of 48 hours before the import materials are brought on site.

5.0 FILL PLACEMENT AND COMPACTION

5.1 Fill Lifts

Fill material shall be placed in prepared areas in near-horizontal layers not exceeding 8 inches in loose thickness. Each layer shall be spread evenly and shall be thoroughly mixed during spreading to attain uniformity of material and moisture in each layer.

5.2 Fill Moisture

Fill layers at a moisture content less than optimum shall be watered and mixed, and wet fill layers shall be aerated by scarification or shall be blended with drier material. Moisture-conditioning and mixing of fill layers shall continue until the fill material is at a uniformly processed at a minimum of 125 percent of the optimum moisture content.

5.3 Fill Compaction

Each layer of fill shall be evenly spread, moisture-conditioned, mixed, and shall be uniformly compacted to not less than 90 percent of the maximum dry density at a minimum of 125 percent of the optimum moisture content. Compaction equipment shall be adequately sized and shall be either specifically designed for soil compaction or of proven reliability, to efficiently achieve the specified degree of compaction.

5.4 Fill Slopes

Compacting of slopes shall be accomplished, in addition to normal compacting procedures, by overfilling and compacting the slope face a minimum of four feet horizontally from finish grade, and cutting the slope face back to the core of compacted fill. In restricted spaces where overfilling is not possible, fill slopes may be compacted by back-rolling of slopes, with sheepsfoot rollers at frequent increments of 1 to 2 feet in fill elevation gain. At the completion of grading, the relative compaction of the slope out to the slope face shall be a minimum of 90 percent.

5.5 Compaction Testing

Field tests to check the fill moisture and degree of compaction will be performed by the geotechnical consultant. The location and frequency of tests shall be at the geotechnical consultant's discretion. In general, the tests will be taken at an interval not exceeding 2 feet in vertical elevation and/or 1,000 cubic yards of fill placed.

6.0 SUBDRAIN INSTALLATION

Subdrain systems shall be installed in locations recommended by the geotechnical consultant to conform to the approximate alignment and details shown on the plans or herein. The subdrain location or materials shall not be changed or modified without the recommendation of the geotechnical consultant. The geotechnical consultant; however, may recommend changes in subdrain line, grade or material. All subdrains should be surveyed for line and grade after installation. Sufficient time shall be allowed for the surveys, prior to commencement of filling over subdrain areas.



7.0 EXCAVATION

Excavation and cut slopes will be geologically mapped and examined during grading. Sufficient time shall be allowed by the contractor to permit geologic mapping of excavation bottoms and cut slopes. If directed by the geotechnical consultant, further excavation or overexcavation and refilling of cut areas shall be performed, and/or remedial grading of cut slopes. All fill-over-cut slopes are to be graded, unless otherwise stated, shall be constructed as a fill slope with the use of minimum width stabilization fills, as necessary.

APPENDIX F
HARDSCAPE RECOMMENDATIONS

HARDSCAPE RECOMMENDATIONS FOR EXPANSIVE SOILS (COMMERCIAL/INDUSTRIAL BUILDING)⁴

Description	Minimum Concrete Thickness (Inches)	Subgrade Pre-Soaking Depth	Reinforcement ⁽¹⁾	Cutoff Barrier or Edge Thickness	Joint ⁽²⁾ Spacing (Max)	Base
Common Sidewalks - Isolated EI<21 EI 21-50 EI 51-90 EI 91-130 EI>130	4 4 4 5 5	Optimum to 12" 120% of/or 5% over optimum (whichever is greater) to 12" 120% of/or 5% over optimum (whichever is greater) to 18" 120% of/or 5% over optimum (whichever is greater) to 24" 130% of/or 5% over optimum (whichever is greater) to 24"	N.R.	N.R.	5-10 Feet 5-10 Feet 5-10 Feet 6 feet 6 feet	N.R.
Common Sidewalks - Not Isolated (adjacent to curbs or structures) EI<21 EI 21-50 EI 51-90 EI 91-130 EI>130	4 4 4 5 5	Optimum to 12" 120% of/or 5% over optimum (whichever is greater) to 12" 120% of/or 5% over optimum (whichever is greater) to 18" 120% of/or 5% over optimum (whichever is greater) to 24" 120% of/or 5% over optimum (whichever is greater) to 24"	Dowel into curbs and entries with #4 Re-bar at 24" O.C.	N.R.	5-10 Feet 5-10 Feet 5-10 Feet 6 feet 6 feet	N.R.
Enhanced or Decorative Concrete (where higher degree of crack control is desired) E<21 EI 21-50 EI 51-90 EI 91-130 EI>130	5 5 5 6 6	Optimum to 12" 120% of/or 5% over optimum (whichever is greater) to 12" 120% of/or 5% over optimum (whichever is greater) to 18" 120% of/or 5% over optimum (whichever is greater) to 24" 120% of/or 5% over optimum (whichever is greater) to 24"	6x6 – W1.4xW1.4 Mesh 6x6 – W2.9xW2.9 Mesh #3 re-bar @ 18" O.C., E.W. #3 re-bar @ 12" O.C., E.W. #4 re-bar @ 12" O.C., E.W.	12" thick x 12" wide 12" thick x 12" wide 12" thick x 12" wide 12" thick x 12" wide 12" thick x 12" wide	5-10 Feet 5-10 Feet 5-10 Feet 6 feet 6 feet	N.R.
Curb and Gutter	C.S.	Scarify 6"/Pre-Moisten	N.R.	N.R.	10 Feet	N.R.
General Concrete Paving ³	7	N.R.	N.R.	12"x12" where adjacent to landscape	10 Feet	6"
Trash Enclosure/Loading Bay ³	8	N.R.	N.R.	12"x12" where adjacent to landscape	10 Feet	6"

N.R. = Not Recommended
C.S. = City/County Standard
O.C. = On Center
E.W. = Each Way

General Notes:

- (A) All concrete thickness should be "full"
- (B) Square concrete panels when possible
- (C) Maintain positive drainage from concrete flatwork
- (D) All slab reinforcement should be placed at mid-height of slab
- (E) The above recommendations are intended to mitigate expansive soils independent of other design considerations. The recommendations of the structural engineer and/or architect should also be incorporated into the final design.

Footnotes:

- (1) Reinforcement to extend into cutoff barrier in thickened edge.
- (2) Joint at curves or angle points.
- (3) The above concrete paving recommendations are for planning purposes only.
An actual pavement design should be generated based on concrete strength, and frequency and magnitude of anticipated axle loads.
- (4) The above recommendations are intended to mitigate expansive soils independent of other design considerations.
The recommendations of the structural engineer and/or architect should also be incorporated into the final design.

APPENDIX G

ASFE INSERT

Important Information About Your Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes

The following information is provided to help you manage your risks.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one - not even you - should apply the report for any purpose or project except the one originally contemplated.*

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,

- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes - even minor ones - and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations.* *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ - sometimes significantly - from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are Not Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led

to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the express purpose of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; *none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.*

Rely on Your ASFE Member Geotechnical Engineer For Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your ASFE-member geotechnical engineer for more information.



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APPENDIX I
SLOPE MAINTENANCE GUIDELINES

SLOPE MAINTENANCE GUIDELINES

INTRODUCTION

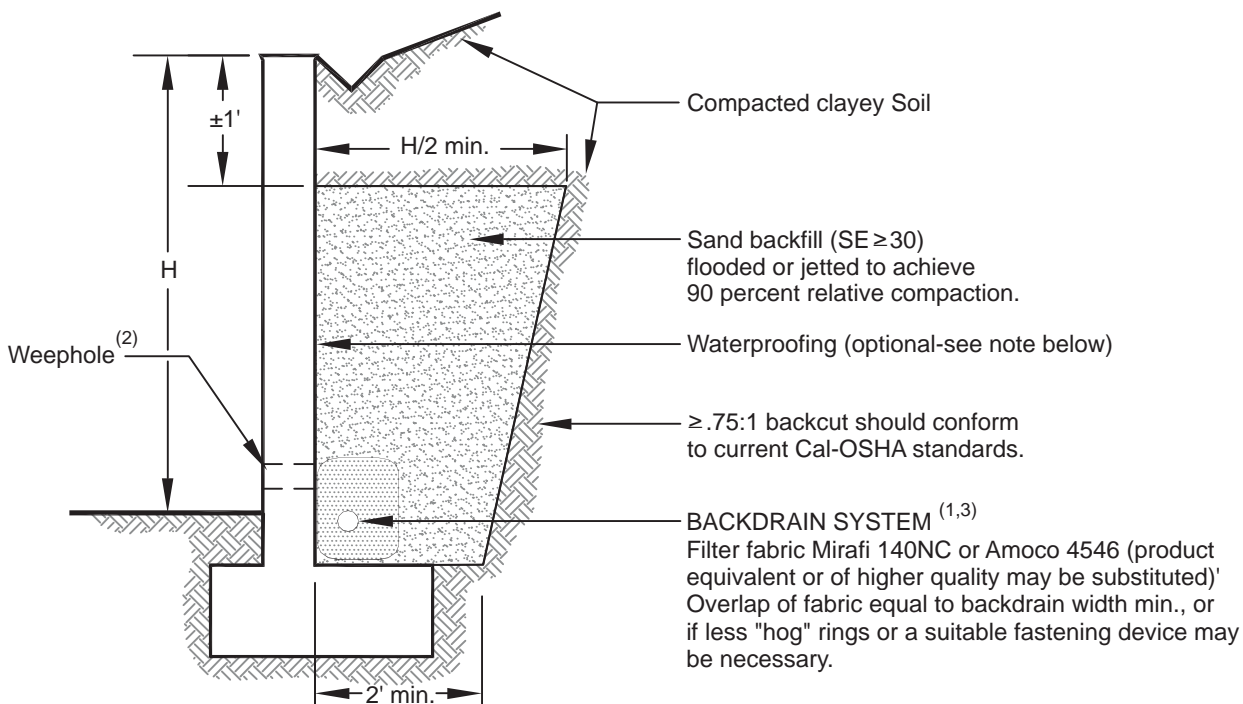
Permanent slope maintenance measures should be initiated as soon as possible after completion of slope construction. However, all soil slopes will undergo some erosion when subjected to sustained water application. To reduce long-term erosion, we have outlined below some important points to be considered when planning, designing, and installing or implementing slope erosion control plans. The following general guidelines are provided to mitigate slope maintenance problems and should be implemented by the responsible party, during landscaping improvements and subsequent maintenance:

1. Manufactured or natural slopes, terraces, berms (ridges at crown of slopes) and proper drainage should not be disturbed or altered. Surface drainage should be positively maintained to the street.
2. Construction delays, climate/weather conditions, and plant growth rates may be such that additional short-term, non-plant erosion control measures may be needed; examples would be matting, netting, plastic sheets, deep (5-feet) staking, etc.
3. Roof, and drive runoff should be positively conducted away from structures to either the street or storm drain by nonerosive devices such as sidewalks, drainage pipes, ground gutters, and driveway pavement. Drainage should meet the minimum requirements of Section 1804 of the California Building Code.
4. Drains and "V" ditches, etc., should be periodically cleared and unclogged, including gutters and downspouts. During heavy rain periods, drainage should be inspected for performance often, as this is when trouble occurs. Problems such as gullyng or ponding should be corrected as soon as possible.
5. High water content in slope soils is a major factor in slope erosion or slope failures. Therefore, all possible precautions should be taken to minimize soil moisture. Leakage from waterlines, irrigation systems, etc., or bypassing of clogged drains should be promptly repaired.
6. Animal burrows should be periodically filled or eliminated in order to minimize infiltration of water and slope failures.
7. If completion of new slopes occurs during the rainy season, contingency plans should be developed to provide prompt temporary protection against major erosion or sloughing. One method would be to place plastic sheeting over the slopes. This should be carefully coordinated with the Landscape Architect/Contractor.
8. The above guidelines are general maintenance procedures but may be superseded under specific direction of the geotechnical consultant/landscape architect/contractor.

APPENDIX J
RETAINING WALL DETAILS

Case 1

SELECT (CLEAN SAND) BACKFILL CONDITION

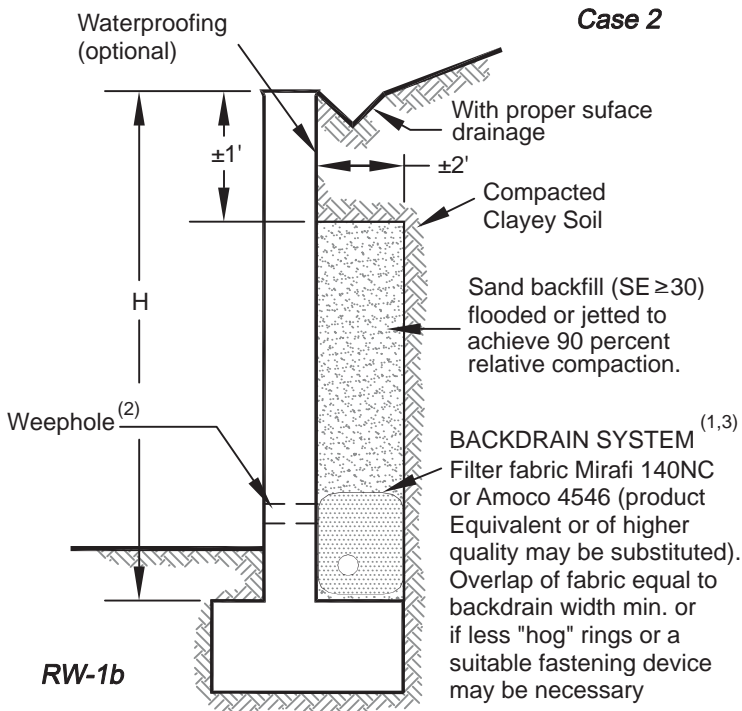


RW-1a

Case 2

NATIVE BACKFILL CONDITION*

* Note: An increase in Earth Pressure Parameters may be required.



RW-1b

Note:

It should be understood that the purpose of the retaining wall backdrain system is to reduce the potential for hydrostatic pressure buildup behind the wall. The backdrain system is not intended to be a means of waterproofing.

NOTES

- For walls 4 feet in height, or less, open head joints (weep areas) @32 inches on center in the first course above adjacent finished grade or provide at a max. of 25 feet on center, 2 inch diameter weep holes. In lieu of weep holes, Schedule 40 PVC, 3/4 inch crushed gravel with filter fabric may be utilized. Walls over 4 feet in height see note 2.
- Open head joints (weep areas) are not acceptable for walls over 4 feet in height, through pipes are required. Open head joints are recommended along with perforated pipe except where nuisance water cannot be tolerated. Where nuisance water is not acceptable, install an appropriate waterproofing material and use only the perforated pipe with outlets @ 100 foot intervals max., to suitable discharge facilities.
- 1 cubic foot per feet minimum (or as necessary to cover weep areas) 3/4 inch open graded crushed gravel, wrapped in filter fabric (type as indicated) with 4 inch diameter perforated pipe (perforations per ASTM F758, pointed down) PVC Schedule 40 ASTM D1785 (product equivalent or of increased quality may be substituted), joints are to be glued with the appropriate adhesive, drained at a slope of 1% minimum.

INFORMATION DEPICTED ON THIS DETAIL IS FOR TYPICAL CONDITIONS AND ARE SUBJECT TO CHANGE BY THE GEOTECHNICAL CONSULTANT.



**HYDROLOGY and HYDRAULICS
ANALYSIS**

CITY OF HESPERIA

SAN BERNARDINO COUNTY

Prepared Under the Supervision of:
DAVID GOLKAR, 54162 Exp. 12/31/21

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- Ration Hydrology Map Off-Site
- Rational Hydrology Map On-Site

EXHIBIT D UNIT HYDROGRAPH HYDROLOGY MAP

I. DRAINAGE OVERVIEW

1. INTRODUCTION

A. PURPOSE

A hydrologic and hydraulic analysis has been prepared for a commercial building project in Hesperia, California. This site is located in the south of Phelan Road, West of Highway 395, and east of Oro Grande Wash. The project site encompasses approximately 38.3 acres.

2. DISCUSSION

The project site is bounded by undeveloped areas on North, South, East, and West. The site is currently in a natural undeveloped condition. The proposed project is a commercial site, with associated paved streets, driveways, parking, and landscape areas. This project will only disturb approximately 38.3 acres of the site as the remaining 44.3 acres will not be disturbed by the project and are located adjacent to the Oro Grande Wash that traverse west side of the site.

The project site is located within the boundaries of the Victorville Master Plan of Drainage (MPD). The entire project site drain directly to the Oro Grande Wash.

In the existing condition, most storm flows traverse the site in a west to east direction.

In the proposed condition, entire storm flows from the project will be directed in a storm drain system to one of two basins located in North East side of the project and one in the South West side of the project along the edge of the Oro Grande Wash. The basins will reduce the proposed condition storm flows to the existing condition level. The basins have footprints of .6 acres and 2.4 acres. Both the storm drain system and the basins are private systems.

The following criteria were used in this analysis:

- All available information and improvement plans were collected.
- The drainage areas within and tributary to the project site were defined.
- The water quality study was performed as shown in the Design Handbook.

- The existing hydrographs were prepared based on the existing and proposed drainage patterns using Civilcadd/Civildesign Engineering Software.
- The Excel spreadsheet was used to determine the water quality quantities.
- The hydrographs were prepared using the Civilcadd/Civildesign Engineering Software.

The results of this study and the print out of these calculations for this hydrological analysis are presented herein.

3. HYDROLOGIC ANALYSIS

The hydrologic analysis was completed in accordance with the 1986 San Bernardino County Hydrology Manual and 2010 Hydrology Manual Addendum. The rational method has been used hydrologic analysis been prepared.

The Hydrology Manual Addendum requires the use of NOAA Atlas 14 rainfall values when completing hydrologic analyses. The addendum also requires the use of the USDA Web Soil Survey for soil type groupings. The Web Soil Survey indicates the project site is situated within an area comprised of compacted San soil, which is identified as hydrologic soil type "A" in the Hydrology Manual.

In the existing condition analysis, and "Open Brush-dense cover" land use type has been assigned based on the existing condition of the site. In proposed condition one 744,217 square-foot commercial building land use has been assigned as being the most representative of the proposed commercial portion the project. Additionally, in the proposed condition a "commercial" land use type has been assigned for the developed area and "open Brush-poor cover" land use type has been proposed that will not be disturbed by the project.

The existing condition hydrologic analysis is contained in Technical Appendix A and the proposed condition hydrologic analysis is contained in Technical Appendix B

Hydrology calculations were prepared using the "Rational Method Hydrology Computer Program Package" by Civilcadd Software based on the hydrology manual criterion. This study will calculate the 10-year and 100-year storm discharges for the sizing of drainage facilities.

The rational method computes the peak runoff as a function of area, rainfall intensity, and a coefficient of runoff. The basic formula in the rational method is as follows:

$$Q = CIA$$

Where:

Q = Peak runoff in cubic feet per second (cfs)

C = Coefficient of runoff

I = Average rainfall in inches per hour corresponding to the time of concentration

A = Drainage area in acres

This formula computes the peak flow rate at all points of concentration. The hydrology analysis is provided in this report.

4. BASIN ANALYSIS

To reduce the site discharge to the existing condition level, two basins have been proposed. An onsite storm drain will convey storm to the basins which one is located in the north east along Highway 395 and one in the south west which is located along the edge of the Oro Grande Wash.

Existing Condition

Drainage Area (Node)	Area (ac)	Q 100 (cfs)
Node 1 to Node 2	38.1	62.1

Proposed Condition

Drainage Area	Area (ac)	Q 100 (cfs)
Node 11 to Node 12	7.2	20.9
Node 13 to Node 14	30.9	72.4

Mitigated Condition

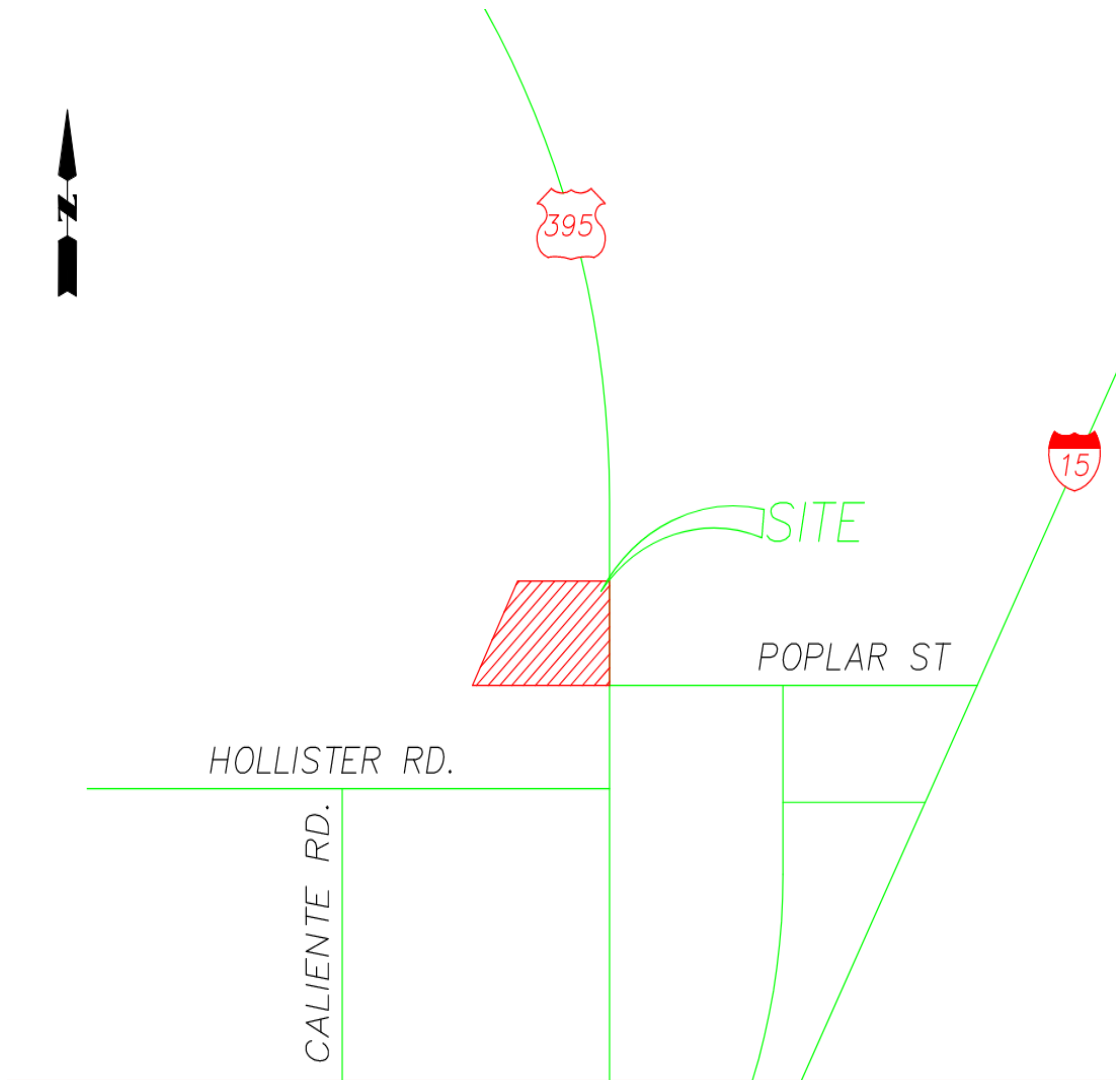
Drainage Area (Node)	Area (ac)	Q 100 (cfs)
Node 15	38.1	59.7

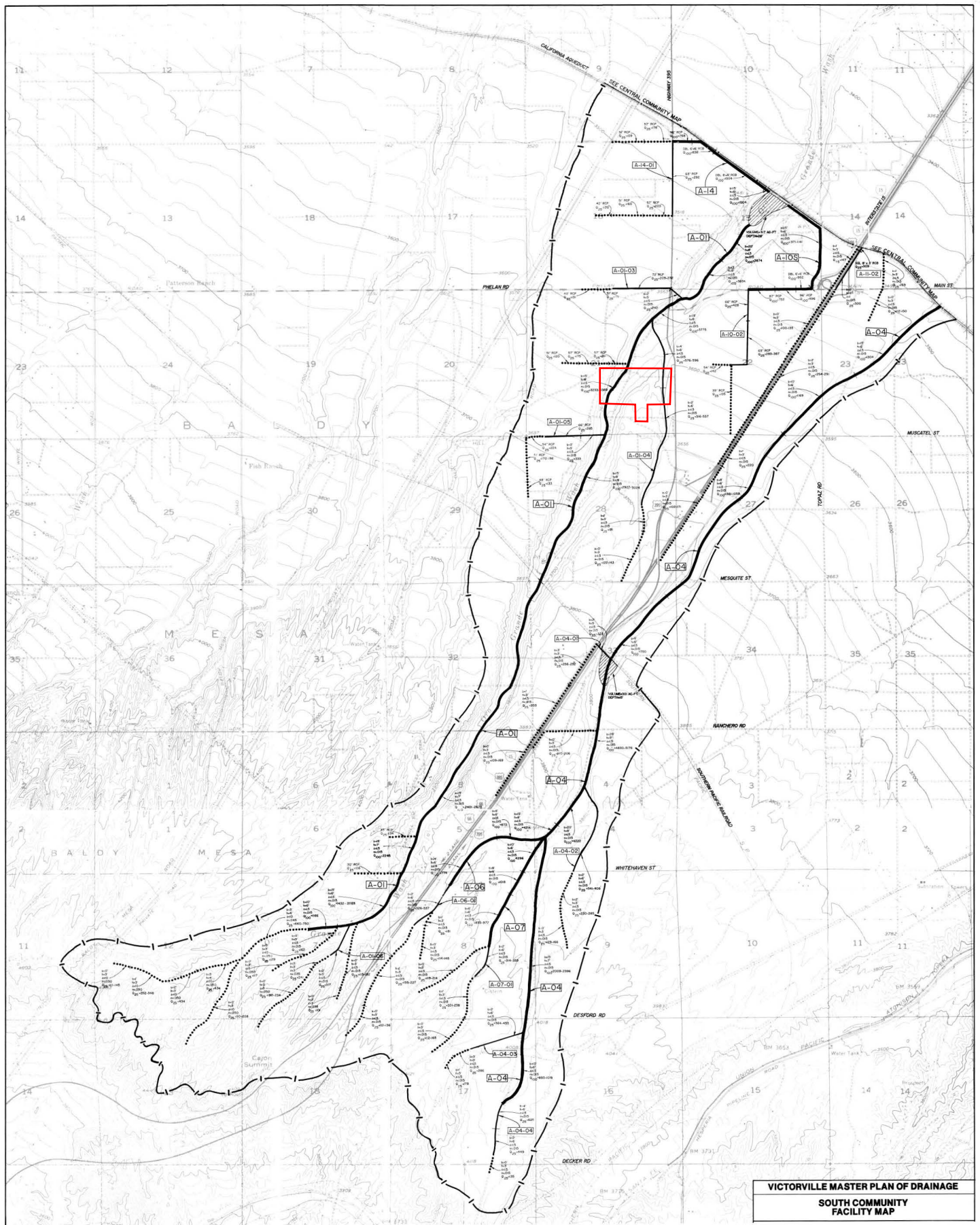
6. BASIN EMERGENCY OUTFLOW ANALYSIS

A GENERAL

All of the Basins within this project use outlet structures per Standard Drawing No. WQ501. This outlet allows the Outflow Trash Rack to act as an emergency 100-year outlet if the structure's outlet holes become plugged. If this structure were to become completely plugged, then an emergency spillway will be constructed to carry the flows. This spillway would be designed to carry the 100-year flows or if flows are greater than the 100-year flows could not be carried by the outlet structure and downstream facilities, then the spillway would handle that occurrence.

II. VICINITY MAP





III. APPENDICES

APPENDIX A RATIONAL HYDROLOGY ANALYSIS

Drainage Area existing '**Area 1**' Calculation 10-yr & 100-yr
Drainage Area proposed '**Area A-1**' Calculation 10-yr & 100-yr
Drainage Area proposed '**Area A-2**' Calculation 10-yr & 100-yr

APPENDIX B UNIT HYDROGRAPHS HYDROLOGY ANALYSIS

'Area 1' CALCULATIONS

Subarea '**Area 1**' 100-yr - Storm Events for Existing
Subarea '**Area A-1**' 100-yr - Storm Events for Proposed
Subarea '**Area A-2**' 100-yr - Storm Events for Proposed

APPENDIX C FLOOD ROUTING ANALYSIS

'Area 1' - 100-yr Flood Routing for 1-hr,

APPENDIX D HYDRAULIC CALCULATIONS ON PROPOSED FACILITIES

Water Quality Basin Outlet Structures
Outlet Weir & Spillway Calculations

APPENDIX "A"

RATIONAL HYDROLOGY ANALYSIS

Drainage Area existing '**Area 1**' Calculation 10-yr & 100-yr
Drainage Area proposed '**Area A-1**' Calculation 10-yr & 100-yr
Drainage Area proposed '**Area A-2**' Calculation 10-yr & 100-yr

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2019 Version 9.1
 Rational Hydrology Study Date: 11/29/21

City of Hesperia
10-year-1 Hour Rational Hydrology
Existing condition, area A

Program License Serial Number 6472

***** Hydrology Study Control Information *****

Rational hydrology study storm event year is 10.0
 Computed rainfall intensity:
 Storm year = 10.00 1 hour rainfall = 0.793 (In.)
 Slope used for rainfall intensity curve b = 0.6000
 Soil antecedent moisture condition (AMC) = 2

+++++
 Process from Point/Station 1.000 to Point/Station 2.000
 **** INITIAL AREA EVALUATION ****

UNDEVELOPED (dense cover) subarea
 Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil(AMC 2) = 38.00
 Pervious ratio(Ap) = 1.0000 Max loss rate(Fm)= 0.934(In/Hr)
 Initial subarea data:
 Initial area flow distance = 371.000(Ft.)
 Top (of initial area) elevation = 3622.000(Ft.)
 Bottom (of initial area) elevation = 3590.000(Ft.)
 Difference in elevation = 32.000(Ft.)
 Slope = 0.08625 s(%)= 8.63
 $TC = k(0.935) * [(length^3)/(elevation\ change)]^{0.2}$
 Initial area time of concentration = 16.271 min.
 Rainfall intensity = 1.735(In/Hr) for a 10.0 year storm
 Effective runoff coefficient used for area (Q=KCIA) is C = 0.415
 Subarea runoff = 6.629(CFS)
 Total initial stream area = 9.200(Ac.)
 Pervious area fraction = 1.000
 Initial area Fm value = 0.934(In/Hr)

+++++
 Process from Point/Station 2.000 to Point/Station 3.000

**** IRREGULAR CHANNEL FLOW TRAVEL TIME ****

Estimated mean flow rate at midpoint of channel = 0.000 (CFS)
 Depth of flow = 1.100 (Ft.), Average velocity = 8.291 (Ft/s)
 ***** Irregular Channel Data *****

Information entered for subchannel number 1 :

Point number	'X' coordinate	'Y' coordinate
1	0.00	5.00
2	3.00	0.00
3	4.00	0.00
4	7.00	5.00

Manning's 'N' friction factor = 0.025

Sub-Channel flow = 15.149 (CFS)
 ' ' flow top width = 2.321 (Ft.)
 ' ' velocity = 8.291 (Ft/s)
 ' ' area = 1.827 (Sq.Ft)
 ' ' Froude number = 1.647

Upstream point elevation = 3622.000 (Ft.)
 Downstream point elevation = 3575.000 (Ft.)
 Flow length = 990.000 (Ft.)
 Travel time = 1.99 min.
 Time of concentration = 18.26 min.
 Depth of flow = 1.100 (Ft.)
 Average velocity = 8.291 (Ft/s)
 Total irregular channel flow = 15.149 (CFS)
 Irregular channel normal depth above invert elev. = 1.100 (Ft.)
 Average velocity of channel(s) = 8.291 (Ft/s)
 Adding area flow to channel
 UNDEVELOPED (dense cover) subarea
 Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil (AMC 2) = 38.00
 Pervious ratio (Ap) = 1.0000 Max loss rate (Fm) = 0.934 (In/Hr)
 Rainfall intensity = 1.619 (In/Hr) for a 10.0 year storm
 Effective runoff coefficient used for area, (total area with modified
 rational method) (Q=KCIA) is C = 0.381
 Subarea runoff = 16.967 (CFS) for 29.100 (Ac.)
 Total runoff = 23.596 (CFS)
 Effective area this stream = 38.30 (Ac.)
 Total Study Area (Main Stream No. 1) = 38.30 (Ac.)
 Area averaged Fm value = 0.934 (In/Hr)
 Depth of flow = 1.393 (Ft.), Average velocity = 9.231 (Ft/s)
 End of computations, Total Study Area = 38.30 (Ac.)
 The following figures may
 be used for a unit hydrograph study of the same area.
 Note: These figures do not consider reduced effective area
 effects caused by confluences in the rational equation.

Area averaged pervious area fraction (Ap) = 1.000
 Area averaged SCS curve number = 38.0

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2019 Version 9.1
Rational Hydrology Study Date: 11/28/21

**City of Hesperia
100-year-1 Hour Rational Hydrology
Existing condition, area A**

Program License Serial Number 6472

***** Hydrology Study Control Information *****

Rational hydrology study storm event year is 100.0
Computed rainfall intensity:
Storm year = 100.00 1 hour rainfall = 1.320 (In.)
Slope used for rainfall intensity curve b = 0.6000
Soil antecedent moisture condition (AMC) = 3

++++
Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

UNDEVELOPED (dense cover) subarea
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2) = 38.00
Adjusted SCS curve number for AMC 3 = 58.00
Pervious ratio(Ap) = 1.0000 Max loss rate(Fm)= 0.707(In/Hr)
Initial subarea data:
Initial area flow distance= 371.000(Ft.)
Top (of initial area) elevation = 3622.000(Ft.)
Bottom (of initial area) elevation = 3590.000(Ft.)
Difference in elevation = 32.000(Ft.)
Slope = 0.08625 s(%)= 8.63
TC = k(0.935)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 16.271 min.
Rainfall intensity = 2.888(In/Hr) for a 100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.680
Subarea runoff = 18.058(CFS)
Total initial stream area = 9.200(Ac.)
Pervious area fraction = 1.000
Initial area Fm value = 0.707(In/Hr)

++++

Process from Point/Station 2.000 to Point/Station 3.000
 **** IRREGULAR CHANNEL FLOW TRAVEL TIME ****

Estimated mean flow rate at midpoint of channel = 0.000 (CFS)
 Depth of flow = 1.913 (Ft.), Average velocity = 10.714 (Ft/s)
 ***** Irregular Channel Data *****

Information entered for subchannel number 1 :
 Point number 'X' coordinate 'Y' coordinate
 1 0.00 5.00
 2 3.00 0.00
 3 4.00 0.00
 4 7.00 5.00

Manning's 'N' friction factor = 0.025

Sub-Channel flow = 44.033 (CFS)
 ' ' flow top width = 3.296 (Ft.)
 ' ' velocity = 10.714 (Ft/s)
 ' ' area = 4.110 (Sq.Ft)
 ' ' Froude number = 1.691

Upstream point elevation = 3622.000 (Ft.)
 Downstream point elevation = 3575.000 (Ft.)
 Flow length = 990.000 (Ft.)
 Travel time = 1.54 min.
 Time of concentration = 17.81 min.
 Depth of flow = 1.913 (Ft.)
 Average velocity = 10.714 (Ft/s)
 Total irregular channel flow = 44.033 (CFS)
 Irregular channel normal depth above invert elev. = 1.913 (Ft.)
 Average velocity of channel(s) = 10.714 (Ft/s)
 Adding area flow to channel
 UNDEVELOPED (dense cover) subarea
 Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil (AMC 2) = 38.00
 Adjusted SCS curve number for AMC 3 = 58.00
 Pervious ratio (Ap) = 1.0000 Max loss rate (Fm) = 0.707 (In/Hr)
 Rainfall intensity = 2.736 (In/Hr) for a 100.0 year storm
 Effective runoff coefficient used for area, (total area with modified
 rational method) (Q=KCIA) is C = 0.667
 Subarea runoff = 51.861 (CFS) for 29.100 (Ac.)
 Total runoff = 69.919 (CFS)
 Effective area this stream = 38.30 (Ac.)
 Total Study Area (Main Stream No. 1) = 38.30 (Ac.)
 Area averaged Fm value = 0.707 (In/Hr)
 Depth of flow = 2.398 (Ft.), Average velocity = 11.956 (Ft/s)
 End of computations, Total Study Area = 38.30 (Ac.)
 The following figures may
 be used for a unit hydrograph study of the same area.
 Note: These figures do not consider reduced effective area
 effects caused by confluences in the rational equation.

Area averaged pervious area fraction (Ap) = 1.000
 Area averaged SCS curve number = 38.0

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2019 Version 9.1
 Rational Hydrology Study Date: 11/27/21

City of Hesperia
10-year-1 Hour Rational Hydrology
Proposed condition, area A-1

Program License Serial Number 6472

***** Hydrology Study Control Information *****

Rational hydrology study storm event year is 10.0
 Computed rainfall intensity:
 Storm year = 10.00 1 hour rainfall = 0.793 (In.)
 Slope used for rainfall intensity curve b = 0.6000
 Soil antecedent moisture condition (AMC) = 2

+++++
 Process from Point/Station 1.000 to Point/Station 2.000
 **** INITIAL AREA EVALUATION ****

COMMERCIAL subarea type
 Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil(AMC 2) = 32.00
 Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.098 (In/Hr)
 Initial subarea data:
 Initial area flow distance = 698.000 (Ft.)
 Top (of initial area) elevation = 3632.000 (Ft.)
 Bottom (of initial area) elevation = 3596.000 (Ft.)
 Difference in elevation = 36.000 (Ft.)
 Slope = 0.05158 s(%)= 5.16
 $TC = k(0.304) * [(length^3) / (elevation\ change)]^{0.2}$
 Initial area time of concentration = 7.550 min.
 Rainfall intensity = 2.750 (In/Hr) for a 10.0 year storm
 Effective runoff coefficient used for area (Q=KCIA) is C = 0.868
 Subarea runoff = 6.685 (CFS)
 Total initial stream area = 2.800 (Ac.)
 Pervious area fraction = 0.100
 Initial area Fm value = 0.098 (In/Hr)

+++++
 Process from Point/Station 2.000 to Point/Station 3.000

**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 3596.000 (Ft.)
 Downstream point/station elevation = 3595.400 (Ft.)
 Pipe length = 616.00 (Ft.) Manning's N = 0.013
 No. of pipes = 1 Required pipe flow = 6.685 (CFS)
 Nearest computed pipe diameter = 24.00 (In.)
 Calculated individual pipe flow = 6.685 (CFS)
 Normal flow depth in pipe = 18.61 (In.)
 Flow top width inside pipe = 20.03 (In.)
 Critical Depth = 11.01 (In.)
 Pipe flow velocity = 2.56 (Ft/s)
 Travel time through pipe = 4.02 min.
 Time of concentration (TC) = 11.57 min.

++++
 Process from Point/Station 2.000 to Point/Station 3.000
 **** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 1
 Stream flow area = 2.800 (Ac.)
 Runoff from this stream = 6.685 (CFS)
 Time of concentration = 11.57 min.
 Rainfall intensity = 2.129 (In/Hr)
 Area averaged loss rate (Fm) = 0.0978 (In/Hr)
 Area averaged Pervious ratio (Ap) = 0.1000

++++
 Process from Point/Station 2.000 to Point/Station 3.000
 **** INITIAL AREA EVALUATION ****

COMMERCIAL subarea type
 Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil (AMC 2) = 32.00
 Pervious ratio (Ap) = 0.1000 Max loss rate (Fm) = 0.098 (In/Hr)
 Initial subarea data:
 Initial area flow distance = 616.000 (Ft.)
 Top (of initial area) elevation = 3596.000 (Ft.)
 Bottom (of initial area) elevation = 3595.400 (Ft.)
 Difference in elevation = 0.600 (Ft.)
 Slope = 0.00097 s (%) = 0.10
 $TC = k(0.304) * [(length^3) / (elevation\ change)]^{0.2}$
 Initial area time of concentration = 15.885 min.
 Rainfall intensity = 1.760 (In/Hr) for a 10.0 year storm
 Effective runoff coefficient used for area (Q=KCIA) is C = 0.850
 Subarea runoff = 5.686 (CFS)
 Total initial stream area = 3.800 (Ac.)
 Pervious area fraction = 0.100
 Initial area Fm value = 0.098 (In/Hr)

++++

Process from Point/Station 2.000 to Point/Station 3.000
 **** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 2
 Stream flow area = 3.800(Ac.)
 Runoff from this stream = 5.686(CFS)
 Time of concentration = 15.89 min.
 Rainfall intensity = 1.760(In/Hr)
 Area averaged loss rate (Fm) = 0.0978(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.1000
 Summary of stream data:

Stream No.	Flow rate (CFS)	Area (Ac.)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
1	6.68	2.800	11.57	0.098	2.129
2	5.69	3.800	15.89	0.098	1.760

Qmax(1) =
 1.000 * 1.000 * 6.685) +
 1.222 * 0.728 * 5.686) + = 11.744

Qmax(2) =
 0.818 * 1.000 * 6.685) +
 1.000 * 1.000 * 5.686) + = 11.155

Total of 2 streams to confluence:
 Flow rates before confluence point:
 6.685 5.686
 Maximum flow rates at confluence using above data:
 11.744 11.155
 Area of streams before confluence:
 2.800 3.800
 Effective area values after confluence:
 5.567 6.600

Results of confluence:
 Total flow rate = 11.744(CFS)
 Time of concentration = 11.565 min.
 Effective stream area after confluence = 5.567(Ac.)
 Study area average Pervious fraction(Ap) = 0.100
 Study area average soil loss rate(Fm) = 0.098(In/Hr)
 Study area total (this main stream) = 6.60(Ac.)

+++++
 Process from Point/Station 3.000 to Point/Station 4.000
 **** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 3595.400(Ft.)
 Downstream point/station elevation = 3589.400(Ft.)
 Pipe length = 62.00(Ft.) Manning's N = 0.013
 No. of pipes = 1 Required pipe flow = 11.744(CFS)
 Nearest computed pipe diameter = 15.00(In.)
 Calculated individual pipe flow = 11.744(CFS)
 Normal flow depth in pipe = 8.24(In.)
 Flow top width inside pipe = 14.93(In.)
 Critical depth could not be calculated.
 Pipe flow velocity = 17.01(Ft/s)

Travel time through pipe = 0.06 min.
 Time of concentration (TC) = 11.63 min.

++++
 Process from Point/Station 4.000 to Point/Station 4.000
 **** SUBAREA FLOW ADDITION ****

UNDEVELOPED (poor cover) subarea
 Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil(AMC 2) = 67.00
 Pervious ratio(Ap) = 1.0000 Max loss rate(Fm)= 0.578(In/Hr)
 The area added to the existing stream causes a
 a lower flow rate of Q = 10.979(CFS)
 therefore the upstream flow rate of Q = 11.744(CFS) is being used
 Time of concentration = 11.63 min.
 Rainfall intensity = 2.123(In/Hr) for a 10.0 year storm
 Effective runoff coefficient used for area, (total area with modified
 rational method) (Q=KCIA) is C = 0.839
 Subarea runoff = 0.000(CFS) for 0.600(Ac.)
 Total runoff = 11.744(CFS)
 Effective area this stream = 6.17(Ac.)
 Total Study Area (Main Stream No. 1) = 7.20(Ac.)
 Area averaged Fm value = 0.145(In/Hr)
 End of computations, Total Study Area = 7.20 (Ac.)
 The following figures may
 be used for a unit hydrograph study of the same area.
 Note: These figures do not consider reduced effective area
 effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.175
 Area averaged SCS curve number = 34.9

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2019 Version 9.1
 Rational Hydrology Study Date: 11/27/21

City of Hesperia
100-year-1 Hour Rational Hydrology
Proposed condition, area A-1

Program License Serial Number 6472

***** Hydrology Study Control Information *****

Rational hydrology study storm event year is 100.0
 10 Year storm 1 hour rainfall = 0.793(In.)
 100 Year storm 1 hour rainfall = 1.320(In.)
 Computed rainfall intensity:
 Storm year = 100.00 1 hour rainfall = 1.320 (In.)
 Slope used for rainfall intensity curve b = 0.6000
 Soil antecedent moisture condition (AMC) = 3

+++++
 Process from Point/Station 1.000 to Point/Station 2.000
 **** INITIAL AREA EVALUATION ****

COMMERCIAL subarea type
 Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil(AMC 2) = 32.00
 Adjusted SCS curve number for AMC 3 = 52.00
 Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.079(In/Hr)
 Initial subarea data:
 Initial area flow distance = 698.000(Ft.)
 Top (of initial area) elevation = 3632.000(Ft.)
 Bottom (of initial area) elevation = 3596.000(Ft.)
 Difference in elevation = 36.000(Ft.)
 Slope = 0.05158 s(%)= 5.16
 $TC = k(0.304)*[(length^3)/(elevation\ change)]^{0.2}$
 Initial area time of concentration = 7.550 min.
 Rainfall intensity = 4.578(In/Hr) for a 100.0 year storm
 Effective runoff coefficient used for area (Q=KCIA) is C = 0.885
 Subarea runoff = 11.340(CFS)
 Total initial stream area = 2.800(Ac.)
 Pervious area fraction = 0.100
 Initial area Fm value = 0.079(In/Hr)

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+++++
Process from Point/Station      2.000 to Point/Station      3.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

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```

Upstream point/station elevation = 3596.000 (Ft.)
Downstream point/station elevation = 3595.400 (Ft.)
Pipe length = 616.00 (Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 11.340 (CFS)
Nearest computed pipe diameter = 30.00 (In.)
Calculated individual pipe flow = 11.340 (CFS)
Normal flow depth in pipe = 21.96 (In.)
Flow top width inside pipe = 26.57 (In.)
Critical Depth = 13.52 (In.)
Pipe flow velocity = 2.95 (Ft/s)
Travel time through pipe = 3.49 min.
Time of concentration (TC) = 11.04 min.

```

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+++++
Process from Point/Station      2.000 to Point/Station      3.000
**** CONFLUENCE OF MINOR STREAMS ****

```

```

Along Main Stream number: 1 in normal stream number 1
Stream flow area = 2.800 (Ac.)
Runoff from this stream = 11.340 (CFS)
Time of concentration = 11.04 min.
Rainfall intensity = 3.646 (In/Hr)
Area averaged loss rate (Fm) = 0.0785 (In/Hr)
Area averaged Pervious ratio (Ap) = 0.1000

```

```

+++++
Process from Point/Station      2.000 to Point/Station      3.000
**** INITIAL AREA EVALUATION ****

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```

COMMERCIAL subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil (AMC 2) = 32.00
Adjusted SCS curve number for AMC 3 = 52.00
Pervious ratio (Ap) = 0.1000 Max loss rate (Fm) = 0.079 (In/Hr)
Initial subarea data:
Initial area flow distance = 616.000 (Ft.)
Top (of initial area) elevation = 3596.000 (Ft.)
Bottom (of initial area) elevation = 3595.400 (Ft.)
Difference in elevation = 0.600 (Ft.)
Slope = 0.00097 s(%) = 0.10
TC = k(0.304)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 15.885 min.
Rainfall intensity = 2.930 (In/Hr) for a 100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.876
Subarea runoff = 9.752 (CFS)
Total initial stream area = 3.800 (Ac.)
Pervious area fraction = 0.100

```

Initial area Fm value = 0.079(In/Hr)

++++
 Process from Point/Station 2.000 to Point/Station 3.000
 **** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 2

Stream flow area = 3.800(Ac.)
 Runoff from this stream = 9.752(CFS)
 Time of concentration = 15.89 min.
 Rainfall intensity = 2.930(In/Hr)
 Area averaged loss rate (Fm) = 0.0785(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.1000

Summary of stream data:

Stream No.	Flow rate (CFS)	Area (Ac.)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
1	11.34	2.800	11.04	0.079	3.646
2	9.75	3.800	15.89	0.079	2.930

Qmax(1) =
 1.000 * 1.000 * 11.340) +
 1.251 * 0.695 * 9.752) + = 19.815

Qmax(2) =
 0.799 * 1.000 * 11.340) +
 1.000 * 1.000 * 9.752) + = 18.816

Total of 2 streams to confluence:

Flow rates before confluence point:

11.340 9.752

Maximum flow rates at confluence using above data:

19.815 18.816

Area of streams before confluence:

2.800 3.800

Effective area values after confluence:

5.440 6.600

Results of confluence:

Total flow rate = 19.815(CFS)
 Time of concentration = 11.036 min.
 Effective stream area after confluence = 5.440(Ac.)
 Study area average Pervious fraction(Ap) = 0.100
 Study area average soil loss rate(Fm) = 0.079(In/Hr)
 Study area total (this main stream) = 6.60(Ac.)

++++
 Process from Point/Station 3.000 to Point/Station 4.000
 **** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 3595.400(Ft.)
 Downstream point/station elevation = 3589.400(Ft.)
 Pipe length = 62.00(Ft.) Manning's N = 0.013
 No. of pipes = 1 Required pipe flow = 19.815(CFS)
 Nearest computed pipe diameter = 15.00(In.)
 Calculated individual pipe flow = 19.815(CFS)

Normal flow depth in pipe = 12.12(In.)
 Flow top width inside pipe = 11.82(In.)
 Critical depth could not be calculated.
 Pipe flow velocity = 18.67(Ft/s)
 Travel time through pipe = 0.06 min.
 Time of concentration (TC) = 11.09 min.

++++++
 Process from Point/Station 4.000 to Point/Station 4.000
 ***** SUBAREA FLOW ADDITION *****

UNDEVELOPED (poor cover) subarea
 Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil(AMC 2) = 67.00
 Adjusted SCS curve number for AMC 3 = 84.60
 Pervious ratio(Ap) = 1.0000 Max loss rate(Fm)= 0.290(In/Hr)
 The area added to the existing stream causes a
 a lower flow rate of Q = 19.218(CFS)
 therefore the upstream flow rate of Q = 19.815(CFS) is being used
 Time of concentration = 11.09 min.
 Rainfall intensity = 3.635(In/Hr) for a 100.0 year storm
 Effective runoff coefficient used for area, (total area with modified
 rational method) (Q=KCIA) is C = 0.875
 Subarea runoff = 0.000(CFS) for 0.600(Ac.)
 Total runoff = 19.815(CFS)
 Effective area this stream = 6.04(Ac.)
 Total Study Area (Main Stream No. 1) = 7.20(Ac.)
 Area averaged Fm value = 0.100(In/Hr)
 End of computations, Total Study Area = 7.20 (Ac.)
 The following figures may
 be used for a unit hydrograph study of the same area.
 Note: These figures do not consider reduced effective area
 effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.175
 Area averaged SCS curve number = 34.9

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2019 Version 9.1
 Rational Hydrology Study Date: 11/27/21

City of Hesperia
10-year-1 Hour Rational Hydrology
Proposed condition, area A-2

Program License Serial Number 6472

***** Hydrology Study Control Information *****

Rational hydrology study storm event year is 10.0
 Computed rainfall intensity:
 Storm year = 10.00 1 hour rainfall = 0.793 (In.)
 Slope used for rainfall intensity curve b = 0.6000
 Soil antecedent moisture condition (AMC) = 2

+++++
 Process from Point/Station 6.000 to Point/Station 7.000
 **** INITIAL AREA EVALUATION ****

COMMERCIAL subarea type
 Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil(AMC 2) = 32.00
 Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.098(In/Hr)
 Initial subarea data:
 Initial area flow distance = 245.000(Ft.)
 Top (of initial area) elevation = 3598.000(Ft.)
 Bottom (of initial area) elevation = 3597.000(Ft.)
 Difference in elevation = 1.000(Ft.)
 Slope = 0.00408 s(%)= 0.41
 $TC = k(0.304)*[(length^3)/(elevation\ change)]^{0.2}$
 Initial area time of concentration = 8.248 min.
 Rainfall intensity = 2.608(In/Hr) for a 10.0 year storm
 Effective runoff coefficient used for area (Q=KCIA) is C = 0.866
 Subarea runoff = 1.807(CFS)
 Total initial stream area = 0.800(Ac.)
 Pervious area fraction = 0.100
 Initial area Fm value = 0.098(In/Hr)

+++++
 Process from Point/Station 7.000 to Point/Station 9.000

**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 3597.000 (Ft.)
 Downstream point/station elevation = 3596.800 (Ft.)
 Pipe length = 402.00 (Ft.) Manning's N = 0.013
 No. of pipes = 1 Required pipe flow = 1.807 (CFS)
 Nearest computed pipe diameter = 18.00 (In.)
 Calculated individual pipe flow = 1.807 (CFS)
 Normal flow depth in pipe = 11.86 (In.)
 Flow top width inside pipe = 17.07 (In.)
 Critical Depth = 6.06 (In.)
 Pipe flow velocity = 1.46 (Ft/s)
 Travel time through pipe = 4.58 min.
 Time of concentration (TC) = 12.83 min.

+++++
 Process from Point/Station 9.000 to Point/Station 9.000
 **** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 1
 Stream flow area = 0.800 (Ac.)
 Runoff from this stream = 1.807 (CFS)
 Time of concentration = 12.83 min.
 Rainfall intensity = 2.001 (In/Hr)
 Area averaged loss rate (Fm) = 0.0978 (In/Hr)
 Area averaged Pervious ratio (Ap) = 0.1000

+++++
 Process from Point/Station 8.000 to Point/Station 9.000
 **** INITIAL AREA EVALUATION ****

COMMERCIAL subarea type
 Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil (AMC 2) = 32.00
 Pervious ratio (Ap) = 0.1000 Max loss rate (Fm) = 0.098 (In/Hr)
 Initial subarea data:
 Initial area flow distance = 223.000 (Ft.)
 Top (of initial area) elevation = 3598.000 (Ft.)
 Bottom (of initial area) elevation = 3596.800 (Ft.)
 Difference in elevation = 1.200 (Ft.)
 Slope = 0.00538 s (%) = 0.54
 $TC = k(0.304) * [(length^3) / (elevation\ change)]^{0.2}$
 Initial area time of concentration = 7.517 min.
 Rainfall intensity = 2.758 (In/Hr) for a 10.0 year storm
 Effective runoff coefficient used for area (Q=KCIA) is C = 0.868
 Subarea runoff = 1.436 (CFS)
 Total initial stream area = 0.600 (Ac.)
 Pervious area fraction = 0.100
 Initial area Fm value = 0.098 (In/Hr)

+++++

Process from Point/Station 9.000 to Point/Station 9.000
 **** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 2
 Stream flow area = 0.600(Ac.)
 Runoff from this stream = 1.436(CFS)
 Time of concentration = 7.52 min.
 Rainfall intensity = 2.758(In/Hr)
 Area averaged loss rate (Fm) = 0.0978(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.1000
 Summary of stream data:

Stream No.	Flow rate (CFS)	Area (Ac.)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
1	1.81	0.800	12.83	0.098	2.001
2	1.44	0.600	7.52	0.098	2.758

Qmax(1) =
 1.000 * 1.000 * 1.807) +
 0.716 * 1.000 * 1.436) + = 2.835

Qmax(2) =
 1.398 * 0.586 * 1.807) +
 1.000 * 1.000 * 1.436) + = 2.916

Total of 2 streams to confluence:
 Flow rates before confluence point:
 1.807 1.436
 Maximum flow rates at confluence using above data:
 2.835 2.916
 Area of streams before confluence:
 0.800 0.600
 Effective area values after confluence:
 1.400 1.069
 Results of confluence:
 Total flow rate = 2.916(CFS)
 Time of concentration = 7.517 min.
 Effective stream area after confluence = 1.069(Ac.)
 Study area average Pervious fraction(Ap) = 0.100
 Study area average soil loss rate(Fm) = 0.098(In/Hr)
 Study area total (this main stream) = 1.40(Ac.)

+++++
 Process from Point/Station 9.000 to Point/Station 11.000
 **** PIPEFLOW TRAVEL TIME (User specified size) ****

Upstream point/station elevation = 3596.800(Ft.)
 Downstream point/station elevation = 3595.600(Ft.)
 Pipe length = 1151.00(Ft.) Manning's N = 0.013
 No. of pipes = 1 Required pipe flow = 2.916(CFS)
 Given pipe size = 1.00(In.)
 NOTE: Normal flow is pressure flow in user selected pipe size.
 The approximate hydraulic grade line above the pipe invert is
 4399083.885(Ft.) at the headworks or inlet of the pipe(s)
 Pipe friction loss = 4392425.093(Ft.)
 Minor friction loss = 6659.992(Ft.) K-factor = 1.50

Pipe flow velocity = 534.73(Ft/s)
 Travel time through pipe = 0.04 min.
 Time of concentration (TC) = 7.55 min.

++++
 Process from Point/Station 11.000 to Point/Station 11.000
 **** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 1
 Stream flow area = 1.069(Ac.)
 Runoff from this stream = 2.916(CFS)
 Time of concentration = 7.55 min.
 Rainfall intensity = 2.750(In/Hr)
 Area averaged loss rate (Fm) = 0.0978(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.1000

++++
 Process from Point/Station 10.000 to Point/Station 11.000
 **** INITIAL AREA EVALUATION ****

COMMERCIAL subarea type

Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil(AMC 2) = 32.00
 Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.098(In/Hr)
 Initial subarea data:
 Initial area flow distance = 1000.000(Ft.)
 Top (of initial area) elevation = 3598.000(Ft.)
 Bottom (of initial area) elevation = 3595.600(Ft.)
 Difference in elevation = 2.400(Ft.)
 Slope = 0.00240 s(%)= 0.24
 $TC = k(0.304)*[(length^3)/(elevation\ change)]^{0.2}$
 Initial area time of concentration = 16.100 min.
 Rainfall intensity = 1.746(In/Hr) for a 10.0 year storm
 Effective runoff coefficient used for area (Q=KCIA) is C = 0.850
 Subarea runoff = 10.829(CFS)
 Total initial stream area = 7.300(Ac.)
 Pervious area fraction = 0.100
 Initial area Fm value = 0.098(In/Hr)

++++
 Process from Point/Station 11.000 to Point/Station 11.000
 **** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 2
 Stream flow area = 7.300(Ac.)
 Runoff from this stream = 10.829(CFS)
 Time of concentration = 16.10 min.
 Rainfall intensity = 1.746(In/Hr)
 Area averaged loss rate (Fm) = 0.0978(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.1000
 Summary of stream data:

Stream No.	Flow rate (CFS)	Area (Ac.)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
------------	-----------------	------------	----------	------------	----------------------------

1	2.92	1.069	7.55	0.098	2.750
2	10.83	7.300	16.10	0.098	1.746

Qmax(1) =
 $1.000 * 1.000 * 2.916) + 1.609 * 0.469 * 10.829) + = 11.090$

Qmax(2) =
 $0.622 * 1.000 * 2.916) + 1.000 * 1.000 * 10.829) + = 12.642$

Total of 2 streams to confluence:

Flow rates before confluence point:
 2.916 10.829

Maximum flow rates at confluence using above data:
 11.090 12.642

Area of streams before confluence:
 1.069 7.300

Effective area values after confluence:
 4.493 8.369

Results of confluence:

Total flow rate = 12.642 (CFS)
 Time of concentration = 16.100 min.
 Effective stream area after confluence = 8.369 (Ac.)
 Study area average Pervious fraction (Ap) = 0.100
 Study area average soil loss rate (Fm) = 0.098 (In/Hr)
 Study area total (this main stream) = 8.37 (Ac.)

++++
 Process from Point/Station 11.000 to Point/Station 16.000
 **** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 3595.600 (Ft.)
 Downstream point/station elevation = 3595.500 (Ft.)
 Pipe length = 76.00 (Ft.) Manning's N = 0.013
 No. of pipes = 1 Required pipe flow = 12.642 (CFS)
 Nearest computed pipe diameter = 30.00 (In.)
 Calculated individual pipe flow = 12.642 (CFS)
 Normal flow depth in pipe = 21.23 (In.)
 Flow top width inside pipe = 27.29 (In.)
 Critical Depth = 14.32 (In.)
 Pipe flow velocity = 3.40 (Ft/s)
 Travel time through pipe = 0.37 min.
 Time of concentration (TC) = 16.47 min.

++++
 Process from Point/Station 16.000 to Point/Station 16.000
 **** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 1
 Stream flow area = 8.369 (Ac.)
 Runoff from this stream = 12.642 (CFS)

Time of concentration = 16.47 min.
 Rainfall intensity = 1.722 (In/Hr)
 Area averaged loss rate (Fm) = 0.0978 (In/Hr)
 Area averaged Pervious ratio (Ap) = 0.1000

++++
 Process from Point/Station 13.000 to Point/Station 14.000
 **** INITIAL AREA EVALUATION ****

COMMERCIAL subarea type

Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil(AMC 2) = 32.00
 Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.098 (In/Hr)
 Initial subarea data:
 Initial area flow distance = 663.000 (Ft.)
 Top (of initial area) elevation = 3598.000 (Ft.)
 Bottom (of initial area) elevation = 3597.000 (Ft.)
 Difference in elevation = 1.000 (Ft.)
 Slope = 0.00151 s(%)= 0.15
 $TC = k(0.304) * [(length^3) / (elevation\ change)]^{0.2}$
 Initial area time of concentration = 14.989 min.
 Rainfall intensity = 1.823 (In/Hr) for a 10.0 year storm
 Effective runoff coefficient used for area (Q=KCIA) is C = 0.852
 Subarea runoff = 13.350 (CFS)
 Total initial stream area = 8.600 (Ac.)
 Pervious area fraction = 0.100
 Initial area Fm value = 0.098 (In/Hr)

++++
 Process from Point/Station 14.000 to Point/Station 15.000
 **** IMPROVED CHANNEL TRAVEL TIME ****

Upstream point elevation = 3597.000 (Ft.)
 Downstream point elevation = 3596.400 (Ft.)
 Channel length thru subarea = 648.000 (Ft.)
 Channel base width = 5.000 (Ft.)
 Slope or 'Z' of left channel bank = 5.000
 Slope or 'Z' of right channel bank = 2.000
 Estimated mean flow rate at midpoint of channel = 17.854 (CFS)
 Manning's 'N' = 0.015
 Maximum depth of channel = 2.000 (Ft.)
 Flow(q) thru subarea = 17.854 (CFS)
 Depth of flow = 0.944 (Ft.), Average velocity = 2.279 (Ft/s)
 Channel flow top width = 11.606 (Ft.)
 Flow Velocity = 2.28 (Ft/s)
 Travel time = 4.74 min.
 Time of concentration = 19.73 min.
 Critical depth = 0.633 (Ft.)
 Adding area flow to channel
 COMMERCIAL subarea type
 Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000

Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil(AMC 2) = 32.00
 Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.098(In/Hr)
 Rainfall intensity = 1.546(In/Hr) for a 10.0 year storm
 Effective runoff coefficient used for area,(total area with modified
 rational method) (Q=KCIA) is C = 0.843
 Subarea runoff = 8.932(CFS) for 8.500(Ac.)
 Total runoff = 22.282(CFS)
 Effective area this stream = 17.10(Ac.)
 Total Study Area (Main Stream No. 1) = 25.80(Ac.)
 Area averaged Fm value = 0.098(In/Hr)
 Depth of flow = 1.057(Ft.), Average velocity = 2.424(Ft/s)
 Critical depth = 0.719(Ft.)

++++++
 Process from Point/Station 15.000 to Point/Station 16.000
 **** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 3596.400(Ft.)
 Downstream point/station elevation = 3595.500(Ft.)
 Pipe length = 137.00(Ft.) Manning's N = 0.013
 No. of pipes = 1 Required pipe flow = 22.282(CFS)
 Nearest computed pipe diameter = 27.00(In.)
 Calculated individual pipe flow = 22.282(CFS)
 Normal flow depth in pipe = 19.78(In.)
 Flow top width inside pipe = 23.90(In.)
 Critical Depth = 19.83(In.)
 Pipe flow velocity = 7.13(Ft/s)
 Travel time through pipe = 0.32 min.
 Time of concentration (TC) = 20.05 min.

++++++
 Process from Point/Station 16.000 to Point/Station 16.000
 **** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 2
 Stream flow area = 17.100(Ac.)
 Runoff from this stream = 22.282(CFS)
 Time of concentration = 20.05 min.
 Rainfall intensity = 1.531(In/Hr)
 Area averaged loss rate (Fm) = 0.0978(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.1000
 Summary of stream data:

Stream No.	Flow rate (CFS)	Area (Ac.)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
1	12.64	8.369	16.47	0.098	1.722
2	22.28	17.100	20.05	0.098	1.531
Qmax(1) =					
	1.000 *	1.000 *	12.642)	+	
	1.134 *	0.822 *	22.282)	+	33.396
Qmax(2) =					

0.882 * 1.000 * 12.642) +
 1.000 * 1.000 * 22.282) + = 33.434

Total of 2 streams to confluence:

Flow rates before confluence point:

12.642 22.282

Maximum flow rates at confluence using above data:

33.396 33.434

Area of streams before confluence:

8.369 17.100

Effective area values after confluence:

22.418 25.469

Results of confluence:

Total flow rate = 33.434(CFS)

Time of concentration = 20.049 min.

Effective stream area after confluence = 25.469(Ac.)

Study area average Pervious fraction(Ap) = 0.100

Study area average soil loss rate(Fm) = 0.098(In/Hr)

Study area total (this main stream) = 25.47(Ac.)

++++
 Process from Point/Station 16.000 to Point/Station 18.000
 **** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 3595.500(Ft.)
 Downstream point/station elevation = 395.000(Ft.)
 Pipe length = 234.00(Ft.) Manning's N = 0.013
 No. of pipes = 1 Required pipe flow = 33.434(CFS)
 Nearest computed pipe diameter = 9.00(In.)
 Calculated individual pipe flow = 33.434(CFS)
 Normal flow depth in pipe = 4.75(In.)
 Flow top width inside pipe = 8.99(In.)
 Critical depth could not be calculated.
 Pipe flow velocity = 141.57(Ft/s)
 Travel time through pipe = 0.03 min.
 Time of concentration (TC) = 20.08 min.

++++
 Process from Point/Station 18.000 to Point/Station 18.000
 **** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 1
 Stream flow area = 25.469(Ac.)
 Runoff from this stream = 33.434(CFS)
 Time of concentration = 20.08 min.
 Rainfall intensity = 1.529(In/Hr)
 Area averaged loss rate (Fm) = 0.0978(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.1000

++++
 Process from Point/Station 17.000 to Point/Station 18.000
 **** INITIAL AREA EVALUATION ****

RESIDENTIAL(1 acre lot)

Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil(AMC 2) = 32.00
 Pervious ratio(Ap) = 0.8000 Max loss rate(Fm)= 0.782(In/Hr)
 Initial subarea data:
 Initial area flow distance = 548.000(Ft.)
 Top (of initial area) elevation = 3600.000(Ft.)
 Bottom (of initial area) elevation = 3595.000(Ft.)
 Difference in elevation = 5.000(Ft.)
 Slope = 0.00912 s(%)= 0.91
 $TC = k(0.469)*[(length^3)/(elevation\ change)]^{0.2}$
 Initial area time of concentration = 14.950 min.
 Rainfall intensity = 1.825(In/Hr) for a 10.0 year storm
 Effective runoff coefficient used for area (Q=KCIA) is C = 0.514
 Subarea runoff = 2.723(CFS)
 Total initial stream area = 2.900(Ac.)
 Pervious area fraction = 0.800
 Initial area Fm value = 0.782(In/Hr)

++++++
 Process from Point/Station 18.000 to Point/Station 18.000
 **** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 2
 Stream flow area = 2.900(Ac.)
 Runoff from this stream = 2.723(CFS)
 Time of concentration = 14.95 min.
 Rainfall intensity = 1.825(In/Hr)
 Area averaged loss rate (Fm) = 0.7822(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.8000
 Summary of stream data:

Stream No.	Flow rate (CFS)	Area (Ac.)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
1	33.43	25.469	20.08	0.098	1.529
2	2.72	2.900	14.95	0.782	1.825

Qmax(1) =
 1.000 * 1.000 * 33.434) +
 0.716 * 1.000 * 2.723) + = 35.384
 Qmax(2) =
 1.207 * 0.745 * 33.434) +
 1.000 * 1.000 * 2.723) + = 32.766

Total of 2 streams to confluence:
 Flow rates before confluence point:
 33.434 2.723
 Maximum flow rates at confluence using above data:
 35.384 32.766
 Area of streams before confluence:
 25.469 2.900
 Effective area values after confluence:
 28.369 21.865

Results of confluence:

Total flow rate = 35.384 (CFS)
 Time of concentration = 20.077 min.
 Effective stream area after confluence = 28.369 (Ac.)
 Study area average Pervious fraction (Ap) = 0.172
 Study area average soil loss rate (Fm) = 0.168 (In/Hr)
 Study area total (this main stream) = 28.37 (Ac.)

+++++
 Process from Point/Station 18.000 to Point/Station 19.000
 **** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 3595.000 (Ft.)
 Downstream point/station elevation = 3591.000 (Ft.)
 Pipe length = 155.00 (Ft.) Manning's N = 0.013
 No. of pipes = 1 Required pipe flow = 35.384 (CFS)
 Nearest computed pipe diameter = 24.00 (In.)
 Calculated individual pipe flow = 35.384 (CFS)
 Normal flow depth in pipe = 19.13 (In.)
 Flow top width inside pipe = 19.31 (In.)
 Critical depth could not be calculated.
 Pipe flow velocity = 13.18 (Ft/s)
 Travel time through pipe = 0.20 min.
 Time of concentration (TC) = 20.27 min.

+++++
 Process from Point/Station 19.000 to Point/Station 19.000
 **** SUBAREA FLOW ADDITION ****

UNDEVELOPED (poor cover) subarea
 Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil (AMC 2) = 67.00
 Pervious ratio (Ap) = 1.0000 Max loss rate (Fm) = 0.578 (In/Hr)
 Time of concentration = 20.27 min.
 Rainfall intensity = 1.521 (In/Hr) for a 10.0 year storm
 Effective runoff coefficient used for area, (total area with modified
 rational method) (Q=KCIA) is C = 0.782
 Subarea runoff = 1.192 (CFS) for 2.400 (Ac.)
 Total runoff = 36.576 (CFS)
 Effective area this stream = 30.77 (Ac.)
 Total Study Area (Main Stream No. 1) = 31.10 (Ac.)
 Area averaged Fm value = 0.200 (In/Hr)
 End of computations, Total Study Area = 31.10 (Ac.)
 The following figures may
 be used for a unit hydrograph study of the same area.
 Note: These figures do not consider reduced effective area
 effects caused by confluences in the rational equation.

Area averaged pervious area fraction (Ap) = 0.235
 Area averaged SCS curve number = 34.7

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2019 Version 9.1
 Rational Hydrology Study Date: 11/27/21

City of Hesperia
100-year-1 Hour Rational Hydrology
Proposed condition, area A-2

Program License Serial Number 6472

***** Hydrology Study Control Information *****

Rational hydrology study storm event year is 100.0
 10 Year storm 1 hour rainfall = 0.793(In.)
 100 Year storm 1 hour rainfall = 1.320(In.)
 Computed rainfall intensity:
 Storm year = 100.00 1 hour rainfall = 1.320 (In.)
 Slope used for rainfall intensity curve b = 0.6000
 Soil antecedent moisture condition (AMC) = 3

+++++
 Process from Point/Station 6.000 to Point/Station 7.000
 **** INITIAL AREA EVALUATION ****

COMMERCIAL subarea type
 Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil(AMC 2) = 32.00
 Adjusted SCS curve number for AMC 3 = 52.00
 Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.079(In/Hr)
 Initial subarea data:
 Initial area flow distance = 245.000(Ft.)
 Top (of initial area) elevation = 3598.000(Ft.)
 Bottom (of initial area) elevation = 3597.000(Ft.)
 Difference in elevation = 1.000(Ft.)
 Slope = 0.00408 s(%)= 0.41
 $TC = k(0.304)*[(length^3)/(elevation\ change)]^{0.2}$
 Initial area time of concentration = 8.248 min.
 Rainfall intensity = 4.342(In/Hr) for a 100.0 year storm
 Effective runoff coefficient used for area (Q=KCIA) is C = 0.884
 Subarea runoff = 3.069(CFS)
 Total initial stream area = 0.800(Ac.)
 Pervious area fraction = 0.100
 Initial area Fm value = 0.079(In/Hr)

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+++++
Process from Point/Station      7.000 to Point/Station      9.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

```

```

Upstream point/station elevation = 3597.000 (Ft.)
Downstream point/station elevation = 3596.800 (Ft.)
Pipe length = 402.00 (Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 3.069 (CFS)
Nearest computed pipe diameter = 21.00 (In.)
Calculated individual pipe flow = 3.069 (CFS)
Normal flow depth in pipe = 15.12 (In.)
Flow top width inside pipe = 18.86 (In.)
Critical Depth = 7.63 (In.)
Pipe flow velocity = 1.65 (Ft/s)
Travel time through pipe = 4.05 min.
Time of concentration (TC) = 12.30 min.

```

```

+++++
Process from Point/Station      9.000 to Point/Station      9.000
**** CONFLUENCE OF MINOR STREAMS ****

```

```

Along Main Stream number: 1 in normal stream number 1
Stream flow area = 0.800 (Ac.)
Runoff from this stream = 3.069 (CFS)
Time of concentration = 12.30 min.
Rainfall intensity = 3.416 (In/Hr)
Area averaged loss rate (Fm) = 0.0785 (In/Hr)
Area averaged Pervious ratio (Ap) = 0.1000

```

```

+++++
Process from Point/Station      8.000 to Point/Station      9.000
**** INITIAL AREA EVALUATION ****

```

