6151

# GROUND WATER FLOW MODEL at FORT DEVENS, MASSACHUSETTS

## Final Report


**Prepared by:**

Engineering Technologies Associates, Inc.
3458 Ellicott Center Drive, Suite 101
Ellicott City, Maryland 21043


**Prepared for:**

U.S. Army Environmental Center
Aberdeen Proving Ground
Maryland 21010-5401

May 1993


CONTRACT No. DAAA15-89-D-0009/0008



20071017004

Technical Support Services for
Installation Restoration Program
Contract DAAA15-89-D-0009/0008

# Ground Water Flow Model at Fort Devens, Massachusetts

Final Report

submitted to:
Commander
U.S. Army Environmental Center
ATTN: ENAEC-CB-A, ENAEC-IR-G
Aberdeen Proving Ground, Maryland, 21010-5401

submitted by:
Engineering Technologies Associates, Inc.
3458 Ellicott Center Drive
Ellicott City, Maryland, 21043
(410) 461-9920

Distribution Unlimited
Approved for Public Release

May 24, 1993

Table of Contents


| | page |
|---|---|
| Executive Summary | vi |
| I. Introduction | 1 |
| II. Environmental Setting | 2 |
| A. Location and Physiography | 2 |
| B. History | 2 |
| C. Climate | 5 |
| D. Surface Water and Drainage | 5 |
| E. Geology | 5 |
| 1. Geologic History | 5 |
| 2. Bedrock Geology | 7 |
| 3. Surficial Deposits | 7 |
| F. Hydrogeology | 8 |
| G. Areas of Environmental Concern | 9 |
| III. Flow Modeling | 11 |
| A. Model Description | 11 |
| B. Grid and Boundaries | 11 |
| C. Aquifer Delineation | 11 |
| D. Aquifer Characteristics | 23 |
| 1. Glacial Outwash | 23 |
| 2. Bedrock | 24 |
| 3. Leakance | 29 |
| E. Streams | 29 |
| F. Recharge | 32 |
| G. Pumpage | 33 |
| H. Calibration | 36 |
| I. Results | 44 |
| IV. Sensitivity Analysis | 54 |
| A. Introduction | 54 |
| B. Vertical Leakance between Aquifers | 54 |
| C. Glacial Outwash Hydraulic Conductivity | 54 |
| D. Bedrock Hydraulic Conductivity & Anisotropy | 55 |
| E. Bedrock Thickness | 55 |
| F. Recharge | 63 |
| G. Stream & Pond Conductances | 63 |
| V. Conclusions and Recommendations | 71 |
| VI. References | 72 |

List of Figures


| | | page |
|---|---|---|
| Figure II-1 | Fort Devens Location Map | 3 |
| Figure II-2 | Fort Devens Site Map | 4 |
| Figure II-3 | Areas Requiring Environmental Evaluation | 10 |
| Figure III-1 | Model Grid | 12 |
| Figure III-2 | Model Boundaries | 13 |
| Figure III-3 | Bedrock Data | 15 |
| Figure III-4 | Top of Bedrock Elevation | 18 |
| Figure III-5 | Glacial Outwash Model Area | 19 |
| Figure III-6 | Cross Section 1 - Main Post | 20 |
| Figure III-7 | Cross Section 2 - South Post | 21 |
| Figure III-8 | Cross Section 3 - North Post | 22 |
| Figure III-9 | Glacial Outwash Hydraulic Conductivities | 25 |
| Figure III-10 | Bedrock Well Yields | 27 |
| Figure III-11 | Bedrock Well Depth versus Yield | 28 |
| Figure III-12 | Estimated Specific Capacity Distribution | 30 |
| Figure III-13 | Recharge Distribution | 34 |
| Figure III-14 | Production Wells & Infiltration Basin Map | 35 |
| Figure III-15 | Monitoring Wells Location Map | 37 |
| Figure III-16 | Calculated Glacial Outwash Water Levels | 45 |
| Figure III-17 | Calculated Bedrock Water Levels | 46 |
| Figure III-18 | Calculated Glacial Outwash Water Levels-Main Post | 47 |
| Figure III-19 | Calculated Bedrock Water Levels-Main Post | 48 |
| Figure III-20 | Calculated Glacial Outwash Velocity Vectors | 49 |
| Figure III-21 | Calculated Bedrock Velocity Vectors | 50 |
| Figure III-22 | Calculated Glacial Outwash Velocity Vectors-Main Post | 51 |
| Figure III-23 | Calculated Bedrock Velocity Vectors-Main Post | 52 |
| Figure III-24 | Calibrated Water Table above Ground | 53 |
| Figure IV-1 | Calculated Glacial Outwash Aquifer Water Levels - Main Post: Increased Hydraulic Conductivity | 56 |
| Figure IV-2 | Calculated Glacial Outwash Aquifer Velocity Vectors - Main Post: Increased Hydraulic Conductivity | 57 |
| Figure IV-3 | Calculated Glacial Outwash Aquifer Water Levels - Main Post: Decreased Hydraulic Conductivity | 58 |
| Figure IV-4 | Calculated Glacial Outwash Aquifer Velocity Vectors - Main Post: Decreased Hydraulic Conductivity | 59 |
| Figure IV-5 | Calculated Bedrock Aquifer Water Levels-Main Post: Increased Hydraulic Conductivity | 60 |
| Figure IV-6 | Calculated Bedrock Aquifer Water Levels-Main Post: Decreased Hydraulic Conductivity | 61 |
| Figure IV-7 | Calculated Bedrock Aquifer Water Levels-Main Post: Bedrock 10:1 Anisotropy | 62 |

Figure IV-8 Calculated Bedrock Aquifer Water Levels-Main Post: Increased Bedrock Thickness 64
Figure IV-9 Calculated Glacial Outwash Aquifer Water Levels - Main Post: Increased Recharge 65
Figure IV-10 Calculated Bedrock Aquifer Water Levels-Main Post: Increased Recharge 66
Figure IV-11 Calculated Glacial Outwash Aquifer Water Levels - Main Post: Decreased Recharge 67
Figure IV-12 Calculated Bedrock Aquifer Water Levels-Main Post: Decreased Recharge 68
Figure IV-13 Calculated Glacial Outwash Aquifer Velocity Vectors - Main Post: Increased Recharge 69
Figure IV-14 Calculated Glacial Outwash Aquifer Velocity Vectors - Main Post: Decreased Recharge 70

## List of Tables


| | | |
|---|---|---|
| Table III-1 | Steady State Calibration Statistics | 39 |
| Table III-2 | Model Stream Flow Computations | 43 |


## Appendices


A. Monitoring Well Inventory
B. MODFLOW model Input & Output

## Executive Summary

The objective of this project was to develop a regional ground water flow model to assist in determination of cumulative impacts to ground water quality from the multiple contaminated sites at Fort Devens. Fort Devens is a U.S. Army post in Worcester and Middlesex counties in central Massachusetts. There are a number of contaminated and potentially contaminated areas on the post that are currently being studied.

The geology of Fort Devens was chiseled by the continental glaciers of the Pleistocene epoch. The glaciers deepened existing river valleys by eroding the bedrock and depositing till (poorly sorted clay, silt, and sand), glacial outwash (well sorted, sandy deposits from rivers and melting glaciers), drumlins (hills of till), kames (hills of sand), kettles (depressions caused by buried blocks of ice that melt), and other landforms characteristic of glacial terrain. The bedrock beneath the unconsolidated glacial sediments consists primarily of metamorphic rocks (old crystalline rocks).

Ground water exists at Fort Devens in two geologic formations. The primary aquifer is the glacial drift that overlies the bedrock. This aquifer consists of well sorted sands and gravels, fine sands, silt, and clay; and is known as the glacial outwash aquifer. It is capable of supplying large quantities of water. The aquifer is used by Fort Devens and nearby municipalities for water supply.

Ground water is also present in the fractured bedrock beneath the glacial outwash aquifer. The bedrock has a low permeability because ground water only moves in fractures in the rock. It is not capable of supplying large amounts of water. It is used for single family domestic water supply in the area of Fort Devens.

The conceptual movement of ground water flow in the absence of pumping or other disturbance is that recharge occurs in upland areas, ground water flows from topographic highs to topographic lows, and discharges into rivers, streams, wetlands, and ponds. This discharge of ground water maintains the dry weather flow of the rivers and streams.

Ground water flow was simulated using a three dimensional computer model. Flow in both the glacial outwash and bedrock aquifers was simulated as well as the ground water flow between them. The model simulated the long term, average position of the water table.

The thickness of the glacial outwash aquifer was determined by mapping the bedrock underneath. The map was

based on geologic mapping, Fort Devens borehole data, water well data compiled by the U.S. Geological Survey, and the geologic history of the area. The fractured bedrock was assumed to form a 50 foot thick aquifer. The glacial outwash aquifer was separated from the bedrock by a ten foot thick layer of clay.

Initial estimates of hydraulic conductivity and recharge (infiltration) were made from well test data and published data. These estimates were then adjusted by running the model and comparing the model predictions to the depth to water measurements made in September 1992. The model was run numerous times while adjusting the hydraulic conductivity and recharge data. Each time small improvements were made in the comparison between simulated and measured water well levels. When no further improvement was evident by changing the hydraulic conductivity and recharge, the process stopped. At this point, the model accurately simulates the flow of ground water at Fort Devens.

The model confirmed the expectation of ground water flow generally following the topography. Ground water flows from hilltops to rivers, streams, and ponds. Plots were developed that show the direction and relative speed of ground water flow throughout Fort Devens.

Sensitivity analysis was performed to quantify the impact of uncertainty on the model. The hydraulic conductivity of the glacial outwash aquifer was the most important parameter, but a small change in hydraulic conductivity resulted in small changes in predicted steady state water levels. The model was also sensitive to the recharge rate. Increasing recharge increased the water table elevation, while decreasing recharge caused a lower water table. The model was run without the bedrock aquifer (glacial outwash aquifer only). The contributing of ground water flow the bedrock to the glacial outwash was found to be insignificant. The model was insensitive to leakance between aquifers, stream/pond leakance, and bedrock hydraulic conductivity. Based on these simulations, the model is a reliable tool for predicting the direction and speed of ground water flow.

# I. Introduction

Fort Devens is a U.S. Army post in Worcester and Middlesex counties in central Massachusetts. There are a number of contaminated and potentially contaminated areas on the post that are currently being investigated. Ground water contamination has been detected at several locations.

The objective of this project was to develop a regional ground water flow model to assist in determination of cumulative impacts to ground water quality from the multiple contaminated sites at Fort Devens. The model was used to simulate existing directions and velocities of ground water flow.

This report includes a short description of the environmental setting with emphasis on the geology of the site, a description of the ground water model and the input parameters, a sensitivity analysis, and a presentation of the predicted directions and velocities of ground water flow.

## II. Environmental Setting

### A. Location and Physiography

Fort Devens is located on approximately 9,280 acres of land, approximately 35 miles west of Boston in Middlesex and Worcester counties, Massachusetts. Figure II-1 shows the location of Fort Devens. The installation includes portions of the towns of Ayer, Harvard, Lancaster, and Shirley.

The installation is divided into three parts, or posts as shown on Figure II-2. The North Post is separated from the Main Post by Ayer's Main Street, which crosses Fort Devens east to west. The North Post contains the Moore Army Airfield, the wastewater treatment plant, and training areas. The administrative and support areas are located on the Main Post. The South Post is used for training activities.

Fort Devens is located in east-central Massachusetts and lies within two physiographic provinces, the Worcester County Plateau of the Central Uplands province, and the Seaboard Lowland Section of the New England-Maritime province. This area constitutes a small part of a broad lowland belt in which glacial and postglacial deposits form a discontinuous mantle over igneous and metamorphic bedrock of Paleozoic age (Jahns, 1953). Much of the study area is hilly and has many steep slopes. The topography ranges from an elevation of about 200 feet where the Nashua River leaves the North Post to about 450 feet on top of Whittemore Hill in the South Post.

### B. History

Fort Devens was established in 1917 as Camp Devens, a temporary training area for soldiers from the New England area. It was used as a summer training ground and for test firing of rockets between 1922 and 1931. In 1931, it was named Fort Devens and made a permanent installation. It has been used as an induction and training center since that time during wars and conflicts.

At the present time, Fort Devens is used by assigned units and to support the U.S. Army Security Agency Training Center and School, Army Reserves, the Massachusetts National Guard, Reserve Officer Training programs, and Air Defense sites in New England.

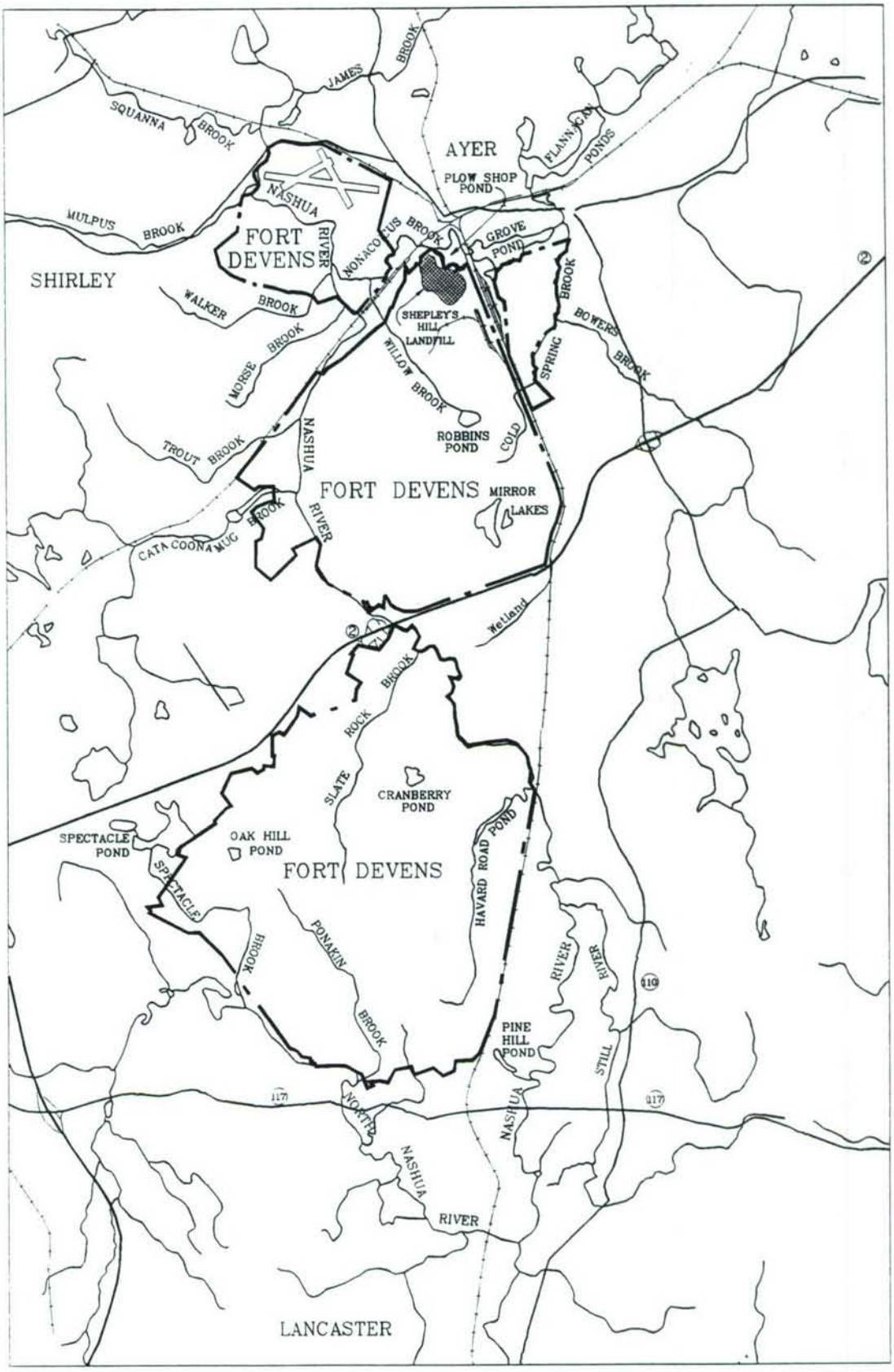
FIGURE II-1

FORT DEVENS, MA GROUND WATER MODELING

FORT DEVENS LOCATION MAP

CONTRACT NO. 89306.8 | DATE: 10/92

Source: E&E, 1992




| FIGURE II-2 | |
|---|---|
| FORT DEVENS, MA GROUND WATER MODELING | |
| FORT DEVENS SITE MAP | |
| CONTRACT NO.: 89306.8 | DATE: 10/92 |

## C. Climate

The climate of Fort Devens is characterized by long cold winters and short warm summers. Temperatures vary from a monthly average of 25 degrees Fahrenheit in January to 72 degrees Fahrenheit in July (NOAA, 1981). Average annual precipitation is about 44 inches. Monthly precipitation is relatively uniform throughout the year averaging between 3.1 and 4.2 inches (NOAA, 1981). The climate is subject to fluctuating influences of polar, tropical, marine, and continental air masses. Extreme precipitation events result from summer thundershowers and remnants of tropical storms.

## D. Surface Water and Drainage

Fort Devens is in the watershed of the Nashua River which flows northward and is tributary to the Merrimack River. The North Nashua River forms part of the western boundary of the South Post, and the Nashua River is part of the eastern boundary of the South Post and the western boundary of the Main Post. There are numerous small drainages consisting of small streams and wetland areas within the boundaries of Fort Devens. There are also ponds and lakes of which several are kettle ponds. Figure II-2 shows the drainage features of Fort Devens.

## E. Geology

### 1. Geologic History

Most of the bedrock formations within the study area consist of metasedimentary rocks of Ordovician to Devonian age. The study area is situated structurally on the Merrimack syncline and is bounded by plutonic intrusions and metamorphic rocks of higher grade on both the east and west (Robinson, 1978). Geologic events prior to the Quaternary period are not well understood, but have been inferred from interpretations of the present topography and in part from features in the Connecticut Valley area to the west and in the coastal areas to the south and east (Jahns, 1953).

A chronological tectonic and structural history began with deposition of strata in a deep marine eugeosynclinal basin in the Ordovician through Devonian eras. After deposition, the strata were folded and subjected to regional metamorphism. Later in this period, fold-thrust tectonics developed along with intrusions of igneous rock. Terrestrial sediments were deposited for the remaining Paleozoic era. The northeast trending faulting that is evident today began in the Triassic and was accompanied with mylonitization and silicification along the fault systems.

The greatest effect on the Quaternary history was the drainage pattern developed during the Tertiary period. The Tertiary drainage pattern was at first independent of the

lithologic and structural features of the underlying rocks, but in time the stream courses were adjusted by the presence of hard and soft rock. Stream adjustments were affected by at least two periods of uplift, the second probably of late Tertiary age (Jahns, 1953). During the Tertiary, the Nashua River drainage was eastward, suggested by eastward convergence lines near the town of Ayer. By the late Tertiary, the Nashua River drained the entire eastern slope of the Central Uplands province. This was interrupted by the advance of the Pleistocene ice sheets (Jahns, 1953).

During the Pleistocene, continental ice sheets covered New England, the last being the Wisconsin Glaciation. Evidence of glaciation can be seen in the grooved and smoothed surfaces on many bedrock ledges. The ice sheets also eroded the bedrock at a much larger scale by scouring and removal of soil and soft bedrock. This debris was transported by the ice sheets and subsequently deposited. The orientation of grooves suggests that the last major ice sheet advanced southward and southeastward; however, varying groove directions may have been a result of advances of two different ice sheets from slightly different directions (Jahns, 1953).

The geomorphology and land features within the study area are a result of past continental glaciation superimposed on the older Tertiary drainage patterns. The glacial terrain consists of outwash plains, drumlins, kettles, and kames and kame terraces. The glacial outwash plains were formed by glacial deltas prograding into various stages of the glacial Lake Nashua. The most conspicuous glacial features in the study area are the drumlins which form many of the hills in the area such as Whittemore Hill in the South Post Area. Some drumlin-like features (such as the bedrock outcrop at Shepley's Hill) are not true drumlins (glacial till hill or ridge), but have bedrock cores parallel to the direction of ice sheet movement, and are partially mantled with glacial till. Kettles are also found within the study area and were formed by stagnant blocks of ice. After melting of the ice blocks, the depressions were filled with meltwater to form kettle lakes such as Mirror Lake and Robbins Pond in the Main Post. Kames are hills formed in contact with glacial ice. Kame terraces are formed against valley walls. Some eskers are also found at Fort Devens. Eskers represent depressions or crevasses that have been filled with glacial detritus (Ecology and Environment, 1992). Other glacial features include low-lying swampy areas located in the South Post area. These poorly drained regions may be indicative of a glacial ground moraine. The till prevents the infiltration of water into the permeable glacial sediments thus forming a swampy area and perched ground water table.

## 2. Bedrock Geology

Bedrock within the study area is Paleozoic in age and ranges from the Upper Ordovician to Devonian. Bedrock crops out primarily on hills within the study area and is commonly found east and west of the Nashua River valley. The Ayer Granite is found on Shepley's Hill in the Main Cantonment and the age of the unit ranges from Upper Ordovician to Lower Silurian. The granite consists of porphyritic gneissic biotite granite and granodiorite. The Berwick Formation also crops out on Shepley's Hill which is Lower Silurian in age. The lithology is characterized by thin to thick bedded calcareous sandstones and siltstones. The Oakdale Formation crops out in the South Post area and is Upper Silurian in age. It is comprised of calcareous metasiltstone and muscovite schist. An outcrop of the Worcester Formation is found near the South Post artillery impact area. The formation is Upper Silurian to Lower Devonian in age and is described as carbonaceous slate and phyllite. East of the study area, the Tower Hill Quartzite crops out and is Silurian in age (Goldsmith, et al., 1983).

The bedrock geologic structure of the study area is complex and is masked by a mantle of surficial glacial deposits. However, bedrock outcrops show intense folding and faulting. Bedrock geologic maps (Goldsmith, et al., 1983) show low-angle thrust faults along the eastern boundary of the installation. Overturned bedrock strata as a result of intense folding is common at many of the bedrock outcrop locations.

## 3. Surficial Deposits

The surficial sediments within the study area are primarily glacial in origin. The two primary types of surficial deposits are glacial tills and glacial outwash. The glacial till can be subdivided into two types, the younger and the older till (Jahns, 1953). The younger till is widespread and contains poorly sorted clay, silt, sand, gravel, and boulders, and is characteristically loose and poorly compacted. The color and texture of the till varies with the source rock. The color of the till ranges from light to dark gray and generally averages about eight feet thick (Koteff,1966). The older till contains the same sediments as the younger till, but is distinctly more compact (Jahns, 1953). The older till is somewhat darker than the younger till and can be found at a thickness of 60 feet in several drumlins (Koteff, 1966). These drumlins are northeast trending and occur along the southeastern margins of the lowland area and are underlain by platy quartzite and schist. Both kinds of till lie directly on bedrock, or rarely, upon water-laid material (Jahns, 1953).

The glacial outwash deposits consist of fine to coarse sand and small gravel from the Clinton, Pin Hill, and Ayer stages of the glacial Lake Nashua. The glacial outwash is present in the form of kames that occur individually and as irregular groups in several areas. The kames are chiefly composed of conical hills of stratified sand, gravel, and boulders. Well-bedded sand and gravel of the kames merge into kettled outwash plains found in the Main Post (Jahns, 1953). According to Koteff (1966), the glacial outwash may approach 100 feet in thickness, and may be thicker underlying many of the kames. In any given locality, the kames generally are earliest in the outwash sequence, the kame terraces, crevasse fillings, and outwash plains the latest (Jahns, 1953). The outwash sequence, in most cases, covers or has eroded the glacial till deposits.

To a lesser degree, glacial lacustrine deposits are found within the study area. These sediments were deposited in close association with the large glacial Lake Nashua. Outwash was deposited in the relatively quiet water of this lake to form deltas, gravelly plains, and lake-bottom silt and clay. The sequence of glacial lacustrine deposits is generally about 30 feet thick (Koteff, 1966). Lake-bottom deposits (varved clays) occur near or at the surface just east of Whittemore Hill in the South Post Area, and beneath the alluvium along the Nashua River valley (Koteff, 1966).

Post-glacial sediments consist primarily of alluvium which underlies the modern floodplains of the Nashua River valley. The alluvium is very light gray to almost white and is composed of fine sand and silt. In many places swamp deposits overlie the alluvium, and in others, the two are mixed. The thickness of the alluvium is not well known but is at least 15 feet in a few localities (Koteff, 1966).

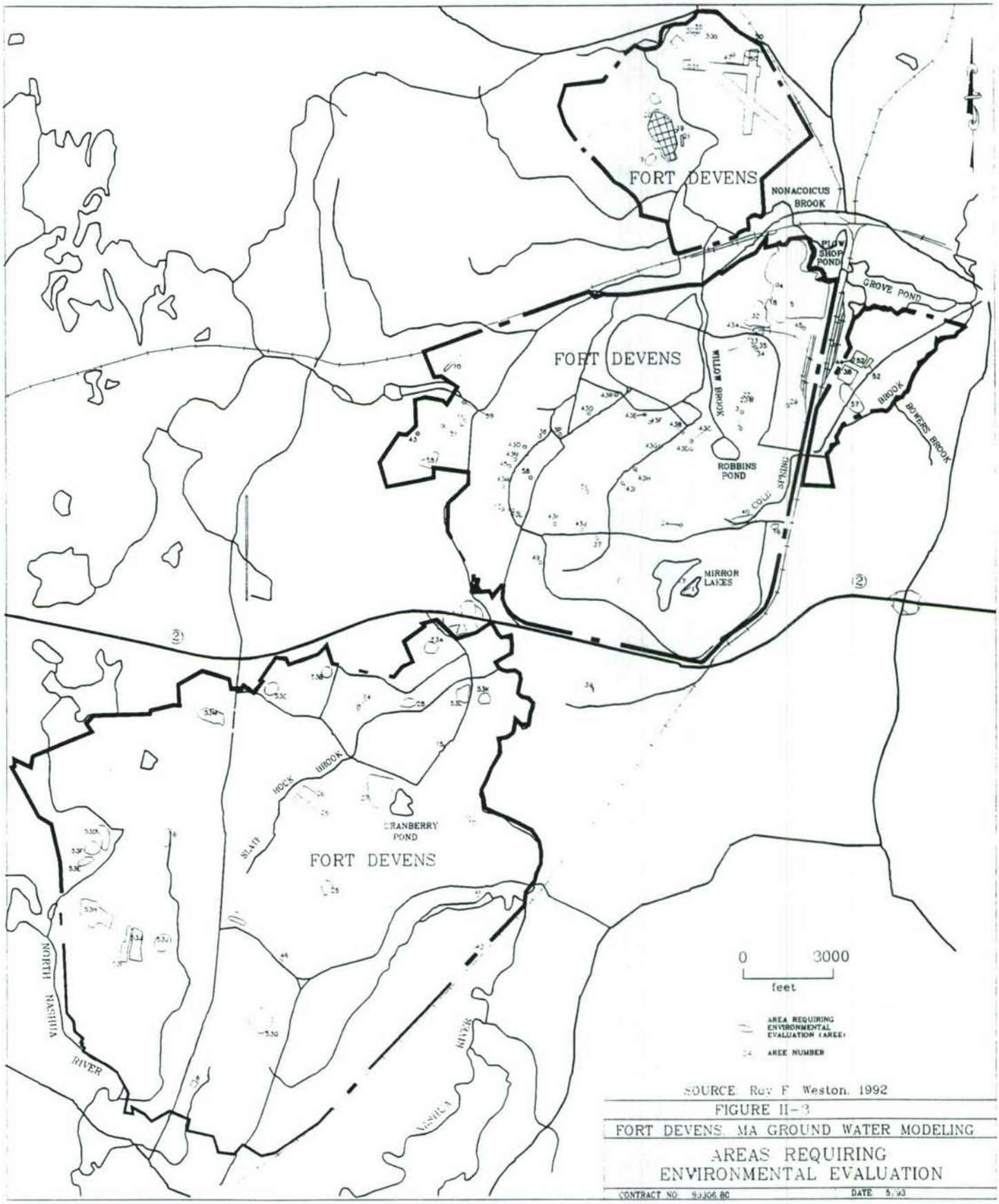
## F. Hydrogeology

Ground water at Fort Devens is present in both the glacial drift deposits of sand and gravel, and in the fractured bedrock. Flow is controlled largely by topography; ground water flows from the hills into the stream valleys and discharges into rivers, streams, wetlands, and ponds. The flow of ground water maintains the base flow of the rivers and streams.

The glacial outwash deposits are a major water source for Fort Devens and the surrounding towns. The fractured bedrock yields little water. Generally, the bedrock wells yield enough water for single family domestic wells.

## G. Areas of Environmental Concern

Previous studies at Fort Devens identified areas of environmental concern. The enhanced preliminary assessment of Fort Devens delineated specific areas requiring environmental evaluation (AREE) stemming from areas of concern. Figure II-3 shows the locations of these areas. For further discussions on the AREE's, refer to the Enhanced Preliminary Assessment Regulatory Report (Weston, 1992).




SOURCE: Roy F. Weston, 1992

FIGURE II-3

FORT DEVENS, MA GROUND WATER MODELING

AREAS REQUIRING ENVIRONMENTAL EVALUATION

CONTRACT NO. 68-W6-0066 DATE: 5/93

# III. Flow Modeling

## A. Model Description

The U.S. Geological Survey Modular, Three-Dimensional, Finite Difference Model (MODFLOW) (McDonald and Harbaugh, 1988) was used as the ground water flow model for this project. MODFLOW is a finite difference ground water flow model developed by the U.S. Geological Survey. It is widely used and well documented. It is a true three dimensional model except for the assumption that the vertical component of hydraulic conductivity is aligned with gravity. It has the capability of simulating a heterogeneous aquifer with evapotranspiration, variable well pumpage, drains, rivers, variable recharge, and different boundary conditions under either artesian or water table conditions. The modeling effort utilized the strongly implicit procedure to solve the finite difference equations. No modifications were made to the code for this project.

## B. Grid and Boundaries

The model grid was developed to include all of Fort Devens in the model and to take advantage of natural ground water flow boundaries where possible. The conceptual model of ground water flow at Fort Devens (see Section II.F.) assumes that ground water flows from upland areas into the rivers and streams. Surface watersheds define the ground watersheds. The model grid was superimposed on the area to take advantage of these boundaries. Figure III-1 shows the grid. A uniform grid spacing of 500 feet was used. The grid is rotated at an angle of 33 degrees from north to efficiently include all of Fort Devens. The model area was approximately 65 square miles.

Figure III-2 shows the boundaries of the model. No flow boundaries were assumed on watershed divides in the uplands around Fort Devens. Where streams were present near the no flow boundaries, they were used as constant head boundaries. Figure III-2 shows the locations of constant head boundaries and the inactive areas that define the no flow boundaries of the model.

## C. Aquifer Delineation

The principal aquifer in the Fort Devens area is the saturated glacial drift, which is referred to as the glacial outwash aquifer. All of the municipal and Army pumpage for water supply is from this aquifer. The underlying bedrock does not transmit appreciable quantities of ground water via primary porosity. There is some secondary porosity (fracturing), however, near the top of the bedrock. A

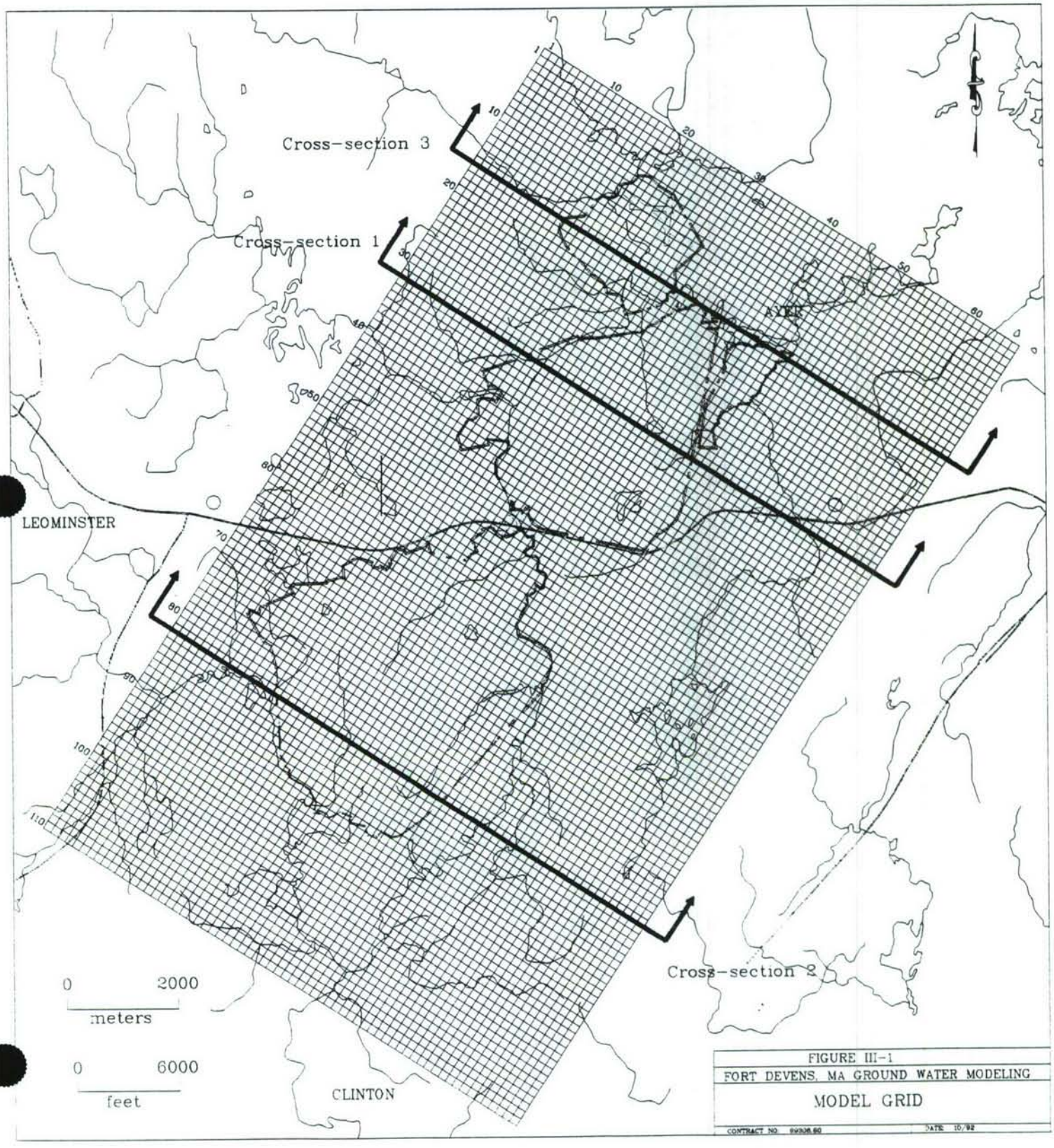
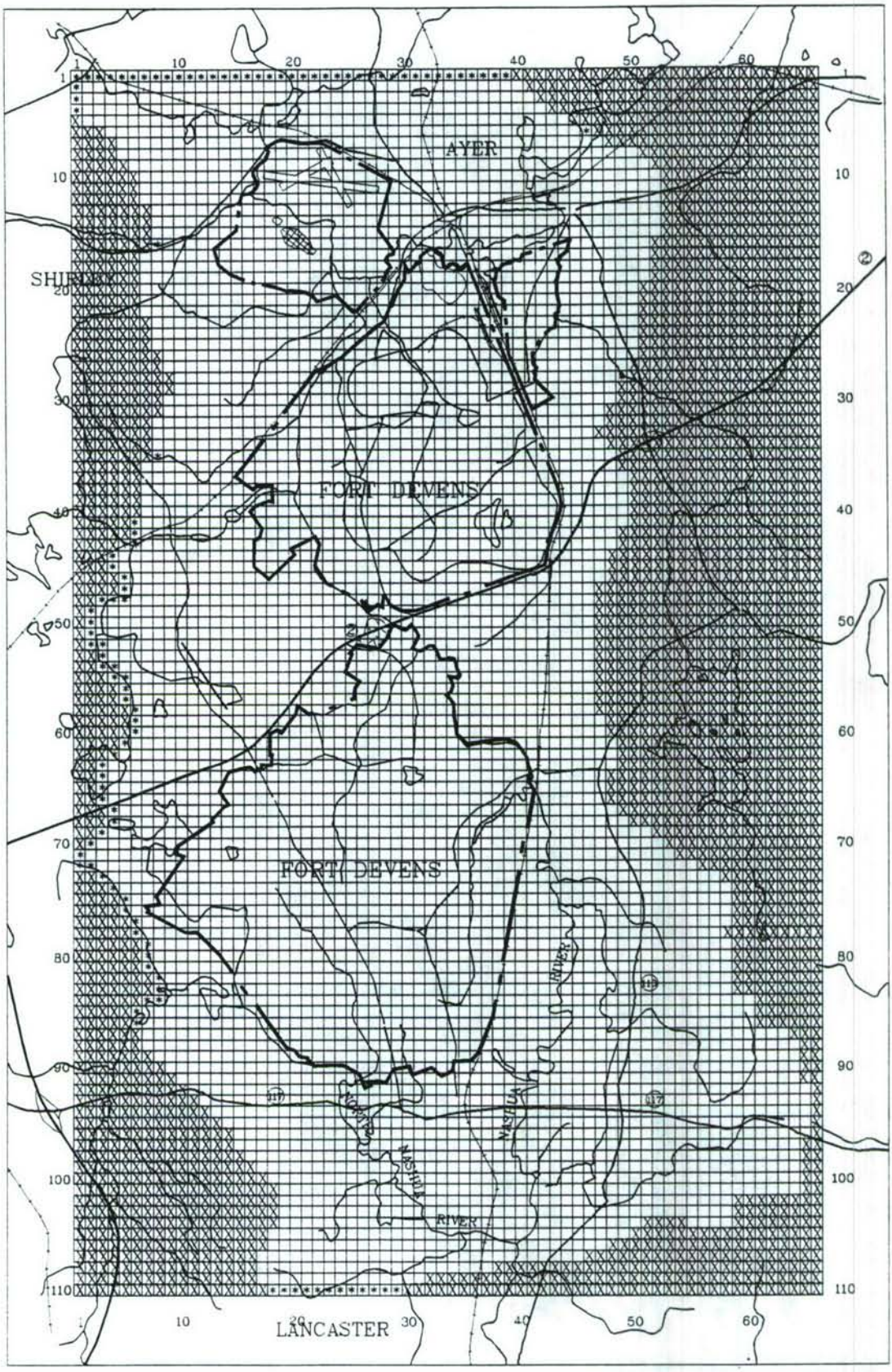



FIGURE III-1
FORT DEVENS, MA GROUND WATER MODELING
MODEL GRID

CONTRACT NO. 69308.60 DATE 10/92




· CONSTANT HEAD NODE
X INACTIVE NODE

0 6000
feet

| FIGURE III-2 | |
|---|---|
| FORT DEVENS, MA GROUND WATER MODELING | |
| MODEL BOUNDARY | |
| CONTRACT NO.: 89306.8 | DATE: 10/92 |

typical bedrock aquifer is most permeable in the upper regions where weathering has occurred. Deeper in the bedrock, there are less fractures, hence less permeability and porosity. At some depth, water-bearing fractures become almost nonexistent because they are squeezed shut by the overlying rock (Gale, 1982). Evidence of this fracturing and secondary porosity comes from both core samples from bedrock boreholes (see logs for boreholes SHL-20, SHL-22, and SHL-24, E&E, 1992b), and the fact that most single family domestic wells in the area are completed in the bedrock and obtain sufficient quantities of water for domestic use (Hansen et al, 1989).

It is typically assumed that the bedrock closest to the surface is the most fractured (Freeze and Cherry, 1979) and therefore permeable. For the purposes of the modeling, it was assumed that the top 50 feet of bedrock was permeable and permitted ground water flow. Below that, the rock was assumed impermeable. This assumption was used in the derivation of the aquifer characteristics. When transmissivity for a bedrock unit was estimated, it was transformed to a hydraulic conductivity by dividing by 50 feet. This assumption did not impact the modeling. The bedrock is under confined conditions at almost all locations within the model (with the exception of hilltops). Thus, the transmissivity of the bedrock aquifer is the relevant variable for calculating ground water flow through the bedrock. Once transmissivity was established, any assumed bedrock aquifer thickness with the calculated hydraulic conductivity (calculated as transmissivity/thickness) would yield the same results.

A major task of the project was developing a bedrock elevation map which was used to delineate the bottom of the glacial outwash aquifer. There were numerous types of data that were used in the mapping along with a careful review of the history of glaciation and deposition.

Data on the elevation of the top of the bedrock from Fort Devens monitoring wells were available. Monitoring wells and boreholes in the Shepley's Hill, and EOD areas penetrated bedrock. Ten of the wells and boreholes from the Shepley's Hill area reached bedrock (E&E, 1992b). A well (EOD-1) and borehole (EOD-5) in the South Post area reached bedrock (E&E, 1992a). Logs from monitoring wells 3602W-01 and 3622W-01 in the Main Post indicated that the boreholes reached a dense till; this was interpreted as weathered bedrock or till overlying the bedrock. Logs from monitoring wells AAFES-03, AAFES-05, and AAFES-06 in the Main Post indicated refusal elevations, which were also interpreted as bedrock elevations. Figure III-3 shows the locations and bedrock elevations for these data points. They are all inside the boundary of Fort Devens.

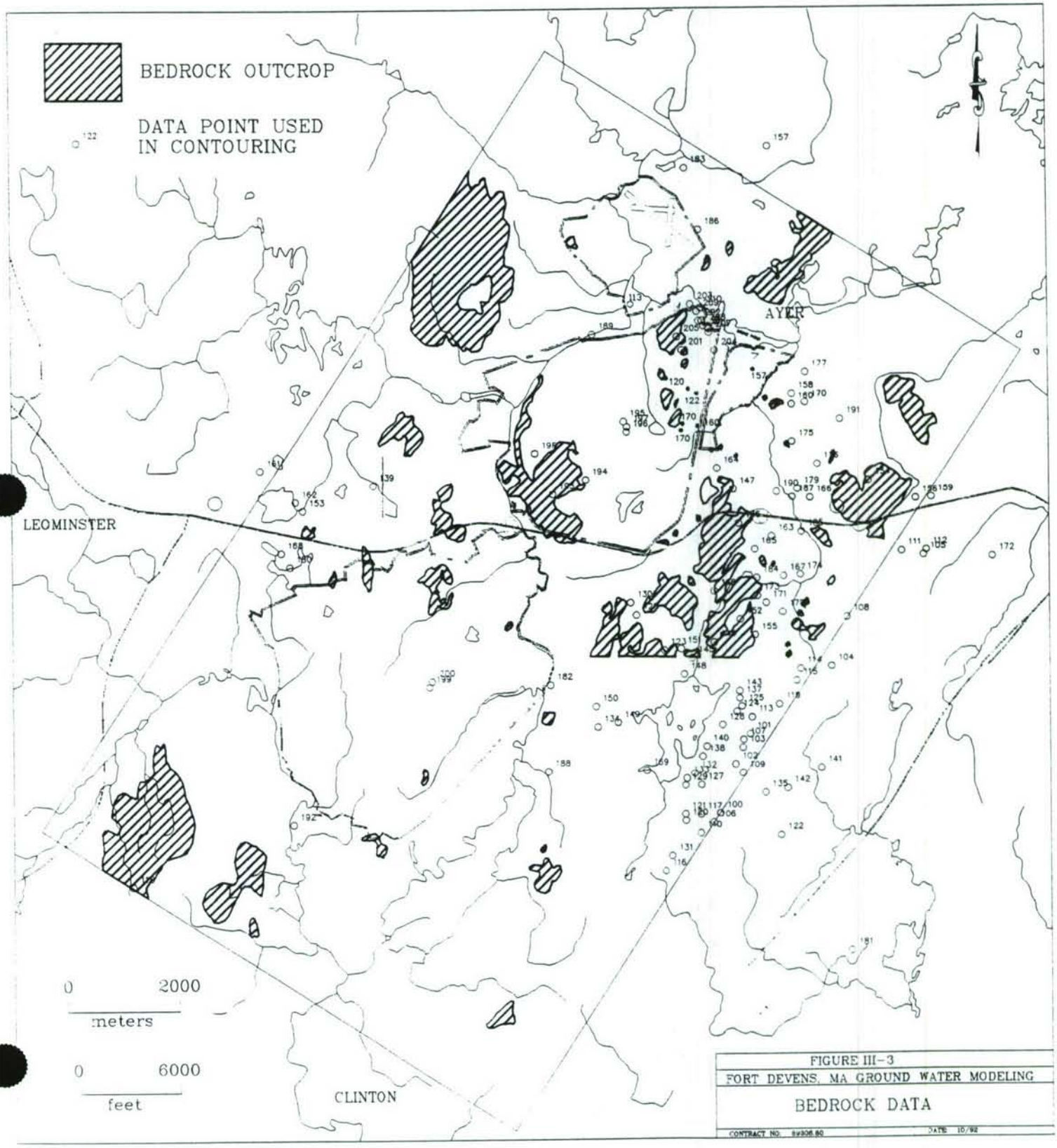



FIGURE III-3
FORT DEVENS, MA GROUND WATER MODELING
BEDROCK DATA
CONTRACT NO. 89306.80 DATE 10/92

Another source of information was a compilation of water well data in the Nashua river basin (Hansen et al, 1989). This USGS Open File Report contained records of water wells in the area based on driller information. Ninety-three wells with recorded bedrock elevations were used in the mapping. Figure III-3 shows the locations and bedrock elevations for these data points. All wells were outside the boundary of Fort Devens.

A third source of information was surficial geologic mapping. Surficial geologic maps were available for the Ayer, Clinton and Shirley quadrangles (USGS 1:24000 topographic mapping) (Jahns, 1953; Koteff, 1966; Russell and Allmendinger, 1975). These maps indicated bedrock outcrop areas or areas with less than ten feet of soil cover. These areas were assigned elevations ten feet below the surface elevation from USGS topographic mapping. Figure III-3 shows bedrock outcrops as hatched areas.

There were additional data regarding bedrock elevations in other documents. An investigation (Goldberg-Zoino and Associates, 1976) reported the distribution of glacial sediments and bedrock in the Fort Devens area along with the saturated thickness of the sediments. This information was presented on a map prepared for the Montachusetts Regional Planning Commission (1976). The map was constructed using information from scattered wells and boreholes in the area.

Investigations were conducted by Camp Dresser & McKee (CDM) for the Town of Ayer including aquifer tests and seismic refraction surveys. Borehole logs from wells used during pump tests near Grove Pond also provided information for the bedrock elevation (CDM, 1992). New wells were drilled for the pump test with some wells encountering bedrock (drilling refusal).

Seismic refraction surveys were conducted near Grove Pond and the Massachusetts National Guard area (Geoscience, 1992) for CDM and the Town of Ayer. These surveys indicated the presence of three basic velocity layers; the first layer consisted of unsaturated sands and gravel, the second layer consisted of saturated sand and gravels, and the third layer consisted of either till, consolidated till, weathered bedrock, or bedrock.

In the deep valleys of glacial outwash along the Nashua River, there were no wells or boreholes which reached bedrock. In these areas, the bedrock elevation was developed based on the transmissivity map for the glacial outwash sediments (Brackley and Hansen, 1977). In areas where the transmissivity was greater than 4,000 $ft^2$/day, the thickness of the glacial outwash was assumed to be 100 to 150 feet. In areas where the transmissivity was reported to be between 1,350 and 4,000 $ft^2$/day, the thickness was

assumed to be somewhere between 50 and 100 feet. These estimated thickness for the glacial outwash are similar to those reported in the literature (Koteff, 1966) and in borehole logs (Ecology and Environment, 1992a and 1992b). To check these assumed thicknesses, an average hydraulic conductivity of between 40 and 80 ft/day (fine to coarse sand and small gravel, Brackley and Hansen, 1977) was multiplied by the thickness, which yielded transmissivity estimates similar to those presented in Brackley and Hansen (1977). The estimated thicknesses were then subtracted from the ground surface elevation to estimate the bedrock elevation. Consideration was given to the bedrock slope along the valley edges when calculating the depth to bedrock.

All of the above information and interpretation was assembled and analyzed resulting in the map shown in Figure III-4. These elevations were the top of the bedrock aquifer (layer 2) in the model. The bottom of the bedrock aquifer was 50 feet below. The bottom of the glacial outwash aquifer (layer 1) was assumed to be ten feet above the top of the bedrock. Typically, there is a a glacial till directly overlying the bedrock (see the discussion in Section II.E.3.). The monitoring well and borehole logs from the Shepley's Hill area all show till between the bedrock and the sandy glacial outwash (E&E, 1992b). The ten foot of till was assumed to be an aquitard between the glacial outwash aquifer and the bedrock aquifer. At areas where the bedrock outcrops and at large areas of surficial till, the glacial outwash aquifer (layer one) was modeled as inactive (no flow). Figure III-5 shows the layer one model area. The model area for the bedrock aquifer is shown in Figure III-2.

Figure III-6 shows a cross-section through the model in the Main Post area. Figure III-7 shows a cross-section through the model in the South Post Area. Figure III-8 shows a cross-section through the model in the North Post area. Locations of these sections are shown on Figure III-1. These cross-sections show the data as interpreted and input to the ground water model. Layer one is the glacial outwash aquifer. Layer 2 is the 50 foot thickness of fractured bedrock. The water table is also shown on the map. Discontinuities in the plotted water table indicate upland areas where little or no ground water exists in the glacial outwash aquifer.

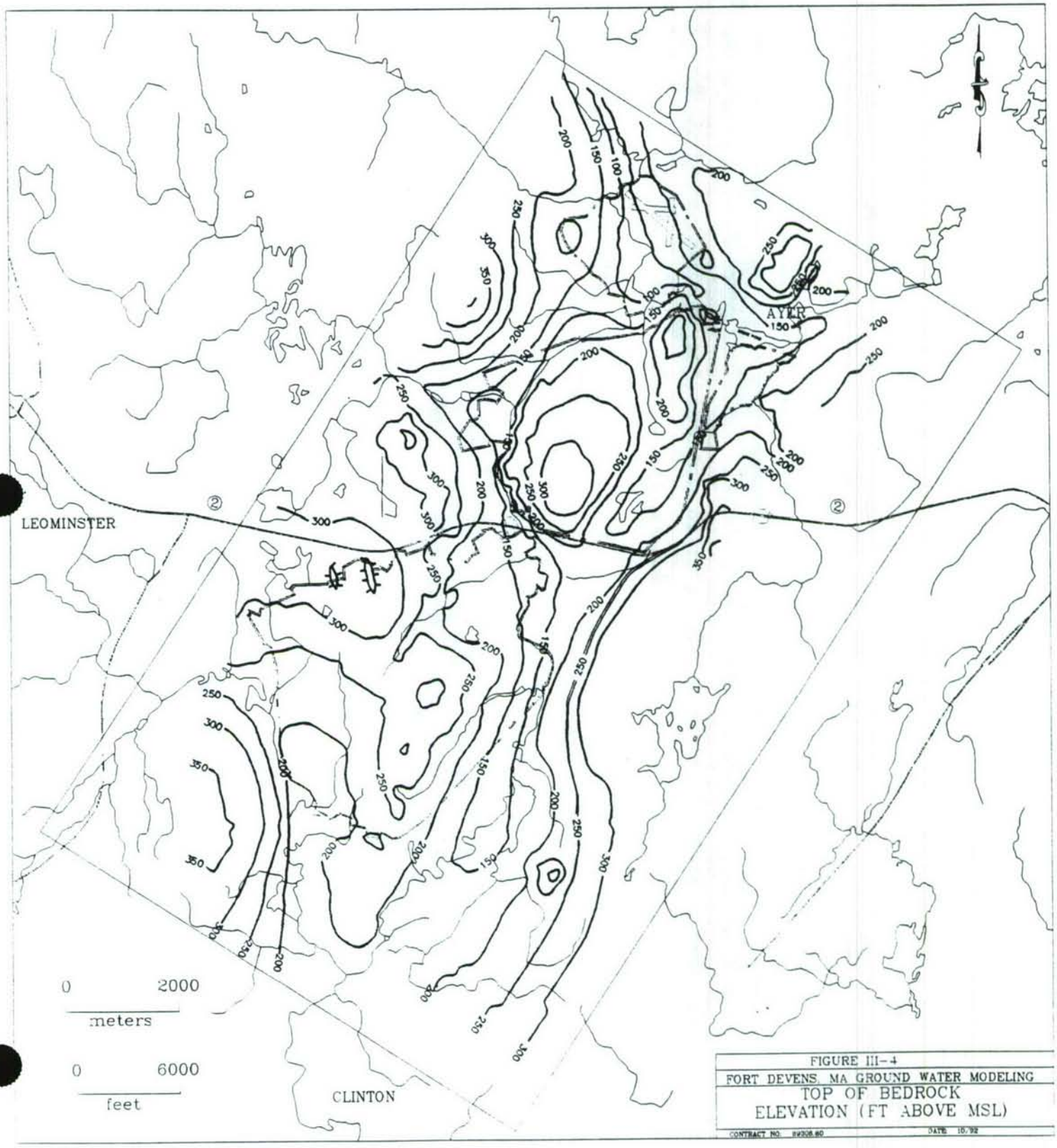
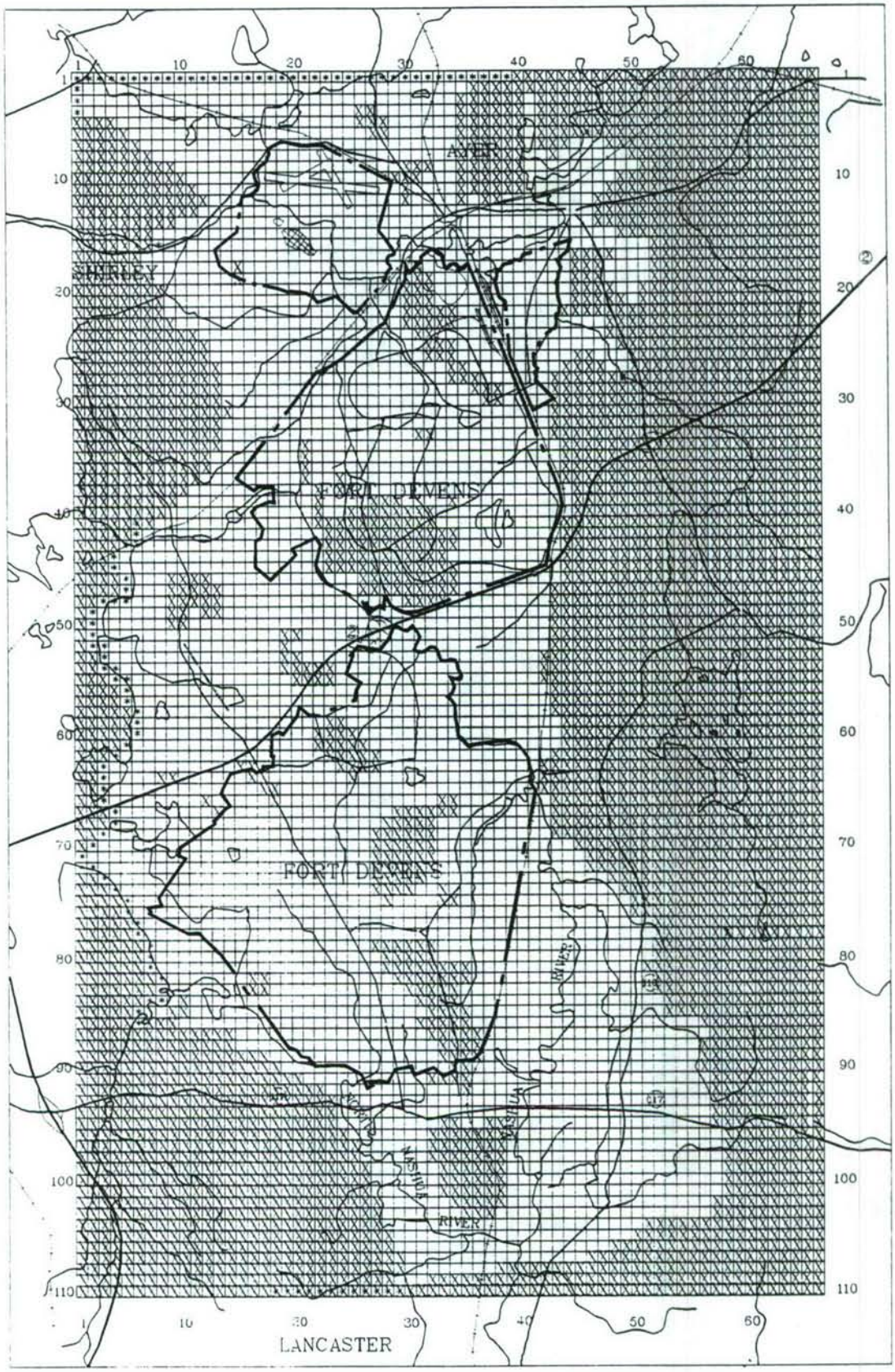



FIGURE III-4
FORT DEVENS, MA GROUND WATER MODELING
TOP OF BEDROCK
ELEVATION (FT ABOVE MSL)
CONTRACT NO. 89308.60 DATE 10/92

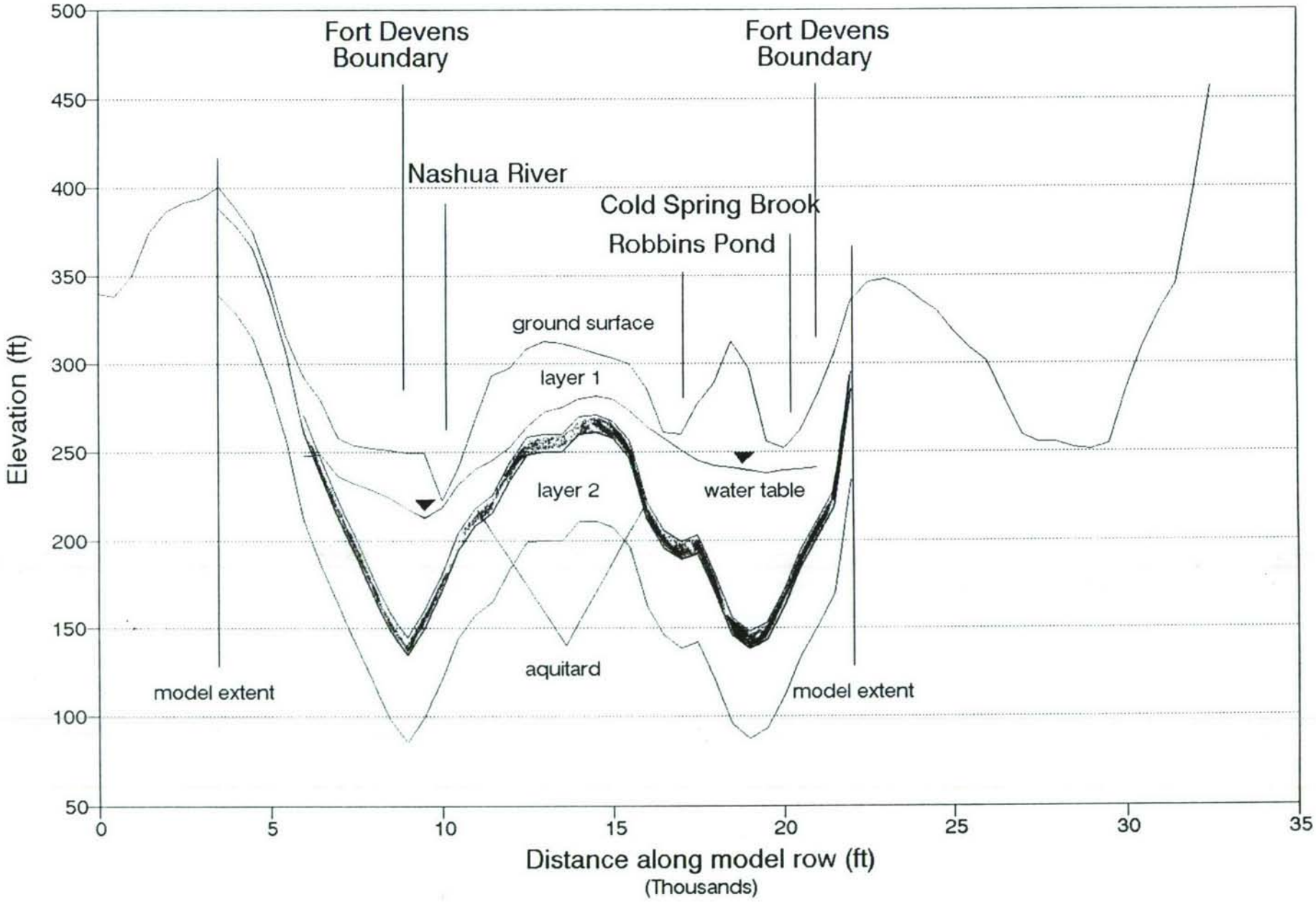



· CONSTANT HEAD NODE
X INACTIVE NODE

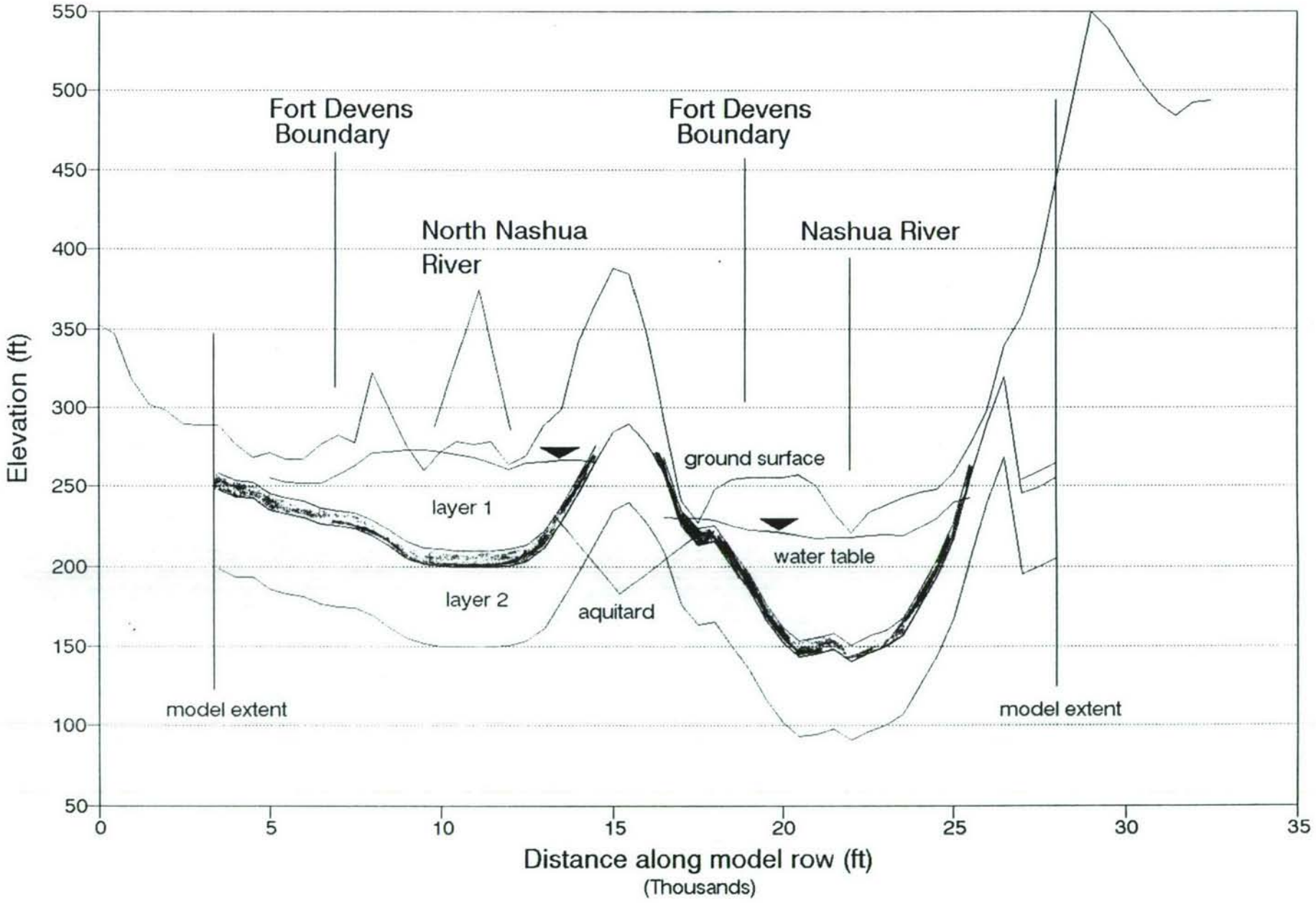
0 6000
feet

FIGURE III-5
FORT DEVENS, MA GROUND WATER MODELING
GLACIAL OUTWASH AQUIFER MODEL AREA
CONTRACT NO. 89306.8 DATE: 10/92

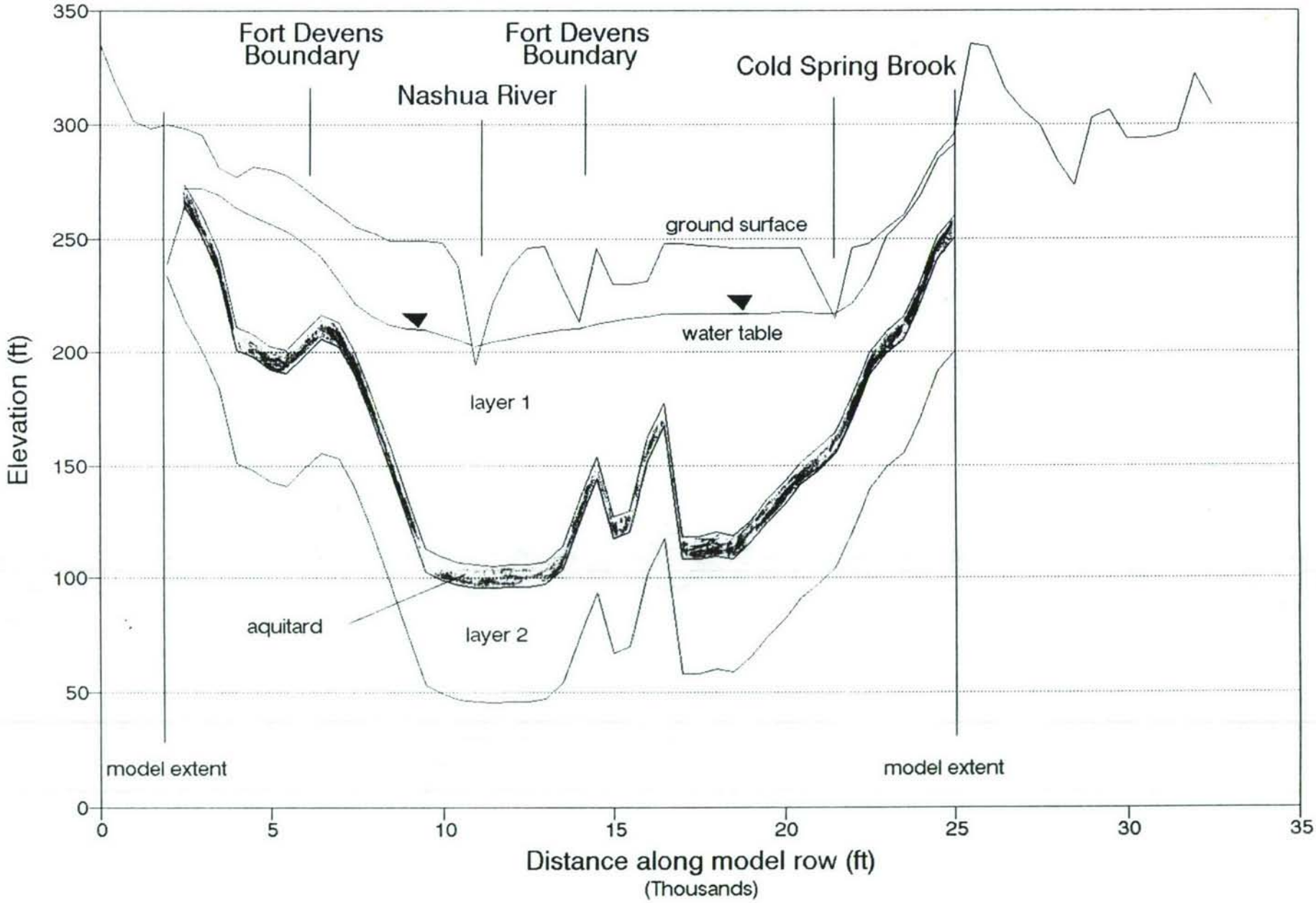
# Figure III-6
## Cross Section 1 - Main Post



# Figure III-7
## Cross Section 2 - South Post



# Figure III-8
## Cross Section 3 - North Post



## D. Aquifer Characteristics

### 1. Glacial Outwash

Available data on the characteristics of the glacial outwash aquifer included pump test data and slug test data.

Slug tests were conducted on the newly installed Fort Devens monitoring wells (E&E, 1992a). Both rising and falling head tests were conducted on monitoring wells in the Shepley's Hill, Cold Spring Brook, and EOD areas. The arithmetic mean hydraulic conductivity from 55 tests on 29 wells was 39 ft/day. The geometric mean hydraulic conductivity was 8 ft/day. The geometric mean is a better measure of central tendency for hydraulic conductivity because it is usually assumed to be lognormally distributed (Freeze and Cherry, 1979).

Statistical analysis was also performed by area. In the Shepley's Hill area, the geometric mean hydraulic conductivity from 33 tests on 21 wells was 15 ft/day. In the Cold Spring Brook area, the geometric mean hydraulic conductivity from 18 tests on nine wells was 6 ft/day. In the EOD area, the geometric mean hydraulic conductivity from four tests on two wells was 0.05 ft/day.

A pump test was performed in January 1941 on the Shebokin (also known as Shabokin or Sheboken depending on the reference) production well. The well was pumped at a rate of 694 gpm for three days. There was one observation well 105 feet from the pumped well. Drawdowns reached steady state by the third day. Using a Thiem (steady state) analysis of the drawdown data yielded a transmissivity of 449,000 gpd/ft. Assuming a saturated thickness of 75 feet, the hydraulic conductivity was 810 ft/day. The lithologic log for this well indicated at least 75 feet of sand and gravel.

A pump test was performed in January 1966 on the MacPherson production well. The well was pumped at a rate of 604 gpm for five days. There were two observation wells for this test; one at 50 feet from the pumped well towards the Nashua River, and one at 200 feet from the pumped well away from the Nashua River. Drawdowns appeared to reach steady state conditions after about 10 hours of pumping. Using a Thiem (steady state) analysis of the drawdown data, and assuming the Nashua River was a constant head boundary (image well analysis), calculations yielded transmissivities of 212,000 gpd/ft for the closer observation well and 103,000 gpd/ft for the further observation well. Assuming a saturated thickness of 85 feet, the mean hydraulic conductivity in this area is 250 ft/day.

Brackley and Hansen (1977) prepared a map of estimated transmissivity in the glacial outwash aquifer that included Fort Devens. Their estimates of hydraulic conductivity ranged from 700 ft/day in coarse clean gravels to 40 ft/day in fine sands. These estimates were used in the development of the bedrock elevation map.

The available data on glacial outwash aquifer hydraulic conductivity (as summarized above) was used to develop an initial distribution of hydraulic conductivity for the model. It was also assumed that the glacial outwash aquifer was more permeable (higher hydraulic conductivity) where it was thicker. This is a common phenomenon and was supported by the inspection of lithologic logs from monitoring and production wells. This was chosen for simplicity in deriving an initial distribution of hydraulic conductivity, however, it is recognized that some of the glacial valleys may be filled with sediments that do not follow this depositional model. Four zones of hydraulic conductivity were initially chosen for the glacial outwash aquifer. Where the glacial drift was thicker than 100 feet, the hydraulic conductivity was initially 100 ft/day. Where the glacial drift was thicker than 50 feet, the hydraulic conductivity was initially 50 ft/day. Where the glacial drift was thicker than 25 feet, the hydraulic conductivity was initially 25 ft/day. Where the glacial drift was thicker than 5 feet, the hydraulic conductivity was initially 10 ft/day. Where the aquifer was less than 5 feet thick, the hydraulic conductivity was two ft/day.

These values were adjusted during the calibration of the model. The hydraulic conductivity in the glacial outwash aquifer south of Plow Shop and Grove Ponds was reduced to 50 ft/day from 100 ft/day. Hydraulic conductivities along the Nashua River, where it forms the eastern boundary of the South Post, were lowered. Hydraulic conductivities in many other small model areas were adjusted. The values used in the calibrated model generally were larger than those derived from slug testing and smaller than the pump testing. Figure III-9 shows the hydraulic conductivities of the glacial outwash aquifer of the calibrated model.

2. Bedrock

There were no data, such as pump or slug test results, for the bedrock. The only data available were a compilation of well yield and some specific capacity data in USGS Open File report 87-221 (Hansen et al, 1989). These data were used to develop an estimate of bedrock hydraulic conductivity.

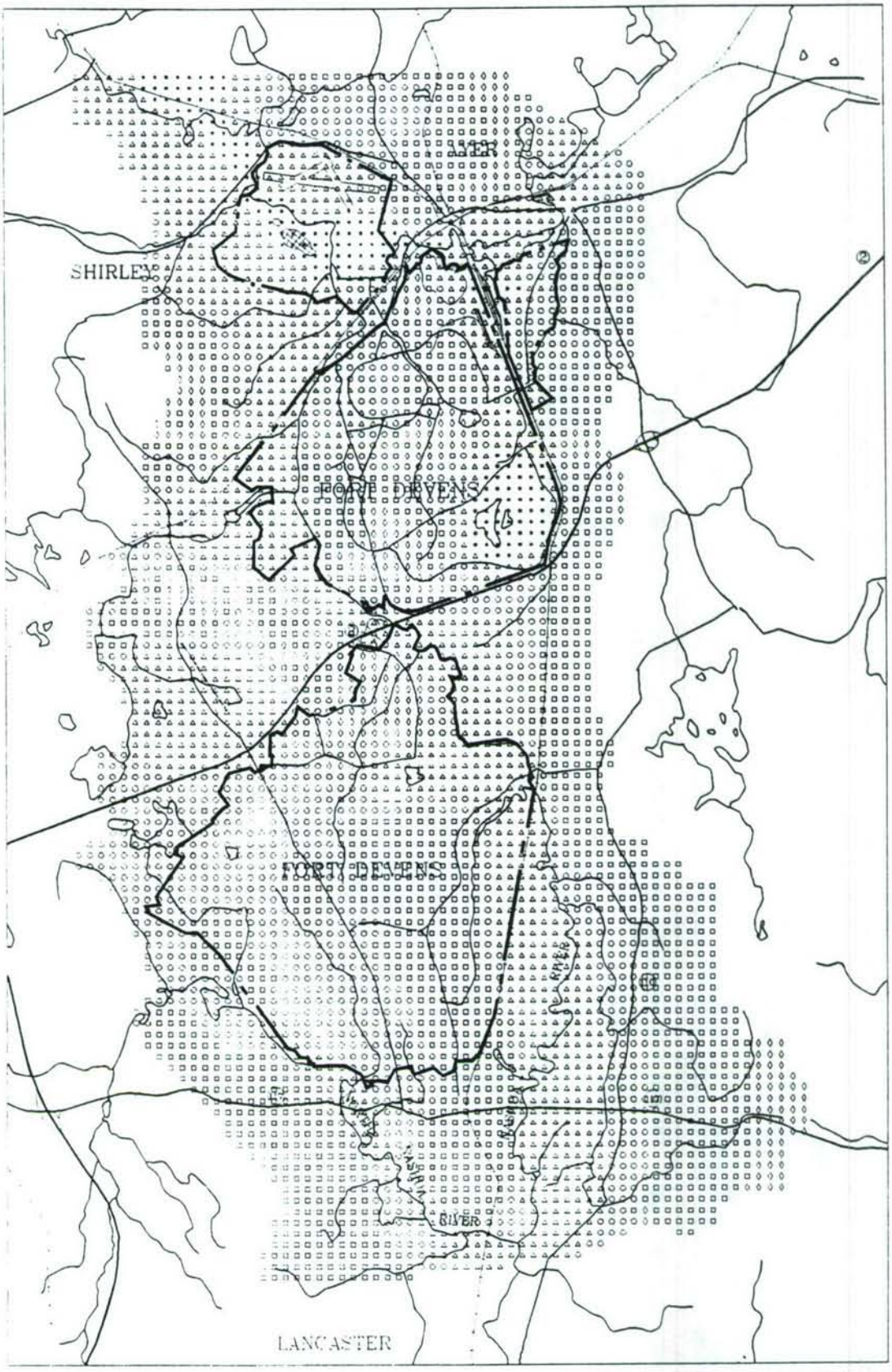



FIGURE III-9

FORT DEVENS, MA GROUND WATER MODELING

GLACIAL OUTWASH AQUIFER
HYDRAULIC CONDUCTIVITIES

CONTRACT NO.: 89306.8 | DATE: 10/92

As previously discussed, ground water flow through the bedrock aquifer is through fractures in the rock which differs from flow through a porous media. Porous media flow (Darcy's law) is one of the basic assumptions of the model. A fractured rock aquifer may be simulated, however, by assuming that a certain volume of fractured rock (the representative elementary volume) acts in a hydraulically similar fashion to granular porous media (Freeze and Cherry, 1979). This approach known the continuum approach was used to simulate the bedrock aquifer at Fort Devens. A related assumption was that horizontal hydraulic conductivity in the bedrock was isotropic.

The basic approach to estimating bedrock hydraulic conductivity was to use reported or estimated specific capacities to calculate transmissivity using the following relationship.

$$T = 2000 \cdot (SC)$$

(Remson, 1975)

where:

T = transmissivity (gpd/ft)
SC = specific capacity (gpm/ft)

From the well data within and close to the model area (107 bedrock wells), there were two measurements of specific capacity, and 74 reported yields. Figure III-10 shows the distribution of well yield. The two specific capacity measurements were both less than one gpm/ft, but using only two measurements to estimate bedrock hydraulic conductivity would not result in a robust estimation. Estimates of specific capacity were made from the available yield information.

A common assumption is that there is a relationship exists between the depth of a bedrock well and the yield. Deeper wells intersect more water bearing fractures. Figure III-11 shows the relationship between well yield and bedrock thickness for the 74 bedrock wells around Fort Devens. Bedrock thickness is defined as the total well depth minus the depth of overburden. There is no apparent correlation between well yield and bedrock thickness. Figure III-11 does not indicate that there is a particular depth beyond which little or no ground water may be obtained. The model is also insensitive to the assumed thickness (see discussion in section III.C). Therefore any reasonable assumption may be made.

Figure III-10

# Bedrock Well Yields

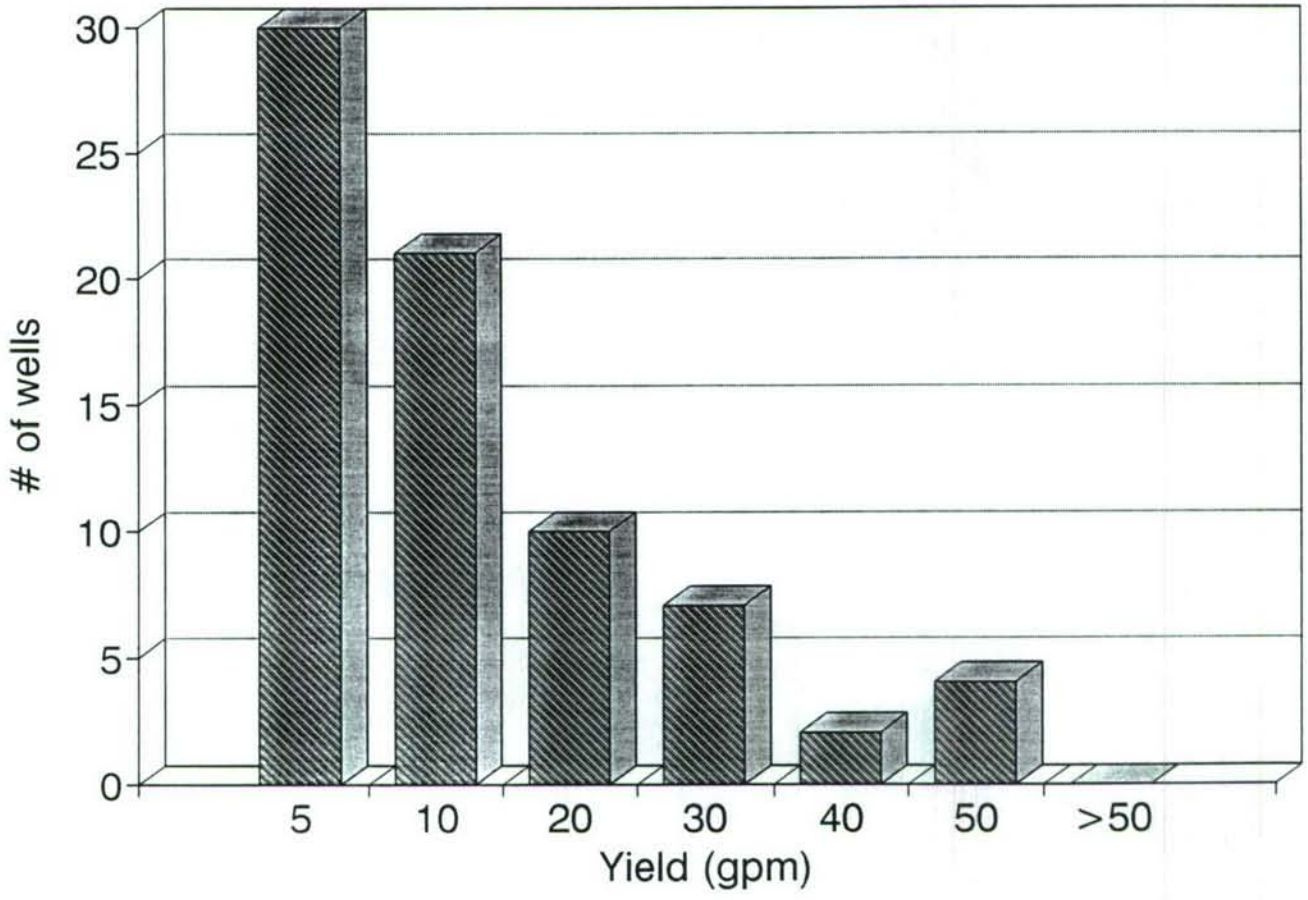
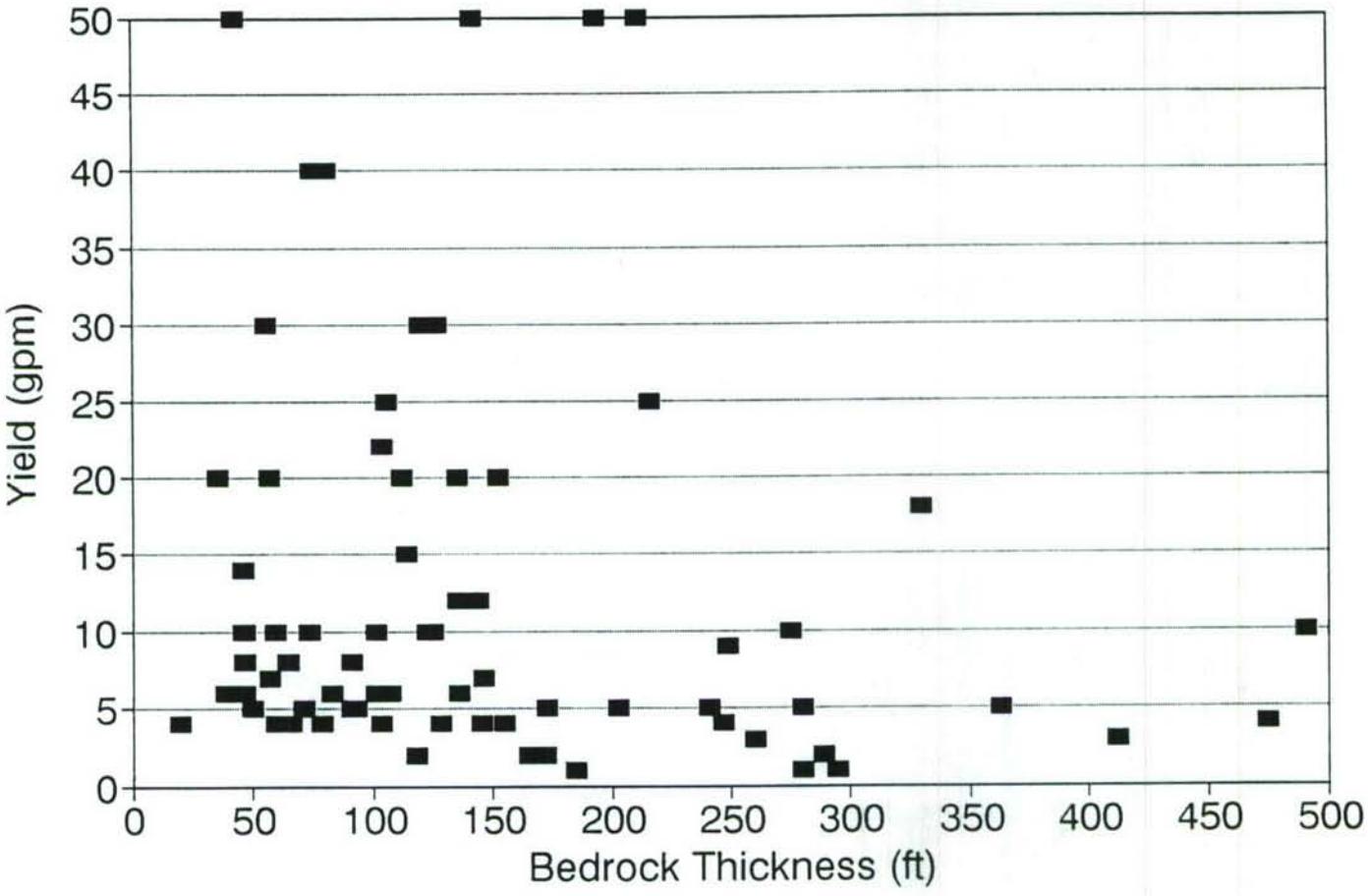


Figure III-11

# Bedrock Well Thickness versus Yield



Two different approximations were used to estimate specific capacity from well yield. The first was to divide yield (gpm) by half the estimated saturated thickness of bedrock (ft). The second was to divide yield by half the available drawdown. These two different approximations resulted in similar estimates for the wells, so the first approximation was used for the calculations. Figure III-12 shows the derived distribution of specific capacity. The average estimated specific capacity was 0.27 gpm/ft. The geometric mean specific capacity was 0.14 gpm/ft. Since hydraulic conductivity is usually assumed to be lognormally distributed, the geometric mean was used in the estimate (Freeze and Cherry, 1979). Applying the above approximation results in a transmissivity of 270 gpd/ft. Assuming the 50 foot thickness of bedrock aquifer, the resulting hydraulic conductivity is 0.7 ft/day. This value was used as an initial approximation in the entire bedrock aquifer. It was not altered during the model calibration.

3. Leakance

The aquifer delineation assumed a ten foot thick aquitard between the glacial outwash and bedrock aquifers. Lithologic logs often describe this material as till, but it could also be a glacial lacustrine deposit of clay (varved clay), or heavily weathered bedrock. Regardless of its depositional history, however, there is likely to be significant resistance to vertical flow between the fractured bedrock and glacial outwash aquifers.

The leakance of the aquitard was initially assumed to be 0.01 $day^{-1}$ except where the glacial outwash sediments was less than 25 feet thick. A value of 0.1 $day^{-1}$ was initially assumed at these locations because monitoring well logs from these locations generally did not show a clay layer beneath clean sand deposits and above the bedrock. These values were based on professional judgement.