```

COMMERCIAL subarea type
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil (AMC 2) = 32.00
Adjusted SCS curve number for AMC 3 = 52.00
Pervious ratio (Ap) = 0.1000 Max loss rate (Fm) = 0.079 (In/Hr)
Initial subarea data:
Initial area flow distance = 223.000 (Ft.)
Top (of initial area) elevation = 3598.000 (Ft.)
Bottom (of initial area) elevation = 3596.800 (Ft.)
Difference in elevation = 1.200 (Ft.)
Slope = 0.00538 s(%) = 0.54
TC = k(0.304)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 7.517 min.
Rainfall intensity = 4.590 (In/Hr) for a 100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.885
Subarea runoff = 2.436 (CFS)
Total initial stream area = 0.600 (Ac.)
Pervious area fraction = 0.100

```

Initial area Fm value = 0.079(In/Hr)

+++++
 Process from Point/Station 9.000 to Point/Station 9.000
 **** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 2

Stream flow area = 0.600(Ac.)
 Runoff from this stream = 2.436(CFS)
 Time of concentration = 7.52 min.
 Rainfall intensity = 4.590(In/Hr)
 Area averaged loss rate (Fm) = 0.0785(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.1000

Summary of stream data:

Stream No.	Flow rate (CFS)	Area (Ac.)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
------------	-----------------	------------	----------	------------	----------------------------

1	3.07	0.800	12.30	0.079	3.416
2	2.44	0.600	7.52	0.079	4.590

Qmax(1) =
 1.000 * 1.000 * 3.069) +
 0.740 * 1.000 * 2.436) + = 4.872

Qmax(2) =
 1.352 * 0.611 * 3.069) +
 1.000 * 1.000 * 2.436) + = 4.972

Total of 2 streams to confluence:

Flow rates before confluence point:

3.069 2.436

Maximum flow rates at confluence using above data:

4.872 4.972

Area of streams before confluence:

0.800 0.600

Effective area values after confluence:

1.400 1.089

Results of confluence:

Total flow rate = 4.972(CFS)
 Time of concentration = 7.517 min.
 Effective stream area after confluence = 1.089(Ac.)
 Study area average Pervious fraction(Ap) = 0.100
 Study area average soil loss rate(Fm) = 0.079(In/Hr)
 Study area total (this main stream) = 1.40(Ac.)

+++++
 Process from Point/Station 9.000 to Point/Station 11.000
 **** PIPEFLOW TRAVEL TIME (User specified size) ****

Upstream point/station elevation = 3596.800(Ft.)
 Downstream point/station elevation = 3595.600(Ft.)
 Pipe length = 1151.00(Ft.) Manning's N = 0.013
 No. of pipes = 1 Required pipe flow = 4.972(CFS)
 Given pipe size = 1.00(In.)

NOTE: Normal flow is pressure flow in user selected pipe size.

The approximate hydraulic grade line above the pipe invert is
 12786625.351(Ft.) at the headworks or inlet of the pipe(s)
 Pipe friction loss = 12767268.246(Ft.)
 Minor friction loss = 19358.305(Ft.) K-factor = 1.50
 Pipe flow velocity = 911.66(Ft/s)
 Travel time through pipe = 0.02 min.
 Time of concentration (TC) = 7.54 min.

++++
 Process from Point/Station 11.000 to Point/Station 11.000
 **** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 1
 Stream flow area = 1.089(Ac.)
 Runoff from this stream = 4.972(CFS)
 Time of concentration = 7.54 min.
 Rainfall intensity = 4.583(In/Hr)
 Area averaged loss rate (Fm) = 0.0785(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.1000

++++
 Process from Point/Station 10.000 to Point/Station 11.000
 **** INITIAL AREA EVALUATION ****

COMMERCIAL subarea type

Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil(AMC 2) = 32.00
 Adjusted SCS curve number for AMC 3 = 52.00
 Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.079(In/Hr)
 Initial subarea data:
 Initial area flow distance = 1000.000(Ft.)
 Top (of initial area) elevation = 3598.000(Ft.)
 Bottom (of initial area) elevation = 3595.600(Ft.)
 Difference in elevation = 2.400(Ft.)
 Slope = 0.00240 s(%)= 0.24
 $TC = k(0.304) * [(length^3)/(elevation\ change)]^{0.2}$
 Initial area time of concentration = 16.100 min.
 Rainfall intensity = 2.906(In/Hr) for a 100.0 year storm
 Effective runoff coefficient used for area (Q=KCIA) is C = 0.876
 Subarea runoff = 18.580(CFS)
 Total initial stream area = 7.300(Ac.)
 Pervious area fraction = 0.100
 Initial area Fm value = 0.079(In/Hr)

++++
 Process from Point/Station 11.000 to Point/Station 11.000
 **** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 2
 Stream flow area = 7.300(Ac.)
 Runoff from this stream = 18.580(CFS)

Time of concentration = 16.10 min.
 Rainfall intensity = 2.906 (In/Hr)
 Area averaged loss rate (Fm) = 0.0785 (In/Hr)
 Area averaged Pervious ratio (Ap) = 0.1000
 Summary of stream data:

Stream No.	Flow rate (CFS)	Area (Ac.)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
1	4.97	1.089	7.54	0.079	4.583
2	18.58	7.300	16.10	0.079	2.906

Qmax(1) =
 1.000 * 1.000 * 4.972) +
 1.593 * 0.468 * 18.580) + = 18.827

Qmax(2) =
 0.628 * 1.000 * 4.972) +
 1.000 * 1.000 * 18.580) + = 21.702

Total of 2 streams to confluence:
 Flow rates before confluence point:
 4.972 18.580
 Maximum flow rates at confluence using above data:
 18.827 21.702
 Area of streams before confluence:
 1.089 7.300
 Effective area values after confluence:
 4.507 8.389
 Results of confluence:
 Total flow rate = 21.702 (CFS)
 Time of concentration = 16.100 min.
 Effective stream area after confluence = 8.389 (Ac.)
 Study area average Pervious fraction (Ap) = 0.100
 Study area average soil loss rate (Fm) = 0.079 (In/Hr)
 Study area total (this main stream) = 8.39 (Ac.)

++++
 Process from Point/Station 11.000 to Point/Station 16.000
 **** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 3595.600 (Ft.)
 Downstream point/station elevation = 3595.500 (Ft.)
 Pipe length = 76.00 (Ft.) Manning's N = 0.013
 No. of pipes = 1 Required pipe flow = 21.702 (CFS)
 Nearest computed pipe diameter = 36.00 (In.)
 Calculated individual pipe flow = 21.702 (CFS)
 Normal flow depth in pipe = 26.63 (In.)
 Flow top width inside pipe = 31.60 (In.)
 Critical Depth = 17.97 (In.)
 Pipe flow velocity = 3.87 (Ft/s)
 Travel time through pipe = 0.33 min.
 Time of concentration (TC) = 16.43 min.

++++
 Process from Point/Station 16.000 to Point/Station 16.000

**** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 1
 Stream flow area = 8.389(Ac.)
 Runoff from this stream = 21.702(CFS)
 Time of concentration = 16.43 min.
 Rainfall intensity = 2.872(In/Hr)
 Area averaged loss rate (Fm) = 0.0785(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.1000

+++++
 Process from Point/Station 13.000 to Point/Station 14.000
 **** INITIAL AREA EVALUATION ****

COMMERCIAL subarea type

Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil(AMC 2) = 32.00
 Adjusted SCS curve number for AMC 3 = 52.00
 Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.079(In/Hr)
 Initial subarea data:
 Initial area flow distance = 663.000(Ft.)
 Top (of initial area) elevation = 3598.000(Ft.)
 Bottom (of initial area) elevation = 3597.000(Ft.)
 Difference in elevation = 1.000(Ft.)
 Slope = 0.00151 s(%)= 0.15
 $TC = k(0.304)*[(length^3)/(elevation\ change)]^{0.2}$
 Initial area time of concentration = 14.989 min.
 Rainfall intensity = 3.034(In/Hr) for a 100.0 year storm
 Effective runoff coefficient used for area (Q=KCIA) is C = 0.877
 Subarea runoff = 22.874(CFS)
 Total initial stream area = 8.600(Ac.)
 Pervious area fraction = 0.100
 Initial area Fm value = 0.079(In/Hr)

+++++
 Process from Point/Station 14.000 to Point/Station 15.000
 **** IMPROVED CHANNEL TRAVEL TIME ****

Upstream point elevation = 3597.000(Ft.)
 Downstream point elevation = 3596.400(Ft.)
 Channel length thru subarea = 648.000(Ft.)
 Channel base width = 5.000(Ft.)
 Slope or 'Z' of left channel bank = 5.000
 Slope or 'Z' of right channel bank = 2.000
 Estimated mean flow rate at midpoint of channel = 31.074(CFS)
 Manning's 'N' = 0.015
 Maximum depth of channel = 2.000(Ft.)
 Flow(q) thru subarea = 31.074(CFS)
 Depth of flow = 1.249(Ft.), Average velocity = 2.655(Ft/s)
 Channel flow top width = 13.743(Ft.)
 Flow Velocity = 2.65(Ft/s)
 Travel time = 4.07 min.

Time of concentration = 19.06 min.
 Critical depth = 0.859(Ft.)
 Adding area flow to channel
 COMMERCIAL subarea type
 Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil(AMC 2) = 32.00
 Adjusted SCS curve number for AMC 3 = 52.00
 Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.079(In/Hr)
 Rainfall intensity = 2.627(In/Hr) for a 100.0 year storm
 Effective runoff coefficient used for area, (total area with modified
 rational method) (Q=KCIA) is C = 0.873
 Subarea runoff = 16.344(CFS) for 8.500(Ac.)
 Total runoff = 39.218(CFS)
 Effective area this stream = 17.10(Ac.)
 Total Study Area (Main Stream No. 1) = 25.80(Ac.)
 Area averaged Fm value = 0.079(In/Hr)
 Depth of flow = 1.401(Ft.), Average velocity = 2.827(Ft/s)
 Critical depth = 0.984(Ft.)

++++++
 Process from Point/Station 15.000 to Point/Station 16.000
 **** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 3596.400(Ft.)
 Downstream point/station elevation = 3595.500(Ft.)
 Pipe length = 137.00(Ft.) Manning's N = 0.013
 No. of pipes = 1 Required pipe flow = 39.218(CFS)
 Nearest computed pipe diameter = 33.00(In.)
 Calculated individual pipe flow = 39.218(CFS)
 Normal flow depth in pipe = 24.82(In.)
 Flow top width inside pipe = 28.50(In.)
 Critical Depth = 25.01(In.)
 Pipe flow velocity = 8.18(Ft/s)
 Travel time through pipe = 0.28 min.
 Time of concentration (TC) = 19.34 min.

++++++
 Process from Point/Station 16.000 to Point/Station 16.000
 **** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 2
 Stream flow area = 17.100(Ac.)
 Runoff from this stream = 39.218(CFS)
 Time of concentration = 19.34 min.
 Rainfall intensity = 2.604(In/Hr)
 Area averaged loss rate (Fm) = 0.0785(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.1000
 Summary of stream data:

Stream No.	Flow rate (CFS)	Area (Ac.)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
------------	-----------------	------------	----------	------------	----------------------------

1	21.70	8.389	16.43	0.079	2.872
2	39.22	17.100	19.34	0.079	2.604
Qmax(1) =					
	1.000 *	1.000 *	21.702)	+	
	1.106 *	0.850 *	39.218)	+ =	58.550
Qmax(2) =					
	0.904 *	1.000 *	21.702)	+	
	1.000 *	1.000 *	39.218)	+ =	58.841

Total of 2 streams to confluence:

Flow rates before confluence point:

21.702 39.218

Maximum flow rates at confluence using above data:

58.550 58.841

Area of streams before confluence:

8.389 17.100

Effective area values after confluence:

22.916 25.489

Results of confluence:

Total flow rate = 58.841(CFS)

Time of concentration = 19.336 min.

Effective stream area after confluence = 25.489(Ac.)

Study area average Pervious fraction(Ap) = 0.100

Study area average soil loss rate(Fm) = 0.079(In/Hr)

Study area total (this main stream) = 25.49(Ac.)

+++++
 Process from Point/Station 16.000 to Point/Station 18.000
 ***** PIPEFLOW TRAVEL TIME (Program estimated size) *****

Upstream point/station elevation = 3595.500(Ft.)
 Downstream point/station elevation = 395.000(Ft.)
 Pipe length = 234.00(Ft.) Manning's N = 0.013
 No. of pipes = 1 Required pipe flow = 58.841(CFS)
 Nearest computed pipe diameter = 9.00(In.)
 Calculated individual pipe flow = 58.841(CFS)
 Normal flow depth in pipe = 7.08(In.)
 Flow top width inside pipe = 7.38(In.)
 Critical depth could not be calculated.
 Pipe flow velocity = 157.71(Ft/s)
 Travel time through pipe = 0.02 min.
 Time of concentration (TC) = 19.36 min.

+++++
 Process from Point/Station 18.000 to Point/Station 18.000
 ***** CONFLUENCE OF MINOR STREAMS *****

Along Main Stream number: 1 in normal stream number 1
 Stream flow area = 25.489(Ac.)
 Runoff from this stream = 58.841(CFS)
 Time of concentration = 19.36 min.
 Rainfall intensity = 2.602(In/Hr)
 Area averaged loss rate (Fm) = 0.0785(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.1000

+++++
 Process from Point/Station 17.000 to Point/Station 18.000
 ***** INITIAL AREA EVALUATION *****

RESIDENTIAL(1 acre lot)

Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil(AMC 2) = 32.00
 Adjusted SCS curve number for AMC 3 = 52.00
 Pervious ratio(Ap) = 0.8000 Max loss rate(Fm)= 0.628(In/Hr)
 Initial subarea data:
 Initial area flow distance = 548.000(Ft.)
 Top (of initial area) elevation = 3600.000(Ft.)
 Bottom (of initial area) elevation = 3595.000(Ft.)
 Difference in elevation = 5.000(Ft.)
 Slope = 0.00912 s(%)= 0.91
 $TC = k(0.469)*[(length^3)/(elevation\ change)]^{0.2}$
 Initial area time of concentration = 14.950 min.
 Rainfall intensity = 3.039(In/Hr) for a 100.0 year storm
 Effective runoff coefficient used for area (Q=KCIA) is C = 0.714
 Subarea runoff = 6.291(CFS)
 Total initial stream area = 2.900(Ac.)
 Pervious area fraction = 0.800
 Initial area Fm value = 0.628(In/Hr)

+++++
 Process from Point/Station 18.000 to Point/Station 18.000
 ***** CONFLUENCE OF MINOR STREAMS *****

Along Main Stream number: 1 in normal stream number 2

Stream flow area = 2.900(Ac.)
 Runoff from this stream = 6.291(CFS)
 Time of concentration = 14.95 min.
 Rainfall intensity = 3.039(In/Hr)
 Area averaged loss rate (Fm) = 0.6281(In/Hr)
 Area averaged Pervious ratio (Ap) = 0.8000
 Summary of stream data:

Stream No.	Flow rate (CFS)	Area (Ac.)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
------------	-----------------	------------	----------	------------	----------------------------

1	58.84	25.489	19.36	0.079	2.602
2	6.29	2.900	14.95	0.628	3.039

Qmax(1) =
 1.000 * 1.000 * 58.841) +
 0.819 * 1.000 * 6.291) + = 63.992

Qmax(2) =
 1.173 * 0.772 * 58.841) +
 1.000 * 1.000 * 6.291) + = 59.588

Total of 2 streams to confluence:

Flow rates before confluence point:
 58.841 6.291
 Maximum flow rates at confluence using above data:
 63.992 59.588
 Area of streams before confluence:
 25.489 2.900
 Effective area values after confluence:
 28.389 22.582
 Results of confluence:
 Total flow rate = 63.992 (CFS)
 Time of concentration = 19.361 min.
 Effective stream area after confluence = 28.389 (Ac.)
 Study area average Pervious fraction (Ap) = 0.172
 Study area average soil loss rate (Fm) = 0.135 (In/Hr)
 Study area total (this main stream) = 28.39 (Ac.)

++++
 Process from Point/Station 18.000 to Point/Station 19.000
 **** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 3595.000 (Ft.)
 Downstream point/station elevation = 3591.000 (Ft.)
 Pipe length = 155.00 (Ft.) Manning's N = 0.013
 No. of pipes = 1 Required pipe flow = 63.992 (CFS)
 Nearest computed pipe diameter = 30.00 (In.)
 Calculated individual pipe flow = 63.992 (CFS)
 Normal flow depth in pipe = 23.86 (In.)
 Flow top width inside pipe = 24.21 (In.)
 Critical depth could not be calculated.
 Pipe flow velocity = 15.30 (Ft/s)
 Travel time through pipe = 0.17 min.
 Time of concentration (TC) = 19.53 min.

++++
 Process from Point/Station 19.000 to Point/Station 19.000
 **** SUBAREA FLOW ADDITION ****

UNDEVELOPED (poor cover) subarea
 Decimal fraction soil group A = 1.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 0.000
 Decimal fraction soil group D = 0.000
 SCS curve number for soil (AMC 2) = 67.00
 Adjusted SCS curve number for AMC 3 = 84.60
 Pervious ratio (Ap) = 1.0000 Max loss rate (Fm) = 0.290 (In/Hr)
 Time of concentration = 19.53 min.
 Rainfall intensity = 2.588 (In/Hr) for a 100.0 year storm
 Effective runoff coefficient used for area, (total area with modified
 rational method) (Q=KCIA) is C = 0.849
 Subarea runoff = 3.668 (CFS) for 2.400 (Ac.)
 Total runoff = 67.660 (CFS)
 Effective area this stream = 30.79 (Ac.)
 Total Study Area (Main Stream No. 1) = 31.10 (Ac.)
 Area averaged Fm value = 0.147 (In/Hr)
 End of computations, Total Study Area = 31.10 (Ac.)

The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(A_p) = 0.235

Area averaged SCS curve number = 34.7

APPENDIX "B"

UNIT HYDROGRAPHS HYDROLOGY ANALYSIS

Subarea **'Area 1'** 100-yr - Storm Events for Existing
Subarea **'Area A-1'** 100-yr - Storm Events for Proposed
Subarea **'Area A-2'** 100-yr - Storm Events for Proposed

Unit Hydrograph Analysis

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Study date 11/28/21

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San Bernardino County Synthetic Unit Hydrology Method
Manual date - August 1986

Program License Serial Number 6472

Existing 100-Year 1-Hour Flood Unit Hydrograph

Storm Event Year = 100

Antecedent Moisture Condition = 3

English (in-lb) Input Units Used

English Rainfall Data (Inches) Input Values Used

English Units used in output format

Area averaged rainfall intensity isohyetal data:

Table with 3 columns: Sub-Area (Ac.), Duration (hours), Isohyetal (In). Row 1: 38.30, 1, 1.32

Table with 3 columns: Sub-Area (Ac.), Duration (hours), Isohyetal (In). Row 1: 38.30, 6, 3.11

Table with 3 columns: Sub-Area (Ac.), Duration (hours), Isohyetal (In). Row 1: 38.30, 24, 6.42

+++++

***** Area-averaged max loss rate, Fm *****

Table with 7 columns: SCS curve No. (AMCII), SCS curve NO. (AMC 3), Area (Ac.), Area Fraction, Fp (Fig C6) (In/Hr), Ap (dec.), Fm (In/Hr). Row 1: 38.0, 58.0, 38.30, 1.000, 0.707, 1.000, 0.707

Area-averaged adjusted loss rate Fm (In/Hr) = 0.707

***** Area-Averaged low loss rate fraction, Yb *****

Area (Ac.)	Area Fract	SCS CN (AMC2)	SCS CN (AMC3)	S	Pervious Yield Fr
38.30	1.000	38.0	58.0	7.24	0.315

Area-averaged catchment yield fraction, Y = 0.315

Area-averaged low loss fraction, Yb = 0.685

User entry of time of concentration = 0.300 (hours)

+++++

Watershed area = 38.30 (Ac.)

Catchment Lag time = 0.240 hours

Unit interval = 5.000 minutes

Unit interval percentage of lag time = 34.7222

Hydrograph baseflow = 0.00 (CFS)

Average maximum watershed loss rate (Fm) = 0.707 (In/Hr)

Average low loss rate fraction (Yb) = 0.685 (decimal)

VALLEY UNDEVELOPED S-Graph Selected

Computed peak 5-minute rainfall = 0.489 (In)

Computed peak 30-minute rainfall = 1.000 (In)

Specified peak 1-hour rainfall = 1.320 (In)

Computed peak 3-hour rainfall = 2.232 (In)

Specified peak 6-hour rainfall = 3.110 (In)

Specified peak 24-hour rainfall = 6.420 (In)

Rainfall depth area reduction factors:

Using a total area of 38.30 (Ac.) (Ref: fig. E-4)

5-minute factor = 0.998 Adjusted rainfall = 0.488 (In)

30-minute factor = 0.998 Adjusted rainfall = 0.999 (In)

1-hour factor = 0.998 Adjusted rainfall = 1.318 (In)

3-hour factor = 1.000 Adjusted rainfall = 2.232 (In)

6-hour factor = 1.000 Adjusted rainfall = 3.110 (In)

24-hour factor = 1.000 Adjusted rainfall = 6.420 (In)

U n i t H y d r o g r a p h

+++++

Interval 'S' Graph Unit Hydrograph

Number Mean values ((CFS))

(K = 463.19 (CFS))

1	3.546	16.425
2	17.421	64.268
3	40.461	106.717
4	60.129	91.103
5	70.639	48.680
6	76.635	27.774
7	80.989	20.168
8	84.407	15.828
9	87.123	12.582
10	89.292	10.045
11	91.140	8.561
12	92.621	6.862

13	93.789	5.407
14	94.862	4.973
15	95.854	4.593
16	96.638	3.633
17	97.312	3.122
18	97.901	2.728
19	98.388	2.252
20	98.771	1.775
21	99.118	1.608
22	99.465	1.608
23	99.812	1.608
24	100.000	0.868

Peak Unit Number	Adjusted mass rainfall (In)	Unit rainfall (In)
1	0.4877	0.4877
2	0.6435	0.1558
3	0.7568	0.1133
4	0.8491	0.0923
5	0.9283	0.0793
6	0.9986	0.0702
7	1.0621	0.0635
8	1.1204	0.0583
9	1.1744	0.0540
10	1.2250	0.0506
11	1.2726	0.0476
12	1.3176	0.0451
13	1.3692	0.0516
14	1.4188	0.0496
15	1.4665	0.0477
16	1.5126	0.0461
17	1.5573	0.0446
18	1.6005	0.0433
19	1.6426	0.0421
20	1.6835	0.0409
21	1.7234	0.0399
22	1.7623	0.0389
23	1.8003	0.0380
24	1.8374	0.0371
25	1.8737	0.0363
26	1.9093	0.0356
27	1.9442	0.0349
28	1.9784	0.0342
29	2.0120	0.0336
30	2.0450	0.0330
31	2.0774	0.0324
32	2.1093	0.0319
33	2.1407	0.0314
34	2.1716	0.0309
35	2.2020	0.0304
36	2.2319	0.0300
37	2.2614	0.0295
38	2.2904	0.0290
39	2.3191	0.0286
40	2.3473	0.0283
41	2.3752	0.0279
42	2.4028	0.0275

43	2.4300	0.0272
44	2.4568	0.0269
45	2.4834	0.0266
46	2.5097	0.0263
47	2.5356	0.0260
48	2.5613	0.0257
49	2.5867	0.0254
50	2.6118	0.0251
51	2.6367	0.0249
52	2.6613	0.0246
53	2.6856	0.0244
54	2.7098	0.0241
55	2.7337	0.0239
56	2.7573	0.0237
57	2.7808	0.0234
58	2.8040	0.0232
59	2.8270	0.0230
60	2.8499	0.0228
61	2.8725	0.0226
62	2.8949	0.0224
63	2.9172	0.0222
64	2.9392	0.0221
65	2.9611	0.0219
66	2.9828	0.0217
67	3.0044	0.0215
68	3.0257	0.0214
69	3.0469	0.0212
70	3.0680	0.0210
71	3.0889	0.0209
72	3.1096	0.0207
73	3.1321	0.0225
74	3.1545	0.0224
75	3.1767	0.0222
76	3.1988	0.0221
77	3.2207	0.0219
78	3.2425	0.0218
79	3.2642	0.0217
80	3.2857	0.0215
81	3.3072	0.0214
82	3.3284	0.0213
83	3.3496	0.0212
84	3.3706	0.0210
85	3.3916	0.0209
86	3.4124	0.0208
87	3.4331	0.0207
88	3.4536	0.0206
89	3.4741	0.0205
90	3.4945	0.0204
91	3.5147	0.0202
92	3.5349	0.0201
93	3.5549	0.0200
94	3.5748	0.0199
95	3.5947	0.0198
96	3.6144	0.0197
97	3.6340	0.0196
98	3.6536	0.0195
99	3.6730	0.0194

100	3.6924	0.0194
101	3.7116	0.0193
102	3.7308	0.0192
103	3.7499	0.0191
104	3.7689	0.0190
105	3.7878	0.0189
106	3.8066	0.0188
107	3.8253	0.0187
108	3.8440	0.0187
109	3.8626	0.0186
110	3.8811	0.0185
111	3.8995	0.0184
112	3.9178	0.0183
113	3.9360	0.0183
114	3.9542	0.0182
115	3.9723	0.0181
116	3.9903	0.0180
117	4.0083	0.0180
118	4.0262	0.0179
119	4.0440	0.0178
120	4.0617	0.0177
121	4.0794	0.0177
122	4.0970	0.0176
123	4.1145	0.0175
124	4.1319	0.0175
125	4.1493	0.0174
126	4.1667	0.0173
127	4.1839	0.0173
128	4.2011	0.0172
129	4.2182	0.0171
130	4.2353	0.0171
131	4.2523	0.0170
132	4.2693	0.0169
133	4.2861	0.0169
134	4.3030	0.0168
135	4.3197	0.0168
136	4.3364	0.0167
137	4.3531	0.0166
138	4.3697	0.0166
139	4.3862	0.0165
140	4.4026	0.0165
141	4.4191	0.0164
142	4.4354	0.0164
143	4.4517	0.0163
144	4.4680	0.0163
145	4.4842	0.0162
146	4.5003	0.0161
147	4.5164	0.0161
148	4.5325	0.0160
149	4.5484	0.0160
150	4.5644	0.0159
151	4.5803	0.0159
152	4.5961	0.0158
153	4.6119	0.0158
154	4.6276	0.0157
155	4.6433	0.0157
156	4.6589	0.0156

157	4.6745	0.0156
158	4.6901	0.0155
159	4.7056	0.0155
160	4.7210	0.0155
161	4.7364	0.0154
162	4.7518	0.0154
163	4.7671	0.0153
164	4.7824	0.0153
165	4.7976	0.0152
166	4.8128	0.0152
167	4.8279	0.0151
168	4.8430	0.0151
169	4.8581	0.0151
170	4.8731	0.0150
171	4.8881	0.0150
172	4.9030	0.0149
173	4.9179	0.0149
174	4.9327	0.0148
175	4.9475	0.0148
176	4.9623	0.0148
177	4.9770	0.0147
178	4.9917	0.0147
179	5.0063	0.0146
180	5.0209	0.0146
181	5.0355	0.0146
182	5.0500	0.0145
183	5.0645	0.0145
184	5.0790	0.0145
185	5.0934	0.0144
186	5.1078	0.0144
187	5.1221	0.0143
188	5.1364	0.0143
189	5.1507	0.0143
190	5.1649	0.0142
191	5.1791	0.0142
192	5.1933	0.0142
193	5.2074	0.0141
194	5.2215	0.0141
195	5.2355	0.0141
196	5.2495	0.0140
197	5.2635	0.0140
198	5.2775	0.0140
199	5.2914	0.0139
200	5.3053	0.0139
201	5.3191	0.0139
202	5.3330	0.0138
203	5.3468	0.0138
204	5.3605	0.0138
205	5.3742	0.0137
206	5.3879	0.0137
207	5.4016	0.0137
208	5.4152	0.0136
209	5.4288	0.0136
210	5.4424	0.0136
211	5.4559	0.0135
212	5.4694	0.0135
213	5.4829	0.0135

214	5.4963	0.0134
215	5.5098	0.0134
216	5.5231	0.0134
217	5.5365	0.0134
218	5.5498	0.0133
219	5.5631	0.0133
220	5.5764	0.0133
221	5.5896	0.0132
222	5.6028	0.0132
223	5.6160	0.0132
224	5.6292	0.0132
225	5.6423	0.0131
226	5.6554	0.0131
227	5.6685	0.0131
228	5.6815	0.0130
229	5.6945	0.0130
230	5.7075	0.0130
231	5.7205	0.0130
232	5.7334	0.0129
233	5.7463	0.0129
234	5.7592	0.0129
235	5.7721	0.0129
236	5.7849	0.0128
237	5.7977	0.0128
238	5.8105	0.0128
239	5.8232	0.0128
240	5.8360	0.0127
241	5.8487	0.0127
242	5.8613	0.0127
243	5.8740	0.0127
244	5.8866	0.0126
245	5.8992	0.0126
246	5.9118	0.0126
247	5.9243	0.0126
248	5.9369	0.0125
249	5.9494	0.0125
250	5.9619	0.0125
251	5.9743	0.0125
252	5.9868	0.0124
253	5.9992	0.0124
254	6.0116	0.0124
255	6.0239	0.0124
256	6.0363	0.0123
257	6.0486	0.0123
258	6.0609	0.0123
259	6.0731	0.0123
260	6.0854	0.0122
261	6.0976	0.0122
262	6.1098	0.0122
263	6.1220	0.0122
264	6.1342	0.0122
265	6.1463	0.0121
266	6.1584	0.0121
267	6.1705	0.0121
268	6.1826	0.0121
269	6.1946	0.0121
270	6.2067	0.0120

271	6.2187	0.0120
272	6.2307	0.0120
273	6.2426	0.0120
274	6.2546	0.0119
275	6.2665	0.0119
276	6.2784	0.0119
277	6.2903	0.0119
278	6.3022	0.0119
279	6.3140	0.0118
280	6.3258	0.0118
281	6.3376	0.0118
282	6.3494	0.0118
283	6.3612	0.0118
284	6.3729	0.0117
285	6.3846	0.0117
286	6.3963	0.0117
287	6.4080	0.0117
288	6.4197	0.0117

Unit Period (number)	Unit Rainfall (In)	Unit Soil-Loss (In)	Effective Rainfall (In)
1	0.0117	0.0080	0.0037
2	0.0117	0.0080	0.0037
3	0.0117	0.0080	0.0037
4	0.0117	0.0080	0.0037
5	0.0118	0.0081	0.0037
6	0.0118	0.0081	0.0037
7	0.0118	0.0081	0.0037
8	0.0119	0.0081	0.0037
9	0.0119	0.0082	0.0038
10	0.0119	0.0082	0.0038
11	0.0120	0.0082	0.0038
12	0.0120	0.0082	0.0038
13	0.0120	0.0082	0.0038
14	0.0121	0.0083	0.0038
15	0.0121	0.0083	0.0038
16	0.0121	0.0083	0.0038
17	0.0122	0.0083	0.0038
18	0.0122	0.0083	0.0038
19	0.0122	0.0084	0.0039
20	0.0122	0.0084	0.0039
21	0.0123	0.0084	0.0039
22	0.0123	0.0084	0.0039
23	0.0124	0.0085	0.0039
24	0.0124	0.0085	0.0039
25	0.0124	0.0085	0.0039
26	0.0125	0.0085	0.0039
27	0.0125	0.0086	0.0039
28	0.0125	0.0086	0.0039
29	0.0126	0.0086	0.0040
30	0.0126	0.0086	0.0040
31	0.0127	0.0087	0.0040
32	0.0127	0.0087	0.0040
33	0.0127	0.0087	0.0040
34	0.0128	0.0087	0.0040

35	0.0128	0.0088	0.0040
36	0.0128	0.0088	0.0040
37	0.0129	0.0088	0.0041
38	0.0129	0.0088	0.0041
39	0.0130	0.0089	0.0041
40	0.0130	0.0089	0.0041
41	0.0130	0.0089	0.0041
42	0.0131	0.0090	0.0041
43	0.0131	0.0090	0.0041
44	0.0132	0.0090	0.0041
45	0.0132	0.0090	0.0042
46	0.0132	0.0091	0.0042
47	0.0133	0.0091	0.0042
48	0.0133	0.0091	0.0042
49	0.0134	0.0092	0.0042
50	0.0134	0.0092	0.0042
51	0.0135	0.0092	0.0042
52	0.0135	0.0092	0.0043
53	0.0136	0.0093	0.0043
54	0.0136	0.0093	0.0043
55	0.0137	0.0094	0.0043
56	0.0137	0.0094	0.0043
57	0.0138	0.0094	0.0043
58	0.0138	0.0094	0.0043
59	0.0139	0.0095	0.0044
60	0.0139	0.0095	0.0044
61	0.0140	0.0096	0.0044
62	0.0140	0.0096	0.0044
63	0.0141	0.0096	0.0044
64	0.0141	0.0096	0.0044
65	0.0142	0.0097	0.0045
66	0.0142	0.0097	0.0045
67	0.0143	0.0098	0.0045
68	0.0143	0.0098	0.0045
69	0.0144	0.0098	0.0045
70	0.0144	0.0099	0.0045
71	0.0145	0.0099	0.0046
72	0.0145	0.0099	0.0046
73	0.0146	0.0100	0.0046
74	0.0146	0.0100	0.0046
75	0.0147	0.0101	0.0046
76	0.0148	0.0101	0.0047
77	0.0148	0.0102	0.0047
78	0.0149	0.0102	0.0047
79	0.0150	0.0102	0.0047
80	0.0150	0.0103	0.0047
81	0.0151	0.0103	0.0048
82	0.0151	0.0104	0.0048
83	0.0152	0.0104	0.0048
84	0.0153	0.0105	0.0048
85	0.0154	0.0105	0.0048
86	0.0154	0.0105	0.0049
87	0.0155	0.0106	0.0049
88	0.0155	0.0106	0.0049
89	0.0156	0.0107	0.0049
90	0.0157	0.0107	0.0049
91	0.0158	0.0108	0.0050

92	0.0158	0.0108	0.0050
93	0.0159	0.0109	0.0050
94	0.0160	0.0109	0.0050
95	0.0161	0.0110	0.0051
96	0.0161	0.0111	0.0051
97	0.0163	0.0111	0.0051
98	0.0163	0.0112	0.0051
99	0.0164	0.0112	0.0052
100	0.0165	0.0113	0.0052
101	0.0166	0.0114	0.0052
102	0.0166	0.0114	0.0052
103	0.0168	0.0115	0.0053
104	0.0168	0.0115	0.0053
105	0.0169	0.0116	0.0053
106	0.0170	0.0116	0.0054
107	0.0171	0.0117	0.0054
108	0.0172	0.0118	0.0054
109	0.0173	0.0119	0.0055
110	0.0174	0.0119	0.0055
111	0.0175	0.0120	0.0055
112	0.0176	0.0120	0.0055
113	0.0177	0.0121	0.0056
114	0.0178	0.0122	0.0056
115	0.0180	0.0123	0.0057
116	0.0180	0.0123	0.0057
117	0.0182	0.0124	0.0057
118	0.0183	0.0125	0.0058
119	0.0184	0.0126	0.0058
120	0.0185	0.0127	0.0058
121	0.0187	0.0128	0.0059
122	0.0187	0.0128	0.0059
123	0.0189	0.0129	0.0060
124	0.0190	0.0130	0.0060
125	0.0192	0.0131	0.0060
126	0.0193	0.0132	0.0061
127	0.0194	0.0133	0.0061
128	0.0195	0.0134	0.0062
129	0.0197	0.0135	0.0062
130	0.0198	0.0136	0.0063
131	0.0200	0.0137	0.0063
132	0.0201	0.0138	0.0063
133	0.0204	0.0139	0.0064
134	0.0205	0.0140	0.0065
135	0.0207	0.0142	0.0065
136	0.0208	0.0142	0.0066
137	0.0210	0.0144	0.0066
138	0.0212	0.0145	0.0067
139	0.0214	0.0147	0.0068
140	0.0215	0.0147	0.0068
141	0.0218	0.0149	0.0069
142	0.0219	0.0150	0.0069
143	0.0222	0.0152	0.0070
144	0.0224	0.0153	0.0070
145	0.0207	0.0142	0.0065
146	0.0209	0.0143	0.0066
147	0.0212	0.0145	0.0067
148	0.0214	0.0146	0.0067

149	0.0217	0.0149	0.0068
150	0.0219	0.0150	0.0069
151	0.0222	0.0152	0.0070
152	0.0224	0.0154	0.0071
153	0.0228	0.0156	0.0072
154	0.0230	0.0158	0.0073
155	0.0234	0.0161	0.0074
156	0.0237	0.0162	0.0075
157	0.0241	0.0165	0.0076
158	0.0244	0.0167	0.0077
159	0.0249	0.0170	0.0078
160	0.0251	0.0172	0.0079
161	0.0257	0.0176	0.0081
162	0.0260	0.0178	0.0082
163	0.0266	0.0182	0.0084
164	0.0269	0.0184	0.0085
165	0.0275	0.0189	0.0087
166	0.0279	0.0191	0.0088
167	0.0286	0.0196	0.0090
168	0.0290	0.0199	0.0092
169	0.0300	0.0205	0.0094
170	0.0304	0.0208	0.0096
171	0.0314	0.0215	0.0099
172	0.0319	0.0218	0.0101
173	0.0330	0.0226	0.0104
174	0.0336	0.0230	0.0106
175	0.0349	0.0239	0.0110
176	0.0356	0.0244	0.0112
177	0.0371	0.0254	0.0117
178	0.0380	0.0260	0.0120
179	0.0399	0.0273	0.0126
180	0.0409	0.0280	0.0129
181	0.0433	0.0296	0.0136
182	0.0446	0.0306	0.0141
183	0.0477	0.0327	0.0151
184	0.0496	0.0339	0.0156
185	0.0451	0.0309	0.0142
186	0.0476	0.0326	0.0150
187	0.0540	0.0370	0.0170
188	0.0583	0.0399	0.0184
189	0.0702	0.0481	0.0221
190	0.0793	0.0543	0.0250
191	0.1133	0.0589	0.0544
192	0.1558	0.0589	0.0969
193	0.4877	0.0589	0.4287
194	0.0923	0.0589	0.0334
195	0.0635	0.0435	0.0200
196	0.0506	0.0346	0.0159
197	0.0516	0.0353	0.0163
198	0.0461	0.0316	0.0145
199	0.0421	0.0288	0.0133
200	0.0389	0.0266	0.0123
201	0.0363	0.0249	0.0115
202	0.0342	0.0234	0.0108
203	0.0324	0.0222	0.0102
204	0.0309	0.0211	0.0097
205	0.0295	0.0202	0.0093

206	0.0283	0.0194	0.0089
207	0.0272	0.0186	0.0086
208	0.0263	0.0180	0.0083
209	0.0254	0.0174	0.0080
210	0.0246	0.0169	0.0078
211	0.0239	0.0164	0.0075
212	0.0232	0.0159	0.0073
213	0.0226	0.0155	0.0071
214	0.0221	0.0151	0.0070
215	0.0215	0.0147	0.0068
216	0.0210	0.0144	0.0066
217	0.0225	0.0154	0.0071
218	0.0221	0.0151	0.0070
219	0.0217	0.0148	0.0068
220	0.0213	0.0146	0.0067
221	0.0209	0.0143	0.0066
222	0.0206	0.0141	0.0065
223	0.0202	0.0139	0.0064
224	0.0199	0.0137	0.0063
225	0.0196	0.0134	0.0062
226	0.0194	0.0133	0.0061
227	0.0191	0.0131	0.0060
228	0.0188	0.0129	0.0059
229	0.0186	0.0127	0.0059
230	0.0183	0.0126	0.0058
231	0.0181	0.0124	0.0057
232	0.0179	0.0122	0.0056
233	0.0177	0.0121	0.0056
234	0.0175	0.0120	0.0055
235	0.0173	0.0118	0.0054
236	0.0171	0.0117	0.0054
237	0.0169	0.0116	0.0053
238	0.0167	0.0114	0.0053
239	0.0165	0.0113	0.0052
240	0.0164	0.0112	0.0052
241	0.0162	0.0111	0.0051
242	0.0160	0.0110	0.0051
243	0.0159	0.0109	0.0050
244	0.0157	0.0108	0.0050
245	0.0156	0.0107	0.0049
246	0.0155	0.0106	0.0049
247	0.0153	0.0105	0.0048
248	0.0152	0.0104	0.0048
249	0.0151	0.0103	0.0047
250	0.0149	0.0102	0.0047
251	0.0148	0.0101	0.0047
252	0.0147	0.0101	0.0046
253	0.0146	0.0100	0.0046
254	0.0145	0.0099	0.0046
255	0.0143	0.0098	0.0045
256	0.0142	0.0097	0.0045
257	0.0141	0.0097	0.0045
258	0.0140	0.0096	0.0044
259	0.0139	0.0095	0.0044
260	0.0138	0.0095	0.0044
261	0.0137	0.0094	0.0043
262	0.0136	0.0093	0.0043

263	0.0135	0.0093	0.0043
264	0.0134	0.0092	0.0042
265	0.0134	0.0091	0.0042
266	0.0133	0.0091	0.0042
267	0.0132	0.0090	0.0042
268	0.0131	0.0090	0.0041
269	0.0130	0.0089	0.0041
270	0.0129	0.0089	0.0041
271	0.0129	0.0088	0.0041
272	0.0128	0.0087	0.0040
273	0.0127	0.0087	0.0040
274	0.0126	0.0086	0.0040
275	0.0126	0.0086	0.0040
276	0.0125	0.0085	0.0039
277	0.0124	0.0085	0.0039
278	0.0123	0.0085	0.0039
279	0.0123	0.0084	0.0039
280	0.0122	0.0084	0.0038
281	0.0121	0.0083	0.0038
282	0.0121	0.0083	0.0038
283	0.0120	0.0082	0.0038
284	0.0119	0.0082	0.0038
285	0.0119	0.0081	0.0037
286	0.0118	0.0081	0.0037
287	0.0118	0.0081	0.0037
288	0.0117	0.0080	0.0037

 Total soil rain loss = 4.05 (In)
 Total effective rainfall = 2.37 (In)
 Peak flow rate in flood hydrograph = 62.16 (CFS)

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24 - H O U R S T O R M
 R u n o f f H y d r o g r a p h

 Hydrograph in 5 Minute intervals ((CFS))

Time (h+m)	Volume Ac.Ft	Q (CFS)	0	17.5	35.0	52.5	70.0
0+ 5	0.0004	0.06	Q				
0+10	0.0025	0.30	Q				
0+15	0.0072	0.69	Q				
0+20	0.0143	1.03	Q				
0+25	0.0226	1.21	Q				
0+30	0.0316	1.31	Q				
0+35	0.0412	1.39	Q				
0+40	0.0512	1.45	Q				
0+45	0.0616	1.50	Q				
0+50	0.0722	1.54	Q				
0+55	0.0831	1.58	Q				
1+ 0	0.0941	1.61	Q				
1+ 5	0.1054	1.63	Q				
1+10	0.1168	1.65	Q				
1+15	0.1283	1.68	Q				
1+20	0.1400	1.69	Q				

1+25	0.1517	1.71	Q
1+30	0.1636	1.72	Q
1+35	0.1756	1.74	Q
1+40	0.1876	1.75	Q
1+45	0.1997	1.76	Q
1+50	0.2119	1.77	Q
1+55	0.2242	1.78	Q
2+ 0	0.2365	1.79	Q
2+ 5	0.2488	1.79	Q
2+10	0.2612	1.80	Q
2+15	0.2736	1.80	Q
2+20	0.2861	1.81	Q
2+25	0.2986	1.81	Q
2+30	0.3111	1.82	Q
2+35	0.3237	1.82	Q
2+40	0.3363	1.83	Q
2+45	0.3489	1.83	Q
2+50	0.3616	1.84	Q
2+55	0.3743	1.85	Q
3+ 0	0.3870	1.85	QV
3+ 5	0.3998	1.86	QV
3+10	0.4126	1.86	QV
3+15	0.4255	1.87	QV
3+20	0.4384	1.87	QV
3+25	0.4513	1.88	QV
3+30	0.4643	1.88	QV
3+35	0.4773	1.89	QV
3+40	0.4904	1.90	QV
3+45	0.5035	1.90	QV
3+50	0.5166	1.91	QV
3+55	0.5298	1.91	QV
4+ 0	0.5430	1.92	QV
4+ 5	0.5563	1.93	QV
4+10	0.5696	1.93	Q V
4+15	0.5829	1.94	Q V
4+20	0.5963	1.95	Q V
4+25	0.6098	1.95	Q V
4+30	0.6233	1.96	Q V
4+35	0.6368	1.96	Q V
4+40	0.6504	1.97	Q V
4+45	0.6640	1.98	Q V
4+50	0.6777	1.98	Q V
4+55	0.6914	1.99	Q V
5+ 0	0.7052	2.00	Q V
5+ 5	0.7190	2.01	Q V
5+10	0.7328	2.01	Q V
5+15	0.7467	2.02	Q V
5+20	0.7607	2.03	Q V
5+25	0.7747	2.03	Q V
5+30	0.7888	2.04	Q V
5+35	0.8029	2.05	Q V
5+40	0.8171	2.06	Q V
5+45	0.8313	2.06	Q V
5+50	0.8456	2.07	Q V
5+55	0.8599	2.08	Q V
6+ 0	0.8743	2.09	Q V
6+ 5	0.8887	2.10	Q V

6+10	0.9032	2.10	Q	V
6+15	0.9177	2.11	Q	V
6+20	0.9323	2.12	Q	V
6+25	0.9470	2.13	Q	V
6+30	0.9617	2.14	Q	V
6+35	0.9765	2.15	Q	V
6+40	0.9913	2.16	Q	V
6+45	1.0063	2.16	Q	V
6+50	1.0212	2.17	Q	V
6+55	1.0362	2.18	Q	V
7+ 0	1.0513	2.19	Q	V
7+ 5	1.0665	2.20	Q	V
7+10	1.0817	2.21	Q	V
7+15	1.0970	2.22	Q	V
7+20	1.1123	2.23	Q	V
7+25	1.1278	2.24	Q	V
7+30	1.1433	2.25	Q	V
7+35	1.1588	2.26	Q	V
7+40	1.1744	2.27	Q	V
7+45	1.1901	2.28	Q	V
7+50	1.2059	2.29	Q	V
7+55	1.2218	2.30	Q	V
8+ 0	1.2377	2.31	Q	V
8+ 5	1.2537	2.32	Q	V
8+10	1.2697	2.33	Q	V
8+15	1.2859	2.35	Q	V
8+20	1.3021	2.36	Q	V
8+25	1.3184	2.37	Q	V
8+30	1.3348	2.38	Q	V
8+35	1.3513	2.39	Q	V
8+40	1.3679	2.40	Q	V
8+45	1.3845	2.42	Q	V
8+50	1.4012	2.43	Q	V
8+55	1.4181	2.44	Q	V
9+ 0	1.4350	2.46	Q	V
9+ 5	1.4520	2.47	Q	V
9+10	1.4691	2.48	Q	V
9+15	1.4863	2.50	Q	V
9+20	1.5036	2.51	Q	V
9+25	1.5209	2.52	Q	V
9+30	1.5384	2.54	Q	V
9+35	1.5560	2.55	Q	V
9+40	1.5737	2.57	Q	V
9+45	1.5915	2.58	Q	V
9+50	1.6094	2.60	Q	V
9+55	1.6274	2.62	Q	V
10+ 0	1.6455	2.63	Q	V
10+ 5	1.6638	2.65	Q	V
10+10	1.6821	2.66	Q	V
10+15	1.7006	2.68	Q	V
10+20	1.7192	2.70	Q	V
10+25	1.7379	2.72	Q	V
10+30	1.7567	2.74	Q	V
10+35	1.7757	2.75	Q	V
10+40	1.7948	2.77	Q	V
10+45	1.8140	2.79	Q	V
10+50	1.8334	2.81	Q	V

10+55	1.8529	2.83	Q	V			
11+ 0	1.8726	2.85	Q	V			
11+ 5	1.8924	2.87	Q	V			
11+10	1.9123	2.90	Q	V			
11+15	1.9324	2.92	Q	V			
11+20	1.9527	2.94	Q	V			
11+25	1.9731	2.96	Q	V			
11+30	1.9937	2.99	Q	V			
11+35	2.0144	3.01	Q	V			
11+40	2.0354	3.04	Q	V			
11+45	2.0565	3.06	Q	V			
11+50	2.0778	3.09	Q	V			
11+55	2.0992	3.12	Q	V			
12+ 0	2.1209	3.15	Q	V			
12+ 5	2.1427	3.17	Q	V			
12+10	2.1644	3.16	Q	V			
12+15	2.1859	3.12	Q	V			
12+20	2.2073	3.10	Q	V			
12+25	2.2286	3.10	Q	V			
12+30	2.2501	3.12	Q	V			
12+35	2.2718	3.14	Q	V			
12+40	2.2936	3.17	Q	V			
12+45	2.3156	3.20	Q	V			
12+50	2.3378	3.23	Q	V			
12+55	2.3603	3.26	Q	V			
13+ 0	2.3830	3.30	Q	V			
13+ 5	2.4060	3.34	Q	V			
13+10	2.4293	3.38	Q	V			
13+15	2.4529	3.43	Q	V			
13+20	2.4768	3.47	Q	V			
13+25	2.5011	3.52	Q	V			
13+30	2.5257	3.57	Q	V			
13+35	2.5506	3.62	Q	V			
13+40	2.5760	3.68	Q	V			
13+45	2.6017	3.74	Q	V			
13+50	2.6279	3.80	Q	V			
13+55	2.6546	3.87	Q	V			
14+ 0	2.6817	3.94	Q	V			
14+ 5	2.7093	4.01	Q	V			
14+10	2.7375	4.09	Q	V			
14+15	2.7663	4.18	Q	V			
14+20	2.7957	4.27	Q	V			
14+25	2.8257	4.36	Q	V			
14+30	2.8565	4.46	Q	V			
14+35	2.8880	4.57	Q	V			
14+40	2.9203	4.69	Q	V			
14+45	2.9534	4.81	Q	V			
14+50	2.9875	4.95	Q	V			
14+55	3.0226	5.10	Q	V			
15+ 0	3.0589	5.26	Q	V			
15+ 5	3.0963	5.44	Q	V			
15+10	3.1351	5.63	Q	V			
15+15	3.1754	5.86	Q	V			
15+20	3.2175	6.10	Q	V			
15+25	3.2611	6.34	Q	V			
15+30	3.3059	6.49	Q	V			
15+35	3.3512	6.58	Q	V			

15+40	3.3980	6.79	Q		V			
15+45	3.4478	7.23	Q		V			
15+50	3.5022	7.90	Q		V			
15+55	3.5658	9.23	Q		V			
16+ 0	3.6527	12.62		Q	V			
16+ 5	3.8213	24.48			Q	V		
16+10	4.1440	46.86				V	Q	
16+15	4.5722	62.16					V	Q
16+20	4.9326	52.33					V	Q
16+25	5.1578	32.70			Q		V	
16+30	5.3123	22.44					V	
16+35	5.4375	18.17		Q			V	
16+40	5.5444	15.53					V	
16+45	5.6370	13.45					V	
16+50	5.7181	11.77					V	
16+55	5.7909	10.57					V	
17+ 0	5.8556	9.39		Q			V	
17+ 5	5.9136	8.42		Q			V	
17+10	5.9679	7.88		Q			V	
17+15	6.0187	7.38		Q			V	
17+20	6.0649	6.70		Q			V	
17+25	6.1077	6.23		Q			V	
17+30	6.1478	5.82		Q			V	
17+35	6.1850	5.40		Q			V	
17+40	6.2196	5.03	Q				V	
17+45	6.2527	4.80	Q				V	
17+50	6.2845	4.63	Q				V	
17+55	6.3150	4.42	Q				V	
18+ 0	6.3420	3.93	Q				V	
18+ 5	6.3659	3.47	Q				V	
18+10	6.3893	3.39	Q				V	
18+15	6.4125	3.37	Q				V	
18+20	6.4354	3.34	Q				V	
18+25	6.4581	3.29	Q				V	
18+30	6.4803	3.23	Q				V	
18+35	6.5022	3.18	Q				V	
18+40	6.5237	3.12	Q				V	
18+45	6.5449	3.07	Q				V	
18+50	6.5657	3.02	Q				V	
18+55	6.5862	2.98	Q				V	
19+ 0	6.6064	2.93	Q				V	
19+ 5	6.6262	2.89	Q				V	
19+10	6.6459	2.85	Q				V	
19+15	6.6652	2.81	Q				V	
19+20	6.6843	2.77	Q				V	
19+25	6.7031	2.73	Q				V	
19+30	6.7217	2.70	Q				V	
19+35	6.7400	2.66	Q				V	
19+40	6.7581	2.63	Q				V	
19+45	6.7760	2.60	Q				V	
19+50	6.7937	2.57	Q				V	
19+55	6.8112	2.54	Q				V	
20+ 0	6.8285	2.51	Q				V	
20+ 5	6.8456	2.48	Q				V	
20+10	6.8625	2.46	Q				V	
20+15	6.8792	2.43	Q				V	
20+20	6.8958	2.40	Q				V	

20+25	6.9122	2.38	Q	V
20+30	6.9284	2.36	Q	V
20+35	6.9445	2.33	Q	V
20+40	6.9604	2.31	Q	V
20+45	6.9762	2.29	Q	V
20+50	6.9918	2.27	Q	V
20+55	7.0073	2.25	Q	V
21+ 0	7.0226	2.23	Q	V
21+ 5	7.0379	2.21	Q	V
21+10	7.0529	2.19	Q	V
21+15	7.0679	2.17	Q	V
21+20	7.0827	2.15	Q	V
21+25	7.0975	2.14	Q	V
21+30	7.1121	2.12	Q	V
21+35	7.1265	2.10	Q	V
21+40	7.1409	2.09	Q	V
21+45	7.1552	2.07	Q	V
21+50	7.1693	2.06	Q	V
21+55	7.1834	2.04	Q	V
22+ 0	7.1973	2.03	Q	V
22+ 5	7.2112	2.01	Q	V
22+10	7.2250	2.00	Q	V
22+15	7.2386	1.98	Q	V
22+20	7.2522	1.97	Q	V
22+25	7.2657	1.96	Q	V
22+30	7.2791	1.94	Q	V
22+35	7.2924	1.93	Q	V
22+40	7.3056	1.92	Q	V
22+45	7.3187	1.91	Q	V
22+50	7.3318	1.89	Q	V
22+55	7.3447	1.88	Q	V
23+ 0	7.3576	1.87	Q	V
23+ 5	7.3704	1.86	Q	V
23+10	7.3832	1.85	Q	V
23+15	7.3958	1.84	Q	V
23+20	7.4084	1.83	Q	V
23+25	7.4209	1.82	Q	V
23+30	7.4334	1.81	Q	V
23+35	7.4457	1.80	Q	V
23+40	7.4581	1.79	Q	V
23+45	7.4703	1.78	Q	V
23+50	7.4825	1.77	Q	V
23+55	7.4946	1.76	Q	V
24+ 0	7.5066	1.75	Q	V
24+ 5	7.5182	1.68	Q	V
24+10	7.5281	1.43	Q	V
24+15	7.5352	1.04	Q	V
24+20	7.5400	0.70	Q	V
24+25	7.5435	0.51	Q	V
24+30	7.5463	0.41	Q	V
24+35	7.5486	0.33	Q	V
24+40	7.5505	0.27	Q	V
24+45	7.5521	0.23	Q	V
24+50	7.5533	0.19	Q	V
24+55	7.5544	0.15	Q	V
25+ 0	7.5553	0.13	Q	V
25+ 5	7.5560	0.11	Q	V

25+10	7.5567	0.09	Q				V
25+15	7.5572	0.07	Q				V
25+20	7.5576	0.06	Q				V
25+25	7.5579	0.05	Q				V
25+30	7.5581	0.04	Q				V
25+35	7.5583	0.03	Q				V
25+40	7.5585	0.02	Q				V
25+45	7.5586	0.02	Q				V
25+50	7.5586	0.01	Q				V
25+55	7.5586	0.00	Q				V

Unit Hydrograph Analysis

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Study date 11/27/21

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San Bernardino County Synthetic Unit Hydrology Method
Manual date - August 1986

Program License Serial Number 6472

**100-Year 1-Hour Flood Unit Hydrograph
To the Basin 1-A**

Storm Event Year = 100

Antecedent Moisture Condition = 3

English (in-lb) Input Units Used

English Rainfall Data (Inches) Input Values Used

English Units used in output format

Area averaged rainfall intensity isohyetal data:

Sub-Area (Ac.)	Duration (hours)	Isohyetal (In)
Rainfall data for year 100		
7.20	1	1.32

Rainfall data for year 100		
7.20	6	3.11

Rainfall data for year 100		
7.20	24	6.42

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***** Area-averaged max loss rate, Fm *****

SCS curve No. (AMCII)	SCS curve NO. (AMC 3)	Area (Ac.)	Area Fraction	Fp(Fig C6) (In/Hr)	Ap (dec.)	Fm (In/Hr)
65.0	83.0	7.20	1.000	0.318	0.360	0.115

Area-averaged adjusted loss rate Fm (In/Hr) = 0.115

***** Area-Averaged low loss rate fraction, Yb *****

Area (Ac.)	Area Fract	SCS CN (AMC2)	SCS CN (AMC3)	S	Pervious Yield Fr
2.59	0.360	65.0	83.0	2.05	0.698
4.61	0.640	98.0	98.0	0.20	0.963

Area-averaged catchment yield fraction, Y = 0.868

Area-averaged low loss fraction, Yb = 0.132

User entry of time of concentration = 0.180 (hours)

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Watershed area = 7.20 (Ac.)

Catchment Lag time = 0.144 hours

Unit interval = 5.000 minutes

Unit interval percentage of lag time = 57.8704

Hydrograph baseflow = 0.00 (CFS)

Average maximum watershed loss rate (Fm) = 0.115 (In/Hr)

Average low loss rate fraction (Yb) = 0.132 (decimal)

VALLEY DEVELOPED S-Graph proportion = 0.800

VALLEY UNDEVELOPED S-Graph proportion = 0.200

FOOTHILL S-Graph proportion = 0.000

MOUNTAIN S-Graph proportion = 0.000

DESERT S-Graph proportion = -0.000

Computed peak 5-minute rainfall = 0.489 (In)

Computed peak 30-minute rainfall = 1.000 (In)

Specified peak 1-hour rainfall = 1.320 (In)

Computed peak 3-hour rainfall = 2.232 (In)

Specified peak 6-hour rainfall = 3.110 (In)

Specified peak 24-hour rainfall = 6.420 (In)

Rainfall depth area reduction factors:

Using a total area of 7.20 (Ac.) (Ref: fig. E-4)

5-minute factor = 1.000 Adjusted rainfall = 0.488 (In)

30-minute factor = 1.000 Adjusted rainfall = 1.000 (In)

1-hour factor = 1.000 Adjusted rainfall = 1.320 (In)

3-hour factor = 1.000 Adjusted rainfall = 2.232 (In)

6-hour factor = 1.000 Adjusted rainfall = 3.110 (In)

24-hour factor = 1.000 Adjusted rainfall = 6.420 (In)

U n i t H y d r o g r a p h

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Interval Number	'S' Graph Mean values	Unit Hydrograph (CFS)
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(K = 87.08 (CFS))

1	6.409	5.581
2	39.241	28.588
3	77.134	32.995
4	91.333	12.364
5	95.643	3.753
6	97.336	1.474

7	98.329	0.865
8	98.757	0.372
9	99.105	0.303
10	99.373	0.233
11	99.578	0.178
12	99.730	0.132
13	99.847	0.102
14	100.000	0.051

Peak Unit Number	Adjusted mass rainfall (In)	Unit rainfall (In)
1	0.4884	0.4884
2	0.6444	0.1560
3	0.7579	0.1135
4	0.8503	0.0924
5	0.9297	0.0794
6	1.0000	0.0703
7	1.0636	0.0636
8	1.1220	0.0584
9	1.1761	0.0541
10	1.2267	0.0506
11	1.2744	0.0477
12	1.3196	0.0451
13	1.3711	0.0515
14	1.4206	0.0495
15	1.4683	0.0477
16	1.5143	0.0461
17	1.5589	0.0446
18	1.6021	0.0432
19	1.6441	0.0420
20	1.6850	0.0409
21	1.7248	0.0398
22	1.7636	0.0388
23	1.8015	0.0379
24	1.8386	0.0371
25	1.8749	0.0363
26	1.9104	0.0355
27	1.9452	0.0348
28	1.9794	0.0342
29	2.0129	0.0335
30	2.0458	0.0329
31	2.0782	0.0324
32	2.1100	0.0318
33	2.1413	0.0313
34	2.1721	0.0308
35	2.2024	0.0303
36	2.2323	0.0299
37	2.2618	0.0294
38	2.2908	0.0290
39	2.3195	0.0286
40	2.3477	0.0283
41	2.3756	0.0279
42	2.4032	0.0275
43	2.4304	0.0272
44	2.4572	0.0269
45	2.4838	0.0266
46	2.5100	0.0262

47	2.5360	0.0260
48	2.5617	0.0257
49	2.5871	0.0254
50	2.6122	0.0251
51	2.6370	0.0249
52	2.6616	0.0246
53	2.6860	0.0244
54	2.7101	0.0241
55	2.7340	0.0239
56	2.7577	0.0237
57	2.7811	0.0234
58	2.8044	0.0232
59	2.8274	0.0230
60	2.8502	0.0228
61	2.8728	0.0226
62	2.8953	0.0224
63	2.9175	0.0222
64	2.9396	0.0221
65	2.9614	0.0219
66	2.9832	0.0217
67	3.0047	0.0215
68	3.0261	0.0214
69	3.0473	0.0212
70	3.0683	0.0210
71	3.0892	0.0209
72	3.1099	0.0207
73	3.1324	0.0225
74	3.1548	0.0224
75	3.1770	0.0222
76	3.1991	0.0221
77	3.2210	0.0219
78	3.2428	0.0218
79	3.2645	0.0217
80	3.2861	0.0215
81	3.3075	0.0214
82	3.3288	0.0213
83	3.3499	0.0212
84	3.3710	0.0210
85	3.3919	0.0209
86	3.4127	0.0208
87	3.4334	0.0207
88	3.4540	0.0206
89	3.4744	0.0205
90	3.4948	0.0204
91	3.5150	0.0202
92	3.5352	0.0201
93	3.5552	0.0200
94	3.5751	0.0199
95	3.5950	0.0198
96	3.6147	0.0197
97	3.6343	0.0196
98	3.6539	0.0195
99	3.6733	0.0194
100	3.6927	0.0194
101	3.7120	0.0193
102	3.7311	0.0192
103	3.7502	0.0191

104	3.7692	0.0190
105	3.7881	0.0189
106	3.8069	0.0188
107	3.8257	0.0187
108	3.8443	0.0187
109	3.8629	0.0186
110	3.8814	0.0185
111	3.8998	0.0184
112	3.9181	0.0183
113	3.9364	0.0183
114	3.9545	0.0182
115	3.9726	0.0181
116	3.9907	0.0180
117	4.0086	0.0179
118	4.0265	0.0179
119	4.0443	0.0178
120	4.0620	0.0177
121	4.0797	0.0177
122	4.0973	0.0176
123	4.1148	0.0175
124	4.1323	0.0175
125	4.1496	0.0174
126	4.1670	0.0173
127	4.1842	0.0173
128	4.2014	0.0172
129	4.2186	0.0171
130	4.2356	0.0171
131	4.2526	0.0170
132	4.2696	0.0169
133	4.2864	0.0169
134	4.3033	0.0168
135	4.3200	0.0168
136	4.3367	0.0167
137	4.3534	0.0166
138	4.3700	0.0166
139	4.3865	0.0165
140	4.4030	0.0165
141	4.4194	0.0164
142	4.4357	0.0164
143	4.4520	0.0163
144	4.4683	0.0163
145	4.4845	0.0162
146	4.5006	0.0161
147	4.5167	0.0161
148	4.5328	0.0160
149	4.5487	0.0160
150	4.5647	0.0159
151	4.5806	0.0159
152	4.5964	0.0158
153	4.6122	0.0158
154	4.6279	0.0157
155	4.6436	0.0157
156	4.6592	0.0156
157	4.6748	0.0156
158	4.6904	0.0155
159	4.7059	0.0155
160	4.7213	0.0155

161	4.7367	0.0154
162	4.7521	0.0154
163	4.7674	0.0153
164	4.7827	0.0153
165	4.7979	0.0152
166	4.8131	0.0152
167	4.8282	0.0151
168	4.8433	0.0151
169	4.8584	0.0151
170	4.8734	0.0150
171	4.8883	0.0150
172	4.9033	0.0149
173	4.9182	0.0149
174	4.9330	0.0148
175	4.9478	0.0148
176	4.9626	0.0148
177	4.9773	0.0147
178	4.9920	0.0147
179	5.0066	0.0146
180	5.0212	0.0146
181	5.0358	0.0146
182	5.0503	0.0145
183	5.0648	0.0145
184	5.0793	0.0145
185	5.0937	0.0144
186	5.1080	0.0144
187	5.1224	0.0143
188	5.1367	0.0143
189	5.1510	0.0143
190	5.1652	0.0142
191	5.1794	0.0142
192	5.1935	0.0142
193	5.2077	0.0141
194	5.2218	0.0141
195	5.2358	0.0141
196	5.2498	0.0140
197	5.2638	0.0140
198	5.2778	0.0140
199	5.2917	0.0139
200	5.3056	0.0139
201	5.3194	0.0139
202	5.3333	0.0138
203	5.3470	0.0138
204	5.3608	0.0138
205	5.3745	0.0137
206	5.3882	0.0137
207	5.4019	0.0137
208	5.4155	0.0136
209	5.4291	0.0136
210	5.4427	0.0136
211	5.4562	0.0135
212	5.4697	0.0135
213	5.4832	0.0135
214	5.4966	0.0134
215	5.5100	0.0134
216	5.5234	0.0134
217	5.5368	0.0134

218	5.5501	0.0133
219	5.5634	0.0133
220	5.5767	0.0133
221	5.5899	0.0132
222	5.6031	0.0132
223	5.6163	0.0132
224	5.6295	0.0132
225	5.6426	0.0131
226	5.6557	0.0131
227	5.6687	0.0131
228	5.6818	0.0130
229	5.6948	0.0130
230	5.7078	0.0130
231	5.7208	0.0130
232	5.7337	0.0129
233	5.7466	0.0129
234	5.7595	0.0129
235	5.7723	0.0129
236	5.7852	0.0128
237	5.7980	0.0128
238	5.8107	0.0128
239	5.8235	0.0128
240	5.8362	0.0127
241	5.8489	0.0127
242	5.8616	0.0127
243	5.8743	0.0127
244	5.8869	0.0126
245	5.8995	0.0126
246	5.9121	0.0126
247	5.9246	0.0126
248	5.9371	0.0125
249	5.9496	0.0125
250	5.9621	0.0125
251	5.9746	0.0125
252	5.9870	0.0124
253	5.9994	0.0124
254	6.0118	0.0124
255	6.0242	0.0124
256	6.0365	0.0123
257	6.0488	0.0123
258	6.0611	0.0123
259	6.0734	0.0123
260	6.0857	0.0122
261	6.0979	0.0122
262	6.1101	0.0122
263	6.1223	0.0122
264	6.1344	0.0122
265	6.1466	0.0121
266	6.1587	0.0121
267	6.1708	0.0121
268	6.1828	0.0121
269	6.1949	0.0121
270	6.2069	0.0120
271	6.2189	0.0120
272	6.2309	0.0120
273	6.2429	0.0120
274	6.2548	0.0119

275	6.2668	0.0119
276	6.2787	0.0119
277	6.2905	0.0119
278	6.3024	0.0119
279	6.3143	0.0118
280	6.3261	0.0118
281	6.3379	0.0118
282	6.3497	0.0118
283	6.3614	0.0118
284	6.3732	0.0117
285	6.3849	0.0117
286	6.3966	0.0117
287	6.4083	0.0117
288	6.4199	0.0117

Unit Period (number)	Unit Rainfall (In)	Unit Soil-Loss (In)	Effective Rainfall (In)
1	0.0117	0.0015	0.0101
2	0.0117	0.0015	0.0101
3	0.0117	0.0016	0.0102
4	0.0117	0.0016	0.0102
5	0.0118	0.0016	0.0102
6	0.0118	0.0016	0.0102
7	0.0118	0.0016	0.0103
8	0.0119	0.0016	0.0103
9	0.0119	0.0016	0.0103
10	0.0119	0.0016	0.0103
11	0.0120	0.0016	0.0104
12	0.0120	0.0016	0.0104
13	0.0120	0.0016	0.0104
14	0.0121	0.0016	0.0105
15	0.0121	0.0016	0.0105
16	0.0121	0.0016	0.0105
17	0.0122	0.0016	0.0105
18	0.0122	0.0016	0.0106
19	0.0122	0.0016	0.0106
20	0.0122	0.0016	0.0106
21	0.0123	0.0016	0.0107
22	0.0123	0.0016	0.0107
23	0.0124	0.0016	0.0107
24	0.0124	0.0016	0.0107
25	0.0124	0.0016	0.0108
26	0.0125	0.0016	0.0108
27	0.0125	0.0017	0.0108
28	0.0125	0.0017	0.0109
29	0.0126	0.0017	0.0109
30	0.0126	0.0017	0.0109
31	0.0127	0.0017	0.0110
32	0.0127	0.0017	0.0110
33	0.0127	0.0017	0.0110
34	0.0128	0.0017	0.0111
35	0.0128	0.0017	0.0111
36	0.0128	0.0017	0.0111
37	0.0129	0.0017	0.0112
38	0.0129	0.0017	0.0112

39	0.0130	0.0017	0.0112
40	0.0130	0.0017	0.0113
41	0.0130	0.0017	0.0113
42	0.0131	0.0017	0.0113
43	0.0131	0.0017	0.0114
44	0.0132	0.0017	0.0114
45	0.0132	0.0017	0.0115
46	0.0132	0.0018	0.0115
47	0.0133	0.0018	0.0115
48	0.0133	0.0018	0.0116
49	0.0134	0.0018	0.0116
50	0.0134	0.0018	0.0116
51	0.0135	0.0018	0.0117
52	0.0135	0.0018	0.0117
53	0.0136	0.0018	0.0118
54	0.0136	0.0018	0.0118
55	0.0137	0.0018	0.0119
56	0.0137	0.0018	0.0119
57	0.0138	0.0018	0.0119
58	0.0138	0.0018	0.0120
59	0.0139	0.0018	0.0120
60	0.0139	0.0018	0.0120
61	0.0140	0.0018	0.0121
62	0.0140	0.0019	0.0121
63	0.0141	0.0019	0.0122
64	0.0141	0.0019	0.0122
65	0.0142	0.0019	0.0123
66	0.0142	0.0019	0.0123
67	0.0143	0.0019	0.0124
68	0.0143	0.0019	0.0124
69	0.0144	0.0019	0.0125
70	0.0144	0.0019	0.0125
71	0.0145	0.0019	0.0126
72	0.0145	0.0019	0.0126
73	0.0146	0.0019	0.0127
74	0.0146	0.0019	0.0127
75	0.0147	0.0019	0.0128
76	0.0148	0.0020	0.0128
77	0.0148	0.0020	0.0129
78	0.0149	0.0020	0.0129
79	0.0150	0.0020	0.0130
80	0.0150	0.0020	0.0130
81	0.0151	0.0020	0.0131
82	0.0151	0.0020	0.0131
83	0.0152	0.0020	0.0132
84	0.0153	0.0020	0.0132
85	0.0154	0.0020	0.0133
86	0.0154	0.0020	0.0134
87	0.0155	0.0021	0.0134
88	0.0155	0.0021	0.0135
89	0.0156	0.0021	0.0136
90	0.0157	0.0021	0.0136
91	0.0158	0.0021	0.0137
92	0.0158	0.0021	0.0137
93	0.0159	0.0021	0.0138
94	0.0160	0.0021	0.0139
95	0.0161	0.0021	0.0140

96	0.0161	0.0021	0.0140
97	0.0163	0.0022	0.0141
98	0.0163	0.0022	0.0141
99	0.0164	0.0022	0.0142
100	0.0165	0.0022	0.0143
101	0.0166	0.0022	0.0144
102	0.0166	0.0022	0.0144
103	0.0168	0.0022	0.0145
104	0.0168	0.0022	0.0146
105	0.0169	0.0022	0.0147
106	0.0170	0.0023	0.0148
107	0.0171	0.0023	0.0149
108	0.0172	0.0023	0.0149
109	0.0173	0.0023	0.0150
110	0.0174	0.0023	0.0151
111	0.0175	0.0023	0.0152
112	0.0176	0.0023	0.0153
113	0.0177	0.0023	0.0154
114	0.0178	0.0024	0.0154
115	0.0179	0.0024	0.0156
116	0.0180	0.0024	0.0156
117	0.0182	0.0024	0.0158
118	0.0183	0.0024	0.0158
119	0.0184	0.0024	0.0160
120	0.0185	0.0024	0.0160
121	0.0187	0.0025	0.0162
122	0.0187	0.0025	0.0163
123	0.0189	0.0025	0.0164
124	0.0190	0.0025	0.0165
125	0.0192	0.0025	0.0166
126	0.0193	0.0026	0.0167
127	0.0194	0.0026	0.0169
128	0.0195	0.0026	0.0170
129	0.0197	0.0026	0.0171
130	0.0198	0.0026	0.0172
131	0.0200	0.0027	0.0174
132	0.0201	0.0027	0.0175
133	0.0204	0.0027	0.0177
134	0.0205	0.0027	0.0178
135	0.0207	0.0027	0.0180
136	0.0208	0.0028	0.0181
137	0.0210	0.0028	0.0183
138	0.0212	0.0028	0.0184
139	0.0214	0.0028	0.0186
140	0.0215	0.0029	0.0187
141	0.0218	0.0029	0.0189
142	0.0219	0.0029	0.0190
143	0.0222	0.0029	0.0193
144	0.0224	0.0030	0.0194
145	0.0207	0.0027	0.0180
146	0.0209	0.0028	0.0181
147	0.0212	0.0028	0.0184
148	0.0214	0.0028	0.0185
149	0.0217	0.0029	0.0188
150	0.0219	0.0029	0.0190
151	0.0222	0.0029	0.0193
152	0.0224	0.0030	0.0195

153	0.0228	0.0030	0.0198
154	0.0230	0.0030	0.0200
155	0.0234	0.0031	0.0203
156	0.0237	0.0031	0.0205
157	0.0241	0.0032	0.0209
158	0.0244	0.0032	0.0211
159	0.0249	0.0033	0.0216
160	0.0251	0.0033	0.0218
161	0.0257	0.0034	0.0223
162	0.0260	0.0034	0.0225
163	0.0266	0.0035	0.0230
164	0.0269	0.0036	0.0233
165	0.0275	0.0036	0.0239
166	0.0279	0.0037	0.0242
167	0.0286	0.0038	0.0248
168	0.0290	0.0038	0.0252
169	0.0299	0.0040	0.0259
170	0.0303	0.0040	0.0263
171	0.0313	0.0041	0.0272
172	0.0318	0.0042	0.0276
173	0.0329	0.0044	0.0286
174	0.0335	0.0044	0.0291
175	0.0348	0.0046	0.0302
176	0.0355	0.0047	0.0308
177	0.0371	0.0049	0.0322
178	0.0379	0.0050	0.0329
179	0.0398	0.0053	0.0345
180	0.0409	0.0054	0.0354
181	0.0432	0.0057	0.0375
182	0.0446	0.0059	0.0387
183	0.0477	0.0063	0.0414
184	0.0495	0.0066	0.0429
185	0.0451	0.0060	0.0392
186	0.0477	0.0063	0.0414
187	0.0541	0.0072	0.0470
188	0.0584	0.0077	0.0506
189	0.0703	0.0093	0.0610
190	0.0794	0.0095	0.0698
191	0.1135	0.0095	0.1039
192	0.1560	0.0095	0.1465
193	0.4884	0.0095	0.4788
194	0.0924	0.0095	0.0829
195	0.0636	0.0084	0.0552
196	0.0506	0.0067	0.0439
197	0.0515	0.0068	0.0447
198	0.0461	0.0061	0.0400
199	0.0420	0.0056	0.0364
200	0.0388	0.0051	0.0337
201	0.0363	0.0048	0.0315
202	0.0342	0.0045	0.0296
203	0.0324	0.0043	0.0281
204	0.0308	0.0041	0.0267
205	0.0294	0.0039	0.0255
206	0.0283	0.0037	0.0245
207	0.0272	0.0036	0.0236
208	0.0262	0.0035	0.0228
209	0.0254	0.0034	0.0220

210	0.0246	0.0033	0.0213
211	0.0239	0.0032	0.0207
212	0.0232	0.0031	0.0202
213	0.0226	0.0030	0.0196
214	0.0221	0.0029	0.0191
215	0.0215	0.0029	0.0187
216	0.0210	0.0028	0.0183
217	0.0225	0.0030	0.0195
218	0.0221	0.0029	0.0192
219	0.0217	0.0029	0.0188
220	0.0213	0.0028	0.0185
221	0.0209	0.0028	0.0182
222	0.0206	0.0027	0.0179
223	0.0202	0.0027	0.0176
224	0.0199	0.0026	0.0173
225	0.0196	0.0026	0.0170
226	0.0194	0.0026	0.0168
227	0.0191	0.0025	0.0166
228	0.0188	0.0025	0.0163
229	0.0186	0.0025	0.0161
230	0.0183	0.0024	0.0159
231	0.0181	0.0024	0.0157
232	0.0179	0.0024	0.0155
233	0.0177	0.0023	0.0153
234	0.0175	0.0023	0.0151
235	0.0173	0.0023	0.0150
236	0.0171	0.0023	0.0148
237	0.0169	0.0022	0.0146
238	0.0167	0.0022	0.0145
239	0.0165	0.0022	0.0143
240	0.0164	0.0022	0.0142
241	0.0162	0.0021	0.0141
242	0.0160	0.0021	0.0139
243	0.0159	0.0021	0.0138
244	0.0157	0.0021	0.0137
245	0.0156	0.0021	0.0135
246	0.0155	0.0020	0.0134
247	0.0153	0.0020	0.0133
248	0.0152	0.0020	0.0132
249	0.0151	0.0020	0.0131
250	0.0149	0.0020	0.0129
251	0.0148	0.0020	0.0128
252	0.0147	0.0019	0.0127
253	0.0146	0.0019	0.0126
254	0.0145	0.0019	0.0125
255	0.0143	0.0019	0.0124
256	0.0142	0.0019	0.0123
257	0.0141	0.0019	0.0123
258	0.0140	0.0019	0.0122
259	0.0139	0.0018	0.0121
260	0.0138	0.0018	0.0120
261	0.0137	0.0018	0.0119
262	0.0136	0.0018	0.0118
263	0.0135	0.0018	0.0117
264	0.0134	0.0018	0.0117
265	0.0134	0.0018	0.0116
266	0.0133	0.0018	0.0115

267	0.0132	0.0017	0.0114
268	0.0131	0.0017	0.0114
269	0.0130	0.0017	0.0113
270	0.0129	0.0017	0.0112
271	0.0129	0.0017	0.0112
272	0.0128	0.0017	0.0111
273	0.0127	0.0017	0.0110
274	0.0126	0.0017	0.0110
275	0.0126	0.0017	0.0109
276	0.0125	0.0017	0.0108
277	0.0124	0.0016	0.0108
278	0.0123	0.0016	0.0107
279	0.0123	0.0016	0.0106
280	0.0122	0.0016	0.0106
281	0.0121	0.0016	0.0105
282	0.0121	0.0016	0.0105
283	0.0120	0.0016	0.0104
284	0.0119	0.0016	0.0104
285	0.0119	0.0016	0.0103
286	0.0118	0.0016	0.0103
287	0.0118	0.0016	0.0102
288	0.0117	0.0015	0.0102

 Total soil rain loss = 0.77 (In)
 Total effective rainfall = 5.65 (In)
 Peak flow rate in flood hydrograph = 20.90 (CFS)

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 24 - H O U R S T O R M
 R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time (h+m)	Volume Ac.Ft	Q(CFS)	0	7.5	15.0	22.5	30.0
0+ 5	0.0004	0.06	Q				
0+10	0.0028	0.35	Q				
0+15	0.0075	0.68	Q				
0+20	0.0130	0.81	VQ				
0+25	0.0189	0.85	VQ				
0+30	0.0248	0.86	VQ				
0+35	0.0308	0.88	VQ				
0+40	0.0369	0.88	VQ				
0+45	0.0430	0.89	VQ				
0+50	0.0491	0.89	VQ				
0+55	0.0553	0.90	VQ				
1+ 0	0.0615	0.90	VQ				
1+ 5	0.0677	0.90	VQ				
1+10	0.0739	0.91	VQ				
1+15	0.0802	0.91	VQ				
1+20	0.0865	0.91	Q				
1+25	0.0928	0.91	Q				
1+30	0.0991	0.91	Q				
1+35	0.1054	0.92	Q				
1+40	0.1117	0.92	Q				

1+45	0.1181	0.92	Q
1+50	0.1244	0.92	Q
1+55	0.1308	0.93	Q
2+ 0	0.1372	0.93	Q
2+ 5	0.1436	0.93	Q
2+10	0.1501	0.94	Q
2+15	0.1566	0.94	Q
2+20	0.1630	0.94	Q
2+25	0.1695	0.94	QV
2+30	0.1760	0.95	QV
2+35	0.1826	0.95	QV
2+40	0.1891	0.95	QV
2+45	0.1957	0.95	QV
2+50	0.2023	0.96	QV
2+55	0.2089	0.96	QV
3+ 0	0.2155	0.96	QV
3+ 5	0.2222	0.97	QV
3+10	0.2289	0.97	QV
3+15	0.2356	0.97	QV
3+20	0.2423	0.97	QV
3+25	0.2490	0.98	QV
3+30	0.2558	0.98	Q V
3+35	0.2625	0.98	Q V
3+40	0.2693	0.99	Q V
3+45	0.2762	0.99	Q V
3+50	0.2830	0.99	Q V
3+55	0.2899	1.00	Q V
4+ 0	0.2968	1.00	Q V
4+ 5	0.3037	1.00	Q V
4+10	0.3106	1.01	Q V
4+15	0.3175	1.01	Q V
4+20	0.3245	1.01	Q V
4+25	0.3315	1.02	Q V
4+30	0.3386	1.02	Q V
4+35	0.3456	1.02	Q V
4+40	0.3527	1.03	Q V
4+45	0.3598	1.03	Q V
4+50	0.3669	1.03	Q V
4+55	0.3740	1.04	Q V
5+ 0	0.3812	1.04	Q V
5+ 5	0.3884	1.05	Q V
5+10	0.3956	1.05	Q V
5+15	0.4029	1.05	Q V
5+20	0.4102	1.06	Q V
5+25	0.4175	1.06	Q V
5+30	0.4248	1.06	Q V
5+35	0.4321	1.07	Q V
5+40	0.4395	1.07	Q V
5+45	0.4469	1.08	Q V
5+50	0.4544	1.08	Q V
5+55	0.4619	1.08	Q V
6+ 0	0.4694	1.09	Q V
6+ 5	0.4769	1.09	Q V
6+10	0.4844	1.10	Q V
6+15	0.4920	1.10	Q V
6+20	0.4996	1.11	Q V
6+25	0.5073	1.11	Q V

6+30	0.5150	1.12	Q	V
6+35	0.5227	1.12	Q	V
6+40	0.5304	1.12	Q	V
6+45	0.5382	1.13	Q	V
6+50	0.5460	1.13	Q	V
6+55	0.5538	1.14	Q	V
7+ 0	0.5617	1.14	Q	V
7+ 5	0.5696	1.15	Q	V
7+10	0.5776	1.15	Q	V
7+15	0.5856	1.16	Q	V
7+20	0.5936	1.16	Q	V
7+25	0.6016	1.17	Q	V
7+30	0.6097	1.17	Q	V
7+35	0.6178	1.18	Q	V
7+40	0.6260	1.19	Q	V
7+45	0.6342	1.19	Q	V
7+50	0.6424	1.20	Q	V
7+55	0.6507	1.20	Q	V
8+ 0	0.6590	1.21	Q	V
8+ 5	0.6674	1.21	Q	V
8+10	0.6758	1.22	Q	V
8+15	0.6842	1.23	Q	V
8+20	0.6927	1.23	Q	V
8+25	0.7012	1.24	Q	V
8+30	0.7098	1.24	Q	V
8+35	0.7184	1.25	Q	V
8+40	0.7271	1.26	Q	V
8+45	0.7358	1.26	Q	V
8+50	0.7446	1.27	Q	V
8+55	0.7534	1.28	Q	V
9+ 0	0.7622	1.28	Q	V
9+ 5	0.7711	1.29	Q	V
9+10	0.7800	1.30	Q	V
9+15	0.7890	1.31	Q	V
9+20	0.7981	1.31	Q	V
9+25	0.8072	1.32	Q	V
9+30	0.8164	1.33	Q	V
9+35	0.8256	1.34	Q	V
9+40	0.8348	1.35	Q	V
9+45	0.8442	1.35	Q	V
9+50	0.8535	1.36	Q	V
9+55	0.8630	1.37	Q	V
10+ 0	0.8725	1.38	Q	V
10+ 5	0.8820	1.39	Q	V
10+10	0.8917	1.40	Q	V
10+15	0.9014	1.41	Q	V
10+20	0.9111	1.42	Q	V
10+25	0.9209	1.43	Q	V
10+30	0.9308	1.44	Q	V
10+35	0.9408	1.45	Q	V
10+40	0.9508	1.46	Q	V
10+45	0.9609	1.47	Q	V
10+50	0.9711	1.48	Q	V
10+55	0.9813	1.49	Q	V
11+ 0	0.9916	1.50	Q	V
11+ 5	1.0020	1.51	Q	V
11+10	1.0125	1.52	Q	V

11+15	1.0231	1.53	Q	V		
11+20	1.0338	1.55	Q	V		
11+25	1.0445	1.56	Q	V		
11+30	1.0553	1.57	Q	V		
11+35	1.0663	1.59	Q	V		
11+40	1.0773	1.60	Q	V		
11+45	1.0884	1.61	Q	V		
11+50	1.0996	1.63	Q	V		
11+55	1.1110	1.64	Q	V		
12+ 0	1.1224	1.66	Q	V		
12+ 5	1.1339	1.67	Q	V		
12+10	1.1451	1.63	Q	V		
12+15	1.1561	1.60	Q	V		
12+20	1.1671	1.59	Q	V		
12+25	1.1781	1.60	Q	V		
12+30	1.1893	1.62	Q	V		
12+35	1.2006	1.64	Q	V		
12+40	1.2120	1.66	Q	V		
12+45	1.2235	1.68	Q	V		
12+50	1.2352	1.70	Q	V		
12+55	1.2471	1.72	Q	V		
13+ 0	1.2591	1.74	Q	V		
13+ 5	1.2713	1.77	Q	V		
13+10	1.2836	1.79	Q	V		
13+15	1.2961	1.82	Q	V		
13+20	1.3088	1.85	Q	V		
13+25	1.3217	1.87	Q	V		
13+30	1.3349	1.90	Q	V		
13+35	1.3482	1.93	Q	V		
13+40	1.3617	1.97	Q	V		
13+45	1.3755	2.00	Q	V		
13+50	1.3895	2.04	Q	V		
13+55	1.4038	2.08	Q	V		
14+ 0	1.4184	2.12	Q	V		
14+ 5	1.4333	2.16	Q	V		
14+10	1.4484	2.20	Q	V		
14+15	1.4639	2.25	Q	V		
14+20	1.4798	2.30	Q	V		
14+25	1.4960	2.36	Q	V		
14+30	1.5127	2.42	Q	V		
14+35	1.5298	2.48	Q	V		
14+40	1.5473	2.55	Q	V		
14+45	1.5654	2.62	Q	V		
14+50	1.5840	2.70	Q	V		
14+55	1.6032	2.79	Q	V		
15+ 0	1.6232	2.89	Q	V		
15+ 5	1.6438	3.00	Q	V		
15+10	1.6653	3.12	Q	V		
15+15	1.6878	3.26	Q	V		
15+20	1.7113	3.42	Q	V		
15+25	1.7358	3.56	Q	V		
15+30	1.7602	3.55	Q	V		
15+35	1.7847	3.56	Q	V		
15+40	1.8108	3.78	Q	V		
15+45	1.8393	4.14	Q	V		
15+50	1.8716	4.69	Q	V		
15+55	1.9097	5.54	Q	V		

16+ 0	1.9593	7.20		Q		V		
16+ 5	2.0389	11.55			Q	V		
16+10	2.1816	20.72				V	Q	
16+15	2.3255	20.90					Q	
16+20	2.4034	11.31			Q		V	
16+25	2.4484	6.53		Q			V	
16+30	2.4819	4.87					V	
16+35	2.5111	4.23		Q			V	
16+40	2.5365	3.69		Q			V	
16+45	2.5597	3.36		Q				V
16+50	2.5809	3.09		Q				V
16+55	2.6007	2.86	Q					V
17+ 0	2.6191	2.67	Q					V
17+ 5	2.6364	2.51	Q					V
17+10	2.6527	2.37	Q					V
17+15	2.6681	2.24	Q					V
17+20	2.6829	2.14	Q					V
17+25	2.6971	2.06	Q					V
17+30	2.7108	1.99	Q					V
17+35	2.7240	1.92	Q					V
17+40	2.7369	1.86	Q					V
17+45	2.7493	1.81	Q					V
17+50	2.7614	1.76	Q					V
17+55	2.7732	1.71	Q					V
18+ 0	2.7847	1.67	Q					V
18+ 5	2.7959	1.64	Q					V
18+10	2.8073	1.65	Q					V
18+15	2.8188	1.67	Q					V
18+20	2.8302	1.66	Q					V
18+25	2.8414	1.63	Q					V
18+30	2.8524	1.60	Q					V
18+35	2.8633	1.58	Q					V
18+40	2.8740	1.55	Q					V
18+45	2.8845	1.53	Q					V
18+50	2.8949	1.50	Q					V
18+55	2.9051	1.48	Q					V
19+ 0	2.9152	1.46	Q					V
19+ 5	2.9251	1.44	Q					V
19+10	2.9349	1.42	Q					V
19+15	2.9445	1.40	Q					V
19+20	2.9540	1.38	Q					V
19+25	2.9635	1.37	Q					V
19+30	2.9727	1.35	Q					V
19+35	2.9819	1.33	Q					V
19+40	2.9910	1.32	Q					V
19+45	3.0000	1.30	Q					V
19+50	3.0088	1.29	Q					V
19+55	3.0176	1.27	Q					V
20+ 0	3.0263	1.26	Q					V
20+ 5	3.0349	1.25	Q					V
20+10	3.0434	1.23	Q					V
20+15	3.0518	1.22	Q					V
20+20	3.0602	1.21	Q					V
20+25	3.0684	1.20	Q					V
20+30	3.0766	1.19	Q					V
20+35	3.0847	1.18	Q					V
20+40	3.0927	1.17	Q					V

20+45	3.1007	1.16	Q	V
20+50	3.1086	1.15	Q	V
20+55	3.1164	1.14	Q	V
21+ 0	3.1242	1.13	Q	V
21+ 5	3.1319	1.12	Q	V
21+10	3.1395	1.11	Q	V
21+15	3.1471	1.10	Q	V
21+20	3.1546	1.09	Q	V
21+25	3.1620	1.08	Q	V
21+30	3.1694	1.07	Q	V
21+35	3.1768	1.07	Q	V
21+40	3.1840	1.06	Q	V
21+45	3.1913	1.05	Q	V
21+50	3.1985	1.04	Q	V
21+55	3.2056	1.04	Q	V
22+ 0	3.2127	1.03	Q	V
22+ 5	3.2197	1.02	Q	V
22+10	3.2267	1.01	Q	V
22+15	3.2336	1.01	Q	V
22+20	3.2405	1.00	Q	V
22+25	3.2474	0.99	Q	V
22+30	3.2542	0.99	Q	V
22+35	3.2610	0.98	Q	V
22+40	3.2677	0.98	Q	V
22+45	3.2744	0.97	Q	V
22+50	3.2810	0.96	Q	V
22+55	3.2876	0.96	Q	V
23+ 0	3.2942	0.95	Q	V
23+ 5	3.3007	0.95	Q	V
23+10	3.3072	0.94	Q	V
23+15	3.3136	0.94	Q	V
23+20	3.3201	0.93	Q	V
23+25	3.3264	0.93	Q	V
23+30	3.3328	0.92	Q	V
23+35	3.3391	0.92	Q	V
23+40	3.3454	0.91	Q	V
23+45	3.3516	0.91	Q	V
23+50	3.3578	0.90	Q	V
23+55	3.3640	0.90	Q	V
24+ 0	3.3701	0.89	Q	V
24+ 5	3.3759	0.83	Q	V
24+10	3.3796	0.54	Q	V
24+15	3.3810	0.20	Q	V
24+20	3.3815	0.08	Q	V
24+25	3.3817	0.04	Q	V
24+30	3.3819	0.02	Q	V
24+35	3.3820	0.01	Q	V
24+40	3.3821	0.01	Q	V
24+45	3.3821	0.01	Q	V
24+50	3.3822	0.00	Q	V
24+55	3.3822	0.00	Q	V
25+ 0	3.3822	0.00	Q	V
25+ 5	3.3822	0.00	Q	V

Unit Hydrograph Analysis

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Study date 11/27/21

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San Bernardino County Synthetic Unit Hydrology Method
Manual date - August 1986

Program License Serial Number 6472

100-Year 1-Hour Flood Unit Hydrograph
To the Basin 1-B

Storm Event Year = 100

Antecedent Moisture Condition = 3

English (in-lb) Input Units Used

English Rainfall Data (Inches) Input Values Used

English Units used in output format

Area averaged rainfall intensity isohyetal data:

Sub-Area Duration Isohyetal
(Ac.) (hours) (In)
Rainfall data for year 100
30.90 1 1.32

Rainfall data for year 100
30.90 6 3.11

Rainfall data for year 100
30.90 24 6.42

+++++

***** Area-averaged max loss rate, Fm *****

SCS curve SCS curve Area Area Fp(Fig C6) Ap Fm
No. (AMCII) NO. (AMC 3) (Ac.) Fraction (In/Hr) (dec.) (In/Hr)
75.0 91.0 30.90 1.000 0.174 0.200 0.035

Area-averaged adjusted loss rate Fm (In/Hr) = 0.035

***** Area-Averaged low loss rate fraction, Yb *****

Area (Ac.)	Area Fract	SCS CN (AMC2)	SCS CN (AMC3)	S	Pervious Yield Fr
6.18	0.200	75.0	91.0	0.99	0.836
24.72	0.800	98.0	98.0	0.20	0.963

Area-averaged catchment yield fraction, Y = 0.938

Area-averaged low loss fraction, Yb = 0.062

User entry of time of concentration = 0.340 (hours)

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Watershed area = 30.90 (Ac.)

Catchment Lag time = 0.272 hours

Unit interval = 5.000 minutes

Unit interval percentage of lag time = 30.6373

Hydrograph baseflow = 0.00 (CFS)

Average maximum watershed loss rate (Fm) = 0.035 (In/Hr)

Average low loss rate fraction (Yb) = 0.062 (decimal)

VALLEY DEVELOPED S-Graph proportion = 0.800

VALLEY UNDEVELOPED S-Graph proportion = 0.200

FOOTHILL S-Graph proportion = 0.000

MOUNTAIN S-Graph proportion = 0.000

DESERT S-Graph proportion = -0.000

Computed peak 5-minute rainfall = 0.489 (In)

Computed peak 30-minute rainfall = 1.000 (In)

Specified peak 1-hour rainfall = 1.320 (In)

Computed peak 3-hour rainfall = 2.232 (In)

Specified peak 6-hour rainfall = 3.110 (In)

Specified peak 24-hour rainfall = 6.420 (In)

Rainfall depth area reduction factors:

Using a total area of 30.90 (Ac.) (Ref: fig. E-4)

5-minute factor = 0.999 Adjusted rainfall = 0.488 (In)

30-minute factor = 0.999 Adjusted rainfall = 0.999 (In)

1-hour factor = 0.999 Adjusted rainfall = 1.318 (In)

3-hour factor = 1.000 Adjusted rainfall = 2.232 (In)

6-hour factor = 1.000 Adjusted rainfall = 3.110 (In)

24-hour factor = 1.000 Adjusted rainfall = 6.420 (In)

U n i t H y d r o g r a p h

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Interval Number	'S' Graph Mean values	Unit Hydrograph ((CFS))
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(K = 373.70 (CFS))

1	2.200	8.220
2	12.066	36.869
3	30.980	70.683
4	55.500	91.627
5	74.819	72.197

6	85.617	40.350
7	91.159	20.713
8	94.264	11.601
9	95.672	5.263
10	96.601	3.469
11	97.433	3.108
12	98.112	2.538
13	98.390	1.040
14	98.627	0.885
15	98.823	0.731
16	99.009	0.698
17	99.182	0.645
18	99.319	0.513
19	99.440	0.454
20	99.549	0.404
21	99.639	0.336
22	99.717	0.292
23	99.779	0.231
24	99.840	0.229
25	99.901	0.229
26	99.963	0.229
27	100.000	0.140

Peak Unit Number	Adjusted mass rainfall (In)	Unit rainfall (In)
1	0.4878	0.4878
2	0.6437	0.1559
3	0.7570	0.1133
4	0.8494	0.0923
5	0.9287	0.0793
6	0.9989	0.0703
7	1.0625	0.0635
8	1.1207	0.0583
9	1.1748	0.0541
10	1.2254	0.0506
11	1.2730	0.0476
12	1.3181	0.0451
13	1.3697	0.0516
14	1.4192	0.0495
15	1.4669	0.0477
16	1.5130	0.0461
17	1.5576	0.0446
18	1.6009	0.0433
19	1.6430	0.0420
20	1.6839	0.0409
21	1.7237	0.0399
22	1.7626	0.0389
23	1.8006	0.0380
24	1.8377	0.0371
25	1.8740	0.0363
26	1.9096	0.0356
27	1.9445	0.0349
28	1.9787	0.0342
29	2.0122	0.0336
30	2.0452	0.0330
31	2.0776	0.0324
32	2.1095	0.0319

33	2.1408	0.0314
34	2.1717	0.0309
35	2.2021	0.0304
36	2.2320	0.0299
37	2.2615	0.0295
38	2.2905	0.0290
39	2.3192	0.0286
40	2.3474	0.0283
41	2.3753	0.0279
42	2.4029	0.0275
43	2.4301	0.0272
44	2.4569	0.0269
45	2.4835	0.0266
46	2.5097	0.0263
47	2.5357	0.0260
48	2.5614	0.0257
49	2.5868	0.0254
50	2.6119	0.0251
51	2.6368	0.0249
52	2.6614	0.0246
53	2.6857	0.0244
54	2.7098	0.0241
55	2.7337	0.0239
56	2.7574	0.0237
57	2.7809	0.0234
58	2.8041	0.0232
59	2.8271	0.0230
60	2.8499	0.0228
61	2.8726	0.0226
62	2.8950	0.0224
63	2.9173	0.0222
64	2.9393	0.0221
65	2.9612	0.0219
66	2.9829	0.0217
67	3.0044	0.0215
68	3.0258	0.0214
69	3.0470	0.0212
70	3.0681	0.0210
71	3.0890	0.0209
72	3.1097	0.0207
73	3.1322	0.0225
74	3.1546	0.0224
75	3.1768	0.0222
76	3.1989	0.0221
77	3.2208	0.0219
78	3.2426	0.0218
79	3.2643	0.0217
80	3.2858	0.0215
81	3.3072	0.0214
82	3.3285	0.0213
83	3.3497	0.0212
84	3.3707	0.0210
85	3.3916	0.0209
86	3.4125	0.0208
87	3.4331	0.0207
88	3.4537	0.0206
89	3.4742	0.0205

90	3.4945	0.0204
91	3.5148	0.0202
92	3.5349	0.0201
93	3.5550	0.0200
94	3.5749	0.0199
95	3.5947	0.0198
96	3.6145	0.0197
97	3.6341	0.0196
98	3.6537	0.0195
99	3.6731	0.0194
100	3.6925	0.0194
101	3.7117	0.0193
102	3.7309	0.0192
103	3.7500	0.0191
104	3.7690	0.0190
105	3.7879	0.0189
106	3.8067	0.0188
107	3.8254	0.0187
108	3.8441	0.0187
109	3.8626	0.0186
110	3.8811	0.0185
111	3.8995	0.0184
112	3.9179	0.0183
113	3.9361	0.0183
114	3.9543	0.0182
115	3.9724	0.0181
116	3.9904	0.0180
117	4.0084	0.0180
118	4.0262	0.0179
119	4.0440	0.0178
120	4.0618	0.0177
121	4.0794	0.0177
122	4.0970	0.0176
123	4.1146	0.0175
124	4.1320	0.0175
125	4.1494	0.0174
126	4.1667	0.0173
127	4.1840	0.0173
128	4.2012	0.0172
129	4.2183	0.0171
130	4.2354	0.0171
131	4.2524	0.0170
132	4.2693	0.0169
133	4.2862	0.0169
134	4.3030	0.0168
135	4.3198	0.0168
136	4.3365	0.0167
137	4.3531	0.0166
138	4.3697	0.0166
139	4.3863	0.0165
140	4.4027	0.0165
141	4.4191	0.0164
142	4.4355	0.0164
143	4.4518	0.0163
144	4.4681	0.0163
145	4.4843	0.0162
146	4.5004	0.0161

147	4.5165	0.0161
148	4.5325	0.0160
149	4.5485	0.0160
150	4.5644	0.0159
151	4.5803	0.0159
152	4.5962	0.0158
153	4.6120	0.0158
154	4.6277	0.0157
155	4.6434	0.0157
156	4.6590	0.0156
157	4.6746	0.0156
158	4.6902	0.0155
159	4.7057	0.0155
160	4.7211	0.0155
161	4.7365	0.0154
162	4.7519	0.0154
163	4.7672	0.0153
164	4.7825	0.0153
165	4.7977	0.0152
166	4.8129	0.0152
167	4.8280	0.0151
168	4.8431	0.0151
169	4.8581	0.0151
170	4.8732	0.0150
171	4.8881	0.0150
172	4.9030	0.0149
173	4.9179	0.0149
174	4.9328	0.0148
175	4.9476	0.0148
176	4.9623	0.0148
177	4.9771	0.0147
178	4.9917	0.0147
179	5.0064	0.0146
180	5.0210	0.0146
181	5.0356	0.0146
182	5.0501	0.0145
183	5.0646	0.0145
184	5.0790	0.0145
185	5.0934	0.0144
186	5.1078	0.0144
187	5.1222	0.0143
188	5.1365	0.0143
189	5.1507	0.0143
190	5.1650	0.0142
191	5.1792	0.0142
192	5.1933	0.0142
193	5.2074	0.0141
194	5.2215	0.0141
195	5.2356	0.0141
196	5.2496	0.0140
197	5.2636	0.0140
198	5.2776	0.0140
199	5.2915	0.0139
200	5.3054	0.0139
201	5.3192	0.0139
202	5.3330	0.0138
203	5.3468	0.0138

204	5.3606	0.0138
205	5.3743	0.0137
206	5.3880	0.0137
207	5.4017	0.0137
208	5.4153	0.0136
209	5.4289	0.0136
210	5.4424	0.0136
211	5.4560	0.0135
212	5.4695	0.0135
213	5.4830	0.0135
214	5.4964	0.0134
215	5.5098	0.0134
216	5.5232	0.0134
217	5.5366	0.0134
218	5.5499	0.0133
219	5.5632	0.0133
220	5.5765	0.0133
221	5.5897	0.0132
222	5.6029	0.0132
223	5.6161	0.0132
224	5.6292	0.0132
225	5.6424	0.0131
226	5.6555	0.0131
227	5.6685	0.0131
228	5.6816	0.0130
229	5.6946	0.0130
230	5.7076	0.0130
231	5.7205	0.0130
232	5.7335	0.0129
233	5.7464	0.0129
234	5.7593	0.0129
235	5.7721	0.0129
236	5.7850	0.0128
237	5.7978	0.0128
238	5.8105	0.0128
239	5.8233	0.0128
240	5.8360	0.0127
241	5.8487	0.0127
242	5.8614	0.0127
243	5.8740	0.0127
244	5.8867	0.0126
245	5.8993	0.0126
246	5.9119	0.0126
247	5.9244	0.0126
248	5.9369	0.0125
249	5.9494	0.0125
250	5.9619	0.0125
251	5.9744	0.0125
252	5.9868	0.0124
253	5.9992	0.0124
254	6.0116	0.0124
255	6.0240	0.0124
256	6.0363	0.0123
257	6.0486	0.0123
258	6.0609	0.0123
259	6.0732	0.0123
260	6.0855	0.0122

261	6.0977	0.0122
262	6.1099	0.0122
263	6.1221	0.0122
264	6.1342	0.0122
265	6.1464	0.0121
266	6.1585	0.0121
267	6.1706	0.0121
268	6.1826	0.0121
269	6.1947	0.0121
270	6.2067	0.0120
271	6.2187	0.0120
272	6.2307	0.0120
273	6.2427	0.0120
274	6.2546	0.0119
275	6.2666	0.0119
276	6.2785	0.0119
277	6.2904	0.0119
278	6.3022	0.0119
279	6.3141	0.0118
280	6.3259	0.0118
281	6.3377	0.0118
282	6.3495	0.0118
283	6.3612	0.0118
284	6.3730	0.0117
285	6.3847	0.0117
286	6.3964	0.0117
287	6.4081	0.0117
288	6.4198	0.0117

Unit Period (number)	Unit Rainfall (In)	Unit Soil-Loss (In)	Effective Rainfall (In)
1	0.0117	0.0007	0.0109
2	0.0117	0.0007	0.0110
3	0.0117	0.0007	0.0110
4	0.0117	0.0007	0.0110
5	0.0118	0.0007	0.0110
6	0.0118	0.0007	0.0111
7	0.0118	0.0007	0.0111
8	0.0119	0.0007	0.0111
9	0.0119	0.0007	0.0112
10	0.0119	0.0007	0.0112
11	0.0120	0.0007	0.0112
12	0.0120	0.0007	0.0112
13	0.0120	0.0008	0.0113
14	0.0121	0.0008	0.0113
15	0.0121	0.0008	0.0113
16	0.0121	0.0008	0.0114
17	0.0122	0.0008	0.0114
18	0.0122	0.0008	0.0114
19	0.0122	0.0008	0.0115
20	0.0122	0.0008	0.0115
21	0.0123	0.0008	0.0115
22	0.0123	0.0008	0.0115
23	0.0124	0.0008	0.0116
24	0.0124	0.0008	0.0116

25	0.0124	0.0008	0.0117
26	0.0125	0.0008	0.0117
27	0.0125	0.0008	0.0117
28	0.0125	0.0008	0.0117
29	0.0126	0.0008	0.0118
30	0.0126	0.0008	0.0118
31	0.0127	0.0008	0.0119
32	0.0127	0.0008	0.0119
33	0.0127	0.0008	0.0119
34	0.0128	0.0008	0.0120
35	0.0128	0.0008	0.0120
36	0.0128	0.0008	0.0120
37	0.0129	0.0008	0.0121
38	0.0129	0.0008	0.0121
39	0.0130	0.0008	0.0122
40	0.0130	0.0008	0.0122
41	0.0130	0.0008	0.0122
42	0.0131	0.0008	0.0123
43	0.0131	0.0008	0.0123
44	0.0132	0.0008	0.0123
45	0.0132	0.0008	0.0124
46	0.0132	0.0008	0.0124
47	0.0133	0.0008	0.0125
48	0.0133	0.0008	0.0125
49	0.0134	0.0008	0.0125
50	0.0134	0.0008	0.0126
51	0.0135	0.0008	0.0126
52	0.0135	0.0008	0.0127
53	0.0136	0.0008	0.0127
54	0.0136	0.0008	0.0127
55	0.0137	0.0009	0.0128
56	0.0137	0.0009	0.0128
57	0.0138	0.0009	0.0129
58	0.0138	0.0009	0.0129
59	0.0139	0.0009	0.0130
60	0.0139	0.0009	0.0130
61	0.0140	0.0009	0.0131
62	0.0140	0.0009	0.0131
63	0.0141	0.0009	0.0132
64	0.0141	0.0009	0.0132
65	0.0142	0.0009	0.0133
66	0.0142	0.0009	0.0133
67	0.0143	0.0009	0.0134
68	0.0143	0.0009	0.0134
69	0.0144	0.0009	0.0135
70	0.0144	0.0009	0.0135
71	0.0145	0.0009	0.0136
72	0.0145	0.0009	0.0136
73	0.0146	0.0009	0.0137
74	0.0146	0.0009	0.0137
75	0.0147	0.0009	0.0138
76	0.0148	0.0009	0.0138
77	0.0148	0.0009	0.0139
78	0.0149	0.0009	0.0140
79	0.0150	0.0009	0.0140
80	0.0150	0.0009	0.0141
81	0.0151	0.0009	0.0142

82	0.0151	0.0009	0.0142
83	0.0152	0.0010	0.0143
84	0.0153	0.0010	0.0143
85	0.0154	0.0010	0.0144
86	0.0154	0.0010	0.0144
87	0.0155	0.0010	0.0145
88	0.0155	0.0010	0.0146
89	0.0156	0.0010	0.0147
90	0.0157	0.0010	0.0147
91	0.0158	0.0010	0.0148
92	0.0158	0.0010	0.0148
93	0.0159	0.0010	0.0149
94	0.0160	0.0010	0.0150
95	0.0161	0.0010	0.0151
96	0.0161	0.0010	0.0151
97	0.0163	0.0010	0.0152
98	0.0163	0.0010	0.0153
99	0.0164	0.0010	0.0154
100	0.0165	0.0010	0.0154
101	0.0166	0.0010	0.0155
102	0.0166	0.0010	0.0156
103	0.0168	0.0010	0.0157
104	0.0168	0.0011	0.0158
105	0.0169	0.0011	0.0159
106	0.0170	0.0011	0.0159
107	0.0171	0.0011	0.0161
108	0.0172	0.0011	0.0161
109	0.0173	0.0011	0.0162
110	0.0174	0.0011	0.0163
111	0.0175	0.0011	0.0164
112	0.0176	0.0011	0.0165
113	0.0177	0.0011	0.0166
114	0.0178	0.0011	0.0167
115	0.0180	0.0011	0.0168
116	0.0180	0.0011	0.0169
117	0.0182	0.0011	0.0170
118	0.0183	0.0011	0.0171
119	0.0184	0.0012	0.0173
120	0.0185	0.0012	0.0173
121	0.0187	0.0012	0.0175
122	0.0187	0.0012	0.0176
123	0.0189	0.0012	0.0177
124	0.0190	0.0012	0.0178
125	0.0192	0.0012	0.0180
126	0.0193	0.0012	0.0181
127	0.0194	0.0012	0.0182
128	0.0195	0.0012	0.0183
129	0.0197	0.0012	0.0185
130	0.0198	0.0012	0.0186
131	0.0200	0.0013	0.0188
132	0.0201	0.0013	0.0189
133	0.0204	0.0013	0.0191
134	0.0205	0.0013	0.0192
135	0.0207	0.0013	0.0194
136	0.0208	0.0013	0.0195
137	0.0210	0.0013	0.0197
138	0.0212	0.0013	0.0198

139	0.0214	0.0013	0.0201
140	0.0215	0.0013	0.0202
141	0.0218	0.0014	0.0204
142	0.0219	0.0014	0.0206
143	0.0222	0.0014	0.0208
144	0.0224	0.0014	0.0210
145	0.0207	0.0013	0.0194
146	0.0209	0.0013	0.0196
147	0.0212	0.0013	0.0199
148	0.0214	0.0013	0.0200
149	0.0217	0.0014	0.0204
150	0.0219	0.0014	0.0205
151	0.0222	0.0014	0.0209
152	0.0224	0.0014	0.0210
153	0.0228	0.0014	0.0214
154	0.0230	0.0014	0.0216
155	0.0234	0.0015	0.0220
156	0.0237	0.0015	0.0222
157	0.0241	0.0015	0.0226
158	0.0244	0.0015	0.0228
159	0.0249	0.0016	0.0233
160	0.0251	0.0016	0.0236
161	0.0257	0.0016	0.0241
162	0.0260	0.0016	0.0243
163	0.0266	0.0017	0.0249
164	0.0269	0.0017	0.0252
165	0.0275	0.0017	0.0258
166	0.0279	0.0017	0.0262
167	0.0286	0.0018	0.0269
168	0.0290	0.0018	0.0272
169	0.0299	0.0019	0.0281
170	0.0304	0.0019	0.0285
171	0.0314	0.0020	0.0294
172	0.0319	0.0020	0.0299
173	0.0330	0.0021	0.0309
174	0.0336	0.0021	0.0315
175	0.0349	0.0022	0.0327
176	0.0356	0.0022	0.0334
177	0.0371	0.0023	0.0348
178	0.0380	0.0024	0.0356
179	0.0399	0.0025	0.0374
180	0.0409	0.0026	0.0383
181	0.0433	0.0027	0.0406
182	0.0446	0.0028	0.0418
183	0.0477	0.0029	0.0448
184	0.0495	0.0029	0.0466
185	0.0451	0.0028	0.0423
186	0.0476	0.0029	0.0447
187	0.0541	0.0029	0.0512
188	0.0583	0.0029	0.0554
189	0.0703	0.0029	0.0674
190	0.0793	0.0029	0.0764
191	0.1133	0.0029	0.1104
192	0.1559	0.0029	0.1530
193	0.4878	0.0029	0.4849
194	0.0923	0.0029	0.0894
195	0.0635	0.0029	0.0606

196	0.0506	0.0029	0.0477
197	0.0516	0.0029	0.0487
198	0.0461	0.0029	0.0432
199	0.0420	0.0026	0.0394
200	0.0389	0.0024	0.0364
201	0.0363	0.0023	0.0341
202	0.0342	0.0021	0.0321
203	0.0324	0.0020	0.0304
204	0.0309	0.0019	0.0289
205	0.0295	0.0018	0.0276
206	0.0283	0.0018	0.0265
207	0.0272	0.0017	0.0255
208	0.0263	0.0016	0.0246
209	0.0254	0.0016	0.0238
210	0.0246	0.0015	0.0231
211	0.0239	0.0015	0.0224
212	0.0232	0.0015	0.0218
213	0.0226	0.0014	0.0212
214	0.0221	0.0014	0.0207
215	0.0215	0.0013	0.0202
216	0.0210	0.0013	0.0197
217	0.0225	0.0014	0.0211
218	0.0221	0.0014	0.0207
219	0.0217	0.0014	0.0203
220	0.0213	0.0013	0.0200
221	0.0209	0.0013	0.0196
222	0.0206	0.0013	0.0193
223	0.0202	0.0013	0.0190
224	0.0199	0.0012	0.0187
225	0.0196	0.0012	0.0184
226	0.0194	0.0012	0.0181
227	0.0191	0.0012	0.0179
228	0.0188	0.0012	0.0176
229	0.0186	0.0012	0.0174
230	0.0183	0.0011	0.0172
231	0.0181	0.0011	0.0170
232	0.0179	0.0011	0.0168
233	0.0177	0.0011	0.0166
234	0.0175	0.0011	0.0164
235	0.0173	0.0011	0.0162
236	0.0171	0.0011	0.0160
237	0.0169	0.0011	0.0158
238	0.0167	0.0010	0.0157
239	0.0165	0.0010	0.0155
240	0.0164	0.0010	0.0153
241	0.0162	0.0010	0.0152
242	0.0160	0.0010	0.0150
243	0.0159	0.0010	0.0149
244	0.0157	0.0010	0.0148
245	0.0156	0.0010	0.0146
246	0.0155	0.0010	0.0145
247	0.0153	0.0010	0.0144
248	0.0152	0.0009	0.0142
249	0.0151	0.0009	0.0141
250	0.0149	0.0009	0.0140
251	0.0148	0.0009	0.0139
252	0.0147	0.0009	0.0138

253	0.0146	0.0009	0.0137
254	0.0145	0.0009	0.0135
255	0.0143	0.0009	0.0134
256	0.0142	0.0009	0.0133
257	0.0141	0.0009	0.0132
258	0.0140	0.0009	0.0131
259	0.0139	0.0009	0.0131
260	0.0138	0.0009	0.0130
261	0.0137	0.0009	0.0129
262	0.0136	0.0009	0.0128
263	0.0135	0.0008	0.0127
264	0.0134	0.0008	0.0126
265	0.0134	0.0008	0.0125
266	0.0133	0.0008	0.0124
267	0.0132	0.0008	0.0124
268	0.0131	0.0008	0.0123
269	0.0130	0.0008	0.0122
270	0.0129	0.0008	0.0121
271	0.0129	0.0008	0.0121
272	0.0128	0.0008	0.0120
273	0.0127	0.0008	0.0119
274	0.0126	0.0008	0.0118
275	0.0126	0.0008	0.0118
276	0.0125	0.0008	0.0117
277	0.0124	0.0008	0.0116
278	0.0123	0.0008	0.0116
279	0.0123	0.0008	0.0115
280	0.0122	0.0008	0.0114
281	0.0121	0.0008	0.0114
282	0.0121	0.0008	0.0113
283	0.0120	0.0008	0.0113
284	0.0119	0.0007	0.0112
285	0.0119	0.0007	0.0111
286	0.0118	0.0007	0.0111
287	0.0118	0.0007	0.0110
288	0.0117	0.0007	0.0110

 Total soil rain loss = 0.35(In)
 Total effective rainfall = 6.07(In)
 Peak flow rate in flood hydrograph = 72.24(CFS)

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24 - H O U R S T O R M
 R u n o f f H y d r o g r a p h

 Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	20.0	40.0	60.0	80.0
0+ 5	0.0006	0.09	Q				
0+10	0.0040	0.49	Q				
0+15	0.0127	1.27	Q				
0+20	0.0284	2.27	VQ				
0+25	0.0495	3.07	VQ				
0+30	0.0737	3.52	VQ				

0+35	0.0996	3.75	VQ
0+40	0.1263	3.89	VQ
0+45	0.1536	3.95	VQ
0+50	0.1811	4.00	V Q
0+55	0.2090	4.05	V Q
1+ 0	0.2371	4.09	V Q
1+ 5	0.2654	4.11	V Q
1+10	0.2939	4.13	V Q
1+15	0.3224	4.15	V Q
1+20	0.3511	4.17	V Q
1+25	0.3799	4.18	V Q
1+30	0.4088	4.20	VQ
1+35	0.4379	4.22	VQ
1+40	0.4670	4.23	VQ
1+45	0.4963	4.25	VQ
1+50	0.5256	4.26	VQ
1+55	0.5551	4.28	VQ
2+ 0	0.5846	4.29	VQ
2+ 5	0.6143	4.30	VQ
2+10	0.6440	4.32	VQ
2+15	0.6738	4.33	VQ
2+20	0.7038	4.35	VQ
2+25	0.7338	4.36	VQ
2+30	0.7639	4.37	VQ
2+35	0.7941	4.38	Q
2+40	0.8243	4.40	Q
2+45	0.8547	4.41	Q
2+50	0.8851	4.42	Q
2+55	0.9157	4.43	Q
3+ 0	0.9463	4.45	Q
3+ 5	0.9770	4.46	Q
3+10	1.0078	4.47	Q
3+15	1.0387	4.49	Q
3+20	1.0697	4.50	Q
3+25	1.1008	4.51	Q
3+30	1.1320	4.53	Q
3+35	1.1633	4.54	Q
3+40	1.1947	4.56	QV
3+45	1.2262	4.57	QV
3+50	1.2578	4.59	QV
3+55	1.2895	4.60	QV
4+ 0	1.3212	4.62	QV
4+ 5	1.3531	4.63	QV
4+10	1.3851	4.65	QV
4+15	1.4172	4.66	QV
4+20	1.4494	4.68	QV
4+25	1.4817	4.69	QV
4+30	1.5142	4.71	QV
4+35	1.5467	4.72	QV
4+40	1.5793	4.74	Q V
4+45	1.6121	4.75	Q V
4+50	1.6449	4.77	Q V
4+55	1.6779	4.79	Q V
5+ 0	1.7110	4.80	Q V
5+ 5	1.7442	4.82	Q V
5+10	1.7775	4.84	Q V
5+15	1.8110	4.86	Q V

5+20	1.8445	4.87	Q	V
5+25	1.8782	4.89	Q	V
5+30	1.9120	4.91	Q	V
5+35	1.9459	4.93	Q	V
5+40	1.9800	4.95	Q	V
5+45	2.0142	4.96	Q	V
5+50	2.0485	4.98	Q	V
5+55	2.0829	5.00	Q	V
6+ 0	2.1175	5.02	Q	V
6+ 5	2.1522	5.04	Q	V
6+10	2.1871	5.06	Q	V
6+15	2.2220	5.08	Q	V
6+20	2.2572	5.10	Q	V
6+25	2.2924	5.12	Q	V
6+30	2.3278	5.14	Q	V
6+35	2.3634	5.16	Q	V
6+40	2.3991	5.18	Q	V
6+45	2.4349	5.20	Q	V
6+50	2.4709	5.22	Q	V
6+55	2.5070	5.25	Q	V
7+ 0	2.5433	5.27	Q	V
7+ 5	2.5797	5.29	Q	V
7+10	2.6163	5.31	Q	V
7+15	2.6531	5.34	Q	V
7+20	2.6900	5.36	Q	V
7+25	2.7271	5.38	Q	V
7+30	2.7643	5.41	Q	V
7+35	2.8018	5.43	Q	V
7+40	2.8394	5.46	Q	V
7+45	2.8771	5.48	Q	V
7+50	2.9151	5.51	Q	V
7+55	2.9532	5.53	Q	V
8+ 0	2.9915	5.56	Q	V
8+ 5	3.0299	5.59	Q	V
8+10	3.0686	5.61	Q	V
8+15	3.1075	5.64	Q	V
8+20	3.1465	5.67	Q	V
8+25	3.1857	5.70	Q	V
8+30	3.2252	5.73	Q	V
8+35	3.2648	5.76	Q	V
8+40	3.3047	5.78	Q	V
8+45	3.3447	5.81	Q	V
8+50	3.3850	5.85	Q	V
8+55	3.4254	5.88	Q	V
9+ 0	3.4661	5.91	Q	V
9+ 5	3.5070	5.94	Q	V
9+10	3.5482	5.97	Q	V
9+15	3.5895	6.01	Q	V
9+20	3.6311	6.04	Q	V
9+25	3.6730	6.07	Q	V
9+30	3.7150	6.11	Q	V
9+35	3.7574	6.15	Q	V
9+40	3.7999	6.18	Q	V
9+45	3.8428	6.22	Q	V
9+50	3.8859	6.26	Q	V
9+55	3.9292	6.29	Q	V
10+ 0	3.9728	6.33	Q	V

10+ 5	4.0167	6.37	Q	V		
10+10	4.0609	6.41	Q	V		
10+15	4.1054	6.46	Q	V		
10+20	4.1501	6.50	Q	V		
10+25	4.1952	6.54	Q	V		
10+30	4.2405	6.59	Q	V		
10+35	4.2862	6.63	Q	V		
10+40	4.3322	6.68	Q	V		
10+45	4.3785	6.72	Q	V		
10+50	4.4251	6.77	Q	V		
10+55	4.4721	6.82	Q	V		
11+ 0	4.5194	6.87	Q	V		
11+ 5	4.5671	6.92	Q	V		
11+10	4.6152	6.98	Q	V		
11+15	4.6636	7.03	Q	V		
11+20	4.7124	7.09	Q	V		
11+25	4.7615	7.14	Q	V		
11+30	4.8111	7.20	Q	V		
11+35	4.8611	7.26	Q	V		
11+40	4.9115	7.32	Q	V		
11+45	4.9624	7.38	Q	V		
11+50	5.0137	7.45	Q	V		
11+55	5.0654	7.51	Q	V		
12+ 0	5.1176	7.58	Q	V		
12+ 5	5.1702	7.64	Q	V		
12+10	5.2229	7.64	Q	V		
12+15	5.2751	7.59	Q	V		
12+20	5.3268	7.50	Q	V		
12+25	5.3781	7.45	Q	V		
12+30	5.4295	7.46	Q	V		
12+35	5.4812	7.51	Q	V		
12+40	5.5333	7.57	Q	V		
12+45	5.5860	7.65	Q	V		
12+50	5.6394	7.74	Q	V		
12+55	5.6933	7.83	Q	V		
13+ 0	5.7479	7.93	Q	V		
13+ 5	5.8032	8.03	Q	V		
13+10	5.8592	8.14	Q	V		
13+15	5.9160	8.25	Q	V		
13+20	5.9736	8.36	Q	V		
13+25	6.0321	8.49	Q	V		
13+30	6.0914	8.61	Q	V		
13+35	6.1516	8.75	Q	V		
13+40	6.2128	8.89	Q	V		
13+45	6.2750	9.03	Q	V		
13+50	6.3383	9.19	Q	V		
13+55	6.4026	9.35	Q	V		
14+ 0	6.4682	9.52	Q	V		
14+ 5	6.5350	9.70	Q	V		
14+10	6.6031	9.89	Q	V		
14+15	6.6726	10.10	Q	V		
14+20	6.7437	10.32	Q	V		
14+25	6.8163	10.55	Q	V		
14+30	6.8907	10.80	Q	V		
14+35	6.9669	11.06	Q	V		
14+40	7.0450	11.34	Q	V		
14+45	7.1252	11.65	Q	V		

14+50	7.2077	11.98	Q		V			
14+55	7.2927	12.34	Q		V			
15+ 0	7.3804	12.73	Q		V			
15+ 5	7.4710	13.16	Q		V			
15+10	7.5650	13.64	Q		V			
15+15	7.6626	14.18	Q		V			
15+20	7.7644	14.79	Q		V			
15+25	7.8705	15.41	Q		V			
15+30	7.9801	15.91	Q		V			
15+35	8.0921	16.26	Q		V			
15+40	8.2066	16.63	Q		V			
15+45	8.3267	17.43	Q		V			
15+50	8.4571	18.93	Q		V			
15+55	8.6038	21.31	Q		V			
16+ 0	8.7778	25.25	Q	Q	V			
16+ 5	9.0118	33.98		Q	V			
16+10	9.3590	50.42			V	Q		
16+15	9.8144	66.12			V	V	Q	
16+20	10.3119	72.24			V	V	Q	Q
16+25	10.7258	60.09			V	V	Q	
16+30	11.0203	42.77			Q	V	V	
16+35	11.2340	31.03		Q		V	V	
16+40	11.4030	24.54		Q		V	V	
16+45	11.5412	20.06		Q		V	V	
16+50	11.6635	17.76		Q		V	V	
16+55	11.7757	16.29		Q		V	V	
17+ 0	11.8785	14.93		Q		V	V	
17+ 5	11.9709	13.42		Q		V	V	
17+10	12.0575	12.58		Q		V	V	
17+15	12.1393	11.88	Q			V	V	
17+20	12.2172	11.31	Q			V	V	
17+25	12.2915	10.79	Q			V	V	
17+30	12.3625	10.30	Q			V	V	
17+35	12.4306	9.89	Q			V	V	
17+40	12.4962	9.52	Q			V	V	
17+45	12.5594	9.18	Q			V	V	
17+50	12.6205	8.87	Q			V	V	
17+55	12.6796	8.58	Q			V	V	
18+ 0	12.7370	8.34	Q			V	V	
18+ 5	12.7929	8.12	Q			V	V	
18+10	12.8478	7.97	Q			V	V	
18+15	12.9019	7.86	Q			V	V	
18+20	12.9555	7.78	Q			V	V	
18+25	13.0088	7.74	Q			V	V	
18+30	13.0615	7.65	Q			V	V	
18+35	13.1135	7.54	Q			V	V	
18+40	13.1646	7.43	Q			V	V	
18+45	13.2149	7.30	Q			V	V	
18+50	13.2644	7.19	Q			V	V	
18+55	13.3132	7.08	Q			V	V	
19+ 0	13.3612	6.97	Q			V	V	
19+ 5	13.4084	6.87	Q			V	V	
19+10	13.4551	6.77	Q			V	V	
19+15	13.5010	6.67	Q			V	V	
19+20	13.5463	6.58	Q			V	V	
19+25	13.5911	6.49	Q			V	V	
19+30	13.6352	6.41	Q			V	V	

19+35	13.6788	6.33	Q	V
19+40	13.7219	6.25	Q	V
19+45	13.7645	6.18	Q	V
19+50	13.8065	6.11	Q	V
19+55	13.8481	6.04	Q	V
20+ 0	13.8892	5.97	Q	V
20+ 5	13.9299	5.91	Q	V
20+10	13.9701	5.84	Q	V
20+15	14.0100	5.78	Q	V
20+20	14.0494	5.72	Q	V
20+25	14.0884	5.67	Q	V
20+30	14.1271	5.61	Q	V
20+35	14.1654	5.56	Q	V
20+40	14.2033	5.51	Q	V
20+45	14.2409	5.46	Q	V
20+50	14.2781	5.41	Q	V
20+55	14.3150	5.36	Q	V
21+ 0	14.3516	5.31	Q	V
21+ 5	14.3879	5.27	Q	V
21+10	14.4238	5.22	Q	V
21+15	14.4595	5.18	Q	V
21+20	14.4949	5.14	Q	V
21+25	14.5300	5.10	Q	V
21+30	14.5648	5.06	Q	V
21+35	14.5994	5.02	Q	V
21+40	14.6337	4.98	Q	V
21+45	14.6677	4.94	Q	V
21+50	14.7015	4.91	Q	V
21+55	14.7351	4.87	Q	V
22+ 0	14.7684	4.84	Q	V
22+ 5	14.8014	4.80	Q	V
22+10	14.8343	4.77	Q	V
22+15	14.8669	4.74	Q	V
22+20	14.8993	4.70	Q	V
22+25	14.9315	4.67	Q	V
22+30	14.9635	4.64	Q	V
22+35	14.9953	4.61	Q	V
22+40	15.0268	4.58	Q	V
22+45	15.0582	4.56	Q	V
22+50	15.0894	4.53	Q	V
22+55	15.1204	4.50	Q	V
23+ 0	15.1512	4.47	Q	V
23+ 5	15.1818	4.45	Q	V
23+10	15.2122	4.42	Q	V
23+15	15.2425	4.39	Q	V
23+20	15.2725	4.37	Q	V
23+25	15.3025	4.34	Q	V
23+30	15.3322	4.32	Q	V
23+35	15.3618	4.29	Q	V
23+40	15.3912	4.27	Q	V
23+45	15.4205	4.25	Q	V
23+50	15.4496	4.23	Q	V
23+55	15.4785	4.20	Q	V
24+ 0	15.5073	4.18	Q	V
24+ 5	15.5353	4.07	Q	V
24+10	15.5604	3.65	Q	V
24+15	15.5801	2.86	Q	V

24+20	15.5928	1.84	Q				V
24+25	15.6000	1.04	Q				V
24+30	15.6041	0.60	Q				V
24+35	15.6066	0.37	Q				V
24+40	15.6083	0.24	Q				V
24+45	15.6095	0.18	Q				V
24+50	15.6105	0.14	Q				V
24+55	15.6113	0.11	Q				V
25+ 0	15.6118	0.08	Q				V
25+ 5	15.6123	0.07	Q				V
25+10	15.6127	0.06	Q				V
25+15	15.6130	0.05	Q				V
25+20	15.6133	0.04	Q				V
25+25	15.6135	0.03	Q				V
25+30	15.6137	0.03	Q				V
25+35	15.6139	0.02	Q				V
25+40	15.6140	0.02	Q				V
25+45	15.6141	0.01	Q				V
25+50	15.6142	0.01	Q				V
25+55	15.6143	0.01	Q				V
26+ 0	15.6143	0.01	Q				V
26+ 5	15.6143	0.00	Q				V
26+10	15.6143	0.00	Q				V

APPENDIX "C"

FLOOD ROUTING AREA 'A'

'Area 1' - 100-yr Flood Routing for 1-hr,

Storage Capacity
Tr. 36850 Area "A" Basin
8/9/2016

Elevation	Basin Depth	Contour Interval	Area (Sq. Ft.)	Mean Area (Sq. Ft.)	Mean volume (Acres.Ft.)	Total Volume (Ac. Ft.)
3,589.00	-		5,670.62			-
		0.50		6,065.33	0.02	
3,589.50	0.50		6,460.03			0.017
		0.50		6,871.14	0.02	
3,590.00	1.00		7,282.26	-		0.04
		0.50		7,709.84	0.02	
3,590.50	1.50		8,137.43	-		0.06
		0.50		8,581.53	0.02	
3,591.00	2.00	-	9,025.64	-	-	0.08
		0.50		9,486.36	0.11	
3,591.50	2.50		9,947.07	-		0.19
		0.50		10,424.48	0.04	
3,592.00	3.00		10,901.90	-		0.23
		0.50		11,396.14	0.04	
3,592.50	3.50		11,890.38	-		0.28
		0.50		12,401.46	0.05	
3,593.00	4.00		12,912.53	-		0.32
		0.50		13,440.48	0.05	
3,593.50	4.50		13,968.43	-	-	0.37
		0.50		14,511.08	0.05	
3594	5.00		15,053.74			0.43
		0.50		15,608.97	0.18	
3594.5	5.50		16,164.19			0.61
		0.50		16,731.98	0.19	
3595	6.00	-	17,299.78	-		0.80
		0.50		17,880.13	0.21	
3595.5	6.50	-	18,460.49	-		1.00
		0.50		19,053.42	0.22	
3596	7.00	-	19,646.34	-		1.22
					-	

DEPTH vs OUTFLOW CALCULATIONS

Tr 36687 R1 Basin "1-A" Depth vs Outflow Calculation

	Holes	Holes	Holes	Holes	Holes	Holes	Holes	Holes	Holes	Holes	Slots	Slots	Slots	Slots	Weir	
No. of Holes & Slots	3	3	3	0	0	0	0	0	0	0	0	0	0	0	1	No. of Weir
Discharge Coefficient	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	3.33	Weir Coefficient
Distance of Holes to Basin Bottom (in)	60	66	72	0	0	0	0	0	0	0	0	0	0	0	84	Distance of Top of Weir to Basin Bottom (in)
Hole Radius (in) Slots Area (sq ft)	2	3	0	0	0	0	0	0	0	0	0	0	0	0	24	Riser Perimeter (ft) = 2(6)+2(6)
Hole Centerline Elev (ft)	3594.17	3594.75	3595.00	3589.00	3589.00	3589.00	3589.00	3589.00	3589.00	3589.00	3589.00	3589.00	3589.00	3589.00	3596.00	Top of Riser Elevation (ft)
Elevation Depth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Depth	0.50	0.047	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
asin	1.00	0.040	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Volur	1.50	0.060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	2.00	0.080	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	2.50	0.190	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	3.00	0.230	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	3.50	0.280	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	4.00	0.320	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	4.50	0.370	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	5.00	0.430	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	5.50	0.610	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	6.00	0.800	2.8243	1.2652	1.5591	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	6.50	1.000	4.3008	1.6003	2.7005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	7.00	1.220	5.3629	1.8765	3.4864	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

[Σ Flows (Holes + Weir)]

(Outflow through Holes)

(Outflow through Slots)

Note:
1. Orifice outflow is based on:
 $Q=CA(2gH)^{0.5}$
where:
C = Coefficient, 0.66 used here
A = Orifice Area
H = Headwater, Elevation of Water to Cen. of Orifice

2. Slot outflow is based on:
 $Q=CA(2gH)^{0.5}$
where:
C = Coefficient, 0.66 used here
A = Slot Area (sq.ft.)
H = Headwater, Elevation of Water to Cen. of Slot

3. Weir flow is based on:
 $Q=CLH^{1.5}$
where:
C = Coefficient, 3.33 used here
L = Weir Length, Riser Pipe Perimeter was used here
H = Headwater, Elevation of Water to Top of Weir

Storage Capacity
Tr. 36850 Area "A" Basin
8/9/2016

Elevation	Basin Depth	Contour Interval	Area (Sq. Ft.)	Mean Area (Sq. Ft.)	Mean volume (Acres.Ft.)	Total Volume (Ac. Ft.)
3,591.00	-		31,385.82			-
		0.50		32,175.18	0.09	
3,591.50	0.50		32,964.54			0.092
		0.50	-	33,773.29	0.10	
3,592.00	1.00		34,582.04	-		0.19
		0.50	-	35,410.20	0.10	
3,592.50	1.50		36,238.36	-		0.29
		0.50	-	37,085.96	0.11	
3,593.00	2.00	-	37,933.56	-	-	0.40
		0.50	-	38,800.65	0.15	
3,593.50	2.50		39,667.74	-		0.54
		0.50	-	40,554.36	0.15	
3,594.00	3.00		41,440.98	-		0.70
		0.50	-	42,347.17	0.16	
3,594.50	3.50		43,253.36	-		0.86
		0.50	-	44,179.16	0.17	
3,595.00	4.00		45,104.96	-		1.03
		0.50	-	46,050.42	0.17	
3,595.50	4.50		46,995.88	-	-	1.20
		0.50	-	47,961.04	0.18	
3596	5.00		48,926.21			1.38
		0.50		49,911.14	0.57	
3596.5	5.50		50,896.06			1.95
		0.50		51,900.80	0.60	
3597	6.00	-	52,905.53			2.55
		0.50		53,930.13	0.62	
3597.5	6.50	-	54,954.73			3.17
		0.50		55,999.19	0.64	
3598	7.00	-	57,043.66			3.81
		1.00		59,191.15	1.36	
3599	8.00	-	61,338.64			5.17
		1.00		63,556.87	1.46	
3600	9.00		65,775.09		-	6.63
.		1.00		68,062.08	1.56	
3601	10.00		70,349.06		-	8.19
					-	

FLOOD HYDROGRAPH ROUTING PROGRAM
Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2018
Study date: 11/29/21

City of Hesperia Area 1
100-Year 1-Hour Mitigated Condition

Program License Serial Number 6472

***** HYDROGRAPH INFORMATION *****

From study/file name: areala.rte
*****HYDROGRAPH DATA*****
Number of intervals = 301
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 20.895 (CFS)
Total volume = 3.382 (Ac.Ft)
Status of hydrographs being held in storage
Stream 1 Stream 2 Stream 3 Stream 4 Stream 5
Peak (CFS) 0.000 0.000 0.000 0.000 0.000
Vol (Ac.Ft) 0.000 0.000 0.000 0.000 0.000

+++++
Process from Point/Station 11.000 to Point/Station 12.000
**** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 301
Hydrograph time unit = 5.000 (Min.)
Initial depth in storage basin = 0.00 (Ft.)

Initial basin depth = 0.00 (Ft.)
Initial basin storage = 0.00 (Ac.Ft)
Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.500	0.017	0.001	0.017	0.017
1.000	0.040	0.001	0.040	0.040
1.500	0.060	0.001	0.060	0.060
2.000	0.080	0.001	0.080	0.080

2.500	0.190	0.001	0.190	0.190
3.000	0.230	0.010	0.230	0.230
3.500	0.280	0.010	0.280	0.280
4.000	0.320	0.010	0.320	0.320
4.500	0.370	0.010	0.370	0.370
5.000	0.430	0.010	0.430	0.430
5.500	0.610	0.800	0.607	0.613
6.000	0.800	2.800	0.790	0.810
6.500	1.000	4.300	0.985	1.015
7.000	1.220	5.360	1.202	1.238

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	5.2	10.45	15.67	20.90	Depth (Ft.)
0.083	0.06	0.00	0.000	O					0.01
0.167	0.35	0.00	0.002	O					0.05
0.250	0.68	0.00	0.005	OI					0.15
0.333	0.81	0.00	0.010	OI					0.30
0.417	0.85	0.00	0.016	OI					0.47
0.500	0.86	0.00	0.022	OI					0.60
0.583	0.88	0.00	0.028	OI					0.73
0.667	0.88	0.00	0.034	OI					0.87
0.750	0.89	0.00	0.040	OI					1.00
0.833	0.89	0.00	0.046	OI					1.15
0.917	0.90	0.00	0.052	OI					1.30
1.000	0.90	0.00	0.058	OI					1.46
1.083	0.90	0.00	0.065	OI					1.61
1.167	0.91	0.00	0.071	OI					1.77
1.250	0.91	0.00	0.077	OI					1.92
1.333	0.91	0.00	0.083	OI					2.01
1.417	0.91	0.00	0.090	OI					2.04
1.500	0.91	0.00	0.096	OI					2.07
1.583	0.92	0.00	0.102	OI					2.10
1.667	0.92	0.00	0.108	OI					2.13
1.750	0.92	0.00	0.115	OI					2.16
1.833	0.92	0.00	0.121	OI					2.19
1.917	0.93	0.00	0.127	OI					2.22
2.000	0.93	0.00	0.134	OI					2.24
2.083	0.93	0.00	0.140	OI					2.27
2.167	0.94	0.00	0.147	OI					2.30
2.250	0.94	0.00	0.153	OI					2.33
2.333	0.94	0.00	0.160	OI					2.36
2.417	0.94	0.00	0.166	OI					2.39
2.500	0.95	0.00	0.173	OI					2.42
2.583	0.95	0.00	0.179	OI					2.45
2.667	0.95	0.00	0.186	OI					2.48
2.750	0.95	0.00	0.192	OI					2.53
2.833	0.96	0.00	0.199	OI					2.61
2.917	0.96	0.00	0.205	OI					2.69
3.000	0.96	0.01	0.212	OI					2.77
3.083	0.97	0.01	0.219	OI					2.86
3.167	0.97	0.01	0.225	OI					2.94
3.250	0.97	0.01	0.232	OI					3.02

3.333	0.97	0.01	0.238	OI					3.08
3.417	0.98	0.01	0.245	OI					3.15
3.500	0.98	0.01	0.252	OI					3.22
3.583	0.98	0.01	0.258	OI					3.28
3.667	0.99	0.01	0.265	OI					3.35
3.750	0.99	0.01	0.272	OI					3.42
3.833	0.99	0.01	0.279	OI					3.49
3.917	1.00	0.01	0.285	OI					3.57
4.000	1.00	0.01	0.292	OI					3.65
4.083	1.00	0.01	0.299	OI					3.74
4.167	1.01	0.01	0.306	OI					3.82
4.250	1.01	0.01	0.313	OI					3.91
4.333	1.01	0.01	0.320	OI					4.00
4.417	1.02	0.01	0.327	OI					4.07
4.500	1.02	0.01	0.334	OI					4.14
4.583	1.02	0.01	0.341	OI					4.21
4.667	1.03	0.01	0.348	OI					4.28
4.750	1.03	0.01	0.355	OI					4.35
4.833	1.03	0.01	0.362	OI					4.42
4.917	1.04	0.01	0.369	OI					4.49
5.000	1.04	0.01	0.376	OI					4.55
5.083	1.05	0.01	0.383	OI					4.61
5.167	1.05	0.01	0.390	OI					4.67
5.250	1.05	0.01	0.397	OI					4.73
5.333	1.06	0.01	0.404	OI					4.79
5.417	1.06	0.01	0.412	OI					4.85
5.500	1.06	0.01	0.419	OI					4.91
5.583	1.07	0.01	0.426	OI					4.97
5.667	1.07	0.02	0.433	OI					5.01
5.750	1.08	0.06	0.440	OI					5.03
5.833	1.08	0.09	0.447	OI					5.05
5.917	1.08	0.12	0.454	OI					5.07
6.000	1.09	0.14	0.461	OI					5.09
6.083	1.09	0.17	0.467	OI					5.10
6.167	1.10	0.20	0.473	OI					5.12
6.250	1.10	0.23	0.480	OI					5.14
6.333	1.11	0.25	0.485	OI					5.15
6.417	1.11	0.28	0.491	OI					5.17
6.500	1.12	0.30	0.497	OI					5.19
6.583	1.12	0.33	0.502	OI					5.20
6.667	1.12	0.35	0.508	OI					5.22
6.750	1.13	0.37	0.513	OI					5.23
6.833	1.13	0.40	0.518	OI					5.25
6.917	1.14	0.42	0.523	OI					5.26
7.000	1.14	0.44	0.528	OI					5.27
7.083	1.15	0.46	0.533	OI					5.29
7.167	1.15	0.48	0.538	OI					5.30
7.250	1.16	0.50	0.542	OI					5.31
7.333	1.16	0.52	0.547	OI					5.32
7.417	1.17	0.54	0.551	OI					5.34
7.500	1.17	0.56	0.555	OI					5.35
7.583	1.18	0.58	0.559	OI					5.36
7.667	1.19	0.60	0.564	OI					5.37
7.750	1.19	0.61	0.568	OI					5.38
7.833	1.20	0.63	0.572	OI					5.39
7.917	1.20	0.65	0.575	OI					5.40
8.000	1.21	0.66	0.579	O					5.41

8.083	1.21	0.68	0.583	O					5.42
8.167	1.22	0.70	0.586	O					5.43
8.250	1.23	0.71	0.590	O					5.44
8.333	1.23	0.73	0.594	O					5.45
8.417	1.24	0.74	0.597	O					5.46
8.500	1.24	0.76	0.600	O					5.47
8.583	1.25	0.77	0.604	O					5.48
8.667	1.26	0.79	0.607	O					5.49
8.750	1.26	0.80	0.610	O					5.50
8.833	1.27	0.83	0.613	O					5.51
8.917	1.28	0.87	0.616	O					5.52
9.000	1.28	0.89	0.619	O					5.52
9.083	1.29	0.92	0.622	O					5.53
9.167	1.30	0.95	0.624	O					5.54
9.250	1.31	0.97	0.626	OI					5.54
9.333	1.31	1.00	0.629	OI					5.55
9.417	1.32	1.02	0.631	OI					5.55
9.500	1.33	1.04	0.633	OI					5.56
9.583	1.34	1.06	0.635	OI					5.57
9.667	1.35	1.08	0.637	OI					5.57
9.750	1.35	1.10	0.638	OI					5.57
9.833	1.36	1.12	0.640	OI					5.58
9.917	1.37	1.13	0.642	OI					5.58
10.000	1.38	1.15	0.643	OI					5.59
10.083	1.39	1.17	0.645	OI					5.59
10.167	1.40	1.18	0.646	OI					5.60
10.250	1.41	1.20	0.648	OI					5.60
10.333	1.42	1.21	0.649	OI					5.60
10.417	1.43	1.23	0.651	OI					5.61
10.500	1.44	1.24	0.652	OI					5.61
10.583	1.45	1.26	0.653	OI					5.61
10.667	1.46	1.27	0.655	OI					5.62
10.750	1.47	1.28	0.656	OI					5.62
10.833	1.48	1.30	0.657	OI					5.62
10.917	1.49	1.31	0.658	O					5.63
11.000	1.50	1.32	0.660	O					5.63
11.083	1.51	1.34	0.661	O					5.63
11.167	1.52	1.35	0.662	O					5.64
11.250	1.53	1.36	0.663	O					5.64
11.333	1.55	1.37	0.664	O					5.64
11.417	1.56	1.39	0.666	O					5.65
11.500	1.57	1.40	0.667	O					5.65
11.583	1.59	1.41	0.668	O					5.65
11.667	1.60	1.42	0.669	O					5.66
11.750	1.61	1.44	0.670	O					5.66
11.833	1.63	1.45	0.672	O					5.66
11.917	1.64	1.46	0.673	O					5.67
12.000	1.66	1.48	0.674	O					5.67
12.083	1.67	1.49	0.675	O					5.67
12.167	1.63	1.50	0.677	O					5.68
12.250	1.60	1.51	0.677	O					5.68
12.333	1.59	1.51	0.678	O					5.68
12.417	1.60	1.52	0.678	O					5.68
12.500	1.62	1.53	0.679	O					5.68
12.583	1.64	1.53	0.680	O					5.68
12.667	1.66	1.54	0.680	O					5.69
12.750	1.68	1.55	0.681	O					5.69

12.833	1.70	1.56	0.682	O					5.69
12.917	1.72	1.57	0.683	O					5.69
13.000	1.74	1.58	0.684	O					5.70
13.083	1.77	1.59	0.685	O					5.70
13.167	1.79	1.61	0.687	O					5.70
13.250	1.82	1.62	0.688	O					5.71
13.333	1.85	1.64	0.689	O					5.71
13.417	1.87	1.65	0.691	O					5.71
13.500	1.90	1.67	0.692	O					5.72
13.583	1.93	1.69	0.694	O					5.72
13.667	1.97	1.70	0.696	OI					5.73
13.750	2.00	1.72	0.698	OI					5.73
13.833	2.04	1.74	0.700	OI					5.74
13.917	2.08	1.77	0.702	OI					5.74
14.000	2.12	1.79	0.704	OI					5.75
14.083	2.16	1.81	0.706	OI					5.75
14.167	2.20	1.84	0.709	OI					5.76
14.250	2.25	1.87	0.711	OI					5.77
14.333	2.30	1.90	0.714	OI					5.77
14.417	2.36	1.93	0.717	OI					5.78
14.500	2.42	1.96	0.720	OI					5.79
14.583	2.48	1.99	0.723	O					5.80
14.667	2.55	2.03	0.727	O					5.81
14.750	2.62	2.07	0.730	OI					5.82
14.833	2.70	2.11	0.734	OI					5.83
14.917	2.79	2.15	0.739	OI					5.84
15.000	2.89	2.20	0.743	OI					5.85
15.083	3.00	2.25	0.748	OI					5.86
15.167	3.12	2.31	0.754	OI					5.88
15.250	3.26	2.37	0.759	OI					5.89
15.333	3.42	2.44	0.766	O I					5.91
15.417	3.56	2.51	0.773	O I					5.93
15.500	3.55	2.59	0.780	O I					5.95
15.583	3.56	2.65	0.786	OI					5.96
15.667	3.78	2.72	0.793	OI					5.98
15.750	4.14	2.81	0.801	O I					6.00
15.833	4.69	2.89	0.812	O I					6.03
15.917	5.54	3.00	0.827	O I					6.07
16.000	7.20	3.17	0.849	O	I				6.12
16.083	11.55	3.48	0.891	O		I			6.23
16.167	20.72	4.12	0.976	O			I		6.44
16.250	20.90	4.73	1.089	O			I		6.70
16.333	11.31	5.10	1.166	O		I			6.88
16.417	6.53	5.22	1.192	O I					6.94
16.500	4.87	5.24	1.195	IO					6.94
16.583	4.23	5.22	1.190	IO					6.93
16.667	3.69	5.18	1.182	I O					6.91
16.750	3.36	5.12	1.171	I O					6.89
16.833	3.09	5.06	1.158	I O					6.86
16.917	2.86	4.99	1.144	I O					6.83
17.000	2.67	4.92	1.129	I O					6.79
17.083	2.51	4.84	1.113	I O					6.76
17.167	2.37	4.77	1.097	I O					6.72
17.250	2.24	4.69	1.080	I O					6.68
17.333	2.14	4.60	1.063	I O					6.64
17.417	2.06	4.52	1.046	I O					6.60
17.500	1.99	4.44	1.029	I O					6.57

17.583	1.92	4.36	1.012	I	O					6.53
17.667	1.86	4.27	0.996	I	O					6.49
17.750	1.81	4.15	0.979	I	O					6.45
17.833	1.76	4.03	0.964	I	O					6.41
17.917	1.71	3.91	0.948	I	O					6.37
18.000	1.67	3.80	0.933	I	O					6.33
18.083	1.64	3.69	0.919	I	O					6.30
18.167	1.65	3.59	0.905	I	O					6.26
18.250	1.67	3.49	0.892	I	O					6.23
18.333	1.66	3.40	0.880	I	O					6.20
18.417	1.63	3.31	0.868	I	O					6.17
18.500	1.60	3.22	0.857	I	O					6.14
18.583	1.58	3.14	0.846	I	O					6.11
18.667	1.55	3.06	0.835	I	O					6.09
18.750	1.53	2.99	0.825	I	O					6.06
18.833	1.50	2.91	0.815	I	O					6.04
18.917	1.48	2.84	0.805	I	O					6.01
19.000	1.46	2.76	0.796	I	O					5.99
19.083	1.44	2.67	0.788	I	O					5.97
19.167	1.42	2.58	0.779	IO						5.95
19.250	1.40	2.50	0.772	IO						5.93
19.333	1.38	2.42	0.764	IO						5.91
19.417	1.37	2.35	0.757	IO						5.89
19.500	1.35	2.28	0.751	IO						5.87
19.583	1.33	2.21	0.744	IO						5.85
19.667	1.32	2.15	0.738	IO						5.84
19.750	1.30	2.09	0.733	I	O					5.82
19.833	1.29	2.04	0.728	I	O					5.81
19.917	1.27	1.98	0.723	I	O					5.80
20.000	1.26	1.93	0.718	IO						5.78
20.083	1.25	1.89	0.713	IO						5.77
20.167	1.23	1.84	0.709	IO						5.76
20.250	1.22	1.80	0.705	IO						5.75
20.333	1.21	1.76	0.701	IO						5.74
20.417	1.20	1.72	0.697	IO						5.73
20.500	1.19	1.68	0.694	IO						5.72
20.583	1.18	1.65	0.691	IO						5.71
20.667	1.17	1.61	0.687	IO						5.70
20.750	1.16	1.58	0.684	IO						5.70
20.833	1.15	1.55	0.681	IO						5.69
20.917	1.14	1.52	0.679	IO						5.68
21.000	1.13	1.50	0.676	IO						5.67
21.083	1.12	1.47	0.674	IO						5.67
21.167	1.11	1.44	0.671	IO						5.66
21.250	1.10	1.42	0.669	IO						5.66
21.333	1.09	1.40	0.667	IO						5.65
21.417	1.08	1.38	0.665	IO						5.64
21.500	1.07	1.36	0.663	IO						5.64
21.583	1.07	1.34	0.661	IO						5.63
21.667	1.06	1.32	0.659	IO						5.63
21.750	1.05	1.30	0.657	O						5.62
21.833	1.04	1.28	0.656	O						5.62
21.917	1.04	1.26	0.654	O						5.62
22.000	1.03	1.25	0.653	O						5.61
22.083	1.02	1.23	0.651	O						5.61
22.167	1.01	1.22	0.650	O						5.60
22.250	1.01	1.20	0.648	O						5.60

22.333	1.00	1.19	0.647	O					5.60
22.417	0.99	1.18	0.646	O					5.59
22.500	0.99	1.16	0.644	O					5.59
22.583	0.98	1.15	0.643	O					5.59
22.667	0.98	1.14	0.642	O					5.58
22.750	0.97	1.13	0.641	O					5.58
22.833	0.96	1.12	0.640	O					5.58
22.917	0.96	1.10	0.639	O					5.58
23.000	0.95	1.09	0.638	O					5.57
23.083	0.95	1.08	0.637	O					5.57
23.167	0.94	1.07	0.636	O					5.57
23.250	0.94	1.06	0.635	O					5.57
23.333	0.93	1.06	0.634	O					5.56
23.417	0.93	1.05	0.633	O					5.56
23.500	0.92	1.04	0.633	O					5.56
23.583	0.92	1.03	0.632	O					5.56
23.667	0.91	1.02	0.631	O					5.56
23.750	0.91	1.01	0.630	O					5.55
23.833	0.90	1.01	0.630	O					5.55
23.917	0.90	1.00	0.629	O					5.55
24.000	0.89	0.99	0.628	O					5.55
24.083	0.83	0.98	0.627	O					5.55
24.167	0.54	0.96	0.625	IO					5.54
24.250	0.20	0.92	0.621	IO					5.53
24.333	0.08	0.87	0.616	IO					5.52
24.417	0.04	0.81	0.611	IO					5.50
24.500	0.02	0.78	0.606	IO					5.49
24.583	0.01	0.76	0.600	IO					5.47
24.667	0.01	0.74	0.595	IO					5.46
24.750	0.01	0.71	0.590	IO					5.45
24.833	0.00	0.69	0.586	IO					5.43
24.917	0.00	0.67	0.581	IO					5.42
25.000	0.00	0.65	0.576	O					5.41
25.083	0.00	0.63	0.572	O					5.39
25.167	0.00	0.61	0.568	O					5.38
25.250	0.00	0.60	0.564	O					5.37
25.333	0.00	0.58	0.559	O					5.36
25.417	0.00	0.56	0.556	O					5.35
25.500	0.00	0.54	0.552	O					5.34
25.583	0.00	0.53	0.548	O					5.33
25.667	0.00	0.51	0.544	O					5.32
25.750	0.00	0.50	0.541	O					5.31
25.833	0.00	0.48	0.538	O					5.30
25.917	0.00	0.47	0.534	O					5.29
26.000	0.00	0.45	0.531	O					5.28
26.083	0.00	0.44	0.528	O					5.27
26.167	0.00	0.43	0.525	O					5.26
26.250	0.00	0.41	0.522	O					5.26
26.333	0.00	0.40	0.519	O					5.25
26.417	0.00	0.39	0.517	O					5.24
26.500	0.00	0.38	0.514	O					5.23
26.583	0.00	0.37	0.511	O					5.23
26.667	0.00	0.36	0.509	O					5.22
26.750	0.00	0.35	0.507	O					5.21
26.833	0.00	0.34	0.504	O					5.21
26.917	0.00	0.33	0.502	O					5.20
27.000	0.00	0.32	0.500	O					5.19

27.083	0.00	0.31	0.498	O					5.19
27.167	0.00	0.30	0.495	O					5.18
27.250	0.00	0.29	0.493	O					5.18
27.333	0.00	0.28	0.492	O					5.17
27.417	0.00	0.27	0.490	O					5.17
27.500	0.00	0.26	0.488	O					5.16
27.583	0.00	0.26	0.486	O					5.16
27.667	0.00	0.25	0.484	O					5.15
27.750	0.00	0.24	0.483	O					5.15
27.833	0.00	0.23	0.481	O					5.14
27.917	0.00	0.23	0.479	O					5.14
28.000	0.00	0.22	0.478	O					5.13
28.083	0.00	0.21	0.476	O					5.13
28.167	0.00	0.21	0.475	O					5.12
28.250	0.00	0.20	0.473	O					5.12
28.333	0.00	0.19	0.472	O					5.12
28.417	0.00	0.19	0.471	O					5.11
28.500	0.00	0.18	0.469	O					5.11
28.583	0.00	0.18	0.468	O					5.11
28.667	0.00	0.17	0.467	O					5.10
28.750	0.00	0.17	0.466	O					5.10
28.833	0.00	0.16	0.465	O					5.10
28.917	0.00	0.16	0.464	O					5.09
29.000	0.00	0.15	0.463	O					5.09
29.083	0.00	0.15	0.462	O					5.09
29.167	0.00	0.14	0.461	O					5.08
29.250	0.00	0.14	0.460	O					5.08
29.333	0.00	0.14	0.459	O					5.08
29.417	0.00	0.13	0.458	O					5.08
29.500	0.00	0.13	0.457	O					5.07
29.583	0.00	0.12	0.456	O					5.07
29.667	0.00	0.12	0.455	O					5.07
29.750	0.00	0.12	0.454	O					5.07
29.833	0.00	0.11	0.453	O					5.07
29.917	0.00	0.11	0.453	O					5.06
30.000	0.00	0.11	0.452	O					5.06
30.083	0.00	0.10	0.451	O					5.06
30.167	0.00	0.10	0.451	O					5.06
30.250	0.00	0.10	0.450	O					5.06
30.333	0.00	0.09	0.449	O					5.05
30.417	0.00	0.09	0.449	O					5.05
30.500	0.00	0.09	0.448	O					5.05
30.583	0.00	0.09	0.447	O					5.05
30.667	0.00	0.08	0.447	O					5.05
30.750	0.00	0.08	0.446	O					5.04
30.833	0.00	0.08	0.446	O					5.04
30.917	0.00	0.08	0.445	O					5.04
31.000	0.00	0.07	0.445	O					5.04
31.083	0.00	0.07	0.444	O					5.04
31.167	0.00	0.07	0.444	O					5.04
31.250	0.00	0.07	0.443	O					5.04
31.333	0.00	0.07	0.443	O					5.04
31.417	0.00	0.06	0.442	O					5.03
31.500	0.00	0.06	0.442	O					5.03
31.583	0.00	0.06	0.441	O					5.03
31.667	0.00	0.06	0.441	O					5.03
31.750	0.00	0.06	0.441	O					5.03

31.833	0.00	0.05	0.440	O					5.03
31.917	0.00	0.05	0.440	O					5.03
32.000	0.00	0.05	0.439	O					5.03
32.083	0.00	0.05	0.439	O					5.03
32.167	0.00	0.05	0.439	O					5.02
32.250	0.00	0.05	0.438	O					5.02
32.333	0.00	0.05	0.438	O					5.02
32.417	0.00	0.04	0.438	O					5.02
32.500	0.00	0.04	0.438	O					5.02
32.583	0.00	0.04	0.437	O					5.02
32.667	0.00	0.04	0.437	O					5.02
32.750	0.00	0.04	0.437	O					5.02
32.833	0.00	0.04	0.436	O					5.02
32.917	0.00	0.04	0.436	O					5.02
33.000	0.00	0.04	0.436	O					5.02
33.083	0.00	0.03	0.436	O					5.02
33.167	0.00	0.03	0.435	O					5.02
33.250	0.00	0.03	0.435	O					5.01
33.333	0.00	0.03	0.435	O					5.01
33.417	0.00	0.03	0.435	O					5.01
33.500	0.00	0.03	0.435	O					5.01
33.583	0.00	0.03	0.434	O					5.01
33.667	0.00	0.03	0.434	O					5.01
33.750	0.00	0.03	0.434	O					5.01
33.833	0.00	0.03	0.434	O					5.01
33.917	0.00	0.03	0.434	O					5.01
34.000	0.00	0.02	0.433	O					5.01
34.083	0.00	0.02	0.433	O					5.01
34.167	0.00	0.02	0.433	O					5.01
34.250	0.00	0.02	0.433	O					5.01
34.333	0.00	0.02	0.433	O					5.01
34.417	0.00	0.02	0.433	O					5.01
34.500	0.00	0.02	0.432	O					5.01
34.583	0.00	0.02	0.432	O					5.01
34.667	0.00	0.02	0.432	O					5.01
34.750	0.00	0.02	0.432	O					5.01
34.833	0.00	0.02	0.432	O					5.01
34.917	0.00	0.02	0.432	O					5.00
35.000	0.00	0.02	0.432	O					5.00
35.083	0.00	0.02	0.432	O					5.00
35.167	0.00	0.02	0.431	O					5.00
35.250	0.00	0.02	0.431	O					5.00
35.333	0.00	0.02	0.431	O					5.00
35.417	0.00	0.01	0.431	O					5.00
35.500	0.00	0.01	0.431	O					5.00
35.583	0.00	0.01	0.431	O					5.00
35.667	0.00	0.01	0.431	O					5.00
35.750	0.00	0.01	0.431	O					5.00
35.833	0.00	0.01	0.431	O					5.00
35.917	0.00	0.01	0.431	O					5.00
36.000	0.00	0.01	0.430	O					5.00
36.083	0.00	0.01	0.430	O					5.00
36.167	0.00	0.01	0.430	O					5.00
36.250	0.00	0.01	0.430	O					5.00
36.333	0.00	0.01	0.430	O					5.00
36.417	0.00	0.01	0.430	O					5.00
36.500	0.00	0.01	0.430	O					5.00

36.583	0.00	0.01	0.430	O					5.00
36.667	0.00	0.01	0.430	O					5.00
36.750	0.00	0.01	0.430	O					5.00
36.833	0.00	0.01	0.430	O					5.00
36.917	0.00	0.01	0.430	O					5.00
37.000	0.00	0.01	0.430	O					5.00
37.083	0.00	0.01	0.430	O					5.00
37.167	0.00	0.01	0.429	O					5.00
37.250	0.00	0.01	0.429	O					4.99
37.333	0.00	0.01	0.429	O					4.99
37.417	0.00	0.01	0.429	O					4.99
37.500	0.00	0.01	0.429	O					4.99
37.583	0.00	0.01	0.429	O					4.99
37.667	0.00	0.01	0.429	O					4.99
37.750	0.00	0.01	0.429	O					4.99
37.833	0.00	0.01	0.429	O					4.99
37.917	0.00	0.01	0.429	O					4.99
38.000	0.00	0.01	0.429	O					4.99
38.083	0.00	0.01	0.429	O					4.99
38.167	0.00	0.01	0.429	O					4.99
38.250	0.00	0.01	0.429	O					4.99
38.333	0.00	0.01	0.429	O					4.99
38.417	0.00	0.01	0.428	O					4.99
38.500	0.00	0.01	0.428	O					4.99
38.583	0.00	0.01	0.428	O					4.99
38.667	0.00	0.01	0.428	O					4.99
38.750	0.00	0.01	0.428	O					4.98
38.833	0.00	0.01	0.428	O					4.98
38.917	0.00	0.01	0.428	O					4.98
39.000	0.00	0.01	0.428	O					4.98
39.083	0.00	0.01	0.428	O					4.98
39.167	0.00	0.01	0.428	O					4.98
39.250	0.00	0.01	0.428	O					4.98
39.333	0.00	0.01	0.428	O					4.98
39.417	0.00	0.01	0.428	O					4.98
39.500	0.00	0.01	0.428	O					4.98
39.583	0.00	0.01	0.427	O					4.98
39.667	0.00	0.01	0.427	O					4.98
39.750	0.00	0.01	0.427	O					4.98
39.833	0.00	0.01	0.427	O					4.98
39.917	0.00	0.01	0.427	O					4.98
40.000	0.00	0.01	0.427	O					4.98
40.083	0.00	0.01	0.427	O					4.98
40.167	0.00	0.01	0.427	O					4.97
40.250	0.00	0.01	0.427	O					4.97
40.333	0.00	0.01	0.427	O					4.97
40.417	0.00	0.01	0.427	O					4.97
40.500	0.00	0.01	0.427	O					4.97
40.583	0.00	0.01	0.427	O					4.97
40.667	0.00	0.01	0.427	O					4.97
40.750	0.00	0.01	0.427	O					4.97
40.833	0.00	0.01	0.426	O					4.97
40.917	0.00	0.01	0.426	O					4.97
41.000	0.00	0.01	0.426	O					4.97
41.083	0.00	0.01	0.426	O					4.97
41.167	0.00	0.01	0.426	O					4.97
41.250	0.00	0.01	0.426	O					4.97

41.333	0.00	0.01	0.426	O				4.97
41.417	0.00	0.01	0.426	O				4.97
41.500	0.00	0.01	0.426	O				4.97
41.583	0.00	0.01	0.426	O				4.97
41.667	0.00	0.01	0.426	O				4.96
41.750	0.00	0.01	0.426	O				4.96
41.833	0.00	0.01	0.426	O				4.96
41.917	0.00	0.01	0.426	O				4.96
42.000	0.00	0.01	0.425	O				4.96
42.083	0.00	0.01	0.425	O				4.96
42.167	0.00	0.01	0.425	O				4.96
42.250	0.00	0.01	0.425	O				4.96
42.333	0.00	0.01	0.425	O				4.96
42.417	0.00	0.01	0.425	O				4.96
42.500	0.00	0.01	0.425	O				4.96
42.583	0.00	0.01	0.425	O				4.96
42.667	0.00	0.01	0.425	O				4.96
42.750	0.00	0.01	0.425	O				4.96
42.833	0.00	0.01	0.425	O				4.96
42.917	0.00	0.01	0.425	O				4.96
43.000	0.00	0.01	0.425	O				4.96
43.083	0.00	0.01	0.425	O				4.95
43.167	0.00	0.01	0.425	O				4.95
43.250	0.00	0.01	0.424	O				4.95
43.333	0.00	0.01	0.424	O				4.95
43.417	0.00	0.01	0.424	O				4.95
43.500	0.00	0.01	0.424	O				4.95
43.583	0.00	0.01	0.424	O				4.95
43.667	0.00	0.01	0.424	O				4.95
43.750	0.00	0.01	0.424	O				4.95
43.833	0.00	0.01	0.424	O				4.95
43.917	0.00	0.01	0.424	O				4.95
44.000	0.00	0.01	0.424	O				4.95
44.083	0.00	0.01	0.424	O				4.95
44.167	0.00	0.01	0.424	O				4.95
44.250	0.00	0.01	0.424	O				4.95
44.333	0.00	0.01	0.424	O				4.95
44.417	0.00	0.01	0.423	O				4.95
44.500	0.00	0.01	0.423	O				4.95
44.583	0.00	0.01	0.423	O				4.94
44.667	0.00	0.01	0.423	O				4.94
44.750	0.00	0.01	0.423	O				4.94
44.833	0.00	0.01	0.423	O				4.94
44.917	0.00	0.01	0.423	O				4.94
45.000	0.00	0.01	0.423	O				4.94
45.083	0.00	0.01	0.423	O				4.94
45.167	0.00	0.01	0.423	O				4.94
45.250	0.00	0.01	0.423	O				4.94
45.333	0.00	0.01	0.423	O				4.94
45.417	0.00	0.01	0.423	O				4.94
45.500	0.00	0.01	0.423	O				4.94
45.583	0.00	0.01	0.423	O				4.94
45.667	0.00	0.01	0.422	O				4.94
45.750	0.00	0.01	0.422	O				4.94
45.833	0.00	0.01	0.422	O				4.94
45.917	0.00	0.01	0.422	O				4.94
46.000	0.00	0.01	0.422	O				4.93

46.083	0.00	0.01	0.422	0				4.93
46.167	0.00	0.01	0.422	0				4.93
46.250	0.00	0.01	0.422	0				4.93
46.333	0.00	0.01	0.422	0				4.93
46.417	0.00	0.01	0.422	0				4.93
46.500	0.00	0.01	0.422	0				4.93
46.583	0.00	0.01	0.422	0				4.93
46.667	0.00	0.01	0.422	0				4.93
46.750	0.00	0.01	0.422	0				4.93
46.833	0.00	0.01	0.421	0				4.93
46.917	0.00	0.01	0.421	0				4.93
47.000	0.00	0.01	0.421	0				4.93
47.083	0.00	0.01	0.421	0				4.93
47.167	0.00	0.01	0.421	0				4.93
47.250	0.00	0.01	0.421	0				4.93
47.333	0.00	0.01	0.421	0				4.93
47.417	0.00	0.01	0.421	0				4.92
47.500	0.00	0.01	0.421	0				4.92
47.583	0.00	0.01	0.421	0				4.92
47.667	0.00	0.01	0.421	0				4.92
47.750	0.00	0.01	0.421	0				4.92
47.833	0.00	0.01	0.421	0				4.92
47.917	0.00	0.01	0.421	0				4.92
48.000	0.00	0.01	0.421	0				4.92
48.083	0.00	0.01	0.420	0				4.92
48.167	0.00	0.01	0.420	0				4.92
48.250	0.00	0.01	0.420	0				4.92
48.333	0.00	0.01	0.420	0				4.92
48.417	0.00	0.01	0.420	0				4.92
48.500	0.00	0.01	0.420	0				4.92
48.583	0.00	0.01	0.420	0				4.92
48.667	0.00	0.01	0.420	0				4.92
48.750	0.00	0.01	0.420	0				4.92
48.833	0.00	0.01	0.420	0				4.92
48.917	0.00	0.01	0.420	0				4.91
49.000	0.00	0.01	0.420	0				4.91
49.083	0.00	0.01	0.420	0				4.91
49.167	0.00	0.01	0.420	0				4.91
49.250	0.00	0.01	0.419	0				4.91
49.333	0.00	0.01	0.419	0				4.91
49.417	0.00	0.01	0.419	0				4.91
49.500	0.00	0.01	0.419	0				4.91
49.583	0.00	0.01	0.419	0				4.91
49.667	0.00	0.01	0.419	0				4.91
49.750	0.00	0.01	0.419	0				4.91
49.833	0.00	0.01	0.419	0				4.91
49.917	0.00	0.01	0.419	0				4.91
50.000	0.00	0.01	0.419	0				4.91
50.083	0.00	0.01	0.419	0				4.91
50.167	0.00	0.01	0.419	0				4.91
50.250	0.00	0.01	0.419	0				4.91
50.333	0.00	0.01	0.419	0				4.90
50.417	0.00	0.01	0.419	0				4.90
50.500	0.00	0.01	0.418	0				4.90
50.583	0.00	0.01	0.418	0				4.90
50.667	0.00	0.01	0.418	0				4.90
50.750	0.00	0.01	0.418	0				4.90

50.833	0.00	0.01	0.418	O				4.90
50.917	0.00	0.01	0.418	O				4.90
51.000	0.00	0.01	0.418	O				4.90
51.083	0.00	0.01	0.418	O				4.90
51.167	0.00	0.01	0.418	O				4.90
51.250	0.00	0.01	0.418	O				4.90
51.333	0.00	0.01	0.418	O				4.90
51.417	0.00	0.01	0.418	O				4.90
51.500	0.00	0.01	0.418	O				4.90
51.583	0.00	0.01	0.418	O				4.90
51.667	0.00	0.01	0.417	O				4.90
51.750	0.00	0.01	0.417	O				4.90
51.833	0.00	0.01	0.417	O				4.89
51.917	0.00	0.01	0.417	O				4.89
52.000	0.00	0.01	0.417	O				4.89
52.083	0.00	0.01	0.417	O				4.89
52.167	0.00	0.01	0.417	O				4.89
52.250	0.00	0.01	0.417	O				4.89
52.333	0.00	0.01	0.417	O				4.89
52.417	0.00	0.01	0.417	O				4.89
52.500	0.00	0.01	0.417	O				4.89
52.583	0.00	0.01	0.417	O				4.89
52.667	0.00	0.01	0.417	O				4.89
52.750	0.00	0.01	0.417	O				4.89
52.833	0.00	0.01	0.417	O				4.89
52.917	0.00	0.01	0.416	O				4.89
53.000	0.00	0.01	0.416	O				4.89
53.083	0.00	0.01	0.416	O				4.89
53.167	0.00	0.01	0.416	O				4.89
53.250	0.00	0.01	0.416	O				4.88
53.333	0.00	0.01	0.416	O				4.88
53.417	0.00	0.01	0.416	O				4.88
53.500	0.00	0.01	0.416	O				4.88
53.583	0.00	0.01	0.416	O				4.88
53.667	0.00	0.01	0.416	O				4.88
53.750	0.00	0.01	0.416	O				4.88
53.833	0.00	0.01	0.416	O				4.88
53.917	0.00	0.01	0.416	O				4.88
54.000	0.00	0.01	0.416	O				4.88
54.083	0.00	0.01	0.415	O				4.88
54.167	0.00	0.01	0.415	O				4.88
54.250	0.00	0.01	0.415	O				4.88
54.333	0.00	0.01	0.415	O				4.88
54.417	0.00	0.01	0.415	O				4.88
54.500	0.00	0.01	0.415	O				4.88
54.583	0.00	0.01	0.415	O				4.88
54.667	0.00	0.01	0.415	O				4.88
54.750	0.00	0.01	0.415	O				4.87
54.833	0.00	0.01	0.415	O				4.87
54.917	0.00	0.01	0.415	O				4.87
55.000	0.00	0.01	0.415	O				4.87
55.083	0.00	0.01	0.415	O				4.87
55.167	0.00	0.01	0.415	O				4.87
55.250	0.00	0.01	0.415	O				4.87
55.333	0.00	0.01	0.414	O				4.87
55.417	0.00	0.01	0.414	O				4.87
55.500	0.00	0.01	0.414	O				4.87

55.583	0.00	0.01	0.414	O				4.87
55.667	0.00	0.01	0.414	O				4.87
55.750	0.00	0.01	0.414	O				4.87
55.833	0.00	0.01	0.414	O				4.87
55.917	0.00	0.01	0.414	O				4.87
56.000	0.00	0.01	0.414	O				4.87
56.083	0.00	0.01	0.414	O				4.87
56.167	0.00	0.01	0.414	O				4.86
56.250	0.00	0.01	0.414	O				4.86
56.333	0.00	0.01	0.414	O				4.86
56.417	0.00	0.01	0.414	O				4.86
56.500	0.00	0.01	0.413	O				4.86
56.583	0.00	0.01	0.413	O				4.86
56.667	0.00	0.01	0.413	O				4.86
56.750	0.00	0.01	0.413	O				4.86
56.833	0.00	0.01	0.413	O				4.86
56.917	0.00	0.01	0.413	O				4.86
57.000	0.00	0.01	0.413	O				4.86
57.083	0.00	0.01	0.413	O				4.86
57.167	0.00	0.01	0.413	O				4.86
57.250	0.00	0.01	0.413	O				4.86
57.333	0.00	0.01	0.413	O				4.86
57.417	0.00	0.01	0.413	O				4.86
57.500	0.00	0.01	0.413	O				4.86
57.583	0.00	0.01	0.413	O				4.85
57.667	0.00	0.01	0.413	O				4.85
57.750	0.00	0.01	0.412	O				4.85
57.833	0.00	0.01	0.412	O				4.85
57.917	0.00	0.01	0.412	O				4.85
58.000	0.00	0.01	0.412	O				4.85
58.083	0.00	0.01	0.412	O				4.85
58.167	0.00	0.01	0.412	O				4.85
58.250	0.00	0.01	0.412	O				4.85
58.333	0.00	0.01	0.412	O				4.85
58.417	0.00	0.01	0.412	O				4.85
58.500	0.00	0.01	0.412	O				4.85
58.583	0.00	0.01	0.412	O				4.85
58.667	0.00	0.01	0.412	O				4.85
58.750	0.00	0.01	0.412	O				4.85
58.833	0.00	0.01	0.412	O				4.85
58.917	0.00	0.01	0.411	O				4.85
59.000	0.00	0.01	0.411	O				4.85
59.083	0.00	0.01	0.411	O				4.84
59.167	0.00	0.01	0.411	O				4.84
59.250	0.00	0.01	0.411	O				4.84
59.333	0.00	0.01	0.411	O				4.84
59.417	0.00	0.01	0.411	O				4.84
59.500	0.00	0.01	0.411	O				4.84
59.583	0.00	0.01	0.411	O				4.84
59.667	0.00	0.01	0.411	O				4.84
59.750	0.00	0.01	0.411	O				4.84
59.833	0.00	0.01	0.411	O				4.84
59.917	0.00	0.01	0.411	O				4.84
60.000	0.00	0.01	0.411	O				4.84
60.083	0.00	0.01	0.411	O				4.84
60.167	0.00	0.01	0.410	O				4.84
60.250	0.00	0.01	0.410	O				4.84

60.333	0.00	0.01	0.410	O				4.84
60.417	0.00	0.01	0.410	O				4.84
60.500	0.00	0.01	0.410	O				4.83
60.583	0.00	0.01	0.410	O				4.83
60.667	0.00	0.01	0.410	O				4.83
60.750	0.00	0.01	0.410	O				4.83
60.833	0.00	0.01	0.410	O				4.83
60.917	0.00	0.01	0.410	O				4.83
61.000	0.00	0.01	0.410	O				4.83
61.083	0.00	0.01	0.410	O				4.83
61.167	0.00	0.01	0.410	O				4.83
61.250	0.00	0.01	0.410	O				4.83
61.333	0.00	0.01	0.409	O				4.83
61.417	0.00	0.01	0.409	O				4.83
61.500	0.00	0.01	0.409	O				4.83
61.583	0.00	0.01	0.409	O				4.83
61.667	0.00	0.01	0.409	O				4.83
61.750	0.00	0.01	0.409	O				4.83
61.833	0.00	0.01	0.409	O				4.83
61.917	0.00	0.01	0.409	O				4.83
62.000	0.00	0.01	0.409	O				4.82
62.083	0.00	0.01	0.409	O				4.82
62.167	0.00	0.01	0.409	O				4.82
62.250	0.00	0.01	0.409	O				4.82
62.333	0.00	0.01	0.409	O				4.82
62.417	0.00	0.01	0.409	O				4.82
62.500	0.00	0.01	0.409	O				4.82
62.583	0.00	0.01	0.408	O				4.82
62.667	0.00	0.01	0.408	O				4.82
62.750	0.00	0.01	0.408	O				4.82
62.833	0.00	0.01	0.408	O				4.82
62.917	0.00	0.01	0.408	O				4.82
63.000	0.00	0.01	0.408	O				4.82
63.083	0.00	0.01	0.408	O				4.82
63.167	0.00	0.01	0.408	O				4.82
63.250	0.00	0.01	0.408	O				4.82
63.333	0.00	0.01	0.408	O				4.82
63.417	0.00	0.01	0.408	O				4.81
63.500	0.00	0.01	0.408	O				4.81
63.583	0.00	0.01	0.408	O				4.81
63.667	0.00	0.01	0.408	O				4.81
63.750	0.00	0.01	0.407	O				4.81
63.833	0.00	0.01	0.407	O				4.81
63.917	0.00	0.01	0.407	O				4.81
64.000	0.00	0.01	0.407	O				4.81
64.083	0.00	0.01	0.407	O				4.81
64.167	0.00	0.01	0.407	O				4.81
64.250	0.00	0.01	0.407	O				4.81
64.333	0.00	0.01	0.407	O				4.81
64.417	0.00	0.01	0.407	O				4.81
64.500	0.00	0.01	0.407	O				4.81
64.583	0.00	0.01	0.407	O				4.81
64.667	0.00	0.01	0.407	O				4.81
64.750	0.00	0.01	0.407	O				4.81
64.833	0.00	0.01	0.407	O				4.80
64.917	0.00	0.01	0.407	O				4.80
65.000	0.00	0.01	0.406	O				4.80

65.083	0.00	0.01	0.406	O				4.80
65.167	0.00	0.01	0.406	O				4.80
65.250	0.00	0.01	0.406	O				4.80
65.333	0.00	0.01	0.406	O				4.80
65.417	0.00	0.01	0.406	O				4.80
65.500	0.00	0.01	0.406	O				4.80
65.583	0.00	0.01	0.406	O				4.80
65.667	0.00	0.01	0.406	O				4.80
65.750	0.00	0.01	0.406	O				4.80
65.833	0.00	0.01	0.406	O				4.80
65.917	0.00	0.01	0.406	O				4.80
66.000	0.00	0.01	0.406	O				4.80
66.083	0.00	0.01	0.406	O				4.80
66.167	0.00	0.01	0.405	O				4.80
66.250	0.00	0.01	0.405	O				4.80
66.333	0.00	0.01	0.405	O				4.79
66.417	0.00	0.01	0.405	O				4.79
66.500	0.00	0.01	0.405	O				4.79
66.583	0.00	0.01	0.405	O				4.79
66.667	0.00	0.01	0.405	O				4.79
66.750	0.00	0.01	0.405	O				4.79
66.833	0.00	0.01	0.405	O				4.79
66.917	0.00	0.01	0.405	O				4.79
67.000	0.00	0.01	0.405	O				4.79
67.083	0.00	0.01	0.405	O				4.79
67.167	0.00	0.01	0.405	O				4.79
67.250	0.00	0.01	0.405	O				4.79
67.333	0.00	0.01	0.405	O				4.79
67.417	0.00	0.01	0.404	O				4.79
67.500	0.00	0.01	0.404	O				4.79
67.583	0.00	0.01	0.404	O				4.79
67.667	0.00	0.01	0.404	O				4.79
67.750	0.00	0.01	0.404	O				4.78
67.833	0.00	0.01	0.404	O				4.78
67.917	0.00	0.01	0.404	O				4.78
68.000	0.00	0.01	0.404	O				4.78
68.083	0.00	0.01	0.404	O				4.78
68.167	0.00	0.01	0.404	O				4.78
68.250	0.00	0.01	0.404	O				4.78
68.333	0.00	0.01	0.404	O				4.78
68.417	0.00	0.01	0.404	O				4.78
68.500	0.00	0.01	0.404	O				4.78
68.583	0.00	0.01	0.404	O				4.78
68.667	0.00	0.01	0.403	O				4.78
68.750	0.00	0.01	0.403	O				4.78
68.833	0.00	0.01	0.403	O				4.78
68.917	0.00	0.01	0.403	O				4.78
69.000	0.00	0.01	0.403	O				4.78
69.083	0.00	0.01	0.403	O				4.78
69.167	0.00	0.01	0.403	O				4.78
69.250	0.00	0.01	0.403	O				4.77
69.333	0.00	0.01	0.403	O				4.77
69.417	0.00	0.01	0.403	O				4.77
69.500	0.00	0.01	0.403	O				4.77
69.583	0.00	0.01	0.403	O				4.77
69.667	0.00	0.01	0.403	O				4.77
69.750	0.00	0.01	0.403	O				4.77

69.833	0.00	0.01	0.402	0				4.77
69.917	0.00	0.01	0.402	0				4.77
70.000	0.00	0.01	0.402	0				4.77
70.083	0.00	0.01	0.402	0				4.77
70.167	0.00	0.01	0.402	0				4.77
70.250	0.00	0.01	0.402	0				4.77
70.333	0.00	0.01	0.402	0				4.77
70.417	0.00	0.01	0.402	0				4.77
70.500	0.00	0.01	0.402	0				4.77
70.583	0.00	0.01	0.402	0				4.77
70.667	0.00	0.01	0.402	0				4.76
70.750	0.00	0.01	0.402	0				4.76
70.833	0.00	0.01	0.402	0				4.76
70.917	0.00	0.01	0.402	0				4.76
71.000	0.00	0.01	0.402	0				4.76
71.083	0.00	0.01	0.401	0				4.76
71.167	0.00	0.01	0.401	0				4.76
71.250	0.00	0.01	0.401	0				4.76
71.333	0.00	0.01	0.401	0				4.76
71.417	0.00	0.01	0.401	0				4.76
71.500	0.00	0.01	0.401	0				4.76
71.583	0.00	0.01	0.401	0				4.76
71.667	0.00	0.01	0.401	0				4.76
71.750	0.00	0.01	0.401	0				4.76
71.833	0.00	0.01	0.401	0				4.76
71.917	0.00	0.01	0.401	0				4.76
72.000	0.00	0.01	0.401	0				4.76
72.083	0.00	0.01	0.401	0				4.76
72.167	0.00	0.01	0.401	0				4.75
72.250	0.00	0.01	0.400	0				4.75
72.333	0.00	0.01	0.400	0				4.75
72.417	0.00	0.01	0.400	0				4.75
72.500	0.00	0.01	0.400	0				4.75
72.583	0.00	0.01	0.400	0				4.75
72.667	0.00	0.01	0.400	0				4.75
72.750	0.00	0.01	0.400	0				4.75
72.833	0.00	0.01	0.400	0				4.75
72.917	0.00	0.01	0.400	0				4.75
73.000	0.00	0.01	0.400	0				4.75
73.083	0.00	0.01	0.400	0				4.75
73.167	0.00	0.01	0.400	0				4.75
73.250	0.00	0.01	0.400	0				4.75
73.333	0.00	0.01	0.400	0				4.75
73.417	0.00	0.01	0.400	0				4.75
73.500	0.00	0.01	0.399	0				4.75
73.583	0.00	0.01	0.399	0				4.74
73.667	0.00	0.01	0.399	0				4.74
73.750	0.00	0.01	0.399	0				4.74
73.833	0.00	0.01	0.399	0				4.74
73.917	0.00	0.01	0.399	0				4.74
74.000	0.00	0.01	0.399	0				4.74
74.083	0.00	0.01	0.399	0				4.74
74.167	0.00	0.01	0.399	0				4.74
74.250	0.00	0.01	0.399	0				4.74
74.333	0.00	0.01	0.399	0				4.74
74.417	0.00	0.01	0.399	0				4.74
74.500	0.00	0.01	0.399	0				4.74

74.583	0.00	0.01	0.399	0				4.74
74.667	0.00	0.01	0.398	0				4.74
74.750	0.00	0.01	0.398	0				4.74
74.833	0.00	0.01	0.398	0				4.74
74.917	0.00	0.01	0.398	0				4.74
75.000	0.00	0.01	0.398	0				4.73
75.083	0.00	0.01	0.398	0				4.73
75.167	0.00	0.01	0.398	0				4.73
75.250	0.00	0.01	0.398	0				4.73
75.333	0.00	0.01	0.398	0				4.73
75.417	0.00	0.01	0.398	0				4.73
75.500	0.00	0.01	0.398	0				4.73
75.583	0.00	0.01	0.398	0				4.73
75.667	0.00	0.01	0.398	0				4.73
75.750	0.00	0.01	0.398	0				4.73
75.833	0.00	0.01	0.398	0				4.73
75.917	0.00	0.01	0.397	0				4.73
76.000	0.00	0.01	0.397	0				4.73
76.083	0.00	0.01	0.397	0				4.73
76.167	0.00	0.01	0.397	0				4.73
76.250	0.00	0.01	0.397	0				4.73
76.333	0.00	0.01	0.397	0				4.73
76.417	0.00	0.01	0.397	0				4.73
76.500	0.00	0.01	0.397	0				4.72
76.583	0.00	0.01	0.397	0				4.72
76.667	0.00	0.01	0.397	0				4.72
76.750	0.00	0.01	0.397	0				4.72
76.833	0.00	0.01	0.397	0				4.72
76.917	0.00	0.01	0.397	0				4.72
77.000	0.00	0.01	0.397	0				4.72
77.083	0.00	0.01	0.396	0				4.72
77.167	0.00	0.01	0.396	0				4.72
77.250	0.00	0.01	0.396	0				4.72
77.333	0.00	0.01	0.396	0				4.72
77.417	0.00	0.01	0.396	0				4.72
77.500	0.00	0.01	0.396	0				4.72
77.583	0.00	0.01	0.396	0				4.72
77.667	0.00	0.01	0.396	0				4.72
77.750	0.00	0.01	0.396	0				4.72
77.833	0.00	0.01	0.396	0				4.72
77.917	0.00	0.01	0.396	0				4.71
78.000	0.00	0.01	0.396	0				4.71
78.083	0.00	0.01	0.396	0				4.71
78.167	0.00	0.01	0.396	0				4.71
78.250	0.00	0.01	0.396	0				4.71
78.333	0.00	0.01	0.395	0				4.71
78.417	0.00	0.01	0.395	0				4.71
78.500	0.00	0.01	0.395	0				4.71
78.583	0.00	0.01	0.395	0				4.71
78.667	0.00	0.01	0.395	0				4.71
78.750	0.00	0.01	0.395	0				4.71
78.833	0.00	0.01	0.395	0				4.71
78.917	0.00	0.01	0.395	0				4.71
79.000	0.00	0.01	0.395	0				4.71
79.083	0.00	0.01	0.395	0				4.71
79.167	0.00	0.01	0.395	0				4.71
79.250	0.00	0.01	0.395	0				4.71

79.333	0.00	0.01	0.395	O				4.71
79.417	0.00	0.01	0.395	O				4.70
79.500	0.00	0.01	0.394	O				4.70
79.583	0.00	0.01	0.394	O				4.70
79.667	0.00	0.01	0.394	O				4.70
79.750	0.00	0.01	0.394	O				4.70
79.833	0.00	0.01	0.394	O				4.70
79.917	0.00	0.01	0.394	O				4.70
80.000	0.00	0.01	0.394	O				4.70
80.083	0.00	0.01	0.394	O				4.70
80.167	0.00	0.01	0.394	O				4.70
80.250	0.00	0.01	0.394	O				4.70
80.333	0.00	0.01	0.394	O				4.70
80.417	0.00	0.01	0.394	O				4.70
80.500	0.00	0.01	0.394	O				4.70
80.583	0.00	0.01	0.394	O				4.70
80.667	0.00	0.01	0.394	O				4.70
80.750	0.00	0.01	0.393	O				4.70
80.833	0.00	0.01	0.393	O				4.69
80.917	0.00	0.01	0.393	O				4.69
81.000	0.00	0.01	0.393	O				4.69
81.083	0.00	0.01	0.393	O				4.69
81.167	0.00	0.01	0.393	O				4.69
81.250	0.00	0.01	0.393	O				4.69
81.333	0.00	0.01	0.393	O				4.69
81.417	0.00	0.01	0.393	O				4.69
81.500	0.00	0.01	0.393	O				4.69
81.583	0.00	0.01	0.393	O				4.69
81.667	0.00	0.01	0.393	O				4.69
81.750	0.00	0.01	0.393	O				4.69
81.833	0.00	0.01	0.393	O				4.69
81.917	0.00	0.01	0.392	O				4.69
82.000	0.00	0.01	0.392	O				4.69
82.083	0.00	0.01	0.392	O				4.69
82.167	0.00	0.01	0.392	O				4.69
82.250	0.00	0.01	0.392	O				4.69
82.333	0.00	0.01	0.392	O				4.68
82.417	0.00	0.01	0.392	O				4.68
82.500	0.00	0.01	0.392	O				4.68
82.583	0.00	0.01	0.392	O				4.68
82.667	0.00	0.01	0.392	O				4.68
82.750	0.00	0.01	0.392	O				4.68
82.833	0.00	0.01	0.392	O				4.68
82.917	0.00	0.01	0.392	O				4.68
83.000	0.00	0.01	0.392	O				4.68
83.083	0.00	0.01	0.392	O				4.68
83.167	0.00	0.01	0.391	O				4.68
83.250	0.00	0.01	0.391	O				4.68
83.333	0.00	0.01	0.391	O				4.68
83.417	0.00	0.01	0.391	O				4.68
83.500	0.00	0.01	0.391	O				4.68
83.583	0.00	0.01	0.391	O				4.68
83.667	0.00	0.01	0.391	O				4.68
83.750	0.00	0.01	0.391	O				4.67
83.833	0.00	0.01	0.391	O				4.67
83.917	0.00	0.01	0.391	O				4.67
84.000	0.00	0.01	0.391	O				4.67

84.083	0.00	0.01	0.391	O				4.67
84.167	0.00	0.01	0.391	O				4.67
84.250	0.00	0.01	0.391	O				4.67
84.333	0.00	0.01	0.390	O				4.67
84.417	0.00	0.01	0.390	O				4.67
84.500	0.00	0.01	0.390	O				4.67
84.583	0.00	0.01	0.390	O				4.67
84.667	0.00	0.01	0.390	O				4.67
84.750	0.00	0.01	0.390	O				4.67
84.833	0.00	0.01	0.390	O				4.67
84.917	0.00	0.01	0.390	O				4.67
85.000	0.00	0.01	0.390	O				4.67
85.083	0.00	0.01	0.390	O				4.67
85.167	0.00	0.01	0.390	O				4.66
85.250	0.00	0.01	0.390	O				4.66
85.333	0.00	0.01	0.390	O				4.66
85.417	0.00	0.01	0.390	O				4.66
85.500	0.00	0.01	0.390	O				4.66
85.583	0.00	0.01	0.389	O				4.66
85.667	0.00	0.01	0.389	O				4.66
85.750	0.00	0.01	0.389	O				4.66
85.833	0.00	0.01	0.389	O				4.66
85.917	0.00	0.01	0.389	O				4.66
86.000	0.00	0.01	0.389	O				4.66
86.083	0.00	0.01	0.389	O				4.66
86.167	0.00	0.01	0.389	O				4.66
86.250	0.00	0.01	0.389	O				4.66
86.333	0.00	0.01	0.389	O				4.66
86.417	0.00	0.01	0.389	O				4.66
86.500	0.00	0.01	0.389	O				4.66
86.583	0.00	0.01	0.389	O				4.66
86.667	0.00	0.01	0.389	O				4.65
86.750	0.00	0.01	0.388	O				4.65
86.833	0.00	0.01	0.388	O				4.65
86.917	0.00	0.01	0.388	O				4.65
87.000	0.00	0.01	0.388	O				4.65
87.083	0.00	0.01	0.388	O				4.65
87.167	0.00	0.01	0.388	O				4.65
87.250	0.00	0.01	0.388	O				4.65
87.333	0.00	0.01	0.388	O				4.65
87.417	0.00	0.01	0.388	O				4.65
87.500	0.00	0.01	0.388	O				4.65
87.583	0.00	0.01	0.388	O				4.65
87.667	0.00	0.01	0.388	O				4.65
87.750	0.00	0.01	0.388	O				4.65
87.833	0.00	0.01	0.388	O				4.65
87.917	0.00	0.01	0.388	O				4.65
88.000	0.00	0.01	0.387	O				4.65
88.083	0.00	0.01	0.387	O				4.64
88.167	0.00	0.01	0.387	O				4.64
88.250	0.00	0.01	0.387	O				4.64
88.333	0.00	0.01	0.387	O				4.64
88.417	0.00	0.01	0.387	O				4.64
88.500	0.00	0.01	0.387	O				4.64
88.583	0.00	0.01	0.387	O				4.64
88.667	0.00	0.01	0.387	O				4.64
88.750	0.00	0.01	0.387	O				4.64

88.833	0.00	0.01	0.387	0				4.64
88.917	0.00	0.01	0.387	0				4.64
89.000	0.00	0.01	0.387	0				4.64
89.083	0.00	0.01	0.387	0				4.64
89.167	0.00	0.01	0.386	0				4.64
89.250	0.00	0.01	0.386	0				4.64
89.333	0.00	0.01	0.386	0				4.64
89.417	0.00	0.01	0.386	0				4.64
89.500	0.00	0.01	0.386	0				4.64
89.583	0.00	0.01	0.386	0				4.63
89.667	0.00	0.01	0.386	0				4.63
89.750	0.00	0.01	0.386	0				4.63
89.833	0.00	0.01	0.386	0				4.63
89.917	0.00	0.01	0.386	0				4.63
90.000	0.00	0.01	0.386	0				4.63
90.083	0.00	0.01	0.386	0				4.63
90.167	0.00	0.01	0.386	0				4.63
90.250	0.00	0.01	0.386	0				4.63
90.333	0.00	0.01	0.386	0				4.63
90.417	0.00	0.01	0.385	0				4.63
90.500	0.00	0.01	0.385	0				4.63
90.583	0.00	0.01	0.385	0				4.63
90.667	0.00	0.01	0.385	0				4.63
90.750	0.00	0.01	0.385	0				4.63
90.833	0.00	0.01	0.385	0				4.63
90.917	0.00	0.01	0.385	0				4.63
91.000	0.00	0.01	0.385	0				4.62
91.083	0.00	0.01	0.385	0				4.62
91.167	0.00	0.01	0.385	0				4.62
91.250	0.00	0.01	0.385	0				4.62
91.333	0.00	0.01	0.385	0				4.62
91.417	0.00	0.01	0.385	0				4.62
91.500	0.00	0.01	0.385	0				4.62
91.583	0.00	0.01	0.384	0				4.62
91.667	0.00	0.01	0.384	0				4.62
91.750	0.00	0.01	0.384	0				4.62
91.833	0.00	0.01	0.384	0				4.62
91.917	0.00	0.01	0.384	0				4.62
92.000	0.00	0.01	0.384	0				4.62
92.083	0.00	0.01	0.384	0				4.62
92.167	0.00	0.01	0.384	0				4.62
92.250	0.00	0.01	0.384	0				4.62
92.333	0.00	0.01	0.384	0				4.62
92.417	0.00	0.01	0.384	0				4.62
92.500	0.00	0.01	0.384	0				4.61
92.583	0.00	0.01	0.384	0				4.61
92.667	0.00	0.01	0.384	0				4.61
92.750	0.00	0.01	0.384	0				4.61
92.833	0.00	0.01	0.383	0				4.61
92.917	0.00	0.01	0.383	0				4.61
93.000	0.00	0.01	0.383	0				4.61
93.083	0.00	0.01	0.383	0				4.61
93.167	0.00	0.01	0.383	0				4.61
93.250	0.00	0.01	0.383	0				4.61
93.333	0.00	0.01	0.383	0				4.61
93.417	0.00	0.01	0.383	0				4.61
93.500	0.00	0.01	0.383	0				4.61

93.583	0.00	0.01	0.383	0				4.61
93.667	0.00	0.01	0.383	0				4.61
93.750	0.00	0.01	0.383	0				4.61
93.833	0.00	0.01	0.383	0				4.61
93.917	0.00	0.01	0.383	0				4.60
94.000	0.00	0.01	0.382	0				4.60
94.083	0.00	0.01	0.382	0				4.60
94.167	0.00	0.01	0.382	0				4.60
94.250	0.00	0.01	0.382	0				4.60
94.333	0.00	0.01	0.382	0				4.60
94.417	0.00	0.01	0.382	0				4.60
94.500	0.00	0.01	0.382	0				4.60
94.583	0.00	0.01	0.382	0				4.60
94.667	0.00	0.01	0.382	0				4.60
94.750	0.00	0.01	0.382	0				4.60
94.833	0.00	0.01	0.382	0				4.60
94.917	0.00	0.01	0.382	0				4.60
95.000	0.00	0.01	0.382	0				4.60
95.083	0.00	0.01	0.382	0				4.60
95.167	0.00	0.01	0.382	0				4.60
95.250	0.00	0.01	0.381	0				4.60
95.333	0.00	0.01	0.381	0				4.59
95.417	0.00	0.01	0.381	0				4.59
95.500	0.00	0.01	0.381	0				4.59
95.583	0.00	0.01	0.381	0				4.59
95.667	0.00	0.01	0.381	0				4.59
95.750	0.00	0.01	0.381	0				4.59
95.833	0.00	0.01	0.381	0				4.59
95.917	0.00	0.01	0.381	0				4.59
96.000	0.00	0.01	0.381	0				4.59
96.083	0.00	0.01	0.381	0				4.59
96.167	0.00	0.01	0.381	0				4.59
96.250	0.00	0.01	0.381	0				4.59
96.333	0.00	0.01	0.381	0				4.59
96.417	0.00	0.01	0.380	0				4.59
96.500	0.00	0.01	0.380	0				4.59
96.583	0.00	0.01	0.380	0				4.59
96.667	0.00	0.01	0.380	0				4.59
96.750	0.00	0.01	0.380	0				4.59
96.833	0.00	0.01	0.380	0				4.58
96.917	0.00	0.01	0.380	0				4.58
97.000	0.00	0.01	0.380	0				4.58
97.083	0.00	0.01	0.380	0				4.58
97.167	0.00	0.01	0.380	0				4.58
97.250	0.00	0.01	0.380	0				4.58
97.333	0.00	0.01	0.380	0				4.58
97.417	0.00	0.01	0.380	0				4.58
97.500	0.00	0.01	0.380	0				4.58
97.583	0.00	0.01	0.380	0				4.58
97.667	0.00	0.01	0.379	0				4.58
97.750	0.00	0.01	0.379	0				4.58
97.833	0.00	0.01	0.379	0				4.58
97.917	0.00	0.01	0.379	0				4.58
98.000	0.00	0.01	0.379	0				4.58
98.083	0.00	0.01	0.379	0				4.58
98.167	0.00	0.01	0.379	0				4.58
98.250	0.00	0.01	0.379	0				4.57

98.333	0.00	0.01	0.379	0				4.57
98.417	0.00	0.01	0.379	0				4.57
98.500	0.00	0.01	0.379	0				4.57
98.583	0.00	0.01	0.379	0				4.57
98.667	0.00	0.01	0.379	0				4.57
98.750	0.00	0.01	0.379	0				4.57
98.833	0.00	0.01	0.379	0				4.57
98.917	0.00	0.01	0.378	0				4.57
99.000	0.00	0.01	0.378	0				4.57
99.083	0.00	0.01	0.378	0				4.57
99.167	0.00	0.01	0.378	0				4.57
99.250	0.00	0.01	0.378	0				4.57
99.333	0.00	0.01	0.378	0				4.57
99.417	0.00	0.01	0.378	0				4.57
99.500	0.00	0.01	0.378	0				4.57
99.583	0.00	0.01	0.378	0				4.57
99.667	0.00	0.01	0.378	0				4.57
99.750	0.00	0.01	0.378	0				4.56
99.833	0.00	0.01	0.378	0				4.56
99.917	0.00	0.01	0.378	0				4.56
100.000	0.00	0.01	0.378	0				4.56
100.083	0.00	0.01	0.377	0				4.56
100.167	0.00	0.01	0.377	0				4.56
100.250	0.00	0.01	0.377	0				4.56
100.333	0.00	0.01	0.377	0				4.56
100.417	0.00	0.01	0.377	0				4.56
100.500	0.00	0.01	0.377	0				4.56
100.583	0.00	0.01	0.377	0				4.56
100.667	0.00	0.01	0.377	0				4.56
100.750	0.00	0.01	0.377	0				4.56
100.833	0.00	0.01	0.377	0				4.56
100.917	0.00	0.01	0.377	0				4.56
101.000	0.00	0.01	0.377	0				4.56
101.083	0.00	0.01	0.377	0				4.56
101.167	0.00	0.01	0.377	0				4.55
101.250	0.00	0.01	0.377	0				4.55
101.333	0.00	0.01	0.376	0				4.55
101.417	0.00	0.01	0.376	0				4.55
101.500	0.00	0.01	0.376	0				4.55
101.583	0.00	0.01	0.376	0				4.55
101.667	0.00	0.01	0.376	0				4.55
101.750	0.00	0.01	0.376	0				4.55
101.833	0.00	0.01	0.376	0				4.55
101.917	0.00	0.01	0.376	0				4.55
102.000	0.00	0.01	0.376	0				4.55
102.083	0.00	0.01	0.376	0				4.55
102.167	0.00	0.01	0.376	0				4.55
102.250	0.00	0.01	0.376	0				4.55
102.333	0.00	0.01	0.376	0				4.55
102.417	0.00	0.01	0.376	0				4.55
102.500	0.00	0.01	0.375	0				4.55
102.583	0.00	0.01	0.375	0				4.55
102.667	0.00	0.01	0.375	0				4.54
102.750	0.00	0.01	0.375	0				4.54
102.833	0.00	0.01	0.375	0				4.54
102.917	0.00	0.01	0.375	0				4.54
103.000	0.00	0.01	0.375	0				4.54

103.083	0.00	0.01	0.375	0				4.54
103.167	0.00	0.01	0.375	0				4.54
103.250	0.00	0.01	0.375	0				4.54
103.333	0.00	0.01	0.375	0				4.54
103.417	0.00	0.01	0.375	0				4.54
103.500	0.00	0.01	0.375	0				4.54
103.583	0.00	0.01	0.375	0				4.54
103.667	0.00	0.01	0.375	0				4.54
103.750	0.00	0.01	0.374	0				4.54
103.833	0.00	0.01	0.374	0				4.54
103.917	0.00	0.01	0.374	0				4.54
104.000	0.00	0.01	0.374	0				4.54
104.083	0.00	0.01	0.374	0				4.53
104.167	0.00	0.01	0.374	0				4.53
104.250	0.00	0.01	0.374	0				4.53
104.333	0.00	0.01	0.374	0				4.53
104.417	0.00	0.01	0.374	0				4.53
104.500	0.00	0.01	0.374	0				4.53
104.583	0.00	0.01	0.374	0				4.53
104.667	0.00	0.01	0.374	0				4.53
104.750	0.00	0.01	0.374	0				4.53
104.833	0.00	0.01	0.374	0				4.53
104.917	0.00	0.01	0.373	0				4.53
105.000	0.00	0.01	0.373	0				4.53
105.083	0.00	0.01	0.373	0				4.53
105.167	0.00	0.01	0.373	0				4.53
105.250	0.00	0.01	0.373	0				4.53
105.333	0.00	0.01	0.373	0				4.53
105.417	0.00	0.01	0.373	0				4.53
105.500	0.00	0.01	0.373	0				4.52
105.583	0.00	0.01	0.373	0				4.52
105.667	0.00	0.01	0.373	0				4.52
105.750	0.00	0.01	0.373	0				4.52
105.833	0.00	0.01	0.373	0				4.52
105.917	0.00	0.01	0.373	0				4.52
106.000	0.00	0.01	0.373	0				4.52
106.083	0.00	0.01	0.373	0				4.52
106.167	0.00	0.01	0.372	0				4.52
106.250	0.00	0.01	0.372	0				4.52
106.333	0.00	0.01	0.372	0				4.52
106.417	0.00	0.01	0.372	0				4.52
106.500	0.00	0.01	0.372	0				4.52
106.583	0.00	0.01	0.372	0				4.52
106.667	0.00	0.01	0.372	0				4.52
106.750	0.00	0.01	0.372	0				4.52
106.833	0.00	0.01	0.372	0				4.52
106.917	0.00	0.01	0.372	0				4.52
107.000	0.00	0.01	0.372	0				4.51
107.083	0.00	0.01	0.372	0				4.51
107.167	0.00	0.01	0.372	0				4.51
107.250	0.00	0.01	0.372	0				4.51
107.333	0.00	0.01	0.371	0				4.51
107.417	0.00	0.01	0.371	0				4.51
107.500	0.00	0.01	0.371	0				4.51
107.583	0.00	0.01	0.371	0				4.51
107.667	0.00	0.01	0.371	0				4.51
107.750	0.00	0.01	0.371	0				4.51

107.833	0.00	0.01	0.371	0				4.51
107.917	0.00	0.01	0.371	0				4.51
108.000	0.00	0.01	0.371	0				4.51
108.083	0.00	0.01	0.371	0				4.51
108.167	0.00	0.01	0.371	0				4.51
108.250	0.00	0.01	0.371	0				4.51
108.333	0.00	0.01	0.371	0				4.51
108.417	0.00	0.01	0.371	0				4.50
108.500	0.00	0.01	0.371	0				4.50
108.583	0.00	0.01	0.370	0				4.50
108.667	0.00	0.01	0.370	0				4.50
108.750	0.00	0.01	0.370	0				4.50
108.833	0.00	0.01	0.370	0				4.50
108.917	0.00	0.01	0.370	0				4.50
109.000	0.00	0.01	0.370	0				4.50
109.083	0.00	0.01	0.370	0				4.50
109.167	0.00	0.01	0.370	0				4.50
109.250	0.00	0.01	0.370	0				4.50
109.333	0.00	0.01	0.370	0				4.50
109.417	0.00	0.01	0.370	0				4.50
109.500	0.00	0.01	0.370	0				4.50
109.583	0.00	0.01	0.370	0				4.50
109.667	0.00	0.01	0.370	0				4.50
109.750	0.00	0.01	0.369	0				4.49
109.833	0.00	0.01	0.369	0				4.49
109.917	0.00	0.01	0.369	0				4.49
110.000	0.00	0.01	0.369	0				4.49
110.083	0.00	0.01	0.369	0				4.49
110.167	0.00	0.01	0.369	0				4.49
110.250	0.00	0.01	0.369	0				4.49
110.333	0.00	0.01	0.369	0				4.49
110.417	0.00	0.01	0.369	0				4.49
110.500	0.00	0.01	0.369	0				4.49
110.583	0.00	0.01	0.369	0				4.49
110.667	0.00	0.01	0.369	0				4.49
110.750	0.00	0.01	0.369	0				4.49
110.833	0.00	0.01	0.369	0				4.49
110.917	0.00	0.01	0.369	0				4.49
111.000	0.00	0.01	0.368	0				4.48
111.083	0.00	0.01	0.368	0				4.48
111.167	0.00	0.01	0.368	0				4.48
111.250	0.00	0.01	0.368	0				4.48
111.333	0.00	0.01	0.368	0				4.48
111.417	0.00	0.01	0.368	0				4.48
111.500	0.00	0.01	0.368	0				4.48
111.583	0.00	0.01	0.368	0				4.48
111.667	0.00	0.01	0.368	0				4.48
111.750	0.00	0.01	0.368	0				4.48
111.833	0.00	0.01	0.368	0				4.48
111.917	0.00	0.01	0.368	0				4.48
112.000	0.00	0.01	0.368	0				4.48
112.083	0.00	0.01	0.368	0				4.48
112.167	0.00	0.01	0.367	0				4.47
112.250	0.00	0.01	0.367	0				4.47
112.333	0.00	0.01	0.367	0				4.47
112.417	0.00	0.01	0.367	0				4.47
112.500	0.00	0.01	0.367	0				4.47

112.583	0.00	0.01	0.367	0				4.47
112.667	0.00	0.01	0.367	0				4.47
112.750	0.00	0.01	0.367	0				4.47
112.833	0.00	0.01	0.367	0				4.47
112.917	0.00	0.01	0.367	0				4.47
113.000	0.00	0.01	0.367	0				4.47
113.083	0.00	0.01	0.367	0				4.47
113.167	0.00	0.01	0.367	0				4.47
113.250	0.00	0.01	0.367	0				4.47
113.333	0.00	0.01	0.367	0				4.47
113.417	0.00	0.01	0.366	0				4.46
113.500	0.00	0.01	0.366	0				4.46
113.583	0.00	0.01	0.366	0				4.46
113.667	0.00	0.01	0.366	0				4.46
113.750	0.00	0.01	0.366	0				4.46
113.833	0.00	0.01	0.366	0				4.46
113.917	0.00	0.01	0.366	0				4.46
114.000	0.00	0.01	0.366	0				4.46
114.083	0.00	0.01	0.366	0				4.46
114.167	0.00	0.01	0.366	0				4.46
114.250	0.00	0.01	0.366	0				4.46
114.333	0.00	0.01	0.366	0				4.46
114.417	0.00	0.01	0.366	0				4.46
114.500	0.00	0.01	0.366	0				4.46
114.583	0.00	0.01	0.365	0				4.45
114.667	0.00	0.01	0.365	0				4.45
114.750	0.00	0.01	0.365	0				4.45
114.833	0.00	0.01	0.365	0				4.45
114.917	0.00	0.01	0.365	0				4.45
115.000	0.00	0.01	0.365	0				4.45
115.083	0.00	0.01	0.365	0				4.45
115.167	0.00	0.01	0.365	0				4.45
115.250	0.00	0.01	0.365	0				4.45
115.333	0.00	0.01	0.365	0				4.45
115.417	0.00	0.01	0.365	0				4.45
115.500	0.00	0.01	0.365	0				4.45
115.583	0.00	0.01	0.365	0				4.45
115.667	0.00	0.01	0.365	0				4.45
115.750	0.00	0.01	0.365	0				4.45
115.833	0.00	0.01	0.364	0				4.44
115.917	0.00	0.01	0.364	0				4.44
116.000	0.00	0.01	0.364	0				4.44
116.083	0.00	0.01	0.364	0				4.44
116.167	0.00	0.01	0.364	0				4.44
116.250	0.00	0.01	0.364	0				4.44
116.333	0.00	0.01	0.364	0				4.44
116.417	0.00	0.01	0.364	0				4.44
116.500	0.00	0.01	0.364	0				4.44
116.583	0.00	0.01	0.364	0				4.44
116.667	0.00	0.01	0.364	0				4.44
116.750	0.00	0.01	0.364	0				4.44
116.833	0.00	0.01	0.364	0				4.44
116.917	0.00	0.01	0.364	0				4.44
117.000	0.00	0.01	0.363	0				4.43
117.083	0.00	0.01	0.363	0				4.43
117.167	0.00	0.01	0.363	0				4.43
117.250	0.00	0.01	0.363	0				4.43

117.333	0.00	0.01	0.363	0				4.43
117.417	0.00	0.01	0.363	0				4.43
117.500	0.00	0.01	0.363	0				4.43
117.583	0.00	0.01	0.363	0				4.43
117.667	0.00	0.01	0.363	0				4.43
117.750	0.00	0.01	0.363	0				4.43
117.833	0.00	0.01	0.363	0				4.43
117.917	0.00	0.01	0.363	0				4.43
118.000	0.00	0.01	0.363	0				4.43
118.083	0.00	0.01	0.363	0				4.43
118.167	0.00	0.01	0.363	0				4.43
118.250	0.00	0.01	0.362	0				4.42
118.333	0.00	0.01	0.362	0				4.42
118.417	0.00	0.01	0.362	0				4.42
118.500	0.00	0.01	0.362	0				4.42
118.583	0.00	0.01	0.362	0				4.42
118.667	0.00	0.01	0.362	0				4.42
118.750	0.00	0.01	0.362	0				4.42
118.833	0.00	0.01	0.362	0				4.42
118.917	0.00	0.01	0.362	0				4.42
119.000	0.00	0.01	0.362	0				4.42
119.083	0.00	0.01	0.362	0				4.42
119.167	0.00	0.01	0.362	0				4.42
119.250	0.00	0.01	0.362	0				4.42
119.333	0.00	0.01	0.362	0				4.42
119.417	0.00	0.01	0.361	0				4.41
119.500	0.00	0.01	0.361	0				4.41
119.583	0.00	0.01	0.361	0				4.41
119.667	0.00	0.01	0.361	0				4.41
119.750	0.00	0.01	0.361	0				4.41
119.833	0.00	0.01	0.361	0				4.41
119.917	0.00	0.01	0.361	0				4.41
120.000	0.00	0.01	0.361	0				4.41
120.083	0.00	0.01	0.361	0				4.41
120.167	0.00	0.01	0.361	0				4.41
120.250	0.00	0.01	0.361	0				4.41
120.333	0.00	0.01	0.361	0				4.41
120.417	0.00	0.01	0.361	0				4.41
120.500	0.00	0.01	0.361	0				4.41
120.583	0.00	0.01	0.361	0				4.41
120.667	0.00	0.01	0.360	0				4.40
120.750	0.00	0.01	0.360	0				4.40
120.833	0.00	0.01	0.360	0				4.40
120.917	0.00	0.01	0.360	0				4.40
121.000	0.00	0.01	0.360	0				4.40
121.083	0.00	0.01	0.360	0				4.40
121.167	0.00	0.01	0.360	0				4.40
121.250	0.00	0.01	0.360	0				4.40
121.333	0.00	0.01	0.360	0				4.40
121.417	0.00	0.01	0.360	0				4.40
121.500	0.00	0.01	0.360	0				4.40
121.583	0.00	0.01	0.360	0				4.40
121.667	0.00	0.01	0.360	0				4.40
121.750	0.00	0.01	0.360	0				4.40
121.833	0.00	0.01	0.359	0				4.39
121.917	0.00	0.01	0.359	0				4.39
122.000	0.00	0.01	0.359	0				4.39

122.083	0.00	0.01	0.359	0				4.39
122.167	0.00	0.01	0.359	0				4.39
122.250	0.00	0.01	0.359	0				4.39
122.333	0.00	0.01	0.359	0				4.39
122.417	0.00	0.01	0.359	0				4.39
122.500	0.00	0.01	0.359	0				4.39
122.583	0.00	0.01	0.359	0				4.39
122.667	0.00	0.01	0.359	0				4.39
122.750	0.00	0.01	0.359	0				4.39
122.833	0.00	0.01	0.359	0				4.39
122.917	0.00	0.01	0.359	0				4.39
123.000	0.00	0.01	0.359	0				4.39
123.083	0.00	0.01	0.358	0				4.38
123.167	0.00	0.01	0.358	0				4.38
123.250	0.00	0.01	0.358	0				4.38
123.333	0.00	0.01	0.358	0				4.38
123.417	0.00	0.01	0.358	0				4.38
123.500	0.00	0.01	0.358	0				4.38
123.583	0.00	0.01	0.358	0				4.38
123.667	0.00	0.01	0.358	0				4.38
123.750	0.00	0.01	0.358	0				4.38
123.833	0.00	0.01	0.358	0				4.38
123.917	0.00	0.01	0.358	0				4.38
124.000	0.00	0.01	0.358	0				4.38
124.083	0.00	0.01	0.358	0				4.38
124.167	0.00	0.01	0.358	0				4.38
124.250	0.00	0.01	0.357	0				4.37
124.333	0.00	0.01	0.357	0				4.37
124.417	0.00	0.01	0.357	0				4.37
124.500	0.00	0.01	0.357	0				4.37
124.583	0.00	0.01	0.357	0				4.37
124.667	0.00	0.01	0.357	0				4.37
124.750	0.00	0.01	0.357	0				4.37
124.833	0.00	0.01	0.357	0				4.37
124.917	0.00	0.01	0.357	0				4.37
125.000	0.00	0.01	0.357	0				4.37
125.083	0.00	0.01	0.357	0				4.37
125.167	0.00	0.01	0.357	0				4.37
125.250	0.00	0.01	0.357	0				4.37
125.333	0.00	0.01	0.357	0				4.37
125.417	0.00	0.01	0.357	0				4.37
125.500	0.00	0.01	0.356	0				4.36
125.583	0.00	0.01	0.356	0				4.36
125.667	0.00	0.01	0.356	0				4.36
125.750	0.00	0.01	0.356	0				4.36
125.833	0.00	0.01	0.356	0				4.36
125.917	0.00	0.01	0.356	0				4.36
126.000	0.00	0.01	0.356	0				4.36
126.083	0.00	0.01	0.356	0				4.36
126.167	0.00	0.01	0.356	0				4.36
126.250	0.00	0.01	0.356	0				4.36
126.333	0.00	0.01	0.356	0				4.36
126.417	0.00	0.01	0.356	0				4.36
126.500	0.00	0.01	0.356	0				4.36
126.583	0.00	0.01	0.356	0				4.36
126.667	0.00	0.01	0.355	0				4.35
126.750	0.00	0.01	0.355	0				4.35

126.833	0.00	0.01	0.355	O				4.35
126.917	0.00	0.01	0.355	O				4.35
127.000	0.00	0.01	0.355	O				4.35
127.083	0.00	0.01	0.355	O				4.35
127.167	0.00	0.01	0.355	O				4.35
127.250	0.00	0.01	0.355	O				4.35
127.333	0.00	0.01	0.355	O				4.35
127.417	0.00	0.01	0.355	O				4.35
127.500	0.00	0.01	0.355	O				4.35
127.583	0.00	0.01	0.355	O				4.35
127.667	0.00	0.01	0.355	O				4.35
127.750	0.00	0.01	0.355	O				4.35
127.833	0.00	0.01	0.355	O				4.35
127.917	0.00	0.01	0.354	O				4.34
128.000	0.00	0.01	0.354	O				4.34
128.083	0.00	0.01	0.354	O				4.34
128.167	0.00	0.01	0.354	O				4.34
128.250	0.00	0.01	0.354	O				4.34
128.333	0.00	0.01	0.354	O				4.34
128.417	0.00	0.01	0.354	O				4.34
128.500	0.00	0.01	0.354	O				4.34
128.583	0.00	0.01	0.354	O				4.34
128.667	0.00	0.01	0.354	O				4.34
128.750	0.00	0.01	0.354	O				4.34
128.833	0.00	0.01	0.354	O				4.34
128.917	0.00	0.01	0.354	O				4.34
129.000	0.00	0.01	0.354	O				4.34
129.083	0.00	0.01	0.354	O				4.34
129.167	0.00	0.01	0.353	O				4.33
129.250	0.00	0.01	0.353	O				4.33
129.333	0.00	0.01	0.353	O				4.33
129.417	0.00	0.01	0.353	O				4.33
129.500	0.00	0.01	0.353	O				4.33
129.583	0.00	0.01	0.353	O				4.33
129.667	0.00	0.01	0.353	O				4.33
129.750	0.00	0.01	0.353	O				4.33
129.833	0.00	0.01	0.353	O				4.33
129.917	0.00	0.01	0.353	O				4.33
130.000	0.00	0.01	0.353	O				4.33
130.083	0.00	0.01	0.353	O				4.33
130.167	0.00	0.01	0.353	O				4.33
130.250	0.00	0.01	0.353	O				4.33
130.333	0.00	0.01	0.352	O				4.32
130.417	0.00	0.01	0.352	O				4.32
130.500	0.00	0.01	0.352	O				4.32
130.583	0.00	0.01	0.352	O				4.32
130.667	0.00	0.01	0.352	O				4.32
130.750	0.00	0.01	0.352	O				4.32
130.833	0.00	0.01	0.352	O				4.32
130.917	0.00	0.01	0.352	O				4.32
131.000	0.00	0.01	0.352	O				4.32
131.083	0.00	0.01	0.352	O				4.32