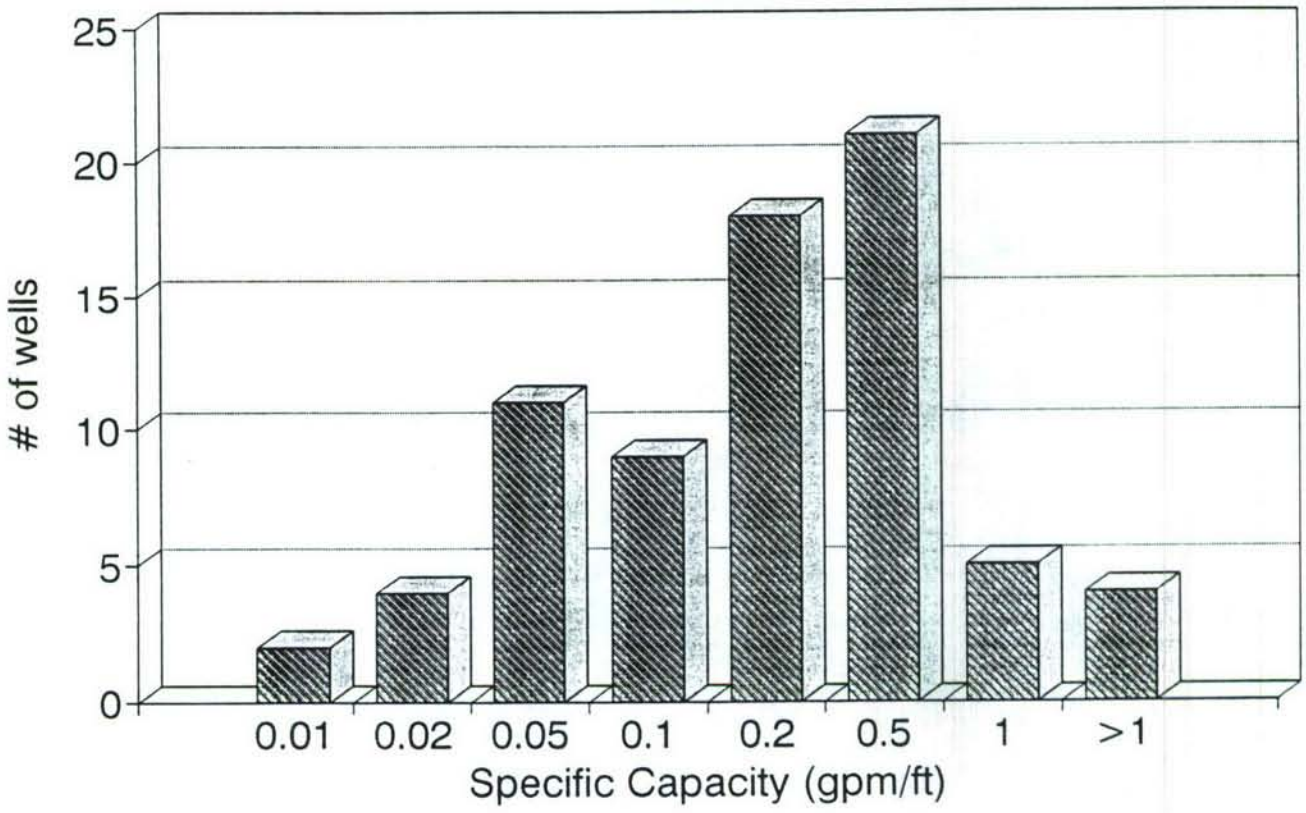
## E. Streams

River, streams, ponds and lakes were modeled as streams using MODFLOW's river routine. These surface water bodies are shown on Figure II-2. The model simulated the stream/aquifer interaction based on Darcy's law. The river routine required the stream bottom and stage elevations; and stream conductance. MODFLOW calculates ground water-surface water interchange using the following equation.

$$Q = CRIV\ (HRIV-H)$$

Figure III-12

# Distribution of Estimated Specific Capacity in Bedrock Wells



where:

Q = flow between stream and aquifer
CRIV = hydraulic conductance of the stream-aquifer interconnection
HRIV = stream stage
H = head in grid cell

The above equation is used when head in the grid cell (H) is greater than the elevation of the bottom of the stream (RBOT). When aquifer head (H) is below the elevation of the bottom of the stream (RBOT), the following equation is used.

$$Q = CRIV\ (HRIV-RBOT)$$

The stream bottom elevations within Fort Devens were estimated from site topography (1:4800), and the elevations outside of the installation were estimated from USGS quadrangles (1:25000).

Within Fort Devens, measured stage elevations for surface water were available for September 1992 on the same day ground water elevations were measured. There were five measurements along the Nashua River and also at several ponds: Plow Shop Pond, Grove Pond, Robbins Pond, Cold Spring Brook Pond and Mirror Lake. The stage elevations for the remaining streams were estimated by assuming the depth and then adding to the estimated stream bottom elevation. For minor tributaries to the Nashua and North Nashua Rivers, stream depths of two to three feet were assigned at their confluences, and were tapered to zero depths at their headwaters. For the North Nashua River, stream depths were assumed to be five feet throughout the model.

Stream conductivity was estimated by the equation in the MODFLOW manual:

$$CRIV = KLW/M$$

where:

CRIV = Stream Conductivity ($ft^2$/day)
K = Vertical Hydraulic Conductivity (ft/day)
L = Stream Length (ft)
W = Stream Width (ft)
M = Streambed Thickness (ft)

Vertical hydraulic conductivity was taken from a USGS report on stream-aquifer relations (de Lima, 1991) in the Nashua River Basin. This report estimated vertical hydraulic conductivity and stream leakances based on pumping tests near streams lying on top of glacial drift. The streams studied in the report are within the Nashua River watershed and are located in or near the model area. The range of estimated vertical hydraulic conductivity values

was 2 to 5 ft/day (de Lima, 1991). For the Nashua and North Nashua Rivers, a vertical hydraulic conductivity value of 5 ft/day was used, and for the tributaries, 2 ft/day was used. For streams located on non-glacial material, such as bedrock, the vertical hydraulic conductivity was assumed to be lower, and a value of 1 ft/day was used. The USGS report assumed vertical hydraulic conductivity for Lake Shirley, located in Catacoonamug Brook, at 0.4 ft/day (de Lima, 1991). Using this value as a guide, the vertical hydraulic conductivity for ponds ranged from 0.2 to 2 ft/day. Lower values were modeled in the ponds due to lake bottom build up of clay and silt deposits. The stream length was the stream distance within the individual grid node. For the tributaries, the stream widths were assigned a value of 25 feet and for the Nashua and North Nashua Rivers the widths were 80 feet. For ponds and lakes, the length and width was the area of the node covered by water. The USGS report also estimated stream bed thickness as one foot thick for small streams (de Lima, 1991) which was applied to the tributaries in the model. Two feet of thickness was assumed for the Nashua and North Nashua Rivers, and five feet for lakes.

F. Recharge

Recharge was defined as the net excess of precipitation over evapotranspiration and runoff. The initial recharge input to the model was assumed to be 12 inches/year. From a USGS hydrologic investigation of the Nashua and Souhegan Rivers (Brackley, 1977), the annual precipitation was about 42 inches/year and the annual stream discharge from ground water and surface runoff was about 20 inches/year. Annual recharge will be lower than 20 inches/year but greater than zero, thus the initial estimate was considered as a reasonable assumption. This parameter was varied during the calibration process.

Recharge was distributed similarly to hydraulic conductivity because during the calibration, it was found that more recharge was needed in valley areas where thick outwash sediments were located and less recharge was needed in bedrock outcrop and areas covered with till at the surface. Where the glacial drift is thick, the soils have a high potential for infiltration, and where the bedrock outcrops, the soil is less permeable (see the above discussion of initial hydraulic conductivity assumptions, Section III.D.1). Within the model area where the glacial drift aquifer was greater than 25 feet, the maximum rate was applied. For areas where the glacial drift was between 10 feet and 25 feet thick, the recharge was 50 percent of the maximum rate. Where the glacial drift was less than ten feet thick, recharge was initially assumed to be 20 percent of the maximum. At bedrock outcrops and exposed till areas where the glacial drift aquifer did not exist, recharge was

initially assumed to be 10 percent to 20 percent to reflect the high runoff potential. Under the capped Shepley's Hill landfill, recharge was assumed to be negligible. During calibration, some small areas were adjusted to account for local deviations from the initial recharge distribution. The final maximum recharge was 14 inches/year with an average recharge of 10.7 inches/year for the entire model area. Figure III-13 shows the final distribution of the recharge.

## G. Pumpage

Water supply wells existed at Fort Devens and the nearby Town of Shirley. At the installation, there are three main water supply wells: Shebokin, MacPherson, and Patton. Another well, which actually is a series of well points, is located at Grove Pond and is used intermittently. Monthly pumpage records were available for the Fort Devens wells from January 1990 to June 1992. The average pumping rates for this period were used in the model. The averages were:

| | |
|---|---|
| Shebokin: | 253 gpm |
| MacPherson: | 243 gpm |
| Patton: | 205 gpm |
| Grove Pond: | 13 gpm. |

The Town of Shirley has three pumping wells within the model area. The cumulative pumping rate for these wells was 188 gpm. The Fort Devens and Town of Shirley wells are shown on Figure III-14. Minor pumpage at the MCI Prerelease Center was not included in the model because the pumpage was negligible in comparison with the other pumpage.

Located on the north post of Fort Devens is the waste water treatment plant which discharges to an infiltration pond. Figure III-14 show the location. The infiltration basin is a recharge source to the ground water and was simulated as a series of injection wells. The basin rates were considered as negative pumpage with an average flow of 900 gpm (USAEHA, 1979). This rate may be inaccurate because it exceeds the total pumpage at Fort Devens. The deviation may be due to the differences in timing (the basin infiltration rate was from the 1970's and the pumpage was developed from records in the 1990's), or added flow from infiltration and inflow to the Fort Devens sewerage.

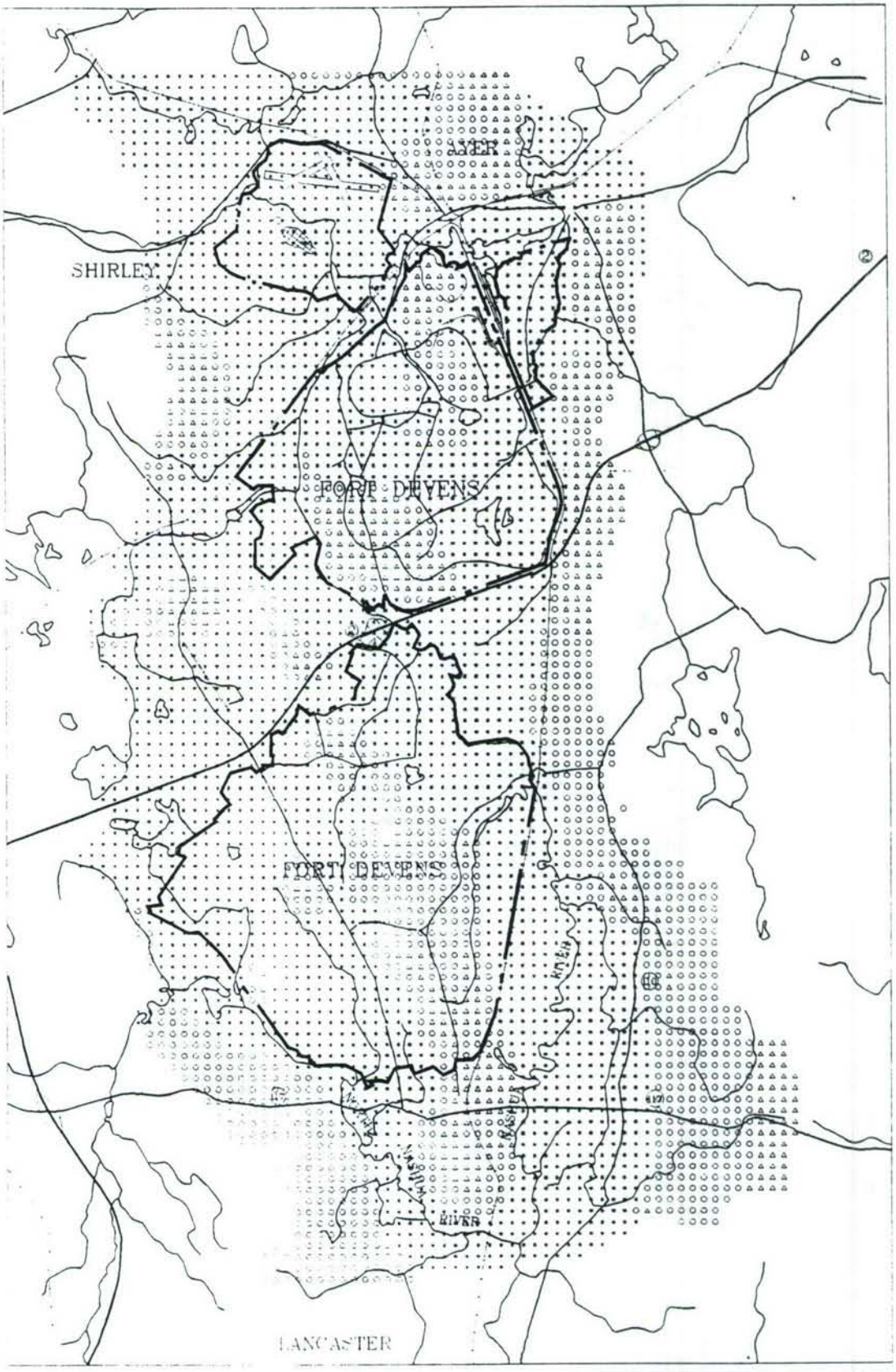



FIGURE III-13

FORT DEVENS, MA GROUND WATER MODELING

RECHARGE DISTRIBUTION

CONTRACT NO. 89306.8 DATE: 10/92

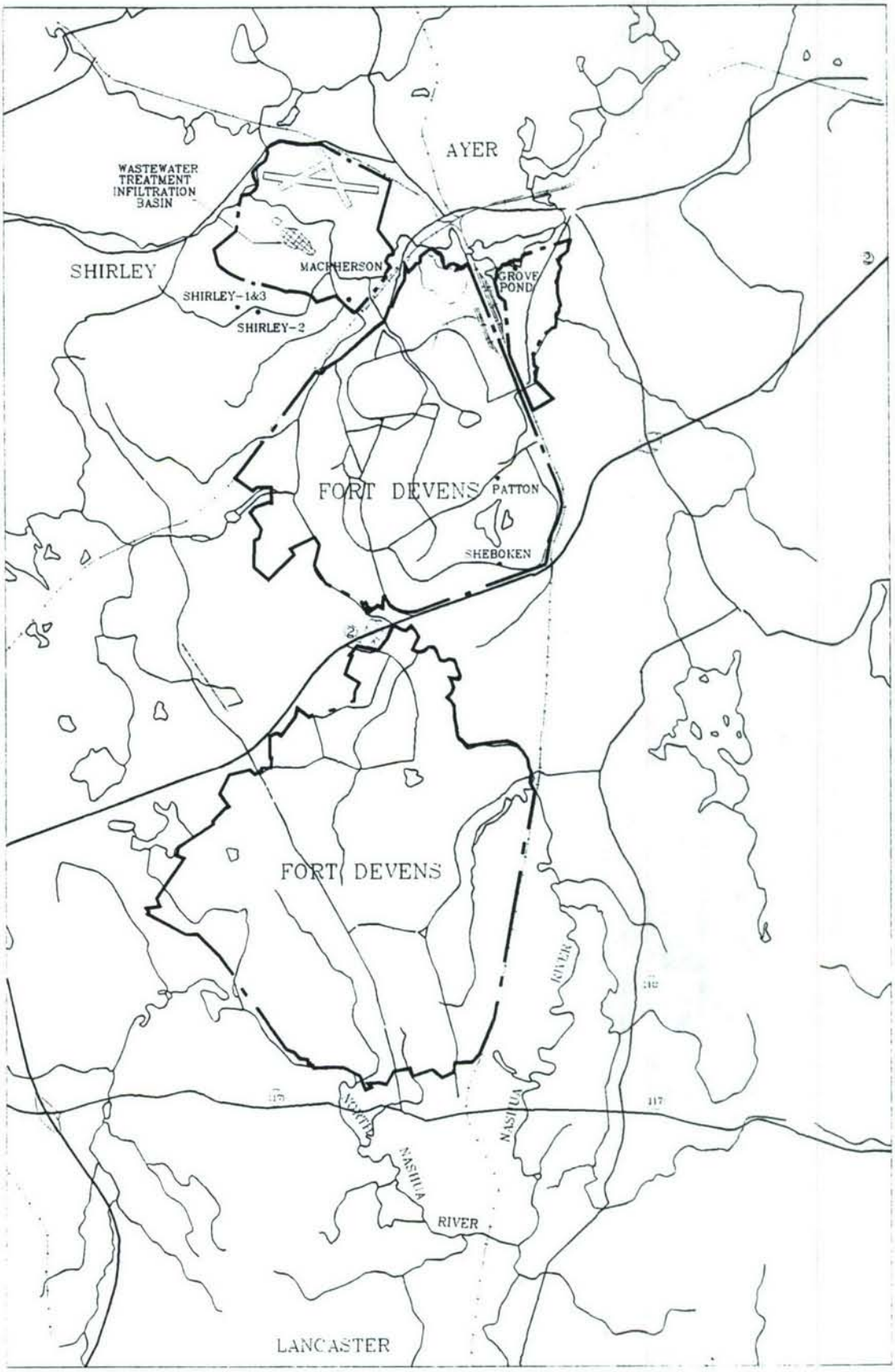



FIGURE III-14
FORT DEVENS, MA GROUND WATER MODELING
PRODUCTION WELLS & INFILTRATION BASIN LOCATIONS
CONTRACT NO. 89306.8 DATE 5/93

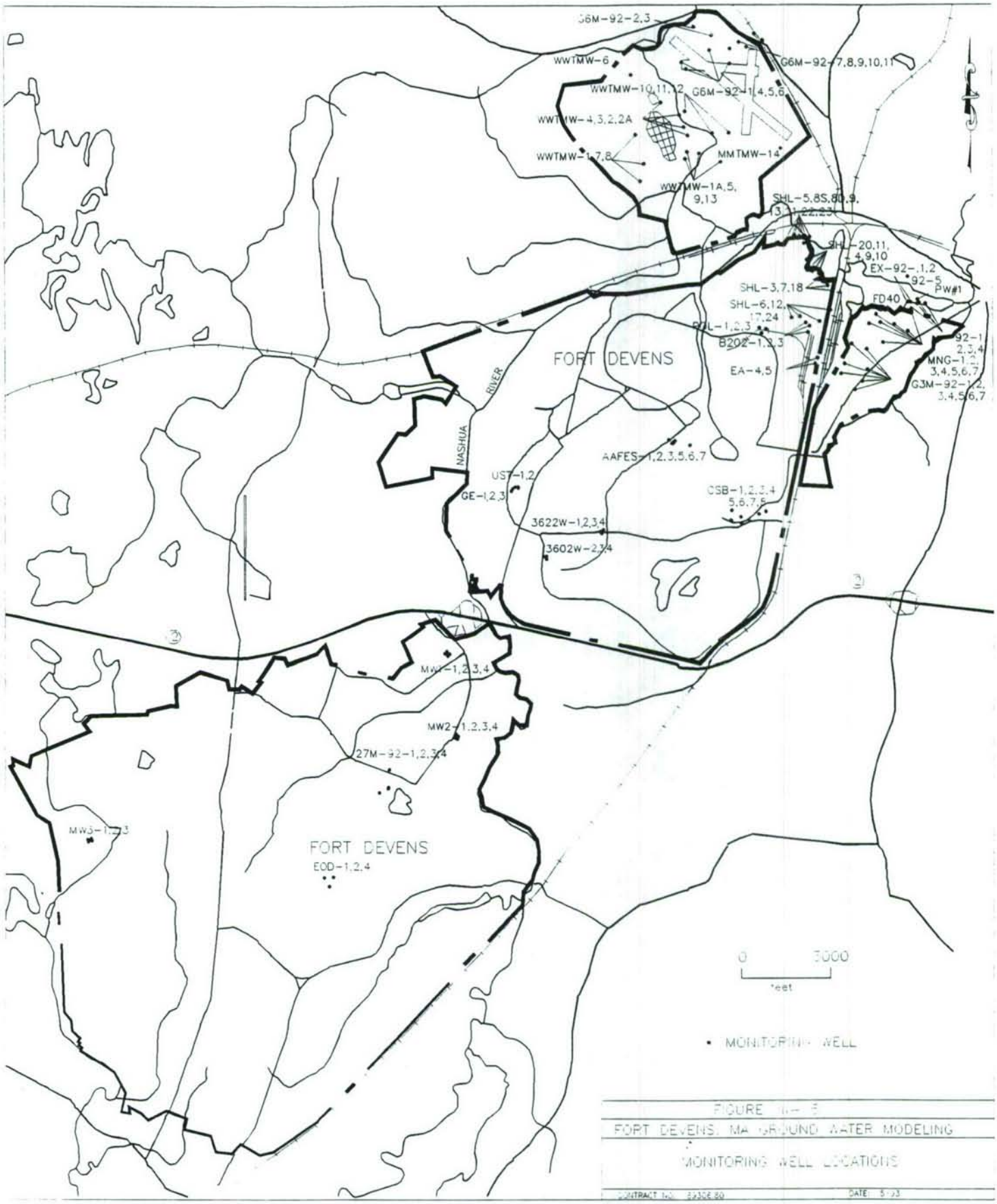
## H. Calibration

The objective of calibration was to develop a flow model that reflects the long term water levels of the glacial outwash and the bedrock aquifers. The model simulated steady state conditions to achieve this objective. The calibration process was based on the comparison of measured water levels with those of the predicted water levels by the model. The deviations between measured and calculated water levels were minimized by adjusting the initial model parameters within accepted limits. The flow model was calibrated to September 1992 water levels. These data were used because they were the most comprehensive set of the ground water data available, even though September is likely to be a seasonably low period. The monitoring well locations are shown in Figure III-15. Appendix A contains a monitoring well inventory. In addition to matching water levels, the total water budget must balance, i.e. ground water inflow equals ground water outflow. Another guide to checking the model results was the estimation of the baseflow in streams from the discharge of ground water, or the flow into ground water from perched ponds for example.

The initial head distribution was computed by assuming the depth to water was ten feet for both layers. Where constant heads existed at surface water, the heads reflected the actual water elevations. The assumed initial head distribution had no impact on the modeling because the steady state conditions were simulated.

The parameters that were adjusted during calibration were recharge, horizontal hydraulic conductivity, and leakance (vertical conductance). All adjustments were made within the reasonable range of values for that parameter. The calibration was sensitive to recharge and horizontal hydraulic conductivity, whereas vertical conductance was an insensitive parameter. These parameters are further investigated in the sensitivity analysis. The model areas requiring the most scrutiny were the highland areas, in particular, the areas where the glacial outwash was thinning into till then onto bedrock highs. These transition areas of the surficial geology required the most attention in simulating water levels.

The initial simulation used a single value of recharge, 13 inches/year. This value caused ground water heads in bedrock outcrop areas to be much higher than they should have been. Recharge was then reduced in these areas to the values discussed in the recharge section of the report (Section III.F.). Ultimately, recharge in the flat, valley areas where the glacial outwash aquifer had large hydraulic conductivities was raised to 14 inches/year. After achieving reasonable water levels in the model as a whole,


G6M-92-2,3
WWTMW-6
G6M-92-7,8,9,10,11
WWTMW-10,11,12
G6M-92-1,4,5,6
WWTMW-4,3,2,2A
WWTMW-1,7,8
MMTMW-14
WWTMW-1A,5,9,13
SHL-5,8S,8D,9,13,21,22,23
SHL-20,11,4,9,10
EX-92-1,2
92-5
PW#1
SHL-3,7,18
FD40
SHL-6,12,17,24
SHL-1,2,3
B202-1,2,3
92-1,2,3,4
MNG-1,2,3,4,5,6,7
EA-4,5
GJM-92-1,2,3,4,5,6,7
FORT DEVENS
NASHUA RIVER
AAFES-1,2,3,5,6,7
UST-1,2
GE-1,2,3
CSB-1,2,3,4,5,6,7,8
3622W-1,2,3,4
3602W-2,3,4
MW1-1,2,3,4
MW2-1,2,3,4
27M-92-1,2,3,4
MW3-1,2,3
FORT DEVENS
EOD-1,2,4
0
3000
feet
• MONITORING WELL
FIGURE
FORT DEVENS, MA GROUND WATER MODELING
MONITORING WELL LOCATIONS
CONTRACT No. DAA35-90
DATE: 5-93

the calibration proceeded by adjusting hydraulic conductivities in specific areas of the model where the comparison to model to measured water levels was poor. If gradients were too steep in an area, hydraulic conductivities were increased; if gradients were too flat, hydraulic conductivities were decreased.

One hundred and six wells, almost all on Fort Devens or Massachusetts National Guard property, were used in calibration. Ninety-seven of these were in the glacial outwash aquifer. Nine monitoring wells were assumed to reflect bedrock aquifer water levels. These were well clusters AAFES and EOD. Based on review of their water levels and boring logs, the AAFES wells showed a very thin layer of saturated thickness of sandy material located on bedrock or till, and the EOD wells similarly showed a saturated till overlying the bedrock. These well clusters were mostly completed in material more representative of the confining till or weathered bedrock than that of the glacial outwash.

Some monitoring wells with measured water levels were not used in the calibration. These wells were considered to be either under perched conditions or were completed in glacial drift with very thin saturated thickness. Both cases are not feasible to simulate at this model scale. Well clusters 3602W, 3622W, GE, POL, and UST in the Main Post are on a topographic high and are characterized by extensive bedrock outcrops with the wells screened in sandy material with minimal saturated thicknesses. These areas did not remain saturated during model simulations because of the numerical algorithm. Well cluster MW-2, which is at a South Post refueling area, has water levels that were much higher than surrounding ground and surface water levels. These wells were considered perched and were not used in the calibration.

Statistics for the average and root-mean-square (RMS) deviations were computed between measured and calculated water levels for each layer and overall. The final statistics, at the completion of calibration, for the individual wells are shown in Table III-1. The overall statistics showed an average difference between the measured and calculated water levels as -0.3 feet with a RMS of 3.0 feet. Layer one (glacial outwash aquifer) provided good results with an average difference of -0.35 feet and RMS of 2.80. In particular, the area of Plow Shop and Grove Ponds provided a good match between the measured and calculated water levels. The average deviation in layer two was 0.22 feet with a RMS of 4.68 feet. A drawback of modeling layer two (bedrock aquifer) was that it had fewer measurements which were concentrated at two locations.

TABLE III-1

STEADY STATE CALIBRATION STATISTICS

NOTE: Layer 1 = Glacial Outwash Aquifer
Layer 2 = Bedrock Aquifer

| X-MODEL | Y-MODEL | LAYER | MEASURED | MODFLOW | DIFF | WELL-ID |
|---|---|---|---|---|---|---|
| 17469. | 44596. | 1 | 225.81 | 222.64 | -3.17 | B202-1 |
| 17637. | 44568. | 1 | 226.07 | 222.71 | -3.36 | B202-2 |
| 17707. | 44363. | 1 | 226.81 | 223.37 | -3.44 | B202-3 |
| 18878. | 37812. | 1 | 241.70 | 243.70 | 2.00 | CSB-1 |
| 19058. | 37506. | 1 | 241.16 | 243.66 | 2.50 | CSB-2 |
| 19405. | 37603. | 1 | 241.50 | 244.13 | 2.63 | CSB-3 |
| 19261. | 37783. | 1 | 243.89 | 244.31 | .42 | CSB-4 |
| 19720. | 38203. | 1 | 241.02 | 243.30 | 2.28 | CSB-6 |
| 19859. | 38410. | 1 | 240.76 | 241.95 | 1.19 | CSB-7 |
| 19552. | 37859. | 1 | 241.84 | 244.12 | 2.28 | CSB-8 |
| 18486. | 43597. | 1 | 229.03 | 225.17 | -3.86 | EA-04 |
| 18451. | 43802. | 1 | 228.51 | 224.68 | -3.83 | EA-05 |
| 12250. | 44750. | 1 | 211.00 | 204.90 | -6.10 | MACPHERSON |
| 20032. | 45462. | 1 | 224.29 | 219.99 | -4.30 | MNG-1 |
| 19304. | 46144. | 1 | 217.99 | 218.24 | .25 | MNG-2 |
| 20303. | 46823. | 1 | 217.18 | 217.54 | .36 | MNG-3 |
| 19275. | 45737. | 1 | 221.39 | 219.44 | -1.95 | MNG-4 |
| 19579. | 45986. | 1 | 219.73 | 218.79 | -.94 | MNG-5 |
| 20013. | 46185. | 1 | 218.18 | 218.37 | .19 | MNG-6 |
| 20528. | 46242. | 1 | 218.69 | 218.26 | -.43 | MNG-7 |
| 13449. | 28505. | 1 | 232.64 | 230.73 | -1.91 | MW1-1 |
| 13571. | 28486. | 1 | 232.07 | 229.43 | -2.64 | MW1-2 |
| 13562. | 28398. | 1 | 232.26 | 230.86 | -1.40 | MW1-3 |
| 13434. | 28413. | 1 | 232.90 | 232.40 | -.50 | MW1-4 |
| 6950. | 16531. | 1 | 315.45 | 309.92 | -5.53 | MW3-1 |
| 6876. | 16435. | 1 | 316.43 | 309.18 | -7.25 | MW3-2 |
| 6807. | 16493. | 1 | 315.67 | 310.51 | -5.16 | MW3-3 |
| 6884. | 16585. | 1 | 315.76 | 311.16 | -4.60 | MW3-4 |
| 18750. | 36750. | 1 | 236.00 | 241.30 | 5.30 | PATTON |
| 18750. | 32750. | 1 | 230.80 | 234.60 | 3.80 | SHEBOKEN |
| 17043. | 46114. | 1 | 217.69 | 217.82 | .13 | SHL-3 |
| 16574. | 46240. | 1 | 217.48 | 217.51 | .03 | SHL-4 |
| 15691. | 46954. | 1 | 213.38 | 214.90 | 1.52 | SHL-5 |
| 17833. | 44891. | 1 | 226.10 | 221.69 | -4.41 | SHL-6 |
| 17626. | 45969. | 1 | 219.20 | 218.56 | -.64 | SHL-7 |
| 15872. | 47068. | 1 | 213.63 | 215.13 | 1.50 | SHL-8D |
| 15872. | 47068. | 1 | 213.26 | 215.13 | 1.87 | SHL-8S |
| 15523. | 46876. | 1 | 212.85 | 214.58 | 1.73 | SHL-9 |
| 16929. | 46236. | 1 | 217.39 | 217.56 | .17 | SHL-10 |
| 16370. | 46421. | 1 | 217.32 | 216.86 | -.46 | SHL-11 |
| 16975. | 44478. | 1 | 225.92 | 222.50 | -3.42 | SHL-12 |
| 15999. | 47119. | 1 | 213.92 | 215.24 | 1.32 | SHL-13 |
| 17193. | 44667. | 1 | 225.77 | 222.50 | -3.27 | SHL-17 |
| 17399. | 46060. | 1 | 216.49 | 217.95 | 1.46 | SHL-18 |
| 16708. | 46190. | 1 | 217.84 | 217.91 | .07 | SHL-19 |
| 16336. | 46414. | 1 | 217.37 | 216.81 | -.56 | SHL-20 |

TABLE III-1 (continued)

| X-MODEL | Y-MODEL | LAYER | MEASURED | MODFLOW | DIFF | WELL-ID |
|---|---|---|---|---|---|---|
| 15963. | 46837. | 1 | 213.74 | 215.48 | 1.74 | SHL-21 |
| 15530. | 46908. | 1 | 213.05 | 214.58 | 1.53 | SHL-22 |
| 15390. | 46527. | 1 | 213.62 | 214.10 | .48 | SHL-23 |
| 17933. | 45406. | 1 | 222.82 | 220.31 | -2.51 | SHL-24 |
| 10210. | 45624. | 1 | 208.65 | 208.77 | .12 | WWTMW-01 |
| 10970. | 47334. | 1 | 203.76 | 203.82 | .06 | WWTMW-01 |
| 10680. | 47823. | 1 | 203.45 | 203.54 | .09 | WWTMW-02 |
| 10410. | 47992. | 1 | 203.37 | 203.33 | -.04 | WWTMW-02 |
| 10071. | 48260. | 1 | 202.92 | 201.87 | -1.05 | WWTMW-03 |
| 9318. | 48288. | 1 | 204.05 | 203.95 | -.10 | WWTMW-04 |
| 11041. | 47103. | 1 | 202.49 | 203.75 | 1.26 | WWTMW-05 |
| 7966. | 48525. | 1 | 215.82 | 209.78 | -6.04 | WWTMW-06 |
| 9204. | 46896. | 1 | 213.97 | 210.73 | -3.24 | WWTMW-07 |
| 9986. | 46199. | 1 | 207.89 | 208.66 | .77 | WWTMW-08 |
| 11334. | 47508. | 1 | 202.93 | 202.83 | -.10 | WWTMW-09 |
| 11323. | 48338. | 1 | 202.90 | 202.61 | -.29 | WWTMW-10 |
| 10153. | 48459. | 1 | 202.59 | 201.92 | -.67 | WWTMW-11 |
| 11783. | 48648. | 1 | 203.58 | 205.11 | 1.53 | WWTMW-12 |
| 12094. | 47657. | 1 | 203.44 | 205.31 | 1.87 | WWTMW-13 |
| 13529. | 49152. | 1 | 207.95 | 210.79 | 2.84 | WWTMW-14 |
| 19407. | 43789. | 1 | 227.00 | 224.43 | -2.57 | G3M-92-1 |
| 20104. | 43573. | 1 | 224.73 | 224.42 | -.31 | G3M-92-2 |
| 20078. | 44393. | 1 | 224.98 | 222.53 | -2.45 | G3M-92-3 |
| 19669. | 44964. | 1 | 224.33 | 221.15 | -3.18 | G3M-92-4 |
| 19148. | 44830. | 1 | 224.51 | 221.63 | -2.88 | G3M-92-5 |
| 19316. | 44141. | 1 | 226.53 | 223.55 | -2.98 | G3M-92-6 |
| 20147. | 43960. | 1 | 225.02 | 223.59 | -1.43 | G3M-92-7 |
| 9714. | 50658. | 1 | 204.97 | 204.17 | -.80 | G6M-92-1 |
| 8839. | 51048. | 1 | 203.16 | 202.02 | -1.14 | G6M-92-2 |
| 9496. | 51118. | 1 | 206.43 | 204.13 | -2.30 | G6M-92-3 |
| 9145. | 49811. | 1 | 202.58 | 201.85 | -.73 | G6M-92-4 |
| 9406. | 49699. | 1 | 202.87 | 202.16 | -.71 | G6M-92-5 |
| 10530. | 50636. | 1 | 205.44 | 206.69 | 1.25 | G6M-92-6 |
| 10260. | 51075. | 1 | 206.94 | 206.75 | -.19 | G6M-92-7 |
| 10390. | 51429. | 1 | 208.73 | 208.06 | -.67 | G6M-92-8 |
| 10695. | 51432. | 1 | 209.76 | 209.24 | -.52 | G6M-92-9 |
| 10668. | 51958. | 1 | 211.69 | 210.83 | -.86 | G6M-92-10 |
| 11026. | 51920. | 1 | 211.87 | 212.36 | .49 | G6M-92-11 |
| 14005. | 24046. | 1 | 232.37 | 240.93 | 8.56 | 27M-92-1 |
| 14310. | 23517. | 1 | 234.46 | 241.71 | 7.25 | 27M-92-2 |
| 14161. | 23193. | 1 | 235.21 | 243.18 | 7.97 | 27M-92-3 |
| 14336. | 23471. | 1 | 235.21 | 241.76 | 6.55 | 27M-92-4 |
| 20288. | 47189. | 1 | 217.16 | 217.26 | .10 | 92-1 |
| 20517. | 47349. | 1 | 217.11 | 217.18 | .07 | 92-2 |
| 20220. | 47325. | 1 | 217.21 | 217.14 | -.07 | 92-3 |
| 20215. | 46946. | 1 | 217.40 | 217.41 | .01 | 92-4 |
| 19516. | 47799. | 1 | 217.08 | 217.26 | .18 | 92-5 |
| 20072. | 47124. | 1 | 217.17 | 217.17 | .00 | 1-EX-92 |
| 19993. | 47084. | 1 | 217.15 | 217.13 | -.02 | 2-EX-92 |
| 20321. | 47265. | 1 | 217.16 | 217.20 | .04 | PW#1 |
| 19886. | 46784. | 1 | 217.52 | 217.15 | -.37 | FD40 |

TABLE III-1 (continued)

| X-MODEL | Y-MODEL | LAYER | MEASURED | MODFLOW | DIFF | WELL-ID |
|---|---|---|---|---|---|---|
| 15977. | 38702. | 2 | 277.00 | 275.35 | -1.65 | AAFES-01 |
| 15976. | 38740. | 2 | 276.68 | 274.66 | -2.02 | AAFES-02 |
| 15800. | 38716. | 2 | 284.97 | 280.32 | -4.65 | AAFES-03 |
| 15984. | 38788. | 2 | 276.89 | 273.58 | -3.31 | AAFES-05 |
| 15960. | 38667. | 2 | 277.65 | 276.52 | -1.13 | AAFES-06 |
| 16494. | 38936. | 2 | 249.78 | 261.65 | 11.87 | AAFES-07 |
| 14492. | 19574. | 2 | 329.08 | 327.56 | -1.52 | EOD-1 |
| 14185. | 19727. | 2 | 324.52 | 325.32 | .80 | EOD-2 |
| 14433. | 19912. | 2 | 319.21 | 322.79 | 3.58 | EOD-4 |

OVERALL STATISTICS:

| LAYER | WELLS | AVG DIFFERENCE (ft) | RMS (ft) |
|---|---|---|---|
| 1 | 97 | -0.35 | 2.80 |
| 2 | 9 | 0.22 | 4.68 |
| TOTAL | 106 | -0.30 | 3.00 |

The difficulty of calibrating at the AAFES well nest was that the water levels for wells AAFES-01 to AAFES-06 deviated eight feet within a very short distance (less than 200 feet apart). Also, well AAFES-07 is slightly farther from the wells above but with water levels about ten feet lower without any apparent hydrologic feature to account for the drop in water levels in a short distance.

Another indication of the model performance is the model estimation of ground water discharge to stream or to ponds or the inflow from these water bodies into ground water. For each individual stream, river, and pond, the cumulative gain or loss of the water body was computed from the flow model results. These model results are presented in Table III-2. The streams in Table III-2 are shown on Figure II-2.

For gaining streams the flows are negative, and a discharge point for groundwater, conversely positive flows are recharge areas into groundwater such as perched ponds. As expected, the Nashua River and larger tributaries, such as Catacoonamug, Squanna, and Cold Spring Brooks, are gaining streams. Plow Shop, Grove, Spectacle Ponds are gaining ponds as well.

The hydrologic investigation of the Nashua and Souhegan River Basins (Brackley and Hansen, 1977) provided average flows for four streams with varying drainage areas. The average ratio of flow to drainage for the four streams was 1.6 $cfs/mi^2$. This ratio reflected base flow and storm runoff. The investigation estimated annual runoff to streams to be 20 inches of which up to two-thirds is ground water discharge. Thus groundwater discharge can be up to 13 inches/year (1 $cfs/mi^2$). The ratio of one $cfs/mi^2$ was used as a guide to checking the base flow estimations of streams in the flow model. The streams selected were Cold Spring Brook-main stem, Slate Rock Brook, and Ponakin Brook. These streams were chosen because their drainage areas were entirely within the model area and they are in different areas of the model. Cold Spring Brook is in the northern portion of the model, whereas Slate Rock Brook is in the central area, and Ponakin is in the southern part. The base flow estimates and flow to drainage ratios are summarized below.

| | Base Flow (cfs) | Drainage ($mi^2$) | Ratio ($cfs/mi^2$) |
|---|---|---|---|
| Cold Spring Brook (main stem) | 0.97 | 1.5 | 0.65 |
| Slate Rock Brook | 1.54 | 1.7 | 0.91 |
| Ponakin Brook | 1.25 | 1.5 | 0.83 |

TABLE III-2

MODEL STREAM FLOW COMPUTATIONS

| Water Body: | Flow (cfs): |
|---|---|
| NASHUA RIVER-main stem | -19.03 |
| SQUANNA BROOK | -2.61 |
| MULPUS BROOK | 1.08 |
| WALKER BROOK | 0.5 |
| MORSE BROOK | 0.01 |
| NONACOICUS BROOK | 0.00 |
| WILLOW BROOK | 0.06 |
| TROUT BROOK | 0.68 |
| CATACOONAMUG BROOK | -0.19 |
| COLD SPRING BROOK | -0.97 |
| BOWERS BROOK | -0.29 |
| SLATE ROCK BROOK | -1.54 |
| WETLAND near R-R | -0.15 |
| HAVARD ROAD POND | -0.22 |
| STILL RIVER | -2.37 |
| PONAKIN BROOK | -1.25 |
| JAMES BROOK | -0.13 |
| PLOW SHOP/GROVE PONDS | -1.08 |
| FLANNAGAN PONDS | -1.04 |
| ROBBINS POND | -0.03 |
| MIRROR LAKES | -0.65 |
| CRANBERRY POND | -0.08 |
| SPECTACLE POND | -0.64 |
| OAK HILL POND | 0.35 |
| PINE HILL POND | 0.03 |

The ratios were less than upper estimate of 1 cfs/mi$^2$ indicating reasonable base flow estimates by the model.

Since both the gradient of the water table and the quantity of ground water flow match the observations, the model calibration is constrained. Large changes in recharge and hydraulic conductivity would result in the model being out of calibration in either gradient or stream flow gain.

Copies of the calibrated model input and output data are included in Appendix B.

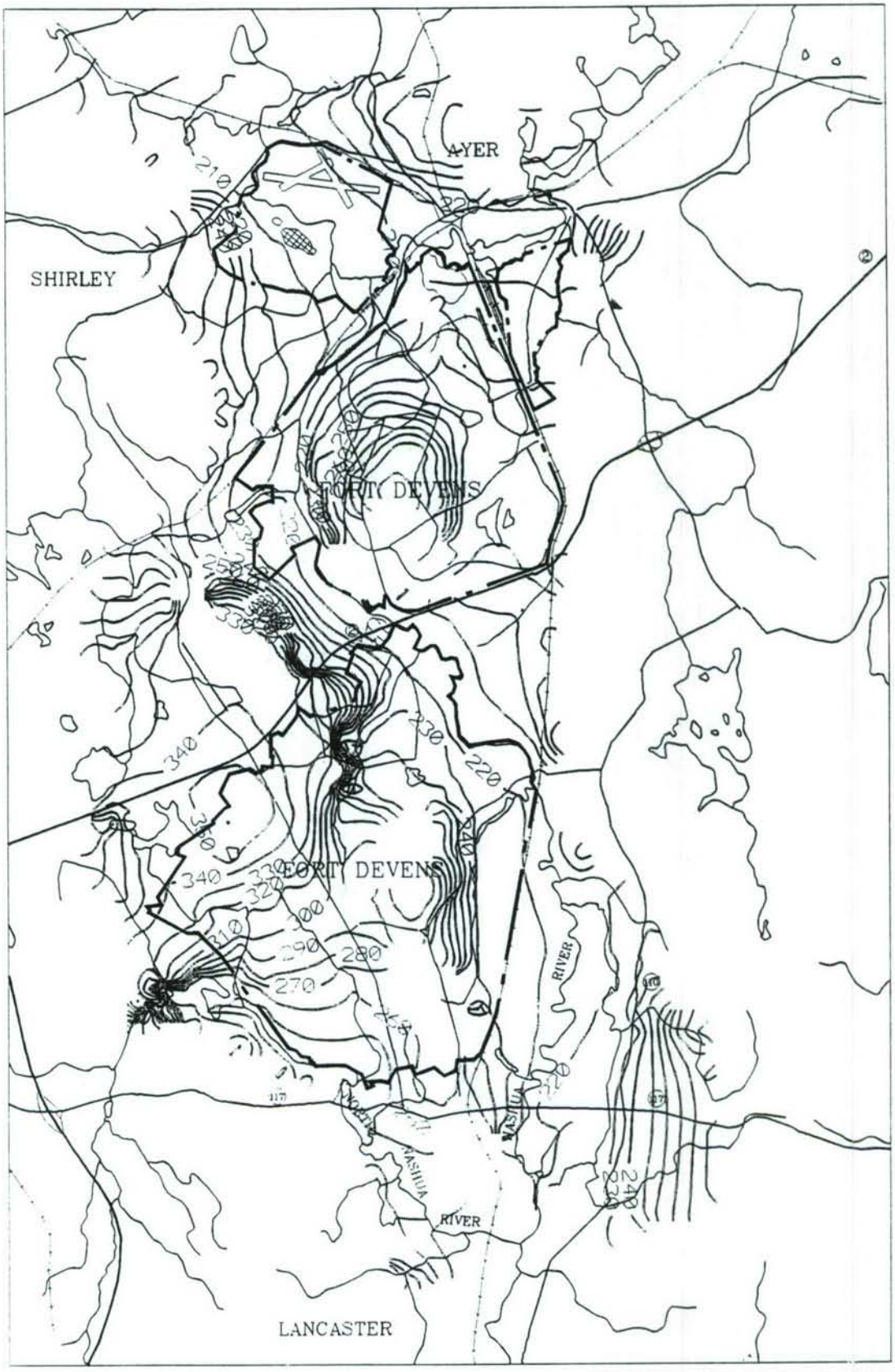
## I. Results

Figures III-16 and III-17 show the calculated steady state water levels for the glacial outwash and bedrock aquifers. The water levels on the Main Post scale map are shown in Figures III-18 and III-19. Flow vector maps were developed to indicate the direction and relative magnitude of ground water flow (Darcy ground water velocity, also known as specific discharge). The length of each arrow (vector) indicates the relative speed of ground water movement. Longer arrows indicate faster movement. Figures III-20 to III-23 show the flow vectors for both the glacial outwash and bedrock aquifers on the site and on the Main Post.

Figure III-24 shows areas where the model simulated the water table intersecting the land surface. There is a good correspondence between these areas and mapped swampy areas. The model does not predict all the wetland areas at Fort Devens. In some cases, streams were simulated at or below the approximate elevation of nearby wetlands causing the simulated water table to below the land surface.

The results of the model match the conceptual ground water flow model previously discussed (see Section II.F.). Recharge occurs in upland areas. Ground water flows from the uplands to the river and stream valleys with discharge occurring into the streams, rivers, and ponds.

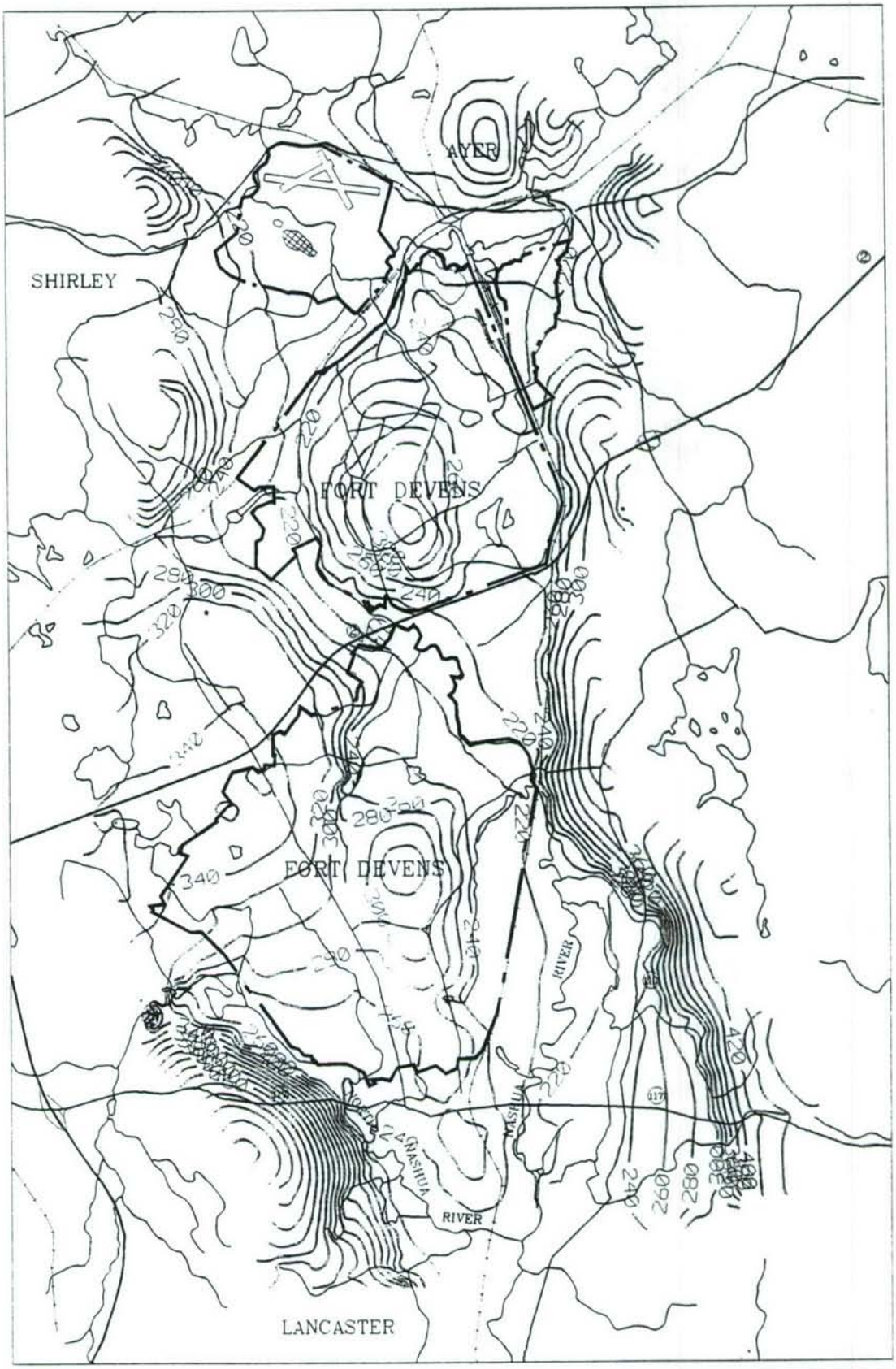
There is a ground water divide just north of Mirror Lake and just south of Cold Spring Brook's headwaters. The flow to the east toward Mirror Lake then splits between discharge to Mirror Lake and movement along the Cold Spring Brook stream valley. Portions of the flow in Cold Spring Brook valley discharges into the stream or further down gradient into Plow Shop and Grove Ponds. A smaller portion of the ground water continues around Shepley's Hill (along with the low recharge from Shepley's Hill) and flows down gradient along Nonacoicus Brook into the Nashua River. This is indicated by the glacial outwash flow vectors in Figure III-22.



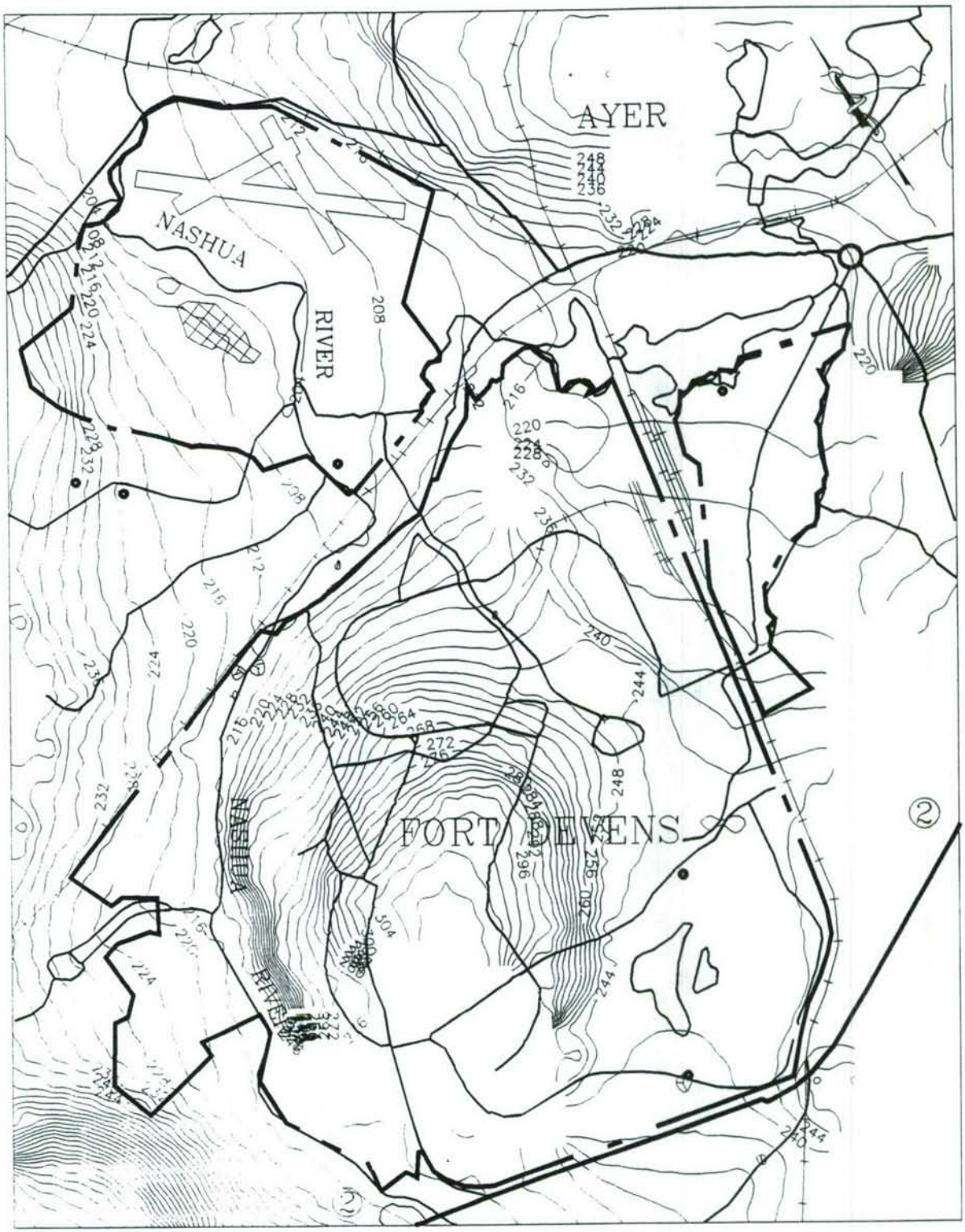

— 240 — WATER LEVELS

0 6000
feet

| FIGURE III-16 | |
|---|---|
| FORT DEVENS, MA GROUND WATER MODELING | |
| CALCULATED GLACIAL OUTWASH AQUIFER WATER LEVELS | |
| CONTRACT NO.: 89306.8 | DATE: 10/92 |




| FIGURE III-17 | |
|---|---|
| FORT DEVENS, MA GROUND WATER MODELING | |
| CALCULATED BEDROCK AQUIFER WATER LEVELS | |
| CONTRACT NO.: 89306.8 | DATE: 10/92 |




PRODUCTION WELL LOCATION

240 — WATER LEVELS

0 3000

feet

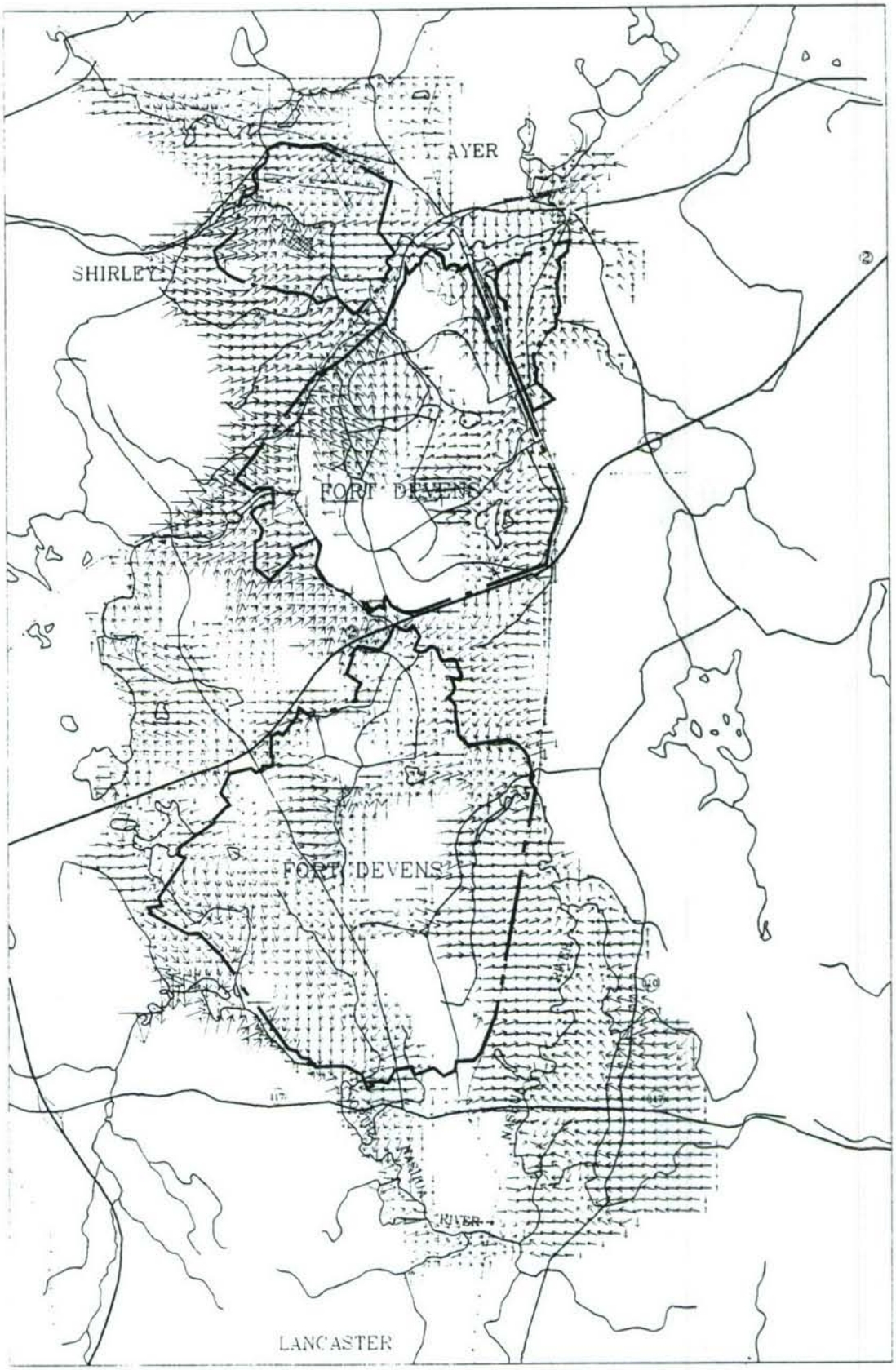
| FIGURE III-18 | |
|---|---|
| FORT DEVENS, MA GROUND WATER MODELING | |
| CALCULATED GLACIAL OUTWASH AQUIFER WATER LEVELS – MAIN POST | |
| CONTRACT NO.: 89306.8 | DATE: 10/92 |

● PRODUCTION WELL LOCATION

WATER LEVELS

0 3000
feet

| FIGURE III-19 | |
|---|---|
| FORT DEVENS, MA GROUND WATER MODELING | |
| CALCULATED BEDROCK AQUIFER WATER LEVELS – MAIN POST | |
| CONTRACT NO. 89306.8 | DATE: 10/92 |




| FIGURE III-20 | |
|---|---|
| FORT DEVENS, MA GROUND WATER MODELING | |
| CALCULATED GLACIAL OUTWASH AQUIFER VELOCITY VECTORS | |
| CONTRACT NO.: 89306.8 | DATE: 10/92 |

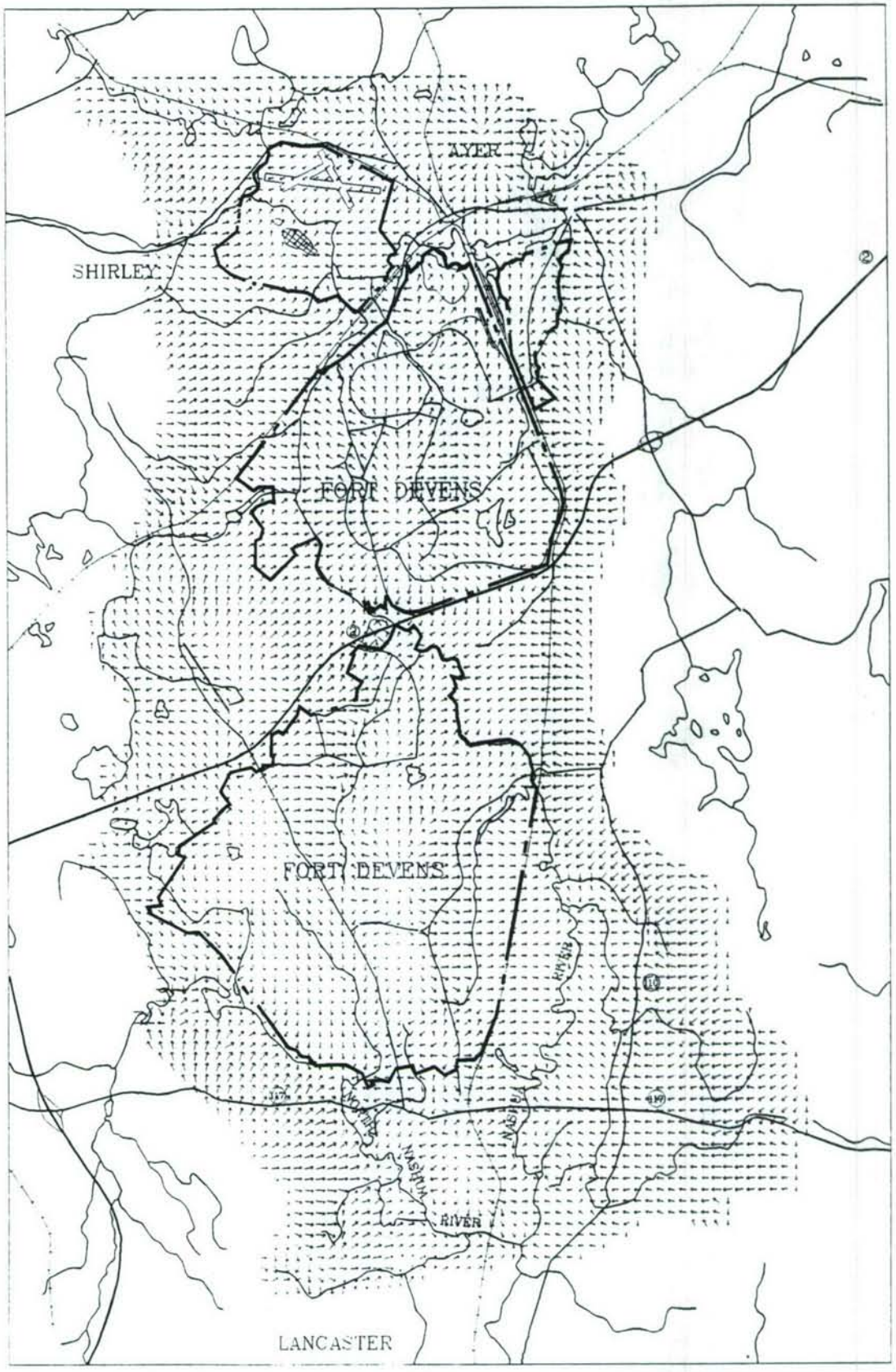
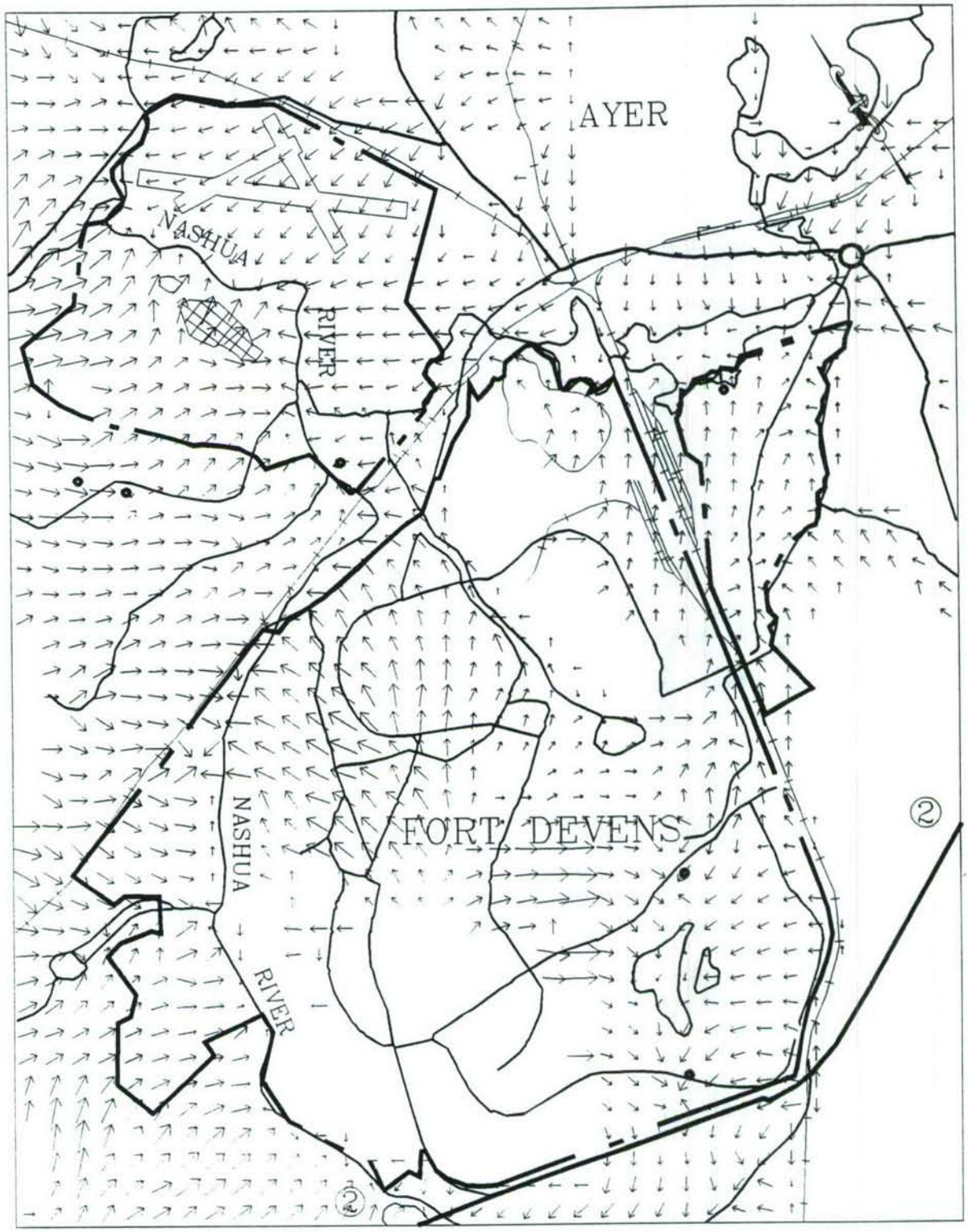



FIGURE III-21

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED BEDROCK AQUIFER
VELOCITY VECTORS

CONTRACT NO.: 89306.8 DATE: 10/92



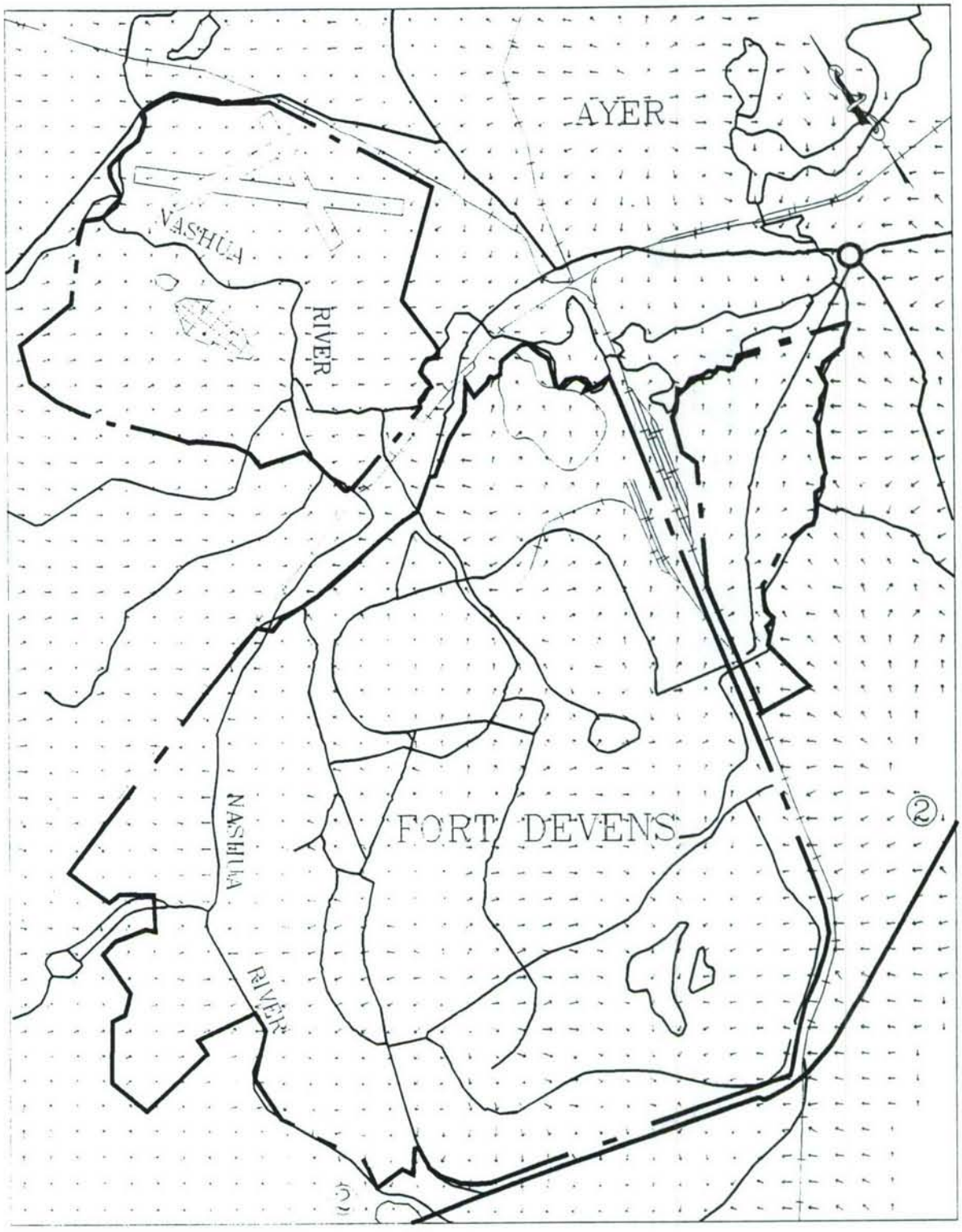

● PRODUCTION WELL LOCATION

→ VELOCITY VECTOR

0 3000

feet

| FIGURE III-22 | |
|---|---|
| FORT DEVENS, MA GROUND WATER MODELING | |
| CALCULATED GLACIAL OUTWASH AQUIFER VELOCITY VECTORS – MAIN POST | |
| CONTRACT NO.: 89306.8 | DATE: 10/92 |




— VELOCITY VECTOR

0 3000
feet

FIGURE III-23
FORT DEVENS, MA GROUND WATER MODELING
CALCULATED BEDROCK AQUIFER
VELOCITY VECTORS - MAIN POST
CONTRACT NO. 89306.8 DATE: 10/92

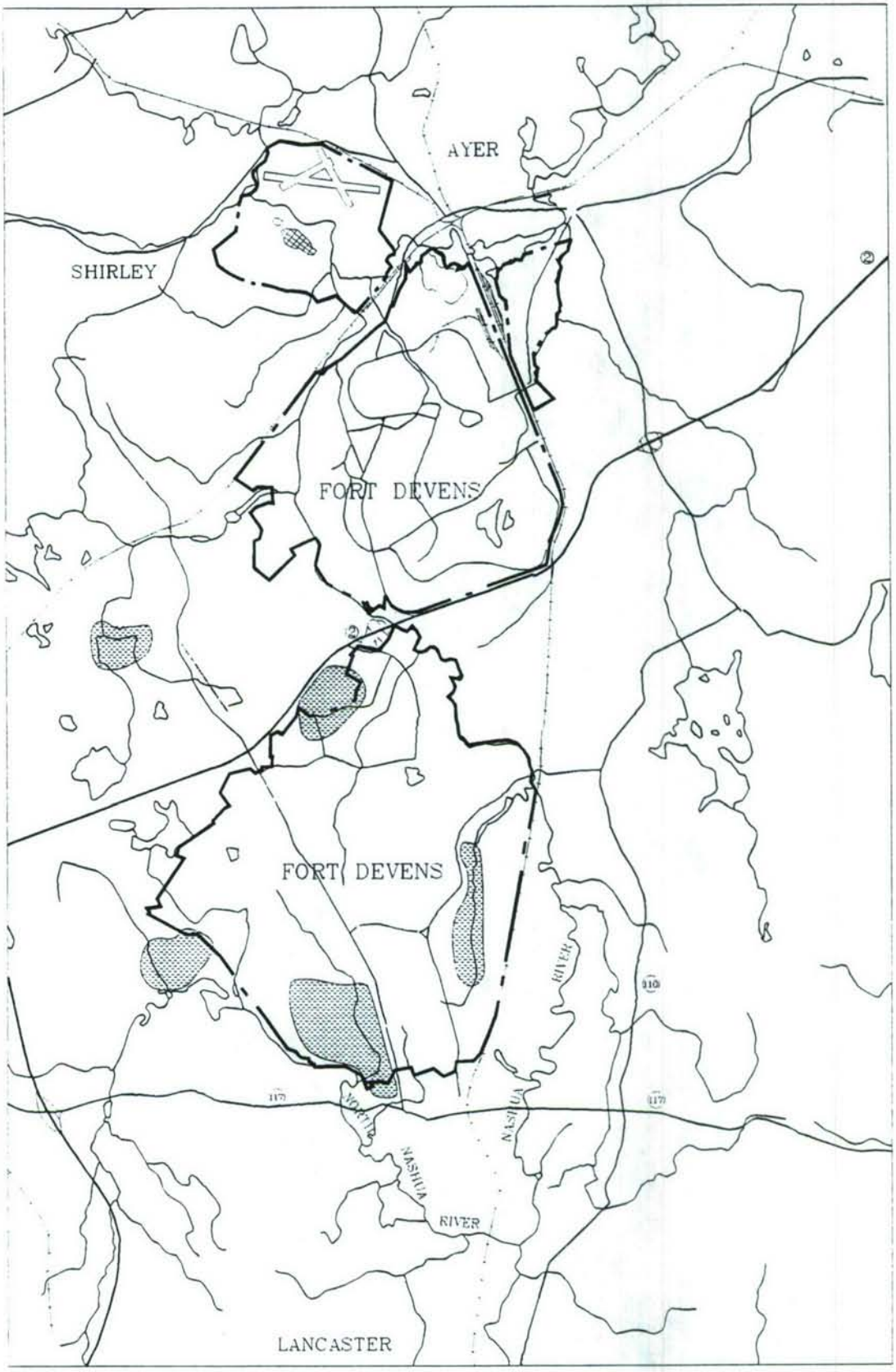



FIGURE III-24

FORT DEVENS, MA GROUND WATER MODELING

CALIBRATED WATER TABLE ABOVE GROUND SURFACE

CONTRACT NO. 89306.8 DATE: 10/92

# IV. Sensitivity Analysis

## A. Introduction

Sensitivity analysis is an important part of a modeling study. Sensitivity analysis defines how the uncertainty in the input parameters affects the conclusions of the study. The sensitivity of the assumptions regarding the leakance between the glacial outwash and bedrock aquifers, glacial outwash hydraulic conductivity, bedrock hydraulic conductivity and anisotropy, bedrock thickness, recharge, and stream conducatances were examined. These parameters were judged to be the most significant sources of uncertainty in the model.

## B. Vertical Leakance between Aquifers

The interaction between the glacial outwash and bedrock aquifers was tested. The base case assumption was a confining layer between the aquifers which allowed some movement of water between them. To test the importance of the bedrock aquifer, simulations were done with smaller and larger vertical hydraulic connection.

The results for assuming a small leakance (no connection with the bedrock aquifer) showed little change to the glacial outwash aquifer within the stream valleys, but minor changes did occur in the water table along the bedrock outcrops.

A simulation with a large leakance (almost perfect connection between aquifers) was also performed. The results of this simulation were identical with the calibrated model. There is no significant vertical flow between aquifers. This result occurs because of the small hydraulic conductivity in the bedrock aquifer. A small hydraulic conductivity limits ground water flow, without flow, there is no gradient between the glacial outwash aquifer and the bedrock aquifer.

## C. Glacial Outwash Hydraulic Conductivity

The glacial outwash aquifer hydraulic conductivity was found to be sensitive during calibration. The hydraulic conductivities in the calibrated model varied areally from 2 to 100 ft/yr. The lower values were typically at the bedrock outcrop fringes, and higher values in the stream valleys. The conductivities were varied by increasing and decreasing the values by 25 percent in the sensitivity analysis.

Figures IV-1 through IV-4 show the glacial outwash aquifer water levels and velocity vectors in the Main Post for increased and decreased glacial outwash aquifer hydraulic conductivity, respectively. The water levels fell slightly with increased hydraulic conductivity, and rose slightly with decreased hydraulic conductivity. The ground water velocities increased with increased hydraulic conductivity, and lessened with decreased hydraulic conductivity. The flow directions did not change significantly with an increase or decrease of hydraulic conductivity in the glacial outwash.

D. Bedrock Hydraulic Conductivity and Anisotropy

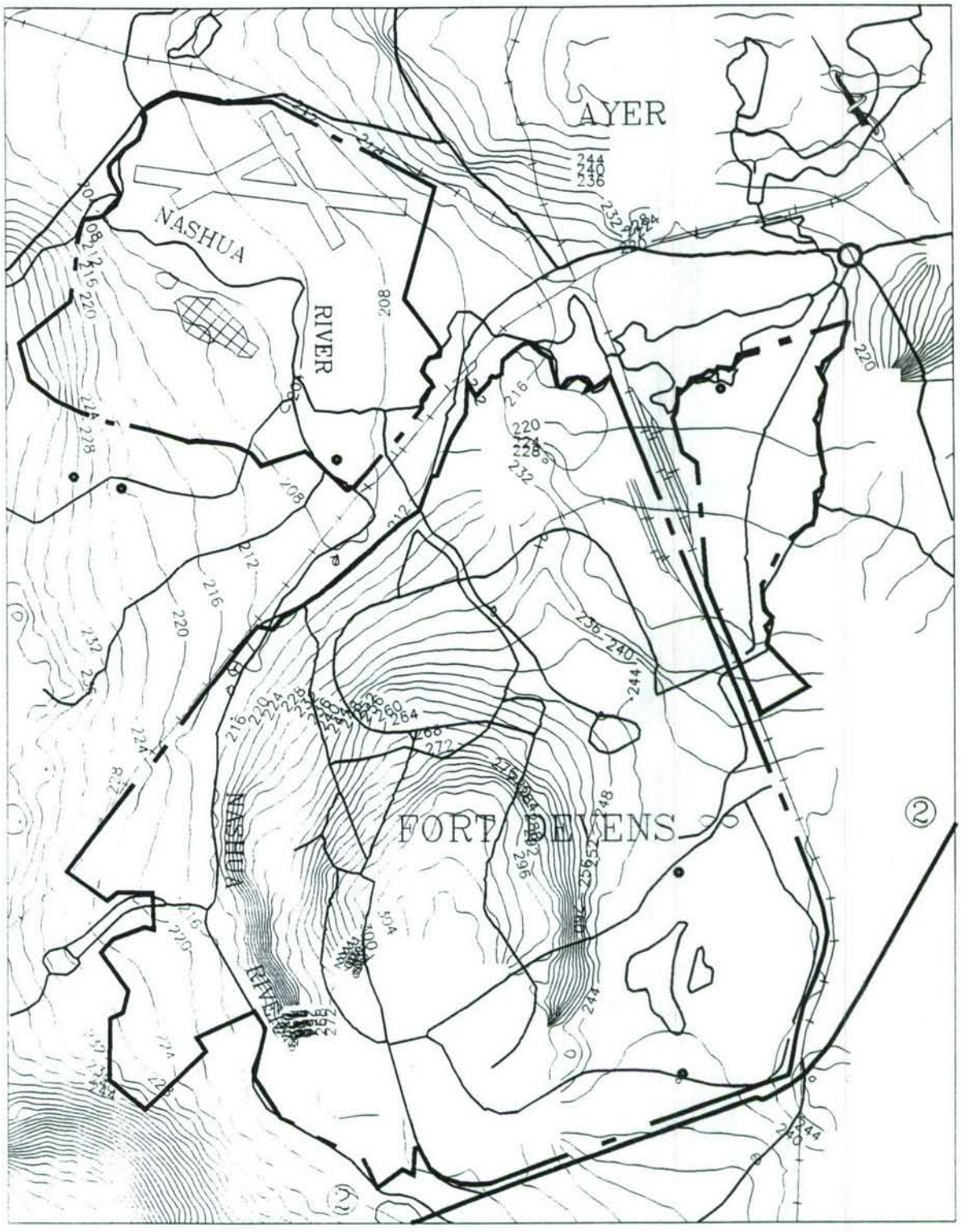
The base case assumed that bedrock conductivity did not vary significantly in magnitude or in direction. The calibrated flow model used a constant hydraulic conductivity of 0.7 ft/day in the bedrock aquifer. The sensitivity of these assumptions were tested by simulating higher and lower hydraulic conductivities; and anisotropy.

Higher and lower bedrock hydraulic conductivities of 1.4 and 0.35 ft/day were used. Differences from the calibrated model occurred at the bedrock outcrops, but were minimal where a significant layer of glacial outwash overlaid the bedrock. An increase in conductivity lowered water levels, and conversely a decrease raised water levels. The impacts to the glacial outwash aquifer were insignificant. Figures IV-5 and IV-6 show the bedrock water levels in the Main Post for the higher and lower hydraulic conductivities, respectively.

The calibrated ground water model assumed isotropic conditions in the bedrock. The sensitivity of this assumption was tested by using a 10:1 hydraulic conductivity ratio (rows to columns) in the bedrock aquifer. This assumes a preferential flow pattern in the weathered bedrock along the valleys in approximately the north-northeast direction. Figure IV-7 shows the bedrock water levels for the anisotropic conditions. There was no change in predicted water levels in the glacial outwash aquifer. In the bedrock aquifer, only the outcrop areas showed slight changes from the calibrated model.

E. Bedrock Thickness

The bedrock aquifer was assumed to have a 50 foot thickness with a constant hydraulic conductivity of 0.7 ft/day. The transmissivity was assumed to be 35 $ft^2$/day which was based on the available data on bedrock well yields. The sensitivity of these assumptions regarding bedrock aquifer thickness and transmissivity was tested. The model was run with a bedrock thickness of 250 feet, and transmissivity of 175 $ft^2$/day.




● PRODUCTION WELL LOCATION

—220— WATER LEVELS

0 3000

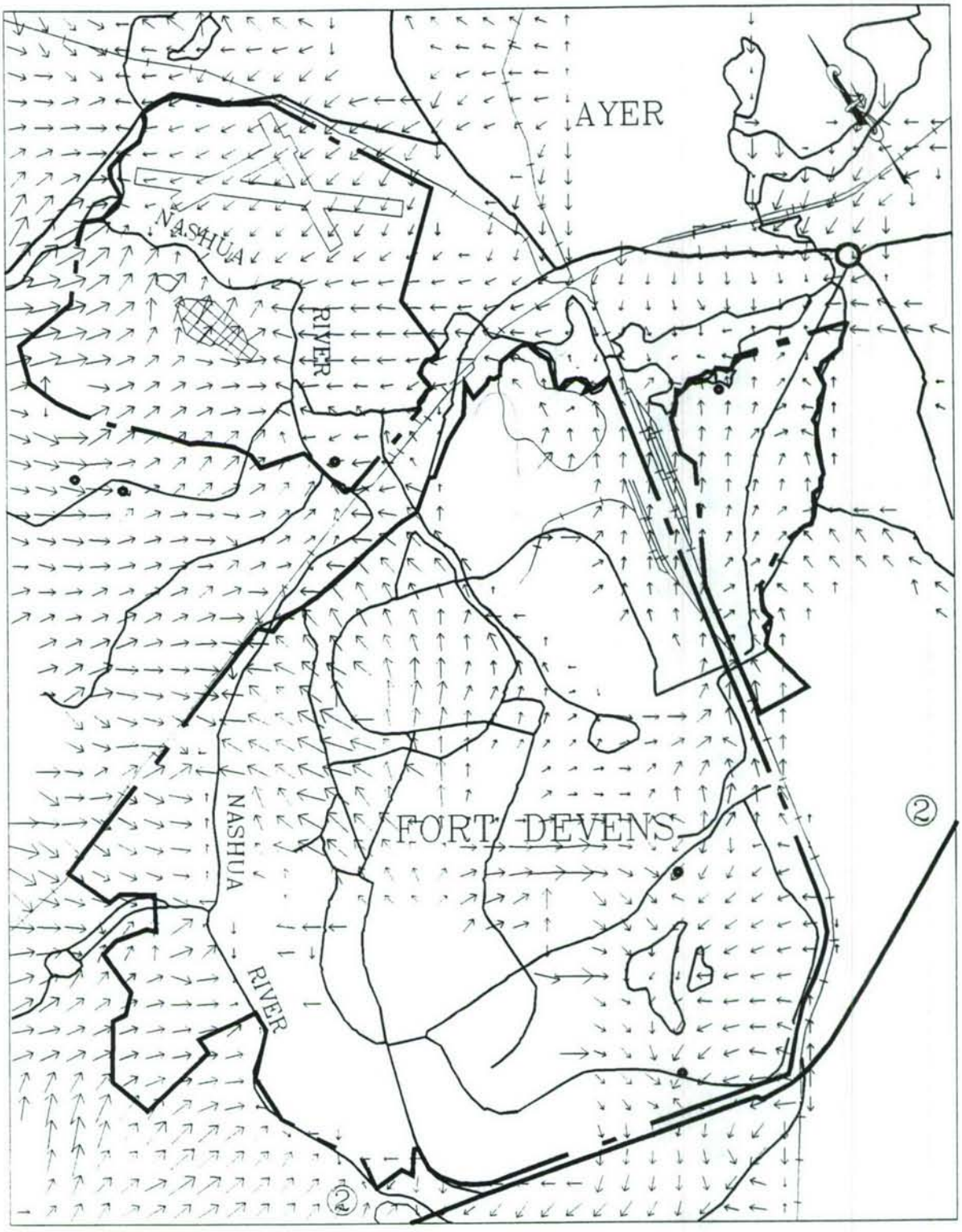
feet

FIGURE IV-1

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED GLACIAL OUTWASH AQUIFER
WATER LEVELS - MAIN POST
INCREASED HYDRAULIC CONDUCITIVITY

CONTRACT NO.: 89306.8 | DATE: 10/92




● PRODUCTION WELL LOCATION

→ VELOCITY VECTOR

0 3000
feet

FIGURE IV-2

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED GLACIAL OUTWASH AQUIFER
VELOCITY VECTORS - MAIN POST
INCREASED HYDRAULIC CONDUCITIVITY

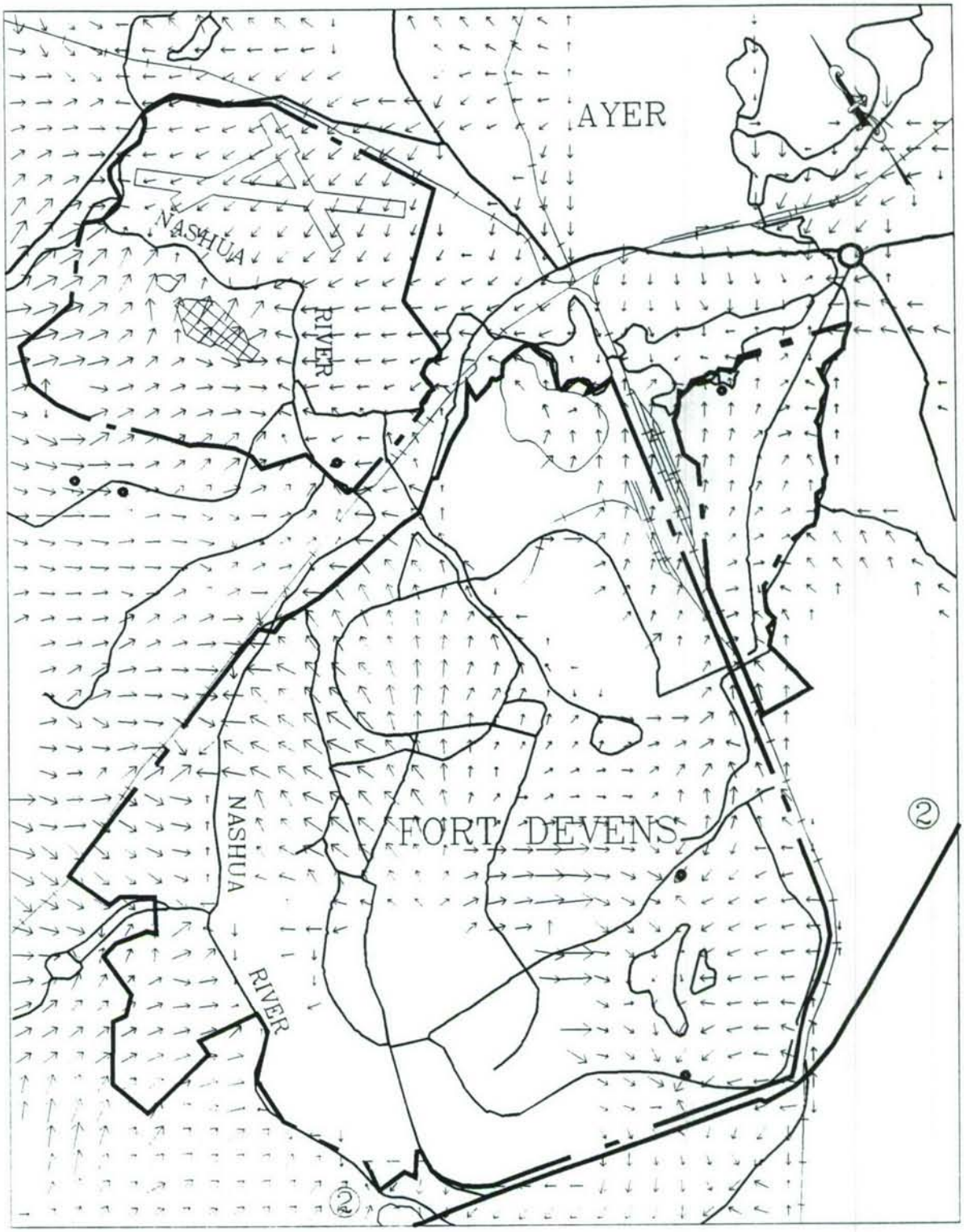
CONTRACT NO.: 89306.8 DATE: 10/92

● PRODUCTION WELL LOCATION

—220— WATER LEVELS

0 3000
feet

| FIGURE IV-3 | |
|---|---|
| FORT DEVENS, MA GROUND WATER MODELING | |
| CALCULATED GLACIAL OUTWASH AQUIFER WATER LEVELS - MAIN POST DECREASED HYDRAULIC CONDUCITIVITY | |
| CONTRACT NO.: 89306.8 | DATE: 10/92 |




● PRODUCTION WELL LOCATION

→ VELOCITY VECTOR

0 3000

feet

| FIGURE IV-4 | |
|---|---|
| FORT DEVENS, MA GROUND WATER MODELING | |
| CALCULATED GLACIAL OUTWASH AQUIFER<br>VELOCITY VECTORS – MAIN POST<br>DECREASED HYDRAULIC CONDUCITIVITY | |
| CONTRACT NO.: 89306.8 | DATE: 10/92 |

● PRODUCTION WELL LOCATION

—220— WATER LEVELS

0 3000

feet

FIGURE IV-5

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED BEDROCK AQUIFER
WATER LEVELS - MAIN POST
INCREASED BEDROCK HYDRAULIC CONDUCITIVITY

CONTRACT NO. 89306.8 DATE: 5/93

● PRODUCTION WELL LOCATION

–220– WATER LEVELS

0 3000

feet

FIGURE IV-6

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED BEDROCK AQUIFER
WATER LEVELS - MAIN POST
DECREASED BEDROCK HYDRAULIC CONDUCITIVITY

CONTRACT NO 89306 8 DATE 5/93

● PRODUCTION WELL LOCATION

—220— WATER LEVELS

0 3000

feet

FIGURE IV-7

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED BEDROCK AQUIFER
WATER LEVELS - MAIN POST
BEDROCK 10:1 ANISOTROPY

CONTRACT NO 89306.8 DATE 5 93

Differences from the calibrated model occurred at the bedrock outcrops, but were negligible beneath the stream valleys where the bedrock is confined. A thicker bedrock aquifer assumption resulted in significantly lower water levels where the bedrock aquifer is under water table conditions. Impacts to the glacial outwash aquifer were insignificant. Figure IV-8 shows the bedrock water levels in the Main Post for a thicker aquifer.