131.167	0.00	0.01	0.352	O				4.32
131.250	0.00	0.01	0.352	O				4.32
131.333	0.00	0.01	0.352	O				4.32
131.417	0.00	0.01	0.352	O				4.32
131.500	0.00	0.01	0.352	O				4.32

131.583	0.00	0.01	0.351	O				4.31
131.667	0.00	0.01	0.351	O				4.31
131.750	0.00	0.01	0.351	O				4.31
131.833	0.00	0.01	0.351	O				4.31
131.917	0.00	0.01	0.351	O				4.31
132.000	0.00	0.01	0.351	O				4.31
132.083	0.00	0.01	0.351	O				4.31
132.167	0.00	0.01	0.351	O				4.31
132.250	0.00	0.01	0.351	O				4.31
132.333	0.00	0.01	0.351	O				4.31
132.417	0.00	0.01	0.351	O				4.31
132.500	0.00	0.01	0.351	O				4.31
132.583	0.00	0.01	0.351	O				4.31
132.667	0.00	0.01	0.351	O				4.31
132.750	0.00	0.01	0.350	O				4.30
132.833	0.00	0.01	0.350	O				4.30
132.917	0.00	0.01	0.350	O				4.30
133.000	0.00	0.01	0.350	O				4.30
133.083	0.00	0.01	0.350	O				4.30
133.167	0.00	0.01	0.350	O				4.30
133.250	0.00	0.01	0.350	O				4.30
133.333	0.00	0.01	0.350	O				4.30
133.417	0.00	0.01	0.350	O				4.30
133.500	0.00	0.01	0.350	O				4.30
133.583	0.00	0.01	0.350	O				4.30
133.667	0.00	0.01	0.350	O				4.30
133.750	0.00	0.01	0.350	O				4.30
133.833	0.00	0.01	0.350	O				4.30
133.917	0.00	0.01	0.350	O				4.30
134.000	0.00	0.01	0.349	O				4.29
134.083	0.00	0.01	0.349	O				4.29
134.167	0.00	0.01	0.349	O				4.29
134.250	0.00	0.01	0.349	O				4.29
134.333	0.00	0.01	0.349	O				4.29
134.417	0.00	0.01	0.349	O				4.29
134.500	0.00	0.01	0.349	O				4.29
134.583	0.00	0.01	0.349	O				4.29
134.667	0.00	0.01	0.349	O				4.29
134.750	0.00	0.01	0.349	O				4.29
134.833	0.00	0.01	0.349	O				4.29
134.917	0.00	0.01	0.349	O				4.29
135.000	0.00	0.01	0.349	O				4.29
135.083	0.00	0.01	0.349	O				4.29
135.167	0.00	0.01	0.348	O				4.28
135.250	0.00	0.01	0.348	O				4.28
135.333	0.00	0.01	0.348	O				4.28
135.417	0.00	0.01	0.348	O				4.28
135.500	0.00	0.01	0.348	O				4.28
135.583	0.00	0.01	0.348	O				4.28
135.667	0.00	0.01	0.348	O				4.28
135.750	0.00	0.01	0.348	O				4.28
135.833	0.00	0.01	0.348	O				4.28
135.917	0.00	0.01	0.348	O				4.28
136.000	0.00	0.01	0.348	O				4.28
136.083	0.00	0.01	0.348	O				4.28
136.167	0.00	0.01	0.348	O				4.28
136.250	0.00	0.01	0.348	O				4.28

136.333	0.00	0.01	0.348	O				4.28
136.417	0.00	0.01	0.347	O				4.27
136.500	0.00	0.01	0.347	O				4.27
136.583	0.00	0.01	0.347	O				4.27
136.667	0.00	0.01	0.347	O				4.27
136.750	0.00	0.01	0.347	O				4.27
136.833	0.00	0.01	0.347	O				4.27
136.917	0.00	0.01	0.347	O				4.27
137.000	0.00	0.01	0.347	O				4.27
137.083	0.00	0.01	0.347	O				4.27
137.167	0.00	0.01	0.347	O				4.27
137.250	0.00	0.01	0.347	O				4.27
137.333	0.00	0.01	0.347	O				4.27
137.417	0.00	0.01	0.347	O				4.27
137.500	0.00	0.01	0.347	O				4.27
137.583	0.00	0.01	0.346	O				4.26
137.667	0.00	0.01	0.346	O				4.26
137.750	0.00	0.01	0.346	O				4.26
137.833	0.00	0.01	0.346	O				4.26
137.917	0.00	0.01	0.346	O				4.26
138.000	0.00	0.01	0.346	O				4.26
138.083	0.00	0.01	0.346	O				4.26
138.167	0.00	0.01	0.346	O				4.26
138.250	0.00	0.01	0.346	O				4.26
138.333	0.00	0.01	0.346	O				4.26
138.417	0.00	0.01	0.346	O				4.26
138.500	0.00	0.01	0.346	O				4.26
138.583	0.00	0.01	0.346	O				4.26
138.667	0.00	0.01	0.346	O				4.26
138.750	0.00	0.01	0.346	O				4.26
138.833	0.00	0.01	0.345	O				4.25
138.917	0.00	0.01	0.345	O				4.25
139.000	0.00	0.01	0.345	O				4.25
139.083	0.00	0.01	0.345	O				4.25
139.167	0.00	0.01	0.345	O				4.25
139.250	0.00	0.01	0.345	O				4.25
139.333	0.00	0.01	0.345	O				4.25
139.417	0.00	0.01	0.345	O				4.25
139.500	0.00	0.01	0.345	O				4.25
139.583	0.00	0.01	0.345	O				4.25
139.667	0.00	0.01	0.345	O				4.25
139.750	0.00	0.01	0.345	O				4.25
139.833	0.00	0.01	0.345	O				4.25
139.917	0.00	0.01	0.345	O				4.25
140.000	0.00	0.01	0.344	O				4.24
140.083	0.00	0.01	0.344	O				4.24
140.167	0.00	0.01	0.344	O				4.24
140.250	0.00	0.01	0.344	O				4.24
140.333	0.00	0.01	0.344	O				4.24
140.417	0.00	0.01	0.344	O				4.24
140.500	0.00	0.01	0.344	O				4.24
140.583	0.00	0.01	0.344	O				4.24
140.667	0.00	0.01	0.344	O				4.24
140.750	0.00	0.01	0.344	O				4.24
140.833	0.00	0.01	0.344	O				4.24
140.917	0.00	0.01	0.344	O				4.24
141.000	0.00	0.01	0.344	O				4.24

141.083	0.00	0.01	0.344	O				4.24
141.167	0.00	0.01	0.344	O				4.24
141.250	0.00	0.01	0.343	O				4.23
141.333	0.00	0.01	0.343	O				4.23
141.417	0.00	0.01	0.343	O				4.23
141.500	0.00	0.01	0.343	O				4.23
141.583	0.00	0.01	0.343	O				4.23
141.667	0.00	0.01	0.343	O				4.23
141.750	0.00	0.01	0.343	O				4.23
141.833	0.00	0.01	0.343	O				4.23
141.917	0.00	0.01	0.343	O				4.23
142.000	0.00	0.01	0.343	O				4.23
142.083	0.00	0.01	0.343	O				4.23
142.167	0.00	0.01	0.343	O				4.23
142.250	0.00	0.01	0.343	O				4.23
142.333	0.00	0.01	0.343	O				4.23
142.417	0.00	0.01	0.342	O				4.22
142.500	0.00	0.01	0.342	O				4.22
142.583	0.00	0.01	0.342	O				4.22
142.667	0.00	0.01	0.342	O				4.22
142.750	0.00	0.01	0.342	O				4.22
142.833	0.00	0.01	0.342	O				4.22
142.917	0.00	0.01	0.342	O				4.22
143.000	0.00	0.01	0.342	O				4.22
143.083	0.00	0.01	0.342	O				4.22
143.167	0.00	0.01	0.342	O				4.22
143.250	0.00	0.01	0.342	O				4.22
143.333	0.00	0.01	0.342	O				4.22
143.417	0.00	0.01	0.342	O				4.22
143.500	0.00	0.01	0.342	O				4.22
143.583	0.00	0.01	0.342	O				4.22
143.667	0.00	0.01	0.341	O				4.21
143.750	0.00	0.01	0.341	O				4.21
143.833	0.00	0.01	0.341	O				4.21
143.917	0.00	0.01	0.341	O				4.21
144.000	0.00	0.01	0.341	O				4.21
144.083	0.00	0.01	0.341	O				4.21
144.167	0.00	0.01	0.341	O				4.21
144.250	0.00	0.01	0.341	O				4.21
144.333	0.00	0.01	0.341	O				4.21
144.417	0.00	0.01	0.341	O				4.21
144.500	0.00	0.01	0.341	O				4.21
144.583	0.00	0.01	0.341	O				4.21
144.667	0.00	0.01	0.341	O				4.21
144.750	0.00	0.01	0.341	O				4.21
144.833	0.00	0.01	0.340	O				4.20
144.917	0.00	0.01	0.340	O				4.20
145.000	0.00	0.01	0.340	O				4.20
145.083	0.00	0.01	0.340	O				4.20
145.167	0.00	0.01	0.340	O				4.20
145.250	0.00	0.01	0.340	O				4.20
145.333	0.00	0.01	0.340	O				4.20
145.417	0.00	0.01	0.340	O				4.20
145.500	0.00	0.01	0.340	O				4.20
145.583	0.00	0.01	0.340	O				4.20
145.667	0.00	0.01	0.340	O				4.20
145.750	0.00	0.01	0.340	O				4.20

145.833	0.00	0.01	0.340	O				4.20
145.917	0.00	0.01	0.340	O				4.20
146.000	0.00	0.01	0.340	O				4.20
146.083	0.00	0.01	0.339	O				4.19
146.167	0.00	0.01	0.339	O				4.19
146.250	0.00	0.01	0.339	O				4.19
146.333	0.00	0.01	0.339	O				4.19
146.417	0.00	0.01	0.339	O				4.19
146.500	0.00	0.01	0.339	O				4.19
146.583	0.00	0.01	0.339	O				4.19
146.667	0.00	0.01	0.339	O				4.19
146.750	0.00	0.01	0.339	O				4.19
146.833	0.00	0.01	0.339	O				4.19
146.917	0.00	0.01	0.339	O				4.19
147.000	0.00	0.01	0.339	O				4.19
147.083	0.00	0.01	0.339	O				4.19
147.167	0.00	0.01	0.339	O				4.19
147.250	0.00	0.01	0.338	O				4.18
147.333	0.00	0.01	0.338	O				4.18
147.417	0.00	0.01	0.338	O				4.18
147.500	0.00	0.01	0.338	O				4.18
147.583	0.00	0.01	0.338	O				4.18
147.667	0.00	0.01	0.338	O				4.18
147.750	0.00	0.01	0.338	O				4.18
147.833	0.00	0.01	0.338	O				4.18
147.917	0.00	0.01	0.338	O				4.18
148.000	0.00	0.01	0.338	O				4.18
148.083	0.00	0.01	0.338	O				4.18
148.167	0.00	0.01	0.338	O				4.18
148.250	0.00	0.01	0.338	O				4.18
148.333	0.00	0.01	0.338	O				4.18
148.417	0.00	0.01	0.338	O				4.18
148.500	0.00	0.01	0.337	O				4.17
148.583	0.00	0.01	0.337	O				4.17
148.667	0.00	0.01	0.337	O				4.17
148.750	0.00	0.01	0.337	O				4.17
148.833	0.00	0.01	0.337	O				4.17
148.917	0.00	0.01	0.337	O				4.17
149.000	0.00	0.01	0.337	O				4.17
149.083	0.00	0.01	0.337	O				4.17
149.167	0.00	0.01	0.337	O				4.17
149.250	0.00	0.01	0.337	O				4.17
149.333	0.00	0.01	0.337	O				4.17
149.417	0.00	0.01	0.337	O				4.17
149.500	0.00	0.01	0.337	O				4.17
149.583	0.00	0.01	0.337	O				4.17
149.667	0.00	0.01	0.336	O				4.16
149.750	0.00	0.01	0.336	O				4.16
149.833	0.00	0.01	0.336	O				4.16
149.917	0.00	0.01	0.336	O				4.16
150.000	0.00	0.01	0.336	O				4.16
150.083	0.00	0.01	0.336	O				4.16
150.167	0.00	0.01	0.336	O				4.16
150.250	0.00	0.01	0.336	O				4.16
150.333	0.00	0.01	0.336	O				4.16
150.417	0.00	0.01	0.336	O				4.16
150.500	0.00	0.01	0.336	O				4.16

150.583	0.00	0.01	0.336	O				4.16
150.667	0.00	0.01	0.336	O				4.16
150.750	0.00	0.01	0.336	O				4.16
150.833	0.00	0.01	0.336	O				4.16
150.917	0.00	0.01	0.335	O				4.15
151.000	0.00	0.01	0.335	O				4.15
151.083	0.00	0.01	0.335	O				4.15
151.167	0.00	0.01	0.335	O				4.15
151.250	0.00	0.01	0.335	O				4.15
151.333	0.00	0.01	0.335	O				4.15
151.417	0.00	0.01	0.335	O				4.15
151.500	0.00	0.01	0.335	O				4.15
151.583	0.00	0.01	0.335	O				4.15
151.667	0.00	0.01	0.335	O				4.15
151.750	0.00	0.01	0.335	O				4.15
151.833	0.00	0.01	0.335	O				4.15
151.917	0.00	0.01	0.335	O				4.15
152.000	0.00	0.01	0.335	O				4.15
152.083	0.00	0.01	0.334	O				4.14
152.167	0.00	0.01	0.334	O				4.14
152.250	0.00	0.01	0.334	O				4.14
152.333	0.00	0.01	0.334	O				4.14
152.417	0.00	0.01	0.334	O				4.14
152.500	0.00	0.01	0.334	O				4.14
152.583	0.00	0.01	0.334	O				4.14
152.667	0.00	0.01	0.334	O				4.14
152.750	0.00	0.01	0.334	O				4.14
152.833	0.00	0.01	0.334	O				4.14
152.917	0.00	0.01	0.334	O				4.14
153.000	0.00	0.01	0.334	O				4.14
153.083	0.00	0.01	0.334	O				4.14
153.167	0.00	0.01	0.334	O				4.14
153.250	0.00	0.01	0.334	O				4.14
153.333	0.00	0.01	0.333	O				4.13
153.417	0.00	0.01	0.333	O				4.13
153.500	0.00	0.01	0.333	O				4.13
153.583	0.00	0.01	0.333	O				4.13
153.667	0.00	0.01	0.333	O				4.13
153.750	0.00	0.01	0.333	O				4.13
153.833	0.00	0.01	0.333	O				4.13
153.917	0.00	0.01	0.333	O				4.13
154.000	0.00	0.01	0.333	O				4.13
154.083	0.00	0.01	0.333	O				4.13
154.167	0.00	0.01	0.333	O				4.13
154.250	0.00	0.01	0.333	O				4.13
154.333	0.00	0.01	0.333	O				4.13
154.417	0.00	0.01	0.333	O				4.13
154.500	0.00	0.01	0.332	O				4.12
154.583	0.00	0.01	0.332	O				4.12
154.667	0.00	0.01	0.332	O				4.12
154.750	0.00	0.01	0.332	O				4.12
154.833	0.00	0.01	0.332	O				4.12
154.917	0.00	0.01	0.332	O				4.12
155.000	0.00	0.01	0.332	O				4.12
155.083	0.00	0.01	0.332	O				4.12
155.167	0.00	0.01	0.332	O				4.12
155.250	0.00	0.01	0.332	O				4.12

155.333	0.00	0.01	0.332	O				4.12
155.417	0.00	0.01	0.332	O				4.12
155.500	0.00	0.01	0.332	O				4.12
155.583	0.00	0.01	0.332	O				4.12
155.667	0.00	0.01	0.332	O				4.12
155.750	0.00	0.01	0.331	O				4.11
155.833	0.00	0.01	0.331	O				4.11
155.917	0.00	0.01	0.331	O				4.11
156.000	0.00	0.01	0.331	O				4.11
156.083	0.00	0.01	0.331	O				4.11
156.167	0.00	0.01	0.331	O				4.11
156.250	0.00	0.01	0.331	O				4.11
156.333	0.00	0.01	0.331	O				4.11
156.417	0.00	0.01	0.331	O				4.11
156.500	0.00	0.01	0.331	O				4.11
156.583	0.00	0.01	0.331	O				4.11
156.667	0.00	0.01	0.331	O				4.11
156.750	0.00	0.01	0.331	O				4.11
156.833	0.00	0.01	0.331	O				4.11
156.917	0.00	0.01	0.330	O				4.10
157.000	0.00	0.01	0.330	O				4.10
157.083	0.00	0.01	0.330	O				4.10
157.167	0.00	0.01	0.330	O				4.10
157.250	0.00	0.01	0.330	O				4.10
157.333	0.00	0.01	0.330	O				4.10
157.417	0.00	0.01	0.330	O				4.10
157.500	0.00	0.01	0.330	O				4.10
157.583	0.00	0.01	0.330	O				4.10
157.667	0.00	0.01	0.330	O				4.10
157.750	0.00	0.01	0.330	O				4.10
157.833	0.00	0.01	0.330	O				4.10
157.917	0.00	0.01	0.330	O				4.10
158.000	0.00	0.01	0.330	O				4.10
158.083	0.00	0.01	0.330	O				4.10
158.167	0.00	0.01	0.329	O				4.09
158.250	0.00	0.01	0.329	O				4.09
158.333	0.00	0.01	0.329	O				4.09
158.417	0.00	0.01	0.329	O				4.09
158.500	0.00	0.01	0.329	O				4.09
158.583	0.00	0.01	0.329	O				4.09
158.667	0.00	0.01	0.329	O				4.09
158.750	0.00	0.01	0.329	O				4.09
158.833	0.00	0.01	0.329	O				4.09
158.917	0.00	0.01	0.329	O				4.09
159.000	0.00	0.01	0.329	O				4.09
159.083	0.00	0.01	0.329	O				4.09
159.167	0.00	0.01	0.329	O				4.09
159.250	0.00	0.01	0.329	O				4.09
159.333	0.00	0.01	0.329	O				4.09
159.417	0.00	0.01	0.328	O				4.08
159.500	0.00	0.01	0.328	O				4.08
159.583	0.00	0.01	0.328	O				4.08
159.667	0.00	0.01	0.328	O				4.08
159.750	0.00	0.01	0.328	O				4.08
159.833	0.00	0.01	0.328	O				4.08
159.917	0.00	0.01	0.328	O				4.08
160.000	0.00	0.01	0.328	O				4.08

160.083	0.00	0.01	0.328	0				4.08
160.167	0.00	0.01	0.328	0				4.08
160.250	0.00	0.01	0.328	0				4.08
160.333	0.00	0.01	0.328	0				4.08
160.417	0.00	0.01	0.328	0				4.08
160.500	0.00	0.01	0.328	0				4.08
160.583	0.00	0.01	0.327	0				4.07
160.667	0.00	0.01	0.327	0				4.07
160.750	0.00	0.01	0.327	0				4.07
160.833	0.00	0.01	0.327	0				4.07
160.917	0.00	0.01	0.327	0				4.07
161.000	0.00	0.01	0.327	0				4.07
161.083	0.00	0.01	0.327	0				4.07
161.167	0.00	0.01	0.327	0				4.07
161.250	0.00	0.01	0.327	0				4.07
161.333	0.00	0.01	0.327	0				4.07
161.417	0.00	0.01	0.327	0				4.07
161.500	0.00	0.01	0.327	0				4.07
161.583	0.00	0.01	0.327	0				4.07
161.667	0.00	0.01	0.327	0				4.07
161.750	0.00	0.01	0.327	0				4.07
161.833	0.00	0.01	0.326	0				4.06
161.917	0.00	0.01	0.326	0				4.06
162.000	0.00	0.01	0.326	0				4.06
162.083	0.00	0.01	0.326	0				4.06
162.167	0.00	0.01	0.326	0				4.06
162.250	0.00	0.01	0.326	0				4.06
162.333	0.00	0.01	0.326	0				4.06
162.417	0.00	0.01	0.326	0				4.06
162.500	0.00	0.01	0.326	0				4.06
162.583	0.00	0.01	0.326	0				4.06
162.667	0.00	0.01	0.326	0				4.06
162.750	0.00	0.01	0.326	0				4.06
162.833	0.00	0.01	0.326	0				4.06
162.917	0.00	0.01	0.326	0				4.06
163.000	0.00	0.01	0.325	0				4.05
163.083	0.00	0.01	0.325	0				4.05
163.167	0.00	0.01	0.325	0				4.05
163.250	0.00	0.01	0.325	0				4.05
163.333	0.00	0.01	0.325	0				4.05
163.417	0.00	0.01	0.325	0				4.05
163.500	0.00	0.01	0.325	0				4.05
163.583	0.00	0.01	0.325	0				4.05
163.667	0.00	0.01	0.325	0				4.05
163.750	0.00	0.01	0.325	0				4.05
163.833	0.00	0.01	0.325	0				4.05
163.917	0.00	0.01	0.325	0				4.05
164.000	0.00	0.01	0.325	0				4.05
164.083	0.00	0.01	0.325	0				4.05
164.167	0.00	0.01	0.325	0				4.05
164.250	0.00	0.01	0.324	0				4.04
164.333	0.00	0.01	0.324	0				4.04
164.417	0.00	0.01	0.324	0				4.04
164.500	0.00	0.01	0.324	0				4.04
164.583	0.00	0.01	0.324	0				4.04
164.667	0.00	0.01	0.324	0				4.04
164.750	0.00	0.01	0.324	0				4.04

164.833	0.00	0.01	0.324	O				4.04
164.917	0.00	0.01	0.324	O				4.04
165.000	0.00	0.01	0.324	O				4.04
165.083	0.00	0.01	0.324	O				4.04
165.167	0.00	0.01	0.324	O				4.04
165.250	0.00	0.01	0.324	O				4.04
165.333	0.00	0.01	0.324	O				4.04
165.417	0.00	0.01	0.323	O				4.03
165.500	0.00	0.01	0.323	O				4.03
165.583	0.00	0.01	0.323	O				4.03
165.667	0.00	0.01	0.323	O				4.03
165.750	0.00	0.01	0.323	O				4.03
165.833	0.00	0.01	0.323	O				4.03
165.917	0.00	0.01	0.323	O				4.03
166.000	0.00	0.01	0.323	O				4.03
166.083	0.00	0.01	0.323	O				4.03
166.167	0.00	0.01	0.323	O				4.03
166.250	0.00	0.01	0.323	O				4.03
166.333	0.00	0.01	0.323	O				4.03
166.417	0.00	0.01	0.323	O				4.03
166.500	0.00	0.01	0.323	O				4.03
166.583	0.00	0.01	0.323	O				4.03
166.667	0.00	0.01	0.322	O				4.02
166.750	0.00	0.01	0.322	O				4.02
166.833	0.00	0.01	0.322	O				4.02
166.917	0.00	0.01	0.322	O				4.02
167.000	0.00	0.01	0.322	O				4.02
167.083	0.00	0.01	0.322	O				4.02
167.167	0.00	0.01	0.322	O				4.02
167.250	0.00	0.01	0.322	O				4.02
167.333	0.00	0.01	0.322	O				4.02
167.417	0.00	0.01	0.322	O				4.02
167.500	0.00	0.01	0.322	O				4.02
167.583	0.00	0.01	0.322	O				4.02
167.667	0.00	0.01	0.322	O				4.02
167.750	0.00	0.01	0.322	O				4.02
167.833	0.00	0.01	0.321	O				4.01
167.917	0.00	0.01	0.321	O				4.01
168.000	0.00	0.01	0.321	O				4.01
168.083	0.00	0.01	0.321	O				4.01
168.167	0.00	0.01	0.321	O				4.01
168.250	0.00	0.01	0.321	O				4.01
168.333	0.00	0.01	0.321	O				4.01
168.417	0.00	0.01	0.321	O				4.01
168.500	0.00	0.01	0.321	O				4.01
168.583	0.00	0.01	0.321	O				4.01
168.667	0.00	0.01	0.321	O				4.01
168.750	0.00	0.01	0.321	O				4.01
168.833	0.00	0.01	0.321	O				4.01
168.917	0.00	0.01	0.321	O				4.01
169.000	0.00	0.01	0.321	O				4.01
169.083	0.00	0.01	0.320	O				4.00
169.167	0.00	0.01	0.320	O				4.00
169.250	0.00	0.01	0.320	O				4.00
169.333	0.00	0.01	0.320	O				4.00
169.417	0.00	0.01	0.320	O				4.00
169.500	0.00	0.01	0.320	O				4.00

169.583	0.00	0.01	0.320	0	4.00
169.667	0.00	0.01	0.320	0	4.00
169.750	0.00	0.01	0.320	0	4.00
169.833	0.00	0.01	0.320	0	4.00
169.917	0.00	0.01	0.320	0	4.00
170.000	0.00	0.01	0.320	0	4.00
170.083	0.00	0.01	0.320	0	4.00
170.167	0.00	0.01	0.320	0	3.99
170.250	0.00	0.01	0.319	0	3.99
170.333	0.00	0.01	0.319	0	3.99
170.417	0.00	0.01	0.319	0	3.99
170.500	0.00	0.01	0.319	0	3.99
170.583	0.00	0.01	0.319	0	3.99
170.667	0.00	0.01	0.319	0	3.99
170.750	0.00	0.01	0.319	0	3.99
170.833	0.00	0.01	0.319	0	3.99
170.917	0.00	0.01	0.319	0	3.99
171.000	0.00	0.01	0.319	0	3.99
171.083	0.00	0.01	0.319	0	3.98
171.167	0.00	0.01	0.319	0	3.98
171.250	0.00	0.01	0.319	0	3.98
171.333	0.00	0.01	0.319	0	3.98
171.417	0.00	0.01	0.319	0	3.98
171.500	0.00	0.01	0.318	0	3.98
171.583	0.00	0.01	0.318	0	3.98
171.667	0.00	0.01	0.318	0	3.98
171.750	0.00	0.01	0.318	0	3.98
171.833	0.00	0.01	0.318	0	3.98
171.917	0.00	0.01	0.318	0	3.98
172.000	0.00	0.01	0.318	0	3.98
172.083	0.00	0.01	0.318	0	3.97
172.167	0.00	0.01	0.318	0	3.97
172.250	0.00	0.01	0.318	0	3.97
172.333	0.00	0.01	0.318	0	3.97
172.417	0.00	0.01	0.318	0	3.97
172.500	0.00	0.01	0.318	0	3.97
172.583	0.00	0.01	0.318	0	3.97
172.667	0.00	0.01	0.317	0	3.97
172.750	0.00	0.01	0.317	0	3.97
172.833	0.00	0.01	0.317	0	3.97
172.917	0.00	0.01	0.317	0	3.97
173.000	0.00	0.01	0.317	0	3.97
173.083	0.00	0.01	0.317	0	3.96
173.167	0.00	0.01	0.317	0	3.96
173.250	0.00	0.01	0.317	0	3.96
173.333	0.00	0.01	0.317	0	3.96
173.417	0.00	0.01	0.317	0	3.96
173.500	0.00	0.01	0.317	0	3.96
173.583	0.00	0.01	0.317	0	3.96
173.667	0.00	0.01	0.317	0	3.96
173.750	0.00	0.01	0.317	0	3.96
173.833	0.00	0.01	0.317	0	3.96
173.917	0.00	0.01	0.316	0	3.96
174.000	0.00	0.01	0.316	0	3.95
174.083	0.00	0.01	0.316	0	3.95
174.167	0.00	0.01	0.316	0	3.95
174.250	0.00	0.01	0.316	0	3.95

174.333	0.00	0.01	0.316	O					3.95
174.417	0.00	0.01	0.316	O					3.95
174.500	0.00	0.01	0.316	O					3.95
174.583	0.00	0.01	0.316	O					3.95
174.667	0.00	0.01	0.316	O					3.95
174.750	0.00	0.01	0.316	O					3.95
174.833	0.00	0.01	0.316	O					3.95
174.917	0.00	0.01	0.316	O					3.95
175.000	0.00	0.01	0.316	O					3.94
175.083	0.00	0.01	0.315	O					3.94
175.167	0.00	0.01	0.315	O					3.94
175.250	0.00	0.01	0.315	O					3.94
175.333	0.00	0.01	0.315	O					3.94
175.417	0.00	0.01	0.315	O					3.94
175.500	0.00	0.01	0.315	O					3.94
175.583	0.00	0.01	0.315	O					3.94
175.667	0.00	0.01	0.315	O					3.94
175.750	0.00	0.01	0.315	O					3.94
175.833	0.00	0.01	0.315	O					3.94
175.917	0.00	0.01	0.315	O					3.93
176.000	0.00	0.01	0.315	O					3.93
176.083	0.00	0.01	0.315	O					3.93
176.167	0.00	0.01	0.315	O					3.93
176.250	0.00	0.01	0.315	O					3.93
176.333	0.00	0.01	0.314	O					3.93
176.417	0.00	0.01	0.314	O					3.93
176.500	0.00	0.01	0.314	O					3.93
176.583	0.00	0.01	0.314	O					3.93
176.667	0.00	0.01	0.314	O					3.93
176.750	0.00	0.01	0.314	O					3.93
176.833	0.00	0.01	0.314	O					3.93
176.917	0.00	0.01	0.314	O					3.92
177.000	0.00	0.01	0.314	O					3.92
177.083	0.00	0.01	0.314	O					3.92
177.167	0.00	0.01	0.314	O					3.92
177.250	0.00	0.01	0.314	O					3.92
177.333	0.00	0.01	0.314	O					3.92
177.417	0.00	0.01	0.314	O					3.92
177.500	0.00	0.01	0.313	O					3.92
177.583	0.00	0.01	0.313	O					3.92
177.667	0.00	0.01	0.313	O					3.92
177.750	0.00	0.01	0.313	O					3.92
177.833	0.00	0.01	0.313	O					3.92
177.917	0.00	0.01	0.313	O					3.91
178.000	0.00	0.01	0.313	O					3.91
178.083	0.00	0.01	0.313	O					3.91
178.167	0.00	0.01	0.313	O					3.91
178.250	0.00	0.01	0.313	O					3.91
178.333	0.00	0.01	0.313	O					3.91
178.417	0.00	0.01	0.313	O					3.91
178.500	0.00	0.01	0.313	O					3.91
178.583	0.00	0.01	0.313	O					3.91
178.667	0.00	0.01	0.313	O					3.91
178.750	0.00	0.01	0.312	O					3.91
178.833	0.00	0.01	0.312	O					3.90
178.917	0.00	0.01	0.312	O					3.90
179.000	0.00	0.01	0.312	O					3.90

179.083	0.00	0.01	0.312	O					3.90
179.167	0.00	0.01	0.312	O					3.90
179.250	0.00	0.01	0.312	O					3.90
179.333	0.00	0.01	0.312	O					3.90
179.417	0.00	0.01	0.312	O					3.90
179.500	0.00	0.01	0.312	O					3.90
179.583	0.00	0.01	0.312	O					3.90
179.667	0.00	0.01	0.312	O					3.90
179.750	0.00	0.01	0.312	O					3.90
179.833	0.00	0.01	0.312	O					3.89
179.917	0.00	0.01	0.311	O					3.89
180.000	0.00	0.01	0.311	O					3.89
180.083	0.00	0.01	0.311	O					3.89
180.167	0.00	0.01	0.311	O					3.89
180.250	0.00	0.01	0.311	O					3.89
180.333	0.00	0.01	0.311	O					3.89
180.417	0.00	0.01	0.311	O					3.89
180.500	0.00	0.01	0.311	O					3.89
180.583	0.00	0.01	0.311	O					3.89
180.667	0.00	0.01	0.311	O					3.89
180.750	0.00	0.01	0.311	O					3.89
180.833	0.00	0.01	0.311	O					3.88
180.917	0.00	0.01	0.311	O					3.88
181.000	0.00	0.01	0.311	O					3.88
181.083	0.00	0.01	0.311	O					3.88
181.167	0.00	0.01	0.310	O					3.88
181.250	0.00	0.01	0.310	O					3.88
181.333	0.00	0.01	0.310	O					3.88
181.417	0.00	0.01	0.310	O					3.88
181.500	0.00	0.01	0.310	O					3.88
181.583	0.00	0.01	0.310	O					3.88
181.667	0.00	0.01	0.310	O					3.88
181.750	0.00	0.01	0.310	O					3.87
181.833	0.00	0.01	0.310	O					3.87
181.917	0.00	0.01	0.310	O					3.87
182.000	0.00	0.01	0.310	O					3.87
182.083	0.00	0.01	0.310	O					3.87
182.167	0.00	0.01	0.310	O					3.87
182.250	0.00	0.01	0.310	O					3.87
182.333	0.00	0.01	0.309	O					3.87
182.417	0.00	0.01	0.309	O					3.87
182.500	0.00	0.01	0.309	O					3.87
182.583	0.00	0.01	0.309	O					3.87
182.667	0.00	0.01	0.309	O					3.87
182.750	0.00	0.01	0.309	O					3.86
182.833	0.00	0.01	0.309	O					3.86
182.917	0.00	0.01	0.309	O					3.86
183.000	0.00	0.01	0.309	O					3.86
183.083	0.00	0.01	0.309	O					3.86
183.167	0.00	0.01	0.309	O					3.86
183.250	0.00	0.01	0.309	O					3.86
183.333	0.00	0.01	0.309	O					3.86
183.417	0.00	0.01	0.309	O					3.86
183.500	0.00	0.01	0.309	O					3.86
183.583	0.00	0.01	0.308	O					3.86
183.667	0.00	0.01	0.308	O					3.85
183.750	0.00	0.01	0.308	O					3.85

183.833	0.00	0.01	0.308	O				3.85
183.917	0.00	0.01	0.308	O				3.85
184.000	0.00	0.01	0.308	O				3.85
184.083	0.00	0.01	0.308	O				3.85
184.167	0.00	0.01	0.308	O				3.85
184.250	0.00	0.01	0.308	O				3.85
184.333	0.00	0.01	0.308	O				3.85
184.417	0.00	0.01	0.308	O				3.85
184.500	0.00	0.01	0.308	O				3.85
184.583	0.00	0.01	0.308	O				3.85
184.667	0.00	0.01	0.308	O				3.84
184.750	0.00	0.01	0.307	O				3.84
184.833	0.00	0.01	0.307	O				3.84
184.917	0.00	0.01	0.307	O				3.84
185.000	0.00	0.01	0.307	O				3.84
185.083	0.00	0.01	0.307	O				3.84
185.167	0.00	0.01	0.307	O				3.84
185.250	0.00	0.01	0.307	O				3.84
185.333	0.00	0.01	0.307	O				3.84
185.417	0.00	0.01	0.307	O				3.84
185.500	0.00	0.01	0.307	O				3.84
185.583	0.00	0.01	0.307	O				3.84
185.667	0.00	0.01	0.307	O				3.83
185.750	0.00	0.01	0.307	O				3.83
185.833	0.00	0.01	0.307	O				3.83
185.917	0.00	0.01	0.307	O				3.83
186.000	0.00	0.01	0.306	O				3.83
186.083	0.00	0.01	0.306	O				3.83
186.167	0.00	0.01	0.306	O				3.83
186.250	0.00	0.01	0.306	O				3.83
186.333	0.00	0.01	0.306	O				3.83
186.417	0.00	0.01	0.306	O				3.83
186.500	0.00	0.01	0.306	O				3.83
186.583	0.00	0.01	0.306	O				3.82
186.667	0.00	0.01	0.306	O				3.82
186.750	0.00	0.01	0.306	O				3.82
186.833	0.00	0.01	0.306	O				3.82
186.917	0.00	0.01	0.306	O				3.82
187.000	0.00	0.01	0.306	O				3.82
187.083	0.00	0.01	0.306	O				3.82
187.167	0.00	0.01	0.305	O				3.82
187.250	0.00	0.01	0.305	O				3.82
187.333	0.00	0.01	0.305	O				3.82
187.417	0.00	0.01	0.305	O				3.82
187.500	0.00	0.01	0.305	O				3.82
187.583	0.00	0.01	0.305	O				3.81
187.667	0.00	0.01	0.305	O				3.81
187.750	0.00	0.01	0.305	O				3.81
187.833	0.00	0.01	0.305	O				3.81
187.917	0.00	0.01	0.305	O				3.81
188.000	0.00	0.01	0.305	O				3.81
188.083	0.00	0.01	0.305	O				3.81
188.167	0.00	0.01	0.305	O				3.81
188.250	0.00	0.01	0.305	O				3.81
188.333	0.00	0.01	0.305	O				3.81
188.417	0.00	0.01	0.304	O				3.81
188.500	0.00	0.01	0.304	O				3.80

188.583	0.00	0.01	0.304	O					3.80
188.667	0.00	0.01	0.304	O					3.80
188.750	0.00	0.01	0.304	O					3.80
188.833	0.00	0.01	0.304	O					3.80
188.917	0.00	0.01	0.304	O					3.80
189.000	0.00	0.01	0.304	O					3.80
189.083	0.00	0.01	0.304	O					3.80
189.167	0.00	0.01	0.304	O					3.80
189.250	0.00	0.01	0.304	O					3.80
189.333	0.00	0.01	0.304	O					3.80
189.417	0.00	0.01	0.304	O					3.80
189.500	0.00	0.01	0.304	O					3.79
189.583	0.00	0.01	0.304	O					3.79
189.667	0.00	0.01	0.303	O					3.79
189.750	0.00	0.01	0.303	O					3.79
189.833	0.00	0.01	0.303	O					3.79
189.917	0.00	0.01	0.303	O					3.79
190.000	0.00	0.01	0.303	O					3.79
190.083	0.00	0.01	0.303	O					3.79
190.167	0.00	0.01	0.303	O					3.79
190.250	0.00	0.01	0.303	O					3.79
190.333	0.00	0.01	0.303	O					3.79
190.417	0.00	0.01	0.303	O					3.79
190.500	0.00	0.01	0.303	O					3.78
190.583	0.00	0.01	0.303	O					3.78
190.667	0.00	0.01	0.303	O					3.78
190.750	0.00	0.01	0.303	O					3.78
190.833	0.00	0.01	0.302	O					3.78
190.917	0.00	0.01	0.302	O					3.78
191.000	0.00	0.01	0.302	O					3.78
191.083	0.00	0.01	0.302	O					3.78
191.167	0.00	0.01	0.302	O					3.78
191.250	0.00	0.01	0.302	O					3.78
191.333	0.00	0.01	0.302	O					3.78
191.417	0.00	0.01	0.302	O					3.77
191.500	0.00	0.01	0.302	O					3.77
191.583	0.00	0.01	0.302	O					3.77
191.667	0.00	0.01	0.302	O					3.77
191.750	0.00	0.01	0.302	O					3.77
191.833	0.00	0.01	0.302	O					3.77
191.917	0.00	0.01	0.302	O					3.77
192.000	0.00	0.01	0.302	O					3.77
192.083	0.00	0.01	0.301	O					3.77
192.167	0.00	0.01	0.301	O					3.77
192.250	0.00	0.01	0.301	O					3.77
192.333	0.00	0.01	0.301	O					3.77
192.417	0.00	0.01	0.301	O					3.76
192.500	0.00	0.01	0.301	O					3.76
192.583	0.00	0.01	0.301	O					3.76
192.667	0.00	0.01	0.301	O					3.76
192.750	0.00	0.01	0.301	O					3.76
192.833	0.00	0.01	0.301	O					3.76
192.917	0.00	0.01	0.301	O					3.76
193.000	0.00	0.01	0.301	O					3.76
193.083	0.00	0.01	0.301	O					3.76
193.167	0.00	0.01	0.301	O					3.76
193.250	0.00	0.01	0.300	O					3.76

193.333	0.00	0.01	0.300	0				3.76
193.417	0.00	0.01	0.300	0				3.75
193.500	0.00	0.01	0.300	0				3.75
193.583	0.00	0.01	0.300	0				3.75
193.667	0.00	0.01	0.300	0				3.75
193.750	0.00	0.01	0.300	0				3.75
193.833	0.00	0.01	0.300	0				3.75
193.917	0.00	0.01	0.300	0				3.75
194.000	0.00	0.01	0.300	0				3.75
194.083	0.00	0.01	0.300	0				3.75
194.167	0.00	0.01	0.300	0				3.75
194.250	0.00	0.01	0.300	0				3.75
194.333	0.00	0.01	0.300	0				3.74
194.417	0.00	0.01	0.300	0				3.74
194.500	0.00	0.01	0.299	0				3.74
194.583	0.00	0.01	0.299	0				3.74
194.667	0.00	0.01	0.299	0				3.74
194.750	0.00	0.01	0.299	0				3.74
194.833	0.00	0.01	0.299	0				3.74
194.917	0.00	0.01	0.299	0				3.74
195.000	0.00	0.01	0.299	0				3.74
195.083	0.00	0.01	0.299	0				3.74
195.167	0.00	0.01	0.299	0				3.74
195.250	0.00	0.01	0.299	0				3.74
195.333	0.00	0.01	0.299	0				3.73
195.417	0.00	0.01	0.299	0				3.73
195.500	0.00	0.01	0.299	0				3.73
195.583	0.00	0.01	0.299	0				3.73
195.667	0.00	0.01	0.298	0				3.73
195.750	0.00	0.01	0.298	0				3.73
195.833	0.00	0.01	0.298	0				3.73
195.917	0.00	0.01	0.298	0				3.73
196.000	0.00	0.01	0.298	0				3.73
196.083	0.00	0.01	0.298	0				3.73
196.167	0.00	0.01	0.298	0				3.73
196.250	0.00	0.01	0.298	0				3.72
196.333	0.00	0.01	0.298	0				3.72
196.417	0.00	0.01	0.298	0				3.72
196.500	0.00	0.01	0.298	0				3.72
196.583	0.00	0.01	0.298	0				3.72
196.667	0.00	0.01	0.298	0				3.72
196.750	0.00	0.01	0.298	0				3.72
196.833	0.00	0.01	0.298	0				3.72
196.917	0.00	0.01	0.297	0				3.72
197.000	0.00	0.01	0.297	0				3.72
197.083	0.00	0.01	0.297	0				3.72
197.167	0.00	0.01	0.297	0				3.72
197.250	0.00	0.01	0.297	0				3.71
197.333	0.00	0.01	0.297	0				3.71
197.417	0.00	0.01	0.297	0				3.71
197.500	0.00	0.01	0.297	0				3.71
197.583	0.00	0.01	0.297	0				3.71
197.667	0.00	0.01	0.297	0				3.71
197.750	0.00	0.01	0.297	0				3.71
197.833	0.00	0.01	0.297	0				3.71
197.917	0.00	0.01	0.297	0				3.71
198.000	0.00	0.01	0.297	0				3.71

198.083	0.00	0.01	0.296	0				3.71
198.167	0.00	0.01	0.296	0				3.71
198.250	0.00	0.01	0.296	0				3.70
198.333	0.00	0.01	0.296	0				3.70
198.417	0.00	0.01	0.296	0				3.70
198.500	0.00	0.01	0.296	0				3.70
198.583	0.00	0.01	0.296	0				3.70
198.667	0.00	0.01	0.296	0				3.70
198.750	0.00	0.01	0.296	0				3.70
198.833	0.00	0.01	0.296	0				3.70
198.917	0.00	0.01	0.296	0				3.70
199.000	0.00	0.01	0.296	0				3.70
199.083	0.00	0.01	0.296	0				3.70
199.167	0.00	0.01	0.296	0				3.69
199.250	0.00	0.01	0.296	0				3.69
199.333	0.00	0.01	0.295	0				3.69
199.417	0.00	0.01	0.295	0				3.69
199.500	0.00	0.01	0.295	0				3.69
199.583	0.00	0.01	0.295	0				3.69
199.667	0.00	0.01	0.295	0				3.69
199.750	0.00	0.01	0.295	0				3.69
199.833	0.00	0.01	0.295	0				3.69
199.917	0.00	0.01	0.295	0				3.69
200.000	0.00	0.01	0.295	0				3.69
200.083	0.00	0.01	0.295	0				3.69
200.167	0.00	0.01	0.295	0				3.68
200.250	0.00	0.01	0.295	0				3.68
200.333	0.00	0.01	0.295	0				3.68
200.417	0.00	0.01	0.295	0				3.68
200.500	0.00	0.01	0.294	0				3.68
200.583	0.00	0.01	0.294	0				3.68
200.667	0.00	0.01	0.294	0				3.68
200.750	0.00	0.01	0.294	0				3.68
200.833	0.00	0.01	0.294	0				3.68
200.917	0.00	0.01	0.294	0				3.68
201.000	0.00	0.01	0.294	0				3.68
201.083	0.00	0.01	0.294	0				3.67
201.167	0.00	0.01	0.294	0				3.67
201.250	0.00	0.01	0.294	0				3.67
201.333	0.00	0.01	0.294	0				3.67
201.417	0.00	0.01	0.294	0				3.67
201.500	0.00	0.01	0.294	0				3.67
201.583	0.00	0.01	0.294	0				3.67
201.667	0.00	0.01	0.294	0				3.67
201.750	0.00	0.01	0.293	0				3.67
201.833	0.00	0.01	0.293	0				3.67
201.917	0.00	0.01	0.293	0				3.67
202.000	0.00	0.01	0.293	0				3.67
202.083	0.00	0.01	0.293	0				3.66
202.167	0.00	0.01	0.293	0				3.66
202.250	0.00	0.01	0.293	0				3.66
202.333	0.00	0.01	0.293	0				3.66
202.417	0.00	0.01	0.293	0				3.66
202.500	0.00	0.01	0.293	0				3.66
202.583	0.00	0.01	0.293	0				3.66
202.667	0.00	0.01	0.293	0				3.66
202.750	0.00	0.01	0.293	0				3.66

202.833	0.00	0.01	0.293	0				3.66
202.917	0.00	0.01	0.292	0				3.66
203.000	0.00	0.01	0.292	0				3.66
203.083	0.00	0.01	0.292	0				3.65
203.167	0.00	0.01	0.292	0				3.65
203.250	0.00	0.01	0.292	0				3.65
203.333	0.00	0.01	0.292	0				3.65
203.417	0.00	0.01	0.292	0				3.65
203.500	0.00	0.01	0.292	0				3.65
203.583	0.00	0.01	0.292	0				3.65
203.667	0.00	0.01	0.292	0				3.65
203.750	0.00	0.01	0.292	0				3.65
203.833	0.00	0.01	0.292	0				3.65
203.917	0.00	0.01	0.292	0				3.65
204.000	0.00	0.01	0.292	0				3.64
204.083	0.00	0.01	0.292	0				3.64
204.167	0.00	0.01	0.291	0				3.64
204.250	0.00	0.01	0.291	0				3.64
204.333	0.00	0.01	0.291	0				3.64
204.417	0.00	0.01	0.291	0				3.64
204.500	0.00	0.01	0.291	0				3.64
204.583	0.00	0.01	0.291	0				3.64
204.667	0.00	0.01	0.291	0				3.64
204.750	0.00	0.01	0.291	0				3.64
204.833	0.00	0.01	0.291	0				3.64
204.917	0.00	0.01	0.291	0				3.64
205.000	0.00	0.01	0.291	0				3.63
205.083	0.00	0.01	0.291	0				3.63
205.167	0.00	0.01	0.291	0				3.63
205.250	0.00	0.01	0.291	0				3.63
205.333	0.00	0.01	0.290	0				3.63
205.417	0.00	0.01	0.290	0				3.63
205.500	0.00	0.01	0.290	0				3.63
205.583	0.00	0.01	0.290	0				3.63
205.667	0.00	0.01	0.290	0				3.63
205.750	0.00	0.01	0.290	0				3.63
205.833	0.00	0.01	0.290	0				3.63
205.917	0.00	0.01	0.290	0				3.63
206.000	0.00	0.01	0.290	0				3.62
206.083	0.00	0.01	0.290	0				3.62
206.167	0.00	0.01	0.290	0				3.62
206.250	0.00	0.01	0.290	0				3.62
206.333	0.00	0.01	0.290	0				3.62
206.417	0.00	0.01	0.290	0				3.62
206.500	0.00	0.01	0.290	0				3.62
206.583	0.00	0.01	0.289	0				3.62
206.667	0.00	0.01	0.289	0				3.62
206.750	0.00	0.01	0.289	0				3.62
206.833	0.00	0.01	0.289	0				3.62
206.917	0.00	0.01	0.289	0				3.61
207.000	0.00	0.01	0.289	0				3.61
207.083	0.00	0.01	0.289	0				3.61
207.167	0.00	0.01	0.289	0				3.61
207.250	0.00	0.01	0.289	0				3.61
207.333	0.00	0.01	0.289	0				3.61
207.417	0.00	0.01	0.289	0				3.61
207.500	0.00	0.01	0.289	0				3.61

207.583	0.00	0.01	0.289	0				3.61
207.667	0.00	0.01	0.289	0				3.61
207.750	0.00	0.01	0.288	0				3.61
207.833	0.00	0.01	0.288	0				3.61
207.917	0.00	0.01	0.288	0				3.60
208.000	0.00	0.01	0.288	0				3.60
208.083	0.00	0.01	0.288	0				3.60
208.167	0.00	0.01	0.288	0				3.60
208.250	0.00	0.01	0.288	0				3.60
208.333	0.00	0.01	0.288	0				3.60
208.417	0.00	0.01	0.288	0				3.60
208.500	0.00	0.01	0.288	0				3.60
208.583	0.00	0.01	0.288	0				3.60
208.667	0.00	0.01	0.288	0				3.60
208.750	0.00	0.01	0.288	0				3.60
208.833	0.00	0.01	0.288	0				3.59
208.917	0.00	0.01	0.288	0				3.59
209.000	0.00	0.01	0.287	0				3.59
209.083	0.00	0.01	0.287	0				3.59
209.167	0.00	0.01	0.287	0				3.59
209.250	0.00	0.01	0.287	0				3.59
209.333	0.00	0.01	0.287	0				3.59
209.417	0.00	0.01	0.287	0				3.59
209.500	0.00	0.01	0.287	0				3.59
209.583	0.00	0.01	0.287	0				3.59
209.667	0.00	0.01	0.287	0				3.59
209.750	0.00	0.01	0.287	0				3.59
209.833	0.00	0.01	0.287	0				3.58
209.917	0.00	0.01	0.287	0				3.58
210.000	0.00	0.01	0.287	0				3.58
210.083	0.00	0.01	0.287	0				3.58
210.167	0.00	0.01	0.286	0				3.58
210.250	0.00	0.01	0.286	0				3.58
210.333	0.00	0.01	0.286	0				3.58
210.417	0.00	0.01	0.286	0				3.58
210.500	0.00	0.01	0.286	0				3.58
210.583	0.00	0.01	0.286	0				3.58
210.667	0.00	0.01	0.286	0				3.58
210.750	0.00	0.01	0.286	0				3.58
210.833	0.00	0.01	0.286	0				3.57
210.917	0.00	0.01	0.286	0				3.57
211.000	0.00	0.01	0.286	0				3.57
211.083	0.00	0.01	0.286	0				3.57
211.167	0.00	0.01	0.286	0				3.57
211.250	0.00	0.01	0.286	0				3.57
211.333	0.00	0.01	0.286	0				3.57
211.417	0.00	0.01	0.285	0				3.57
211.500	0.00	0.01	0.285	0				3.57
211.583	0.00	0.01	0.285	0				3.57
211.667	0.00	0.01	0.285	0				3.57
211.750	0.00	0.01	0.285	0				3.56
211.833	0.00	0.01	0.285	0				3.56
211.917	0.00	0.01	0.285	0				3.56
212.000	0.00	0.01	0.285	0				3.56
212.083	0.00	0.01	0.285	0				3.56
212.167	0.00	0.01	0.285	0				3.56
212.250	0.00	0.01	0.285	0				3.56

212.333	0.00	0.01	0.285	0				3.56
212.417	0.00	0.01	0.285	0				3.56
212.500	0.00	0.01	0.285	0				3.56
212.583	0.00	0.01	0.284	0				3.56
212.667	0.00	0.01	0.284	0				3.56
212.750	0.00	0.01	0.284	0				3.55
212.833	0.00	0.01	0.284	0				3.55
212.917	0.00	0.01	0.284	0				3.55
213.000	0.00	0.01	0.284	0				3.55
213.083	0.00	0.01	0.284	0				3.55
213.167	0.00	0.01	0.284	0				3.55
213.250	0.00	0.01	0.284	0				3.55
213.333	0.00	0.01	0.284	0				3.55
213.417	0.00	0.01	0.284	0				3.55
213.500	0.00	0.01	0.284	0				3.55
213.583	0.00	0.01	0.284	0				3.55
213.667	0.00	0.01	0.284	0				3.54
213.750	0.00	0.01	0.284	0				3.54
213.833	0.00	0.01	0.283	0				3.54
213.917	0.00	0.01	0.283	0				3.54
214.000	0.00	0.01	0.283	0				3.54
214.083	0.00	0.01	0.283	0				3.54
214.167	0.00	0.01	0.283	0				3.54
214.250	0.00	0.01	0.283	0				3.54
214.333	0.00	0.01	0.283	0				3.54
214.417	0.00	0.01	0.283	0				3.54
214.500	0.00	0.01	0.283	0				3.54
214.583	0.00	0.01	0.283	0				3.54
214.667	0.00	0.01	0.283	0				3.53
214.750	0.00	0.01	0.283	0				3.53
214.833	0.00	0.01	0.283	0				3.53
214.917	0.00	0.01	0.283	0				3.53
215.000	0.00	0.01	0.282	0				3.53
215.083	0.00	0.01	0.282	0				3.53
215.167	0.00	0.01	0.282	0				3.53
215.250	0.00	0.01	0.282	0				3.53
215.333	0.00	0.01	0.282	0				3.53
215.417	0.00	0.01	0.282	0				3.53
215.500	0.00	0.01	0.282	0				3.53
215.583	0.00	0.01	0.282	0				3.53
215.667	0.00	0.01	0.282	0				3.52
215.750	0.00	0.01	0.282	0				3.52
215.833	0.00	0.01	0.282	0				3.52
215.917	0.00	0.01	0.282	0				3.52
216.000	0.00	0.01	0.282	0				3.52
216.083	0.00	0.01	0.282	0				3.52
216.167	0.00	0.01	0.282	0				3.52
216.250	0.00	0.01	0.281	0				3.52
216.333	0.00	0.01	0.281	0				3.52
216.417	0.00	0.01	0.281	0				3.52
216.500	0.00	0.01	0.281	0				3.52
216.583	0.00	0.01	0.281	0				3.51
216.667	0.00	0.01	0.281	0				3.51
216.750	0.00	0.01	0.281	0				3.51
216.833	0.00	0.01	0.281	0				3.51
216.917	0.00	0.01	0.281	0				3.51
217.000	0.00	0.01	0.281	0				3.51

217.083	0.00	0.01	0.281	0				3.51
217.167	0.00	0.01	0.281	0				3.51
217.250	0.00	0.01	0.281	0				3.51
217.333	0.00	0.01	0.281	0				3.51
217.417	0.00	0.01	0.280	0				3.51
217.500	0.00	0.01	0.280	0				3.51
217.583	0.00	0.01	0.280	0				3.50
217.667	0.00	0.01	0.280	0				3.50
217.750	0.00	0.01	0.280	0				3.50
217.833	0.00	0.01	0.280	0				3.50
217.917	0.00	0.01	0.280	0				3.50
218.000	0.00	0.01	0.280	0				3.50
218.083	0.00	0.01	0.280	0				3.50
218.167	0.00	0.01	0.280	0				3.50
218.250	0.00	0.01	0.280	0				3.50
218.333	0.00	0.01	0.280	0				3.50
218.417	0.00	0.01	0.280	0				3.50
218.500	0.00	0.01	0.280	0				3.50
218.583	0.00	0.01	0.280	0				3.50
218.667	0.00	0.01	0.279	0				3.49
218.750	0.00	0.01	0.279	0				3.49
218.833	0.00	0.01	0.279	0				3.49
218.917	0.00	0.01	0.279	0				3.49
219.000	0.00	0.01	0.279	0				3.49
219.083	0.00	0.01	0.279	0				3.49
219.167	0.00	0.01	0.279	0				3.49
219.250	0.00	0.01	0.279	0				3.49
219.333	0.00	0.01	0.279	0				3.49
219.417	0.00	0.01	0.279	0				3.49
219.500	0.00	0.01	0.279	0				3.49
219.583	0.00	0.01	0.279	0				3.49
219.667	0.00	0.01	0.279	0				3.49
219.750	0.00	0.01	0.279	0				3.49
219.833	0.00	0.01	0.279	0				3.49
219.917	0.00	0.01	0.278	0				3.48
220.000	0.00	0.01	0.278	0				3.48
220.083	0.00	0.01	0.278	0				3.48
220.167	0.00	0.01	0.278	0				3.48
220.250	0.00	0.01	0.278	0				3.48
220.333	0.00	0.01	0.278	0				3.48
220.417	0.00	0.01	0.278	0				3.48
220.500	0.00	0.01	0.278	0				3.48
220.583	0.00	0.01	0.278	0				3.48
220.667	0.00	0.01	0.278	0				3.48
220.750	0.00	0.01	0.278	0				3.48
220.833	0.00	0.01	0.278	0				3.48
220.917	0.00	0.01	0.278	0				3.48
221.000	0.00	0.01	0.278	0				3.48
221.083	0.00	0.01	0.277	0				3.47
221.167	0.00	0.01	0.277	0				3.47
221.250	0.00	0.01	0.277	0				3.47
221.333	0.00	0.01	0.277	0				3.47
221.417	0.00	0.01	0.277	0				3.47
221.500	0.00	0.01	0.277	0				3.47
221.583	0.00	0.01	0.277	0				3.47
221.667	0.00	0.01	0.277	0				3.47
221.750	0.00	0.01	0.277	0				3.47

221.833	0.00	0.01	0.277	0					3.47
221.917	0.00	0.01	0.277	0					3.47
222.000	0.00	0.01	0.277	0					3.47
222.083	0.00	0.01	0.277	0					3.47
222.167	0.00	0.01	0.277	0					3.47
222.250	0.00	0.01	0.277	0					3.47
222.333	0.00	0.01	0.276	0					3.46
222.417	0.00	0.01	0.276	0					3.46
222.500	0.00	0.01	0.276	0					3.46
222.583	0.00	0.01	0.276	0					3.46
222.667	0.00	0.01	0.276	0					3.46
222.750	0.00	0.01	0.276	0					3.46
222.833	0.00	0.01	0.276	0					3.46
222.917	0.00	0.01	0.276	0					3.46
223.000	0.00	0.01	0.276	0					3.46
223.083	0.00	0.01	0.276	0					3.46
223.167	0.00	0.01	0.276	0					3.46
223.250	0.00	0.01	0.276	0					3.46
223.333	0.00	0.01	0.276	0					3.46
223.417	0.00	0.01	0.276	0					3.46
223.500	0.00	0.01	0.275	0					3.45
223.583	0.00	0.01	0.275	0					3.45
223.667	0.00	0.01	0.275	0					3.45
223.750	0.00	0.01	0.275	0					3.45
223.833	0.00	0.01	0.275	0					3.45
223.917	0.00	0.01	0.275	0					3.45
224.000	0.00	0.01	0.275	0					3.45
224.083	0.00	0.01	0.275	0					3.45
224.167	0.00	0.01	0.275	0					3.45
224.250	0.00	0.01	0.275	0					3.45
224.333	0.00	0.01	0.275	0					3.45
224.417	0.00	0.01	0.275	0					3.45
224.500	0.00	0.01	0.275	0					3.45
224.583	0.00	0.01	0.275	0					3.45
224.667	0.00	0.01	0.275	0					3.45
224.750	0.00	0.01	0.274	0					3.44
224.833	0.00	0.01	0.274	0					3.44
224.917	0.00	0.01	0.274	0					3.44
225.000	0.00	0.01	0.274	0					3.44
225.083	0.00	0.01	0.274	0					3.44
225.167	0.00	0.01	0.274	0					3.44
225.250	0.00	0.01	0.274	0					3.44
225.333	0.00	0.01	0.274	0					3.44
225.417	0.00	0.01	0.274	0					3.44
225.500	0.00	0.01	0.274	0					3.44
225.583	0.00	0.01	0.274	0					3.44
225.667	0.00	0.01	0.274	0					3.44
225.750	0.00	0.01	0.274	0					3.44
225.833	0.00	0.01	0.274	0					3.44
225.917	0.00	0.01	0.273	0					3.43
226.000	0.00	0.01	0.273	0					3.43
226.083	0.00	0.01	0.273	0					3.43
226.167	0.00	0.01	0.273	0					3.43
226.250	0.00	0.01	0.273	0					3.43
226.333	0.00	0.01	0.273	0					3.43
226.417	0.00	0.01	0.273	0					3.43
226.500	0.00	0.01	0.273	0					3.43

226.583	0.00	0.01	0.273	0				3.43
226.667	0.00	0.01	0.273	0				3.43
226.750	0.00	0.01	0.273	0				3.43
226.833	0.00	0.01	0.273	0				3.43
226.917	0.00	0.01	0.273	0				3.43
227.000	0.00	0.01	0.273	0				3.43
227.083	0.00	0.01	0.273	0				3.43
227.167	0.00	0.01	0.272	0				3.42
227.250	0.00	0.01	0.272	0				3.42
227.333	0.00	0.01	0.272	0				3.42
227.417	0.00	0.01	0.272	0				3.42
227.500	0.00	0.01	0.272	0				3.42
227.583	0.00	0.01	0.272	0				3.42
227.667	0.00	0.01	0.272	0				3.42
227.750	0.00	0.01	0.272	0				3.42
227.833	0.00	0.01	0.272	0				3.42
227.917	0.00	0.01	0.272	0				3.42
228.000	0.00	0.01	0.272	0				3.42
228.083	0.00	0.01	0.272	0				3.42
228.167	0.00	0.01	0.272	0				3.42
228.250	0.00	0.01	0.272	0				3.42
228.333	0.00	0.01	0.271	0				3.41
228.417	0.00	0.01	0.271	0				3.41
228.500	0.00	0.01	0.271	0				3.41
228.583	0.00	0.01	0.271	0				3.41
228.667	0.00	0.01	0.271	0				3.41
228.750	0.00	0.01	0.271	0				3.41
228.833	0.00	0.01	0.271	0				3.41
228.917	0.00	0.01	0.271	0				3.41
229.000	0.00	0.01	0.271	0				3.41
229.083	0.00	0.01	0.271	0				3.41
229.167	0.00	0.01	0.271	0				3.41
229.250	0.00	0.01	0.271	0				3.41
229.333	0.00	0.01	0.271	0				3.41
229.417	0.00	0.01	0.271	0				3.41
229.500	0.00	0.01	0.271	0				3.41
229.583	0.00	0.01	0.270	0				3.40
229.667	0.00	0.01	0.270	0				3.40
229.750	0.00	0.01	0.270	0				3.40
229.833	0.00	0.01	0.270	0				3.40
229.917	0.00	0.01	0.270	0				3.40
230.000	0.00	0.01	0.270	0				3.40
230.083	0.00	0.01	0.270	0				3.40
230.167	0.00	0.01	0.270	0				3.40
230.250	0.00	0.01	0.270	0				3.40
230.333	0.00	0.01	0.270	0				3.40
230.417	0.00	0.01	0.270	0				3.40
230.500	0.00	0.01	0.270	0				3.40
230.583	0.00	0.01	0.270	0				3.40
230.667	0.00	0.01	0.270	0				3.40
230.750	0.00	0.01	0.269	0				3.39
230.833	0.00	0.01	0.269	0				3.39
230.917	0.00	0.01	0.269	0				3.39
231.000	0.00	0.01	0.269	0				3.39
231.083	0.00	0.01	0.269	0				3.39
231.167	0.00	0.01	0.269	0				3.39
231.250	0.00	0.01	0.269	0				3.39

231.333	0.00	0.01	0.269	0				3.39
231.417	0.00	0.01	0.269	0				3.39
231.500	0.00	0.01	0.269	0				3.39
231.583	0.00	0.01	0.269	0				3.39
231.667	0.00	0.01	0.269	0				3.39
231.750	0.00	0.01	0.269	0				3.39
231.833	0.00	0.01	0.269	0				3.39
231.917	0.00	0.01	0.269	0				3.39
232.000	0.00	0.01	0.268	0				3.38
232.083	0.00	0.01	0.268	0				3.38
232.167	0.00	0.01	0.268	0				3.38
232.250	0.00	0.01	0.268	0				3.38
232.333	0.00	0.01	0.268	0				3.38
232.417	0.00	0.01	0.268	0				3.38
232.500	0.00	0.01	0.268	0				3.38
232.583	0.00	0.01	0.268	0				3.38
232.667	0.00	0.01	0.268	0				3.38
232.750	0.00	0.01	0.268	0				3.38
232.833	0.00	0.01	0.268	0				3.38
232.917	0.00	0.01	0.268	0				3.38
233.000	0.00	0.01	0.268	0				3.38
233.083	0.00	0.01	0.268	0				3.38
233.167	0.00	0.01	0.267	0				3.37
233.250	0.00	0.01	0.267	0				3.37
233.333	0.00	0.01	0.267	0				3.37
233.417	0.00	0.01	0.267	0				3.37
233.500	0.00	0.01	0.267	0				3.37
233.583	0.00	0.01	0.267	0				3.37
233.667	0.00	0.01	0.267	0				3.37
233.750	0.00	0.01	0.267	0				3.37
233.833	0.00	0.01	0.267	0				3.37
233.917	0.00	0.01	0.267	0				3.37
234.000	0.00	0.01	0.267	0				3.37
234.083	0.00	0.01	0.267	0				3.37
234.167	0.00	0.01	0.267	0				3.37
234.250	0.00	0.01	0.267	0				3.37
234.333	0.00	0.01	0.267	0				3.37
234.417	0.00	0.01	0.266	0				3.36
234.500	0.00	0.01	0.266	0				3.36
234.583	0.00	0.01	0.266	0				3.36
234.667	0.00	0.01	0.266	0				3.36
234.750	0.00	0.01	0.266	0				3.36
234.833	0.00	0.01	0.266	0				3.36
234.917	0.00	0.01	0.266	0				3.36
235.000	0.00	0.01	0.266	0				3.36
235.083	0.00	0.01	0.266	0				3.36
235.167	0.00	0.01	0.266	0				3.36
235.250	0.00	0.01	0.266	0				3.36
235.333	0.00	0.01	0.266	0				3.36
235.417	0.00	0.01	0.266	0				3.36
235.500	0.00	0.01	0.266	0				3.36
235.583	0.00	0.01	0.265	0				3.35
235.667	0.00	0.01	0.265	0				3.35
235.750	0.00	0.01	0.265	0				3.35
235.833	0.00	0.01	0.265	0				3.35
235.917	0.00	0.01	0.265	0				3.35
236.000	0.00	0.01	0.265	0				3.35

236.083	0.00	0.01	0.265	0				3.35
236.167	0.00	0.01	0.265	0				3.35
236.250	0.00	0.01	0.265	0				3.35
236.333	0.00	0.01	0.265	0				3.35
236.417	0.00	0.01	0.265	0				3.35
236.500	0.00	0.01	0.265	0				3.35
236.583	0.00	0.01	0.265	0				3.35
236.667	0.00	0.01	0.265	0				3.35
236.750	0.00	0.01	0.265	0				3.35
236.833	0.00	0.01	0.264	0				3.34
236.917	0.00	0.01	0.264	0				3.34
237.000	0.00	0.01	0.264	0				3.34
237.083	0.00	0.01	0.264	0				3.34
237.167	0.00	0.01	0.264	0				3.34
237.250	0.00	0.01	0.264	0				3.34
237.333	0.00	0.01	0.264	0				3.34
237.417	0.00	0.01	0.264	0				3.34
237.500	0.00	0.01	0.264	0				3.34
237.583	0.00	0.01	0.264	0				3.34
237.667	0.00	0.01	0.264	0				3.34
237.750	0.00	0.01	0.264	0				3.34
237.833	0.00	0.01	0.264	0				3.34
237.917	0.00	0.01	0.264	0				3.34
238.000	0.00	0.01	0.263	0				3.33
238.083	0.00	0.01	0.263	0				3.33
238.167	0.00	0.01	0.263	0				3.33
238.250	0.00	0.01	0.263	0				3.33
238.333	0.00	0.01	0.263	0				3.33
238.417	0.00	0.01	0.263	0				3.33
238.500	0.00	0.01	0.263	0				3.33
238.583	0.00	0.01	0.263	0				3.33
238.667	0.00	0.01	0.263	0				3.33
238.750	0.00	0.01	0.263	0				3.33
238.833	0.00	0.01	0.263	0				3.33
238.917	0.00	0.01	0.263	0				3.33
239.000	0.00	0.01	0.263	0				3.33
239.083	0.00	0.01	0.263	0				3.33
239.167	0.00	0.01	0.263	0				3.33
239.250	0.00	0.01	0.262	0				3.32
239.333	0.00	0.01	0.262	0				3.32
239.417	0.00	0.01	0.262	0				3.32
239.500	0.00	0.01	0.262	0				3.32
239.583	0.00	0.01	0.262	0				3.32
239.667	0.00	0.01	0.262	0				3.32
239.750	0.00	0.01	0.262	0				3.32
239.833	0.00	0.01	0.262	0				3.32
239.917	0.00	0.01	0.262	0				3.32
240.000	0.00	0.01	0.262	0				3.32
240.083	0.00	0.01	0.262	0				3.32
240.167	0.00	0.01	0.262	0				3.32
240.250	0.00	0.01	0.262	0				3.32
240.333	0.00	0.01	0.262	0				3.32
240.417	0.00	0.01	0.261	0				3.31
240.500	0.00	0.01	0.261	0				3.31
240.583	0.00	0.01	0.261	0				3.31
240.667	0.00	0.01	0.261	0				3.31
240.750	0.00	0.01	0.261	0				3.31

240.833	0.00	0.01	0.261	0				3.31
240.917	0.00	0.01	0.261	0				3.31
241.000	0.00	0.01	0.261	0				3.31
241.083	0.00	0.01	0.261	0				3.31
241.167	0.00	0.01	0.261	0				3.31
241.250	0.00	0.01	0.261	0				3.31
241.333	0.00	0.01	0.261	0				3.31
241.417	0.00	0.01	0.261	0				3.31
241.500	0.00	0.01	0.261	0				3.31
241.583	0.00	0.01	0.261	0				3.31
241.667	0.00	0.01	0.260	0				3.30
241.750	0.00	0.01	0.260	0				3.30
241.833	0.00	0.01	0.260	0				3.30
241.917	0.00	0.01	0.260	0				3.30
242.000	0.00	0.01	0.260	0				3.30
242.083	0.00	0.01	0.260	0				3.30
242.167	0.00	0.01	0.260	0				3.30
242.250	0.00	0.01	0.260	0				3.30
242.333	0.00	0.01	0.260	0				3.30
242.417	0.00	0.01	0.260	0				3.30
242.500	0.00	0.01	0.260	0				3.30
242.583	0.00	0.01	0.260	0				3.30
242.667	0.00	0.01	0.260	0				3.30
242.750	0.00	0.01	0.260	0				3.30
242.833	0.00	0.01	0.259	0				3.29
242.917	0.00	0.01	0.259	0				3.29
243.000	0.00	0.01	0.259	0				3.29
243.083	0.00	0.01	0.259	0				3.29
243.167	0.00	0.01	0.259	0				3.29
243.250	0.00	0.01	0.259	0				3.29
243.333	0.00	0.01	0.259	0				3.29
243.417	0.00	0.01	0.259	0				3.29
243.500	0.00	0.01	0.259	0				3.29
243.583	0.00	0.01	0.259	0				3.29
243.667	0.00	0.01	0.259	0				3.29
243.750	0.00	0.01	0.259	0				3.29
243.833	0.00	0.01	0.259	0				3.29
243.917	0.00	0.01	0.259	0				3.29
244.000	0.00	0.01	0.259	0				3.29
244.083	0.00	0.01	0.258	0				3.28
244.167	0.00	0.01	0.258	0				3.28
244.250	0.00	0.01	0.258	0				3.28
244.333	0.00	0.01	0.258	0				3.28
244.417	0.00	0.01	0.258	0				3.28
244.500	0.00	0.01	0.258	0				3.28
244.583	0.00	0.01	0.258	0				3.28
244.667	0.00	0.01	0.258	0				3.28
244.750	0.00	0.01	0.258	0				3.28
244.833	0.00	0.01	0.258	0				3.28
244.917	0.00	0.01	0.258	0				3.28
245.000	0.00	0.01	0.258	0				3.28
245.083	0.00	0.01	0.258	0				3.28
245.167	0.00	0.01	0.258	0				3.28
245.250	0.00	0.01	0.257	0				3.27
245.333	0.00	0.01	0.257	0				3.27
245.417	0.00	0.01	0.257	0				3.27
245.500	0.00	0.01	0.257	0				3.27

245.583	0.00	0.01	0.257	0					3.27
245.667	0.00	0.01	0.257	0					3.27
245.750	0.00	0.01	0.257	0					3.27
245.833	0.00	0.01	0.257	0					3.27
245.917	0.00	0.01	0.257	0					3.27
246.000	0.00	0.01	0.257	0					3.27
246.083	0.00	0.01	0.257	0					3.27
246.167	0.00	0.01	0.257	0					3.27
246.250	0.00	0.01	0.257	0					3.27
246.333	0.00	0.01	0.257	0					3.27
246.417	0.00	0.01	0.257	0					3.27
246.500	0.00	0.01	0.256	0					3.26
246.583	0.00	0.01	0.256	0					3.26
246.667	0.00	0.01	0.256	0					3.26
246.750	0.00	0.01	0.256	0					3.26
246.833	0.00	0.01	0.256	0					3.26
246.917	0.00	0.01	0.256	0					3.26
247.000	0.00	0.01	0.256	0					3.26
247.083	0.00	0.01	0.256	0					3.26
247.167	0.00	0.01	0.256	0					3.26
247.250	0.00	0.01	0.256	0					3.26
247.333	0.00	0.01	0.256	0					3.26
247.417	0.00	0.01	0.256	0					3.26
247.500	0.00	0.01	0.256	0					3.26
247.583	0.00	0.01	0.256	0					3.26
247.667	0.00	0.01	0.255	0					3.25
247.750	0.00	0.01	0.255	0					3.25
247.833	0.00	0.01	0.255	0					3.25
247.917	0.00	0.01	0.255	0					3.25
248.000	0.00	0.01	0.255	0					3.25
248.083	0.00	0.01	0.255	0					3.25
248.167	0.00	0.01	0.255	0					3.25
248.250	0.00	0.01	0.255	0					3.25
248.333	0.00	0.01	0.255	0					3.25
248.417	0.00	0.01	0.255	0					3.25
248.500	0.00	0.01	0.255	0					3.25
248.583	0.00	0.01	0.255	0					3.25
248.667	0.00	0.01	0.255	0					3.25
248.750	0.00	0.01	0.255	0					3.25
248.833	0.00	0.01	0.255	0					3.25
248.917	0.00	0.01	0.254	0					3.24
249.000	0.00	0.01	0.254	0					3.24
249.083	0.00	0.01	0.254	0					3.24
249.167	0.00	0.01	0.254	0					3.24
249.250	0.00	0.01	0.254	0					3.24
249.333	0.00	0.01	0.254	0					3.24
249.417	0.00	0.01	0.254	0					3.24
249.500	0.00	0.01	0.254	0					3.24
249.583	0.00	0.01	0.254	0					3.24
249.667	0.00	0.01	0.254	0					3.24
249.750	0.00	0.01	0.254	0					3.24
249.833	0.00	0.01	0.254	0					3.24
249.917	0.00	0.01	0.254	0					3.24
250.000	0.00	0.01	0.254	0					3.24
250.083	0.00	0.01	0.254	0					3.24
250.167	0.00	0.01	0.253	0					3.23
250.250	0.00	0.01	0.253	0					3.23

250.333	0.00	0.01	0.253	0				3.23
250.417	0.00	0.01	0.253	0				3.23
250.500	0.00	0.01	0.253	0				3.23
250.583	0.00	0.01	0.253	0				3.23
250.667	0.00	0.01	0.253	0				3.23
250.750	0.00	0.01	0.253	0				3.23
250.833	0.00	0.01	0.253	0				3.23
250.917	0.00	0.01	0.253	0				3.23
251.000	0.00	0.01	0.253	0				3.23
251.083	0.00	0.01	0.253	0				3.23
251.167	0.00	0.01	0.253	0				3.23
251.250	0.00	0.01	0.253	0				3.23
251.333	0.00	0.01	0.252	0				3.22
251.417	0.00	0.01	0.252	0				3.22
251.500	0.00	0.01	0.252	0				3.22
251.583	0.00	0.01	0.252	0				3.22
251.667	0.00	0.01	0.252	0				3.22
251.750	0.00	0.01	0.252	0				3.22
251.833	0.00	0.01	0.252	0				3.22
251.917	0.00	0.01	0.252	0				3.22
252.000	0.00	0.01	0.252	0				3.22
252.083	0.00	0.01	0.252	0				3.22
252.167	0.00	0.01	0.252	0				3.22
252.250	0.00	0.01	0.252	0				3.22
252.333	0.00	0.01	0.252	0				3.22
252.417	0.00	0.01	0.252	0				3.22
252.500	0.00	0.01	0.252	0				3.22
252.583	0.00	0.01	0.251	0				3.21
252.667	0.00	0.01	0.251	0				3.21
252.750	0.00	0.01	0.251	0				3.21
252.833	0.00	0.01	0.251	0				3.21
252.917	0.00	0.01	0.251	0				3.21
253.000	0.00	0.01	0.251	0				3.21
253.083	0.00	0.01	0.251	0				3.21
253.167	0.00	0.01	0.251	0				3.21
253.250	0.00	0.01	0.251	0				3.21
253.333	0.00	0.01	0.251	0				3.21
253.417	0.00	0.01	0.251	0				3.21
253.500	0.00	0.01	0.251	0				3.21
253.583	0.00	0.01	0.251	0				3.21
253.667	0.00	0.01	0.251	0				3.21
253.750	0.00	0.01	0.250	0				3.20
253.833	0.00	0.01	0.250	0				3.20
253.917	0.00	0.01	0.250	0				3.20
254.000	0.00	0.01	0.250	0				3.20
254.083	0.00	0.01	0.250	0				3.20
254.167	0.00	0.01	0.250	0				3.20
254.250	0.00	0.01	0.250	0				3.20
254.333	0.00	0.01	0.250	0				3.20
254.417	0.00	0.01	0.250	0				3.20
254.500	0.00	0.01	0.250	0				3.20
254.583	0.00	0.01	0.250	0				3.20
254.667	0.00	0.01	0.250	0				3.20
254.750	0.00	0.01	0.250	0				3.20
254.833	0.00	0.01	0.250	0				3.20
254.917	0.00	0.01	0.250	0				3.20
255.000	0.00	0.01	0.249	0				3.19

255.083	0.00	0.01	0.249	O					3.19
255.167	0.00	0.01	0.249	O					3.19
255.250	0.00	0.01	0.249	O					3.19
255.333	0.00	0.01	0.249	O					3.19
255.417	0.00	0.01	0.249	O					3.19
255.500	0.00	0.01	0.249	O					3.19
255.583	0.00	0.01	0.249	O					3.19
255.667	0.00	0.01	0.249	O					3.19
255.750	0.00	0.01	0.249	O					3.19
255.833	0.00	0.01	0.249	O					3.19
255.917	0.00	0.01	0.249	O					3.19
256.000	0.00	0.01	0.249	O					3.19
256.083	0.00	0.01	0.249	O					3.19
256.167	0.00	0.01	0.248	O					3.18
256.250	0.00	0.01	0.248	O					3.18
256.333	0.00	0.01	0.248	O					3.18
256.417	0.00	0.01	0.248	O					3.18
256.500	0.00	0.01	0.248	O					3.18
256.583	0.00	0.01	0.248	O					3.18
256.667	0.00	0.01	0.248	O					3.18
256.750	0.00	0.01	0.248	O					3.18
256.833	0.00	0.01	0.248	O					3.18
256.917	0.00	0.01	0.248	O					3.18
257.000	0.00	0.01	0.248	O					3.18
257.083	0.00	0.01	0.248	O					3.18
257.167	0.00	0.01	0.248	O					3.18
257.250	0.00	0.01	0.248	O					3.18
257.333	0.00	0.01	0.248	O					3.18
257.417	0.00	0.01	0.247	O					3.17
257.500	0.00	0.01	0.247	O					3.17
257.583	0.00	0.01	0.247	O					3.17
257.667	0.00	0.01	0.247	O					3.17
257.750	0.00	0.01	0.247	O					3.17
257.833	0.00	0.01	0.247	O					3.17
257.917	0.00	0.01	0.247	O					3.17
258.000	0.00	0.01	0.247	O					3.17
258.083	0.00	0.01	0.247	O					3.17
258.167	0.00	0.01	0.247	O					3.17
258.250	0.00	0.01	0.247	O					3.17
258.333	0.00	0.01	0.247	O					3.17
258.417	0.00	0.01	0.247	O					3.17
258.500	0.00	0.01	0.247	O					3.17
258.583	0.00	0.01	0.246	O					3.16
258.667	0.00	0.01	0.246	O					3.16
258.750	0.00	0.01	0.246	O					3.16
258.833	0.00	0.01	0.246	O					3.16
258.917	0.00	0.01	0.246	O					3.16
259.000	0.00	0.01	0.246	O					3.16
259.083	0.00	0.01	0.246	O					3.16
259.167	0.00	0.01	0.246	O					3.16
259.250	0.00	0.01	0.246	O					3.16
259.333	0.00	0.01	0.246	O					3.16
259.417	0.00	0.01	0.246	O					3.16
259.500	0.00	0.01	0.246	O					3.16
259.583	0.00	0.01	0.246	O					3.16
259.667	0.00	0.01	0.246	O					3.16
259.750	0.00	0.01	0.246	O					3.16

259.833	0.00	0.01	0.245	O				3.15
259.917	0.00	0.01	0.245	O				3.15
260.000	0.00	0.01	0.245	O				3.15
260.083	0.00	0.01	0.245	O				3.15
260.167	0.00	0.01	0.245	O				3.15
260.250	0.00	0.01	0.245	O				3.15
260.333	0.00	0.01	0.245	O				3.15
260.417	0.00	0.01	0.245	O				3.15
260.500	0.00	0.01	0.245	O				3.15
260.583	0.00	0.01	0.245	O				3.15
260.667	0.00	0.01	0.245	O				3.15
260.750	0.00	0.01	0.245	O				3.15
260.833	0.00	0.01	0.245	O				3.15
260.917	0.00	0.01	0.245	O				3.15
261.000	0.00	0.01	0.244	O				3.14
261.083	0.00	0.01	0.244	O				3.14
261.167	0.00	0.01	0.244	O				3.14
261.250	0.00	0.01	0.244	O				3.14
261.333	0.00	0.01	0.244	O				3.14
261.417	0.00	0.01	0.244	O				3.14
261.500	0.00	0.01	0.244	O				3.14
261.583	0.00	0.01	0.244	O				3.14
261.667	0.00	0.01	0.244	O				3.14
261.750	0.00	0.01	0.244	O				3.14
261.833	0.00	0.01	0.244	O				3.14
261.917	0.00	0.01	0.244	O				3.14
262.000	0.00	0.01	0.244	O				3.14
262.083	0.00	0.01	0.244	O				3.14
262.167	0.00	0.01	0.244	O				3.14
262.250	0.00	0.01	0.243	O				3.13
262.333	0.00	0.01	0.243	O				3.13
262.417	0.00	0.01	0.243	O				3.13
262.500	0.00	0.01	0.243	O				3.13
262.583	0.00	0.01	0.243	O				3.13
262.667	0.00	0.01	0.243	O				3.13
262.750	0.00	0.01	0.243	O				3.13
262.833	0.00	0.01	0.243	O				3.13
262.917	0.00	0.01	0.243	O				3.13
263.000	0.00	0.01	0.243	O				3.13
263.083	0.00	0.01	0.243	O				3.13
263.167	0.00	0.01	0.243	O				3.13
263.250	0.00	0.01	0.243	O				3.13
263.333	0.00	0.01	0.243	O				3.13
263.417	0.00	0.01	0.242	O				3.12
263.500	0.00	0.01	0.242	O				3.12
263.583	0.00	0.01	0.242	O				3.12
263.667	0.00	0.01	0.242	O				3.12
263.750	0.00	0.01	0.242	O				3.12
263.833	0.00	0.01	0.242	O				3.12
263.917	0.00	0.01	0.242	O				3.12
264.000	0.00	0.01	0.242	O				3.12
264.083	0.00	0.01	0.242	O				3.12
264.167	0.00	0.01	0.242	O				3.12
264.250	0.00	0.01	0.242	O				3.12
264.333	0.00	0.01	0.242	O				3.12
264.417	0.00	0.01	0.242	O				3.12
264.500	0.00	0.01	0.242	O				3.12

264.583	0.00	0.01	0.242	O					3.12
264.667	0.00	0.01	0.241	O					3.11
264.750	0.00	0.01	0.241	O					3.11
264.833	0.00	0.01	0.241	O					3.11
264.917	0.00	0.01	0.241	O					3.11
265.000	0.00	0.01	0.241	O					3.11
265.083	0.00	0.01	0.241	O					3.11
265.167	0.00	0.01	0.241	O					3.11
265.250	0.00	0.01	0.241	O					3.11
265.333	0.00	0.01	0.241	O					3.11
265.417	0.00	0.01	0.241	O					3.11
265.500	0.00	0.01	0.241	O					3.11
265.583	0.00	0.01	0.241	O					3.11
265.667	0.00	0.01	0.241	O					3.11
265.750	0.00	0.01	0.241	O					3.11
265.833	0.00	0.01	0.240	O					3.10
265.917	0.00	0.01	0.240	O					3.10
266.000	0.00	0.01	0.240	O					3.10
266.083	0.00	0.01	0.240	O					3.10
266.167	0.00	0.01	0.240	O					3.10
266.250	0.00	0.01	0.240	O					3.10
266.333	0.00	0.01	0.240	O					3.10
266.417	0.00	0.01	0.240	O					3.10
266.500	0.00	0.01	0.240	O					3.10
266.583	0.00	0.01	0.240	O					3.10
266.667	0.00	0.01	0.240	O					3.10
266.750	0.00	0.01	0.240	O					3.10
266.833	0.00	0.01	0.240	O					3.10
266.917	0.00	0.01	0.240	O					3.10
267.000	0.00	0.01	0.240	O					3.10
267.083	0.00	0.01	0.239	O					3.09
267.167	0.00	0.01	0.239	O					3.09
267.250	0.00	0.01	0.239	O					3.09
267.333	0.00	0.01	0.239	O					3.09
267.417	0.00	0.01	0.239	O					3.09
267.500	0.00	0.01	0.239	O					3.09
267.583	0.00	0.01	0.239	O					3.09
267.667	0.00	0.01	0.239	O					3.09
267.750	0.00	0.01	0.239	O					3.09
267.833	0.00	0.01	0.239	O					3.09
267.917	0.00	0.01	0.239	O					3.09
268.000	0.00	0.01	0.239	O					3.09
268.083	0.00	0.01	0.239	O					3.09
268.167	0.00	0.01	0.239	O					3.09
268.250	0.00	0.01	0.238	O					3.08
268.333	0.00	0.01	0.238	O					3.08
268.417	0.00	0.01	0.238	O					3.08
268.500	0.00	0.01	0.238	O					3.08
268.583	0.00	0.01	0.238	O					3.08
268.667	0.00	0.01	0.238	O					3.08
268.750	0.00	0.01	0.238	O					3.08
268.833	0.00	0.01	0.238	O					3.08
268.917	0.00	0.01	0.238	O					3.08
269.000	0.00	0.01	0.238	O					3.08
269.083	0.00	0.01	0.238	O					3.08
269.167	0.00	0.01	0.238	O					3.08
269.250	0.00	0.01	0.238	O					3.08

269.333	0.00	0.01	0.238	0				3.08
269.417	0.00	0.01	0.238	0				3.08
269.500	0.00	0.01	0.237	0				3.07
269.583	0.00	0.01	0.237	0				3.07
269.667	0.00	0.01	0.237	0				3.07
269.750	0.00	0.01	0.237	0				3.07
269.833	0.00	0.01	0.237	0				3.07
269.917	0.00	0.01	0.237	0				3.07
270.000	0.00	0.01	0.237	0				3.07
270.083	0.00	0.01	0.237	0				3.07
270.167	0.00	0.01	0.237	0				3.07
270.250	0.00	0.01	0.237	0				3.07
270.333	0.00	0.01	0.237	0				3.07
270.417	0.00	0.01	0.237	0				3.07
270.500	0.00	0.01	0.237	0				3.07
270.583	0.00	0.01	0.237	0				3.07
270.667	0.00	0.01	0.236	0				3.06
270.750	0.00	0.01	0.236	0				3.06
270.833	0.00	0.01	0.236	0				3.06
270.917	0.00	0.01	0.236	0				3.06
271.000	0.00	0.01	0.236	0				3.06
271.083	0.00	0.01	0.236	0				3.06
271.167	0.00	0.01	0.236	0				3.06
271.250	0.00	0.01	0.236	0				3.06
271.333	0.00	0.01	0.236	0				3.06
271.417	0.00	0.01	0.236	0				3.06
271.500	0.00	0.01	0.236	0				3.06
271.583	0.00	0.01	0.236	0				3.06
271.667	0.00	0.01	0.236	0				3.06
271.750	0.00	0.01	0.236	0				3.06
271.833	0.00	0.01	0.236	0				3.06
271.917	0.00	0.01	0.235	0				3.05
272.000	0.00	0.01	0.235	0				3.05
272.083	0.00	0.01	0.235	0				3.05
272.167	0.00	0.01	0.235	0				3.05
272.250	0.00	0.01	0.235	0				3.05
272.333	0.00	0.01	0.235	0				3.05
272.417	0.00	0.01	0.235	0				3.05
272.500	0.00	0.01	0.235	0				3.05
272.583	0.00	0.01	0.235	0				3.05
272.667	0.00	0.01	0.235	0				3.05
272.750	0.00	0.01	0.235	0				3.05
272.833	0.00	0.01	0.235	0				3.05
272.917	0.00	0.01	0.235	0				3.05
273.000	0.00	0.01	0.235	0				3.05
273.083	0.00	0.01	0.234	0				3.04
273.167	0.00	0.01	0.234	0				3.04
273.250	0.00	0.01	0.234	0				3.04
273.333	0.00	0.01	0.234	0				3.04
273.417	0.00	0.01	0.234	0				3.04
273.500	0.00	0.01	0.234	0				3.04
273.583	0.00	0.01	0.234	0				3.04
273.667	0.00	0.01	0.234	0				3.04
273.750	0.00	0.01	0.234	0				3.04
273.833	0.00	0.01	0.234	0				3.04
273.917	0.00	0.01	0.234	0				3.04
274.000	0.00	0.01	0.234	0				3.04

274.083	0.00	0.01	0.234	0				3.04
274.167	0.00	0.01	0.234	0				3.04
274.250	0.00	0.01	0.234	0				3.04
274.333	0.00	0.01	0.233	0				3.03
274.417	0.00	0.01	0.233	0				3.03
274.500	0.00	0.01	0.233	0				3.03
274.583	0.00	0.01	0.233	0				3.03
274.667	0.00	0.01	0.233	0				3.03
274.750	0.00	0.01	0.233	0				3.03
274.833	0.00	0.01	0.233	0				3.03
274.917	0.00	0.01	0.233	0				3.03
275.000	0.00	0.01	0.233	0				3.03
275.083	0.00	0.01	0.233	0				3.03
275.167	0.00	0.01	0.233	0				3.03
275.250	0.00	0.01	0.233	0				3.03
275.333	0.00	0.01	0.233	0				3.03
275.417	0.00	0.01	0.233	0				3.03
275.500	0.00	0.01	0.232	0				3.02
275.583	0.00	0.01	0.232	0				3.02
275.667	0.00	0.01	0.232	0				3.02
275.750	0.00	0.01	0.232	0				3.02
275.833	0.00	0.01	0.232	0				3.02
275.917	0.00	0.01	0.232	0				3.02
276.000	0.00	0.01	0.232	0				3.02
276.083	0.00	0.01	0.232	0				3.02
276.167	0.00	0.01	0.232	0				3.02
276.250	0.00	0.01	0.232	0				3.02
276.333	0.00	0.01	0.232	0				3.02
276.417	0.00	0.01	0.232	0				3.02
276.500	0.00	0.01	0.232	0				3.02
276.583	0.00	0.01	0.232	0				3.02
276.667	0.00	0.01	0.232	0				3.02
276.750	0.00	0.01	0.231	0				3.01
276.833	0.00	0.01	0.231	0				3.01
276.917	0.00	0.01	0.231	0				3.01
277.000	0.00	0.01	0.231	0				3.01
277.083	0.00	0.01	0.231	0				3.01
277.167	0.00	0.01	0.231	0				3.01
277.250	0.00	0.01	0.231	0				3.01
277.333	0.00	0.01	0.231	0				3.01
277.417	0.00	0.01	0.231	0				3.01
277.500	0.00	0.01	0.231	0				3.01
277.583	0.00	0.01	0.231	0				3.01
277.667	0.00	0.01	0.231	0				3.01
277.750	0.00	0.01	0.231	0				3.01
277.833	0.00	0.01	0.231	0				3.01
277.917	0.00	0.01	0.230	0				3.00
278.000	0.00	0.01	0.230	0				3.00
278.083	0.00	0.01	0.230	0				3.00
278.167	0.00	0.01	0.230	0				3.00
278.250	0.00	0.01	0.230	0				3.00
278.333	0.00	0.01	0.230	0				3.00
278.417	0.00	0.01	0.230	0				3.00
278.500	0.00	0.01	0.230	0				3.00
278.583	0.00	0.01	0.230	0				3.00
278.667	0.00	0.01	0.230	0				3.00
278.750	0.00	0.01	0.230	0				3.00

278.833	0.00	0.01	0.230	0				3.00
278.917	0.00	0.01	0.230	0				3.00
279.000	0.00	0.01	0.230	0				3.00
279.083	0.00	0.01	0.230	0				2.99
279.167	0.00	0.01	0.229	0				2.99
279.250	0.00	0.01	0.229	0				2.99
279.333	0.00	0.01	0.229	0				2.99
279.417	0.00	0.01	0.229	0				2.99
279.500	0.00	0.01	0.229	0				2.99
279.583	0.00	0.01	0.229	0				2.99
279.667	0.00	0.01	0.229	0				2.99
279.750	0.00	0.01	0.229	0				2.99
279.833	0.00	0.01	0.229	0				2.99
279.917	0.00	0.01	0.229	0				2.99
280.000	0.00	0.01	0.229	0				2.98
280.083	0.00	0.01	0.229	0				2.98
280.167	0.00	0.01	0.229	0				2.98
280.250	0.00	0.01	0.229	0				2.98
280.333	0.00	0.01	0.229	0				2.98
280.417	0.00	0.01	0.228	0				2.98
280.500	0.00	0.01	0.228	0				2.98
280.583	0.00	0.01	0.228	0				2.98
280.667	0.00	0.01	0.228	0				2.98
280.750	0.00	0.01	0.228	0				2.98
280.833	0.00	0.01	0.228	0				2.98
280.917	0.00	0.01	0.228	0				2.98
281.000	0.00	0.01	0.228	0				2.97
281.083	0.00	0.01	0.228	0				2.97
281.167	0.00	0.01	0.228	0				2.97
281.250	0.00	0.01	0.228	0				2.97
281.333	0.00	0.01	0.228	0				2.97
281.417	0.00	0.01	0.228	0				2.97
281.500	0.00	0.01	0.228	0				2.97
281.583	0.00	0.01	0.228	0				2.97
281.667	0.00	0.01	0.227	0				2.97
281.750	0.00	0.01	0.227	0				2.97
281.833	0.00	0.01	0.227	0				2.97
281.917	0.00	0.01	0.227	0				2.97
282.000	0.00	0.01	0.227	0				2.97
282.083	0.00	0.01	0.227	0				2.96
282.167	0.00	0.01	0.227	0				2.96
282.250	0.00	0.01	0.227	0				2.96
282.333	0.00	0.01	0.227	0				2.96
282.417	0.00	0.01	0.227	0				2.96
282.500	0.00	0.01	0.227	0				2.96
282.583	0.00	0.01	0.227	0				2.96
282.667	0.00	0.01	0.227	0				2.96
282.750	0.00	0.01	0.227	0				2.96
282.833	0.00	0.01	0.227	0				2.96
282.917	0.00	0.01	0.227	0				2.96
283.000	0.00	0.01	0.226	0				2.96
283.083	0.00	0.01	0.226	0				2.95
283.167	0.00	0.01	0.226	0				2.95
283.250	0.00	0.01	0.226	0				2.95
283.333	0.00	0.01	0.226	0				2.95
283.417	0.00	0.01	0.226	0				2.95
283.500	0.00	0.01	0.226	0				2.95

283.583	0.00	0.01	0.226	0				2.95
283.667	0.00	0.01	0.226	0				2.95
283.750	0.00	0.01	0.226	0				2.95
283.833	0.00	0.01	0.226	0				2.95
283.917	0.00	0.01	0.226	0				2.95
284.000	0.00	0.01	0.226	0				2.95
284.083	0.00	0.01	0.226	0				2.95
284.167	0.00	0.01	0.226	0				2.94
284.250	0.00	0.01	0.226	0				2.94
284.333	0.00	0.01	0.225	0				2.94
284.417	0.00	0.01	0.225	0				2.94
284.500	0.00	0.01	0.225	0				2.94
284.583	0.00	0.01	0.225	0				2.94
284.667	0.00	0.01	0.225	0				2.94
284.750	0.00	0.01	0.225	0				2.94
284.833	0.00	0.01	0.225	0				2.94
284.917	0.00	0.01	0.225	0				2.94
285.000	0.00	0.01	0.225	0				2.94
285.083	0.00	0.01	0.225	0				2.94
285.167	0.00	0.01	0.225	0				2.94
285.250	0.00	0.01	0.225	0				2.93
285.333	0.00	0.01	0.225	0				2.93
285.417	0.00	0.01	0.225	0				2.93
285.500	0.00	0.01	0.225	0				2.93
285.583	0.00	0.01	0.225	0				2.93
285.667	0.00	0.01	0.224	0				2.93
285.750	0.00	0.01	0.224	0				2.93
285.833	0.00	0.01	0.224	0				2.93
285.917	0.00	0.01	0.224	0				2.93
286.000	0.00	0.01	0.224	0				2.93
286.083	0.00	0.01	0.224	0				2.93
286.167	0.00	0.01	0.224	0				2.93
286.250	0.00	0.01	0.224	0				2.93
286.333	0.00	0.01	0.224	0				2.92
286.417	0.00	0.01	0.224	0				2.92
286.500	0.00	0.01	0.224	0				2.92
286.583	0.00	0.01	0.224	0				2.92
286.667	0.00	0.01	0.224	0				2.92
286.750	0.00	0.01	0.224	0				2.92
286.833	0.00	0.01	0.224	0				2.92
286.917	0.00	0.01	0.224	0				2.92
287.000	0.00	0.01	0.224	0				2.92
287.083	0.00	0.01	0.223	0				2.92
287.167	0.00	0.01	0.223	0				2.92
287.250	0.00	0.01	0.223	0				2.92
287.333	0.00	0.01	0.223	0				2.92
287.417	0.00	0.01	0.223	0				2.92
287.500	0.00	0.01	0.223	0				2.91
287.583	0.00	0.01	0.223	0				2.91
287.667	0.00	0.01	0.223	0				2.91
287.750	0.00	0.01	0.223	0				2.91
287.833	0.00	0.01	0.223	0				2.91
287.917	0.00	0.01	0.223	0				2.91
288.000	0.00	0.01	0.223	0				2.91
288.083	0.00	0.01	0.223	0				2.91
288.167	0.00	0.01	0.223	0				2.91
288.250	0.00	0.01	0.223	0				2.91

288.333	0.00	0.01	0.223	0				2.91
288.417	0.00	0.01	0.223	0				2.91
288.500	0.00	0.01	0.222	0				2.91
288.583	0.00	0.01	0.222	0				2.91
288.667	0.00	0.01	0.222	0				2.90
288.750	0.00	0.01	0.222	0				2.90
288.833	0.00	0.01	0.222	0				2.90
288.917	0.00	0.01	0.222	0				2.90
289.000	0.00	0.01	0.222	0				2.90
289.083	0.00	0.01	0.222	0				2.90
289.167	0.00	0.01	0.222	0				2.90
289.250	0.00	0.01	0.222	0				2.90
289.333	0.00	0.01	0.222	0				2.90
289.417	0.00	0.01	0.222	0				2.90
289.500	0.00	0.01	0.222	0				2.90
289.583	0.00	0.01	0.222	0				2.90
289.667	0.00	0.01	0.222	0				2.90
289.750	0.00	0.01	0.222	0				2.90
289.833	0.00	0.01	0.222	0				2.89
289.917	0.00	0.01	0.222	0				2.89
290.000	0.00	0.01	0.221	0				2.89
290.083	0.00	0.01	0.221	0				2.89
290.167	0.00	0.01	0.221	0				2.89
290.250	0.00	0.01	0.221	0				2.89
290.333	0.00	0.01	0.221	0				2.89
290.417	0.00	0.01	0.221	0				2.89
290.500	0.00	0.01	0.221	0				2.89
290.583	0.00	0.01	0.221	0				2.89
290.667	0.00	0.01	0.221	0				2.89
290.750	0.00	0.01	0.221	0				2.89
290.833	0.00	0.01	0.221	0				2.89
290.917	0.00	0.01	0.221	0				2.89
291.000	0.00	0.01	0.221	0				2.88
291.083	0.00	0.01	0.221	0				2.88
291.167	0.00	0.01	0.221	0				2.88
291.250	0.00	0.01	0.221	0				2.88
291.333	0.00	0.01	0.221	0				2.88
291.417	0.00	0.01	0.221	0				2.88
291.500	0.00	0.01	0.220	0				2.88
291.583	0.00	0.01	0.220	0				2.88
291.667	0.00	0.01	0.220	0				2.88
291.750	0.00	0.01	0.220	0				2.88
291.833	0.00	0.01	0.220	0				2.88
291.917	0.00	0.01	0.220	0				2.88
292.000	0.00	0.01	0.220	0				2.88
292.083	0.00	0.01	0.220	0				2.88
292.167	0.00	0.01	0.220	0				2.88
292.250	0.00	0.01	0.220	0				2.87
292.333	0.00	0.01	0.220	0				2.87
292.417	0.00	0.01	0.220	0				2.87
292.500	0.00	0.01	0.220	0				2.87
292.583	0.00	0.01	0.220	0				2.87
292.667	0.00	0.01	0.220	0				2.87
292.750	0.00	0.01	0.220	0				2.87
292.833	0.00	0.01	0.220	0				2.87
292.917	0.00	0.01	0.220	0				2.87
293.000	0.00	0.01	0.220	0				2.87

293.083	0.00	0.01	0.219	0				2.87
293.167	0.00	0.01	0.219	0				2.87
293.250	0.00	0.01	0.219	0				2.87
293.333	0.00	0.01	0.219	0				2.87
293.417	0.00	0.01	0.219	0				2.87
293.500	0.00	0.01	0.219	0				2.86
293.583	0.00	0.01	0.219	0				2.86
293.667	0.00	0.01	0.219	0				2.86
293.750	0.00	0.01	0.219	0				2.86
293.833	0.00	0.01	0.219	0				2.86
293.917	0.00	0.01	0.219	0				2.86
294.000	0.00	0.01	0.219	0				2.86
294.083	0.00	0.01	0.219	0				2.86
294.167	0.00	0.01	0.219	0				2.86
294.250	0.00	0.01	0.219	0				2.86
294.333	0.00	0.01	0.219	0				2.86
294.417	0.00	0.01	0.219	0				2.86
294.500	0.00	0.01	0.219	0				2.86
294.583	0.00	0.01	0.219	0				2.86
294.667	0.00	0.01	0.218	0				2.86
294.750	0.00	0.01	0.218	0				2.86
294.833	0.00	0.01	0.218	0				2.85
294.917	0.00	0.01	0.218	0				2.85
295.000	0.00	0.01	0.218	0				2.85
295.083	0.00	0.01	0.218	0				2.85
295.167	0.00	0.01	0.218	0				2.85
295.250	0.00	0.01	0.218	0				2.85
295.333	0.00	0.01	0.218	0				2.85
295.417	0.00	0.01	0.218	0				2.85
295.500	0.00	0.01	0.218	0				2.85
295.583	0.00	0.01	0.218	0				2.85
295.667	0.00	0.01	0.218	0				2.85
295.750	0.00	0.01	0.218	0				2.85
295.833	0.00	0.01	0.218	0				2.85
295.917	0.00	0.01	0.218	0				2.85
296.000	0.00	0.01	0.218	0				2.85
296.083	0.00	0.01	0.218	0				2.85
296.167	0.00	0.01	0.218	0				2.84
296.250	0.00	0.01	0.218	0				2.84
296.333	0.00	0.01	0.217	0				2.84
296.417	0.00	0.01	0.217	0				2.84
296.500	0.00	0.01	0.217	0				2.84
296.583	0.00	0.01	0.217	0				2.84
296.667	0.00	0.01	0.217	0				2.84
296.750	0.00	0.01	0.217	0				2.84
296.833	0.00	0.01	0.217	0				2.84
296.917	0.00	0.01	0.217	0				2.84
297.000	0.00	0.01	0.217	0				2.84
297.083	0.00	0.01	0.217	0				2.84
297.167	0.00	0.01	0.217	0				2.84
297.250	0.00	0.01	0.217	0				2.84
297.333	0.00	0.01	0.217	0				2.84
297.417	0.00	0.01	0.217	0				2.84
297.500	0.00	0.01	0.217	0				2.83
297.583	0.00	0.01	0.217	0				2.83
297.667	0.00	0.01	0.217	0				2.83
297.750	0.00	0.01	0.217	0				2.83

297.833	0.00	0.01	0.217	O				2.83
297.917	0.00	0.01	0.217	O				2.83
298.000	0.00	0.01	0.216	O				2.83
298.083	0.00	0.01	0.216	O				2.83
298.167	0.00	0.01	0.216	O				2.83
298.250	0.00	0.01	0.216	O				2.83
298.333	0.00	0.01	0.216	O				2.83
298.417	0.00	0.01	0.216	O				2.83
298.500	0.00	0.01	0.216	O				2.83
298.583	0.00	0.01	0.216	O				2.83
298.667	0.00	0.01	0.216	O				2.83
298.750	0.00	0.01	0.216	O				2.83
298.833	0.00	0.01	0.216	O				2.83
298.917	0.00	0.01	0.216	O				2.82
299.000	0.00	0.01	0.216	O				2.82
299.083	0.00	0.01	0.216	O				2.82
299.167	0.00	0.01	0.216	O				2.82
299.250	0.00	0.01	0.216	O				2.82
299.333	0.00	0.01	0.216	O				2.82
299.417	0.00	0.01	0.216	O				2.82
299.500	0.00	0.01	0.216	O				2.82
299.583	0.00	0.01	0.216	O				2.82
299.667	0.00	0.01	0.216	O				2.82
299.750	0.00	0.01	0.216	O				2.82
299.833	0.00	0.01	0.215	O				2.82
299.917	0.00	0.01	0.215	O				2.82
300.000	0.00	0.01	0.215	O				2.82
300.083	0.00	0.01	0.215	O				2.82
300.167	0.00	0.01	0.215	O				2.82
300.250	0.00	0.01	0.215	O				2.82
300.333	0.00	0.01	0.215	O				2.81
300.417	0.00	0.01	0.215	O				2.81
300.500	0.00	0.01	0.215	O				2.81
300.583	0.00	0.01	0.215	O				2.81
300.667	0.00	0.01	0.215	O				2.81
300.750	0.00	0.01	0.215	O				2.81
300.833	0.00	0.01	0.215	O				2.81
300.917	0.00	0.01	0.215	O				2.81
301.000	0.00	0.01	0.215	O				2.81
301.083	0.00	0.01	0.215	O				2.81
301.167	0.00	0.01	0.215	O				2.81
301.250	0.00	0.01	0.215	O				2.81
301.333	0.00	0.01	0.215	O				2.81
301.417	0.00	0.01	0.215	O				2.81
301.500	0.00	0.01	0.215	O				2.81
301.583	0.00	0.01	0.214	O				2.81
301.667	0.00	0.01	0.214	O				2.81
301.750	0.00	0.01	0.214	O				2.81
301.833	0.00	0.01	0.214	O				2.80
301.917	0.00	0.01	0.214	O				2.80
302.000	0.00	0.01	0.214	O				2.80
302.083	0.00	0.01	0.214	O				2.80
302.167	0.00	0.01	0.214	O				2.80
302.250	0.00	0.01	0.214	O				2.80
302.333	0.00	0.01	0.214	O				2.80
302.417	0.00	0.01	0.214	O				2.80
302.500	0.00	0.01	0.214	O				2.80

302.583	0.00	0.01	0.214	O					2.80
302.667	0.00	0.01	0.214	O					2.80
302.750	0.00	0.01	0.214	O					2.80
302.833	0.00	0.01	0.214	O					2.80
302.917	0.00	0.01	0.214	O					2.80
303.000	0.00	0.01	0.214	O					2.80
303.083	0.00	0.01	0.214	O					2.80
303.167	0.00	0.01	0.214	O					2.80
303.250	0.00	0.01	0.214	O					2.80
303.333	0.00	0.01	0.214	O					2.79
303.417	0.00	0.01	0.214	O					2.79
303.500	0.00	0.01	0.213	O					2.79
303.583	0.00	0.01	0.213	O					2.79
303.667	0.00	0.01	0.213	O					2.79
303.750	0.00	0.01	0.213	O					2.79
303.833	0.00	0.01	0.213	O					2.79
303.917	0.00	0.01	0.213	O					2.79
304.000	0.00	0.01	0.213	O					2.79
304.083	0.00	0.01	0.213	O					2.79
304.167	0.00	0.01	0.213	O					2.79
304.250	0.00	0.01	0.213	O					2.79
304.333	0.00	0.01	0.213	O					2.79
304.417	0.00	0.01	0.213	O					2.79
304.500	0.00	0.01	0.213	O					2.79
304.583	0.00	0.01	0.213	O					2.79
304.667	0.00	0.01	0.213	O					2.79
304.750	0.00	0.01	0.213	O					2.79
304.833	0.00	0.01	0.213	O					2.79
304.917	0.00	0.01	0.213	O					2.78
305.000	0.00	0.01	0.213	O					2.78
305.083	0.00	0.01	0.213	O					2.78
305.167	0.00	0.01	0.213	O					2.78
305.250	0.00	0.01	0.213	O					2.78
305.333	0.00	0.01	0.213	O					2.78
305.417	0.00	0.01	0.213	O					2.78
305.500	0.00	0.01	0.212	O					2.78
305.583	0.00	0.01	0.212	O					2.78
305.667	0.00	0.01	0.212	O					2.78
305.750	0.00	0.01	0.212	O					2.78
305.833	0.00	0.01	0.212	O					2.78
305.917	0.00	0.01	0.212	O					2.78
306.000	0.00	0.01	0.212	O					2.78
306.083	0.00	0.01	0.212	O					2.78
306.167	0.00	0.01	0.212	O					2.78
306.250	0.00	0.01	0.212	O					2.78
306.333	0.00	0.01	0.212	O					2.78
306.417	0.00	0.01	0.212	O					2.78
306.500	0.00	0.01	0.212	O					2.77
306.583	0.00	0.01	0.212	O					2.77
306.667	0.00	0.01	0.212	O					2.77
306.750	0.00	0.01	0.212	O					2.77
306.833	0.00	0.01	0.212	O					2.77
306.917	0.00	0.01	0.212	O					2.77
307.000	0.00	0.01	0.212	O					2.77
307.083	0.00	0.01	0.212	O					2.77
307.167	0.00	0.01	0.212	O					2.77
307.250	0.00	0.01	0.212	O					2.77

307.333	0.00	0.01	0.212	O					2.77
307.417	0.00	0.01	0.212	O					2.77
307.500	0.00	0.01	0.211	O					2.77
307.583	0.00	0.01	0.211	O					2.77
307.667	0.00	0.01	0.211	O					2.77
307.750	0.00	0.01	0.211	O					2.77
307.833	0.00	0.01	0.211	O					2.77
307.917	0.00	0.01	0.211	O					2.77
308.000	0.00	0.01	0.211	O					2.77
308.083	0.00	0.01	0.211	O					2.77
308.167	0.00	0.01	0.211	O					2.76
308.250	0.00	0.01	0.211	O					2.76
308.333	0.00	0.01	0.211	O					2.76
308.417	0.00	0.01	0.211	O					2.76
308.500	0.00	0.01	0.211	O					2.76
308.583	0.00	0.01	0.211	O					2.76
308.667	0.00	0.01	0.211	O					2.76
308.750	0.00	0.01	0.211	O					2.76
308.833	0.00	0.01	0.211	O					2.76
308.917	0.00	0.01	0.211	O					2.76
309.000	0.00	0.01	0.211	O					2.76
309.083	0.00	0.01	0.211	O					2.76
309.167	0.00	0.01	0.211	O					2.76
309.250	0.00	0.01	0.211	O					2.76
309.333	0.00	0.01	0.211	O					2.76
309.417	0.00	0.01	0.211	O					2.76
309.500	0.00	0.01	0.211	O					2.76
309.583	0.00	0.01	0.210	O					2.76
309.667	0.00	0.01	0.210	O					2.76
309.750	0.00	0.01	0.210	O					2.76
309.833	0.00	0.01	0.210	O					2.75
309.917	0.00	0.01	0.210	O					2.75
310.000	0.00	0.01	0.210	O					2.75
310.083	0.00	0.01	0.210	O					2.75
310.167	0.00	0.01	0.210	O					2.75
310.250	0.00	0.01	0.210	O					2.75
310.333	0.00	0.01	0.210	O					2.75
310.417	0.00	0.01	0.210	O					2.75
310.500	0.00	0.01	0.210	O					2.75
310.583	0.00	0.01	0.210	O					2.75
310.667	0.00	0.01	0.210	O					2.75
310.750	0.00	0.01	0.210	O					2.75
310.833	0.00	0.01	0.210	O					2.75
310.917	0.00	0.01	0.210	O					2.75
311.000	0.00	0.01	0.210	O					2.75
311.083	0.00	0.01	0.210	O					2.75
311.167	0.00	0.01	0.210	O					2.75
311.250	0.00	0.01	0.210	O					2.75
311.333	0.00	0.01	0.210	O					2.75
311.417	0.00	0.01	0.210	O					2.75
311.500	0.00	0.01	0.210	O					2.75
311.583	0.00	0.01	0.210	O					2.74
311.667	0.00	0.01	0.210	O					2.74
311.750	0.00	0.01	0.210	O					2.74
311.833	0.00	0.01	0.209	O					2.74
311.917	0.00	0.01	0.209	O					2.74
312.000	0.00	0.01	0.209	O					2.74

312.083	0.00	0.01	0.209	0				2.74
312.167	0.00	0.01	0.209	0				2.74
312.250	0.00	0.01	0.209	0				2.74
312.333	0.00	0.01	0.209	0				2.74
312.417	0.00	0.01	0.209	0				2.74
312.500	0.00	0.01	0.209	0				2.74
312.583	0.00	0.01	0.209	0				2.74
312.667	0.00	0.01	0.209	0				2.74
312.750	0.00	0.01	0.209	0				2.74
312.833	0.00	0.01	0.209	0				2.74
312.917	0.00	0.01	0.209	0				2.74
313.000	0.00	0.01	0.209	0				2.74
313.083	0.00	0.01	0.209	0				2.74
313.167	0.00	0.01	0.209	0				2.74
313.250	0.00	0.01	0.209	0				2.74
313.333	0.00	0.01	0.209	0				2.74
313.417	0.00	0.01	0.209	0				2.73
313.500	0.00	0.01	0.209	0				2.73
313.583	0.00	0.01	0.209	0				2.73
313.667	0.00	0.01	0.209	0				2.73
313.750	0.00	0.01	0.209	0				2.73
313.833	0.00	0.01	0.209	0				2.73
313.917	0.00	0.01	0.209	0				2.73
314.000	0.00	0.01	0.209	0				2.73
314.083	0.00	0.01	0.208	0				2.73
314.167	0.00	0.01	0.208	0				2.73
314.250	0.00	0.01	0.208	0				2.73
314.333	0.00	0.01	0.208	0				2.73
314.417	0.00	0.01	0.208	0				2.73
314.500	0.00	0.01	0.208	0				2.73
314.583	0.00	0.01	0.208	0				2.73
314.667	0.00	0.01	0.208	0				2.73
314.750	0.00	0.01	0.208	0				2.73
314.833	0.00	0.01	0.208	0				2.73
314.917	0.00	0.01	0.208	0				2.73
315.000	0.00	0.01	0.208	0				2.73
315.083	0.00	0.01	0.208	0				2.73
315.167	0.00	0.01	0.208	0				2.73
315.250	0.00	0.01	0.208	0				2.73
315.333	0.00	0.01	0.208	0				2.72
315.417	0.00	0.01	0.208	0				2.72
315.500	0.00	0.01	0.208	0				2.72
315.583	0.00	0.01	0.208	0				2.72
315.667	0.00	0.01	0.208	0				2.72
315.750	0.00	0.01	0.208	0				2.72
315.833	0.00	0.00	0.208	0				2.72
315.917	0.00	0.00	0.208	0				2.72
316.000	0.00	0.00	0.208	0				2.72
316.083	0.00	0.00	0.208	0				2.72
316.167	0.00	0.00	0.208	0				2.72
316.250	0.00	0.00	0.208	0				2.72
316.333	0.00	0.00	0.208	0				2.72
316.417	0.00	0.00	0.208	0				2.72
316.500	0.00	0.00	0.207	0				2.72
316.583	0.00	0.00	0.207	0				2.72
316.667	0.00	0.00	0.207	0				2.72
316.750	0.00	0.00	0.207	0				2.72

316.833	0.00	0.00	0.207	0					2.72
316.917	0.00	0.00	0.207	0					2.72
317.000	0.00	0.00	0.207	0					2.72
317.083	0.00	0.00	0.207	0					2.72
317.167	0.00	0.00	0.207	0					2.72
317.250	0.00	0.00	0.207	0					2.71
317.333	0.00	0.00	0.207	0					2.71
317.417	0.00	0.00	0.207	0					2.71
317.500	0.00	0.00	0.207	0					2.71
317.583	0.00	0.00	0.207	0					2.71
317.667	0.00	0.00	0.207	0					2.71
317.750	0.00	0.00	0.207	0					2.71
317.833	0.00	0.00	0.207	0					2.71
317.917	0.00	0.00	0.207	0					2.71
318.000	0.00	0.00	0.207	0					2.71
318.083	0.00	0.00	0.207	0					2.71
318.167	0.00	0.00	0.207	0					2.71
318.250	0.00	0.00	0.207	0					2.71
318.333	0.00	0.00	0.207	0					2.71
318.417	0.00	0.00	0.207	0					2.71
318.500	0.00	0.00	0.207	0					2.71
318.583	0.00	0.00	0.207	0					2.71
318.667	0.00	0.00	0.207	0					2.71
318.750	0.00	0.00	0.207	0					2.71
318.833	0.00	0.00	0.207	0					2.71
318.917	0.00	0.00	0.207	0					2.71
319.000	0.00	0.00	0.206	0					2.71
319.083	0.00	0.00	0.206	0					2.71
319.167	0.00	0.00	0.206	0					2.71
319.250	0.00	0.00	0.206	0					2.70
319.333	0.00	0.00	0.206	0					2.70
319.417	0.00	0.00	0.206	0					2.70
319.500	0.00	0.00	0.206	0					2.70
319.583	0.00	0.00	0.206	0					2.70
319.667	0.00	0.00	0.206	0					2.70
319.750	0.00	0.00	0.206	0					2.70
319.833	0.00	0.00	0.206	0					2.70
319.917	0.00	0.00	0.206	0					2.70
320.000	0.00	0.00	0.206	0					2.70
320.083	0.00	0.00	0.206	0					2.70
320.167	0.00	0.00	0.206	0					2.70
320.250	0.00	0.00	0.206	0					2.70
320.333	0.00	0.00	0.206	0					2.70
320.417	0.00	0.00	0.206	0					2.70
320.500	0.00	0.00	0.206	0					2.70
320.583	0.00	0.00	0.206	0					2.70
320.667	0.00	0.00	0.206	0					2.70
320.750	0.00	0.00	0.206	0					2.70
320.833	0.00	0.00	0.206	0					2.70
320.917	0.00	0.00	0.206	0					2.70
321.000	0.00	0.00	0.206	0					2.70
321.083	0.00	0.00	0.206	0					2.70
321.167	0.00	0.00	0.206	0					2.70
321.250	0.00	0.00	0.206	0					2.70
321.333	0.00	0.00	0.206	0					2.70
321.417	0.00	0.00	0.206	0					2.69
321.500	0.00	0.00	0.206	0					2.69

321.583	0.00	0.00	0.206	0				2.69
321.667	0.00	0.00	0.205	0				2.69
321.750	0.00	0.00	0.205	0				2.69
321.833	0.00	0.00	0.205	0				2.69
321.917	0.00	0.00	0.205	0				2.69
322.000	0.00	0.00	0.205	0				2.69
322.083	0.00	0.00	0.205	0				2.69
322.167	0.00	0.00	0.205	0				2.69
322.250	0.00	0.00	0.205	0				2.69
322.333	0.00	0.00	0.205	0				2.69
322.417	0.00	0.00	0.205	0				2.69
322.500	0.00	0.00	0.205	0				2.69
322.583	0.00	0.00	0.205	0				2.69
322.667	0.00	0.00	0.205	0				2.69
322.750	0.00	0.00	0.205	0				2.69
322.833	0.00	0.00	0.205	0				2.69
322.917	0.00	0.00	0.205	0				2.69
323.000	0.00	0.00	0.205	0				2.69
323.083	0.00	0.00	0.205	0				2.69
323.167	0.00	0.00	0.205	0				2.69
323.250	0.00	0.00	0.205	0				2.69
323.333	0.00	0.00	0.205	0				2.69
323.417	0.00	0.00	0.205	0				2.69
323.500	0.00	0.00	0.205	0				2.69
323.583	0.00	0.00	0.205	0				2.68
323.667	0.00	0.00	0.205	0				2.68
323.750	0.00	0.00	0.205	0				2.68
323.833	0.00	0.00	0.205	0				2.68
323.917	0.00	0.00	0.205	0				2.68
324.000	0.00	0.00	0.205	0				2.68
324.083	0.00	0.00	0.205	0				2.68
324.167	0.00	0.00	0.205	0				2.68
324.250	0.00	0.00	0.205	0				2.68
324.333	0.00	0.00	0.205	0				2.68
324.417	0.00	0.00	0.204	0				2.68
324.500	0.00	0.00	0.204	0				2.68
324.583	0.00	0.00	0.204	0				2.68
324.667	0.00	0.00	0.204	0				2.68
324.750	0.00	0.00	0.204	0				2.68
324.833	0.00	0.00	0.204	0				2.68
324.917	0.00	0.00	0.204	0				2.68
325.000	0.00	0.00	0.204	0				2.68
325.083	0.00	0.00	0.204	0				2.68
325.167	0.00	0.00	0.204	0				2.68
325.250	0.00	0.00	0.204	0				2.68
325.333	0.00	0.00	0.204	0				2.68
325.417	0.00	0.00	0.204	0				2.68
325.500	0.00	0.00	0.204	0				2.68
325.583	0.00	0.00	0.204	0				2.68
325.667	0.00	0.00	0.204	0				2.68
325.750	0.00	0.00	0.204	0				2.68
325.833	0.00	0.00	0.204	0				2.67
325.917	0.00	0.00	0.204	0				2.67
326.000	0.00	0.00	0.204	0				2.67
326.083	0.00	0.00	0.204	0				2.67
326.167	0.00	0.00	0.204	0				2.67
326.250	0.00	0.00	0.204	0				2.67

326.333	0.00	0.00	0.204	0				2.67
326.417	0.00	0.00	0.204	0				2.67
326.500	0.00	0.00	0.204	0				2.67
326.583	0.00	0.00	0.204	0				2.67
326.667	0.00	0.00	0.204	0				2.67
326.750	0.00	0.00	0.204	0				2.67
326.833	0.00	0.00	0.204	0				2.67
326.917	0.00	0.00	0.204	0				2.67
327.000	0.00	0.00	0.204	0				2.67
327.083	0.00	0.00	0.204	0				2.67
327.167	0.00	0.00	0.204	0				2.67
327.250	0.00	0.00	0.204	0				2.67
327.333	0.00	0.00	0.203	0				2.67
327.417	0.00	0.00	0.203	0				2.67
327.500	0.00	0.00	0.203	0				2.67
327.583	0.00	0.00	0.203	0				2.67
327.667	0.00	0.00	0.203	0				2.67
327.750	0.00	0.00	0.203	0				2.67
327.833	0.00	0.00	0.203	0				2.67
327.917	0.00	0.00	0.203	0				2.67
328.000	0.00	0.00	0.203	0				2.67
328.083	0.00	0.00	0.203	0				2.67
328.167	0.00	0.00	0.203	0				2.67
328.250	0.00	0.00	0.203	0				2.66
328.333	0.00	0.00	0.203	0				2.66
328.417	0.00	0.00	0.203	0				2.66
328.500	0.00	0.00	0.203	0				2.66
328.583	0.00	0.00	0.203	0				2.66
328.667	0.00	0.00	0.203	0				2.66
328.750	0.00	0.00	0.203	0				2.66
328.833	0.00	0.00	0.203	0				2.66
328.917	0.00	0.00	0.203	0				2.66
329.000	0.00	0.00	0.203	0				2.66
329.083	0.00	0.00	0.203	0				2.66
329.167	0.00	0.00	0.203	0				2.66
329.250	0.00	0.00	0.203	0				2.66
329.333	0.00	0.00	0.203	0				2.66
329.417	0.00	0.00	0.203	0				2.66
329.500	0.00	0.00	0.203	0				2.66
329.583	0.00	0.00	0.203	0				2.66
329.667	0.00	0.00	0.203	0				2.66
329.750	0.00	0.00	0.203	0				2.66
329.833	0.00	0.00	0.203	0				2.66
329.917	0.00	0.00	0.203	0				2.66
330.000	0.00	0.00	0.203	0				2.66
330.083	0.00	0.00	0.203	0				2.66
330.167	0.00	0.00	0.203	0				2.66
330.250	0.00	0.00	0.203	0				2.66
330.333	0.00	0.00	0.203	0				2.66
330.417	0.00	0.00	0.202	0				2.66
330.500	0.00	0.00	0.202	0				2.66
330.583	0.00	0.00	0.202	0				2.66
330.667	0.00	0.00	0.202	0				2.66
330.750	0.00	0.00	0.202	0				2.65
330.833	0.00	0.00	0.202	0				2.65
330.917	0.00	0.00	0.202	0				2.65
331.000	0.00	0.00	0.202	0				2.65

331.083	0.00	0.00	0.202	0				2.65
331.167	0.00	0.00	0.202	0				2.65
331.250	0.00	0.00	0.202	0				2.65
331.333	0.00	0.00	0.202	0				2.65
331.417	0.00	0.00	0.202	0				2.65
331.500	0.00	0.00	0.202	0				2.65
331.583	0.00	0.00	0.202	0				2.65
331.667	0.00	0.00	0.202	0				2.65
331.750	0.00	0.00	0.202	0				2.65
331.833	0.00	0.00	0.202	0				2.65
331.917	0.00	0.00	0.202	0				2.65
332.000	0.00	0.00	0.202	0				2.65
332.083	0.00	0.00	0.202	0				2.65
332.167	0.00	0.00	0.202	0				2.65
332.250	0.00	0.00	0.202	0				2.65
332.333	0.00	0.00	0.202	0				2.65
332.417	0.00	0.00	0.202	0				2.65
332.500	0.00	0.00	0.202	0				2.65
332.583	0.00	0.00	0.202	0				2.65
332.667	0.00	0.00	0.202	0				2.65
332.750	0.00	0.00	0.202	0				2.65
332.833	0.00	0.00	0.202	0				2.65
332.917	0.00	0.00	0.202	0				2.65
333.000	0.00	0.00	0.202	0				2.65
333.083	0.00	0.00	0.202	0				2.65
333.167	0.00	0.00	0.202	0				2.65
333.250	0.00	0.00	0.202	0				2.65
333.333	0.00	0.00	0.202	0				2.64
333.417	0.00	0.00	0.202	0				2.64
333.500	0.00	0.00	0.202	0				2.64
333.583	0.00	0.00	0.202	0				2.64
333.667	0.00	0.00	0.201	0				2.64
333.750	0.00	0.00	0.201	0				2.64
333.833	0.00	0.00	0.201	0				2.64
333.917	0.00	0.00	0.201	0				2.64
334.000	0.00	0.00	0.201	0				2.64
334.083	0.00	0.00	0.201	0				2.64
334.167	0.00	0.00	0.201	0				2.64
334.250	0.00	0.00	0.201	0				2.64
334.333	0.00	0.00	0.201	0				2.64
334.417	0.00	0.00	0.201	0				2.64
334.500	0.00	0.00	0.201	0				2.64
334.583	0.00	0.00	0.201	0				2.64
334.667	0.00	0.00	0.201	0				2.64
334.750	0.00	0.00	0.201	0				2.64
334.833	0.00	0.00	0.201	0				2.64
334.917	0.00	0.00	0.201	0				2.64
335.000	0.00	0.00	0.201	0				2.64
335.083	0.00	0.00	0.201	0				2.64
335.167	0.00	0.00	0.201	0				2.64
335.250	0.00	0.00	0.201	0				2.64
335.333	0.00	0.00	0.201	0				2.64
335.417	0.00	0.00	0.201	0				2.64
335.500	0.00	0.00	0.201	0				2.64
335.583	0.00	0.00	0.201	0				2.64
335.667	0.00	0.00	0.201	0				2.64
335.750	0.00	0.00	0.201	0				2.64

335.833	0.00	0.00	0.201	0				2.64
335.917	0.00	0.00	0.201	0				2.64
336.000	0.00	0.00	0.201	0				2.64
336.083	0.00	0.00	0.201	0				2.63
336.167	0.00	0.00	0.201	0				2.63
336.250	0.00	0.00	0.201	0				2.63
336.333	0.00	0.00	0.201	0				2.63
336.417	0.00	0.00	0.201	0				2.63
336.500	0.00	0.00	0.201	0				2.63
336.583	0.00	0.00	0.201	0				2.63
336.667	0.00	0.00	0.201	0				2.63
336.750	0.00	0.00	0.201	0				2.63
336.833	0.00	0.00	0.201	0				2.63
336.917	0.00	0.00	0.201	0				2.63
337.000	0.00	0.00	0.201	0				2.63
337.083	0.00	0.00	0.201	0				2.63
337.167	0.00	0.00	0.200	0				2.63
337.250	0.00	0.00	0.200	0				2.63
337.333	0.00	0.00	0.200	0				2.63
337.417	0.00	0.00	0.200	0				2.63
337.500	0.00	0.00	0.200	0				2.63
337.583	0.00	0.00	0.200	0				2.63
337.667	0.00	0.00	0.200	0				2.63
337.750	0.00	0.00	0.200	0				2.63
337.833	0.00	0.00	0.200	0				2.63
337.917	0.00	0.00	0.200	0				2.63
338.000	0.00	0.00	0.200	0				2.63
338.083	0.00	0.00	0.200	0				2.63
338.167	0.00	0.00	0.200	0				2.63
338.250	0.00	0.00	0.200	0				2.63
338.333	0.00	0.00	0.200	0				2.63
338.417	0.00	0.00	0.200	0				2.63
338.500	0.00	0.00	0.200	0				2.63
338.583	0.00	0.00	0.200	0				2.63
338.667	0.00	0.00	0.200	0				2.63
338.750	0.00	0.00	0.200	0				2.63
338.833	0.00	0.00	0.200	0				2.63
338.917	0.00	0.00	0.200	0				2.63
339.000	0.00	0.00	0.200	0				2.62
339.083	0.00	0.00	0.200	0				2.62
339.167	0.00	0.00	0.200	0				2.62
339.250	0.00	0.00	0.200	0				2.62
339.333	0.00	0.00	0.200	0				2.62
339.417	0.00	0.00	0.200	0				2.62
339.500	0.00	0.00	0.200	0				2.62
339.583	0.00	0.00	0.200	0				2.62
339.667	0.00	0.00	0.200	0				2.62
339.750	0.00	0.00	0.200	0				2.62
339.833	0.00	0.00	0.200	0				2.62
339.917	0.00	0.00	0.200	0				2.62
340.000	0.00	0.00	0.200	0				2.62
340.083	0.00	0.00	0.200	0				2.62
340.167	0.00	0.00	0.200	0				2.62
340.250	0.00	0.00	0.200	0				2.62
340.333	0.00	0.00	0.200	0				2.62
340.417	0.00	0.00	0.200	0				2.62
340.500	0.00	0.00	0.200	0				2.62

340.583	0.00	0.00	0.200	0				2.62
340.667	0.00	0.00	0.200	0				2.62
340.750	0.00	0.00	0.200	0				2.62
340.833	0.00	0.00	0.200	0				2.62
340.917	0.00	0.00	0.199	0				2.62
341.000	0.00	0.00	0.199	0				2.62
341.083	0.00	0.00	0.199	0				2.62
341.167	0.00	0.00	0.199	0				2.62
341.250	0.00	0.00	0.199	0				2.62
341.333	0.00	0.00	0.199	0				2.62
341.417	0.00	0.00	0.199	0				2.62
341.500	0.00	0.00	0.199	0				2.62
341.583	0.00	0.00	0.199	0				2.62
341.667	0.00	0.00	0.199	0				2.62
341.750	0.00	0.00	0.199	0				2.62
341.833	0.00	0.00	0.199	0				2.62
341.917	0.00	0.00	0.199	0				2.62
342.000	0.00	0.00	0.199	0				2.62
342.083	0.00	0.00	0.199	0				2.61
342.167	0.00	0.00	0.199	0				2.61
342.250	0.00	0.00	0.199	0				2.61
342.333	0.00	0.00	0.199	0				2.61
342.417	0.00	0.00	0.199	0				2.61
342.500	0.00	0.00	0.199	0				2.61
342.583	0.00	0.00	0.199	0				2.61
342.667	0.00	0.00	0.199	0				2.61
342.750	0.00	0.00	0.199	0				2.61
342.833	0.00	0.00	0.199	0				2.61
342.917	0.00	0.00	0.199	0				2.61
343.000	0.00	0.00	0.199	0				2.61
343.083	0.00	0.00	0.199	0				2.61
343.167	0.00	0.00	0.199	0				2.61
343.250	0.00	0.00	0.199	0				2.61
343.333	0.00	0.00	0.199	0				2.61
343.417	0.00	0.00	0.199	0				2.61
343.500	0.00	0.00	0.199	0				2.61
343.583	0.00	0.00	0.199	0				2.61
343.667	0.00	0.00	0.199	0				2.61
343.750	0.00	0.00	0.199	0				2.61
343.833	0.00	0.00	0.199	0				2.61
343.917	0.00	0.00	0.199	0				2.61
344.000	0.00	0.00	0.199	0				2.61
344.083	0.00	0.00	0.199	0				2.61
344.167	0.00	0.00	0.199	0				2.61
344.250	0.00	0.00	0.199	0				2.61
344.333	0.00	0.00	0.199	0				2.61
344.417	0.00	0.00	0.199	0				2.61
344.500	0.00	0.00	0.199	0				2.61
344.583	0.00	0.00	0.199	0				2.61
344.667	0.00	0.00	0.199	0				2.61
344.750	0.00	0.00	0.199	0				2.61
344.833	0.00	0.00	0.199	0				2.61
344.917	0.00	0.00	0.198	0				2.61
345.000	0.00	0.00	0.198	0				2.61
345.083	0.00	0.00	0.198	0				2.61
345.167	0.00	0.00	0.198	0				2.61
345.250	0.00	0.00	0.198	0				2.61

345.333	0.00	0.00	0.198	0				2.60
345.417	0.00	0.00	0.198	0				2.60
345.500	0.00	0.00	0.198	0				2.60
345.583	0.00	0.00	0.198	0				2.60
345.667	0.00	0.00	0.198	0				2.60
345.750	0.00	0.00	0.198	0				2.60
345.833	0.00	0.00	0.198	0				2.60
345.917	0.00	0.00	0.198	0				2.60
346.000	0.00	0.00	0.198	0				2.60
346.083	0.00	0.00	0.198	0				2.60
346.167	0.00	0.00	0.198	0				2.60
346.250	0.00	0.00	0.198	0				2.60
346.333	0.00	0.00	0.198	0				2.60
346.417	0.00	0.00	0.198	0				2.60
346.500	0.00	0.00	0.198	0				2.60
346.583	0.00	0.00	0.198	0				2.60
346.667	0.00	0.00	0.198	0				2.60
346.750	0.00	0.00	0.198	0				2.60
346.833	0.00	0.00	0.198	0				2.60
346.917	0.00	0.00	0.198	0				2.60
347.000	0.00	0.00	0.198	0				2.60
347.083	0.00	0.00	0.198	0				2.60
347.167	0.00	0.00	0.198	0				2.60
347.250	0.00	0.00	0.198	0				2.60
347.333	0.00	0.00	0.198	0				2.60
347.417	0.00	0.00	0.198	0				2.60
347.500	0.00	0.00	0.198	0				2.60
347.583	0.00	0.00	0.198	0				2.60
347.667	0.00	0.00	0.198	0				2.60
347.750	0.00	0.00	0.198	0				2.60
347.833	0.00	0.00	0.198	0				2.60
347.917	0.00	0.00	0.198	0				2.60
348.000	0.00	0.00	0.198	0				2.60
348.083	0.00	0.00	0.198	0				2.60
348.167	0.00	0.00	0.198	0				2.60
348.250	0.00	0.00	0.198	0				2.60
348.333	0.00	0.00	0.198	0				2.60
348.417	0.00	0.00	0.198	0				2.60
348.500	0.00	0.00	0.198	0				2.60
348.583	0.00	0.00	0.198	0				2.60
348.667	0.00	0.00	0.198	0				2.60
348.750	0.00	0.00	0.198	0				2.59
348.833	0.00	0.00	0.198	0				2.59
348.917	0.00	0.00	0.198	0				2.59
349.000	0.00	0.00	0.198	0				2.59
349.083	0.00	0.00	0.198	0				2.59
349.167	0.00	0.00	0.198	0				2.59
349.250	0.00	0.00	0.197	0				2.59
349.333	0.00	0.00	0.197	0				2.59
349.417	0.00	0.00	0.197	0				2.59
349.500	0.00	0.00	0.197	0				2.59
349.583	0.00	0.00	0.197	0				2.59
349.667	0.00	0.00	0.197	0				2.59
349.750	0.00	0.00	0.197	0				2.59
349.833	0.00	0.00	0.197	0				2.59
349.917	0.00	0.00	0.197	0				2.59
350.000	0.00	0.00	0.197	0				2.59

350.083	0.00	0.00	0.197	0				2.59
350.167	0.00	0.00	0.197	0				2.59
350.250	0.00	0.00	0.197	0				2.59
350.333	0.00	0.00	0.197	0				2.59
350.417	0.00	0.00	0.197	0				2.59
350.500	0.00	0.00	0.197	0				2.59
350.583	0.00	0.00	0.197	0				2.59
350.667	0.00	0.00	0.197	0				2.59
350.750	0.00	0.00	0.197	0				2.59
350.833	0.00	0.00	0.197	0				2.59
350.917	0.00	0.00	0.197	0				2.59
351.000	0.00	0.00	0.197	0				2.59
351.083	0.00	0.00	0.197	0				2.59
351.167	0.00	0.00	0.197	0				2.59
351.250	0.00	0.00	0.197	0				2.59
351.333	0.00	0.00	0.197	0				2.59
351.417	0.00	0.00	0.197	0				2.59
351.500	0.00	0.00	0.197	0				2.59
351.583	0.00	0.00	0.197	0				2.59
351.667	0.00	0.00	0.197	0				2.59
351.750	0.00	0.00	0.197	0				2.59
351.833	0.00	0.00	0.197	0				2.59
351.917	0.00	0.00	0.197	0				2.59
352.000	0.00	0.00	0.197	0				2.59
352.083	0.00	0.00	0.197	0				2.59
352.167	0.00	0.00	0.197	0				2.59
352.250	0.00	0.00	0.197	0				2.59
352.333	0.00	0.00	0.197	0				2.59
352.417	0.00	0.00	0.197	0				2.59
352.500	0.00	0.00	0.197	0				2.58
352.583	0.00	0.00	0.197	0				2.58
352.667	0.00	0.00	0.197	0				2.58
352.750	0.00	0.00	0.197	0				2.58
352.833	0.00	0.00	0.197	0				2.58
352.917	0.00	0.00	0.197	0				2.58
353.000	0.00	0.00	0.197	0				2.58
353.083	0.00	0.00	0.197	0				2.58
353.167	0.00	0.00	0.197	0				2.58
353.250	0.00	0.00	0.197	0				2.58
353.333	0.00	0.00	0.197	0				2.58
353.417	0.00	0.00	0.197	0				2.58
353.500	0.00	0.00	0.197	0				2.58
353.583	0.00	0.00	0.197	0				2.58
353.667	0.00	0.00	0.197	0				2.58
353.750	0.00	0.00	0.197	0				2.58
353.833	0.00	0.00	0.197	0				2.58
353.917	0.00	0.00	0.196	0				2.58
354.000	0.00	0.00	0.196	0				2.58
354.083	0.00	0.00	0.196	0				2.58
354.167	0.00	0.00	0.196	0				2.58
354.250	0.00	0.00	0.196	0				2.58
354.333	0.00	0.00	0.196	0				2.58
354.417	0.00	0.00	0.196	0				2.58
354.500	0.00	0.00	0.196	0				2.58
354.583	0.00	0.00	0.196	0				2.58
354.667	0.00	0.00	0.196	0				2.58
354.750	0.00	0.00	0.196	0				2.58

354.833	0.00	0.00	0.196	0				2.58
354.917	0.00	0.00	0.196	0				2.58
355.000	0.00	0.00	0.196	0				2.58
355.083	0.00	0.00	0.196	0				2.58
355.167	0.00	0.00	0.196	0				2.58
355.250	0.00	0.00	0.196	0				2.58
355.333	0.00	0.00	0.196	0				2.58
355.417	0.00	0.00	0.196	0				2.58
355.500	0.00	0.00	0.196	0				2.58
355.583	0.00	0.00	0.196	0				2.58
355.667	0.00	0.00	0.196	0				2.58
355.750	0.00	0.00	0.196	0				2.58
355.833	0.00	0.00	0.196	0				2.58
355.917	0.00	0.00	0.196	0				2.58
356.000	0.00	0.00	0.196	0				2.58
356.083	0.00	0.00	0.196	0				2.58
356.167	0.00	0.00	0.196	0				2.58
356.250	0.00	0.00	0.196	0				2.58
356.333	0.00	0.00	0.196	0				2.58
356.417	0.00	0.00	0.196	0				2.57
356.500	0.00	0.00	0.196	0				2.57
356.583	0.00	0.00	0.196	0				2.57
356.667	0.00	0.00	0.196	0				2.57
356.750	0.00	0.00	0.196	0				2.57
356.833	0.00	0.00	0.196	0				2.57
356.917	0.00	0.00	0.196	0				2.57
357.000	0.00	0.00	0.196	0				2.57
357.083	0.00	0.00	0.196	0				2.57
357.167	0.00	0.00	0.196	0				2.57
357.250	0.00	0.00	0.196	0				2.57
357.333	0.00	0.00	0.196	0				2.57
357.417	0.00	0.00	0.196	0				2.57
357.500	0.00	0.00	0.196	0				2.57
357.583	0.00	0.00	0.196	0				2.57
357.667	0.00	0.00	0.196	0				2.57
357.750	0.00	0.00	0.196	0				2.57
357.833	0.00	0.00	0.196	0				2.57
357.917	0.00	0.00	0.196	0				2.57
358.000	0.00	0.00	0.196	0				2.57
358.083	0.00	0.00	0.196	0				2.57
358.167	0.00	0.00	0.196	0				2.57
358.250	0.00	0.00	0.196	0				2.57
358.333	0.00	0.00	0.196	0				2.57
358.417	0.00	0.00	0.196	0				2.57
358.500	0.00	0.00	0.196	0				2.57
358.583	0.00	0.00	0.196	0				2.57
358.667	0.00	0.00	0.196	0				2.57
358.750	0.00	0.00	0.196	0				2.57
358.833	0.00	0.00	0.196	0				2.57
358.917	0.00	0.00	0.196	0				2.57
359.000	0.00	0.00	0.196	0				2.57
359.083	0.00	0.00	0.195	0				2.57
359.167	0.00	0.00	0.195	0				2.57
359.250	0.00	0.00	0.195	0				2.57
359.333	0.00	0.00	0.195	0				2.57
359.417	0.00	0.00	0.195	0				2.57
359.500	0.00	0.00	0.195	0				2.57

359.583	0.00	0.00	0.195	0				2.57
359.667	0.00	0.00	0.195	0				2.57
359.750	0.00	0.00	0.195	0				2.57
359.833	0.00	0.00	0.195	0				2.57
359.917	0.00	0.00	0.195	0				2.57
360.000	0.00	0.00	0.195	0				2.57
360.083	0.00	0.00	0.195	0				2.57
360.167	0.00	0.00	0.195	0				2.57
360.250	0.00	0.00	0.195	0				2.57
360.333	0.00	0.00	0.195	0				2.57
360.417	0.00	0.00	0.195	0				2.57
360.500	0.00	0.00	0.195	0				2.57
360.583	0.00	0.00	0.195	0				2.57
360.667	0.00	0.00	0.195	0				2.57
360.750	0.00	0.00	0.195	0				2.56
360.833	0.00	0.00	0.195	0				2.56
360.917	0.00	0.00	0.195	0				2.56
361.000	0.00	0.00	0.195	0				2.56
361.083	0.00	0.00	0.195	0				2.56
361.167	0.00	0.00	0.195	0				2.56
361.250	0.00	0.00	0.195	0				2.56
361.333	0.00	0.00	0.195	0				2.56
361.417	0.00	0.00	0.195	0				2.56
361.500	0.00	0.00	0.195	0				2.56
361.583	0.00	0.00	0.195	0				2.56
361.667	0.00	0.00	0.195	0				2.56
361.750	0.00	0.00	0.195	0				2.56
361.833	0.00	0.00	0.195	0				2.56
361.917	0.00	0.00	0.195	0				2.56
362.000	0.00	0.00	0.195	0				2.56
362.083	0.00	0.00	0.195	0				2.56
362.167	0.00	0.00	0.195	0				2.56
362.250	0.00	0.00	0.195	0				2.56
362.333	0.00	0.00	0.195	0				2.56
362.417	0.00	0.00	0.195	0				2.56
362.500	0.00	0.00	0.195	0				2.56
362.583	0.00	0.00	0.195	0				2.56
362.667	0.00	0.00	0.195	0				2.56
362.750	0.00	0.00	0.195	0				2.56
362.833	0.00	0.00	0.195	0				2.56
362.917	0.00	0.00	0.195	0				2.56
363.000	0.00	0.00	0.195	0				2.56
363.083	0.00	0.00	0.195	0				2.56
363.167	0.00	0.00	0.195	0				2.56
363.250	0.00	0.00	0.195	0				2.56
363.333	0.00	0.00	0.195	0				2.56
363.417	0.00	0.00	0.195	0				2.56
363.500	0.00	0.00	0.195	0				2.56
363.583	0.00	0.00	0.195	0				2.56
363.667	0.00	0.00	0.195	0				2.56
363.750	0.00	0.00	0.195	0				2.56
363.833	0.00	0.00	0.195	0				2.56
363.917	0.00	0.00	0.195	0				2.56
364.000	0.00	0.00	0.195	0				2.56
364.083	0.00	0.00	0.195	0				2.56
364.167	0.00	0.00	0.195	0				2.56
364.250	0.00	0.00	0.195	0				2.56

364.333	0.00	0.00	0.195	O				2.56
364.417	0.00	0.00	0.195	O				2.56
364.500	0.00	0.00	0.195	O				2.56
364.583	0.00	0.00	0.195	O				2.56
364.667	0.00	0.00	0.195	O				2.56
364.750	0.00	0.00	0.194	O				2.56
364.833	0.00	0.00	0.194	O				2.56
364.917	0.00	0.00	0.194	O				2.56
365.000	0.00	0.00	0.194	O				2.56
365.083	0.00	0.00	0.194	O				2.56
365.167	0.00	0.00	0.194	O				2.56
365.250	0.00	0.00	0.194	O				2.56
365.333	0.00	0.00	0.194	O				2.56
365.417	0.00	0.00	0.194	O				2.55
365.500	0.00	0.00	0.194	O				2.55
365.583	0.00	0.00	0.194	O				2.55
365.667	0.00	0.00	0.194	O				2.55
365.750	0.00	0.00	0.194	O				2.55
365.833	0.00	0.00	0.194	O				2.55
365.917	0.00	0.00	0.194	O				2.55
366.000	0.00	0.00	0.194	O				2.55
366.083	0.00	0.00	0.194	O				2.55
366.167	0.00	0.00	0.194	O				2.55
366.250	0.00	0.00	0.194	O				2.55
366.333	0.00	0.00	0.194	O				2.55
366.417	0.00	0.00	0.194	O				2.55
366.500	0.00	0.00	0.194	O				2.55
366.583	0.00	0.00	0.194	O				2.55
366.667	0.00	0.00	0.194	O				2.55
366.750	0.00	0.00	0.194	O				2.55
366.833	0.00	0.00	0.194	O				2.55
366.917	0.00	0.00	0.194	O				2.55
367.000	0.00	0.00	0.194	O				2.55
367.083	0.00	0.00	0.194	O				2.55
367.167	0.00	0.00	0.194	O				2.55
367.250	0.00	0.00	0.194	O				2.55
367.333	0.00	0.00	0.194	O				2.55
367.417	0.00	0.00	0.194	O				2.55
367.500	0.00	0.00	0.194	O				2.55
367.583	0.00	0.00	0.194	O				2.55
367.667	0.00	0.00	0.194	O				2.55
367.750	0.00	0.00	0.194	O				2.55
367.833	0.00	0.00	0.194	O				2.55
367.917	0.00	0.00	0.194	O				2.55
368.000	0.00	0.00	0.194	O				2.55
368.083	0.00	0.00	0.194	O				2.55
368.167	0.00	0.00	0.194	O				2.55
368.250	0.00	0.00	0.194	O				2.55
368.333	0.00	0.00	0.194	O				2.55
368.417	0.00	0.00	0.194	O				2.55
368.500	0.00	0.00	0.194	O				2.55
368.583	0.00	0.00	0.194	O				2.55
368.667	0.00	0.00	0.194	O				2.55
368.750	0.00	0.00	0.194	O				2.55
368.833	0.00	0.00	0.194	O				2.55
368.917	0.00	0.00	0.194	O				2.55
369.000	0.00	0.00	0.194	O				2.55

369.083	0.00	0.00	0.194	O				2.55
369.167	0.00	0.00	0.194	O				2.55
369.250	0.00	0.00	0.194	O				2.55
369.333	0.00	0.00	0.194	O				2.55
369.417	0.00	0.00	0.194	O				2.55
369.500	0.00	0.00	0.194	O				2.55
369.583	0.00	0.00	0.194	O				2.55
369.667	0.00	0.00	0.194	O				2.55
369.750	0.00	0.00	0.194	O				2.55
369.833	0.00	0.00	0.194	O				2.55
369.917	0.00	0.00	0.194	O				2.55
370.000	0.00	0.00	0.194	O				2.55
370.083	0.00	0.00	0.194	O				2.55
370.167	0.00	0.00	0.194	O				2.55
370.250	0.00	0.00	0.194	O				2.55
370.333	0.00	0.00	0.194	O				2.55
370.417	0.00	0.00	0.194	O				2.55
370.500	0.00	0.00	0.194	O				2.54
370.583	0.00	0.00	0.194	O				2.54
370.667	0.00	0.00	0.194	O				2.54
370.750	0.00	0.00	0.194	O				2.54
370.833	0.00	0.00	0.194	O				2.54
370.917	0.00	0.00	0.194	O				2.54
371.000	0.00	0.00	0.194	O				2.54
371.083	0.00	0.00	0.194	O				2.54
371.167	0.00	0.00	0.193	O				2.54
371.250	0.00	0.00	0.193	O				2.54
371.333	0.00	0.00	0.193	O				2.54
371.417	0.00	0.00	0.193	O				2.54
371.500	0.00	0.00	0.193	O				2.54
371.583	0.00	0.00	0.193	O				2.54
371.667	0.00	0.00	0.193	O				2.54
371.750	0.00	0.00	0.193	O				2.54
371.833	0.00	0.00	0.193	O				2.54
371.917	0.00	0.00	0.193	O				2.54
372.000	0.00	0.00	0.193	O				2.54
372.083	0.00	0.00	0.193	O				2.54
372.167	0.00	0.00	0.193	O				2.54
372.250	0.00	0.00	0.193	O				2.54
372.333	0.00	0.00	0.193	O				2.54
372.417	0.00	0.00	0.193	O				2.54
372.500	0.00	0.00	0.193	O				2.54
372.583	0.00	0.00	0.193	O				2.54
372.667	0.00	0.00	0.193	O				2.54
372.750	0.00	0.00	0.193	O				2.54
372.833	0.00	0.00	0.193	O				2.54
372.917	0.00	0.00	0.193	O				2.54
373.000	0.00	0.00	0.193	O				2.54
373.083	0.00	0.00	0.193	O				2.54
373.167	0.00	0.00	0.193	O				2.54
373.250	0.00	0.00	0.193	O				2.54
373.333	0.00	0.00	0.193	O				2.54
373.417	0.00	0.00	0.193	O				2.54
373.500	0.00	0.00	0.193	O				2.54
373.583	0.00	0.00	0.193	O				2.54
373.667	0.00	0.00	0.193	O				2.54
373.750	0.00	0.00	0.193	O				2.54

373.833	0.00	0.00	0.193	0				2.54
373.917	0.00	0.00	0.193	0				2.54
374.000	0.00	0.00	0.193	0				2.54
374.083	0.00	0.00	0.193	0				2.54
374.167	0.00	0.00	0.193	0				2.54
374.250	0.00	0.00	0.193	0				2.54
374.333	0.00	0.00	0.193	0				2.54
374.417	0.00	0.00	0.193	0				2.54
374.500	0.00	0.00	0.193	0				2.54
374.583	0.00	0.00	0.193	0				2.54
374.667	0.00	0.00	0.193	0				2.54
374.750	0.00	0.00	0.193	0				2.54
374.833	0.00	0.00	0.193	0				2.54
374.917	0.00	0.00	0.193	0				2.54
375.000	0.00	0.00	0.193	0				2.54
375.083	0.00	0.00	0.193	0				2.54
375.167	0.00	0.00	0.193	0				2.54
375.250	0.00	0.00	0.193	0				2.54
375.333	0.00	0.00	0.193	0				2.54
375.417	0.00	0.00	0.193	0				2.54
375.500	0.00	0.00	0.193	0				2.54
375.583	0.00	0.00	0.193	0				2.54
375.667	0.00	0.00	0.193	0				2.54
375.750	0.00	0.00	0.193	0				2.54
375.833	0.00	0.00	0.193	0				2.54
375.917	0.00	0.00	0.193	0				2.54
376.000	0.00	0.00	0.193	0				2.54
376.083	0.00	0.00	0.193	0				2.53
376.167	0.00	0.00	0.193	0				2.53
376.250	0.00	0.00	0.193	0				2.53
376.333	0.00	0.00	0.193	0				2.53
376.417	0.00	0.00	0.193	0				2.53
376.500	0.00	0.00	0.193	0				2.53
376.583	0.00	0.00	0.193	0				2.53
376.667	0.00	0.00	0.193	0				2.53
376.750	0.00	0.00	0.193	0				2.53
376.833	0.00	0.00	0.193	0				2.53
376.917	0.00	0.00	0.193	0				2.53
377.000	0.00	0.00	0.193	0				2.53
377.083	0.00	0.00	0.193	0				2.53
377.167	0.00	0.00	0.193	0				2.53
377.250	0.00	0.00	0.193	0				2.53
377.333	0.00	0.00	0.193	0				2.53
377.417	0.00	0.00	0.193	0				2.53
377.500	0.00	0.00	0.193	0				2.53
377.583	0.00	0.00	0.193	0				2.53
377.667	0.00	0.00	0.193	0				2.53
377.750	0.00	0.00	0.193	0				2.53
377.833	0.00	0.00	0.193	0				2.53
377.917	0.00	0.00	0.193	0				2.53
378.000	0.00	0.00	0.193	0				2.53
378.083	0.00	0.00	0.193	0				2.53
378.167	0.00	0.00	0.193	0				2.53
378.250	0.00	0.00	0.193	0				2.53
378.333	0.00	0.00	0.193	0				2.53
378.417	0.00	0.00	0.192	0				2.53
378.500	0.00	0.00	0.192	0				2.53

378.583	0.00	0.00	0.192	0				2.53
378.667	0.00	0.00	0.192	0				2.53
378.750	0.00	0.00	0.192	0				2.53
378.833	0.00	0.00	0.192	0				2.53
378.917	0.00	0.00	0.192	0				2.53
379.000	0.00	0.00	0.192	0				2.53
379.083	0.00	0.00	0.192	0				2.53
379.167	0.00	0.00	0.192	0				2.53
379.250	0.00	0.00	0.192	0				2.53
379.333	0.00	0.00	0.192	0				2.53
379.417	0.00	0.00	0.192	0				2.53
379.500	0.00	0.00	0.192	0				2.53
379.583	0.00	0.00	0.192	0				2.53
379.667	0.00	0.00	0.192	0				2.53
379.750	0.00	0.00	0.192	0				2.53
379.833	0.00	0.00	0.192	0				2.53
379.917	0.00	0.00	0.192	0				2.53
380.000	0.00	0.00	0.192	0				2.53
380.083	0.00	0.00	0.192	0				2.53
380.167	0.00	0.00	0.192	0				2.53
380.250	0.00	0.00	0.192	0				2.53
380.333	0.00	0.00	0.192	0				2.53
380.417	0.00	0.00	0.192	0				2.53
380.500	0.00	0.00	0.192	0				2.53
380.583	0.00	0.00	0.192	0				2.53
380.667	0.00	0.00	0.192	0				2.53
380.750	0.00	0.00	0.192	0				2.53
380.833	0.00	0.00	0.192	0				2.53
380.917	0.00	0.00	0.192	0				2.53
381.000	0.00	0.00	0.192	0				2.53
381.083	0.00	0.00	0.192	0				2.53
381.167	0.00	0.00	0.192	0				2.53
381.250	0.00	0.00	0.192	0				2.53
381.333	0.00	0.00	0.192	0				2.53
381.417	0.00	0.00	0.192	0				2.53
381.500	0.00	0.00	0.192	0				2.53
381.583	0.00	0.00	0.192	0				2.53
381.667	0.00	0.00	0.192	0				2.53
381.750	0.00	0.00	0.192	0				2.53
381.833	0.00	0.00	0.192	0				2.53
381.917	0.00	0.00	0.192	0				2.53
382.000	0.00	0.00	0.192	0				2.53
382.083	0.00	0.00	0.192	0				2.53
382.167	0.00	0.00	0.192	0				2.53
382.250	0.00	0.00	0.192	0				2.53
382.333	0.00	0.00	0.192	0				2.53
382.417	0.00	0.00	0.192	0				2.52
382.500	0.00	0.00	0.192	0				2.52
382.583	0.00	0.00	0.192	0				2.52
382.667	0.00	0.00	0.192	0				2.52
382.750	0.00	0.00	0.192	0				2.52
382.833	0.00	0.00	0.192	0				2.52
382.917	0.00	0.00	0.192	0				2.52
383.000	0.00	0.00	0.192	0				2.52
383.083	0.00	0.00	0.192	0				2.52
383.167	0.00	0.00	0.192	0				2.52
383.250	0.00	0.00	0.192	0				2.52

383.333	0.00	0.00	0.192	0				2.52
383.417	0.00	0.00	0.192	0				2.52
383.500	0.00	0.00	0.192	0				2.52
383.583	0.00	0.00	0.192	0				2.52
383.667	0.00	0.00	0.192	0				2.52
383.750	0.00	0.00	0.192	0				2.52
383.833	0.00	0.00	0.192	0				2.52
383.917	0.00	0.00	0.192	0				2.52
384.000	0.00	0.00	0.192	0				2.52
384.083	0.00	0.00	0.192	0				2.52
384.167	0.00	0.00	0.192	0				2.52
384.250	0.00	0.00	0.192	0				2.52
384.333	0.00	0.00	0.192	0				2.52
384.417	0.00	0.00	0.192	0				2.52
384.500	0.00	0.00	0.192	0				2.52
384.583	0.00	0.00	0.192	0				2.52
384.667	0.00	0.00	0.192	0				2.52
384.750	0.00	0.00	0.192	0				2.52
384.833	0.00	0.00	0.192	0				2.52
384.917	0.00	0.00	0.192	0				2.52
385.000	0.00	0.00	0.192	0				2.52
385.083	0.00	0.00	0.192	0				2.52
385.167	0.00	0.00	0.192	0				2.52
385.250	0.00	0.00	0.192	0				2.52
385.333	0.00	0.00	0.192	0				2.52
385.417	0.00	0.00	0.192	0				2.52
385.500	0.00	0.00	0.192	0				2.52
385.583	0.00	0.00	0.192	0				2.52
385.667	0.00	0.00	0.192	0				2.52
385.750	0.00	0.00	0.192	0				2.52
385.833	0.00	0.00	0.192	0				2.52
385.917	0.00	0.00	0.192	0				2.52
386.000	0.00	0.00	0.192	0				2.52
386.083	0.00	0.00	0.192	0				2.52
386.167	0.00	0.00	0.192	0				2.52
386.250	0.00	0.00	0.192	0				2.52
386.333	0.00	0.00	0.192	0				2.52
386.417	0.00	0.00	0.192	0				2.52
386.500	0.00	0.00	0.192	0				2.52
386.583	0.00	0.00	0.192	0				2.52
386.667	0.00	0.00	0.192	0				2.52
386.750	0.00	0.00	0.191	0				2.52
386.833	0.00	0.00	0.191	0				2.52
386.917	0.00	0.00	0.191	0				2.52
387.000	0.00	0.00	0.191	0				2.52
387.083	0.00	0.00	0.191	0				2.52
387.167	0.00	0.00	0.191	0				2.52
387.250	0.00	0.00	0.191	0				2.52
387.333	0.00	0.00	0.191	0				2.52
387.417	0.00	0.00	0.191	0				2.52
387.500	0.00	0.00	0.191	0				2.52
387.583	0.00	0.00	0.191	0				2.52
387.667	0.00	0.00	0.191	0				2.52
387.750	0.00	0.00	0.191	0				2.52
387.833	0.00	0.00	0.191	0				2.52
387.917	0.00	0.00	0.191	0				2.52
388.000	0.00	0.00	0.191	0				2.52

388.083	0.00	0.00	0.191	O				2.52
388.167	0.00	0.00	0.191	O				2.52
388.250	0.00	0.00	0.191	O				2.52
388.333	0.00	0.00	0.191	O				2.52
388.417	0.00	0.00	0.191	O				2.52
388.500	0.00	0.00	0.191	O				2.52
388.583	0.00	0.00	0.191	O				2.52
388.667	0.00	0.00	0.191	O				2.52
388.750	0.00	0.00	0.191	O				2.52
388.833	0.00	0.00	0.191	O				2.52
388.917	0.00	0.00	0.191	O				2.52
389.000	0.00	0.00	0.191	O				2.52
389.083	0.00	0.00	0.191	O				2.52
389.167	0.00	0.00	0.191	O				2.52
389.250	0.00	0.00	0.191	O				2.52
389.333	0.00	0.00	0.191	O				2.52
389.417	0.00	0.00	0.191	O				2.52
389.500	0.00	0.00	0.191	O				2.51
389.583	0.00	0.00	0.191	O				2.51
389.667	0.00	0.00	0.191	O				2.51
389.750	0.00	0.00	0.191	O				2.51
389.833	0.00	0.00	0.191	O				2.51
389.917	0.00	0.00	0.191	O				2.51
390.000	0.00	0.00	0.191	O				2.51
390.083	0.00	0.00	0.191	O				2.51
390.167	0.00	0.00	0.191	O				2.51
390.250	0.00	0.00	0.191	O				2.51
390.333	0.00	0.00	0.191	O				2.51
390.417	0.00	0.00	0.191	O				2.51
390.500	0.00	0.00	0.191	O				2.51
390.583	0.00	0.00	0.191	O				2.51
390.667	0.00	0.00	0.191	O				2.51
390.750	0.00	0.00	0.191	O				2.51
390.833	0.00	0.00	0.191	O				2.51
390.917	0.00	0.00	0.191	O				2.51
391.000	0.00	0.00	0.191	O				2.51
391.083	0.00	0.00	0.191	O				2.51
391.167	0.00	0.00	0.191	O				2.51
391.250	0.00	0.00	0.191	O				2.51
391.333	0.00	0.00	0.191	O				2.51
391.417	0.00	0.00	0.191	O				2.51
391.500	0.00	0.00	0.191	O				2.51
391.583	0.00	0.00	0.191	O				2.51
391.667	0.00	0.00	0.191	O				2.51
391.750	0.00	0.00	0.191	O				2.51
391.833	0.00	0.00	0.191	O				2.51
391.917	0.00	0.00	0.191	O				2.51
392.000	0.00	0.00	0.191	O				2.51
392.083	0.00	0.00	0.191	O				2.51
392.167	0.00	0.00	0.191	O				2.51
392.250	0.00	0.00	0.191	O				2.51
392.333	0.00	0.00	0.191	O				2.51
392.417	0.00	0.00	0.191	O				2.51
392.500	0.00	0.00	0.191	O				2.51
392.583	0.00	0.00	0.191	O				2.51
392.667	0.00	0.00	0.191	O				2.51
392.750	0.00	0.00	0.191	O				2.51

392.833	0.00	0.00	0.191	O				2.51
392.917	0.00	0.00	0.191	O				2.51
393.000	0.00	0.00	0.191	O				2.51
393.083	0.00	0.00	0.191	O				2.51
393.167	0.00	0.00	0.191	O				2.51
393.250	0.00	0.00	0.191	O				2.51
393.333	0.00	0.00	0.191	O				2.51
393.417	0.00	0.00	0.191	O				2.51
393.500	0.00	0.00	0.191	O				2.51
393.583	0.00	0.00	0.191	O				2.51
393.667	0.00	0.00	0.191	O				2.51
393.750	0.00	0.00	0.191	O				2.51
393.833	0.00	0.00	0.191	O				2.51
393.917	0.00	0.00	0.191	O				2.51
394.000	0.00	0.00	0.191	O				2.51
394.083	0.00	0.00	0.191	O				2.51
394.167	0.00	0.00	0.191	O				2.51
394.250	0.00	0.00	0.191	O				2.51
394.333	0.00	0.00	0.191	O				2.51
394.417	0.00	0.00	0.191	O				2.51
394.500	0.00	0.00	0.191	O				2.51
394.583	0.00	0.00	0.191	O				2.51
394.667	0.00	0.00	0.191	O				2.51
394.750	0.00	0.00	0.191	O				2.51
394.833	0.00	0.00	0.191	O				2.51
394.917	0.00	0.00	0.191	O				2.51
395.000	0.00	0.00	0.191	O				2.51
395.083	0.00	0.00	0.191	O				2.51
395.167	0.00	0.00	0.191	O				2.51
395.250	0.00	0.00	0.191	O				2.51
395.333	0.00	0.00	0.191	O				2.51
395.417	0.00	0.00	0.191	O				2.51
395.500	0.00	0.00	0.191	O				2.51
395.583	0.00	0.00	0.191	O				2.51
395.667	0.00	0.00	0.191	O				2.51
395.750	0.00	0.00	0.191	O				2.51
395.833	0.00	0.00	0.191	O				2.51
395.917	0.00	0.00	0.191	O				2.51
396.000	0.00	0.00	0.191	O				2.51
396.083	0.00	0.00	0.191	O				2.51
396.167	0.00	0.00	0.191	O				2.51
396.250	0.00	0.00	0.191	O				2.51
396.333	0.00	0.00	0.191	O				2.51
396.417	0.00	0.00	0.191	O				2.51
396.500	0.00	0.00	0.191	O				2.51
396.583	0.00	0.00	0.191	O				2.51
396.667	0.00	0.00	0.190	O				2.51
396.750	0.00	0.00	0.190	O				2.51
396.833	0.00	0.00	0.190	O				2.51
396.917	0.00	0.00	0.190	O				2.51
397.000	0.00	0.00	0.190	O				2.51
397.083	0.00	0.00	0.190	O				2.51
397.167	0.00	0.00	0.190	O				2.51
397.250	0.00	0.00	0.190	O				2.51
397.333	0.00	0.00	0.190	O				2.51
397.417	0.00	0.00	0.190	O				2.51
397.500	0.00	0.00	0.190	O				2.51

397.583	0.00	0.00	0.190	0				2.51
397.667	0.00	0.00	0.190	0				2.51
397.750	0.00	0.00	0.190	0				2.50
397.833	0.00	0.00	0.190	0				2.50
397.917	0.00	0.00	0.190	0				2.50
398.000	0.00	0.00	0.190	0				2.50
398.083	0.00	0.00	0.190	0				2.50
398.167	0.00	0.00	0.190	0				2.50
398.250	0.00	0.00	0.190	0				2.50
398.333	0.00	0.00	0.190	0				2.50
398.417	0.00	0.00	0.190	0				2.50
398.500	0.00	0.00	0.190	0				2.50
398.583	0.00	0.00	0.190	0				2.50
398.667	0.00	0.00	0.190	0				2.50
398.750	0.00	0.00	0.190	0				2.50
398.833	0.00	0.00	0.190	0				2.50
398.917	0.00	0.00	0.190	0				2.50
399.000	0.00	0.00	0.190	0				2.50
399.083	0.00	0.00	0.190	0				2.50
399.167	0.00	0.00	0.190	0				2.50
399.250	0.00	0.00	0.190	0				2.50
399.333	0.00	0.00	0.190	0				2.50
399.417	0.00	0.00	0.190	0				2.50
399.500	0.00	0.00	0.190	0				2.50
399.583	0.00	0.00	0.190	0				2.50
399.667	0.00	0.00	0.190	0				2.50
399.750	0.00	0.00	0.190	0				2.50
399.833	0.00	0.00	0.190	0				2.50
399.917	0.00	0.00	0.190	0				2.50
400.000	0.00	0.00	0.190	0				2.50
400.083	0.00	0.00	0.190	0				2.50
400.167	0.00	0.00	0.190	0				2.50
400.250	0.00	0.00	0.190	0				2.50
400.333	0.00	0.00	0.190	0				2.50
400.417	0.00	0.00	0.190	0				2.50
400.500	0.00	0.00	0.190	0				2.50
400.583	0.00	0.00	0.190	0				2.50
400.667	0.00	0.00	0.190	0				2.50
400.750	0.00	0.00	0.190	0				2.50
400.833	0.00	0.00	0.190	0				2.50
400.917	0.00	0.00	0.190	0				2.50
401.000	0.00	0.00	0.190	0				2.50
401.083	0.00	0.00	0.190	0				2.50
401.167	0.00	0.00	0.190	0				2.50
401.250	0.00	0.00	0.190	0				2.50
401.333	0.00	0.00	0.190	0				2.50
401.417	0.00	0.00	0.190	0				2.50
401.500	0.00	0.00	0.190	0				2.50
401.583	0.00	0.00	0.190	0				2.50
401.667	0.00	0.00	0.190	0				2.50
401.750	0.00	0.00	0.190	0				2.50
401.833	0.00	0.00	0.190	0				2.50
401.917	0.00	0.00	0.190	0				2.50
402.000	0.00	0.00	0.190	0				2.50
402.083	0.00	0.00	0.190	0				2.50
402.167	0.00	0.00	0.190	0				2.50
402.250	0.00	0.00	0.190	0				2.50

402.333	0.00	0.00	0.190	0					2.50
402.417	0.00	0.00	0.190	0					2.50

Remaining water in basin = 0.19 (Ac.Ft)

*****HYDROGRAPH DATA*****

Number of intervals = 4829
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = 5.240 (CFS)
 Total volume = 3.192 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

 +-----+
 Process from Point/Station 12.000 to Point/Station 14.000
 **** STREAM ROUTING SCS CONVEX METHOD ****

HYDROGRAPH STREAM ROUTING DATA:

Length of stream = 2509.00 (Ft.)
 Elevation difference = 13.00 (Ft.)
 Slope of channel = 0.005181 (Vert/Horiz)
 Channel type - Pipe

Pipe length = 2509.00 (Ft.) Elevation difference = 13.00 (Ft.)
 Manning's N = 0.013 No. of pipes = 1
 Pipe evaluation using mean flow rate of hydrograph
 Required pipe flow = 1.358 (CFS)
 Nearest computed pipe diameter = 12.00 (In.)
 Calculated individual pipe flow = 1.358 (CFS)
 Normal flow depth in pipe = 6.21 (In.)
 Flow top width inside pipe = 11.99 (In.)
 Critical Depth = 0.49 (Ft.)
 Pipe flow velocity = 3.31 (Ft/s)
 Travel time through pipe = 12.62 min.

Pipe length = 2509.00 (Ft.) Elevation difference = 13.00 (Ft.)
 Manning's N = 0.013 No. of pipes = 1
 Pipe evaluation using maximum flow rate of hydrograph
 Required pipe flow = 5.240 (CFS)
 Nearest computed pipe diameter = 18.00 (In.)
 Calculated individual pipe flow = 5.240 (CFS)
 Normal flow depth in pipe = 11.02 (In.)
 Flow top width inside pipe = 17.54 (In.)
 Critical Depth = 0.88 (Ft.)
 Pipe flow velocity = 4.62 (Ft/s)
 Travel time through pipe = 9.05 min.

***** SCS CONVEX CHANNEL ROUTING *****

Convex method of stream routing data items:

Using equation: Outflow =

$O(t+dt) = (1-c^*)O(t+dt-dt^*) + \text{Input}(c^*)$

where $c^* = 1 - (1-c)^e$ and $dt = c(\text{length})/\text{velocity}$

$c(v/v+1.7) = 0.7310$ Travel time = 9.05 (min.)

$dt^*(\text{unit time interval}) = 5.00(\text{min.}), e = 0.8370$

$dt(\text{routing time-step}) = 6.62(\text{min.}), c^* = 0.6668$

Output hydrograph delayed by 0 unit time increments

+++++

PRINT OF STORM

Runoff Hydrograph

Hydrograph in 5 Minute intervals (CFS)

Time(h+m)	Out = O(CFS)	In = I	0	1.3	2.6	3.9	5.2
0+ 5	0.0000	0.00	0				
0+10	0.0000	0.00	0				
0+15	0.0001	0.00	0				
0+20	0.0003	0.00	0				
0+25	0.0006	0.00	0				
0+30	0.0008	0.00	0				
0+35	0.0009	0.00	0				
0+40	0.0010	0.00	0				
0+45	0.0010	0.00	0				
0+50	0.0010	0.00	0				
0+55	0.0010	0.00	0				
1+ 0	0.0010	0.00	0				
1+ 5	0.0010	0.00	0				
1+10	0.0010	0.00	0				
1+15	0.0010	0.00	0				
1+20	0.0010	0.00	0				
1+25	0.0010	0.00	0				
1+30	0.0010	0.00	0				
1+35	0.0010	0.00	0				
1+40	0.0010	0.00	0				
1+45	0.0010	0.00	0				
1+50	0.0010	0.00	0				
1+55	0.0010	0.00	0				
2+ 0	0.0010	0.00	0				
2+ 5	0.0010	0.00	0				
2+10	0.0010	0.00	0				
2+15	0.0010	0.00	0				
2+20	0.0010	0.00	0				
2+25	0.0010	0.00	0				
2+30	0.0010	0.00	0				
2+35	0.0010	0.00	0				
2+40	0.0010	0.00	0				
2+45	0.0011	0.00	0				
2+50	0.0016	0.00	0				
2+55	0.0028	0.00	0				

3+ 0	0.0041	0.01	O
3+ 5	0.0056	0.01	O
3+10	0.0071	0.01	O
3+15	0.0085	0.01	O
3+20	0.0095	0.01	O
3+25	0.0098	0.01	O
3+30	0.0099	0.01	O
3+35	0.0100	0.01	O
3+40	0.0100	0.01	O
3+45	0.0100	0.01	O
3+50	0.0100	0.01	O
3+55	0.0100	0.01	O
4+ 0	0.0100	0.01	O
4+ 5	0.0100	0.01	O
4+10	0.0100	0.01	O
4+15	0.0100	0.01	O
4+20	0.0100	0.01	O
4+25	0.0100	0.01	O
4+30	0.0100	0.01	O
4+35	0.0100	0.01	O
4+40	0.0100	0.01	O
4+45	0.0100	0.01	O
4+50	0.0100	0.01	O
4+55	0.0100	0.01	O
5+ 0	0.0100	0.01	O
5+ 5	0.0100	0.01	O
5+10	0.0100	0.01	O
5+15	0.0100	0.01	O
5+20	0.0100	0.01	O
5+25	0.0100	0.01	O
5+30	0.0100	0.01	O
5+35	0.0100	0.01	O
5+40	0.0124	0.02	O
5+45	0.0257	0.06	O
5+50	0.0508	0.09	O
5+55	0.0793	0.12	O
6+ 0	0.1085	0.14	OI
6+ 5	0.1374	0.17	O
6+10	0.1657	0.20	O
6+15	0.1933	0.23	O
6+20	0.2202	0.25	O
6+25	0.2465	0.28	OI
6+30	0.2721	0.30	O
6+35	0.2971	0.33	O
6+40	0.3215	0.35	O
6+45	0.3453	0.37	O
6+50	0.3686	0.40	OI
6+55	0.3912	0.42	OI
7+ 0	0.4134	0.44	O
7+ 5	0.4350	0.46	O
7+10	0.4561	0.48	O
7+15	0.4768	0.50	O
7+20	0.4970	0.52	O
7+25	0.5167	0.54	OI
7+30	0.5360	0.56	O
7+35	0.5549	0.58	O
7+40	0.5734	0.60	O

7+45	0.5915	0.61	O			
7+50	0.6092	0.63	O			
7+55	0.6266	0.65	O			
8+ 0	0.6436	0.66	OI			
8+ 5	0.6603	0.68	O			
8+10	0.6766	0.70	O			
8+15	0.6926	0.71	O			
8+20	0.7084	0.73	O			
8+25	0.7238	0.74	O			
8+30	0.7390	0.76	O			
8+35	0.7539	0.77	O			
8+40	0.7686	0.79	OI			
8+45	0.7832	0.80	OI			
8+50	0.8010	0.83	O			
8+55	0.8284	0.87	O			
9+ 0	0.8578	0.89	O			
9+ 5	0.8867	0.92	OI			
9+10	0.9145	0.95	OI			
9+15	0.9410	0.97	O			
9+20	0.9662	1.00	O			
9+25	0.9901	1.02	O			
9+30	1.0129	1.04	O			
9+35	1.0346	1.06	OI			
9+40	1.0554	1.08	O			
9+45	1.0753	1.10	O			
9+50	1.0943	1.12	O			
9+55	1.1126	1.13	O			
10+ 0	1.1302	1.15	O			
10+ 5	1.1472	1.17	O			
10+10	1.1636	1.18	OI			
10+15	1.1795	1.20	O			
10+20	1.1949	1.21	O			
10+25	1.2099	1.23	O			
10+30	1.2245	1.24	O			
10+35	1.2387	1.26	O			
10+40	1.2527	1.27	O			
10+45	1.2664	1.28	O			
10+50	1.2798	1.30	O			
10+55	1.2931	1.31	O			
11+ 0	1.3062	1.32	OI			
11+ 5	1.3191	1.34	O			
11+10	1.3319	1.35	O			
11+15	1.3447	1.36	O			
11+20	1.3574	1.37	O			
11+25	1.3700	1.39	O			
11+30	1.3826	1.40	O			
11+35	1.3953	1.41	O			
11+40	1.4080	1.42	O			
11+45	1.4207	1.44	O			
11+50	1.4335	1.45	OI			
11+55	1.4465	1.46	O			
12+ 0	1.4595	1.48	O			
12+ 5	1.4726	1.49	O			
12+10	1.4854	1.50	O			
12+15	1.4967	1.51	O			
12+20	1.5055	1.51	O			
12+25	1.5124	1.52	O			

12+30	1.5187	1.53	O						
12+35	1.5253	1.53	O						
12+40	1.5324	1.54	O						
12+45	1.5402	1.55	O						
12+50	1.5488	1.56	O						
12+55	1.5582	1.57	O						
13+ 0	1.5685	1.58	OI						
13+ 5	1.5795	1.59	O						
13+10	1.5914	1.61	O						
13+15	1.6042	1.62	O						
13+20	1.6178	1.64	O						
13+25	1.6323	1.65	O						
13+30	1.6477	1.67	O						
13+35	1.6641	1.69	O						
13+40	1.6814	1.70	OI						
13+45	1.6997	1.72	OI						
13+50	1.7190	1.74	O						
13+55	1.7395	1.77	O						
14+ 0	1.7610	1.79	O						
14+ 5	1.7837	1.81	O						
14+10	1.8078	1.84	OI						
14+15	1.8331	1.87	OI						
14+20	1.8600	1.90	O						
14+25	1.8884	1.93	O						
14+30	1.9185	1.96	O						
14+35	1.9504	1.99	OI						
14+40	1.9843	2.03	O						
14+45	2.0203	2.07	O						
14+50	2.0588	2.11	OI						
14+55	2.0999	2.15	O						
15+ 0	2.1439	2.20	O						
15+ 5	2.1913	2.25	OI						
15+10	2.2425	2.31	O						
15+15	2.2980	2.37	OI						
15+20	2.3584	2.44	O						
15+25	2.4245	2.51	OI						
15+30	2.4953	2.59	O						
15+35	2.5667	2.65	OI						
15+40	2.6362	2.72	O						
15+45	2.7087	2.81	OI						
15+50	2.7881	2.89	OI						
15+55	2.8736	3.00	OI						
16+ 0	2.9861	3.17	O	I					
16+ 5	3.1600	3.48	O	I					
16+10	3.4792	4.12	O	I					
16+15	4.0057	4.73	O						
16+20	4.5480	5.10							
16+25	4.9360	5.22							
16+30	5.1307	5.24							
16+35	5.1997	5.22							
16+40	5.2048	5.18							
16+45	5.1771	5.12							
16+50	5.1306	5.06							
16+55	5.0729	4.99							
17+ 0	5.0075	4.92							
17+ 5	4.9368	4.84							
17+10	4.8622	4.77							

22+ 0	1.2683	1.25	O
22+ 5	1.2519	1.23	O
22+10	1.2361	1.22	O
22+15	1.2210	1.20	O
22+20	1.2065	1.19	O
22+25	1.1925	1.18	IO
22+30	1.1790	1.16	IO
22+35	1.1660	1.15	O
22+40	1.1535	1.14	O
22+45	1.1414	1.13	O
22+50	1.1297	1.12	O
22+55	1.1185	1.10	O
23+ 0	1.1076	1.09	O
23+ 5	1.0971	1.08	O
23+10	1.0869	1.07	O
23+15	1.0771	1.06	O
23+20	1.0675	1.06	O
23+25	1.0583	1.05	IO
23+30	1.0493	1.04	IO
23+35	1.0406	1.03	O
23+40	1.0322	1.02	O
23+45	1.0239	1.01	O
23+50	1.0160	1.01	O
23+55	1.0082	1.00	O
24+ 0	1.0007	0.99	O
24+ 5	0.9930	0.98	O
24+10	0.9825	0.96	O
24+15	0.9618	0.92	O
24+20	0.9251	0.87	IO
24+25	0.8762	0.81	O
24+30	0.8268	0.78	IO
24+35	0.7923	0.76	IO
24+40	0.7658	0.74	O
24+45	0.7422	0.71	O
24+50	0.7200	0.69	O
24+55	0.6987	0.67	O
25+ 0	0.6780	0.65	IO
25+ 5	0.6578	0.63	IO
25+10	0.6383	0.61	O
25+15	0.6193	0.60	O
25+20	0.6009	0.58	O
25+25	0.5830	0.56	O
25+30	0.5656	0.54	O
25+35	0.5488	0.53	O
25+40	0.5324	0.51	IO
25+45	0.5166	0.50	O
25+50	0.5012	0.48	O
25+55	0.4863	0.47	O
26+ 0	0.4718	0.45	O
26+ 5	0.4577	0.44	O
26+10	0.4441	0.43	O
26+15	0.4309	0.41	O
26+20	0.4181	0.40	O
26+25	0.4056	0.39	IO
26+30	0.3935	0.38	IO
26+35	0.3818	0.37	O
26+40	0.3704	0.36	O

26+45	0.3594	0.35	O
26+50	0.3487	0.34	O
26+55	0.3383	0.33	O
27+ 0	0.3283	0.32	O
27+ 5	0.3185	0.31	O
27+10	0.3090	0.30	O
27+15	0.2998	0.29	O
27+20	0.2909	0.28	O
27+25	0.2822	0.27	O
27+30	0.2738	0.26	O
27+35	0.2657	0.26	IO
27+40	0.2577	0.25	O
27+45	0.2501	0.24	O
27+50	0.2426	0.23	O
27+55	0.2354	0.23	O
28+ 0	0.2284	0.22	O
28+ 5	0.2216	0.21	O
28+10	0.2150	0.21	O
28+15	0.2086	0.20	O
28+20	0.2024	0.19	O
28+25	0.1964	0.19	O
28+30	0.1905	0.18	O
28+35	0.1848	0.18	O
28+40	0.1793	0.17	O
28+45	0.1740	0.17	O
28+50	0.1688	0.16	O
28+55	0.1638	0.16	O
29+ 0	0.1589	0.15	O
29+ 5	0.1542	0.15	O
29+10	0.1496	0.14	O
29+15	0.1451	0.14	O
29+20	0.1408	0.14	O
29+25	0.1366	0.13	O
29+30	0.1325	0.13	IO
29+35	0.1286	0.12	O
29+40	0.1248	0.12	O
29+45	0.1211	0.12	O
29+50	0.1175	0.11	O
29+55	0.1140	0.11	O
30+ 0	0.1106	0.11	O
30+ 5	0.1073	0.10	O
30+10	0.1041	0.10	O
30+15	0.1010	0.10	O
30+20	0.0980	0.09	O
30+25	0.0951	0.09	O
30+30	0.0922	0.09	O
30+35	0.0895	0.09	O
30+40	0.0868	0.08	O
30+45	0.0842	0.08	O
30+50	0.0817	0.08	O
30+55	0.0793	0.08	O
31+ 0	0.0769	0.07	O
31+ 5	0.0746	0.07	O
31+10	0.0724	0.07	O
31+15	0.0703	0.07	O
31+20	0.0682	0.07	O
31+25	0.0661	0.06	O

31+30	0.0642	0.06	0
31+35	0.0623	0.06	0
31+40	0.0604	0.06	0
31+45	0.0586	0.06	0
31+50	0.0569	0.05	0
31+55	0.0552	0.05	0
32+ 0	0.0535	0.05	0
32+ 5	0.0519	0.05	0
32+10	0.0504	0.05	0
32+15	0.0489	0.05	0
32+20	0.0474	0.05	0
32+25	0.0460	0.04	0
32+30	0.0446	0.04	0
32+35	0.0433	0.04	0
32+40	0.0420	0.04	0
32+45	0.0408	0.04	0
32+50	0.0396	0.04	0
32+55	0.0384	0.04	0
33+ 0	0.0372	0.04	0
33+ 5	0.0361	0.03	0
33+10	0.0351	0.03	0
33+15	0.0340	0.03	0
33+20	0.0330	0.03	0
33+25	0.0320	0.03	0
33+30	0.0311	0.03	0
33+35	0.0301	0.03	0
33+40	0.0292	0.03	0
33+45	0.0284	0.03	0
33+50	0.0275	0.03	0
33+55	0.0267	0.03	0
34+ 0	0.0259	0.02	0
34+ 5	0.0251	0.02	0
34+10	0.0244	0.02	0
34+15	0.0237	0.02	0
34+20	0.0230	0.02	0
34+25	0.0223	0.02	0
34+30	0.0216	0.02	0
34+35	0.0210	0.02	0
34+40	0.0203	0.02	0
34+45	0.0197	0.02	0
34+50	0.0191	0.02	0
34+55	0.0186	0.02	0
35+ 0	0.0180	0.02	0
35+ 5	0.0175	0.02	0
35+10	0.0170	0.02	0
35+15	0.0165	0.02	0
35+20	0.0160	0.02	0
35+25	0.0155	0.01	0
35+30	0.0150	0.01	0
35+35	0.0146	0.01	0
35+40	0.0142	0.01	0
35+45	0.0137	0.01	0
35+50	0.0133	0.01	0
35+55	0.0129	0.01	0
36+ 0	0.0125	0.01	0
36+ 5	0.0122	0.01	0
36+10	0.0118	0.01	0

36+15	0.0115	0.01	o
36+20	0.0111	0.01	o
36+25	0.0108	0.01	o
36+30	0.0105	0.01	o
36+35	0.0102	0.01	o
36+40	0.0101	0.01	o
36+45	0.0100	0.01	o
36+50	0.0100	0.01	o
36+55	0.0100	0.01	o
37+ 0	0.0100	0.01	o
37+ 5	0.0100	0.01	o
37+10	0.0100	0.01	o
37+15	0.0100	0.01	o
37+20	0.0100	0.01	o
37+25	0.0100	0.01	o
37+30	0.0100	0.01	o
37+35	0.0100	0.01	o
37+40	0.0100	0.01	o
37+45	0.0100	0.01	o
37+50	0.0100	0.01	o
37+55	0.0100	0.01	o
38+ 0	0.0100	0.01	o
38+ 5	0.0100	0.01	o
38+10	0.0100	0.01	o
38+15	0.0100	0.01	o
38+20	0.0100	0.01	o
38+25	0.0100	0.01	o
38+30	0.0100	0.01	o
38+35	0.0100	0.01	o
38+40	0.0100	0.01	o
38+45	0.0100	0.01	o
38+50	0.0100	0.01	o
38+55	0.0100	0.01	o
39+ 0	0.0100	0.01	o
39+ 5	0.0100	0.01	o
39+10	0.0100	0.01	o
39+15	0.0100	0.01	o
39+20	0.0100	0.01	o
39+25	0.0100	0.01	o
39+30	0.0100	0.01	o
39+35	0.0100	0.01	o
39+40	0.0100	0.01	o
39+45	0.0100	0.01	o
39+50	0.0100	0.01	o
39+55	0.0100	0.01	o
40+ 0	0.0100	0.01	o
40+ 5	0.0100	0.01	o
40+10	0.0100	0.01	o
40+15	0.0100	0.01	o
40+20	0.0100	0.01	o
40+25	0.0100	0.01	o
40+30	0.0100	0.01	o
40+35	0.0100	0.01	o
40+40	0.0100	0.01	o
40+45	0.0100	0.01	o
40+50	0.0100	0.01	o
40+55	0.0100	0.01	o

41+ 0	0.0100	0.01	○
41+ 5	0.0100	0.01	○
41+10	0.0100	0.01	○
41+15	0.0100	0.01	○
41+20	0.0100	0.01	○
41+25	0.0100	0.01	○
41+30	0.0100	0.01	○
41+35	0.0100	0.01	○
41+40	0.0100	0.01	○
41+45	0.0100	0.01	○
41+50	0.0100	0.01	○
41+55	0.0100	0.01	○
42+ 0	0.0100	0.01	○
42+ 5	0.0100	0.01	○
42+10	0.0100	0.01	○
42+15	0.0100	0.01	○
42+20	0.0100	0.01	○
42+25	0.0100	0.01	○
42+30	0.0100	0.01	○
42+35	0.0100	0.01	○
42+40	0.0100	0.01	○
42+45	0.0100	0.01	○
42+50	0.0100	0.01	○
42+55	0.0100	0.01	○
43+ 0	0.0100	0.01	○
43+ 5	0.0100	0.01	○
43+10	0.0100	0.01	○
43+15	0.0100	0.01	○
43+20	0.0100	0.01	○
43+25	0.0100	0.01	○
43+30	0.0100	0.01	○
43+35	0.0100	0.01	○
43+40	0.0100	0.01	○
43+45	0.0100	0.01	○
43+50	0.0100	0.01	○
43+55	0.0100	0.01	○
44+ 0	0.0100	0.01	○
44+ 5	0.0100	0.01	○
44+10	0.0100	0.01	○
44+15	0.0100	0.01	○
44+20	0.0100	0.01	○
44+25	0.0100	0.01	○
44+30	0.0100	0.01	○
44+35	0.0100	0.01	○
44+40	0.0100	0.01	○
44+45	0.0100	0.01	○
44+50	0.0100	0.01	○
44+55	0.0100	0.01	○
45+ 0	0.0100	0.01	○
45+ 5	0.0100	0.01	○
45+10	0.0100	0.01	○
45+15	0.0100	0.01	○
45+20	0.0100	0.01	○
45+25	0.0100	0.01	○
45+30	0.0100	0.01	○
45+35	0.0100	0.01	○
45+40	0.0100	0.01	○

45+45	0.0100	0.01	○
45+50	0.0100	0.01	○
45+55	0.0100	0.01	○
46+ 0	0.0100	0.01	○
46+ 5	0.0100	0.01	○
46+10	0.0100	0.01	○
46+15	0.0100	0.01	○
46+20	0.0100	0.01	○
46+25	0.0100	0.01	○
46+30	0.0100	0.01	○
46+35	0.0100	0.01	○
46+40	0.0100	0.01	○
46+45	0.0100	0.01	○
46+50	0.0100	0.01	○
46+55	0.0100	0.01	○
47+ 0	0.0100	0.01	○
47+ 5	0.0100	0.01	○
47+10	0.0100	0.01	○
47+15	0.0100	0.01	○
47+20	0.0100	0.01	○
47+25	0.0100	0.01	○
47+30	0.0100	0.01	○
47+35	0.0100	0.01	○
47+40	0.0100	0.01	○
47+45	0.0100	0.01	○
47+50	0.0100	0.01	○
47+55	0.0100	0.01	○
48+ 0	0.0100	0.01	○
48+ 5	0.0100	0.01	○
48+10	0.0100	0.01	○
48+15	0.0100	0.01	○
48+20	0.0100	0.01	○
48+25	0.0100	0.01	○
48+30	0.0100	0.01	○
48+35	0.0100	0.01	○
48+40	0.0100	0.01	○
48+45	0.0100	0.01	○
48+50	0.0100	0.01	○
48+55	0.0100	0.01	○
49+ 0	0.0100	0.01	○
49+ 5	0.0100	0.01	○
49+10	0.0100	0.01	○
49+15	0.0100	0.01	○
49+20	0.0100	0.01	○
49+25	0.0100	0.01	○
49+30	0.0100	0.01	○
49+35	0.0100	0.01	○
49+40	0.0100	0.01	○
49+45	0.0100	0.01	○
49+50	0.0100	0.01	○
49+55	0.0100	0.01	○
50+ 0	0.0100	0.01	○
50+ 5	0.0100	0.01	○
50+10	0.0100	0.01	○
50+15	0.0100	0.01	○
50+20	0.0100	0.01	○
50+25	0.0100	0.01	○

50+30	0.0100	0.01	○
50+35	0.0100	0.01	○
50+40	0.0100	0.01	○
50+45	0.0100	0.01	○
50+50	0.0100	0.01	○
50+55	0.0100	0.01	○
51+ 0	0.0100	0.01	○
51+ 5	0.0100	0.01	○
51+10	0.0100	0.01	○
51+15	0.0100	0.01	○
51+20	0.0100	0.01	○
51+25	0.0100	0.01	○
51+30	0.0100	0.01	○
51+35	0.0100	0.01	○
51+40	0.0100	0.01	○
51+45	0.0100	0.01	○
51+50	0.0100	0.01	○
51+55	0.0100	0.01	○
52+ 0	0.0100	0.01	○
52+ 5	0.0100	0.01	○
52+10	0.0100	0.01	○
52+15	0.0100	0.01	○
52+20	0.0100	0.01	○
52+25	0.0100	0.01	○
52+30	0.0100	0.01	○
52+35	0.0100	0.01	○
52+40	0.0100	0.01	○
52+45	0.0100	0.01	○
52+50	0.0100	0.01	○
52+55	0.0100	0.01	○
53+ 0	0.0100	0.01	○
53+ 5	0.0100	0.01	○
53+10	0.0100	0.01	○
53+15	0.0100	0.01	○
53+20	0.0100	0.01	○
53+25	0.0100	0.01	○
53+30	0.0100	0.01	○
53+35	0.0100	0.01	○
53+40	0.0100	0.01	○
53+45	0.0100	0.01	○
53+50	0.0100	0.01	○
53+55	0.0100	0.01	○
54+ 0	0.0100	0.01	○
54+ 5	0.0100	0.01	○
54+10	0.0100	0.01	○
54+15	0.0100	0.01	○
54+20	0.0100	0.01	○
54+25	0.0100	0.01	○
54+30	0.0100	0.01	○
54+35	0.0100	0.01	○
54+40	0.0100	0.01	○
54+45	0.0100	0.01	○
54+50	0.0100	0.01	○
54+55	0.0100	0.01	○
55+ 0	0.0100	0.01	○
55+ 5	0.0100	0.01	○
55+10	0.0100	0.01	○

55+15	0.0100	0.01	○
55+20	0.0100	0.01	○
55+25	0.0100	0.01	○
55+30	0.0100	0.01	○
55+35	0.0100	0.01	○
55+40	0.0100	0.01	○
55+45	0.0100	0.01	○
55+50	0.0100	0.01	○
55+55	0.0100	0.01	○
56+ 0	0.0100	0.01	○
56+ 5	0.0100	0.01	○
56+10	0.0100	0.01	○
56+15	0.0100	0.01	○
56+20	0.0100	0.01	○
56+25	0.0100	0.01	○
56+30	0.0100	0.01	○
56+35	0.0100	0.01	○
56+40	0.0100	0.01	○
56+45	0.0100	0.01	○
56+50	0.0100	0.01	○
56+55	0.0100	0.01	○
57+ 0	0.0100	0.01	○
57+ 5	0.0100	0.01	○
57+10	0.0100	0.01	○
57+15	0.0100	0.01	○
57+20	0.0100	0.01	○
57+25	0.0100	0.01	○
57+30	0.0100	0.01	○
57+35	0.0100	0.01	○
57+40	0.0100	0.01	○
57+45	0.0100	0.01	○
57+50	0.0100	0.01	○
57+55	0.0100	0.01	○
58+ 0	0.0100	0.01	○
58+ 5	0.0100	0.01	○
58+10	0.0100	0.01	○
58+15	0.0100	0.01	○
58+20	0.0100	0.01	○
58+25	0.0100	0.01	○
58+30	0.0100	0.01	○
58+35	0.0100	0.01	○
58+40	0.0100	0.01	○
58+45	0.0100	0.01	○
58+50	0.0100	0.01	○
58+55	0.0100	0.01	○
59+ 0	0.0100	0.01	○
59+ 5	0.0100	0.01	○
59+10	0.0100	0.01	○
59+15	0.0100	0.01	○
59+20	0.0100	0.01	○
59+25	0.0100	0.01	○
59+30	0.0100	0.01	○
59+35	0.0100	0.01	○
59+40	0.0100	0.01	○
59+45	0.0100	0.01	○
59+50	0.0100	0.01	○
59+55	0.0100	0.01	○

60+ 0	0.0100	0.01	○
60+ 5	0.0100	0.01	○
60+10	0.0100	0.01	○
60+15	0.0100	0.01	○
60+20	0.0100	0.01	○
60+25	0.0100	0.01	○
60+30	0.0100	0.01	○
60+35	0.0100	0.01	○
60+40	0.0100	0.01	○
60+45	0.0100	0.01	○
60+50	0.0100	0.01	○
60+55	0.0100	0.01	○
61+ 0	0.0100	0.01	○
61+ 5	0.0100	0.01	○
61+10	0.0100	0.01	○
61+15	0.0100	0.01	○
61+20	0.0100	0.01	○
61+25	0.0100	0.01	○
61+30	0.0100	0.01	○
61+35	0.0100	0.01	○
61+40	0.0100	0.01	○
61+45	0.0100	0.01	○
61+50	0.0100	0.01	○
61+55	0.0100	0.01	○
62+ 0	0.0100	0.01	○
62+ 5	0.0100	0.01	○
62+10	0.0100	0.01	○
62+15	0.0100	0.01	○
62+20	0.0100	0.01	○
62+25	0.0100	0.01	○
62+30	0.0100	0.01	○
62+35	0.0100	0.01	○
62+40	0.0100	0.01	○
62+45	0.0100	0.01	○
62+50	0.0100	0.01	○
62+55	0.0100	0.01	○
63+ 0	0.0100	0.01	○
63+ 5	0.0100	0.01	○
63+10	0.0100	0.01	○
63+15	0.0100	0.01	○
63+20	0.0100	0.01	○
63+25	0.0100	0.01	○
63+30	0.0100	0.01	○
63+35	0.0100	0.01	○
63+40	0.0100	0.01	○
63+45	0.0100	0.01	○
63+50	0.0100	0.01	○
63+55	0.0100	0.01	○
64+ 0	0.0100	0.01	○
64+ 5	0.0100	0.01	○
64+10	0.0100	0.01	○
64+15	0.0100	0.01	○
64+20	0.0100	0.01	○
64+25	0.0100	0.01	○
64+30	0.0100	0.01	○
64+35	0.0100	0.01	○
64+40	0.0100	0.01	○

64+45	0.0100	0.01	○
64+50	0.0100	0.01	○
64+55	0.0100	0.01	○
65+ 0	0.0100	0.01	○
65+ 5	0.0100	0.01	○
65+10	0.0100	0.01	○
65+15	0.0100	0.01	○
65+20	0.0100	0.01	○
65+25	0.0100	0.01	○
65+30	0.0100	0.01	○
65+35	0.0100	0.01	○
65+40	0.0100	0.01	○
65+45	0.0100	0.01	○
65+50	0.0100	0.01	○
65+55	0.0100	0.01	○
66+ 0	0.0100	0.01	○
66+ 5	0.0100	0.01	○
66+10	0.0100	0.01	○
66+15	0.0100	0.01	○
66+20	0.0100	0.01	○
66+25	0.0100	0.01	○
66+30	0.0100	0.01	○
66+35	0.0100	0.01	○
66+40	0.0100	0.01	○
66+45	0.0100	0.01	○
66+50	0.0100	0.01	○
66+55	0.0100	0.01	○
67+ 0	0.0100	0.01	○
67+ 5	0.0100	0.01	○
67+10	0.0100	0.01	○
67+15	0.0100	0.01	○
67+20	0.0100	0.01	○
67+25	0.0100	0.01	○
67+30	0.0100	0.01	○
67+35	0.0100	0.01	○
67+40	0.0100	0.01	○
67+45	0.0100	0.01	○
67+50	0.0100	0.01	○
67+55	0.0100	0.01	○
68+ 0	0.0100	0.01	○
68+ 5	0.0100	0.01	○
68+10	0.0100	0.01	○
68+15	0.0100	0.01	○
68+20	0.0100	0.01	○
68+25	0.0100	0.01	○
68+30	0.0100	0.01	○
68+35	0.0100	0.01	○
68+40	0.0100	0.01	○
68+45	0.0100	0.01	○
68+50	0.0100	0.01	○
68+55	0.0100	0.01	○
69+ 0	0.0100	0.01	○
69+ 5	0.0100	0.01	○
69+10	0.0100	0.01	○
69+15	0.0100	0.01	○
69+20	0.0100	0.01	○
69+25	0.0100	0.01	○

69+30	0.0100	0.01	○
69+35	0.0100	0.01	○
69+40	0.0100	0.01	○
69+45	0.0100	0.01	○
69+50	0.0100	0.01	○
69+55	0.0100	0.01	○
70+ 0	0.0100	0.01	○
70+ 5	0.0100	0.01	○
70+10	0.0100	0.01	○
70+15	0.0100	0.01	○
70+20	0.0100	0.01	○
70+25	0.0100	0.01	○
70+30	0.0100	0.01	○
70+35	0.0100	0.01	○
70+40	0.0100	0.01	○
70+45	0.0100	0.01	○
70+50	0.0100	0.01	○
70+55	0.0100	0.01	○
71+ 0	0.0100	0.01	○
71+ 5	0.0100	0.01	○
71+10	0.0100	0.01	○
71+15	0.0100	0.01	○
71+20	0.0100	0.01	○
71+25	0.0100	0.01	○
71+30	0.0100	0.01	○
71+35	0.0100	0.01	○
71+40	0.0100	0.01	○
71+45	0.0100	0.01	○
71+50	0.0100	0.01	○
71+55	0.0100	0.01	○
72+ 0	0.0100	0.01	○
72+ 5	0.0100	0.01	○
72+10	0.0100	0.01	○
72+15	0.0100	0.01	○
72+20	0.0100	0.01	○
72+25	0.0100	0.01	○
72+30	0.0100	0.01	○
72+35	0.0100	0.01	○
72+40	0.0100	0.01	○
72+45	0.0100	0.01	○
72+50	0.0100	0.01	○
72+55	0.0100	0.01	○
73+ 0	0.0100	0.01	○
73+ 5	0.0100	0.01	○
73+10	0.0100	0.01	○
73+15	0.0100	0.01	○
73+20	0.0100	0.01	○
73+25	0.0100	0.01	○
73+30	0.0100	0.01	○
73+35	0.0100	0.01	○
73+40	0.0100	0.01	○
73+45	0.0100	0.01	○
73+50	0.0100	0.01	○
73+55	0.0100	0.01	○
74+ 0	0.0100	0.01	○
74+ 5	0.0100	0.01	○
74+10	0.0100	0.01	○

74+15	0.0100	0.01	○
74+20	0.0100	0.01	○
74+25	0.0100	0.01	○
74+30	0.0100	0.01	○
74+35	0.0100	0.01	○
74+40	0.0100	0.01	○
74+45	0.0100	0.01	○
74+50	0.0100	0.01	○
74+55	0.0100	0.01	○
75+ 0	0.0100	0.01	○
75+ 5	0.0100	0.01	○
75+10	0.0100	0.01	○
75+15	0.0100	0.01	○
75+20	0.0100	0.01	○
75+25	0.0100	0.01	○
75+30	0.0100	0.01	○
75+35	0.0100	0.01	○
75+40	0.0100	0.01	○
75+45	0.0100	0.01	○
75+50	0.0100	0.01	○
75+55	0.0100	0.01	○
76+ 0	0.0100	0.01	○
76+ 5	0.0100	0.01	○
76+10	0.0100	0.01	○
76+15	0.0100	0.01	○
76+20	0.0100	0.01	○
76+25	0.0100	0.01	○
76+30	0.0100	0.01	○
76+35	0.0100	0.01	○
76+40	0.0100	0.01	○
76+45	0.0100	0.01	○
76+50	0.0100	0.01	○
76+55	0.0100	0.01	○
77+ 0	0.0100	0.01	○
77+ 5	0.0100	0.01	○
77+10	0.0100	0.01	○
77+15	0.0100	0.01	○
77+20	0.0100	0.01	○
77+25	0.0100	0.01	○
77+30	0.0100	0.01	○
77+35	0.0100	0.01	○
77+40	0.0100	0.01	○
77+45	0.0100	0.01	○
77+50	0.0100	0.01	○
77+55	0.0100	0.01	○
78+ 0	0.0100	0.01	○
78+ 5	0.0100	0.01	○
78+10	0.0100	0.01	○
78+15	0.0100	0.01	○
78+20	0.0100	0.01	○
78+25	0.0100	0.01	○
78+30	0.0100	0.01	○
78+35	0.0100	0.01	○
78+40	0.0100	0.01	○
78+45	0.0100	0.01	○
78+50	0.0100	0.01	○
78+55	0.0100	0.01	○

79+ 0	0.0100	0.01	○
79+ 5	0.0100	0.01	○
79+10	0.0100	0.01	○
79+15	0.0100	0.01	○
79+20	0.0100	0.01	○
79+25	0.0100	0.01	○
79+30	0.0100	0.01	○
79+35	0.0100	0.01	○
79+40	0.0100	0.01	○
79+45	0.0100	0.01	○
79+50	0.0100	0.01	○
79+55	0.0100	0.01	○
80+ 0	0.0100	0.01	○
80+ 5	0.0100	0.01	○
80+10	0.0100	0.01	○
80+15	0.0100	0.01	○
80+20	0.0100	0.01	○
80+25	0.0100	0.01	○
80+30	0.0100	0.01	○
80+35	0.0100	0.01	○
80+40	0.0100	0.01	○
80+45	0.0100	0.01	○
80+50	0.0100	0.01	○
80+55	0.0100	0.01	○
81+ 0	0.0100	0.01	○
81+ 5	0.0100	0.01	○
81+10	0.0100	0.01	○
81+15	0.0100	0.01	○
81+20	0.0100	0.01	○
81+25	0.0100	0.01	○
81+30	0.0100	0.01	○
81+35	0.0100	0.01	○
81+40	0.0100	0.01	○
81+45	0.0100	0.01	○
81+50	0.0100	0.01	○
81+55	0.0100	0.01	○
82+ 0	0.0100	0.01	○
82+ 5	0.0100	0.01	○
82+10	0.0100	0.01	○
82+15	0.0100	0.01	○
82+20	0.0100	0.01	○
82+25	0.0100	0.01	○
82+30	0.0100	0.01	○
82+35	0.0100	0.01	○
82+40	0.0100	0.01	○
82+45	0.0100	0.01	○
82+50	0.0100	0.01	○
82+55	0.0100	0.01	○
83+ 0	0.0100	0.01	○
83+ 5	0.0100	0.01	○
83+10	0.0100	0.01	○
83+15	0.0100	0.01	○
83+20	0.0100	0.01	○
83+25	0.0100	0.01	○
83+30	0.0100	0.01	○
83+35	0.0100	0.01	○
83+40	0.0100	0.01	○

83+45	0.0100	0.01	○
83+50	0.0100	0.01	○
83+55	0.0100	0.01	○
84+ 0	0.0100	0.01	○
84+ 5	0.0100	0.01	○
84+10	0.0100	0.01	○
84+15	0.0100	0.01	○
84+20	0.0100	0.01	○
84+25	0.0100	0.01	○
84+30	0.0100	0.01	○
84+35	0.0100	0.01	○
84+40	0.0100	0.01	○
84+45	0.0100	0.01	○
84+50	0.0100	0.01	○
84+55	0.0100	0.01	○
85+ 0	0.0100	0.01	○
85+ 5	0.0100	0.01	○
85+10	0.0100	0.01	○
85+15	0.0100	0.01	○
85+20	0.0100	0.01	○
85+25	0.0100	0.01	○
85+30	0.0100	0.01	○
85+35	0.0100	0.01	○
85+40	0.0100	0.01	○
85+45	0.0100	0.01	○
85+50	0.0100	0.01	○
85+55	0.0100	0.01	○
86+ 0	0.0100	0.01	○
86+ 5	0.0100	0.01	○
86+10	0.0100	0.01	○
86+15	0.0100	0.01	○
86+20	0.0100	0.01	○
86+25	0.0100	0.01	○
86+30	0.0100	0.01	○
86+35	0.0100	0.01	○
86+40	0.0100	0.01	○
86+45	0.0100	0.01	○
86+50	0.0100	0.01	○
86+55	0.0100	0.01	○
87+ 0	0.0100	0.01	○
87+ 5	0.0100	0.01	○
87+10	0.0100	0.01	○
87+15	0.0100	0.01	○
87+20	0.0100	0.01	○
87+25	0.0100	0.01	○
87+30	0.0100	0.01	○
87+35	0.0100	0.01	○
87+40	0.0100	0.01	○
87+45	0.0100	0.01	○
87+50	0.0100	0.01	○
87+55	0.0100	0.01	○
88+ 0	0.0100	0.01	○
88+ 5	0.0100	0.01	○
88+10	0.0100	0.01	○
88+15	0.0100	0.01	○
88+20	0.0100	0.01	○
88+25	0.0100	0.01	○

88+30	0.0100	0.01	○
88+35	0.0100	0.01	○
88+40	0.0100	0.01	○
88+45	0.0100	0.01	○
88+50	0.0100	0.01	○
88+55	0.0100	0.01	○
89+ 0	0.0100	0.01	○
89+ 5	0.0100	0.01	○
89+10	0.0100	0.01	○
89+15	0.0100	0.01	○
89+20	0.0100	0.01	○
89+25	0.0100	0.01	○
89+30	0.0100	0.01	○
89+35	0.0100	0.01	○
89+40	0.0100	0.01	○
89+45	0.0100	0.01	○
89+50	0.0100	0.01	○
89+55	0.0100	0.01	○
90+ 0	0.0100	0.01	○
90+ 5	0.0100	0.01	○
90+10	0.0100	0.01	○
90+15	0.0100	0.01	○
90+20	0.0100	0.01	○
90+25	0.0100	0.01	○
90+30	0.0100	0.01	○
90+35	0.0100	0.01	○
90+40	0.0100	0.01	○
90+45	0.0100	0.01	○
90+50	0.0100	0.01	○
90+55	0.0100	0.01	○
91+ 0	0.0100	0.01	○
91+ 5	0.0100	0.01	○
91+10	0.0100	0.01	○
91+15	0.0100	0.01	○
91+20	0.0100	0.01	○
91+25	0.0100	0.01	○
91+30	0.0100	0.01	○
91+35	0.0100	0.01	○
91+40	0.0100	0.01	○
91+45	0.0100	0.01	○
91+50	0.0100	0.01	○
91+55	0.0100	0.01	○
92+ 0	0.0100	0.01	○
92+ 5	0.0100	0.01	○
92+10	0.0100	0.01	○
92+15	0.0100	0.01	○
92+20	0.0100	0.01	○
92+25	0.0100	0.01	○
92+30	0.0100	0.01	○
92+35	0.0100	0.01	○
92+40	0.0100	0.01	○
92+45	0.0100	0.01	○
92+50	0.0100	0.01	○
92+55	0.0100	0.01	○
93+ 0	0.0100	0.01	○
93+ 5	0.0100	0.01	○
93+10	0.0100	0.01	○

93+15	0.0100	0.01	○
93+20	0.0100	0.01	○
93+25	0.0100	0.01	○
93+30	0.0100	0.01	○
93+35	0.0100	0.01	○
93+40	0.0100	0.01	○
93+45	0.0100	0.01	○
93+50	0.0100	0.01	○
93+55	0.0100	0.01	○
94+ 0	0.0100	0.01	○
94+ 5	0.0100	0.01	○
94+10	0.0100	0.01	○
94+15	0.0100	0.01	○
94+20	0.0100	0.01	○
94+25	0.0100	0.01	○
94+30	0.0100	0.01	○
94+35	0.0100	0.01	○
94+40	0.0100	0.01	○
94+45	0.0100	0.01	○
94+50	0.0100	0.01	○
94+55	0.0100	0.01	○
95+ 0	0.0100	0.01	○
95+ 5	0.0100	0.01	○
95+10	0.0100	0.01	○
95+15	0.0100	0.01	○
95+20	0.0100	0.01	○
95+25	0.0100	0.01	○
95+30	0.0100	0.01	○
95+35	0.0100	0.01	○
95+40	0.0100	0.01	○
95+45	0.0100	0.01	○
95+50	0.0100	0.01	○
95+55	0.0100	0.01	○
96+ 0	0.0100	0.01	○
96+ 5	0.0100	0.01	○
96+10	0.0100	0.01	○
96+15	0.0100	0.01	○
96+20	0.0100	0.01	○
96+25	0.0100	0.01	○
96+30	0.0100	0.01	○
96+35	0.0100	0.01	○
96+40	0.0100	0.01	○
96+45	0.0100	0.01	○
96+50	0.0100	0.01	○
96+55	0.0100	0.01	○
97+ 0	0.0100	0.01	○
97+ 5	0.0100	0.01	○
97+10	0.0100	0.01	○
97+15	0.0100	0.01	○
97+20	0.0100	0.01	○
97+25	0.0100	0.01	○
97+30	0.0100	0.01	○
97+35	0.0100	0.01	○
97+40	0.0100	0.01	○
97+45	0.0100	0.01	○
97+50	0.0100	0.01	○
97+55	0.0100	0.01	○

98+ 0	0.0100	0.01	○
98+ 5	0.0100	0.01	○
98+10	0.0100	0.01	○
98+15	0.0100	0.01	○
98+20	0.0100	0.01	○
98+25	0.0100	0.01	○
98+30	0.0100	0.01	○
98+35	0.0100	0.01	○
98+40	0.0100	0.01	○
98+45	0.0100	0.01	○
98+50	0.0100	0.01	○
98+55	0.0100	0.01	○
99+ 0	0.0100	0.01	○
99+ 5	0.0100	0.01	○
99+10	0.0100	0.01	○
99+15	0.0100	0.01	○
99+20	0.0100	0.01	○
99+25	0.0100	0.01	○
99+30	0.0100	0.01	○
99+35	0.0100	0.01	○
99+40	0.0100	0.01	○
99+45	0.0100	0.01	○
99+50	0.0100	0.01	○
99+55	0.0100	0.01	○
100+ 0	0.0100	0.01	○
100+ 5	0.0100	0.01	○
100+10	0.0100	0.01	○
100+15	0.0100	0.01	○
100+20	0.0100	0.01	○
100+25	0.0100	0.01	○
100+30	0.0100	0.01	○
100+35	0.0100	0.01	○
100+40	0.0100	0.01	○
100+45	0.0100	0.01	○
100+50	0.0100	0.01	○
100+55	0.0100	0.01	○
101+ 0	0.0100	0.01	○
101+ 5	0.0100	0.01	○
101+10	0.0100	0.01	○
101+15	0.0100	0.01	○
101+20	0.0100	0.01	○
101+25	0.0100	0.01	○
101+30	0.0100	0.01	○
101+35	0.0100	0.01	○
101+40	0.0100	0.01	○
101+45	0.0100	0.01	○
101+50	0.0100	0.01	○
101+55	0.0100	0.01	○
102+ 0	0.0100	0.01	○
102+ 5	0.0100	0.01	○
102+10	0.0100	0.01	○
102+15	0.0100	0.01	○
102+20	0.0100	0.01	○
102+25	0.0100	0.01	○
102+30	0.0100	0.01	○
102+35	0.0100	0.01	○
102+40	0.0100	0.01	○

102+45	0.0100	0.01	○
102+50	0.0100	0.01	○
102+55	0.0100	0.01	○
103+ 0	0.0100	0.01	○
103+ 5	0.0100	0.01	○
103+10	0.0100	0.01	○
103+15	0.0100	0.01	○
103+20	0.0100	0.01	○
103+25	0.0100	0.01	○
103+30	0.0100	0.01	○
103+35	0.0100	0.01	○
103+40	0.0100	0.01	○
103+45	0.0100	0.01	○
103+50	0.0100	0.01	○
103+55	0.0100	0.01	○
104+ 0	0.0100	0.01	○
104+ 5	0.0100	0.01	○
104+10	0.0100	0.01	○
104+15	0.0100	0.01	○
104+20	0.0100	0.01	○
104+25	0.0100	0.01	○
104+30	0.0100	0.01	○
104+35	0.0100	0.01	○
104+40	0.0100	0.01	○
104+45	0.0100	0.01	○
104+50	0.0100	0.01	○
104+55	0.0100	0.01	○
105+ 0	0.0100	0.01	○
105+ 5	0.0100	0.01	○
105+10	0.0100	0.01	○
105+15	0.0100	0.01	○
105+20	0.0100	0.01	○
105+25	0.0100	0.01	○
105+30	0.0100	0.01	○
105+35	0.0100	0.01	○
105+40	0.0100	0.01	○
105+45	0.0100	0.01	○
105+50	0.0100	0.01	○
105+55	0.0100	0.01	○
106+ 0	0.0100	0.01	○
106+ 5	0.0100	0.01	○
106+10	0.0100	0.01	○
106+15	0.0100	0.01	○
106+20	0.0100	0.01	○
106+25	0.0100	0.01	○
106+30	0.0100	0.01	○
106+35	0.0100	0.01	○
106+40	0.0100	0.01	○
106+45	0.0100	0.01	○
106+50	0.0100	0.01	○
106+55	0.0100	0.01	○
107+ 0	0.0100	0.01	○
107+ 5	0.0100	0.01	○
107+10	0.0100	0.01	○
107+15	0.0100	0.01	○
107+20	0.0100	0.01	○
107+25	0.0100	0.01	○

107+30	0.0100	0.01	○
107+35	0.0100	0.01	○
107+40	0.0100	0.01	○
107+45	0.0100	0.01	○
107+50	0.0100	0.01	○
107+55	0.0100	0.01	○
108+ 0	0.0100	0.01	○
108+ 5	0.0100	0.01	○
108+10	0.0100	0.01	○
108+15	0.0100	0.01	○
108+20	0.0100	0.01	○
108+25	0.0100	0.01	○
108+30	0.0100	0.01	○
108+35	0.0100	0.01	○
108+40	0.0100	0.01	○
108+45	0.0100	0.01	○
108+50	0.0100	0.01	○
108+55	0.0100	0.01	○
109+ 0	0.0100	0.01	○
109+ 5	0.0100	0.01	○
109+10	0.0100	0.01	○
109+15	0.0100	0.01	○
109+20	0.0100	0.01	○
109+25	0.0100	0.01	○
109+30	0.0100	0.01	○
109+35	0.0100	0.01	○
109+40	0.0100	0.01	○
109+45	0.0100	0.01	○
109+50	0.0100	0.01	○
109+55	0.0100	0.01	○
110+ 0	0.0100	0.01	○
110+ 5	0.0100	0.01	○
110+10	0.0100	0.01	○
110+15	0.0100	0.01	○
110+20	0.0100	0.01	○
110+25	0.0100	0.01	○
110+30	0.0100	0.01	○
110+35	0.0100	0.01	○
110+40	0.0100	0.01	○
110+45	0.0100	0.01	○
110+50	0.0100	0.01	○
110+55	0.0100	0.01	○
111+ 0	0.0100	0.01	○
111+ 5	0.0100	0.01	○
111+10	0.0100	0.01	○
111+15	0.0100	0.01	○
111+20	0.0100	0.01	○
111+25	0.0100	0.01	○
111+30	0.0100	0.01	○
111+35	0.0100	0.01	○
111+40	0.0100	0.01	○
111+45	0.0100	0.01	○
111+50	0.0100	0.01	○
111+55	0.0100	0.01	○
112+ 0	0.0100	0.01	○
112+ 5	0.0100	0.01	○
112+10	0.0100	0.01	○

112+15	0.0100	0.01	○
112+20	0.0100	0.01	○
112+25	0.0100	0.01	○
112+30	0.0100	0.01	○
112+35	0.0100	0.01	○
112+40	0.0100	0.01	○
112+45	0.0100	0.01	○
112+50	0.0100	0.01	○
112+55	0.0100	0.01	○
113+ 0	0.0100	0.01	○
113+ 5	0.0100	0.01	○
113+10	0.0100	0.01	○
113+15	0.0100	0.01	○
113+20	0.0100	0.01	○
113+25	0.0100	0.01	○
113+30	0.0100	0.01	○
113+35	0.0100	0.01	○
113+40	0.0100	0.01	○
113+45	0.0100	0.01	○
113+50	0.0100	0.01	○
113+55	0.0100	0.01	○
114+ 0	0.0100	0.01	○
114+ 5	0.0100	0.01	○
114+10	0.0100	0.01	○
114+15	0.0100	0.01	○
114+20	0.0100	0.01	○
114+25	0.0100	0.01	○
114+30	0.0100	0.01	○
114+35	0.0100	0.01	○
114+40	0.0100	0.01	○
114+45	0.0100	0.01	○
114+50	0.0100	0.01	○
114+55	0.0100	0.01	○
115+ 0	0.0100	0.01	○
115+ 5	0.0100	0.01	○
115+10	0.0100	0.01	○
115+15	0.0100	0.01	○
115+20	0.0100	0.01	○
115+25	0.0100	0.01	○
115+30	0.0100	0.01	○
115+35	0.0100	0.01	○
115+40	0.0100	0.01	○
115+45	0.0100	0.01	○
115+50	0.0100	0.01	○
115+55	0.0100	0.01	○
116+ 0	0.0100	0.01	○
116+ 5	0.0100	0.01	○
116+10	0.0100	0.01	○
116+15	0.0100	0.01	○
116+20	0.0100	0.01	○
116+25	0.0100	0.01	○
116+30	0.0100	0.01	○
116+35	0.0100	0.01	○
116+40	0.0100	0.01	○
116+45	0.0100	0.01	○
116+50	0.0100	0.01	○
116+55	0.0100	0.01	○

117+ 0	0.0100	0.01	○
117+ 5	0.0100	0.01	○
117+10	0.0100	0.01	○
117+15	0.0100	0.01	○
117+20	0.0100	0.01	○
117+25	0.0100	0.01	○
117+30	0.0100	0.01	○
117+35	0.0100	0.01	○
117+40	0.0100	0.01	○
117+45	0.0100	0.01	○
117+50	0.0100	0.01	○
117+55	0.0100	0.01	○
118+ 0	0.0100	0.01	○
118+ 5	0.0100	0.01	○
118+10	0.0100	0.01	○
118+15	0.0100	0.01	○
118+20	0.0100	0.01	○
118+25	0.0100	0.01	○
118+30	0.0100	0.01	○
118+35	0.0100	0.01	○
118+40	0.0100	0.01	○
118+45	0.0100	0.01	○
118+50	0.0100	0.01	○
118+55	0.0100	0.01	○
119+ 0	0.0100	0.01	○
119+ 5	0.0100	0.01	○
119+10	0.0100	0.01	○
119+15	0.0100	0.01	○
119+20	0.0100	0.01	○
119+25	0.0100	0.01	○
119+30	0.0100	0.01	○
119+35	0.0100	0.01	○
119+40	0.0100	0.01	○
119+45	0.0100	0.01	○
119+50	0.0100	0.01	○
119+55	0.0100	0.01	○
120+ 0	0.0100	0.01	○
120+ 5	0.0100	0.01	○
120+10	0.0100	0.01	○
120+15	0.0100	0.01	○
120+20	0.0100	0.01	○
120+25	0.0100	0.01	○
120+30	0.0100	0.01	○
120+35	0.0100	0.01	○
120+40	0.0100	0.01	○
120+45	0.0100	0.01	○
120+50	0.0100	0.01	○
120+55	0.0100	0.01	○
121+ 0	0.0100	0.01	○
121+ 5	0.0100	0.01	○
121+10	0.0100	0.01	○
121+15	0.0100	0.01	○
121+20	0.0100	0.01	○
121+25	0.0100	0.01	○
121+30	0.0100	0.01	○
121+35	0.0100	0.01	○
121+40	0.0100	0.01	○

121+45	0.0100	0.01	o
121+50	0.0100	0.01	o
121+55	0.0100	0.01	o
122+ 0	0.0100	0.01	o
122+ 5	0.0100	0.01	o
122+10	0.0100	0.01	o
122+15	0.0100	0.01	o
122+20	0.0100	0.01	o
122+25	0.0100	0.01	o
122+30	0.0100	0.01	o
122+35	0.0100	0.01	o
122+40	0.0100	0.01	o
122+45	0.0100	0.01	o
122+50	0.0100	0.01	o
122+55	0.0100	0.01	o
123+ 0	0.0100	0.01	o
123+ 5	0.0100	0.01	o
123+10	0.0100	0.01	o
123+15	0.0100	0.01	o
123+20	0.0100	0.01	o
123+25	0.0100	0.01	o
123+30	0.0100	0.01	o
123+35	0.0100	0.01	o
123+40	0.0100	0.01	o
123+45	0.0100	0.01	o
123+50	0.0100	0.01	o
123+55	0.0100	0.01	o
124+ 0	0.0100	0.01	o
124+ 5	0.0100	0.01	o
124+10	0.0100	0.01	o
124+15	0.0100	0.01	o
124+20	0.0100	0.01	o
124+25	0.0100	0.01	o
124+30	0.0100	0.01	o
124+35	0.0100	0.01	o
124+40	0.0100	0.01	o
124+45	0.0100	0.01	o
124+50	0.0100	0.01	o
124+55	0.0100	0.01	o
125+ 0	0.0100	0.01	o
125+ 5	0.0100	0.01	o
125+10	0.0100	0.01	o
125+15	0.0100	0.01	o
125+20	0.0100	0.01	o
125+25	0.0100	0.01	o
125+30	0.0100	0.01	o
125+35	0.0100	0.01	o
125+40	0.0100	0.01	o
125+45	0.0100	0.01	o
125+50	0.0100	0.01	o
125+55	0.0100	0.01	o
126+ 0	0.0100	0.01	o
126+ 5	0.0100	0.01	o
126+10	0.0100	0.01	o
126+15	0.0100	0.01	o
126+20	0.0100	0.01	o
126+25	0.0100	0.01	o

126+30	0.0100	0.01	o
126+35	0.0100	0.01	o
126+40	0.0100	0.01	o