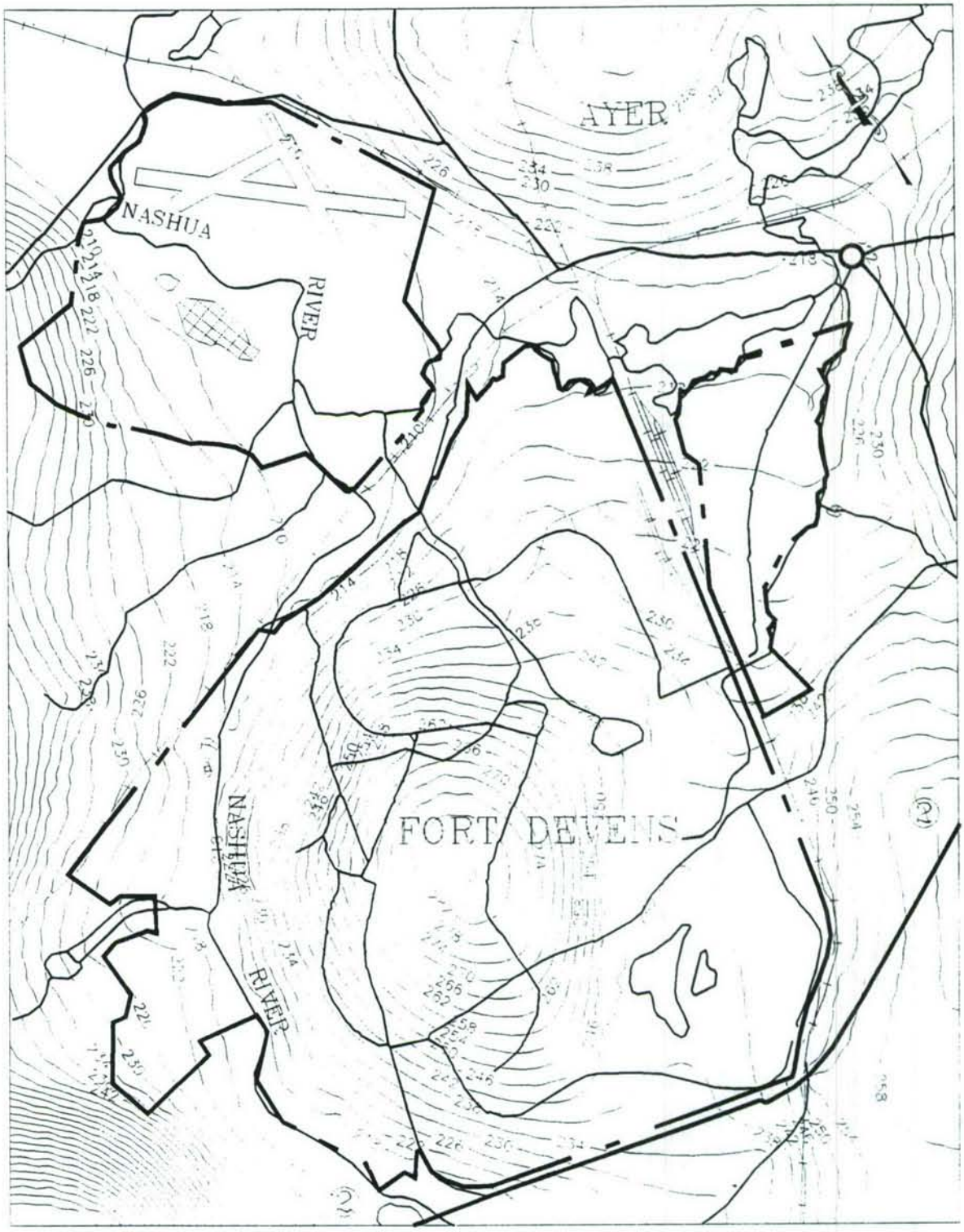
## F. Recharge

From the calibration, recharge was found to be a sensitive parameter. Recharge varied areally from 2.8 to 14 in/yr with an overall average of 10.7 in/yr. The lower values were predominantly at the bedrock outcrops, and higher values in the stream valleys. The recharge values were varied by increasing and decreasing the rates by 25 percent. Figures IV-9 to IV-12 show the glacial outwash and bedrock water levels in the Main Post for the higher and lower recharge distributions, respectively.

The model was sensitive to the variation of recharge, especially in the bedrock aquifer. The glacial outwash aquifer was moderately sensitive, but the most sensitive areas were at the bedrock outcrops. Direct recharge to the bedrock occurs in these areas thus influencing the bedrock aquifer water levels directly. Larger recharge caused increased water table elevations in the bedrock aquifer and smaller recharge caused decreases in water table elevations. The impacts to the glacial outwash aquifer occurred predominantly at the fringe areas of the outcrops but quickly tapered off within the stream valleys. Figures IV-13 and IV-14 show the velocity vectors for the glacial outwash aquifer for high and low recharge.

## G. River & Pond Conductances

The flow model results showed the streams and ponds were the major discharge points for ground water. The stream and pond conductances were varied to test their sensitivity. The stream conductances were increased and decreased by a factor of five. There was no noticeable change in water levels in either the glacial outwash or the bedrock aquifers, thus the model is insensitive to stream conductance.




● PRODUCTION WELL LOCATION

–220– WATER LEVELS

0 3000

feet

FIGURE IV-8

FORT DEVENS MA GROUND WATER MODELING

CALCULATED BEDROCK AQUIFER
WATER LEVELS - MAIN POST
INCREASED BEDROCK THICKNESS

CONTRACT NO 89306.8 DATE 5 93

● PRODUCTION WELL LOCATION

—220— WATER LEVELS

0 3000

feet

FIGURE IV-9

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED GLACIAL OUTWASH AQUIFER
WATER LEVELS - MAIN POST
INCREASED RECHARGE

CONTRACT NO. 89306.8 DATE: 5 93

● PRODUCTION WELL LOCATION

—220— WATER LEVELS

0 3000

feet

FIGURE IV-10

FORT DEVENS MA GROUND WATER MODELING

CALCULATED BEDROCK AQUIFER
WATER LEVELS - MAIN POST
INCREASED RECHARGE

CONTRACT NO 89306.8 DATE 5/93

● PRODUCTION WELL LOCATION

–220– WATER LEVELS

0 3000

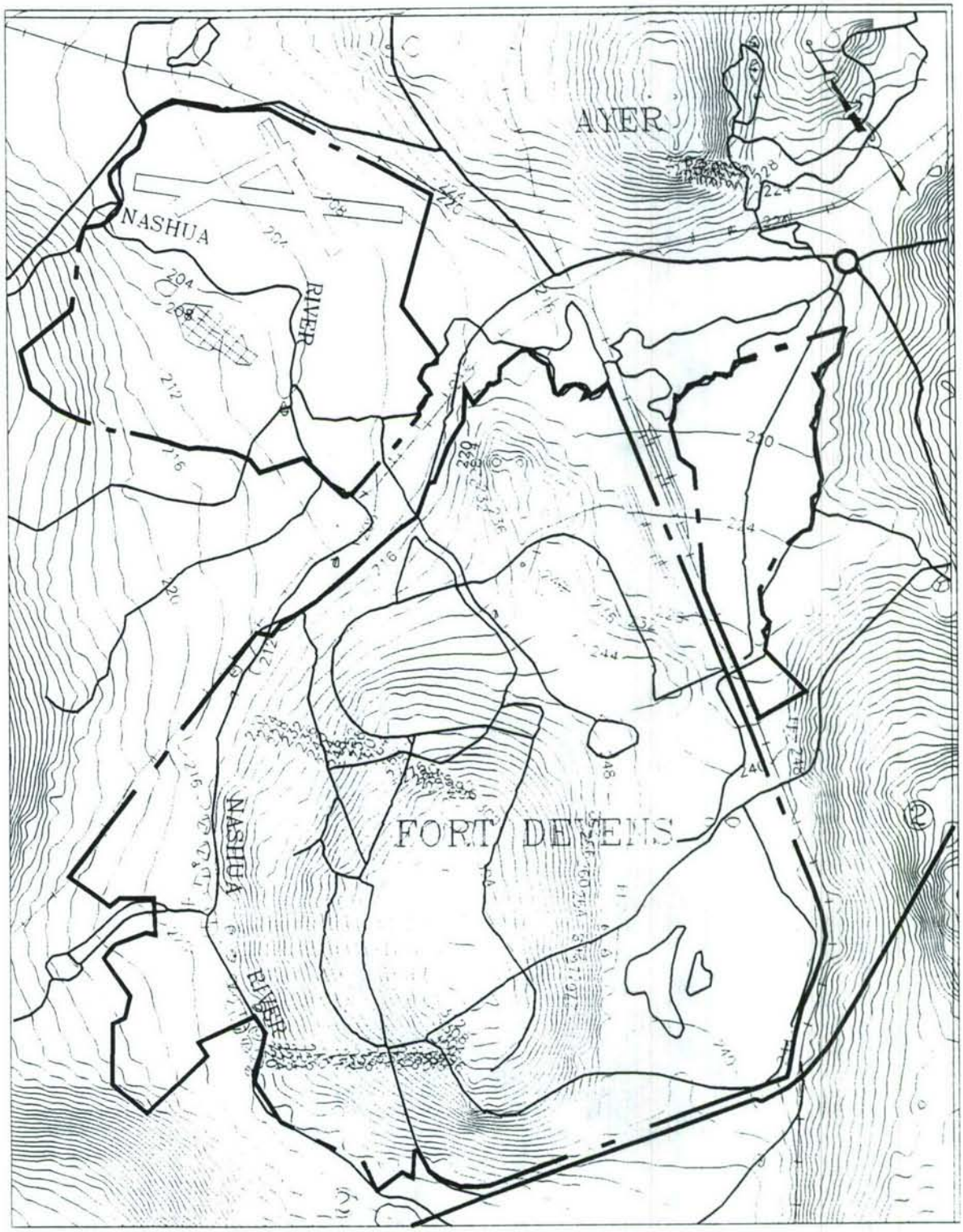
feet

FIGURE IV-11

FORT DEVENS MA GROUND WATER MODELING

CALCULATED GLACIAL OUTWASH AQUIFER
WATER LEVELS - MAIN POST
DECREASED RECHARGE

CONTRACT NO 89306.8 DATE 5 93




● PRODUCTION WELL LOCATION

—220— WATER LEVELS

0 3000

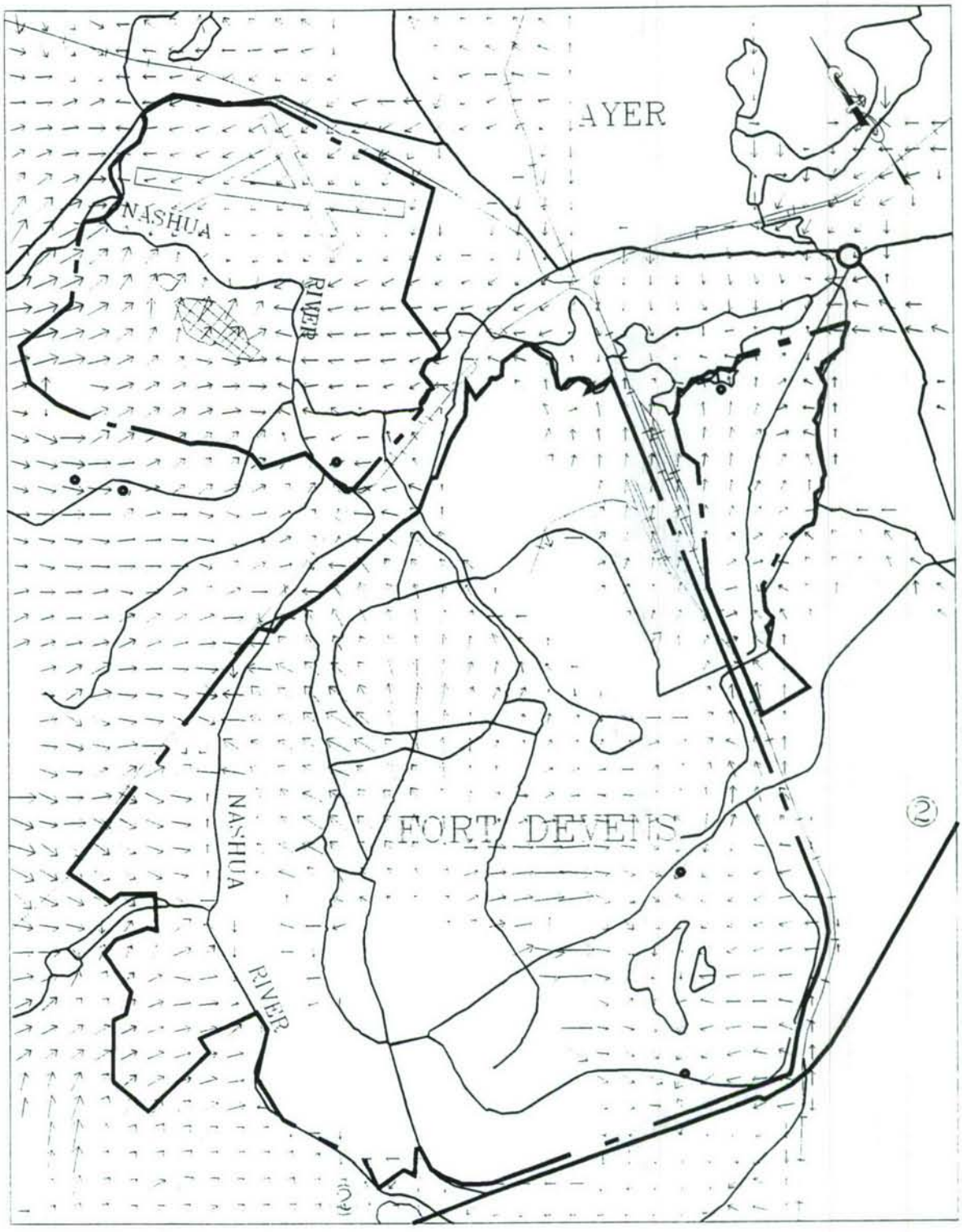
feet

FIGURE IV-12

FORT DEVENS MA GROUND WATER MODELING

CALCULATED BEDROCK AQUIFER WATER LEVELS - MAIN POST DECREASED RECHARGE

CONTRACT NO 89306 8 DATE 5 93




● PRODUCTION WELL LOCATION

— VELOCITY VECTOR

0 3000

feet

FIGURE IV-13

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED GLACIAL OUTWASH AQUIFER
VELOCITY VECTORS - MAIN POST
INCREASED RECHARGE

CONTRACT NO 89306 8 DATE 5 93

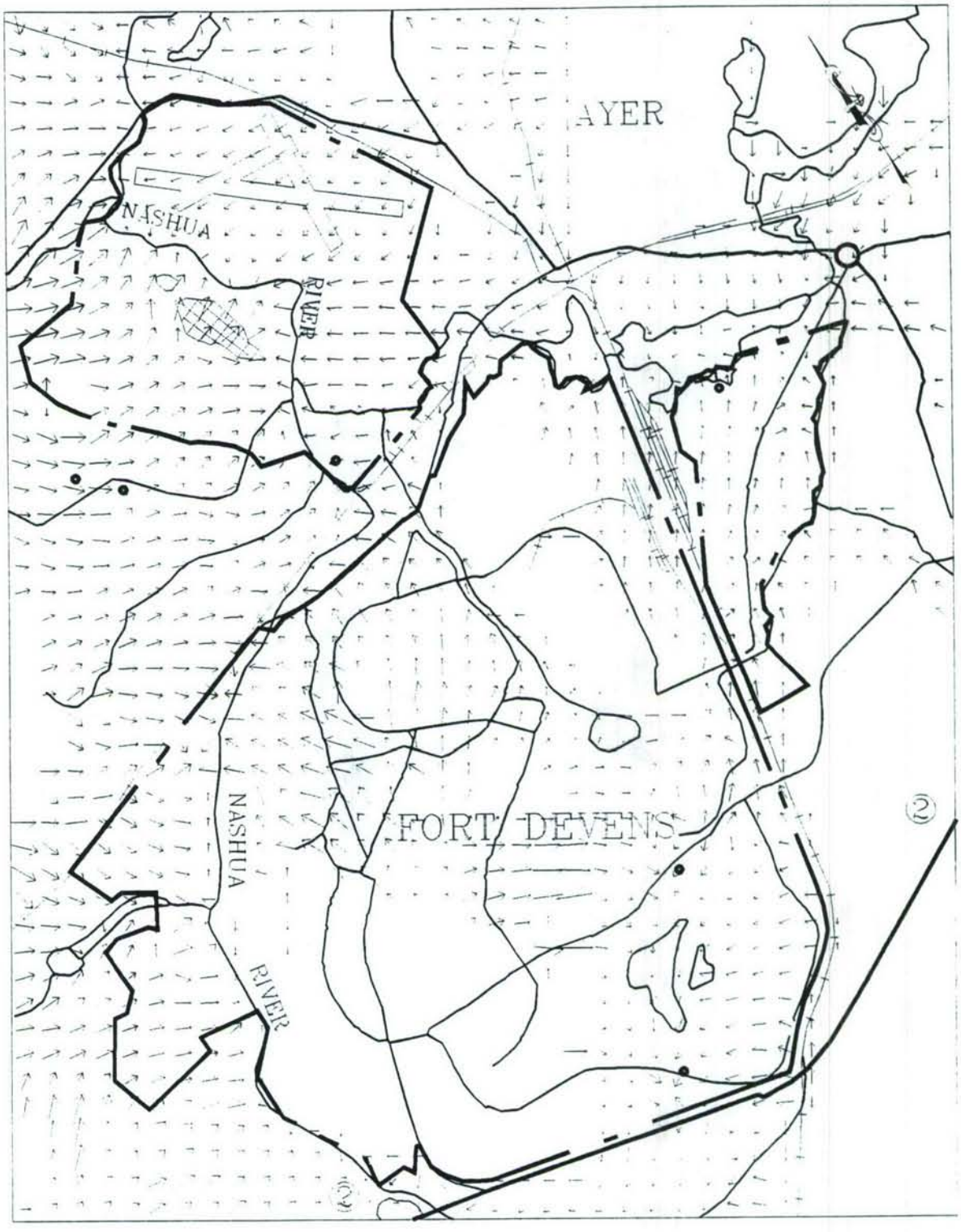



FIGURE IV-14

FORT DEVENS MA GROUND WATER MODELING

CALCULATED GLACIAL OUTWASH AQUIFER
VELOCITY VECTORS - MAIN POST
DECREASED RECHARGE

CONTRACT NO 89306.8 DATE 5 93

# V. Conclusions and Recommendations

The ground water flow model was developed to represent a long term average position of the water table at Fort Devens. The model was calibrated using both water levels from monitoring wells and estimates of stream baseflow (ground water runoff). The model confirms the conceptual hydrologic model; ground water flow direction is largely determined by topography. Ground water flows from upland areas to rivers, streams, and ponds. This flow pattern occurs in both the bedrock and glacial outwash aquifers; the two geologic materials function as a single ground water system.

Ground water flow through the bedrock is negligible and does not significantly impact the ground water flow in the more permeable glacial outwash aquifer. Ground water in the bedrock aquifer flows from upland areas, where it is recharged by flow down from the overlying glacial outwash aquifer, to the valleys, where flow occurs from the bedrock aquifer up into the overlying glacial outwash aquifer.

The most sensitive parameter in the model is hydraulic conductivity of the glacial outwash aquifer. Varying hydraulic conductivity by 25 percent caused small changes in the ground water table elevation. Recharge is also a significant parameter. The model was insensitive to leakance between aquifers, stream/pond leakance, and bedrock hydraulic conductivity.

The calibrated model may be used as the basis for more detailed ground water modeling of individual sites, and as a tool to predict the direction and speed of contaminant movement, including interactions between plumes from multiple sites. Additional ground water modeling should be performed in the future.

## VI. References


Ayer, 1964. Borehole logs from Grove Pond aquifer test using the town of Ayer's No. 1 and 2 wells.

Brackley, Richard A., and Hansen, B. P., 1977. Water Resources of the Nashua and Souhegan River Basins, USGS Hydraulic Investigation Atlas HP-276.

Camp Dresser & McKee (CDM), 1992. Aquifer test results and borehole logs for Grove Pond wells.

Ecology and Environment, Inc., 1992a. Site Investigations Report for Study Areas 15, 24, 25, 26, 32, 48, Fort Devens, Massachusetts; prepared for USATHAMA.

Ecology and Environment, Inc., 1992b. Remedial Investigations Report, Fort Devens, Massachusetts; prepared for USATHAMA.

Freeze,R. and Cherry,J., 1979. Groundwater, Prentice-Hall.

Gale, J.E.,"Assessing the Permeability Characteristics of Fractured Rock" in Recent Trends in Hydrogeology, edited by Narasimhan,T., Geological Society of America Special Bulletin 189.

Geoscience Services Associates Inc., 1992. Seismic Refraction Survey, Ayer, Massachusetts; prepared for Camp Dresser & McKee Inc.

Goldberg-Zoino & Associates, Inc. 1976. Surficial geology map with major aquifers and saturated thickness contours; prepared for Montachusetts Regional Planning Commission.

Goldsmith, R. et al., 1985. Bedrock Geologic Map of Massachusetts.

Hansen,B.P. Brackely,R., and de Lima,V., 1989. Hydrologic Data of the Nashua and Souhegan River Basins, Massachusetts, USGS Open File Report 87-221.

Jahns, R. H., 1953. Geologic Map of the Ayer Quadrangle, Massachusetts, Surficial Geology, USGS.

Koteff, C., 1966. Surficial Geology of the Clinton Quadrangle, Worcester County, Massachusetts, USGS.

de Lima, Virginia, 1991. Stream-Aquifer Relations and Yield of Stratified-Drift Aquifers in the Nashua River Basin, Massachusetts, USGS Water Resources Investigations Report 88-4147.

McDonald,M. and Harbaugh,A., 1988. A Modular Three-Dimensional Finite-Difference Ground-Water Model Flow Model, Techniques of Water-Resource Investigations of the U.S. Geological Survey, Book 6, Chapter A1.

National Oceanic and Atmospheric Administration, 1981. Divisional Normals and Standard Deviations of Temperature and Precipitation, 1931-1980, National Climatic Center, Asheville, NC, September 1981.

Remson,I., 1975. Donald Koch's class notes from Stanford University, Palo Alto, California.

Robinson, G. R., 1978. Bedrock Geology, Pepperell, Shirley, and Townsend Quadrangles, and parts of the Ayer Quadrangle, USGS.

Russell,S., and Allmendinger,R., 1975. Interim Geologic Map of the Shirley Quadrangle, Massachusetts, USGS Open File Report 76-267.

U.S. Army Environmental Hygiene Agency, 1979. Evaluation of Land Treatment Systems at Army Installations, June 1978 - May 1979, Water Quality Special Study No. 32-24-0199-80, Aberdeen Proving Ground, MD.

USATHAMA, 1992. Ground water and geotechnical reports from the IRDMIS.

USGS, 1965. Topographic Series 7.5' Quadrangle, Ayer, Massachusetts (Photo revised 1979).

USGS, 1965. Topographic Series 7.5' Quadrangle, Clinton, Massachusetts (Photo revised 1979).

USGS, 1965. Topographic Series 7.5' Quadrangle, Hudson, Massachusetts.

USGS, 1965. Topographic Series 7.5' Quadrangle, Shirley, Massachusetts (Photo revised 1979).

Weston, Roy F. Inc., 1992. Delivery Order 9, Enhanced Preliminary Assessment Regulatory Draft, Fort Devens, MA; prepared for USATHAMA.

# APPENDIX A

Monitoring Well Inventory

# MONITORING WELL INVENTORY

| WELL ID | X-STATE | Y-STATE | AQUIFER | REFERENCE ELEV (ft) | WELL DEPTH | DEPTH TO SCRN TOP | DEPTH TO SCRN BOT | REFERENCE | DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| 2680W-01 | 565051 | 560010 | GLACIAL | 334.5 | | | | | BLDG B2680 |
| 2680W-02 | 564993 | 560074 | GLACIAL | 332.5 | | | | | BLDG B2680 |
| 2680W-03 | 564975 | 560008 | GLACIAL | 332.5 | | | | | BLDG B2680 |
| 3602W-01 | 565639 | 556188 | GLACIAL | 356.5 | | | | | BLDG B3602 |
| 3602W-02 | 565625 | 556230 | GLACIAL | 356.9 | 17 | 7 | 17 | EMO | BLDG B3602 |
| 3602W-03 | 565693 | 556245 | GLACIAL | 357.2 | 16 | 6 | 16 | EMO | BLDG B3602 |
| 3602W-04 | 565700 | 556144 | GLACIAL | 355.7 | 14 | 4 | 14 | EMO | BLDG B3602 |
| 3622W-01 | 567555 | 557091 | GLACIAL | 364.3 | 19 | 9 | 19 | EMO | BLDG B3622 |
| 3622W-02 | 567593 | 557135 | GLACIAL | 362.9 | 15 | 5 | 15 | EMO | BLDG B3622 |
| 3622W-03 | 567599 | 557184 | GLACIAL | 362.7 | 15 | 5 | 15 | EMO | BLDG B3622 |
| 3622W-04 | 567498 | 557145 | GLACIAL | 363.8 | 15 | 5 | 15 | EMO | BLDG B3622 |
| B202-1 | 574188 | 564520 | GLACIAL | 253 | 35 | 23 | 33 | IRDIMIS/E&E | BLDG B202 |
| B202-2 | 574316 | 564409 | GLACIAL | 256.7 | 40 | 28 | 38 | IRDIMIS/E&E | BLDG 202 |
| B202-3 | 574270 | 564197 | GLACIAL | 256.5 | 40 | 27 | 37 | IRDIMIS/E&E | BLDG B202 |
| CSB-1 | 571867 | 557993 | GLACIAL | 247.7 | 13 | 3 | 12 | EMO | COLD SPRING BR |
| CSB-2 | 571861 | 557638 | GLACIAL | 258.4 | 52 | 32 | 51 | EMO | COLD SPRING BR |
| CSB-3 | 572209 | 557540 | GLACIAL | 265.3 | 30 | 20 | 29 | EMO | COLD SPRING BR |
| CSB-4 | 572179 | 557769 | GLACIAL | 244.4 | 8 | 3 | 7 | EMO | COLD SPRING BR |
| CSB-6 | 572789 | 557889 | GLACIAL | 242.7 | 7 | 2 | 6 | EMO | COLD SPRING BR |
| CSB-7 | 573016 | 557994 | GLACIAL | 255.5 | 24 | 14 | 23 | EMO | COLD SPRING BR |
| CSB-8 | 572467 | 557682 | GLACIAL | 258.5 | 23 | 13 | 22 | EMO | COLD SPRING BR |
| D-1 | 563552 | 545855 | GLACIAL | 260.7 | 61 | 50 | 60 | EMO | S.PST PRODWELL |
| EA-04 | 574537 | 563139 | GLACIAL | 253.1 | 30 | 20 | 30 | EMO | BLDG B1404 |
| EA-05 | 574614 | 563331 | GLACIAL | 250 | 30 | 20 | 30 | EMO | BLDG B1404 |
| GE-01 | 564437 | 558466 | GLACIAL | 334.8 | 19 | 9 | 19 | EMO | BLDG B2602 |
| GE-02 | 564480 | 558550 | GLACIAL | | | | | | LAKE GEORGE ST |
| GE-03 | 564551 | 558607 | GLACIAL | 337.1 | 25 | 8 | 23 | EMO | BLDG B2602 |
| MCPHERSON | 569959 | 567594 | GLACIAL | 221.5 | 96 | 72 | 93 | EMO | N.PST PRODWELL |
| MNG-1 | 576828 | 563928 | GLACIAL | 248.9 | 42 | 22 | 41 | EMO | CSMS COMPOUND |
| MNG-2 | 576560 | 564888 | GLACIAL | 235.8 | 36 | 16 | 35 | EMO | CSMS COMPOUND |
| MNG-3 | 577766 | 564950 | GLACIAL | 251.9 | 63 | 43 | 62 | EMO | CSMS COMPOUND |
| MNG-4 | 576323 | 564557 | GLACIAL | 252.3 | 53 | 33 | 52 | EMO | CSMS COMPOUND |
| MNG-5 | 576712 | 564611 | GLACIAL | 235.8 | 28 | 18 | 27 | EMO | CSMS COMPOUND |
| MNG-6 | 577186 | 564556 | GLACIAL | 252.3 | 48 | 28 | 47 | EMO | CSMS COMPOUND |
| MNG-7 | 577656 | 564337 | GLACIAL | 250 | 52 | 32 | 51 | EMO | CSMS COMPOUND |
| MW1-1 | 562393 | 552863 | GLACIAL | 256.8 | 24 | 14 | 24 | EMO | S.PST FUELPAD1 |
| MW1-2 | 562488 | 552784 | GLACIAL | 255.6 | 24 | 14 | 24 | EMO | S.PST FUELPAD1 |
| MW1-3 | 562434 | 552713 | GLACIAL | 256.9 | 24 | 14 | 24 | EMO | S.PST FUELPAD1 |
| MW1-4 | 562333 | 552792 | GLACIAL | 258.4 | 24 | 14 | 24 | EMO | S.PST FUELPAD1 |
| MW2-1 | 562952 | 550060 | GLACIAL | 261.8 | 30 | 20 | 30 | EMO | S.PST FUELPAD2 |
| MW2-2 | 562839 | 550106 | GLACIAL | 262.7 | 30 | 20 | 30 | EMO | S.PST FUELPAD2 |
| MW2-3 | 562901 | 550220 | GLACIAL | 262.8 | 30 | 20 | 30 | EMO | S.PST FUELPAD2 |
| MW2-4 | 562979 | 550153 | GLACIAL | 262.3 | 30 | 20 | 30 | EMO | S.PST FUELPAD2 |
| MW3-1 | 550621 | 546011 | GLACIAL | 334.9 | 25 | 15 | 25 | EMO | S.PST FUELPAD3 |
| MW3-2 | 550508 | 545969 | GLACIAL | 334.2 | 20 | 10 | 20 | EMO | S.PST FUELPAD3 |
| MW3-3 | 550479 | 546053 | GLACIAL | 333.1 | 22 | 12 | 22 | EMO | S.PST FUELPAD3 |
| MW3-4 | 550593 | 546093 | GLACIAL | 333.9 | 24 | 14 | 24 | EMO | S.PST FUELPAD3 |
| PATTON | 571406 | 557369 | GLACIAL | 253 | 80 | 62 | 77 | EMO | N.PST PRODWELL |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| POL-1 | 572970 | 564421 | GLACIAL | 257.8 | | | | POL AREA |
| POL-2 | 572823 | 564289 | GLACIAL | 258.7 | | | | POL AREA |
| POL-3 | 572736 | 564460 | GLACIAL | 260.2 | | | | POL AREA |
| SHEBOKEN | 569438 | 553901 | GLACIAL | 244.3 | 85 | 44? | 85 EMO | N.PST PRODWELL |
| SHL-1 | 572960 | 565865 | GLACIAL | 271 | | | | SHEPLY HILL LF |
| SHL-3 | 574613 | 566039 | GLACIAL | 247.4 | | | | SHEPLY HILL LF |
| SHL-4 | 574277 | 566390 | GLACIAL | 226.7 | | | | SHEPLY HILL LF |
| SHL-5 | 573895 | 567458 | GLACIAL | 217.8 | | | | SHEPLY HILL LF |
| SHL-6 | 574652 | 564583 | GLACIAL | 252.6 | | | | SHEPLY HILL LF |
| SHL-7 | 575035 | 565611 | GLACIAL | 235.6 | | | | SHEPLY HILL LF |
| SHL-8D | 574108 | 567461 | GLACIAL | 220 | | | | SHPLY HL-DEEP |
| SHL-8S | 574108 | 567461 | GLACIAL | 220 | | | | SHPLY HL-SHALW |
| SHL-9 | 573710 | 567479 | GLACIAL | 221.8 | | | | SHEPLY HILL LF |
| SHL-10 | 574578 | 566202 | GLACIAL | 247.4 | | | | SHEPLY HILL LF |
| SHL-11 | 574197 | 566650 | GLACIAL | 234.9 | | | | SHEPLY HILL LF |
| SHL-12 | 573704 | 564676 | GLACIAL | 248.3 | | | | SHEPLY HILL LF |
| SHL-13 | 574243 | 567439 | GLACIAL | 220 | | | | SHEPLY HILL LF |
| SHL-15 | 573027 | 565161 | GLACIAL | 259 | | | | SHEPLY HILL LF |
| SHL-17 | 573988 | 564724 | GLACIAL | 232.8 | 25 | 14 | 24 IRDIMIS | SHEPLY HILL LF |
| SHL-18 | 574888 | 565807 | GLACIAL | 236.6 | 16 | 6 | 16 IRDIMIS | SHEPLY HILL LF |
| SHL-19 | 574366 | 566277 | GLACIAL | 239.5 | 30 | 16 | 26 IRDIMIS | SHEPLY HILL LF |
| SHL-20 | 574164 | 566662 | GLACIAL | 235.5 | 31 | 20 | 30 IRDIMIS | SHEPLY HILL LF |
| SHL-21 | 574066 | 567217 | GLACIAL | 257.9 | 53 | 42 | 52 IRDIMIS | SHEPLY HILL LF |
| SHL-22 | 573732 | 567502 | GLACIAL | 219.6 | 115 | 105 | 115 IRDIMIS | SHEPLY HILL LF |
| SHL-23 | 573415 | 567250 | GLACIAL | 240.3 | 35 | 23 | 33 IRDIMIS | SHEPLY HILL LF |
| SHL-24 | 575005 | 564970 | GLACIAL | 237.7 | 120 | 110 | 120 IRDIMIS | SHEPLY HILL LF |
| SHL-25 | 573399 | 564585 | GLACIAL | 257.1 | 35 | 25 | 35 IRDIMIS | SHEPLY HILL LF |
| UST-01 | 564666 | 558578 | GLACIAL | 346.9 | | | | BLDG B2602 |
| UST-02 | 564652 | 558633 | GLACIAL | 347.5 | | | | BLDG B2602 |
| WWTMW-01 | 568521 | 569170 | GLACIAL | 215.6 | | | | WWTP |
| WWTMW-01A | 570058 | 570236 | GLACIAL | 219.4 | | | | WWTP |
| WWTMW-02 | 570064 | 570804 | GLACIAL | 222.6 | | | | WWTP |
| WWTMW-02A | 569921 | 571088 | GLACIAL | 223.4 | | | | WWTP |
| WWTMW-03 | 569772 | 571494 | GLACIAL | 214.2 | | | | WWTP |
| WWTMW-04 | 569142 | 571909 | GLACIAL | 215.2 | | | | WWTP |
| WWTMW-05 | 570000 | 570001 | GLACIAL | 210.3 | 20 | 5 | 20 EMO | WWTP |
| WWTMW-06 | 568112 | 572813 | GLACIAL | 232 | 19 | 5 | 20 EMO | WWTP |
| WWTMW-07 | 568323 | 570779 | GLACIAL | 240.6 | 33 | 18 | 33 EMO | WWTP |
| WWTMW-08 | 568628 | 569777 | GLACIAL | 217.1 | 19 | 4 | 19 EMO | WWTP |
| WWTMW-09 | 570460 | 570195 | GLACIAL | 209.8 | 19 | 4 | 19 EMO | WWTP |
| WWTMW-10 | 570882 | 570910 | GLACIAL | 212 | 20 | 5 | 20 EMO | WWTP |
| WWTMW-11 | 569945 | 571621 | GLACIAL | 211.6 | 55 | 39 | 54 EMO | WWTP |
| WWTMW-12 | 571436 | 570936 | GLACIAL | 217.9 | 57 | 42 | 57 EMO | WWTP |
| WWTMW-13 | 571186 | 569928 | GLACIAL | 217 | 23 | 8 | 23 EMO | WWTP |
| WWTMW-14 | 573189 | 570460 | GLACIAL | 216.7 | 21 | 6 | 21 EMO | WWTP |
| G3M-92-01X | 575423.4 | 562823 | GLACIAL | 250.7 | 35 | 25 | 35 IRDIMIS/EMO | N.PST-MAINTNCE |
| G3M-92-02X | 575907 | 562275 | GLACIAL | 249.1 | 31 | 21 | 31 IRDIMIS/EMO | N.PST-MAINTNCE |
| G3M-92-03X | 576310.7 | 562990 | GLACIAL | 250 | 31 | 21 | 31 IRDIMIS/EMO | N.PST-MAINTNCE |
| G3M-92-04X | 576258.3 | 563691 | GLACIAL | 251 | 33 | 23 | 33 IRDIMIS/EMO | N.PST-MAINTNCE |
| G3M-92-05X | 575743.7 | 563848 | GLACIAL | 252.2 | 35 | 25 | 35 IRDIMIS/EMO | N.PST-MAINTNCE |
| G3M-92-06X | 575529.2 | 563170 | GLACIAL | 251.7 | 32 | 22 | 32 IRDIMIS/EMO | N.PST-MAINTNCE |
| G3M-92-07X | 576145.5 | 562584 | GLACIAL | 249.8 | 32 | 22 | 32 IRDIMIS/EMO | N.PST-MAINTNCE |
| G6M-92-01X | 570712.4 | 573728 | GLACIAL | 263.1 | 66 | 55 | 65 IRDIMIS/EMO | N.PST-MOORE AF |
| G6M-92-02X | 570168 | 574516 | GLACIAL | 268.6 | 73 | 63 | 73 IRDIMIS/EMO | N.PST-MOORE AF |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| G6M-92-03X | 570765.3 | 574236 | GLACIAL | 267 | 70 | 59 | 69 | IRDIMIS/EMO | N.PST-MOORE AF |
| G6M-92-04X | 569786.1 | 573298 | GLACIAL | 268 | 72 | 62 | 72 | IRDIMIS/EMO | N.PST-MOORE AF |
| G6M-92-05X | 569951.4 | 573067 | GLACIAL | 266.4 | 70 | 60 | 70 | IRDIMIS/EMO | N.PST-MOORE AF |
| G6M-92-06X | 571397.8 | 573285 | GLACIAL | 261.6 | 63 | 53 | 63 | IRDIMIS/EMO | N.PST-MOORE AF |
| G6M-92-07X | 571395.6 | 573801 | GLACIAL | 264.4 | 65 | 55 | 65 | IRDIMIS/EMO | N.PST-MOORE AF |
| G6M-92-08X | 571690.1 | 574034 | GLACIAL | | 63 | 53 | 63 | IRDIMIS/EMO | N.PST-MOORE AF |
| G6M-92-09X | 571952.7 | 573880 | GLACIAL | 258.6 | 58 | 48 | 58 | IRDIMIS/EMO | N.PST-MOORE AF |
| G6M-92-10X | 572202.9 | 574342 | GLACIAL | 227.2 | 17 | 7 | 17 | IRDIMIS/EMO | N.PST-MOORE AF |
| G6M-92-11X | 572488.9 | 574125 | GLACIAL | 223.2 | 17 | 7 | 17 | IRDIMIS/EMO | N.PST-MOORE AF |
| 27M-92-01X | 560552.3 | 548765 | GLACIAL | | 20 | 10 | 20 | IRDIMIS/EMO | SOUTH POST |
| 27M-92-02X | 560537.3 | 548156 | GLACIAL | | 26 | 15 | 25 | IRDIMIS/EMO | SOUTH POST |
| 27M-92-03X | 560242.1 | 547956 | GLACIAL | 255.2 | 27 | 17 | 27 | IRDIMIS/EMO | SOUTH POST |
| 27M-92-04X | 560535.6 | 548101 | GLACIAL | | 29 | 18 | 28 | IRDIMIS/EMO | SOUTH POST |
| 92-1 | 577943 | 565272 | GLACIAL | 224.2 | 55 | 45 | 51 | CDM-AYER | CDM WELL |
| 92-2 | 578223 | 565288 | GLACIAL | 224.3 | 75 | 69 | 75 | CDM-AYER | CDM WELL |
| 92-3 | 577957 | 565423 | GLACIAL | 220.2 | 55 | 50 | 55 | CDM-AYER | CDM WELL |
| 92-4 | 577753 | 565101 | GLACIAL | 255.4 | 86 | 68 | 74 | CDM-AYER | CDM WELL |
| 92-5 | 577600 | 566192 | GLACIAL | 224.7 | 41 | 35 | 41 | CDM-AYER | CDM WELL |
| 1-EX-92 | 577725 | 565326 | GLACIAL | 228.9 | 60 | OPEN | 60 | CDM-AYER | CDM WELL |
| 2-EX-92 | 577634 | 565335 | GLACIAL | 219.1 | 60 | OPEN | | CDM-AYER | CDM WELL |
| PW#1 | 578010 | 565317 | GLACIAL | 220.2 | 62 | 52 | 62 | CDM-AYER | CDM WELL |
| FD40 | 577389 | 565132 | GLACIAL | 223.0 | 35? | ? | 33 | CDM-AYER | CDM WELL |
| AAFES-01D | 569851 | 560260 | BEDROCK | 296.2 | 30 | 14 | 29 | EMO | AAFES GAS |
| STATION | | | | | | | | | |
| AAFES-02 | 569870 | 560293 | BEDROCK | 300.6 | 35 | 16 | 31 | EMO | AAFES GAS STAN |
| AAFES-03 | 569707 | 560364 | BEDROCK | 308.7 | 26 | 16 | 26 | EMO | AAFES GAS STAN |
| AAFES-04 | 569817 | 560292 | BEDROCK | 310.1 | | | | EMO | AAFES GAS STAN |
| AAFES-05 | 569901 | 560330 | BEDROCK | 301 | 31 | 15 | 30 | EMO | AAFES GAS STAN |
| AAFES-06 | 569819 | 560239 | BEDROCK | 300 | 25 | 15 | 25 | EMO | AAFES GAS STAN |
| AAFES-07 | 570414 | 560191 | BEDROCK | 256.9 | 15 | 5 | 15 | EMO | AAFES GAS STAN |
| EOD-1 | 558644 | 544693 | BEDROCK | 348.2 | 25 | 15 | 25 | E&E | EOD RANGE |
| EOD-2 | 558462 | 544983 | BEDROCK | 348.2 | 24 | 14 | 24 | E&E | EOD RANGE |
| EOD-4 | 558769 | 545011 | BEDROCK | 350.4 | 35 | 25 | 35 | E&E | EOD RANGE |

NOTE:

CDM-AYER = Camp, Dresser & McGee, Inc.-Town of Ayer
E&E = Ecology & Environment Inc.
EMO = Environmental Management Office, Fort Devens
IRDIMIS = Installation Restoration Data Management Information System
SCRN = Well Screen

# APPENDIX B

MODFLOW Model Input & Output

**FORT DEVENS GROUND WATER MODEL**
**MODFLOW INPUT**

- BASIC PACKAGE INPUT
- BLOCK CENTERED FLOW INPUT
- GLACIAL OUTWASH HYDRAULIC CONDUCTIVITIES ARRAY
- GLACIAL OUTWASH BOTTOM ELEVATION ARRAY
- CONFINING TILL VERTICAL CONDUCTANCE
- BEDROCK BOTTOM ELEVATION ARRAY
- BEDROCK TOP ELEVATION ARRAY
- WELL INPUT
- RECHARGE INPUT
- RIVER INPUT
- SIP SOLUTION INPUT

# BASIC PACKAGE INPUT

```
FORT DEVENS ARMY FACILITY, MA
STEADY STATE RUN
        2       110        66         1         4          NLAY,NROW,NCOL,NPER,ITMUNI
  2  3  0  4  0  0  0  8  9  0  0 10
BCF,WEL,DRN,RIV,EVT,XX,GHB,RCH,SIP,XX,SOR,OPC
        0         1                                       IAPART, ISTART
        1         1(3X,40I2)                   -1         IBND-LAY 1 GLACL OUTWSH
1  -1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1 0 0 0 0 0
    0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
2  -1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0
    0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
3  -1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
    1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
4   0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 0 0 0 0 0 0
    1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
5   0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 1 1 1 1 1 1 1 0 0 0 0 0 0
    1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
6   0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 0 0 0 0 0 0
    1 0 0 0-1-1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
7   0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
    1 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
8   0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
    1 1 0 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
9   0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 1 1 0 0 0 0 0 0
    1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
10  0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 1 1 1 0 0 0 0 0 0 0
    1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
11  0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 0 0 0 0 0 0 0
    1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
12  0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
13  0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
14  0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
15  0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
16  0 0 0 0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
17  0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
18  0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1
    1 1 1 1 0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
19  0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1
    1 1 1 1 0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
20  0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
21  0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
22  0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 1 1 1 1 1 1 1 1
    1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
23  0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 0 1 1 1 1 1 1 1
```

```
    1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
24  0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
25  0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
26  0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 1 1 1 1 1 1 1
    1 1 1 1 0 0 1 1 1-1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
27  0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1
    1 1 1 0 0 0 0 1 1-1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
28  0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 1 1 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
29  0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
30  0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
31  0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
32  0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
33  0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
34  0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
35  0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
36  0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
37  0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
38  0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
39  0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
40  0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 1 1 1 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
41  0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 1 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1
    1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
42  0 0 0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 1 1 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1
    1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
43  0 0 0 0-1-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1
    1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
44  0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1
    1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
45  0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 1 1 0 1 1 1 1 1 1 1
    1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
46  0 0 0 0-1 1 1 1 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 1 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1
    1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
47  0 0 0-1-1 1 1 1 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
48  0 0-1-1-1 1 1 1 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 1 1 1 1 1 1 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
49  0-1 1 1 1 1 1 1 0 0 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
50  0-1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
```

```
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
51  0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
52  0-1-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
53  0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
54  0 0-1-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
55  0 0 0-1-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
56  0 0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
57  0 0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
58  0 0 0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
59  0 0 0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
60  0 0 0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
61  0 0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 1 0 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1
    1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
62  0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
63  0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
64  0 0-1 1 1 1 1 0 0 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
65  0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
66  0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
67  0 0 0-1 1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 1 1 1 1 1 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
68  0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
69  0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1
    1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
70  0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1
    1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
71 -1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
72 -1-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
73  0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
74  0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
75  0 0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
76  0 0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
77  0 0 0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
```

```
    1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
78  0 0 0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
79  0 0 0 0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
80  0 0 0 0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
81  0 0 0 0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 1 0 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
82  0 0 0 0 0 0 0-1 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 1 0 1 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
83  0 0 0 0 0 0 0-1 1 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
84  0 0 0 0 0 0-1-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 1 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0
85  0 0 0 0 0-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 1 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0
86  0 0 0 0 0 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0
87  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0
88  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0
89  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 1 1 1 1
    1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0
90  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0
91  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0
92  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0
93  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0
94  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0
95  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 0 0 1 1 0 0 1 1
    1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0
96  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 1
    1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0
97  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 0 0 0 0 0 0 0 0 1 1
    1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0
98  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 0 0 0 0 0 0 0 0 1 1
    1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0
99  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 0 0 0 0 0 0 0 0 1 1
    1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0
100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 0 0 0 0 0 0 0 0 1 1
    1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0
101 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 0 0 0 0 0 0 0 0 1 1
    1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0
102 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 0 0 0 0 0 0 0 0 1 1
    1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0
103 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 0 0 0 0 0 0 0 0 1 1
    1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0
104 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 0 0 0 0 0 0 0 0 1 1
```

```
    1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
105 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
106 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
107 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1
    1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
108 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 0 0 0
    0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
109 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0
    0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
110 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
    0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
        1        1(3X,4012)                  -1        IBND-LAY 2 BEDROCK
1   -2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2 0
    0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
2   -2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
3   -2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
4   -2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
5   0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
6   0 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
7   0 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
8   0 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
9   0 0 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0
10  0 0 0 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0
11  0 0 0 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0
12  0 0 0 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0
13  0 0 0 0 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0
14  0 0 0 0 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0
15  0 0 0 0 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0
16  0 0 0 0 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0
17  0 0 0 0 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0
18  0 0 0 0 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0
19  0 0 0 0 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0
20  0 0 0 0 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0
```

```
21  0 0 0 0 0 0 2 2 2
```

```
48  0 0-2-2-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
49  0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
50  0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
51  0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
52  0-2-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
53  0 0-2-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
54  0 0-2-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
55  0 0 0-2-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
56  0 0 0 0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
57  0 0 0 0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
58  0 0 0 0 0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
59  0 0 0 0 0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
60  0 0 0 0 0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
61  0 0 0 0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
62  0 0 0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
63  0 0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
64  0 0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
65  0 0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
66  0 0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
67  0 0 0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
68  0 0 0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
69  0 0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
70  0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
71 -2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
72 -2-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
73  0 0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
74  0 0 0-2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
    2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
```

```
75  0 0 0 0-2 2 2 
```

```
102 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 2 2 2
```

265.0 247.3 268.2 272.2 273.8 270.2
6 240.0 375.3 385.2 374.4 345.0 314.0 284.1 260.4 234.8 208.3
208.0 209.3 211.5 211.9 217.3 216.0 194.8 194.8 194.8 219.5
221.8 224.4 230.9 236.8 239.9 243.4 246.5 252.2 247.3 247.3
247.3 251.5 274.2 296.3 306.3 325.9 344.7 345.8 327.1 286.5
248.5 247.3 286.6 294.3 238.0 238.0 230.0 247.0 244.1 244.1
244.1 246.7 250.1 251.4 262.0 283.4 296.9 300.5 291.3 265.0
265.0 248.2 280.4 296.4 293.0 289.5
7 347.2 357.2 367.0 358.5 343.8 321.1 303.1 288.7 257.1 232.0
208.0 217.8 221.2 230.9 243.8 244.1 206.0 195.0 196.9 235.3
237.9 233.5 237.9 240.9 244.1 244.1 244.1 244.1 246.5 244.1
247.3 253.9 280.2 298.8 310.4 325.0 342.1 345.8 338.8 278.7
247.3 247.3 280.6 262.2 247.3 247.3 247.3 244.7 244.1 244.1
244.7 270.2 293.3 294.6 293.5 296.6 296.6 295.6 281.2 265.0
265.0 265.0 265.0 319.6 311.2 294.0
8 345.8 345.2 347.2 347.0 345.8 329.9 318.6 302.3 281.7 259.0
224.9 225.4 234.5 239.9 245.8 230.6 209.1 196.5 202.8 244.0
244.1 246.8 245.6 246.3 244.1 244.1 244.1 244.1 247.0 250.0
260.0 260.0 275.3 294.8 307.5 319.1 332.5 344.5 339.9 267.3
247.4 247.3 247.3 247.3 247.3 246.7 245.2 244.1 244.1 244.1
256.2 289.6 313.5 303.6 296.6 296.6 290.9 277.9 265.0 265.0
265.0 273.6 345.8 353.7 349.7 310.3
9 331.6 332.4 345.2 345.8 345.8 338.6 332.6 327.0 297.1 270.6
243.5 234.7 239.9 240.8 241.7 223.0 201.3 195.4 240.8 244.1
244.1 244.1 244.1 244.1 245.1 247.3 244.1 244.1 244.1 244.1
244.1 246.7 257.3 283.7 298.8 311.3 323.5 345.5 343.0 272.1
247.3 247.3 247.3 247.3 247.3 244.5 244.1 244.1 244.1 247.2
270.3 293.7 308.6 297.4 294.8 288.0 272.1 265.0 265.0 265.0
265.0 282.3 344.1 362.5 393.4 375.6
10 300.0 307.8 327.7 336.2 339.6 345.8 345.8 345.8 324.9 286.8
265.4 248.0 246.1 243.5 228.2 211.0 198.1 194.8 239.0 244.1
247.0 245.3 245.2 244.1 244.1 244.2 247.3 244.1 244.1 244.1
244.1 244.1 244.1 245.1 278.2 301.9 313.7 325.3 324.6 267.2
247.3 247.3 247.3 247.3 244.1 244.1 244.1 244.1 250.2 255.2
275.1 294.7 294.5 284.2 277.6 267.9 268.0 267.0 265.0 265.0
263.9 290.1 322.2 350.0 374.0 373.0
11 296.6 297.4 307.3 318.0 330.1 344.7 345.8 345.8 332.2 300.5
282.7 264.6 248.1 243.7 227.6 201.4 195.2 194.8 203.6 236.4
218.6 194.8 196.1 247.3 247.3 245.8 244.5 244.1 244.1 245.0
244.1 244.1 244.1 244.7 252.1 276.9 264.0 271.0 269.4 252.0
245.6 247.1 247.3 246.9 244.1 244.1 244.1 251.3 264.2 267.9
285.0 290.0 283.6 273.7 269.0 275.0 299.8 302.8 296.4 291.7
283.6 290.4 294.5 312.3 322.9 337.2
12 315.0 296.6 296.9 300.0 312.8 336.4 345.8 335.7 326.7 307.1
295.8 276.6 262.7 248.2 232.2 203.8 197.3 198.5 194.8 205.9
200.6 194.8 195.4 217.4 237.5 243.8 244.1 246.5 247.3 247.3
246.3 244.1 244.1 244.1 244.1 245.8 244.1 244.1 244.6 244.1
244.1 244.1 244.7 244.1 244.1 244.1 244.1 264.9 282.4 285.5
289.0 290.2 283.0 270.2 276.0 288.4 326.7 339.8 336.5 326.2
306.0 296.6 296.6 296.6 297.5 303.1
13 315.0 296.6 296.6 296.6 300.0 311.6 318.4 315.2 302.2 298.6
295.2 282.0 270.2 251.0 241.3 245.0 247.3 242.1 220.0 209.4
195.2 194.8 194.8 208.3 231.6 240.0 243.3 245.9 247.3 245.3
244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.1

244.1 244.1 244.1 244.1 244.1 244.1 244.4 264.1 295.9 296.6
296.6 296.0 289.1 280.2 285.0 294.5 332.1 345.8 345.8 343.7
328.0 315.8 306.4 297.7 296.6 296.6
14 315.0 296.6 296.6 296.6 296.6 296.6 295.4 294.7 293.1 293.3
290.0 280.6 269.2 258.8 250.1 247.3 247.3 247.3 239.8 241.9
221.7 198.5 195.3 211.0 225.6 236.2 243.1 244.9 244.1 244.1
244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.1
244.1 244.1 244.1 244.1 244.1 244.1 244.1 252.0 284.2 296.6
296.6 299.8 299.6 295.6 287.9 290.0 301.4 337.9 345.8 343.5
345.8 343.8 335.6 331.5 302.0 296.6
15 315.0 309.0 305.0 296.6 296.6 296.1 293.0 290.0 287.6 288.3
288.4 283.2 271.7 261.9 256.0 249.8 247.3 247.3 247.3 247.3
247.3 233.1 208.8 215.0 226.5 238.6 244.6 244.1 244.1 244.1
244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.1
244.1 244.1 244.1 244.1 244.1 244.1 244.2 248.0 273.8 294.6
297.7 307.9 307.3 303.6 297.7 291.4 290.0 307.7 345.8 332.8
296.6 319.2 321.6 338.5 341.6 304.6
16 314.9 315.0 315.0 308.0 296.6 296.0 273.5 272.5 272.4 280.3
280.6 277.8 272.7 265.6 259.8 253.8 250.4 247.3 247.3 247.3
247.3 239.2 209.8 219.3 233.8 244.2 244.6 244.1 244.1 244.1
244.1 244.1 244.1 244.7 244.1 244.1 244.1 244.1 244.1 244.1
244.1 244.1 244.1 244.1 244.1 244.8 248.4 251.1 267.3 286.7
296.2 338.3 322.5 310.9 305.3 299.0 288.0 290.0 290.0 295.0
296.9 295.5 295.5 297.7 345.8 316.0
17 350.6 329.2 315.0 314.0 305.0 296.9 293.7 288.4 282.5 279.7
276.6 274.8 269.9 263.3 258.4 253.9 250.9 247.3 247.3 247.3
245.9 233.5 209.7 219.3 237.6 244.1 244.3 244.1 244.1 244.1
244.1 244.3 247.3 247.3 247.3 246.8 244.6 244.3 244.1 244.1
244.1 244.1 244.1 244.1 244.1 247.3 257.1 265.8 277.5 284.6
292.4 326.8 340.8 316.0 304.2 297.7 290.0 289.0 287.0 295.0
287.3 288.9 290.0 293.3 293.9 296.6
18 367.8 345.8 341.3 317.9 319.5 323.0 298.5 287.7 281.4 275.7
271.4 269.5 266.7 260.5 257.2 251.1 248.0 247.3 247.3 247.3
243.0 227.1 208.6 218.1 234.7 245.8 243.9 243.6 244.1 244.1
248.0 247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3 245.8
246.0 244.2 244.1 244.1 244.6 248.2 256.8 270.3 286.3 298.1
296.0 296.6 320.4 304.9 296.6 296.6 287.5 287.0 287.0 286.0
286.0 286.7 290.0 290.0 293.3 293.7
19 381.0 358.2 349.2 342.5 342.0 345.8 301.4 292.0 282.4 273.6
267.1 263.7 261.1 257.7 253.4 248.0 247.3 247.3 247.3 247.3
242.2 226.6 214.3 211.3 224.2 236.7 240.8 240.8 242.0 244.1
273.5 256.1 247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 247.3 247.3 247.3 247.3 247.3 257.8 275.2 292.3 329.0
339.1 297.5 296.6 296.6 296.6 296.6 293.8 287.6 284.4 283.1
282.7 286.7 287.3 290.0 290.0 293.1
20 394.5 379.4 362.8 347.4 345.4 339.5 308.2 295.8 285.4 275.0
266.0 260.5 257.2 254.0 247.7 247.3 247.3 247.3 247.3 247.2
240.8 231.2 218.9 208.6 216.2 228.6 236.1 237.5 240.8 248.0
291.1 279.0 257.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 247.3 247.3 247.3 247.3 247.3 256.2 270.9 291.5 325.5
345.8 319.0 297.4 296.6 306.2 326.9 302.9 292.1 290.6 290.5
290.2 289.9 286.7 286.7 289.4 290.0
21 395.0 394.5 374.2 350.7 344.6 333.9 314.1 299.7 290.0 276.9
264.8 258.7 252.8 250.1 247.3 247.3 247.3 247.3 247.3 247.3

244.4 234.7 224.9 212.9 210.0 218.9 226.2 234.8 240.7 247.5
309.3 304.2 272.3 249.9 247.3 247.3 247.3 247.3 247.3 247.3
247.3 247.3 247.3 247.3 247.3 247.3 247.3 249.2 262.1 278.7 297.0
322.9 319.2 307.2 296.6 306.4 339.2 337.5 295.8 296.2 297.1
299.3 294.1 290.4 287.0 289.0 291.6
22 395.0 395.0 389.1 370.9 351.9 344.9 324.7 308.8 296.5 281.2
267.8 257.6 247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 245.2 232.3 219.3 210.1 211.6 221.3 230.8 239.0 246.8
289.9 300.4 278.0 257.1 249.5 247.3 247.3 247.3 247.3 247.3
247.3 247.3 247.3 247.3 247.3 247.3 247.3 254.8 268.5 284.1
294.6 301.5 305.4 315.1 296.6 317.7 343.2 337.8 297.4 313.0
344.5 333.8 304.4 291.8 290.0 293.3
23 395.0 395.0 395.0 395.0 375.2 354.9 345.7 319.9 297.9 285.6
271.1 259.7 249.2 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 242.6 230.5 218.2 209.9 216.5 225.1 234.2 250.0 290.1
270.0 280.4 280.4 262.9 253.8 250.7 247.3 247.3 247.3 247.3
247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.6 260.4 269.9
282.4 292.3 306.6 324.4 304.8 298.1 330.1 345.0 326.5 328.1
342.2 356.0 347.3 309.6 293.3 293.3
24 391.6 392.4 395.0 395.0 394.5 370.0 353.6 334.8 309.5 292.8
278.2 258.8 247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3
246.3 239.1 226.4 211.2 211.3 226.7 233.5 238.1 241.4 244.1
305.0 305.0 277.3 267.2 259.9 253.9 250.5 247.3 247.3 247.3
247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3 249.9 261.6
273.2 286.0 300.6 319.7 321.6 317.8 335.9 345.8 342.6 344.9
345.2 356.8 347.4 308.5 296.4 293.3
25 379.5 389.3 395.0 395.0 394.2 375.8 354.1 344.0 324.4 303.8
284.5 265.8 247.5 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 236.8 218.3 210.5 222.8 234.3 240.8 240.8 244.1 245.4
244.9 248.0 270.0 267.0 260.4 254.3 248.3 247.3 247.3 247.3
247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3 253.4
266.6 284.2 299.9 345.3 342.6 339.7 342.4 345.8 345.8 345.8
345.8 345.8 326.8 298.6 296.6 298.4
26 375.3 385.1 394.9 395.0 393.1 378.3 363.6 351.4 340.5 322.2
295.7 275.6 257.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 234.6 211.3 221.0 236.1 245.6 244.1 242.6 247.3 247.3
247.3 247.3 256.9 261.3 256.8 250.4 247.3 247.3 247.3 247.3
247.3 247.3 247.3 247.3 253.5 251.5 249.1 247.3 247.3 238.1
258.3 295.4 325.8 377.5 394.4 352.2 345.6 345.8 345.8 345.8
345.8 334.7 315.1 299.8 296.6 340.2
27 367.4 386.3 395.0 395.0 392.8 384.2 374.1 373.2 375.3 343.1
307.1 283.7 261.6 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 231.5 215.0 225.1 242.4 245.7 246.2 247.7 252.2 250.1
247.3 247.3 247.5 255.0 260.0 255.0 247.3 247.3 247.3 247.3
247.3 247.3 247.3 250.2 264.8 266.3 257.4 240.0 240.0 238.0
248.8 279.0 306.6 338.2 348.4 368.8 341.6 338.6 342.9 345.7
342.4 326.5 309.7 296.6 296.6 363.2
28 358.1 385.5 395.0 395.0 394.1 388.3 385.4 391.7 395.0 352.5
326.2 298.8 273.8 252.0 247.3 247.3 247.3 247.3 247.3 247.3
247.3 229.1 223.7 245.3 252.2 252.2 248.6 254.1 260.5 257.2
251.1 247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 247.3 250.0 264.6 281.4 285.8 277.4 247.0 240.0 240.0
247.3 247.3 259.5 291.0 307.7 327.9 308.4 303.5 331.5 343.0
345.8 330.0 316.6 310.2 320.0 409.7

29 355.2 378.6 395.0 395.0 395.0 395.0 395.0 399.6 395.5 393.2
337.2 309.5 289.1 256.0 248.9 247.3 247.3 247.3 247.3 247.3
247.3 223.4 234.7 271.2 276.6 277.9 273.6 274.4 272.8 268.4
261.5 251.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 247.3 254.5 273.9 292.2 302.3 299.5 265.0 258.0 248.0
247.3 247.3 247.3 247.3 255.9 293.0 293.8 297.2 316.2 335.6
345.2 346.1 330.6 335.3 345.0 419.3
30 349.6 365.8 392.6 395.0 395.0 395.0 395.0 422.9 420.9 397.0
357.2 324.8 295.0 248.1 247.3 247.3 247.3 247.3 247.3 247.3
238.6 217.0 252.4 295.2 295.4 296.3 290.1 296.4 292.9 289.6
277.8 263.9 247.3 247.3 255.0 260.0 255.0 257.1 248.4 247.3
247.3 250.4 265.0 285.7 301.9 313.4 309.8 306.4 296.7 274.5
262.6 252.1 248.3 247.3 247.3 249.3 278.9 294.6 305.2 324.3
344.5 370.9 345.8 345.8 367.5 432.0
31 345.8 347.6 378.7 395.0 395.0 397.6 406.8 434.3 419.8 402.6
363.2 321.6 292.1 257.7 248.2 247.3 247.3 247.3 247.3 247.3
227.5 223.4 254.9 293.4 299.6 302.4 301.1 300.5 299.8 298.2
296.6 280.2 256.9 247.3 247.3 247.3 247.7 291.0 293.8 250.9
248.2 248.7 268.5 290.1 316.3 331.3 328.4 319.4 309.7 301.2
297.9 291.6 274.2 254.2 247.3 247.3 254.0 276.3 292.8 306.1
326.9 343.7 345.8 345.8 366.0 447.1
32 342.5 343.0 357.9 385.7 393.9 395.3 399.9 412.4 398.2 386.2
355.1 316.1 290.0 271.8 251.2 250.6 249.0 247.3 247.3 247.3
223.7 241.7 263.7 294.3 296.6 306.1 306.9 306.0 304.4 300.8
299.1 295.7 276.9 247.9 247.3 253.2 271.5 290.8 296.8 252.6
247.3 256.2 277.9 297.7 326.7 342.5 345.3 337.2 328.1 319.8
307.1 302.9 296.2 270.3 248.3 247.3 247.3 247.3 250.6 258.1
298.7 315.9 335.0 346.2 385.6 450.0
33 332.9 329.3 338.1 361.4 375.6 384.5 385.1 385.7 375.3 359.7
336.9 311.6 290.4 282.9 259.3 251.8 250.6 250.6 247.3 247.3
217.7 234.2 266.7 287.9 294.2 305.7 313.5 312.2 309.3 305.9
302.7 299.4 290.1 269.7 269.3 296.6 302.8 329.8 293.4 254.7
251.7 263.8 280.2 307.6 340.6 345.8 345.8 345.8 341.1 335.3
324.5 311.4 300.8 285.5 265.7 259.2 259.7 251.8 247.3 247.3
267.6 297.2 319.5 339.0 403.3 458.9
34 316.0 300.0 312.6 339.7 361.7 364.6 367.6 365.3 359.6 352.1
329.5 303.2 291.9 278.7 267.2 256.1 253.9 250.7 247.4 231.4
209.9 252.5 277.9 285.6 292.1 299.8 319.0 317.8 316.6 312.6
306.4 299.9 296.6 292.4 292.2 296.6 296.2 301.1 263.1 248.8
254.7 270.4 284.2 296.8 339.0 348.8 349.0 350.8 348.4 342.6
338.8 322.9 306.6 292.1 282.8 281.9 296.2 325.6 285.4 247.3
248.9 284.3 312.1 338.2 393.3 468.5
35 309.8 296.6 300.5 323.2 345.4 349.7 352.4 315.0 346.1 340.2
317.5 297.5 296.6 280.7 267.5 259.8 253.9 250.6 247.7 231.6
209.4 263.5 291.0 289.4 293.3 301.8 325.3 326.1 325.9 322.7
316.3 303.9 297.6 294.7 292.2 275.1 254.0 254.2 247.3 247.3
247.7 280.1 289.6 295.4 317.9 348.8 355.3 358.8 358.9 358.9
352.6 339.1 310.7 296.6 295.4 303.3 329.7 342.3 324.1 251.3
247.6 279.7 311.7 354.7 421.8 468.3
36 308.6 296.6 296.6 298.9 327.7 337.3 342.0 345.3 345.8 333.2
300.0 297.0 296.6 291.9 266.1 260.3 253.9 247.3 247.3 225.8
215.2 241.9 287.6 296.6 304.0 315.1 326.4 333.8 333.3 329.6
324.3 315.0 305.0 294.5 286.6 265.5 247.4 263.7 254.4 274.9
287.9 296.6 296.6 296.6 318.0 352.6 366.6 373.6 374.7 382.5

366.9 347.7 317.6 298.8 298.3 320.2 344.9 313.0 295.8 249.4
247.3 269.1 297.7 371.2 438.3 494.6

37 298.6 296.6 296.6 296.6 309.7 329.3 338.9 340.4 331.6 312.3
296.6 296.6 296.6 294.6 261.4 255.1 250.4 247.0 240.9 220.8
214.8 239.1 288.4 305.0 315.0 322.8 335.9 344.7 344.3 343.3
340.4 323.2 315.0 305.0 288.6 274.4 269.5 283.4 285.5 299.2
299.6 296.6 296.6 296.6 314.8 345.7 381.8 395.0 394.0 395.0
382.5 350.0 323.3 302.7 296.9 312.7 341.4 290.7 265.4 247.3
249.3 275.0 320.1 407.6 466.4 516.0

38 296.6 296.6 296.6 296.6 297.6 325.4 345.2 341.4 322.6 302.8
296.6 296.6 296.6 286.1 257.3 247.3 247.3 247.3 244.1 226.8
212.1 241.4 283.6 300.3 311.0 324.1 341.1 345.8 345.8 345.8
345.8 336.2 315.1 298.9 296.4 286.8 292.6 296.6 296.6 296.6
312.5 306.2 296.7 296.6 307.8 333.2 365.0 395.4 396.0 395.0
379.0 346.0 325.0 305.0 296.6 296.7 296.3 262.2 247.3 247.3
248.7 281.3 346.1 431.2 496.6 545.9

39 296.6 296.6 296.6 296.6 297.7 379.5 407.2 372.5 327.8 304.7
296.6 296.6 284.7 261.5 247.3 247.3 247.3 247.3 247.3 243.2
210.8 242.7 285.9 299.7 312.5 327.6 344.9 345.8 345.8 345.8
345.8 345.7 342.3 319.4 296.6 296.6 296.6 296.6 296.6 301.8
343.7 334.3 298.5 296.6 306.1 328.6 375.5 399.9 407.3 393.2
363.7 348.0 328.0 310.0 296.6 292.6 282.5 255.9 248.2 255.8
266.9 294.9 367.1 441.4 494.5 543.6

40 296.6 296.6 296.6 296.6 303.8 383.2 424.3 346.3 316.5 300.7
293.7 286.0 269.2 250.5 247.3 247.3 247.3 247.3 247.3 247.3
208.0 246.9 274.0 295.0 308.7 323.9 339.4 345.8 345.8 345.8
347.8 347.8 347.8 330.6 315.0 305.0 296.6 296.6 296.6 298.2
342.5 339.1 297.7 296.6 296.6 321.6 359.8 385.5 437.9 417.4
364.7 350.0 330.0 312.0 296.6 294.3 277.7 267.5 263.8 269.3
280.9 296.6 371.7 442.6 475.5 512.1

41 270.0 270.0 270.0 270.0 270.0 280.0 280.0 329.3 306.2 293.3
280.3 257.1 248.9 247.3 247.3 247.3 247.3 247.3 247.3 247.3
236.6 223.7 257.6 290.2 305.4 320.9 337.1 345.8 345.8 345.8
355.8 355.8 355.8 327.8 315.0 305.0 296.6 296.6 296.6 325.0
343.9 332.9 298.9 296.6 296.6 320.2 353.4 377.1 406.5 445.8
394.8 348.0 328.0 323.7 321.6 332.9 290.9 279.9 280.3 288.3
292.3 301.6 346.0 420.6 467.2 497.2

42 265.0 265.0 265.0 265.0 265.0 265.0 265.0 298.0 294.1 287.7
270.4 249.7 247.3 247.3 247.3 249.7 250.6 250.6 250.5 247.3
247.3 213.3 240.2 275.0 298.1 313.2 329.4 345.6 345.8 345.8
348.8 355.8 348.8 345.4 342.5 312.7 296.0 292.6 296.3 338.6
345.8 309.7 296.6 296.6 298.9 327.2 349.2 368.9 385.2 393.2
375.2 345.8 343.9 346.7 385.9 357.6 300.8 290.5 290.7 293.3
296.7 324.5 354.3 390.3 443.4 482.9

43 265.0 265.0 265.0 265.0 265.0 265.0 275.0 296.7 293.6 282.7
269.9 260.9 254.2 250.9 253.7 253.9 253.9 253.9 251.3 250.6
247.3 236.5 217.0 249.9 280.7 302.6 317.4 343.1 345.8 345.8
345.8 348.8 345.8 335.8 323.8 299.7 296.4 283.0 291.9 332.2
342.9 304.8 293.1 293.9 328.1 348.1 346.2 350.6 364.1 361.6
349.3 345.8 345.8 359.0 392.7 375.0 345.7 297.9 296.6 296.6
307.7 340.8 361.6 383.1 419.2 474.6

44 270.0 270.0 270.0 270.0 270.0 270.0 277.0 270.0 301.7 288.0
279.9 276.4 272.6 265.8 260.3 258.0 254.8 254.7 253.9 252.5
249.6 242.9 211.8 235.4 257.2 280.0 299.1 309.4 341.0 345.8

345.8 345.8 320.8 315.0 275.0 250.9 269.4 248.9 266.4 299.6
295.1 287.9 285.4 290.9 341.9 358.9 356.0 347.7 345.8 347.1
345.8 345.8 345.8 373.1 402.5 383.3 360.5 326.8 315.0 308.0
328.4 362.1 389.0 398.3 427.5 470.5
45 275.0 275.0 275.0 275.0 275.0 275.0 280.0 275.0 345.8 308.8
298.5 290.6 284.0 283.3 270.9 264.1 263.1 260.5 257.9 253.9
250.3 247.3 220.3 217.2 237.8 253.3 276.0 287.6 306.8 343.8
337.9 325.9 315.0 280.0 247.3 247.3 248.3 246.0 247.3 270.6
272.8 260.6 267.0 298.9 355.0 381.2 386.3 370.2 357.9 345.8
345.8 345.8 345.8 381.2 394.8 388.5 371.1 349.7 335.0 330.0
343.3 372.9 418.3 477.9 485.3 490.8
46 280.0 280.0 280.0 280.0 280.0 280.0 285.0 390.0 360.9 332.4
316.2 316.1 316.3 307.2 293.1 273.0 269.2 266.0 262.8 254.0
248.9 247.3 232.2 212.1 219.2 234.7 251.1 271.9 301.3 344.4
329.4 309.7 296.9 275.0 255.0 244.1 244.1 244.3 244.1 248.6
250.8 247.3 263.4 309.4 366.8 423.1 414.0 400.7 388.5 362.3
345.8 345.8 345.8 387.4 395.0 395.0 393.2 373.7 355.5 345.4
349.3 388.3 425.7 485.1 496.7 502.9
47 285.0 285.0 285.0 285.0 285.0 285.0 289.0 389.7 352.6 345.8
336.1 334.3 341.2 347.2 328.3 291.3 277.2 273.5 263.7 253.9
247.4 247.3 247.3 233.7 218.8 217.3 247.2 256.0 272.6 285.2
295.5 299.6 295.1 265.0 250.0 244.1 244.1 244.1 244.1 244.2
244.1 250.4 281.2 353.6 394.9 442.0 447.5 419.5 403.9 390.9
345.8 345.8 345.8 385.3 395.0 395.0 416.5 392.6 381.0 365.0
352.3 394.0 429.6 468.8 493.0 507.8
48 290.0 290.0 290.0 290.0 290.0 290.0 290.0 290.0 293.0 297.0
300.0 306.0 373.7 392.6 379.8 303.7 286.6 282.7 274.1 262.6
255.0 251.3 247.3 247.3 242.2 216.3 227.5 237.9 244.1 247.3
253.8 249.6 250.4 245.4 242.6 240.8 240.8 244.1 244.1 244.1
247.5 261.4 290.8 376.0 413.5 451.4 456.5 436.0 407.8 394.9
362.5 345.8 345.8 369.0 389.8 392.3 416.3 401.7 397.9 388.4
376.0 378.2 422.5 455.6 483.4 504.7
49 295.0 295.0 295.0 295.0 295.0 295.0 295.0 296.0 310.0 366.4
395.0 395.0 394.5 395.0 373.5 332.7 297.1 296.3 290.1 278.3
265.7 256.2 249.5 247.3 247.3 230.9 211.6 212.5 226.3 230.4
238.3 240.6 239.4 240.8 240.8 240.8 240.8 240.8 240.8 244.1
246.6 271.4 293.0 356.1 408.0 447.9 450.9 436.5 415.7 406.2
387.0 352.9 345.8 345.8 350.0 371.3 397.7 403.7 398.3 395.0
397.6 396.4 428.1 452.3 477.1 497.7
50 300.0 300.0 300.0 300.0 300.0 300.0 300.0 302.0 346.0 383.8
395.0 395.0 395.0 395.0 394.9 362.3 330.8 314.0 298.3 288.3
277.7 265.4 247.9 247.3 246.8 234.1 217.8 211.5 218.0 218.2
221.8 232.8 233.6 237.5 237.5 237.5 237.8 240.8 240.8 243.1
246.3 264.0 290.9 347.1 407.2 444.0 447.5 447.5 444.7 450.5
446.7 386.3 345.8 345.8 345.8 345.8 371.7 374.0 392.3 395.0
402.9 412.1 435.9 489.6 490.5 496.9
51 305.0 305.0 305.0 305.0 305.0 305.0 305.0 345.8 363.3 395.0
395.0 395.0 395.0 396.6 398.3 381.0 348.5 328.6 310.4 295.5
292.6 270.9 247.3 247.3 247.3 238.7 227.7 219.8 219.7 217.8
217.8 224.7 228.0 229.0 233.7 236.5 237.5 240.1 240.8 242.1
247.4 260.6 286.3 339.7 404.8 443.8 445.3 447.5 446.6 449.3
455.8 394.6 358.1 345.8 345.8 345.8 355.0 346.3 347.1 363.1
398.2 421.1 443.0 489.3 509.8 506.5
52 310.0 310.0 310.0 310.0 310.0 310.0 310.0 344.8 392.3 395.0

395.0 395.0 395.0 395.0 410.0 402.5 367.3 342.3 323.4 306.0
296.6 279.4 247.3 247.3 247.3 247.3 238.8 232.5 228.5 220.3
217.8 217.8 220.9 221.1 230.4 231.4 234.2 237.5 238.6 241.4
244.3 263.8 287.5 342.3 402.9 445.3 448.3 444.4 444.5 434.7
415.1 378.7 356.0 345.8 345.8 345.8 345.8 345.8 345.8 345.8
373.5 421.3 460.2 494.9 534.4 523.5
53 312.0 312.0 312.0 312.0 312.0 312.0 336.0 347.6 382.0 395.0
395.0 395.0 395.0 395.0 412.2 447.5 391.1 360.8 333.4 310.1
295.4 273.8 247.3 247.3 247.3 247.3 247.3 244.7 236.7 230.9
230.8 224.7 219.0 217.8 217.8 229.0 230.9 234.2 238.2 241.4
245.4 260.5 283.4 327.9 405.4 444.1 493.2 446.5 439.9 424.2
395.0 380.0 380.0 345.8 345.8 345.8 345.8 345.8 345.8 345.8
375.5 427.2 463.8 496.6 542.3 545.5
54 314.0 314.0 314.0 314.0 314.0 314.0 345.5 345.8 358.8 391.9
395.0 395.0 395.0 395.0 395.0 414.7 439.0 392.7 342.5 309.7
291.5 272.6 255.6 247.3 247.3 247.3 247.3 247.3 240.3 238.5
238.3 235.5 227.9 221.9 217.8 224.4 227.7 231.4 234.3 240.8
246.9 261.3 287.4 328.8 393.0 436.6 496.7 454.2 437.3 421.8
396.1 380.0 360.0 345.8 345.8 345.8 345.8 345.8 345.8 345.8
394.7 440.3 474.6 501.2 532.2 544.2
55 316.0 316.0 316.0 316.0 316.0 316.0 345.8 345.8 345.8 381.8
395.0 395.0 395.0 395.0 395.0 396.7 419.0 411.3 353.8 318.0
293.9 278.4 261.8 247.9 247.3 247.3 247.3 247.3 244.1 244.2
246.0 247.3 236.6 225.7 217.8 218.1 224.4 228.1 233.7 240.2
246.5 252.2 287.4 330.3 378.0 420.1 458.0 462.1 440.9 441.1
416.5 390.2 363.2 345.8 345.8 345.8 345.8 345.8 345.8 349.8
397.7 437.6 491.8 515.5 532.8 543.4
56 318.0 318.0 318.0 318.0 318.0 318.0 345.8 351.4 354.1 375.5
395.0 395.0 395.0 395.0 395.0 395.0 404.4 388.4 348.8 323.3
300.0 289.6 267.6 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 247.3 238.8 223.5 217.8 217.8 220.9 224.4 230.8 236.8
241.5 244.1 262.7 302.0 353.1 399.0 439.5 448.1 447.5 446.4
422.2 396.8 362.0 346.2 345.8 345.8 345.8 345.8 345.8 345.8
394.4 451.1 493.6 525.1 536.5 545.8
57 320.0 320.0 320.0 320.0 320.0 320.0 352.1 364.3 373.5 386.3
395.0 395.0 395.0 395.0 395.0 395.0 395.0 380.9 348.2 325.9
308.0 286.2 263.7 249.8 247.3 247.3 247.3 247.3 247.3 247.3
247.3 247.3 246.4 227.7 217.8 217.8 217.8 224.4 228.2 233.0
238.7 241.5 260.7 300.2 348.0 395.0 420.7 437.3 446.7 435.8
417.1 401.1 363.6 345.8 345.8 345.8 345.8 345.8 345.8 345.8
371.6 420.9 477.8 536.3 545.9 545.9
58 322.0 322.0 322.0 322.0 322.0 322.0 357.8 372.0 383.4 392.1
395.0 395.0 395.0 395.0 395.0 395.0 395.0 385.9 357.0 321.7
298.3 281.9 257.2 247.3 247.3 247.3 247.3 247.3 247.3 247.5
250.5 249.8 247.3 241.7 218.7 217.8 218.0 221.1 225.4 230.1
235.0 241.8 256.0 296.6 345.3 391.3 406.6 420.7 433.1 420.0
404.8 398.7 365.2 347.0 345.8 345.8 345.8 345.8 345.8 345.8
385.3 396.7 466.4 519.7 545.9 545.9
59 324.0 324.0 324.0 324.0 324.0 324.0 364.9 388.6 392.8 395.0
395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 376.0 343.5
292.9 275.9 252.9 247.3 247.3 247.3 247.3 247.3 247.3 251.7
253.4 253.8 250.6 247.3 221.0 217.8 217.8 219.0 222.4 227.8
234.1 240.7 259.5 296.6 339.4 384.5 400.3 409.4 410.8 397.4
366.0 365.0 355.0 345.8 345.8 345.8 345.8 345.8 345.8 345.8