126+45	0.0100	0.01	o
126+50	0.0100	0.01	o
126+55	0.0100	0.01	o
127+ 0	0.0100	0.01	o
127+ 5	0.0100	0.01	o
127+10	0.0100	0.01	o
127+15	0.0100	0.01	o
127+20	0.0100	0.01	o
127+25	0.0100	0.01	o
127+30	0.0100	0.01	o
127+35	0.0100	0.01	o
127+40	0.0100	0.01	o
127+45	0.0100	0.01	o
127+50	0.0100	0.01	o
127+55	0.0100	0.01	o
128+ 0	0.0100	0.01	o
128+ 5	0.0100	0.01	o
128+10	0.0100	0.01	o
128+15	0.0100	0.01	o
128+20	0.0100	0.01	o
128+25	0.0100	0.01	o
128+30	0.0100	0.01	o
128+35	0.0100	0.01	o
128+40	0.0100	0.01	o
128+45	0.0100	0.01	o
128+50	0.0100	0.01	o
128+55	0.0100	0.01	o
129+ 0	0.0100	0.01	o
129+ 5	0.0100	0.01	o
129+10	0.0100	0.01	o
129+15	0.0100	0.01	o
129+20	0.0100	0.01	o
129+25	0.0100	0.01	o
129+30	0.0100	0.01	o
129+35	0.0100	0.01	o
129+40	0.0100	0.01	o
129+45	0.0100	0.01	o
129+50	0.0100	0.01	o
129+55	0.0100	0.01	o
130+ 0	0.0100	0.01	o
130+ 5	0.0100	0.01	o
130+10	0.0100	0.01	o
130+15	0.0100	0.01	o
130+20	0.0100	0.01	o
130+25	0.0100	0.01	o
130+30	0.0100	0.01	o
130+35	0.0100	0.01	o
130+40	0.0100	0.01	o
130+45	0.0100	0.01	o
130+50	0.0100	0.01	o
130+55	0.0100	0.01	o
131+ 0	0.0100	0.01	o
131+ 5	0.0100	0.01	o
131+10	0.0100	0.01	o

131+15	0.0100	0.01	o
131+20	0.0100	0.01	o
131+25	0.0100	0.01	o
131+30	0.0100	0.01	o
131+35	0.0100	0.01	o
131+40	0.0100	0.01	o
131+45	0.0100	0.01	o
131+50	0.0100	0.01	o
131+55	0.0100	0.01	o
132+ 0	0.0100	0.01	o
132+ 5	0.0100	0.01	o
132+10	0.0100	0.01	o
132+15	0.0100	0.01	o
132+20	0.0100	0.01	o
132+25	0.0100	0.01	o
132+30	0.0100	0.01	o
132+35	0.0100	0.01	o
132+40	0.0100	0.01	o
132+45	0.0100	0.01	o
132+50	0.0100	0.01	o
132+55	0.0100	0.01	o
133+ 0	0.0100	0.01	o
133+ 5	0.0100	0.01	o
133+10	0.0100	0.01	o
133+15	0.0100	0.01	o
133+20	0.0100	0.01	o
133+25	0.0100	0.01	o
133+30	0.0100	0.01	o
133+35	0.0100	0.01	o
133+40	0.0100	0.01	o
133+45	0.0100	0.01	o
133+50	0.0100	0.01	o
133+55	0.0100	0.01	o
134+ 0	0.0100	0.01	o
134+ 5	0.0100	0.01	o
134+10	0.0100	0.01	o
134+15	0.0100	0.01	o
134+20	0.0100	0.01	o
134+25	0.0100	0.01	o
134+30	0.0100	0.01	o
134+35	0.0100	0.01	o
134+40	0.0100	0.01	o
134+45	0.0100	0.01	o
134+50	0.0100	0.01	o
134+55	0.0100	0.01	o
135+ 0	0.0100	0.01	o
135+ 5	0.0100	0.01	o
135+10	0.0100	0.01	o
135+15	0.0100	0.01	o
135+20	0.0100	0.01	o
135+25	0.0100	0.01	o
135+30	0.0100	0.01	o
135+35	0.0100	0.01	o
135+40	0.0100	0.01	o
135+45	0.0100	0.01	o
135+50	0.0100	0.01	o
135+55	0.0100	0.01	o

136+ 0	0.0100	0.01	0
136+ 5	0.0100	0.01	0
136+10	0.0100	0.01	0
136+15	0.0100	0.01	0
136+20	0.0100	0.01	0
136+25	0.0100	0.01	0
136+30	0.0100	0.01	0
136+35	0.0100	0.01	0
136+40	0.0100	0.01	0
136+45	0.0100	0.01	0
136+50	0.0100	0.01	0
136+55	0.0100	0.01	0
137+ 0	0.0100	0.01	0
137+ 5	0.0100	0.01	0
137+10	0.0100	0.01	0
137+15	0.0100	0.01	0
137+20	0.0100	0.01	0
137+25	0.0100	0.01	0
137+30	0.0100	0.01	0
137+35	0.0100	0.01	0
137+40	0.0100	0.01	0
137+45	0.0100	0.01	0
137+50	0.0100	0.01	0
137+55	0.0100	0.01	0
138+ 0	0.0100	0.01	0
138+ 5	0.0100	0.01	0
138+10	0.0100	0.01	0
138+15	0.0100	0.01	0
138+20	0.0100	0.01	0
138+25	0.0100	0.01	0
138+30	0.0100	0.01	0
138+35	0.0100	0.01	0
138+40	0.0100	0.01	0
138+45	0.0100	0.01	0
138+50	0.0100	0.01	0
138+55	0.0100	0.01	0
139+ 0	0.0100	0.01	0
139+ 5	0.0100	0.01	0
139+10	0.0100	0.01	0
139+15	0.0100	0.01	0
139+20	0.0100	0.01	0
139+25	0.0100	0.01	0
139+30	0.0100	0.01	0
139+35	0.0100	0.01	0
139+40	0.0100	0.01	0
139+45	0.0100	0.01	0
139+50	0.0100	0.01	0
139+55	0.0100	0.01	0

*****HYDROGRAPH DATA*****

Number of intervals = 4830
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = 5.205 (CFS)
 Total volume = 3.192 (Ac.Ft)
 Status of hydrographs being held in storage
 Stream 1 Stream 2 Stream 3 Stream 4 Stream 5
 Peak (CFS) 0.000 0.000 0.000 0.000 0.000

Vol (Ac.Ft) 0.000 0.000 0.000 0.000 0.000

 +-----+
 Process from Point/Station 13.000 to Point/Station 14.000
 **** ADD/COMBINE/RECOVER HYDROGRAPHS ****

***** HYDROGRAPH INFORMATION *****

From study/file name: arealb.rte
 +-----+
 P R I N T O F S T O R M
 R u n o f f H y d r o g r a p h

 Hydrograph in 5 Minute intervals (CFS)

Time(h+m)	Add q(CFS)	Tot. Q	0	19.2	38.4	57.6	76.8
0+ 5	0.0899	0.09	Q				
0+10	0.4933	0.49	Q				
0+15	1.2672	1.27	Q				
0+20	2.2721	2.27	Q				
0+25	3.0669	3.07	Q				
0+30	3.5156	3.52	Q				
0+35	3.7509	3.75	Q				
0+40	3.8872	3.89	Q				
0+45	3.9546	3.96	Q				
0+50	4.0027	4.00	Q				
0+55	4.0469	4.05	Q				
1+ 0	4.0852	4.09	Q				
1+ 5	4.1071	4.11	Q				
1+10	4.1276	4.13	Q				
1+15	4.1464	4.15	Q				
1+20	4.1650	4.17	Q				
1+25	4.1831	4.18	Q				
1+30	4.1999	4.20	Q				
1+35	4.2161	4.22	Q				
1+40	4.2319	4.23	Q				
1+45	4.2471	4.25	Q				
1+50	4.2619	4.26	Q				
1+55	4.2761	4.28	Q				
2+ 0	4.2905	4.29	Q				
2+ 5	4.3048	4.31	Q				
2+10	4.3194	4.32	Q				
2+15	4.3330	4.33	Q				
2+20	4.3453	4.35	Q				
2+25	4.3576	4.36	Q				
2+30	4.3701	4.37	Q				
2+35	4.3827	4.38	Q				
2+40	4.3954	4.40	Q				
2+45	4.4082	4.41	Q				
2+50	4.4211	4.42	Q				
2+55	4.4341	4.44	Q				

3+ 0	4.4473	4.45	Q
3+ 5	4.4606	4.47	Q
3+10	4.4740	4.48	Q
3+15	4.4875	4.50	Q
3+20	4.5012	4.51	Q
3+25	4.5149	4.52	Q
3+30	4.5289	4.54	Q
3+35	4.5429	4.55	Q
3+40	4.5572	4.57	Q
3+45	4.5714	4.58	Q
3+50	4.5860	4.60	Q
3+55	4.6005	4.61	Q
4+ 0	4.6153	4.63	Q
4+ 5	4.6301	4.64	Q
4+10	4.6453	4.66	Q
4+15	4.6604	4.67	Q
4+20	4.6758	4.69	Q
4+25	4.6913	4.70	Q
4+30	4.7070	4.72	Q
4+35	4.7228	4.73	Q
4+40	4.7389	4.75	Q
4+45	4.7550	4.76	Q
4+50	4.7714	4.78	Q
4+55	4.7879	4.80	Q
5+ 0	4.8046	4.81	Q
5+ 5	4.8214	4.83	Q
5+10	4.8386	4.85	Q
5+15	4.8558	4.87	Q
5+20	4.8733	4.88	Q
5+25	4.8909	4.90	Q
5+30	4.9088	4.92	Q
5+35	4.9268	4.94	Q
5+40	4.9451	4.96	Q
5+45	4.9635	4.99	Q
5+50	4.9823	5.03	Q
5+55	5.0011	5.08	Q
6+ 0	5.0203	5.13	Q
6+ 5	5.0396	5.18	Q
6+10	5.0592	5.22	Q
6+15	5.0790	5.27	Q
6+20	5.0991	5.32	Q
6+25	5.1193	5.37	Q
6+30	5.1400	5.41	Q
6+35	5.1607	5.46	Q
6+40	5.1819	5.50	Q
6+45	5.2032	5.55	Q
6+50	5.2249	5.59	Q
6+55	5.2467	5.64	Q
7+ 0	5.2691	5.68	Q
7+ 5	5.2914	5.73	Q
7+10	5.3144	5.77	qQ
7+15	5.3373	5.81	qQ
7+20	5.3609	5.86	qQ
7+25	5.3845	5.90	qQ
7+30	5.4087	5.94	qQ
7+35	5.4330	5.99	qQ
7+40	5.4578	6.03	qQ

7+45	5.4828	6.07	qQ
7+50	5.5084	6.12	qQ
7+55	5.5341	6.16	qQ
8+ 0	5.5604	6.20	qQ
8+ 5	5.5869	6.25	qQ
8+10	5.6140	6.29	qQ
8+15	5.6413	6.33	qQ
8+20	5.6693	6.38	qQ
8+25	5.6974	6.42	qQ
8+30	5.7262	6.47	qQ
8+35	5.7552	6.51	qQ
8+40	5.7850	6.55	Q
8+45	5.8149	6.60	Q
8+50	5.8457	6.65	Q
8+55	5.8766	6.71	Q
9+ 0	5.9084	6.77	Q
9+ 5	5.9403	6.83	Q
9+10	5.9732	6.89	Q
9+15	6.0062	6.95	Q
9+20	6.0402	7.01	Q
9+25	6.0745	7.06	Q
9+30	6.1097	7.12	Q
9+35	6.1452	7.18	Q
9+40	6.1817	7.24	Q
9+45	6.2185	7.29	Q
9+50	6.2564	7.35	Q
9+55	6.2946	7.41	Q
10+ 0	6.3340	7.46	Q
10+ 5	6.3737	7.52	Q
10+10	6.4146	7.58	Q
10+15	6.4559	7.64	Q
10+20	6.4985	7.69	qQ
10+25	6.5415	7.75	qQ
10+30	6.5859	7.81	qQ
10+35	6.6307	7.87	qQ
10+40	6.6770	7.93	qQ
10+45	6.7238	7.99	qQ
10+50	6.7722	8.05	qQ
10+55	6.8211	8.11	qQ
11+ 0	6.8717	8.18	qQ
11+ 5	6.9229	8.24	qQ
11+10	6.9759	8.31	qQ
11+15	7.0295	8.37	qQ
11+20	7.0851	8.44	qQ
11+25	7.1414	8.51	qQ
11+30	7.1998	8.58	qQ
11+35	7.2591	8.65	qQ
11+40	7.3205	8.73	qQ
11+45	7.3829	8.80	qQ
11+50	7.4477	8.88	qQ
11+55	7.5135	8.96	qQ
12+ 0	7.5820	9.04	qQ
12+ 5	7.6368	9.11	qQ
12+10	7.6429	9.13	qQ
12+15	7.5895	9.09	qQ
12+20	7.5015	9.01	qQ
12+25	7.4501	8.96	qQ

12+30	7.4594	8.98	qQ						
12+35	7.5059	9.03	qQ						
12+40	7.5725	9.10	qQ						
12+45	7.6527	9.19	qQ						
12+50	7.7403	9.29	Q						
12+55	7.8310	9.39	Q						
13+ 0	7.9274	9.50	Q						
13+ 5	8.0292	9.61	qQ						
13+10	8.1366	9.73	qQ						
13+15	8.2475	9.85	qQ						
13+20	8.3644	9.98	qQ						
13+25	8.4852	10.12	qQ						
13+30	8.6129	10.26	qQ						
13+35	8.7452	10.41	qQ						
13+40	8.8853	10.57	qQ						
13+45	9.0308	10.73	qQ						
13+50	9.1853	10.90	qQ						
13+55	9.3463	11.09	qQ						
14+ 0	9.5177	11.28	qQ						
14+ 5	9.6973	11.48	Q						
14+10	9.8909	11.70	qQ						
14+15	10.0962	11.93	qQ						
14+20	10.3178	12.18	qQ						
14+25	10.5499	12.44	qQ						
14+30	10.7983	12.72	qQ						
14+35	11.0604	13.01	qQ						
14+40	11.3445	13.33	qQ						
14+45	11.6475	13.67	qQ						
14+50	11.9791	14.04	qQ						
14+55	12.3363	14.44	qQ						
15+ 0	12.7312	14.88	qQ						
15+ 5	13.1613	15.35	qQ						
15+10	13.6428	15.89	qQ						
15+15	14.1756	16.47	qQ						
15+20	14.7857	17.14	qQ						
15+25	15.4097	17.83	qQ						
15+30	15.9117	18.41	qQ						
15+35	16.2599	18.83	qQ						
15+40	16.6309	19.27	q Q						
15+45	17.4279	20.14	qQ						
15+50	18.9334	21.72	q Q						
15+55	21.3108	24.18	qQ						
16+ 0	25.2527	28.24		qQ					
16+ 5	33.9845	37.14			q Q				
16+10	50.4153	53.89				q Q			
16+15	66.1207	70.13					q Q		
16+20	72.2358	76.78						q	Q
16+25	60.0932	65.03					q Q		
16+30	42.7719	47.90				q Q			
16+35	31.0256	36.23						q Q	
16+40	24.5439	29.75							q Q
16+45	20.0592	25.24							
16+50	17.7603	22.89							
16+55	16.2859	21.36							
17+ 0	14.9254	19.93							
17+ 5	13.4215	18.36							
17+10	12.5778	17.44							

17+15	11.8775	16.66	q Q
17+20	11.3104	16.02	q Q
17+25	10.7928	15.42	q Q
17+30	10.3049	14.85	q Q
17+35	9.8906	14.35	q Q
17+40	9.5202	13.90	q Q
17+45	9.1761	13.46	q Q
17+50	8.8684	13.04	q Q
17+55	8.5813	12.64	q Q
18+ 0	8.3372	12.28	q Q
18+ 5	8.1241	11.95	q Q
18+10	7.9703	11.69	q Q
18+15	7.8556	11.47	qQ
18+20	7.7797	11.30	qQ
18+25	7.7377	11.16	qQ
18+30	7.6532	10.99	q Q
18+35	7.5437	10.79	q Q
18+40	7.4259	10.59	q Q
18+45	7.3049	10.39	q Q
18+50	7.1878	10.19	q Q
18+55	7.0765	10.01	q Q
19+ 0	6.9701	9.83	q Q
19+ 5	6.8664	9.64	q Q
19+10	6.7673	9.46	qQ
19+15	6.6725	9.28	qQ
19+20	6.5818	9.10	qQ
19+25	6.4948	8.94	qQ
19+30	6.4113	8.78	qQ
19+35	6.3309	8.63	qQ
19+40	6.2537	8.49	qQ
19+45	6.1792	8.35	qQ
19+50	6.1074	8.22	qQ
19+55	6.0381	8.09	qQ
20+ 0	5.9712	7.97	qQ
20+ 5	5.9066	7.86	qQ
20+10	5.8441	7.74	qQ
20+15	5.7836	7.64	Q
20+20	5.7247	7.54	qQ
20+25	5.6676	7.44	qQ
20+30	5.6123	7.34	qQ
20+35	5.5586	7.25	qQ
20+40	5.5065	7.16	qQ
20+45	5.4558	7.08	qQ
20+50	5.4066	7.00	qQ
20+55	5.3588	6.92	qQ
21+ 0	5.3122	6.84	qQ
21+ 5	5.2669	6.77	qQ
21+10	5.2227	6.70	qQ
21+15	5.1797	6.63	qQ
21+20	5.1378	6.57	qQ
21+25	5.0969	6.50	qQ
21+30	5.0570	6.44	qQ
21+35	5.0180	6.38	qQ
21+40	4.9800	6.32	qQ
21+45	4.9429	6.26	qQ
21+50	4.9066	6.21	qQ
21+55	4.8711	6.16	qQ

22+ 0	4.8364	6.10	qQ
22+ 5	4.8024	6.05	qQ
22+10	4.7692	6.01	qQ
22+15	4.7367	5.96	qQ
22+20	4.7048	5.91	qQ
22+25	4.6736	5.87	qQ
22+30	4.6431	5.82	qQ
22+35	4.6132	5.78	qQ
22+40	4.5838	5.74	Q
22+45	4.5550	5.70	Q
22+50	4.5268	5.66	Q
22+55	4.4991	5.62	Q
23+ 0	4.4719	5.58	Q
23+ 5	4.4453	5.54	Q
23+10	4.4191	5.51	Q
23+15	4.3934	5.47	Q
23+20	4.3681	5.44	Q
23+25	4.3433	5.40	Q
23+30	4.3189	5.37	Q
23+35	4.2950	5.34	Q
23+40	4.2714	5.30	Q
23+45	4.2483	5.27	Q
23+50	4.2255	5.24	Q
23+55	4.2031	5.21	Q
24+ 0	4.1811	5.18	Q
24+ 5	4.0697	5.06	Q
24+10	3.6462	4.63	qQ
24+15	2.8559	3.82	Q
24+20	1.8411	2.77	qQ
24+25	1.0435	1.92	qQ
24+30	0.5976	1.42	Q
24+35	0.3684	1.16	Q
24+40	0.2398	1.01	Q
24+45	0.1811	0.92	Q
24+50	0.1423	0.86	Q
24+55	0.1076	0.81	Q
25+ 0	0.0794	0.76	Q
25+ 5	0.0676	0.73	Q
25+10	0.0576	0.70	Q
25+15	0.0493	0.67	Q
25+20	0.0414	0.64	Q
25+25	0.0342	0.62	Q
25+30	0.0284	0.59	Q
25+35	0.0233	0.57	Q
25+40	0.0188	0.55	Q
25+45	0.0150	0.53	Q
25+50	0.0117	0.51	Q
25+55	0.0091	0.50	Q
26+ 0	0.0066	0.48	Q
26+ 5	0.0041	0.46	Q
26+10	0.0015	0.45	Q
26+15	0.0000	0.43	Q
26+20	0.0000	0.42	Q
26+25	0.0000	0.41	Q
26+30	0.0000	0.39	Q
26+35	0.0000	0.38	Q
26+40	0.0000	0.37	Q

26+45	0.0000	0.36	Q
26+50	0.0000	0.35	Q
26+55	0.0000	0.34	Q
27+ 0	0.0000	0.33	Q
27+ 5	0.0000	0.32	Q
27+10	0.0000	0.31	Q
27+15	0.0000	0.30	Q
27+20	0.0000	0.29	Q
27+25	0.0000	0.28	Q
27+30	0.0000	0.27	Q
27+35	0.0000	0.27	Q
27+40	0.0000	0.26	Q
27+45	0.0000	0.25	Q
27+50	0.0000	0.24	Q
27+55	0.0000	0.24	Q
28+ 0	0.0000	0.23	Q
28+ 5	0.0000	0.22	Q
28+10	0.0000	0.21	Q
28+15	0.0000	0.21	Q
28+20	0.0000	0.20	Q
28+25	0.0000	0.20	Q
28+30	0.0000	0.19	Q
28+35	0.0000	0.18	Q
28+40	0.0000	0.18	Q
28+45	0.0000	0.17	Q
28+50	0.0000	0.17	Q
28+55	0.0000	0.16	Q
29+ 0	0.0000	0.16	Q
29+ 5	0.0000	0.15	Q
29+10	0.0000	0.15	Q
29+15	0.0000	0.15	Q
29+20	0.0000	0.14	Q
29+25	0.0000	0.14	Q
29+30	0.0000	0.13	Q
29+35	0.0000	0.13	Q
29+40	0.0000	0.12	Q
29+45	0.0000	0.12	Q
29+50	0.0000	0.12	Q
29+55	0.0000	0.11	Q
30+ 0	0.0000	0.11	Q
30+ 5	0.0000	0.11	Q
30+10	0.0000	0.10	Q
30+15	0.0000	0.10	Q
30+20	0.0000	0.10	Q
30+25	0.0000	0.10	Q
30+30	0.0000	0.09	Q
30+35	0.0000	0.09	Q
30+40	0.0000	0.09	Q
30+45	0.0000	0.08	Q
30+50	0.0000	0.08	Q
30+55	0.0000	0.08	Q
31+ 0	0.0000	0.08	Q
31+ 5	0.0000	0.07	Q
31+10	0.0000	0.07	Q
31+15	0.0000	0.07	Q
31+20	0.0000	0.07	Q
31+25	0.0000	0.07	Q

31+30	0.0000	0.06	Q
31+35	0.0000	0.06	Q
31+40	0.0000	0.06	Q
31+45	0.0000	0.06	Q
31+50	0.0000	0.06	Q
31+55	0.0000	0.06	Q
32+ 0	0.0000	0.05	Q
32+ 5	0.0000	0.05	Q
32+10	0.0000	0.05	Q
32+15	0.0000	0.05	Q
32+20	0.0000	0.05	Q
32+25	0.0000	0.05	Q
32+30	0.0000	0.04	Q
32+35	0.0000	0.04	Q
32+40	0.0000	0.04	Q
32+45	0.0000	0.04	Q
32+50	0.0000	0.04	Q
32+55	0.0000	0.04	Q
33+ 0	0.0000	0.04	Q
33+ 5	0.0000	0.04	Q
33+10	0.0000	0.04	Q
33+15	0.0000	0.03	Q
33+20	0.0000	0.03	Q
33+25	0.0000	0.03	Q
33+30	0.0000	0.03	Q
33+35	0.0000	0.03	Q
33+40	0.0000	0.03	Q
33+45	0.0000	0.03	Q
33+50	0.0000	0.03	Q
33+55	0.0000	0.03	Q
34+ 0	0.0000	0.03	Q
34+ 5	0.0000	0.03	Q
34+10	0.0000	0.02	Q
34+15	0.0000	0.02	Q
34+20	0.0000	0.02	Q
34+25	0.0000	0.02	Q
34+30	0.0000	0.02	Q
34+35	0.0000	0.02	Q
34+40	0.0000	0.02	Q
34+45	0.0000	0.02	Q
34+50	0.0000	0.02	Q
34+55	0.0000	0.02	Q
35+ 0	0.0000	0.02	Q
35+ 5	0.0000	0.02	Q
35+10	0.0000	0.02	Q
35+15	0.0000	0.02	Q
35+20	0.0000	0.02	Q
35+25	0.0000	0.02	Q
35+30	0.0000	0.02	Q
35+35	0.0000	0.01	Q
35+40	0.0000	0.01	Q
35+45	0.0000	0.01	Q
35+50	0.0000	0.01	Q
35+55	0.0000	0.01	Q
36+ 0	0.0000	0.01	Q
36+ 5	0.0000	0.01	Q
36+10	0.0000	0.01	Q

36+15	0.0000	0.01	Q
36+20	0.0000	0.01	Q
36+25	0.0000	0.01	Q
36+30	0.0000	0.01	Q
36+35	0.0000	0.01	Q
36+40	0.0000	0.01	Q
36+45	0.0000	0.01	Q
36+50	0.0000	0.01	Q
36+55	0.0000	0.01	Q
37+ 0	0.0000	0.01	Q
37+ 5	0.0000	0.01	Q
37+10	0.0000	0.01	Q
37+15	0.0000	0.01	Q
37+20	0.0000	0.01	Q
37+25	0.0000	0.01	Q
37+30	0.0000	0.01	Q
37+35	0.0000	0.01	Q
37+40	0.0000	0.01	Q
37+45	0.0000	0.01	Q
37+50	0.0000	0.01	Q
37+55	0.0000	0.01	Q
38+ 0	0.0000	0.01	Q
38+ 5	0.0000	0.01	Q
38+10	0.0000	0.01	Q
38+15	0.0000	0.01	Q
38+20	0.0000	0.01	Q
38+25	0.0000	0.01	Q
38+30	0.0000	0.01	Q
38+35	0.0000	0.01	Q
38+40	0.0000	0.01	Q
38+45	0.0000	0.01	Q
38+50	0.0000	0.01	Q
38+55	0.0000	0.01	Q
39+ 0	0.0000	0.01	Q
39+ 5	0.0000	0.01	Q
39+10	0.0000	0.01	Q
39+15	0.0000	0.01	Q
39+20	0.0000	0.01	Q
39+25	0.0000	0.01	Q
39+30	0.0000	0.01	Q
39+35	0.0000	0.01	Q
39+40	0.0000	0.01	Q
39+45	0.0000	0.01	Q
39+50	0.0000	0.01	Q
39+55	0.0000	0.01	Q
40+ 0	0.0000	0.01	Q
40+ 5	0.0000	0.01	Q
40+10	0.0000	0.01	Q
40+15	0.0000	0.01	Q
40+20	0.0000	0.01	Q
40+25	0.0000	0.01	Q
40+30	0.0000	0.01	Q
40+35	0.0000	0.01	Q
40+40	0.0000	0.01	Q
40+45	0.0000	0.01	Q
40+50	0.0000	0.01	Q
40+55	0.0000	0.01	Q

41+ 0	0.0000	0.01	Q
41+ 5	0.0000	0.01	Q
41+10	0.0000	0.01	Q
41+15	0.0000	0.01	Q
41+20	0.0000	0.01	Q
41+25	0.0000	0.01	Q
41+30	0.0000	0.01	Q
41+35	0.0000	0.01	Q
41+40	0.0000	0.01	Q
41+45	0.0000	0.01	Q
41+50	0.0000	0.01	Q
41+55	0.0000	0.01	Q
42+ 0	0.0000	0.01	Q
42+ 5	0.0000	0.01	Q
42+10	0.0000	0.01	Q
42+15	0.0000	0.01	Q
42+20	0.0000	0.01	Q
42+25	0.0000	0.01	Q
42+30	0.0000	0.01	Q
42+35	0.0000	0.01	Q
42+40	0.0000	0.01	Q
42+45	0.0000	0.01	Q
42+50	0.0000	0.01	Q
42+55	0.0000	0.01	Q
43+ 0	0.0000	0.01	Q
43+ 5	0.0000	0.01	Q
43+10	0.0000	0.01	Q
43+15	0.0000	0.01	Q
43+20	0.0000	0.01	Q
43+25	0.0000	0.01	Q
43+30	0.0000	0.01	Q
43+35	0.0000	0.01	Q
43+40	0.0000	0.01	Q
43+45	0.0000	0.01	Q
43+50	0.0000	0.01	Q
43+55	0.0000	0.01	Q
44+ 0	0.0000	0.01	Q
44+ 5	0.0000	0.01	Q
44+10	0.0000	0.01	Q
44+15	0.0000	0.01	Q
44+20	0.0000	0.01	Q
44+25	0.0000	0.01	Q
44+30	0.0000	0.01	Q
44+35	0.0000	0.01	Q
44+40	0.0000	0.01	Q
44+45	0.0000	0.01	Q
44+50	0.0000	0.01	Q
44+55	0.0000	0.01	Q
45+ 0	0.0000	0.01	Q
45+ 5	0.0000	0.01	Q
45+10	0.0000	0.01	Q
45+15	0.0000	0.01	Q
45+20	0.0000	0.01	Q
45+25	0.0000	0.01	Q
45+30	0.0000	0.01	Q
45+35	0.0000	0.01	Q
45+40	0.0000	0.01	Q

45+45	0.0000	0.01	Q
45+50	0.0000	0.01	Q
45+55	0.0000	0.01	Q
46+ 0	0.0000	0.01	Q
46+ 5	0.0000	0.01	Q
46+10	0.0000	0.01	Q
46+15	0.0000	0.01	Q
46+20	0.0000	0.01	Q
46+25	0.0000	0.01	Q
46+30	0.0000	0.01	Q
46+35	0.0000	0.01	Q
46+40	0.0000	0.01	Q
46+45	0.0000	0.01	Q
46+50	0.0000	0.01	Q
46+55	0.0000	0.01	Q
47+ 0	0.0000	0.01	Q
47+ 5	0.0000	0.01	Q
47+10	0.0000	0.01	Q
47+15	0.0000	0.01	Q
47+20	0.0000	0.01	Q
47+25	0.0000	0.01	Q
47+30	0.0000	0.01	Q
47+35	0.0000	0.01	Q
47+40	0.0000	0.01	Q
47+45	0.0000	0.01	Q
47+50	0.0000	0.01	Q
47+55	0.0000	0.01	Q
48+ 0	0.0000	0.01	Q
48+ 5	0.0000	0.01	Q
48+10	0.0000	0.01	Q
48+15	0.0000	0.01	Q
48+20	0.0000	0.01	Q
48+25	0.0000	0.01	Q
48+30	0.0000	0.01	Q
48+35	0.0000	0.01	Q
48+40	0.0000	0.01	Q
48+45	0.0000	0.01	Q
48+50	0.0000	0.01	Q
48+55	0.0000	0.01	Q
49+ 0	0.0000	0.01	Q
49+ 5	0.0000	0.01	Q
49+10	0.0000	0.01	Q
49+15	0.0000	0.01	Q
49+20	0.0000	0.01	Q
49+25	0.0000	0.01	Q
49+30	0.0000	0.01	Q
49+35	0.0000	0.01	Q
49+40	0.0000	0.01	Q
49+45	0.0000	0.01	Q
49+50	0.0000	0.01	Q
49+55	0.0000	0.01	Q
50+ 0	0.0000	0.01	Q
50+ 5	0.0000	0.01	Q
50+10	0.0000	0.01	Q
50+15	0.0000	0.01	Q
50+20	0.0000	0.01	Q
50+25	0.0000	0.01	Q

50+30	0.0000	0.01	Q
50+35	0.0000	0.01	Q
50+40	0.0000	0.01	Q
50+45	0.0000	0.01	Q
50+50	0.0000	0.01	Q
50+55	0.0000	0.01	Q
51+ 0	0.0000	0.01	Q
51+ 5	0.0000	0.01	Q
51+10	0.0000	0.01	Q
51+15	0.0000	0.01	Q
51+20	0.0000	0.01	Q
51+25	0.0000	0.01	Q
51+30	0.0000	0.01	Q
51+35	0.0000	0.01	Q
51+40	0.0000	0.01	Q
51+45	0.0000	0.01	Q
51+50	0.0000	0.01	Q
51+55	0.0000	0.01	Q
52+ 0	0.0000	0.01	Q
52+ 5	0.0000	0.01	Q
52+10	0.0000	0.01	Q
52+15	0.0000	0.01	Q
52+20	0.0000	0.01	Q
52+25	0.0000	0.01	Q
52+30	0.0000	0.01	Q
52+35	0.0000	0.01	Q
52+40	0.0000	0.01	Q
52+45	0.0000	0.01	Q
52+50	0.0000	0.01	Q
52+55	0.0000	0.01	Q
53+ 0	0.0000	0.01	Q
53+ 5	0.0000	0.01	Q
53+10	0.0000	0.01	Q
53+15	0.0000	0.01	Q
53+20	0.0000	0.01	Q
53+25	0.0000	0.01	Q
53+30	0.0000	0.01	Q
53+35	0.0000	0.01	Q
53+40	0.0000	0.01	Q
53+45	0.0000	0.01	Q
53+50	0.0000	0.01	Q
53+55	0.0000	0.01	Q
54+ 0	0.0000	0.01	Q
54+ 5	0.0000	0.01	Q
54+10	0.0000	0.01	Q
54+15	0.0000	0.01	Q
54+20	0.0000	0.01	Q
54+25	0.0000	0.01	Q
54+30	0.0000	0.01	Q
54+35	0.0000	0.01	Q
54+40	0.0000	0.01	Q
54+45	0.0000	0.01	Q
54+50	0.0000	0.01	Q
54+55	0.0000	0.01	Q
55+ 0	0.0000	0.01	Q
55+ 5	0.0000	0.01	Q
55+10	0.0000	0.01	Q

55+15	0.0000	0.01	Q
55+20	0.0000	0.01	Q
55+25	0.0000	0.01	Q
55+30	0.0000	0.01	Q
55+35	0.0000	0.01	Q
55+40	0.0000	0.01	Q
55+45	0.0000	0.01	Q
55+50	0.0000	0.01	Q
55+55	0.0000	0.01	Q
56+ 0	0.0000	0.01	Q
56+ 5	0.0000	0.01	Q
56+10	0.0000	0.01	Q
56+15	0.0000	0.01	Q
56+20	0.0000	0.01	Q
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56+40	0.0000	0.01	Q
56+45	0.0000	0.01	Q
56+50	0.0000	0.01	Q
56+55	0.0000	0.01	Q
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57+ 5	0.0000	0.01	Q
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57+15	0.0000	0.01	Q
57+20	0.0000	0.01	Q
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57+50	0.0000	0.01	Q
57+55	0.0000	0.01	Q
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58+ 5	0.0000	0.01	Q
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73+55	0.0000	0.01	Q
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74+ 5	0.0000	0.01	Q
74+10	0.0000	0.01	Q

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74+20	0.0000	0.01	Q
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74+55	0.0000	0.01	Q
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75+ 5	0.0000	0.01	Q
75+10	0.0000	0.01	Q
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75+20	0.0000	0.01	Q
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75+45	0.0000	0.01	Q
75+50	0.0000	0.01	Q
75+55	0.0000	0.01	Q
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76+ 5	0.0000	0.01	Q
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76+20	0.0000	0.01	Q
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76+45	0.0000	0.01	Q
76+50	0.0000	0.01	Q
76+55	0.0000	0.01	Q
77+ 0	0.0000	0.01	Q
77+ 5	0.0000	0.01	Q
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77+50	0.0000	0.01	Q
77+55	0.0000	0.01	Q
78+ 0	0.0000	0.01	Q
78+ 5	0.0000	0.01	Q
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78+15	0.0000	0.01	Q
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78+40	0.0000	0.01	Q
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78+50	0.0000	0.01	Q
78+55	0.0000	0.01	Q

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79+ 5	0.0000	0.01	Q
79+10	0.0000	0.01	Q
79+15	0.0000	0.01	Q
79+20	0.0000	0.01	Q
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79+30	0.0000	0.01	Q
79+35	0.0000	0.01	Q
79+40	0.0000	0.01	Q
79+45	0.0000	0.01	Q
79+50	0.0000	0.01	Q
79+55	0.0000	0.01	Q
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80+ 5	0.0000	0.01	Q
80+10	0.0000	0.01	Q
80+15	0.0000	0.01	Q
80+20	0.0000	0.01	Q
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80+30	0.0000	0.01	Q
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80+45	0.0000	0.01	Q
80+50	0.0000	0.01	Q
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81+ 5	0.0000	0.01	Q
81+10	0.0000	0.01	Q
81+15	0.0000	0.01	Q
81+20	0.0000	0.01	Q
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81+30	0.0000	0.01	Q
81+35	0.0000	0.01	Q
81+40	0.0000	0.01	Q
81+45	0.0000	0.01	Q
81+50	0.0000	0.01	Q
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82+ 5	0.0000	0.01	Q
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82+20	0.0000	0.01	Q
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82+45	0.0000	0.01	Q
82+50	0.0000	0.01	Q
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83+ 5	0.0000	0.01	Q
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83+20	0.0000	0.01	Q
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83+40	0.0000	0.01	Q

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84+50	0.0000	0.01	Q
84+55	0.0000	0.01	Q
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85+ 5	0.0000	0.01	Q
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85+15	0.0000	0.01	Q
85+20	0.0000	0.01	Q
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96+ 5	0.0000	0.01	Q
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96+55	0.0000	0.01	Q
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97+40	0.0000	0.01	Q
97+45	0.0000	0.01	Q
97+50	0.0000	0.01	Q
97+55	0.0000	0.01	Q

98+ 0	0.0000	0.01	Q
98+ 5	0.0000	0.01	Q
98+10	0.0000	0.01	Q
98+15	0.0000	0.01	Q
98+20	0.0000	0.01	Q
98+25	0.0000	0.01	Q
98+30	0.0000	0.01	Q
98+35	0.0000	0.01	Q
98+40	0.0000	0.01	Q
98+45	0.0000	0.01	Q
98+50	0.0000	0.01	Q
98+55	0.0000	0.01	Q
99+ 0	0.0000	0.01	Q
99+ 5	0.0000	0.01	Q
99+10	0.0000	0.01	Q
99+15	0.0000	0.01	Q
99+20	0.0000	0.01	Q
99+25	0.0000	0.01	Q
99+30	0.0000	0.01	Q
99+35	0.0000	0.01	Q
99+40	0.0000	0.01	Q
99+45	0.0000	0.01	Q
99+50	0.0000	0.01	Q
99+55	0.0000	0.01	Q
100+ 0	0.0000	0.01	Q
100+ 5	0.0000	0.01	Q
100+10	0.0000	0.01	Q
100+15	0.0000	0.01	Q
100+20	0.0000	0.01	Q
100+25	0.0000	0.01	Q
100+30	0.0000	0.01	Q
100+35	0.0000	0.01	Q
100+40	0.0000	0.01	Q
100+45	0.0000	0.01	Q
100+50	0.0000	0.01	Q
100+55	0.0000	0.01	Q
101+ 0	0.0000	0.01	Q
101+ 5	0.0000	0.01	Q
101+10	0.0000	0.01	Q
101+15	0.0000	0.01	Q
101+20	0.0000	0.01	Q
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101+45	0.0000	0.01	Q
101+50	0.0000	0.01	Q
101+55	0.0000	0.01	Q
102+ 0	0.0000	0.01	Q
102+ 5	0.0000	0.01	Q
102+10	0.0000	0.01	Q
102+15	0.0000	0.01	Q
102+20	0.0000	0.01	Q
102+25	0.0000	0.01	Q
102+30	0.0000	0.01	Q
102+35	0.0000	0.01	Q
102+40	0.0000	0.01	Q

102+45	0.0000	0.01	Q
102+50	0.0000	0.01	Q
102+55	0.0000	0.01	Q
103+ 0	0.0000	0.01	Q
103+ 5	0.0000	0.01	Q
103+10	0.0000	0.01	Q
103+15	0.0000	0.01	Q
103+20	0.0000	0.01	Q
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103+40	0.0000	0.01	Q
103+45	0.0000	0.01	Q
103+50	0.0000	0.01	Q
103+55	0.0000	0.01	Q
104+ 0	0.0000	0.01	Q
104+ 5	0.0000	0.01	Q
104+10	0.0000	0.01	Q
104+15	0.0000	0.01	Q
104+20	0.0000	0.01	Q
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104+45	0.0000	0.01	Q
104+50	0.0000	0.01	Q
104+55	0.0000	0.01	Q
105+ 0	0.0000	0.01	Q
105+ 5	0.0000	0.01	Q
105+10	0.0000	0.01	Q
105+15	0.0000	0.01	Q
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105+45	0.0000	0.01	Q
105+50	0.0000	0.01	Q
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106+ 0	0.0000	0.01	Q
106+ 5	0.0000	0.01	Q
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106+15	0.0000	0.01	Q
106+20	0.0000	0.01	Q
106+25	0.0000	0.01	Q
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106+35	0.0000	0.01	Q
106+40	0.0000	0.01	Q
106+45	0.0000	0.01	Q
106+50	0.0000	0.01	Q
106+55	0.0000	0.01	Q
107+ 0	0.0000	0.01	Q
107+ 5	0.0000	0.01	Q
107+10	0.0000	0.01	Q
107+15	0.0000	0.01	Q
107+20	0.0000	0.01	Q
107+25	0.0000	0.01	Q

107+30	0.0000	0.01	Q
107+35	0.0000	0.01	Q
107+40	0.0000	0.01	Q
107+45	0.0000	0.01	Q
107+50	0.0000	0.01	Q
107+55	0.0000	0.01	Q
108+ 0	0.0000	0.01	Q
108+ 5	0.0000	0.01	Q
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110+40	0.0000	0.01	Q
110+45	0.0000	0.01	Q
110+50	0.0000	0.01	Q
110+55	0.0000	0.01	Q
111+ 0	0.0000	0.01	Q
111+ 5	0.0000	0.01	Q
111+10	0.0000	0.01	Q
111+15	0.0000	0.01	Q
111+20	0.0000	0.01	Q
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111+40	0.0000	0.01	Q
111+45	0.0000	0.01	Q
111+50	0.0000	0.01	Q
111+55	0.0000	0.01	Q
112+ 0	0.0000	0.01	Q
112+ 5	0.0000	0.01	Q
112+10	0.0000	0.01	Q

112+15	0.0000	0.01	Q
112+20	0.0000	0.01	Q
112+25	0.0000	0.01	Q
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112+50	0.0000	0.01	Q
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113+ 0	0.0000	0.01	Q
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114+ 0	0.0000	0.01	Q
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114+55	0.0000	0.01	Q
115+ 0	0.0000	0.01	Q
115+ 5	0.0000	0.01	Q
115+10	0.0000	0.01	Q
115+15	0.0000	0.01	Q
115+20	0.0000	0.01	Q
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115+45	0.0000	0.01	Q
115+50	0.0000	0.01	Q
115+55	0.0000	0.01	Q
116+ 0	0.0000	0.01	Q
116+ 5	0.0000	0.01	Q
116+10	0.0000	0.01	Q
116+15	0.0000	0.01	Q
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116+35	0.0000	0.01	Q
116+40	0.0000	0.01	Q
116+45	0.0000	0.01	Q
116+50	0.0000	0.01	Q
116+55	0.0000	0.01	Q

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117+ 5	0.0000	0.01	Q
117+10	0.0000	0.01	Q
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117+55	0.0000	0.01	Q
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118+45	0.0000	0.01	Q
118+50	0.0000	0.01	Q
118+55	0.0000	0.01	Q
119+ 0	0.0000	0.01	Q
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119+30	0.0000	0.01	Q
119+35	0.0000	0.01	Q
119+40	0.0000	0.01	Q
119+45	0.0000	0.01	Q
119+50	0.0000	0.01	Q
119+55	0.0000	0.01	Q
120+ 0	0.0000	0.01	Q
120+ 5	0.0000	0.01	Q
120+10	0.0000	0.01	Q
120+15	0.0000	0.01	Q
120+20	0.0000	0.01	Q
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120+40	0.0000	0.01	Q
120+45	0.0000	0.01	Q
120+50	0.0000	0.01	Q
120+55	0.0000	0.01	Q
121+ 0	0.0000	0.01	Q
121+ 5	0.0000	0.01	Q
121+10	0.0000	0.01	Q
121+15	0.0000	0.01	Q
121+20	0.0000	0.01	Q
121+25	0.0000	0.01	Q
121+30	0.0000	0.01	Q
121+35	0.0000	0.01	Q
121+40	0.0000	0.01	Q

121+45	0.0000	0.01	Q
121+50	0.0000	0.01	Q
121+55	0.0000	0.01	Q
122+ 0	0.0000	0.01	Q
122+ 5	0.0000	0.01	Q
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123+45	0.0000	0.01	Q
123+50	0.0000	0.01	Q
123+55	0.0000	0.01	Q
124+ 0	0.0000	0.01	Q
124+ 5	0.0000	0.01	Q
124+10	0.0000	0.01	Q
124+15	0.0000	0.01	Q
124+20	0.0000	0.01	Q
124+25	0.0000	0.01	Q
124+30	0.0000	0.01	Q
124+35	0.0000	0.01	Q
124+40	0.0000	0.01	Q
124+45	0.0000	0.01	Q
124+50	0.0000	0.01	Q
124+55	0.0000	0.01	Q
125+ 0	0.0000	0.01	Q
125+ 5	0.0000	0.01	Q
125+10	0.0000	0.01	Q
125+15	0.0000	0.01	Q
125+20	0.0000	0.01	Q
125+25	0.0000	0.01	Q
125+30	0.0000	0.01	Q
125+35	0.0000	0.01	Q
125+40	0.0000	0.01	Q
125+45	0.0000	0.01	Q
125+50	0.0000	0.01	Q
125+55	0.0000	0.01	Q
126+ 0	0.0000	0.01	Q
126+ 5	0.0000	0.01	Q
126+10	0.0000	0.01	Q
126+15	0.0000	0.01	Q
126+20	0.0000	0.01	Q
126+25	0.0000	0.01	Q

126+30	0.0000	0.01	Q
126+35	0.0000	0.01	Q
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126+55	0.0000	0.01	Q
127+ 0	0.0000	0.01	Q
127+ 5	0.0000	0.01	Q
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127+40	0.0000	0.01	Q
127+45	0.0000	0.01	Q
127+50	0.0000	0.01	Q
127+55	0.0000	0.01	Q
128+ 0	0.0000	0.01	Q
128+ 5	0.0000	0.01	Q
128+10	0.0000	0.01	Q
128+15	0.0000	0.01	Q
128+20	0.0000	0.01	Q
128+25	0.0000	0.01	Q
128+30	0.0000	0.01	Q
128+35	0.0000	0.01	Q
128+40	0.0000	0.01	Q
128+45	0.0000	0.01	Q
128+50	0.0000	0.01	Q
128+55	0.0000	0.01	Q
129+ 0	0.0000	0.01	Q
129+ 5	0.0000	0.01	Q
129+10	0.0000	0.01	Q
129+15	0.0000	0.01	Q
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129+50	0.0000	0.01	Q
129+55	0.0000	0.01	Q
130+ 0	0.0000	0.01	Q
130+ 5	0.0000	0.01	Q
130+10	0.0000	0.01	Q
130+15	0.0000	0.01	Q
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131+ 0	0.0000	0.01	Q
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132+ 0	0.0000	0.01	Q
132+ 5	0.0000	0.01	Q
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139+40	0.0000	0.01	Q
139+45	0.0000	0.01	Q
139+50	0.0000	0.01	Q
139+55	0.0000	0.01	Q

*****HYDROGRAPH DATA*****

Number of intervals = 4830
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = 76.784 (CFS)
 Total volume = 18.807 (Ac.Ft)
 Status of hydrographs being held in storage
 Stream 1 Stream 2 Stream 3 Stream 4 Stream 5
 Peak (CFS) 0.000 0.000 0.000 0.000 0.000

Vol (Ac.Ft) 0.000 0.000 0.000 0.000 0.000

 ++++++
 Process from Point/Station 12.000 to Point/Station 13.000
 **** RETARDING BASIN ROUTING ****

 User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 4830
 Hydrograph time unit = 5.000 (Min.)
 Initial depth in storage basin = 0.00 (Ft.)

Initial basin depth = 0.00 (Ft.)
 Initial basin storage = 0.00 (Ac.Ft)
 Initial basin outflow = 0.00 (CFS)

 Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.500	0.090	0.001	0.090	0.090
1.000	0.190	0.001	0.190	0.190
1.500	0.290	0.001	0.290	0.290
2.000	0.400	0.001	0.400	0.400
2.500	0.540	0.001	0.540	0.540
3.000	0.700	0.010	0.700	0.700
3.500	0.860	0.010	0.860	0.860
4.000	1.030	0.010	1.030	1.030
4.500	1.200	0.010	1.200	1.200
5.000	1.380	0.010	1.380	1.380
5.500	1.950	0.800	1.947	1.953
6.000	2.550	2.800	2.540	2.560
6.500	3.170	4.920	3.153	3.187
7.000	3.810	7.900	3.783	3.837
8.000	5.170	91.600	4.855	5.485
9.000	6.630	240.400	5.802	7.458
10.000	8.200	432.000	6.712	9.688

 Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	Depth (Ft.)
0.083	0.09	0.00	0.000	0.00
0.167	0.49	0.00	0.002	0.01
0.250	1.27	0.00	0.008	0.05
0.333	2.27	0.00	0.021	0.11

0.417	3.07	0.00	0.039	OI					0.22
0.500	3.52	0.00	0.062	OI					0.34
0.583	3.75	0.00	0.087	OI					0.48
0.667	3.89	0.00	0.113	OI					0.61
0.750	3.96	0.00	0.140	OI					0.75
0.833	4.00	0.00	0.167	OI					0.89
0.917	4.05	0.00	0.195	OI					1.03
1.000	4.09	0.00	0.223	OI					1.17
1.083	4.11	0.00	0.251	OI					1.31
1.167	4.13	0.00	0.280	OI					1.45
1.250	4.15	0.00	0.308	OI					1.58
1.333	4.17	0.00	0.337	OI					1.71
1.417	4.18	0.00	0.365	OI					1.84
1.500	4.20	0.00	0.394	OI					1.97
1.583	4.22	0.00	0.423	OI					2.08
1.667	4.23	0.00	0.452	OI					2.19
1.750	4.25	0.00	0.482	OI					2.29
1.833	4.26	0.00	0.511	OI					2.40
1.917	4.28	0.00	0.540	OI					2.50
2.000	4.29	0.00	0.570	OI					2.59
2.083	4.31	0.00	0.599	OI					2.69
2.167	4.32	0.01	0.629	OI					2.78
2.250	4.33	0.01	0.659	OI					2.87
2.333	4.35	0.01	0.689	OI					2.96
2.417	4.36	0.01	0.719	OI					3.06
2.500	4.37	0.01	0.749	OI					3.15
2.583	4.38	0.01	0.779	OI					3.25
2.667	4.40	0.01	0.809	OI					3.34
2.750	4.41	0.01	0.839	OI					3.43
2.833	4.42	0.01	0.869	OI					3.53
2.917	4.44	0.01	0.900	OI					3.62
3.000	4.45	0.01	0.930	OI					3.71
3.083	4.47	0.01	0.961	OI					3.80
3.167	4.48	0.01	0.992	OI					3.89
3.250	4.50	0.01	1.023	OI					3.98
3.333	4.51	0.01	1.054	OI					4.07
3.417	4.52	0.01	1.085	OI					4.16
3.500	4.54	0.01	1.116	OI					4.25
3.583	4.55	0.01	1.147	OI					4.34
3.667	4.57	0.01	1.178	OI					4.44
3.750	4.58	0.01	1.210	OI					4.53
3.833	4.60	0.01	1.241	OI					4.61
3.917	4.61	0.01	1.273	OI					4.70
4.000	4.63	0.01	1.305	OI					4.79
4.083	4.64	0.01	1.336	OI					4.88
4.167	4.66	0.01	1.368	OI					4.97
4.250	4.67	0.04	1.400	OI					5.02
4.333	4.69	0.08	1.432	OI					5.05
4.417	4.70	0.13	1.464	OI					5.07
4.500	4.72	0.17	1.495	OI					5.10
4.583	4.73	0.21	1.526	OI					5.13
4.667	4.75	0.26	1.557	OI					5.16
4.750	4.76	0.30	1.588	OI					5.18
4.833	4.78	0.34	1.619	OI					5.21
4.917	4.80	0.38	1.649	OI					5.24
5.000	4.81	0.43	1.680	O I					5.26
5.083	4.83	0.47	1.710	O I					5.29

5.167	4.85	0.51	1.740	O I					5.32
5.250	4.87	0.55	1.770	O I					5.34
5.333	4.88	0.59	1.799	O I					5.37
5.417	4.90	0.63	1.829	O I					5.39
5.500	4.92	0.67	1.858	O I					5.42
5.583	4.94	0.71	1.887	O I					5.45
5.667	4.96	0.75	1.916	O I					5.47
5.750	4.99	0.79	1.945	O I					5.50
5.833	5.03	0.88	1.974	O I					5.52
5.917	5.08	0.97	2.002	O I					5.54
6.000	5.13	1.07	2.031	O I					5.57
6.083	5.18	1.16	2.058	O I					5.59
6.167	5.22	1.25	2.086	O I					5.61
6.250	5.27	1.34	2.113	O I					5.64
6.333	5.32	1.43	2.140	O I					5.66
6.417	5.37	1.52	2.167	O I					5.68
6.500	5.41	1.61	2.193	O I					5.70
6.583	5.46	1.70	2.219	O I					5.72
6.667	5.50	1.78	2.245	O I					5.75
6.750	5.55	1.87	2.270	O I					5.77
6.833	5.59	1.95	2.295	O I					5.79
6.917	5.64	2.03	2.320	O I					5.81
7.000	5.68	2.12	2.345	O I					5.83
7.083	5.73	2.20	2.370	O I					5.85
7.167	5.77	2.28	2.394	O I					5.87
7.250	5.81	2.36	2.418	O I					5.89
7.333	5.86	2.44	2.441	O I					5.91
7.417	5.90	2.52	2.465	O I					5.93
7.500	5.94	2.59	2.488	O I					5.95
7.583	5.99	2.67	2.511	O I					5.97
7.667	6.03	2.75	2.534	O I					5.99
7.750	6.07	2.82	2.556	O I					6.00
7.833	6.12	2.90	2.578	O I					6.02
7.917	6.16	2.97	2.601	O I					6.04
8.000	6.20	3.05	2.622	O I					6.06
8.083	6.25	3.12	2.644	O I					6.08
8.167	6.29	3.19	2.665	O I					6.09
8.250	6.33	3.27	2.687	O I					6.11
8.333	6.38	3.34	2.708	O I					6.13
8.417	6.42	3.41	2.728	O I					6.14
8.500	6.47	3.48	2.749	O I					6.16
8.583	6.51	3.55	2.770	O I					6.18
8.667	6.55	3.62	2.790	O I					6.19
8.750	6.60	3.69	2.810	O I					6.21
8.833	6.65	3.76	2.830	O I					6.23
8.917	6.71	3.83	2.850	O I					6.24
9.000	6.77	3.89	2.870	O I					6.26
9.083	6.83	3.96	2.889	O I					6.27
9.167	6.89	4.03	2.909	O I					6.29
9.250	6.95	4.10	2.929	O I					6.31
9.333	7.01	4.16	2.948	O I					6.32
9.417	7.06	4.23	2.968	O I					6.34
9.500	7.12	4.30	2.987	O I					6.35
9.583	7.18	4.36	3.007	O I					6.37
9.667	7.24	4.43	3.026	O I					6.38
9.750	7.29	4.49	3.046	O I					6.40
9.833	7.35	4.56	3.065	O I					6.42

9.917	7.41	4.63	3.084	O I					6.43
10.000	7.46	4.69	3.103	O I					6.45
10.083	7.52	4.76	3.122	O I					6.46
10.167	7.58	4.82	3.141	OI					6.48
10.250	7.64	4.89	3.160	OI					6.49
10.333	7.69	4.96	3.179	OI					6.51
10.417	7.75	5.05	3.198	OI					6.52
10.500	7.81	5.14	3.216	OI					6.54
10.583	7.87	5.22	3.235	OI					6.55
10.667	7.93	5.31	3.253	OI					6.56
10.750	7.99	5.39	3.271	OI					6.58
10.833	8.05	5.47	3.289	OI					6.59
10.917	8.11	5.55	3.306	OI					6.61
11.000	8.18	5.64	3.324	OI					6.62
11.083	8.24	5.72	3.341	OI					6.63
11.167	8.31	5.80	3.359	OI					6.65
11.250	8.37	5.88	3.376	OI					6.66
11.333	8.44	5.96	3.393	OI					6.67
11.417	8.51	6.04	3.410	OI					6.69
11.500	8.58	6.12	3.427	OI					6.70
11.583	8.65	6.20	3.444	OI					6.71
11.667	8.73	6.27	3.461	OI					6.73
11.750	8.80	6.35	3.478	OI					6.74
11.833	8.88	6.43	3.495	OI					6.75
11.917	8.96	6.51	3.512	OI					6.77
12.000	9.04	6.59	3.528	OI					6.78
12.083	9.11	6.67	3.545	OI					6.79
12.167	9.13	6.75	3.562	OI					6.81
12.250	9.09	6.82	3.578	OI					6.82
12.333	9.01	6.89	3.593	OI					6.83
12.417	8.96	6.96	3.607	OI					6.84
12.500	8.98	7.02	3.621	OI					6.85
12.583	9.03	7.08	3.634	OI					6.86
12.667	9.10	7.14	3.648	OI					6.87
12.750	9.19	7.21	3.661	O					6.88
12.833	9.29	7.27	3.675	O					6.89
12.917	9.39	7.34	3.689	O					6.91
13.000	9.50	7.40	3.703	O					6.92
13.083	9.61	7.47	3.718	OI					6.93
13.167	9.73	7.54	3.733	OI					6.94
13.250	9.85	7.61	3.748	OI					6.95
13.333	9.98	7.68	3.764	OI					6.96
13.417	10.12	7.76	3.780	OI					6.98
13.500	10.26	7.84	3.796	OI					6.99
13.583	10.41	8.07	3.813	OI					7.00
13.667	10.57	8.91	3.826	OI					7.01
13.750	10.73	9.52	3.836	OI					7.02
13.833	10.90	9.97	3.844	O					7.02
13.917	11.09	10.33	3.850	O					7.03
14.000	11.28	10.63	3.854	O					7.03
14.083	11.48	10.89	3.859	O					7.04
14.167	11.70	11.14	3.863	O					7.04
14.250	11.93	11.37	3.866	O					7.04
14.333	12.18	11.61	3.870	OI					7.04
14.417	12.44	11.85	3.874	OI					7.05
14.500	12.72	12.11	3.878	O					7.05
14.583	13.01	12.37	3.883	O					7.05

19.417	8.94	9.35	3.834	O					7.02
19.500	8.78	9.18	3.831	O					7.02
19.583	8.63	9.01	3.828	O					7.01
19.667	8.49	8.86	3.826	O					7.01
19.750	8.35	8.70	3.823	O					7.01
19.833	8.22	8.56	3.821	O					7.01
19.917	8.09	8.42	3.818	O					7.01
20.000	7.97	8.28	3.816	O					7.00
20.083	7.86	8.15	3.814	O					7.00
20.167	7.74	8.03	3.812	O					7.00
20.250	7.64	7.91	3.810	O					7.00
20.333	7.54	7.89	3.808	O					7.00
20.417	7.44	7.88	3.805	O					7.00
20.500	7.34	7.86	3.802	O					6.99
20.583	7.25	7.84	3.798	O					6.99
20.667	7.16	7.82	3.794	IO					6.99
20.750	7.08	7.80	3.789	IO					6.98
20.833	7.00	7.78	3.784	IO					6.98
20.917	6.92	7.75	3.778	IO					6.98
21.000	6.84	7.72	3.772	IO					6.97
21.083	6.77	7.70	3.766	IO					6.97
21.167	6.70	7.67	3.760	IO					6.96
21.250	6.63	7.63	3.753	IO					6.96
21.333	6.57	7.60	3.746	IO					6.95
21.417	6.50	7.57	3.739	IO					6.94
21.500	6.44	7.53	3.731	IO					6.94
21.583	6.38	7.50	3.724	IO					6.93
21.667	6.32	7.46	3.716	IO					6.93
21.750	6.26	7.42	3.708	IO					6.92
21.833	6.21	7.39	3.700	IO					6.91
21.917	6.16	7.35	3.692	IO					6.91
22.000	6.10	7.31	3.683	IO					6.90
22.083	6.05	7.27	3.675	IO					6.89
22.167	6.01	7.23	3.667	IO					6.89
22.250	5.96	7.19	3.658	O					6.88
22.333	5.91	7.15	3.650	O					6.87
22.417	5.87	7.11	3.641	O					6.87
22.500	5.82	7.07	3.632	O					6.86
22.583	5.78	7.03	3.624	O					6.85
22.667	5.74	6.99	3.615	O					6.85
22.750	5.70	6.95	3.607	O					6.84
22.833	5.66	6.91	3.598	O					6.83
22.917	5.62	6.87	3.589	O					6.83
23.000	5.58	6.83	3.581	O					6.82
23.083	5.54	6.79	3.572	O					6.81
23.167	5.51	6.75	3.563	O					6.81
23.250	5.47	6.71	3.555	O					6.80
23.333	5.44	6.67	3.546	O					6.79
23.417	5.40	6.63	3.538	O					6.79
23.500	5.37	6.59	3.529	O					6.78
23.583	5.34	6.55	3.521	O					6.77
23.667	5.30	6.52	3.513	O					6.77
23.750	5.27	6.48	3.504	O					6.76
23.833	5.24	6.44	3.496	O					6.75
23.917	5.21	6.40	3.488	O					6.75
24.000	5.18	6.36	3.480	O					6.74
24.083	5.06	6.32	3.471	O					6.74

24.167	4.63	6.28	3.461	IO					6.73
24.250	3.82	6.21	3.447	IO					6.72
24.333	2.77	6.12	3.428	IO					6.70
24.417	1.92	6.00	3.402	I O					6.68
24.500	1.42	5.86	3.373	I O					6.66
24.583	1.16	5.72	3.342	I O					6.63
24.667	1.01	5.57	3.310	I O					6.61
24.750	0.92	5.43	3.279	I O					6.59
24.833	0.86	5.28	3.248	I O					6.56
24.917	0.81	5.14	3.218	I O					6.54
25.000	0.76	5.01	3.188	I O					6.51
25.083	0.73	4.88	3.160	I O					6.49
25.167	0.70	4.79	3.131	IO					6.47
25.250	0.67	4.69	3.103	IO					6.45
25.333	0.64	4.60	3.076	IO					6.42
25.417	0.62	4.51	3.049	IO					6.40
25.500	0.59	4.41	3.022	IO					6.38
25.583	0.57	4.33	2.996	IO					6.36
25.667	0.55	4.24	2.970	IO					6.34
25.750	0.53	4.15	2.945	IO					6.32
25.833	0.51	4.07	2.921	IO					6.30
25.917	0.50	3.98	2.896	IO					6.28
26.000	0.48	3.90	2.873	IO					6.26
26.083	0.46	3.82	2.849	IO					6.24
26.167	0.45	3.74	2.826	IO					6.22
26.250	0.43	3.67	2.804	IO					6.20
26.333	0.42	3.59	2.782	IO					6.19
26.417	0.41	3.52	2.760	IO					6.17
26.500	0.39	3.45	2.739	IO					6.15
26.583	0.38	3.37	2.718	IO					6.14
26.667	0.37	3.30	2.698	IO					6.12
26.750	0.36	3.24	2.678	IO					6.10
26.833	0.35	3.17	2.658	IO					6.09
26.917	0.34	3.10	2.639	IO					6.07
27.000	0.33	3.04	2.620	IO					6.06
27.083	0.32	2.98	2.601	IO					6.04
27.167	0.31	2.91	2.583	IO					6.03
27.250	0.30	2.85	2.565	IO					6.01
27.333	0.29	2.79	2.548	IO					6.00
27.417	0.28	2.74	2.531	IO					5.98
27.500	0.27	2.68	2.514	IO					5.97
27.583	0.27	2.63	2.498	IO					5.96
27.667	0.26	2.57	2.482	IO					5.94
27.750	0.25	2.52	2.466	IO					5.93
27.833	0.24	2.47	2.450	IO					5.92
27.917	0.24	2.42	2.435	IO					5.90
28.000	0.23	2.37	2.420	O					5.89
28.083	0.22	2.32	2.406	O					5.88
28.167	0.21	2.27	2.392	O					5.87
28.250	0.21	2.22	2.377	O					5.86
28.333	0.20	2.18	2.364	O					5.84
28.417	0.20	2.13	2.350	O					5.83
28.500	0.19	2.09	2.337	O					5.82
28.583	0.18	2.05	2.324	O					5.81
28.667	0.18	2.00	2.311	O					5.80
28.750	0.17	1.96	2.299	O					5.79
28.833	0.17	1.92	2.287	O					5.78

28.917	0.16	1.88	2.275	0					5.77
29.000	0.16	1.84	2.263	0					5.76
29.083	0.15	1.81	2.252	0					5.75
29.167	0.15	1.77	2.240	0					5.74
29.250	0.15	1.73	2.229	0					5.73
29.333	0.14	1.69	2.218	0					5.72
29.417	0.14	1.66	2.208	0					5.71
29.500	0.13	1.62	2.197	0					5.71
29.583	0.13	1.59	2.187	0					5.70
29.667	0.12	1.56	2.177	0					5.69
29.750	0.12	1.53	2.168	0					5.68
29.833	0.12	1.49	2.158	0					5.67
29.917	0.11	1.46	2.149	0					5.67
30.000	0.11	1.43	2.139	0					5.66
30.083	0.11	1.40	2.130	0					5.65
30.167	0.10	1.37	2.122	0					5.64
30.250	0.10	1.34	2.113	0					5.64
30.333	0.10	1.31	2.104	0					5.63
30.417	0.10	1.29	2.096	0					5.62
30.500	0.09	1.26	2.088	0					5.62
30.583	0.09	1.23	2.080	0					5.61
30.667	0.09	1.21	2.072	0					5.60
30.750	0.08	1.18	2.065	0					5.60
30.833	0.08	1.16	2.057	0					5.59
30.917	0.08	1.13	2.050	0					5.58
31.000	0.08	1.11	2.043	0					5.58
31.083	0.07	1.09	2.036	0					5.57
31.167	0.07	1.06	2.029	0					5.57
31.250	0.07	1.04	2.022	0					5.56
31.333	0.07	1.02	2.015	0					5.55
31.417	0.07	1.00	2.009	0					5.55
31.500	0.06	0.98	2.003	0					5.54
31.583	0.06	0.95	1.996	0					5.54
31.667	0.06	0.93	1.990	0					5.53
31.750	0.06	0.91	1.984	0					5.53
31.833	0.06	0.89	1.978	0					5.52
31.917	0.06	0.88	1.973	0					5.52
32.000	0.05	0.86	1.967	0					5.51
32.083	0.05	0.84	1.962	0					5.51
32.167	0.05	0.82	1.956	0					5.51
32.250	0.05	0.80	1.951	0					5.50
32.333	0.05	0.79	1.946	0					5.50
32.417	0.05	0.79	1.941	0					5.49
32.500	0.04	0.78	1.936	0					5.49
32.583	0.04	0.77	1.931	0					5.48
32.667	0.04	0.77	1.926	0					5.48
32.750	0.04	0.76	1.921	0					5.47
32.833	0.04	0.75	1.916	0					5.47
32.917	0.04	0.75	1.911	0					5.47
33.000	0.04	0.74	1.906	0					5.46
33.083	0.04	0.73	1.901	0					5.46
33.167	0.04	0.73	1.896	0					5.45
33.250	0.03	0.72	1.892	0					5.45
33.333	0.03	0.71	1.887	0					5.44
33.417	0.03	0.71	1.882	0					5.44
33.500	0.03	0.70	1.878	0					5.44
33.583	0.03	0.69	1.873	0					5.43

33.667	0.03	0.69	1.869	0				5.43
33.750	0.03	0.68	1.864	0				5.42
33.833	0.03	0.67	1.860	0				5.42
33.917	0.03	0.67	1.855	0				5.42
34.000	0.03	0.66	1.851	0				5.41
34.083	0.03	0.66	1.846	0				5.41
34.167	0.02	0.65	1.842	0				5.41
34.250	0.02	0.64	1.838	0				5.40
34.333	0.02	0.64	1.833	0				5.40
34.417	0.02	0.63	1.829	0				5.39
34.500	0.02	0.63	1.825	0				5.39
34.583	0.02	0.62	1.821	0				5.39
34.667	0.02	0.62	1.817	0				5.38
34.750	0.02	0.61	1.813	0				5.38
34.833	0.02	0.60	1.809	0				5.38
34.917	0.02	0.60	1.805	0				5.37
35.000	0.02	0.59	1.801	0				5.37
35.083	0.02	0.59	1.797	0				5.37
35.167	0.02	0.58	1.793	0				5.36
35.250	0.02	0.58	1.789	0				5.36
35.333	0.02	0.57	1.785	0				5.36
35.417	0.02	0.57	1.781	0				5.35
35.500	0.02	0.56	1.778	0				5.35
35.583	0.01	0.56	1.774	0				5.35
35.667	0.01	0.55	1.770	0				5.34
35.750	0.01	0.55	1.766	0				5.34
35.833	0.01	0.54	1.763	0				5.34
35.917	0.01	0.54	1.759	0				5.33
36.000	0.01	0.53	1.756	0				5.33
36.083	0.01	0.53	1.752	0				5.33
36.167	0.01	0.52	1.748	0				5.32
36.250	0.01	0.52	1.745	0				5.32
36.333	0.01	0.51	1.742	0				5.32
36.417	0.01	0.51	1.738	0				5.31
36.500	0.01	0.50	1.735	0				5.31
36.583	0.01	0.50	1.731	0				5.31
36.667	0.01	0.49	1.728	0				5.31
36.750	0.01	0.49	1.725	0				5.30
36.833	0.01	0.48	1.721	0				5.30
36.917	0.01	0.48	1.718	0				5.30
37.000	0.01	0.47	1.715	0				5.29
37.083	0.01	0.47	1.712	0				5.29
37.167	0.01	0.47	1.709	0				5.29
37.250	0.01	0.46	1.706	0				5.29
37.333	0.01	0.46	1.702	0				5.28
37.417	0.01	0.45	1.699	0				5.28
37.500	0.01	0.45	1.696	0				5.28
37.583	0.01	0.44	1.693	0				5.27
37.667	0.01	0.44	1.690	0				5.27
37.750	0.01	0.44	1.687	0				5.27
37.833	0.01	0.43	1.684	0				5.27
37.917	0.01	0.43	1.682	0				5.26
38.000	0.01	0.42	1.679	0				5.26
38.083	0.01	0.42	1.676	0				5.26
38.167	0.01	0.42	1.673	0				5.26
38.250	0.01	0.41	1.670	0				5.25
38.333	0.01	0.41	1.668	0				5.25

38.417	0.01	0.40	1.665	0				5.25
38.500	0.01	0.40	1.662	0				5.25
38.583	0.01	0.40	1.659	0				5.25
38.667	0.01	0.39	1.657	0				5.24
38.750	0.01	0.39	1.654	0				5.24
38.833	0.01	0.39	1.652	0				5.24
38.917	0.01	0.38	1.649	0				5.24
39.000	0.01	0.38	1.646	0				5.23
39.083	0.01	0.38	1.644	0				5.23
39.167	0.01	0.37	1.641	0				5.23
39.250	0.01	0.37	1.639	0				5.23
39.333	0.01	0.37	1.636	0				5.22
39.417	0.01	0.36	1.634	0				5.22
39.500	0.01	0.36	1.632	0				5.22
39.583	0.01	0.36	1.629	0				5.22
39.667	0.01	0.35	1.627	0				5.22
39.750	0.01	0.35	1.624	0				5.21
39.833	0.01	0.35	1.622	0				5.21
39.917	0.01	0.34	1.620	0				5.21
40.000	0.01	0.34	1.618	0				5.21
40.083	0.01	0.34	1.615	0				5.21
40.167	0.01	0.33	1.613	0				5.20
40.250	0.01	0.33	1.611	0				5.20
40.333	0.01	0.33	1.609	0				5.20
40.417	0.01	0.32	1.606	0				5.20
40.500	0.01	0.32	1.604	0				5.20
40.583	0.01	0.32	1.602	0				5.19
40.667	0.01	0.32	1.600	0				5.19
40.750	0.01	0.31	1.598	0				5.19
40.833	0.01	0.31	1.596	0				5.19
40.917	0.01	0.31	1.594	0				5.19
41.000	0.01	0.30	1.592	0				5.19
41.083	0.01	0.30	1.590	0				5.18
41.167	0.01	0.30	1.588	0				5.18
41.250	0.01	0.30	1.586	0				5.18
41.333	0.01	0.29	1.584	0				5.18
41.417	0.01	0.29	1.582	0				5.18
41.500	0.01	0.29	1.580	0				5.18
41.583	0.01	0.28	1.578	0				5.17
41.667	0.01	0.28	1.576	0				5.17
41.750	0.01	0.28	1.574	0				5.17
41.833	0.01	0.28	1.573	0				5.17
41.917	0.01	0.27	1.571	0				5.17
42.000	0.01	0.27	1.569	0				5.17
42.083	0.01	0.27	1.567	0				5.16
42.167	0.01	0.27	1.565	0				5.16
42.250	0.01	0.26	1.564	0				5.16
42.333	0.01	0.26	1.562	0				5.16
42.417	0.01	0.26	1.560	0				5.16
42.500	0.01	0.26	1.558	0				5.16
42.583	0.01	0.25	1.557	0				5.16
42.667	0.01	0.25	1.555	0				5.15
42.750	0.01	0.25	1.553	0				5.15
42.833	0.01	0.25	1.552	0				5.15
42.917	0.01	0.25	1.550	0				5.15
43.000	0.01	0.24	1.548	0				5.15
43.083	0.01	0.24	1.547	0				5.15

43.167	0.01	0.24	1.545	O					5.14
43.250	0.01	0.24	1.544	O					5.14
43.333	0.01	0.23	1.542	O					5.14
43.417	0.01	0.23	1.541	O					5.14
43.500	0.01	0.23	1.539	O					5.14
43.583	0.01	0.23	1.538	O					5.14
43.667	0.01	0.23	1.536	O					5.14
43.750	0.01	0.22	1.535	O					5.14
43.833	0.01	0.22	1.533	O					5.13
43.917	0.01	0.22	1.532	O					5.13
44.000	0.01	0.22	1.530	O					5.13
44.083	0.01	0.22	1.529	O					5.13
44.167	0.01	0.21	1.527	O					5.13
44.250	0.01	0.21	1.526	O					5.13
44.333	0.01	0.21	1.525	O					5.13
44.417	0.01	0.21	1.523	O					5.13
44.500	0.01	0.21	1.522	O					5.12
44.583	0.01	0.20	1.521	O					5.12
44.667	0.01	0.20	1.519	O					5.12
44.750	0.01	0.20	1.518	O					5.12
44.833	0.01	0.20	1.517	O					5.12
44.917	0.01	0.20	1.515	O					5.12
45.000	0.01	0.20	1.514	O					5.12
45.083	0.01	0.19	1.513	O					5.12
45.167	0.01	0.19	1.511	O					5.12
45.250	0.01	0.19	1.510	O					5.11
45.333	0.01	0.19	1.509	O					5.11
45.417	0.01	0.19	1.508	O					5.11
45.500	0.01	0.19	1.507	O					5.11
45.583	0.01	0.18	1.505	O					5.11
45.667	0.01	0.18	1.504	O					5.11
45.750	0.01	0.18	1.503	O					5.11
45.833	0.01	0.18	1.502	O					5.11
45.917	0.01	0.18	1.501	O					5.11
46.000	0.01	0.18	1.499	O					5.10
46.083	0.01	0.17	1.498	O					5.10
46.167	0.01	0.17	1.497	O					5.10
46.250	0.01	0.17	1.496	O					5.10
46.333	0.01	0.17	1.495	O					5.10
46.417	0.01	0.17	1.494	O					5.10
46.500	0.01	0.17	1.493	O					5.10
46.583	0.01	0.16	1.492	O					5.10
46.667	0.01	0.16	1.491	O					5.10
46.750	0.01	0.16	1.490	O					5.10
46.833	0.01	0.16	1.489	O					5.10
46.917	0.01	0.16	1.488	O					5.09
47.000	0.01	0.16	1.487	O					5.09
47.083	0.01	0.16	1.486	O					5.09
47.167	0.01	0.15	1.485	O					5.09
47.250	0.01	0.15	1.484	O					5.09
47.333	0.01	0.15	1.483	O					5.09
47.417	0.01	0.15	1.482	O					5.09
47.500	0.01	0.15	1.481	O					5.09
47.583	0.01	0.15	1.480	O					5.09
47.667	0.01	0.15	1.479	O					5.09
47.750	0.01	0.15	1.478	O					5.09
47.833	0.01	0.14	1.477	O					5.08

47.917	0.01	0.14	1.476	O				5.08
48.000	0.01	0.14	1.475	O				5.08
48.083	0.01	0.14	1.474	O				5.08
48.167	0.01	0.14	1.473	O				5.08
48.250	0.01	0.14	1.472	O				5.08
48.333	0.01	0.14	1.471	O				5.08
48.417	0.01	0.14	1.471	O				5.08
48.500	0.01	0.13	1.470	O				5.08
48.583	0.01	0.13	1.469	O				5.08
48.667	0.01	0.13	1.468	O				5.08
48.750	0.01	0.13	1.467	O				5.08
48.833	0.01	0.13	1.466	O				5.08
48.917	0.01	0.13	1.466	O				5.08
49.000	0.01	0.13	1.465	O				5.07
49.083	0.01	0.13	1.464	O				5.07
49.167	0.01	0.13	1.463	O				5.07
49.250	0.01	0.12	1.462	O				5.07
49.333	0.01	0.12	1.462	O				5.07
49.417	0.01	0.12	1.461	O				5.07
49.500	0.01	0.12	1.460	O				5.07
49.583	0.01	0.12	1.459	O				5.07
49.667	0.01	0.12	1.459	O				5.07
49.750	0.01	0.12	1.458	O				5.07
49.833	0.01	0.12	1.457	O				5.07
49.917	0.01	0.12	1.456	O				5.07
50.000	0.01	0.11	1.456	O				5.07
50.083	0.01	0.11	1.455	O				5.07
50.167	0.01	0.11	1.454	O				5.07
50.250	0.01	0.11	1.453	O				5.06
50.333	0.01	0.11	1.453	O				5.06
50.417	0.01	0.11	1.452	O				5.06
50.500	0.01	0.11	1.451	O				5.06
50.583	0.01	0.11	1.451	O				5.06
50.667	0.01	0.11	1.450	O				5.06
50.750	0.01	0.11	1.449	O				5.06
50.833	0.01	0.11	1.449	O				5.06
50.917	0.01	0.10	1.448	O				5.06
51.000	0.01	0.10	1.447	O				5.06
51.083	0.01	0.10	1.447	O				5.06
51.167	0.01	0.10	1.446	O				5.06
51.250	0.01	0.10	1.445	O				5.06
51.333	0.01	0.10	1.445	O				5.06
51.417	0.01	0.10	1.444	O				5.06
51.500	0.01	0.10	1.444	O				5.06
51.583	0.01	0.10	1.443	O				5.06
51.667	0.01	0.10	1.442	O				5.05
51.750	0.01	0.10	1.442	O				5.05
51.833	0.01	0.09	1.441	O				5.05
51.917	0.01	0.09	1.441	O				5.05
52.000	0.01	0.09	1.440	O				5.05
52.083	0.01	0.09	1.440	O				5.05
52.167	0.01	0.09	1.439	O				5.05
52.250	0.01	0.09	1.438	O				5.05
52.333	0.01	0.09	1.438	O				5.05
52.417	0.01	0.09	1.437	O				5.05
52.500	0.01	0.09	1.437	O				5.05
52.583	0.01	0.09	1.436	O				5.05

52.667	0.01	0.09	1.436	O					5.05
52.750	0.01	0.09	1.435	O					5.05
52.833	0.01	0.09	1.435	O					5.05
52.917	0.01	0.08	1.434	O					5.05
53.000	0.01	0.08	1.434	O					5.05
53.083	0.01	0.08	1.433	O					5.05
53.167	0.01	0.08	1.433	O					5.05
53.250	0.01	0.08	1.432	O					5.05
53.333	0.01	0.08	1.432	O					5.05
53.417	0.01	0.08	1.431	O					5.04
53.500	0.01	0.08	1.431	O					5.04
53.583	0.01	0.08	1.430	O					5.04
53.667	0.01	0.08	1.430	O					5.04
53.750	0.01	0.08	1.429	O					5.04
53.833	0.01	0.08	1.429	O					5.04
53.917	0.01	0.08	1.428	O					5.04
54.000	0.01	0.08	1.428	O					5.04
54.083	0.01	0.08	1.427	O					5.04
54.167	0.01	0.07	1.427	O					5.04
54.250	0.01	0.07	1.426	O					5.04
54.333	0.01	0.07	1.426	O					5.04
54.417	0.01	0.07	1.426	O					5.04
54.500	0.01	0.07	1.425	O					5.04
54.583	0.01	0.07	1.425	O					5.04
54.667	0.01	0.07	1.424	O					5.04
54.750	0.01	0.07	1.424	O					5.04
54.833	0.01	0.07	1.423	O					5.04
54.917	0.01	0.07	1.423	O					5.04
55.000	0.01	0.07	1.423	O					5.04
55.083	0.01	0.07	1.422	O					5.04
55.167	0.01	0.07	1.422	O					5.04
55.250	0.01	0.07	1.421	O					5.04
55.333	0.01	0.07	1.421	O					5.04
55.417	0.01	0.07	1.421	O					5.04
55.500	0.01	0.07	1.420	O					5.04
55.583	0.01	0.07	1.420	O					5.03
55.667	0.01	0.06	1.419	O					5.03
55.750	0.01	0.06	1.419	O					5.03
55.833	0.01	0.06	1.419	O					5.03
55.917	0.01	0.06	1.418	O					5.03
56.000	0.01	0.06	1.418	O					5.03
56.083	0.01	0.06	1.418	O					5.03
56.167	0.01	0.06	1.417	O					5.03
56.250	0.01	0.06	1.417	O					5.03
56.333	0.01	0.06	1.417	O					5.03
56.417	0.01	0.06	1.416	O					5.03
56.500	0.01	0.06	1.416	O					5.03
56.583	0.01	0.06	1.416	O					5.03
56.667	0.01	0.06	1.415	O					5.03
56.750	0.01	0.06	1.415	O					5.03
56.833	0.01	0.06	1.415	O					5.03
56.917	0.01	0.06	1.414	O					5.03
57.000	0.01	0.06	1.414	O					5.03
57.083	0.01	0.06	1.414	O					5.03
57.167	0.01	0.06	1.413	O					5.03
57.250	0.01	0.06	1.413	O					5.03
57.333	0.01	0.06	1.413	O					5.03

57.417	0.01	0.05	1.412	O					5.03
57.500	0.01	0.05	1.412	O					5.03
57.583	0.01	0.05	1.412	O					5.03
57.667	0.01	0.05	1.411	O					5.03
57.750	0.01	0.05	1.411	O					5.03
57.833	0.01	0.05	1.411	O					5.03
57.917	0.01	0.05	1.411	O					5.03
58.000	0.01	0.05	1.410	O					5.03
58.083	0.01	0.05	1.410	O					5.03
58.167	0.01	0.05	1.410	O					5.03
58.250	0.01	0.05	1.409	O					5.03
58.333	0.01	0.05	1.409	O					5.03
58.417	0.01	0.05	1.409	O					5.03
58.500	0.01	0.05	1.409	O					5.03
58.583	0.01	0.05	1.408	O					5.02
58.667	0.01	0.05	1.408	O					5.02
58.750	0.01	0.05	1.408	O					5.02
58.833	0.01	0.05	1.407	O					5.02
58.917	0.01	0.05	1.407	O					5.02
59.000	0.01	0.05	1.407	O					5.02
59.083	0.01	0.05	1.407	O					5.02
59.167	0.01	0.05	1.406	O					5.02
59.250	0.01	0.05	1.406	O					5.02
59.333	0.01	0.05	1.406	O					5.02
59.417	0.01	0.05	1.406	O					5.02
59.500	0.01	0.05	1.405	O					5.02
59.583	0.01	0.04	1.405	O					5.02
59.667	0.01	0.04	1.405	O					5.02
59.750	0.01	0.04	1.405	O					5.02
59.833	0.01	0.04	1.404	O					5.02
59.917	0.01	0.04	1.404	O					5.02
60.000	0.01	0.04	1.404	O					5.02
60.083	0.01	0.04	1.404	O					5.02
60.167	0.01	0.04	1.404	O					5.02
60.250	0.01	0.04	1.403	O					5.02
60.333	0.01	0.04	1.403	O					5.02
60.417	0.01	0.04	1.403	O					5.02
60.500	0.01	0.04	1.403	O					5.02
60.583	0.01	0.04	1.402	O					5.02
60.667	0.01	0.04	1.402	O					5.02
60.750	0.01	0.04	1.402	O					5.02
60.833	0.01	0.04	1.402	O					5.02
60.917	0.01	0.04	1.402	O					5.02
61.000	0.01	0.04	1.401	O					5.02
61.083	0.01	0.04	1.401	O					5.02
61.167	0.01	0.04	1.401	O					5.02
61.250	0.01	0.04	1.401	O					5.02
61.333	0.01	0.04	1.401	O					5.02
61.417	0.01	0.04	1.400	O					5.02
61.500	0.01	0.04	1.400	O					5.02
61.583	0.01	0.04	1.400	O					5.02
61.667	0.01	0.04	1.400	O					5.02
61.750	0.01	0.04	1.400	O					5.02
61.833	0.01	0.04	1.399	O					5.02
61.917	0.01	0.04	1.399	O					5.02
62.000	0.01	0.04	1.399	O					5.02
62.083	0.01	0.04	1.399	O					5.02

62.167	0.01	0.04	1.399	0					5.02
62.250	0.01	0.04	1.399	0					5.02
62.333	0.01	0.04	1.398	0					5.02
62.417	0.01	0.04	1.398	0					5.02
62.500	0.01	0.04	1.398	0					5.02
62.583	0.01	0.03	1.398	0					5.02
62.667	0.01	0.03	1.398	0					5.02
62.750	0.01	0.03	1.398	0					5.02
62.833	0.01	0.03	1.397	0					5.02
62.917	0.01	0.03	1.397	0					5.02
63.000	0.01	0.03	1.397	0					5.01
63.083	0.01	0.03	1.397	0					5.01
63.167	0.01	0.03	1.397	0					5.01
63.250	0.01	0.03	1.397	0					5.01
63.333	0.01	0.03	1.396	0					5.01
63.417	0.01	0.03	1.396	0					5.01
63.500	0.01	0.03	1.396	0					5.01
63.583	0.01	0.03	1.396	0					5.01
63.667	0.01	0.03	1.396	0					5.01
63.750	0.01	0.03	1.396	0					5.01
63.833	0.01	0.03	1.395	0					5.01
63.917	0.01	0.03	1.395	0					5.01
64.000	0.01	0.03	1.395	0					5.01
64.083	0.01	0.03	1.395	0					5.01
64.167	0.01	0.03	1.395	0					5.01
64.250	0.01	0.03	1.395	0					5.01
64.333	0.01	0.03	1.395	0					5.01
64.417	0.01	0.03	1.394	0					5.01
64.500	0.01	0.03	1.394	0					5.01
64.583	0.01	0.03	1.394	0					5.01
64.667	0.01	0.03	1.394	0					5.01
64.750	0.01	0.03	1.394	0					5.01
64.833	0.01	0.03	1.394	0					5.01
64.917	0.01	0.03	1.394	0					5.01
65.000	0.01	0.03	1.394	0					5.01
65.083	0.01	0.03	1.393	0					5.01
65.167	0.01	0.03	1.393	0					5.01
65.250	0.01	0.03	1.393	0					5.01
65.333	0.01	0.03	1.393	0					5.01
65.417	0.01	0.03	1.393	0					5.01
65.500	0.01	0.03	1.393	0					5.01
65.583	0.01	0.03	1.393	0					5.01
65.667	0.01	0.03	1.393	0					5.01
65.750	0.01	0.03	1.392	0					5.01
65.833	0.01	0.03	1.392	0					5.01
65.917	0.01	0.03	1.392	0					5.01
66.000	0.01	0.03	1.392	0					5.01
66.083	0.01	0.03	1.392	0					5.01
66.167	0.01	0.03	1.392	0					5.01
66.250	0.01	0.03	1.392	0					5.01
66.333	0.01	0.03	1.392	0					5.01
66.417	0.01	0.03	1.392	0					5.01
66.500	0.01	0.03	1.391	0					5.01
66.583	0.01	0.03	1.391	0					5.01
66.667	0.01	0.03	1.391	0					5.01
66.750	0.01	0.03	1.391	0					5.01
66.833	0.01	0.03	1.391	0					5.01

66.917	0.01	0.03	1.391	O				5.01
67.000	0.01	0.02	1.391	O				5.01
67.083	0.01	0.02	1.391	O				5.01
67.167	0.01	0.02	1.391	O				5.01
67.250	0.01	0.02	1.390	O				5.01
67.333	0.01	0.02	1.390	O				5.01
67.417	0.01	0.02	1.390	O				5.01
67.500	0.01	0.02	1.390	O				5.01
67.583	0.01	0.02	1.390	O				5.01
67.667	0.01	0.02	1.390	O				5.01
67.750	0.01	0.02	1.390	O				5.01
67.833	0.01	0.02	1.390	O				5.01
67.917	0.01	0.02	1.390	O				5.01
68.000	0.01	0.02	1.390	O				5.01
68.083	0.01	0.02	1.390	O				5.01
68.167	0.01	0.02	1.389	O				5.01
68.250	0.01	0.02	1.389	O				5.01
68.333	0.01	0.02	1.389	O				5.01
68.417	0.01	0.02	1.389	O				5.01
68.500	0.01	0.02	1.389	O				5.01
68.583	0.01	0.02	1.389	O				5.01
68.667	0.01	0.02	1.389	O				5.01
68.750	0.01	0.02	1.389	O				5.01
68.833	0.01	0.02	1.389	O				5.01
68.917	0.01	0.02	1.389	O				5.01
69.000	0.01	0.02	1.389	O				5.01
69.083	0.01	0.02	1.388	O				5.01
69.167	0.01	0.02	1.388	O				5.01
69.250	0.01	0.02	1.388	O				5.01
69.333	0.01	0.02	1.388	O				5.01
69.417	0.01	0.02	1.388	O				5.01
69.500	0.01	0.02	1.388	O				5.01
69.583	0.01	0.02	1.388	O				5.01
69.667	0.01	0.02	1.388	O				5.01
69.750	0.01	0.02	1.388	O				5.01
69.833	0.01	0.02	1.388	O				5.01
69.917	0.01	0.02	1.388	O				5.01
70.000	0.01	0.02	1.388	O				5.01
70.083	0.01	0.02	1.388	O				5.01
70.167	0.01	0.02	1.388	O				5.01
70.250	0.01	0.02	1.387	O				5.01
70.333	0.01	0.02	1.387	O				5.01
70.417	0.01	0.02	1.387	O				5.01
70.500	0.01	0.02	1.387	O				5.01
70.583	0.01	0.02	1.387	O				5.01
70.667	0.01	0.02	1.387	O				5.01
70.750	0.01	0.02	1.387	O				5.01
70.833	0.01	0.02	1.387	O				5.01
70.917	0.01	0.02	1.387	O				5.01
71.000	0.01	0.02	1.387	O				5.01
71.083	0.01	0.02	1.387	O				5.01
71.167	0.01	0.02	1.387	O				5.01
71.250	0.01	0.02	1.387	O				5.01
71.333	0.01	0.02	1.387	O				5.01
71.417	0.01	0.02	1.387	O				5.01
71.500	0.01	0.02	1.386	O				5.01
71.583	0.01	0.02	1.386	O				5.01

71.667	0.01	0.02	1.386	0				5.01
71.750	0.01	0.02	1.386	0				5.01
71.833	0.01	0.02	1.386	0				5.01
71.917	0.01	0.02	1.386	0				5.01
72.000	0.01	0.02	1.386	0				5.01
72.083	0.01	0.02	1.386	0				5.01
72.167	0.01	0.02	1.386	0				5.01
72.250	0.01	0.02	1.386	0				5.01
72.333	0.01	0.02	1.386	0				5.01
72.417	0.01	0.02	1.386	0				5.01
72.500	0.01	0.02	1.386	0				5.01
72.583	0.01	0.02	1.386	0				5.00
72.667	0.01	0.02	1.386	0				5.00
72.750	0.01	0.02	1.386	0				5.00
72.833	0.01	0.02	1.386	0				5.00
72.917	0.01	0.02	1.385	0				5.00
73.000	0.01	0.02	1.385	0				5.00
73.083	0.01	0.02	1.385	0				5.00
73.167	0.01	0.02	1.385	0				5.00
73.250	0.01	0.02	1.385	0				5.00
73.333	0.01	0.02	1.385	0				5.00
73.417	0.01	0.02	1.385	0				5.00
73.500	0.01	0.02	1.385	0				5.00
73.583	0.01	0.02	1.385	0				5.00
73.667	0.01	0.02	1.385	0				5.00
73.750	0.01	0.02	1.385	0				5.00
73.833	0.01	0.02	1.385	0				5.00
73.917	0.01	0.02	1.385	0				5.00
74.000	0.01	0.02	1.385	0				5.00
74.083	0.01	0.02	1.385	0				5.00
74.167	0.01	0.02	1.385	0				5.00
74.250	0.01	0.02	1.385	0				5.00
74.333	0.01	0.02	1.385	0				5.00
74.417	0.01	0.02	1.385	0				5.00
74.500	0.01	0.02	1.385	0				5.00
74.583	0.01	0.02	1.385	0				5.00
74.667	0.01	0.02	1.384	0				5.00
74.750	0.01	0.02	1.384	0				5.00
74.833	0.01	0.02	1.384	0				5.00
74.917	0.01	0.02	1.384	0				5.00
75.000	0.01	0.02	1.384	0				5.00
75.083	0.01	0.02	1.384	0				5.00
75.167	0.01	0.02	1.384	0				5.00
75.250	0.01	0.02	1.384	0				5.00
75.333	0.01	0.02	1.384	0				5.00
75.417	0.01	0.02	1.384	0				5.00
75.500	0.01	0.02	1.384	0				5.00
75.583	0.01	0.02	1.384	0				5.00
75.667	0.01	0.02	1.384	0				5.00
75.750	0.01	0.02	1.384	0				5.00
75.833	0.01	0.02	1.384	0				5.00
75.917	0.01	0.02	1.384	0				5.00
76.000	0.01	0.02	1.384	0				5.00
76.083	0.01	0.02	1.384	0				5.00
76.167	0.01	0.02	1.384	0				5.00
76.250	0.01	0.02	1.384	0				5.00
76.333	0.01	0.02	1.384	0				5.00

76.417	0.01	0.02	1.384	0					5.00
76.500	0.01	0.02	1.384	0					5.00
76.583	0.01	0.01	1.384	0					5.00
76.667	0.01	0.01	1.384	0					5.00
76.750	0.01	0.01	1.384	0					5.00
76.833	0.01	0.01	1.383	0					5.00
76.917	0.01	0.01	1.383	0					5.00
77.000	0.01	0.01	1.383	0					5.00
77.083	0.01	0.01	1.383	0					5.00
77.167	0.01	0.01	1.383	0					5.00
77.250	0.01	0.01	1.383	0					5.00
77.333	0.01	0.01	1.383	0					5.00
77.417	0.01	0.01	1.383	0					5.00
77.500	0.01	0.01	1.383	0					5.00
77.583	0.01	0.01	1.383	0					5.00
77.667	0.01	0.01	1.383	0					5.00
77.750	0.01	0.01	1.383	0					5.00
77.833	0.01	0.01	1.383	0					5.00
77.917	0.01	0.01	1.383	0					5.00
78.000	0.01	0.01	1.383	0					5.00
78.083	0.01	0.01	1.383	0					5.00
78.167	0.01	0.01	1.383	0					5.00
78.250	0.01	0.01	1.383	0					5.00
78.333	0.01	0.01	1.383	0					5.00
78.417	0.01	0.01	1.383	0					5.00
78.500	0.01	0.01	1.383	0					5.00
78.583	0.01	0.01	1.383	0					5.00
78.667	0.01	0.01	1.383	0					5.00
78.750	0.01	0.01	1.383	0					5.00
78.833	0.01	0.01	1.383	0					5.00
78.917	0.01	0.01	1.383	0					5.00
79.000	0.01	0.01	1.383	0					5.00
79.083	0.01	0.01	1.383	0					5.00
79.167	0.01	0.01	1.383	0					5.00
79.250	0.01	0.01	1.383	0					5.00
79.333	0.01	0.01	1.383	0					5.00
79.417	0.01	0.01	1.383	0					5.00
79.500	0.01	0.01	1.383	0					5.00
79.583	0.01	0.01	1.383	0					5.00
79.667	0.01	0.01	1.383	0					5.00
79.750	0.01	0.01	1.383	0					5.00
79.833	0.01	0.01	1.382	0					5.00
79.917	0.01	0.01	1.382	0					5.00
80.000	0.01	0.01	1.382	0					5.00
80.083	0.01	0.01	1.382	0					5.00
80.167	0.01	0.01	1.382	0					5.00
80.250	0.01	0.01	1.382	0					5.00
80.333	0.01	0.01	1.382	0					5.00
80.417	0.01	0.01	1.382	0					5.00
80.500	0.01	0.01	1.382	0					5.00
80.583	0.01	0.01	1.382	0					5.00
80.667	0.01	0.01	1.382	0					5.00
80.750	0.01	0.01	1.382	0					5.00
80.833	0.01	0.01	1.382	0					5.00
80.917	0.01	0.01	1.382	0					5.00
81.000	0.01	0.01	1.382	0					5.00
81.083	0.01	0.01	1.382	0					5.00

81.167	0.01	0.01	1.382	0				5.00
81.250	0.01	0.01	1.382	0				5.00
81.333	0.01	0.01	1.382	0				5.00
81.417	0.01	0.01	1.382	0				5.00
81.500	0.01	0.01	1.382	0				5.00
81.583	0.01	0.01	1.382	0				5.00
81.667	0.01	0.01	1.382	0				5.00
81.750	0.01	0.01	1.382	0				5.00
81.833	0.01	0.01	1.382	0				5.00
81.917	0.01	0.01	1.382	0				5.00
82.000	0.01	0.01	1.382	0				5.00
82.083	0.01	0.01	1.382	0				5.00
82.167	0.01	0.01	1.382	0				5.00
82.250	0.01	0.01	1.382	0				5.00
82.333	0.01	0.01	1.382	0				5.00
82.417	0.01	0.01	1.382	0				5.00
82.500	0.01	0.01	1.382	0				5.00
82.583	0.01	0.01	1.382	0				5.00
82.667	0.01	0.01	1.382	0				5.00
82.750	0.01	0.01	1.382	0				5.00
82.833	0.01	0.01	1.382	0				5.00
82.917	0.01	0.01	1.382	0				5.00
83.000	0.01	0.01	1.382	0				5.00
83.083	0.01	0.01	1.382	0				5.00
83.167	0.01	0.01	1.382	0				5.00
83.250	0.01	0.01	1.382	0				5.00
83.333	0.01	0.01	1.382	0				5.00
83.417	0.01	0.01	1.382	0				5.00
83.500	0.01	0.01	1.382	0				5.00
83.583	0.01	0.01	1.382	0				5.00
83.667	0.01	0.01	1.382	0				5.00
83.750	0.01	0.01	1.382	0				5.00
83.833	0.01	0.01	1.382	0				5.00
83.917	0.01	0.01	1.382	0				5.00
84.000	0.01	0.01	1.382	0				5.00
84.083	0.01	0.01	1.382	0				5.00
84.167	0.01	0.01	1.382	0				5.00
84.250	0.01	0.01	1.381	0				5.00
84.333	0.01	0.01	1.381	0				5.00
84.417	0.01	0.01	1.381	0				5.00
84.500	0.01	0.01	1.381	0				5.00
84.583	0.01	0.01	1.381	0				5.00
84.667	0.01	0.01	1.381	0				5.00
84.750	0.01	0.01	1.381	0				5.00
84.833	0.01	0.01	1.381	0				5.00
84.917	0.01	0.01	1.381	0				5.00
85.000	0.01	0.01	1.381	0				5.00
85.083	0.01	0.01	1.381	0				5.00
85.167	0.01	0.01	1.381	0				5.00
85.250	0.01	0.01	1.381	0				5.00
85.333	0.01	0.01	1.381	0				5.00
85.417	0.01	0.01	1.381	0				5.00
85.500	0.01	0.01	1.381	0				5.00
85.583	0.01	0.01	1.381	0				5.00
85.667	0.01	0.01	1.381	0				5.00
85.750	0.01	0.01	1.381	0				5.00
85.833	0.01	0.01	1.381	0				5.00

85.917	0.01	0.01	1.381	O				5.00
86.000	0.01	0.01	1.381	O				5.00
86.083	0.01	0.01	1.381	O				5.00
86.167	0.01	0.01	1.381	O				5.00
86.250	0.01	0.01	1.381	O				5.00
86.333	0.01	0.01	1.381	O				5.00
86.417	0.01	0.01	1.381	O				5.00
86.500	0.01	0.01	1.381	O				5.00
86.583	0.01	0.01	1.381	O				5.00
86.667	0.01	0.01	1.381	O				5.00
86.750	0.01	0.01	1.381	O				5.00
86.833	0.01	0.01	1.381	O				5.00
86.917	0.01	0.01	1.381	O				5.00
87.000	0.01	0.01	1.381	O				5.00
87.083	0.01	0.01	1.381	O				5.00
87.167	0.01	0.01	1.381	O				5.00
87.250	0.01	0.01	1.381	O				5.00
87.333	0.01	0.01	1.381	O				5.00
87.417	0.01	0.01	1.381	O				5.00
87.500	0.01	0.01	1.381	O				5.00
87.583	0.01	0.01	1.381	O				5.00
87.667	0.01	0.01	1.381	O				5.00
87.750	0.01	0.01	1.381	O				5.00
87.833	0.01	0.01	1.381	O				5.00
87.917	0.01	0.01	1.381	O				5.00
88.000	0.01	0.01	1.381	O				5.00
88.083	0.01	0.01	1.381	O				5.00
88.167	0.01	0.01	1.381	O				5.00
88.250	0.01	0.01	1.381	O				5.00
88.333	0.01	0.01	1.381	O				5.00
88.417	0.01	0.01	1.381	O				5.00
88.500	0.01	0.01	1.381	O				5.00
88.583	0.01	0.01	1.381	O				5.00
88.667	0.01	0.01	1.381	O				5.00
88.750	0.01	0.01	1.381	O				5.00
88.833	0.01	0.01	1.381	O				5.00
88.917	0.01	0.01	1.381	O				5.00
89.000	0.01	0.01	1.381	O				5.00
89.083	0.01	0.01	1.381	O				5.00
89.167	0.01	0.01	1.381	O				5.00
89.250	0.01	0.01	1.381	O				5.00
89.333	0.01	0.01	1.381	O				5.00
89.417	0.01	0.01	1.381	O				5.00
89.500	0.01	0.01	1.381	O				5.00
89.583	0.01	0.01	1.381	O				5.00
89.667	0.01	0.01	1.381	O				5.00
89.750	0.01	0.01	1.381	O				5.00
89.833	0.01	0.01	1.381	O				5.00
89.917	0.01	0.01	1.381	O				5.00
90.000	0.01	0.01	1.381	O				5.00
90.083	0.01	0.01	1.381	O				5.00
90.167	0.01	0.01	1.381	O				5.00
90.250	0.01	0.01	1.381	O				5.00
90.333	0.01	0.01	1.381	O				5.00
90.417	0.01	0.01	1.381	O				5.00
90.500	0.01	0.01	1.381	O				5.00
90.583	0.01	0.01	1.381	O				5.00

90.667	0.01	0.01	1.381	O				5.00
90.750	0.01	0.01	1.381	O				5.00
90.833	0.01	0.01	1.381	O				5.00
90.917	0.01	0.01	1.381	O				5.00
91.000	0.01	0.01	1.381	O				5.00
91.083	0.01	0.01	1.381	O				5.00
91.167	0.01	0.01	1.381	O				5.00
91.250	0.01	0.01	1.381	O				5.00
91.333	0.01	0.01	1.381	O				5.00
91.417	0.01	0.01	1.381	O				5.00
91.500	0.01	0.01	1.381	O				5.00
91.583	0.01	0.01	1.381	O				5.00
91.667	0.01	0.01	1.381	O				5.00
91.750	0.01	0.01	1.381	O				5.00
91.833	0.01	0.01	1.381	O				5.00
91.917	0.01	0.01	1.381	O				5.00
92.000	0.01	0.01	1.381	O				5.00
92.083	0.01	0.01	1.381	O				5.00
92.167	0.01	0.01	1.381	O				5.00
92.250	0.01	0.01	1.381	O				5.00
92.333	0.01	0.01	1.381	O				5.00
92.417	0.01	0.01	1.381	O				5.00
92.500	0.01	0.01	1.381	O				5.00
92.583	0.01	0.01	1.381	O				5.00
92.667	0.01	0.01	1.381	O				5.00
92.750	0.01	0.01	1.381	O				5.00
92.833	0.01	0.01	1.381	O				5.00
92.917	0.01	0.01	1.381	O				5.00
93.000	0.01	0.01	1.381	O				5.00
93.083	0.01	0.01	1.381	O				5.00
93.167	0.01	0.01	1.381	O				5.00
93.250	0.01	0.01	1.381	O				5.00
93.333	0.01	0.01	1.381	O				5.00
93.417	0.01	0.01	1.381	O				5.00
93.500	0.01	0.01	1.381	O				5.00
93.583	0.01	0.01	1.381	O				5.00
93.667	0.01	0.01	1.381	O				5.00
93.750	0.01	0.01	1.381	O				5.00
93.833	0.01	0.01	1.380	O				5.00
93.917	0.01	0.01	1.380	O				5.00
94.000	0.01	0.01	1.380	O				5.00
94.083	0.01	0.01	1.380	O				5.00
94.167	0.01	0.01	1.380	O				5.00
94.250	0.01	0.01	1.380	O				5.00
94.333	0.01	0.01	1.380	O				5.00
94.417	0.01	0.01	1.380	O				5.00
94.500	0.01	0.01	1.380	O				5.00
94.583	0.01	0.01	1.380	O				5.00
94.667	0.01	0.01	1.380	O				5.00
94.750	0.01	0.01	1.380	O				5.00
94.833	0.01	0.01	1.380	O				5.00
94.917	0.01	0.01	1.380	O				5.00
95.000	0.01	0.01	1.380	O				5.00
95.083	0.01	0.01	1.380	O				5.00
95.167	0.01	0.01	1.380	O				5.00
95.250	0.01	0.01	1.380	O				5.00
95.333	0.01	0.01	1.380	O				5.00

95.417	0.01	0.01	1.380	O					5.00
95.500	0.01	0.01	1.380	O					5.00
95.583	0.01	0.01	1.380	O					5.00
95.667	0.01	0.01	1.380	O					5.00
95.750	0.01	0.01	1.380	O					5.00
95.833	0.01	0.01	1.380	O					5.00
95.917	0.01	0.01	1.380	O					5.00
96.000	0.01	0.01	1.380	O					5.00
96.083	0.01	0.01	1.380	O					5.00
96.167	0.01	0.01	1.380	O					5.00
96.250	0.01	0.01	1.380	O					5.00
96.333	0.01	0.01	1.380	O					5.00
96.417	0.01	0.01	1.380	O					5.00
96.500	0.01	0.01	1.380	O					5.00
96.583	0.01	0.01	1.380	O					5.00
96.667	0.01	0.01	1.380	O					5.00
96.750	0.01	0.01	1.380	O					5.00
96.833	0.01	0.01	1.380	O					5.00
96.917	0.01	0.01	1.380	O					5.00
97.000	0.01	0.01	1.380	O					5.00
97.083	0.01	0.01	1.380	O					5.00
97.167	0.01	0.01	1.380	O					5.00
97.250	0.01	0.01	1.380	O					5.00
97.333	0.01	0.01	1.380	O					5.00
97.417	0.01	0.01	1.380	O					5.00
97.500	0.01	0.01	1.380	O					5.00
97.583	0.01	0.01	1.380	O					5.00
97.667	0.01	0.01	1.380	O					5.00
97.750	0.01	0.01	1.380	O					5.00
97.833	0.01	0.01	1.380	O					5.00
97.917	0.01	0.01	1.380	O					5.00
98.000	0.01	0.01	1.380	O					5.00
98.083	0.01	0.01	1.380	O					5.00
98.167	0.01	0.01	1.380	O					5.00
98.250	0.01	0.01	1.380	O					5.00
98.333	0.01	0.01	1.380	O					5.00
98.417	0.01	0.01	1.380	O					5.00
98.500	0.01	0.01	1.380	O					5.00
98.583	0.01	0.01	1.380	O					5.00
98.667	0.01	0.01	1.380	O					5.00
98.750	0.01	0.01	1.380	O					5.00
98.833	0.01	0.01	1.380	O					5.00
98.917	0.01	0.01	1.380	O					5.00
99.000	0.01	0.01	1.380	O					5.00
99.083	0.01	0.01	1.380	O					5.00
99.167	0.01	0.01	1.380	O					5.00
99.250	0.01	0.01	1.380	O					5.00
99.333	0.01	0.01	1.380	O					5.00
99.417	0.01	0.01	1.380	O					5.00
99.500	0.01	0.01	1.380	O					5.00
99.583	0.01	0.01	1.380	O					5.00
99.667	0.01	0.01	1.380	O					5.00
99.750	0.01	0.01	1.380	O					5.00
99.833	0.01	0.01	1.380	O					5.00
99.917	0.01	0.01	1.380	O					5.00
100.000	0.01	0.01	1.380	O					5.00
100.083	0.01	0.01	1.380	O					5.00

100.167	0.01	0.01	1.380	0					5.00
100.250	0.01	0.01	1.380	0					5.00
100.333	0.01	0.01	1.380	0					5.00
100.417	0.01	0.01	1.380	0					5.00
100.500	0.01	0.01	1.380	0					5.00
100.583	0.01	0.01	1.380	0					5.00
100.667	0.01	0.01	1.380	0					5.00
100.750	0.01	0.01	1.380	0					5.00
100.833	0.01	0.01	1.380	0					5.00
100.917	0.01	0.01	1.380	0					5.00
101.000	0.01	0.01	1.380	0					5.00
101.083	0.01	0.01	1.380	0					5.00
101.167	0.01	0.01	1.380	0					5.00
101.250	0.01	0.01	1.380	0					5.00
101.333	0.01	0.01	1.380	0					5.00
101.417	0.01	0.01	1.380	0					5.00
101.500	0.01	0.01	1.380	0					5.00
101.583	0.01	0.01	1.380	0					5.00
101.667	0.01	0.01	1.380	0					5.00
101.750	0.01	0.01	1.380	0					5.00
101.833	0.01	0.01	1.380	0					5.00
101.917	0.01	0.01	1.380	0					5.00
102.000	0.01	0.01	1.380	0					5.00
102.083	0.01	0.01	1.380	0					5.00
102.167	0.01	0.01	1.380	0					5.00
102.250	0.01	0.01	1.380	0					5.00
102.333	0.01	0.01	1.380	0					5.00
102.417	0.01	0.01	1.380	0					5.00
102.500	0.01	0.01	1.380	0					5.00
102.583	0.01	0.01	1.380	0					5.00
102.667	0.01	0.01	1.380	0					5.00
102.750	0.01	0.01	1.380	0					5.00
102.833	0.01	0.01	1.380	0					5.00
102.917	0.01	0.01	1.380	0					5.00
103.000	0.01	0.01	1.380	0					5.00
103.083	0.01	0.01	1.380	0					5.00
103.167	0.01	0.01	1.380	0					5.00
103.250	0.01	0.01	1.380	0					5.00
103.333	0.01	0.01	1.380	0					5.00
103.417	0.01	0.01	1.380	0					5.00
103.500	0.01	0.01	1.380	0					5.00
103.583	0.01	0.01	1.380	0					5.00
103.667	0.01	0.01	1.380	0					5.00
103.750	0.01	0.01	1.380	0					5.00
103.833	0.01	0.01	1.380	0					5.00
103.917	0.01	0.01	1.380	0					5.00
104.000	0.01	0.01	1.380	0					5.00
104.083	0.01	0.01	1.380	0					5.00
104.167	0.01	0.01	1.380	0					5.00
104.250	0.01	0.01	1.380	0					5.00
104.333	0.01	0.01	1.380	0					5.00
104.417	0.01	0.01	1.380	0					5.00
104.500	0.01	0.01	1.380	0					5.00
104.583	0.01	0.01	1.380	0					5.00
104.667	0.01	0.01	1.380	0					5.00
104.750	0.01	0.01	1.380	0					5.00
104.833	0.01	0.01	1.380	0					5.00

104.917	0.01	0.01	1.380	O					5.00
105.000	0.01	0.01	1.380	O					5.00
105.083	0.01	0.01	1.380	O					5.00
105.167	0.01	0.01	1.380	O					5.00
105.250	0.01	0.01	1.380	O					5.00
105.333	0.01	0.01	1.380	O					5.00
105.417	0.01	0.01	1.380	O					5.00
105.500	0.01	0.01	1.380	O					5.00
105.583	0.01	0.01	1.380	O					5.00
105.667	0.01	0.01	1.380	O					5.00
105.750	0.01	0.01	1.380	O					5.00
105.833	0.01	0.01	1.380	O					5.00
105.917	0.01	0.01	1.380	O					5.00
106.000	0.01	0.01	1.380	O					5.00
106.083	0.01	0.01	1.380	O					5.00
106.167	0.01	0.01	1.380	O					5.00
106.250	0.01	0.01	1.380	O					5.00
106.333	0.01	0.01	1.380	O					5.00
106.417	0.01	0.01	1.380	O					5.00
106.500	0.01	0.01	1.380	O					5.00
106.583	0.01	0.01	1.380	O					5.00
106.667	0.01	0.01	1.380	O					5.00
106.750	0.01	0.01	1.380	O					5.00
106.833	0.01	0.01	1.380	O					5.00
106.917	0.01	0.01	1.380	O					5.00
107.000	0.01	0.01	1.380	O					5.00
107.083	0.01	0.01	1.380	O					5.00
107.167	0.01	0.01	1.380	O					5.00
107.250	0.01	0.01	1.380	O					5.00
107.333	0.01	0.01	1.380	O					5.00
107.417	0.01	0.01	1.380	O					5.00
107.500	0.01	0.01	1.380	O					5.00
107.583	0.01	0.01	1.380	O					5.00
107.667	0.01	0.01	1.380	O					5.00
107.750	0.01	0.01	1.380	O					5.00
107.833	0.01	0.01	1.380	O					5.00
107.917	0.01	0.01	1.380	O					5.00
108.000	0.01	0.01	1.380	O					5.00
108.083	0.01	0.01	1.380	O					5.00
108.167	0.01	0.01	1.380	O					5.00
108.250	0.01	0.01	1.380	O					5.00
108.333	0.01	0.01	1.380	O					5.00
108.417	0.01	0.01	1.380	O					5.00
108.500	0.01	0.01	1.380	O					5.00
108.583	0.01	0.01	1.380	O					5.00
108.667	0.01	0.01	1.380	O					5.00
108.750	0.01	0.01	1.380	O					5.00
108.833	0.01	0.01	1.380	O					5.00
108.917	0.01	0.01	1.380	O					5.00
109.000	0.01	0.01	1.380	O					5.00
109.083	0.01	0.01	1.380	O					5.00
109.167	0.01	0.01	1.380	O					5.00
109.250	0.01	0.01	1.380	O					5.00
109.333	0.01	0.01	1.380	O					5.00
109.417	0.01	0.01	1.380	O					5.00
109.500	0.01	0.01	1.380	O					5.00
109.583	0.01	0.01	1.380	O					5.00

109.667	0.01	0.01	1.380	O				5.00
109.750	0.01	0.01	1.380	O				5.00
109.833	0.01	0.01	1.380	O				5.00
109.917	0.01	0.01	1.380	O				5.00
110.000	0.01	0.01	1.380	O				5.00
110.083	0.01	0.01	1.380	O				5.00
110.167	0.01	0.01	1.380	O				5.00
110.250	0.01	0.01	1.380	O				5.00
110.333	0.01	0.01	1.380	O				5.00
110.417	0.01	0.01	1.380	O				5.00
110.500	0.01	0.01	1.380	O				5.00
110.583	0.01	0.01	1.380	O				5.00
110.667	0.01	0.01	1.380	O				5.00
110.750	0.01	0.01	1.380	O				5.00
110.833	0.01	0.01	1.380	O				5.00
110.917	0.01	0.01	1.380	O				5.00
111.000	0.01	0.01	1.380	O				5.00
111.083	0.01	0.01	1.380	O				5.00
111.167	0.01	0.01	1.380	O				5.00
111.250	0.01	0.01	1.380	O				5.00
111.333	0.01	0.01	1.380	O				5.00
111.417	0.01	0.01	1.380	O				5.00
111.500	0.01	0.01	1.380	O				5.00
111.583	0.01	0.01	1.380	O				5.00
111.667	0.01	0.01	1.380	O				5.00
111.750	0.01	0.01	1.380	O				5.00
111.833	0.01	0.01	1.380	O				5.00
111.917	0.01	0.01	1.380	O				5.00
112.000	0.01	0.01	1.380	O				5.00
112.083	0.01	0.01	1.380	O				5.00
112.167	0.01	0.01	1.380	O				5.00
112.250	0.01	0.01	1.380	O				5.00
112.333	0.01	0.01	1.380	O				5.00
112.417	0.01	0.01	1.380	O				5.00
112.500	0.01	0.01	1.380	O				5.00
112.583	0.01	0.01	1.380	O				5.00
112.667	0.01	0.01	1.380	O				5.00
112.750	0.01	0.01	1.380	O				5.00
112.833	0.01	0.01	1.380	O				5.00
112.917	0.01	0.01	1.380	O				5.00
113.000	0.01	0.01	1.380	O				5.00
113.083	0.01	0.01	1.380	O				5.00
113.167	0.01	0.01	1.380	O				5.00
113.250	0.01	0.01	1.380	O				5.00
113.333	0.01	0.01	1.380	O				5.00
113.417	0.01	0.01	1.380	O				5.00
113.500	0.01	0.01	1.380	O				5.00
113.583	0.01	0.01	1.380	O				5.00
113.667	0.01	0.01	1.380	O				5.00
113.750	0.01	0.01	1.380	O				5.00
113.833	0.01	0.01	1.380	O				5.00
113.917	0.01	0.01	1.380	O				5.00
114.000	0.01	0.01	1.380	O				5.00
114.083	0.01	0.01	1.380	O				5.00
114.167	0.01	0.01	1.380	O				5.00
114.250	0.01	0.01	1.380	O				5.00
114.333	0.01	0.01	1.380	O				5.00

114.417	0.01	0.01	1.380	O					5.00
114.500	0.01	0.01	1.380	O					5.00
114.583	0.01	0.01	1.380	O					5.00
114.667	0.01	0.01	1.380	O					5.00
114.750	0.01	0.01	1.380	O					5.00
114.833	0.01	0.01	1.380	O					5.00
114.917	0.01	0.01	1.380	O					5.00
115.000	0.01	0.01	1.380	O					5.00
115.083	0.01	0.01	1.380	O					5.00
115.167	0.01	0.01	1.380	O					5.00
115.250	0.01	0.01	1.380	O					5.00
115.333	0.01	0.01	1.380	O					5.00
115.417	0.01	0.01	1.380	O					5.00
115.500	0.01	0.01	1.380	O					5.00
115.583	0.01	0.01	1.380	O					5.00
115.667	0.01	0.01	1.380	O					5.00
115.750	0.01	0.01	1.380	O					5.00
115.833	0.01	0.01	1.380	O					5.00
115.917	0.01	0.01	1.380	O					5.00
116.000	0.01	0.01	1.380	O					5.00
116.083	0.01	0.01	1.380	O					5.00
116.167	0.01	0.01	1.380	O					5.00
116.250	0.01	0.01	1.380	O					5.00
116.333	0.01	0.01	1.380	O					5.00
116.417	0.01	0.01	1.380	O					5.00
116.500	0.01	0.01	1.380	O					5.00
116.583	0.01	0.01	1.380	O					5.00
116.667	0.01	0.01	1.380	O					5.00
116.750	0.01	0.01	1.380	O					5.00
116.833	0.01	0.01	1.380	O					5.00
116.917	0.01	0.01	1.380	O					5.00
117.000	0.01	0.01	1.380	O					5.00
117.083	0.01	0.01	1.380	O					5.00
117.167	0.01	0.01	1.380	O					5.00
117.250	0.01	0.01	1.380	O					5.00
117.333	0.01	0.01	1.380	O					5.00
117.417	0.01	0.01	1.380	O					5.00
117.500	0.01	0.01	1.380	O					5.00
117.583	0.01	0.01	1.380	O					5.00
117.667	0.01	0.01	1.380	O					5.00
117.750	0.01	0.01	1.380	O					5.00
117.833	0.01	0.01	1.380	O					5.00
117.917	0.01	0.01	1.380	O					5.00
118.000	0.01	0.01	1.380	O					5.00
118.083	0.01	0.01	1.380	O					5.00
118.167	0.01	0.01	1.380	O					5.00
118.250	0.01	0.01	1.380	O					5.00
118.333	0.01	0.01	1.380	O					5.00
118.417	0.01	0.01	1.380	O					5.00
118.500	0.01	0.01	1.380	O					5.00
118.583	0.01	0.01	1.380	O					5.00
118.667	0.01	0.01	1.380	O					5.00
118.750	0.01	0.01	1.380	O					5.00
118.833	0.01	0.01	1.380	O					5.00
118.917	0.01	0.01	1.380	O					5.00
119.000	0.01	0.01	1.380	O					5.00
119.083	0.01	0.01	1.380	O					5.00

119.167	0.01	0.01	1.380	O				5.00
119.250	0.01	0.01	1.380	O				5.00
119.333	0.01	0.01	1.380	O				5.00
119.417	0.01	0.01	1.380	O				5.00
119.500	0.01	0.01	1.380	O				5.00
119.583	0.01	0.01	1.380	O				5.00
119.667	0.01	0.01	1.380	O				5.00
119.750	0.01	0.01	1.380	O				5.00
119.833	0.01	0.01	1.380	O				5.00
119.917	0.01	0.01	1.380	O				5.00
120.000	0.01	0.01	1.380	O				5.00
120.083	0.01	0.01	1.380	O				5.00
120.167	0.01	0.01	1.380	O				5.00
120.250	0.01	0.01	1.380	O				5.00
120.333	0.01	0.01	1.380	O				5.00
120.417	0.01	0.01	1.380	O				5.00
120.500	0.01	0.01	1.380	O				5.00
120.583	0.01	0.01	1.380	O				5.00
120.667	0.01	0.01	1.380	O				5.00
120.750	0.01	0.01	1.380	O				5.00
120.833	0.01	0.01	1.380	O				5.00
120.917	0.01	0.01	1.380	O				5.00
121.000	0.01	0.01	1.380	O				5.00
121.083	0.01	0.01	1.380	O				5.00
121.167	0.01	0.01	1.380	O				5.00
121.250	0.01	0.01	1.380	O				5.00
121.333	0.01	0.01	1.380	O				5.00
121.417	0.01	0.01	1.380	O				5.00
121.500	0.01	0.01	1.380	O				5.00
121.583	0.01	0.01	1.380	O				5.00
121.667	0.01	0.01	1.380	O				5.00
121.750	0.01	0.01	1.380	O				5.00
121.833	0.01	0.01	1.380	O				5.00
121.917	0.01	0.01	1.380	O				5.00
122.000	0.01	0.01	1.380	O				5.00
122.083	0.01	0.01	1.380	O				5.00
122.167	0.01	0.01	1.380	O				5.00
122.250	0.01	0.01	1.380	O				5.00
122.333	0.01	0.01	1.380	O				5.00
122.417	0.01	0.01	1.380	O				5.00
122.500	0.01	0.01	1.380	O				5.00
122.583	0.01	0.01	1.380	O				5.00
122.667	0.01	0.01	1.380	O				5.00
122.750	0.01	0.01	1.380	O				5.00
122.833	0.01	0.01	1.380	O				5.00
122.917	0.01	0.01	1.380	O				5.00
123.000	0.01	0.01	1.380	O				5.00
123.083	0.01	0.01	1.380	O				5.00
123.167	0.01	0.01	1.380	O				5.00
123.250	0.01	0.01	1.380	O				5.00
123.333	0.01	0.01	1.380	O				5.00
123.417	0.01	0.01	1.380	O				5.00
123.500	0.01	0.01	1.380	O				5.00
123.583	0.01	0.01	1.380	O				5.00
123.667	0.01	0.01	1.380	O				5.00
123.750	0.01	0.01	1.380	O				5.00
123.833	0.01	0.01	1.380	O				5.00

123.917	0.01	0.01	1.380	O				5.00
124.000	0.01	0.01	1.380	O				5.00
124.083	0.01	0.01	1.380	O				5.00
124.167	0.01	0.01	1.380	O				5.00
124.250	0.01	0.01	1.380	O				5.00
124.333	0.01	0.01	1.380	O				5.00
124.417	0.01	0.01	1.380	O				5.00
124.500	0.01	0.01	1.380	O				5.00
124.583	0.01	0.01	1.380	O				5.00
124.667	0.01	0.01	1.380	O				5.00
124.750	0.01	0.01	1.380	O				5.00
124.833	0.01	0.01	1.380	O				5.00
124.917	0.01	0.01	1.380	O				5.00
125.000	0.01	0.01	1.380	O				5.00
125.083	0.01	0.01	1.380	O				5.00
125.167	0.01	0.01	1.380	O				5.00
125.250	0.01	0.01	1.380	O				5.00
125.333	0.01	0.01	1.380	O				5.00
125.417	0.01	0.01	1.380	O				5.00
125.500	0.01	0.01	1.380	O				5.00
125.583	0.01	0.01	1.380	O				5.00
125.667	0.01	0.01	1.380	O				5.00
125.750	0.01	0.01	1.380	O				5.00
125.833	0.01	0.01	1.380	O				5.00
125.917	0.01	0.01	1.380	O				5.00
126.000	0.01	0.01	1.380	O				5.00
126.083	0.01	0.01	1.380	O				5.00
126.167	0.01	0.01	1.380	O				5.00
126.250	0.01	0.01	1.380	O				5.00
126.333	0.01	0.01	1.380	O				5.00
126.417	0.01	0.01	1.380	O				5.00
126.500	0.01	0.01	1.380	O				5.00
126.583	0.01	0.01	1.380	O				5.00
126.667	0.01	0.01	1.380	O				5.00
126.750	0.01	0.01	1.380	O				5.00
126.833	0.01	0.01	1.380	O				5.00
126.917	0.01	0.01	1.380	O				5.00
127.000	0.01	0.01	1.380	O				5.00
127.083	0.01	0.01	1.380	O				5.00
127.167	0.01	0.01	1.380	O				5.00
127.250	0.01	0.01	1.380	O				5.00
127.333	0.01	0.01	1.380	O				5.00
127.417	0.01	0.01	1.380	O				5.00
127.500	0.01	0.01	1.380	O				5.00
127.583	0.01	0.01	1.380	O				5.00
127.667	0.01	0.01	1.380	O				5.00
127.750	0.01	0.01	1.380	O				5.00
127.833	0.01	0.01	1.380	O				5.00
127.917	0.01	0.01	1.380	O				5.00
128.000	0.01	0.01	1.380	O				5.00
128.083	0.01	0.01	1.380	O				5.00
128.167	0.01	0.01	1.380	O				5.00
128.250	0.01	0.01	1.380	O				5.00
128.333	0.01	0.01	1.380	O				5.00
128.417	0.01	0.01	1.380	O				5.00
128.500	0.01	0.01	1.380	O				5.00
128.583	0.01	0.01	1.380	O				5.00

128.667	0.01	0.01	1.380	O				5.00
128.750	0.01	0.01	1.380	O				5.00
128.833	0.01	0.01	1.380	O				5.00
128.917	0.01	0.01	1.380	O				5.00
129.000	0.01	0.01	1.380	O				5.00
129.083	0.01	0.01	1.380	O				5.00
129.167	0.01	0.01	1.380	O				5.00
129.250	0.01	0.01	1.380	O				5.00
129.333	0.01	0.01	1.380	O				5.00
129.417	0.01	0.01	1.380	O				5.00
129.500	0.01	0.01	1.380	O				5.00
129.583	0.01	0.01	1.380	O				5.00
129.667	0.01	0.01	1.380	O				5.00
129.750	0.01	0.01	1.380	O				5.00
129.833	0.01	0.01	1.380	O				5.00
129.917	0.01	0.01	1.380	O				5.00
130.000	0.01	0.01	1.380	O				5.00
130.083	0.01	0.01	1.380	O				5.00
130.167	0.01	0.01	1.380	O				5.00
130.250	0.01	0.01	1.380	O				5.00
130.333	0.01	0.01	1.380	O				5.00
130.417	0.01	0.01	1.380	O				5.00
130.500	0.01	0.01	1.380	O				5.00
130.583	0.01	0.01	1.380	O				5.00
130.667	0.01	0.01	1.380	O				5.00
130.750	0.01	0.01	1.380	O				5.00
130.833	0.01	0.01	1.380	O				5.00
130.917	0.01	0.01	1.380	O				5.00
131.000	0.01	0.01	1.380	O				5.00
131.083	0.01	0.01	1.380	O				5.00
131.167	0.01	0.01	1.380	O				5.00
131.250	0.01	0.01	1.380	O				5.00
131.333	0.01	0.01	1.380	O				5.00
131.417	0.01	0.01	1.380	O				5.00
131.500	0.01	0.01	1.380	O				5.00
131.583	0.01	0.01	1.380	O				5.00
131.667	0.01	0.01	1.380	O				5.00
131.750	0.01	0.01	1.380	O				5.00
131.833	0.01	0.01	1.380	O				5.00
131.917	0.01	0.01	1.380	O				5.00
132.000	0.01	0.01	1.380	O				5.00
132.083	0.01	0.01	1.380	O				5.00
132.167	0.01	0.01	1.380	O				5.00
132.250	0.01	0.01	1.380	O				5.00
132.333	0.01	0.01	1.380	O				5.00
132.417	0.01	0.01	1.380	O				5.00
132.500	0.01	0.01	1.380	O				5.00
132.583	0.01	0.01	1.380	O				5.00
132.667	0.01	0.01	1.380	O				5.00
132.750	0.01	0.01	1.380	O				5.00
132.833	0.01	0.01	1.380	O				5.00
132.917	0.01	0.01	1.380	O				5.00
133.000	0.01	0.01	1.380	O				5.00
133.083	0.01	0.01	1.380	O				5.00
133.167	0.01	0.01	1.380	O				5.00
133.250	0.01	0.01	1.380	O				5.00
133.333	0.01	0.01	1.380	O				5.00

133.417	0.01	0.01	1.380	O					5.00
133.500	0.01	0.01	1.380	O					5.00
133.583	0.01	0.01	1.380	O					5.00
133.667	0.01	0.01	1.380	O					5.00
133.750	0.01	0.01	1.380	O					5.00
133.833	0.01	0.01	1.380	O					5.00
133.917	0.01	0.01	1.380	O					5.00
134.000	0.01	0.01	1.380	O					5.00
134.083	0.01	0.01	1.380	O					5.00
134.167	0.01	0.01	1.380	O					5.00
134.250	0.01	0.01	1.380	O					5.00
134.333	0.01	0.01	1.380	O					5.00
134.417	0.01	0.01	1.380	O					5.00
134.500	0.01	0.01	1.380	O					5.00
134.583	0.01	0.01	1.380	O					5.00
134.667	0.01	0.01	1.380	O					5.00
134.750	0.01	0.01	1.380	O					5.00
134.833	0.01	0.01	1.380	O					5.00
134.917	0.01	0.01	1.380	O					5.00
135.000	0.01	0.01	1.380	O					5.00
135.083	0.01	0.01	1.380	O					5.00
135.167	0.01	0.01	1.380	O					5.00
135.250	0.01	0.01	1.380	O					5.00
135.333	0.01	0.01	1.380	O					5.00
135.417	0.01	0.01	1.380	O					5.00
135.500	0.01	0.01	1.380	O					5.00
135.583	0.01	0.01	1.380	O					5.00
135.667	0.01	0.01	1.380	O					5.00
135.750	0.01	0.01	1.380	O					5.00
135.833	0.01	0.01	1.380	O					5.00
135.917	0.01	0.01	1.380	O					5.00
136.000	0.01	0.01	1.380	O					5.00
136.083	0.01	0.01	1.380	O					5.00
136.167	0.01	0.01	1.380	O					5.00
136.250	0.01	0.01	1.380	O					5.00
136.333	0.01	0.01	1.380	O					5.00
136.417	0.01	0.01	1.380	O					5.00
136.500	0.01	0.01	1.380	O					5.00
136.583	0.01	0.01	1.380	O					5.00
136.667	0.01	0.01	1.380	O					5.00
136.750	0.01	0.01	1.380	O					5.00
136.833	0.01	0.01	1.380	O					5.00
136.917	0.01	0.01	1.380	O					5.00
137.000	0.01	0.01	1.380	O					5.00
137.083	0.01	0.01	1.380	O					5.00
137.167	0.01	0.01	1.380	O					5.00
137.250	0.01	0.01	1.380	O					5.00
137.333	0.01	0.01	1.380	O					5.00
137.417	0.01	0.01	1.380	O					5.00
137.500	0.01	0.01	1.380	O					5.00
137.583	0.01	0.01	1.380	O					5.00
137.667	0.01	0.01	1.380	O					5.00
137.750	0.01	0.01	1.380	O					5.00
137.833	0.01	0.01	1.380	O					5.00
137.917	0.01	0.01	1.380	O					5.00
138.000	0.01	0.01	1.380	O					5.00
138.083	0.01	0.01	1.380	O					5.00

138.167	0.01	0.01	1.380	0				5.00
138.250	0.01	0.01	1.380	0				5.00
138.333	0.01	0.01	1.380	0				5.00
138.417	0.01	0.01	1.380	0				5.00
138.500	0.01	0.01	1.380	0				5.00
138.583	0.01	0.01	1.380	0				5.00
138.667	0.01	0.01	1.380	0				5.00
138.750	0.01	0.01	1.380	0				5.00
138.833	0.01	0.01	1.380	0				5.00
138.917	0.01	0.01	1.380	0				5.00
139.000	0.01	0.01	1.380	0				5.00
139.083	0.01	0.01	1.380	0				5.00
139.167	0.01	0.01	1.380	0				5.00
139.250	0.01	0.01	1.380	0				5.00
139.333	0.01	0.01	1.380	0				5.00
139.417	0.01	0.01	1.380	0				5.00
139.500	0.01	0.01	1.380	0				5.00
139.583	0.01	0.01	1.380	0				5.00
139.667	0.01	0.01	1.380	0				5.00
139.750	0.01	0.01	1.380	0				5.00
139.833	0.01	0.01	1.380	0				5.00
139.917	0.01	0.01	1.380	0				5.00
140.000	0.01	0.01	1.380	0				5.00
140.083	0.01	0.01	1.380	0				5.00
140.167	0.01	0.01	1.380	0				5.00
140.250	0.01	0.01	1.380	0				5.00
140.333	0.01	0.01	1.380	0				5.00
140.417	0.01	0.01	1.380	0				5.00
140.500	0.01	0.01	1.380	0				5.00
140.583	0.01	0.01	1.380	0				5.00
140.667	0.01	0.01	1.380	0				5.00
140.750	0.01	0.01	1.380	0				5.00
140.833	0.01	0.01	1.380	0				5.00
140.917	0.01	0.01	1.380	0				5.00
141.000	0.01	0.01	1.380	0				5.00
141.083	0.01	0.01	1.380	0				5.00
141.167	0.01	0.01	1.380	0				5.00
141.250	0.01	0.01	1.380	0				5.00
141.333	0.01	0.01	1.380	0				5.00
141.417	0.01	0.01	1.380	0				5.00
141.500	0.01	0.01	1.380	0				5.00
141.583	0.01	0.01	1.380	0				5.00
141.667	0.01	0.01	1.380	0				5.00
141.750	0.01	0.01	1.380	0				5.00
141.833	0.01	0.01	1.380	0				5.00
141.917	0.01	0.01	1.380	0				5.00
142.000	0.01	0.01	1.380	0				5.00
142.083	0.01	0.01	1.380	0				5.00
142.167	0.01	0.01	1.380	0				5.00
142.250	0.01	0.01	1.380	0				5.00
142.333	0.01	0.01	1.380	0				5.00
142.417	0.01	0.01	1.380	0				5.00
142.500	0.01	0.01	1.380	0				5.00
142.583	0.01	0.01	1.380	0				5.00
142.667	0.01	0.01	1.380	0				5.00
142.750	0.01	0.01	1.380	0				5.00
142.833	0.01	0.01	1.380	0				5.00

142.917	0.01	0.01	1.380	0				5.00
143.000	0.01	0.01	1.380	0				5.00
143.083	0.01	0.01	1.380	0				5.00
143.167	0.01	0.01	1.380	0				5.00
143.250	0.01	0.01	1.380	0				5.00
143.333	0.01	0.01	1.380	0				5.00
143.417	0.01	0.01	1.380	0				5.00
143.500	0.01	0.01	1.380	0				5.00
143.583	0.01	0.01	1.380	0				5.00
143.667	0.01	0.01	1.380	0				5.00
143.750	0.01	0.01	1.380	0				5.00
143.833	0.01	0.01	1.380	0				5.00
143.917	0.01	0.01	1.380	0				5.00
144.000	0.01	0.01	1.380	0				5.00
144.083	0.01	0.01	1.380	0				5.00
144.167	0.01	0.01	1.380	0				5.00
144.250	0.01	0.01	1.380	0				5.00
144.333	0.01	0.01	1.380	0				5.00
144.417	0.01	0.01	1.380	0				5.00
144.500	0.01	0.01	1.380	0				5.00
144.583	0.01	0.01	1.380	0				5.00
144.667	0.01	0.01	1.380	0				5.00
144.750	0.01	0.01	1.380	0				5.00
144.833	0.01	0.01	1.380	0				5.00
144.917	0.01	0.01	1.380	0				5.00
145.000	0.01	0.01	1.380	0				5.00
145.083	0.01	0.01	1.380	0				5.00
145.167	0.01	0.01	1.380	0				5.00
145.250	0.01	0.01	1.380	0				5.00
145.333	0.01	0.01	1.380	0				5.00
145.417	0.01	0.01	1.380	0				5.00
145.500	0.01	0.01	1.380	0				5.00
145.583	0.01	0.01	1.380	0				5.00
145.667	0.01	0.01	1.380	0				5.00
145.750	0.01	0.01	1.380	0				5.00
145.833	0.01	0.01	1.380	0				5.00
145.917	0.01	0.01	1.380	0				5.00
146.000	0.01	0.01	1.380	0				5.00
146.083	0.01	0.01	1.380	0				5.00
146.167	0.01	0.01	1.380	0				5.00
146.250	0.01	0.01	1.380	0				5.00
146.333	0.01	0.01	1.380	0				5.00
146.417	0.01	0.01	1.380	0				5.00
146.500	0.01	0.01	1.380	0				5.00
146.583	0.01	0.01	1.380	0				5.00
146.667	0.01	0.01	1.380	0				5.00
146.750	0.01	0.01	1.380	0				5.00
146.833	0.01	0.01	1.380	0				5.00
146.917	0.01	0.01	1.380	0				5.00
147.000	0.01	0.01	1.380	0				5.00
147.083	0.01	0.01	1.380	0				5.00
147.167	0.01	0.01	1.380	0				5.00
147.250	0.01	0.01	1.380	0				5.00
147.333	0.01	0.01	1.380	0				5.00
147.417	0.01	0.01	1.380	0				5.00
147.500	0.01	0.01	1.380	0				5.00
147.583	0.01	0.01	1.380	0				5.00

147.667	0.01	0.01	1.380	0				5.00
147.750	0.01	0.01	1.380	0				5.00
147.833	0.01	0.01	1.380	0				5.00
147.917	0.01	0.01	1.380	0				5.00
148.000	0.01	0.01	1.380	0				5.00
148.083	0.01	0.01	1.380	0				5.00
148.167	0.01	0.01	1.380	0				5.00
148.250	0.01	0.01	1.380	0				5.00
148.333	0.01	0.01	1.380	0				5.00
148.417	0.01	0.01	1.380	0				5.00
148.500	0.01	0.01	1.380	0				5.00
148.583	0.01	0.01	1.380	0				5.00
148.667	0.01	0.01	1.380	0				5.00
148.750	0.01	0.01	1.380	0				5.00
148.833	0.01	0.01	1.380	0				5.00
148.917	0.01	0.01	1.380	0				5.00
149.000	0.01	0.01	1.380	0				5.00
149.083	0.01	0.01	1.380	0				5.00
149.167	0.01	0.01	1.380	0				5.00
149.250	0.01	0.01	1.380	0				5.00
149.333	0.01	0.01	1.380	0				5.00
149.417	0.01	0.01	1.380	0				5.00
149.500	0.01	0.01	1.380	0				5.00
149.583	0.01	0.01	1.380	0				5.00
149.667	0.01	0.01	1.380	0				5.00
149.750	0.01	0.01	1.380	0				5.00
149.833	0.01	0.01	1.380	0				5.00
149.917	0.01	0.01	1.380	0				5.00
150.000	0.01	0.01	1.380	0				5.00
150.083	0.01	0.01	1.380	0				5.00
150.167	0.01	0.01	1.380	0				5.00
150.250	0.01	0.01	1.380	0				5.00
150.333	0.01	0.01	1.380	0				5.00
150.417	0.01	0.01	1.380	0				5.00
150.500	0.01	0.01	1.380	0				5.00
150.583	0.01	0.01	1.380	0				5.00
150.667	0.01	0.01	1.380	0				5.00
150.750	0.01	0.01	1.380	0				5.00
150.833	0.01	0.01	1.380	0				5.00
150.917	0.01	0.01	1.380	0				5.00
151.000	0.01	0.01	1.380	0				5.00
151.083	0.01	0.01	1.380	0				5.00
151.167	0.01	0.01	1.380	0				5.00
151.250	0.01	0.01	1.380	0				5.00
151.333	0.01	0.01	1.380	0				5.00
151.417	0.01	0.01	1.380	0				5.00
151.500	0.01	0.01	1.380	0				5.00
151.583	0.01	0.01	1.380	0				5.00
151.667	0.01	0.01	1.380	0				5.00
151.750	0.01	0.01	1.380	0				5.00
151.833	0.01	0.01	1.380	0				5.00
151.917	0.01	0.01	1.380	0				5.00
152.000	0.01	0.01	1.380	0				5.00
152.083	0.01	0.01	1.380	0				5.00
152.167	0.01	0.01	1.380	0				5.00
152.250	0.01	0.01	1.380	0				5.00
152.333	0.01	0.01	1.380	0				5.00

152.417	0.01	0.01	1.380	O					5.00
152.500	0.01	0.01	1.380	O					5.00
152.583	0.01	0.01	1.380	O					5.00
152.667	0.01	0.01	1.380	O					5.00
152.750	0.01	0.01	1.380	O					5.00
152.833	0.01	0.01	1.380	O					5.00
152.917	0.01	0.01	1.380	O					5.00
153.000	0.01	0.01	1.380	O					5.00
153.083	0.01	0.01	1.380	O					5.00
153.167	0.01	0.01	1.380	O					5.00
153.250	0.01	0.01	1.380	O					5.00
153.333	0.01	0.01	1.380	O					5.00
153.417	0.01	0.01	1.380	O					5.00
153.500	0.01	0.01	1.380	O					5.00
153.583	0.01	0.01	1.380	O					5.00
153.667	0.01	0.01	1.380	O					5.00
153.750	0.01	0.01	1.380	O					5.00
153.833	0.01	0.01	1.380	O					5.00
153.917	0.01	0.01	1.380	O					5.00
154.000	0.01	0.01	1.380	O					5.00
154.083	0.01	0.01	1.380	O					5.00
154.167	0.01	0.01	1.380	O					5.00
154.250	0.01	0.01	1.380	O					5.00
154.333	0.01	0.01	1.380	O					5.00
154.417	0.01	0.01	1.380	O					5.00
154.500	0.01	0.01	1.380	O					5.00
154.583	0.01	0.01	1.380	O					5.00
154.667	0.01	0.01	1.380	O					5.00
154.750	0.01	0.01	1.380	O					5.00
154.833	0.01	0.01	1.380	O					5.00
154.917	0.01	0.01	1.380	O					5.00
155.000	0.01	0.01	1.380	O					5.00
155.083	0.01	0.01	1.380	O					5.00
155.167	0.01	0.01	1.380	O					5.00
155.250	0.01	0.01	1.380	O					5.00
155.333	0.01	0.01	1.380	O					5.00
155.417	0.01	0.01	1.380	O					5.00
155.500	0.01	0.01	1.380	O					5.00
155.583	0.01	0.01	1.380	O					5.00
155.667	0.01	0.01	1.380	O					5.00
155.750	0.01	0.01	1.380	O					5.00
155.833	0.01	0.01	1.380	O					5.00
155.917	0.01	0.01	1.380	O					5.00
156.000	0.01	0.01	1.380	O					5.00
156.083	0.01	0.01	1.380	O					5.00
156.167	0.01	0.01	1.380	O					5.00
156.250	0.01	0.01	1.380	O					5.00
156.333	0.01	0.01	1.380	O					5.00
156.417	0.01	0.01	1.380	O					5.00
156.500	0.01	0.01	1.380	O					5.00
156.583	0.01	0.01	1.380	O					5.00
156.667	0.01	0.01	1.380	O					5.00
156.750	0.01	0.01	1.380	O					5.00
156.833	0.01	0.01	1.380	O					5.00
156.917	0.01	0.01	1.380	O					5.00
157.000	0.01	0.01	1.380	O					5.00
157.083	0.01	0.01	1.380	O					5.00

157.167	0.01	0.01	1.380	O					5.00
157.250	0.01	0.01	1.380	O					5.00
157.333	0.01	0.01	1.380	O					5.00
157.417	0.01	0.01	1.380	O					5.00
157.500	0.01	0.01	1.380	O					5.00
157.583	0.01	0.01	1.380	O					5.00
157.667	0.01	0.01	1.380	O					5.00
157.750	0.01	0.01	1.380	O					5.00
157.833	0.01	0.01	1.380	O					5.00
157.917	0.01	0.01	1.380	O					5.00
158.000	0.01	0.01	1.380	O					5.00
158.083	0.01	0.01	1.380	O					5.00
158.167	0.01	0.01	1.380	O					5.00
158.250	0.01	0.01	1.380	O					5.00
158.333	0.01	0.01	1.380	O					5.00
158.417	0.01	0.01	1.380	O					5.00
158.500	0.01	0.01	1.380	O					5.00
158.583	0.01	0.01	1.380	O					5.00
158.667	0.01	0.01	1.380	O					5.00
158.750	0.01	0.01	1.380	O					5.00
158.833	0.01	0.01	1.380	O					5.00
158.917	0.01	0.01	1.380	O					5.00
159.000	0.01	0.01	1.380	O					5.00
159.083	0.01	0.01	1.380	O					5.00
159.167	0.01	0.01	1.380	O					5.00
159.250	0.01	0.01	1.380	O					5.00
159.333	0.01	0.01	1.380	O					5.00
159.417	0.01	0.01	1.380	O					5.00
159.500	0.01	0.01	1.380	O					5.00
159.583	0.01	0.01	1.380	O					5.00
159.667	0.01	0.01	1.380	O					5.00
159.750	0.01	0.01	1.380	O					5.00
159.833	0.01	0.01	1.380	O					5.00
159.917	0.01	0.01	1.380	O					5.00
160.000	0.01	0.01	1.380	O					5.00
160.083	0.01	0.01	1.380	O					5.00
160.167	0.01	0.01	1.380	O					5.00
160.250	0.01	0.01	1.380	O					5.00
160.333	0.01	0.01	1.380	O					5.00
160.417	0.01	0.01	1.380	O					5.00
160.500	0.01	0.01	1.380	O					5.00
160.583	0.01	0.01	1.380	O					5.00
160.667	0.01	0.01	1.380	O					5.00
160.750	0.01	0.01	1.380	O					5.00
160.833	0.01	0.01	1.380	O					5.00
160.917	0.01	0.01	1.380	O					5.00
161.000	0.01	0.01	1.380	O					5.00
161.083	0.01	0.01	1.380	O					5.00
161.167	0.01	0.01	1.380	O					5.00
161.250	0.01	0.01	1.380	O					5.00
161.333	0.01	0.01	1.380	O					5.00
161.417	0.01	0.01	1.380	O					5.00
161.500	0.01	0.01	1.380	O					5.00
161.583	0.01	0.01	1.380	O					5.00
161.667	0.01	0.01	1.380	O					5.00
161.750	0.01	0.01	1.380	O					5.00
161.833	0.01	0.01	1.380	O					5.00

161.917	0.01	0.01	1.380	O				5.00
162.000	0.01	0.01	1.380	O				5.00
162.083	0.01	0.01	1.380	O				5.00
162.167	0.01	0.01	1.380	O				5.00
162.250	0.01	0.01	1.380	O				5.00
162.333	0.01	0.01	1.380	O				5.00
162.417	0.01	0.01	1.380	O				5.00
162.500	0.01	0.01	1.380	O				5.00
162.583	0.01	0.01	1.380	O				5.00
162.667	0.01	0.01	1.380	O				5.00
162.750	0.01	0.01	1.380	O				5.00
162.833	0.01	0.01	1.380	O				5.00
162.917	0.01	0.01	1.380	O				5.00
163.000	0.01	0.01	1.380	O				5.00
163.083	0.01	0.01	1.380	O				5.00
163.167	0.01	0.01	1.380	O				5.00
163.250	0.01	0.01	1.380	O				5.00
163.333	0.01	0.01	1.380	O				5.00
163.417	0.01	0.01	1.380	O				5.00
163.500	0.01	0.01	1.380	O				5.00
163.583	0.01	0.01	1.380	O				5.00
163.667	0.01	0.01	1.380	O				5.00
163.750	0.01	0.01	1.380	O				5.00
163.833	0.01	0.01	1.380	O				5.00
163.917	0.01	0.01	1.380	O				5.00
164.000	0.01	0.01	1.380	O				5.00
164.083	0.01	0.01	1.380	O				5.00
164.167	0.01	0.01	1.380	O				5.00
164.250	0.01	0.01	1.380	O				5.00
164.333	0.01	0.01	1.380	O				5.00
164.417	0.01	0.01	1.380	O				5.00
164.500	0.01	0.01	1.380	O				5.00
164.583	0.01	0.01	1.380	O				5.00
164.667	0.01	0.01	1.380	O				5.00
164.750	0.01	0.01	1.380	O				5.00
164.833	0.01	0.01	1.380	O				5.00
164.917	0.01	0.01	1.380	O				5.00
165.000	0.01	0.01	1.380	O				5.00
165.083	0.01	0.01	1.380	O				5.00
165.167	0.01	0.01	1.380	O				5.00
165.250	0.01	0.01	1.380	O				5.00
165.333	0.01	0.01	1.380	O				5.00
165.417	0.01	0.01	1.380	O				5.00
165.500	0.01	0.01	1.380	O				5.00
165.583	0.01	0.01	1.380	O				5.00
165.667	0.01	0.01	1.380	O				5.00
165.750	0.01	0.01	1.380	O				5.00
165.833	0.01	0.01	1.380	O				5.00
165.917	0.01	0.01	1.380	O				5.00
166.000	0.01	0.01	1.380	O				5.00
166.083	0.01	0.01	1.380	O				5.00
166.167	0.01	0.01	1.380	O				5.00
166.250	0.01	0.01	1.380	O				5.00
166.333	0.01	0.01	1.380	O				5.00
166.417	0.01	0.01	1.380	O				5.00
166.500	0.01	0.01	1.380	O				5.00
166.583	0.01	0.01	1.380	O				5.00

166.667	0.01	0.01	1.380	O				5.00
166.750	0.01	0.01	1.380	O				5.00
166.833	0.01	0.01	1.380	O				5.00
166.917	0.01	0.01	1.380	O				5.00
167.000	0.01	0.01	1.380	O				5.00
167.083	0.01	0.01	1.380	O				5.00
167.167	0.01	0.01	1.380	O				5.00
167.250	0.01	0.01	1.380	O				5.00
167.333	0.01	0.01	1.380	O				5.00
167.417	0.01	0.01	1.380	O				5.00
167.500	0.01	0.01	1.380	O				5.00
167.583	0.01	0.01	1.380	O				5.00
167.667	0.01	0.01	1.380	O				5.00
167.750	0.01	0.01	1.380	O				5.00
167.833	0.01	0.01	1.380	O				5.00
167.917	0.01	0.01	1.380	O				5.00
168.000	0.01	0.01	1.380	O				5.00
168.083	0.01	0.01	1.380	O				5.00
168.167	0.01	0.01	1.380	O				5.00
168.250	0.01	0.01	1.380	O				5.00
168.333	0.01	0.01	1.380	O				5.00
168.417	0.01	0.01	1.380	O				5.00
168.500	0.01	0.01	1.380	O				5.00
168.583	0.01	0.01	1.380	O				5.00
168.667	0.01	0.01	1.380	O				5.00
168.750	0.01	0.01	1.380	O				5.00
168.833	0.01	0.01	1.380	O				5.00
168.917	0.01	0.01	1.380	O				5.00
169.000	0.01	0.01	1.380	O				5.00
169.083	0.01	0.01	1.380	O				5.00
169.167	0.01	0.01	1.380	O				5.00
169.250	0.01	0.01	1.380	O				5.00
169.333	0.01	0.01	1.380	O				5.00
169.417	0.01	0.01	1.380	O				5.00
169.500	0.01	0.01	1.380	O				5.00
169.583	0.01	0.01	1.380	O				5.00
169.667	0.01	0.01	1.380	O				5.00
169.750	0.01	0.01	1.380	O				5.00
169.833	0.01	0.01	1.380	O				5.00
169.917	0.01	0.01	1.380	O				5.00
170.000	0.01	0.01	1.380	O				5.00
170.083	0.01	0.01	1.380	O				5.00
170.167	0.01	0.01	1.380	O				5.00
170.250	0.01	0.01	1.380	O				5.00
170.333	0.01	0.01	1.380	O				5.00
170.417	0.01	0.01	1.380	O				5.00
170.500	0.01	0.01	1.380	O				5.00
170.583	0.01	0.01	1.380	O				5.00
170.667	0.01	0.01	1.380	O				5.00
170.750	0.01	0.01	1.380	O				5.00
170.833	0.01	0.01	1.380	O				5.00
170.917	0.01	0.01	1.380	O				5.00
171.000	0.01	0.01	1.380	O				5.00
171.083	0.01	0.01	1.380	O				5.00
171.167	0.01	0.01	1.380	O				5.00
171.250	0.01	0.01	1.380	O				5.00
171.333	0.01	0.01	1.380	O				5.00

171.417	0.01	0.01	1.380	O				5.00
171.500	0.01	0.01	1.380	O				5.00
171.583	0.01	0.01	1.380	O				5.00
171.667	0.01	0.01	1.380	O				5.00
171.750	0.01	0.01	1.380	O				5.00
171.833	0.01	0.01	1.380	O				5.00
171.917	0.01	0.01	1.380	O				5.00
172.000	0.01	0.01	1.380	O				5.00
172.083	0.01	0.01	1.380	O				5.00
172.167	0.01	0.01	1.380	O				5.00
172.250	0.01	0.01	1.380	O				5.00
172.333	0.01	0.01	1.380	O				5.00
172.417	0.01	0.01	1.380	O				5.00
172.500	0.01	0.01	1.380	O				5.00
172.583	0.01	0.01	1.380	O				5.00
172.667	0.01	0.01	1.380	O				5.00
172.750	0.01	0.01	1.380	O				5.00
172.833	0.01	0.01	1.380	O				5.00
172.917	0.01	0.01	1.380	O				5.00
173.000	0.01	0.01	1.380	O				5.00
173.083	0.01	0.01	1.380	O				5.00
173.167	0.01	0.01	1.380	O				5.00
173.250	0.01	0.01	1.380	O				5.00
173.333	0.01	0.01	1.380	O				5.00
173.417	0.01	0.01	1.380	O				5.00
173.500	0.01	0.01	1.380	O				5.00
173.583	0.01	0.01	1.380	O				5.00
173.667	0.01	0.01	1.380	O				5.00
173.750	0.01	0.01	1.380	O				5.00
173.833	0.01	0.01	1.380	O				5.00
173.917	0.01	0.01	1.380	O				5.00
174.000	0.01	0.01	1.380	O				5.00
174.083	0.01	0.01	1.380	O				5.00
174.167	0.01	0.01	1.380	O				5.00
174.250	0.01	0.01	1.380	O				5.00
174.333	0.01	0.01	1.380	O				5.00
174.417	0.01	0.01	1.380	O				5.00
174.500	0.01	0.01	1.380	O				5.00
174.583	0.01	0.01	1.380	O				5.00
174.667	0.01	0.01	1.380	O				5.00
174.750	0.01	0.01	1.380	O				5.00
174.833	0.01	0.01	1.380	O				5.00
174.917	0.01	0.01	1.380	O				5.00
175.000	0.01	0.01	1.380	O				5.00
175.083	0.01	0.01	1.380	O				5.00
175.167	0.01	0.01	1.380	O				5.00
175.250	0.01	0.01	1.380	O				5.00
175.333	0.01	0.01	1.380	O				5.00
175.417	0.01	0.01	1.380	O				5.00
175.500	0.01	0.01	1.380	O				5.00
175.583	0.01	0.01	1.380	O				5.00
175.667	0.01	0.01	1.380	O				5.00
175.750	0.01	0.01	1.380	O				5.00
175.833	0.01	0.01	1.380	O				5.00
175.917	0.01	0.01	1.380	O				5.00
176.000	0.01	0.01	1.380	O				5.00
176.083	0.01	0.01	1.380	O				5.00

176.167	0.01	0.01	1.380	O					5.00
176.250	0.01	0.01	1.380	O					5.00
176.333	0.01	0.01	1.380	O					5.00
176.417	0.01	0.01	1.380	O					5.00
176.500	0.01	0.01	1.380	O					5.00
176.583	0.01	0.01	1.380	O					5.00
176.667	0.01	0.01	1.380	O					5.00
176.750	0.01	0.01	1.380	O					5.00
176.833	0.01	0.01	1.380	O					5.00
176.917	0.01	0.01	1.380	O					5.00
177.000	0.01	0.01	1.380	O					5.00
177.083	0.01	0.01	1.380	O					5.00
177.167	0.01	0.01	1.380	O					5.00
177.250	0.01	0.01	1.380	O					5.00
177.333	0.01	0.01	1.380	O					5.00
177.417	0.01	0.01	1.380	O					5.00
177.500	0.01	0.01	1.380	O					5.00
177.583	0.01	0.01	1.380	O					5.00
177.667	0.01	0.01	1.380	O					5.00
177.750	0.01	0.01	1.380	O					5.00
177.833	0.01	0.01	1.380	O					5.00
177.917	0.01	0.01	1.380	O					5.00
178.000	0.01	0.01	1.380	O					5.00
178.083	0.01	0.01	1.380	O					5.00
178.167	0.01	0.01	1.380	O					5.00
178.250	0.01	0.01	1.380	O					5.00
178.333	0.01	0.01	1.380	O					5.00
178.417	0.01	0.01	1.380	O					5.00
178.500	0.01	0.01	1.380	O					5.00
178.583	0.01	0.01	1.380	O					5.00
178.667	0.01	0.01	1.380	O					5.00
178.750	0.01	0.01	1.380	O					5.00
178.833	0.01	0.01	1.380	O					5.00
178.917	0.01	0.01	1.380	O					5.00
179.000	0.01	0.01	1.380	O					5.00
179.083	0.01	0.01	1.380	O					5.00
179.167	0.01	0.01	1.380	O					5.00
179.250	0.01	0.01	1.380	O					5.00
179.333	0.01	0.01	1.380	O					5.00
179.417	0.01	0.01	1.380	O					5.00
179.500	0.01	0.01	1.380	O					5.00
179.583	0.01	0.01	1.380	O					5.00
179.667	0.01	0.01	1.380	O					5.00
179.750	0.01	0.01	1.380	O					5.00
179.833	0.01	0.01	1.380	O					5.00
179.917	0.01	0.01	1.380	O					5.00
180.000	0.01	0.01	1.380	O					5.00
180.083	0.01	0.01	1.380	O					5.00
180.167	0.01	0.01	1.380	O					5.00
180.250	0.01	0.01	1.380	O					5.00
180.333	0.01	0.01	1.380	O					5.00
180.417	0.01	0.01	1.380	O					5.00
180.500	0.01	0.01	1.380	O					5.00
180.583	0.01	0.01	1.380	O					5.00
180.667	0.01	0.01	1.380	O					5.00
180.750	0.01	0.01	1.380	O					5.00
180.833	0.01	0.01	1.380	O					5.00

180.917	0.01	0.01	1.380	O					5.00
181.000	0.01	0.01	1.380	O					5.00
181.083	0.01	0.01	1.380	O					5.00
181.167	0.01	0.01	1.380	O					5.00
181.250	0.01	0.01	1.380	O					5.00
181.333	0.01	0.01	1.380	O					5.00
181.417	0.01	0.01	1.380	O					5.00
181.500	0.01	0.01	1.380	O					5.00
181.583	0.01	0.01	1.380	O					5.00
181.667	0.01	0.01	1.380	O					5.00
181.750	0.01	0.01	1.380	O					5.00
181.833	0.01	0.01	1.380	O					5.00
181.917	0.01	0.01	1.380	O					5.00
182.000	0.01	0.01	1.380	O					5.00
182.083	0.01	0.01	1.380	O					5.00
182.167	0.01	0.01	1.380	O					5.00
182.250	0.01	0.01	1.380	O					5.00
182.333	0.01	0.01	1.380	O					5.00
182.417	0.01	0.01	1.380	O					5.00
182.500	0.01	0.01	1.380	O					5.00
182.583	0.01	0.01	1.380	O					5.00
182.667	0.01	0.01	1.380	O					5.00
182.750	0.01	0.01	1.380	O					5.00
182.833	0.01	0.01	1.380	O					5.00
182.917	0.01	0.01	1.380	O					5.00
183.000	0.01	0.01	1.380	O					5.00
183.083	0.01	0.01	1.380	O					5.00
183.167	0.01	0.01	1.380	O					5.00
183.250	0.01	0.01	1.380	O					5.00
183.333	0.01	0.01	1.380	O					5.00
183.417	0.01	0.01	1.380	O					5.00
183.500	0.01	0.01	1.380	O					5.00
183.583	0.01	0.01	1.380	O					5.00
183.667	0.01	0.01	1.380	O					5.00
183.750	0.01	0.01	1.380	O					5.00
183.833	0.01	0.01	1.380	O					5.00
183.917	0.01	0.01	1.380	O					5.00
184.000	0.01	0.01	1.380	O					5.00
184.083	0.01	0.01	1.380	O					5.00
184.167	0.01	0.01	1.380	O					5.00
184.250	0.01	0.01	1.380	O					5.00
184.333	0.01	0.01	1.380	O					5.00
184.417	0.01	0.01	1.380	O					5.00
184.500	0.01	0.01	1.380	O					5.00
184.583	0.01	0.01	1.380	O					5.00
184.667	0.01	0.01	1.380	O					5.00
184.750	0.01	0.01	1.380	O					5.00
184.833	0.01	0.01	1.380	O					5.00
184.917	0.01	0.01	1.380	O					5.00
185.000	0.01	0.01	1.380	O					5.00
185.083	0.01	0.01	1.380	O					5.00
185.167	0.01	0.01	1.380	O					5.00
185.250	0.01	0.01	1.380	O					5.00
185.333	0.01	0.01	1.380	O					5.00
185.417	0.01	0.01	1.380	O					5.00
185.500	0.01	0.01	1.380	O					5.00
185.583	0.01	0.01	1.380	O					5.00

185.667	0.01	0.01	1.380	O					5.00
185.750	0.01	0.01	1.380	O					5.00
185.833	0.01	0.01	1.380	O					5.00
185.917	0.01	0.01	1.380	O					5.00
186.000	0.01	0.01	1.380	O					5.00
186.083	0.01	0.01	1.380	O					5.00
186.167	0.01	0.01	1.380	O					5.00
186.250	0.01	0.01	1.380	O					5.00
186.333	0.01	0.01	1.380	O					5.00
186.417	0.01	0.01	1.380	O					5.00
186.500	0.01	0.01	1.380	O					5.00
186.583	0.01	0.01	1.380	O					5.00
186.667	0.01	0.01	1.380	O					5.00
186.750	0.01	0.01	1.380	O					5.00
186.833	0.01	0.01	1.380	O					5.00
186.917	0.01	0.01	1.380	O					5.00
187.000	0.01	0.01	1.380	O					5.00
187.083	0.01	0.01	1.380	O					5.00
187.167	0.01	0.01	1.380	O					5.00
187.250	0.01	0.01	1.380	O					5.00
187.333	0.01	0.01	1.380	O					5.00
187.417	0.01	0.01	1.380	O					5.00
187.500	0.01	0.01	1.380	O					5.00
187.583	0.01	0.01	1.380	O					5.00
187.667	0.01	0.01	1.380	O					5.00
187.750	0.01	0.01	1.380	O					5.00
187.833	0.01	0.01	1.380	O					5.00
187.917	0.01	0.01	1.380	O					5.00
188.000	0.01	0.01	1.380	O					5.00
188.083	0.01	0.01	1.380	O					5.00
188.167	0.01	0.01	1.380	O					5.00
188.250	0.01	0.01	1.380	O					5.00
188.333	0.01	0.01	1.380	O					5.00
188.417	0.01	0.01	1.380	O					5.00
188.500	0.01	0.01	1.380	O					5.00
188.583	0.01	0.01	1.380	O					5.00
188.667	0.01	0.01	1.380	O					5.00
188.750	0.01	0.01	1.380	O					5.00
188.833	0.01	0.01	1.380	O					5.00
188.917	0.01	0.01	1.380	O					5.00
189.000	0.01	0.01	1.380	O					5.00
189.083	0.01	0.01	1.380	O					5.00
189.167	0.01	0.01	1.380	O					5.00
189.250	0.01	0.01	1.380	O					5.00
189.333	0.01	0.01	1.380	O					5.00
189.417	0.01	0.01	1.380	O					5.00
189.500	0.01	0.01	1.380	O					5.00
189.583	0.01	0.01	1.380	O					5.00
189.667	0.01	0.01	1.380	O					5.00
189.750	0.01	0.01	1.380	O					5.00
189.833	0.01	0.01	1.380	O					5.00
189.917	0.01	0.01	1.380	O					5.00
190.000	0.01	0.01	1.380	O					5.00
190.083	0.01	0.01	1.380	O					5.00
190.167	0.01	0.01	1.380	O					5.00
190.250	0.01	0.01	1.380	O					5.00
190.333	0.01	0.01	1.380	O					5.00

190.417	0.01	0.01	1.380	O				5.00
190.500	0.01	0.01	1.380	O				5.00
190.583	0.01	0.01	1.380	O				5.00
190.667	0.01	0.01	1.380	O				5.00
190.750	0.01	0.01	1.380	O				5.00
190.833	0.01	0.01	1.380	O				5.00
190.917	0.01	0.01	1.380	O				5.00
191.000	0.01	0.01	1.380	O				5.00
191.083	0.01	0.01	1.380	O				5.00
191.167	0.01	0.01	1.380	O				5.00
191.250	0.01	0.01	1.380	O				5.00
191.333	0.01	0.01	1.380	O				5.00
191.417	0.01	0.01	1.380	O				5.00
191.500	0.01	0.01	1.380	O				5.00
191.583	0.01	0.01	1.380	O				5.00
191.667	0.01	0.01	1.380	O				5.00
191.750	0.01	0.01	1.380	O				5.00
191.833	0.01	0.01	1.380	O				5.00
191.917	0.01	0.01	1.380	O				5.00
192.000	0.01	0.01	1.380	O				5.00
192.083	0.01	0.01	1.380	O				5.00
192.167	0.01	0.01	1.380	O				5.00
192.250	0.01	0.01	1.380	O				5.00
192.333	0.01	0.01	1.380	O				5.00
192.417	0.01	0.01	1.380	O				5.00
192.500	0.01	0.01	1.380	O				5.00
192.583	0.01	0.01	1.380	O				5.00
192.667	0.01	0.01	1.380	O				5.00
192.750	0.01	0.01	1.380	O				5.00
192.833	0.01	0.01	1.380	O				5.00
192.917	0.01	0.01	1.380	O				5.00
193.000	0.01	0.01	1.380	O				5.00
193.083	0.01	0.01	1.380	O				5.00
193.167	0.01	0.01	1.380	O				5.00
193.250	0.01	0.01	1.380	O				5.00
193.333	0.01	0.01	1.380	O				5.00
193.417	0.01	0.01	1.380	O				5.00
193.500	0.01	0.01	1.380	O				5.00
193.583	0.01	0.01	1.380	O				5.00
193.667	0.01	0.01	1.380	O				5.00
193.750	0.01	0.01	1.380	O				5.00
193.833	0.01	0.01	1.380	O				5.00
193.917	0.01	0.01	1.380	O				5.00
194.000	0.01	0.01	1.380	O				5.00
194.083	0.01	0.01	1.380	O				5.00
194.167	0.01	0.01	1.380	O				5.00
194.250	0.01	0.01	1.380	O				5.00
194.333	0.01	0.01	1.380	O				5.00
194.417	0.01	0.01	1.380	O				5.00
194.500	0.01	0.01	1.380	O				5.00
194.583	0.01	0.01	1.380	O				5.00
194.667	0.01	0.01	1.380	O				5.00
194.750	0.01	0.01	1.380	O				5.00
194.833	0.01	0.01	1.380	O				5.00
194.917	0.01	0.01	1.380	O				5.00
195.000	0.01	0.01	1.380	O				5.00
195.083	0.01	0.01	1.380	O				5.00

195.167	0.01	0.01	1.380	O					5.00
195.250	0.01	0.01	1.380	O					5.00
195.333	0.01	0.01	1.380	O					5.00
195.417	0.01	0.01	1.380	O					5.00
195.500	0.01	0.01	1.380	O					5.00
195.583	0.01	0.01	1.380	O					5.00
195.667	0.01	0.01	1.380	O					5.00
195.750	0.01	0.01	1.380	O					5.00
195.833	0.01	0.01	1.380	O					5.00
195.917	0.01	0.01	1.380	O					5.00
196.000	0.01	0.01	1.380	O					5.00
196.083	0.01	0.01	1.380	O					5.00
196.167	0.01	0.01	1.380	O					5.00
196.250	0.01	0.01	1.380	O					5.00
196.333	0.01	0.01	1.380	O					5.00
196.417	0.01	0.01	1.380	O					5.00
196.500	0.01	0.01	1.380	O					5.00
196.583	0.01	0.01	1.380	O					5.00
196.667	0.01	0.01	1.380	O					5.00
196.750	0.01	0.01	1.380	O					5.00
196.833	0.01	0.01	1.380	O					5.00
196.917	0.01	0.01	1.380	O					5.00
197.000	0.01	0.01	1.380	O					5.00
197.083	0.01	0.01	1.380	O					5.00
197.167	0.01	0.01	1.380	O					5.00
197.250	0.01	0.01	1.380	O					5.00
197.333	0.01	0.01	1.380	O					5.00
197.417	0.01	0.01	1.380	O					5.00
197.500	0.01	0.01	1.380	O					5.00
197.583	0.01	0.01	1.380	O					5.00
197.667	0.01	0.01	1.380	O					5.00
197.750	0.01	0.01	1.380	O					5.00
197.833	0.01	0.01	1.380	O					5.00
197.917	0.01	0.01	1.380	O					5.00
198.000	0.01	0.01	1.380	O					5.00
198.083	0.01	0.01	1.380	O					5.00
198.167	0.01	0.01	1.380	O					5.00
198.250	0.01	0.01	1.380	O					5.00
198.333	0.01	0.01	1.380	O					5.00
198.417	0.01	0.01	1.380	O					5.00
198.500	0.01	0.01	1.380	O					5.00
198.583	0.01	0.01	1.380	O					5.00
198.667	0.01	0.01	1.380	O					5.00
198.750	0.01	0.01	1.380	O					5.00
198.833	0.01	0.01	1.380	O					5.00
198.917	0.01	0.01	1.380	O					5.00
199.000	0.01	0.01	1.380	O					5.00
199.083	0.01	0.01	1.380	O					5.00
199.167	0.01	0.01	1.380	O					5.00
199.250	0.01	0.01	1.380	O					5.00
199.333	0.01	0.01	1.380	O					5.00
199.417	0.01	0.01	1.380	O					5.00
199.500	0.01	0.01	1.380	O					5.00
199.583	0.01	0.01	1.380	O					5.00
199.667	0.01	0.01	1.380	O					5.00
199.750	0.01	0.01	1.380	O					5.00
199.833	0.01	0.01	1.380	O					5.00

199.917	0.01	0.01	1.380	O				5.00
200.000	0.01	0.01	1.380	O				5.00
200.083	0.01	0.01	1.380	O				5.00
200.167	0.01	0.01	1.380	O				5.00
200.250	0.01	0.01	1.380	O				5.00
200.333	0.01	0.01	1.380	O				5.00
200.417	0.01	0.01	1.380	O				5.00
200.500	0.01	0.01	1.380	O				5.00
200.583	0.01	0.01	1.380	O				5.00
200.667	0.01	0.01	1.380	O				5.00
200.750	0.01	0.01	1.380	O				5.00
200.833	0.01	0.01	1.380	O				5.00
200.917	0.01	0.01	1.380	O				5.00
201.000	0.01	0.01	1.380	O				5.00
201.083	0.01	0.01	1.380	O				5.00
201.167	0.01	0.01	1.380	O				5.00
201.250	0.01	0.01	1.380	O				5.00
201.333	0.01	0.01	1.380	O				5.00
201.417	0.01	0.01	1.380	O				5.00
201.500	0.01	0.01	1.380	O				5.00
201.583	0.01	0.01	1.380	O				5.00
201.667	0.01	0.01	1.380	O				5.00
201.750	0.01	0.01	1.380	O				5.00
201.833	0.01	0.01	1.380	O				5.00
201.917	0.01	0.01	1.380	O				5.00
202.000	0.01	0.01	1.380	O				5.00
202.083	0.01	0.01	1.380	O				5.00
202.167	0.01	0.01	1.380	O				5.00
202.250	0.01	0.01	1.380	O				5.00
202.333	0.01	0.01	1.380	O				5.00
202.417	0.01	0.01	1.380	O				5.00
202.500	0.01	0.01	1.380	O				5.00
202.583	0.01	0.01	1.380	O				5.00
202.667	0.01	0.01	1.380	O				5.00
202.750	0.01	0.01	1.380	O				5.00
202.833	0.01	0.01	1.380	O				5.00
202.917	0.01	0.01	1.380	O				5.00
203.000	0.01	0.01	1.380	O				5.00
203.083	0.01	0.01	1.380	O				5.00
203.167	0.01	0.01	1.380	O				5.00
203.250	0.01	0.01	1.380	O				5.00
203.333	0.01	0.01	1.380	O				5.00
203.417	0.01	0.01	1.380	O				5.00
203.500	0.01	0.01	1.380	O				5.00
203.583	0.01	0.01	1.380	O				5.00
203.667	0.01	0.01	1.380	O				5.00
203.750	0.01	0.01	1.380	O				5.00
203.833	0.01	0.01	1.380	O				5.00
203.917	0.01	0.01	1.380	O				5.00
204.000	0.01	0.01	1.380	O				5.00
204.083	0.01	0.01	1.380	O				5.00
204.167	0.01	0.01	1.380	O				5.00
204.250	0.01	0.01	1.380	O				5.00
204.333	0.01	0.01	1.380	O				5.00
204.417	0.01	0.01	1.380	O				5.00
204.500	0.01	0.01	1.380	O				5.00
204.583	0.01	0.01	1.380	O				5.00

204.667	0.01	0.01	1.380	0					5.00
204.750	0.01	0.01	1.380	0					5.00
204.833	0.01	0.01	1.380	0					5.00
204.917	0.01	0.01	1.380	0					5.00
205.000	0.01	0.01	1.380	0					5.00
205.083	0.01	0.01	1.380	0					5.00
205.167	0.01	0.01	1.380	0					5.00
205.250	0.01	0.01	1.380	0					5.00
205.333	0.01	0.01	1.380	0					5.00
205.417	0.01	0.01	1.380	0					5.00
205.500	0.01	0.01	1.380	0					5.00
205.583	0.01	0.01	1.380	0					5.00
205.667	0.01	0.01	1.380	0					5.00
205.750	0.01	0.01	1.380	0					5.00
205.833	0.01	0.01	1.380	0					5.00
205.917	0.01	0.01	1.380	0					5.00
206.000	0.01	0.01	1.380	0					5.00
206.083	0.01	0.01	1.380	0					5.00
206.167	0.01	0.01	1.380	0					5.00
206.250	0.01	0.01	1.380	0					5.00
206.333	0.01	0.01	1.380	0					5.00
206.417	0.01	0.01	1.380	0					5.00
206.500	0.01	0.01	1.380	0					5.00
206.583	0.01	0.01	1.380	0					5.00
206.667	0.01	0.01	1.380	0					5.00
206.750	0.01	0.01	1.380	0					5.00
206.833	0.01	0.01	1.380	0					5.00
206.917	0.01	0.01	1.380	0					5.00
207.000	0.01	0.01	1.380	0					5.00
207.083	0.01	0.01	1.380	0					5.00
207.167	0.01	0.01	1.380	0					5.00
207.250	0.01	0.01	1.380	0					5.00
207.333	0.01	0.01	1.380	0					5.00
207.417	0.01	0.01	1.380	0					5.00
207.500	0.01	0.01	1.380	0					5.00
207.583	0.01	0.01	1.380	0					5.00
207.667	0.01	0.01	1.380	0					5.00
207.750	0.01	0.01	1.380	0					5.00
207.833	0.01	0.01	1.380	0					5.00
207.917	0.01	0.01	1.380	0					5.00
208.000	0.01	0.01	1.380	0					5.00
208.083	0.01	0.01	1.380	0					5.00
208.167	0.01	0.01	1.380	0					5.00
208.250	0.01	0.01	1.380	0					5.00
208.333	0.01	0.01	1.380	0					5.00
208.417	0.01	0.01	1.380	0					5.00
208.500	0.01	0.01	1.380	0					5.00
208.583	0.01	0.01	1.380	0					5.00
208.667	0.01	0.01	1.380	0					5.00
208.750	0.01	0.01	1.380	0					5.00
208.833	0.01	0.01	1.380	0					5.00
208.917	0.01	0.01	1.380	0					5.00
209.000	0.01	0.01	1.380	0					5.00
209.083	0.01	0.01	1.380	0					5.00
209.167	0.01	0.01	1.380	0					5.00
209.250	0.01	0.01	1.380	0					5.00
209.333	0.01	0.01	1.380	0					5.00

209.417	0.01	0.01	1.380	0				5.00
209.500	0.01	0.01	1.380	0				5.00
209.583	0.01	0.01	1.380	0				5.00
209.667	0.01	0.01	1.380	0				5.00
209.750	0.01	0.01	1.380	0				5.00
209.833	0.01	0.01	1.380	0				5.00
209.917	0.01	0.01	1.380	0				5.00
210.000	0.01	0.01	1.380	0				5.00
210.083	0.01	0.01	1.380	0				5.00
210.167	0.01	0.01	1.380	0				5.00
210.250	0.01	0.01	1.380	0				5.00
210.333	0.01	0.01	1.380	0				5.00
210.417	0.01	0.01	1.380	0				5.00
210.500	0.01	0.01	1.380	0				5.00
210.583	0.01	0.01	1.380	0				5.00
210.667	0.01	0.01	1.380	0				5.00
210.750	0.01	0.01	1.380	0				5.00
210.833	0.01	0.01	1.380	0				5.00
210.917	0.01	0.01	1.380	0				5.00
211.000	0.01	0.01	1.380	0				5.00
211.083	0.01	0.01	1.380	0				5.00
211.167	0.01	0.01	1.380	0				5.00
211.250	0.01	0.01	1.380	0				5.00
211.333	0.01	0.01	1.380	0				5.00
211.417	0.01	0.01	1.380	0				5.00
211.500	0.01	0.01	1.380	0				5.00
211.583	0.01	0.01	1.380	0				5.00
211.667	0.01	0.01	1.380	0				5.00
211.750	0.01	0.01	1.380	0				5.00
211.833	0.01	0.01	1.380	0				5.00
211.917	0.01	0.01	1.380	0				5.00
212.000	0.01	0.01	1.380	0				5.00
212.083	0.01	0.01	1.380	0				5.00
212.167	0.01	0.01	1.380	0				5.00
212.250	0.01	0.01	1.380	0				5.00
212.333	0.01	0.01	1.380	0				5.00
212.417	0.01	0.01	1.380	0				5.00
212.500	0.01	0.01	1.380	0				5.00
212.583	0.01	0.01	1.380	0				5.00
212.667	0.01	0.01	1.380	0				5.00
212.750	0.01	0.01	1.380	0				5.00
212.833	0.01	0.01	1.380	0				5.00
212.917	0.01	0.01	1.380	0				5.00
213.000	0.01	0.01	1.380	0				5.00
213.083	0.01	0.01	1.380	0				5.00
213.167	0.01	0.01	1.380	0				5.00
213.250	0.01	0.01	1.380	0				5.00
213.333	0.01	0.01	1.380	0				5.00
213.417	0.01	0.01	1.380	0				5.00
213.500	0.01	0.01	1.380	0				5.00
213.583	0.01	0.01	1.380	0				5.00
213.667	0.01	0.01	1.380	0				5.00
213.750	0.01	0.01	1.380	0				5.00
213.833	0.01	0.01	1.380	0				5.00
213.917	0.01	0.01	1.380	0				5.00
214.000	0.01	0.01	1.380	0				5.00
214.083	0.01	0.01	1.380	0				5.00

214.167	0.01	0.01	1.380	O					5.00
214.250	0.01	0.01	1.380	O					5.00
214.333	0.01	0.01	1.380	O					5.00
214.417	0.01	0.01	1.380	O					5.00
214.500	0.01	0.01	1.380	O					5.00
214.583	0.01	0.01	1.380	O					5.00
214.667	0.01	0.01	1.380	O					5.00
214.750	0.01	0.01	1.380	O					5.00
214.833	0.01	0.01	1.380	O					5.00
214.917	0.01	0.01	1.380	O					5.00
215.000	0.01	0.01	1.380	O					5.00
215.083	0.01	0.01	1.380	O					5.00
215.167	0.01	0.01	1.380	O					5.00
215.250	0.01	0.01	1.380	O					5.00
215.333	0.01	0.01	1.380	O					5.00
215.417	0.01	0.01	1.380	O					5.00
215.500	0.01	0.01	1.380	O					5.00
215.583	0.01	0.01	1.380	O					5.00
215.667	0.01	0.01	1.380	O					5.00
215.750	0.01	0.01	1.380	O					5.00
215.833	0.01	0.01	1.380	O					5.00
215.917	0.01	0.01	1.380	O					5.00
216.000	0.01	0.01	1.380	O					5.00
216.083	0.01	0.01	1.380	O					5.00
216.167	0.01	0.01	1.380	O					5.00
216.250	0.01	0.01	1.380	O					5.00
216.333	0.01	0.01	1.380	O					5.00
216.417	0.01	0.01	1.380	O					5.00
216.500	0.01	0.01	1.380	O					5.00
216.583	0.01	0.01	1.380	O					5.00
216.667	0.01	0.01	1.380	O					5.00
216.750	0.01	0.01	1.380	O					5.00
216.833	0.01	0.01	1.380	O					5.00
216.917	0.01	0.01	1.380	O					5.00
217.000	0.01	0.01	1.380	O					5.00
217.083	0.01	0.01	1.380	O					5.00
217.167	0.01	0.01	1.380	O					5.00
217.250	0.01	0.01	1.380	O					5.00
217.333	0.01	0.01	1.380	O					5.00
217.417	0.01	0.01	1.380	O					5.00
217.500	0.01	0.01	1.380	O					5.00
217.583	0.01	0.01	1.380	O					5.00
217.667	0.01	0.01	1.380	O					5.00
217.750	0.01	0.01	1.380	O					5.00
217.833	0.01	0.01	1.380	O					5.00
217.917	0.01	0.01	1.380	O					5.00
218.000	0.01	0.01	1.380	O					5.00
218.083	0.01	0.01	1.380	O					5.00
218.167	0.01	0.01	1.380	O					5.00
218.250	0.01	0.01	1.380	O					5.00
218.333	0.01	0.01	1.380	O					5.00
218.417	0.01	0.01	1.380	O					5.00
218.500	0.01	0.01	1.380	O					5.00
218.583	0.01	0.01	1.380	O					5.00
218.667	0.01	0.01	1.380	O					5.00
218.750	0.01	0.01	1.380	O					5.00
218.833	0.01	0.01	1.380	O					5.00

218.917	0.01	0.01	1.380	O				5.00
219.000	0.01	0.01	1.380	O				5.00
219.083	0.01	0.01	1.380	O				5.00
219.167	0.01	0.01	1.380	O				5.00
219.250	0.01	0.01	1.380	O				5.00
219.333	0.01	0.01	1.380	O				5.00
219.417	0.01	0.01	1.380	O				5.00
219.500	0.01	0.01	1.380	O				5.00
219.583	0.01	0.01	1.380	O				5.00
219.667	0.01	0.01	1.380	O				5.00
219.750	0.01	0.01	1.380	O				5.00
219.833	0.01	0.01	1.380	O				5.00
219.917	0.01	0.01	1.380	O				5.00
220.000	0.01	0.01	1.380	O				5.00
220.083	0.01	0.01	1.380	O				5.00
220.167	0.01	0.01	1.380	O				5.00
220.250	0.01	0.01	1.380	O				5.00
220.333	0.01	0.01	1.380	O				5.00
220.417	0.01	0.01	1.380	O				5.00
220.500	0.01	0.01	1.380	O				5.00
220.583	0.01	0.01	1.380	O				5.00
220.667	0.01	0.01	1.380	O				5.00
220.750	0.01	0.01	1.380	O				5.00
220.833	0.01	0.01	1.380	O				5.00
220.917	0.01	0.01	1.380	O				5.00
221.000	0.01	0.01	1.380	O				5.00
221.083	0.01	0.01	1.380	O				5.00
221.167	0.01	0.01	1.380	O				5.00
221.250	0.01	0.01	1.380	O				5.00
221.333	0.01	0.01	1.380	O				5.00
221.417	0.01	0.01	1.380	O				5.00
221.500	0.01	0.01	1.380	O				5.00
221.583	0.01	0.01	1.380	O				5.00
221.667	0.01	0.01	1.380	O				5.00
221.750	0.01	0.01	1.380	O				5.00
221.833	0.01	0.01	1.380	O				5.00
221.917	0.01	0.01	1.380	O				5.00
222.000	0.01	0.01	1.380	O				5.00
222.083	0.01	0.01	1.380	O				5.00
222.167	0.01	0.01	1.380	O				5.00
222.250	0.01	0.01	1.380	O				5.00
222.333	0.01	0.01	1.380	O				5.00
222.417	0.01	0.01	1.380	O				5.00
222.500	0.01	0.01	1.380	O				5.00
222.583	0.01	0.01	1.380	O				5.00
222.667	0.01	0.01	1.380	O				5.00
222.750	0.01	0.01	1.380	O				5.00
222.833	0.01	0.01	1.380	O				5.00
222.917	0.01	0.01	1.380	O				5.00
223.000	0.01	0.01	1.380	O				5.00
223.083	0.01	0.01	1.380	O				5.00
223.167	0.01	0.01	1.380	O				5.00
223.250	0.01	0.01	1.380	O				5.00
223.333	0.01	0.01	1.380	O				5.00
223.417	0.01	0.01	1.380	O				5.00
223.500	0.01	0.01	1.380	O				5.00
223.583	0.01	0.01	1.380	O				5.00

223.667	0.01	0.01	1.380	0				5.00
223.750	0.01	0.01	1.380	0				5.00
223.833	0.01	0.01	1.380	0				5.00
223.917	0.01	0.01	1.380	0				5.00
224.000	0.01	0.01	1.380	0				5.00
224.083	0.01	0.01	1.380	0				5.00
224.167	0.01	0.01	1.380	0				5.00
224.250	0.01	0.01	1.380	0				5.00
224.333	0.01	0.01	1.380	0				5.00
224.417	0.01	0.01	1.380	0				5.00
224.500	0.01	0.01	1.380	0				5.00
224.583	0.01	0.01	1.380	0				5.00
224.667	0.01	0.01	1.380	0				5.00
224.750	0.01	0.01	1.380	0				5.00
224.833	0.01	0.01	1.380	0				5.00
224.917	0.01	0.01	1.380	0				5.00
225.000	0.01	0.01	1.380	0				5.00
225.083	0.01	0.01	1.380	0				5.00
225.167	0.01	0.01	1.380	0				5.00
225.250	0.01	0.01	1.380	0				5.00
225.333	0.01	0.01	1.380	0				5.00
225.417	0.01	0.01	1.380	0				5.00
225.500	0.01	0.01	1.380	0				5.00
225.583	0.01	0.01	1.380	0				5.00
225.667	0.01	0.01	1.380	0				5.00
225.750	0.01	0.01	1.380	0				5.00
225.833	0.01	0.01	1.380	0				5.00
225.917	0.01	0.01	1.380	0				5.00
226.000	0.01	0.01	1.380	0				5.00
226.083	0.01	0.01	1.380	0				5.00
226.167	0.01	0.01	1.380	0				5.00
226.250	0.01	0.01	1.380	0				5.00
226.333	0.01	0.01	1.380	0				5.00
226.417	0.01	0.01	1.380	0				5.00
226.500	0.01	0.01	1.380	0				5.00
226.583	0.01	0.01	1.380	0				5.00
226.667	0.01	0.01	1.380	0				5.00
226.750	0.01	0.01	1.380	0				5.00
226.833	0.01	0.01	1.380	0				5.00
226.917	0.01	0.01	1.380	0				5.00
227.000	0.01	0.01	1.380	0				5.00
227.083	0.01	0.01	1.380	0				5.00
227.167	0.01	0.01	1.380	0				5.00
227.250	0.01	0.01	1.380	0				5.00
227.333	0.01	0.01	1.380	0				5.00
227.417	0.01	0.01	1.380	0				5.00
227.500	0.01	0.01	1.380	0				5.00
227.583	0.01	0.01	1.380	0				5.00
227.667	0.01	0.01	1.380	0				5.00
227.750	0.01	0.01	1.380	0				5.00
227.833	0.01	0.01	1.380	0				5.00
227.917	0.01	0.01	1.380	0				5.00
228.000	0.01	0.01	1.380	0				5.00
228.083	0.01	0.01	1.380	0				5.00
228.167	0.01	0.01	1.380	0				5.00
228.250	0.01	0.01	1.380	0				5.00
228.333	0.01	0.01	1.380	0				5.00

228.417	0.01	0.01	1.380	O				5.00
228.500	0.01	0.01	1.380	O				5.00
228.583	0.01	0.01	1.380	O				5.00
228.667	0.01	0.01	1.380	O				5.00
228.750	0.01	0.01	1.380	O				5.00
228.833	0.01	0.01	1.380	O				5.00
228.917	0.01	0.01	1.380	O				5.00
229.000	0.01	0.01	1.380	O				5.00
229.083	0.01	0.01	1.380	O				5.00
229.167	0.01	0.01	1.380	O				5.00
229.250	0.01	0.01	1.380	O				5.00
229.333	0.01	0.01	1.380	O				5.00
229.417	0.01	0.01	1.380	O				5.00
229.500	0.01	0.01	1.380	O				5.00
229.583	0.01	0.01	1.380	O				5.00
229.667	0.01	0.01	1.380	O				5.00
229.750	0.01	0.01	1.380	O				5.00
229.833	0.01	0.01	1.380	O				5.00
229.917	0.01	0.01	1.380	O				5.00
230.000	0.01	0.01	1.380	O				5.00
230.083	0.01	0.01	1.380	O				5.00
230.167	0.01	0.01	1.380	O				5.00
230.250	0.01	0.01	1.380	O				5.00
230.333	0.01	0.01	1.380	O				5.00
230.417	0.01	0.01	1.380	O				5.00
230.500	0.01	0.01	1.380	O				5.00
230.583	0.01	0.01	1.380	O				5.00
230.667	0.01	0.01	1.380	O				5.00
230.750	0.01	0.01	1.380	O				5.00
230.833	0.01	0.01	1.380	O				5.00
230.917	0.01	0.01	1.380	O				5.00
231.000	0.01	0.01	1.380	O				5.00
231.083	0.01	0.01	1.380	O				5.00
231.167	0.01	0.01	1.380	O				5.00
231.250	0.01	0.01	1.380	O				5.00
231.333	0.01	0.01	1.380	O				5.00
231.417	0.01	0.01	1.380	O				5.00
231.500	0.01	0.01	1.380	O				5.00
231.583	0.01	0.01	1.380	O				5.00
231.667	0.01	0.01	1.380	O				5.00
231.750	0.01	0.01	1.380	O				5.00
231.833	0.01	0.01	1.380	O				5.00
231.917	0.01	0.01	1.380	O				5.00
232.000	0.01	0.01	1.380	O				5.00
232.083	0.01	0.01	1.380	O				5.00
232.167	0.01	0.01	1.380	O				5.00
232.250	0.01	0.01	1.380	O				5.00
232.333	0.01	0.01	1.380	O				5.00
232.417	0.01	0.01	1.380	O				5.00
232.500	0.01	0.01	1.380	O				5.00
232.583	0.01	0.01	1.380	O				5.00
232.667	0.01	0.01	1.380	O				5.00
232.750	0.01	0.01	1.380	O				5.00
232.833	0.01	0.01	1.380	O				5.00
232.917	0.01	0.01	1.380	O				5.00
233.000	0.01	0.01	1.380	O				5.00
233.083	0.01	0.01	1.380	O				5.00

233.167	0.01	0.01	1.380	0					5.00
233.250	0.01	0.01	1.380	0					5.00
233.333	0.01	0.01	1.380	0					5.00
233.417	0.01	0.01	1.380	0					5.00
233.500	0.01	0.01	1.380	0					5.00
233.583	0.01	0.01	1.380	0					5.00
233.667	0.01	0.01	1.380	0					5.00
233.750	0.01	0.01	1.380	0					5.00
233.833	0.01	0.01	1.380	0					5.00
233.917	0.01	0.01	1.380	0					5.00
234.000	0.01	0.01	1.380	0					5.00
234.083	0.01	0.01	1.380	0					5.00
234.167	0.01	0.01	1.380	0					5.00
234.250	0.01	0.01	1.380	0					5.00
234.333	0.01	0.01	1.380	0					5.00
234.417	0.01	0.01	1.380	0					5.00
234.500	0.01	0.01	1.380	0					5.00
234.583	0.01	0.01	1.380	0					5.00
234.667	0.01	0.01	1.380	0					5.00
234.750	0.01	0.01	1.380	0					5.00
234.833	0.01	0.01	1.380	0					5.00
234.917	0.01	0.01	1.380	0					5.00
235.000	0.01	0.01	1.380	0					5.00
235.083	0.01	0.01	1.380	0					5.00
235.167	0.01	0.01	1.380	0					5.00
235.250	0.01	0.01	1.380	0					5.00
235.333	0.01	0.01	1.380	0					5.00
235.417	0.01	0.01	1.380	0					5.00
235.500	0.01	0.01	1.380	0					5.00
235.583	0.01	0.01	1.380	0					5.00
235.667	0.01	0.01	1.380	0					5.00
235.750	0.01	0.01	1.380	0					5.00
235.833	0.01	0.01	1.380	0					5.00
235.917	0.01	0.01	1.380	0					5.00
236.000	0.01	0.01	1.380	0					5.00
236.083	0.01	0.01	1.380	0					5.00
236.167	0.01	0.01	1.380	0					5.00
236.250	0.01	0.01	1.380	0					5.00
236.333	0.01	0.01	1.380	0					5.00
236.417	0.01	0.01	1.380	0					5.00
236.500	0.01	0.01	1.380	0					5.00
236.583	0.01	0.01	1.380	0					5.00
236.667	0.01	0.01	1.380	0					5.00
236.750	0.01	0.01	1.380	0					5.00
236.833	0.01	0.01	1.380	0					5.00
236.917	0.01	0.01	1.380	0					5.00
237.000	0.01	0.01	1.380	0					5.00
237.083	0.01	0.01	1.380	0					5.00
237.167	0.01	0.01	1.380	0					5.00
237.250	0.01	0.01	1.380	0					5.00
237.333	0.01	0.01	1.380	0					5.00
237.417	0.01	0.01	1.380	0					5.00
237.500	0.01	0.01	1.380	0					5.00
237.583	0.01	0.01	1.380	0					5.00
237.667	0.01	0.01	1.380	0					5.00
237.750	0.01	0.01	1.380	0					5.00
237.833	0.01	0.01	1.380	0					5.00

237.917	0.01	0.01	1.380	0				5.00
238.000	0.01	0.01	1.380	0				5.00
238.083	0.01	0.01	1.380	0				5.00
238.167	0.01	0.01	1.380	0				5.00
238.250	0.01	0.01	1.380	0				5.00
238.333	0.01	0.01	1.380	0				5.00
238.417	0.01	0.01	1.380	0				5.00
238.500	0.01	0.01	1.380	0				5.00
238.583	0.01	0.01	1.380	0				5.00
238.667	0.01	0.01	1.380	0				5.00
238.750	0.01	0.01	1.380	0				5.00
238.833	0.01	0.01	1.380	0				5.00
238.917	0.01	0.01	1.380	0				5.00
239.000	0.01	0.01	1.380	0				5.00
239.083	0.01	0.01	1.380	0				5.00
239.167	0.01	0.01	1.380	0				5.00
239.250	0.01	0.01	1.380	0				5.00
239.333	0.01	0.01	1.380	0				5.00
239.417	0.01	0.01	1.380	0				5.00
239.500	0.01	0.01	1.380	0				5.00
239.583	0.01	0.01	1.380	0				5.00
239.667	0.01	0.01	1.380	0				5.00
239.750	0.01	0.01	1.380	0				5.00
239.833	0.01	0.01	1.380	0				5.00
239.917	0.01	0.01	1.380	0				5.00
240.000	0.01	0.01	1.380	0				5.00
240.083	0.01	0.01	1.380	0				5.00
240.167	0.01	0.01	1.380	0				5.00
240.250	0.01	0.01	1.380	0				5.00
240.333	0.01	0.01	1.380	0				5.00
240.417	0.01	0.01	1.380	0				5.00
240.500	0.01	0.01	1.380	0				5.00
240.583	0.01	0.01	1.380	0				5.00
240.667	0.01	0.01	1.380	0				5.00
240.750	0.01	0.01	1.380	0				5.00
240.833	0.01	0.01	1.380	0				5.00
240.917	0.01	0.01	1.380	0				5.00
241.000	0.01	0.01	1.380	0				5.00
241.083	0.01	0.01	1.380	0				5.00
241.167	0.01	0.01	1.380	0				5.00
241.250	0.01	0.01	1.380	0				5.00
241.333	0.01	0.01	1.380	0				5.00
241.417	0.01	0.01	1.380	0				5.00
241.500	0.01	0.01	1.380	0				5.00
241.583	0.01	0.01	1.380	0				5.00
241.667	0.01	0.01	1.380	0				5.00
241.750	0.01	0.01	1.380	0				5.00
241.833	0.01	0.01	1.380	0				5.00
241.917	0.01	0.01	1.380	0				5.00
242.000	0.01	0.01	1.380	0				5.00
242.083	0.01	0.01	1.380	0				5.00
242.167	0.01	0.01	1.380	0				5.00
242.250	0.01	0.01	1.380	0				5.00
242.333	0.01	0.01	1.380	0				5.00
242.417	0.01	0.01	1.380	0				5.00
242.500	0.01	0.01	1.380	0				5.00
242.583	0.01	0.01	1.380	0				5.00

242.667	0.01	0.01	1.380	0				5.00
242.750	0.01	0.01	1.380	0				5.00
242.833	0.01	0.01	1.380	0				5.00
242.917	0.01	0.01	1.380	0				5.00
243.000	0.01	0.01	1.380	0				5.00
243.083	0.01	0.01	1.380	0				5.00
243.167	0.01	0.01	1.380	0				5.00
243.250	0.01	0.01	1.380	0				5.00
243.333	0.01	0.01	1.380	0				5.00
243.417	0.01	0.01	1.380	0				5.00
243.500	0.01	0.01	1.380	0				5.00
243.583	0.01	0.01	1.380	0				5.00
243.667	0.01	0.01	1.380	0				5.00
243.750	0.01	0.01	1.380	0				5.00
243.833	0.01	0.01	1.380	0				5.00
243.917	0.01	0.01	1.380	0				5.00
244.000	0.01	0.01	1.380	0				5.00
244.083	0.01	0.01	1.380	0				5.00
244.167	0.01	0.01	1.380	0				5.00
244.250	0.01	0.01	1.380	0				5.00
244.333	0.01	0.01	1.380	0				5.00
244.417	0.01	0.01	1.380	0				5.00
244.500	0.01	0.01	1.380	0				5.00
244.583	0.01	0.01	1.380	0				5.00
244.667	0.01	0.01	1.380	0				5.00
244.750	0.01	0.01	1.380	0				5.00
244.833	0.01	0.01	1.380	0				5.00
244.917	0.01	0.01	1.380	0				5.00
245.000	0.01	0.01	1.380	0				5.00
245.083	0.01	0.01	1.380	0				5.00
245.167	0.01	0.01	1.380	0				5.00
245.250	0.01	0.01	1.380	0				5.00
245.333	0.01	0.01	1.380	0				5.00
245.417	0.01	0.01	1.380	0				5.00
245.500	0.01	0.01	1.380	0				5.00
245.583	0.01	0.01	1.380	0				5.00
245.667	0.01	0.01	1.380	0				5.00
245.750	0.01	0.01	1.380	0				5.00
245.833	0.01	0.01	1.380	0				5.00
245.917	0.01	0.01	1.380	0				5.00
246.000	0.01	0.01	1.380	0				5.00
246.083	0.01	0.01	1.380	0				5.00
246.167	0.01	0.01	1.380	0				5.00
246.250	0.01	0.01	1.380	0				5.00
246.333	0.01	0.01	1.380	0				5.00
246.417	0.01	0.01	1.380	0				5.00
246.500	0.01	0.01	1.380	0				5.00
246.583	0.01	0.01	1.380	0				5.00
246.667	0.01	0.01	1.380	0				5.00
246.750	0.01	0.01	1.380	0				5.00
246.833	0.01	0.01	1.380	0				5.00
246.917	0.01	0.01	1.380	0				5.00
247.000	0.01	0.01	1.380	0				5.00
247.083	0.01	0.01	1.380	0				5.00
247.167	0.01	0.01	1.380	0				5.00
247.250	0.01	0.01	1.380	0				5.00
247.333	0.01	0.01	1.380	0				5.00

247.417	0.01	0.01	1.380	O					5.00
247.500	0.01	0.01	1.380	O					5.00
247.583	0.01	0.01	1.380	O					5.00
247.667	0.01	0.01	1.380	O					5.00
247.750	0.01	0.01	1.380	O					5.00
247.833	0.01	0.01	1.380	O					5.00
247.917	0.01	0.01	1.380	O					5.00
248.000	0.01	0.01	1.380	O					5.00
248.083	0.01	0.01	1.380	O					5.00
248.167	0.01	0.01	1.380	O					5.00
248.250	0.01	0.01	1.380	O					5.00
248.333	0.01	0.01	1.380	O					5.00
248.417	0.01	0.01	1.380	O					5.00
248.500	0.01	0.01	1.380	O					5.00
248.583	0.01	0.01	1.380	O					5.00
248.667	0.01	0.01	1.380	O					5.00
248.750	0.01	0.01	1.380	O					5.00
248.833	0.01	0.01	1.380	O					5.00
248.917	0.01	0.01	1.380	O					5.00
249.000	0.01	0.01	1.380	O					5.00
249.083	0.01	0.01	1.380	O					5.00
249.167	0.01	0.01	1.380	O					5.00
249.250	0.01	0.01	1.380	O					5.00
249.333	0.01	0.01	1.380	O					5.00
249.417	0.01	0.01	1.380	O					5.00
249.500	0.01	0.01	1.380	O					5.00
249.583	0.01	0.01	1.380	O					5.00
249.667	0.01	0.01	1.380	O					5.00
249.750	0.01	0.01	1.380	O					5.00
249.833	0.01	0.01	1.380	O					5.00
249.917	0.01	0.01	1.380	O					5.00
250.000	0.01	0.01	1.380	O					5.00
250.083	0.01	0.01	1.380	O					5.00
250.167	0.01	0.01	1.380	O					5.00
250.250	0.01	0.01	1.380	O					5.00
250.333	0.01	0.01	1.380	O					5.00
250.417	0.01	0.01	1.380	O					5.00
250.500	0.01	0.01	1.380	O					5.00
250.583	0.01	0.01	1.380	O					5.00
250.667	0.01	0.01	1.380	O					5.00
250.750	0.01	0.01	1.380	O					5.00
250.833	0.01	0.01	1.380	O					5.00
250.917	0.01	0.01	1.380	O					5.00
251.000	0.01	0.01	1.380	O					5.00
251.083	0.01	0.01	1.380	O					5.00
251.167	0.01	0.01	1.380	O					5.00
251.250	0.01	0.01	1.380	O					5.00
251.333	0.01	0.01	1.380	O					5.00
251.417	0.01	0.01	1.380	O					5.00
251.500	0.01	0.01	1.380	O					5.00
251.583	0.01	0.01	1.380	O					5.00
251.667	0.01	0.01	1.380	O					5.00
251.750	0.01	0.01	1.380	O					5.00
251.833	0.01	0.01	1.380	O					5.00
251.917	0.01	0.01	1.380	O					5.00
252.000	0.01	0.01	1.380	O					5.00
252.083	0.01	0.01	1.380	O					5.00

252.167	0.01	0.01	1.380	0				5.00
252.250	0.01	0.01	1.380	0				5.00
252.333	0.01	0.01	1.380	0				5.00
252.417	0.01	0.01	1.380	0				5.00
252.500	0.01	0.01	1.380	0				5.00
252.583	0.01	0.01	1.380	0				5.00
252.667	0.01	0.01	1.380	0				5.00
252.750	0.01	0.01	1.380	0				5.00
252.833	0.01	0.01	1.380	0				5.00
252.917	0.01	0.01	1.380	0				5.00
253.000	0.01	0.01	1.380	0				5.00
253.083	0.01	0.01	1.380	0				5.00
253.167	0.01	0.01	1.380	0				5.00
253.250	0.01	0.01	1.380	0				5.00
253.333	0.01	0.01	1.380	0				5.00
253.417	0.01	0.01	1.380	0				5.00
253.500	0.01	0.01	1.380	0				5.00
253.583	0.01	0.01	1.380	0				5.00
253.667	0.01	0.01	1.380	0				5.00
253.750	0.01	0.01	1.380	0				5.00
253.833	0.01	0.01	1.380	0				5.00
253.917	0.01	0.01	1.380	0				5.00
254.000	0.01	0.01	1.380	0				5.00
254.083	0.01	0.01	1.380	0				5.00
254.167	0.01	0.01	1.380	0				5.00
254.250	0.01	0.01	1.380	0				5.00
254.333	0.01	0.01	1.380	0				5.00
254.417	0.01	0.01	1.380	0				5.00
254.500	0.01	0.01	1.380	0				5.00
254.583	0.01	0.01	1.380	0				5.00
254.667	0.01	0.01	1.380	0				5.00
254.750	0.01	0.01	1.380	0				5.00
254.833	0.01	0.01	1.380	0				5.00
254.917	0.01	0.01	1.380	0				5.00
255.000	0.01	0.01	1.380	0				5.00
255.083	0.01	0.01	1.380	0				5.00
255.167	0.01	0.01	1.380	0				5.00
255.250	0.01	0.01	1.380	0				5.00
255.333	0.01	0.01	1.380	0				5.00
255.417	0.01	0.01	1.380	0				5.00
255.500	0.01	0.01	1.380	0				5.00
255.583	0.01	0.01	1.380	0				5.00
255.667	0.01	0.01	1.380	0				5.00
255.750	0.01	0.01	1.380	0				5.00
255.833	0.01	0.01	1.380	0				5.00
255.917	0.01	0.01	1.380	0				5.00
256.000	0.01	0.01	1.380	0				5.00
256.083	0.01	0.01	1.380	0				5.00
256.167	0.01	0.01	1.380	0				5.00
256.250	0.01	0.01	1.380	0				5.00
256.333	0.01	0.01	1.380	0				5.00
256.417	0.01	0.01	1.380	0				5.00
256.500	0.01	0.01	1.380	0				5.00
256.583	0.01	0.01	1.380	0				5.00
256.667	0.01	0.01	1.380	0				5.00
256.750	0.01	0.01	1.380	0				5.00
256.833	0.01	0.01	1.380	0				5.00

256.917	0.01	0.01	1.380	O				5.00
257.000	0.01	0.01	1.380	O				5.00
257.083	0.01	0.01	1.380	O				5.00
257.167	0.01	0.01	1.380	O				5.00
257.250	0.01	0.01	1.380	O				5.00
257.333	0.01	0.01	1.380	O				5.00
257.417	0.01	0.01	1.380	O				5.00
257.500	0.01	0.01	1.380	O				5.00
257.583	0.01	0.01	1.380	O				5.00
257.667	0.01	0.01	1.380	O				5.00
257.750	0.01	0.01	1.380	O				5.00
257.833	0.01	0.01	1.380	O				5.00
257.917	0.01	0.01	1.380	O				5.00
258.000	0.01	0.01	1.380	O				5.00
258.083	0.01	0.01	1.380	O				5.00
258.167	0.01	0.01	1.380	O				5.00
258.250	0.01	0.01	1.380	O				5.00
258.333	0.01	0.01	1.380	O				5.00
258.417	0.01	0.01	1.380	O				5.00
258.500	0.01	0.01	1.380	O				5.00
258.583	0.01	0.01	1.380	O				5.00
258.667	0.01	0.01	1.380	O				5.00
258.750	0.01	0.01	1.380	O				5.00
258.833	0.01	0.01	1.380	O				5.00
258.917	0.01	0.01	1.380	O				5.00
259.000	0.01	0.01	1.380	O				5.00
259.083	0.01	0.01	1.380	O				5.00
259.167	0.01	0.01	1.380	O				5.00
259.250	0.01	0.01	1.380	O				5.00
259.333	0.01	0.01	1.380	O				5.00
259.417	0.01	0.01	1.380	O				5.00
259.500	0.01	0.01	1.380	O				5.00
259.583	0.01	0.01	1.380	O				5.00
259.667	0.01	0.01	1.380	O				5.00
259.750	0.01	0.01	1.380	O				5.00
259.833	0.01	0.01	1.380	O				5.00
259.917	0.01	0.01	1.380	O				5.00
260.000	0.01	0.01	1.380	O				5.00
260.083	0.01	0.01	1.380	O				5.00
260.167	0.01	0.01	1.380	O				5.00
260.250	0.01	0.01	1.380	O				5.00
260.333	0.01	0.01	1.380	O				5.00
260.417	0.01	0.01	1.380	O				5.00
260.500	0.01	0.01	1.380	O				5.00
260.583	0.01	0.01	1.380	O				5.00
260.667	0.01	0.01	1.380	O				5.00
260.750	0.01	0.01	1.380	O				5.00
260.833	0.01	0.01	1.380	O				5.00
260.917	0.01	0.01	1.380	O				5.00
261.000	0.01	0.01	1.380	O				5.00
261.083	0.01	0.01	1.380	O				5.00
261.167	0.01	0.01	1.380	O				5.00
261.250	0.01	0.01	1.380	O				5.00
261.333	0.01	0.01	1.380	O				5.00
261.417	0.01	0.01	1.380	O				5.00
261.500	0.01	0.01	1.380	O				5.00
261.583	0.01	0.01	1.380	O				5.00

261.667	0.01	0.01	1.380	O				5.00
261.750	0.01	0.01	1.380	O				5.00
261.833	0.01	0.01	1.380	O				5.00
261.917	0.01	0.01	1.380	O				5.00
262.000	0.01	0.01	1.380	O				5.00
262.083	0.01	0.01	1.380	O				5.00
262.167	0.01	0.01	1.380	O				5.00
262.250	0.01	0.01	1.380	O				5.00
262.333	0.01	0.01	1.380	O				5.00
262.417	0.01	0.01	1.380	O				5.00
262.500	0.01	0.01	1.380	O				5.00
262.583	0.01	0.01	1.380	O				5.00
262.667	0.01	0.01	1.380	O				5.00
262.750	0.01	0.01	1.380	O				5.00
262.833	0.01	0.01	1.380	O				5.00
262.917	0.01	0.01	1.380	O				5.00
263.000	0.01	0.01	1.380	O				5.00
263.083	0.01	0.01	1.380	O				5.00
263.167	0.01	0.01	1.380	O				5.00
263.250	0.01	0.01	1.380	O				5.00
263.333	0.01	0.01	1.380	O				5.00
263.417	0.01	0.01	1.380	O				5.00
263.500	0.01	0.01	1.380	O				5.00
263.583	0.01	0.01	1.380	O				5.00
263.667	0.01	0.01	1.380	O				5.00
263.750	0.01	0.01	1.380	O				5.00
263.833	0.01	0.01	1.380	O				5.00
263.917	0.01	0.01	1.380	O				5.00
264.000	0.01	0.01	1.380	O				5.00
264.083	0.01	0.01	1.380	O				5.00
264.167	0.01	0.01	1.380	O				5.00
264.250	0.01	0.01	1.380	O				5.00
264.333	0.01	0.01	1.380	O				5.00
264.417	0.01	0.01	1.380	O				5.00
264.500	0.01	0.01	1.380	O				5.00
264.583	0.01	0.01	1.380	O				5.00
264.667	0.01	0.01	1.380	O				5.00
264.750	0.01	0.01	1.380	O				5.00
264.833	0.01	0.01	1.380	O				5.00
264.917	0.01	0.01	1.380	O				5.00
265.000	0.01	0.01	1.380	O				5.00
265.083	0.01	0.01	1.380	O				5.00
265.167	0.01	0.01	1.380	O				5.00
265.250	0.01	0.01	1.380	O				5.00
265.333	0.01	0.01	1.380	O				5.00
265.417	0.01	0.01	1.380	O				5.00
265.500	0.01	0.01	1.380	O				5.00
265.583	0.01	0.01	1.380	O				5.00
265.667	0.01	0.01	1.380	O				5.00
265.750	0.01	0.01	1.380	O				5.00
265.833	0.01	0.01	1.380	O				5.00
265.917	0.01	0.01	1.380	O				5.00
266.000	0.01	0.01	1.380	O				5.00
266.083	0.01	0.01	1.380	O				5.00
266.167	0.01	0.01	1.380	O				5.00
266.250	0.01	0.01	1.380	O				5.00
266.333	0.01	0.01	1.380	O				5.00

266.417	0.01	0.01	1.380	0				5.00
266.500	0.01	0.01	1.380	0				5.00
266.583	0.01	0.01	1.380	0				5.00
266.667	0.01	0.01	1.380	0				5.00
266.750	0.01	0.01	1.380	0				5.00
266.833	0.01	0.01	1.380	0				5.00
266.917	0.01	0.01	1.380	0				5.00
267.000	0.01	0.01	1.380	0				5.00
267.083	0.01	0.01	1.380	0				5.00
267.167	0.01	0.01	1.380	0				5.00
267.250	0.01	0.01	1.380	0				5.00
267.333	0.01	0.01	1.380	0				5.00
267.417	0.01	0.01	1.380	0				5.00
267.500	0.01	0.01	1.380	0				5.00
267.583	0.01	0.01	1.380	0				5.00
267.667	0.01	0.01	1.380	0				5.00
267.750	0.01	0.01	1.380	0				5.00
267.833	0.01	0.01	1.380	0				5.00
267.917	0.01	0.01	1.380	0				5.00
268.000	0.01	0.01	1.380	0				5.00
268.083	0.01	0.01	1.380	0				5.00
268.167	0.01	0.01	1.380	0				5.00
268.250	0.01	0.01	1.380	0				5.00
268.333	0.01	0.01	1.380	0				5.00
268.417	0.01	0.01	1.380	0				5.00
268.500	0.01	0.01	1.380	0				5.00
268.583	0.01	0.01	1.380	0				5.00
268.667	0.01	0.01	1.380	0				5.00
268.750	0.01	0.01	1.380	0				5.00
268.833	0.01	0.01	1.380	0				5.00
268.917	0.01	0.01	1.380	0				5.00
269.000	0.01	0.01	1.380	0				5.00
269.083	0.01	0.01	1.380	0				5.00
269.167	0.01	0.01	1.380	0				5.00
269.250	0.01	0.01	1.380	0				5.00
269.333	0.01	0.01	1.380	0				5.00
269.417	0.01	0.01	1.380	0				5.00
269.500	0.01	0.01	1.380	0				5.00
269.583	0.01	0.01	1.380	0				5.00
269.667	0.01	0.01	1.380	0				5.00
269.750	0.01	0.01	1.380	0				5.00
269.833	0.01	0.01	1.380	0				5.00
269.917	0.01	0.01	1.380	0				5.00
270.000	0.01	0.01	1.380	0				5.00
270.083	0.01	0.01	1.380	0				5.00
270.167	0.01	0.01	1.380	0				5.00
270.250	0.01	0.01	1.380	0				5.00
270.333	0.01	0.01	1.380	0				5.00
270.417	0.01	0.01	1.380	0				5.00
270.500	0.01	0.01	1.380	0				5.00
270.583	0.01	0.01	1.380	0				5.00
270.667	0.01	0.01	1.380	0				5.00
270.750	0.01	0.01	1.380	0				5.00
270.833	0.01	0.01	1.380	0				5.00
270.917	0.01	0.01	1.380	0				5.00
271.000	0.01	0.01	1.380	0				5.00
271.083	0.01	0.01	1.380	0				5.00

271.167	0.01	0.01	1.380	0				5.00
271.250	0.01	0.01	1.380	0				5.00
271.333	0.01	0.01	1.380	0				5.00
271.417	0.01	0.01	1.380	0				5.00
271.500	0.01	0.01	1.380	0				5.00
271.583	0.01	0.01	1.380	0				5.00
271.667	0.01	0.01	1.380	0				5.00
271.750	0.01	0.01	1.380	0				5.00
271.833	0.01	0.01	1.380	0				5.00
271.917	0.01	0.01	1.380	0				5.00
272.000	0.01	0.01	1.380	0				5.00
272.083	0.01	0.01	1.380	0				5.00
272.167	0.01	0.01	1.380	0				5.00
272.250	0.01	0.01	1.380	0				5.00
272.333	0.01	0.01	1.380	0				5.00
272.417	0.01	0.01	1.380	0				5.00
272.500	0.01	0.01	1.380	0				5.00
272.583	0.01	0.01	1.380	0				5.00
272.667	0.01	0.01	1.380	0				5.00
272.750	0.01	0.01	1.380	0				5.00
272.833	0.01	0.01	1.380	0				5.00
272.917	0.01	0.01	1.380	0				5.00
273.000	0.01	0.01	1.380	0				5.00
273.083	0.01	0.01	1.380	0				5.00
273.167	0.01	0.01	1.380	0				5.00
273.250	0.01	0.01	1.380	0				5.00
273.333	0.01	0.01	1.380	0				5.00
273.417	0.01	0.01	1.380	0				5.00
273.500	0.01	0.01	1.380	0				5.00
273.583	0.01	0.01	1.380	0				5.00
273.667	0.01	0.01	1.380	0				5.00
273.750	0.01	0.01	1.380	0				5.00
273.833	0.01	0.01	1.380	0				5.00
273.917	0.01	0.01	1.380	0				5.00
274.000	0.01	0.01	1.380	0				5.00
274.083	0.01	0.01	1.380	0				5.00
274.167	0.01	0.01	1.380	0				5.00
274.250	0.01	0.01	1.380	0				5.00
274.333	0.01	0.01	1.380	0				5.00
274.417	0.01	0.01	1.380	0				5.00
274.500	0.01	0.01	1.380	0				5.00
274.583	0.01	0.01	1.380	0				5.00
274.667	0.01	0.01	1.380	0				5.00
274.750	0.01	0.01	1.380	0				5.00
274.833	0.01	0.01	1.380	0				5.00
274.917	0.01	0.01	1.380	0				5.00
275.000	0.01	0.01	1.380	0				5.00
275.083	0.01	0.01	1.380	0				5.00
275.167	0.01	0.01	1.380	0				5.00
275.250	0.01	0.01	1.380	0				5.00
275.333	0.01	0.01	1.380	0				5.00
275.417	0.01	0.01	1.380	0				5.00
275.500	0.01	0.01	1.380	0				5.00
275.583	0.01	0.01	1.380	0				5.00
275.667	0.01	0.01	1.380	0				5.00
275.750	0.01	0.01	1.380	0				5.00
275.833	0.01	0.01	1.380	0				5.00

275.917	0.01	0.01	1.380	O				5.00
276.000	0.01	0.01	1.380	O				5.00
276.083	0.01	0.01	1.380	O				5.00
276.167	0.01	0.01	1.380	O				5.00
276.250	0.01	0.01	1.380	O				5.00
276.333	0.01	0.01	1.380	O				5.00
276.417	0.01	0.01	1.380	O				5.00
276.500	0.01	0.01	1.380	O				5.00
276.583	0.01	0.01	1.380	O				5.00
276.667	0.01	0.01	1.380	O				5.00
276.750	0.01	0.01	1.380	O				5.00
276.833	0.01	0.01	1.380	O				5.00
276.917	0.01	0.01	1.380	O				5.00
277.000	0.01	0.01	1.380	O				5.00
277.083	0.01	0.01	1.380	O				5.00
277.167	0.01	0.01	1.380	O				5.00
277.250	0.01	0.01	1.380	O				5.00
277.333	0.01	0.01	1.380	O				5.00
277.417	0.01	0.01	1.380	O				5.00
277.500	0.01	0.01	1.380	O				5.00
277.583	0.01	0.01	1.380	O				5.00
277.667	0.01	0.01	1.380	O				5.00
277.750	0.01	0.01	1.380	O				5.00
277.833	0.01	0.01	1.380	O				5.00
277.917	0.01	0.01	1.380	O				5.00
278.000	0.01	0.01	1.380	O				5.00
278.083	0.01	0.01	1.380	O				5.00
278.167	0.01	0.01	1.380	O				5.00
278.250	0.01	0.01	1.380	O				5.00
278.333	0.01	0.01	1.380	O				5.00
278.417	0.01	0.01	1.380	O				5.00
278.500	0.01	0.01	1.380	O				5.00
278.583	0.01	0.01	1.380	O				5.00
278.667	0.01	0.01	1.380	O				5.00
278.750	0.01	0.01	1.380	O				5.00
278.833	0.01	0.01	1.380	O				5.00
278.917	0.01	0.01	1.380	O				5.00
279.000	0.01	0.01	1.380	O				5.00
279.083	0.01	0.01	1.380	O				5.00
279.167	0.01	0.01	1.380	O				5.00
279.250	0.01	0.01	1.380	O				5.00
279.333	0.01	0.01	1.380	O				5.00
279.417	0.01	0.01	1.380	O				5.00
279.500	0.01	0.01	1.380	O				5.00
279.583	0.01	0.01	1.380	O				5.00
279.667	0.01	0.01	1.380	O				5.00
279.750	0.01	0.01	1.380	O				5.00
279.833	0.01	0.01	1.380	O				5.00
279.917	0.01	0.01	1.380	O				5.00
280.000	0.01	0.01	1.380	O				5.00
280.083	0.01	0.01	1.380	O				5.00
280.167	0.01	0.01	1.380	O				5.00
280.250	0.01	0.01	1.380	O				5.00
280.333	0.01	0.01	1.380	O				5.00
280.417	0.01	0.01	1.380	O				5.00
280.500	0.01	0.01	1.380	O				5.00
280.583	0.01	0.01	1.380	O				5.00

280.667	0.01	0.01	1.380	0					5.00
280.750	0.01	0.01	1.380	0					5.00
280.833	0.01	0.01	1.380	0					5.00
280.917	0.01	0.01	1.380	0					5.00
281.000	0.01	0.01	1.380	0					5.00
281.083	0.01	0.01	1.380	0					5.00
281.167	0.01	0.01	1.380	0					5.00
281.250	0.01	0.01	1.380	0					5.00
281.333	0.01	0.01	1.380	0					5.00
281.417	0.01	0.01	1.380	0					5.00
281.500	0.01	0.01	1.380	0					5.00
281.583	0.01	0.01	1.380	0					5.00
281.667	0.01	0.01	1.380	0					5.00
281.750	0.01	0.01	1.380	0					5.00