368.2 389.0 437.1 492.9 545.9 545.9
60 326.0 326.0 326.0 326.0 326.0 326.0 326.0 326.0 326.0 395.0
395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 391.1 342.9
297.9 277.1 261.7 249.1 247.3 247.3 247.3 247.3 247.3 253.8
260.1 257.7 253.9 248.2 232.4 217.8 217.8 217.8 221.7 224.4
230.9 237.4 255.0 292.4 341.3 381.2 398.3 402.2 401.3 384.4
365.0 365.0 356.0 345.8 345.8 345.8 345.8 345.8 345.8 345.8
357.5 381.7 427.6 491.5 544.0 545.9
61 328.0 328.0 328.0 328.0 328.0 328.0 328.0 385.5 394.1 395.0
395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 367.3
342.7 302.0 282.8 262.5 247.9 247.3 247.3 247.3 247.3 254.6
263.9 263.6 261.1 254.7 242.4 217.8 217.8 217.8 217.8 217.8
227.7 234.9 251.3 294.4 351.3 386.3 401.2 404.1 407.8 399.2
365.0 365.0 365.0 345.8 345.8 345.8 345.8 345.8 345.8 345.8
358.2 389.5 435.5 480.0 531.5 545.9
62 330.0 330.0 330.0 330.0 330.0 330.0 330.0 371.8 387.0 395.0
395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 377.2
351.7 326.8 297.7 269.7 250.7 247.3 247.3 247.3 247.3 260.6
273.3 272.9 271.4 262.1 253.3 239.2 224.8 222.3 218.3 217.8
220.8 233.0 253.6 300.2 353.9 390.7 402.0 404.8 431.1 447.5
398.0 365.0 356.0 348.1 346.5 345.8 345.8 345.8 345.8 345.8
355.0 386.2 428.0 481.6 524.1 543.5
63 330.0 330.0 330.0 330.0 345.8 345.8 349.7 361.4 379.6 395.0
395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 387.2
366.4 337.2 310.7 279.8 247.5 247.3 254.5 258.6 251.4 265.0
283.0 293.3 286.9 272.3 260.1 250.8 244.1 231.4 227.9 222.0
218.8 229.5 251.2 297.6 356.0 395.3 403.0 415.2 427.1 437.5
415.0 377.9 364.5 380.8 390.9 346.1 345.8 345.8 345.8 345.8
377.7 392.8 423.3 487.2 533.1 545.7
64 330.0 330.0 330.0 330.0 330.0 345.8 348.4 359.5 371.2 391.3
395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0
374.8 341.8 303.3 292.9 249.3 247.3 280.4 297.4 285.9 286.9
291.3 297.7 296.3 280.1 267.3 257.2 251.3 247.3 232.9 225.9
218.1 230.2 249.8 298.6 343.3 393.7 401.2 410.1 414.6 410.7
406.9 387.6 359.3 368.8 393.8 358.5 346.9 345.8 345.8 345.8
370.4 412.7 471.3 506.8 539.5 545.9
65 330.0 330.0 330.0 330.0 345.8 345.8 347.7 354.4 359.4 366.1
395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0
382.7 345.6 296.8 296.6 276.7 285.3 315.6 332.7 304.3 298.9
296.6 333.0 296.6 283.1 270.8 260.8 251.8 244.4 228.3 221.6
217.8 227.7 247.4 296.4 339.8 375.4 395.0 402.7 402.2 398.3
398.3 363.5 345.8 345.8 356.2 346.1 345.8 345.8 345.8 345.8
364.2 413.9 464.1 513.0 544.8 545.9
66 340.0 340.0 340.0 340.0 340.0 340.0 340.0 340.0 340.0 345.8
378.2 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0
378.3 347.4 311.9 296.6 296.6 319.2 362.0 377.7 335.9 322.9
325.8 345.8 317.3 281.6 268.9 259.8 251.7 231.0 218.2 218.0
217.8 225.1 249.1 290.3 326.4 361.0 395.0 395.0 395.0 395.0
393.7 355.7 345.8 345.8 345.8 350.5 345.8 345.8 345.8 345.8
366.0 405.1 443.8 491.9 541.6 545.9
67 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0
360.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0
382.0 346.7 306.0 296.6 296.6 320.1 371.9 387.8 364.8 376.2
353.6 346.4 317.2 276.1 265.6 253.4 228.5 231.6 241.1 245.7

227.7 218.1 245.0 290.7 315.2 337.0 371.6 388.5 394.9 395.0
383.6 354.0 345.8 345.8 345.8 345.8 384.2 368.1 351.7 349.7
371.9 391.5 443.9 478.3 529.5 545.9

68 380.0 380.0 380.0 380.0 380.0 360.0 360.0 360.0 345.8 345.8
345.8 387.5 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0
395.0 361.8 307.7 296.6 296.6 314.9 337.0 382.0 382.8 395.0
363.7 333.0 288.1 270.0 257.1 244.7 221.1 234.3 247.2 246.7
236.8 219.5 236.9 265.6 297.6 316.5 348.1 369.4 389.4 395.0
379.0 357.0 346.9 345.8 345.8 347.4 395.0 446.8 394.8 377.4
385.6 393.4 437.5 471.8 510.6 545.7

69 380.0 380.0 380.0 380.0 380.0 380.0 380.0 345.8 345.8 345.8
345.8 357.8 389.6 395.0 395.0 395.0 395.0 395.0 395.0 395.0
395.0 361.4 315.9 299.8 296.6 316.3 335.9 384.7 395.0 386.4
361.5 305.4 277.2 260.0 247.0 225.2 232.3 242.1 248.0 247.8
242.6 228.5 229.4 247.4 273.3 297.9 326.1 355.5 368.2 376.5
364.6 354.6 349.3 351.2 358.2 373.3 392.5 404.5 398.7 392.4
395.0 395.0 420.6 462.2 504.2 533.4

70 390.0 390.0 390.0 390.0 390.0 390.0 390.0 390.0 390.0 390.0
390.0 385.7 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0
375.7 339.7 303.0 296.6 296.6 327.1 345.2 377.7 382.6 369.6
345.6 298.7 278.0 263.0 245.0 221.1 240.7 249.4 256.4 253.7
249.4 246.5 221.8 234.4 248.7 274.2 294.9 340.8 354.2 346.7
344.1 345.8 352.6 377.0 383.3 394.9 395.0 395.0 395.0 395.0
395.0 395.0 413.9 448.3 497.4 507.9

71 380.0 380.0 380.0 380.0 380.0 380.0 380.0 380.0 380.0 345.8
371.5 374.9 347.7 389.5 395.0 395.0 395.0 395.0 395.0 395.0
363.9 338.1 306.4 296.6 296.6 324.5 342.1 347.8 351.1 357.9
343.3 312.6 283.2 265.0 250.0 221.6 238.4 246.3 252.6 255.2
251.5 236.5 217.8 228.8 240.9 257.0 275.2 296.6 328.1 337.7
336.3 342.8 358.9 394.2 395.0 395.0 395.0 395.0 395.0 395.0
395.0 395.0 407.6 439.0 495.1 496.9

72 375.0 375.0 375.0 375.0 375.0 375.0 375.0 375.0 343.2 343.4
345.8 347.7 345.8 363.6 393.4 395.0 380.0 369.4 367.5 381.1
368.5 345.7 314.7 296.6 296.6 310.0 340.1 346.0 352.0 374.9
381.3 338.4 309.2 284.8 255.0 222.6 237.4 246.5 253.4 254.6
250.7 237.5 218.1 223.9 236.1 242.3 255.0 267.4 298.2 314.5
321.8 337.4 355.1 379.8 394.4 389.9 383.5 395.0 395.0 395.0
395.0 395.0 395.2 444.1 494.7 501.1

73 370.0 370.0 370.0 370.0 370.0 370.0 370.0 370.0 370.0 370.0
370.0 342.1 342.4 345.0 352.7 352.7 345.6 345.6 345.8 345.8
381.5 352.7 324.0 299.2 296.6 326.3 343.4 350.2 361.5 378.9
395.0 356.1 322.4 288.2 260.0 221.5 236.4 250.5 256.7 254.3
248.0 237.6 222.1 220.6 229.1 236.1 240.8 260.0 267.0 296.5
306.4 316.3 346.6 358.8 359.9 347.0 345.8 376.4 395.0 395.0
395.0 395.0 397.3 440.7 497.2 506.3

74 365.0 365.0 365.0 365.0 365.0 365.0 365.0 365.0 365.0 365.0
365.0 338.9 335.9 336.1 337.3 337.4 338.5 341.3 342.6 346.0
393.0 384.1 335.6 318.3 313.0 338.7 346.0 352.4 365.3 379.8
394.4 354.9 318.1 282.5 255.0 221.0 236.7 251.0 253.9 257.0
247.4 235.8 223.5 219.0 224.4 231.8 237.4 240.8 260.0 265.0
269.0 285.4 310.7 343.1 345.8 345.8 345.8 365.7 395.0 395.0
395.0 395.0 409.3 466.8 503.8 516.4

75 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0
360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 341.8

360.7 380.4 339.4 328.5 335.9 344.8 347.2 353.1 365.4 375.0
363.2 339.8 312.3 276.3 255.0 225.0 237.5 250.8 253.9 253.9
247.5 238.2 227.2 217.8 224.0 228.3 234.7 238.5 240.8 258.0
265.0 267.0 280.5 309.1 340.6 345.8 345.8 355.9 392.4 395.0
395.0 395.0 415.6 463.3 511.9 531.2
76 354.0 354.0 354.0 354.0 354.0 354.0 354.0 354.0 354.0 354.0
354.0 354.0 323.0 319.9 316.8 321.1 322.3 325.5 331.8 335.2
337.8 336.3 329.9 329.1 332.7 342.5 345.9 355.0 360.0 358.9
347.6 330.8 308.4 272.0 245.0 223.9 237.3 250.5 254.3 256.2
247.3 241.8 232.5 220.4 221.6 227.7 234.1 237.5 240.8 241.8
252.0 261.0 270.0 293.8 334.2 350.3 357.3 370.7 391.1 395.0
395.0 395.0 420.8 464.3 512.3 545.5
77 347.0 347.0 347.0 347.0 347.0 347.0 347.0 347.0 347.0 347.0
347.0 315.8 315.3 313.0 309.7 309.6 312.8 316.3 322.0 324.3
318.6 312.9 310.4 314.4 312.8 318.7 343.5 350.8 351.6 348.1
341.2 324.6 303.2 267.0 240.0 224.4 242.4 254.0 253.9 256.6
251.9 246.9 240.4 226.9 221.6 228.7 233.7 237.5 240.8 244.1
244.1 244.1 265.0 289.1 319.7 362.1 387.3 392.8 395.0 395.0
395.0 395.0 421.7 471.2 509.8 530.8
78 340.0 340.0 340.0 340.0 340.0 340.0 340.0 340.0 340.0 340.0
340.0 306.5 307.2 305.2 301.2 298.6 305.3 311.4 311.3 303.7
298.9 296.6 296.6 299.8 296.6 296.6 322.4 346.9 353.6 355.1
345.5 325.9 299.3 265.0 248.0 225.4 245.5 252.6 253.9 253.9
254.1 247.3 247.0 234.4 218.1 230.9 236.1 239.9 241.6 244.1
244.1 244.1 255.0 277.2 324.8 365.2 404.6 421.2 409.5 401.2
395.0 395.0 405.6 466.2 500.0 515.9
79 337.0 337.0 337.0 337.0 337.0 337.0 337.0 337.0 337.0 296.6
296.6 299.1 300.0 299.8 296.6 296.6 306.4 307.3 302.8 296.6
296.6 296.6 296.6 296.6 296.6 297.2 320.6 346.3 368.6 389.6
354.5 332.8 303.8 267.5 255.0 228.8 244.9 253.5 253.9 253.9
257.1 253.9 248.2 239.5 220.4 230.3 237.5 240.6 244.4 247.3
246.1 245.3 246.0 263.1 296.8 361.0 417.0 460.5 455.1 446.1
433.7 395.0 411.3 443.9 483.9 495.1
80 335.0 335.0 335.0 335.0 335.0 335.0 335.0 335.0 335.0 335.0
335.0 335.0 296.6 296.6 296.6 296.6 303.6 303.4 300.5 297.0
296.6 296.6 296.6 296.6 296.6 301.1 318.9 346.9 370.0 395.0
372.2 337.4 308.8 280.7 260.0 222.8 246.7 254.1 253.9 253.9
255.8 253.9 254.2 238.0 221.2 233.1 239.6 242.2 247.3 247.3
247.3 247.5 247.3 254.7 292.2 357.0 418.5 478.5 493.5 489.6
470.0 408.5 418.7 446.0 478.2 494.2
81 332.0 332.0 332.0 332.0 332.0 332.0 332.0 332.0 332.0 296.6
296.6 295.9 293.5 296.6 294.8 297.9 313.2 306.5 299.8 296.4
296.6 296.6 296.6 296.6 293.8 297.1 306.8 331.4 359.8 392.2
395.0 352.5 326.7 287.1 265.0 225.4 243.7 254.2 254.0 253.9
253.9 253.9 251.7 241.5 221.9 240.6 240.7 241.1 244.1 247.3
248.0 255.1 262.0 283.9 306.1 371.3 427.0 475.7 512.6 503.3
500.4 475.3 453.5 454.3 468.7 488.3
82 330.0 330.0 330.0 330.0 330.0 330.0 330.0 330.0 330.0 330.0
330.0 330.0 330.0 330.0 330.0 330.0 330.0 330.0 330.0 269.9
290.5 293.3 288.2 292.2 277.1 287.1 292.2 297.2 345.1 375.5
395.0 380.9 350.0 291.0 260.0 230.0 246.8 252.8 253.9 253.9
253.9 255.2 249.7 234.0 219.9 236.2 237.9 240.8 244.1 247.3
255.5 275.3 296.6 328.5 345.3 378.5 437.7 491.8 552.8 532.3
515.7 499.1 481.2 475.4 481.4 485.9

83 332.0 332.0 332.0 332.0 332.0 332.0 262.0 262.0 332.0 258.5
262.3 254.3 254.8 261.8 268.0 258.1 302.6 293.4 262.1 247.8
250.5 260.0 261.2 260.6 247.4 248.0 281.4 296.2 336.3 355.7
377.2 384.9 338.4 289.5 234.8 225.3 246.7 253.7 253.9 253.9
253.9 255.2 247.3 229.6 217.8 227.7 234.6 240.1 244.3 246.3
256.8 272.3 296.5 346.4 367.5 398.8 447.1 495.1 542.5 540.2
521.2 507.9 498.4 489.4 499.8 496.7
84 333.0 333.0 333.0 333.0 333.0 333.0 333.0 333.0 264.1 278.7
284.6 254.0 247.7 247.3 247.3 247.3 264.4 296.6 273.1 247.3
244.2 244.3 244.1 245.3 244.1 246.8 284.4 297.5 316.4 336.9
352.3 353.5 330.7 299.8 247.4 245.0 247.3 254.1 255.8 254.2
254.5 250.8 240.7 220.5 218.9 224.3 233.7 240.0 244.1 245.7
250.0 265.9 292.9 346.2 371.9 406.1 462.4 506.6 529.1 529.9
521.1 513.1 521.8 536.0 544.5 529.3
85 334.0 334.0 334.0 334.0 334.0 334.0 260.0 334.0 334.0 334.0
334.0 333.0 247.3 247.3 247.3 247.3 247.3 275.6 290.5 248.5
246.0 244.1 244.1 244.1 244.1 245.8 281.6 293.8 303.3 317.7
336.1 336.4 319.5 303.0 265.5 240.0 241.6 252.0 255.3 257.2
256.1 249.8 240.8 221.2 220.6 226.3 232.3 237.5 241.8 244.1
244.1 257.4 284.9 333.2 366.0 392.0 465.2 517.2 544.0 515.0
513.0 517.7 532.6 562.2 594.0 567.1
86 335.0 335.0 335.0 335.0 335.0 258.0 258.0 335.0 290.8 299.5
302.0 300.1 272.2 259.0 283.1 290.4 248.9 247.3 267.7 257.1
247.4 244.1 244.1 244.1 244.1 244.1 259.6 281.9 295.8 296.9
317.2 322.6 312.9 300.6 282.6 256.0 240.0 245.4 250.8 253.9
253.8 248.2 232.1 223.4 220.1 224.6 230.7 235.0 240.8 244.1
252.8 278.4 293.7 317.3 341.4 371.6 415.1 502.9 542.4 500.0
496.7 503.2 539.5 581.9 593.3 595.1
87 289.8 286.7 278.5 271.2 266.1 265.6 291.1 299.9 303.1 316.2
321.8 327.1 317.5 303.0 298.3 299.1 273.0 247.3 247.8 252.1
247.1 244.1 244.1 244.1 244.1 244.1 248.7 267.7 283.4 289.9
296.1 305.2 303.6 299.3 291.4 267.9 242.8 234.7 245.7 249.3
250.3 247.1 225.4 218.1 220.5 226.5 230.9 235.0 240.7 247.3
282.7 319.9 338.1 339.4 345.8 355.9 399.8 469.4 498.2 489.8
489.1 493.2 524.5 590.9 595.1 595.1
88 281.1 279.3 274.8 270.1 267.3 289.5 313.6 329.9 324.5 327.1
336.3 344.9 345.8 328.2 311.5 306.6 299.8 247.6 247.3 247.3
244.8 242.1 240.8 240.8 240.8 241.0 244.4 247.9 267.7 279.1
289.4 295.8 296.6 296.6 295.0 274.0 255.8 221.0 240.7 247.0
246.6 244.8 224.1 218.2 221.9 227.9 234.0 237.2 240.8 246.8
295.0 336.1 345.8 345.8 345.8 350.3 395.7 447.6 477.0 473.7
479.4 492.5 513.8 559.8 593.9 595.0
89 273.8 270.9 267.6 270.0 278.0 293.8 322.8 349.0 352.8 347.5
344.7 345.8 348.7 345.4 335.7 321.7 313.7 297.8 254.0 247.3
245.4 239.9 238.0 237.5 238.1 240.8 243.9 247.3 259.5 272.7
284.5 289.2 290.5 290.2 290.2 276.4 256.3 240.1 227.5 247.3
247.3 243.4 219.2 221.8 225.7 228.7 234.2 240.7 243.7 249.0
301.5 339.7 346.3 349.0 352.3 372.1 388.8 437.7 453.0 451.5
462.6 487.4 505.8 534.2 565.3 581.4
90 320.0 320.0 320.0 320.0 320.0 320.0 335.8 355.1 368.4 375.9
372.0 366.7 365.2 357.0 350.9 340.3 330.2 315.3 304.0 296.5
261.3 246.6 240.6 237.5 237.5 237.5 242.3 244.9 252.2 266.7
277.8 283.7 283.4 281.5 278.7 273.2 254.2 239.4 222.7 221.9
232.4 232.1 217.8 221.2 227.7 233.6 238.5 242.9 244.6 248.3

296.9 342.9 348.6 351.9 358.1 369.5 388.2 416.5 439.7 443.4
447.5 469.9 498.0 516.6 532.8 551.6
91 295.8 277.9 290.0 295.0 390.0 390.0 390.0 390.0 380.8 395.0
394.4 394.3 391.7 375.5 365.7 358.6 347.6 341.4 329.0 318.2
305.4 293.7 258.1 241.3 237.5 240.8 243.1 247.3 248.5 260.1
272.4 280.1 276.9 273.6 267.6 259.4 250.3 243.5 232.9 223.8
217.8 217.8 220.2 222.2 228.1 234.4 240.9 245.2 248.6 271.6
304.0 345.8 349.1 355.6 364.9 377.4 387.6 393.9 414.1 432.8
444.3 461.5 479.0 491.4 505.4 521.8
92 320.0 320.0 320.0 320.0 360.0 360.0 360.0 358.5 382.4 395.0
395.0 395.0 395.0 387.0 379.5 370.9 365.8 354.1 345.8 333.3
318.6 303.1 270.4 242.0 239.3 242.9 244.7 245.0 247.8 254.2
270.4 276.9 275.6 269.7 263.2 254.7 247.3 243.0 235.9 229.2
221.6 227.4 221.1 224.4 230.4 235.6 240.8 245.2 247.8 258.3
298.0 326.9 342.2 354.4 364.1 374.4 383.8 392.5 408.0 427.2
444.2 454.5 463.9 470.3 468.6 472.6
93 320.0 320.0 320.0 320.0 320.0 330.0 337.2 359.8 384.9 395.0
395.0 395.0 395.0 392.8 388.6 382.4 377.4 365.2 352.3 339.2
327.5 309.5 276.8 246.7 239.6 244.1 244.1 244.1 247.3 254.3
263.9 273.5 270.9 267.0 261.6 256.1 247.3 246.9 240.6 230.9
227.7 227.7 224.4 224.8 231.2 235.5 240.8 243.5 244.1 248.3
282.3 293.2 319.6 350.7 361.1 370.8 381.9 392.9 405.0 424.6
443.9 446.9 449.5 449.5 447.2 445.6
94 320.0 320.0 320.0 320.0 320.0 340.0 340.0 349.1 372.2 393.4
395.0 395.0 395.0 395.0 395.0 395.0 387.9 379.0 361.3 347.2
339.3 319.4 282.5 244.9 238.8 244.8 247.3 247.3 244.2 250.2
262.4 272.8 271.9 268.8 265.9 262.3 252.8 247.3 246.5 231.3
227.7 227.7 228.3 229.0 231.9 235.0 238.3 240.9 244.1 252.7
290.1 305.5 334.6 346.1 356.9 369.8 388.5 395.5 408.2 424.7
440.3 444.2 444.4 444.2 444.2 444.2
95 320.0 320.0 320.0 320.0 320.0 345.0 329.4 345.5 363.9 380.5
393.0 395.0 395.0 395.0 395.0 395.0 395.0 391.6 379.3 363.7
351.9 345.6 310.0 267.2 240.4 241.2 245.0 245.1 244.6 249.6
259.3 274.0 277.5 286.7 277.2 270.9 270.3 276.8 253.5 228.9
227.7 229.8 230.9 230.9 231.3 237.3 240.1 240.8 244.1 259.8
307.6 342.2 345.8 345.8 352.3 367.6 388.4 395.0 407.7 429.5
443.5 444.2 444.7 448.5 447.3 447.0
96 320.0 320.0 320.0 320.0 320.0 320.0 332.4 345.8 357.0 368.8
379.1 388.9 394.8 395.0 395.0 395.0 395.0 395.0 389.2 378.9
365.8 350.9 314.7 273.5 246.5 237.6 240.7 243.7 244.6 246.3
253.1 266.2 281.4 296.4 295.9 289.2 289.4 294.7 263.8 228.6
227.7 230.6 230.9 233.6 234.2 237.5 240.7 240.9 246.3 272.2
319.8 345.2 345.8 345.8 345.8 354.0 375.9 392.7 396.4 430.7
448.5 478.1 482.6 480.7 471.8 457.7
97 326.1 320.0 320.0 320.0 315.0 320.0 326.6 344.3 348.7 360.7
370.1 383.1 393.5 395.0 395.0 395.0 395.0 395.0 394.2 394.0
374.9 354.6 319.3 283.4 256.0 240.3 237.5 237.5 240.8 244.1
248.9 262.5 282.5 296.1 296.6 296.5 293.3 285.7 252.2 228.8
227.7 230.9 234.2 234.2 237.2 239.4 240.8 243.2 244.3 279.6
324.2 345.8 341.7 343.0 345.8 345.8 346.8 386.9 405.1 434.9
480.7 507.7 535.2 529.4 516.7 498.3
98 328.5 320.0 320.0 320.0 320.0 320.0 325.6 340.3 344.4 353.6
365.7 375.3 388.3 394.5 395.0 395.0 395.0 395.0 395.0 395.0
384.1 353.7 326.2 298.1 261.7 242.0 240.5 237.5 238.4 240.8

244.5 257.2 276.9 292.6 295.3 295.4 288.1 274.1 254.9 228.4
227.7 230.9 234.2 234.7 237.5 240.3 240.8 244.1 245.1 277.2
331.3 344.3 322.8 332.3 344.7 351.6 360.4 392.1 414.4 439.0
487.7 531.1 557.2 572.5 567.9 549.9
99 342.4 320.0 312.0 320.0 320.0 319.8 335.9 342.5 345.6 350.0
360.3 371.5 381.3 387.8 394.0 395.0 395.0 395.0 395.0 395.0
394.7 365.4 331.0 305.2 269.6 245.3 242.9 240.2 237.5 238.1
241.2 246.9 265.4 278.8 282.3 284.6 273.7 258.9 249.6 232.8
227.7 230.9 234.2 236.9 238.9 240.8 240.8 244.1 244.4 278.0
294.7 296.6 298.5 311.9 345.4 360.4 380.2 405.9 429.3 443.4
482.6 529.5 568.7 594.1 595.1 595.1
100 349.3 326.0 320.0 320.0 320.0 333.8 347.2 347.8 355.0 360.0
363.0 371.3 380.4 386.4 389.5 395.0 395.0 395.0 395.0 395.0
395.0 371.5 342.5 302.2 274.1 246.4 243.3 240.8 237.5 237.5
240.7 246.9 258.5 266.8 269.6 270.3 265.8 253.8 244.2 235.3
228.2 231.2 234.6 237.5 239.1 240.8 241.6 244.1 246.5 261.5
283.3 296.4 301.2 337.4 348.0 362.4 384.3 421.9 447.3 454.3
490.4 532.4 571.5 595.1 595.1 595.1
101 394.1 351.8 325.0 318.0 322.1 340.3 362.1 368.5 362.1 363.0
365.0 371.3 380.3 384.9 389.1 394.4 396.9 395.7 398.3 395.2
395.0 379.0 351.4 316.0 283.6 259.0 247.3 240.9 240.8 238.1
237.5 243.1 249.0 256.0 257.7 254.9 251.7 249.7 247.3 237.6
228.0 229.8 235.7 237.5 239.2 240.8 244.1 244.1 247.1 246.8
266.3 297.2 340.6 345.8 345.8 363.9 396.6 438.1 451.8 461.0
486.6 539.6 572.6 593.8 595.1 595.1
102 385.8 347.1 344.6 338.2 340.6 352.5 378.1 383.3 374.0 369.3
369.7 375.8 382.7 386.5 391.9 395.0 398.2 398.3 398.3 398.3
396.1 389.7 365.2 323.1 302.6 290.7 250.7 244.1 240.8 238.1
237.5 237.5 242.7 248.1 250.3 247.3 247.3 247.3 247.3 237.3
228.7 229.5 232.1 237.5 240.8 241.3 244.1 244.1 244.3 246.8
289.3 316.8 342.8 348.0 346.9 366.5 408.1 447.7 465.8 475.9
490.1 527.0 565.4 594.7 595.1 595.1
103 367.3 346.8 358.8 345.8 345.8 358.8 386.4 395.0 391.3 381.3
379.3 381.9 388.3 391.4 394.2 395.0 395.0 401.5 399.4 399.7
398.3 395.0 375.3 345.4 345.2 296.7 249.3 244.1 240.8 240.0
237.5 231.4 234.6 241.5 247.3 247.3 247.3 247.0 240.6 234.4
228.0 230.2 234.2 238.6 240.8 244.0 244.1 247.0 259.7 261.4
297.1 337.0 345.8 355.7 367.6 383.1 410.5 445.2 469.9 478.9
489.4 527.3 567.0 595.1 595.1 595.1
104 390.6 345.8 393.8 361.1 345.8 359.5 384.0 395.0 395.0 393.8
390.3 387.6 392.7 395.0 395.1 395.0 395.9 404.8 404.6 402.1
400.9 398.1 385.0 369.4 358.9 338.5 260.0 244.1 242.7 239.9
236.7 230.3 228.1 233.3 237.5 233.8 233.4 234.5 235.4 232.6
227.7 230.9 234.3 240.2 240.8 244.1 244.6 257.6 284.1 297.9
316.7 338.6 347.7 359.4 375.2 391.4 418.3 460.0 480.8 485.2
491.3 504.8 546.1 593.9 595.1 595.1
105 368.9 350.0 386.0 350.2 348.9 360.2 384.2 393.7 395.0 397.9
395.0 395.0 397.9 395.0 405.4 404.7 406.6 408.1 410.5 407.0
401.0 395.0 395.0 385.3 370.1 350.2 297.9 250.0 243.2 240.3
237.5 234.2 234.0 230.8 228.9 231.6 231.3 230.0 227.7 227.7
227.7 232.1 237.1 240.8 244.1 247.1 248.9 265.2 289.3 301.0
326.1 345.8 352.5 363.4 375.7 394.6 424.5 473.3 492.5 495.6
496.1 497.6 526.6 570.6 594.8 595.1
106 352.6 346.0 385.2 361.4 347.6 350.3 380.2 398.1 403.4 407.7

401.8 398.6 409.3 408.2 420.4 422.3 421.6 416.4 415.0 414.6
404.8 398.3 395.0 395.0 385.6 359.0 326.0 280.0 246.7 240.8
238.0 240.3 237.7 238.1 238.3 241.7 243.7 238.9 230.4 227.7
230.9 234.2 239.8 243.1 246.5 244.1 248.6 261.5 284.1 316.3
341.0 346.6 355.5 365.2 380.5 395.5 428.4 474.2 502.7 509.4
496.7 496.7 502.6 563.8 595.1 595.1
107 349.6 349.3 358.1 347.8 346.2 354.5 373.7 396.2 414.4 427.9
446.2 427.3 436.1 442.5 436.4 436.9 434.2 433.5 426.8 420.9
412.6 398.6 395.0 395.0 385.8 359.4 334.5 291.8 251.1 244.1
241.0 243.0 243.2 241.7 246.2 247.3 247.3 246.7 228.5 229.9
231.9 234.7 241.0 244.1 246.1 244.1 245.4 262.4 282.1 322.7
345.6 349.0 357.3 369.9 380.4 392.9 419.0 467.7 510.7 512.2
492.9 491.5 496.7 538.4 595.1 595.1
108 362.4 381.0 351.0 345.8 346.3 365.4 388.6 403.9 424.6 435.3
443.3 444.4 449.0 457.6 459.5 449.7 448.0 444.7 437.9 428.3
416.7 399.1 395.0 395.0 383.5 358.7 322.8 285.9 247.3 247.3
244.1 244.3 245.9 247.1 247.3 247.3 247.3 244.0 228.2 234.0
237.2 240.2 243.1 245.0 247.3 247.2 247.3 248.3 291.5 330.1
345.8 349.4 357.3 369.5 378.9 391.5 410.9 438.6 493.8 496.1
474.2 463.6 499.3 531.6 584.3 592.3
109 392.4 388.8 348.7 346.3 361.6 378.0 402.5 425.2 440.2 446.5
451.5 455.2 461.1 472.3 486.6 473.8 464.3 457.8 448.2 440.3
425.6 408.0 395.0 394.4 378.8 355.9 338.6 307.6 272.8 247.3
247.3 249.7 249.1 250.1 250.6 247.3 247.3 245.2 232.4 233.1
237.9 241.0 244.6 246.6 246.7 248.3 249.3 249.4 295.7 340.6
345.8 348.0 356.4 366.1 375.8 388.4 404.8 426.1 453.9 460.5
448.2 455.9 496.5 524.2 574.1 595.1
110 395.0 385.0 345.8 346.1 375.3 390.7 423.3 449.9 460.1 465.8
472.6 479.6 482.5 489.6 496.7 496.7 410.0 406.0 404.0 402.0
400.0 398.0 396.0 394.0 390.0 380.0 370.0 360.0 350.0 258.5
254.3 256.9 256.7 253.9 252.6 250.6 247.9 241.2 235.5 238.5
243.4 245.3 248.0 247.5 247.4 260.3 268.9 279.4 296.7 334.3
345.8 345.8 352.3 359.3 367.3 385.1 400.9 419.4 434.8 442.9
444.2 451.8 496.7 518.4 571.9 595.1
1 1.(3X,10F6.1) -1 HDS LAY 2
1 230.0 228.0 226.0 225.0 224.0 224.0 223.0 222.0 221.0 220.0
219.0 215.0 212.0 210.0 210.0 205.0 204.0 203.0 202.0 200.0
202.0 205.0 209.0 212.0 217.0 222.0 233.0 235.0 237.0 240.0
246.0 247.0 247.5 250.0 253.0 255.0 255.0 255.0 255.0 233.0
233.0 247.3 250.6 268.3 268.9 247.3 247.3 247.3 247.3 247.3
247.3 244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.8
246.8 246.8 237.5 240.8 243.6 244.1
2 232.0 293.7 270.7 234.4 216.6 210.2 219.3 227.1 231.6 237.5
240.6 244.0 248.3 257.6 267.5 250.2 240.9 244.2 215.0 215.0
215.0 215.0 234.3 243.0 244.1 244.1 244.1 244.1 244.1 244.1
244.1 247.1 244.4 244.1 253.0 262.0 260.0 260.0 289.8 270.8
247.3 247.3 255.7 277.7 296.6 270.2 247.3 247.3 247.3 247.3
247.2 244.1 244.1 244.1 244.1 244.1 244.6 248.1 247.3 244.2
244.1 238.5 240.8 244.5 244.3 244.1
3 235.0 327.7 309.3 276.7 241.4 230.0 211.3 217.8 221.1 225.7
225.0 227.3 229.9 233.0 232.3 227.1 218.4 213.5 211.0 194.8
215.0 215.0 223.9 240.8 243.4 244.1 244.1 244.1 244.3 244.6
245.3 244.7 248.4 250.2 258.0 273.7 288.7 282.0 297.1 268.1
247.6 247.3 251.7 254.2 264.0 251.3 247.3 247.3 247.3 247.3

245.0 244.1 244.1 244.1 244.1 244.1 265.1 300.6 277.9 251.1
244.0 237.9 243.8 248.0 248.6 247.3

4 237.0 355.5 354.7 334.4 291.4 262.2 226.1 210.3 211.1 214.0
211.9 208.0 211.5 220.2 218.0 211.3 198.1 194.8 197.4 210.0
215.0 217.0 218.2 234.6 240.8 244.1 245.4 247.9 247.3 247.3
247.3 250.2 262.4 274.1 279.5 294.1 319.5 336.0 325.0 261.0
247.3 247.8 250.0 247.5 247.3 247.3 247.3 246.4 244.1 244.1
244.1 244.1 244.1 244.1 244.1 244.4 279.9 355.5 319.4 265.6
249.2 245.8 251.8 259.9 259.5 256.5

5 240.0 372.9 383.5 387.9 322.9 286.6 260.0 231.5 212.3 208.0
208.0 208.0 208.0 208.2 208.0 200.6 195.5 194.8 202.1 212.3
212.7 217.0 222.9 229.6 240.6 244.0 247.3 255.7 251.6 247.3
247.3 249.4 267.7 293.3 299.4 314.5 336.7 345.8 327.0 278.1
247.3 247.3 262.1 255.3 230.0 230.0 230.0 244.6 244.1 244.1
244.1 244.1 244.1 244.1 244.1 264.2 297.1 335.2 300.0 265.0
265.0 247.3 268.2 272.2 273.8 270.2

6 240.0 375.3 385.2 374.4 345.0 314.0 284.1 260.4 234.8 208.3
208.0 209.3 211.5 211.9 217.3 216.0 194.8 194.8 194.8 219.5
221.8 224.4 230.9 236.8 239.9 243.4 246.5 252.2 247.3 247.3
247.3 251.5 274.2 296.3 306.3 325.9 344.7 345.8 327.1 286.5
248.5 247.3 286.6 294.3 230.0 230.0 230.0 247.0 244.1 244.1
244.1 246.7 250.1 251.4 262.0 283.4 296.9 300.5 291.3 265.0
265.0 248.2 280.4 296.4 293.0 289.5

7 347.2 357.2 367.0 358.5 343.8 321.1 303.1 288.7 257.1 232.0
208.0 217.8 221.2 230.9 243.8 244.1 206.0 195.0 196.9 235.3
237.9 233.5 237.9 240.9 244.1 244.1 244.1 244.1 246.5 244.1
247.3 253.9 280.2 298.8 310.4 325.0 342.1 345.8 338.8 278.7
247.3 247.3 280.6 262.2 247.3 247.3 247.3 244.7 244.1 244.1
244.7 270.2 293.3 294.6 293.5 296.6 296.6 295.6 281.2 265.0
265.0 265.0 265.0 319.6 311.2 294.0

8 345.8 345.2 347.2 347.0 345.8 329.9 318.6 302.3 281.7 259.0
224.9 225.4 234.5 239.9 245.8 230.6 209.1 196.5 202.8 244.0
244.1 246.8 245.6 246.3 244.1 244.1 244.1 244.1 244.1 244.1
246.9 251.6 275.3 294.8 307.5 319.1 332.5 344.5 339.9 267.3
247.4 247.3 247.3 247.3 247.3 246.7 245.2 244.1 244.1 244.1
256.2 289.6 313.5 303.6 296.6 296.6 290.9 277.9 265.0 265.0
265.0 273.6 345.8 353.7 349.7 310.3

9 331.6 332.4 345.2 345.8 345.8 338.6 332.6 327.0 297.1 270.6
243.5 234.7 239.9 240.8 241.7 223.0 201.3 195.4 240.8 244.1
244.1 244.1 244.1 244.1 245.1 247.3 244.1 244.1 244.1 244.1
244.1 246.7 257.3 283.7 298.8 311.3 323.5 345.5 343.0 272.1
247.3 247.3 247.3 247.3 247.3 244.5 244.1 244.1 244.1 247.2
270.3 293.7 308.6 297.4 294.8 288.0 272.1 265.0 265.0 265.0
265.0 282.3 344.1 362.5 393.4 375.6

10 300.0 307.8 327.7 336.2 339.6 345.8 345.8 345.8 324.9 286.8
265.4 248.0 246.1 243.5 228.2 211.0 198.1 194.8 239.0 244.1
247.0 245.3 245.2 244.1 244.1 244.2 247.3 244.1 244.1 244.1
244.1 244.1 244.1 245.1 278.2 301.9 313.7 325.3 324.6 267.2
247.3 247.3 247.3 247.3 244.1 244.1 244.1 244.1 250.2 255.2
275.1 294.7 294.5 284.2 277.6 267.9 268.0 267.0 265.0 265.0
263.9 290.1 322.2 350.0 374.0 373.0

11 296.6 297.4 307.3 318.0 330.1 344.7 345.8 345.8 332.2 300.5
282.7 264.6 248.1 243.7 227.6 201.4 195.2 194.8 203.6 236.4
218.6 194.8 196.1 247.3 247.3 245.8 244.5 244.1 244.1 245.0

244.1 244.1 244.1 244.7 252.1 276.9 264.0 271.0 269.4 252.0
245.6 247.1 247.3 246.9 244.1 244.1 244.1 251.3 264.2 267.9
285.0 290.0 283.6 273.7 269.0 275.0 299.8 302.8 296.4 291.7
283.6 290.4 294.5 312.3 322.9 337.2
12 315.0 296.6 296.9 300.0 312.8 336.4 345.8 335.7 326.7 307.1
295.8 276.6 262.7 248.2 232.2 203.8 197.3 198.5 194.8 205.9
200.6 194.8 195.4 217.4 237.5 243.8 244.1 246.5 247.3 247.3
246.3 244.1 244.1 244.1 244.1 245.8 244.1 244.1 244.6 244.1
244.1 244.1 244.7 244.1 244.1 244.1 244.1 264.9 282.4 285.5
289.0 290.2 283.0 270.2 276.0 288.4 326.7 339.8 336.5 326.2
306.0 296.6 296.6 296.6 297.5 303.1
13 315.0 296.6 296.6 296.6 300.0 311.6 318.4 315.2 302.2 298.6
295.2 282.0 270.2 251.0 241.3 245.0 247.3 242.1 220.0 209.4
195.2 194.8 194.8 208.3 231.6 240.0 243.3 245.9 247.3 245.3
244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.1
244.1 244.1 244.1 244.1 244.1 244.1 244.4 264.1 295.9 296.6
296.6 296.0 289.1 280.2 285.0 294.5 332.1 345.8 345.8 343.7
328.0 315.8 306.4 297.7 296.6 296.6
14 315.0 296.6 296.6 296.6 296.6 296.6 295.4 294.7 293.1 293.3
290.0 280.6 269.2 258.8 250.1 247.3 247.3 247.3 239.8 241.9
221.7 198.5 195.3 211.0 225.6 236.2 243.1 244.9 244.1 244.1
244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.1
244.1 244.1 244.1 244.1 244.1 244.1 244.1 252.0 284.2 296.6
296.6 299.8 299.6 295.6 287.9 290.0 301.4 337.9 345.8 343.5
345.8 343.8 335.6 331.5 302.0 296.6
15 315.0 309.0 305.0 296.6 296.6 296.1 293.0 290.0 287.6 288.3
288.4 283.2 271.7 261.9 256.0 249.8 247.3 247.3 247.3 247.3
247.3 233.1 208.8 215.0 226.5 238.6 244.6 244.1 244.1 244.1
244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.1 244.1
244.1 244.1 244.1 244.1 244.1 244.1 244.2 248.0 273.8 294.6
297.7 307.9 307.3 303.6 297.7 291.4 290.0 307.7 345.8 332.8
296.6 319.2 321.6 338.5 341.6 304.6
16 314.9 315.0 315.0 308.0 296.6 296.0 292.8 286.9 283.4 280.3
280.6 277.8 272.7 265.6 259.8 253.8 250.4 247.3 247.3 247.3
247.3 239.2 209.8 219.3 233.8 244.2 244.6 244.1 244.1 244.1
244.1 244.1 244.1 244.7 244.1 244.1 244.1 244.1 244.1 244.1
244.1 244.1 244.1 244.1 244.1 244.8 248.4 251.1 267.3 286.7
296.2 338.3 322.5 310.9 305.3 299.0 288.0 290.0 290.0 295.0
296.9 295.5 295.5 297.7 345.8 316.0
17 350.6 329.2 315.0 314.0 305.0 296.9 293.7 288.4 282.5 279.7
276.6 274.8 269.9 263.3 258.4 253.9 250.9 247.3 247.3 247.3
245.9 233.5 209.7 219.3 237.6 244.1 244.3 244.1 244.1 244.1
244.1 244.3 247.3 247.3 247.3 246.8 244.6 244.3 244.1 244.1
244.1 244.1 244.1 244.1 244.1 247.3 257.1 265.8 277.5 284.6
292.4 326.8 340.8 316.0 304.2 297.7 290.0 289.0 287.0 295.0
287.3 288.9 290.0 293.3 293.9 296.6
18 367.8 345.8 341.3 317.9 319.5 323.0 298.5 287.7 281.4 275.7
271.4 269.5 266.7 260.5 257.2 251.1 248.0 247.3 247.3 247.3
243.0 227.1 208.6 218.1 234.7 245.8 243.9 243.6 244.1 244.1
248.0 247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3 245.8
246.0 244.2 244.1 244.1 244.6 248.2 256.8 270.3 286.3 298.1
296.0 296.6 320.4 304.9 296.6 296.6 287.5 287.0 287.0 286.0
286.0 286.7 290.0 290.0 293.3 293.7
19 381.0 358.2 349.2 342.5 342.0 345.8 301.4 292.0 282.4 273.6

267.1 263.7 261.1 257.7 253.4 248.0 247.3 247.3 247.3 247.3
242.2 226.6 214.3 211.3 224.2 236.7 240.8 240.8 242.0 244.1
273.5 256.1 247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 247.3 247.3 247.3 247.3 247.3 257.8 275.2 292.3 329.0
339.1 297.5 296.6 296.6 296.6 296.6 293.8 287.6 284.4 283.1
282.7 286.7 287.3 290.0 290.0 293.1

20 394.5 379.4 362.8 347.4 345.4 339.5 308.2 295.8 285.4 275.0
266.0 260.5 257.2 254.0 247.7 247.3 247.3 247.3 247.3 247.2
240.8 231.2 218.9 208.6 216.2 228.6 236.1 237.5 240.8 248.0
291.1 279.0 257.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 247.3 247.3 247.3 247.3 247.3 256.2 270.9 291.5 325.5
345.8 319.0 297.4 296.6 306.2 326.9 302.9 292.1 290.6 290.5
290.2 289.9 286.7 286.7 289.4 290.0

21 395.0 394.5 374.2 350.7 344.6 333.9 314.1 299.7 290.0 276.9
264.8 258.7 252.8 250.1 247.3 247.3 247.3 247.3 247.3 247.3
244.4 234.7 224.9 212.9 210.0 218.9 226.2 234.8 240.7 247.5
309.3 304.2 272.3 249.9 247.3 247.3 247.3 247.3 247.3 247.3
247.3 247.3 247.3 247.3 247.3 247.3 249.2 262.1 278.7 297.0
322.9 319.2 307.2 296.6 306.4 339.2 337.5 295.8 296.2 297.1
299.3 294.1 290.4 287.0 289.0 291.6

22 395.0 395.0 389.1 370.9 351.9 344.9 324.7 308.8 296.5 281.2
267.8 257.6 247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 245.2 232.3 219.3 210.1 211.6 221.3 230.8 239.0 246.8
289.9 300.4 278.0 257.1 249.5 247.3 247.3 247.3 247.3 247.3
247.3 247.3 247.3 247.3 247.3 247.3 247.3 254.8 268.5 284.1
294.6 301.5 305.4 315.1 296.6 317.7 343.2 337.8 297.4 313.0
344.5 333.8 304.4 291.8 290.0 293.3

23 395.0 395.0 395.0 395.0 375.2 354.9 345.7 319.9 297.9 285.6
271.1 259.7 249.2 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 242.6 230.5 218.2 209.9 216.5 225.1 234.2 240.6 270.0
315.0 300.0 280.4 262.9 253.8 250.7 247.3 247.3 247.3 247.3
247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.6 260.4 269.9
282.4 292.3 306.6 324.4 304.8 298.1 330.1 345.0 326.5 328.1
342.2 356.0 347.3 309.6 293.3 293.3

24 391.6 392.4 395.0 395.0 394.5 370.0 353.6 334.8 309.5 292.8
278.2 258.8 247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3
246.3 239.1 226.4 211.2 211.3 226.7 233.5 238.1 241.4 244.1
244.3 267.6 277.3 267.2 259.9 253.9 250.5 247.3 247.3 247.3
247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3 249.9 261.6
273.2 286.0 300.6 319.7 321.6 317.8 335.9 345.8 342.6 344.9
345.2 356.8 347.4 308.5 296.4 293.3

25 379.5 389.3 395.0 395.0 394.2 375.8 354.1 344.0 324.4 303.8
284.5 265.8 247.5 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 236.8 218.3 210.5 222.8 234.3 240.8 240.8 244.1 245.4
244.9 248.0 270.0 267.0 260.4 254.3 248.3 247.3 247.3 247.3
247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3 253.4
266.6 284.2 299.9 345.3 342.6 339.7 342.4 345.8 345.8 345.8
345.8 345.8 326.8 298.6 296.6 298.4

26 375.3 385.1 394.9 395.0 393.1 378.3 363.6 351.4 340.5 322.2
295.7 275.6 257.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 234.6 211.3 221.0 236.1 245.6 244.1 242.6 247.3 247.3
247.3 247.3 256.9 261.3 256.8 250.4 247.3 247.3 247.3 247.3
247.3 247.3 247.3 247.3 253.5 251.5 249.1 247.3 247.3 248.1
258.3 295.4 325.8 377.5 394.4 352.2 345.6 345.8 345.8 345.8

345.8 334.7 315.1 299.8 296.6 340.2
27 367.4 386.3 395.0 395.0 392.8 384.2 374.1 373.2 375.3 343.1
307.1 283.7 261.6 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 231.5 215.0 225.1 242.4 245.7 246.2 247.7 252.2 250.1
247.3 247.3 247.5 251.1 250.3 248.4 247.3 247.3 247.3 247.3
247.3 247.3 247.3 250.2 264.8 266.3 257.4 240.0 240.0 240.0
248.8 279.0 306.6 338.2 348.4 368.8 341.6 338.6 342.9 345.7
342.4 326.5 309.7 296.6 296.6 363.2
28 358.1 385.5 395.0 395.0 394.1 388.3 385.4 391.7 395.0 352.5
326.2 298.8 273.8 252.0 247.3 247.3 247.3 247.3 247.3 247.3
247.3 229.1 223.7 245.3 252.2 252.2 248.6 254.1 260.5 257.2
251.1 247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 247.3 250.0 264.6 281.4 285.8 277.4 247.0 240.0 240.0
247.3 247.3 259.5 291.0 307.7 327.9 308.4 303.5 331.5 343.0
345.8 330.0 316.6 310.2 320.0 409.7
29 355.2 378.6 395.0 395.0 395.0 395.0 395.0 399.6 395.5 393.2
337.2 309.5 289.1 256.0 248.9 247.3 247.3 247.3 247.3 247.3
247.3 223.4 234.7 271.2 276.6 277.9 273.6 274.4 272.8 268.4
261.5 251.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 247.3 254.5 273.9 292.2 302.3 299.5 265.0 258.0 248.0
247.3 247.3 247.3 247.3 255.9 293.0 293.8 297.2 316.2 335.6
345.2 346.1 330.6 335.3 345.0 419.3
30 349.6 365.8 392.6 395.0 395.0 395.0 395.0 422.9 420.9 397.0
357.2 324.8 295.0 248.1 247.3 247.3 247.3 247.3 247.3 247.3
238.6 217.0 252.4 295.2 295.4 296.3 290.1 296.4 292.9 289.6
277.8 263.9 247.3 247.3 247.3 247.3 249.3 257.1 248.4 247.3
247.3 250.4 265.0 285.7 301.9 313.4 309.8 306.4 296.7 274.5
262.6 252.1 248.3 247.3 247.3 249.3 278.9 294.6 305.2 324.3
344.5 370.9 345.8 345.8 367.5 432.0
31 345.8 347.6 378.7 395.0 395.0 397.6 406.8 434.3 419.8 402.6
363.2 321.6 292.1 257.7 248.2 247.3 247.3 247.3 247.3 247.3
227.5 223.4 254.9 293.4 299.6 302.4 301.1 300.5 299.8 298.2
296.6 280.2 256.9 247.3 247.3 247.3 247.7 291.0 293.8 250.9
248.2 248.7 268.5 290.1 316.3 331.3 328.4 319.4 309.7 301.2
297.9 291.6 274.2 254.2 247.3 247.3 254.0 276.3 292.8 306.1
326.9 343.7 345.8 345.8 366.0 447.1
32 342.5 343.0 357.9 385.7 393.9 395.3 399.9 412.4 398.2 386.2
355.1 316.1 290.0 271.8 251.2 250.6 249.0 247.3 247.3 247.3
223.7 241.7 263.7 294.3 296.6 306.1 306.9 306.0 304.4 300.8
299.1 295.7 276.9 247.9 247.3 253.2 271.5 290.8 296.8 252.6
247.3 256.2 277.9 297.7 326.7 342.5 345.3 337.2 328.1 319.8
307.1 302.9 296.2 270.3 248.3 247.3 247.3 247.3 250.6 258.1
298.7 315.9 335.0 346.2 385.6 450.0
33 332.9 329.3 338.1 361.4 375.6 384.5 385.1 385.7 375.3 359.7
336.9 311.6 290.4 282.9 259.3 251.8 250.6 250.6 247.3 247.3
217.7 234.2 266.7 287.9 294.2 305.7 313.5 312.2 309.3 305.9
302.7 299.4 290.1 269.7 269.3 296.6 302.8 329.8 293.4 254.7
251.7 263.8 280.2 307.6 340.6 345.8 345.8 345.8 341.1 335.3
324.5 311.4 300.8 285.5 265.7 259.2 259.7 251.8 247.3 247.3
267.6 297.2 319.5 339.0 403.3 458.9
34 316.0 300.0 312.6 339.7 361.7 364.6 367.6 365.3 359.6 352.1
329.5 303.2 291.9 278.7 267.2 256.1 253.9 250.7 247.4 231.4
209.9 252.5 277.9 285.6 292.1 299.8 319.0 317.8 316.6 312.6
306.4 299.9 296.6 292.4 292.2 296.6 296.2 301.1 263.1 248.8

254.7 270.4 284.2 296.8 339.0 348.8 349.0 350.8 348.4 342.6
338.8 322.9 306.6 292.1 282.8 281.9 296.2 325.6 285.4 247.3
248.9 284.3 312.1 338.2 393.3 468.5

35 309.8 296.6 300.5 323.2 345.4 349.7 357.4 354.0 346.1 340.2
317.5 297.5 296.6 280.7 267.5 259.8 253.9 250.6 247.7 231.6
209.4 263.5 291.0 289.4 293.3 301.8 325.3 326.1 325.9 322.7
316.3 303.9 297.6 294.7 292.2 275.1 254.0 254.2 247.3 247.3
247.7 280.1 289.6 295.4 317.9 348.8 355.3 358.8 358.9 358.9
352.6 339.1 310.7 296.6 295.4 303.3 329.7 342.3 324.1 251.3
247.6 279.7 311.7 354.7 421.8 468.3

36 308.6 296.6 296.6 298.9 327.7 337.3 342.0 345.3 345.8 333.2
300.0 297.0 296.6 291.9 266.1 260.3 253.9 247.3 247.3 225.8
215.2 241.9 287.6 296.6 304.0 315.1 326.4 333.8 333.3 329.6
324.3 307.2 297.2 294.5 286.6 265.5 247.4 263.7 254.4 274.9
287.9 296.6 296.6 296.6 318.0 352.6 366.6 373.6 374.7 382.5
366.9 347.7 317.6 298.8 298.3 320.2 344.9 313.0 295.8 249.4
247.3 269.1 297.7 371.2 438.3 494.6

37 298.6 296.6 296.6 296.6 309.7 329.3 338.9 340.4 331.6 312.3
296.6 296.6 296.6 294.6 261.4 255.1 250.4 247.0 240.9 220.8
214.8 239.1 288.4 297.9 307.1 322.8 335.9 344.7 344.3 343.3
340.4 323.2 297.2 296.3 288.6 274.4 269.5 283.4 285.5 299.2
299.6 296.6 296.6 296.6 314.8 345.7 381.8 395.0 394.0 395.0
382.5 350.0 323.3 302.7 296.9 312.7 341.4 290.7 265.4 247.3
249.3 275.0 320.1 407.6 466.4 516.0

38 296.6 296.6 296.6 296.6 297.6 325.4 345.2 341.4 322.6 302.8
296.6 296.6 296.6 286.1 257.3 247.3 247.3 247.3 244.1 226.8
212.1 241.4 283.6 300.3 311.0 324.1 341.1 345.8 345.8 345.8
345.8 336.2 315.1 298.9 296.4 286.8 292.6 296.6 296.6 296.6
312.5 306.2 296.7 296.6 307.8 333.2 365.0 395.4 396.0 395.0
379.0 346.0 325.0 305.0 296.6 296.7 296.3 262.2 247.3 247.3
248.7 281.3 346.1 431.2 496.6 545.9

39 296.6 296.6 296.6 296.6 297.7 379.5 407.2 372.5 327.8 304.7
296.6 296.6 284.7 261.5 247.3 247.3 247.3 247.3 247.3 243.2
210.8 242.7 285.9 299.7 312.5 327.6 344.9 345.8 345.8 345.8
345.8 345.7 342.3 319.4 296.6 296.6 296.6 296.6 296.6 301.8
343.7 334.3 298.5 296.6 306.1 328.6 375.5 399.9 407.3 393.2
363.7 348.0 328.0 310.0 296.6 292.6 282.5 255.9 248.2 255.8
266.9 294.9 367.1 441.4 494.5 543.6

40 296.6 296.6 296.6 296.6 303.8 383.2 424.3 346.3 316.5 300.7
293.7 286.0 269.2 250.5 247.3 247.3 247.3 247.3 247.3 247.3
208.0 246.9 274.0 295.0 308.7 323.9 339.4 345.8 345.8 345.8
345.8 345.8 345.8 330.6 298.8 296.6 296.6 296.6 296.6 298.2
342.5 339.1 297.7 296.6 296.6 321.6 359.8 385.5 437.9 417.4
364.7 350.0 330.0 312.0 296.6 294.3 277.7 267.5 263.8 269.3
280.9 296.6 371.7 442.6 475.5 512.1

41 270.0 270.0 270.0 270.0 270.0 280.0 280.0 329.3 306.2 293.3
280.3 257.1 248.9 247.3 247.3 247.3 247.3 247.3 247.3 247.3
236.6 223.7 257.6 290.2 305.4 320.9 337.1 345.8 345.8 345.8
345.8 345.8 345.8 327.8 303.5 296.9 296.6 296.6 296.6 325.0
343.9 332.9 298.9 296.6 296.6 320.2 353.4 377.1 406.5 445.8
394.8 348.0 328.0 323.7 321.6 332.9 290.9 279.9 280.3 288.3
292.3 301.6 346.0 420.6 467.2 497.2

42 265.0 265.0 265.0 265.0 265.0 265.0 265.0 298.0 294.1 287.7
270.4 249.7 247.3 247.3 247.3 249.7 250.6 250.6 250.5 247.3

247.3 213.3 240.2 275.0 298.1 313.2 329.4 345.6 345.8 345.8
345.8 345.8 345.8 345.4 342.5 312.7 296.0 292.6 296.3 338.6
345.8 309.7 296.6 296.6 298.9 327.2 349.2 368.9 385.2 393.2
375.2 345.8 343.9 346.7 385.9 357.6 300.8 290.5 290.7 293.3
296.7 324.5 354.3 390.3 443.4 482.9

43 265.0 265.0 265.0 265.0 265.0 265.0 275.0 296.7 293.6 282.7
269.9 260.9 254.2 250.9 253.7 253.9 253.9 253.9 251.3 250.6
247.3 236.5 217.0 249.9 280.7 302.6 317.4 343.1 345.8 345.8
345.8 345.8 345.8 335.8 323.8 299.7 296.4 283.0 291.9 332.2
342.9 304.8 293.1 293.9 328.1 348.1 346.2 350.6 364.1 361.6
349.3 345.8 345.8 359.0 392.7 375.0 345.7 297.9 296.6 296.6
307.7 340.8 361.6 383.1 419.2 474.6

44 270.0 270.0 270.0 270.0 270.0 270.0 277.0 270.0 301.7 288.0
279.9 276.4 272.6 265.8 260.3 258.0 254.8 254.7 253.9 252.5
249.6 242.9 211.8 235.4 257.2 280.0 299.1 309.4 341.0 345.8
345.8 345.8 311.8 261.0 253.0 250.9 269.4 248.9 266.4 299.6
295.1 287.9 285.4 290.9 341.9 358.9 356.0 347.7 345.8 347.1
345.8 345.8 345.8 373.1 402.5 383.3 360.5 326.8 315.0 308.0
328.4 362.1 389.0 398.3 427.5 470.5

45 275.0 275.0 275.0 275.0 275.0 275.0 280.0 275.0 345.8 308.8
298.5 290.6 284.0 283.3 270.9 264.1 263.1 260.5 257.9 253.9
250.3 247.3 220.3 217.2 237.8 253.3 276.0 287.6 306.8 343.8
337.9 325.9 284.6 255.0 247.3 247.3 248.3 246.0 247.3 270.6
272.8 260.6 267.0 298.9 355.0 381.2 386.3 370.2 357.9 345.8
345.8 345.8 345.8 381.2 394.8 388.5 371.1 349.7 335.0 330.0
343.3 372.9 418.3 477.9 485.3 490.8

46 280.0 280.0 280.0 280.0 280.0 280.0 285.0 390.0 360.9 332.4
316.2 316.1 316.3 307.2 293.1 273.0 269.2 266.0 262.8 254.0
248.9 247.3 232.2 212.1 219.2 234.7 251.1 271.9 301.3 344.4
329.4 309.7 296.9 249.8 244.1 244.1 244.1 244.3 244.1 248.6
250.8 247.3 263.4 309.4 366.8 423.1 414.0 400.7 388.5 362.3
345.8 345.8 345.8 387.4 395.0 395.0 393.2 373.7 355.5 345.4
349.3 388.3 425.7 485.1 496.7 502.9

47 285.0 285.0 285.0 285.0 285.0 285.0 289.0 389.7 352.6 345.8
336.1 334.3 341.2 347.2 328.3 291.3 277.2 273.5 263.7 253.9
247.4 247.3 247.3 233.7 218.8 217.3 247.2 256.0 272.6 285.2
295.5 299.6 295.1 247.2 244.1 244.1 244.1 244.1 244.1 244.2
244.1 250.4 281.2 353.6 394.9 442.0 447.5 419.5 403.9 390.9
345.8 345.8 345.8 385.3 395.0 395.0 416.5 392.6 381.0 365.0
352.3 394.0 429.6 468.8 493.0 507.8

48 290.0 290.0 290.0 290.0 290.0 290.0 290.0 295.0 325.0 350.0
350.0 366.0 373.7 392.6 379.8 303.7 286.6 282.7 274.1 262.6
255.0 251.3 247.3 247.3 242.2 216.3 227.5 237.9 244.1 247.3
253.8 249.6 250.4 245.4 242.6 240.8 240.8 244.1 244.1 244.1
247.5 261.4 290.8 376.0 413.5 451.4 456.5 436.0 407.8 394.9
362.5 345.8 345.8 369.0 389.8 392.3 416.3 401.7 397.9 388.4
376.0 378.2 422.5 455.6 483.4 504.7

49 295.0 295.0 295.0 295.0 295.0 295.0 295.0 296.0 310.0 366.4
395.0 395.0 394.5 395.0 373.5 332.7 297.1 296.3 290.1 278.3
265.7 256.2 249.5 247.3 247.3 230.9 211.6 212.5 226.3 230.4
238.3 240.6 239.4 240.8 240.8 240.8 240.8 240.8 240.8 244.1
246.6 271.4 293.0 356.1 408.0 447.9 450.9 436.5 415.7 406.2
387.0 352.9 345.8 345.8 350.0 371.3 397.7 403.7 398.3 395.0
397.6 396.4 428.1 452.3 477.1 497.7

50 300.0 300.0 300.0 300.0 300.0 300.0 300.0 302.0 346.0 383.8
395.0 395.0 395.0 395.0 394.9 362.3 330.8 314.0 298.3 288.3
277.7 265.4 247.9 247.3 246.8 234.1 217.8 211.5 218.0 218.2
221.8 232.8 233.6 237.5 237.5 237.5 237.8 240.8 240.8 243.1
246.3 264.0 290.9 347.1 407.2 444.0 447.5 447.5 444.7 450.5
446.7 386.3 345.8 345.8 345.8 345.8 371.7 374.0 392.3 395.0
402.9 412.1 435.9 489.6 490.5 496.9
51 305.0 305.0 305.0 305.0 305.0 305.0 305.0 345.8 363.3 395.0
395.0 395.0 395.0 396.6 398.3 381.0 348.5 328.6 310.4 295.5
292.6 270.9 247.3 247.3 247.3 238.7 227.7 219.8 219.7 217.8
217.8 224.7 228.0 229.0 233.7 236.5 237.5 240.1 240.8 242.1
247.4 260.6 286.3 339.7 404.8 443.8 445.3 447.5 446.6 449.3
455.8 394.6 358.1 345.8 345.8 345.8 355.0 346.3 347.1 363.1
398.2 421.1 443.0 489.3 509.8 506.5
52 310.0 310.0 310.0 310.0 310.0 310.0 310.0 344.8 392.3 395.0
395.0 395.0 395.0 395.0 410.0 402.5 367.3 342.3 323.4 306.0
296.6 279.4 247.3 247.3 247.3 247.3 238.8 232.5 228.5 220.3
217.8 217.8 220.9 221.1 230.4 231.4 234.2 237.5 238.6 241.4
244.3 263.8 287.5 342.3 402.9 445.3 448.3 444.4 444.5 434.7
415.1 378.7 356.0 345.8 345.8 345.8 345.8 345.8 345.8 345.8
373.5 421.3 460.2 494.9 534.4 523.5
53 312.0 312.0 312.0 312.0 312.0 312.0 336.0 347.6 382.0 395.0
395.0 395.0 395.0 395.0 412.2 447.5 391.1 360.8 333.4 310.1
295.4 273.8 247.3 247.3 247.3 247.3 247.3 244.7 236.7 230.9
230.8 224.7 219.0 217.8 217.8 229.0 230.9 234.2 238.2 241.4
245.4 260.5 283.4 327.9 405.4 444.1 493.2 446.5 439.9 424.2
395.0 380.0 380.0 345.8 345.8 345.8 345.8 345.8 345.8 345.8
375.5 427.2 463.8 496.6 542.3 545.5
54 314.0 314.0 314.0 314.0 314.0 314.0 345.5 345.8 358.8 391.9
395.0 395.0 395.0 395.0 395.0 414.7 439.0 392.7 342.5 309.7
291.5 272.6 255.6 247.3 247.3 247.3 247.3 247.3 240.3 238.5
238.3 235.5 227.9 221.9 217.8 224.4 227.7 231.4 234.3 240.8
246.9 261.3 287.4 328.8 393.0 436.6 496.7 454.2 437.3 421.8
396.1 380.0 360.0 345.8 345.8 345.8 345.8 345.8 345.8 345.8
394.7 440.3 474.6 501.2 532.2 544.2
55 316.0 316.0 316.0 316.0 316.0 316.0 345.8 345.8 345.8 381.8
395.0 395.0 395.0 395.0 395.0 396.7 419.0 411.3 353.8 318.0
293.9 278.4 261.8 247.9 247.3 247.3 247.3 247.3 244.1 244.2
246.0 247.3 236.6 225.7 217.8 218.1 224.4 228.1 233.7 240.2
246.5 252.2 287.4 330.3 378.0 420.1 458.0 462.1 440.9 441.1
416.5 390.2 363.2 345.8 345.8 345.8 345.8 345.8 345.8 349.8
397.7 437.6 491.8 515.5 532.8 543.4
56 318.0 318.0 318.0 318.0 318.0 318.0 345.8 351.4 354.1 375.5
395.0 395.0 395.0 395.0 395.0 395.0 404.4 388.4 348.8 323.3
300.0 289.6 267.6 247.3 247.3 247.3 247.3 247.3 247.3 247.3
247.3 247.3 238.8 223.5 217.8 217.8 220.9 224.4 230.8 236.8
241.5 244.1 262.7 302.0 353.1 399.0 439.5 448.1 447.5 446.4
422.2 396.8 362.0 346.2 345.8 345.8 345.8 345.8 345.8 345.8
394.4 451.1 493.6 525.1 536.5 545.8
57 320.0 320.0 320.0 320.0 320.0 320.0 352.1 364.3 373.5 386.3
395.0 395.0 395.0 395.0 395.0 395.0 395.0 380.9 348.2 325.9
308.0 286.2 263.7 249.8 247.3 247.3 247.3 247.3 247.3 247.3
247.3 247.3 246.4 227.7 217.8 217.8 217.8 224.4 228.2 233.0
238.7 241.5 260.7 300.2 348.0 395.0 420.7 437.3 446.7 435.8

417.1 401.1 363.6 345.8 345.8 345.8 345.8 345.8 345.8 345.8
371.6 420.9 477.8 536.3 545.9 545.9
58 322.0 322.0 322.0 322.0 322.0 322.0 357.8 372.0 383.4 392.1
395.0 395.0 395.0 395.0 395.0 395.0 395.0 385.9 357.0 321.7
298.3 281.9 257.2 247.3 247.3 247.3 247.3 247.3 247.3 247.5
250.5 249.8 247.3 241.7 218.7 217.8 218.0 221.1 225.4 230.1
235.0 241.8 256.0 296.6 345.3 391.3 406.6 420.7 433.1 420.0
404.8 398.7 365.2 347.0 345.8 345.8 345.8 345.8 345.8 345.8
385.3 396.7 466.4 519.7 545.9 545.9
59 324.0 324.0 324.0 324.0 324.0 324.0 364.9 388.6 392.8 395.0
395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 376.0 343.5
292.9 275.9 252.9 247.3 247.3 247.3 247.3 247.3 247.3 251.7
253.4 253.8 250.6 247.3 221.0 217.8 217.8 219.0 222.4 227.8
234.1 240.7 259.5 296.6 339.4 384.5 400.3 409.4 410.8 397.4
366.0 365.0 355.0 345.8 345.8 345.8 345.8 345.8 345.8 345.8
368.2 389.0 437.1 492.9 545.9 545.9
60 326.0 326.0 326.0 326.0 326.0 326.0 326.0 326.0 326.0 395.0
395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 391.1 342.9
297.9 277.1 261.7 249.1 247.3 247.3 247.3 247.3 247.3 253.8
260.1 257.7 253.9 248.2 232.4 217.8 217.8 217.8 221.7 224.4
230.9 237.4 255.0 292.4 341.3 381.2 398.3 402.2 401.3 384.4
365.0 365.0 356.0 345.8 345.8 345.8 345.8 345.8 345.8 345.8
357.5 381.7 427.6 491.5 544.0 545.9
61 328.0 328.0 328.0 328.0 328.0 328.0 328.0 385.5 394.1 395.0
395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 367.3
342.7 302.0 282.8 262.5 247.9 247.3 247.3 247.3 247.3 254.6
263.9 263.6 261.1 254.7 242.4 217.8 217.8 217.8 217.8 217.8
227.7 234.9 251.3 294.4 351.3 386.3 401.2 404.1 407.8 399.2
365.0 365.0 365.0 345.8 345.8 345.8 345.8 345.8 345.8 345.8
358.2 389.5 435.5 480.0 531.5 545.9
62 330.0 330.0 330.0 330.0 330.0 330.0 330.0 371.8 387.0 395.0
395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 377.2
351.7 326.8 297.7 269.7 250.7 247.3 247.3 247.3 247.3 260.6
273.3 272.9 271.4 262.1 253.3 239.2 224.8 222.3 218.3 217.8
220.8 233.0 253.6 300.2 353.9 390.7 402.0 404.8 431.1 447.5
398.0 365.0 356.0 348.1 346.5 345.8 345.8 345.8 345.8 345.8
355.0 386.2 428.0 481.6 524.1 543.5
63 330.0 330.0 330.0 330.0 345.8 345.8 349.7 361.4 379.6 395.0
395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 387.2
366.4 337.2 310.7 279.8 247.5 247.3 254.5 258.6 251.4 265.0
283.0 293.3 286.9 272.3 260.1 250.8 244.1 231.4 227.9 222.0
218.8 229.5 251.2 297.6 356.0 395.3 403.0 415.2 427.1 437.5
415.0 377.9 364.5 380.8 390.9 346.1 345.8 345.8 345.8 345.8
377.7 392.8 423.3 487.2 533.1 545.7
64 330.0 330.0 330.0 330.0 330.0 345.8 348.4 359.5 371.2 391.3
395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0
374.8 341.8 303.3 292.9 249.3 247.3 280.4 297.4 285.9 286.9
291.3 297.7 296.3 280.1 267.3 257.2 251.3 247.3 232.9 225.9
218.1 230.2 249.8 298.6 343.3 393.7 401.2 410.1 414.6 410.7
406.9 387.6 359.3 368.8 393.8 358.5 346.9 345.8 345.8 345.8
370.4 412.7 471.3 506.8 539.5 545.9
65 330.0 330.0 330.0 330.0 345.8 345.8 347.7 354.4 359.4 366.1
395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0
382.7 345.6 296.8 296.6 276.7 285.3 315.6 332.7 304.3 298.9

296.6 333.0 296.6 283.1 270.8 260.8 251.8 244.4 228.3 221.6
217.8 227.7 247.4 296.4 339.8 375.4 395.0 402.7 402.2 398.3
398.3 363.5 345.8 345.8 356.2 346.1 345.8 345.8 345.8 345.8
364.2 413.9 464.1 513.0 544.8 545.9

66 340.0 340.0 340.0 340.0 340.0 340.0 340.0 340.0 340.0 345.8
378.2 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0
378.3 347.4 311.9 296.6 296.6 319.2 362.0 377.7 335.9 322.9
325.8 345.8 317.3 281.6 268.9 259.8 251.7 231.0 218.2 218.0
217.8 225.1 249.1 290.3 326.4 361.0 395.0 395.0 395.0 395.0
393.7 355.7 345.8 345.8 345.8 350.5 345.8 345.8 345.8 345.8
366.0 405.1 443.8 491.9 541.6 545.9

67 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0
360.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0
382.0 346.7 306.0 296.6 296.6 320.1 371.9 387.8 364.8 376.2
353.6 346.4 317.2 276.1 265.6 253.4 228.5 231.6 241.1 245.7
227.7 218.1 245.0 290.7 315.2 337.0 371.6 388.5 394.9 395.0
383.6 354.0 345.8 345.8 345.8 345.8 384.2 368.1 351.7 349.7
371.9 391.5 443.9 478.3 529.5 545.9

68 380.0 380.0 380.0 380.0 380.0 360.0 360.0 360.0 345.8 345.8
345.8 387.5 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0
395.0 361.8 307.7 296.6 296.6 314.9 337.0 382.0 382.8 395.0
363.7 333.0 288.1 270.0 257.1 244.7 221.1 234.3 247.2 246.7
236.8 219.5 236.9 265.6 297.6 316.5 348.1 369.4 389.4 395.0
379.0 357.0 346.9 345.8 345.8 347.4 395.0 446.8 394.8 377.4
385.6 393.4 437.5 471.8 510.6 545.7

69 380.0 380.0 380.0 380.0 380.0 380.0 380.0 345.8 345.8 345.8
345.8 357.8 389.6 395.0 395.0 395.0 395.0 395.0 395.0 395.0
395.0 361.4 315.9 299.8 296.6 316.3 335.9 384.7 395.0 386.4
361.5 305.4 277.2 260.0 247.0 225.2 232.3 242.1 248.0 247.8
242.6 228.5 229.4 247.4 273.3 297.9 326.1 355.5 368.2 376.5
364.6 354.6 349.3 351.2 358.2 373.3 392.5 404.5 398.7 392.4
395.0 395.0 420.6 462.2 504.2 533.4

70 390.0 390.0 390.0 390.0 390.0 390.0 390.0 390.0 390.0 390.0
390.0 385.7 395.0 395.0 395.0 395.0 395.0 395.0 395.0 395.0
375.7 339.7 303.0 296.6 296.6 327.1 345.2 377.7 382.6 369.6
345.6 298.7 278.0 263.0 245.0 221.1 240.7 249.4 256.4 253.7
249.4 246.5 221.8 234.4 248.7 274.2 294.9 340.8 354.2 346.7
344.1 345.8 352.6 377.0 383.3 394.9 395.0 395.0 395.0 395.0
395.0 395.0 413.9 448.3 497.4 507.9

71 380.0 380.0 380.0 380.0 380.0 380.0 380.0 380.0 380.0 345.8
371.5 374.9 347.7 389.5 395.0 395.0 395.0 395.0 395.0 395.0
363.9 338.1 306.4 296.6 296.6 324.5 342.1 347.8 351.1 357.9
343.3 312.6 283.2 265.0 250.0 221.6 238.4 246.3 252.6 255.2
251.5 236.5 217.8 228.8 240.9 257.0 275.2 296.6 328.1 337.7
336.3 342.8 358.9 394.2 395.0 395.0 395.0 395.0 395.0 395.0
395.0 395.0 407.6 439.0 495.1 496.9

72 375.0 375.0 375.0 375.0 375.0 375.0 375.0 375.0 343.2 343.4
345.8 347.7 345.8 363.6 393.4 395.0 380.0 369.4 367.5 381.1
368.5 345.7 314.7 296.6 296.6 310.0 340.1 346.0 352.0 374.9
381.3 338.4 309.2 284.8 255.0 222.6 237.4 246.5 253.4 254.6
250.7 237.5 218.1 223.9 236.1 242.3 255.0 267.4 298.2 314.5
321.8 337.4 355.1 379.8 394.4 389.9 383.5 395.0 395.0 395.0
395.0 395.0 395.2 444.1 494.7 501.1

73 370.0 370.0 370.0 370.0 370.0 370.0 370.0 370.0 370.0 370.0

370.0 342.1 342.4 345.0 352.7 352.7 345.6 345.6 345.8 345.8
381.5 352.7 324.0 299.2 296.6 326.3 343.4 350.2 361.5 378.9
395.0 356.1 322.4 288.2 260.0 221.5 236.4 250.5 256.7 254.3
248.0 237.6 222.1 220.6 229.1 236.1 240.8 260.0 267.0 296.5
306.4 316.3 346.6 358.8 359.9 347.0 345.8 376.4 395.0 395.0
395.0 395.0 397.3 440.7 497.2 506.3

74 365.0 365.0 365.0 365.0 365.0 365.0 365.0 365.0 365.0 365.0
365.0 338.9 335.9 336.1 337.3 337.4 338.5 341.3 342.6 346.0
393.0 384.1 335.6 318.3 313.0 338.7 346.0 352.4 365.3 379.8
394.4 354.9 318.1 282.5 255.0 221.0 236.7 251.0 253.9 257.0
247.4 235.8 223.5 219.0 224.4 231.8 237.4 240.8 260.0 265.0
269.0 285.4 310.7 343.1 345.8 345.8 345.8 365.7 395.0 395.0
395.0 395.0 409.3 466.8 503.8 516.4

75 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0
360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 341.8
360.7 380.4 339.4 328.5 335.9 344.8 347.2 353.1 365.4 375.0
363.2 339.8 312.3 276.3 255.0 225.0 237.5 250.8 253.9 253.9
247.5 238.2 227.2 217.8 224.0 228.3 234.7 238.5 240.8 258.0
265.0 267.0 280.5 309.1 340.6 345.8 345.8 355.9 392.4 395.0
395.0 395.0 415.6 463.3 511.9 531.2

76 354.0 354.0 354.0 354.0 354.0 354.0 354.0 354.0 354.0 354.0
354.0 354.0 323.0 319.9 316.8 321.1 322.3 325.5 331.8 335.2
337.8 336.3 329.9 329.1 332.7 342.5 345.9 355.0 360.0 358.9
347.6 330.8 308.4 272.0 245.0 223.9 237.3 250.5 254.3 256.2
247.3 241.8 232.5 220.4 221.6 227.7 234.1 237.5 240.8 241.8
252.0 261.0 270.0 293.8 334.2 350.3 357.3 370.7 391.1 395.0
395.0 395.0 420.8 464.3 512.3 545.5

77 347.0 347.0 347.0 347.0 347.0 347.0 347.0 347.0 347.0 347.0
347.0 315.8 315.3 313.0 309.7 309.6 312.8 316.3 322.0 324.3
318.6 312.9 310.4 314.4 312.8 318.7 343.5 350.8 351.6 348.1
341.2 324.6 303.2 267.0 240.0 224.4 242.4 254.0 253.9 256.6
251.9 246.9 240.4 226.9 221.6 228.7 233.7 237.5 240.8 244.1
244.1 244.1 265.0 289.1 319.7 362.1 387.3 392.8 395.0 395.0
395.0 395.0 421.7 471.2 509.8 530.8

78 340.0 340.0 340.0 340.0 340.0 340.0 340.0 340.0 340.0 340.0
340.0 306.5 307.2 305.2 301.2 298.6 305.3 311.4 311.3 303.7
298.9 296.6 296.6 299.8 296.6 296.6 322.4 346.9 353.6 355.1
345.5 325.9 299.3 265.0 248.0 225.4 245.5 252.6 253.9 253.9
254.1 247.3 247.0 234.4 218.1 230.9 236.1 239.9 241.6 244.1
244.1 244.1 255.0 277.2 324.8 365.2 404.6 421.2 409.5 401.2
395.0 395.0 405.6 466.2 500.0 515.9

79 337.0 337.0 337.0 337.0 337.0 337.0 337.0 337.0 337.0 296.6
296.6 299.1 300.0 299.8 296.6 296.6 306.4 307.3 302.8 296.6
296.6 296.6 296.6 296.6 296.6 297.2 320.6 346.3 368.6 389.6
354.5 332.8 303.8 267.5 255.0 228.8 244.9 253.5 253.9 253.9
257.1 253.9 248.2 239.5 220.4 230.3 237.5 240.6 244.4 247.3
246.1 245.3 246.0 263.1 296.8 361.0 417.0 460.5 455.1 446.1
433.7 395.0 411.3 443.9 483.9 495.1

80 335.0 335.0 335.0 335.0 335.0 335.0 335.0 335.0 335.0 335.0
335.0 335.0 296.6 296.6 296.6 296.6 303.6 303.4 300.5 297.0
296.6 296.6 296.6 296.6 296.6 301.1 318.9 346.9 370.0 395.0
372.2 337.4 308.8 280.7 260.0 222.8 246.7 254.1 253.9 253.9
255.8 253.9 254.2 238.0 221.2 233.1 239.6 242.2 247.3 247.3
247.3 247.5 247.3 254.7 292.2 357.0 418.5 478.5 493.5 489.6

470.0 408.5 418.7 446.0 478.2 494.2
81 332.0 332.0 332.0 332.0 332.0 332.0 332.0 332.0 332.0 296.6
296.6 295.9 293.5 296.6 294.8 297.9 313.2 306.5 299.8 296.4
296.6 296.6 296.6 296.6 293.8 297.1 306.8 331.4 359.8 392.2
395.0 352.5 326.7 287.1 265.0 225.4 243.7 254.2 254.0 253.9
253.9 253.9 251.7 241.5 221.9 240.6 240.7 241.1 244.1 247.3
248.0 255.1 262.0 283.9 306.1 371.3 427.0 475.7 512.6 503.3
500.4 475.3 453.5 454.3 468.7 488.3
82 330.0 330.0 330.0 330.0 330.0 330.0 330.0 330.0 330.0 330.0
330.0 330.0 330.0 330.0 330.0 330.0 330.0 330.0 330.0 269.9
290.5 293.3 288.2 292.2 277.1 287.1 292.2 297.2 345.1 375.5
395.0 380.9 350.0 291.0 260.0 230.0 246.8 252.8 253.9 253.9
253.9 255.2 249.7 234.0 219.9 236.2 237.9 240.8 244.1 247.3
255.5 275.3 296.6 328.5 345.3 378.5 437.7 491.8 552.8 532.3
515.7 499.1 481.2 475.4 481.4 485.9
83 332.0 332.0 332.0 332.0 332.0 332.0 332.0 332.0 332.0 258.5
262.3 254.3 254.8 261.8 268.0 258.1 302.6 293.4 262.1 247.8
250.5 260.0 261.2 260.6 247.4 248.0 281.4 296.2 336.3 355.7
377.2 384.9 338.4 289.5 234.8 225.3 246.7 253.7 253.9 253.9
253.9 255.2 247.3 229.6 217.8 227.7 234.6 240.1 244.3 246.3
256.8 272.3 296.5 346.4 367.5 398.8 447.1 495.1 542.5 540.2
521.2 507.9 498.4 489.4 499.8 496.7
84 333.0 333.0 333.0 333.0 333.0 333.0 333.0 333.0 264.1 278.7
284.6 254.0 247.7 247.3 247.3 247.3 264.4 296.6 273.1 247.3
244.2 244.3 244.1 245.3 244.1 246.8 284.4 297.5 316.4 336.9
352.3 353.5 330.7 299.8 247.4 245.0 247.3 254.1 255.8 254.2
254.5 250.8 240.7 220.5 218.9 224.3 233.7 240.0 244.1 245.7
250.0 265.9 292.9 346.2 371.9 406.1 462.4 506.6 529.1 529.9
521.1 513.1 521.8 536.0 544.5 529.3
85 334.0 334.0 334.0 334.0 334.0 334.0 334.0 334.0 334.0 334.0
334.0 333.0 247.3 247.3 247.3 247.3 247.3 275.6 290.5 248.5
246.0 244.1 244.1 244.1 244.1 245.8 281.6 293.8 303.3 317.7
336.1 336.4 319.5 303.0 265.5 240.0 241.6 252.0 255.3 257.2
256.1 249.8 240.8 221.2 220.6 226.3 232.3 237.5 241.8 244.1
244.1 257.4 284.9 333.2 366.0 392.0 465.2 517.2 544.0 515.0
513.0 517.7 532.6 562.2 594.0 567.1
86 335.0 335.0 335.0 335.0 335.0 335.0 335.0 335.0 290.8 299.5
302.0 300.1 272.2 259.0 283.1 290.4 248.9 247.3 267.7 257.1
247.4 244.1 244.1 244.1 244.1 244.1 259.6 281.9 295.8 296.9
317.2 322.6 312.9 300.6 282.6 256.0 240.0 245.4 250.8 253.9
253.8 248.2 232.1 223.4 220.1 224.6 230.7 235.0 240.8 244.1
252.8 278.4 293.7 317.3 341.4 371.6 415.1 502.9 542.4 500.0
496.7 503.2 539.5 581.9 593.3 595.1
87 289.8 286.7 278.5 271.2 266.1 265.6 291.1 299.9 303.1 316.2
321.8 327.1 317.5 303.0 298.3 299.1 273.0 247.3 247.8 252.1
247.1 244.1 244.1 244.1 244.1 244.1 248.7 267.7 283.4 289.9
296.1 305.2 303.6 299.3 291.4 267.9 242.8 234.7 245.7 249.3
250.3 247.1 225.4 218.1 220.5 226.5 230.9 235.0 240.7 247.3
282.7 319.9 338.1 339.4 345.8 355.9 399.8 469.4 498.2 489.8
489.1 493.2 524.5 590.9 595.1 595.1
88 281.1 279.3 274.8 270.1 267.3 289.5 313.6 329.9 324.5 327.1
336.3 344.9 345.8 328.2 311.5 306.6 299.8 247.6 247.3 247.3
244.8 242.1 240.8 240.8 240.8 241.0 244.4 247.9 267.7 279.1
289.4 295.8 296.6 296.6 295.0 274.0 255.8 221.0 240.7 247.0

246.6 244.8 224.1 218.2 221.9 227.9 234.0 237.2 240.8 246.8
295.0 336.1 345.8 345.8 345.8 350.3 395.7 447.6 477.0 473.7
479.4 492.5 513.8 559.8 593.9 595.0
89 273.8 270.9 267.6 270.0 278.0 293.8 322.8 349.0 352.8 347.5
344.7 345.8 348.7 345.4 335.7 321.7 313.7 297.8 254.0 247.3
245.4 239.9 238.0 237.5 238.1 240.8 243.9 247.3 259.5 272.7
284.5 289.2 290.5 290.2 290.2 276.4 256.3 240.1 227.5 247.3
247.3 243.4 219.2 221.8 225.7 228.7 234.2 240.7 243.7 249.0
301.5 339.7 346.3 349.0 352.3 372.1 388.8 437.7 453.0 451.5
462.6 487.4 505.8 534.2 565.3 581.4
90 320.0 320.0 320.0 320.0 320.0 320.0 335.8 355.1 368.4 375.9
372.0 366.7 365.2 357.0 350.9 340.3 330.2 315.3 304.0 296.5
261.3 246.6 240.6 237.5 237.5 237.5 242.3 244.9 252.2 266.7
277.8 283.7 283.4 281.5 278.7 273.2 254.2 239.4 222.7 221.9
232.4 232.1 217.8 221.2 227.7 233.6 238.5 242.9 244.6 248.3
296.9 342.9 348.6 351.9 358.1 369.5 388.2 416.5 439.7 443.4
447.5 469.9 498.0 516.6 532.8 551.6
91 295.8 277.9 290.0 295.0 390.0 390.0 390.0 390.0 380.8 395.0
394.4 394.3 391.7 375.5 365.7 358.6 347.6 341.4 329.0 318.2
305.4 293.7 258.1 241.3 237.5 240.8 243.1 247.3 248.5 260.1
272.4 280.1 276.9 273.6 267.6 259.4 250.3 243.5 232.9 223.8
217.8 217.8 220.2 222.2 228.1 234.4 240.9 245.2 248.6 271.6
304.0 345.8 349.1 355.6 364.9 377.4 387.6 393.9 414.1 432.8
444.3 461.5 479.0 491.4 505.4 521.8
92 320.0 320.0 320.0 320.0 360.0 360.0 360.0 358.5 382.4 395.0
395.0 395.0 395.0 387.0 379.5 370.9 365.8 354.1 345.8 333.3
318.6 303.1 270.4 242.0 239.3 242.9 244.7 245.0 247.8 254.2
270.4 276.9 275.6 269.7 263.2 254.7 247.3 243.0 235.9 229.2
221.6 227.4 221.1 224.4 230.4 235.6 240.8 245.2 247.8 258.3
298.0 326.9 342.2 354.4 364.1 374.4 383.8 392.5 408.0 427.2
444.2 454.5 463.9 470.3 468.6 472.6
93 320.0 320.0 320.0 320.0 320.0 330.0 337.2 359.8 384.9 395.0
395.0 395.0 395.0 392.8 388.6 382.4 377.4 365.2 352.3 339.2
327.5 309.5 276.8 246.7 239.6 244.1 244.1 244.1 247.3 254.3
263.9 273.5 270.9 267.0 261.6 256.1 247.3 246.9 240.6 230.9
227.7 227.7 224.4 224.8 231.2 235.5 240.8 243.5 244.1 248.3
282.3 293.2 319.6 350.7 361.1 370.8 381.9 392.9 405.0 424.6
443.9 446.9 449.5 449.5 447.2 445.6
94 320.0 320.0 320.0 320.0 320.0 340.0 340.0 349.1 372.2 393.4
395.0 395.0 395.0 395.0 395.0 395.0 387.9 379.0 361.3 347.2
339.3 319.4 282.5 244.9 238.8 244.8 247.3 247.3 244.2 250.2
262.4 272.8 271.9 268.8 265.9 262.3 252.8 247.3 246.5 231.3
227.7 227.7 228.3 229.0 231.9 235.0 238.3 240.9 244.1 252.7
290.1 305.5 334.6 346.1 356.9 369.8 388.5 395.5 408.2 424.7
440.3 444.2 444.4 444.2 444.2 444.2
95 320.0 320.0 320.0 320.0 320.0 345.0 329.4 345.5 363.9 380.5
393.0 395.0 395.0 395.0 395.0 395.0 395.0 391.6 379.3 363.7
351.9 345.6 310.0 267.2 240.4 241.2 245.0 245.1 244.6 249.6
259.3 274.0 277.5 286.7 277.2 270.9 270.3 276.8 253.5 228.9
227.7 229.8 230.9 230.9 231.3 237.3 240.1 240.8 244.1 259.8
307.6 342.2 345.8 345.8 352.3 367.6 388.4 395.0 407.7 429.5
443.5 444.2 444.7 448.5 447.3 447.0
96 320.0 320.0 320.0 320.0 320.0 320.0 332.4 345.8 357.0 368.8
379.1 388.9 394.8 395.0 395.0 395.0 395.0 395.0 389.2 378.9

365.8 350.9 314.7 273.5 246.5 237.6 240.7 243.7 244.6 246.3
253.1 266.2 281.4 296.4 295.9 289.2 289.4 294.7 263.8 228.6
227.7 230.6 230.9 233.6 234.2 237.5 240.7 240.9 246.3 272.2
319.8 345.2 345.8 345.8 345.8 354.0 375.9 392.7 396.4 430.7
448.5 478.1 482.6 480.7 471.8 457.7
97 326.1 320.0 320.0 320.0 315.0 320.0 326.6 344.3 348.7 360.7
370.1 383.1 393.5 395.0 395.0 395.0 395.0 395.0 394.2 394.0
374.9 354.6 319.3 283.4 256.0 240.3 237.5 237.5 240.8 244.1
248.9 262.5 282.5 296.1 296.6 296.5 293.3 285.7 252.2 228.8
227.7 230.9 234.2 234.2 237.2 239.4 240.8 243.2 244.3 279.6
324.2 345.8 341.7 343.0 345.8 345.8 346.8 386.9 405.1 434.9
480.7 507.7 535.2 529.4 516.7 498.3
98 328.5 320.0 320.0 320.0 320.0 320.0 325.6 340.3 344.4 353.6
365.7 375.3 388.3 394.5 395.0 395.0 395.0 395.0 395.0 395.0
384.1 353.7 326.2 298.1 261.7 242.0 240.5 237.5 238.4 240.8
244.5 257.2 276.9 292.6 295.3 295.4 288.1 274.1 254.9 228.4
227.7 230.9 234.2 234.7 237.5 240.3 240.8 244.1 245.1 277.2
331.3 344.3 322.8 332.3 344.7 351.6 360.4 392.1 414.4 439.0
487.7 531.1 557.2 572.5 567.9 549.9
99 342.4 320.0 312.0 320.0 320.0 319.8 335.9 342.5 345.6 350.0
360.3 371.5 381.3 387.8 394.0 395.0 395.0 395.0 395.0 395.0
394.7 365.4 331.0 305.2 269.6 245.3 242.9 240.2 237.5 238.1
241.2 246.9 265.4 278.8 282.3 284.6 273.7 258.9 249.6 232.8
227.7 230.9 234.2 236.9 238.9 240.8 240.8 244.1 244.4 278.0
294.7 296.6 298.5 311.9 345.4 360.4 380.2 405.9 429.3 443.4
482.6 529.5 568.7 594.1 595.1 595.1
100 349.3 326.0 320.0 320.0 320.0 333.8 347.2 347.8 355.0 360.0
363.0 371.3 380.4 386.4 389.5 395.0 395.0 395.0 395.0 395.0
395.0 371.5 342.5 302.2 274.1 246.4 243.3 240.8 237.5 237.5
240.7 246.9 258.5 266.8 269.6 270.3 265.8 253.8 244.2 235.3
228.2 231.2 234.6 237.5 239.1 240.8 241.6 244.1 246.5 261.5
283.3 296.4 301.2 337.4 348.0 362.4 384.3 421.9 447.3 454.3
490.4 532.4 571.5 595.1 595.1 595.1
101 394.1 351.8 325.0 318.0 322.1 340.3 362.1 368.5 362.1 363.0
365.0 371.3 380.3 384.9 389.1 394.4 396.9 395.7 398.3 395.2
395.0 379.0 351.4 316.0 283.6 259.0 247.3 240.9 240.8 238.1
237.5 243.1 249.0 256.0 257.7 254.9 251.7 249.7 247.3 237.6
228.0 229.8 235.7 237.5 239.2 240.8 244.1 244.1 247.1 246.8
266.3 297.2 340.6 345.8 345.8 363.9 396.6 438.1 451.8 461.0
486.6 539.6 572.6 593.8 595.1 595.1
102 385.8 347.1 344.6 338.2 340.6 352.5 378.1 383.3 374.0 369.3
369.7 375.8 382.7 386.5 391.9 395.0 398.2 398.3 398.3 398.3
396.1 389.7 365.2 323.1 302.6 290.7 250.7 244.1 240.8 238.1
237.5 237.5 242.7 248.1 250.3 247.3 247.3 247.3 247.3 237.3
228.7 229.5 232.1 237.5 240.8 241.3 244.1 244.1 244.3 246.8
289.3 316.8 342.8 348.0 346.9 366.5 408.1 447.7 465.8 475.9
490.1 527.0 565.4 594.7 595.1 595.1
103 367.3 346.8 358.8 345.8 345.8 358.8 386.4 395.0 391.3 381.3
379.3 381.9 388.3 391.4 394.2 395.0 395.0 401.5 399.4 399.7
398.3 395.0 375.3 345.4 345.2 296.7 249.3 244.1 240.8 240.0
237.5 231.4 234.6 241.5 247.3 247.3 247.3 247.0 240.6 234.4
228.0 230.2 234.2 238.6 240.8 244.0 244.1 247.0 259.7 261.4
297.1 337.0 345.8 355.7 367.6 383.1 410.5 445.2 469.9 478.9
489.4 527.3 567.0 595.1 595.1 595.1

```
104 390.6 345.8 393.8 361.1 345.8 359.5 384.0 395.0 395.0 393.8
    390.3 387.6 392.7 395.0 395.1 395.0 395.9 404.8 404.6 402.1
    400.9 398.1 385.0 369.4 358.9 338.5 260.0 244.1 242.7 239.9
    236.7 230.3 228.1 233.3 237.5 233.8 233.4 234.5 235.4 232.6
    227.7 230.9 234.3 240.2 240.8 244.1 244.6 257.6 284.1 297.9
    316.7 338.6 347.7 359.4 375.2 391.4 418.3 460.0 480.8 485.2
    491.3 504.8 546.1 593.9 595.1 595.1
105 368.9 350.0 386.0 350.2 348.9 360.2 384.2 393.7 395.0 397.9
    395.0 395.0 397.9 395.0 405.4 404.7 406.6 408.1 410.5 407.0
    401.0 395.0 395.0 385.3 370.1 350.2 297.9 250.0 243.2 240.3
    237.5 234.2 234.0 230.8 228.9 231.6 231.3 230.0 227.7 227.7
    227.7 232.1 237.1 240.8 244.1 247.1 248.9 265.2 289.3 301.0
    326.1 345.8 352.5 363.4 375.7 394.6 424.5 473.3 492.5 495.6
    496.1 497.6 526.6 570.6 594.8 595.1
106 352.6 346.0 385.2 361.4 347.6 350.3 380.2 398.1 403.4 407.7
    401.8 398.6 409.3 408.2 420.4 422.3 421.6 416.4 415.0 414.6
    404.8 398.3 395.0 395.0 385.6 359.0 326.0 280.0 246.7 240.8
    238.0 240.3 237.7 238.1 238.3 241.7 243.7 238.9 230.4 227.7
    230.9 234.2 239.8 243.1 246.5 244.1 248.6 261.5 284.1 316.3
    341.0 346.6 355.5 365.2 380.5 395.5 428.4 474.2 502.7 509.4
    496.7 496.7 502.6 563.8 595.1 595.1
107 349.6 349.3 358.1 347.8 346.2 354.5 373.7 396.2 414.4 427.9
    446.2 427.3 436.1 442.5 436.4 436.9 434.2 433.5 426.8 420.9
    412.6 398.6 395.0 395.0 385.8 359.4 334.5 291.8 251.1 244.1
    241.0 243.0 243.2 241.7 246.2 247.3 247.3 246.7 228.5 229.9
    231.9 234.7 241.0 244.1 246.1 244.1 245.4 262.4 282.1 322.7
    345.6 349.0 357.3 369.9 380.4 392.9 419.0 467.7 510.7 512.2
    492.9 491.5 496.7 538.4 595.1 595.1
108 362.4 381.0 351.0 345.8 346.3 365.4 388.6 403.9 424.6 435.3
    443.3 444.4 449.0 457.6 459.5 449.7 448.0 444.7 437.9 428.3
    416.7 399.1 395.0 395.0 383.5 358.7 322.8 285.9 247.3 247.3
    244.1 244.3 245.9 247.1 247.3 247.3 247.3 244.0 228.2 234.0
    237.2 240.2 243.1 245.0 247.3 247.2 247.3 248.3 291.5 330.1
    345.8 349.4 357.3 369.5 378.9 391.5 410.9 438.6 493.8 496.1
    474.2 463.6 499.3 531.6 584.3 592.3
109 392.4 388.8 348.7 346.3 361.6 378.0 402.5 425.2 440.2 446.5
    451.5 455.2 461.1 472.3 486.6 473.8 464.3 457.8 448.2 440.3
    425.6 408.0 395.0 394.4 378.8 355.9 338.6 307.6 272.8 247.3
    247.3 249.7 249.1 250.1 250.6 247.3 247.3 245.2 232.4 233.1
    237.9 241.0 244.6 246.6 246.7 248.3 249.3 249.4 295.7 340.6
    345.8 348.0 356.4 366.1 375.8 388.4 404.8 426.1 453.9 460.5
    448.2 455.9 496.5 524.2 574.1 595.1
110 395.0 385.0 345.8 346.1 375.3 390.7 423.3 449.9 460.1 465.8
    472.6 479.6 482.5 489.6 496.7 496.7 410.0 406.0 404.0 402.0
    400.0 398.0 396.0 394.0 390.0 380.0 370.0 360.0 350.0 258.5
    254.3 256.9 256.7 253.9 252.6 250.6 247.9 241.2 235.5 238.5
    243.4 245.3 248.0 247.5 247.4 260.3 268.9 279.4 296.7 334.3
    345.8 345.8 352.3 359.3 367.3 385.1 400.9 419.4 434.8 442.9
    444.2 451.8 496.7 518.4 571.9 595.1
      5       1       1                                STRESS PERIOD 1
```

**BLOCK CENTERED FLOW INPUT**

```
         1          0
ISS,IBCFCB
 1 3
         0       1.0                                    -1
TRPY
         0      500.                                       DELR
         0      500.                                       DELC
        11        1.(3x,10f6.0)                         1 HC LAY1
        12        1.(3x,10f6.1)                         1 BOT LAY1
        13        1.(3x,10f6.2)                         1 VC LAY1-2
         0       0.7                                     HY LAY2
        14        1.(3x,10f6.1)                         1 LAY2 BOT
        15        1.(3x,10f6.1)                         1 LAY2 TOP
```

## GLACIAL OUTWASH HYDRAULIC CONDUCTIVITIES ARRAY

1
50. 50. 50. 50. 50. 50. 100. 100. 100. 100.
100. 100. 100. 100. 50. 50. 50. 25. 25. 10.
10. 10. 10. 10. 10. 10. 10. 10. 10. 10.
10. 10. 10. 10. 10. 2. 2. 2. 2. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.