281.833	0.01	0.01	1.380	0					5.00
281.917	0.01	0.01	1.380	0					5.00
282.000	0.01	0.01	1.380	0					5.00
282.083	0.01	0.01	1.380	0					5.00
282.167	0.01	0.01	1.380	0					5.00
282.250	0.01	0.01	1.380	0					5.00
282.333	0.01	0.01	1.380	0					5.00
282.417	0.01	0.01	1.380	0					5.00
282.500	0.01	0.01	1.380	0					5.00
282.583	0.01	0.01	1.380	0					5.00
282.667	0.01	0.01	1.380	0					5.00
282.750	0.01	0.01	1.380	0					5.00
282.833	0.01	0.01	1.380	0					5.00
282.917	0.01	0.01	1.380	0					5.00
283.000	0.01	0.01	1.380	0					5.00
283.083	0.01	0.01	1.380	0					5.00
283.167	0.01	0.01	1.380	0					5.00
283.250	0.01	0.01	1.380	0					5.00
283.333	0.01	0.01	1.380	0					5.00
283.417	0.01	0.01	1.380	0					5.00
283.500	0.01	0.01	1.380	0					5.00
283.583	0.01	0.01	1.380	0					5.00
283.667	0.01	0.01	1.380	0					5.00
283.750	0.01	0.01	1.380	0					5.00
283.833	0.01	0.01	1.380	0					5.00
283.917	0.01	0.01	1.380	0					5.00
284.000	0.01	0.01	1.380	0					5.00
284.083	0.01	0.01	1.380	0					5.00
284.167	0.01	0.01	1.380	0					5.00
284.250	0.01	0.01	1.380	0					5.00
284.333	0.01	0.01	1.380	0					5.00
284.417	0.01	0.01	1.380	0					5.00
284.500	0.01	0.01	1.380	0					5.00
284.583	0.01	0.01	1.380	0					5.00
284.667	0.01	0.01	1.380	0					5.00
284.750	0.01	0.01	1.380	0					5.00
284.833	0.01	0.01	1.380	0					5.00
284.917	0.01	0.01	1.380	0					5.00
285.000	0.01	0.01	1.380	0					5.00
285.083	0.01	0.01	1.380	0					5.00
285.167	0.01	0.01	1.380	0					5.00
285.250	0.01	0.01	1.380	0					5.00
285.333	0.01	0.01	1.380	0					5.00

285.417	0.01	0.01	1.380	0				5.00
285.500	0.01	0.01	1.380	0				5.00
285.583	0.01	0.01	1.380	0				5.00
285.667	0.01	0.01	1.380	0				5.00
285.750	0.01	0.01	1.380	0				5.00
285.833	0.01	0.01	1.380	0				5.00
285.917	0.01	0.01	1.380	0				5.00
286.000	0.01	0.01	1.380	0				5.00
286.083	0.01	0.01	1.380	0				5.00
286.167	0.01	0.01	1.380	0				5.00
286.250	0.01	0.01	1.380	0				5.00
286.333	0.01	0.01	1.380	0				5.00
286.417	0.01	0.01	1.380	0				5.00
286.500	0.01	0.01	1.380	0				5.00
286.583	0.01	0.01	1.380	0				5.00
286.667	0.01	0.01	1.380	0				5.00
286.750	0.01	0.01	1.380	0				5.00
286.833	0.01	0.01	1.380	0				5.00
286.917	0.01	0.01	1.379	0				5.00
287.000	0.01	0.01	1.379	0				5.00
287.083	0.01	0.01	1.379	0				5.00
287.167	0.01	0.01	1.379	0				5.00
287.250	0.01	0.01	1.379	0				5.00
287.333	0.01	0.01	1.379	0				5.00
287.417	0.01	0.01	1.379	0				5.00
287.500	0.01	0.01	1.379	0				5.00
287.583	0.01	0.01	1.379	0				5.00
287.667	0.01	0.01	1.379	0				5.00
287.750	0.01	0.01	1.379	0				5.00
287.833	0.01	0.01	1.379	0				5.00
287.917	0.01	0.01	1.379	0				5.00
288.000	0.01	0.01	1.379	0				5.00
288.083	0.01	0.01	1.379	0				5.00
288.167	0.01	0.01	1.379	0				5.00
288.250	0.01	0.01	1.379	0				5.00
288.333	0.01	0.01	1.379	0				5.00
288.417	0.01	0.01	1.379	0				5.00
288.500	0.01	0.01	1.379	0				5.00
288.583	0.01	0.01	1.379	0				5.00
288.667	0.01	0.01	1.379	0				5.00
288.750	0.01	0.01	1.379	0				5.00
288.833	0.01	0.01	1.379	0				5.00
288.917	0.01	0.01	1.379	0				5.00
289.000	0.01	0.01	1.379	0				5.00
289.083	0.01	0.01	1.379	0				5.00
289.167	0.01	0.01	1.379	0				5.00
289.250	0.01	0.01	1.379	0				5.00
289.333	0.01	0.01	1.379	0				5.00
289.417	0.01	0.01	1.379	0				5.00
289.500	0.01	0.01	1.379	0				5.00
289.583	0.01	0.01	1.379	0				5.00
289.667	0.01	0.01	1.379	0				5.00
289.750	0.01	0.01	1.379	0				5.00
289.833	0.01	0.01	1.379	0				5.00
289.917	0.01	0.01	1.379	0				5.00
290.000	0.01	0.01	1.379	0				5.00
290.083	0.01	0.01	1.379	0				5.00

290.167	0.01	0.01	1.379	0				5.00
290.250	0.01	0.01	1.379	0				5.00
290.333	0.01	0.01	1.379	0				5.00
290.417	0.01	0.01	1.379	0				5.00
290.500	0.01	0.01	1.379	0				5.00
290.583	0.01	0.01	1.379	0				5.00
290.667	0.01	0.01	1.379	0				5.00
290.750	0.01	0.01	1.379	0				5.00
290.833	0.01	0.01	1.379	0				5.00
290.917	0.01	0.01	1.379	0				5.00
291.000	0.01	0.01	1.379	0				5.00
291.083	0.01	0.01	1.379	0				5.00
291.167	0.01	0.01	1.379	0				5.00
291.250	0.01	0.01	1.379	0				5.00
291.333	0.01	0.01	1.379	0				5.00
291.417	0.01	0.01	1.379	0				5.00
291.500	0.01	0.01	1.379	0				5.00
291.583	0.01	0.01	1.379	0				5.00
291.667	0.01	0.01	1.379	0				5.00
291.750	0.01	0.01	1.379	0				5.00
291.833	0.01	0.01	1.379	0				5.00
291.917	0.01	0.01	1.379	0				5.00
292.000	0.01	0.01	1.379	0				5.00
292.083	0.01	0.01	1.379	0				5.00
292.167	0.01	0.01	1.379	0				5.00
292.250	0.01	0.01	1.379	0				5.00
292.333	0.01	0.01	1.379	0				5.00
292.417	0.01	0.01	1.379	0				5.00
292.500	0.01	0.01	1.379	0				5.00
292.583	0.01	0.01	1.379	0				5.00
292.667	0.01	0.01	1.379	0				5.00
292.750	0.01	0.01	1.379	0				5.00
292.833	0.01	0.01	1.379	0				5.00
292.917	0.01	0.01	1.379	0				5.00
293.000	0.01	0.01	1.379	0				5.00
293.083	0.01	0.01	1.379	0				5.00
293.167	0.01	0.01	1.379	0				5.00
293.250	0.01	0.01	1.378	0				5.00
293.333	0.01	0.01	1.378	0				5.00
293.417	0.01	0.01	1.378	0				5.00
293.500	0.01	0.01	1.378	0				5.00
293.583	0.01	0.01	1.378	0				5.00
293.667	0.01	0.01	1.378	0				5.00
293.750	0.01	0.01	1.378	0				5.00
293.833	0.01	0.01	1.378	0				5.00
293.917	0.01	0.01	1.378	0				5.00
294.000	0.01	0.01	1.378	0				5.00
294.083	0.01	0.01	1.378	0				5.00
294.167	0.01	0.01	1.378	0				5.00
294.250	0.01	0.01	1.378	0				5.00
294.333	0.01	0.01	1.378	0				5.00
294.417	0.01	0.01	1.378	0				5.00
294.500	0.01	0.01	1.378	0				5.00
294.583	0.01	0.01	1.378	0				5.00
294.667	0.01	0.01	1.378	0				5.00
294.750	0.01	0.01	1.378	0				4.99
294.833	0.01	0.01	1.378	0				4.99

294.917	0.01	0.01	1.378	0				4.99
295.000	0.01	0.01	1.378	0				4.99
295.083	0.01	0.01	1.378	0				4.99
295.167	0.01	0.01	1.378	0				4.99
295.250	0.01	0.01	1.378	0				4.99
295.333	0.01	0.01	1.378	0				4.99
295.417	0.01	0.01	1.378	0				4.99
295.500	0.01	0.01	1.378	0				4.99
295.583	0.01	0.01	1.378	0				4.99
295.667	0.01	0.01	1.378	0				4.99
295.750	0.01	0.01	1.378	0				4.99
295.833	0.01	0.01	1.378	0				4.99
295.917	0.01	0.01	1.378	0				4.99
296.000	0.01	0.01	1.378	0				4.99
296.083	0.01	0.01	1.378	0				4.99
296.167	0.01	0.01	1.378	0				4.99
296.250	0.01	0.01	1.378	0				4.99
296.333	0.01	0.01	1.378	0				4.99
296.417	0.01	0.01	1.378	0				4.99
296.500	0.01	0.01	1.378	0				4.99
296.583	0.01	0.01	1.378	0				4.99
296.667	0.01	0.01	1.378	0				4.99
296.750	0.01	0.01	1.378	0				4.99
296.833	0.01	0.01	1.378	0				4.99
296.917	0.01	0.01	1.378	0				4.99
297.000	0.01	0.01	1.378	0				4.99
297.083	0.01	0.01	1.378	0				4.99
297.167	0.01	0.01	1.378	0				4.99
297.250	0.01	0.01	1.378	0				4.99
297.333	0.01	0.01	1.378	0				4.99
297.417	0.01	0.01	1.378	0				4.99
297.500	0.01	0.01	1.378	0				4.99
297.583	0.01	0.01	1.378	0				4.99
297.667	0.01	0.01	1.378	0				4.99
297.750	0.01	0.01	1.377	0				4.99
297.833	0.01	0.01	1.377	0				4.99
297.917	0.01	0.01	1.377	0				4.99
298.000	0.01	0.01	1.377	0				4.99
298.083	0.01	0.01	1.377	0				4.99
298.167	0.01	0.01	1.377	0				4.99
298.250	0.01	0.01	1.377	0				4.99
298.333	0.01	0.01	1.377	0				4.99
298.417	0.01	0.01	1.377	0				4.99
298.500	0.01	0.01	1.377	0				4.99
298.583	0.01	0.01	1.377	0				4.99
298.667	0.01	0.01	1.377	0				4.99
298.750	0.01	0.01	1.377	0				4.99
298.833	0.01	0.01	1.377	0				4.99
298.917	0.01	0.01	1.377	0				4.99
299.000	0.01	0.01	1.377	0				4.99
299.083	0.01	0.01	1.377	0				4.99
299.167	0.01	0.01	1.377	0				4.99
299.250	0.01	0.01	1.377	0				4.99
299.333	0.01	0.01	1.377	0				4.99
299.417	0.01	0.01	1.377	0				4.99
299.500	0.01	0.01	1.377	0				4.99
299.583	0.01	0.01	1.377	0				4.99

299.667	0.01	0.01	1.377	0				4.99
299.750	0.01	0.01	1.377	0				4.99
299.833	0.01	0.01	1.377	0				4.99
299.917	0.01	0.01	1.377	0				4.99
300.000	0.01	0.01	1.377	0				4.99
300.083	0.01	0.01	1.377	0				4.99
300.167	0.01	0.01	1.377	0				4.99
300.250	0.01	0.01	1.377	0				4.99
300.333	0.01	0.01	1.377	0				4.99
300.417	0.01	0.01	1.377	0				4.99
300.500	0.01	0.01	1.377	0				4.99
300.583	0.01	0.01	1.377	0				4.99
300.667	0.01	0.01	1.377	0				4.99
300.750	0.01	0.01	1.377	0				4.99
300.833	0.01	0.01	1.377	0				4.99
300.917	0.01	0.01	1.377	0				4.99
301.000	0.01	0.01	1.377	0				4.99
301.083	0.01	0.01	1.377	0				4.99
301.167	0.01	0.01	1.377	0				4.99
301.250	0.01	0.01	1.377	0				4.99
301.333	0.01	0.01	1.377	0				4.99
301.417	0.01	0.01	1.377	0				4.99
301.500	0.01	0.01	1.376	0				4.99
301.583	0.01	0.01	1.376	0				4.99
301.667	0.01	0.01	1.376	0				4.99
301.750	0.01	0.01	1.376	0				4.99
301.833	0.01	0.01	1.376	0				4.99
301.917	0.01	0.01	1.376	0				4.99
302.000	0.01	0.01	1.376	0				4.99
302.083	0.01	0.01	1.376	0				4.99
302.167	0.01	0.01	1.376	0				4.99
302.250	0.01	0.01	1.376	0				4.99
302.333	0.01	0.01	1.376	0				4.99
302.417	0.01	0.01	1.376	0				4.99
302.500	0.01	0.01	1.376	0				4.99
302.583	0.01	0.01	1.376	0				4.99
302.667	0.01	0.01	1.376	0				4.99
302.750	0.01	0.01	1.376	0				4.99
302.833	0.01	0.01	1.376	0				4.99
302.917	0.01	0.01	1.376	0				4.99
303.000	0.01	0.01	1.376	0				4.99
303.083	0.01	0.01	1.376	0				4.99
303.167	0.01	0.01	1.376	0				4.99
303.250	0.01	0.01	1.376	0				4.99
303.333	0.01	0.01	1.376	0				4.99
303.417	0.01	0.01	1.376	0				4.99
303.500	0.01	0.01	1.376	0				4.99
303.583	0.01	0.01	1.376	0				4.99
303.667	0.01	0.01	1.376	0				4.99
303.750	0.01	0.01	1.376	0				4.99
303.833	0.01	0.01	1.376	0				4.99
303.917	0.01	0.01	1.376	0				4.99
304.000	0.01	0.01	1.376	0				4.99
304.083	0.01	0.01	1.376	0				4.99
304.167	0.01	0.01	1.376	0				4.99
304.250	0.01	0.01	1.376	0				4.99
304.333	0.01	0.01	1.376	0				4.99

304.417	0.01	0.01	1.376	0				4.99
304.500	0.01	0.01	1.376	0				4.99
304.583	0.01	0.01	1.376	0				4.99
304.667	0.01	0.01	1.376	0				4.99
304.750	0.01	0.01	1.376	0				4.99
304.833	0.01	0.01	1.375	0				4.99
304.917	0.01	0.01	1.375	0				4.99
305.000	0.01	0.01	1.375	0				4.99
305.083	0.01	0.01	1.375	0				4.99
305.167	0.01	0.01	1.375	0				4.99
305.250	0.01	0.01	1.375	0				4.99
305.333	0.01	0.01	1.375	0				4.99
305.417	0.01	0.01	1.375	0				4.99
305.500	0.01	0.01	1.375	0				4.99
305.583	0.01	0.01	1.375	0				4.99
305.667	0.01	0.01	1.375	0				4.99
305.750	0.01	0.01	1.375	0				4.99
305.833	0.01	0.01	1.375	0				4.99
305.917	0.01	0.01	1.375	0				4.99
306.000	0.01	0.01	1.375	0				4.99
306.083	0.01	0.01	1.375	0				4.99
306.167	0.01	0.01	1.375	0				4.99
306.250	0.01	0.01	1.375	0				4.99
306.333	0.01	0.01	1.375	0				4.99
306.417	0.01	0.01	1.375	0				4.99
306.500	0.01	0.01	1.375	0				4.99
306.583	0.01	0.01	1.375	0				4.99
306.667	0.01	0.01	1.375	0				4.99
306.750	0.01	0.01	1.375	0				4.99
306.833	0.01	0.01	1.375	0				4.99
306.917	0.01	0.01	1.375	0				4.99
307.000	0.01	0.01	1.375	0				4.99
307.083	0.01	0.01	1.375	0				4.99
307.167	0.01	0.01	1.375	0				4.99
307.250	0.01	0.01	1.375	0				4.99
307.333	0.01	0.01	1.375	0				4.99
307.417	0.01	0.01	1.375	0				4.99
307.500	0.01	0.01	1.375	0				4.99
307.583	0.01	0.01	1.375	0				4.98
307.667	0.01	0.01	1.375	0				4.98
307.750	0.01	0.01	1.375	0				4.98
307.833	0.01	0.01	1.374	0				4.98
307.917	0.01	0.01	1.374	0				4.98
308.000	0.01	0.01	1.374	0				4.98
308.083	0.01	0.01	1.374	0				4.98
308.167	0.01	0.01	1.374	0				4.98
308.250	0.01	0.01	1.374	0				4.98
308.333	0.01	0.01	1.374	0				4.98
308.417	0.01	0.01	1.374	0				4.98
308.500	0.01	0.01	1.374	0				4.98
308.583	0.01	0.01	1.374	0				4.98
308.667	0.01	0.01	1.374	0				4.98
308.750	0.01	0.01	1.374	0				4.98
308.833	0.01	0.01	1.374	0				4.98
308.917	0.01	0.01	1.374	0				4.98
309.000	0.01	0.01	1.374	0				4.98
309.083	0.01	0.01	1.374	0				4.98

309.167	0.01	0.01	1.374	0				4.98
309.250	0.01	0.01	1.374	0				4.98
309.333	0.01	0.01	1.374	0				4.98
309.417	0.01	0.01	1.374	0				4.98
309.500	0.01	0.01	1.374	0				4.98
309.583	0.01	0.01	1.374	0				4.98
309.667	0.01	0.01	1.374	0				4.98
309.750	0.01	0.01	1.374	0				4.98
309.833	0.01	0.01	1.374	0				4.98
309.917	0.01	0.01	1.374	0				4.98
310.000	0.01	0.01	1.374	0				4.98
310.083	0.01	0.01	1.374	0				4.98
310.167	0.01	0.01	1.374	0				4.98
310.250	0.01	0.01	1.374	0				4.98
310.333	0.01	0.01	1.374	0				4.98
310.417	0.01	0.01	1.374	0				4.98
310.500	0.01	0.01	1.374	0				4.98
310.583	0.01	0.01	1.373	0				4.98
310.667	0.01	0.01	1.373	0				4.98
310.750	0.01	0.01	1.373	0				4.98
310.833	0.01	0.01	1.373	0				4.98
310.917	0.01	0.01	1.373	0				4.98
311.000	0.01	0.01	1.373	0				4.98
311.083	0.01	0.01	1.373	0				4.98
311.167	0.01	0.01	1.373	0				4.98
311.250	0.01	0.01	1.373	0				4.98
311.333	0.01	0.01	1.373	0				4.98
311.417	0.01	0.01	1.373	0				4.98
311.500	0.01	0.01	1.373	0				4.98
311.583	0.01	0.01	1.373	0				4.98
311.667	0.01	0.01	1.373	0				4.98
311.750	0.01	0.01	1.373	0				4.98
311.833	0.01	0.01	1.373	0				4.98
311.917	0.01	0.01	1.373	0				4.98
312.000	0.01	0.01	1.373	0				4.98
312.083	0.01	0.01	1.373	0				4.98
312.167	0.01	0.01	1.373	0				4.98
312.250	0.01	0.01	1.373	0				4.98
312.333	0.01	0.01	1.373	0				4.98
312.417	0.01	0.01	1.373	0				4.98
312.500	0.01	0.01	1.373	0				4.98
312.583	0.01	0.01	1.373	0				4.98
312.667	0.01	0.01	1.373	0				4.98
312.750	0.01	0.01	1.373	0				4.98
312.833	0.01	0.01	1.373	0				4.98
312.917	0.01	0.01	1.373	0				4.98
313.000	0.01	0.01	1.373	0				4.98
313.083	0.01	0.01	1.373	0				4.98
313.167	0.01	0.01	1.373	0				4.98
313.250	0.01	0.01	1.372	0				4.98
313.333	0.01	0.01	1.372	0				4.98
313.417	0.01	0.01	1.372	0				4.98
313.500	0.01	0.01	1.372	0				4.98
313.583	0.01	0.01	1.372	0				4.98
313.667	0.01	0.01	1.372	0				4.98
313.750	0.01	0.01	1.372	0				4.98
313.833	0.01	0.01	1.372	0				4.98

313.917	0.01	0.01	1.372	0				4.98
314.000	0.01	0.01	1.372	0				4.98
314.083	0.01	0.01	1.372	0				4.98
314.167	0.01	0.01	1.372	0				4.98
314.250	0.01	0.01	1.372	0				4.98
314.333	0.01	0.01	1.372	0				4.98
314.417	0.01	0.01	1.372	0				4.98
314.500	0.01	0.01	1.372	0				4.98
314.583	0.01	0.01	1.372	0				4.98
314.667	0.01	0.01	1.372	0				4.98
314.750	0.01	0.01	1.372	0				4.98
314.833	0.01	0.01	1.372	0				4.98
314.917	0.01	0.01	1.372	0				4.98
315.000	0.01	0.01	1.372	0				4.98
315.083	0.01	0.01	1.372	0				4.98
315.167	0.01	0.01	1.372	0				4.98
315.250	0.01	0.01	1.372	0				4.98
315.333	0.01	0.01	1.372	0				4.98
315.417	0.01	0.01	1.372	0				4.98
315.500	0.01	0.01	1.372	0				4.98
315.583	0.01	0.01	1.372	0				4.98
315.667	0.01	0.01	1.372	0				4.98
315.750	0.01	0.01	1.371	0				4.98
315.833	0.01	0.01	1.371	0				4.98
315.917	0.00	0.01	1.371	0				4.98
316.000	0.00	0.01	1.371	0				4.98
316.083	0.00	0.01	1.371	0				4.98
316.167	0.00	0.01	1.371	0				4.98
316.250	0.00	0.01	1.371	0				4.98
316.333	0.00	0.01	1.371	0				4.98
316.417	0.00	0.01	1.371	0				4.98
316.500	0.00	0.01	1.371	0				4.98
316.583	0.00	0.01	1.371	0				4.98
316.667	0.00	0.01	1.371	0				4.98
316.750	0.00	0.01	1.371	0				4.98
316.833	0.00	0.01	1.371	0				4.98
316.917	0.00	0.01	1.371	0				4.97
317.000	0.00	0.01	1.371	0				4.97
317.083	0.00	0.01	1.371	0				4.97
317.167	0.00	0.01	1.371	0				4.97
317.250	0.00	0.01	1.371	0				4.97
317.333	0.00	0.01	1.371	0				4.97
317.417	0.00	0.01	1.371	0				4.97
317.500	0.00	0.01	1.371	0				4.97
317.583	0.00	0.01	1.371	0				4.97
317.667	0.00	0.01	1.371	0				4.97
317.750	0.00	0.01	1.371	0				4.97
317.833	0.00	0.01	1.371	0				4.97
317.917	0.00	0.01	1.371	0				4.97
318.000	0.00	0.01	1.371	0				4.97
318.083	0.00	0.01	1.370	0				4.97
318.167	0.00	0.01	1.370	0				4.97
318.250	0.00	0.01	1.370	0				4.97
318.333	0.00	0.01	1.370	0				4.97
318.417	0.00	0.01	1.370	0				4.97
318.500	0.00	0.01	1.370	0				4.97
318.583	0.00	0.01	1.370	0				4.97

318.667	0.00	0.01	1.370	0				4.97
318.750	0.00	0.01	1.370	0				4.97
318.833	0.00	0.01	1.370	0				4.97
318.917	0.00	0.01	1.370	0				4.97
319.000	0.00	0.01	1.370	0				4.97
319.083	0.00	0.01	1.370	0				4.97
319.167	0.00	0.01	1.370	0				4.97
319.250	0.00	0.01	1.370	0				4.97
319.333	0.00	0.01	1.370	0				4.97
319.417	0.00	0.01	1.370	0				4.97
319.500	0.00	0.01	1.370	0				4.97
319.583	0.00	0.01	1.370	0				4.97
319.667	0.00	0.01	1.370	0				4.97
319.750	0.00	0.01	1.370	0				4.97
319.833	0.00	0.01	1.370	0				4.97
319.917	0.00	0.01	1.370	0				4.97
320.000	0.00	0.01	1.370	0				4.97
320.083	0.00	0.01	1.370	0				4.97
320.167	0.00	0.01	1.370	0				4.97
320.250	0.00	0.01	1.370	0				4.97
320.333	0.00	0.01	1.370	0				4.97
320.417	0.00	0.01	1.369	0				4.97
320.500	0.00	0.01	1.369	0				4.97
320.583	0.00	0.01	1.369	0				4.97
320.667	0.00	0.01	1.369	0				4.97
320.750	0.00	0.01	1.369	0				4.97
320.833	0.00	0.01	1.369	0				4.97
320.917	0.00	0.01	1.369	0				4.97
321.000	0.00	0.01	1.369	0				4.97
321.083	0.00	0.01	1.369	0				4.97
321.167	0.00	0.01	1.369	0				4.97
321.250	0.00	0.01	1.369	0				4.97
321.333	0.00	0.01	1.369	0				4.97
321.417	0.00	0.01	1.369	0				4.97
321.500	0.00	0.01	1.369	0				4.97
321.583	0.00	0.01	1.369	0				4.97
321.667	0.00	0.01	1.369	0				4.97
321.750	0.00	0.01	1.369	0				4.97
321.833	0.00	0.01	1.369	0				4.97
321.917	0.00	0.01	1.369	0				4.97
322.000	0.00	0.01	1.369	0				4.97
322.083	0.00	0.01	1.369	0				4.97
322.167	0.00	0.01	1.369	0				4.97
322.250	0.00	0.01	1.369	0				4.97
322.333	0.00	0.01	1.369	0				4.97
322.417	0.00	0.01	1.369	0				4.97
322.500	0.00	0.01	1.369	0				4.97
322.583	0.00	0.01	1.368	0				4.97
322.667	0.00	0.01	1.368	0				4.97
322.750	0.00	0.01	1.368	0				4.97
322.833	0.00	0.01	1.368	0				4.97
322.917	0.00	0.01	1.368	0				4.97
323.000	0.00	0.01	1.368	0				4.97
323.083	0.00	0.01	1.368	0				4.97
323.167	0.00	0.01	1.368	0				4.97
323.250	0.00	0.01	1.368	0				4.97
323.333	0.00	0.01	1.368	0				4.97

323.417	0.00	0.01	1.368	0				4.97
323.500	0.00	0.01	1.368	0				4.97
323.583	0.00	0.01	1.368	0				4.97
323.667	0.00	0.01	1.368	0				4.97
323.750	0.00	0.01	1.368	0				4.97
323.833	0.00	0.01	1.368	0				4.97
323.917	0.00	0.01	1.368	0				4.97
324.000	0.00	0.01	1.368	0				4.97
324.083	0.00	0.01	1.368	0				4.97
324.167	0.00	0.01	1.368	0				4.97
324.250	0.00	0.01	1.368	0				4.97
324.333	0.00	0.01	1.368	0				4.97
324.417	0.00	0.01	1.368	0				4.97
324.500	0.00	0.01	1.368	0				4.97
324.583	0.00	0.01	1.368	0				4.97
324.667	0.00	0.01	1.368	0				4.97
324.750	0.00	0.01	1.367	0				4.97
324.833	0.00	0.01	1.367	0				4.97
324.917	0.00	0.01	1.367	0				4.96
325.000	0.00	0.01	1.367	0				4.96
325.083	0.00	0.01	1.367	0				4.96
325.167	0.00	0.01	1.367	0				4.96
325.250	0.00	0.01	1.367	0				4.96
325.333	0.00	0.01	1.367	0				4.96
325.417	0.00	0.01	1.367	0				4.96
325.500	0.00	0.01	1.367	0				4.96
325.583	0.00	0.01	1.367	0				4.96
325.667	0.00	0.01	1.367	0				4.96
325.750	0.00	0.01	1.367	0				4.96
325.833	0.00	0.01	1.367	0				4.96
325.917	0.00	0.01	1.367	0				4.96
326.000	0.00	0.01	1.367	0				4.96
326.083	0.00	0.01	1.367	0				4.96
326.167	0.00	0.01	1.367	0				4.96
326.250	0.00	0.01	1.367	0				4.96
326.333	0.00	0.01	1.367	0				4.96
326.417	0.00	0.01	1.367	0				4.96
326.500	0.00	0.01	1.367	0				4.96
326.583	0.00	0.01	1.367	0				4.96
326.667	0.00	0.01	1.367	0				4.96
326.750	0.00	0.01	1.367	0				4.96
326.833	0.00	0.01	1.366	0				4.96
326.917	0.00	0.01	1.366	0				4.96
327.000	0.00	0.01	1.366	0				4.96
327.083	0.00	0.01	1.366	0				4.96
327.167	0.00	0.01	1.366	0				4.96
327.250	0.00	0.01	1.366	0				4.96
327.333	0.00	0.01	1.366	0				4.96
327.417	0.00	0.01	1.366	0				4.96
327.500	0.00	0.01	1.366	0				4.96
327.583	0.00	0.01	1.366	0				4.96
327.667	0.00	0.01	1.366	0				4.96
327.750	0.00	0.01	1.366	0				4.96
327.833	0.00	0.01	1.366	0				4.96
327.917	0.00	0.01	1.366	0				4.96
328.000	0.00	0.01	1.366	0				4.96
328.083	0.00	0.01	1.366	0				4.96

328.167	0.00	0.01	1.366	0				4.96
328.250	0.00	0.01	1.366	0				4.96
328.333	0.00	0.01	1.366	0				4.96
328.417	0.00	0.01	1.366	0				4.96
328.500	0.00	0.01	1.366	0				4.96
328.583	0.00	0.01	1.366	0				4.96
328.667	0.00	0.01	1.366	0				4.96
328.750	0.00	0.01	1.366	0				4.96
328.833	0.00	0.01	1.365	0				4.96
328.917	0.00	0.01	1.365	0				4.96
329.000	0.00	0.01	1.365	0				4.96
329.083	0.00	0.01	1.365	0				4.96
329.167	0.00	0.01	1.365	0				4.96
329.250	0.00	0.01	1.365	0				4.96
329.333	0.00	0.01	1.365	0				4.96
329.417	0.00	0.01	1.365	0				4.96
329.500	0.00	0.01	1.365	0				4.96
329.583	0.00	0.01	1.365	0				4.96
329.667	0.00	0.01	1.365	0				4.96
329.750	0.00	0.01	1.365	0				4.96
329.833	0.00	0.01	1.365	0				4.96
329.917	0.00	0.01	1.365	0				4.96
330.000	0.00	0.01	1.365	0				4.96
330.083	0.00	0.01	1.365	0				4.96
330.167	0.00	0.01	1.365	0				4.96
330.250	0.00	0.01	1.365	0				4.96
330.333	0.00	0.01	1.365	0				4.96
330.417	0.00	0.01	1.365	0				4.96
330.500	0.00	0.01	1.365	0				4.96
330.583	0.00	0.01	1.365	0				4.96
330.667	0.00	0.01	1.365	0				4.96
330.750	0.00	0.01	1.365	0				4.96
330.833	0.00	0.01	1.364	0				4.96
330.917	0.00	0.01	1.364	0				4.96
331.000	0.00	0.01	1.364	0				4.96
331.083	0.00	0.01	1.364	0				4.96
331.167	0.00	0.01	1.364	0				4.96
331.250	0.00	0.01	1.364	0				4.96
331.333	0.00	0.01	1.364	0				4.96
331.417	0.00	0.01	1.364	0				4.96
331.500	0.00	0.01	1.364	0				4.96
331.583	0.00	0.01	1.364	0				4.96
331.667	0.00	0.01	1.364	0				4.96
331.750	0.00	0.01	1.364	0				4.96
331.833	0.00	0.01	1.364	0				4.96
331.917	0.00	0.01	1.364	0				4.96
332.000	0.00	0.01	1.364	0				4.96
332.083	0.00	0.01	1.364	0				4.96
332.167	0.00	0.01	1.364	0				4.95
332.250	0.00	0.01	1.364	0				4.95
332.333	0.00	0.01	1.364	0				4.95
332.417	0.00	0.01	1.364	0				4.95
332.500	0.00	0.01	1.364	0				4.95
332.583	0.00	0.01	1.364	0				4.95
332.667	0.00	0.01	1.364	0				4.95
332.750	0.00	0.01	1.363	0				4.95
332.833	0.00	0.01	1.363	0				4.95

332.917	0.00	0.01	1.363	0				4.95
333.000	0.00	0.01	1.363	0				4.95
333.083	0.00	0.01	1.363	0				4.95
333.167	0.00	0.01	1.363	0				4.95
333.250	0.00	0.01	1.363	0				4.95
333.333	0.00	0.01	1.363	0				4.95
333.417	0.00	0.01	1.363	0				4.95
333.500	0.00	0.01	1.363	0				4.95
333.583	0.00	0.01	1.363	0				4.95
333.667	0.00	0.01	1.363	0				4.95
333.750	0.00	0.01	1.363	0				4.95
333.833	0.00	0.01	1.363	0				4.95
333.917	0.00	0.01	1.363	0				4.95
334.000	0.00	0.01	1.363	0				4.95
334.083	0.00	0.01	1.363	0				4.95
334.167	0.00	0.01	1.363	0				4.95
334.250	0.00	0.01	1.363	0				4.95
334.333	0.00	0.01	1.363	0				4.95
334.417	0.00	0.01	1.363	0				4.95
334.500	0.00	0.01	1.363	0				4.95
334.583	0.00	0.01	1.362	0				4.95
334.667	0.00	0.01	1.362	0				4.95
334.750	0.00	0.01	1.362	0				4.95
334.833	0.00	0.01	1.362	0				4.95
334.917	0.00	0.01	1.362	0				4.95
335.000	0.00	0.01	1.362	0				4.95
335.083	0.00	0.01	1.362	0				4.95
335.167	0.00	0.01	1.362	0				4.95
335.250	0.00	0.01	1.362	0				4.95
335.333	0.00	0.01	1.362	0				4.95
335.417	0.00	0.01	1.362	0				4.95
335.500	0.00	0.01	1.362	0				4.95
335.583	0.00	0.01	1.362	0				4.95
335.667	0.00	0.01	1.362	0				4.95
335.750	0.00	0.01	1.362	0				4.95
335.833	0.00	0.01	1.362	0				4.95
335.917	0.00	0.01	1.362	0				4.95
336.000	0.00	0.01	1.362	0				4.95
336.083	0.00	0.01	1.362	0				4.95
336.167	0.00	0.01	1.362	0				4.95
336.250	0.00	0.01	1.362	0				4.95
336.333	0.00	0.01	1.362	0				4.95
336.417	0.00	0.01	1.362	0				4.95
336.500	0.00	0.01	1.361	0				4.95
336.583	0.00	0.01	1.361	0				4.95
336.667	0.00	0.01	1.361	0				4.95
336.750	0.00	0.01	1.361	0				4.95
336.833	0.00	0.01	1.361	0				4.95
336.917	0.00	0.01	1.361	0				4.95
337.000	0.00	0.01	1.361	0				4.95
337.083	0.00	0.01	1.361	0				4.95
337.167	0.00	0.01	1.361	0				4.95
337.250	0.00	0.01	1.361	0				4.95
337.333	0.00	0.01	1.361	0				4.95
337.417	0.00	0.01	1.361	0				4.95
337.500	0.00	0.01	1.361	0				4.95
337.583	0.00	0.01	1.361	0				4.95

337.667	0.00	0.01	1.361	0				4.95
337.750	0.00	0.01	1.361	0				4.95
337.833	0.00	0.01	1.361	0				4.95
337.917	0.00	0.01	1.361	0				4.95
338.000	0.00	0.01	1.361	0				4.95
338.083	0.00	0.01	1.361	0				4.95
338.167	0.00	0.01	1.361	0				4.95
338.250	0.00	0.01	1.361	0				4.95
338.333	0.00	0.01	1.360	0				4.95
338.417	0.00	0.01	1.360	0				4.95
338.500	0.00	0.01	1.360	0				4.95
338.583	0.00	0.01	1.360	0				4.95
338.667	0.00	0.01	1.360	0				4.95
338.750	0.00	0.01	1.360	0				4.95
338.833	0.00	0.01	1.360	0				4.94
338.917	0.00	0.01	1.360	0				4.94
339.000	0.00	0.01	1.360	0				4.94
339.083	0.00	0.01	1.360	0				4.94
339.167	0.00	0.01	1.360	0				4.94
339.250	0.00	0.01	1.360	0				4.94
339.333	0.00	0.01	1.360	0				4.94
339.417	0.00	0.01	1.360	0				4.94
339.500	0.00	0.01	1.360	0				4.94
339.583	0.00	0.01	1.360	0				4.94
339.667	0.00	0.01	1.360	0				4.94
339.750	0.00	0.01	1.360	0				4.94
339.833	0.00	0.01	1.360	0				4.94
339.917	0.00	0.01	1.360	0				4.94
340.000	0.00	0.01	1.360	0				4.94
340.083	0.00	0.01	1.359	0				4.94
340.167	0.00	0.01	1.359	0				4.94
340.250	0.00	0.01	1.359	0				4.94
340.333	0.00	0.01	1.359	0				4.94
340.417	0.00	0.01	1.359	0				4.94
340.500	0.00	0.01	1.359	0				4.94
340.583	0.00	0.01	1.359	0				4.94
340.667	0.00	0.01	1.359	0				4.94
340.750	0.00	0.01	1.359	0				4.94
340.833	0.00	0.01	1.359	0				4.94
340.917	0.00	0.01	1.359	0				4.94
341.000	0.00	0.01	1.359	0				4.94
341.083	0.00	0.01	1.359	0				4.94
341.167	0.00	0.01	1.359	0				4.94
341.250	0.00	0.01	1.359	0				4.94
341.333	0.00	0.01	1.359	0				4.94
341.417	0.00	0.01	1.359	0				4.94
341.500	0.00	0.01	1.359	0				4.94
341.583	0.00	0.01	1.359	0				4.94
341.667	0.00	0.01	1.359	0				4.94
341.750	0.00	0.01	1.359	0				4.94
341.833	0.00	0.01	1.358	0				4.94
341.917	0.00	0.01	1.358	0				4.94
342.000	0.00	0.01	1.358	0				4.94
342.083	0.00	0.01	1.358	0				4.94
342.167	0.00	0.01	1.358	0				4.94
342.250	0.00	0.01	1.358	0				4.94
342.333	0.00	0.01	1.358	0				4.94

342.417	0.00	0.01	1.358	0				4.94
342.500	0.00	0.01	1.358	0				4.94
342.583	0.00	0.01	1.358	0				4.94
342.667	0.00	0.01	1.358	0				4.94
342.750	0.00	0.01	1.358	0				4.94
342.833	0.00	0.01	1.358	0				4.94
342.917	0.00	0.01	1.358	0				4.94
343.000	0.00	0.01	1.358	0				4.94
343.083	0.00	0.01	1.358	0				4.94
343.167	0.00	0.01	1.358	0				4.94
343.250	0.00	0.01	1.358	0				4.94
343.333	0.00	0.01	1.358	0				4.94
343.417	0.00	0.01	1.358	0				4.94
343.500	0.00	0.01	1.358	0				4.94
343.583	0.00	0.01	1.357	0				4.94
343.667	0.00	0.01	1.357	0				4.94
343.750	0.00	0.01	1.357	0				4.94
343.833	0.00	0.01	1.357	0				4.94
343.917	0.00	0.01	1.357	0				4.94
344.000	0.00	0.01	1.357	0				4.94
344.083	0.00	0.01	1.357	0				4.94
344.167	0.00	0.01	1.357	0				4.94
344.250	0.00	0.01	1.357	0				4.94
344.333	0.00	0.01	1.357	0				4.94
344.417	0.00	0.01	1.357	0				4.94
344.500	0.00	0.01	1.357	0				4.94
344.583	0.00	0.01	1.357	0				4.94
344.667	0.00	0.01	1.357	0				4.94
344.750	0.00	0.01	1.357	0				4.94
344.833	0.00	0.01	1.357	0				4.94
344.917	0.00	0.01	1.357	0				4.94
345.000	0.00	0.01	1.357	0				4.94
345.083	0.00	0.01	1.357	0				4.94
345.167	0.00	0.01	1.357	0				4.93
345.250	0.00	0.01	1.357	0				4.93
345.333	0.00	0.01	1.356	0				4.93
345.417	0.00	0.01	1.356	0				4.93
345.500	0.00	0.01	1.356	0				4.93
345.583	0.00	0.01	1.356	0				4.93
345.667	0.00	0.01	1.356	0				4.93
345.750	0.00	0.01	1.356	0				4.93
345.833	0.00	0.01	1.356	0				4.93
345.917	0.00	0.01	1.356	0				4.93
346.000	0.00	0.01	1.356	0				4.93
346.083	0.00	0.01	1.356	0				4.93
346.167	0.00	0.01	1.356	0				4.93
346.250	0.00	0.01	1.356	0				4.93
346.333	0.00	0.01	1.356	0				4.93
346.417	0.00	0.01	1.356	0				4.93
346.500	0.00	0.01	1.356	0				4.93
346.583	0.00	0.01	1.356	0				4.93
346.667	0.00	0.01	1.356	0				4.93
346.750	0.00	0.01	1.356	0				4.93
346.833	0.00	0.01	1.356	0				4.93
346.917	0.00	0.01	1.356	0				4.93
347.000	0.00	0.01	1.355	0				4.93
347.083	0.00	0.01	1.355	0				4.93

347.167	0.00	0.01	1.355	0				4.93
347.250	0.00	0.01	1.355	0				4.93
347.333	0.00	0.01	1.355	0				4.93
347.417	0.00	0.01	1.355	0				4.93
347.500	0.00	0.01	1.355	0				4.93
347.583	0.00	0.01	1.355	0				4.93
347.667	0.00	0.01	1.355	0				4.93
347.750	0.00	0.01	1.355	0				4.93
347.833	0.00	0.01	1.355	0				4.93
347.917	0.00	0.01	1.355	0				4.93
348.000	0.00	0.01	1.355	0				4.93
348.083	0.00	0.01	1.355	0				4.93
348.167	0.00	0.01	1.355	0				4.93
348.250	0.00	0.01	1.355	0				4.93
348.333	0.00	0.01	1.355	0				4.93
348.417	0.00	0.01	1.355	0				4.93
348.500	0.00	0.01	1.355	0				4.93
348.583	0.00	0.01	1.355	0				4.93
348.667	0.00	0.01	1.354	0				4.93
348.750	0.00	0.01	1.354	0				4.93
348.833	0.00	0.01	1.354	0				4.93
348.917	0.00	0.01	1.354	0				4.93
349.000	0.00	0.01	1.354	0				4.93
349.083	0.00	0.01	1.354	0				4.93
349.167	0.00	0.01	1.354	0				4.93
349.250	0.00	0.01	1.354	0				4.93
349.333	0.00	0.01	1.354	0				4.93
349.417	0.00	0.01	1.354	0				4.93
349.500	0.00	0.01	1.354	0				4.93
349.583	0.00	0.01	1.354	0				4.93
349.667	0.00	0.01	1.354	0				4.93
349.750	0.00	0.01	1.354	0				4.93
349.833	0.00	0.01	1.354	0				4.93
349.917	0.00	0.01	1.354	0				4.93
350.000	0.00	0.01	1.354	0				4.93
350.083	0.00	0.01	1.354	0				4.93
350.167	0.00	0.01	1.354	0				4.93
350.250	0.00	0.01	1.354	0				4.93
350.333	0.00	0.01	1.353	0				4.93
350.417	0.00	0.01	1.353	0				4.93
350.500	0.00	0.01	1.353	0				4.93
350.583	0.00	0.01	1.353	0				4.93
350.667	0.00	0.01	1.353	0				4.93
350.750	0.00	0.01	1.353	0				4.93
350.833	0.00	0.01	1.353	0				4.93
350.917	0.00	0.01	1.353	0				4.93
351.000	0.00	0.01	1.353	0				4.93
351.083	0.00	0.01	1.353	0				4.93
351.167	0.00	0.01	1.353	0				4.92
351.250	0.00	0.01	1.353	0				4.92
351.333	0.00	0.01	1.353	0				4.92
351.417	0.00	0.01	1.353	0				4.92
351.500	0.00	0.01	1.353	0				4.92
351.583	0.00	0.01	1.353	0				4.92
351.667	0.00	0.01	1.353	0				4.92
351.750	0.00	0.01	1.353	0				4.92
351.833	0.00	0.01	1.353	0				4.92

351.917	0.00	0.01	1.352	0				4.92
352.000	0.00	0.01	1.352	0				4.92
352.083	0.00	0.01	1.352	0				4.92
352.167	0.00	0.01	1.352	0				4.92
352.250	0.00	0.01	1.352	0				4.92
352.333	0.00	0.01	1.352	0				4.92
352.417	0.00	0.01	1.352	0				4.92
352.500	0.00	0.01	1.352	0				4.92
352.583	0.00	0.01	1.352	0				4.92
352.667	0.00	0.01	1.352	0				4.92
352.750	0.00	0.01	1.352	0				4.92
352.833	0.00	0.01	1.352	0				4.92
352.917	0.00	0.01	1.352	0				4.92
353.000	0.00	0.01	1.352	0				4.92
353.083	0.00	0.01	1.352	0				4.92
353.167	0.00	0.01	1.352	0				4.92
353.250	0.00	0.01	1.352	0				4.92
353.333	0.00	0.01	1.352	0				4.92
353.417	0.00	0.01	1.352	0				4.92
353.500	0.00	0.01	1.352	0				4.92
353.583	0.00	0.01	1.351	0				4.92
353.667	0.00	0.01	1.351	0				4.92
353.750	0.00	0.01	1.351	0				4.92
353.833	0.00	0.01	1.351	0				4.92
353.917	0.00	0.01	1.351	0				4.92
354.000	0.00	0.01	1.351	0				4.92
354.083	0.00	0.01	1.351	0				4.92
354.167	0.00	0.01	1.351	0				4.92
354.250	0.00	0.01	1.351	0				4.92
354.333	0.00	0.01	1.351	0				4.92
354.417	0.00	0.01	1.351	0				4.92
354.500	0.00	0.01	1.351	0				4.92
354.583	0.00	0.01	1.351	0				4.92
354.667	0.00	0.01	1.351	0				4.92
354.750	0.00	0.01	1.351	0				4.92
354.833	0.00	0.01	1.351	0				4.92
354.917	0.00	0.01	1.351	0				4.92
355.000	0.00	0.01	1.351	0				4.92
355.083	0.00	0.01	1.351	0				4.92
355.167	0.00	0.01	1.350	0				4.92
355.250	0.00	0.01	1.350	0				4.92
355.333	0.00	0.01	1.350	0				4.92
355.417	0.00	0.01	1.350	0				4.92
355.500	0.00	0.01	1.350	0				4.92
355.583	0.00	0.01	1.350	0				4.92
355.667	0.00	0.01	1.350	0				4.92
355.750	0.00	0.01	1.350	0				4.92
355.833	0.00	0.01	1.350	0				4.92
355.917	0.00	0.01	1.350	0				4.92
356.000	0.00	0.01	1.350	0				4.92
356.083	0.00	0.01	1.350	0				4.92
356.167	0.00	0.01	1.350	0				4.92
356.250	0.00	0.01	1.350	0				4.92
356.333	0.00	0.01	1.350	0				4.92
356.417	0.00	0.01	1.350	0				4.92
356.500	0.00	0.01	1.350	0				4.92
356.583	0.00	0.01	1.350	0				4.92

356.667	0.00	0.01	1.350	O				4.92
356.750	0.00	0.01	1.349	O				4.92
356.833	0.00	0.01	1.349	O				4.92
356.917	0.00	0.01	1.349	O				4.91
357.000	0.00	0.01	1.349	O				4.91
357.083	0.00	0.01	1.349	O				4.91
357.167	0.00	0.01	1.349	O				4.91
357.250	0.00	0.01	1.349	O				4.91
357.333	0.00	0.01	1.349	O				4.91
357.417	0.00	0.01	1.349	O				4.91
357.500	0.00	0.01	1.349	O				4.91
357.583	0.00	0.01	1.349	O				4.91
357.667	0.00	0.01	1.349	O				4.91
357.750	0.00	0.01	1.349	O				4.91
357.833	0.00	0.01	1.349	O				4.91
357.917	0.00	0.01	1.349	O				4.91
358.000	0.00	0.01	1.349	O				4.91
358.083	0.00	0.01	1.349	O				4.91
358.167	0.00	0.01	1.349	O				4.91
358.250	0.00	0.01	1.349	O				4.91
358.333	0.00	0.01	1.348	O				4.91
358.417	0.00	0.01	1.348	O				4.91
358.500	0.00	0.01	1.348	O				4.91
358.583	0.00	0.01	1.348	O				4.91
358.667	0.00	0.01	1.348	O				4.91
358.750	0.00	0.01	1.348	O				4.91
358.833	0.00	0.01	1.348	O				4.91
358.917	0.00	0.01	1.348	O				4.91
359.000	0.00	0.01	1.348	O				4.91
359.083	0.00	0.01	1.348	O				4.91
359.167	0.00	0.01	1.348	O				4.91
359.250	0.00	0.01	1.348	O				4.91
359.333	0.00	0.01	1.348	O				4.91
359.417	0.00	0.01	1.348	O				4.91
359.500	0.00	0.01	1.348	O				4.91
359.583	0.00	0.01	1.348	O				4.91
359.667	0.00	0.01	1.348	O				4.91
359.750	0.00	0.01	1.348	O				4.91
359.833	0.00	0.01	1.348	O				4.91
359.917	0.00	0.01	1.347	O				4.91
360.000	0.00	0.01	1.347	O				4.91
360.083	0.00	0.01	1.347	O				4.91
360.167	0.00	0.01	1.347	O				4.91
360.250	0.00	0.01	1.347	O				4.91
360.333	0.00	0.01	1.347	O				4.91
360.417	0.00	0.01	1.347	O				4.91
360.500	0.00	0.01	1.347	O				4.91
360.583	0.00	0.01	1.347	O				4.91
360.667	0.00	0.01	1.347	O				4.91
360.750	0.00	0.01	1.347	O				4.91
360.833	0.00	0.01	1.347	O				4.91
360.917	0.00	0.01	1.347	O				4.91
361.000	0.00	0.01	1.347	O				4.91
361.083	0.00	0.01	1.347	O				4.91
361.167	0.00	0.01	1.347	O				4.91
361.250	0.00	0.01	1.347	O				4.91
361.333	0.00	0.01	1.347	O				4.91

361.417	0.00	0.01	1.346	O				4.91
361.500	0.00	0.01	1.346	O				4.91
361.583	0.00	0.01	1.346	O				4.91
361.667	0.00	0.01	1.346	O				4.91
361.750	0.00	0.01	1.346	O				4.91
361.833	0.00	0.01	1.346	O				4.91
361.917	0.00	0.01	1.346	O				4.91
362.000	0.00	0.01	1.346	O				4.91
362.083	0.00	0.01	1.346	O				4.91
362.167	0.00	0.01	1.346	O				4.91
362.250	0.00	0.01	1.346	O				4.91
362.333	0.00	0.01	1.346	O				4.91
362.417	0.00	0.01	1.346	O				4.91
362.500	0.00	0.01	1.346	O				4.90
362.583	0.00	0.01	1.346	O				4.90
362.667	0.00	0.01	1.346	O				4.90
362.750	0.00	0.01	1.346	O				4.90
362.833	0.00	0.01	1.346	O				4.90
362.917	0.00	0.01	1.346	O				4.90
363.000	0.00	0.01	1.345	O				4.90
363.083	0.00	0.01	1.345	O				4.90
363.167	0.00	0.01	1.345	O				4.90
363.250	0.00	0.01	1.345	O				4.90
363.333	0.00	0.01	1.345	O				4.90
363.417	0.00	0.01	1.345	O				4.90
363.500	0.00	0.01	1.345	O				4.90
363.583	0.00	0.01	1.345	O				4.90
363.667	0.00	0.01	1.345	O				4.90
363.750	0.00	0.01	1.345	O				4.90
363.833	0.00	0.01	1.345	O				4.90
363.917	0.00	0.01	1.345	O				4.90
364.000	0.00	0.01	1.345	O				4.90
364.083	0.00	0.01	1.345	O				4.90
364.167	0.00	0.01	1.345	O				4.90
364.250	0.00	0.01	1.345	O				4.90
364.333	0.00	0.01	1.345	O				4.90
364.417	0.00	0.01	1.345	O				4.90
364.500	0.00	0.01	1.344	O				4.90
364.583	0.00	0.01	1.344	O				4.90
364.667	0.00	0.01	1.344	O				4.90
364.750	0.00	0.01	1.344	O				4.90
364.833	0.00	0.01	1.344	O				4.90
364.917	0.00	0.01	1.344	O				4.90
365.000	0.00	0.01	1.344	O				4.90
365.083	0.00	0.01	1.344	O				4.90
365.167	0.00	0.01	1.344	O				4.90
365.250	0.00	0.01	1.344	O				4.90
365.333	0.00	0.01	1.344	O				4.90
365.417	0.00	0.01	1.344	O				4.90
365.500	0.00	0.01	1.344	O				4.90
365.583	0.00	0.01	1.344	O				4.90
365.667	0.00	0.01	1.344	O				4.90
365.750	0.00	0.01	1.344	O				4.90
365.833	0.00	0.01	1.344	O				4.90
365.917	0.00	0.01	1.344	O				4.90
366.000	0.00	0.01	1.343	O				4.90
366.083	0.00	0.01	1.343	O				4.90

366.167	0.00	0.01	1.343	0				4.90
366.250	0.00	0.01	1.343	0				4.90
366.333	0.00	0.01	1.343	0				4.90
366.417	0.00	0.01	1.343	0				4.90
366.500	0.00	0.01	1.343	0				4.90
366.583	0.00	0.01	1.343	0				4.90
366.667	0.00	0.01	1.343	0				4.90
366.750	0.00	0.01	1.343	0				4.90
366.833	0.00	0.01	1.343	0				4.90
366.917	0.00	0.01	1.343	0				4.90
367.000	0.00	0.01	1.343	0				4.90
367.083	0.00	0.01	1.343	0				4.90
367.167	0.00	0.01	1.343	0				4.90
367.250	0.00	0.01	1.343	0				4.90
367.333	0.00	0.01	1.343	0				4.90
367.417	0.00	0.01	1.343	0				4.90
367.500	0.00	0.01	1.342	0				4.90
367.583	0.00	0.01	1.342	0				4.90
367.667	0.00	0.01	1.342	0				4.90
367.750	0.00	0.01	1.342	0				4.90
367.833	0.00	0.01	1.342	0				4.90
367.917	0.00	0.01	1.342	0				4.90
368.000	0.00	0.01	1.342	0				4.89
368.083	0.00	0.01	1.342	0				4.89
368.167	0.00	0.01	1.342	0				4.89
368.250	0.00	0.01	1.342	0				4.89
368.333	0.00	0.01	1.342	0				4.89
368.417	0.00	0.01	1.342	0				4.89
368.500	0.00	0.01	1.342	0				4.89
368.583	0.00	0.01	1.342	0				4.89
368.667	0.00	0.01	1.342	0				4.89
368.750	0.00	0.01	1.342	0				4.89
368.833	0.00	0.01	1.342	0				4.89
368.917	0.00	0.01	1.342	0				4.89
369.000	0.00	0.01	1.341	0				4.89
369.083	0.00	0.01	1.341	0				4.89
369.167	0.00	0.01	1.341	0				4.89
369.250	0.00	0.01	1.341	0				4.89
369.333	0.00	0.01	1.341	0				4.89
369.417	0.00	0.01	1.341	0				4.89
369.500	0.00	0.01	1.341	0				4.89
369.583	0.00	0.01	1.341	0				4.89
369.667	0.00	0.01	1.341	0				4.89
369.750	0.00	0.01	1.341	0				4.89
369.833	0.00	0.01	1.341	0				4.89
369.917	0.00	0.01	1.341	0				4.89
370.000	0.00	0.01	1.341	0				4.89
370.083	0.00	0.01	1.341	0				4.89
370.167	0.00	0.01	1.341	0				4.89
370.250	0.00	0.01	1.341	0				4.89
370.333	0.00	0.01	1.341	0				4.89
370.417	0.00	0.01	1.341	0				4.89
370.500	0.00	0.01	1.340	0				4.89
370.583	0.00	0.01	1.340	0				4.89
370.667	0.00	0.01	1.340	0				4.89
370.750	0.00	0.01	1.340	0				4.89
370.833	0.00	0.01	1.340	0				4.89

370.917	0.00	0.01	1.340	O				4.89
371.000	0.00	0.01	1.340	O				4.89
371.083	0.00	0.01	1.340	O				4.89
371.167	0.00	0.01	1.340	O				4.89
371.250	0.00	0.01	1.340	O				4.89
371.333	0.00	0.01	1.340	O				4.89
371.417	0.00	0.01	1.340	O				4.89
371.500	0.00	0.01	1.340	O				4.89
371.583	0.00	0.01	1.340	O				4.89
371.667	0.00	0.01	1.340	O				4.89
371.750	0.00	0.01	1.340	O				4.89
371.833	0.00	0.01	1.340	O				4.89
371.917	0.00	0.01	1.340	O				4.89
372.000	0.00	0.01	1.339	O				4.89
372.083	0.00	0.01	1.339	O				4.89
372.167	0.00	0.01	1.339	O				4.89
372.250	0.00	0.01	1.339	O				4.89
372.333	0.00	0.01	1.339	O				4.89
372.417	0.00	0.01	1.339	O				4.89
372.500	0.00	0.01	1.339	O				4.89
372.583	0.00	0.01	1.339	O				4.89
372.667	0.00	0.01	1.339	O				4.89
372.750	0.00	0.01	1.339	O				4.89
372.833	0.00	0.01	1.339	O				4.89
372.917	0.00	0.01	1.339	O				4.89
373.000	0.00	0.01	1.339	O				4.89
373.083	0.00	0.01	1.339	O				4.89
373.167	0.00	0.01	1.339	O				4.89
373.250	0.00	0.01	1.339	O				4.88
373.333	0.00	0.01	1.339	O				4.88
373.417	0.00	0.01	1.338	O				4.88
373.500	0.00	0.01	1.338	O				4.88
373.583	0.00	0.01	1.338	O				4.88
373.667	0.00	0.01	1.338	O				4.88
373.750	0.00	0.01	1.338	O				4.88
373.833	0.00	0.01	1.338	O				4.88
373.917	0.00	0.01	1.338	O				4.88
374.000	0.00	0.01	1.338	O				4.88
374.083	0.00	0.01	1.338	O				4.88
374.167	0.00	0.01	1.338	O				4.88
374.250	0.00	0.01	1.338	O				4.88
374.333	0.00	0.01	1.338	O				4.88
374.417	0.00	0.01	1.338	O				4.88
374.500	0.00	0.01	1.338	O				4.88
374.583	0.00	0.01	1.338	O				4.88
374.667	0.00	0.01	1.338	O				4.88
374.750	0.00	0.01	1.338	O				4.88
374.833	0.00	0.01	1.338	O				4.88
374.917	0.00	0.01	1.337	O				4.88
375.000	0.00	0.01	1.337	O				4.88
375.083	0.00	0.01	1.337	O				4.88
375.167	0.00	0.01	1.337	O				4.88
375.250	0.00	0.01	1.337	O				4.88
375.333	0.00	0.01	1.337	O				4.88
375.417	0.00	0.01	1.337	O				4.88
375.500	0.00	0.01	1.337	O				4.88
375.583	0.00	0.01	1.337	O				4.88

375.667	0.00	0.01	1.337	0				4.88
375.750	0.00	0.01	1.337	0				4.88
375.833	0.00	0.01	1.337	0				4.88
375.917	0.00	0.01	1.337	0				4.88
376.000	0.00	0.01	1.337	0				4.88
376.083	0.00	0.01	1.337	0				4.88
376.167	0.00	0.01	1.337	0				4.88
376.250	0.00	0.01	1.337	0				4.88
376.333	0.00	0.01	1.336	0				4.88
376.417	0.00	0.01	1.336	0				4.88
376.500	0.00	0.01	1.336	0				4.88
376.583	0.00	0.01	1.336	0				4.88
376.667	0.00	0.01	1.336	0				4.88
376.750	0.00	0.01	1.336	0				4.88
376.833	0.00	0.01	1.336	0				4.88
376.917	0.00	0.01	1.336	0				4.88
377.000	0.00	0.01	1.336	0				4.88
377.083	0.00	0.01	1.336	0				4.88
377.167	0.00	0.01	1.336	0				4.88
377.250	0.00	0.01	1.336	0				4.88
377.333	0.00	0.01	1.336	0				4.88
377.417	0.00	0.01	1.336	0				4.88
377.500	0.00	0.01	1.336	0				4.88
377.583	0.00	0.01	1.336	0				4.88
377.667	0.00	0.01	1.336	0				4.88
377.750	0.00	0.01	1.335	0				4.88
377.833	0.00	0.01	1.335	0				4.88
377.917	0.00	0.01	1.335	0				4.88
378.000	0.00	0.01	1.335	0				4.88
378.083	0.00	0.01	1.335	0				4.88
378.167	0.00	0.01	1.335	0				4.88
378.250	0.00	0.01	1.335	0				4.88
378.333	0.00	0.01	1.335	0				4.88
378.417	0.00	0.01	1.335	0				4.88
378.500	0.00	0.01	1.335	0				4.87
378.583	0.00	0.01	1.335	0				4.87
378.667	0.00	0.01	1.335	0				4.87
378.750	0.00	0.01	1.335	0				4.87
378.833	0.00	0.01	1.335	0				4.87
378.917	0.00	0.01	1.335	0				4.87
379.000	0.00	0.01	1.335	0				4.87
379.083	0.00	0.01	1.335	0				4.87
379.167	0.00	0.01	1.334	0				4.87
379.250	0.00	0.01	1.334	0				4.87
379.333	0.00	0.01	1.334	0				4.87
379.417	0.00	0.01	1.334	0				4.87
379.500	0.00	0.01	1.334	0				4.87
379.583	0.00	0.01	1.334	0				4.87
379.667	0.00	0.01	1.334	0				4.87
379.750	0.00	0.01	1.334	0				4.87
379.833	0.00	0.01	1.334	0				4.87
379.917	0.00	0.01	1.334	0				4.87
380.000	0.00	0.01	1.334	0				4.87
380.083	0.00	0.01	1.334	0				4.87
380.167	0.00	0.01	1.334	0				4.87
380.250	0.00	0.01	1.334	0				4.87
380.333	0.00	0.01	1.334	0				4.87

380.417	0.00	0.01	1.334	0					4.87
380.500	0.00	0.01	1.334	0					4.87
380.583	0.00	0.01	1.334	0					4.87
380.667	0.00	0.01	1.333	0					4.87
380.750	0.00	0.01	1.333	0					4.87
380.833	0.00	0.01	1.333	0					4.87
380.917	0.00	0.01	1.333	0					4.87
381.000	0.00	0.01	1.333	0					4.87
381.083	0.00	0.01	1.333	0					4.87
381.167	0.00	0.01	1.333	0					4.87
381.250	0.00	0.01	1.333	0					4.87
381.333	0.00	0.01	1.333	0					4.87
381.417	0.00	0.01	1.333	0					4.87
381.500	0.00	0.01	1.333	0					4.87
381.583	0.00	0.01	1.333	0					4.87
381.667	0.00	0.01	1.333	0					4.87
381.750	0.00	0.01	1.333	0					4.87
381.833	0.00	0.01	1.333	0					4.87
381.917	0.00	0.01	1.333	0					4.87
382.000	0.00	0.01	1.333	0					4.87
382.083	0.00	0.01	1.332	0					4.87
382.167	0.00	0.01	1.332	0					4.87
382.250	0.00	0.01	1.332	0					4.87
382.333	0.00	0.01	1.332	0					4.87
382.417	0.00	0.01	1.332	0					4.87
382.500	0.00	0.01	1.332	0					4.87
382.583	0.00	0.01	1.332	0					4.87
382.667	0.00	0.01	1.332	0					4.87
382.750	0.00	0.01	1.332	0					4.87
382.833	0.00	0.01	1.332	0					4.87
382.917	0.00	0.01	1.332	0					4.87
383.000	0.00	0.01	1.332	0					4.87
383.083	0.00	0.01	1.332	0					4.87
383.167	0.00	0.01	1.332	0					4.87
383.250	0.00	0.01	1.332	0					4.87
383.333	0.00	0.01	1.332	0					4.87
383.417	0.00	0.01	1.332	0					4.87
383.500	0.00	0.01	1.331	0					4.87
383.583	0.00	0.01	1.331	0					4.86
383.667	0.00	0.01	1.331	0					4.86
383.750	0.00	0.01	1.331	0					4.86
383.833	0.00	0.01	1.331	0					4.86
383.917	0.00	0.01	1.331	0					4.86
384.000	0.00	0.01	1.331	0					4.86
384.083	0.00	0.01	1.331	0					4.86
384.167	0.00	0.01	1.331	0					4.86
384.250	0.00	0.01	1.331	0					4.86
384.333	0.00	0.01	1.331	0					4.86
384.417	0.00	0.01	1.331	0					4.86
384.500	0.00	0.01	1.331	0					4.86
384.583	0.00	0.01	1.331	0					4.86
384.667	0.00	0.01	1.331	0					4.86
384.750	0.00	0.01	1.331	0					4.86
384.833	0.00	0.01	1.331	0					4.86
384.917	0.00	0.01	1.330	0					4.86
385.000	0.00	0.01	1.330	0					4.86
385.083	0.00	0.01	1.330	0					4.86

385.167	0.00	0.01	1.330	0				4.86
385.250	0.00	0.01	1.330	0				4.86
385.333	0.00	0.01	1.330	0				4.86
385.417	0.00	0.01	1.330	0				4.86
385.500	0.00	0.01	1.330	0				4.86
385.583	0.00	0.01	1.330	0				4.86
385.667	0.00	0.01	1.330	0				4.86
385.750	0.00	0.01	1.330	0				4.86
385.833	0.00	0.01	1.330	0				4.86
385.917	0.00	0.01	1.330	0				4.86
386.000	0.00	0.01	1.330	0				4.86
386.083	0.00	0.01	1.330	0				4.86
386.167	0.00	0.01	1.330	0				4.86
386.250	0.00	0.01	1.329	0				4.86
386.333	0.00	0.01	1.329	0				4.86
386.417	0.00	0.01	1.329	0				4.86
386.500	0.00	0.01	1.329	0				4.86
386.583	0.00	0.01	1.329	0				4.86
386.667	0.00	0.01	1.329	0				4.86
386.750	0.00	0.01	1.329	0				4.86
386.833	0.00	0.01	1.329	0				4.86
386.917	0.00	0.01	1.329	0				4.86
387.000	0.00	0.01	1.329	0				4.86
387.083	0.00	0.01	1.329	0				4.86
387.167	0.00	0.01	1.329	0				4.86
387.250	0.00	0.01	1.329	0				4.86
387.333	0.00	0.01	1.329	0				4.86
387.417	0.00	0.01	1.329	0				4.86
387.500	0.00	0.01	1.329	0				4.86
387.583	0.00	0.01	1.329	0				4.86
387.667	0.00	0.01	1.328	0				4.86
387.750	0.00	0.01	1.328	0				4.86
387.833	0.00	0.01	1.328	0				4.86
387.917	0.00	0.01	1.328	0				4.86
388.000	0.00	0.01	1.328	0				4.86
388.083	0.00	0.01	1.328	0				4.86
388.167	0.00	0.01	1.328	0				4.86
388.250	0.00	0.01	1.328	0				4.86
388.333	0.00	0.01	1.328	0				4.86
388.417	0.00	0.01	1.328	0				4.86
388.500	0.00	0.01	1.328	0				4.86
388.583	0.00	0.01	1.328	0				4.86
388.667	0.00	0.01	1.328	0				4.85
388.750	0.00	0.01	1.328	0				4.85
388.833	0.00	0.01	1.328	0				4.85
388.917	0.00	0.01	1.328	0				4.85
389.000	0.00	0.01	1.328	0				4.85
389.083	0.00	0.01	1.327	0				4.85
389.167	0.00	0.01	1.327	0				4.85
389.250	0.00	0.01	1.327	0				4.85
389.333	0.00	0.01	1.327	0				4.85
389.417	0.00	0.01	1.327	0				4.85
389.500	0.00	0.01	1.327	0				4.85
389.583	0.00	0.01	1.327	0				4.85
389.667	0.00	0.01	1.327	0				4.85
389.750	0.00	0.01	1.327	0				4.85
389.833	0.00	0.01	1.327	0				4.85

389.917	0.00	0.01	1.327	0				4.85
390.000	0.00	0.01	1.327	0				4.85
390.083	0.00	0.01	1.327	0				4.85
390.167	0.00	0.01	1.327	0				4.85
390.250	0.00	0.01	1.327	0				4.85
390.333	0.00	0.01	1.327	0				4.85
390.417	0.00	0.01	1.326	0				4.85
390.500	0.00	0.01	1.326	0				4.85
390.583	0.00	0.01	1.326	0				4.85
390.667	0.00	0.01	1.326	0				4.85
390.750	0.00	0.01	1.326	0				4.85
390.833	0.00	0.01	1.326	0				4.85
390.917	0.00	0.01	1.326	0				4.85
391.000	0.00	0.01	1.326	0				4.85
391.083	0.00	0.01	1.326	0				4.85
391.167	0.00	0.01	1.326	0				4.85
391.250	0.00	0.01	1.326	0				4.85
391.333	0.00	0.01	1.326	0				4.85
391.417	0.00	0.01	1.326	0				4.85
391.500	0.00	0.01	1.326	0				4.85
391.583	0.00	0.01	1.326	0				4.85
391.667	0.00	0.01	1.326	0				4.85
391.750	0.00	0.01	1.326	0				4.85
391.833	0.00	0.01	1.325	0				4.85
391.917	0.00	0.01	1.325	0				4.85
392.000	0.00	0.01	1.325	0				4.85
392.083	0.00	0.01	1.325	0				4.85
392.167	0.00	0.01	1.325	0				4.85
392.250	0.00	0.01	1.325	0				4.85
392.333	0.00	0.01	1.325	0				4.85
392.417	0.00	0.01	1.325	0				4.85
392.500	0.00	0.01	1.325	0				4.85
392.583	0.00	0.01	1.325	0				4.85
392.667	0.00	0.01	1.325	0				4.85
392.750	0.00	0.01	1.325	0				4.85
392.833	0.00	0.01	1.325	0				4.85
392.917	0.00	0.01	1.325	0				4.85
393.000	0.00	0.01	1.325	0				4.85
393.083	0.00	0.01	1.325	0				4.85
393.167	0.00	0.01	1.324	0				4.85
393.250	0.00	0.01	1.324	0				4.85
393.333	0.00	0.01	1.324	0				4.85
393.417	0.00	0.01	1.324	0				4.85
393.500	0.00	0.01	1.324	0				4.85
393.583	0.00	0.01	1.324	0				4.84
393.667	0.00	0.01	1.324	0				4.84
393.750	0.00	0.01	1.324	0				4.84
393.833	0.00	0.01	1.324	0				4.84
393.917	0.00	0.01	1.324	0				4.84
394.000	0.00	0.01	1.324	0				4.84
394.083	0.00	0.01	1.324	0				4.84
394.167	0.00	0.01	1.324	0				4.84
394.250	0.00	0.01	1.324	0				4.84
394.333	0.00	0.01	1.324	0				4.84
394.417	0.00	0.01	1.324	0				4.84
394.500	0.00	0.01	1.324	0				4.84
394.583	0.00	0.01	1.323	0				4.84

394.667	0.00	0.01	1.323	0				4.84
394.750	0.00	0.01	1.323	0				4.84
394.833	0.00	0.01	1.323	0				4.84
394.917	0.00	0.01	1.323	0				4.84
395.000	0.00	0.01	1.323	0				4.84
395.083	0.00	0.01	1.323	0				4.84
395.167	0.00	0.01	1.323	0				4.84
395.250	0.00	0.01	1.323	0				4.84
395.333	0.00	0.01	1.323	0				4.84
395.417	0.00	0.01	1.323	0				4.84
395.500	0.00	0.01	1.323	0				4.84
395.583	0.00	0.01	1.323	0				4.84
395.667	0.00	0.01	1.323	0				4.84
395.750	0.00	0.01	1.323	0				4.84
395.833	0.00	0.01	1.323	0				4.84
395.917	0.00	0.01	1.322	0				4.84
396.000	0.00	0.01	1.322	0				4.84
396.083	0.00	0.01	1.322	0				4.84
396.167	0.00	0.01	1.322	0				4.84
396.250	0.00	0.01	1.322	0				4.84
396.333	0.00	0.01	1.322	0				4.84
396.417	0.00	0.01	1.322	0				4.84
396.500	0.00	0.01	1.322	0				4.84
396.583	0.00	0.01	1.322	0				4.84
396.667	0.00	0.01	1.322	0				4.84
396.750	0.00	0.01	1.322	0				4.84
396.833	0.00	0.01	1.322	0				4.84
396.917	0.00	0.01	1.322	0				4.84
397.000	0.00	0.01	1.322	0				4.84
397.083	0.00	0.01	1.322	0				4.84
397.167	0.00	0.01	1.322	0				4.84
397.250	0.00	0.01	1.322	0				4.84
397.333	0.00	0.01	1.321	0				4.84
397.417	0.00	0.01	1.321	0				4.84
397.500	0.00	0.01	1.321	0				4.84
397.583	0.00	0.01	1.321	0				4.84
397.667	0.00	0.01	1.321	0				4.84
397.750	0.00	0.01	1.321	0				4.84
397.833	0.00	0.01	1.321	0				4.84
397.917	0.00	0.01	1.321	0				4.84
398.000	0.00	0.01	1.321	0				4.84
398.083	0.00	0.01	1.321	0				4.84
398.167	0.00	0.01	1.321	0				4.84
398.250	0.00	0.01	1.321	0				4.84
398.333	0.00	0.01	1.321	0				4.84
398.417	0.00	0.01	1.321	0				4.84
398.500	0.00	0.01	1.321	0				4.83
398.583	0.00	0.01	1.321	0				4.83
398.667	0.00	0.01	1.320	0				4.83
398.750	0.00	0.01	1.320	0				4.83
398.833	0.00	0.01	1.320	0				4.83
398.917	0.00	0.01	1.320	0				4.83
399.000	0.00	0.01	1.320	0				4.83
399.083	0.00	0.01	1.320	0				4.83
399.167	0.00	0.01	1.320	0				4.83
399.250	0.00	0.01	1.320	0				4.83
399.333	0.00	0.01	1.320	0				4.83

399.417	0.00	0.01	1.320	0				4.83
399.500	0.00	0.01	1.320	0				4.83
399.583	0.00	0.01	1.320	0				4.83
399.667	0.00	0.01	1.320	0				4.83
399.750	0.00	0.01	1.320	0				4.83
399.833	0.00	0.01	1.320	0				4.83
399.917	0.00	0.01	1.320	0				4.83
400.000	0.00	0.01	1.319	0				4.83
400.083	0.00	0.01	1.319	0				4.83
400.167	0.00	0.01	1.319	0				4.83
400.250	0.00	0.01	1.319	0				4.83
400.333	0.00	0.01	1.319	0				4.83
400.417	0.00	0.01	1.319	0				4.83
400.500	0.00	0.01	1.319	0				4.83
400.583	0.00	0.01	1.319	0				4.83
400.667	0.00	0.01	1.319	0				4.83
400.750	0.00	0.01	1.319	0				4.83
400.833	0.00	0.01	1.319	0				4.83
400.917	0.00	0.01	1.319	0				4.83
401.000	0.00	0.01	1.319	0				4.83
401.083	0.00	0.01	1.319	0				4.83
401.167	0.00	0.01	1.319	0				4.83
401.250	0.00	0.01	1.319	0				4.83
401.333	0.00	0.01	1.318	0				4.83
401.417	0.00	0.01	1.318	0				4.83
401.500	0.00	0.01	1.318	0				4.83
401.583	0.00	0.01	1.318	0				4.83
401.667	0.00	0.01	1.318	0				4.83
401.750	0.00	0.01	1.318	0				4.83
401.833	0.00	0.01	1.318	0				4.83
401.917	0.00	0.01	1.318	0				4.83
402.000	0.00	0.01	1.318	0				4.83
402.083	0.00	0.01	1.318	0				4.83
402.167	0.00	0.01	1.318	0				4.83
402.250	0.00	0.01	1.318	0				4.83
402.333	0.00	0.01	1.318	0				4.83
402.417	0.00	0.01	1.318	0				4.83
402.500	0.00	0.01	1.318	0				4.83
402.583	0.00	0.01	1.318	0				4.83
402.667	0.00	0.01	1.317	0				4.83
402.750	0.00	0.01	1.317	0				4.83
402.833	0.00	0.01	1.317	0				4.83
402.917	0.00	0.01	1.317	0				4.83
403.000	0.00	0.01	1.317	0				4.83
403.083	0.00	0.01	1.317	0				4.83
403.167	0.00	0.01	1.317	0				4.83
403.250	0.00	0.01	1.317	0				4.83
403.333	0.00	0.01	1.317	0				4.82
403.417	0.00	0.01	1.317	0				4.82
403.500	0.00	0.01	1.317	0				4.82
403.583	0.00	0.01	1.317	0				4.82
403.667	0.00	0.01	1.317	0				4.82
403.750	0.00	0.01	1.317	0				4.82
403.833	0.00	0.01	1.317	0				4.82
403.917	0.00	0.01	1.316	0				4.82
404.000	0.00	0.01	1.316	0				4.82
404.083	0.00	0.01	1.316	0				4.82

404.167	0.00	0.01	1.316	0				4.82
404.250	0.00	0.01	1.316	0				4.82
404.333	0.00	0.01	1.316	0				4.82
404.417	0.00	0.01	1.316	0				4.82
404.500	0.00	0.01	1.316	0				4.82
404.583	0.00	0.01	1.316	0				4.82
404.667	0.00	0.01	1.316	0				4.82
404.750	0.00	0.01	1.316	0				4.82
404.833	0.00	0.01	1.316	0				4.82
404.917	0.00	0.01	1.316	0				4.82
405.000	0.00	0.01	1.316	0				4.82
405.083	0.00	0.01	1.315	0				4.82
405.167	0.00	0.01	1.315	0				4.82
405.250	0.00	0.01	1.315	0				4.82
405.333	0.00	0.01	1.315	0				4.82
405.417	0.00	0.01	1.315	0				4.82
405.500	0.00	0.01	1.315	0				4.82
405.583	0.00	0.01	1.315	0				4.82
405.667	0.00	0.01	1.315	0				4.82
405.750	0.00	0.01	1.315	0				4.82
405.833	0.00	0.01	1.315	0				4.82
405.917	0.00	0.01	1.315	0				4.82
406.000	0.00	0.01	1.315	0				4.82
406.083	0.00	0.01	1.315	0				4.82
406.167	0.00	0.01	1.315	0				4.82
406.250	0.00	0.01	1.315	0				4.82
406.333	0.00	0.01	1.314	0				4.82
406.417	0.00	0.01	1.314	0				4.82
406.500	0.00	0.01	1.314	0				4.82
406.583	0.00	0.01	1.314	0				4.82
406.667	0.00	0.01	1.314	0				4.82
406.750	0.00	0.01	1.314	0				4.82
406.833	0.00	0.01	1.314	0				4.82
406.917	0.00	0.01	1.314	0				4.82
407.000	0.00	0.01	1.314	0				4.82
407.083	0.00	0.01	1.314	0				4.82
407.167	0.00	0.01	1.314	0				4.82
407.250	0.00	0.01	1.314	0				4.82
407.333	0.00	0.01	1.314	0				4.82
407.417	0.00	0.01	1.314	0				4.82
407.500	0.00	0.01	1.313	0				4.82
407.583	0.00	0.01	1.313	0				4.82
407.667	0.00	0.01	1.313	0				4.81
407.750	0.00	0.01	1.313	0				4.81
407.833	0.00	0.01	1.313	0				4.81
407.917	0.00	0.01	1.313	0				4.81
408.000	0.00	0.01	1.313	0				4.81
408.083	0.00	0.01	1.313	0				4.81
408.167	0.00	0.01	1.313	0				4.81
408.250	0.00	0.01	1.313	0				4.81
408.333	0.00	0.01	1.313	0				4.81
408.417	0.00	0.01	1.313	0				4.81
408.500	0.00	0.01	1.313	0				4.81
408.583	0.00	0.01	1.313	0				4.81
408.667	0.00	0.01	1.313	0				4.81
408.750	0.00	0.01	1.312	0				4.81
408.833	0.00	0.01	1.312	0				4.81

408.917	0.00	0.01	1.312	O				4.81
409.000	0.00	0.01	1.312	O				4.81
409.083	0.00	0.01	1.312	O				4.81
409.167	0.00	0.01	1.312	O				4.81
409.250	0.00	0.01	1.312	O				4.81
409.333	0.00	0.01	1.312	O				4.81
409.417	0.00	0.01	1.312	O				4.81
409.500	0.00	0.01	1.312	O				4.81
409.583	0.00	0.01	1.312	O				4.81
409.667	0.00	0.01	1.312	O				4.81
409.750	0.00	0.01	1.312	O				4.81
409.833	0.00	0.01	1.312	O				4.81
409.917	0.00	0.01	1.311	O				4.81
410.000	0.00	0.01	1.311	O				4.81
410.083	0.00	0.01	1.311	O				4.81
410.167	0.00	0.01	1.311	O				4.81
410.250	0.00	0.01	1.311	O				4.81
410.333	0.00	0.01	1.311	O				4.81
410.417	0.00	0.01	1.311	O				4.81
410.500	0.00	0.01	1.311	O				4.81
410.583	0.00	0.01	1.311	O				4.81
410.667	0.00	0.01	1.311	O				4.81
410.750	0.00	0.01	1.311	O				4.81
410.833	0.00	0.01	1.311	O				4.81
410.917	0.00	0.01	1.311	O				4.81
411.000	0.00	0.01	1.311	O				4.81
411.083	0.00	0.01	1.311	O				4.81
411.167	0.00	0.01	1.310	O				4.81
411.250	0.00	0.01	1.310	O				4.81
411.333	0.00	0.01	1.310	O				4.81
411.417	0.00	0.01	1.310	O				4.81
411.500	0.00	0.01	1.310	O				4.81
411.583	0.00	0.01	1.310	O				4.81
411.667	0.00	0.01	1.310	O				4.81
411.750	0.00	0.01	1.310	O				4.81
411.833	0.00	0.01	1.310	O				4.81
411.917	0.00	0.01	1.310	O				4.81
412.000	0.00	0.01	1.310	O				4.80
412.083	0.00	0.01	1.310	O				4.80
412.167	0.00	0.01	1.310	O				4.80
412.250	0.00	0.01	1.310	O				4.80
412.333	0.00	0.01	1.309	O				4.80
412.417	0.00	0.01	1.309	O				4.80
412.500	0.00	0.01	1.309	O				4.80
412.583	0.00	0.01	1.309	O				4.80
412.667	0.00	0.01	1.309	O				4.80
412.750	0.00	0.01	1.309	O				4.80
412.833	0.00	0.01	1.309	O				4.80
412.917	0.00	0.01	1.309	O				4.80
413.000	0.00	0.01	1.309	O				4.80
413.083	0.00	0.01	1.309	O				4.80
413.167	0.00	0.01	1.309	O				4.80
413.250	0.00	0.01	1.309	O				4.80
413.333	0.00	0.01	1.309	O				4.80
413.417	0.00	0.01	1.309	O				4.80
413.500	0.00	0.01	1.309	O				4.80
413.583	0.00	0.01	1.308	O				4.80

413.667	0.00	0.01	1.308	O					4.80
413.750	0.00	0.01	1.308	O					4.80
413.833	0.00	0.01	1.308	O					4.80
413.917	0.00	0.01	1.308	O					4.80
414.000	0.00	0.01	1.308	O					4.80
414.083	0.00	0.01	1.308	O					4.80
414.167	0.00	0.01	1.308	O					4.80
414.250	0.00	0.01	1.308	O					4.80
414.333	0.00	0.01	1.308	O					4.80
414.417	0.00	0.01	1.308	O					4.80
414.500	0.00	0.01	1.308	O					4.80
414.583	0.00	0.01	1.308	O					4.80
414.667	0.00	0.01	1.308	O					4.80
414.750	0.00	0.01	1.307	O					4.80
414.833	0.00	0.01	1.307	O					4.80
414.917	0.00	0.01	1.307	O					4.80
415.000	0.00	0.01	1.307	O					4.80
415.083	0.00	0.01	1.307	O					4.80
415.167	0.00	0.01	1.307	O					4.80
415.250	0.00	0.01	1.307	O					4.80
415.333	0.00	0.01	1.307	O					4.80
415.417	0.00	0.01	1.307	O					4.80
415.500	0.00	0.01	1.307	O					4.80
415.583	0.00	0.01	1.307	O					4.80
415.667	0.00	0.01	1.307	O					4.80
415.750	0.00	0.01	1.307	O					4.80
415.833	0.00	0.01	1.307	O					4.80
415.917	0.00	0.01	1.307	O					4.80
416.000	0.00	0.01	1.306	O					4.80
416.083	0.00	0.01	1.306	O					4.80
416.167	0.00	0.01	1.306	O					4.80
416.250	0.00	0.01	1.306	O					4.80
416.333	0.00	0.01	1.306	O					4.79
416.417	0.00	0.01	1.306	O					4.79
416.500	0.00	0.01	1.306	O					4.79
416.583	0.00	0.01	1.306	O					4.79
416.667	0.00	0.01	1.306	O					4.79

Remaining water in basin = 1.31 (Ac.Ft)

*****HYDROGRAPH DATA*****

Number of intervals = 5001
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = **59.725 (CFS)**
 Total volume = 17.501 (Ac.Ft)
 Status of hydrographs being held in storage
 Stream 1 Stream 2 Stream 3 Stream 4 Stream 5
 Peak (CFS) 0.000 0.000 0.000 0.000 0.000
 Vol (Ac.Ft) 0.000 0.000 0.000 0.000 0.000

APPENDIX "D"

HYDRAULIC CALCULATIONS ON PROPOSED FACILITIES

Water Quality Basin Outlet Structures
Outlet Weir & Spillway Calculations

Worksheet for Broad Crested Weir -Basin 1

Project Description	
Solve For	Headwater Elevation
Input Data	
Discharge	19.80 cfs
Crest Elevation	3,596.00 ft
Tailwater Elevation	0.00 ft
Crest Surface Type	Gravel
Crest Breadth	5.00 ft
Crest Length	21.0 ft
Results	
Headwater Elevation	3,596.50 ft
Headwater Height Above Crest	0.50 ft
Tailwater Height Above Crest	-3,596.00 ft
Weir Coefficient	2.69 ft ^(1/2) /s
Submergence Factor	1.000
Adjusted Weir Coefficient	2.69 ft ^(1/2) /s
Flow Area	10.4 ft ²
Velocity	1.90 ft/s
Wetted Perimeter	22.0 ft
Top Width	21.00 ft

Top of Berm -Basin 1

Project Description	
Solve For	Headwater Elevation

Input Data	
Discharge	19.80 cfs
Crest Elevation	3,597.50 ft
Tailwater Elevation	0.00 ft
Crest Surface Type	Gravel
Crest Breadth	5.00 ft
Crest Length	21.0 ft

Results	
Headwater Elevation	3,598.00 ft
Headwater Height Above Crest	0.50 ft
Tailwater Height Above Crest	-3,597.50 ft
Weir Coefficient	2.69 ft ^(1/2) /s
Submergence Factor	1.000
Adjusted Weir Coefficient	2.69 ft ^(1/2) /s
Flow Area	10.4 ft ²
Velocity	1.90 ft/s
Wetted Perimeter	22.0 ft
Top Width	21.00 ft

Top Of Weir

Project Description	
Solve For	Headwater Elevation

Input Data	
Discharge	67.70 cfs
Crest Elevation	3,591.00 ft
Tailwater Elevation	0.00 ft
Crest Surface Type	Gravel
Crest Breadth	5.00 ft
Crest Length	71.0 ft

Results	
Headwater Elevation	3,591.50 ft
Headwater Height Above Crest	0.50 ft
Tailwater Height Above Crest	-3,591.00 ft
Weir Coefficient	2.69 ft ^(1/2) /s
Submergence Factor	1.000
Adjusted Weir Coefficient	2.69 ft ^(1/2) /s
Flow Area	35.5 ft ²
Velocity	1.91 ft/s
Wetted Perimeter	72.0 ft
Top Width	71.00 ft

Top of Berm

Project Description	
Solve For	Headwater Elevation

Input Data	
Discharge	67.70 cfs
Crest Elevation	3,592.50 ft
Tailwater Elevation	0.00 ft
Crest Surface Type	Gravel
Crest Breadth	5.00 ft
Crest Length	71.0 ft

Results	
Headwater Elevation	3,593.00 ft
Headwater Height Above Crest	0.50 ft
Tailwater Height Above Crest	-3,592.50 ft
Weir Coefficient	2.69 ft ^(1/2) /s
Submergence Factor	1.000
Adjusted Weir Coefficient	2.69 ft ^(1/2) /s
Flow Area	35.5 ft ²
Velocity	1.91 ft/s
Wetted Perimeter	72.0 ft
Top Width	71.00 ft

Worksheet for Curb Inlet In Sag - 1

Project Description	
Solve For	Spread
Input Data	
Discharge	2.80 cfs
Gutter Width	2.00 ft
Gutter Cross Slope	0.063 ft/ft
Road Cross Slope	0.005 ft/ft
Curb Opening Length	10.0 ft
Opening Height	6.0 ft
Curb Throat Type	Horizontal
Local Depression	4.0 in
Local Depression Width	40.0 in
Throat Incline Angle	90.00 degrees
Results	
Spread	35.9 ft
Depth	3.5 in
Gutter Depression	1.4 in
Total Depression	5.4 in

Worksheet for Curb Inlet In Sag - 2

Project Description	
Solve For	Spread
Input Data	
Discharge	2.40 cfs
Gutter Width	2.00 ft
Gutter Cross Slope	0.063 ft/ft
Road Cross Slope	0.005 ft/ft
Curb Opening Length	8.0 ft
Opening Height	6.0 ft
Curb Throat Type	Horizontal
Local Depression	4.0 in
Local Depression Width	40.0 in
Throat Incline Angle	90.00 degrees
Results	
Spread	35.4 ft
Depth	3.5 in
Gutter Depression	1.4 in
Total Depression	5.4 in

Worksheet for Curb Inlet In Sag - 3

Project Description	
Solve For	Spread
Input Data	
Discharge	18.60 cfs
Gutter Width	2.00 ft
Gutter Cross Slope	0.063 ft/ft
Road Cross Slope	0.005 ft/ft
Curb Opening Length	28.0 ft
Opening Height	0.5 ft
Curb Throat Type	Horizontal
Local Depression	4.0 in
Local Depression Width	40.0 in
Throat Incline Angle	90.00 degrees
Results	
Spread	73.2 ft
Depth	5.8 in
Gutter Depression	1.4 in
Total Depression	5.4 in

Worksheet for Curb Inlet On Grade - 1

Project Description	
Solve For	Efficiency
Input Data	
Discharge	5.60 cfs
Slope	0.052 ft/ft
Gutter Width	2.00 ft
Gutter Cross Slope	0.063 ft/ft
Road Cross Slope	0.063 ft/ft
Roughness Coefficient	0.013
Curb Opening Length	15.0 ft
Local Depression	4.0 in
Local Depression Width	48.0 in
Results	
Efficiency	83.67 %
Intercepted Flow	4.69 cfs
Bypass Flow	0.91 cfs
Spread	4.6 ft
Depth	3.4 in
Flow Area	0.7 ft ²
Gutter Depression	0.0 in
Total Depression	4.0 in
Velocity	8.55 ft/s
Equivalent Cross Slope	0.128 ft/ft
Length Factor	0.635
Total Interception Length	23.6 ft

Worksheet for Grate Inlet On Grade - 1

Project Description	
Solve For	Efficiency
Input Data	
Discharge	10.70 cfs
Slope	0.063 ft/ft
Gutter Width	2.00 ft
Gutter Cross Slope	0.015 ft/ft
Road Cross Slope	0.001 ft/ft
Roughness Coefficient	0.013
Grate Width	2.00 ft
Grate Length	40.0 ft
Grate Type	P-50 mm (P-1 -7/8")
Clogging	0.0 %
Options	
Grate Flow Option	Exclude None
Results	
Efficiency	76.49 %
Intercepted Flow	8.18 cfs
Bypass Flow	2.52 cfs
Spread	74.3 ft
Depth	1.2 in
Flow Area	2.8 ft ²
Gutter Depression	0.3 in
Total Depression	0.3 in
Velocity	3.84 ft/s
Splash Over Velocity	2,682.99 ft/s
Frontal Flow Factor	1.000
Side Flow Factor	0.741
Grate Flow Ratio	0.092
Active Grate Length	40.0 ft

IV. EXHIBITS

EXHIBIT A HYDROLOGIC SOILS MAP

EXHIBIT B PRECIPITATION MAPS

EXHIBIT C RATIONAL HYDROLOGY MAP

- Ration Hydrology Map Off-Site
- Rational Hydrology Map On-Site

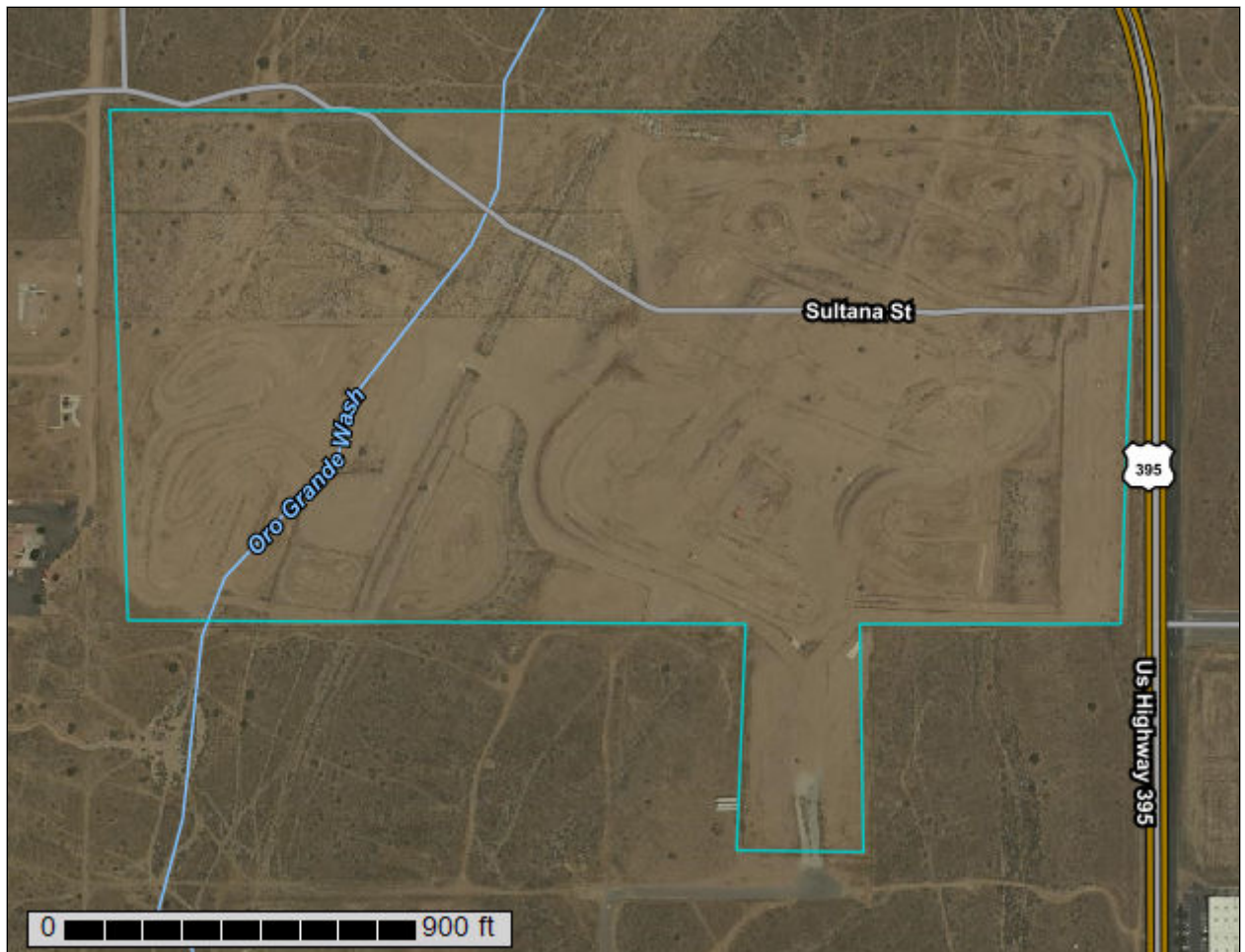
EXHIBIT D UNIT HYDROGRAPH HYDROLOGY MAP

EXHIBIT A

HYDROLOGIC SOILS MAP

Custom Soil Resource Report for San Bernardino County, California, Mojave River Area

Hesperia Project Preliminary Soil Report



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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114—CAJON SAND, 9 TO 15 PERCENT SLOPES.....	14
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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

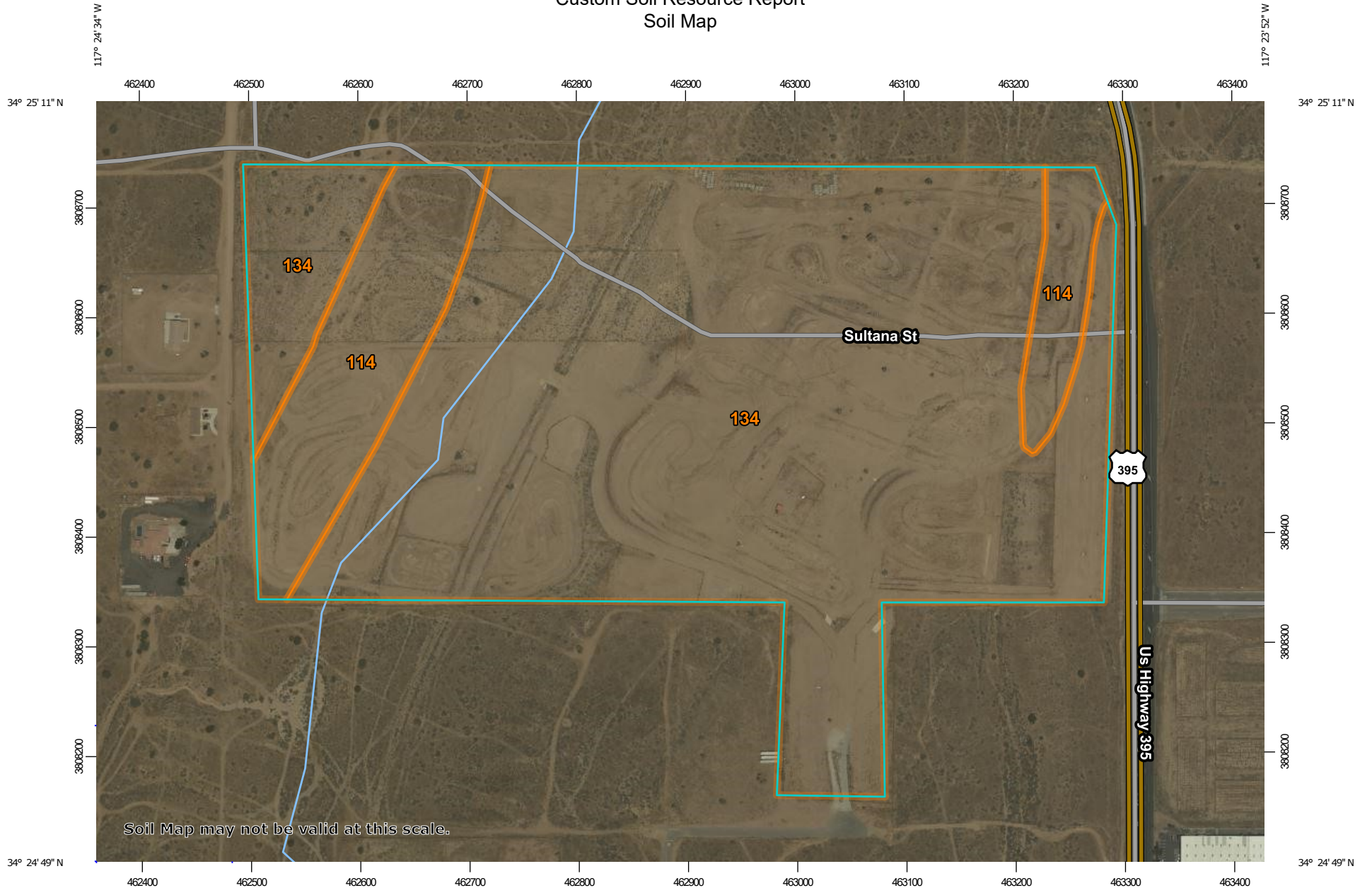
Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

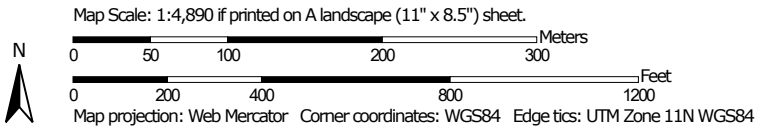
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map




Soil Map may not be valid at this scale.




MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)




















Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Bernardino County, California, Mojave River Area
 Survey Area Data: Version 12, May 27, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 26, 2019—Jul 8, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
114	CAJON SAND, 9 TO 15 PERCENT SLOPES	11.7	14.4%
134	HESPERIA LOAMY FINE SAND, 2 TO 5 PERCENT SLOPES	69.8	85.6%
Totals for Area of Interest		81.5	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the

Custom Soil Resource Report

development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

San Bernardino County, California, Mojave River Area

114—CAJON SAND, 9 TO 15 PERCENT SLOPES

Map Unit Setting

National map unit symbol: hkr1
Elevation: 1,800 to 4,000 feet
Mean annual precipitation: 3 to 6 inches
Mean annual air temperature: 59 to 66 degrees F
Frost-free period: 180 to 290 days
Farmland classification: Not prime farmland

Map Unit Composition

Cajon, slope, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cajon, Slope

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite sources

Typical profile

H1 - 0 to 6 inches: sand
H2 - 6 to 42 inches: sand
H3 - 42 to 60 inches: gravelly sand

Properties and qualities

Slope: 9 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 1 percent
Available water supply, 0 to 60 inches: Low (about 4.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R030XF012CA - Sandy
Hydric soil rating: No

Minor Components

Cajon, steep

Percent of map unit: 5 percent
Hydric soil rating: No

Arizo

Percent of map unit: 5 percent
Hydric soil rating: No

Cajon, gravelly surface

Percent of map unit: 5 percent
Hydric soil rating: No

134—HESPERIA LOAMY FINE SAND, 2 TO 5 PERCENT SLOPES

Map Unit Setting

National map unit symbol: hks7
Elevation: 200 to 4,000 feet
Mean annual precipitation: 6 to 9 inches
Mean annual air temperature: 57 to 61 degrees F
Frost-free period: 150 to 250 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Hesperia and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hesperia

Setting

Landform: Fan aprons
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite sources

Typical profile

H1 - 0 to 6 inches: loamy fine sand
H2 - 6 to 60 inches: sandy loam, coarse sandy loam
H2 - 6 to 60 inches:

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 11.3 inches)

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Interpretive groups

Land capability classification (irrigated): 2e

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: A

Ecological site: R030XE006CA - COARSE LOAMY

Hydric soil rating: No

Minor Components

Cajon

Percent of map unit: 5 percent

Hydric soil rating: No

Wrightwood

Percent of map unit: 5 percent

Hydric soil rating: No

Bull trail

Percent of map unit: 3 percent

Hydric soil rating: No

Unnamed soils

Percent of map unit: 2 percent

Hydric soil rating: No

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EXHIBIT B

PRECIPITATION MAPS



NOAA Atlas 14, Volume 6, Version 2
Location name: Hesperia, California, USA*
Latitude: 34.4176°, Longitude: -117.4031°
Elevation: 3597.89 ft**



* source: ESRI Maps
 ** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Tryppaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

[PF_tabular](#) | [PF_graphical](#) | [Maps_&_aerials](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.088 (0.073-0.107)	0.125 (0.103-0.152)	0.173 (0.143-0.212)	0.213 (0.175-0.264)	0.269 (0.212-0.343)	0.312 (0.241-0.407)	0.356 (0.269-0.476)	0.403 (0.296-0.554)	0.467 (0.329-0.669)	0.517 (0.352-0.768)
10-min	0.126 (0.104-0.154)	0.179 (0.148-0.218)	0.248 (0.205-0.304)	0.306 (0.250-0.378)	0.385 (0.305-0.492)	0.447 (0.346-0.583)	0.511 (0.386-0.683)	0.577 (0.424-0.794)	0.669 (0.471-0.959)	0.741 (0.505-1.10)
15-min	0.152 (0.126-0.186)	0.216 (0.179-0.264)	0.300 (0.248-0.368)	0.370 (0.302-0.457)	0.466 (0.368-0.595)	0.541 (0.419-0.705)	0.618 (0.467-0.826)	0.698 (0.513-0.960)	0.809 (0.570-1.16)	0.897 (0.610-1.33)
30-min	0.230 (0.190-0.280)	0.326 (0.269-0.398)	0.453 (0.374-0.555)	0.558 (0.456-0.689)	0.703 (0.556-0.897)	0.815 (0.631-1.06)	0.932 (0.704-1.25)	1.05 (0.773-1.45)	1.22 (0.860-1.75)	1.35 (0.921-2.01)
60-min	0.326 (0.270-0.398)	0.463 (0.383-0.566)	0.644 (0.531-0.789)	0.793 (0.648-0.979)	0.998 (0.789-1.27)	1.16 (0.897-1.51)	1.32 (1.00-1.77)	1.50 (1.10-2.06)	1.73 (1.22-2.49)	1.92 (1.31-2.85)
2-hr	0.480 (0.397-0.585)	0.651 (0.538-0.795)	0.882 (0.727-1.08)	1.08 (0.879-1.33)	1.35 (1.07-1.72)	1.56 (1.21-2.04)	1.79 (1.35-2.39)	2.03 (1.49-2.79)	2.36 (1.66-3.38)	2.63 (1.79-3.90)
3-hr	0.606 (0.501-0.739)	0.810 (0.669-0.989)	1.09 (0.896-1.33)	1.32 (1.08-1.63)	1.65 (1.31-2.11)	1.92 (1.48-2.50)	2.20 (1.66-2.94)	2.49 (1.83-3.43)	2.92 (2.05-4.18)	3.26 (2.22-4.84)
6-hr	0.864 (0.715-1.06)	1.15 (0.947-1.40)	1.53 (1.26-1.87)	1.86 (1.52-2.30)	2.33 (1.84-2.97)	2.71 (2.09-3.53)	3.11 (2.35-4.16)	3.54 (2.60-4.87)	4.17 (2.94-5.97)	4.68 (3.19-6.95)
12-hr	1.13 (0.937-1.38)	1.54 (1.27-1.88)	2.09 (1.73-2.56)	2.56 (2.10-3.17)	3.24 (2.56-4.14)	3.78 (2.93-4.94)	4.36 (3.30-5.83)	4.99 (3.67-6.86)	5.89 (4.15-8.44)	6.63 (4.51-9.84)
24-hr	1.54 (1.36-1.77)	2.15 (1.90-2.48)	2.99 (2.64-3.46)	3.71 (3.25-4.32)	4.72 (4.00-5.69)	5.55 (4.60-6.82)	6.42 (5.20-8.09)	7.36 (5.80-9.53)	8.71 (6.58-11.8)	9.81 (7.17-13.7)
2-day	1.78 (1.58-2.05)	2.49 (2.21-2.87)	3.48 (3.08-4.03)	4.33 (3.80-5.05)	5.56 (4.71-6.70)	6.57 (5.45-8.07)	7.64 (6.19-9.63)	8.81 (6.94-11.4)	10.5 (7.94-14.2)	11.9 (8.70-16.6)
3-day	1.91 (1.69-2.20)	2.67 (2.37-3.08)	3.74 (3.30-4.32)	4.66 (4.09-5.44)	6.01 (5.09-7.24)	7.12 (5.91-8.75)	8.31 (6.73-10.5)	9.61 (7.57-12.5)	11.5 (8.70-15.5)	13.1 (9.57-18.3)
4-day	2.06 (1.82-2.37)	2.88 (2.55-3.33)	4.04 (3.56-4.67)	5.04 (4.41-5.87)	6.49 (5.50-7.82)	7.70 (6.39-9.47)	9.00 (7.29-11.3)	10.4 (8.21-13.5)	12.5 (9.45-16.9)	14.2 (10.4-19.9)
7-day	2.31 (2.05-2.66)	3.22 (2.85-3.71)	4.48 (3.96-5.18)	5.58 (4.88-6.50)	7.17 (6.08-8.63)	8.48 (7.04-10.4)	9.90 (8.02-12.5)	11.5 (9.02-14.8)	13.7 (10.4-18.5)	15.6 (11.4-21.8)
10-day	2.47 (2.19-2.85)	3.43 (3.04-3.96)	4.77 (4.21-5.51)	5.92 (5.18-6.90)	7.59 (6.43-9.14)	8.97 (7.44-11.0)	10.5 (8.47-13.2)	12.1 (9.52-15.6)	14.4 (10.9-19.5)	16.4 (12.0-22.9)
20-day	2.97 (2.63-3.41)	4.10 (3.63-4.73)	5.68 (5.01-6.56)	7.04 (6.16-8.20)	9.00 (7.62-10.8)	10.6 (8.81-13.0)	12.4 (10.0-15.6)	14.3 (11.2-18.5)	17.0 (12.9-23.0)	19.4 (14.2-27.1)
30-day	3.50 (3.10-4.03)	4.82 (4.26-5.55)	6.63 (5.86-7.66)	8.20 (7.18-9.55)	10.5 (8.86-12.6)	12.3 (10.2-15.1)	14.3 (11.6-18.1)	16.5 (13.0-21.4)	19.8 (15.0-26.7)	22.5 (16.4-31.4)
45-day	4.18 (3.70-4.81)	5.67 (5.02-6.54)	7.74 (6.83-8.94)	9.52 (8.33-11.1)	12.1 (10.2-14.6)	14.2 (11.8-17.5)	16.5 (13.4-20.8)	19.0 (15.0-24.7)	22.8 (17.2-30.7)	25.9 (18.9-36.2)
60-day	4.77 (4.23-5.49)	6.38 (5.65-7.35)	8.59 (7.59-9.93)	10.5 (9.20-12.2)	13.3 (11.2-16.0)	15.5 (12.9-19.1)	18.0 (14.6-22.7)	20.8 (16.4-26.9)	24.9 (18.8-33.6)	28.3 (20.7-39.6)

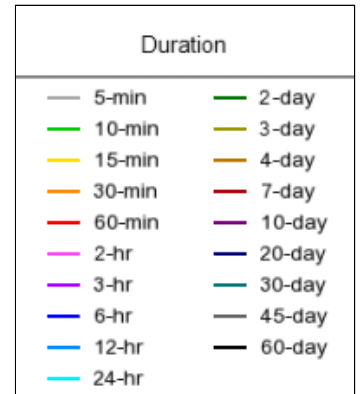
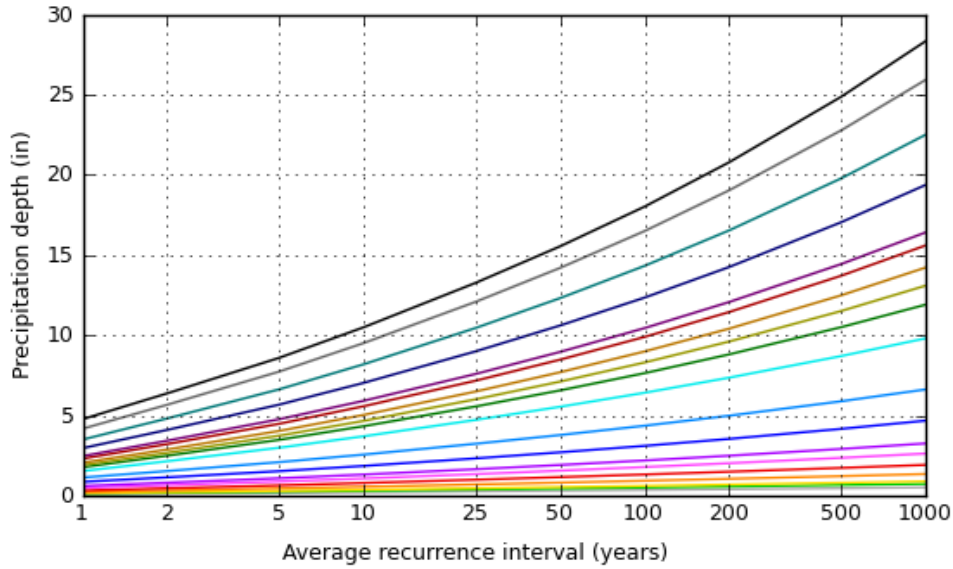
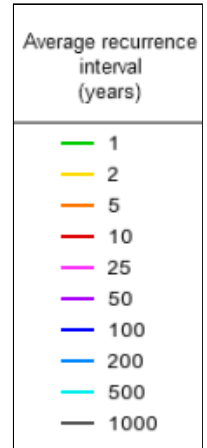
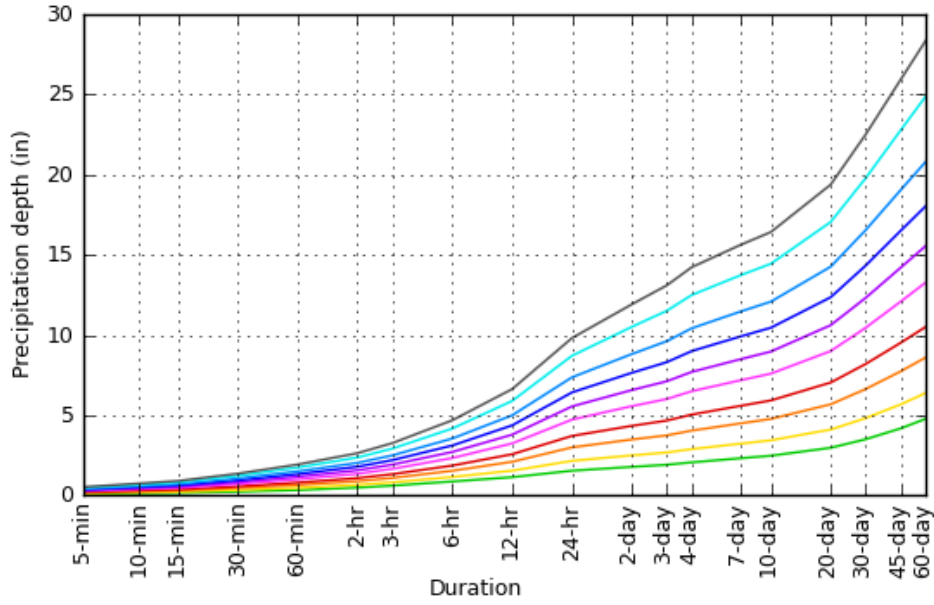
¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

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PF graphical

PDS-based depth-duration-frequency (DDF) curves

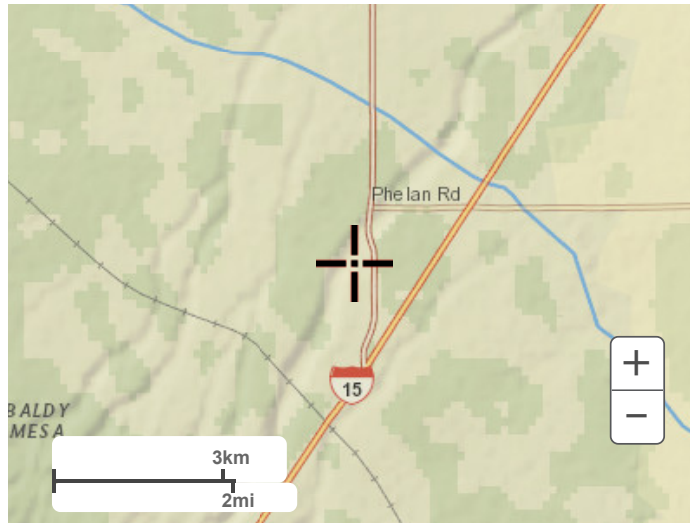
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Maps & aerials

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



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Questions?: HDSC.Questions@noaa.gov

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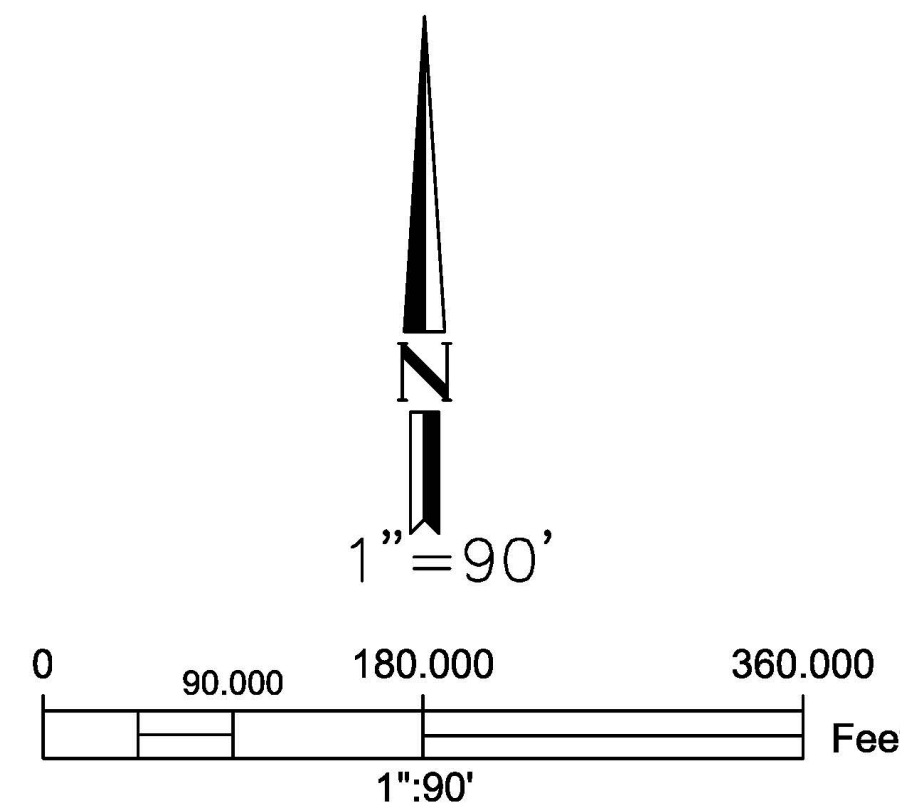
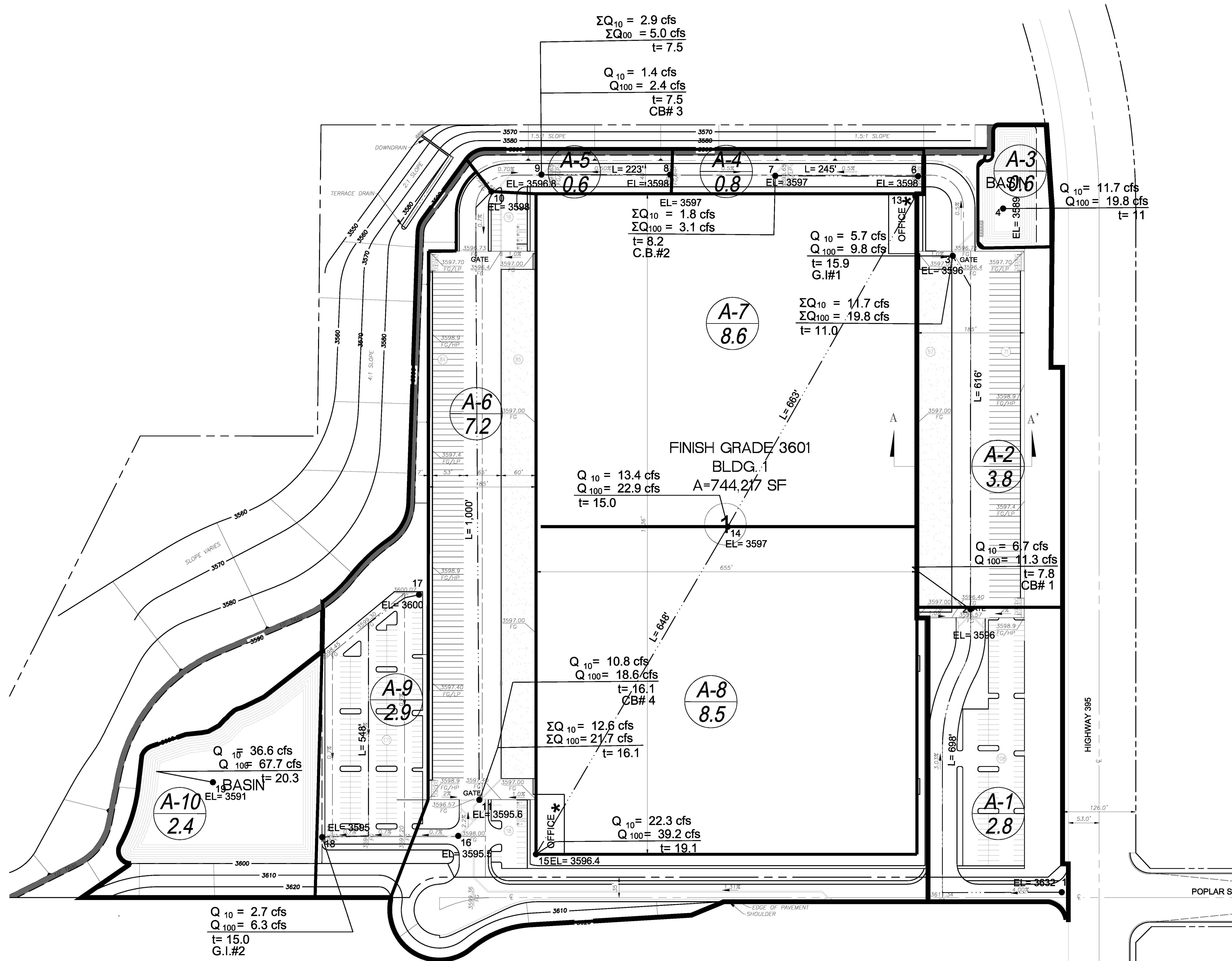
EXHIBIT C

RATIONAL HYDROLOGY MAP

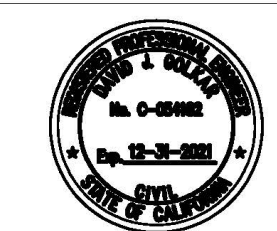
PROPOSED RATIONAL HYDROLOGY MAP

IN THE CITY OF HESPERIA COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA.

LEGEND	
	DRAINAGE AREA BOUNDARY
	SUBAREA BOUNDARY
	DRAINAGE FLOW DIRECTION
	STORM DRAIN
	CATCH BASIN
	TRACT BOUNDARY
	SUBAREA No. ACREAGE
	NODE NO.
	SOIL GROUP
$Q_{10} = 1000X$	10 YEAR STORM
$Q_{100} = 1000X$	100 YEAR STORM
$t_c = 100X$	TIME OF CONCENTRATION



ENGINEER'S STATEMENT:



DAVID J. GULKAR DATE

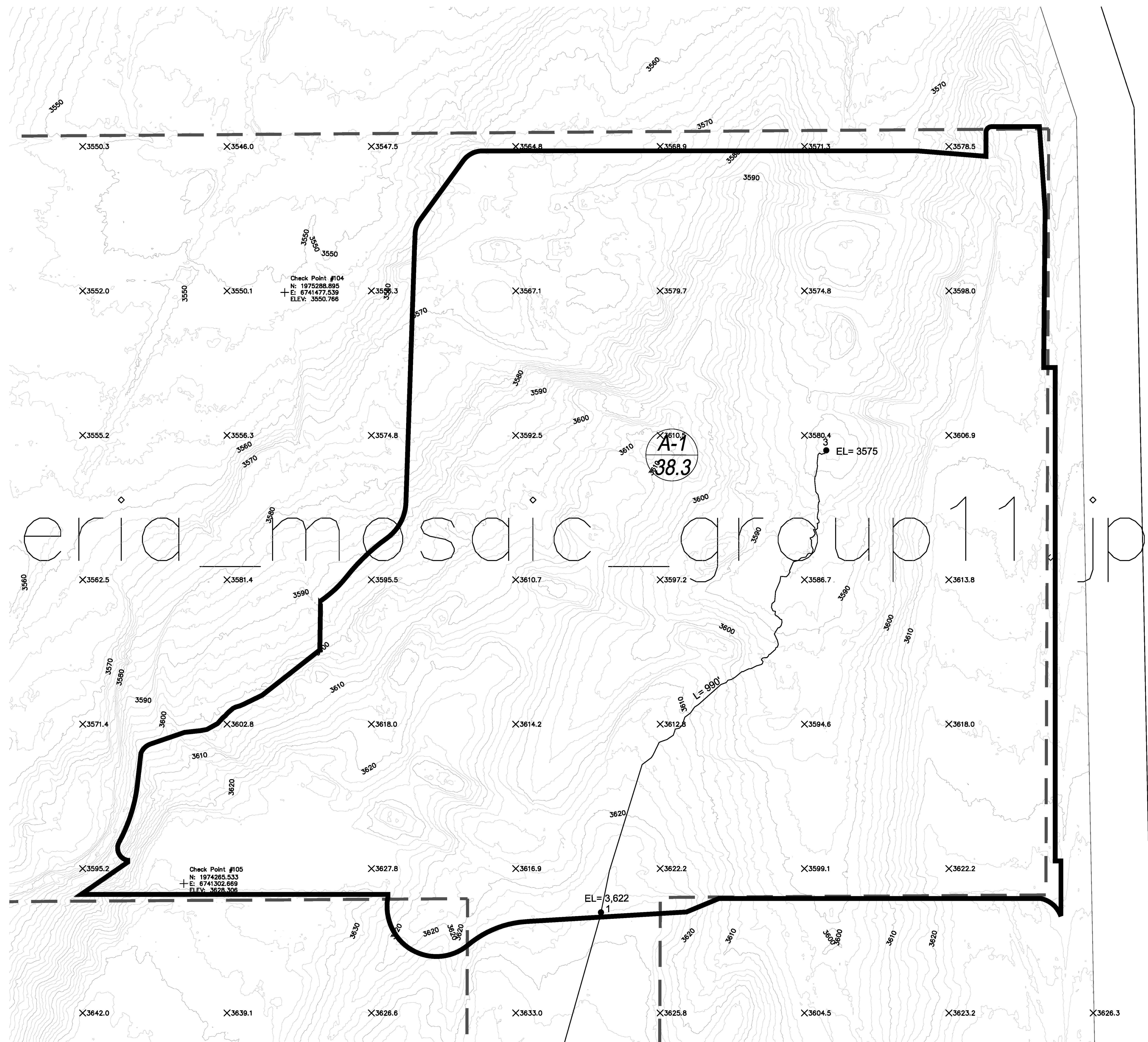
Prepared in the office of SRD Design Studio, Inc. Engineering Planning Construction Mgmt. Los Angeles CA 90211 Environmental Svcs. Tel (424) 278-0909 Geotechnical Engr. Surveying Services E-mail: administration@srdd.com	CITY OF HESPERIA	Drawing No.
	DARA INDUSTRIAL CENTER	Job No.
		Sheet No. <u>1</u> of <u>1</u>

EXHIBIT D

UNIT HYDROGRAPH HYDROLOGY MAP

EXISTING UNIT HYDROGRAPH HYDROLOGY MAP

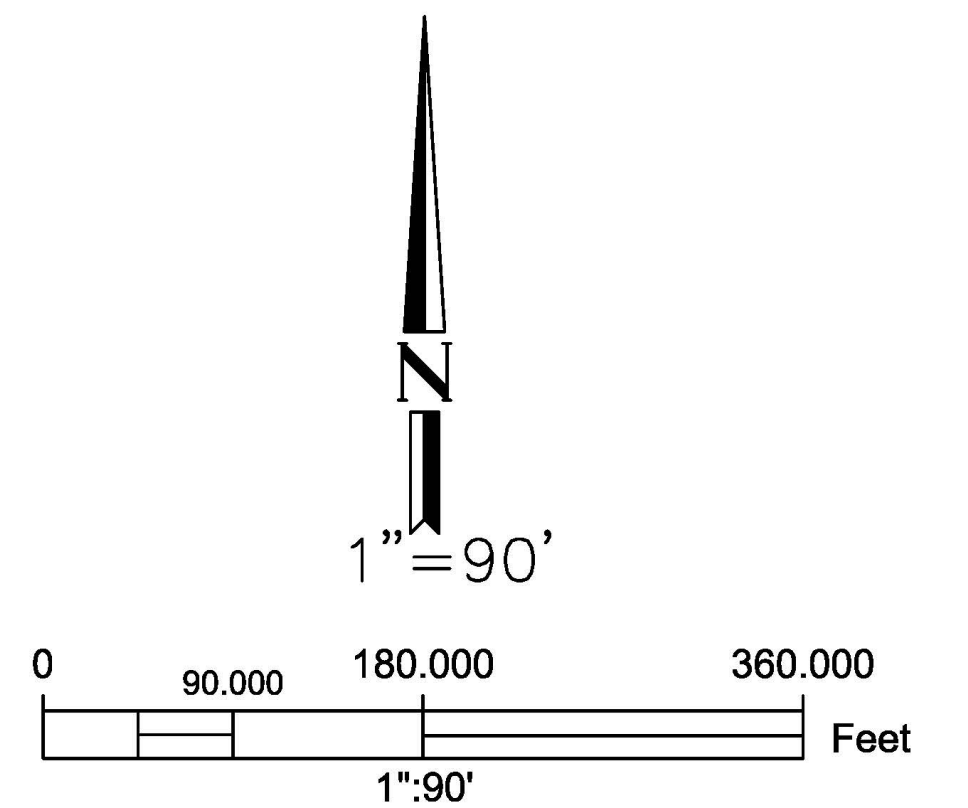
IN THE CITY OF HESPERIA COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA.



LEGEND

- DRAINAGE AREA BOUNDARY
- SUBAREA BOUNDARY
- DRAINAGE FLOW DIRECTION
- STORM DRAIN
- CATCH BASIN
- TRACT BOUNDARY
- SUBAREA No.
- ACREAGE
- NODE NO.
- SOIL GROUP

$Q_{10} = \text{XXXX}$ 10 YEAR STORM
 $Q_{25} = \text{XXXX}$ 100 YEAR STORM
 $T_c = \text{XXX MINS.}$ TIME OF CONCENTRATION



ENGINEER'S STATEMENT:

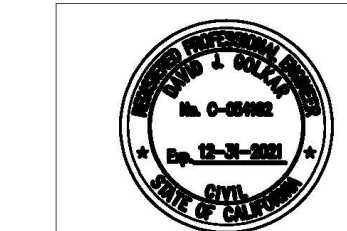
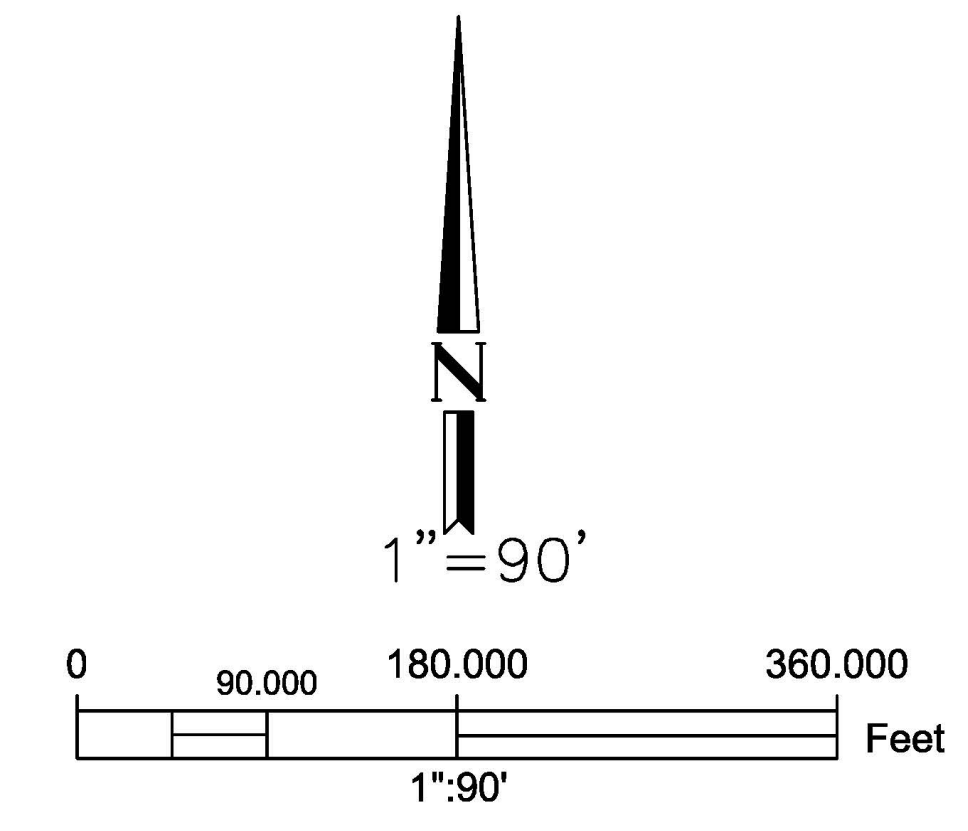
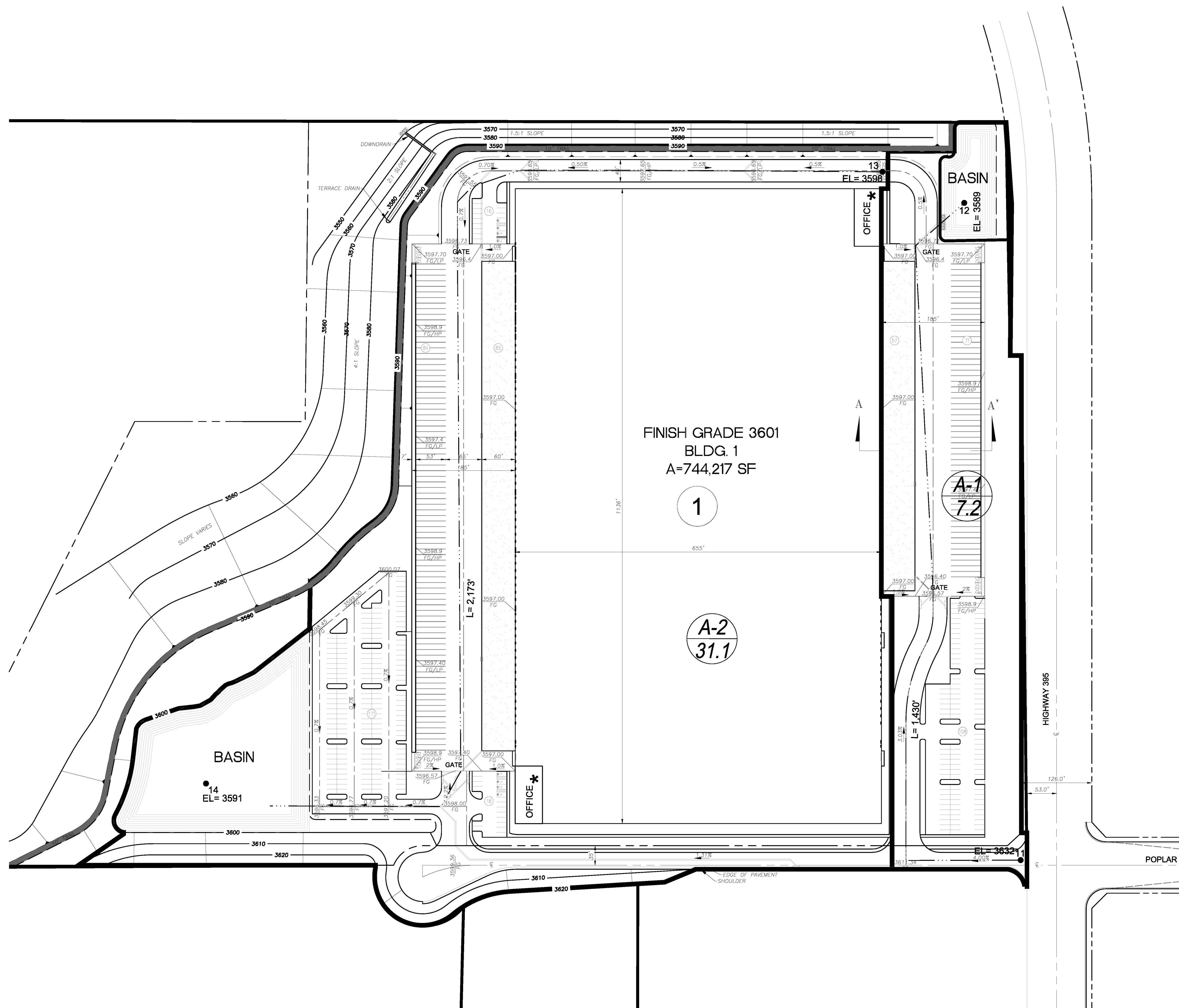
DAVID J. GOLKAR DATE

<p>Prepared in the office of SRD Design Studio, Inc. Engineering Planning Construction Mgmt. 10501 Wilshire Blvd. # 608 Environmental Svcs. Los Angeles CA 90021 Geotechnical Engr. Tel (424) 278-0909 Surveying Services E-mail: administration@rd.com</p>	CITY OF HESPERIA		Drawing No.
	DARA INDUSTRIAL CENTER		Job No.
			Sheet No. <u>1</u> of <u>1</u>

PROPOSED UNIT HYDROGRAPH HYDROLOGY MAP

IN THE CITY OF HESPERIA COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA.

LEGEND	
	DRAINAGE AREA BOUNDARY
	SUBAREA BOUNDARY
	DRAINAGE FLOW DIRECTION
	STORM DRAIN
	CATCH BASIN
	TRACT BOUNDARY
	SUBAREA No. ACREAGE
	NODE NO.
	SOIL GROUP
$Q_p = 1000$	10 YEAR STORM
$Q_p = 3000$	100 YEAR STORM
$T_c = 300$ MIN	TIME OF CONCENTRATION



ENGINEER'S STATEMENT:

 DAVID J. GULKAR DATE

Prepared in the office of SRD Design Studio, Inc. Engineering Planning Construction Mgmt. Los Angeles CA 90211 Environmental Svcs. Tel (424) 278-0909 Geotechnical Engr. Surveying Services E-mail: administration@srdd.com	CITY OF HESPERIA		Drawing No.
	DARA INDUSTRIAL CENTER		Job No.
			Sheet No. <u>1</u> of <u>1</u>