2
50. 50. 50. 50. 50. 50. 100. 100. 100. 100.
100. 100. 100. 100. 50. 50. 50. 25. 25. 25.
25. 25. 25. 25. 25. 25. 25. 25. 25. 25.
25. 25. 10. 10. 10. 2. 2. 2. 2. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.

3
1. 50. 50. 50. 50. 50. 50. 100. 100. 100.
100. 100. 100. 50. 50. 50. 25. 25. 25. 25.
25. 25. 25. 25. 25. 25. 25. 25. 25. 25.
25. 25. 10. 10. 10. 2. 2. 2. 2. 10.
10. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.

4
1. 50. 50. 50. 50. 50. 50. 50. 50. 100.
100. 100. 100. 50. 50. 50. 25. 25. 25. 25.
25. 25. 25. 25. 25. 25. 25. 25. 25. 25.
25. 25. 10. 10. 10. 10. 10. 2. 2. 10.
25. 25. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.

5
50. 50. 50. 50. 50. 50. 50. 50. 50. 50.
50. 100. 100. 100. 50. 50. 50. 25. 25. 25.
25. 25. 25. 25. 25. 25. 25. 25. 25. 25.
25. 25. 10. 10. 10. 10. 10. 2. 2. 10.
25. 25. 25. 50. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 50. 50. 50. 50. 50. 50. 50. 50. 50.
50. 50. 100. 100. 50. 50. 50. 25. 25. 25.
25. 25. 25. 25. 25. 25. 25. 25. 25. 25.
25. 25. 10. 10. 10. 10. 10. 2. 2. 10.
25. 25. 50. 50. 50. 25. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 50. 50. 50. 50. 50. 50.
50. 50. 100. 100. 100. 100. 50. 50. 50. 25.
25. 25. 25. 25. 25. 25. 25. 25. 25. 10.
10. 10. 10. 10. 10. 10. 10. 2. 2. 10.
25. 25. 50. 50. 50. 50. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 50. 50. 50. 50. 50. 50.
50. 50. 50. 100. 100. 100. 100. 50. 50. 50.

50. 50. 50. 50. 50. 25. 25. 25. 25. 10.
10. 10. 10. 10. 10. 10. 10. 2. 2. 10.
25. 25. 50. 50. 50. 50. 50. 50. 25. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 50. 50. 50. 50. 50. 50.
50. 50. 50. 50. 100. 100. 100. 50. 50. 50.
50. 50. 50. 50. 50. 50. 25. 25. 10. 10.
10. 10. 10. 10. 10. 10. 10. 2. 2. 10.
25. 25. 50. 50. 50. 50. 50. 50. 25. 25.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 50. 50. 50. 50. 50. 50.
50. 50. 50. 50. 50. 100. 100. 50. 50. 50.
50. 50. 50. 50. 50. 50. 25. 10. 10. 10.
10. 10. 10. 10. 10. 10. 2. 2. 2. 10.
25. 25. 50. 50. 50. 50. 50. 50. 50. 25.
25. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 25. 50. 50. 50. 50.
50. 50. 50. 50. 50. 100. 100. 50. 50. 50.
50. 50. 50. 50. 50. 25. 25. 10. 10. 10.
10. 10. 10. 10. 2. 2. 2. 2. 10. 25.
25. 25. 50. 50. 50. 50. 50. 50. 50. 25.
25. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 25. 50. 50. 50. 50.
50. 50. 50. 50. 50. 100. 100. 100. 100. 50.
50. 50. 50. 50. 50. 50. 25. 10. 10. 10.
10. 10. 10. 10. 10. 10. 10. 10. 25. 25.
25. 50. 50. 50. 50. 50. 50. 25. 25. 25.
25. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 25. 25. 50. 50. 50.
50. 50. 50. 50. 50. 50. 100. 100. 100. 100.
50. 50. 50. 50. 100. 50. 50. 25. 25. 10.
10. 10. 10. 25. 25. 50. 25. 25. 25. 50.
50. 50. 50. 50. 50. 50. 25. 10. 10. 25.
25. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 25. 25. 50. 50.
50. 50. 50. 50. 50. 50. 50. 100. 100. 100.
100. 100. 100. 100. 100. 100. 100. 50. 50. 25.
25. 25. 25. 50. 50. 50. 50. 50. 50. 50.
50. 50. 50. 50. 50. 25. 10. 10. 10. 10.
25. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 25. 25. 50. 50.
50. 50. 50. 50. 50. 50. 50. 100. 100. 100.
100. 100. 100. 100. 100. 100. 100. 100. 100. 50.
50. 50. 50. 51. 51. 51. 51. 51. 51. 51.
51. 51. 26. 26. 25. 10. 10. 10. 10. 10.
25. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.

1. 1. 1. 1. 1. 1. 25. 25. 25. 50.
50. 50. 50. 50. 50. 50. 50. 50. 100. 100.
100. 100. 100. 100. 100. 100. 100. 100. 100. 100.
100. 100. 100. 51. 51. 51. 51. 51. 51. 51.
51. 50. 50. 50. 25. 10. 10. 10. 10. 10.
25. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 25. 25. 50. 50.
50. 50. 50. 50. 50. 50. 50. 50. 50. 50.
100. 100. 100. 100. 100. 100. 100. 100. 50. 50.
50. 50. 50. 50. 51. 51. 51. 51. 51. 51.
51. 26. 26. 25. 10. 10. 10. 10. 10. 10.
25. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 25. 25. 50. 50.
50. 50. 50. 50. 50. 50. 50. 50. 50. 50.
50. 100. 100. 100. 100. 50. 50. 50. 50. 25.
10. 50. 50. 2. 51. 51. 51. 51. 51. 51.
51. 26. 26. 25. 10. 10. 10. 10. 10. 25.
25. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
19 1. 1. 1. 1. 1. 10. 10. 25. 25. 50.
50. 50. 50. 50. 50. 50. 50. 50. 50. 50.
50. 100. 100. 100. 50. 50. 50. 50. 50. 25.
2. 10. 50. 50. 51. 51. 51. 51. 51. 51.
26. 26. 26. 25. 10. 10. 10. 10. 10. 25.
25. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
20 1. 1. 1. 1. 1. 10. 10. 25. 25. 50.
50. 50. 50. 50. 50. 50. 50. 50. 50. 50.
50. 51. 51. 51. 26. 26. 26. 26. 25. 2.
2. 10. 25. 50. 50. 100. 100. 100. 100. 100.
50. 50. 50. 25. 10. 10. 10. 10. 10. 25.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 10. 10. 10. 25. 25.
25. 50. 50. 50. 50. 50. 50. 50. 50. 50.
50. 50. 50. 50. 50. 50. 50. 50. 2. 2.
2. 2. 10. 25. 50. 51. 51. 51. 51. 51.
26. 26. 26. 25. 10. 10. 10. 10. 10. 25.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 10. 10. 10. 25. 25.
25. 25. 25. 25. 50. 50. 50. 50. 50. 50.
50. 50. 50. 50. 50. 50. 50. 50. 25. 2.
2. 2. 10. 25. 26. 51. 51. 51. 51. 26.
26. 26. 26. 25. 10. 10. 10. 10. 10. 10.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 10. 10. 10. 10. 10.
25. 25. 25. 50. 50. 50. 50. 50. 50. 50.
50. 50. 50. 50. 50. 50. 50. 25. 25. 10.
10. 10. 25. 25. 50. 51. 51. 51. 51. 26.
26. 26. 26. 25. 25. 25. 10. 10. 10. 10.

1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 10. 10. 10. 10.
10. 10. 25. 25. 25. 50. 50. 50. 50. 50.
50. 50. 50. 50. 25. 25. 25. 25. 25. 25.
10. 10. 10. 25. 50. 50. 51. 51. 51. 26.
26. 26. 26. 25. 25. 25. 25. 10. 10. 10.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 10. 2. 2. 2.
10. 10. 10. 25. 25. 50. 50. 50. 50. 50.
50. 50. 50. 25. 25. 25. 25. 25. 25. 25.
10. 10. 10. 10. 25. 50. 51. 51. 51. 26.
26. 26. 26. 25. 25. 25. 25. 25. 25. 25.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 2. 2. 2.
2. 10. 10. 25. 25. 25. 25. 50. 50. 50.
50. 50. 50. 25. 25. 25. 25. 25. 25. 25.
10. 10. 10. 10. 10. 50. 50. 51. 51. 26.
26. 26. 25. 25. 10. 25. 25. 25. 25. 25.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 2. 10. 2.
2. 2. 10. 10. 25. 25. 50. 50. 50. 50.
50. 50. 25. 25. 25. 25. 25. 25. 25. 25.
25. 10. 10. 10. 10. 10. 50. 50. 51. 26.
26. 26. 25. 10. 10. 10. 10. 25. 25. 2.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 2. 2.
2. 2. 10. 10. 25. 50. 50. 50. 50. 50.
50. 50. 25. 25. 25. 25. 25. 25. 25. 10.
25. 25. 10. 10. 10. 10. 10. 50. 51. 26.
26. 25. 10. 10. 10. 10. 10. 10. 10. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 2. 2.
2. 2. 10. 10. 25. 50. 50. 50. 50. 50.
50. 50. 25. 50. 50. 25. 25. 25. 25. 10.
10. 25. 10. 10. 10. 10. 10. 10. 25. 50.
50. 25. 10. 10. 10. 10. 10. 10. 2. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 2. 2.
2. 2. 10. 10. 25. 25. 50. 50. 50. 50.
50. 25. 25. 50. 50. 25. 25. 25. 25. 10.
10. 10. 10. 10. 10. 10. 10. 10. 25. 50.
50. 25. 10. 10. 10. 10. 10. 10. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 2. 10.
2. 2. 10. 10. 25. 25. 50. 50. 50. 50.
50. 25. 25. 50. 50. 50. 25. 25. 25. 10.

2. 2. 2. 2. 10. 25. 50. 50. 100. 50.
50. 25. 10. 10. 10. 10. 10. 2. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 10. 10.
2. 2. 10. 10. 25. 50. 50. 50. 50. 50.
25. 25. 25. 50. 50. 50. 50. 25. 25. 10.
2. 2. 2. 2. 2. 2. 25. 50. 50. 50.
50. 50. 25. 10. 10. 10. 10. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 2. 2. 2.
2. 2. 10. 25. 25. 50. 50. 50. 50. 50.
25. 25. 50. 50. 50. 25. 25. 25. 10. 2.
2. 2. 2. 2. 2. 10. 25. 50. 50. 50.
50. 50. 50. 10. 2. 10. 2. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 10. 10. 10. 10.
2. 10. 25. 50. 50. 50. 50. 50. 50. 50.
25. 25. 50. 50. 25. 25. 25. 25. 25. 10.
2. 2. 2. 2. 2. 10. 25. 50. 50. 50.
50. 50. 50. 25. 2. 2. 2. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 25. 25. 25. 25.
10. 10. 25. 50. 50. 50. 50. 50. 50. 50.
10. 25. 25. 25. 25. 25. 25. 25. 10. 2.
2. 2. 2. 10. 25. 50. 50. 100. 100. 100.
50. 50. 50. 25. 2. 2. 2. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 10. 10. 10. 25.
25. 25. 50. 50. 50. 50. 50. 50. 50. 50.
10. 10. 25. 25. 25. 25. 25. 25. 25. 25.
25. 25. 25. 25. 50. 50. 50. 100. 100. 100.
100. 100. 50. 25. 10. 10. 2. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 10. 10. 10. 10. 10.
50. 50. 50. 50. 50. 50. 50. 50. 50. 25.
10. 10. 10. 10. 10. 10. 10. 10. 10. 25.
25. 25. 25. 50. 50. 50. 100. 100. 100. 100.
100. 100. 50. 25. 10. 10. 10. 2. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 10. 25. 25. 25. 25.
50. 50. 50. 50. 50. 50. 50. 50. 50. 50.
10. 10. 10. 10. 10. 10. 10. 10. 10. 25.
25. 25. 25. 50. 50. 100. 100. 100. 100. 100.
100. 100. 50. 25. 10. 10. 10. 10. 2. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 10. 25. 50. 50. 50.

```
     50.   50.   50.   50.   50.   50.   50.   50.   50.   50.
     25.   10.   10.   10.   10.   10.   10.   10.   10.   25.
     10.   25.   25.   50.   50.  100.  100.  100.  100.  100.
    100.  100.   50.   25.   10.   10.   10.   10.    2.    1.
      1.    1.    1.    1.    1.    1.    1.    1.    1.    1.
      1.    1.    1.    1.    1.    1.
40    1.    1.    1.    1.   25.   25.   50.   50.   50.   50.
     50.   50.   50.   50.   50.   50.   50.   50.   50.   50.
     50.   10.   10.   10.   10.   10.    2.    2.   10.   10.
     10.   10.   25.   50.   50.  100.  100.  100.  100.  100.
    100.  100.   50.   25.   10.   10.   10.   10.    2.    1.
      1.    1.    1.    1.    1.    1.    1.    1.    1.    1.
      1.    1.    1.    1.    1.    1.
41    1.    1.    1.    1.   25.   50.   50.   50.   50.   50.
     50.   50.   50.   50.   50.   50.   50.   50.   50.   50.
     50.   10.   10.   10.   10.   10.    2.    2.    2.    2.
     10.   10.   10.   25.   50.  100.  100.  100.  100.  100.
    100.  100.   50.   25.   10.   10.   10.   10.    2.    1.
      1.    1.    1.    1.    1.    1.    1.    1.    1.    1.
      1.    1.    1.    1.    1.    1.
      1.    1.    1.    1.   25.   50.   50.   50.   50.   50.
     50.   50.   50.   50.   50.   50.   50.   50.   50.   50.
     50.   50.   10.   10.   10.   10.    2.    2.    2.    2.
      2.   10.   10.   25.   50.  100.  100.  100.  100.  100.
    100.  100.   50.   25.   10.   10.   10.   10.    1.    1.
      1.    1.    1.    1.    1.    1.    1.    1.    1.    1.
      1.    1.    1.    1.    1.    1.
      1.    1.    1.   25.   25.   50.   25.   25.   25.   50.
     50.   50.   50.   50.   50.   50.   50.   50.   50.   50.
     50.   50.   10.   10.   10.    2.    2.    2.    2.    2.
      2.   10.   10.   25.   50.  100.  100.  100.  100.  100.
    100.   50.   50.   10.   10.   10.   10.   10.    1.    1.
      1.    1.    1.    1.    1.    1.    1.    1.    1.    1.
      1.    1.    1.    1.    1.    1.
     10.    1.    1.   25.   25.   50.   25.   25.   25.   25.
     25.   50.   50.   50.   50.   50.   50.   50.   50.   50.
     50.   50.   10.    2.    2.    2.    2.    2.    2.    2.
     10.   10.   10.   25.   50.   50.  100.  100.  100.   50.
     50.   50.   25.   10.   10.   10.   10.    2.    1.    1.
      1.    1.    1.    1.    1.    1.    1.    1.    1.    1.
      1.    1.    1.    1.    1.    1.
     10.   10.   10.   25.   25.   50.   25.   25.   10.   10.
     10.   25.   25.   25.   25.   25.   25.   50.   50.   50.
     50.   50.   10.   10.    2.    2.    2.    2.    2.    2.
      2.   10.    2.   10.   25.   50.   50.   50.   50.   50.
     50.   25.   10.   10.   10.   10.   10.    1.    1.    1.
      1.    1.    1.    1.    1.    1.    1.    1.    1.    1.
      1.    1.    1.    1.    1.    1.
45    10.   10.   10.   10.   25.   50.   25.   10.    2.    2.
      2.   10.   10.   25.   25.   25.   25.   25.   25.   50.
     50.   50.   25.   10.   10.   10.    2.    2.    2.    2.
      2.    2.    2.   10.   25.   50.   50.   50.   50.   25.
     25.   25.   25.   10.   10.   10.   10.    1.    1.    1.
      1.    1.    1.    1.    1.    1.    1.    1.    1.    1.
```

1. 1. 1. 1. 1. 1.
10. 10. 10. 10. 10. 50. 25. 10. 2. 2.
2. 2. 2. 10. 25. 10. 10. 25. 25. 25.
50. 50. 50. 50. 25. 10. 10. 10. 10. 2.
2. 2. 2. 10. 25. 25. 25. 25. 25. 25.
25. 25. 10. 10. 10. 10. 2. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
10. 10. 50. 50. 50. 50. 25. 10. 2. 2.
2. 2. 2. 10. 25. 10. 10. 10. 25. 25.
25. 50. 50. 50. 50. 25. 25. 25. 25. 10.
10. 10. 10. 10. 25. 25. 25. 25. 25. 25.
25. 25. 10. 10. 10. 10. 2. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
10. 25. 50. 25. 10. 10. 10. 10. 2. 2.
10. 2. 2. 10. 25. 25. 10. 10. 25. 25.
25. 25. 50. 50. 50. 50. 50. 50. 25. 25.
25. 25. 25. 25. 25. 25. 25. 25. 25. 25.
25. 25. 10. 10. 10. 10. 2. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
10. 25. 50. 10. 10. 10. 10. 10. 2. 10.
10. 2. 10. 25. 25. 25. 10. 10. 10. 10.
25. 25. 25. 50. 50. 50. 50. 50. 50. 50.
50. 50. 50. 50. 50. 50. 50. 50. 25. 25.
25. 25. 10. 10. 10. 10. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
50 10. 10. 50. 50. 50. 50. 10. 10. 10. 25.
25. 10. 25. 25. 25. 25. 25. 10. 10. 10.
25. 25. 25. 10. 10. 50. 50. 50. 50. 50.
50. 50. 50. 50. 50. 50. 50. 50. 50. 25.
25. 10. 10. 10. 10. 10. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
10. 10. 10. 10. 10. 50. 25. 50. 50. 50.
25. 25. 25. 25. 25. 25. 25. 10. 2. 10.
10. 25. 25. 10. 10. 10. 25. 25. 50. 50.
50. 50. 50. 50. 50. 50. 50. 50. 50. 25.
25. 10. 10. 10. 10. 10. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
10. 10. 25. 25. 25. 50. 50. 50. 50. 50.
50. 50. 50. 50. 50. 25. 25. 5. 5. 5.
5. 5. 5. 25. 5. 5. 5. 5. 5. 50.
50. 50. 50. 50. 50. 50. 50. 50. 25. 25.
25. 10. 10. 10. 10. 10. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
10. 10. 25. 25. 50. 50. 50. 50. 50. 50.
50. 50. 50. 50. 50. 50. 25. 25. 10. 10.
2. 2. 10. 5. 5. 5. 5. 5. 5. 5.
50. 50. 50. 50. 50. 50. 50. 50. 25. 25.

```
     25.  10.  10.  10.  10.  10.   1.   1.   1.   1.
      1.   1.   1.   1.   1.   1.   1.   1.   1.   1.
      1.   1.   1.   1.   1.   1.
     10.  10.  10.  25.  50.  50.  50.  50.  50.  50.
     50.  50.  50.  50.  50.  50.  50.  25.  10.  10.
      2.  10.  10.   5.   5.   5.   5.   5.   5.   5.
      5.  50.  50.  50.  50.  50.  50.  50.  25.  25.
     25.  10.  10.  10.  10.  10.   1.   1.   1.   1.
      1.   1.   1.   1.   1.   1.   1.   1.   1.   1.
      1.   1.   1.   1.   1.   1.
55    1.   1.  10.  25.  50.  50.  50.  50.  50.  50.
     50.  50.  50.  50.  50.  50.  50.  50.  25.  25.
     10.  10.  10.   5.   5.   5.   5.   5.   5.   5.
      5.  14.  14.  14.  25.  50.  50.  50.  25.  25.
     10.  10.  10.  10.  10.  10.   1.   1.   1.   1.
      1.   1.   1.   1.   1.   1.   1.   1.   1.   1.
      1.   1.   1.   1.   1.   1.
      1.   1.  10.  25.  50.  50.  50.  50.  50.  50.
     50.  50.  50.  50.  50.  50.  50.  50.  50.  25.
     25.  25.  25.   5.   5.   5.   5.   5.   5.   5.
      5.  14.  14.  14.  25.  50.  50.  50.  25.  25.
     10.  10.  10.  10.  10.  10.   1.   1.   1.   1.
      1.   1.   1.   1.   1.   1.   1.   1.   1.   1.
      1.   1.   1.   1.   1.   1.
      1.   1.  10.  10.  25.  50.  50.  50.  50.  50.
     50.  50.  50.  50.  50.  50.  50.  50.  50.  25.
     25.  25.  25.  25.   5.   5.   5.   5.   5.   5.
      5.  14.  14.  14.  50.  50.  50.  50.  25.  25.
     10.  10.  10.  10.  10.  10.   1.   1.   1.   1.
      1.   1.   1.   1.   1.   1.   1.   1.   1.   1.
      1.   1.   1.   1.   1.   1.
      1.   1.  10.  10.  25.  50.  50.  50.  50.  50.
     50.  50.  50.  50.  50.  50.  50.  50.  50.  25.
     25.   5.   5.   5.   5.   5.   5.   5.   5.   5.
      5.  14.  14.  14.  50.  50.  50.  50.  25.  25.
     10.  10.  10.  10.  10.  10.  10.   1.   1.   1.
      1.   1.   1.   1.   1.   1.   1.   1.   1.   1.
      1.   1.   1.   1.   1.   1.
      1.   1.  10.  25.  25.  50.  50.  50.  50.  50.
     50.  50.  50.  50.  50.  50.  50.  50.  50.  25.
     10.   5.   5.   5.   5.   5.   5.   5.   5.   5.
      5.  14.  14.  14.  50.  50.  50.  50.  50.  25.
     10.  10.  10.  10.  10.  10.  10.   1.   1.   1.
      1.   1.   1.   1.   1.   1.   1.   1.   1.   1.
      1.   1.   1.   1.   1.   1.
60    1.   1.  10.  25.  25.  50.  50.  50.  50.  50.
     50.  50.  50.  50.  50.  50.  50.  50.  50.  25.
     24.  24.  24.  24.  24.  24.  24.  24.  24.  24.
     50.  50.  50.  50.  50.  50.  50.  50.  50.  50.
     25.  10.  10.  10.  10.  10.  10.   1.   1.   1.
      1.   1.   1.   1.   1.   1.   1.   1.   1.   1.
      1.   1.   1.   1.   1.   1.
61    1.   1.  10.  25.  25.  50.  50.  50.  50.  50.
     50.  50.  50.  50.  50.  50.  50.  50.  25.  25.
```

24. 24. 24. 24. 24. 24. 24. 24. 50. 50.
50. 50. 50. 50. 50. 50. 50. 50. 50. 50.
50. 25. 10. 10. 10. 10. 10. 10. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 25. 25. 25. 25. 25. 50. 50. 50.
50. 50. 50. 50. 50. 50. 25. 25. 25. 25.
25. 25. 5. 5. 5. 5. 10. 50. 50. 50.
50. 50. 50. 50. 50. 50. 50. 50. 50. 50.
50. 25. 10. 10. 10. 10. 10. 10. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 25. 25. 25. 25. 25. 25. 50. 25.
25. 25. 25. 25. 25. 10. 25. 25. 25. 25.
25. 25. 24. 24. 24. 25. 24. 50. 50. 50.
50. 50. 50. 50. 50. 50. 50. 50. 50. 50.
50. 25. 10. 10. 10. 10. 10. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 25. 25. 25. 25. 25. 25. 25. 25.
25. 25. 25. 25. 25. 25. 25. 25. 25. 25.
25. 25. 25. 24. 24. 25. 50. 50. 50. 50.
50. 50. 50. 50. 50. 50. 50. 50. 50. 50.
50. 25. 10. 10. 10. 10. 10. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
65 1. 1. 25. 25. 25. 25. 25. 25. 25. 25.
25. 25. 25. 25. 25. 25. 25. 25. 25. 25.
25. 25. 25. 10. 25. 25. 50. 50. 50. 25.
25. 25. 50. 25. 25. 50. 50. 50. 50. 50.
50. 50. 25. 10. 10. 10. 10. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 25. 25. 25. 25. 25. 25. 25.
25. 10. 25. 25. 25. 25. 25. 25. 25. 25.
25. 25. 25. 25. 25. 25. 25. 25. 25. 10.
10. 10. 25. 25. 25. 25. 50. 50. 50. 50.
50. 50. 25. 10. 10. 10. 10. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 25. 25. 25. 25. 25. 25. 25.
25. 25. 25. 25. 25. 25. 25. 25. 25. 25.
25. 25. 25. 25. 10. 10. 10. 10. 10. 10.
10. 10. 10. 10. 25. 25. 25. 50. 50. 50.
50. 50. 25. 10. 10. 10. 10. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 25. 25. 25. 25. 25. 25. 25.
25. 25. 25. 25. 25. 25. 25. 25. 25. 25.
25. 25. 25. 25. 10. 10. 10. 10. 10. 10.
10. 10. 10. 10. 10. 25. 25. 50. 50. 50.
50. 50. 25. 10. 10. 10. 10. 10. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.

```
      1.   1.  25.  25.  25.  25.  25.  25.  25.  25.
     25.  25.  25.  25.  25.  25.  25.  25.  25.  25.
     25.  25.  25.  25.  10.  10.  10.  10.  10.  10.
     10.  10.  10.  10.  10.  10.  25.  50.  50.  50.
     50.  50.  50.  10.  10.  10.  10.  10.  10.  10.
     10.   1.   1.   1.   1.   1.   1.   1.   1.   1.
      1.   1.   1.   1.   1.   1.
70   25.  25.  25.  25.  25.  25.  25.  25.  25.  25.
     25.  25.  25.  25.  25.  25.  25.  25.  25.  10.
     25.  25.  25.  25.  10.  10.  10.  10.  10.  10.
     10.  10.  10.  10.  10.  10.  25.  50.  50.  50.
     50.  50.  50.  10.  10.  10.  10.  10.  10.  10.
     10.   1.   1.   1.   1.   1.   1.   1.   1.   1.
      1.   1.   1.   1.   1.   1.
     25.  25.  25.  25.  25.  25.  25.  25.  25.  25.
     25.  25.  25.  25.  25.  25.  25.  25.  10.  10.
     10.  10.  25.  25.  10.  10.  10.  10.  10.  10.
     10.  10.  10.  10.  10.  10.  25.  50.  50.  50.
     50.  50.  50.  10.  10.  10.  10.  10.  10.  10.
     10.  10.  10.  10.   1.   1.   1.   1.   1.   1.
      1.   1.   1.   1.   1.   1.
      1.   1.  25.  25.  25.  25.  25.  25.  25.  25.
     25.  25.  25.  25.  25.  25.  25.  25.  10.  10.
     10.  10.  25.  25.  10.  10.  10.  10.  10.  10.
     10.  10.  10.  10.  10.  10.  25.  50.  50.  50.
     50.  50.  50.  25.  25.  25.  10.  10.  10.  10.
     10.  10.  10.  10.   1.   1.   1.   1.   1.   1.
      1.   1.   1.   1.   1.   1.
      1.   1.  25.  25.  25.  25.  25.  25.  25.  25.
     25.  25.  25.  25.  25.  25.  25.  25.  10.  10.
     10.  10.  10.  25.  10.  10.  10.  10.  10.  10.
     10.  10.  10.  10.  10.  10.  25.  50.  50.  50.
     50.  50.  50.  25.  10.  10.  10.  10.  10.  10.
     10.  10.  10.  10.  10.  10.  10.   1.   1.   1.
      1.   1.   1.   1.   1.   1.
      1.   1.   1.  25.  25.  25.  25.  25.  25.  25.
     25.  25.  25.  25.  25.  25.  25.  25.  10.  10.
     10.  10.  10.  25.  10.  10.  10.  10.  10.  10.
     10.  10.  10.  10.  10.  10.  25.  50.  50.  50.
     50.  50.  50.  50.  25.  10.  10.  10.  10.  10.
     10.  10.  10.  10.  10.  10.  10.   1.   1.   1.
      1.   1.   1.   1.   1.   1.
75    1.   1.   1.   1.  50.  10.  25.  25.  25.  25.
     25.  25.  25.  25.  25.  25.  25.  25.  25.  10.
     10.  10.  25.  25.  25.  25.  25.  10.  10.  10.
     10.  10.  10.  10.  10.  10.  25.  50.  50.  50.
     50.  50.  50.  50.  25.  25.  10.  10.  10.  10.
      2.  10.  10.  10.  10.  10.  10.   1.   1.   1.
      1.   1.   1.   1.   1.   1.
      1.   1.   1.   1.   1.  10.  25.  25.  25.  25.
      9.   9.   9.   9.   9.  25.  25.  25.  25.  25.
     25.  25.  25.  25.  25.  25.  25.  10.  10.  10.
     10.  10.  10.  10.  10.  10.  25.  50.  50.  50.
     50.  50.  50.  50.  25.  25.  25.  10.  10.  10.
```

10. 10. 10. 10. 10. 10. 10. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 10. 10. 25. 25. 25.
9. 9. 9. 9. 9. 25. 25. 25. 25. 25.
25. 25. 25. 25. 25. 25. 25. 10. 10. 10.
10. 10. 10. 10. 10. 10. 25. 50. 50. 50.
50. 50. 50. 50. 50. 25. 25. 25. 25. 10.
10. 10. 10. 10. 10. 10. 10. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 10. 25. 25. 25.
9. 9. 9. 9. 9. 25. 25. 25. 25. 25.
25. 25. 25. 25. 25. 25. 10. 10. 10. 10.
10. 10. 10. 10. 10. 10. 25. 50. 50. 50.
50. 50. 50. 50. 50. 50. 25. 25. 25. 25.
10. 10. 10. 10. 10. 10. 10. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 10. 25. 25. 25.
9. 9. 9. 9. 9. 25. 25. 25. 25. 25.
25. 25. 25. 25. 25. 25. 10. 10. 10. 10.
10. 10. 10. 10. 10. 10. 25. 25. 50. 50.
50. 50. 50. 50. 50. 50. 25. 25. 25. 25.
10. 10. 10. 10. 10. 10. 10. 1. 1. 1.
1. 1. 1. 1. 1. 1.
80 1. 1. 1. 1. 1. 1. 10. 25. 25. 25.
9. 9. 9. 9. 9. 10. 10. 25. 25. 25.
25. 25. 25. 25. 25. 25. 25. 10. 10. 10.
10. 10. 10. 10. 10. 10. 10. 25. 50. 50.
50. 50. 50. 50. 50. 50. 25. 25. 25. 25.
10. 10. 10. 10. 10. 10. 10. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 25. 25. 25.
25. 25. 25. 25. 25. 10. 10. 10. 25. 25.
25. 25. 25. 25. 25. 25. 25. 25. 10. 10.
10. 10. 10. 10. 10. 10. 10. 25. 50. 50.
50. 50. 50. 50. 50. 50. 25. 25. 25. 25.
10. 10. 10. 10. 10. 10. 10. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 25. 25. 25.
25. 25. 25. 25. 25. 10. 10. 25. 25. 25.
25. 25. 25. 25. 25. 25. 25. 25. 25. 25.
10. 10. 10. 10. 10. 10. 10. 25. 50. 50.
50. 50. 50. 50. 50. 50. 25. 25. 25. 25.
10. 10. 10. 10. 10. 10. 10. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 25. 25. 10. 10. 10.
25. 25. 25. 25. 50. 50. 50. 25. 25. 25.
25. 25. 25. 25. 25. 25. 25. 25. 25. 25.

10. 10. 10. 10. 10. 10. 10. 25. 50. 50.
50. 50. 50. 50. 50. 50. 25. 25. 25. 25.
25. 10. 10. 10. 10. 10. 10. 10. 10. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 25. 25. 10. 10. 10.
10. 25. 25. 25. 25. 25. 50. 50. 25. 25.
25. 25. 25. 25. 25. 25. 25. 25. 25. 25.
10. 10. 10. 10. 10. 10. 10. 25. 25. 50.
50. 50. 50. 50. 50. 50. 25. 25. 25. 25.
25. 10. 10. 10. 10. 10. 10. 10. 10. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 10. 10. 10. 10.
10. 10. 25. 25. 25. 25. 50. 50. 25. 25.
25. 25. 25. 25. 25. 25. 25. 25. 25. 25.
10. 10. 10. 10. 10. 10. 10. 10. 25. 50.
50. 50. 50. 50. 50. 50. 50. 25. 25. 25.
25. 10. 10. 10. 10. 10. 10. 10. 10. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 10. 10. 10. 10.
10. 10. 10. 25. 25. 25. 25. 50. 50. 50.
25. 25. 25. 25. 25. 25. 25. 25. 25. 25.
25. 10. 10. 10. 10. 10. 10. 10. 25. 25.
50. 50. 50. 50. 50. 50. 50. 25. 25. 25.
25. 10. 10. 10. 10. 10. 10. 10. 10. 10.
2. 2. 2. 1. 1. 1.
1. 1. 1. 1. 1. 1. 10. 10. 10. 10.
10. 10. 10. 10. 10. 10. 10. 25. 25. 50.
50. 50. 25. 25. 25. 25. 25. 25. 25. 25.
25. 25. 10. 10. 10. 10. 10. 10. 10. 25.
50. 50. 50. 50. 50. 50. 50. 25. 25. 25.
25. 10. 10. 10. 10. 10. 10. 10. 10. 10.
2. 2. 2. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 10. 10. 10.
10. 10. 10. 10. 10. 10. 10. 10. 10. 25.
50. 50. 50. 25. 25. 25. 25. 25. 25. 25.
25. 25. 10. 10. 10. 10. 10. 10. 10. 50.
50. 50. 50. 50. 50. 50. 50. 25. 25. 25.
25. 10. 10. 10. 10. 10. 10. 10. 10. 10.
2. 2. 2. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 10. 10.
10. 10. 10. 10. 10. 10. 10. 10. 10. 10.
10. 25. 50. 50. 50. 25. 25. 25. 25. 25.
25. 25. 10. 10. 10. 10. 10. 10. 10. 50.
50. 50. 50. 50. 50. 50. 50. 25. 25. 25.
25. 10. 10. 10. 10. 10. 10. 10. 10. 10.
2. 2. 2. 2. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 10.
10. 10. 10. 10. 10. 10. 10. 10. 10. 10.
10. 10. 25. 50. 50. 50. 25. 25. 25. 25.
25. 25. 10. 10. 10. 10. 10. 10. 10. 50.
50. 50. 50. 50. 50. 50. 50. 25. 25. 25.
25. 10. 10. 10. 10. 10. 10. 10. 10. 10.
2. 2. 2. 2. 2. 2.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.

10. 10. 10. 10. 10. 10. 10. 10. 10. 10.
10. 10. 25. 50. 50. 50. 25. 25. 25. 25.
25. 25. 10. 10. 10. 10. 10. 10. 10. 50.
50. 50. 50. 50. 50. 50. 50. 25. 25. 25.
25. 10. 10. 10. 10. 10. 10. 10. 10. 10.
2. 2. 2. 2. 2. 2.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 10. 10. 10. 10. 10. 10. 10. 10. 10.
10. 10. 25. 50. 50. 50. 50. 25. 25. 25.
25. 10. 10. 10. 10. 10. 10. 10. 10. 50.
50. 50. 50. 50. 50. 50. 50. 25. 25. 25.
25. 10. 10. 10. 10. 10. 10. 10. 10. 10.
2. 2. 2. 2. 2. 2.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 10. 10. 10. 10. 10. 10. 10. 10.
10. 10. 10. 25. 50. 50. 50. 25. 25. 25.
10. 10. 10. 10. 10. 10. 10. 10. 10. 50.
50. 50. 50. 50. 50. 50. 50. 25. 25. 25.
25. 10. 10. 10. 10. 10. 10. 10. 10. 10.
2. 2. 2. 2. 2. 2.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 10. 10. 10. 10. 10. 10. 10.
10. 10. 10. 10. 50. 50. 50. 25. 25. 25.
10. 10. 10. 10. 10. 10. 10. 10. 10. 50.
50. 50. 50. 50. 50. 50. 50. 25. 25. 25.
25. 10. 10. 10. 10. 10. 10. 10. 10. 10.
2. 2. 2. 2. 2. 2.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 10. 10. 10. 10. 10. 10. 10.
10. 10. 10. 10. 25. 50. 50. 50. 25. 25.
10. 10. 10. 10. 10. 10. 10. 10. 10. 50.
50. 50. 50. 50. 50. 50. 50. 25. 25. 25.
25. 10. 10. 10. 10. 10. 10. 10. 10. 10.
2. 2. 2. 1. 1. 2.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 10. 10. 10. 10. 10. 10.
10. 10. 10. 10. 10. 25. 50. 50. 25. 25.
10. 10. 10. 10. 10. 10. 10. 10. 10. 50.
50. 50. 50. 50. 50. 50. 50. 25. 25. 25.
25. 10. 10. 10. 10. 10. 10. 10. 10. 10.
2. 2. 2. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 10. 10. 10. 10. 10.
10. 10. 10. 10. 10. 10. 25. 50. 50. 50.
10. 10. 10. 10. 10. 10. 10. 10. 10. 50.
50. 50. 50. 50. 50. 50. 50. 25. 25. 25.
25. 10. 10. 10. 10. 10. 10. 10. 10. 10.
2. 2. 2. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 10. 10. 10. 10.
10. 10. 10. 10. 10. 10. 25. 25. 50. 50.
10. 10. 10. 10. 10. 10. 10. 10. 10. 50.
50. 50. 50. 50. 50. 50. 50. 25. 25. 25.
25. 10. 10. 10. 10. 10. 10. 10. 10. 10.

2. 2. 2. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 10. 10. 10.
10. 10. 10. 10. 10. 10. 25. 25. 50. 50.
50. 10. 10. 10. 10. 10. 10. 10. 25. 50.
50. 50. 50. 50. 50. 50. 50. 25. 25. 25.
10. 10. 10. 10. 10. 10. 10. 10. 10. 2.
2. 2. 2. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 10. 10. 10.
10. 10. 10. 10. 10. 10. 25. 25. 25. 50.
50. 50. 10. 10. 10. 10. 10. 10. 25. 50.
50. 50. 50. 50. 50. 50. 50. 25. 25. 25.
10. 10. 10. 10. 10. 10. 10. 10. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 10. 10. 10.
10. 10. 10. 10. 10. 10. 10. 25. 25. 25.
50. 50. 50. 25. 10. 10. 10. 25. 25. 25.
50. 50. 50. 50. 50. 50. 50. 25. 25. 10.
2. 10. 10. 10. 10. 10. 10. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 10. 10. 10.
10. 10. 10. 10. 10. 10. 10. 25. 25. 25.
50. 50. 50. 50. 25. 25. 25. 25. 25. 25.
50. 50. 50. 50. 50. 50. 25. 25. 25. 25.
2. 10. 10. 10. 10. 10. 10. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 10. 10. 10.
10. 10. 10. 10. 10. 10. 10. 25. 25. 25.
25. 50. 50. 50. 50. 50. 50. 25. 25. 50.
50. 50. 50. 50. 50. 50. 25. 25. 25. 1.
1. 1. 1. 10. 10. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 10. 10. 10. 10.
10. 10. 10. 10. 10. 10. 10. 10. 25. 25.
25. 25. 50. 50. 50. 50. 50. 50. 50. 50.
50. 50. 50. 50. 50. 25. 25. 25. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 10. 10. 10. 10.
10. 10. 10. 10. 10. 10. 10. 10. 10. 25.
25. 25. 25. 50. 50. 50. 50. 50. 50. 50.
50. 50. 50. 50. 25. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 10. 10. 10. 10. 10.
10. 10. 10. 10. 10. 10. 10. 10. 10. 10.
25. 25. 25. 50. 50. 50. 50. 50. 50. 50.

50. 50. 25. 25. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 10. 10. 10. 10. 10.
10. 10. 10. 10. 10. 10. 10. 10. 10. 10.
1. 1. 1. 50. 50. 50. 50. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
1. 1. 1. 1. 1. 1.

## GLACIAL OUTWASH BOTTOM ELEVATION ARRAY

1 198.0 198.0 175.0 155.0 125.0 110.0 109.0 109.0 112.0 115.0 LAY1 BOT
135.0 145.0 155.0 160.0 165.0 170.0 175.0 180.0 187.0 186.0
188.0 190.0 195.0 200.0 210.0 213.0 216.0 219.0 215.0 220.0
220.0 220.0 225.0 230.0 250.0 261.7 260.2 277.0 312.1 255.0
211.0 211.0 215.0 217.0 215.0 212.0 211.0 209.0 205.0 198.0
188.0 186.0 195.0 205.0 209.0 215.0 221.0 225.0 228.0 231.0
231.0 231.0 230.0 230.0 231.0 232.0
198.0 197.7 178.3 153.1 127.5 113.1 109.9 109.2 109.2 119.8
133.3 147.6 155.5 159.0 161.7 170.6 175.2 204.5 209.4 192.0
195.1 198.1 201.1 204.1 210.0 219.0 219.5 219.6 220.0 220.1
220.4 221.5 225.4 235.2 240.1 245.1 245.1 251.1 291.8 272.8
225.0 211.3 214.6 217.0 215.6 212.0 210.3 209.1 205.3 197.1
188.1 186.8 193.7 203.4 209.6 214.0 220.1 225.7 228.7 231.1
231.3 230.7 230.0 230.3 231.7 232.0
205.0 204.3 197.5 181.6 159.5 137.0 121.4 112.7 109.0 105.0
109.0 127.6 142.3 151.8 157.7 164.8 177.5 190.0 190.0 190.0
195.0 200.0 210.4 211.7 214.8 217.3 218.5 219.3 219.8 220.0
220.6 222.0 228.1 239.6 253.3 275.7 290.7 284.0 299.0 270.1
214.5 211.2 214.4 216.3 214.4 211.1 210.0 207.0 199.1 189.5
187.7 191.8 200.4 206.9 210.8 216.4 225.0 233.0 238.6 239.9
237.3 232.7 230.4 230.7 234.0 235.0
208.0 207.6 207.0 202.3 193.2 176.4 151.0 130.0 117.5 112.0
105.0 105.0 120.7 136.5 150.2 158.0 165.5 178.9 192.0 203.1
206.8 205.0 210.0 210.5 211.6 214.1 216.7 218.5 219.4 219.7
220.8 225.0 233.8 247.5 257.1 276.0 321.5 336.0 326.9 260.0
217.2 211.6 214.1 215.5 212.9 210.7 208.1 202.8 191.6 187.2
191.4 200.6 207.1 211.3 214.6 222.8 234.6 244.7 249.1 250.2
244.7 236.2 231.3 231.2 235.0 236.0
5 210.0 209.4 209.4 209.7 208.6 200.7 183.6 160.6 142.3 124.7
114.7 109.0 105.0 109.0 133.4 147.0 154.6 165.3 177.6 189.7
198.4 204.0 208.6 210.0 210.3 211.3 213.7 216.2 217.8 218.7
220.5 225.3 237.6 251.5 259.7 266.4 338.7 346.0 329.0 280.0
212.0 211.4 214.9 215.9 213.1 209.8 204.9 194.8 189.4 192.0
199.9 206.6 212.4 217.0 222.7 233.4 247.7 254.1 256.8 256.2
249.4 238.9 232.5 232.9 238.2 237.0
220.0 218.9 216.0 213.0 210.0 206.8 199.4 188.2 170.2 152.1
131.4 117.1 109.0 105.0 109.0 120.0 146.6 158.0 164.5 169.2
175.6 187.5 198.0 203.9 208.5 210.3 211.2 212.9 214.7 216.8
219.6 225.3 238.5 252.3 261.6 273.0 330.0 346.0 329.0 266.0
205.0 215.0 220.0 215.2 212.8 209.4 201.3 192.3 192.4 200.6
206.3 210.4 216.7 223.9 232.2 244.0 253.9 259.1 259.6 253.6
249.3 239.3 235.0 238.7 246.2 247.0
235.0 235.2 234.1 226.6 219.1 213.0 204.8 201.4 194.6 178.4
159.0 137.0 119.1 109.0 105.0 105.0 135.2 149.9 157.1 160.0
163.1 167.7 175.2 188.7 200.9 206.9 210.3 210.6 211.7 213.8
216.8 225.9 239.6 254.1 261.6 317.0 344.0 346.0 340.8 280.7
205.0 215.0 220.0 211.4 205.6 198.7 191.6 190.8 197.9 205.8
209.3 213.9 222.6 232.3 241.0 250.4 257.3 259.6 260.0 255.2
248.4 239.1 238.8 246.7 254.4 255.0
245.0 245.6 249.5 249.4 241.8 222.7 213.0 207.9 205.7 199.8
183.7 162.3 141.8 120.9 109.0 109.0 105.0 132.0 146.8 154.2

158.8 160.0 163.0 169.0 182.3 199.1 206.7 210.0 212.0 220.0
245.0 235.0 238.1 252.1 259.0 265.1 324.0 346.5 341.9 260.0
205.0 215.0 211.0 204.6 193.0 177.2 176.3 187.9 200.9 207.7
212.6 221.7 235.2 244.7 250.8 255.7 259.1 255.0 259.8 251.6
249.3 242.4 244.6 252.6 258.1 258.0
245.0 248.1 257.2 260.0 255.5 246.4 223.6 214.5 209.8 207.9
200.2 185.2 164.1 142.5 120.4 109.0 105.0 115.6 123.9 139.3
150.9 156.7 160.0 161.5 167.3 180.2 198.9 206.7 209.2 212.0
245.0 235.0 226.5 240.7 248.9 313.3 325.0 347.0 344.9 274.0
205.0 200.0 199.9 189.2 173.8 164.1 167.7 185.5 199.8 208.2
219.7 238.6 250.8 255.6 257.8 259.0 259.8 259.4 249.5 249.3
249.3 250.0 252.5 256.4 259.0 259.0
255.0 252.5 258.7 260.0 260.0 255.5 246.4 223.6 214.5 209.6
207.2 199.5 183.4 163.2 139.4 118.4 109.7 105.0 112.1 118.6
130.5 146.2 154.1 158.7 161.3 167.8 183.8 202.8 205.0 207.1
204.6 212.0 215.7 224.7 232.5 303.9 315.7 327.0 326.6 269.2
205.0 195.4 180.6 167.4 161.0 161.7 172.4 189.5 201.0 213.0
235.7 252.8 258.6 260.0 260.6 262.1 262.0 260.5 256.9 256.1
257.9 257.4 257.5 259.6 261.7 261.0
255.0 255.8 260.0 260.0 260.0 260.0 255.5 246.4 223.6 214.5
209.5 206.7 198.6 180.6 157.9 131.4 114.8 108.3 105.0 109.9
115.1 123.4 139.7 151.4 157.3 161.9 175.7 197.4 211.8 210.0
208.6 203.5 204.9 209.5 254.0 278.9 266.0 273.0 270.0 219.6
199.8 179.1 165.3 156.7 150.6 162.1 183.5 194.5 204.9 225.8
248.7 258.7 260.0 261.0 263.6 259.2 270.9 266.9 262.4 260.4
260.0 260.0 260.6 262.8 266.9 266.0
298.5 258.6 260.0 260.0 260.0 260.0 260.0 255.5 243.1 220.4
211.3 209.6 206.3 194.3 171.1 147.4 124.6 112.4 107.0 107.2
108.8 112.8 119.6 133.5 149.3 156.9 168.1 185.6 202.2 249.3
194.8 180.8 179.0 186.5 235.0 235.0 237.0 236.0 213.3 201.9
181.4 166.0 160.0 154.3 154.4 167.6 189.8 202.7 213.9 238.7
255.7 260.1 260.8 264.0 268.2 277.5 278.8 274.2 266.2 261.4
260.7 261.7 264.1 268.4 273.2 275.0
298.5 266.8 263.3 260.0 260.0 260.0 260.0 260.0 247.7 227.6
210.9 209.6 207.9 199.3 179.4 159.0 138.5 118.5 109.1 106.8
107.5 109.0 111.5 117.5 128.9 143.6 150.2 158.5 168.9 168.3
156.6 142.2 142.1 148.5 160.2 177.1 185.6 189.1 188.3 178.9
190.0 165.0 153.4 155.7 160.2 176.0 195.0 206.4 223.7 246.3
258.8 260.1 262.6 269.6 269.4 282.9 283.6 279.9 271.2 264.6
263.9 266.1 269.8 274.6 277.5 275.0
298.6 286.9 275.3 267.5 263.0 260.0 260.0 256.8 244.5 221.8
210.8 206.8 204.9 196.4 184.0 168.1 150.4 128.0 110.0 107.7
106.6 107.2 107.0 110.7 115.6 120.6 126.6 128.4 129.0 126.9
121.4 117.5 114.8 120.0 127.7 140.6 152.3 159.2 163.9 165.0
189.0 146.9 148.5 156.0 166.9 184.2 200.7 210.4 227.8 249.5
260.0 260.8 265.4 275.5 282.7 272.0 285.0 282.6 276.8 271.0
269.3 272.3 276.0 278.1 279.5 275.0
298.6 298.6 298.1 285.8 270.7 263.1 259.3 251.6 212.0 207.0
207.8 205.6 199.6 198.6 192.9 178.8 161.2 140.3 119.6 106.0
106.8 106.2 106.9 108.3 108.9 109.7 105.0 105.0 105.0 105.0
105.0 115.0 115.0 115.0 115.0 120.0 125.0 133.4 145.3 152.2
145.0 146.3 150.0 158.4 172.4 191.8 204.6 212.3 228.5 249.6
260.0 262.1 269.3 279.0 284.2 282.0 276.9 283.8 280.8 276.3
275.3 276.9 278.9 279.8 279.9 275.0

310.0 303.2 298.6 298.5 287.3 268.9 259.7 244.9 210.0 209.8
205.1 201.2 206.5 208.7 206.7 193.3 172.8 152.6 130.0 111.0
108.1 106.2 105.8 106.1 106.9 106.8 106.7 105.0 115.0 120.0
110.0 115.0 115.0 135.0 117.0 117.0 120.0 117.4 130.6 138.6
144.1 150.1 155.9 162.8 177.9 197.2 208.3 213.7 229.7 250.2
260.3 263.7 272.7 281.1 284.7 284.9 284.6 271.1 281.5 279.6
278.4 279.2 279.8 280.0 280.0 275.0
310.0 310.0 305.2 298.8 299.9 280.0 263.3 242.9 212.0 206.3
199.9 200.1 210.4 223.2 218.9 205.8 185.0 163.3 140.2 115.0
110.3 107.5 105.8 105.2 105.3 105.9 108.5 123.3 154.5 187.5
145.0 145.0 210.0 216.0 120.0 120.0 120.0 120.0 120.6 130.9
140.9 152.3 158.9 166.6 183.4 202.3 210.1 217.1 234.1 252.7
260.3 265.0 274.2 282.4 284.9 284.8 284.0 276.2 281.0 280.1
279.9 279.8 280.0 280.0 280.0 275.0
315.0 314.6 313.4 311.6 305.8 293.0 271.3 248.6 224.2 207.5
197.0 197.8 209.6 231.0 231.0 211.0 191.9 169.2 148.8 128.4
111.0 108.9 106.9 105.6 105.3 106.3 113.5 135.2 172.9 198.8
200.0 155.0 150.0 155.0 125.0 125.0 122.0 120.0 120.0 131.3
143.1 154.5 165.0 171.5 192.4 206.5 210.8 222.1 241.3 256.1
261.2 266.3 276.2 283.3 285.0 284.6 283.5 281.7 280.5 278.9
280.0 280.0 280.0 280.0 280.0 275.0
330.0 326.9 325.3 317.2 311.1 301.2 282.1 257.6 233.6 212.3
200.1 195.9 203.1 212.9 255.0 210.7 191.8 170.6 155.2 138.5
118.9 109.6 108.6 106.6 106.3 108.0 119.5 149.9 180.2 246.0
275.5 235.0 203.3 155.0 155.0 125.0 122.0 125.0 124.8 135.8
148.9 165.0 164.4 179.9 199.8 209.1 210.8 223.4 246.2 259.0
262.0 269.4 278.4 283.7 284.6 284.2 282.5 281.1 280.2 280.0
280.0 280.0 280.0 280.0 280.0 275.0
20 340.0 339.4 337.7 326.4 313.9 306.2 290.1 267.3 244.0 221.3
206.7 198.9 196.5 203.7 209.9 204.9 187.8 168.1 158.2 146.6
124.3 112.6 109.9 108.5 108.2 110.3 124.4 158.5 190.2 250.0
293.0 255.0 216.0 195.8 155.0 140.0 125.0 126.0 131.3 142.1
167.0 165.0 166.1 185.7 202.4 210.0 210.0 222.0 244.7 258.4
261.9 268.8 276.6 279.9 281.7 281.9 281.6 280.5 280.1 280.0
280.0 280.0 280.0 280.0 280.0 275.0
350.0 345.2 343.3 331.7 317.9 309.7 298.9 276.2 255.5 233.4
215.0 204.2 199.2 201.4 204.9 199.0 179.0 163.9 157.6 147.3
133.1 119.4 114.9 113.5 113.3 118.1 133.5 164.3 194.2 249.0
310.0 306.2 232.8 210.2 186.0 140.0 125.0 134.1 135.5 147.1
162.0 162.0 166.3 183.3 249.3 211.0 211.0 218.0 235.7 252.8
259.2 263.9 269.0 272.3 274.6 278.7 280.2 280.0 280.0 280.0
280.0 280.0 280.0 280.0 280.0 275.0
350.0 347.1 345.0 337.7 323.9 313.4 304.8 290.7 266.8 248.0
226.9 212.7 206.0 204.8 205.0 191.3 172.1 160.8 155.0 135.0
135.0 132.6 130.6 129.6 129.8 134.7 149.5 168.6 194.6 248.9
291.9 285.0 279.9 220.5 197.5 130.0 127.0 135.0 138.2 149.5
162.0 165.0 164.9 220.0 249.3 211.0 210.0 213.5 222.7 239.1
252.6 259.1 262.2 264.9 269.2 275.0 278.9 279.9 280.0 280.0
280.0 280.0 280.0 280.0 280.0 275.0
350.0 349.1 348.3 344.1 377.0 355.0 345.0 300.9 281.3 260.9
243.2 223.8 210.0 209.3 206.6 192.0 171.3 159.5 154.2 140.0
141.5 145.8 149.9 150.2 150.0 153.5 160.1 176.6 196.9 246.0
248.0 280.0 255.0 231.7 206.1 130.0 130.0 140.0 142.7 153.5
159.4 165.0 167.7 184.4 204.1 209.0 212.0 210.6 214.0 222.7

238.1 251.8 258.4 261.6 266.1 272.5 277.7 279.5 280.0 280.0
280.0 280.0 280.0 280.0 280.0 280.0 275.0
350.0 350.0 349.9 347.8 396.5 370.0 355.0 307.6 296.0 274.6
257.9 238.4 219.9 210.0 208.7 197.3 175.6 159.6 151.6 140.0
149.9 159.3 165.8 169.1 169.9 171.1 175.8 190.5 201.6 210.0
246.0 260.0 220.0 220.0 210.0 140.0 130.0 140.0 149.8 155.8
160.0 161.5 172.1 194.8 207.0 209.0 209.0 212.0 210.6 213.5
221.1 237.5 252.2 258.8 263.5 268.8 274.4 277.8 279.2 279.7
280.0 280.0 280.0 280.0 280.0 275.0
350.0 350.0 350.0 349.3 395.0 377.8 355.0 343.0 326.0 305.0
286.0 253.3 229.2 214.9 210.0 200.0 178.6 160.0 140.0 150.0
162.2 175.8 185.5 189.1 189.5 191.6 185.0 185.0 206.0 202.4
209.8 250.0 259.0 245.1 200.0 165.0 130.0 132.0 151.6 156.8
160.0 164.9 181.5 201.2 205.0 205.0 205.0 205.0 220.0 220.1
213.1 222.3 239.3 253.6 260.3 264.0 268.3 273.2 277.0 279.1
279.9 280.0 280.0 280.0 280.0 275.0
350.0 350.0 350.0 349.8 395.0 380.0 365.0 350.0 342.5 324.0
297.7 263.5 241.7 220.5 211.3 200.7 179.4 160.6 145.0 159.8
176.3 196.9 190.0 190.0 206.0 207.4 208.9 200.0 190.0 190.0
193.0 200.0 250.0 250.0 210.0 200.3 155.0 132.0 135.0 156.3
159.8 169.4 189.8 205.8 210.0 210.0 209.0 205.0 209.0 211.1
215.0 215.0 224.7 242.6 255.0 260.1 262.8 267.3 273.0 277.2
279.0 279.7 280.0 280.0 280.0 275.0
350.0 349.6 350.0 350.0 394.8 380.0 375.0 375.0 350.0 345.0
309.1 285.0 253.0 230.6 215.8 201.1 179.4 158.2 145.0 165.5
191.5 195.0 197.0 205.0 209.7 210.0 210.0 210.0 209.8 195.0
193.0 193.0 210.0 253.0 252.0 210.0 185.9 159.5 149.3 154.0
161.1 174.3 197.6 209.9 213.3 216.4 219.3 210.0 209.1 208.0
205.0 207.0 209.0 227.0 244.1 254.7 259.3 262.5 267.6 272.4
276.1 278.6 280.0 280.0 280.0 275.0
349.0 348.2 349.5 350.0 396.1 390.0 375.0 375.0 377.0 354.5
328.2 300.0 262.7 242.1 222.3 202.9 179.7 159.0 145.0 167.8
194.1 197.0 200.0 211.3 213.0 216.3 218.4 219.8 216.6 211.3
195.0 193.0 200.0 230.0 249.3 249.3 245.0 166.8 150.8 154.1
164.4 182.8 202.3 213.9 220.4 231.4 239.6 240.7 234.1 226.0
216.4 209.0 209.0 208.0 226.0 242.4 252.4 257.9 261.7 265.7
269.6 275.9 278.7 279.7 280.0 275.0
343.0 343.0 347.3 349.3 349.7 397.0 397.0 400.0 397.5 395.0
339.2 310.0 271.6 249.5 227.4 203.5 181.6 160.6 145.0 169.1
193.9 197.0 205.0 214.6 223.5 232.0 238.5 240.4 235.0 219.3
206.5 193.0 192.3 200.0 210.0 220.0 249.3 173.8 157.3 155.9
180.0 189.9 206.5 216.8 231.4 260.0 265.0 265.1 252.3 243.5
230.2 218.2 212.3 207.0 214.6 222.3 237.7 248.0 253.2 255.9
262.2 268.6 274.8 278.3 279.2 275.0
333.0 332.7 338.9 343.1 346.5 397.0 397.0 400.0 340.5 399.0
359.2 326.7 278.4 245.0 228.8 204.2 181.2 162.2 145.0 171.1
193.2 207.6 210.0 217.9 235.1 250.1 254.8 256.2 251.5 236.7
225.0 203.1 190.0 190.0 190.0 210.0 197.1 175.6 155.0 158.9
175.0 192.9 209.1 222.4 241.6 265.0 260.9 262.9 275.0 265.0
255.0 254.1 220.3 207.0 207.0 207.0 219.2 229.9 237.7 246.7
253.8 259.7 267.1 273.8 277.6 275.0
321.0 320.3 324.5 329.0 336.0 343.2 400.0 347.2 340.3 404.6
365.0 323.6 279.4 252.4 228.4 203.3 180.3 159.3 145.0 166.1
190.3 206.4 210.7 221.0 241.2 256.4 255.0 255.0 258.5 250.3

230.3 225.0 202.9 194.0 190.0 197.0 195.0 167.4 155.8 156.4
173.1 193.6 210.8 227.4 255.0 262.3 269.5 277.3 278.4 273.2
265.0 255.0 238.0 222.9 215.1 207.0 207.0 214.5 220.9 234.0
245.9 250.2 256.1 269.6 275.9 275.0
312.0 311.9 313.2 316.1 321.3 328.6 400.0 409.1 400.0 388.0
357.0 318.0 275.0 249.2 225.5 202.8 180.2 157.7 145.0 159.9
185.2 202.6 215.0 224.3 243.1 256.9 255.0 255.0 255.0 256.4
244.4 223.1 225.0 201.1 192.0 200.0 195.0 158.3 148.2 154.9
172.4 194.8 211.9 228.9 249.6 295.0 305.1 295.6 298.5 321.8
309.1 304.9 254.6 243.1 229.4 218.1 207.0 207.0 207.0 221.2
230.0 238.6 251.0 265.8 274.9 275.0
306.0 305.4 307.2 309.6 311.8 315.7 387.0 387.7 377.0 361.7
338.8 313.6 266.6 242.2 220.4 200.9 179.9 159.8 145.0 160.6
177.8 205.0 220.0 225.7 244.8 260.0 265.0 265.0 285.0 285.0
290.0 290.0 217.1 210.0 205.0 205.0 166.5 153.2 147.6 151.8
171.8 192.5 210.1 228.3 340.0 347.8 346.0 307.2 343.1 337.2
326.5 313.3 302.7 258.8 248.1 235.4 220.7 213.9 207.0 212.9
215.5 227.0 247.5 263.6 271.9 275.0
296.0 295.2 299.3 303.4 307.2 310.2 367.0 365.0 361.6 354.1
330.0 305.0 258.2 233.8 215.8 197.6 176.6 159.7 145.0 160.6
211.9 210.0 215.0 223.6 255.0 270.0 270.0 290.0 295.0 285.0
285.0 290.0 275.0 215.0 205.0 187.8 160.0 151.0 146.4 151.7
166.5 187.5 206.4 298.8 340.0 350.0 350.2 315.0 350.0 344.6
340.8 324.9 308.6 270.7 261.9 249.7 236.2 222.8 207.0 210.0
210.5 219.6 240.5 259.0 267.7 275.0
288.0 287.5 289.4 294.0 301.3 306.9 350.0 350.0 348.0 340.0
319.5 299.5 250.3 229.5 211.0 192.3 168.4 155.1 145.0 157.4
211.0 210.0 220.0 245.0 265.0 265.0 285.0 295.0 300.0 290.0
285.0 285.0 275.0 255.0 206.3 190.4 160.0 149.6 143.7 149.8
163.1 180.4 202.3 224.7 319.9 350.0 357.0 355.2 360.0 360.9
354.6 341.1 299.7 282.9 268.4 258.1 246.7 229.1 207.0 210.0
210.0 216.2 233.6 255.4 267.1 275.0
282.0 281.6 282.6 285.9 291.9 301.2 340.1 347.0 308.8 301.3
281.6 270.0 244.9 223.4 206.7 184.8 163.5 150.0 147.0 154.4
217.0 220.0 230.0 260.0 275.0 285.0 290.0 295.0 300.0 295.0
290.0 285.0 260.0 260.0 200.0 191.3 160.0 150.7 144.2 149.2
160.4 177.0 198.2 222.8 285.0 310.0 368.6 375.6 376.7 384.5
368.9 349.7 309.9 292.5 273.5 260.7 248.1 229.1 207.0 210.0
210.6 216.2 233.8 257.2 270.8 264.0
272.0 271.6 273.8 278.1 283.6 292.3 330.0 340.0 300.9 286.9
268.2 253.5 236.2 215.5 195.1 174.7 160.5 150.6 147.0 151.9
216.8 230.0 240.0 280.0 285.0 290.0 295.0 300.0 305.0 300.0
295.0 285.0 275.0 260.0 210.0 193.8 160.0 154.6 145.5 147.5
158.7 175.9 197.6 220.0 244.1 276.7 383.8 397.0 396.0 397.0
384.5 335.0 315.5 297.6 276.1 259.9 245.0 225.9 212.5 210.0
212.1 221.8 240.9 261.3 272.8 275.0
264.0 263.4 264.2 268.1 276.5 285.0 310.0 293.3 282.1 267.9
256.5 240.0 221.1 204.5 181.9 165.6 157.4 149.4 147.0 150.0
210.0 243.0 255.0 275.0 285.0 300.0 300.0 305.0 305.0 305.0
300.0 290.0 275.0 265.0 205.0 199.9 160.0 158.0 147.8 148.5
158.8 176.7 197.4 220.1 243.2 273.3 367.0 397.4 396.1 397.0
380.0 340.1 320.6 298.8 277.6 258.4 241.5 221.5 211.1 210.0
215.2 229.4 249.7 262.1 269.9 275.0
257.0 256.6 258.6 262.3 269.6 279.8 283.2 275.4 265.5 254.5

239.9 222.6 209.6 191.9 172.0 158.9 151.5 152.0 150.0 152.0
166.0 244.7 240.0 275.0 285.0 300.0 305.0 346.0 320.0 310.0
305.0 285.0 275.0 265.0 210.0 175.0 155.0 155.0 156.1 153.8
160.4 177.1 199.7 221.3 244.5 273.4 330.0 400.0 409.3 395.0
365.7 342.0 318.2 299.9 277.2 258.9 240.4 221.1 210.9 211.2
219.7 238.7 253.8 262.2 266.1 275.0
244.0 243.0 252.3 259.0 266.5 276.8 277.5 266.9 254.2 240.1
222.1 211.0 201.8 181.9 165.1 155.5 155.0 152.0 150.0 152.0
155.0 248.9 235.0 270.0 308.0 300.0 340.0 347.8 347.8 330.0
330.0 310.0 285.0 265.0 215.0 185.0 155.0 155.0 155.0 155.0
163.2 178.9 200.5 225.0 247.8 274.1 298.9 387.5 439.9 419.4
366.7 342.2 314.5 298.5 278.2 259.8 246.4 229.2 217.5 217.6
229.3 246.4 257.0 261.2 264.0 264.0
225.0 224.5 240.7 254.4 265.1 275.8 275.8 260.8 241.6 221.5
210.0 205.0 198.8 176.1 162.2 155.5 150.0 150.0 155.0 152.0
152.0 225.7 255.0 270.0 285.0 295.0 339.1 347.8 347.8 346.0
340.0 347.7 275.0 265.0 215.0 185.0 160.0 155.0 155.0 165.6
168.1 184.5 206.9 227.8 252.4 279.4 301.4 365.0 408.6 447.7
396.8 342.9 322.9 303.0 281.2 264.3 255.6 246.8 234.6 233.6
243.8 254.0 260.7 262.5 266.0 266.0
215.0 214.7 229.2 249.5 255.0 258.0 255.0 251.0 227.4 205.0
200.0 200.0 201.6 182.3 166.4 159.6 154.4 155.0 155.0 155.0
152.0 152.0 242.0 250.0 275.0 290.0 330.0 347.6 347.8 347.8
346.0 347.8 310.0 265.0 210.0 185.0 160.0 155.0 155.0 177.8
179.7 195.7 214.3 233.6 258.4 287.1 304.6 314.2 387.0 395.0
377.0 329.0 317.9 306.6 291.1 274.8 269.1 264.1 256.4 252.7
257.3 262.5 268.3 270.1 274.5 275.0
212.0 211.9 226.0 247.8 258.1 260.0 255.0 256.5 234.3 220.1
215.1 210.0 207.0 197.8 182.6 173.9 167.0 163.3 160.2 157.6
154.7 152.8 219.0 240.0 250.0 275.0 319.0 345.0 347.8 347.8
346.0 330.0 315.0 265.0 205.0 185.0 160.0 155.0 155.0 196.1
196.4 206.3 221.1 241.9 267.4 293.6 309.9 315.4 366.0 363.6
350.0 315.6 311.9 308.8 303.2 294.4 291.7 286.2 279.3 276.1
274.9 280.2 284.9 289.6 298.8 300.0
216.0 215.0 229.9 251.0 261.4 265.0 271.7 255.0 251.8 241.2
230.3 225.3 222.7 216.4 208.2 196.6 189.2 180.9 175.9 168.7
160.0 155.0 213.8 237.0 259.0 280.0 300.0 311.4 343.0 347.8
340.0 330.0 313.8 250.0 200.0 185.0 155.0 155.0 155.0 207.3
208.2 212.9 226.6 247.6 276.0 300.5 319.7 326.8 330.0 349.1
311.9 310.0 310.0 310.0 310.4 313.5 313.7 313.4 301.9 298.5
302.7 304.1 308.5 314.1 327.3 328.0
223.0 222.6 241.9 255.6 263.4 268.0 276.2 271.5 262.3 254.2
251.0 247.1 242.4 237.6 230.5 225.2 215.8 208.0 197.2 188.7
175.2 155.0 222.0 219.0 239.8 255.0 276.0 289.6 308.8 345.8
335.0 312.0 286.6 252.3 200.0 185.0 160.0 155.0 200.0 205.0
205.0 215.0 229.5 256.3 286.7 313.7 336.2 345.2 341.0 327.6
317.0 311.6 310.0 310.0 313.5 320.5 327.5 330.1 329.9 314.9
324.8 325.7 327.6 330.9 339.8 340.0
236.0 236.1 251.6 260.6 267.5 271.0 279.8 275.6 265.2 334.0
285.0 265.0 265.3 262.1 257.2 252.0 244.7 229.4 218.3 206.7
193.9 159.0 155.0 214.0 175.0 236.7 253.0 273.9 303.0 346.0
330.0 311.7 298.9 251.8 205.0 200.0 200.0 208.0 200.0 207.4
209.5 215.6 231.6 261.7 298.5 328.7 351.6 363.9 362.1 347.8
327.6 314.2 310.0 310.0 312.2 319.8 329.2 333.9 335.0 334.4

334.0 334.0 334.0 336.2 341.5 340.0
248.0 248.5 257.0 263.1 271.2 274.0 283.5 280.2 275.0 347.0
338.0 336.0 315.0 289.4 286.4 275.9 262.9 250.7 233.6 218.3
206.0 193.5 155.0 155.0 155.0 219.0 249.0 258.0 274.6 287.0
297.0 300.0 297.0 249.2 211.4 200.0 200.0 200.0 204.5 199.6
206.7 216.1 236.8 267.8 305.4 339.7 366.4 384.7 385.9 366.3
340.5 318.3 310.0 310.0 311.0 316.0 326.5 333.3 335.0 335.0
335.0 335.0 335.5 337.6 343.8 340.0
255.0 256.9 259.9 265.8 273.7 277.0 284.8 287.2 351.0 357.0
372.6 370.6 340.0 306.1 304.3 295.9 276.5 262.1 248.9 228.1
213.9 204.1 188.9 160.0 155.7 154.1 170.0 210.0 215.0 249.0
255.0 251.7 252.0 247.0 220.0 200.0 200.0 200.0 198.1 191.2
202.7 218.3 240.6 275.2 312.1 350.1 382.8 400.5 401.8 388.1
354.7 324.1 310.7 310.0 310.0 312.8 321.1 330.5 334.5 335.0
335.0 335.0 335.9 339.6 346.8 340.0
261.0 261.7 263.1 268.7 277.7 282.2 285.9 293.0 352.0 310.0
310.0 397.0 320.0 310.0 307.0 305.1 290.1 269.8 256.4 242.7
222.4 212.0 200.2 180.7 162.8 158.3 156.3 156.2 160.5 170.3
210.0 215.0 215.0 210.0 203.3 200.5 201.6 202.1 188.2 187.9
202.9 221.2 245.4 278.7 317.5 358.2 391.8 406.6 409.1 399.5
370.9 334.8 315.7 312.7 310.0 311.0 315.7 325.6 332.4 334.4
335.0 335.0 336.4 341.9 350.0 340.0
50 268.0 268.5 269.9 275.2 279.9 283.2 288.1 298.4 346.0 310.0
310.0 310.0 310.0 310.0 310.0 308.8 300.0 280.0 264.4 253.7
240.4 222.2 211.1 193.5 172.3 157.4 153.1 149.7 149.2 155.8
162.9 168.7 177.2 186.9 189.5 184.6 183.7 181.6 183.4 190.0
204.9 224.5 249.0 277.8 314.7 358.1 389.8 406.2 408.9 404.3
379.4 350.0 330.5 318.2 311.2 310.0 312.5 317.8 326.0 331.5
334.4 335.1 336.8 343.1 352.4 340.0
277.0 277.9 279.0 280.7 281.3 281.3 288.0 298.2 307.2 310.0
310.0 310.0 310.0 310.0 310.0 310.0 305.7 315.0 312.0 265.0
254.3 239.4 221.9 201.7 172.5 170.0 146.0 149.1 152.2 152.8
148.9 148.0 155.6 165.1 171.0 174.7 174.9 175.6 181.6 194.6
208.6 226.1 248.2 275.8 309.1 352.0 385.0 420.0 407.6 404.4
385.4 362.1 344.1 327.4 313.5 310.2 310.7 312.4 316.3 325.7
332.1 335.1 337.0 343.9 353.2 340.0
281.0 281.9 282.4 282.2 280.0 276.8 276.8 289.9 302.4 308.9
310.0 310.0 311.0 310.0 310.0 310.0 320.0 320.0 325.0 276.9
263.8 248.1 231.0 202.2 166.5 165.0 175.0 143.1 150.3 152.4
149.8 145.3 145.0 151.4 159.1 167.7 173.0 176.9 186.0 199.7
210.7 228.1 249.4 273.3 304.7 344.6 383.0 420.0 415.0 404.8
387.8 368.8 352.3 334.2 317.1 310.2 310.0 310.0 311.6 317.8
328.9 334.4 337.0 344.4 353.9 340.0
277.0 276.8 277.9 277.5 273.9 268.6 266.6 272.0 289.4 301.4
307.1 309.5 309.0 310.0 310.0 310.0 310.0 330.0 335.0 290.5
269.1 250.4 229.0 197.8 185.0 180.0 175.0 165.0 140.6 149.6
153.3 152.0 146.7 144.9 152.8 162.8 170.6 177.9 190.6 203.6
213.0 229.8 252.4 272.6 298.4 345.0 377.9 401.0 406.3 405.2
390.0 361.4 347.8 338.6 318.6 310.2 309.7 308.2 307.1 310.9
322.1 331.2 337.8 345.4 354.7 340.0
268.0 267.9 269.1 268.9 266.5 262.6 260.7 263.4 270.1 283.5
294.5 300.7 304.2 306.5 307.7 308.8 309.4 330.0 344.0 311.7
293.5 274.6 245.0 189.6 185.0 180.0 175.0 170.0 165.0 140.4
149.7 154.1 151.5 148.2 151.6 160.7 167.1 178.6 195.8 206.5

215.3 233.9 254.8 273.0 299.6 336.3 378.7 397.8 406.4 406.2
392.8 373.8 352.0 339.0 318.4 306.5 303.0 296.7 295.5 300.3
314.2 328.2 337.6 346.9 355.2 340.0
261.0 261.6 262.0 262.1 261.4 260.6 260.0 260.0 262.2 266.7
273.8 281.2 287.1 291.0 294.2 299.4 305.3 309.5 315.0 320.0
295.9 280.0 245.0 187.6 185.0 185.0 180.0 180.0 175.0 165.0
155.0 149.1 154.0 155.3 156.6 159.0 164.3 179.3 197.6 208.3
215.9 236.1 255.8 272.4 294.9 331.7 365.0 394.2 406.4 407.5
395.1 375.3 357.3 336.4 314.7 299.6 287.3 278.4 281.6 297.2
311.0 326.0 338.3 346.8 355.5 340.0
260.0 260.0 260.0 260.0 260.0 260.0 260.0 260.0 260.0 260.5
262.1 264.9 267.8 270.6 273.6 282.3 297.7 306.2 298.4 310.0
259.2 240.4 217.2 186.2 185.0 180.0 180.0 175.0 175.0 165.0
165.0 155.0 151.2 157.4 156.9 155.9 160.9 178.1 197.8 208.6
217.2 235.5 256.7 271.4 290.8 322.0 355.2 386.9 403.6 406.8
395.5 376.5 357.1 333.5 312.4 293.1 275.8 266.2 278.7 294.7
313.3 325.3 337.6 347.9 355.9 340.0
260.0 260.0 260.0 260.0 260.0 260.0 260.0 260.0 260.0 260.0
261.3 262.2 262.5 261.7 261.8 268.7 285.0 296.0 287.4 269.0
254.4 235.6 214.7 186.3 180.0 180.0 175.0 175.0 175.0 170.0
165.0 165.0 155.0 155.5 153.1 150.0 155.7 175.0 195.2 207.3
215.3 235.5 255.2 267.7 284.3 313.1 347.5 372.2 391.9 397.7
387.6 372.7 355.6 334.9 310.8 292.7 275.9 268.5 279.6 299.1
311.9 325.3 339.6 349.8 356.8 340.0
260.0 260.0 260.0 260.0 260.0 260.0 260.4 260.7 264.0 267.9
273.4 277.8 277.1 274.0 271.6 274.4 282.3 286.1 273.6 263.3
253.0 232.9 215.3 190.5 185.0 180.0 180.0 180.0 175.0 170.0
170.0 165.0 165.0 155.4 152.7 150.0 154.1 169.4 190.5 204.6
214.7 232.2 253.2 265.3 279.8 308.0 335.9 358.0 374.4 379.1
373.5 365.3 353.8 333.6 312.9 292.4 278.5 275.6 290.6 303.3
313.8 326.4 340.9 352.1 357.8 340.0
262.0 262.4 262.6 262.6 262.3 261.4 260.9 265.6 273.3 287.7
295.5 298.2 297.9 295.4 293.5 292.6 294.6 287.9 273.9 264.1
256.3 239.6 245.0 245.0 185.0 182.0 180.0 180.0 175.0 175.0
170.0 170.0 165.0 156.0 156.0 153.5 154.7 164.8 183.0 201.1
211.8 228.8 250.2 263.5 276.7 301.9 329.1 351.0 361.5 364.1
362.7 347.8 347.8 330.2 311.1 295.7 282.6 288.9 302.7 309.9
318.1 328.7 342.0 352.2 358.4 340.0
266.0 266.1 267.6 267.7 266.5 264.8 266.0 274.1 293.7 304.3
310.3 313.1 314.9 314.5 312.7 311.3 308.1 300.4 290.2 275.7
264.6 279.0 263.7 230.0 185.0 185.0 182.0 180.0 180.0 180.0
180.0 175.0 175.0 165.0 159.3 156.3 153.9 158.5 174.7 195.0
209.0 226.5 248.6 261.4 274.7 297.8 326.5 347.1 357.8 360.0
347.8 347.8 347.8 327.4 311.5 300.0 296.3 301.6 307.9 312.4
319.7 330.9 341.2 352.0 358.3 340.0
277.0 277.4 279.0 279.3 277.5 276.4 280.9 294.2 304.1 311.6
316.1 321.5 323.9 324.5 323.5 321.7 316.9 311.0 304.4 292.8
300.0 304.0 284.8 264.5 193.5 240.0 185.0 180.0 180.0 180.0
175.0 175.0 175.0 175.0 164.0 156.8 150.0 152.3 165.4 187.8
205.4 222.9 243.7 260.6 274.7 296.9 323.5 343.1 355.7 359.0
351.2 347.8 347.8 331.8 315.4 308.3 307.2 308.2 310.0 312.4
320.6 331.8 344.0 353.4 358.6 340.0
295.0 294.4 295.5 294.9 294.5 296.2 301.0 305.6 310.3 315.1
323.1 327.6 329.3 329.4 329.2 327.9 325.3 319.2 313.8 304.8

286.5 300.0 290.0 271.7 225.0 249.3 185.0 185.0 185.0 185.0
185.0 175.0 187.0 187.1 174.9 161.7 153.3 151.0 162.0 180.7
200.6 218.0 239.5 259.3 277.3 300.9 324.6 343.7 353.6 358.5
355.0 356.4 348.8 338.8 322.3 312.4 310.0 310.0 310.0 311.6
319.5 334.4 348.5 356.5 359.3 335.0
308.0 308.2 308.0 308.7 309.3 310.1 310.4 311.1 313.9 321.5
327.3 329.7 330.0 330.0 360.0 330.0 328.9 326.3 320.2 311.6
300.7 280.8 260.0 252.8 225.0 206.4 185.0 185.0 185.0 185.0
185.0 194.4 204.1 204.0 192.1 173.1 159.8 153.0 159.3 174.4
196.1 214.3 234.3 257.8 279.9 303.2 331.7 348.9 355.6 358.5
360.0 357.9 350.6 337.7 322.4 312.4 310.0 310.0 310.0 310.7
317.9 334.8 352.0 358.4 359.7 335.0
311.0 310.3 311.5 312.9 313.8 313.6 312.9 355.0 318.6 325.9
329.5 330.0 330.0 330.0 330.0 396.9 330.0 329.1 325.3 317.4
309.2 297.2 265.0 255.0 245.0 221.6 201.3 185.5 185.0 185.0
197.1 211.6 218.2 216.6 206.8 185.6 166.2 153.0 155.9 168.1
191.3 209.6 229.3 253.7 278.5 305.6 334.1 351.0 358.4 359.2
359.4 354.9 342.9 327.1 315.5 311.2 310.0 310.0 310.0 310.0
317.2 334.4 350.9 358.6 360.0 335.0
65 311.0 310.4 311.5 313.1 314.2 314.6 314.3 315.5 321.0 326.7
329.6 330.0 330.0 330.0 330.0 330.0 397.0 329.8 327.9 321.9
314.0 304.9 275.0 250.0 240.1 231.7 212.9 207.5 206.9 208.0
214.6 225.0 238.7 235.2 217.1 194.1 170.8 154.8 153.0 161.8
184.1 204.2 223.7 247.7 276.6 302.7 326.4 343.9 354.5 358.3
357.3 348.7 332.6 316.4 311.2 310.0 310.0 310.0 310.0 310.0
317.6 334.6 351.1 358.6 360.0 375.0
311.0 310.2 310.8 312.1 313.6 314.6 314.8 316.0 319.5 324.8
328.6 360.0 330.0 330.0 330.0 330.0 330.0 360.0 329.5 325.1
316.8 310.0 275.0 255.0 254.9 237.4 226.3 229.8 232.9 234.1
235.1 246.9 252.9 247.1 227.0 200.5 176.0 156.9 153.0 158.1
175.8 198.0 221.7 244.4 271.9 297.5 315.3 327.1 340.6 349.9
350.7 338.9 320.9 312.2 310.0 310.0 310.0 310.0 310.0 311.6
320.2 338.5 354.2 359.3 360.0 375.0
311.0 310.1 310.2 311.0 312.6 314.2 314.7 315.2 317.0 320.7
325.3 328.6 390.0 330.0 330.0 330.0 330.0 330.0 330.0 325.5
317.6 311.0 275.0 256.0 258.5 265.0 265.0 260.0 270.3 271.8
269.8 263.2 255.0 251.0 231.2 206.6 177.0 161.5 154.7 157.1
170.6 192.6 247.0 242.2 267.0 289.2 305.5 314.3 321.3 333.6
337.6 327.8 315.9 310.0 310.0 310.0 310.0 310.0 311.8 317.2
331.1 346.6 357.0 360.0 360.0 375.0
311.0 310.0 310.0 310.4 311.4 312.9 313.9 314.4 314.9 315.6
320.0 325.9 329.1 360.0 330.0 330.0 330.0 330.0 329.5 324.6
315.6 310.6 275.0 258.0 260.0 265.0 262.9 277.9 295.8 285.0
285.0 283.6 266.2 247.0 234.8 195.0 180.0 166.5 153.6 153.2
165.3 184.1 209.5 236.2 259.2 277.3 297.3 307.3 312.5 316.8
322.8 320.0 312.8 310.0 310.0 310.0 310.0 313.1 319.4 333.0
346.3 355.2 358.9 360.0 360.0 375.0
311.0 310.0 310.1 310.1 310.5 311.3 312.3 312.8 312.6 312.3
314.1 320.4 326.0 328.7 329.6 329.6 329.2 328.3 326.1 320.2
313.1 310.0 275.0 257.0 260.0 265.0 268.8 288.5 303.4 308.5
307.1 285.0 271.3 245.0 233.0 200.0 185.0 171.0 153.0 153.0
158.1 176.1 197.2 225.0 248.7 267.0 284.5 301.5 308.2 311.7
313.2 312.9 311.3 310.0 310.0 310.0 311.8 319.4 336.5 350.4
356.5 359.2 360.0 360.0 360.0 375.0

70 311.0 310.1 310.0 310.0 310.1 310.3 310.7 311.1 311.0 310.5
311.3 314.1 320.3 324.7 325.7 325.6 324.7 322.3 318.7 313.9
311.3 308.6 275.0 257.0 260.9 260.7 270.9 289.5 303.7 300.0
300.0 294.1 265.0 240.0 230.0 205.0 198.7 176.7 155.0 153.0
155.0 168.9 188.8 212.9 239.0 257.5 271.2 288.0 302.0 308.3
310.0 310.2 310.0 310.0 310.0 310.0 314.1 329.8 349.0 358.5
360.0 360.0 360.0 360.0 360.0 375.0
311.0 310.0 310.0 310.0 310.0 310.0 310.1 310.1 310.1 310.1
310.0 315.0 314.6 317.6 318.5 318.2 316.8 314.5 312.2 310.8
305.0 305.6 289.3 259.0 260.0 260.7 268.2 284.8 300.9 325.0
312.0 296.7 270.0 245.0 228.0 215.0 202.6 182.8 159.1 153.0
153.0 164.2 185.8 206.5 225.8 246.3 260.9 272.0 287.9 300.5
305.8 308.2 309.6 310.0 310.0 310.0 315.9 334.1 352.3 360.0
360.0 360.0 360.0 360.0 360.0 375.0
311.0 310.0 310.0 310.0 310.0 310.0 310.0 310.0 310.0 310.0
310.0 295.0 300.0 300.0 300.0 300.0 300.0 300.0 300.0 300.0
285.0 301.1 281.3 264.7 260.0 260.3 265.8 300.0 320.0 333.0
311.0 300.0 281.2 265.7 245.0 216.0 207.6 184.8 161.6 155.0
155.0 159.7 180.9 201.2 214.8 232.1 251.3 263.4 271.4 282.8
292.0 299.1 305.7 309.4 310.2 310.0 315.4 332.8 351.8 360.0
360.0 360.0 360.0 360.0 360.0 375.0
311.0 311.0 310.0 310.0 310.0 310.0 310.0 310.0 310.0 310.0
309.0 306.9 304.5 301.8 299.1 298.3 298.4 297.5 296.4 297.6
299.0 291.4 272.0 261.5 260.0 260.0 264.5 282.2 332.0 310.0
312.0 305.6 290.4 269.6 245.0 217.0 212.8 185.8 163.1 155.0
155.0 154.3 172.9 193.0 206.2 210.0 211.0 240.0 255.0 267.2
272.8 282.6 296.1 305.2 309.0 310.1 313.4 327.8 348.0 358.5
360.0 360.0 360.0 360.0 360.0 375.0
311.0 310.0 310.0 310.0 310.0 310.0 310.0 310.0 307.0 303.8
299.4 293.7 287.7 283.0 279.8 279.0 277.9 274.8 273.6 274.9
278.7 274.5 265.9 260.0 260.0 260.0 266.3 282.6 302.7 315.0
305.0 308.8 295.8 269.0 233.0 217.0 215.1 188.9 167.0 155.0
155.0 150.0 165.5 185.1 200.4 205.0 212.0 213.0 240.0 245.0
262.8 269.0 281.4 297.1 307.0 310.0 311.3 320.2 339.7 355.1
360.0 360.0 360.0 360.0 360.0 375.0
75 311.0 310.0 310.0 310.0 310.0 310.0 308.6 304.0 296.5 284.2
279.3 275.3 269.2 265.8 264.7 263.7 262.5 261.1 260.0 261.2
262.6 262.6 261.4 260.0 260.0 260.0 267.5 287.1 303.9 300.0
300.0 306.1 292.3 271.0 233.0 218.0 214.1 191.4 169.2 152.4
155.0 155.0 160.0 174.5 193.5 205.9 209.0 215.0 217.0 245.0
246.2 258.5 270.6 285.4 300.1 306.9 309.2 315.2 330.1 350.6
359.1 360.0 360.0 360.0 360.0 375.0
311.0 310.0 310.0 310.0 310.0 310.0 307.1 295.1 276.8 267.4
264.0 262.5 261.2 260.0 259.6 258.8 257.9 258.3 259.1 260.0
260.0 260.0 260.0 260.0 260.0 260.0 266.2 285.3 301.6 309.0
307.6 298.5 281.2 250.0 224.0 219.0 213.1 192.5 171.1 155.2
155.0 155.0 151.5 165.7 181.0 197.5 205.0 214.7 219.0 232.0
242.0 247.0 264.3 272.6 285.6 298.9 307.2 312.1 324.6 343.9
357.2 360.0 360.0 360.0 360.0 375.0
311.0 310.0 310.0 310.0 310.0 310.0 305.6 289.0 269.2 260.0
260.0 260.0 260.0 259.4 257.3 253.8 250.5 251.1 255.1 258.2
259.5 259.7 259.3 259.1 259.4 259.8 263.2 272.8 293.5 305.9
304.3 289.0 269.7 248.0 220.0 219.0 211.8 196.3 173.3 159.3
155.0 155.0 155.0 157.4 169.1 185.7 200.4 207.8 213.3 220.0

222.0 228.0 252.6 263.2 271.0 288.5 303.5 311.0 319.5 338.3
355.0 360.0 360.0 360.0 360.0 375.0
311.0 310.0 310.0 310.0 310.0 309.4 303.5 286.9 267.7 260.0
260.0 260.0 259.0 256.7 251.1 245.2 241.6 241.9 246.6 252.2
253.4 251.2 247.7 246.8 250.5 255.5 259.1 266.7 283.2 303.1
304.1 284.9 268.6 251.0 227.0 222.0 213.6 198.0 178.6 162.3
153.5 157.0 144.6 152.6 162.3 173.7 191.1 203.8 208.8 212.3
220.9 224.0 249.6 258.5 264.3 277.3 298.0 308.1 315.6 332.0
349.3 357.4 359.3 360.0 360.0 375.0
311.0 310.0 310.0 310.0 310.0 308.7 299.9 281.7 266.1 260.0
260.0 259.3 256.6 250.1 243.3 238.3 236.1 236.5 237.7 239.3
237.6 231.4 226.6 225.8 231.5 245.7 255.7 264.7 281.7 301.1
312.0 293.4 274.5 263.1 233.0 223.0 217.3 203.0 183.6 166.2
156.6 157.0 157.0 150.8 157.8 165.9 180.6 198.5 207.8 210.7
214.8 225.2 243.0 255.3 261.1 269.4 288.1 304.9 313.0 322.3
336.4 348.2 355.1 358.7 360.0 375.0
311.0 310.0 310.0 310.0 310.0 306.3 294.3 275.8 263.0 260.0
260.0 258.4 252.3 244.2 237.8 235.6 234.9 234.3 231.5 225.4
218.9 215.1 212.5 212.1 216.5 229.3 248.7 261.7 281.1 300.7
315.0 302.1 283.7 266.7 246.0 220.0 222.3 206.0 189.2 168.5
158.9 157.0 157.0 158.0 153.5 161.0 170.8 189.2 203.4 210.0
211.3 218.1 232.9 251.2 259.0 263.7 278.1 298.9 309.2 314.2
321.6 331.8 344.8 355.6 360.0 360.0
311.0 310.0 310.0 310.0 308.7 298.6 284.2 267.5 261.4 260.0
259.3 256.0 248.3 240.0 235.9 234.6 233.8 231.0 224.9 216.6
211.4 210.0 210.0 210.0 211.9 219.4 235.3 255.1 275.1 296.7
290.0 290.0 305.0 269.4 247.0 219.0 224.8 208.0 190.2 172.4
159.8 152.1 155.0 158.0 155.0 158.6 163.9 176.2 198.2 208.7
210.5 255.0 255.0 245.6 257.9 261.1 270.3 290.4 305.6 311.0
312.7 318.6 334.2 352.3 360.0 360.0
310.0 310.0 309.4 306.9 301.1 285.7 270.0 262.2 260.0 259.5
245.0 245.0 243.1 237.2 235.2 234.0 230.7 225.5 218.1 212.7
210.5 210.0 210.0 210.0 210.8 214.7 224.8 243.8 263.5 284.4
301.6 304.5 290.2 269.6 240.0 225.0 225.6 208.4 193.5 174.1
161.2 152.3 155.0 158.0 155.0 157.2 160.0 169.2 189.2 205.5
220.0 255.0 298.5 310.0 256.2 259.9 266.1 282.1 301.4 309.3
310.0 313.8 329.0 349.3 359.1 335.0
297.0 308.0 305.0 292.0 285.1 270.8 263.3 255.0 247.0 247.0
246.0 241.0 238.8 235.9 234.9 233.0 227.3 218.9 212.7 210.5
210.0 210.0 210.0 210.0 210.6 212.1 218.0 232.2 250.5 268.8
288.0 295.4 283.0 267.7 230.0 222.0 225.7 210.6 198.0 178.6
163.3 154.3 155.0 158.0 146.7 155.9 159.8 166.0 182.4 202.4
235.0 274.0 298.5 348.0 254.4 259.5 264.6 279.3 297.9 309.3
310.0 312.3 325.7 344.5 357.6 335.0
288.0 297.3 291.2 280.1 270.4 263.0 250.1 249.0 248.0 257.9
252.0 240.0 239.1 237.4 235.5 230.5 222.4 213.2 207.8 204.7
203.3 202.3 202.4 205.0 207.6 210.9 214.6 221.0 239.1 255.5
270.7 277.2 232.5 231.5 228.0 222.0 227.1 211.9 202.4 185.0
166.4 156.4 155.0 158.0 144.0 154.7 159.8 164.1 180.5 200.5
220.0 211.0 294.9 285.0 251.4 258.7 263.5 278.7 299.0 309.5
310.0 311.1 318.9 337.7 353.3 335.0
255.0 255.0 255.0 255.0 255.0 255.1 251.0 255.0 255.0 255.0
254.9 240.0 239.0 239.0 238.0 230.9 219.4 207.5 197.9 191.6
188.3 186.9 186.4 190.4 201.5 209.1 213.0 218.4 225.9 245.5

255.9 262.9 263.4 261.6 255.0 220.0 228.0 214.2 205.2 189.5
170.7 158.4 150.7 158.0 147.1 156.0 159.8 168.2 187.7 207.7
196.0 220.0 255.0 280.0 247.5 257.4 262.5 276.9 297.7 308.6
310.0 310.0 314.2 326.5 344.4 335.0
261.0 255.0 255.0 255.0 255.0 253.0 252.0 255.0 261.1 262.5
263.0 258.7 256.4 254.9 251.5 240.5 222.4 206.4 189.2 181.5
177.4 173.9 173.3 177.1 186.6 202.2 212.4 215.9 220.7 228.8
246.1 255.4 260.0 260.0 260.0 235.7 220.0 216.7 206.7 193.4
174.1 161.8 155.3 158.0 155.3 155.0 165.2 181.5 180.0 195.0
205.0 211.5 213.4 225.6 243.8 255.5 261.9 273.9 292.2 306.7
310.0 310.0 311.2 316.6 330.8 335.0
261.0 260.0 260.0 260.0 260.0 260.4 261.0 261.8 264.8 269.6
273.7 278.9 275.1 266.5 260.4 250.8 234.4 213.3 199.0 184.4
175.9 171.3 170.0 171.2 175.8 187.2 203.8 212.6 214.3 218.0
229.9 247.2 255.7 260.0 260.0 254.7 235.2 219.5 208.3 198.0
180.8 165.3 155.0 158.9 159.1 160.0 175.0 200.0 200.0 200.0
205.0 213.9 212.9 224.6 241.4 255.6 261.2 271.2 289.1 304.8
310.1 310.1 310.2 311.8 319.3 335.0
261.0 260.0 260.0 260.8 262.9 267.1 271.9 275.6 279.1 285.5
293.1 296.2 294.4 284.6 272.1 263.3 250.8 233.1 214.8 199.4
183.2 174.6 170.8 170.1 171.0 176.3 188.0 203.0 209.0 212.2
217.3 228.1 244.9 254.6 259.2 254.1 235.1 218.1 209.5 204.8
188.3 169.9 160.5 160.2 160.0 165.8 175.0 190.0 200.0 200.0
205.0 217.2 212.9 224.7 243.2 255.4 260.8 268.8 286.8 303.1
310.0 310.0 310.0 310.2 313.6 310.0
265.0 260.3 261.4 266.2 274.2 284.5 292.5 296.3 301.3 306.2
310.3 311.6 310.2 304.9 295.6 283.8 272.3 254.9 233.0 214.6
202.0 185.8 176.9 171.7 170.4 171.7 178.7 191.2 205.2 210.3
211.3 215.6 226.1 242.7 252.4 249.6 231.9 216.2 210.0 207.3
196.2 174.8 164.0 161.1 165.2 180.0 175.0 190.0 200.0 200.0
205.0 219.6 213.3 226.2 244.6 256.9 260.2 265.8 282.1 301.6
310.0 310.0 310.0 310.1 311.5 310.0
90 265.0 263.5 269.0 269.1 284.8 302.6 306.5 310.8 317.3 327.0
330.9 329.3 329.8 327.2 318.9 307.0 295.1 279.1 255.6 232.0
220.6 208.1 189.4 179.8 173.4 171.0 173.6 185.2 201.1 209.0
210.0 210.8 255.0 265.0 239.0 240.0 227.5 214.1 210.0 207.6
195.4 181.2 167.6 163.9 170.0 170.0 166.0 190.0 200.0 200.0
205.0 219.9 214.8 228.4 247.0 257.6 260.0 263.5 279.5 299.8
310.0 310.0 310.0 310.1 310.0 310.0
275.0 272.1 275.6 279.5 288.8 309.8 310.7 314.3 327.4 342.1
349.2 349.8 347.9 347.0 338.4 323.7 311.4 299.1 281.3 258.1
243.6 222.4 210.7 194.4 181.5 174.3 174.3 185.1 199.0 209.0
210.0 240.0 278.9 275.6 269.6 230.3 222.1 212.4 209.7 205.1
193.4 178.5 172.0 172.8 170.0 170.0 175.0 190.0 200.0 200.0
200.0 219.4 215.9 232.8 248.7 258.5 260.0 262.2 277.7 298.5
310.0 310.0 310.0 310.1 310.0 310.0
295.0 290.0 285.6 291.3 296.0 311.1 312.6 316.3 328.5 345.3
356.5 359.2 358.8 356.2 351.7 340.0 324.5 314.6 300.1 279.1
257.7 244.6 222.6 209.8 194.1 181.7 179.9 188.3 202.6 209.0
210.0 210.0 210.8 220.0 221.9 224.0 218.3 212.1 209.6 202.7
188.6 176.2 171.9 170.0 170.0 170.0 175.0 175.0 200.0 200.0
200.0 216.5 218.5 233.4 252.3 259.3 260.0 261.0 274.6 297.3
310.0 310.0 310.0 310.0 310.2 310.0
298.6 298.6 295.8 295.6 300.0 312.7 314.6 316.2 321.9 337.1

352.9 359.3 359.6 359.4 357.5 350.7 341.6 330.9 317.1 298.2
277.7 258.9 242.8 220.5 203.4 184.0 181.8 192.5 204.0 210.0
210.0 211.0 214.0 220.4 226.1 228.3 222.4 214.3 209.8 200.5
185.0 174.5 171.6 180.0 170.0 170.0 175.0 185.0 200.0 200.0
200.0 215.2 216.8 235.3 251.6 259.5 260.0 260.9 274.5 297.2
310.0 310.0 310.0 310.0 310.1 310.0
299.8 298.6 298.6 298.6 298.6 313.3 314.6 315.1 316.5 328.9
347.1 358.3 360.0 360.0 359.3 357.6 353.4 346.9 332.2 314.2
296.9 276.6 257.8 229.0 210.1 187.5 181.2 189.6 203.5 210.0
210.0 213.1 220.9 229.9 235.3 235.6 231.1 221.5 210.0 200.0
185.4 174.8 170.8 180.0 170.0 170.0 175.0 185.0 200.0 200.0
200.0 213.3 217.1 232.4 250.3 259.5 260.0 260.9 276.2 297.2
310.0 310.0 310.0 310.0 310.1 310.0
95 311.0 301.6 298.6 298.6 298.6 312.5 313.4 312.7 314.1 325.0
344.5 358.3 360.0 360.0 360.0 359.8 358.6 354.0 344.1 327.4
311.0 295.4 274.2 228.0 219.5 192.7 179.6 183.4 198.4 215.0
215.0 215.8 227.8 236.6 239.5 239.5 236.8 228.2 210.0 202.9
188.3 175.8 171.5 180.0 170.0 170.0 175.0 185.0 200.0 200.0
200.0 212.3 216.7 230.8 250.1 258.5 260.0 261.9 275.5 298.2
310.0 310.0 310.0 310.0 310.1 310.0
311.0 300.2 298.6 298.6 298.6 302.1 313.0 311.9 312.3 323.5
344.9 357.8 360.0 360.0 360.0 360.0 359.4 358.1 353.3 342.5
323.9 308.4 289.5 262.5 228.0 203.2 181.5 177.4 186.9 215.0
215.0 216.6 228.2 237.6 240.0 240.0 239.0 232.8 207.0 203.9
187.1 175.7 172.7 180.0 170.0 170.0 175.0 185.0 200.0 200.0
200.0 213.2 216.5 233.9 249.0 259.0 260.0 261.0 276.7 297.4
310.0 310.0 310.0 310.0 310.1 310.0
315.0 299.0 298.6 298.6 298.6 299.2 313.0 312.3 312.3 324.3
343.3 358.7 360.0 360.0 360.0 360.0 360.0 359.9 358.9 353.3
337.3 317.0 298.0 272.1 243.2 212.8 187.7 175.9 176.6 186.9
215.0 215.0 225.0 236.3 239.6 240.0 239.6 235.7 207.0 202.6
183.6 176.1 172.5 180.0 170.0 170.0 175.0 185.0 200.0 200.0
205.0 220.0 219.3 233.7 252.2 258.6 260.0 261.8 274.1 296.8
308.6 310.0 310.0 310.1 310.0 310.0
315.0 305.6 298.6 298.6 298.8 308.8 313.0 312.7 316.9 328.5
350.1 358.7 360.0 360.0 360.0 360.0 360.0 360.0 360.0 358.2
344.5 322.8 301.8 280.1 251.1 221.4 198.3 181.8 175.0 176.1
186.6 209.0 219.6 232.2 239.1 240.0 240.0 236.7 207.0 205.1
187.1 177.1 172.7 180.0 175.0 170.0 175.0 195.0 200.0 200.0
225.2 213.0 219.3 238.6 253.0 259.6 260.0 260.8 274.7 293.0
308.6 310.0 310.0 310.1 310.0 310.0
315.0 308.7 298.6 298.6 302.7 313.6 315.5 319.7 328.0 347.1
355.7 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 359.4
348.6 328.1 307.7 287.6 259.9 229.3 208.9 195.2 179.7 174.0
179.1 194.9 209.7 226.9 236.2 239.6 239.5 235.2 223.4 203.0
194.5 179.7 173.9 180.0 175.0 170.0 175.0 195.0 200.0 205.0
217.3 211.7 220.9 239.0 254.1 259.6 260.0 260.8 271.6 294.3
307.1 310.0 310.0 310.1 310.0 310.0
100 315.0 314.0 298.9 298.6 311.8 317.1 323.7 336.4 349.5 347.9
360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0
352.4 333.1 313.8 295.2 268.1 238.1 217.2 203.8 190.3 175.7
176.4 188.1 202.9 216.0 228.4 235.0 236.1 230.6 220.2 210.2
197.7 182.1 174.1 175.0 175.0 170.0 185.0 195.0 205.0 220.0
213.3 211.7 221.4 237.5 254.8 260.0 260.0 260.0 272.1 291.8

308.5 310.0 310.0 310.1 310.0 310.0
315.0 313.4 313.9 314.8 314.8 321.7 338.0 352.9 358.1 360.0
360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0
354.8 338.5 318.4 298.9 274.3 247.1 224.2 209.4 195.9 179.7
174.4 182.3 196.2 206.3 216.6 223.4 226.3 222.9 214.7 209.0
198.3 182.8 176.0 175.0 175.0 170.0 185.0 195.0 205.0 229.9
212.0 211.9 221.8 242.0 256.2 260.0 260.0 260.0 272.1 294.9
308.5 310.0 310.0 310.1 310.0 310.0
315.0 312.6 312.9 313.4 316.6 328.1 349.0 358.8 360.0 360.0
360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0
356.6 340.8 320.2 301.6 281.9 256.4 231.7 215.4 201.7 185.9
175.1 176.4 185.3 199.1 207.8 213.3 214.7 213.6 211.7 207.6
196.8 181.1 177.7 175.0 175.0 180.0 185.0 195.0 205.0 223.6
212.0 212.4 226.3 246.8 258.0 260.0 260.0 260.1 273.6 296.4
310.0 310.0 310.0 310.0 310.0 310.0
315.0 312.0 311.6 311.9 318.0 336.7 352.6 360.0 360.0 360.0
360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0
356.5 340.7 320.2 305.8 293.1 269.3 245.5 224.6 212.9 196.0
178.9 172.6 176.9 188.2 200.0 205.2 207.6 208.2 207.5 203.1
190.9 176.6 183.2 175.0 175.0 185.0 190.0 195.0 236.3 215.9
210.8 215.3 230.8 249.4 259.2 260.0 260.0 261.2 274.7 297.4
310.0 310.0 310.0 310.0 310.0 310.0
315.0 312.6 312.4 312.5 319.2 337.2 353.5 360.0 360.0 360.0
360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0
354.5 338.1 318.1 309.0 301.1 280.7 256.6 237.1 220.8 204.8
186.6 174.1 172.5 178.1 185.6 193.1 196.6 197.7 197.0 191.7
181.4 175.8 175.0 175.0 175.0 185.0 190.0 195.0 220.9 211.7
210.0 217.5 236.2 253.1 259.2 260.0 260.0 262.4 278.0 298.6
310.0 310.0 310.0 310.0 310.0 310.0
105 315.0 314.2 315.0 314.6 317.0 329.6 349.3 358.7 360.0 360.0
360.0 360.0 360.0 360.0 360.0 360.0 360.0 359.4 358.0 356.6
348.3 329.7 314.6 310.0 304.4 286.2 263.3 244.7 226.5 212.5
197.6 180.3 172.8 171.6 175.0 179.2 181.9 182.3 183.0 180.7
179.0 180.0 175.0 175.0 180.0 185.0 190.0 205.0 214.8 210.0
211.2 221.0 241.2 256.1 260.0 260.0 260.0 263.7 279.7 300.0
310.0 310.0 310.0 310.0 310.0 310.0
315.0 315.3 316.3 315.7 314.0 321.9 341.2 355.3 359.6 359.6
359.0 359.4 359.0 358.5 359.1 359.5 358.8 355.5 349.6 344.3
335.2 319.7 311.4 310.0 305.2 287.5 266.0 249.8 234.7 217.9
206.0 191.5 177.2 172.1 171.7 173.2 174.2 175.0 177.8 175.0
175.0 175.0 175.0 180.0 180.0 185.0 190.1 220.1 211.6 210.0
212.8 226.6 244.9 257.7 260.0 260.0 260.0 264.2 280.7 300.6
310.0 310.0 310.0 310.0 310.0 310.0
315.0 315.1 315.5 314.4 313.3 317.4 330.6 346.8 352.5 355.2
356.9 356.4 353.2 351.3 351.5 354.3 354.3 347.0 337.1 329.7
321.0 314.4 310.1 310.0 305.4 288.2 266.8 254.9 244.3 225.5
211.7 200.9 189.7 180.9 175.6 173.8 174.6 177.6 183.6 180.0
180.0 190.0 190.0 190.0 190.1 185.0 205.0 213.0 210.0 210.0
216.1 231.9 251.5 259.0 260.0 260.0 260.0 266.2 283.1 302.6
310.0 310.0 310.0 310.0 310.0 310.0
315.0 314.8 314.6 313.8 313.7 316.0 322.5 331.5 338.9 343.0
347.4 348.4 343.3 337.9 338.3 342.6 344.2 337.3 327.8 320.6
315.5 311.8 310.1 310.0 305.3 287.8 268.0 257.9 244.0 233.9
215.6 207.1 203.0 195.5 185.9 180.2 175.9 180.3 180.0 185.0

185.0 190.0 185.0 185.0 190.0 195.0 200.0 220.0 210.0 211.4
220.9 241.1 255.8 260.0 260.0 260.0 261.0 269.2 289.3 304.6
310.0 310.0 310.0 310.0 310.0 310.0
315.0 315.4 315.0 314.0 314.3 315.7 318.0 321.4 325.7 330.8
336.5 337.5 334.1 328.7 329.0 333.2 332.9 328.6 322.4 317.2
313.6 311.1 310.1 310.0 303.7 286.9 267.3 259.5 255.3 239.4
220.7 210.9 209.0 206.4 200.2 180.0 181.4 180.0 180.0 180.0
190.0 190.0 190.0 185.0 180.0 200.0 214.6 210.0 210.0 214.6
229.9 249.8 258.8 260.0 260.0 260.0 261.0 273.2 291.5 306.4
310.0 310.0 310.0 310.0 310.0 310.0
110 315.0 315.0 315.0 315.0 315.0 315.0 320.0 322.0 325.0 330.0
336.0 337.0 334.0 328.0 328.0 333.0 333.0 328.0 322.0 317.0
313.0 312.0 310.0 311.0 305.0 286.0 267.0 260.0 255.0 239.0
220.0 211.0 209.0 207.0 200.0 180.0 182.0 180.0 180.0 180.0
190.0 190.0 190.0 185.0 180.0 200.0 215.0 210.0 210.0 215.0
229.0 250.0 258.0 260.0 260.0 260.0 261.0 273.0 291.0 306.0
310.0 310.0 310.0 310.0 310.0 310.0

# CONFINING TILL VERTICAL CONDUCTANCE

.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .01 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .01 .01 .01 .10 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .01 .01 .01 .01 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01

.01 .01 .01 .01 .01 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .01 .01 .01 .01 .01 .01 .10 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .01 .01 .01 .01 .01 .01 .10 .10
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .01 .01 .01 .01 .01 .01 .01 .10
.10 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .10 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .01 .01 .01 .01 .01 .01 .01 .10
.10 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .10 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .10 .10 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .01 .10 .10 .10 .01
.01 .01 .01 .01 .01 .01 .10 .10 .10 .10
.10 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .10 .10 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .10
.10 .10 .10 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .10 .10 .10 .10 .10
.10 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .10 .10 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .10 .10 .10 .10 .10 .10
.10 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15

.15 .15 .15 .15 .15 .15 .10 .10 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .10 .10 .10 .10 .10 .10
.10 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15

.15 .15 .15 .15 .15 .15 .10 .10 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .10
.10 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15

.15 .15 .15 .15 .15 .15 .10 .10 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .10
.10 .01 .01 .10 .01 .01 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .10
.10 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15

.15 .15 .15 .15 .15 .10 .10 .10 .10 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .10
.10 .10 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .10
.10 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15

.15 .15 .15 .15 .15 .10 .10 .10 .10 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .10 .10
.10 .10 .10 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .10
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15

.15 .15 .15 .15 .15 .10 .10 .10 .10 .10
.10 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .10 .10
.10 .10 .10 .10 .01 .01 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .10
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15

.15 .15 .15 .15 .15 .10 .10 .10 .10 .10
.10 .10 .10 .10 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .10 .10
.10 .10 .10 .10 .01 .01 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .10
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15

.15 .15 .15 .15 .15 .10 .10 .10 .10 .10
.10 .10 .10 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .01 .01 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .10

.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .10 .10 .10 .10
.10 .10 .10 .10 .10 .01 .01 .01 .01 .01
.01 .01 .01 .01 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .01 .01 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .10
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .10 .10 .10 .10
.10 .10 .10 .10 .10 .01 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .01 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .10
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .10 .10 .10
.10 .10 .10 .10 .10 .10 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .01 .01 .01 .01 .01
.01 .01 .10 .10 .10 .10 .10 .10 .10 .10
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .10 .10 .10
.10 .10 .10 .10 .10 .10 .01 .01 .01 .01
.01 .01 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .01 .01 .01 .01
.01 .01 .10 .10 .10 .10 .10 .10 .10 .10
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .10 .10
.10 .10 .10 .10 .10 .01 .01 .01 .01 .01
.01 .01 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .01 .01 .01
.01 .10 .10 .10 .10 .10 .10 .10 .10 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .10 .10
.10 .10 .10 .10 .10 .01 .01 .01 .01 .01
.01 .01 .10 .01 .01 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .01
.01 .10 .10 .10 .10 .10 .10 .10 .10 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .10 .10
.10 .10 .10 .10 .10 .10 .01 .01 .01 .01
.01 .10 .10 .01 .01 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .01
.01 .10 .10 .10 .10 .10 .10 .10 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .10 .10
.10 .10 .10 .10 .10 .10 .01 .01 .01 .01
.01 .10 .10 .01 .01 .01 .10 .10 .10 .10

.10 .10 .10 .10 .10 .10 .01 .01 .01 .01
.01 .10 .10 .10 .10 .10 .10 .10 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .10 .10
.10 .10 .10 .10 .10 .01 .01 .01 .01 .01
.10 .10 .10 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .01 .01 .01 .01
.01 .01 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .10 .10 .10
.10 .10 .10 .10 .10 .01 .01 .01 .01 .01
.10 .10 .01 .01 .01 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .10 .10 .10 .10
.10 .10 .10 .01 .01 .01 .01 .01 .01 .01
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .01 .01 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .10 .10 .10 .10
.10 .10 .01 .01 .01 .01 .01 .01 .01 .01
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .01 .01 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .10 .10 .10 .10 .10
.01 .01 .01 .01 .01 .01 .01 .01 .01 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .10 .10 .10 .10 .10
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .10 .10 .01 .01 .01

.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .10 .10 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .10 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .01 .01 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .10 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .01 .01 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .10 .10 .01 .10 .10 .10 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .01 .01 .01 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.10 .15 .15 .10 .10 .01 .10 .10 .10 .10
.10 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .01 .01 .01 .01 .01 .01
.01 .01 .10 .10 .10 .10 .10 .10 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.10 .10 .10 .10 .10 .01 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .01 .01 .01
.01 .01 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .01 .01 .01 .01 .01
.01 .10 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.10 .10 .10 .10 .10 .01 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .01
.01 .01 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .01 .01 .01 .01 .10
.10 .10 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15

.15 .15 .15 .15 .15 .15

.10 .10 .10 .10 .10 .01 .10 .10 .10 .10

.10 .10 .10 .10 .10 .10 .10 .10 .10 .10

.01 .01 .01 .01 .10 .10 .10 .10 .10 .10

.10 .10 .10 .10 .10 .10 .10 .10 .10 .10

.10 .10 .10 .10 .10 .10 .10 .15 .15 .15

.15 .15 .15 .15 .15 .15 .15 .15 .15 .15

.15 .15 .15 .15 .15 .15

.10 .10 .01 .01 .01 .01 .10 .10 .10 .10

.10 .10 .10 .10 .10 .10 .10 .10 .10 .10

.10 .01 .01 .01 .01 .10 .10 .10 .10 .10

.10 .10 .10 .10 .10 .10 .10 .10 .10 .10

.10 .10 .10 .10 .10 .10 .10 .15 .15 .15

.15 .15 .15 .15 .15 .15 .15 .15 .15 .15

.15 .15 .15 .15 .15 .15

.10 .10 .01 .10 .10 .10 .10 .10 .10 .10

.10 .10 .10 .10 .10 .10 .10 .10 .10 .10

.10 .10 .01 .01 .01 .01 .01 .01 .10 .10

.10 .10 .10 .10 .10 .10 .10 .10 .10 .10

.10 .10 .10 .10 .10 .10 .10 .15 .15 .15

.15 .15 .15 .15 .15 .15 .15 .15 .15 .15

.15 .15 .15 .15 .15 .15

.10 .10 .01 .10 .10 .10 .10 .10 .10 .10

.10 .10 .10 .10 .10 .10 .10 .10 .10 .10

.10 .10 .10 .01 .01 .01 .01 .01 .01 .01

.01 .01 .01 .01 .01 .01 .01 .01 .10 .10

.10 .10 .10 .10 .10 .10 .15 .15 .15 .15

.15 .15 .15 .15 .15 .15 .15 .15 .15 .15

.15 .15 .15 .15 .15 .15

.10 .10 .01 .01 .01 .01 .10 .10 .10 .10

.10 .10 .10 .10 .10 .10 .10 .10 .10 .10

.10 .10 .10 .10 .10 .01 .01 .01 .01 .01

.01 .01 .01 .01 .01 .01 .01 .01 .01 .10

.10 .10 .10 .10 .10 .10 .15 .15 .15 .15

.15 .15 .15 .15 .15 .15 .15 .15 .15 .15

.15 .15 .15 .15 .15 .15

.10 .10 .10 .10 .10 .01 .10 .01 .01 .01

.10 .10 .10 .10 .10 .10 .10 .10 .10 .10

.10 .10 .10 .10 .10 .10 .10 .10 .01 .01

.01 .01 .01 .01 .01 .01 .01 .01 .01 .10

.10 .10 .10 .10 .10 .10 .15 .15 .15 .15

.15 .15 .15 .15 .15 .15 .15 .15 .15 .15

.15 .15 .15 .15 .15 .15

.10 .10 .10 .10 .10 .01 .01 .01 .01 .01

.01 .01 .01 .01 .01 .10 .10 .10 .10 .10

.10 .10 .10 .10 .10 .10 .10 .10 .10 .01

.01 .01 .01 .01 .01 .01 .01 .01 .10 .10

.10 .10 .10 .10 .10 .10 .15 .15 .15 .15

.15 .15 .15 .15 .15 .15 .15 .15 .15 .15

.15 .15 .15 .15 .15 .15

.10 .10 .10 .10 .01 .01 .01 .01 .01 .01

.01 .01 .01 .01 .01 .01 .10 .10 .10 .10

.10 .10 .10 .10 .10 .10 .10 .10 .10 .10

.01 .01 .01 .01 .01 .01 .01 .01 .10 .10

.10 .10 .10 .10 .10 .10 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.10 .10 .10 .10 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .01 .01 .01 .01 .01 .01 .01 .10 .10
.10 .10 .10 .10 .10 .10 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .10 .10 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .01 .01 .01 .01 .01 .01 .01 .10 .10
.10 .10 .10 .10 .10 .10 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .10 .10 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .01 .01 .01 .01 .01 .01 .01 .10 .10
.10 .10 .10 .10 .10 .10 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .10 .10 .10 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .01 .01 .01 .01 .01 .01 .01 .10 .10
.10 .10 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .10 .10 .10 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .01 .01 .01 .01 .01 .01 .01 .01 .10
.10 .10 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .10 .10 .10 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.10 .10 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .10 .10 .10 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .10 .10

.10 .10 .10 .10 .10 .10 .10 .10 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .10 .10 .10 .10 .10 .10 .10 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .10 .10 .10 .10 .10 .01 .01 .01
.01 .01 .01 .01 .01 .01 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .10 .10 .10 .10 .10 .10 .10 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .10 .10 .10 .10 .10 .10 .01 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .10 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .01 .01 .01 .01
.01 .01 .01 .01 .01 .01 .01 .01 .01 .01
.01 .10 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .01 .01 .01 .01
.10 .10 .01 .10 .10 .01 .01 .01 .01 .01
.01 .01 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .01 .01 .01 .01
.01 .01 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .01 .01 .01
.01 .01 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .01 .01 .01
.01 .01 .10 .10 .10 .10 .10 .10 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15

.15 .15 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .10
.10 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .10
.10 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .01 .01 .01
.01 .01 .01 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .01 .01 .01
.01 .01 .01 .01 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .01 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .01 .01 .01
.01 .01 .01 .01 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .01 .01 .01
.01 .01 .01 .01 .10 .10 .10 .10 .10 .10

.10 .10 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .01 .01 .01
.01 .01 .01 .01 .01 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .01 .01 .01
.01 .01 .01 .01 .01 .01 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .01 .01
.01 .01 .01 .01 .01 .01 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .01 .01
.01 .01 .01 .01 .01 .01 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .01 .01
.01 .01 .01 .01 .01 .01 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .01 .01
.01 .01 .01 .01 .01 .01 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .01 .01
.01 .01 .01 .01 .01 .01 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .10 .10 .10 .10 .10
.10 .10 .10 .10 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10

.10 .10 .10 .10 .10 .10 .10 .10 .01 .01
.01 .01 .01 .01 .01 .01 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .01 .01 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .01
.01 .01 .01 .01 .01 .01 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .01 .01 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .01 .01 .01
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .01
.01 .01 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.01 .01 .01 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .01 .01 .01 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .01 .01 .01 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15

.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .01 .01 .01 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10

.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10

.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10

.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10

.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .01 .01 .01 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .15 .15 .10

.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .10 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .01 .01 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .15 .15 .15

.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .01 .01 .01
.10 .10 .10 .10 .10 .10 .10 .10 .10 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .15 .15 .15

.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .01 .01
.10 .10 .10 .10 .10 .10 .10 .10 .10 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10

.10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .01 .01
.01 .10 .10 .10 .10 .10 .10 .10 .10 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .01
.01 .01 .10 .10 .10 .10 .10 .10 .10 .01
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.01 .01 .01 .10 .10 .10 .10 .10 .10 .10
.01 .01 .01 .01 .01 .01 .01 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .01 .01 .01 .01 .01 .01 .10 .10 .01
.01 .01 .01 .01 .01 .01 .10 .10 .10 .15
.15 .15 .15 .10 .10 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .01 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .01 .10 .10 .10 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .01 .01 .01 .01 .01 .01 .01
.01 .01 .01 .01 .10 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.10 .10 .10 .01 .01 .01 .01 .01 .01 .01

.01 .01 .10 .10 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .10 .10 .10 .10 .10
.10 .10 .10 .10 .10 .10 .10 .10 .10 .10
.15 .15 .15 .01 .01 .01 .01 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15 .15 .15 .15 .15
.15 .15 .15 .15 .15 .15

## BEDROCK BOTTOM ELEVATION ARRAY

1 198.0 198.0 175.0 155.0 125.0 110.0 109.0 109.0 112.0 115.0 LAY1 BOT
135.0 145.0 155.0 160.0 165.0 170.0 175.0 180.0 187.0 186.0
188.0 190.0 195.0 200.0 210.0 213.0 216.0 219.0 215.0 220.0
220.0 220.0 225.0 230.0 250.0 261.7 260.2 277.0 312.1 255.0
211.0 211.0 215.0 217.0 215.0 212.0 211.0 209.0 205.0 198.0
188.0 186.0 195.0 205.0 209.0 215.0 221.0 225.0 228.0 231.0
231.0 231.0 230.0 230.0 231.0 232.0
198.0 197.7 178.3 153.1 127.5 113.1 109.9 109.2 109.2 119.8
133.3 147.6 155.5 159.0 161.7 170.6 175.2 204.5 209.4 192.0
195.1 198.1 201.1 204.1 210.0 219.0 219.5 219.6 220.0 220.1
220.4 221.5 225.4 235.2 240.1 245.1 245.1 251.1 291.8 272.8
225.0 211.3 214.6 217.0 215.6 212.0 210.3 209.1 205.3 197.1
188.1 186.8 193.7 203.4 209.6 214.0 220.1 225.7 228.7 231.1
231.3 230.7 230.0 230.3 231.7 232.0
205.0 204.3 197.5 181.6 159.5 137.0 121.4 112.7 109.0 105.0
109.0 127.6 142.3 151.8 157.7 164.8 177.5 190.0 190.0 190.0
195.0 200.0 210.4 211.7 214.8 217.3 218.5 219.3 219.8 220.0
220.6 222.0 228.1 239.6 253.3 275.7 290.7 284.0 299.0 270.1
214.5 211.2 214.4 216.3 214.4 211.1 210.0 207.0 199.1 189.5
187.7 191.8 200.4 206.9 210.8 216.4 225.0 233.0 238.6 239.9
237.3 232.7 230.4 230.7 234.0 235.0
208.0 207.6 207.0 202.3 193.2 176.4 151.0 130.0 117.5 112.0
105.0 105.0 120.7 136.5 150.2 158.0 165.5 178.9 192.0 203.1
206.8 205.0 210.0 210.5 211.6 214.1 216.7 218.5 219.4 219.7
220.8 225.0 233.8 247.5 257.1 276.0 321.5 336.0 326.9 260.0
217.2 211.6 214.1 215.5 212.9 210.7 208.1 202.8 191.6 187.2
191.4 200.6 207.1 211.3 214.6 222.8 234.6 244.7 249.1 250.2
244.7 236.2 231.3 231.2 235.0 236.0
5 210.0 209.4 209.4 209.7 208.6 200.7 183.6 160.6 142.3 124.7
114.7 109.0 105.0 109.0 133.4 147.0 154.6 165.3 177.6 189.7
198.4 204.0 208.6 210.0 210.3 211.3 213.7 216.2 217.8 218.7
220.5 225.3 237.6 251.5 259.7 266.4 338.7 346.0 329.0 280.0
212.0 211.4 214.9 215.9 213.1 209.8 204.9 194.8 189.4 192.0
199.9 206.6 212.4 217.0 222.7 233.4 247.7 254.1 256.8 256.2
249.4 238.9 232.5 232.9 238.2 237.0
220.0 218.9 216.0 213.0 210.0 206.8 199.4 188.2 170.2 152.1
131.4 117.1 109.0 105.0 109.0 120.0 146.6 158.0 164.5 169.2
175.6 187.5 198.0 203.9 208.5 210.3 211.2 212.9 214.7 216.8
219.6 225.3 238.5 252.3 261.6 273.0 330.0 346.0 329.0 266.0
205.0 215.0 220.0 215.2 212.8 209.4 201.3 192.3 192.4 200.6
206.3 210.4 216.7 223.9 232.2 244.0 253.9 259.1 259.6 253.6
249.3 239.3 235.0 238.7 246.2 247.0
235.0 235.2 234.1 226.6 219.1 213.0 204.8 201.4 194.6 178.4
159.0 137.0 119.1 109.0 105.0 105.0 135.2 149.9 157.1 160.0
163.1 167.7 175.2 188.7 200.9 206.9 210.3 210.6 211.7 213.8
216.8 225.9 239.6 254.1 261.6 317.0 344.0 346.0 340.8 280.7
205.0 215.0 220.0 211.4 205.6 198.7 191.6 190.8 197.9 205.8
209.3 213.9 222.6 232.3 241.0 250.4 257.3 259.6 260.0 255.2
248.4 239.1 238.8 246.7 254.4 255.0
245.0 245.6 249.5 249.4 241.8 222.7 213.0 207.9 205.7 199.8
183.7 162.3 141.8 120.9 109.0 109.0 105.0 132.0 146.8 154.2

158.8 160.0 163.0 169.0 182.3 199.1 206.7 210.0 212.0 220.0
245.0 235.0 238.1 252.1 259.0 265.1 324.0 346.5 341.9 260.0
205.0 215.0 211.0 204.6 193.0 177.2 176.3 187.9 200.9 207.7
212.6 221.7 235.2 244.7 250.8 255.7 259.1 255.0 259.8 251.6
249.3 242.4 244.6 252.6 258.1 258.0
245.0 248.1 257.2 260.0 255.5 246.4 223.6 214.5 209.8 207.9
200.2 185.2 164.1 142.5 120.4 109.0 105.0 115.6 123.9 139.3
150.9 156.7 160.0 161.5 167.3 180.2 198.9 206.7 209.2 212.0
245.0 235.0 226.5 240.7 248.9 313.3 325.0 347.0 344.9 274.0
205.0 200.0 199.9 189.2 173.8 164.1 167.7 185.5 199.8 208.2
219.7 238.6 250.8 255.6 257.8 259.0 259.8 259.4 249.5 249.3
249.3 250.0 252.5 256.4 259.0 259.0
255.0 252.5 258.7 260.0 260.0 255.5 246.4 223.6 214.5 209.6
207.2 199.5 183.4 163.2 139.4 118.4 109.7 105.0 112.1 118.6
130.5 146.2 154.1 158.7 161.3 167.8 183.8 202.8 205.0 207.1
204.6 212.0 215.7 224.7 232.5 303.9 315.7 327.0 326.6 269.2
205.0 195.4 180.6 167.4 161.0 161.7 172.4 189.5 201.0 213.0
235.7 252.8 258.6 260.0 260.6 262.1 262.0 260.5 256.9 256.1
257.9 257.4 257.5 259.6 261.7 261.0
255.0 255.8 260.0 260.0 260.0 260.0 255.5 246.4 223.6 214.5
209.5 206.7 198.6 180.6 157.9 131.4 114.8 108.3 105.0 109.9
115.1 123.4 139.7 151.4 157.3 161.9 175.7 197.4 211.8 210.0
208.6 203.5 204.9 209.5 254.0 278.9 266.0 273.0 270.0 219.6
199.8 179.1 165.3 156.7 150.6 162.1 183.5 194.5 204.9 225.8
248.7 258.7 260.0 261.0 263.6 259.2 270.9 266.9 262.4 260.4
260.0 260.0 260.6 262.8 266.9 266.0
298.5 258.6 260.0 260.0 260.0 260.0 260.0 255.5 243.1 220.4
211.3 209.6 206.3 194.3 171.1 147.4 124.6 112.4 107.0 107.2
108.8 112.8 119.6 133.5 149.3 156.9 168.1 185.6 202.2 249.3
194.8 180.8 179.0 186.5 235.0 235.0 237.0 236.0 213.3 201.9
181.4 166.0 160.0 154.3 154.4 167.6 189.8 202.7 213.9 238.7
255.7 260.1 260.8 264.0 268.2 277.5 278.8 274.2 266.2 261.4
260.7 261.7 264.1 268.4 273.2 275.0
298.5 266.8 263.3 260.0 260.0 260.0 260.0 260.0 247.7 227.6
210.9 209.6 207.9 199.3 179.4 159.0 138.5 118.5 109.1 106.8
107.5 109.0 111.5 117.5 128.9 143.6 150.2 158.5 168.9 168.3
156.6 142.2 142.1 148.5 160.2 177.1 185.6 189.1 188.3 178.9
190.0 165.0 153.4 155.7 160.2 176.0 195.0 206.4 223.7 246.3
258.8 260.1 262.6 269.6 269.4 282.9 283.6 279.9 271.2 264.6
263.9 266.1 269.8 274.6 277.5 275.0
298.6 286.9 275.3 267.5 263.0 260.0 260.0 256.8 244.5 221.8
210.8 206.8 204.9 196.4 184.0 168.1 150.4 128.0 110.0 107.7
106.6 107.2 107.0 110.7 115.6 120.6 126.6 128.4 129.0 126.9
121.4 117.5 114.8 120.0 127.7 140.6 152.3 159.2 163.9 165.0
189.0 146.9 148.5 156.0 166.9 184.2 200.7 210.4 227.8 249.5
260.0 260.8 265.4 275.5 282.7 272.0 285.0 282.6 276.8 271.0
269.3 272.3 276.0 278.1 279.5 275.0
298.6 298.6 298.1 285.8 270.7 263.1 259.3 251.6 212.0 207.0
207.8 205.6 199.6 198.6 192.9 178.8 161.2 140.3 119.6 106.0
106.8 106.2 106.9 108.3 108.9 109.7 105.0 105.0 105.0 105.0
105.0 115.0 115.0 115.0 115.0 120.0 125.0 133.4 145.3 152.2
145.0 146.3 150.0 158.4 172.4 191.8 204.6 212.3 228.5 249.6
260.0 262.1 269.3 279.0 284.2 282.0 276.9 283.8 280.8 276.3
275.3 276.9 278.9 279.8 279.9 275.0

310.0 303.2 298.6 298.5 287.3 268.9 259.7 244.9 210.0 209.8
205.1 201.2 206.5 208.7 206.7 193.3 172.8 152.6 130.0 111.0
108.1 106.2 105.8 106.1 106.9 106.8 106.7 105.0 115.0 120.0
110.0 115.0 115.0 135.0 117.0 117.0 120.0 117.4 130.6 138.6
144.1 150.1 155.9 162.8 177.9 197.2 208.3 213.7 229.7 250.2
260.3 263.7 272.7 281.1 284.7 284.9 284.6 271.1 281.5 279.6
278.4 279.2 279.8 280.0 280.0 275.0
310.0 310.0 305.2 298.8 299.9 280.0 263.3 242.9 212.0 206.3
199.9 200.1 210.4 223.2 218.9 205.8 185.0 163.3 140.2 115.0
110.3 107.5 105.8 105.2 105.3 105.9 108.5 123.3 154.5 187.5
145.0 145.0 210.0 216.0 120.0 120.0 120.0 120.0 120.6 130.9
140.9 152.3 158.9 166.6 183.4 202.3 210.1 217.1 234.1 252.7
260.3 265.0 274.2 282.4 284.9 284.8 284.0 276.2 281.0 280.1
279.9 279.8 280.0 280.0 280.0 275.0
315.0 314.6 313.4 311.6 305.8 293.0 271.3 248.6 224.2 207.5
197.0 197.8 209.6 231.0 231.0 211.0 191.9 169.2 148.8 128.4
111.0 108.9 106.9 105.6 105.3 106.3 113.5 135.2 172.9 198.8
200.0 155.0 150.0 155.0 125.0 125.0 122.0 120.0 120.0 131.3
143.1 154.5 165.0 171.5 192.4 206.5 210.8 222.1 241.3 256.1
261.2 266.3 276.2 283.3 285.0 284.6 283.5 281.7 280.5 278.9
280.0 280.0 280.0 280.0 280.0 275.0
330.0 326.9 325.3 317.2 311.1 301.2 282.1 257.6 233.6 212.3
200.1 195.9 203.1 212.9 255.0 210.7 191.8 170.6 155.2 138.5
118.9 109.6 108.6 106.6 106.3 108.0 119.5 149.9 180.2 246.0
275.5 235.0 203.3 155.0 155.0 125.0 122.0 125.0 124.8 135.8
148.9 165.0 164.4 179.9 199.8 209.1 210.8 223.4 246.2 259.0
262.0 269.4 278.4 283.7 284.6 284.2 282.5 281.1 280.2 280.0
280.0 280.0 280.0 280.0 280.0 275.0
20 340.0 339.4 337.7 326.4 313.9 306.2 290.1 267.3 244.0 221.3
206.7 198.9 196.5 203.7 209.9 204.9 187.8 168.1 158.2 146.6
124.3 112.6 109.9 108.5 108.2 110.3 124.4 158.5 190.2 250.0
293.0 255.0 216.0 195.8 155.0 140.0 125.0 126.0 131.3 142.1
167.0 165.0 166.1 185.7 202.4 210.0 210.0 222.0 244.7 258.4
261.9 268.8 276.6 279.9 281.7 281.9 281.6 280.5 280.1 280.0
280.0 280.0 280.0 280.0 280.0 275.0
350.0 345.2 343.3 331.7 317.9 309.7 298.9 276.2 255.5 233.4
215.0 204.2 199.2 201.4 204.9 199.0 179.0 163.9 157.6 147.3
133.1 119.4 114.9 113.5 113.3 118.1 133.5 164.3 194.2 249.0
310.0 306.2 232.8 210.2 186.0 140.0 125.0 134.1 135.5 147.1
162.0 162.0 166.3 183.3 249.3 211.0 211.0 218.0 235.7 252.8
259.2 263.9 269.0 272.3 274.6 278.7 280.2 280.0 280.0 280.0
280.0 280.0 280.0 280.0 280.0 275.0
350.0 347.1 345.0 337.7 323.9 313.4 304.8 290.7 266.8 248.0
226.9 212.7 206.0 204.8 205.0 191.3 172.1 160.8 155.0 135.0
135.0 132.6 130.6 129.6 129.8 134.7 149.5 168.6 194.6 248.9
291.9 285.0 279.9 220.5 197.5 130.0 127.0 135.0 138.2 149.5
162.0 165.0 164.9 220.0 249.3 211.0 210.0 213.5 222.7 239.1
252.6 259.1 262.2 264.9 269.2 275.0 278.9 279.9 280.0 280.0
280.0 280.0 280.0 280.0 280.0 275.0
350.0 349.1 348.3 344.1 377.0 355.0 345.0 300.9 281.3 260.9
243.2 223.8 210.0 209.3 206.6 192.0 171.3 159.5 154.2 140.0
141.5 145.8 149.9 150.2 150.0 153.5 160.1 176.6 196.9 246.0
248.0 280.0 255.0 231.7 206.1 130.0 130.0 140.0 142.7 153.5
159.4 165.0 167.7 184.4 204.1 209.0 212.0 210.6 214.0 222.7

238.1 251.8 258.4 261.6 266.1 272.5 277.7 279.5 280.0 280.0
280.0 280.0 280.0 280.0 280.0 275.0
350.0 350.0 349.9 347.8 396.5 370.0 355.0 307.6 296.0 274.6
257.9 238.4 219.9 210.0 208.7 197.3 175.6 159.6 151.6 140.0
149.9 159.3 165.8 169.1 169.9 171.1 175.8 190.5 201.6 210.0
246.0 260.0 220.0 220.0 210.0 140.0 130.0 140.0 149.8 155.8
160.0 161.5 172.1 194.8 207.0 209.0 209.0 212.0 210.6 213.5
221.1 237.5 252.2 258.8 263.5 268.8 274.4 277.8 279.2 279.7
280.0 280.0 280.0 280.0 280.0 275.0
350.0 350.0 350.0 349.3 395.0 377.8 355.0 343.0 326.0 305.0
286.0 253.3 229.2 214.9 210.0 200.0 178.6 160.0 140.0 150.0
162.2 175.8 185.5 189.1 189.5 191.6 185.0 185.0 206.0 202.4
209.8 250.0 259.0 245.1 200.0 165.0 130.0 132.0 151.6 156.8
160.0 164.9 181.5 201.2 205.0 205.0 205.0 205.0 220.0 220.1
213.1 222.3 239.3 253.6 260.3 264.0 268.3 273.2 277.0 279.1
279.9 280.0 280.0 280.0 280.0 275.0
350.0 350.0 350.0 349.8 395.0 380.0 365.0 350.0 342.5 324.0
297.7 263.5 241.7 220.5 211.3 200.7 179.4 160.6 145.0 159.8
176.3 196.9 190.0 190.0 206.0 207.4 208.9 200.0 190.0 190.0
193.0 200.0 250.0 250.0 210.0 200.3 155.0 132.0 135.0 156.3
159.8 169.4 189.8 205.8 210.0 210.0 209.0 205.0 209.0 211.1
215.0 215.0 224.7 242.6 255.0 260.1 262.8 267.3 273.0 277.2
279.0 279.7 280.0 280.0 280.0 275.0
350.0 349.6 350.0 350.0 394.8 380.0 375.0 375.0 350.0 345.0
309.1 285.0 253.0 230.6 215.8 201.1 179.4 158.2 145.0 165.5
191.5 195.0 197.0 205.0 209.7 210.0 210.0 210.0 209.8 195.0
193.0 193.0 210.0 253.0 252.0 210.0 185.9 159.5 149.3 154.0
161.1 174.3 197.6 209.9 213.3 216.4 219.3 210.0 209.1 208.0
205.0 207.0 209.0 227.0 244.1 254.7 259.3 262.5 267.6 272.4
276.1 278.6 280.0 280.0 280.0 275.0
349.0 348.2 349.5 350.0 396.1 390.0 375.0 375.0 377.0 354.5
328.2 300.0 262.7 242.1 222.3 202.9 179.7 159.0 145.0 167.8
194.1 197.0 200.0 211.3 213.0 216.3 218.4 219.8 216.6 211.3
195.0 193.0 200.0 230.0 249.3 249.3 245.0 166.8 150.8 154.1
164.4 182.8 202.3 213.9 220.4 231.4 239.6 240.7 234.1 226.0
216.4 209.0 209.0 208.0 226.0 242.4 252.4 257.9 261.7 265.7
269.6 275.9 278.7 279.7 280.0 275.0
343.0 343.0 347.3 349.3 349.7 397.0 397.0 400.0 397.5 395.0
339.2 310.0 271.6 249.5 227.4 203.5 181.6 160.6 145.0 169.1
193.9 197.0 205.0 214.6 223.5 232.0 238.5 240.4 235.0 219.3
206.5 193.0 192.3 200.0 210.0 220.0 249.3 173.8 157.3 155.9
180.0 189.9 206.5 216.8 231.4 260.0 265.0 265.1 252.3 243.5
230.2 218.2 212.3 207.0 214.6 222.3 237.7 248.0 253.2 255.9
262.2 268.6 274.8 278.3 279.2 275.0
333.0 332.7 338.9 343.1 346.5 397.0 397.0 400.0 340.5 399.0
359.2 326.7 278.4 245.0 228.8 204.2 181.2 162.2 145.0 171.1
193.2 207.6 210.0 217.9 235.1 250.1 254.8 256.2 251.5 236.7
225.0 203.1 190.0 190.0 190.0 210.0 197.1 175.6 155.0 158.9
175.0 192.9 209.1 222.4 241.6 265.0 260.9 262.9 275.0 265.0
255.0 254.1 220.3 207.0 207.0 207.0 219.2 229.9 237.7 246.7
253.8 259.7 267.1 273.8 277.6 275.0
321.0 320.3 324.5 329.0 336.0 343.2 400.0 347.2 340.3 404.6
365.0 323.6 279.4 252.4 228.4 203.3 180.3 159.3 145.0 166.1
190.3 206.4 210.7 221.0 241.2 256.4 255.0 255.0 258.5 250.3

230.3 225.0 202.9 194.0 190.0 197.0 195.0 167.4 155.8 156.4
173.1 193.6 210.8 227.4 255.0 262.3 269.5 277.3 278.4 273.2
265.0 255.0 238.0 222.9 215.1 207.0 207.0 214.5 220.9 234.0
245.9 250.2 256.1 269.6 275.9 275.0
312.0 311.9 313.2 316.1 321.3 328.6 400.0 409.1 400.0 388.0
357.0 318.0 275.0 249.2 225.5 202.8 180.2 157.7 145.0 159.9
185.2 202.6 215.0 224.3 243.1 256.9 255.0 255.0 255.0 256.4
244.4 223.1 225.0 201.1 192.0 200.0 195.0 158.3 148.2 154.9
172.4 194.8 211.9 228.9 249.6 295.0 305.1 295.6 298.5 321.8
309.1 304.9 254.6 243.1 229.4 218.1 207.0 207.0 207.0 221.2
230.0 238.6 251.0 265.8 274.9 275.0
306.0 305.4 307.2 309.6 311.8 315.7 387.0 387.7 377.0 361.7
338.8 313.6 266.6 242.2 220.4 200.9 179.9 159.8 145.0 160.6
177.8 205.0 220.0 225.7 244.8 260.0 265.0 265.0 285.0 285.0
290.0 290.0 217.1 210.0 205.0 205.0 166.5 153.2 147.6 151.8
171.8 192.5 210.1 228.3 340.0 347.8 346.0 307.2 343.1 337.2
326.5 313.3 302.7 258.8 248.1 235.4 220.7 213.9 207.0 212.9
215.5 227.0 247.5 263.6 271.9 275.0
296.0 295.2 299.3 303.4 307.2 310.2 367.0 365.0 361.6 354.1
330.0 305.0 258.2 233.8 215.8 197.6 176.6 159.7 145.0 160.6
211.9 210.0 215.0 223.6 255.0 270.0 270.0 290.0 295.0 285.0
285.0 290.0 275.0 215.0 205.0 187.8 160.0 151.0 146.4 151.7
166.5 187.5 206.4 298.8 340.0 350.0 350.2 315.0 350.0 344.6
340.8 324.9 308.6 270.7 261.9 249.7 236.2 222.8 207.0 210.0
210.5 219.6 240.5 259.0 267.7 275.0
35 288.0 287.5 289.4 294.0 301.3 306.9 350.0 350.0 348.0 340.0
319.5 299.5 250.3 229.5 211.0 192.3 168.4 155.1 145.0 157.4
211.0 210.0 220.0 245.0 265.0 265.0 285.0 295.0 300.0 290.0
285.0 285.0 275.0 255.0 206.3 190.4 160.0 149.6 143.7 149.8
163.1 180.4 202.3 224.7 319.9 350.0 357.0 355.2 360.0 360.9
354.6 341.1 299.7 282.9 268.4 258.1 246.7 229.1 207.0 210.0
210.0 216.2 233.6 255.4 267.1 275.0
282.0 281.6 282.6 285.9 291.9 301.2 340.1 347.0 308.8 301.3
281.6 270.0 244.9 223.4 206.7 184.8 163.5 150.0 147.0 154.4
217.0 220.0 230.0 260.0 275.0 285.0 290.0 295.0 300.0 295.0
290.0 285.0 260.0 260.0 200.0 191.3 160.0 150.7 144.2 149.2
160.4 177.0 198.2 222.8 285.0 310.0 368.6 375.6 376.7 384.5
368.9 349.7 309.9 292.5 273.5 260.7 248.1 229.1 207.0 210.0
210.6 216.2 233.8 257.2 270.8 264.0
272.0 271.6 273.8 278.1 283.6 292.3 330.0 340.0 300.9 286.9
268.2 253.5 236.2 215.5 195.1 174.7 160.5 150.6 147.0 151.9
216.8 230.0 240.0 280.0 285.0 290.0 295.0 300.0 305.0 300.0
295.0 285.0 275.0 260.0 210.0 193.8 160.0 154.6 145.5 147.5
158.7 175.9 197.6 220.0 244.1 276.7 383.8 397.0 396.0 397.0
384.5 335.0 315.5 297.6 276.1 259.9 245.0 225.9 212.5 210.0
212.1 221.8 240.9 261.3 272.8 275.0
264.0 263.4 264.2 268.1 276.5 285.0 310.0 293.3 282.1 267.9
256.5 240.0 221.1 204.5 181.9 165.6 157.4 149.4 147.0 150.0
210.0 243.0 255.0 275.0 285.0 300.0 300.0 305.0 305.0 305.0
300.0 290.0 275.0 265.0 205.0 199.9 160.0 158.0 147.8 148.5
158.8 176.7 197.4 220.1 243.2 273.3 367.0 397.4 396.1 397.0
380.0 340.1 320.6 298.8 277.6 258.4 241.5 221.5 211.1 210.0
215.2 229.4 249.7 262.1 269.9 275.0
257.0 256.6 258.6 262.3 269.6 279.8 283.2 275.4 265.5 254.5

239.9 222.6 209.6 191.9 172.0 158.9 151.5 152.0 150.0 152.0
166.0 244.7 240.0 275.0 285.0 300.0 305.0 346.0 320.0 310.0
305.0 285.0 275.0 265.0 210.0 175.0 155.0 155.0 156.1 153.8
160.4 177.1 199.7 221.3 244.5 273.4 330.0 400.0 409.3 395.0
365.7 342.0 318.2 299.9 277.2 258.9 240.4 221.1 210.9 211.2
219.7 238.7 253.8 262.2 266.1 275.0
244.0 243.0 252.3 259.0 266.5 276.8 277.5 266.9 254.2 240.1
222.1 211.0 201.8 181.9 165.1 155.5 155.0 152.0 150.0 152.0
155.0 248.9 235.0 270.0 308.0 300.0 340.0 347.8 347.8 330.0
330.0 310.0 285.0 265.0 215.0 185.0 155.0 155.0 155.0 155.0
163.2 178.9 200.5 225.0 247.8 274.1 298.9 387.5 439.9 419.4
366.7 342.2 314.5 298.5 278.2 259.8 246.4 229.2 217.5 217.6
229.3 246.4 257.0 261.2 264.0 264.0
225.0 224.5 240.7 254.4 265.1 275.8 275.8 260.8 241.6 221.5
210.0 205.0 198.8 176.1 162.2 155.5 150.0 150.0 155.0 152.0
152.0 225.7 255.0 270.0 285.0 295.0 339.1 347.8 347.8 346.0
340.0 347.7 275.0 265.0 215.0 185.0 160.0 155.0 155.0 165.6
168.1 184.5 206.9 227.8 252.4 279.4 301.4 365.0 408.6 447.7
396.8 342.9 322.9 303.0 281.2 264.3 255.6 246.8 234.6 233.6
243.8 254.0 260.7 262.5 266.0 266.0
215.0 214.7 229.2 249.5 255.0 258.0 255.0 251.0 227.4 205.0
200.0 200.0 201.6 182.3 166.4 159.6 154.4 155.0 155.0 155.0
152.0 152.0 242.0 250.0 275.0 290.0 330.0 347.6 347.8 347.8
346.0 347.8 310.0 265.0 210.0 185.0 160.0 155.0 155.0 177.8
179.7 195.7 214.3 233.6 258.4 287.1 304.6 314.2 387.0 395.0
377.0 329.0 317.9 306.6 291.1 274.8 269.1 264.1 256.4 252.7
257.3 262.5 268.3 270.1 274.5 275.0
212.0 211.9 226.0 247.8 258.1 260.0 255.0 256.5 234.3 220.1
215.1 210.0 207.0 197.8 182.6 173.9 167.0 163.3 160.2 157.6
154.7 152.8 219.0 240.0 250.0 275.0 319.0 345.0 347.8 347.8
346.0 330.0 315.0 265.0 205.0 185.0 160.0 155.0 155.0 196.1
196.4 206.3 221.1 241.9 267.4 293.6 309.9 315.4 366.0 363.6
350.0 315.6 311.9 308.8 303.2 294.4 291.7 286.2 279.3 276.1
274.9 280.2 284.9 289.6 298.8 300.0
216.0 215.0 229.9 251.0 261.4 265.0 271.7 255.0 251.8 241.2
230.3 225.3 222.7 216.4 208.2 196.6 189.2 180.9 175.9 168.7
160.0 155.0 213.8 237.0 259.0 280.0 300.0 311.4 343.0 347.8
340.0 330.0 313.8 250.0 200.0 185.0 155.0 155.0 155.0 207.3
208.2 212.9 226.6 247.6 276.0 300.5 319.7 326.8 330.0 349.1
311.9 310.0 310.0 310.0 310.4 313.5 313.7 313.4 301.9 298.5
302.7 304.1 308.5 314.1 327.3 328.0
223.0 222.6 241.9 255.6 263.4 268.0 276.2 271.5 262.3 254.2
251.0 247.1 242.4 237.6 230.5 225.2 215.8 208.0 197.2 188.7
175.2 155.0 222.0 219.0 239.8 255.0 276.0 289.6 308.8 345.8
335.0 312.0 286.6 252.3 200.0 185.0 160.0 155.0 200.0 205.0
205.0 215.0 229.5 256.3 286.7 313.7 336.2 345.2 341.0 327.6
317.0 311.6 310.0 310.0 313.5 320.5 327.5 330.1 329.9 314.9
324.8 325.7 327.6 330.9 339.8 340.0
236.0 236.1 251.6 260.6 267.5 271.0 279.8 275.6 265.2 334.0
285.0 265.0 265.3 262.1 257.2 252.0 244.7 229.4 218.3 206.7
193.9 159.0 155.0 214.0 175.0 236.7 253.0 273.9 303.0 346.0
330.0 311.7 298.9 251.8 205.0 200.0 200.0 208.0 200.0 207.4
209.5 215.6 231.6 261.7 298.5 328.7 351.6 363.9 362.1 347.8
327.6 314.2 310.0 310.0 312.2 319.8 329.2 333.9 335.0 334.4

334.0 334.0 334.0 336.2 341.5 340.0
248.0 248.5 257.0 263.1 271.2 274.0 283.5 280.2 275.0 347.0
338.0 336.0 315.0 289.4 286.4 275.9 262.9 250.7 233.6 218.3
206.0 193.5 155.0 155.0 155.0 219.0 249.0 258.0 274.6 287.0
297.0 300.0 297.0 249.2 211.4 200.0 200.0 200.0 204.5 199.6
206.7 216.1 236.8 267.8 305.4 339.7 366.4 384.7 385.9 366.3
340.5 318.3 310.0 310.0 311.0 316.0 326.5 333.3 335.0 335.0
335.0 335.0 335.5 337.6 343.8 340.0
255.0 256.9 259.9 265.8 273.7 277.0 284.8 287.2 351.0 357.0
372.6 370.6 340.0 306.1 304.3 295.9 276.5 262.1 248.9 228.1
213.9 204.1 188.9 160.0 155.7 154.1 170.0 210.0 215.0 249.0
255.0 251.7 252.0 247.0 220.0 200.0 200.0 200.0 198.1 191.2
202.7 218.3 240.6 275.2 312.1 350.1 382.8 400.5 401.8 388.1
354.7 324.1 310.7 310.0 310.0 312.8 321.1 330.5 334.5 335.0
335.0 335.0 335.9 339.6 346.8 340.0
261.0 261.7 263.1 268.7 277.7 282.2 285.9 293.0 352.0 310.0
310.0 397.0 320.0 310.0 307.0 305.1 290.1 269.8 256.4 242.7
222.4 212.0 200.2 180.7 162.8 158.3 156.3 156.2 160.5 170.3
210.0 215.0 215.0 210.0 203.3 200.5 201.6 202.1 188.2 187.9
202.9 221.2 245.4 278.7 317.5 358.2 391.8 406.6 409.1 399.5
370.9 334.8 315.7 312.7 310.0 311.0 315.7 325.6 332.4 334.4
335.0 335.0 336.4 341.9 350.0 340.0
268.0 268.5 269.9 275.2 279.9 283.2 288.1 298.4 346.0 310.0
310.0 310.0 310.0 310.0 310.0 308.8 300.0 280.0 264.4 253.7
240.4 222.2 211.1 193.5 172.3 157.4 153.1 149.7 149.2 155.8
162.9 168.7 177.2 186.9 189.5 184.6 183.7 181.6 183.4 190.0
204.9 224.5 249.0 277.8 314.7 358.1 389.8 406.2 408.9 404.3
379.4 350.0 330.5 318.2 311.2 310.0 312.5 317.8 326.0 331.5
334.4 335.1 336.8 343.1 352.4 340.0
277.0 277.9 279.0 280.7 281.3 281.3 288.0 298.2 307.2 310.0
310.0 310.0 310.0 310.0 310.0 310.0 305.7 315.0 312.0 265.0
254.3 239.4 221.9 201.7 172.5 170.0 146.0 149.1 152.2 152.8
148.9 148.0 155.6 165.1 171.0 174.7 174.9 175.6 181.6 194.6
208.6 226.1 248.2 275.8 309.1 352.0 385.0 420.0 407.6 404.4
385.4 362.1 344.1 327.4 313.5 310.2 310.7 312.4 316.3 325.7
332.1 335.1 337.0 343.9 353.2 340.0
281.0 281.9 282.4 282.2 280.0 276.8 276.8 289.9 302.4 308.9
310.0 310.0 311.0 310.0 310.0 310.0 320.0 320.0 325.0 276.9
263.8 248.1 231.0 202.2 166.5 165.0 175.0 143.1 150.3 152.4
149.8 145.3 145.0 151.4 159.1 167.7 173.0 176.9 186.0 199.7
210.7 228.1 249.4 273.3 304.7 344.6 383.0 420.0 415.0 404.8
387.8 368.8 352.3 334.2 317.1 310.2 310.0 310.0 311.6 317.8
328.9 334.4 337.0 344.4 353.9 340.0
277.0 276.8 277.9 277.5 273.9 268.6 266.6 272.0 289.4 301.4
307.1 309.5 309.0 310.0 310.0 310.0 310.0 330.0 335.0 290.5
269.1 250.4 229.0 197.8 185.0 180.0 175.0 165.0 140.6 149.6
153.3 152.0 146.7 144.9 152.8 162.8 170.6 177.9 190.6 203.6
213.0 229.8 252.4 272.6 298.4 345.0 377.9 401.0 406.3 405.2
390.0 361.4 347.8 338.6 318.6 310.2 309.7 308.2 307.1 310.9
322.1 331.2 337.8 345.4 354.7 340.0
268.0 267.9 269.1 268.9 266.5 262.6 260.7 263.4 270.1 283.5
294.5 300.7 304.2 306.5 307.7 308.8 309.4 330.0 344.0 311.7
293.5 274.6 245.0 189.6 185.0 180.0 175.0 170.0 165.0 140.4
149.7 154.1 151.5 148.2 151.6 160.7 167.1 178.6 195.8 206.5

```
    215.3 233.9 254.8 273.0 299.6 336.3 378.7 397.8 406.4 406.2
    392.8 373.8 352.0 339.0 318.4 306.5 303.0 296.7 295.5 300.3
    314.2 328.2 337.6 346.9 355.2 340.0
55  261.0 261.6 262.0 262.1 261.4 260.6 260.0 260.0 262.2 266.7
    273.8 281.2 287.1 291.0 294.2 299.4 305.3 309.5 315.0 320.0
    295.9 280.0 245.0 187.6 185.0 185.0 180.0 180.0 175.0 165.0
    155.0 149.1 154.0 155.3 156.6 159.0 164.3 179.3 197.6 208.3
    215.9 236.1 255.8 272.4 294.9 331.7 365.0 394.2 406.4 407.5
    395.1 375.3 357.3 336.4 314.7 299.6 287.3 278.4 281.6 297.2
    311.0 326.0 338.3 346.8 355.5 340.0
    260.0 260.0 260.0 260.0 260.0 260.0 260.0 260.0 260.0 260.5
    262.1 264.9 267.8 270.6 273.6 282.3 297.7 306.2 298.4 310.0
    259.2 240.4 217.2 186.2 185.0 180.0 180.0 175.0 175.0 165.0
    165.0 155.0 151.2 157.4 156.9 155.9 160.9 178.1 197.8 208.6
    217.2 235.5 256.7 271.4 290.8 322.0 355.2 386.9 403.6 406.8
    395.5 376.5 357.1 333.5 312.4 293.1 275.8 266.2 278.7 294.7
    313.3 325.3 337.6 347.9 355.9 340.0
    260.0 260.0 260.0 260.0 260.0 260.0 260.0 260.0 260.0 260.0
    261.3 262.2 262.5 261.7 261.8 268.7 285.0 296.0 287.4 269.0
    254.4 235.6 214.7 186.3 180.0 180.0 175.0 175.0 175.0 170.0
    165.0 165.0 155.0 155.5 153.1 150.0 155.7 175.0 195.2 207.3
    215.3 235.5 255.2 267.7 284.3 313.1 347.5 372.2 391.9 397.7
    387.6 372.7 355.6 334.9 310.8 292.7 275.9 268.5 279.6 299.1
    311.9 325.3 339.6 349.8 356.8 340.0
    260.0 260.0 260.0 260.0 260.0 260.0 260.4 260.7 264.0 267.9
    273.4 277.8 277.1 274.0 271.6 274.4 282.3 286.1 273.6 263.3
    253.0 232.9 215.3 190.5 185.0 180.0 180.0 180.0 175.0 170.0
    170.0 165.0 165.0 155.4 152.7 150.0 154.1 169.4 190.5 204.6
    214.7 232.2 253.2 265.3 279.8 308.0 335.9 358.0 374.4 379.1
    373.5 365.3 353.8 333.6 312.9 292.4 278.5 275.6 290.6 303.3
    313.8 326.4 340.9 352.1 357.8 340.0
    262.0 262.4 262.6 262.6 262.3 261.4 260.9 265.6 273.3 287.7
    295.5 298.2 297.9 295.4 293.5 292.6 294.6 287.9 273.9 264.1
    256.3 239.6 245.0 245.0 185.0 182.0 180.0 180.0 175.0 175.0
    170.0 170.0 165.0 156.0 156.0 153.5 154.7 164.8 183.0 201.1
    211.8 228.8 250.2 263.5 276.7 301.9 329.1 351.0 361.5 364.1
    362.7 347.8 347.8 330.2 311.1 295.7 282.6 288.9 302.7 309.9
    318.1 328.7 342.0 352.2 358.4 340.0
60  266.0 266.1 267.6 267.7 266.5 264.8 266.0 274.1 293.7 304.3
    310.3 313.1 314.9 314.5 312.7 311.3 308.1 300.4 290.2 275.7
    264.6 279.0 263.7 230.0 185.0 185.0 182.0 180.0 180.0 180.0
    180.0 175.0 175.0 165.0 159.3 156.3 153.9 158.5 174.7 195.0
    209.0 226.5 248.6 261.4 274.7 297.8 326.5 347.1 357.8 360.0
    347.8 347.8 347.8 327.4 311.5 300.0 296.3 301.6 307.9 312.4
    319.7 330.9 341.2 352.0 358.3 340.0
    277.0 277.4 279.0 279.3 277.5 276.4 280.9 294.2 304.1 311.6
    316.1 321.5 323.9 324.5 323.5 321.7 316.9 311.0 304.4 292.8
    300.0 304.0 284.8 264.5 193.5 240.0 185.0 180.0 180.0 180.0
    175.0 175.0 175.0 175.0 164.0 156.8 150.0 152.3 165.4 187.8
    205.4 222.9 243.7 260.6 274.7 296.9 323.5 343.1 355.7 359.0
    351.2 347.8 347.8 331.8 315.4 308.3 307.2 308.2 310.0 312.4
    320.6 331.8 344.0 353.4 358.6 340.0
    295.0 294.4 295.5 294.9 294.5 296.2 301.0 305.6 310.3 315.1
    323.1 327.6 329.3 329.4 329.2 327.9 325.3 319.2 313.8 304.8
```

286.5 300.0 290.0 271.7 225.0 249.3 185.0 185.0 185.0 185.0
185.0 175.0 187.0 187.1 174.9 161.7 153.3 151.0 162.0 180.7
200.6 218.0 239.5 259.3 277.3 300.9 324.6 343.7 353.6 358.5
355.0 356.4 348.8 338.8 322.3 312.4 310.0 310.0 310.0 311.6
319.5 334.4 348.5 356.5 359.3 335.0
308.0 308.2 308.0 308.7 309.3 310.1 310.4 311.1 313.9 321.5
327.3 329.7 330.0 330.0 360.0 330.0 328.9 326.3 320.2 311.6
300.7 280.8 260.0 252.8 225.0 206.4 185.0 185.0 185.0 185.0
185.0 194.4 204.1 204.0 192.1 173.1 159.8 153.0 159.3 174.4
196.1 214.3 234.3 257.8 279.9 303.2 331.7 348.9 355.6 358.5
360.0 357.9 350.6 337.7 322.4 312.4 310.0 310.0 310.0 310.7
317.9 334.8 352.0 358.4 359.7 335.0
311.0 310.3 311.5 312.9 313.8 313.6 312.9 355.0 318.6 325.9
329.5 330.0 330.0 330.0 330.0 396.9 330.0 329.1 325.3 317.4
309.2 297.2 265.0 255.0 245.0 221.6 201.3 185.5 185.0 185.0
197.1 211.6 218.2 216.6 206.8 185.6 166.2 153.0 155.9 168.1
191.3 209.6 229.3 253.7 278.5 305.6 334.1 351.0 358.4 359.2
359.4 354.9 342.9 327.1 315.5 311.2 310.0 310.0 310.0 310.0
317.2 334.4 350.9 358.6 360.0 335.0
65 311.0 310.4 311.5 313.1 314.2 314.6 314.3 315.5 321.0 326.7
329.6 330.0 330.0 330.0 330.0 330.0 397.0 329.8 327.9 321.9
314.0 304.9 275.0 250.0 240.1 231.7 212.9 207.5 206.9 208.0
214.6 225.0 238.7 235.2 217.1 194.1 170.8 154.8 153.0 161.8
184.1 204.2 223.7 247.7 276.6 302.7 326.4 343.9 354.5 358.3
357.3 348.7 332.6 316.4 311.2 310.0 310.0 310.0 310.0 310.0
317.6 334.6 351.1 358.6 360.0 375.0
311.0 310.2 310.8 312.1 313.6 314.6 314.8 316.0 319.5 324.8
328.6 360.0 330.0 330.0 330.0 330.0 330.0 360.0 329.5 325.1
316.8 310.0 275.0 255.0 254.9 237.4 226.3 229.8 232.9 234.1
235.1 246.9 252.9 247.1 227.0 200.5 176.0 156.9 153.0 158.1
175.8 198.0 221.7 244.4 271.9 297.5 315.3 327.1 340.6 349.9
350.7 338.9 320.9 312.2 310.0 310.0 310.0 310.0 310.0 311.6
320.2 338.5 354.2 359.3 360.0 375.0
311.0 310.1 310.2 311.0 312.6 314.2 314.7 315.2 317.0 320.7
325.3 328.6 390.0 330.0 330.0 330.0 330.0 330.0 330.0 325.5
317.6 311.0 275.0 256.0 258.5 265.0 265.0 260.0 270.3 271.8
269.8 263.2 255.0 251.0 231.2 206.6 177.0 161.5 154.7 157.1
170.6 192.6 247.0 242.2 267.0 289.2 305.5 314.3 321.3 333.6
337.6 327.8 315.9 310.0 310.0 310.0 310.0 310.0 311.8 317.2
331.1 346.6 357.0 360.0 360.0 375.0
311.0 310.0 310.0 310.4 311.4 312.9 313.9 314.4 314.9 315.6
320.0 325.9 329.1 360.0 330.0 330.0 330.0 330.0 329.5 324.6
315.6 310.6 275.0 258.0 260.0 265.0 262.9 277.9 295.8 285.0
285.0 283.6 266.2 247.0 234.8 195.0 180.0 166.5 153.6 153.2
165.3 184.1 209.5 236.2 259.2 277.3 297.3 307.3 312.5 316.8
322.8 320.0 312.8 310.0 310.0 310.0 310.0 313.1 319.4 333.0
346.3 355.2 358.9 360.0 360.0 375.0
311.0 310.0 310.1 310.1 310.5 311.3 312.3 312.8 312.6 312.3
314.1 320.4 326.0 328.7 329.6 329.6 329.2 328.3 326.1 320.2
313.1 310.0 275.0 257.0 260.0 265.0 268.8 288.5 303.4 308.5
307.1 285.0 271.3 245.0 233.0 200.0 185.0 171.0 153.0 153.0
158.1 176.1 197.2 225.0 248.7 267.0 284.5 301.5 308.2 311.7
313.2 312.9 311.3 310.0 310.0 310.0 311.8 319.4 336.5 350.4
356.5 359.2 360.0 360.0 360.0 375.0

```
70  311.0 310.1 310.0 310.0 310.1 310.3 310.7 311.1 311.0 310.5
    311.3 314.1 320.3 324.7 325.7 325.6 324.7 322.3 318.7 313.9
    311.3 308.6 275.0 257.0 260.9 260.7 270.9 289.5 303.7 300.0
    300.0 294.1 265.0 240.0 230.0 205.0 198.7 176.7 155.0 153.0
    155.0 168.9 188.8 212.9 239.0 257.5 271.2 288.0 302.0 308.3
    310.0 310.2 310.0 310.0 310.0 310.0 314.1 329.8 349.0 358.5
    360.0 360.0 360.0 360.0 360.0 375.0
    311.0 310.0 310.0 310.0 310.0 310.0 310.1 310.1 310.1 310.1
    310.0 315.0 314.6 317.6 318.5 318.2 316.8 314.5 312.2 310.8
    305.0 305.6 289.3 259.0 260.0 260.7 268.2 284.8 300.9 325.0
    312.0 296.7 270.0 245.0 228.0 215.0 202.6 182.8 159.1 153.0
    153.0 164.2 185.8 206.5 225.8 246.3 260.9 272.0 287.9 300.5
    305.8 308.2 309.6 310.0 310.0 310.0 315.9 334.1 352.3 360.0
    360.0 360.0 360.0 360.0 360.0 375.0
    311.0 310.0 310.0 310.0 310.0 310.0 310.0 310.0 310.0 310.0
    310.0 295.0 300.0 300.0 300.0 300.0 300.0 300.0 300.0 300.0
    285.0 301.1 281.3 264.7 260.0 260.3 265.8 300.0 320.0 333.0
    311.0 300.0 281.2 265.7 245.0 216.0 207.6 184.8 161.6 155.0
    155.0 159.7 180.9 201.2 214.8 232.1 251.3 263.4 271.4 282.8
    292.0 299.1 305.7 309.4 310.2 310.0 315.4 332.8 351.8 360.0
    360.0 360.0 360.0 360.0 360.0 375.0
    311.0 311.0 310.0 310.0 310.0 310.0 310.0 310.0 310.0 310.0
    309.0 306.9 304.5 301.8 299.1 298.3 298.4 297.5 296.4 297.6
    299.0 291.4 272.0 261.5 260.0 260.0 264.5 282.2 332.0 310.0
    312.0 305.6 290.4 269.6 245.0 217.0 212.8 185.8 163.1 155.0
    155.0 154.3 172.9 193.0 206.2 210.0 211.0 240.0 255.0 267.2
    272.8 282.6 296.1 305.2 309.0 310.1 313.4 327.8 348.0 358.5
    360.0 360.0 360.0 360.0 360.0 375.0
    311.0 310.0 310.0 310.0 310.0 310.0 310.0 310.0 307.0 303.8
    299.4 293.7 287.7 283.0 279.8 279.0 277.9 274.8 273.6 274.9
    278.7 274.5 265.9 260.0 260.0 260.0 266.3 282.6 302.7 315.0
    305.0 308.8 295.8 269.0 233.0 217.0 215.1 188.9 167.0 155.0
    155.0 150.0 165.5 185.1 200.4 205.0 212.0 213.0 240.0 245.0
    262.8 269.0 281.4 297.1 307.0 310.0 311.3 320.2 339.7 355.1
    360.0 360.0 360.0 360.0 360.0 375.0
75  311.0 310.0 310.0 310.0 310.0 310.0 308.6 304.0 296.5 284.2
    279.3 275.3 269.2 265.8 264.7 263.7 262.5 261.1 260.0 261.2
    262.6 262.6 261.4 260.0 260.0 260.0 267.5 287.1 303.9 300.0
    300.0 306.1 292.3 271.0 233.0 218.0 214.1 191.4 169.2 152.4
    155.0 155.0 160.0 174.5 193.5 205.9 209.0 215.0 217.0 245.0
    246.2 258.5 270.6 285.4 300.1 306.9 309.2 315.2 330.1 350.6
    359.1 360.0 360.0 360.0 360.0 375.0
    311.0 310.0 310.0 310.0 310.0 310.0 307.1 295.1 276.8 267.4
    264.0 262.5 261.2 260.0 259.6 258.8 257.9 258.3 259.1 260.0
    260.0 260.0 260.0 260.0 260.0 260.0 266.2 285.3 301.6 309.0
    307.6 298.5 281.2 250.0 224.0 219.0 213.1 192.5 171.1 155.2
    155.0 155.0 151.5 165.7 181.0 197.5 205.0 214.7 219.0 232.0
    242.0 247.0 264.3 272.6 285.6 298.9 307.2 312.1 324.6 343.9
    357.2 360.0 360.0 360.0 360.0 375.0
    311.0 310.0 310.0 310.0 310.0 310.0 305.6 289.0 269.2 260.0
    260.0 260.0 260.0 259.4 257.3 253.8 250.5 251.1 255.1 258.2
    259.5 259.7 259.3 259.1 259.4 259.8 263.2 272.8 293.5 305.9
    304.3 289.0 269.7 248.0 220.0 219.0 211.8 196.3 173.3 159.3
    155.0 155.0 155.0 157.4 169.1 185.7 200.4 207.8 213.3 220.0
```

222.0 228.0 252.6 263.2 271.0 288.5 303.5 311.0 319.5 338.3
355.0 360.0 360.0 360.0 360.0 375.0
311.0 310.0 310.0 310.0 310.0 309.4 303.5 286.9 267.7 260.0
260.0 260.0 259.0 256.7 251.1 245.2 241.6 241.9 246.6 252.2
253.4 251.2 247.7 246.8 250.5 255.5 259.1 266.7 283.2 303.1
304.1 284.9 268.6 251.0 227.0 222.0 213.6 198.0 178.6 162.3
153.5 157.0 144.6 152.6 162.3 173.7 191.1 203.8 208.8 212.3
220.9 224.0 249.6 258.5 264.3 277.3 298.0 308.1 315.6 332.0
349.3 357.4 359.3 360.0 360.0 375.0
311.0 310.0 310.0 310.0 310.0 308.7 299.9 281.7 266.1 260.0
260.0 259.3 256.6 250.1 243.3 238.3 236.1 236.5 237.7 239.3
237.6 231.4 226.6 225.8 231.5 245.7 255.7 264.7 281.7 301.1
312.0 293.4 274.5 263.1 233.0 223.0 217.3 203.0 183.6 166.2
156.6 157.0 157.0 150.8 157.8 165.9 180.6 198.5 207.8 210.7
214.8 225.2 243.0 255.3 261.1 269.4 288.1 304.9 313.0 322.3
336.4 348.2 355.1 358.7 360.0 375.0
80 311.0 310.0 310.0 310.0 310.0 306.3 294.3 275.8 263.0 260.0
260.0 258.4 252.3 244.2 237.8 235.6 234.9 234.3 231.5 225.4
218.9 215.1 212.5 212.1 216.5 229.3 248.7 261.7 281.1 300.7
315.0 302.1 283.7 266.7 246.0 220.0 222.3 206.0 189.2 168.5
158.9 157.0 157.0 158.0 153.5 161.0 170.8 189.2 203.4 210.0
211.3 218.1 232.9 251.2 259.0 263.7 278.1 298.9 309.2 314.2
321.6 331.8 344.8 355.6 360.0 360.0
311.0 310.0 310.0 310.0 308.7 298.6 284.2 267.5 261.4 260.0
259.3 256.0 248.3 240.0 235.9 234.6 233.8 231.0 224.9 216.6
211.4 210.0 210.0 210.0 211.9 219.4 235.3 255.1 275.1 296.7
290.0 290.0 305.0 269.4 247.0 219.0 224.8 208.0 190.2 172.4
159.8 152.1 155.0 158.0 155.0 158.6 163.9 176.2 198.2 208.7
210.5 255.0 255.0 245.6 257.9 261.1 270.3 290.4 305.6 311.0
312.7 318.6 334.2 352.3 360.0 360.0
310.0 310.0 309.4 306.9 301.1 285.7 270.0 262.2 260.0 259.5
245.0 245.0 243.1 237.2 235.2 234.0 230.7 225.5 218.1 212.7
210.5 210.0 210.0 210.0 210.8 214.7 224.8 243.8 263.5 284.4
301.6 304.5 290.2 269.6 240.0 225.0 225.6 208.4 193.5 174.1
161.2 152.3 155.0 158.0 155.0 157.2 160.0 169.2 189.2 205.5
220.0 255.0 298.5 310.0 256.2 259.9 266.1 282.1 301.4 309.3
310.0 313.8 329.0 349.3 359.1 335.0
297.0 308.0 305.0 292.0 285.1 270.8 263.3 255.0 247.0 247.0
246.0 241.0 238.8 235.9 234.9 233.0 227.3 218.9 212.7 210.5
210.0 210.0 210.0 210.0 210.6 212.1 218.0 232.2 250.5 268.8
288.0 295.4 283.0 267.7 230.0 222.0 225.7 210.6 198.0 178.6
163.3 154.3 155.0 158.0 146.7 155.9 159.8 166.0 182.4 202.4
235.0 274.0 298.5 348.0 254.4 259.5 264.6 279.3 297.9 309.3
310.0 312.3 325.7 344.5 357.6 335.0
288.0 297.3 291.2 280.1 270.4 263.0 250.1 249.0 248.0 257.9
252.0 240.0 239.1 237.4 235.5 230.5 222.4 213.2 207.8 204.7
203.3 202.3 202.4 205.0 207.6 210.9 214.6 221.0 239.1 255.5
270.7 277.2 232.5 231.5 228.0 222.0 227.1 211.9 202.4 185.0
166.4 156.4 155.0 158.0 144.0 154.7 159.8 164.1 180.5 200.5
220.0 211.0 294.9 285.0 251.4 258.7 263.5 278.7 299.0 309.5
310.0 311.1 318.9 337.7 353.3 335.0
85 255.0 255.0 255.0 255.0 255.0 255.1 251.0 255.0 255.0 255.0
254.9 240.0 239.0 239.0 238.0 230.9 219.4 207.5 197.9 191.6
188.3 186.9 186.4 190.4 201.5 209.1 213.0 218.4 225.9 245.5

255.9 262.9 263.4 261.6 255.0 220.0 228.0 214.2 205.2 189.5
170.7 158.4 150.7 158.0 147.1 156.0 159.8 168.2 187.7 207.7
196.0 220.0 255.0 280.0 247.5 257.4 262.5 276.9 297.7 308.6
310.0 310.0 314.2 326.5 344.4 335.0
261.0 255.0 255.0 255.0 255.0 253.0 252.0 255.0 261.1 262.5
263.0 258.7 256.4 254.9 251.5 240.5 222.4 206.4 189.2 181.5
177.4 173.9 173.3 177.1 186.6 202.2 212.4 215.9 220.7 228.8
246.1 255.4 260.0 260.0 260.0 235.7 220.0 216.7 206.7 193.4
174.1 161.8 155.3 158.0 155.3 155.0 165.2 181.5 180.0 195.0
205.0 211.5 213.4 225.6 243.8 255.5 261.9 273.9 292.2 306.7
310.0 310.0 311.2 316.6 330.8 335.0
261.0 260.0 260.0 260.0 260.0 260.4 261.0 261.8 264.8 269.6
273.7 278.9 275.1 266.5 260.4 250.8 234.4 213.3 199.0 184.4
175.9 171.3 170.0 171.2 175.8 187.2 203.8 212.6 214.3 218.0
229.9 247.2 255.7 260.0 260.0 254.7 235.2 219.5 208.3 198.0
180.8 165.3 155.0 158.9 159.1 160.0 175.0 200.0 200.0 200.0
205.0 213.9 212.9 224.6 241.4 255.6 261.2 271.2 289.1 304.8
310.1 310.1 310.2 311.8 319.3 335.0
261.0 260.0 260.0 260.8 262.9 267.1 271.9 275.6 279.1 285.5
293.1 296.2 294.4 284.6 272.1 263.3 250.8 233.1 214.8 199.4
183.2 174.6 170.8 170.1 171.0 176.3 188.0 203.0 209.0 212.2
217.3 228.1 244.9 254.6 259.2 254.1 235.1 218.1 209.5 204.8
188.3 169.9 160.5 160.2 160.0 165.8 175.0 190.0 200.0 200.0
205.0 217.2 212.9 224.7 243.2 255.4 260.8 268.8 286.8 303.1
310.0 310.0 310.0 310.2 313.6 310.0
265.0 260.3 261.4 266.2 274.2 284.5 292.5 296.3 301.3 306.2
310.3 311.6 310.2 304.9 295.6 283.8 272.3 254.9 233.0 214.6
202.0 185.8 176.9 171.7 170.4 171.7 178.7 191.2 205.2 210.3
211.3 215.6 226.1 242.7 252.4 249.6 231.9 216.2 210.0 207.3
196.2 174.8 164.0 161.1 165.2 180.0 175.0 190.0 200.0 200.0
205.0 219.6 213.3 226.2 244.6 256.9 260.2 265.8 282.1 301.6
310.0 310.0 310.0 310.1 311.5 310.0
90 265.0 263.5 269.0 269.1 284.8 302.6 306.5 310.8 317.3 327.0
330.9 329.3 329.8 327.2 318.9 307.0 295.1 279.1 255.6 232.0
220.6 208.1 189.4 179.8 173.4 171.0 173.6 185.2 201.1 209.0
210.0 210.8 255.0 265.0 239.0 240.0 227.5 214.1 210.0 207.6
195.4 181.2 167.6 163.9 170.0 170.0 166.0 190.0 200.0 200.0
205.0 219.9 214.8 228.4 247.0 257.6 260.0 263.5 279.5 299.8
310.0 310.0 310.0 310.1 310.0 310.0
275.0 272.1 275.6 279.5 288.8 309.8 310.7 314.3 327.4 342.1
349.2 349.8 347.9 347.0 338.4 323.7 311.4 299.1 281.3 258.1
243.6 222.4 210.7 194.4 181.5 174.3 174.3 185.1 199.0 209.0
210.0 240.0 278.9 275.6 269.6 230.3 222.1 212.4 209.7 205.1
193.4 178.5 172.0 172.8 170.0 170.0 175.0 190.0 200.0 200.0
200.0 219.4 215.9 232.8 248.7 258.5 260.0 262.2 277.7 298.5
310.0 310.0 310.0 310.1 310.0 310.0
295.0 290.0 285.6 291.3 296.0 311.1 312.6 316.3 328.5 345.3
356.5 359.2 358.8 356.2 351.7 340.0 324.5 314.6 300.1 279.1
257.7 244.6 222.6 209.8 194.1 181.7 179.9 188.3 202.6 209.0
210.0 210.0 210.8 220.0 221.9 224.0 218.3 212.1 209.6 202.7
188.6 176.2 171.9 170.0 170.0 170.0 175.0 175.0 200.0 200.0
200.0 216.5 218.5 233.4 252.3 259.3 260.0 261.0 274.6 297.3
310.0 310.0 310.0 310.0 310.2 310.0
298.6 298.6 295.8 295.6 300.0 312.7 314.6 316.2 321.9 337.1

352.9 359.3 359.6 359.4 357.5 350.7 341.6 330.9 317.1 298.2
277.7 258.9 242.8 220.5 203.4 184.0 181.8 192.5 204.0 210.0
210.0 211.0 214.0 220.4 226.1 228.3 222.4 214.3 209.8 200.5
185.0 174.5 171.6 180.0 170.0 170.0 175.0 185.0 200.0 200.0
200.0 215.2 216.8 235.3 251.6 259.5 260.0 260.9 274.5 297.2
310.0 310.0 310.0 310.0 310.1 310.0
299.8 298.6 298.6 298.6 298.6 313.3 314.6 315.1 316.5 328.9
347.1 358.3 360.0 360.0 359.3 357.6 353.4 346.9 332.2 314.2
296.9 276.6 257.8 229.0 210.1 187.5 181.2 189.6 203.5 210.0
210.0 213.1 220.9 229.9 235.3 235.6 231.1 221.5 210.0 200.0
185.4 174.8 170.8 180.0 170.0 170.0 175.0 185.0 200.0 200.0
200.0 213.3 217.1 232.4 250.3 259.5 260.0 260.9 276.2 297.2
310.0 310.0 310.0 310.0 310.1 310.0
95 311.0 301.6 298.6 298.6 298.6 312.5 313.4 312.7 314.1 325.0
344.5 358.3 360.0 360.0 360.0 359.8 358.6 354.0 344.1 327.4
311.0 295.4 274.2 228.0 219.5 192.7 179.6 183.4 198.4 215.0
215.0 215.8 227.8 236.6 239.5 239.5 236.8 228.2 210.0 202.9
188.3 175.8 171.5 180.0 170.0 170.0 175.0 185.0 200.0 200.0
200.0 212.3 216.7 230.8 250.1 258.5 260.0 261.9 275.5 298.2
310.0 310.0 310.0 310.0 310.1 310.0
311.0 300.2 298.6 298.6 298.6 302.1 313.0 311.9 312.3 323.5
344.9 357.8 360.0 360.0 360.0 360.0 359.4 358.1 353.3 342.5
323.9 308.4 289.5 262.5 228.0 203.2 181.5 177.4 186.9 215.0
215.0 216.6 228.2 237.6 240.0 240.0 239.0 232.8 207.0 203.9
187.1 175.7 172.7 180.0 170.0 170.0 175.0 185.0 200.0 200.0
200.0 213.2 216.5 233.9 249.0 259.0 260.0 261.0 276.7 297.4
310.0 310.0 310.0 310.0 310.1 310.0
315.0 299.0 298.6 298.6 298.6 299.2 313.0 312.3 312.3 324.3
343.3 358.7 360.0 360.0 360.0 360.0 360.0 359.9 358.9 353.3
337.3 317.0 298.0 272.1 243.2 212.8 187.7 175.9 176.6 186.9
215.0 215.0 225.0 236.3 239.6 240.0 239.6 235.7 207.0 202.6
183.6 176.1 172.5 180.0 170.0 170.0 175.0 185.0 200.0 200.0
205.0 220.0 219.3 233.7 252.2 258.6 260.0 261.8 274.1 296.8
308.6 310.0 310.0 310.1 310.0 310.0
315.0 305.6 298.6 298.6 298.8 308.8 313.0 312.7 316.9 328.5
350.1 358.7 360.0 360.0 360.0 360.0 360.0 360.0 360.0 358.2
344.5 322.8 301.8 280.1 251.1 221.4 198.3 181.8 175.0 176.1
186.6 209.0 219.6 232.2 239.1 240.0 240.0 236.7 207.0 205.1
187.1 177.1 172.7 180.0 175.0 170.0 175.0 195.0 200.0 200.0
225.2 213.0 219.3 238.6 253.0 259.6 260.0 260.8 274.7 293.0
308.6 310.0 310.0 310.1 310.0 310.0
315.0 308.7 298.6 298.6 302.7 313.6 315.5 319.7 328.0 347.1
355.7 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 359.4
348.6 328.1 307.7 287.6 259.9 229.3 208.9 195.2 179.7 174.0
179.1 194.9 209.7 226.9 236.2 239.6 239.5 235.2 223.4 203.0
194.5 179.7 173.9 180.0 175.0 170.0 175.0 195.0 200.0 205.0
217.3 211.7 220.9 239.0 254.1 259.6 260.0 260.8 271.6 294.3
307.1 310.0 310.0 310.1 310.0 310.0
100 315.0 314.0 298.9 298.6 311.8 317.1 323.7 336.4 349.5 347.9
360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0
352.4 333.1 313.8 295.2 268.1 238.1 217.2 203.8 190.3 175.7
176.4 188.1 202.9 216.0 228.4 235.0 236.1 230.6 220.2 210.2
197.7 182.1 174.1 175.0 175.0 170.0 185.0 195.0 205.0 220.0
213.3 211.7 221.4 237.5 254.8 260.0 260.0 260.0 272.1 291.8

308.5 310.0 310.0 310.1 310.0 310.0
315.0 313.4 313.9 314.8 314.8 321.7 338.0 352.9 358.1 360.0
360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0
354.8 338.5 318.4 298.9 274.3 247.1 224.2 209.4 195.9 179.7
174.4 182.3 196.2 206.3 216.6 223.4 226.3 222.9 214.7 209.0
198.3 182.8 176.0 175.0 175.0 170.0 185.0 195.0 205.0 229.9
212.0 211.9 221.8 242.0 256.2 260.0 260.0 260.0 272.1 294.9
308.5 310.0 310.0 310.1 310.0 310.0
315.0 312.6 312.9 313.4 316.6 328.1 349.0 358.8 360.0 360.0
360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0
356.6 340.8 320.2 301.6 281.9 256.4 231.7 215.4 201.7 185.9
175.1 176.4 185.3 199.1 207.8 213.3 214.7 213.6 211.7 207.6
196.8 181.1 177.7 175.0 175.0 180.0 185.0 195.0 205.0 223.6
212.0 212.4 226.3 246.8 258.0 260.0 260.0 260.1 273.6 296.4
310.0 310.0 310.0 310.0 310.0 310.0
315.0 312.0 311.6 311.9 318.0 336.7 352.6 360.0 360.0 360.0
360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0
356.5 340.7 320.2 305.8 293.1 269.3 245.5 224.6 212.9 196.0
178.9 172.6 176.9 188.2 200.0 205.2 207.6 208.2 207.5 203.1
190.9 176.6 183.2 175.0 175.0 185.0 190.0 195.0 236.3 215.9
210.8 215.3 230.8 249.4 259.2 260.0 260.0 261.2 274.7 297.4
310.0 310.0 310.0 310.0 310.0 310.0
315.0 312.6 312.4 312.5 319.2 337.2 353.5 360.0 360.0 360.0
360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0
354.5 338.1 318.1 309.0 301.1 280.7 256.6 237.1 220.8 204.8
186.6 174.1 172.5 178.1 185.6 193.1 196.6 197.7 197.0 191.7
181.4 175.8 175.0 175.0 175.0 185.0 190.0 195.0 220.9 211.7
210.0 217.5 236.2 253.1 259.2 260.0 260.0 262.4 278.0 298.6
310.0 310.0 310.0 310.0 310.0 310.0
105 315.0 314.2 315.0 314.6 317.0 329.6 349.3 358.7 360.0 360.0
360.0 360.0 360.0 360.0 360.0 360.0 360.0 359.4 358.0 356.6
348.3 329.7 314.6 310.0 304.4 286.2 263.3 244.7 226.5 212.5
197.6 180.3 172.8 171.6 175.0 179.2 181.9 182.3 183.0 180.7
179.0 180.0 175.0 175.0 180.0 185.0 190.0 205.0 214.8 210.0
211.2 221.0 241.2 256.1 260.0 260.0 260.0 263.7 279.7 300.0
310.0 310.0 310.0 310.0 310.0 310.0
315.0 315.3 316.3 315.7 314.0 321.9 341.2 355.3 359.6 359.6
359.0 359.4 359.0 358.5 359.1 359.5 358.8 355.5 349.6 344.3
335.2 319.7 311.4 310.0 305.2 287.5 266.0 249.8 234.7 217.9
206.0 191.5 177.2 172.1 171.7 173.2 174.2 175.0 177.8 175.0
175.0 175.0 175.0 180.0 180.0 185.0 190.1 220.1 211.6 210.0
212.8 226.6 244.9 257.7 260.0 260.0 260.0 264.2 280.7 300.6
310.0 310.0 310.0 310.0 310.0 310.0
315.0 315.1 315.5 314.4 313.3 317.4 330.6 346.8 352.5 355.2
356.9 356.4 353.2 351.3 351.5 354.3 354.3 347.0 337.1 329.7
321.0 314.4 310.1 310.0 305.4 288.2 266.8 254.9 244.3 225.5
211.7 200.9 189.7 180.9 175.6 173.8 174.6 177.6 183.6 180.0
180.0 190.0 190.0 190.0 190.1 185.0 205.0 213.0 210.0 210.0
216.1 231.9 251.5 259.0 260.0 260.0 260.0 266.2 283.1 302.6
310.0 310.0 310.0 310.0 310.0 310.0
315.0 314.8 314.6 313.8 313.7 316.0 322.5 331.5 338.9 343.0
347.4 348.4 343.3 337.9 338.3 342.6 344.2 337.3 327.8 320.6
315.5 311.8 310.1 310.0 305.3 287.8 268.0 257.9 244.0 233.9
215.6 207.1 203.0 195.5 185.9 180.2 175.9 180.3 180.0 185.0

185.0 190.0 185.0 185.0 190.0 195.0 200.0 220.0 210.0 211.4
220.9 241.1 255.8 260.0 260.0 260.0 261.0 269.2 289.3 304.6
310.0 310.0 310.0 310.0 310.0 310.0
315.0 315.4 315.0 314.0 314.3 315.7 318.0 321.4 325.7 330.8
336.5 337.5 334.1 328.7 329.0 333.2 332.9 328.6 322.4 317.2
313.6 311.1 310.1 310.0 303.7 286.9 267.3 259.5 255.3 239.4
220.7 210.9 209.0 206.4 200.2 180.0 181.4 180.0 180.0 180.0
190.0 190.0 190.0 185.0 180.0 200.0 214.6 210.0 210.0 214.6
229.9 249.8 258.8 260.0 260.0 260.0 261.0 273.2 291.5 306.4
310.0 310.0 310.0 310.0 310.0 310.0
110 315.0 315.0 315.0 315.0 315.0 315.0 320.0 322.0 325.0 330.0
336.0 337.0 334.0 328.0 328.0 333.0 333.0 328.0 322.0 317.0
313.0 312.0 310.0 311.0 305.0 286.0 267.0 260.0 255.0 239.0
220.0 211.0 209.0 207.0 200.0 180.0 182.0 180.0 180.0 180.0
190.0 190.0 190.0 185.0 180.0 200.0 215.0 210.0 210.0 215.0
229.0 250.0 258.0 260.0 260.0 260.0 261.0 273.0 291.0 306.0
310.0 310.0 310.0 310.0 310.0 310.0

## BEDROCK TOP ELEVATION ARRAY

1 188.0 188.0 165.0 145.0 115.0 100.0 99.0 99.0 102.0 105.0 LAY2 TOP
125.0 135.0 145.0 150.0 155.0 160.0 165.0 170.0 177.0 176.0
178.0 180.0 185.0 190.0 200.0 203.0 206.0 209.0 205.0 210.0
210.0 210.0 215.0 220.0 240.0 252.0 252.0 267.0 315.0 245.0
201.0 201.0 205.0 207.0 205.0 202.0 201.0 199.0 195.0 188.0
178.0 176.0 185.0 195.0 199.0 205.0 211.0 215.0 218.0 221.0
221.0 221.0 220.0 220.0 221.0 222.0
188.0 187.7 168.3 143.1 117.5 103.1 99.9 99.2 99.2 109.8
123.3 137.6 145.5 149.0 151.7 160.6 165.2 194.5 199.4 182.1
185.1 188.1 191.1 194.1 201.0 209.0 209.5 209.6 210.0 210.1
210.4 211.5 215.4 225.2 230.1 235.1 235.1 241.1 282.1 263.3
215.0 201.3 204.6 207.0 205.6 202.0 200.3 199.1 195.3 187.1
178.1 176.8 183.7 193.4 199.6 204.0 210.1 215.7 218.7 221.1
221.3 220.7 220.0 220.3 221.7 222.0
195.0 194.3 187.5 171.6 149.5 127.0 111.4 102.7 99.0 95.0
99.0 117.6 132.3 141.8 147.7 154.8 167.5 180.0 180.0 180.0
185.0 190.0 200.4 201.7 204.8 207.3 208.5 209.3 209.8 210.0
210.6 212.0 218.1 229.6 243.3 266.0 281.0 274.0 289.0 263.0
204.5 201.2 204.4 206.3 204.4 201.1 200.0 197.0 189.1 179.5
177.7 181.8 190.4 196.9 200.8 206.4 215.0 223.0 228.6 229.9
227.3 222.7 220.4 220.7 224.0 225.0
198.0 197.6 197.0 192.3 183.2 166.4 141.0 120.0 107.5 102.0
95.0 95.0 110.7 126.5 140.2 148.0 155.5 168.9 182.0 195.6
198.9 195.0 200.0 200.5 201.6 204.1 206.7 208.5 209.4 209.7
210.8 215.0 223.8 237.5 247.1 266.0 312.0 326.0 317.0 250.0
207.2 201.6 204.1 205.5 202.9 200.7 198.1 192.8 181.6 177.2
181.4 190.6 197.1 201.3 204.6 212.8 224.6 234.7 239.1 240.2
234.7 226.2 221.3 221.2 225.0 226.0
5 200.0 199.4 199.4 199.7 198.6 190.7 173.6 150.6 132.3 114.7
104.7 99.0 95.0 99.0 123.4 137.0 144.6 155.3 167.6 179.7
188.4 194.0 198.6 200.0 200.3 201.3 203.7 206.2 207.8 208.7
210.5 215.3 227.6 241.5 249.7 256.4 330.0 336.0 319.0 270.0
202.0 201.4 204.9 205.9 203.1 199.8 194.9 184.8 179.4 182.0
189.9 196.6 202.4 207.0 212.7 223.4 237.7 244.1 246.8 246.2
239.4 228.9 222.5 222.9 228.2 227.0
210.0 208.9 206.0 203.0 200.0 196.8 189.4 178.2 160.2 142.1
121.4 107.1 99.0 95.0 99.0 110.0 136.6 148.0 154.5 159.2
165.6 177.5 188.0 193.9 198.5 200.3 201.2 202.9 204.7 206.8
209.6 215.3 228.5 242.3 251.6 263.0 320.0 336.0 319.0 256.0
195.0 205.0 210.0 205.2 202.8 199.4 191.3 182.3 182.4 190.6
196.3 200.4 206.7 213.9 222.2 234.0 243.9 249.1 249.6 247.5
239.6 229.3 225.0 228.7 236.2 237.0
225.0 225.2 224.1 216.6 209.1 203.0 194.8 191.4 184.6 168.4
149.0 127.0 109.1 99.0 95.0 95.0 125.2 139.9 147.1 150.0
153.1 157.7 165.2 178.7 190.9 196.9 200.3 200.6 201.7 203.8
206.8 215.9 229.6 244.1 251.6 307.0 334.0 336.0 331.0 271.0
195.0 205.0 210.0 201.4 195.6 188.7 181.6 180.8 187.9 195.8
199.3 203.9 212.6 222.3 231.0 240.4 247.3 249.6 250.0 247.3
238.4 229.1 228.8 236.7 244.4 245.0
235.0 235.6 239.5 239.4 231.8 212.7 203.0 197.9 195.7 189.8
173.7 152.3 131.8 110.9 99.0 99.0 95.0 122.0 136.8 144.2

148.8 150.0 153.0 159.0 172.3 189.1 196.7 200.0 202.0 210.0
235.0 225.0 228.1 242.1 249.0 255.1 314.0 337.0 332.0 250.0
195.0 205.0 201.0 194.6 183.0 167.2 166.3 177.9 190.9 197.7
202.6 211.7 225.2 234.7 240.8 245.7 249.1 245.0 249.8 247.1
239.5 232.4 234.6 242.6 248.1 248.0
235.0 238.1 247.2 250.0 245.5 236.4 213.6 204.5 199.8 197.9
190.2 175.2 154.1 132.5 110.4 99.0 95.0 105.6 113.9 129.3
140.9 146.7 150.0 151.5 157.3 170.2 188.9 196.7 199.2 202.0
235.0 225.0 216.5 230.7 238.9 306.0 315.0 337.0 335.0 264.0
195.0 190.0 189.9 179.2 163.8 154.1 157.7 175.5 189.8 198.2
209.7 228.6 240.8 245.6 247.8 249.0 249.8 250.0 249.8 247.7
243.3 240.0 242.5 246.4 249.0 249.0
245.0 242.5 248.7 250.0 250.0 245.5 236.4 213.6 204.5 199.6
197.2 189.5 173.4 153.2 129.4 108.4 99.7 95.0 102.1 108.6
120.5 136.2 144.1 148.7 151.3 157.8 173.8 192.8 195.0 197.1
194.6 202.0 205.7 214.7 222.5 294.0 306.0 317.0 317.0 260.0
195.0 185.4 170.6 157.4 151.0 151.7 162.4 179.5 191.0 203.0
225.7 242.8 248.6 250.0 250.6 252.1 252.6 252.0 250.3 249.1
247.9 247.4 247.5 249.6 251.7 251.0
245.0 245.8 250.0 250.0 250.0 250.0 245.5 236.4 213.6 204.5
199.5 196.7 188.6 170.6 147.9 121.4 104.8 98.3 95.0 99.9
105.1 113.4 129.7 141.4 147.3 151.9 165.7 187.4 201.8 200.0
198.6 193.5 194.9 199.5 244.0 270.0 256.0 263.0 260.0 209.6
189.8 169.1 155.3 146.7 140.6 152.1 173.5 184.5 194.9 215.8
238.7 248.7 250.0 251.0 253.6 258.2 260.9 256.9 252.4 250.4
250.0 250.0 250.6 252.8 256.9 256.0
300.0 248.6 250.0 250.0 250.0 250.0 250.0 245.5 233.1 210.4
201.3 199.6 196.3 184.3 161.1 137.4 114.6 102.4 97.0 97.2
98.8 102.8 109.6 123.5 139.3 146.9 158.1 175.6 192.2 240.0
184.8 170.8 169.0 176.5 225.0 225.0 227.0 226.0 203.3 191.9
171.4 156.0 150.0 144.3 144.4 157.6 179.8 192.7 203.9 228.7
245.7 250.1 250.8 254.0 260.8 267.5 268.8 264.2 256.2 251.4
250.7 251.7 254.1 258.4 263.2 265.0
300.0 256.8 253.3 250.0 250.0 250.0 250.0 250.0 237.7 217.6
200.9 199.6 197.9 189.3 169.4 149.0 128.5 108.5 99.1 96.8
97.5 99.0 101.5 107.5 118.9 133.6 140.2 148.5 158.9 158.3
146.6 132.2 132.1 138.5 150.2 167.1 175.6 179.1 178.3 168.9
180.0 155.0 143.4 145.7 150.2 166.0 185.0 196.4 213.7 236.3
248.8 250.1 252.6 259.6 268.7 272.9 273.6 269.9 261.2 254.6
253.9 256.1 259.8 264.6 267.5 265.0
300.0 276.9 265.3 257.5 253.0 250.0 250.0 246.8 234.5 211.8
200.8 196.8 194.9 186.4 174.0 158.1 140.4 118.0 100.0 97.7
96.6 97.2 97.0 100.7 105.6 110.6 116.6 118.4 119.0 116.9
111.4 107.5 104.8 110.0 117.7 130.6 142.3 149.2 153.9 155.0
179.0 136.9 138.5 146.0 156.9 174.2 190.7 200.4 217.8 239.5
250.0 250.8 255.4 265.5 272.7 274.8 275.0 272.6 266.8 261.0
259.3 262.3 266.0 268.1 269.5 265.0
300.0 293.2 288.1 275.8 260.7 253.1 249.3 241.6 202.0 197.0
197.8 195.6 189.6 188.6 182.9 168.8 151.2 130.3 109.6 96.0
96.8 96.2 96.9 98.3 98.9 99.7 95.0 95.0 95.0 95.0
95.0 105.0 105.0 105.0 105.0 110.0 115.0 123.4 135.3 142.2
135.0 136.3 140.0 148.4 162.4 181.8 194.6 202.3 218.5 239.6
250.0 252.1 259.3 269.0 274.2 272.0 274.9 273.8 270.8 266.3
265.3 266.9 268.9 269.8 269.9 265.0

300.0 300.0 298.5 292.5 277.3 258.9 249.7 234.9 200.0 199.8
195.1 191.2 196.5 198.7 196.7 183.3 162.8 142.6 120.0 101.0
98.1 96.2 95.8 96.1 96.9 96.8 96.7 95.0 105.0 110.0
100.0 105.0 105.0 125.0 107.0 107.0 110.0 107.4 120.6 128.6
134.1 140.1 145.9 152.8 167.9 187.2 198.3 203.7 219.7 240.2
250.3 253.7 262.7 271.1 274.7 274.9 274.6 273.4 271.5 269.6
268.4 269.2 269.8 270.0 270.0 265.0
300.0 300.0 300.0 298.6 289.9 270.0 253.3 232.9 202.0 196.3
189.9 190.1 200.4 213.2 208.9 195.8 175.0 153.3 130.2 105.0
100.3 97.5 95.8 95.2 95.3 95.9 98.5 113.3 144.5 177.5
135.0 135.0 200.0 206.0 110.0 110.0 110.0 110.0 110.6 120.9
130.9 142.3 148.9 156.6 173.4 192.3 200.1 207.1 224.1 242.7
250.3 255.0 264.2 272.4 274.9 274.8 274.0 272.6 271.0 270.1
269.9 269.8 270.0 270.0 270.0 265.0
305.0 304.6 303.4 301.6 295.8 283.0 261.3 238.6 214.2 197.5
187.0 187.8 199.6 221.0 221.0 201.0 181.9 159.2 138.8 118.4
101.0 98.9 96.9 95.6 95.3 96.3 103.5 125.2 162.9 188.8
190.0 145.0 140.0 145.0 115.0 115.0 112.0 110.0 110.0 121.3
133.1 144.5 155.0 161.5 182.4 196.5 200.8 212.1 231.3 246.1
251.2 256.3 266.2 273.3 275.0 274.6 273.5 271.7 270.5 270.0
270.0 270.0 270.0 270.0 270.0 270.0 265.0
320.0 316.9 315.3 307.2 301.1 291.2 272.1 247.6 223.6 202.3
190.1 185.9 193.1 202.9 245.0 200.7 181.8 160.6 145.2 128.5
108.9 99.6 98.6 96.6 96.3 98.0 109.5 139.9 170.2 236.0
266.0 225.0 193.3 145.0 145.0 115.0 112.0 115.0 114.8 125.8
138.9 155.0 154.4 169.9 189.8 199.1 200.8 213.4 236.2 249.0
252.0 259.4 268.4 273.7 274.6 274.2 272.5 271.1 270.2 270.0
270.0 270.0 270.0 270.0 270.0 270.0 265.0
20 330.0 329.4 327.7 316.4 303.9 296.2 280.1 257.3 234.0 211.3
196.7 188.9 186.5 193.7 199.9 194.9 177.8 158.1 148.2 136.6
114.3 102.6 99.9 98.5 98.2 100.3 114.4 148.5 180.2 240.0
283.0 245.0 206.0 185.8 145.0 130.0 115.0 116.0 121.3 132.1
157.0 155.0 156.1 175.7 192.4 200.0 200.0 212.0 234.7 248.4
251.9 258.8 266.6 269.9 271.7 271.9 271.6 270.5 270.1 270.0
270.0 270.0 270.0 270.0 270.0 270.0 265.0
340.0 335.2 333.3 321.7 307.9 299.7 288.9 266.2 245.5 223.4
205.0 194.2 189.2 191.4 194.9 189.0 169.0 153.9 147.6 137.3
123.1 109.4 104.9 103.5 103.3 108.1 123.5 154.3 184.2 239.0
300.0 298.0 222.8 200.2 176.0 130.0 115.0 124.1 125.5 137.1
152.0 152.0 156.3 173.3 240.0 201.0 201.0 208.0 225.7 242.8
249.2 253.9 259.0 262.3 264.6 268.7 270.2 270.0 270.0 270.0
270.0 270.0 270.0 270.0 270.0 270.0 265.0
340.0 337.1 335.0 327.7 313.9 303.4 294.8 280.7 256.8 238.0
216.9 202.7 196.0 194.8 195.0 181.3 162.1 150.8 145.0 125.0
125.0 122.6 120.6 119.6 119.8 124.7 139.5 158.6 184.6 239.0
282.0 275.0 270.0 210.5 187.5 120.0 117.0 125.0 128.2 139.5
152.0 155.0 154.9 210.0 240.0 201.0 200.0 203.5 212.7 229.1
242.6 249.1 252.2 254.9 259.2 265.0 268.9 269.9 270.0 270.0
270.0 270.0 270.0 270.0 270.0 270.0 265.0
340.0 339.1 338.3 334.1 367.0 345.0 335.0 290.9 271.3 250.9
233.2 213.8 200.0 199.3 196.6 182.0 161.3 149.5 144.2 130.0
131.5 135.8 139.9 140.2 140.0 143.5 150.1 166.6 186.9 236.0
238.0 270.0 245.0 221.7 196.1 120.0 120.0 130.0 132.7 143.5
149.4 155.0 157.7 174.4 194.1 199.0 202.0 200.6 204.0 212.7

228.1 241.8 248.4 251.6 256.1 262.5 267.7 269.5 270.0 270.0
270.0 270.0 270.0 270.0 270.0 265.0
340.0 340.0 339.9 337.8 390.0 360.0 345.0 297.6 286.0 264.6
247.9 228.4 209.9 200.0 198.7 187.3 165.6 149.6 141.6 130.0
139.9 149.3 155.8 159.1 159.9 161.1 165.8 180.5 191.6 200.0
236.0 250.0 210.0 210.0 200.0 130.0 120.0 130.0 139.8 145.8
150.0 151.5 162.1 184.8 197.0 199.0 199.0 202.0 200.6 203.5
211.1 227.5 242.2 248.8 253.5 258.8 264.4 267.8 269.2 269.7
270.0 270.0 270.0 270.0 270.0 265.0
340.0 340.0 340.0 339.3 385.0 368.0 345.0 333.0 316.0 295.0
276.0 243.3 219.2 204.9 200.0 190.0 168.6 150.0 130.0 140.0
152.2 165.8 175.5 179.1 179.5 181.6 175.0 175.0 196.0 192.4
199.8 240.0 249.0 235.1 190.0 155.0 120.0 122.0 141.6 146.8
150.0 154.9 171.5 191.2 195.0 195.0 195.0 195.0 210.0 210.1
203.1 212.3 229.3 243.6 250.3 254.0 258.3 263.2 267.0 269.1
269.9 270.0 270.0 270.0 270.0 265.0
340.0 340.0 340.0 339.8 385.0 370.0 355.0 340.0 333.0 314.0
290.0 253.5 231.7 210.5 201.3 190.7 169.4 150.6 135.0 149.8
166.3 186.9 180.0 180.0 196.0 197.4 198.9 190.0 180.0 180.0
183.0 190.0 240.0 240.0 200.0 190.3 145.0 122.0 125.0 146.3
149.8 159.4 179.8 195.8 200.0 200.0 199.0 195.0 199.0 201.1
205.0 205.0 214.7 232.6 245.0 250.1 252.8 257.3 263.0 267.2
269.0 269.7 270.0 270.0 270.0 265.0
340.0 339.6 340.0 340.0 385.0 370.0 365.0 365.0 340.0 335.0
300.0 275.0 243.0 220.6 205.8 191.1 169.4 148.2 135.0 155.5
181.5 185.0 187.0 195.0 199.7 200.0 200.0 200.0 199.8 185.0
183.0 183.0 200.0 243.0 242.0 200.0 175.9 149.5 139.3 144.0
151.1 164.3 187.6 199.9 203.3 206.4 209.3 200.0 199.1 198.0
195.0 197.0 199.0 217.0 234.1 244.7 249.3 252.5 257.6 262.4
266.1 268.6 270.0 270.0 270.0 265.0
339.0 338.2 339.5 340.0 387.0 380.0 365.0 365.0 367.0 345.0
320.0 290.0 252.7 232.1 212.3 192.9 169.7 149.0 135.0 157.8
184.1 187.0 190.0 201.3 203.0 206.3 208.4 209.8 206.6 201.3
185.0 183.0 190.0 220.0 240.0 240.0 235.0 156.8 140.8 144.1
154.4 172.8 192.3 203.9 210.4 221.4 229.6 230.7 224.1 216.0
206.4 199.0 199.0 198.0 216.0 232.4 242.4 247.9 251.7 255.7
259.6 265.9 268.7 269.7 270.0 265.0
333.0 333.0 337.3 339.3 339.7 390.0 390.0 390.0 390.0 385.0
330.0 300.0 261.6 239.5 217.4 193.5 171.6 150.6 135.0 159.1
183.9 187.0 195.0 204.6 213.5 222.0 228.5 230.4 225.0 209.3
196.5 183.0 182.3 190.0 200.0 210.0 240.0 163.8 147.3 145.9
170.0 179.9 196.5 206.8 221.4 250.0 255.0 255.1 242.3 233.5
220.2 208.2 202.3 197.0 204.6 212.3 227.7 238.0 243.2 245.9
252.2 258.6 264.8 268.3 269.2 265.0
323.0 322.7 328.9 333.1 336.5 390.0 390.0 390.0 330.5 390.0
350.0 317.0 268.4 235.0 218.8 194.2 171.2 152.2 135.0 161.1
183.2 197.6 200.0 207.9 225.1 240.1 244.8 246.2 241.5 226.7
215.0 193.1 180.0 180.0 180.0 200.0 187.1 165.6 145.0 148.9
165.0 182.9 199.1 212.4 231.6 255.0 250.9 252.9 265.0 255.0
245.0 245.0 210.3 197.0 197.0 197.0 209.2 219.9 227.7 236.7
243.8 249.7 257.1 263.8 267.6 265.0
311.0 310.3 314.5 319.0 326.0 333.2 390.0 337.2 330.3 395.0
355.0 314.0 269.4 242.4 218.4 193.3 170.3 149.3 135.0 156.1
180.3 196.4 200.7 211.0 231.2 246.4 245.0 245.0 248.5 240.3

220.3 215.0 192.9 184.0 180.0 187.0 185.0 157.4 145.8 146.4
163.1 183.6 200.8 217.4 245.0 252.3 259.5 267.3 268.4 263.2
255.0 245.0 228.0 212.9 205.1 197.0 197.0 204.5 210.9 224.0
235.9 240.2 246.1 259.6 265.9 265.0
302.0 301.9 303.2 306.1 311.3 318.6 390.0 399.1 390.0 378.0
347.0 308.0 265.0 239.2 215.5 192.8 170.2 147.7 135.0 149.9
175.2 192.6 205.0 214.3 233.1 246.9 245.0 245.0 245.0 246.4
234.4 213.1 215.0 191.1 182.0 190.0 185.0 148.3 138.2 144.9
162.4 184.8 201.9 218.9 239.6 285.0 295.1 285.6 288.5 315.0
305.0 300.0 244.6 233.1 219.4 208.1 197.0 197.0 197.0 211.2
220.0 228.6 241.0 255.8 264.9 265.0
296.0 295.4 297.2 299.6 301.8 305.7 377.0 378.0 367.0 352.0
330.0 305.0 256.6 232.2 210.4 190.9 169.9 149.8 135.0 150.6
167.8 195.0 210.0 215.7 234.8 250.0 255.0 255.0 275.0 275.0
280.0 280.0 207.1 200.0 195.0 195.0 156.5 143.2 137.6 141.8
161.8 182.5 200.1 218.3 330.0 338.1 336.0 297.2 345.0 330.0
320.0 310.0 300.0 248.8 238.1 225.4 210.7 203.9 197.0 202.9
205.5 217.0 237.5 253.6 261.9 265.0
286.0 285.2 289.3 293.4 297.2 300.2 357.0 355.0 352.0 345.0
320.0 295.0 248.2 223.8 205.8 187.6 166.6 149.7 135.0 150.6
202.0 200.0 205.0 213.6 245.0 260.0 260.0 280.0 285.0 275.0
275.0 280.0 265.0 205.0 195.0 177.8 150.0 141.0 136.4 141.7
156.5 177.5 196.4 290.0 330.0 340.0 340.2 305.0 340.0 335.0
335.0 320.0 305.0 260.7 251.9 239.7 226.2 212.8 197.0 200.0
200.5 209.6 230.5 249.0 257.7 265.0
278.0 277.5 279.4 284.0 291.3 296.9 340.0 340.0 338.0 330.0
310.0 290.0 240.3 219.5 201.0 182.3 158.4 145.1 135.0 147.4
201.0 200.0 210.0 235.0 255.0 255.0 275.0 285.0 290.0 280.0
275.0 275.0 265.0 245.0 196.3 180.4 150.0 139.6 133.7 139.8
153.1 170.4 192.3 214.7 310.0 340.0 347.0 345.2 350.0 370.0
350.0 335.0 289.7 272.9 258.4 248.1 236.7 219.1 197.0 200.0
200.0 206.2 223.6 245.4 257.1 265.0
272.0 271.6 272.6 275.9 281.9 291.2 330.1 337.0 298.8 291.3
271.6 260.0 234.9 213.4 196.7 174.8 153.5 140.0 137.0 144.4
207.0 210.0 220.0 250.0 265.0 275.0 280.0 285.0 290.0 285.0
280.0 275.0 250.0 250.0 190.0 181.3 150.0 140.7 134.2 139.2
150.4 167.0 188.2 212.8 275.0 300.0 359.0 366.1 367.0 375.0
365.0 345.0 299.9 282.5 263.5 250.7 238.1 219.1 197.0 200.0
200.6 206.2 223.8 247.2 260.8 254.0
262.0 261.6 263.8 268.1 273.6 282.3 320.0 330.0 290.9 276.9
258.2 243.5 226.2 205.5 185.1 164.7 150.5 140.6 137.0 141.9
207.0 220.0 230.0 270.0 275.0 280.0 285.0 290.0 295.0 290.0
285.0 275.0 265.0 250.0 200.0 183.8 150.0 144.6 135.5 137.5
148.7 165.9 187.6 210.0 234.1 266.7 374.0 390.0 386.2 387.0
375.0 325.0 305.5 287.6 266.1 249.9 235.0 215.9 202.5 200.0
202.1 211.8 230.9 251.3 262.8 265.0
254.0 253.4 254.2 258.1 266.5 275.0 300.0 283.3 272.1 257.9
246.5 230.0 211.1 194.5 171.9 155.6 147.4 139.4 137.0 140.0
200.0 233.0 245.0 265.0 275.0 290.0 290.0 295.0 295.0 295.0
290.0 280.0 265.0 255.0 195.0 189.9 150.0 148.0 137.8 138.5
148.8 166.7 187.4 210.1 233.2 263.3 357.0 390.0 386.1 387.0
370.0 330.1 310.6 288.8 267.6 248.4 231.5 211.5 201.1 200.0
205.2 219.4 239.7 252.1 259.9 265.0
247.0 246.6 248.6 252.3 259.6 269.8 273.2 265.4 255.5 244.5

229.9 212.6 199.6 181.9 162.0 148.9 141.5 142.0 140.0 142.0
156.0 235.0 230.0 265.0 275.0 290.0 295.0 336.0 310.0 300.0
295.0 275.0 265.0 255.0 200.0 165.0 145.0 145.0 146.1 143.8
150.4 167.1 189.7 211.3 234.5 263.4 320.0 390.0 401.1 385.0
356.0 332.0 312.5 289.9 267.2 248.9 230.4 211.1 200.9 201.2
209.7 228.7 243.8 252.2 256.1 265.0
234.0 233.0 242.3 249.0 256.5 266.8 267.5 256.9 244.2 230.1
212.1 201.0 191.8 171.9 155.1 145.5 145.0 142.0 140.0 142.0
145.0 239.0 225.0 260.0 298.0 290.0 330.0 338.0 338.0 320.0
320.0 300.0 275.0 255.0 205.0 175.0 145.0 145.0 145.0 145.0
153.2 168.9 190.5 215.0 237.8 264.1 288.9 378.0 430.1 410.0
357.0 334.4 313.5 291.3 268.2 249.8 236.4 219.2 207.5 207.6
219.3 236.4 247.0 251.2 254.0 254.0
215.0 214.5 230.7 244.4 255.1 265.8 265.8 250.8 231.6 211.5
200.0 195.0 188.8 166.1 152.2 145.5 140.0 140.0 145.0 142.0
142.0 216.0 245.0 260.0 275.0 285.0 330.0 338.0 338.0 336.0
330.0 345.0 265.0 255.0 205.0 175.0 150.0 145.0 145.0 155.6
158.1 174.5 196.9 217.8 242.4 269.4 291.4 355.0 399.1 440.0
387.0 332.9 312.9 293.0 271.2 254.3 245.6 236.8 224.6 223.6
233.8 244.0 250.7 252.5 256.0 256.0
205.0 204.7 219.2 239.5 245.0 248.0 245.0 241.0 217.4 195.0
190.0 190.0 191.6 172.3 156.4 149.6 144.4 145.0 145.0 145.0
142.0 142.0 232.0 240.0 265.0 280.0 320.0 338.0 338.0 338.0
336.0 345.0 300.0 255.0 200.0 175.0 150.0 145.0 145.0 167.8
169.7 185.7 204.3 223.6 248.4 277.1 294.6 304.2 377.0 385.0
367.0 319.0 307.9 296.6 281.1 264.8 259.1 254.1 246.4 242.7
247.3 252.5 258.3 260.1 264.5 265.0
202.0 201.9 216.0 237.8 248.1 250.0 245.0 246.5 224.3 210.1
205.1 200.0 197.0 187.8 172.6 163.9 157.0 153.3 150.2 147.6
144.7 142.8 210.0 230.0 240.0 265.0 309.0 335.0 338.0 338.0
336.0 320.0 305.0 255.0 195.0 175.0 150.0 145.0 145.0 186.1
186.4 196.3 211.1 231.9 257.4 283.6 299.9 305.4 356.0 354.0
340.0 305.6 301.9 298.8 293.2 284.4 281.7 276.2 269.3 266.1
264.9 270.2 274.9 279.6 288.8 290.0
206.0 205.0 219.9 241.0 251.4 255.0 261.7 245.0 241.8 231.2
220.3 215.3 212.7 206.4 198.2 186.6 179.2 170.9 165.9 158.7
150.0 145.0 204.0 227.0 249.0 270.0 290.0 310.0 333.0 338.0
330.0 320.0 310.0 240.0 190.0 175.0 145.0 145.0 145.0 197.3
198.2 202.9 216.6 237.6 266.0 290.5 309.7 316.8 320.0 340.0
301.9 300.0 300.0 300.0 300.4 303.5 303.7 303.4 298.1 293.1
292.7 294.1 298.5 304.1 317.3 318.0
213.0 212.6 231.9 245.6 253.4 258.0 266.2 261.5 252.3 244.2
241.0 237.1 232.4 227.6 220.5 215.2 205.8 198.0 187.2 178.7
165.2 145.0 212.0 209.0 230.0 245.0 266.0 290.0 310.0 336.0
325.0 302.0 300.0 245.0 190.0 175.0 150.0 145.0 190.0 195.0
195.0 205.0 219.5 246.3 276.7 303.7 326.2 335.2 331.0 317.6
307.0 301.6 300.0 300.0 303.5 310.5 317.5 320.1 319.9 317.0
314.8 315.7 317.6 320.9 329.8 330.0
226.0 226.1 241.6 250.6 257.5 261.0 269.8 265.6 255.2 324.0
275.0 255.0 255.3 252.1 247.2 242.0 234.7 219.4 208.3 196.7
183.9 149.0 145.0 204.0 165.0 227.0 243.0 264.0 293.0 336.0
320.0 302.0 290.0 242.0 195.0 190.0 190.0 198.0 190.0 197.4
199.5 205.6 221.6 251.7 288.5 318.7 341.6 353.9 352.1 337.8
317.6 304.2 300.0 300.0 302.2 309.8 319.2 323.9 325.0 324.4

324.0 324.0 324.0 326.2 331.5 330.0
238.0 238.5 247.0 253.1 261.2 264.0 273.5 270.2 265.0 337.0
328.0 326.0 305.0 279.4 276.4 265.9 252.9 240.7 223.6 208.3
196.0 183.5 145.0 145.0 145.0 209.0 239.0 248.0 265.0 277.0
287.0 290.0 287.0 240.0 201.4 190.0 190.0 190.0 194.5 189.6
196.7 206.1 226.8 257.8 295.4 329.7 356.4 374.7 375.9 356.3
330.5 308.3 300.0 300.0 301.0 306.0 316.5 323.3 325.0 325.0
325.0 325.0 325.5 327.6 333.8 330.0
245.0 246.9 249.9 255.8 263.7 267.0 274.8 277.2 341.0 347.0
363.0 361.0 330.0 296.1 294.3 285.9 266.5 252.1 238.9 218.1
203.9 194.1 178.9 150.0 145.7 144.1 160.0 200.0 205.0 239.0
245.0 242.0 242.0 237.0 210.0 190.0 190.0 190.0 188.1 181.2
192.7 208.3 230.6 265.2 302.1 340.1 372.8 390.5 391.8 378.1
344.7 314.1 300.7 300.0 300.0 302.8 311.1 320.5 324.5 325.0
325.0 325.0 325.9 329.6 336.8 330.0
251.0 251.7 253.1 258.7 267.7 272.2 275.9 283.0 342.0 300.0
300.0 387.0 310.0 300.0 297.0 295.1 280.1 259.8 246.4 232.7
212.4 202.0 190.2 170.7 152.8 148.3 146.3 146.2 150.5 160.3
200.0 205.0 205.0 200.0 193.3 190.5 191.6 192.1 178.2 177.9
192.9 211.2 235.4 268.7 307.5 348.2 381.8 396.6 399.1 389.5
360.9 324.8 305.7 302.7 300.0 301.0 305.7 315.6 322.4 324.4
325.0 325.0 326.4 331.9 340.0 330.0
50 258.0 258.5 259.9 265.2 269.9 273.2 278.1 288.4 336.0 300.0
300.0 300.0 300.0 300.0 300.0 298.8 290.0 270.0 254.4 243.7
230.4 212.2 201.1 183.5 162.3 147.4 143.1 139.7 139.2 145.8
152.9 158.7 167.2 176.9 179.5 174.6 173.7 171.6 173.4 180.0
194.9 214.5 239.0 267.8 304.7 348.1 379.8 396.2 398.9 394.3
369.4 340.0 320.5 308.2 301.2 300.0 302.5 307.8 316.0 321.5
324.4 325.1 326.8 333.1 342.4 330.0
267.0 267.9 269.0 270.7 271.3 271.3 278.0 288.2 297.2 300.0
300.0 300.0 300.0 300.0 300.0 300.0 295.7 305.0 302.0 255.0
244.3 229.4 211.9 191.7 162.5 160.0 136.0 139.1 142.2 142.8
138.9 138.0 145.6 155.1 161.0 164.7 164.9 165.6 171.6 184.6
198.6 216.1 238.2 265.8 299.1 342.0 375.0 410.0 397.6 394.4
375.4 352.1 334.1 317.4 303.5 300.2 300.7 302.4 306.3 315.7
322.1 325.1 327.0 333.9 343.2 330.0
271.0 271.9 272.4 272.2 270.0 266.8 266.8 279.9 292.4 298.9
300.0 300.0 301.0 300.0 300.0 300.0 310.0 310.0 315.0 266.9
253.8 238.1 221.0 192.2 156.5 155.0 165.0 133.1 140.3 142.4
139.8 135.3 135.0 141.4 149.1 157.7 163.0 166.9 176.0 189.7
200.7 218.1 239.4 263.3 294.7 334.6 373.0 410.0 405.0 394.8
377.8 358.8 342.3 324.2 307.1 300.2 300.0 300.0 301.6 307.8
318.9 324.4 327.0 334.4 343.9 330.0
267.0 266.8 267.9 267.5 263.9 258.6 256.6 262.0 279.4 291.4
297.1 299.5 299.0 300.0 300.0 300.0 300.0 320.0 325.0 280.5
259.1 240.4 219.0 187.8 175.0 170.0 165.0 155.0 130.6 139.6
143.3 142.0 136.7 134.9 142.8 152.8 160.6 167.9 180.6 193.6
203.0 219.8 242.4 262.6 288.4 335.0 367.9 391.0 396.3 395.2
380.0 361.0 345.6 328.6 308.6 300.2 299.7 298.2 297.1 300.9
312.1 321.2 327.8 335.4 344.7 330.0
258.0 257.9 259.1 258.9 256.5 252.6 250.7 253.4 260.1 273.5
284.5 290.7 294.2 296.5 297.7 298.8 299.4 320.0 334.0 302.0
284.0 265.0 235.0 179.6 175.0 170.0 165.0 160.0 155.0 130.4
139.7 144.1 141.5 138.2 141.6 150.7 157.1 168.6 185.8 196.5

205.3 223.9 244.8 263.0 289.6 326.3 368.7 387.8 396.4 396.2
382.8 363.8 347.2 329.0 308.4 296.5 293.0 286.7 285.5 290.3
304.2 318.2 327.6 336.9 345.2 330.0
251.0 251.6 252.0 252.1 251.4 250.6 250.0 250.0 252.2 256.7
263.8 271.2 277.1 281.0 284.2 289.4 295.3 299.5 305.0 310.0
286.0 270.0 235.0 177.6 175.0 175.0 170.0 170.0 165.0 155.0
145.0 139.1 144.0 145.3 146.6 149.0 154.3 169.3 187.6 198.3
205.9 226.1 245.8 262.4 284.9 321.7 355.0 384.2 396.4 397.5
385.1 365.3 347.3 326.4 304.7 289.6 277.3 268.4 271.6 287.2
301.0 316.0 328.3 336.8 345.5 330.0
250.0 250.0 250.0 250.0 250.0 250.0 250.0 250.0 250.0 250.5
252.1 254.9 257.8 260.6 263.6 272.3 287.7 296.2 288.4 300.0
249.2 230.4 207.2 176.2 175.0 170.0 170.0 165.0 165.0 155.0
155.0 145.0 141.2 147.4 146.9 145.9 150.9 168.1 187.8 198.6
207.2 225.5 246.7 261.4 280.8 312.0 345.2 376.9 393.6 396.8
385.5 366.5 347.1 323.5 302.4 283.1 265.8 256.2 268.7 284.7
303.3 315.3 327.6 337.9 345.9 330.0
250.0 250.0 250.0 250.0 250.0 250.0 250.0 250.0 250.0 250.0
251.3 252.2 252.5 251.7 251.8 258.7 275.0 286.0 277.4 259.0
244.4 225.6 204.7 176.3 170.0 170.0 165.0 165.0 165.0 160.0
155.0 155.0 145.0 145.5 143.1 140.0 145.7 165.0 185.2 197.3
205.3 225.5 245.2 257.7 274.3 303.1 337.5 362.2 381.9 387.7
377.6 362.7 345.6 324.9 300.8 282.7 265.9 258.5 269.6 289.1
301.9 315.3 329.6 339.8 346.8 330.0
250.0 250.0 250.0 250.0 250.0 250.0 250.4 250.7 254.0 257.9
263.4 267.8 267.1 264.0 261.6 264.4 272.3 276.1 263.6 253.3
243.0 222.9 205.3 180.5 175.0 170.0 170.0 170.0 165.0 160.0
160.0 155.0 155.0 145.4 142.7 140.0 144.1 159.4 180.5 194.6
204.7 222.2 243.2 255.3 269.8 298.0 325.9 348.0 364.4 369.1
363.5 355.3 343.8 323.6 302.9 282.4 268.5 265.6 280.6 293.3
303.8 316.4 330.9 342.1 347.8 330.0
252.0 252.4 252.6 252.6 252.3 251.4 250.9 255.6 263.3 277.7
285.5 288.2 287.9 285.4 283.5 282.6 284.6 277.9 263.9 254.1
246.3 229.6 235.0 235.0 175.0 172.0 170.0 170.0 165.0 165.0
160.0 160.0 155.0 146.0 146.0 143.5 144.7 154.8 173.0 191.1
201.8 218.8 240.2 253.5 266.7 291.9 319.1 341.0 351.5 354.1
352.7 350.9 340.4 320.2 301.1 285.7 272.6 278.9 292.7 299.9
308.1 318.7 332.0 342.2 348.4 330.0
256.0 256.1 257.6 257.7 256.5 254.8 256.0 264.1 283.7 294.3
300.3 303.1 304.9 304.5 302.7 301.3 298.1 290.4 280.2 265.7
254.6 269.0 254.0 220.0 175.0 175.0 172.0 170.0 170.0 170.0
170.0 165.0 165.0 155.0 149.3 146.3 143.9 148.5 164.7 185.0
199.0 216.5 238.6 251.4 264.7 287.8 316.5 337.1 347.8 350.0
350.0 349.2 338.8 317.4 301.5 290.0 286.3 291.6 297.9 302.4
309.7 320.9 331.2 342.0 348.3 330.0
267.0 267.4 269.0 269.3 267.5 266.4 270.9 284.2 294.1 301.6
306.1 311.5 313.9 314.5 313.5 311.7 306.9 301.0 294.4 282.8
290.0 294.0 275.0 255.0 183.5 230.0 175.0 170.0 170.0 170.0
165.0 165.0 165.0 165.0 154.0 146.8 140.0 142.3 155.4 177.8
195.4 212.9 233.7 250.6 264.7 286.9 313.5 333.1 345.7 349.0
345.0 349.2 339.2 321.8 305.4 298.3 297.2 298.2 300.0 302.4
310.6 321.8 334.0 343.4 348.6 330.0
285.0 284.4 285.5 284.9 284.5 286.2 291.0 295.6 300.3 305.1
313.1 317.6 319.3 319.4 319.2 317.9 315.3 309.2 303.8 294.8

276.5 290.0 280.0 262.0 215.0 240.0 175.0 175.0 175.0 175.0
175.0 165.0 177.0 177.1 164.9 151.7 143.3 141.0 152.0 170.7
190.6 208.0 229.5 249.3 267.3 290.9 314.6 333.7 343.6 348.5
345.0 348.6 342.6 328.8 312.3 302.4 300.0 300.0 300.0 301.6
309.5 324.4 338.5 346.5 349.3 325.0
298.0 298.2 298.0 298.7 299.3 300.1 300.4 301.1 303.9 311.5
317.3 319.7 320.0 320.0 350.0 320.0 318.9 316.3 310.2 301.6
290.7 270.8 250.0 242.8 215.0 196.4 175.0 175.0 175.0 175.0
175.0 184.4 194.1 194.0 182.1 163.1 149.8 143.0 149.3 164.4
186.1 204.3 224.3 247.8 269.9 293.2 321.7 338.9 345.6 348.5
350.0 347.9 340.6 327.7 312.4 302.4 300.0 300.0 300.0 300.7
307.9 324.8 342.0 348.4 349.7 325.0
301.0 300.3 301.5 302.9 303.8 303.6 302.9 345.0 308.6 315.9
319.5 320.0 320.0 320.0 320.0 387.0 320.0 319.1 315.3 307.4
299.2 287.2 255.0 245.0 240.0 211.6 191.3 175.5 175.0 175.0
187.1 201.6 208.2 206.6 196.8 175.6 156.2 143.0 145.9 158.1
181.3 199.6 219.3 243.7 268.5 295.6 324.1 341.0 348.4 349.2
349.4 344.9 332.9 317.1 305.5 301.2 300.0 300.0 300.0 300.0
307.2 324.4 340.9 348.6 350.0 325.0
65 301.0 300.4 301.5 303.1 304.2 304.6 304.3 305.5 311.0 316.7
319.6 320.0 320.0 320.0 320.0 320.0 387.0 319.8 317.9 311.9
304.0 294.9 265.0 240.0 230.1 221.7 202.9 197.5 196.9 198.0
204.6 215.0 228.7 225.2 207.1 184.1 160.8 144.8 143.0 151.8
174.1 194.2 213.7 237.7 266.6 292.7 316.4 333.9 344.5 348.3
347.3 338.7 322.6 306.4 301.2 300.0 300.0 300.0 300.0 300.0
307.6 324.6 341.1 348.6 350.0 365.0
301.0 300.2 300.8 302.1 303.6 304.6 304.8 306.0 309.5 314.8
318.6 350.0 320.0 320.0 320.0 320.0 320.0 350.0 319.5 315.1
306.8 300.0 265.0 245.0 244.9 227.4 216.3 219.8 222.9 224.1
225.1 236.9 242.9 237.1 217.0 190.5 166.0 146.9 143.0 148.1
165.8 188.0 211.7 234.4 261.9 287.5 305.3 317.1 330.6 339.9
340.7 328.9 310.9 302.2 300.0 300.0 300.0 300.0 300.0 301.6
310.2 328.5 344.2 349.3 350.0 365.0
301.0 300.1 300.2 301.0 302.6 304.2 304.7 305.2 307.0 310.7
315.3 318.6 380.0 320.0 320.0 320.0 320.0 320.0 320.0 315.5
307.6 301.0 265.0 246.0 248.5 255.0 255.0 250.0 260.3 261.8
259.8 253.2 245.0 241.0 221.2 196.6 167.0 151.5 144.7 147.1
160.6 182.6 237.0 232.2 257.0 279.2 295.5 304.3 311.3 323.6
327.6 317.8 305.9 300.0 300.0 300.0 300.0 300.0 301.8 307.2
321.1 336.6 347.0 350.0 350.0 365.0
301.0 300.0 300.0 300.4 301.4 302.9 303.9 304.4 304.9 305.6
310.0 315.9 319.1 350.0 320.0 320.0 320.0 320.0 319.5 314.6
305.6 300.6 265.0 248.0 250.0 255.0 252.9 267.9 285.8 275.0
275.0 273.6 256.2 237.0 224.8 185.0 170.0 156.5 143.6 143.2
155.3 174.1 199.5 226.2 249.2 267.3 287.3 297.3 302.5 306.8
312.8 310.0 302.8 300.0 300.0 300.0 300.0 303.1 309.4 323.0
336.3 345.2 348.9 350.0 350.0 365.0
301.0 300.0 300.1 300.1 300.5 301.3 302.3 302.8 302.6 302.3
304.1 310.4 316.0 318.7 319.6 319.6 319.2 318.3 316.1 310.2
303.1 300.0 265.0 247.0 250.0 255.0 258.8 278.5 293.4 298.5
297.1 275.0 261.3 235.0 223.0 190.0 175.0 161.0 143.0 143.0
148.1 166.1 187.2 215.0 238.7 257.0 274.5 291.5 298.2 301.7
303.2 302.9 301.3 300.0 300.0 300.0 301.8 309.4 326.5 340.4
346.5 349.2 350.0 350.0 350.0 365.0

```
70  301.0 300.1 300.0 300.0 300.1 300.3 300.7 301.1 301.0 300.5
    301.3 304.1 310.3 314.7 315.7 315.6 314.7 312.3 308.7 303.9
    301.3 298.6 265.0 247.0 250.9 250.7 260.9 279.5 293.7 290.0
    290.0 284.1 255.0 230.0 220.0 195.0 188.7 166.7 145.0 143.0
    145.0 158.9 178.8 202.9 229.0 247.5 261.2 278.0 292.0 298.3
    300.0 300.2 300.0 300.0 300.0 300.0 304.1 319.8 339.0 348.5
    350.0 350.0 350.0 350.0 350.0 365.0
    301.0 300.0 300.0 300.0 300.0 300.0 300.1 300.1 300.1 300.1
    300.0 305.0 304.6 307.6 308.5 308.2 306.8 304.5 302.2 300.8
    295.0 295.6 279.3 249.0 250.0 250.7 258.2 274.8 290.9 315.0
    302.0 286.7 260.0 235.0 218.0 205.0 192.6 172.8 149.1 143.0
    143.0 154.2 175.8 196.5 215.8 236.3 250.9 262.0 277.9 290.5
    295.8 298.2 299.6 300.0 300.0 300.0 305.9 324.1 342.3 350.0
    350.0 350.0 350.0 350.0 350.0 365.0
    301.0 300.0 300.0 300.0 300.0 300.0 300.0 300.0 300.0 300.0
    300.0 285.0 290.0 290.0 290.0 290.0 290.0 290.0 290.0 290.0
    275.0 291.1 271.3 254.7 250.0 250.3 255.8 290.0 310.0 323.0
    301.0 290.0 271.2 255.7 235.0 206.0 197.6 174.8 151.6 145.0
    145.0 149.7 170.9 191.2 204.8 222.1 241.3 253.4 261.4 272.8
    282.0 289.1 295.7 299.4 300.2 300.0 305.4 322.8 341.8 350.0
    350.0 350.0 350.0 350.0 350.0 365.0
    301.0 301.0 300.0 300.0 300.0 300.0 300.0 300.0 300.0 300.0
    299.0 296.9 294.5 291.8 289.1 288.3 288.4 287.5 286.4 287.6
    289.0 281.4 262.0 251.5 250.0 250.0 254.5 272.2 322.0 300.0
    302.0 295.6 280.4 259.6 235.0 207.0 202.8 175.8 153.1 145.0
    145.0 144.3 162.9 183.0 196.2 200.0 201.0 230.0 245.0 257.2
    262.8 272.6 286.1 295.2 299.0 300.1 303.4 317.8 338.0 348.5
    350.0 350.0 350.0 350.0 350.0 365.0
    301.0 300.0 300.0 300.0 300.0 300.0 300.0 300.0 297.0 293.8
    289.4 283.7 277.7 273.0 269.8 269.0 267.9 264.8 263.6 264.9
    268.7 264.5 255.9 250.0 250.0 250.0 256.3 272.6 292.7 305.0
    295.0 298.8 285.8 259.0 223.0 207.0 205.1 178.9 157.0 145.0
    145.0 140.0 155.5 175.1 190.4 195.0 202.0 203.0 230.0 235.0
    252.8 259.0 271.4 287.1 297.0 300.0 301.3 310.2 329.7 345.1
    350.0 350.0 350.0 350.0 350.0 365.0
75  301.0 300.0 300.0 300.0 300.0 300.0 298.6 294.0 286.5 274.2
    269.3 265.3 259.2 255.8 254.7 253.7 252.5 251.1 250.0 251.2
    252.6 252.6 251.4 250.0 250.0 250.0 257.5 277.1 293.9 290.0
    290.0 296.1 282.3 261.0 223.0 208.0 204.1 181.4 159.2 142.4
    145.0 145.0 150.0 164.5 183.5 195.9 199.0 205.0 207.0 235.0
    240.0 252.4 260.6 275.4 290.1 296.9 299.2 305.2 320.1 340.6
    349.1 350.0 350.0 350.0 350.0 365.0
    301.0 300.0 300.0 300.0 300.0 300.0 297.1 285.1 266.8 257.4
    254.0 252.5 251.2 250.0 249.6 248.8 247.9 248.3 249.1 250.0
    250.0 250.0 250.0 250.0 250.0 250.0 256.2 275.3 291.6 299.0
    297.6 288.5 271.2 240.0 214.0 209.0 203.1 182.5 161.1 145.2
    145.0 145.0 141.5 155.7 171.0 187.5 195.0 204.7 209.0 222.0
    232.0 237.0 254.3 262.6 275.6 288.9 297.2 302.1 314.6 333.9
    347.2 350.0 350.0 350.0 350.0 365.0
    301.0 300.0 300.0 300.0 300.0 300.0 295.6 279.0 259.2 250.0
    250.0 250.0 250.0 249.4 247.3 243.8 240.5 241.1 245.1 248.2
    249.5 249.7 249.3 249.1 249.4 249.8 253.2 262.8 283.5 295.9
    294.3 279.0 259.7 238.0 210.0 209.0 201.8 186.3 163.3 149.3
    145.0 145.0 145.0 147.4 159.1 175.7 190.4 197.8 203.3 210.0
```

212.0 222.0 247.7 253.2 261.0 278.5 293.5 301.0 309.5 328.3
345.0 350.0 350.0 350.0 350.0 365.0
301.0 300.0 300.0 300.0 300.0 299.4 293.5 276.9 257.7 250.0
250.0 250.0 249.0 246.7 241.1 235.2 231.6 231.9 236.6 242.2
243.4 241.2 237.7 236.8 240.5 245.5 249.1 256.7 273.2 293.1
294.1 274.9 258.6 241.0 217.0 212.0 203.6 188.0 168.6 152.3
143.5 147.0 134.6 142.6 152.3 163.7 181.1 193.8 198.8 202.3
210.9 214.0 240.1 248.5 254.3 267.3 288.0 298.1 305.6 322.0
339.3 347.4 349.3 350.0 350.0 365.0
301.0 300.0 300.0 300.0 300.0 298.7 289.9 271.7 256.1 250.0
250.0 249.3 246.6 240.1 233.3 228.3 226.1 226.5 227.7 229.3
227.6 221.4 216.6 215.8 221.5 235.7 245.7 254.7 271.7 291.1
302.0 283.4 264.5 253.1 223.0 213.0 207.3 193.0 173.6 156.2
146.6 147.0 147.0 140.8 147.8 155.9 170.6 188.5 197.8 200.7
204.8 215.2 233.0 245.3 251.1 259.4 278.1 294.9 303.0 312.3
326.4 338.2 345.1 348.7 350.0 365.0
80 301.0 300.0 300.0 300.0 300.0 296.3 284.3 265.8 253.0 250.0
250.0 248.4 242.3 234.2 227.8 225.6 224.9 224.3 221.5 215.4
208.9 205.1 202.5 202.1 206.5 219.3 238.7 251.7 271.1 290.7
305.0 292.1 273.7 256.7 236.0 210.0 212.3 196.0 179.2 158.5
148.9 147.0 147.0 148.0 143.5 151.0 160.8 179.2 193.4 200.0
201.3 208.1 222.9 241.2 249.0 253.7 268.1 288.9 299.2 304.2
311.6 321.8 334.8 345.6 350.0 350.0
301.0 300.0 300.0 300.0 298.7 291.1 274.2 257.5 251.4 250.0
249.3 246.0 238.3 230.0 225.9 224.6 223.8 221.0 214.9 206.6
201.4 200.0 200.0 200.0 201.9 209.4 225.3 245.1 265.1 286.7
280.0 280.0 295.0 259.4 237.0 209.0 214.8 198.0 180.2 162.4
149.8 142.1 145.0 148.0 145.0 148.6 153.9 166.2 188.2 198.7
200.5 245.0 245.0 235.6 247.9 251.1 260.3 280.4 295.6 301.0
302.7 308.6 324.2 342.3 350.0 350.0
300.0 300.0 299.4 296.9 291.1 275.7 260.0 252.2 250.0 249.5
235.0 235.0 233.1 227.2 225.2 224.0 220.7 215.5 208.1 202.7
200.5 200.0 200.0 200.0 200.8 204.7 214.8 233.8 253.5 274.4
291.6 294.5 280.2 259.6 230.0 215.0 215.6 198.4 183.5 164.1
151.2 142.3 145.0 148.0 145.0 147.2 150.0 159.2 179.2 195.5
210.0 245.0 290.0 300.0 246.2 249.9 256.1 272.1 291.4 299.3
300.0 303.8 319.0 339.3 349.1 325.0
287.0 298.0 295.0 288.2 275.1 260.8 253.3 245.0 237.0 237.0
236.0 231.0 228.8 225.9 224.9 223.0 217.3 208.9 202.7 200.5
200.0 200.0 200.0 200.0 200.6 202.1 208.0 222.2 240.5 258.8
278.0 285.4 273.0 257.7 221.0 212.0 215.7 200.6 188.0 168.6
153.3 144.3 145.0 148.0 136.7 145.9 149.8 156.0 172.4 192.4
225.0 264.0 290.0 338.0 244.4 249.5 254.6 269.3 287.9 299.3
300.0 302.3 315.7 334.5 347.6 325.0
278.0 287.3 281.2 270.1 260.4 253.0 240.1 239.0 238.0 247.9
242.0 230.0 229.1 227.4 225.5 220.5 212.4 203.2 197.8 194.7
193.3 192.3 192.4 195.0 197.6 200.9 204.6 211.0 229.1 245.5
260.7 267.2 227.0 223.0 218.0 212.0 217.1 201.9 192.4 175.0
156.4 146.4 145.0 148.0 134.0 144.7 149.8 154.1 170.5 190.5
210.0 201.0 290.0 275.0 241.4 248.7 253.5 268.7 289.0 299.5
300.0 301.1 308.9 327.7 343.3 325.0
85 245.0 245.0 245.0 245.0 245.0 245.1 241.0 245.0 245.0 245.0
244.9 230.0 229.0 229.0 228.0 220.9 209.4 197.5 187.9 181.6
178.3 176.9 176.4 180.4 191.5 199.1 203.0 208.4 215.9 235.5

245.9 252.9 253.4 251.6 245.0 210.0 218.0 204.2 195.2 179.5
160.7 148.4 140.7 148.0 137.1 146.0 149.8 158.2 177.7 197.7
186.0 210.0 245.0 270.0 237.5 247.4 252.5 266.9 287.7 298.6
300.0 300.0 304.2 316.5 334.4 325.0
251.0 245.0 245.0 245.0 245.0 243.0 242.0 245.0 251.1 252.5
253.0 248.7 246.4 244.9 241.5 230.5 212.4 196.4 179.2 171.5
167.4 163.9 163.3 167.1 176.6 192.2 202.4 205.9 210.7 218.8
236.1 245.4 250.0 250.0 250.0 225.7 210.0 206.7 196.7 183.4
164.1 151.8 145.3 148.0 145.3 145.0 155.2 171.5 170.0 185.0
195.0 201.5 203.4 215.6 233.8 245.5 251.9 263.9 282.2 296.7
300.0 300.0 301.2 306.6 320.8 325.0
251.0 250.0 250.0 250.0 250.0 250.4 251.0 251.8 254.8 259.6
263.7 268.9 265.1 256.5 250.4 240.8 224.4 203.3 189.0 174.4
165.9 161.3 160.0 161.2 165.8 177.2 193.8 202.6 204.3 208.0
219.9 237.2 245.7 250.0 250.0 244.7 225.2 209.5 198.3 188.0
170.8 155.3 145.0 148.9 149.1 150.0 165.0 190.0 190.0 190.0
195.0 203.9 202.9 214.6 231.4 245.6 251.2 261.2 279.1 294.8
300.1 300.1 300.2 301.8 309.3 325.0
251.0 250.0 250.0 250.8 252.9 257.1 261.9 265.6 269.1 275.5
283.1 286.2 284.4 274.6 262.1 253.3 240.8 223.1 204.8 189.4
173.2 164.6 160.8 160.1 161.0 166.3 178.0 193.0 199.0 202.2
207.3 218.1 234.9 244.6 249.2 244.1 225.1 208.1 199.5 194.8
178.3 159.9 150.5 150.2 150.0 155.8 165.0 180.0 190.0 190.0
195.0 207.2 202.9 214.7 233.2 245.4 250.8 258.8 276.8 293.1
300.0 300.0 300.0 300.2 303.6 300.0
255.0 250.3 251.4 256.2 264.2 274.5 282.5 286.3 291.3 296.2
300.3 301.6 300.2 294.9 285.6 273.8 262.3 244.9 223.0 204.6
192.0 175.8 166.9 161.7 160.4 161.7 168.7 181.2 195.2 200.3
201.3 205.6 216.1 232.7 242.4 239.6 221.9 206.2 200.0 197.3
186.2 164.8 154.0 151.1 155.2 170.0 165.0 180.0 190.0 190.0
195.0 209.6 203.3 216.2 234.6 246.9 250.2 255.8 272.1 291.6
300.0 300.0 300.0 300.1 301.5 300.0
90 255.0 253.5 259.6 270.3 284.2 292.6 296.5 300.8 307.3 317.0
320.9 319.3 319.8 317.2 308.9 297.0 285.1 269.1 245.6 222.0
210.6 198.1 179.4 169.8 163.4 161.0 163.6 175.2 191.1 199.0
200.0 200.8 245.0 255.0 229.0 230.0 217.5 204.1 200.0 197.6
185.4 171.2 157.6 153.9 160.0 160.0 156.0 180.0 190.0 190.0
195.0 209.9 204.8 218.4 237.0 247.6 250.0 253.5 269.5 289.8
300.0 300.0 300.0 300.1 300.0 300.0
265.0 262.1 276.0 280.0 289.0 299.8 300.7 304.3 317.4 332.1
339.2 339.8 337.9 337.0 328.4 313.7 301.4 289.1 271.3 248.1
233.6 212.4 200.7 184.4 171.5 164.3 164.3 175.1 189.0 199.0
200.0 230.0 270.0 266.0 260.0 220.3 212.1 202.4 199.7 195.1
183.4 168.5 162.0 162.8 160.0 160.0 165.0 180.0 190.0 190.0
190.0 209.4 205.9 222.8 238.7 248.5 250.0 252.2 267.7 288.5
300.0 300.0 300.0 300.1 300.0 300.0
285.0 280.0 286.0 291.0 296.0 301.1 302.6 306.3 318.5 335.3
346.5 349.2 348.8 346.2 341.7 330.0 314.5 304.6 290.1 269.1
247.7 234.6 212.6 199.8 184.1 171.7 169.9 178.3 192.6 199.0
200.0 200.0 200.8 210.0 211.9 214.0 208.3 202.1 199.6 192.7
178.6 166.2 161.9 160.0 160.0 160.0 165.0 165.0 190.0 190.0
190.0 206.5 208.5 223.4 242.3 249.3 250.0 251.0 264.6 287.3
300.0 300.0 300.0 300.0 300.2 300.0
293.0 293.0 296.0 296.0 300.4 302.7 304.6 306.2 311.9 327.1

342.9 349.3 349.6 349.4 347.5 340.7 331.6 320.9 307.1 288.2
267.7 248.9 232.8 210.5 193.4 174.0 171.8 182.5 194.0 200.0
200.0 201.0 204.0 210.4 216.1 218.3 212.4 204.3 199.8 190.5
175.0 164.5 161.6 170.0 160.0 160.0 165.0 175.0 190.0 190.0
190.0 205.2 206.8 225.3 241.6 249.5 250.0 250.9 264.5 287.2
300.0 300.0 300.0 300.0 300.1 300.0
300.0 298.5 299.0 299.0 299.0 303.4 304.6 305.1 306.5 318.9
337.1 348.3 350.0 350.0 349.3 347.6 343.4 336.9 322.2 304.2
286.9 266.6 247.8 219.0 200.1 177.5 171.2 179.6 193.5 200.0
200.0 203.1 210.9 219.9 225.3 225.6 221.1 211.5 200.0 190.0
175.4 164.8 160.8 170.0 160.0 160.0 165.0 175.0 190.0 190.0
190.0 203.3 207.1 222.4 240.3 249.5 250.0 250.9 266.2 287.2
300.0 300.0 300.0 300.0 300.1 300.0
95 301.0 299.5 299.0 299.0 299.0 304.0 303.4 302.7 304.1 315.0
334.5 348.3 350.0 350.0 350.0 349.8 348.6 344.0 334.1 317.4
301.0 285.4 264.2 218.0 209.5 182.7 169.6 173.4 188.4 205.0
205.0 205.8 217.8 226.6 229.5 229.5 226.8 218.2 200.0 192.9
178.3 165.8 161.5 170.0 160.0 160.0 165.0 175.0 190.0 190.0
190.0 202.3 206.7 220.8 240.1 248.5 250.0 251.9 265.5 288.2
300.0 300.0 300.0 300.0 300.1 300.0
301.0 300.0 299.0 299.0 302.0 304.9 303.0 301.9 302.3 313.5
334.9 347.8 350.0 350.0 350.0 350.0 349.4 348.1 343.3 332.5
313.9 298.4 279.5 252.5 218.0 193.2 171.5 167.4 176.9 205.0
205.0 206.6 218.2 227.6 230.0 230.0 229.0 222.8 197.0 193.9
177.1 165.7 162.7 170.0 160.0 160.0 165.0 175.0 190.0 190.0
190.0 203.2 206.5 223.9 239.0 249.0 250.0 251.0 266.7 287.4
300.0 300.0 300.0 300.0 300.1 300.0
305.0 299.0 299.0 299.0 299.0 299.0 303.0 302.3 302.3 314.3
333.3 348.7 350.0 350.0 350.0 350.0 350.0 349.9 348.9 343.3
327.3 307.0 288.0 262.1 233.2 202.8 177.7 165.9 166.6 176.9
205.0 205.0 215.0 226.3 229.6 230.0 229.6 225.7 197.0 192.6
173.6 166.1 162.5 170.0 160.0 160.0 165.0 175.0 190.0 190.0
195.0 210.0 209.3 223.7 242.2 248.6 250.0 251.8 264.1 286.8
298.6 300.0 300.0 300.1 300.0 300.0
305.0 304.5 299.0 299.0 299.0 303.4 303.0 302.7 306.9 318.5
340.1 348.7 350.0 350.0 350.0 350.0 350.0 350.0 350.0 348.2
334.5 312.8 291.8 270.1 241.1 211.4 188.3 171.8 165.0 166.1
176.6 199.0 209.6 222.2 229.1 230.0 230.0 226.7 197.0 195.1
177.1 167.1 162.7 170.0 165.0 160.0 165.0 185.0 190.0 190.0
215.2 203.0 209.3 228.6 243.0 249.6 250.0 250.8 264.7 283.0
298.6 300.0 300.0 300.1 300.0 300.0
305.0 304.6 299.0 299.0 303.0 303.6 305.5 309.7 318.0 337.1
345.7 350.0 350.0 350.0 350.0 350.0 350.0 350.0 350.0 349.4
338.6 318.1 297.7 277.6 249.9 219.3 198.9 185.2 169.7 164.0
169.1 184.9 199.7 216.9 226.2 229.6 229.5 225.2 213.4 193.0
184.5 169.7 163.9 170.0 165.0 160.0 165.0 185.0 190.0 195.0
207.3 201.7 210.9 229.0 244.1 249.6 250.0 250.8 261.6 284.3
297.1 300.0 300.0 300.1 300.0 300.0
100 305.0 304.0 299.0 299.0 304.7 307.1 313.7 326.4 339.5 345.7
350.0 350.0 350.0 350.0 350.0 350.0 350.0 350.0 350.0 350.0
342.4 323.1 303.8 285.2 258.1 228.1 207.2 193.8 180.3 165.7
166.4 178.1 192.9 206.0 218.4 225.0 226.1 220.6 210.2 200.2
187.7 172.1 164.1 165.0 165.0 160.0 175.0 185.0 195.0 210.0
203.3 201.7 211.4 227.5 244.8 250.0 250.0 250.0 262.1 281.8

298.5 300.0 300.0 300.1 300.0 300.0
305.0 303.4 303.9 304.8 304.8 311.7 328.0 342.9 348.1 350.0
350.0 350.0 350.0 350.0 350.0 350.0 350.0 350.0 350.0 350.0
344.8 328.5 308.4 288.9 264.3 237.1 214.2 199.4 185.9 169.7
164.4 172.3 186.2 196.3 206.6 213.4 216.3 212.9 204.7 199.0
188.3 172.8 166.0 165.0 165.0 160.0 175.0 185.0 195.0 219.9
202.0 201.9 211.8 232.0 246.2 250.0 250.0 250.0 262.1 284.9
298.5 300.0 300.0 300.1 300.0 300.0
305.0 302.6 302.9 303.4 306.6 318.1 339.0 348.8 350.0 350.0
350.0 350.0 350.0 350.0 350.0 350.0 350.0 350.0 350.0 350.0
346.6 330.8 310.2 291.6 271.9 246.4 221.7 205.4 191.7 175.9
165.1 166.4 175.3 189.1 197.8 203.3 204.7 203.6 201.7 197.6
186.8 171.1 167.7 165.0 165.0 170.0 175.0 185.0 195.0 213.6
202.0 202.4 216.3 236.8 248.0 250.0 250.0 250.1 263.6 286.4
300.0 300.0 300.0 300.0 300.0 300.0
305.0 302.0 301.6 301.9 308.0 326.7 342.6 350.0 350.0 350.0
350.0 350.0 350.0 350.0 350.0 350.0 350.0 350.0 350.0 350.0
346.5 330.7 310.2 295.8 283.1 259.3 235.5 214.6 202.9 186.0
168.9 162.6 166.9 178.2 190.0 195.2 197.6 198.2 197.5 193.1
180.9 166.6 173.2 165.0 165.0 175.0 180.0 185.0 226.3 205.9
200.8 205.3 220.8 239.4 249.2 250.0 250.0 251.2 264.7 287.4
300.0 300.0 300.0 300.0 300.0 300.0
305.0 302.6 302.4 302.5 309.2 327.2 343.5 350.0 350.0 350.0
350.0 350.0 350.0 350.0 350.0 350.0 350.0 350.0 350.0 350.0
344.5 328.1 308.1 299.0 291.1 270.7 246.6 227.1 210.8 194.8
176.6 164.1 162.5 168.1 175.6 183.1 186.6 187.7 187.0 181.7
171.4 165.8 165.0 165.0 165.0 175.0 180.0 185.0 210.9 201.7
200.0 207.5 226.2 243.1 249.2 250.0 250.0 252.4 268.0 288.6
300.0 300.0 300.0 300.0 300.0 300.0
105 305.0 304.2 305.0 304.6 307.0 319.6 339.3 348.7 350.0 350.0
350.0 350.0 350.0 350.0 350.0 350.0 350.0 349.4 348.0 346.6
338.3 319.7 304.6 300.0 294.4 276.2 253.3 234.7 216.5 202.5
187.6 170.3 162.8 161.6 165.0 169.2 171.9 172.3 173.0 170.7
169.0 170.0 165.0 165.0 170.0 175.0 180.0 195.0 204.8 200.0
201.2 211.0 231.2 246.1 250.0 250.0 250.0 253.7 269.7 290.0
300.0 300.0 300.0 300.0 300.0 300.0
305.0 305.3 306.3 305.7 304.0 311.9 331.2 345.3 349.6 349.6
349.0 349.4 349.0 348.5 349.1 349.5 348.8 345.5 339.6 334.3
325.2 309.7 301.4 300.0 295.2 277.5 256.0 239.8 224.7 207.9
196.0 181.5 167.2 162.1 161.7 163.2 164.2 165.0 167.8 165.0
165.0 165.0 165.0 170.0 170.0 175.0 180.1 210.1 201.6 200.0
202.8 216.6 234.9 247.7 250.0 250.0 250.0 254.2 270.7 290.6
300.0 300.0 300.0 300.0 300.0 300.0
305.0 305.1 305.5 304.4 303.3 307.4 320.6 336.8 342.5 345.2
346.9 346.4 343.2 341.3 341.5 344.3 344.3 337.0 327.1 319.7
311.0 304.4 300.1 300.0 295.4 278.2 256.8 244.9 234.3 215.5
201.7 190.9 179.7 170.9 165.6 163.8 164.6 167.6 173.6 170.0
170.0 180.0 180.0 180.0 180.1 175.0 195.0 203.0 200.0 200.0
206.1 221.9 241.5 249.0 250.0 250.0 250.0 256.2 273.1 292.6
300.0 300.0 300.0 300.0 300.0 300.0
305.0 304.8 304.6 303.8 303.7 306.0 312.5 321.5 328.9 333.0
337.4 338.4 333.3 327.9 328.3 332.6 334.2 327.3 317.8 310.6
305.5 301.8 300.1 300.0 295.3 277.8 258.0 247.9 234.0 223.9
205.6 197.1 193.0 185.5 175.9 170.2 165.9 170.3 170.0 175.0

```
    175.0 180.0 175.0 175.0 180.0 185.0 190.0 210.0 200.0 201.4
    210.9 231.1 245.8 250.0 250.0 250.0 251.0 259.2 279.3 294.6
    300.0 300.0 300.0 300.0 300.0 300.0
    305.0 305.4 305.0 304.0 304.3 305.7 308.0 311.4 315.7 320.8
    326.5 327.5 324.1 318.7 319.0 323.2 322.9 318.6 312.4 307.2
    303.6 301.1 300.1 300.0 293.7 276.9 257.3 249.5 245.3 229.4
    210.7 200.9 199.0 196.4 190.2 170.0 171.4 170.0 170.0 170.0
    180.0 180.0 180.0 175.0 170.0 190.0 204.6 200.0 200.0 204.6
    219.9 239.8 248.8 250.0 250.0 250.0 251.0 263.2 281.5 296.4
    300.0 300.0 300.0 300.0 300.0 300.0
110 305.0 305.0 305.0 305.0 305.0 305.0 310.0 312.0 315.0 320.0
    326.0 327.0 324.0 318.0 318.0 323.0 323.0 318.0 312.0 307.0
    303.0 302.0 300.0 301.0 295.0 276.0 257.0 250.0 245.0 229.0
    210.0 201.0 199.0 197.0 190.0 170.0 172.0 170.0 170.0 170.0
    180.0 180.0 180.0 175.0 170.0 190.0 205.0 200.0 200.0 205.0
    219.0 240.0 248.0 250.0 250.0 250.0 251.0 263.0 281.0 296.0
    300.0 300.0 300.0 300.0 300.0 300.0
```

# WELL INPUT

| | | | | |
|---|---|---|---|---|
| 11 | 0 | | | '90-'92 |
| 11 | | | | Q avg |
| 1 | 18 | 39 | -814.0 | GROVEP1 |
| 1 | 18 | 40 | -1652.7 | GROVEP2 |
| 1 | 45 | 38 | -48759.8 | SHEBOKEN |
| 1 | 21 | 25 | -46730.9 | MCPHERSON |
| 1 | 37 | 38 | -39448.2 | PATTON |
| 1 | 15 | 19 | 43450 | INFL P1 |
| 1 | 15 | 20 | 43450 | INFL P2 |
| 1 | 16 | 20 | 43450 | INFL P3 |
| 1 | 16 | 21 | 43450 | INFL P4 |
| 1 | 22 | 17 | -28075.0 | SH-1&3 |
| 1 | 40 | 15 | -8021.0 | SH-2 |
| 1 | 16 | 41 | 0.0 | AYERx2 |

# RECHARGE INPUT

```
         3          -1                                                  NRCHOP,IRCHCB
         1           0                                                  INRECH,INIRCH
         8  0.003196(3x,10f6.1)                                        RECH (14in/yr)
1     1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0 |  1.0
      1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0 |   .5
       .5    .5    .5    .5    .5    .5    .5    .5    .5 |   .5
       .5    .5    .5    .5    .5    .2    .2    .2    .2 |   .1
       .1    .1    .1    .1    .1    .1    .1    .1    .1 |   .1
       .1    .1    .1    .1    .1    .1    .1    .1    .1 |   .1
       .1    .1    .1    .1    .1    .1
      1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0 |  1.0
      1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0 |  1.0
      1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0 |  1.0
      1.0   1.0    .5    .5    .2    .2    .2    .2    .2 |   .1
       .1    .1    .1    .1    .1    .1    .1    .1    .1 |   .1
       .1    .1    .1    .1    .1    .1    .1    .1    .1 |   .1
       .1    .1    .1    .1    .1    .1
       .1   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0 |  1.0
      1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0 |  1.0
      1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0 |  1.0
      1.0   1.0    .5    .5    .5    .2    .2    .2    .2 |   .2
      1.0    .1    .1    .1    .1    .1    .1    .1    .1 |   .1
       .1    .1    .1    .1    .1    .1    .1    .1    .1 |   .1
       .1    .1    .1    .1    .1    .1
       .1   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0 |  1.0
      1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0 |  1.0
      1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0 |  1.0
      1.0   1.0    .5    .5    .5    .5    .2    .2    .2 |   .5
      1.0   1.0    .1    .1    .1    .1    .1    .1    .1 |   .1
       .1    .1    .1    .1    .1    .1    .1    .1    .1 |   .1
       .1    .1    .1    .1    .1    .1
5     1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0 |  1.0
      1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0 |  1.0
      1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0 |  1.0
      1.0   1.0    .5    .5    .5    .5    .5    .2    .2 |   .5
      1.0   1.0   1.0   1.0    .1    .1    .1    .1    .1 |   .1
       .1    .1    .1    .1    .1    .1    .1    .1    .1 |   .1
       .1    .1    .1    .1    .1    .1
       .1   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0 |  1.0
      1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0 |  1.0
      1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0 |  1.0
      1.0   1.0    .5    .5    .5    .5    .5    .2    .2 |   .5
      1.0   1.0   1.0   1.0   1.0   1.0    .1    .1    .1 |   .1
       .1    .1    .1    .1    .1    .1    .1    .1    .1 |   .1
       .1    .1    .1    .1    .1    .1
       .1    .1    .1    .1   1.0   1.0   1.0   1.0   1.0 |  1.0
      1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0 |  1.0
      1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0 |   .5
       .5    .5    .5    .5    .5    .5    .5    .2    .2 |   .5
      1.0   1.0   1.0   1.0   1.0   1.0    .1    .1    .1 |   .1
       .1    .1    .1    .1    .1    .1    .1    .1    .1 |   .1
```

.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5
.5 .5 .5 .5 .5 .5 .2 .2 .2 .5
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5 .5
.2 .5 .5 .5 .5 .5 .2 .2 .2 .5
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
10 .1 .1 .1 .1 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5 .5 .2
.2 .5 .5 .5 .5 .2 .2 .2 .2 .5
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5 .2 .2
.2 .2 .2 .2 .2 .2 .2 .2 .5 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 .2 .2 .2
.2 .2 .2 .2 .5 .5 .5 .5 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5
.2 .2 .2 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5 .5 1.0
1.0 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 .5 .2 .2 .5
1.0 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
15 .1 .1 .1 .1 .1 .1 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0

1.0 1.0 1.0 1.0 1.0 .5 .2 .2 .2 .5
1.0 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 .5 .2 .2 .2 .5
1.0 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 .5 .2 .2 .2 .5 .5
1.0 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.2 .1 1.0 .2 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 .5 .2 .2 .2 .5 1.0
1.0 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .5 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.2 .2 .2 .2 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 .2 .2 .2 .5 1.0
1.0 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
20 .1 .1 .1 .1 .1 .5 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .2
.2 .5 .5 .5 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 .5 .2 .2 .2 .5 1.0
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .5 .5 .5 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .2 .2
.2 .2 .5 .5 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 .5 .2 .2 .2 .5 1.0
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .5 .5 .5 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .2
.2 .2 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 .5 .2 .2 .2 .5 .5
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .5 .5 .5 .5 .5
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0

1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5
.2 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 .5 .5 .5 .5
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .2 .2 .2 .5
.5 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.2 .5 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5 .5 .5
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
25 .1 .1 .1 .1 .1 .1 .2 .2 .2 .2
.2 .5 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .5 .5 .5 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .2 .2 .2
.2 .2 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .5 .5 .5 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 .5 1.0 1.0 1.0 1.0 1.0
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .2 .5 .2
.2 .2 .5 .5 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .5 .5 .5 .5 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 .5 .5 .5 .5 1.0 1.0 .2
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .2 .2
.2 .2 .2 .5 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5
1.0 1.0 .5 .5 .2 .2 1.0 1.0 1.0 1.0
1.0 1.0 .5 .2 .2 .2 .5 .5 .5 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .2 .2
.2 .2 .2 .5 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5
.5 1.0 .5 .5 .5 .5 1.0 1.0 1.0 1.0
1.0 1.0 .5 .2 .2 .2 .2 .2 .2 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
30 .1 .1 .1 .1 .1 .1 .1 .1 .2 .2
.2 .2 .2 .5 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.
1. 1. 1. .5 .5 .5 .5 1.0 1.0 1.0
1.0 1.0 .5 .2 .2 .2 .2 .5 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1

.1 .1 .1 .1 .1 .1 .1 .1 .2 .5
.2 .2 .2 .5 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5
1. 1. 1. .5 1. 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1. .5 .5 .5 .5 .2 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .5 .2
.2 .2 .5 .5 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1. 1. 1. 1. 1. 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 .5 .2 .2 .5 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .2 .2 .2
.2 .2 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5
.5 .5 .5 .5 .5 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1. .5 .5 .5 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .5 .5 .5 .5
.2 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.2 .2 .5 .5 .5 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 .5 .5 .5 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
35 .1 .1 .1 .1 .1 .1 1.0 1.0 1.0 1.0
.5 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 .2 .2 .2 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .5 .5 .2 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 .2 .2 .2 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .5 .5 .5 .5 .5
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 .2 .2 .2 .2 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .5 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .5 .5 .5 .5 .5 .5 .5 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 .2 .2 .2 .2 .2 .1

.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .5 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .5 .2 .2 .2 .2 .2 .2 .5 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 .2 .2 .2 .2 .2 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
40 .1 .1 .1 .1 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .5 .2 .2 .2 .2 .2 .2 .2 .5
.5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 .2 .2 .2 .2 .2 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .5 .2 .2 .2 .2 .2 .2 .2 .2
.2 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 .2 .2 .2 .2 .2 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 .5 .2 .2 .2 .2 .2 .2 .2
.2 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 .2 .2 .2 .2 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 .2 .2 .2 .2 .2 .2 .2 .2
.2 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 .5 .2 .2 .2 .2 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.5 .1 .1 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 .5 .2 .2 .2 .2 .2 .2 .2
.2 .5 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 .5 .2 .2 .2 .2 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
45 .5 .5 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 .5 .2 .2 .2 .2 .2 .2 .2
.2 .2 .2 .5 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 .5 .5 .2 .2 .2 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.5 .5 .5 .5 1.0 1.0 1.0 1.0 .2 .2
.2 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 .5 .5 .5 .2 .2 .2 .2

.2 .2 .2 .5 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 .5 .2 .2 .2 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.5 .5 .5 .5 1.0 1.0 1.0 .5 .2 .2
.2 .2 .2 1.0 1.0 .5 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 .5 .5 .5 .2 .2
.2 .2 .2 .2 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 .5 .5 .2 .2 .2 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.5 .5 1.0 1.0 1.0 1.0 1.0 .5 .2 .2
.2 .2 .2 1.0 1.0 .5 .5 .5 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5
.5 .2 .2 .5 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 .5 .2 .2 .2 .2 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.5 1.0 1.0 1.0 .5 .5 .5 .5 .2 .2
.2 .2 .2 1.0 1.0 1.0 .5 .5 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 .5 .2 .2 .2 .2 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
50 .5 1.0 1.0 .5 .5 .5 .5 .5 .2 .5
.5 .2 .5 1.0 1.0 1.0 .5 .5 .5 .5
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 .5 .5 .2 .2 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.5 .5 1.0 1.0 1.0 1.0 .5 .5 .5 1.0
1.0 .5 1.0 1.0 1.0 1.0 1.0 .5 .2 .5
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .5 .5 .5 .2 .2 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.5 .5 .5 .5 .5 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5 .2 .5
.5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .5 .5 .5 .5 .5 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.5 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5 .5 .2
.5 .5 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .5 .5 .5 .5 .5 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.5 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0

1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5 .2
.2 .2 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .5 .5 .5 .5 .5 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.5 .5 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5 .5
.2 .2 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .5 .5 .5 .5 .5 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .5 .5 .5 .5 .5 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .5 .5 .5 .5 .5 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .5 .5 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 .5 .5 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .5 .5 .5 .5 .5 .5 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .5 .2 .2 .2 .5 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .5 .5 .5 .5 .5 .5 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1

```
 .1   .1   .1   .1   .1   .1
 .1   .1   .5  1.0  1.0  1.0  1.0  1.0  1.0  1.0
1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0
 .5   .5   .5   .2   .2   .2   .5   .5  1.0  1.0
1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0
1.0  1.0   .5   .5   .5   .5   .5   .5   .1   .1
 .1   .1   .1   .1   .1   .1   .1   .1   .1   .1
 .1   .1   .1   .1   .1   .1
 .1   .1  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0
1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0
1.0  1.0   .5   .2   .2   .5   .5  1.0  1.0  1.0
1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0
1.0  1.0   .5   .5   .5   .5   .5   .5   .1   .1
 .1   .1   .1   .1   .1   .1   .1   .1   .1   .1
 .1   .1   .1   .1   .1   .1
 .1   .1  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0
1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0
1.0  1.0   .5   .5   .5  1.0   .5   .5   .5  1.0
1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0
1.0  1.0   .5   .5   .5   .5   .5   .1   .1   .1
 .1   .1   .1   .1   .1   .1   .1   .1   .1   .1
 .1   .1   .1   .1   .1   .1
 .1   .1  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0
1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0
1.0  1.0  1.0   .5  1.0  1.0  1.0   .5   .5  1.0
1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0
1.0  1.0  1.0   .5   .5   .5   .5   .1   .1   .1
 .1   .1   .1   .1   .1   .1   .1   .1   .1   .1
 .1   .1   .1   .1   .1   .1
 .1   .1   .1  1.0  1.0  1.0  1.0  1.0  1.0  1.0
1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0
1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0   .5   .5
 .5   .5  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0
1.0  1.0  1.0   .5   .5   .5   .5   .1   .1   .1
 .1   .1   .1   .1   .1   .1   .1   .1   .1   .1
 .1   .1   .1   .1   .1   .1
 .1   .1   .1  1.0  1.0  1.0  1.0  1.0  1.0  1.0
1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0
1.0  1.0  1.0  1.0  1.0  1.0   .5   .5   .5   .5
 .5   .5   .5  1.0  1.0  1.0  1.0  1.0  1.0  1.0
1.0  1.0  1.0   .5   .5   .5   .5   .1   .1   .1
 .1   .1   .1   .1   .1   .1   .1   .1   .1   .1
 .1   .1   .1   .1   .1   .1
 .1   .1   .1  1.0  1.0  1.0  1.0  1.0  1.0  1.0
1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0
1.0  1.0  1.0  1.0   .5   .5   .5   .5   .2   .5
 .5   .5   .5   .5   .5  1.0  1.0  1.0  1.0  1.0
```

1.0 1.0 1.0 .5 .5 .5 .5 .5 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
70 .1 .1 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 .5 .5 .5 .2 .2 .2
.5 .5 .5 .2 .2 .5 1.0 1.0 1.0 1.0
1.0 1.0 1.0 .5 .5 .5 .5 .5 .5 .5
.5 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5
1.0 1.0 1.0 1.0 .5 .5 .5 .5 .2 .5
.5 .5 .5 .5 .2 .5 1.0 1.0 1.0 1.0
1.0 1.0 1.0 .5 .5 .5 .5 .5 .5 .5
.5 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5 .5
.5 .5 1.0 1.0 .5 .5 .5 .5 .5 .5
.5 .5 .5 .5 .5 .5 1.0 1.0 1.0 1.0
1.0 1.0 1.0 .5 .5 .5 .2 .5 .5 .5
.5 .5 .5 .5 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5 .2
.5 .5 1.0 1.0 .5 .5 .5 .5 .5 .5
.5 .5 .5 .5 .5 .5 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 .5 .2 .5 .5
.5 .5 .5 .5 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5 .2
.2 .5 .5 1.0 .5 .5 .5 .5 .5 .5
.5 .5 .5 .5 .5 .5 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 .5 .5 .2 .2 .2 .2
.5 .5 .5 .5 .5 .5 .5 .1 .1 .1
.1 .1 .1 .1 .1 .1
75 .1 .1 .1 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5 .5
.5 .5 .5 1.0 .5 .5 .5 .5 .5 .5
.5 .5 .5 .5 .5 .5 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 .5 .5 .2 .2 .2
.2 .2 .5 .5 .5 .5 .5 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 1.0 .5 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5
.5 .5 1.0 1.0 1.0 1.0 1.0 .5 .5 .5
.5 .5 .5 .5 .5 .5 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 .5 .5 .5 .2
.2 .2 .5 .5 .5 .5 .5 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .5 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0

1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5 .5 .5
.5 .5 .5 .5 .5 .5 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5 .5 .5
.5 .2 .5 .5 .5 .5 .5 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .5 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5 .5 .5
.5 .5 .5 .5 .5 .5 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5
.5 .2 .5 .5 .5 .5 .5 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 .5 .5 .5 .5
.5 .5 .5 .5 .5 .5 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .5 .2 .5 .5 .5 .5 .1 .1 .1
.1 .1 .1 .1 .1 .1
80 .1 .1 .1 .1 .1 .1 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 .5 .5 .2 .2
.2 .5 .5 .5 .2 .5 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .5 .5 .5 .5 .5 .5 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 .5 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5 .5 .2
.2 .5 .5 .5 .2 .5 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .5 .5 .5 .5 .5 .5 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 .5 .5 .5 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5 .5
.2 .5 .5 .5 .2 .2 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .5 .2 .5 .5 .5 .5 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 .5 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5
.5 .2 .5 .5 .2 .2 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .5 .2 .5 .5 .5 .5 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 .5 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .2 .5 .2 .2 .2 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .5 .5 .5 .5 .5 .5 .1 .1 .1
.1 .1 .1 .1 .1 .1

85 .1 .1 .1 .1 .1 1.0 1.0 .5 .5 .5
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .2 .2 .2 .2 .2 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .5 .5 .5 .5 .5 .5 .5 .5 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 1.0 1.0 .5 .5 .5
.5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .2 .2 .2 .2 .2 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .5 .5 .5 .5 .5 .5 .5 .5 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .5 .5 .5 .5
.5 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .5 .2 .2 .5 .5 .5 .5 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .5 .5 .5 .5 .5 .5 .5 .5 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .5 .5 .5 .5
.5 .5 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .5 .5 .2 .5 .5 .5 .5 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .5 .5 .5 .5 .5 .5 .5 .5 .5
.2 .2 .2 .1 .1 .1
.1 .1 .1 .1 .1 .1 .5 .5 .5 .5
.5 .5 .5 .5 .5 .5 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 .5 .5 .5 .2 .2 .2 .5 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .5 .5 .5 .5 .5 .5 .5 .5 .5
.2 .2 .2 .1 .1 .1
90 .1 .1 .1 .1 .1 .1 .1 .5 .5 .5
.5 .5 .5 .5 .5 .5 .5 .5 .5 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 .5 .5 .2 .2 .2 .2 .5 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .5 .5 .5 .5 .5 .5 .5 .5 .5
.2 .2 .2 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .5 .5
.5 .5 .5 .5 .5 .5 .5 .5 .5 .5
.5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 .5 .5 .2 .2 .2 .2 .2 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .5 .5 .5 .5 .5 .5 .5 .5 .5
.2 .2 .2 .2 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .5
.5 .5 .5 .5 .5 .5 .5 .5 .5 .5
.5 .5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 .5 .2 .2 .2 .2 .2 .2 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.0 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 |
| | .2 | .2 | .2 | .2 | .2 | .2 | | | | |
| | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 |
| | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 |
| | .5 | .5 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | 1.0 | 1.0 | .5 | .2 | .2 | .2 | .2 | .2 | .2 | 1.0 |
| | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | 1.0 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 |
| | .2 | .2 | .2 | .2 | .2 | .2 | | | | |
| | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 |
| | .1 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 |
| | .5 | .5 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | 1.0 | .5 | .5 | .2 | .2 | .2 | .2 | .2 | .2 | 1.0 |
| | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | 1.0 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 |
| | .2 | .2 | .2 | .2 | .2 | .2 | | | | |
| 95 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 |
| | .1 | .1 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 |
| | .5 | .5 | .5 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | .5 | .5 | .5 | .2 | .2 | .5 | .5 | .5 | .2 | 1.0 |
| | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | 1.0 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 |
| | .2 | .2 | .2 | .2 | .2 | .2 | | | | |
| | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 |
| | .1 | .1 | .1 | .5 | .5 | .5 | .5 | .5 | .5 | .5 |
| | .5 | .5 | .5 | .5 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | .5 | .5 | .2 | .2 | .5 | .5 | .5 | .5 | .5 | 1.0 |
| | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | 1.0 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 |
| | .2 | .2 | .2 | .2 | .2 | .2 | | | | |
| | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 |
| | .1 | .1 | .1 | .5 | .5 | .5 | .5 | .5 | .5 | .5 |
| | .5 | .5 | .5 | .5 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | .5 | .5 | .2 | .2 | .2 | .2 | .2 | .2 | .2 | 1.0 |
| | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | 1.0 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 |
| | .2 | .2 | .2 | .1 | .1 | .2 | | | | |
| | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 |
| | .1 | .1 | .1 | .1 | .5 | .5 | .5 | .5 | .5 | .5 |
| | .5 | .5 | .5 | .5 | .5 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | .5 | .5 | .2 | .2 | .2 | .2 | .2 | .5 | .5 | 1.0 |
| | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | 1.0 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 |
| | .2 | .2 | .2 | .1 | .1 | .1 | | | | |
| | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 |
| | .1 | .1 | .1 | .1 | .1 | .5 | .5 | .5 | .5 | .5 |
| | .5 | .5 | .5 | .5 | .5 | .5 | 1.0 | 1.0 | 1.0 | 1.0 |
| | .5 | .5 | .2 | .2 | .2 | .2 | .2 | .5 | .5 | 1.0 |
| | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | 1.0 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 |
| | .2 | .2 | .2 | .1 | .1 | .1 | | | | |
| 100 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 |
| | .1 | .1 | .1 | .1 | .1 | .1 | .5 | .5 | .5 | .5 |
| | .5 | .5 | .5 | .5 | .5 | .5 | 1.0 | 1.0 | 1.0 | 1.0 |

.5 .5 .5 .2 .2 .2 .5 .5 .5 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 .5 .5 .5 .5 .5 .5 .5 .5 .5
.2 .2 .2 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .5 .5 .5
.5 .5 .5 .5 .5 .5 1.0 1.0 1.0 1.0
1.0 .5 .5 .5 .2 .2 .5 .5 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .5 .5 .5 .5 .5 .5 .5 .5 .2
.2 .2 .2 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .5 .5 .5
.5 .5 .5 .5 .5 .5 1.0 1.0 1.0 1.0
1.0 1.0 .5 .5 .5 .5 .5 .5 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.5 .5 .5 .5 .5 .5 .5 .5 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .5 .5 .5
.5 .5 .5 .5 .5 .5 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 .5 .5 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .5
.2 .5 .5 .5 .5 .5 .5 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .5 .5 .5
.5 .5 .5 .5 .5 .5 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
.2 .5 .5 .5 .5 .5 .5 .1 .1 .1
.1 .1 .1 .1 .1 .1
105 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .5 .5 .5
.5 .5 .5 .5 .5 .5 .5 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .1
.1 .1 .1 .5 .5 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .5 .5 .5 .5
.5 .5 .5 .5 .5 .5 .5 .5 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .5 .5 .5 .5
.5 .5 .5 .5 .5 .5 .5 .5 .5 1.0
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
1.0 1.0 1.0 1.0 1.0 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1
.1 .1 .1 .1 .1 .1 .1 .1 .1 .1

```
      .1   .1   .1   .1   .1   .5   .5   .5   .5   .5
      .5   .5   .5   .5   .5   .5   .5   .5   .5   .5
     1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0
     1.0  1.0  1.0  1.0   .1   .1   .1   .1   .1   .1
      .1   .1   .1   .1   .1   .1   .1   .1   .1   .1
      .1   .1   .1   .1   .1   .1
      .1   .1   .1   .1   .1   .1   .1   .1   .1   .1
      .1   .1   .1   .1   .1   .5   .5   .5   .5   .5
      .5   .5   .5   .5   .5   .5   .5   .5   .5   .5
      .1   .1   .1  1.0  1.0  1.0  1.0   .1   .1   .1
      .1   .1   .1   .1   .1   .1   .1   .1   .1   .1
      .1   .1   .1   .1   .1   .1   .1   .1   .1   .1
      .1   .1   .1   .1   .1   .1
110   .1   .1   .1   .1   .1   .1   .1   .1   .1   .1
      .1   .1   .1   .1   .1   .1   .1   .1   .1   .1
      .1   .1   .1   .1   .1   .1   .1   .1   .1   .1
      .1   .1   .1   .1   .1   .1   .1   .1   .1   .1
      .1   .1   .1   .1   .1   .1   .1   .1   .1   .1
      .1   .1   .1   .1   .1   .1   .1   .1   .1   .1
      .1   .1   .1   .1   .1   .1
```

# RIVER INPUT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 753 | 16 | | | | | | |
| 753 | | | | | | | |
| 1 | 2 | 20 | 200.0 | 100000 | 192.0 | Nashua Riv | 1 |
| 1 | 3 | 20 | 200.0 | 100000 | 192.0 | | 1 |
| 1 | 3 | 19 | 200.0 | 100000 | 192.0 | | 1 |
| 1 | 3 | 18 | 200.0 | 100000 | 192.0 | | 1 |
| 1 | 3 | 17 | 200.0 | 100000 | 192.0 | | 1 |
| 1 | 4 | 17 | 200.0 | 100000 | 192.0 | | 1 |
| 1 | 5 | 17 | 200.0 | 100000 | 192.0 | | 1 |
| 1 | 6 | 17 | 200.08 | 100000 | 198.0 | cnfl-Squan | 1 |
| 1 | 7 | 17 | 200.2 | 100000 | 192.2 | | 1 |
| 1 | 8 | 17 | 200.3 | 100000 | 192.3 | | 1 |
| 1 | 9 | 17 | 200.4 | 100000 | 192.4 | | 1 |
| 1 | 10 | 17 | 200.5 | 100000 | 192.5 | | 1 |
| 1 | 11 | 17 | 200.6 | 100000 | 192.6 | cnfl-Mulpus | 1 |
| 1 | 12 | 17 | 200.7 | 67000 | 192.7 | | 0.67 |
| 1 | 12 | 18 | 200.8 | 100000 | 192.8 | | 1 |
| 1 | 12 | 19 | 200.9 | 100000 | 192.9 | | 1 |
| 1 | 13 | 19 | 201.0 | 100000 | 193.0 | | 1 |
| 1 | 13 | 20 | 201.2 | 100000 | 193.2 | | 1 |
| 1 | 14 | 20 | 201.3 | 100000 | 193.3 | | 1 |
| 1 | 14 | 21 | 201.4 | 100000 | 193.4 | | 1 |
| 1 | 14 | 22 | 201.5 | 100000 | 193.5 | | 1 |
| 1 | 14 | 23 | 201.72 | 100000 | 193.6 | | 1 |
| 1 | 15 | 23 | 202.0 | 100000 | 194.0 | | 1 |
| 1 | 16 | 23 | 202.4 | 100000 | 194.4 | | 1 |
| 1 | 17 | 23 | 202.8 | 100000 | 194.8 | | 1 |
| 1 | 18 | 23 | 203.2 | 100000 | 195.2 | cnfl-Nonac | 1 |
| 1 | 19 | 23 | 203.6 | 100000 | 195.6 | cnfl-Walker | 1 |
| 1 | 20 | 23 | 204.0 | 100000 | 196.0 | | 1 |
| 1 | 20 | 24 | 204.4 | 100000 | 196.4 | | 1 |
| 1 | 21 | 24 | 204.8 | 100000 | 196.8 | | 1 |
| 1 | 21 | 25 | 205.2 | 100000 | 197.2 | | 1 |
| 1 | 22 | 25 | 205.6 | 100000 | 197.6 | cnfl-Morse | 1 |
| 1 | 22 | 26 | 206.0 | 100000 | 198.0 | | 1 |
| 1 | 23 | 26 | 206.4 | 100000 | 198.4 | | 1 |
| 1 | 24 | 26 | 206.8 | 100000 | 198.8 | | 1 |
| 1 | 24 | 25 | 207.2 | 100000 | 199.2 | | 1 |
| 1 | 25 | 25 | 207.6 | 100000 | 199.6 | | 1 |
| 1 | 25 | 24 | 208.0 | 100000 | 200.0 | | 1 |
| 1 | 26 | 24 | 208.4 | 100000 | 200.4 | | 1 |
| 1 | 26 | 23 | 208.8 | 100000 | 200.8 | | 1 |
| 1 | 27 | 23 | 209.2 | 67000 | 201.2 | | 0.67 |
| 1 | 27 | 22 | 209.6 | 33000 | 201.6 | | 0.33 |
| 1 | 28 | 22 | 210.0 | 100000 | 202.0 | | 1 |
| 1 | 29 | 22 | 210.4 | 33000 | 202.4 | | 0.33 |
| 1 | 29 | 21 | 210.8 | 67000 | 202.8 | | 0.67 |
| 1 | 30 | 21 | 211.2 | 100000 | 203.2 | | 1 |
| 1 | 31 | 21 | 211.6 | 100000 | 203.6 | | 1 |
| 1 | 32 | 20 | 212.0 | 100000 | 204.0 | | 1 |
| 1 | 33 | 20 | 212.4 | 100000 | 204.4 | cnfl-Trout | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 34 | 20 | 212.8 | 100000 | 204.8 | | 1 |
| 1 | 35 | 20 | 213.2 | 100000 | 205.2 | | 1 |
| 1 | 36 | 20 | 213.6 | 100000 | 205.6 | | 1 |
| 1 | 37 | 20 | 214.00 | 100000 | 206.0 | | 1 |
| 1 | 38 | 20 | 214.00 | 100000 | 206.0 | cnfl-Catam'g | 1 |
| 1 | 39 | 20 | 214.00 | 100000 | 206.0 | | 1 |
| 1 | 40 | 21 | 214.00 | 67000 | 206.0 | | 0.67 |
| 1 | 41 | 21 | 214.00 | 100000 | 206.0 | | 1 |
| 1 | 42 | 21 | 214.00 | 100000 | 206.0 | | 1 |
| 1 | 42 | 22 | 214.00 | 100000 | 206.0 | | 1 |
| 1 | 43 | 22 | 214.00 | 100000 | 206.0 | | 1 |
| 1 | 44 | 22 | 214.00 | 100000 | 206.0 | | 1 |
| 1 | 45 | 22 | 214.00 | 100000 | 206.0 | | 1 |
| 1 | 46 | 22 | 214.00 | 100000 | 206.0 | | 1 |
| 1 | 47 | 23 | 214.00 | 33000 | 206.0 | | 0.33 |
| 1 | 47 | 24 | 214.00 | 100000 | 206.0 | | 1 |
| 1 | 48 | 25 | 214.00 | 100000 | 206.0 | | 1 |
| 1 | 48 | 26 | 214.0 | 100000 | 206.0 | | 1 |
| 1 | 49 | 26 | 214.0 | 67000 | 206.0 | | 0.67 |
| 1 | 49 | 27 | 214.1 | 50000 | 206.1 | | 0.5 |
| 1 | 50 | 28 | 214.1 | 100000 | 206.1 | | 1 |
| 1 | 50 | 29 | 214.1 | 100000 | 206.1 | | 1 |
| 1 | 50 | 30 | 214.2 | 50000 | 206.2 | | 0.5 |
| 1 | 51 | 31 | 214.2 | 100000 | 206.2 | | 1 |
| 1 | 52 | 31 | 214.3 | 100000 | 206.3 | | 1 |
| 1 | 53 | 31 | 214.3 | 100000 | 206.3 | cnfl-SlateRk | 1 |
| 1 | 53 | 32 | 214.4 | 100000 | 206.4 | | 1 |
| 1 | 53 | 33 | 214.4 | 100000 | 206.4 | | 1 |
| 1 | 53 | 34 | 214.4 | 100000 | 206.4 | | 1 |
| 1 | 54 | 34 | 214.5 | 100000 | 206.5 | | 1 |
| 1 | 55 | 34 | 214.5 | 100000 | 206.5 | | 1 |
| 1 | 56 | 34 | 214.5 | 100000 | 206.5 | | 1 |
| 1 | 57 | 34 | 214.6 | 100000 | 206.6 | | 1 |
| 1 | 58 | 34 | 214.6 | 100000 | 206.6 | | 1 |
| 1 | 59 | 34 | 214.6 | 100000 | 206.6 | | 1 |
| 1 | 60 | 34 | 214.7 | 100000 | 206.7 | | 1 |
| 1 | 60 | 35 | 214.7 | 50000 | 206.7 | | 0.5 |
| 1 | 61 | 35 | 214.7 | 100000 | 206.7 | | 1 |
| 1 | 61 | 36 | 214.8 | 100000 | 206.8 | | 1 |
| 1 | 61 | 37 | 214.8 | 100000 | 206.8 | | 1 |
| 1 | 61 | 38 | 214.8 | 100000 | 206.8 | | 1 |
| 1 | 61 | 39 | 214.9 | 100000 | 206.9 | | 1 |
| 1 | 61 | 40 | 214.9 | 100000 | 206.9 | | 1 |
| 1 | 62 | 41 | 214.9 | 100000 | 206.9 | | 1 |
| 1 | 63 | 41 | 215.00 | 100000 | 207.0 | | 1 |
| 1 | 64 | 41 | 215.1 | 100000 | 207.1 | | 1 |
| 1 | 65 | 41 | 215.2 | 100000 | 207.2 | | 1 |
| 1 | 66 | 41 | 215.3 | 33000 | 207.3 | | 0.33 |
| 1 | 66 | 42 | 215.4 | 100000 | 207.4 | | 1 |
| 1 | 67 | 42 | 215.5 | 100000 | 207.5 | | 1 |
| 1 | 68 | 42 | 215.6 | 100000 | 207.6 | | 1 |
| 1 | 69 | 42 | 215.7 | 100000 | 207.7 | | 1 |
| 1 | 70 | 42 | 215.8 | 100000 | 207.8 | | 1 |
| 1 | 71 | 42 | 215.9 | 100000 | 207.9 | | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 72 | 42 | 216.0 | 50000 | 208.0 | | 0.5 |
| 1 | 72 | 43 | 216.1 | 100000 | 208.1 | | 1 |
| 1 | 73 | 43 | 216.2 | 100000 | 208.2 | | 1 |
| 1 | 74 | 43 | 216.3 | 100000 | 208.3 | | 1 |
| 1 | 75 | 43 | 216.4 | 100000 | 208.4 | | 1 |
| 1 | 76 | 43 | 216.5 | 33000 | 208.5 | | 0.33 |
| 1 | 76 | 44 | 216.6 | 100000 | 208.6 | | 1 |
| 1 | 76 | 45 | 216.7 | 100000 | 208.7 | | 1 |
| 1 | 77 | 45 | 216.8 | 100000 | 208.8 | | 1 |
| 1 | 78 | 45 | 216.9 | 100000 | 208.9 | | 1 |
| 1 | 79 | 45 | 217.0 | 100000 | 209.0 | | 1 |
| 1 | 80 | 45 | 217.0 | 100000 | 209.0 | | 1 |
| 1 | 81 | 45 | 217.1 | 100000 | 209.1 | | 1 |
| 1 | 81 | 44 | 217.2 | 100000 | 209.2 | | 1 |
| 1 | 82 | 44 | 217.3 | 100000 | 209.3 | | 1 |
| 1 | 82 | 43 | 217.3 | 33000 | 209.3 | | 0.33 |
| 1 | 83 | 43 | 217.4 | 100000 | 209.4 | | 1 |
| 1 | 84 | 43 | 217.4 | 100000 | 209.4 | | 1 |
| 1 | 85 | 43 | 217.5 | 100000 | 209.5 | | 1 |
| 1 | 85 | 44 | 217.5 | 100000 | 209.5 | | 1 |
| 1 | 86 | 44 | 217.50 | 100000 | 209.5 | | 1 |
| 1 | 87 | 44 | 217.6 | 50000 | 209.6 | | 0.5 |
| 1 | 87 | 43 | 217.7 | 50000 | 209.7 | | 0.5 |
| 1 | 88 | 43 | 217.8 | 100000 | 209.8 | | 1 |
| 1 | 88 | 42 | 217.9 | 67000 | 209.9 | | 0.67 |
| 1 | 89 | 42 | 218.0 | 67000 | 210.0 | | 0.67 |
| 1 | 89 | 43 | 218.1 | 100000 | 210.1 | | 1 |
| 1 | 90 | 43 | 218.1 | 100000 | 210.1 | | 1 |
| 1 | 90 | 42 | 218.2 | 100000 | 210.2 | | 1 |
| 1 | 90 | 41 | 218.3 | 100000 | 210.3 | | 1 |
| 1 | 91 | 41 | 218.4 | 100000 | 210.4 | | 1 |
| 1 | 92 | 41 | 218.5 | 100000 | 210.5 | | 1 |
| 1 | 92 | 40 | 218.5 | 100000 | 210.5 | | 1 |
| 1 | 93 | 40 | 218.6 | 100000 | 210.6 | | 1 |
| 1 | 94 | 40 | 218.7 | 100000 | 210.7 | | 1 |
| 1 | 95 | 40 | 218.8 | 100000 | 210.8 | | 1 |
| 1 | 96 | 40 | 218.9 | 100000 | 210.9 | | 1 |
| 1 | 96 | 39 | 219.0 | 100000 | 211.0 | | 1 |
| 1 | 97 | 39 | 219.1 | 100000 | 211.1 | | 1 |
| 1 | 98 | 39 | 219.2 | 100000 | 211.2 | | 1 |
| 1 | 98 | 40 | 219.3 | 100000 | 211.3 | | 1 |
| 1 | 99 | 40 | 219.4 | 100000 | 211.4 | | 1 |
| 1 | 99 | 41 | 219.5 | 100000 | 211.5 | | 1 |
| 1 | 100 | 41 | 219.6 | 100000 | 211.6 | | 1 |
| 1 | 101 | 41 | 219.7 | 100000 | 211.7 | | 1 |
| 1 | 102 | 41 | 219.8 | 100000 | 211.8 | | 1 |
| 1 | 103 | 41 | 219.9 | 100000 | 211.9 | | 1 |
| 1 | 104 | 41 | 219.9 | 100000 | 211.9 | | 1 |
| 1 | 105 | 41 | 220.00 | 67000 | 212.0 | | 0.67 |
| 1 | 105 | 40 | 220.0 | 33000 | 212.0 | | 0.33 |
| 1 | 106 | 40 | 220.0 | 100000 | 212.0 | | 1 |
| 1 | 107 | 40 | 221.0 | 100000 | 213.0 | | 1 |
| 1 | 106 | 39 | 220.0 | 100000 | 215.0 | N. Nashua | 1 |
| 1 | 106 | 38 | 221.0 | 100000 | 216.0 | | 1 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | 105 | 38 | 222.0 | 50000 | 217.0 | 0.5 |
| 1 | 105 | 37 | 223.0 | 50000 | 218.0 | 0.5 |
| 1 | 105 | 36 | 224.0 | 100000 | 219.0 | 1 |
| 1 | 105 | 35 | 225.0 | 100000 | 220.0 | 1 |
| 1 | 105 | 34 | 226.0 | 100000 | 221.0 | 1 |
| 1 | 105 | 33 | 227.0 | 100000 | 222.0 | 1 |
| 1 | 105 | 32 | 229.0 | 100000 | 224.0 | 1 |
| 1 | 104 | 32 | 231.0 | 100000 | 226.0 | 1 |
| 1 | 104 | 31 | 232.0 | 100000 | 227.0 | 1 |
| 1 | 103 | 31 | 233.0 | 100000 | 228.0 | 1 |
| 1 | 102 | 31 | 233.0 | 100000 | 228.0 | 1 |
| 1 | 102 | 30 | 234.0 | 33000 | 229.0 | 0.33 |
| 1 | 101 | 30 | 234.0 | 67000 | 229.0 | 0.67 |
| 1 | 101 | 29 | 234.0 | 100000 | 229.0 | 1 |
| 1 | 100 | 29 | 235.0 | 100000 | 230.0 | 1 |
| 1 | 99 | 29 | 235.0 | 100000 | 230.0 | 1 |
| 1 | 98 | 29 | 236.0 | 100000 | 231.0 | 1 |
| 1 | 98 | 28 | 236.0 | 100000 | 231.0 | 1 |
| 1 | 98 | 27 | 236.0 | 100000 | 231.0 | 1 |
| 1 | 98 | 26 | 237.0 | 100000 | 232.0 | 1 |
| 1 | 97 | 26 | 237.0 | 100000 | 232.0 | 1 |
| 1 | 96 | 26 | 238.0 | 50000 | 233.0 | 0.5 |
| 1 | 96 | 25 | 238.0 | 50000 | 233.0 | 0.5 |
| 1 | 95 | 25 | 238.0 | 67000 | 233.0 | 0.67 |
| 1 | 95 | 24 | 238.0 | 33000 | 233.0 | 0.33 |
| 1 | 94 | 24 | 239.0 | 100000 | 234.0 | 1 |
| 1 | 93 | 24 | 239.0 | 100000 | 234.0 | 1 |
| 1 | 92 | 24 | 239.0 | 100000 | 234.0 | 1 |
| 1 | 91 | 24 | 240.0 | 100000 | 235.0 | 1 |
| 1 | 91 | 25 | 240.0 | 100000 | 235.0 | 1 |
| 1 | 90 | 25 | 240.0 | 100000 | 235.0 | 1 |
| 1 | 90 | 24 | 241.0 | 100000 | 236.0 | 1 |
| 1 | 90 | 23 | 241.0 | 100000 | 236.0 | 1 |
| 1 | 90 | 22 | 241.0 | 100000 | 236.0 | 1 |
| 1 | 90 | 21 | 242.0 | 100000 | 237.0 | 1 |
| 1 | 90 | 20 | 242.0 | 100000 | 237.0 | 1 |
| 1 | 89 | 20 | 243.0 | 100000 | 238.0 | 1 |
| 1 | 89 | 19 | 243.0 | 100000 | 238.0 | 1 |
| 1 | 88 | 19 | 244.0 | 100000 | 239.0 | 1 |
| 1 | 88 | 18 | 245.0 | 100000 | 240.0 | 1 |
| 1 | 87 | 18 | 245.0 | 60000 | 240.0 | 0.6 |
| 1 | 87 | 17 | 246.0 | 60000 | 241.0 | 0.6 |
| 1 | 86 | 17 | 246.0 | 60000 | 241.0 | 0.6 |
| 1 | 85 | 17 | 247.0 | 100000 | 242.0 | 1 |
| 1 | 85 | 16 | 248.0 | 100000 | 243.0 | 1 |
| 1 | 85 | 15 | 248.0 | 100000 | 243.0 | 1 |
| 1 | 85 | 14 | 249.0 | 100000 | 244.0 | 1 |
| 1 | 85 | 13 | 249.0 | 100000 | 244.0 | 1 |
| 1 | 85 | 12 | 250.0 | 100000 | 245.0 | 1 |
| 1 | 84 | 12 | 250.0 | 100000 | 245.0 | 1 |
| 1 | 83 | 12 | 251.0 | 100000 | 246.0 | 1 |
| 1 | 83 | 13 | 251.0 | 100000 | 246.0 | 1 |
| 1 | 83 | 14 | 252.0 | 100000 | 247.0 | 1 |
| 1 | 82 | 14 | 253.0 | 100000 | 248.0 | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 82 | 13 | 254.0 | 100000 | 249.0 | | 1 |
| 1 | 82 | 12 | 255.0 | 100000 | 250.0 | | 1 |
| 1 | 82 | 11 | 255.0 | 100000 | 250.0 | | 1 |
| 1 | 83 | 10 | 257.0 | 100000 | 252.0 | | 1 |
| 1 | 83 | 9 | 257.0 | 100000 | 252.0 | | 1 |
| 1 | 84 | 9 | 258.0 | 100000 | 253.0 | | 1 |
| 1 | 84 | 8 | 259.0 | 100000 | 254.0 | | 1 |
| 1 | 84 | 7 | 260.0 | 100000 | 255.0 | | 1 |
| 1 | 85 | 7 | 261.0 | 100000 | 256.0 | | 1 |
| 1 | 86 | 7 | 262.0 | 100000 | 257.0 | | 1 |
| 1 | 86 | 6 | 263.0 | 100000 | 258.0 | | 1 |
| 1 | 11 | 16 | 201.5 | 25000 | 200.0 | Mulpus Brk | 1 |
| 1 | 11 | 15 | 208.5 | 25000 | 207.0 | | 1 |
| 1 | 12 | 15 | 215.5 | 25000 | 214.0 | | 1 |
| 1 | 13 | 15 | 220.5 | 25000 | 219.0 | | 1 |
| 1 | 13 | 14 | 231.0 | 25000 | 230.0 | | 1 |
| 1 | 13 | 13 | 241.0 | 25000 | 240.0 | | 1 |
| 1 | 14 | 13 | 250.5 | 25000 | 250.0 | | 1 |
| 1 | 14 | 12 | 258.5 | 8250 | 258.0 | | 0.33 |
| 1 | 15 | 12 | 260.5 | 16750 | 260.0 | | 0.67 |
| 1 | 15 | 11 | 266.5 | 25000 | 266.0 | | 1 |
| 1 | 15 | 10 | 268.3 | 25000 | 268.0 | | 1 |
| 1 | 16 | 9 | 270.3 | 25000 | 270.0 | | 1 |
| 1 | 16 | 8 | 272.5 | 25000 | 272.0 | | 1 |
| 1 | 19 | 22 | 204.0 | 25000 | 203.0 | Walker Brk | 1 |
| 1 | 20 | 22 | 209.5 | 25000 | 209.0 | | 1 |
| 1 | 21 | 21 | 215.5 | 25000 | 215.0 | | 1 |
| 1 | 22 | 21 | 220.5 | 25000 | 220.0 | | 1 |
| 1 | 22 | 20 | 224.5 | 25000 | 224.0 | | 1 |
| 1 | 22 | 19 | 226.1 | 25000 | 226.0 | | 1 |
| 1 | 22 | 18 | 228.1 | 25000 | 228.0 | | 1 |
| 1 | 22 | 17 | 230.1 | 25000 | 230.0 | | 1 |
| 1 | 22 | 16 | 237.1 | 25000 | 237.0 | | 1 |
| 1 | 23 | 15 | 244.1 | 25000 | 244.0 | | 1 |
| 1 | 23 | 14 | 247.1 | 25000 | 247.0 | | 1 |
| 1 | 23 | 13 | 250.1 | 25000 | 250.0 | | 1 |
| 1 | 23 | 12 | 254.1 | 12500 | 254.0 | | 0.5 |
| 1 | 22 | 12 | 250.1 | 12500 | 250.0 | | 0.5 |
| 1 | 22 | 11 | 262.0 | 25000 | 262.0 | | 1 |
| 1 | 22 | 10 | 266.0 | 12500 | 266.0 | | 0.5 |
| 1 | 21 | 10 | 270.0 | 12500 | 270.0 | | 0.5 |
| 1 | 21 | 9 | 274.0 | 25000 | 274.0 | | 1 |
| 1 | 20 | 9 | 278.0 | 25000 | 278.0 | | 1 |
| 1 | 22 | 24 | 207.0 | 25000 | 205.0 | Morse Brk | 1 |
| 1 | 23 | 24 | 208.0 | 25000 | 206.0 | | 1 |
| 1 | 23 | 23 | 209.0 | 25000 | 207.0 | | 1 |
| 1 | 24 | 22 | 211.0 | 25000 | 209.0 | | 1 |
| 1 | 24 | 21 | 211.5 | 25000 | 210.0 | | 1 |
| 1 | 25 | 20 | 214.5 | 25000 | 213.0 | | 1 |
| 1 | 25 | 19 | 218.5 | 25000 | 217.0 | | 1 |
| 1 | 26 | 18 | 221.5 | 25000 | 220.0 | | 1 |
| 1 | 26 | 17 | 223.5 | 25000 | 222.5 | | 1 |
| 1 | 27 | 17 | 226.0 | 25000 | 225.0 | | 1 |
| 1 | 28 | 17 | 228.5 | 12500 | 227.5 | | 0.5 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 28 | 16 | 231.0 | 12500 | 230.0 | | 0.5 |
| 1 | 29 | 16 | 235.5 | 25000 | 235.0 | | 1 |
| 1 | 30 | 16 | 240.5 | 25000 | 240.0 | | 1 |
| 1 | 30 | 15 | 245.5 | 25000 | 245.0 | | 1 |
| 1 | 30 | 14 | 250.5 | 25000 | 250.0 | | 1 |
| 1 | 32 | 19 | 213.0 | 25000 | 211.0 | Trout Brk | 1 |
| 1 | 33 | 19 | 226.0 | 25000 | 225.0 | | 1 |
| 1 | 33 | 18 | 241.0 | 25000 | 240.0 | | 1 |
| 1 | 33 | 17 | 251.0 | 25000 | 250.0 | | 1 |
| 1 | 34 | 16 | 257.5 | 25000 | 257.0 | | 1 |
| 1 | 35 | 15 | 264.5 | 25000 | 264.0 | | 1 |
| 1 | 35 | 14 | 270.1 | 25000 | 270.0 | | 1 |
| 1 | 36 | 13 | 286.1 | 25000 | 286.0 | | 1 |
| 1 | 37 | 13 | 294.1 | 25000 | 294.0 | | 1 |
| 1 | 37 | 12 | 299.1 | 25000 | 299.0 | | 1 |
| 2 | 37 | 11 | 300.1 | 25000 | 300.0 | | 1 |
| 2 | 36 | 11 | 302.0 | 25000 | 302.0 | | 1 |
| 2 | 36 | 10 | 335.0 | 12500 | 335.0 | | 0.5 |
| 2 | 35 | 10 | 342.0 | 12500 | 342.0 | | 0.5 |
| 2 | 35 | 9 | 351.0 | 25000 | 351.0 | | 1 |
| 2 | 35 | 8 | 354.0 | 25000 | 354.0 | | 1 |
| 1 | 38 | 19 | 215.0 | 25000 | 212.0 | Catacoonamug | 1 |
| 1 | 38 | 18 | 217.0 | 25000 | 214.0 | Brk | 1 |
| 1 | 38 | 17 | 220.0 | 25000 | 217.0 | | 1 |
| 1 | 39 | 16 | 221.0 | 25000 | 218.0 | | 1 |
| 1 | 39 | 19 | 222.0 | 25000 | 219.0 | | 1 |
| 1 | 40 | 19 | 224.0 | 25000 | 221.0 | | 1 |
| 1 | 40 | 15 | 225.0 | 25000 | 222.0 | | 1 |
| 1 | 41 | 14 | 233.0 | 25000 | 230.0 | | 1 |
| 1 | 42 | 14 | 237.0 | 25000 | 234.0 | | 1 |
| 1 | 42 | 13 | 241.0 | 25000 | 238.0 | | 1 |
| 1 | 42 | 12 | 245.0 | 25000 | 242.0 | | 1 |
| 1 | 42 | 11 | 249.0 | 25000 | 246.0 | | 1 |
| 1 | 42 | 10 | 252.0 | 25000 | 250.0 | | 1 |
| 1 | 42 | 9 | 255.0 | 25000 | 253.0 | | 1 |
| 1 | 42 | 8 | 258.0 | 25000 | 256.0 | | 1 |
| 1 | 42 | 7 | 261.0 | 25000 | 259.0 | | 1 |
| 1 | 43 | 6 | 266.0 | 25000 | 265.0 | | 1 |
| 1 | 44 | 6 | 271.0 | 25000 | 270.0 | | 1 |
| 1 | 45 | 6 | 274.0 | 25000 | 273.0 | | 1 |
| 1 | 46 | 6 | 277.0 | 25000 | 276.0 | | 1 |
| 1 | 47 | 6 | 280.0 | 25000 | 279.0 | | 1 |
| 1 | 48 | 5 | 286.0 | 25000 | 285.0 | | 1 |
| 1 | 48 | 4 | 291.0 | 25000 | 290.0 | | 1 |
| 1 | 48 | 3 | 294.0 | 25000 | 293.0 | | 1 |
| 1 | 49 | 3 | 298.0 | 25000 | 297.0 | | 1 |
| 1 | 50 | 3 | 301.0 | 25000 | 300.0 | | 1 |
| 1 | 51 | 3 | 301.0 | 25000 | 300.0 | | 1 |
| 1 | 51 | 4 | 301.0 | 25000 | 300.0 | | 1 |
| 1 | 51 | 5 | 301.0 | 25000 | 300.0 | | 1 |
| 1 | 51 | 6 | 311.0 | 25000 | 310.0 | | 1 |
| 1 | 52 | 6 | 318.0 | 25000 | 317.0 | | 1 |
| 1 | 53 | 6 | 325.5 | 25000 | 325.0 | | 1 |
| 1 | 54 | 7 | 331.5 | 25000 | 331.0 | | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 55 | 7 | 337.5 | 25000 | 337.0 | | 1 |
| 1 | 55 | 8 | 343.5 | 25000 | 343.0 | | 1 |
| 1 | 55 | 9 | 348.5 | 25000 | 348.0 | | 1 |
| 1 | 55 | 10 | 349.0 | 25000 | 349.0 | | 1 |
| 1 | 55 | 11 | 349.0 | 25000 | 349.0 | | 1 |
| 1 | 55 | 12 | 350.0 | 25000 | 350.0 | | 1 |
| 1 | 56 | 13 | 350.0 | 25000 | 350.0 | | 1 |
| 1 | 56 | 14 | 350.0 | 25000 | 350.0 | | 1 |
| 1 | 56 | 15 | 351.0 | 25000 | 351.0 | | 1 |
| 1 | 57 | 15 | 355.0 | 25000 | 355.0 | | 1 |
| 1 | 54 | 31 | 214.5 | 25000 | 212.0 | Nash 1 | 1 |
| 1 | 54 | 30 | 214.5 | 25000 | 212.0 | (SlateRock) | 1 |
| 1 | 54 | 29 | 225.35 | 25000 | 212.0 | | 1 |
| 1 | 55 | 29 | 225.35 | 25000 | 214.0 | | 1 |
| 1 | 56 | 29 | 225.35 | 25000 | 216.0 | | 1 |
| 1 | 56 | 28 | 225.35 | 25000 | 218.0 | | 1 |
| 1 | 57 | 28 | 225.35 | 25000 | 220.0 | | 1 |
| 1 | 58 | 28 | 225.35 | 25000 | 221.0 | | 1 |
| 1 | 58 | 27 | 225.35 | 25000 | 222.0 | | 1 |
| 1 | 59 | 27 | 225.5 | 25000 | 223.0 | | 1 |
| 1 | 59 | 26 | 225.5 | 25000 | 224.0 | | 1 |
| 1 | 60 | 26 | 225.5 | 25000 | 225.0 | | 1 |
| 2 | 60 | 25 | 226.1 | 25000 | 226.0 | | 1 |
| 2 | 61 | 25 | 227.1 | 25000 | 227.0 | | 1 |
| 2 | 62 | 25 | 228.1 | 25000 | 228.0 | | 1 |
| 1 | 62 | 26 | 232.1 | 25000 | 232.0 | | 1 |
| 2 | 63 | 25 | 229.1 | 25000 | 229.0 | | 1 |
| 2 | 64 | 25 | 230.1 | 25000 | 230.0 | | 1 |
| 1 | 65 | 25 | 240.1 | 25000 | 240.0 | | 1 |
| 1 | 65 | 24 | 250.1 | 25000 | 250.0 | | 1 |
| 1 | 66 | 24 | 270.1 | 25000 | 270.0 | | 1 |
| 1 | 67 | 24 | 275.1 | 25000 | 275.0 | | 1 |
| 1 | 68 | 24 | 280.0 | 25000 | 280.0 | | 1 |
| 1 | 69 | 24 | 282.5 | 25000 | 282.5 | | 1 |
| 1 | 70 | 24 | 285.0 | 25000 | 285.0 | | 1 |
| 1 | 71 | 24 | 287.5 | 25000 | 287.5 | | 1 |
| 1 | 72 | 24 | 290.0 | 25000 | 290.0 | | 1 |
| 1 | 73 | 24 | 295.0 | 25000 | 295.0 | | 1 |
| 1 | 65 | 40 | 216.0 | 25000 | 214.0 | Nash 2 | 1 |
| 1 | 65 | 39 | 217.0 | 25000 | 215.0 | | 1 |
| 1 | 66 | 39 | 225.00 | 25000 | 215.0 | | 1 |
| 1 | 67 | 38 | 225.00 | 25000 | 217.0 | | 1 |
| 1 | 68 | 37 | 225.00 | 25000 | 220.0 | | 1 |
| 1 | 69 | 36 | 225.00 | 25000 | 222.0 | | 1 |
| 1 | 70 | 36 | 226.0 | 25000 | 224.0 | | 1 |
| 1 | 71 | 36 | 226.5 | 25000 | 224.5 | | 1 |
| 1 | 72 | 36 | 226.5 | 25000 | 224.5 | | 1 |
| 1 | 73 | 36 | 226.5 | 25000 | 224.5 | | 1 |
| 1 | 74 | 36 | 227.0 | 25000 | 225.0 | | 1 |
| 1 | 75 | 36 | 227.0 | 25000 | 225.0 | | 1 |
| 1 | 76 | 36 | 227.0 | 25000 | 226.0 | | 1 |
| 1 | 77 | 36 | 228.0 | 25000 | 227.0 | | 1 |
| 1 | 78 | 36 | 228.5 | 25000 | 228.0 | | 1 |
| 1 | 79 | 36 | 228.5 | 25000 | 228.0 | | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 80 | 36 | 228.5 | 25000 | 228.0 | | 1 |
| 1 | 81 | 36 | 230.0 | 25000 | 229.5 | | 1 |
| 1 | 82 | 36 | 230.0 | 25000 | 229.5 | | 1 |
| 1 | 83 | 35 | 230.5 | 25000 | 230.0 | | 1 |
| 1 | 84 | 35 | 231.0 | 25000 | 230.5 | | 1 |
| 1 | 84 | 34 | 232.0 | 25000 | 231.5 | | 1 |
| 2 | 84 | 33 | 233.0 | 25000 | 232.5 | | 1 |
| 1 | 84 | 36 | 230.5 | 25000 | 230.0 | | 1 |
| 1 | 85 | 36 | 225.5 | 25000 | 225.0 | | 1 |
| 1 | 6 | 16 | 201.0 | 25000 | 199.0 | Squannacook | 1 |
| 1 | 6 | 15 | 202.0 | 25000 | 200.0 | Riv | 1 |
| 1 | 5 | 14 | 204.0 | 25000 | 202.0 | | 1 |
| 1 | 4 | 13 | 206.0 | 25000 | 204.0 | | 1 |
| 1 | 4 | 12 | 207.0 | 25000 | 205.0 | | 1 |
| 1 | 5 | 11 | 209.0 | 25000 | 207.0 | | 1 |
| 1 | 5 | 10 | 210.0 | 25000 | 208.0 | | 1 |
| 1 | 5 | 9 | 211.0 | 25000 | 209.0 | | 1 |
| 1 | 4 | 9 | 212.0 | 12500 | 210.0 | | 0.5 |
| 1 | 4 | 8 | 214.0 | 25000 | 212.0 | | 1 |
| 1 | 4 | 7 | 217.0 | 25000 | 215.0 | | 1 |
| 1 | 3 | 6 | 219.0 | 25000 | 217.0 | | 1 |
| 1 | 2 | 5 | 221.0 | 25000 | 219.0 | | 1 |
| 1 | 2 | 4 | 224.0 | 25000 | 222.0 | | 1 |
| 1 | 18 | 24 | 203.5 | 25000 | 201.0 | Nonacoicus | 1 |
| 1 | 19 | 24 | 204.5 | 25000 | 202.0 | Br | 1 |
| 1 | 19 | 25 | 207.0 | 25000 | 205.0 | | 1 |
| 1 | 19 | 26 | 208.0 | 25000 | 206.0 | | 1 |
| 1 | 19 | 27 | 208.0 | 25000 | 206.0 | | 1 |
| 1 | 19 | 28 | 209.0 | 25000 | 207.0 | | 1 |
| 1 | 18 | 28 | 209.0 | 25000 | 207.0 | | 1 |
| 1 | 17 | 28 | 210.0 | 25000 | 208.0 | | 1 |
| 1 | 17 | 29 | 210.0 | 25000 | 208.0 | | 1 |
| 1 | 16 | 29 | 211.0 | 25000 | 209.0 | | 1 |
| 1 | 15 | 29 | 211.0 | 25000 | 209.0 | | 1 |
| 1 | 15 | 30 | 212.0 | 25000 | 210.0 | | 1 |
| 1 | 15 | 31 | 213.0 | 25000 | 211.0 | | 1 |
| 1 | 16 | 31 | 214.0 | 25000 | 212.0 | | 1 |
| 1 | 16 | 32 | 215.0 | 25000 | 213.0 | | 1 |
| 1 | 16 | 33 | 215.0 | 25000 | 213.0 | | 1 |
| 1 | 20 | 27 | 210.0 | 25000 | 209.0 | Willow Brk | 1 |
| 1 | 21 | 27 | 212.5 | 25000 | 212.0 | | 1 |
| 1 | 22 | 27 | 214.1 | 25000 | 214.0 | | 1 |
| 1 | 23 | 28 | 220.1 | 25000 | 220.0 | | 1 |
| 1 | 24 | 28 | 222.1 | 25000 | 222.0 | | 1 |
| 1 | 24 | 29 | 224.1 | 25000 | 224.0 | | 1 |
| 1 | 24 | 30 | 226.1 | 25000 | 226.0 | | 1 |
| 1 | 25 | 30 | 228.1 | 25000 | 228.0 | | 1 |
| 1 | 26 | 30 | 230.1 | 25000 | 230.0 | | 1 |
| 1 | 27 | 31 | 231.1 | 25000 | 231.0 | | 1 |
| 1 | 27 | 32 | 242.0 | 25000 | 242.0 | | 1 |
| 1 | 28 | 32 | 243.0 | 25000 | 243.0 | | 1 |
| 1 | 29 | 32 | 244.0 | 25000 | 244.0 | | 1 |
| 1 | 29 | 33 | 245.0 | 25000 | 245.0 | | 1 |
| 1 | 30 | 33 | 245.0 | 25000 | 245.0 | | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 30 | 34 | 245.0 | 25000 | 245.0 | | 1 |
| 1 | 30 | 35 | 245.0 | 25000 | 245.0 | | 1 |
| 1 | 35 | 39 | 245.0 | 50000 | 242.0 | Cold Spring | 1 |
| 1 | 35 | 40 | 244.66 | 50000 | 242.0 | Brk | 1 |
| 1 | 34 | 40 | 243.5 | 50000 | 241.0 | | 1 |
| 1 | 33 | 40 | 239.0 | 50000 | 237.0 | | 1 |
| 1 | 32 | 40 | 235.0 | 25000 | 233.0 | | 1 |
| 1 | 31 | 40 | 235.0 | 25000 | 233.0 | | 1 |
| 1 | 30 | 40 | 233.0 | 25000 | 231.0 | | 1 |
| 1 | 29 | 40 | 231.0 | 25000 | 229.0 | | 1 |
| 1 | 29 | 41 | 229.0 | 25000 | 227.0 | | 1 |
| 1 | 28 | 41 | 227.0 | 25000 | 225.0 | | 1 |
| 1 | 27 | 41 | 226.0 | 25000 | 224.0 | | 1 |
| 1 | 26 | 41 | 225.0 | 25000 | 223.0 | | 1 |
| 1 | 26 | 42 | 225.0 | 25000 | 223.0 | | 1 |
| 1 | 25 | 42 | 224.0 | 25000 | 222.0 | | 1 |
| 1 | 24 | 42 | 224.0 | 25000 | 222.0 | | 1 |
| 1 | 24 | 43 | 223.0 | 25000 | 221.0 | | 1 |
| 1 | 23 | 43 | 222.0 | 25000 | 220.0 | | 1 |
| 1 | 22 | 43 | 222.0 | 25000 | 220.0 | | 1 |
| 1 | 21 | 43 | 220.0 | 25000 | 218.0 | | 1 |
| 1 | 20 | 43 | 218.0 | 25000 | 216.0 | | 1 |
| 1 | 19 | 43 | 217.5 | 25000 | 214.0 | | 1 |
| 1 | 18 | 43 | 217.5 | 25000 | 214.0 | | 1 |
| 1 | 17 | 43 | 217.0 | 25000 | 214.0 | | 1 |
| 1 | 17 | 44 | 217.0 | 25000 | 214.0 | | 1 |
| 1 | 16 | 44 | 217.0 | 25000 | 214.0 | | 1 |
| 1 | 15 | 44 | 217.0 | 25000 | 214.0 | | 1 |
| 1 | 14 | 44 | 217.0 | 25000 | 214.0 | | 1 |
| 1 | 13 | 44 | 217.0 | 25000 | 214.0 | | 1 |
| 1 | 23 | 44 | 221.0 | 25000 | 220.0 | Bowers Brk | 1 |
| 1 | 23 | 45 | 223.0 | 25000 | 222.0 | | 1 |
| 1 | 23 | 46 | 225.0 | 25000 | 224.0 | | 1 |
| 1 | 24 | 46 | 228.0 | 25000 | 227.0 | | 1 |
| 1 | 24 | 47 | 230.0 | 25000 | 229.0 | | 1 |
| 1 | 25 | 47 | 231.0 | 25000 | 230.0 | | 1 |
| 1 | 25 | 48 | 233.0 | 25000 | 232.0 | | 1 |
| 1 | 26 | 48 | 235.0 | 25000 | 234.0 | | 1 |
| 1 | 27 | 48 | 236.0 | 8250 | 235.0 | | 0.33 |
| 1 | 27 | 49 | 238.0 | 16750 | 237.0 | | 0.67 |
| 1 | 75 | 44 | 217.0 | 25000 | 214.0 | Still River | 1 |
| 1 | 75 | 45 | 217.0 | 25000 | 214.0 | | 1 |
| 1 | 75 | 46 | 217.0 | 25000 | 214.0 | | 1 |
| 1 | 76 | 47 | 217.0 | 25000 | 215.0 | | 1 |
| 1 | 77 | 47 | 217.0 | 25000 | 215.0 | | 1 |
| 1 | 78 | 47 | 217.0 | 25000 | 215.0 | | 1 |
| 1 | 79 | 47 | 218.0 | 25000 | 216.0 | | 1 |
| 1 | 80 | 47 | 218.0 | 25000 | 216.0 | | 1 |
| 1 | 81 | 47 | 218.0 | 25000 | 217.0 | | 1 |
| 1 | 81 | 48 | 218.0 | 25000 | 217.0 | | 1 |
| 1 | 82 | 48 | 219.0 | 25000 | 218.0 | | 1 |
| 1 | 83 | 48 | 219.0 | 25000 | 218.0 | | 1 |
| 1 | 83 | 47 | 220.0 | 25000 | 219.0 | | 1 |
| 1 | 84 | 47 | 219.5 | 25000 | 219.0 | | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 47 | 220.5 | 25000 | 220.0 | | 1 |
| 1 | 85 | 48 | 220.5 | 25000 | 220.0 | | 1 |
| 1 | 86 | 48 | 221.5 | 25000 | 221.0 | | 1 |
| 1 | 87 | 48 | 221.5 | 25000 | 221.0 | | 1 |
| 1 | 87 | 49 | 222.0 | 25000 | 222.0 | | 1 |
| 1 | 88 | 49 | 222.0 | 25000 | 222.0 | | 1 |
| 1 | 88 | 48 | 223.0 | 25000 | 223.0 | | 1 |
| 1 | 89 | 48 | 223.0 | 25000 | 223.0 | | 1 |
| 1 | 90 | 48 | 224.0 | 25000 | 224.0 | | 1 |
| 1 | 91 | 48 | 224.0 | 25000 | 224.0 | | 1 |
| 1 | 91 | 47 | 225.0 | 25000 | 225.0 | | 1 |
| 1 | 92 | 47 | 225.0 | 25000 | 225.0 | | 1 |
| 1 | 93 | 47 | 225.0 | 25000 | 225.0 | | 1 |
| 1 | 94 | 47 | 225.0 | 25000 | 225.0 | | 1 |
| 1 | 95 | 47 | 225.0 | 25000 | 225.0 | | 1 |
| 1 | 96 | 47 | 225.0 | 25000 | 225.0 | | 1 |
| 1 | 97 | 47 | 225.0 | 25000 | 225.0 | | 1 |
| 1 | 97 | 46 | 225.0 | 25000 | 225.0 | | 1 |
| 1 | 98 | 46 | 225.0 | 25000 | 225.0 | | 1 |
| 1 | 99 | 46 | 225.0 | 25000 | 225.0 | | 1 |
| 1 | 100 | 46 | 225.0 | 25000 | 225.0 | | 1 |
| 1 | 101 | 46 | 225.0 | 25000 | 225.0 | | 1 |
| 1 | 102 | 46 | 225.0 | 25000 | 225.0 | | 1 |
| 1 | 102 | 47 | 225.0 | 25000 | 225.0 | | 1 |
| 1 | 102 | 48 | 243.0 | 25000 | 243.0 | | 1 |
| 1 | 102 | 49 | 246.0 | 25000 | 246.0 | | 1 |
| 1 | 102 | 50 | 249.0 | 25000 | 249.0 | | 1 |
| 1 | 101 | 50 | 249.0 | 25000 | 249.0 | | 1 |
| 1 | 100 | 50 | 249.0 | 25000 | 249.0 | | 1 |
| 1 | 100 | 51 | 263.0 | 25000 | 263.0 | | 1 |
| 1 | 100 | 52 | 270.0 | 25000 | 270.0 | | 1 |
| 1 | 100 | 53 | 295.0 | 25000 | 295.0 | | 1 |
| 1 | 99 | 53 | 303.0 | 25000 | 303.0 | | 1 |
| 1 | 98 | 53 | 311.0 | 25000 | 311.0 | | 1 |
| 1 | 97 | 53 | 320.0 | 25000 | 320.0 | | 1 |
| 1 | 97 | 54 | 328.0 | 25000 | 328.0 | | 1 |
| 1 | 97 | 55 | 339.0 | 25000 | 339.0 | | 1 |
| 1 | 97 | 56 | 348.0 | 25000 | 348.0 | | 1 |
| 1 | 97 | 57 | 349.0 | 25000 | 349.0 | | 1 |
| 2 | 97 | 58 | 389.0 | 25000 | 389.0 | | 1 |
| 2 | 97 | 59 | 400.0 | 25000 | 400.0 | | 1 |
| 2 | 96 | 59 | 398.0 | 25000 | 398.0 | | 1 |
| 2 | 95 | 59 | 410.0 | 25000 | 410.0 | | 1 |
| 2 | 95 | 60 | 415.0 | 25000 | 415.0 | | 1 |
| 2 | 95 | 61 | 420.0 | 25000 | 420.0 | | 1 |
| 2 | 95 | 62 | 426.0 | 25000 | 426.0 | | 1 |
| 2 | 95 | 63 | 432.0 | 25000 | 432.0 | | 1 |
| 1 | 99 | 45 | 225.5 | 25000 | 225.0 | Stil Riv 1 | 1 |
| 1 | 99 | 44 | 227.5 | 25000 | 227.0 | | 1 |
| 1 | 99 | 43 | 230.5 | 25000 | 230.0 | | 1 |
| 1 | 100 | 43 | 230.0 | 25000 | 230.0 | | 1 |
| 1 | 101 | 43 | 230.0 | 25000 | 230.0 | | 1 |
| 1 | 87 | 50 | 225.5 | 25000 | 225.0 | Stil Riv 2 | 1 |
| 1 | 86 | 50 | 235.5 | 25000 | 235.0 | | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 50 | 246.5 | 25000 | 246.0 | | 1 |
| 1 | 85 | 51 | 251.5 | 25000 | 251.0 | | 1 |
| 1 | 85 | 52 | 257.5 | 25000 | 257.0 | | 1 |
| 1 | 86 | 52 | 262.5 | 25000 | 262.0 | | 1 |
| 1 | 86 | 53 | 279.5 | 12500 | 279.0 | | 0.5 |
| 1 | 87 | 53 | 295.5 | 12500 | 295.0 | | 0.5 |
| 1 | 87 | 54 | 311.5 | 25000 | 311.0 | | 1 |
| 1 | 87 | 55 | 328.5 | 25000 | 328.0 | | 1 |
| 1 | 88 | 55 | 344.0 | 25000 | 344.0 | | 1 |
| 1 | 89 | 55 | 360.0 | 25000 | 360.0 | | 1 |
| 1 | 90 | 55 | 365.0 | 25000 | 365.0 | | 1 |
| 1 | 91 | 56 | 374.0 | 25000 | 374.0 | | 1 |
| 1 | 92 | 56 | 376.0 | 25000 | 376.0 | | 1 |
| 2 | 93 | 57 | 384.0 | 12500 | 384.0 | | 1 |
| 2 | 93 | 58 | 395.0 | 12500 | 395.0 | | 1 |
| 2 | 92 | 58 | 394.0 | 12500 | 394.0 | | 1 |
| 2 | 92 | 59 | 410.0 | 12500 | 410.0 | | 1 |
| 2 | 91 | 60 | 426.0 | 12500 | 426.0 | | 1 |
| 2 | 90 | 60 | 443.0 | 12500 | 443.0 | | 1 |
| 2 | 89 | 60 | 453.0 | 12500 | 453.0 | | 1 |
| 2 | 88 | 60 | 478.0 | 12500 | 478.0 | | 1 |
| 2 | 87 | 60 | 492.0 | 12500 | 492.0 | | 1 |
| 2 | 86 | 60 | 502.0 | 12500 | 502.0 | | 1 |
| 2 | 85 | 60 | 562.0 | 12500 | 562.0 | | 1 |
| 1 | 2 | 21 | 201.0 | 25000 | 199.0 | Nash 3 | 1 |
| 1 | 2 | 22 | 203.0 | 25000 | 201.0 | | 1 |
| 1 | 2 | 23 | 206.0 | 25000 | 204.0 | | 1 |
| 1 | 2 | 24 | 209.0 | 25000 | 207.0 | | 1 |
| 1 | 2 | 25 | 212.0 | 25000 | 210.0 | | 1 |
| 1 | 73 | 44 | 216.0 | 25000 | 214.0 | Nash 4 | 1 |
| 1 | 73 | 45 | 216.0 | 25000 | 214.0 | | 1 |
| 1 | 73 | 46 | 216.0 | 25000 | 215.0 | | 1 |
| 1 | 73 | 47 | 217.0 | 25000 | 216.0 | | 1 |
| 1 | 74 | 47 | 218.0 | 25000 | 217.0 | | 1 |
| 1 | 74 | 48 | 219.0 | 25000 | 218.0 | | 1 |
| 1 | 75 | 48 | 221.0 | 12500 | 220.0 | | 0.5 |
| 1 | 75 | 49 | 223.0 | 12500 | 222.0 | | 0.5 |
| 1 | 76 | 49 | 225.0 | 25000 | 224.0 | | 1 |
| 1 | 77 | 49 | 226.0 | 25000 | 225.0 | | 1 |
| 1 | 77 | 50 | 227.0 | 25000 | 226.0 | | 1 |
| 1 | 77 | 51 | 228.0 | 25000 | 227.0 | | 1 |
| 2 | 77 | 52 | 229.0 | 3125 | 228.0 | | 0.25 |
| 2 | 78 | 52 | 230.0 | 12500 | 229.0 | | 1 |
| 2 | 79 | 52 | 231.0 | 12500 | 230.0 | | 1 |
| 1 | 52 | 37 | 225.5 | 25000 | 225.0 | Nash 5 | 1 |
| 1 | 51 | 38 | 227.5 | 25000 | 227.0 | | 1 |
| 1 | 50 | 39 | 228.5 | 25000 | 228.0 | | 1 |
| 1 | 49 | 40 | 229.5 | 25000 | 229.0 | | 1 |
| 1 | 48 | 41 | 230.5 | 25000 | 230.0 | | 1 |
| 1 | 47 | 42 | 240.5 | 25000 | 240.0 | | 1 |
| 1 | 46 | 43 | 252.5 | 25000 | 252.0 | | 1 |
| 1 | 45 | 43 | 257.5 | 25000 | 257.0 | | 1 |
| 1 | 99 | 42 | 215.5 | 25000 | 215.0 | Nash 6 | 1 |
| 1 | 98 | 42 | 216.5 | 25000 | 216.0 | | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 97 | 42 | 217.5 | 25000 | 217.0 | | 1 |
| 1 | 96 | 43 | 219.5 | 25000 | 219.0 | | 1 |
| 1 | 95 | 44 | 220.5 | 25000 | 220.0 | | 1 |
| 1 | 91 | 26 | 240.0 | 25000 | 238.0 | Ponakin Brk | 1 |
| 1 | 90 | 27 | 243.0 | 25000 | 241.0 | | 1 |
| 1 | 89 | 27 | 245.0 | 25000 | 243.0 | | 1 |
| 1 | 88 | 27 | 247.0 | 12500 | 245.0 | | 0.5 |
| 1 | 88 | 26 | 248.0 | 12500 | 246.0 | | 0.5 |
| 1 | 87 | 26 | 250.0 | 25000 | 248.0 | | 1 |
| 1 | 86 | 25 | 254.0 | 25000 | 252.0 | | 1 |
| 1 | 85 | 25 | 256.0 | 25000 | 254.0 | | 1 |
| 1 | 84 | 25 | 258.0 | 25000 | 256.0 | | 1 |
| 1 | 83 | 25 | 260.0 | 25000 | 258.0 | | 1 |
| 1 | 82 | 25 | 262.0 | 25000 | 260.0 | | 1 |
| 1 | 81 | 24 | 269.0 | 25000 | 267.0 | | 1 |
| 1 | 80 | 23 | 280.0 | 25000 | 278.0 | | 1 |
| 1 | 79 | 22 | 290.5 | 25000 | 290.0 | | 1 |
| 1 | 78 | 22 | 295.5 | 12500 | 295.0 | | 0.5 |
| 1 | 78 | 21 | 297.5 | 25000 | 297.0 | | 1 |
| 1 | 77 | 20 | 300.5 | 25000 | 300.0 | | 1 |
| 1 | 76 | 20 | 303.5 | 12500 | 303.0 | | 0.5 |
| 1 | 75 | 19 | 306.5 | 25000 | 306.0 | | 1 |
| 1 | 74 | 19 | 308.5 | 25000 | 308.0 | | 1 |
| 1 | 84 | 15 | 248.5 | 25000 | 246.0 | SpectacleBrk | 1 |
| 1 | 83 | 15 | 254.0 | 25000 | 252.0 | | 1 |
| 1 | 82 | 15 | 262.0 | 25000 | 260.0 | | 1 |
| 1 | 81 | 15 | 270.0 | 25000 | 268.0 | | 1 |
| 1 | 80 | 15 | 279.0 | 25000 | 277.0 | | 1 |
| 1 | 79 | 15 | 287.0 | 12500 | 285.0 | | 0.5 |
| 1 | 79 | 16 | 296.0 | 12500 | 294.0 | | 0.5 |
| 1 | 78 | 16 | 304.0 | 25000 | 302.0 | | 1 |
| 1 | 77 | 16 | 307.0 | 25000 | 305.0 | | 1 |
| 1 | 76 | 16 | 308.5 | 25000 | 306.0 | | 1 |
| 1 | 76 | 15 | 316.77 | 125000 | 308.0 | | 1 |
| 1 | 76 | 14 | 317.0 | 25000 | 311.0 | | 1 |
| 1 | 76 | 13 | 317.0 | 25000 | 313.0 | | 1 |
| 1 | 76 | 12 | 320.5 | 25000 | 318.0 | | 1 |
| 1 | 77 | 12 | 325.0 | 25000 | 324.0 | | 1 |
| 1 | 77 | 11 | 331.0 | 25000 | 330.0 | | 1 |
| 1 | 76 | 10 | 334.5 | 25000 | 334.0 | | 1 |
| 1 | 75 | 9 | 337.5 | 25000 | 337.0 | | 1 |
| 1 | 74 | 9 | 338.5 | 25000 | 338.0 | | 1 |
| 1 | 73 | 8 | 340.5 | 25000 | 340.0 | | 1 |
| 1 | 73 | 7 | 341.5 | 25000 | 341.0 | | 1 |
| 1 | 72 | 7 | 342.5 | 25000 | 342.0 | | 1 |
| 1 | 71 | 7 | 343.5 | 25000 | 343.0 | | 1 |
| 1 | 70 | 7 | 344.5 | 25000 | 344.0 | | 1 |
| 1 | 97 | 27 | 237.0 | 25000 | 235.0 | North Nash 1 | 1 |
| 1 | 93 | 27 | 239.0 | 25000 | 238.0 | | 1 |
| 1 | 95 | 27 | 242.0 | 25000 | 241.0 | | 1 |
| 1 | 94 | 27 | 245.0 | 12500 | 244.0 | | 0.5 |
| 1 | 94 | 28 | 248.0 | 12500 | 247.0 | | 0.5 |
| 1 | 93 | 28 | 250.5 | 25000 | 250.0 | | 1 |
| 1 | 93 | 29 | 253.5 | 25000 | 253.0 | | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 93 | 30 | 256.5 | 25000 | 256.0 | | 1 |
| 1 | 93 | 31 | 259.5 | 25000 | 259.0 | | 1 |
| 1 | 92 | 31 | 262.5 | 25000 | 262.0 | | 1 |
| 1 | 91 | 31 | 268.5 | 25000 | 268.0 | | 1 |
| 1 | 90 | 30 | 279.0 | 25000 | 279.0 | | 1 |
| 1 | 89 | 30 | 284.0 | 25000 | 284.0 | | 1 |
| 1 | 88 | 30 | 290.0 | 25000 | 290.0 | | 1 |
| 1 | 87 | 30 | 295.0 | 25000 | 295.0 | | 1 |
| 1 | 100 | 28 | 236.0 | 25000 | 235.0 | North Nash 3 | 1 |
| 1 | 100 | 27 | 251.0 | 25000 | 250.0 | | 1 |
| 2 | 100 | 26 | 262.5 | 12500 | 262.0 | | 1 |
| 2 | 101 | 26 | 295.5 | 12500 | 295.0 | | 1 |
| 2 | 101 | 25 | 303.5 | 12500 | 303.0 | | 1 |
| 2 | 102 | 24 | 320.5 | 12500 | 320.0 | | 1 |
| 2 | 103 | 24 | 328.0 | 12500 | 328.0 | | 1 |
| 2 | 104 | 24 | 344.0 | 12500 | 344.0 | | 1 |
| 2 | 105 | 24 | 360.0 | 12500 | 360.0 | | 1 |
| 2 | 105 | 23 | 377.0 | 12500 | 377.0 | | 1 |
| 1 | 106 | 35 | 225.0 | 25000 | 222.0 | North Nash 4 | 1 |
| 1 | 107 | 34 | 227.0 | 25000 | 225.0 | | 1 |
| 1 | 107 | 33 | 230.0 | 25000 | 228.0 | | 1 |
| 1 | 107 | 32 | 232.0 | 25000 | 230.0 | | 1 |
| 1 | 107 | 31 | 240.0 | 25000 | 238.0 | | 1 |
| 1 | 108 | 31 | 248.0 | 25000 | 246.0 | | 1 |
| 1 | 108 | 30 | 249.5 | 25000 | 249.0 | | 1 |
| 2 | 108 | 29 | 251.5 | 12500 | 251.0 | | 1 |
| 2 | 108 | 28 | 288.5 | 12500 | 288.0 | | 1 |
| 2 | 108 | 27 | 325.5 | 12500 | 325.0 | | 1 |
| 2 | 108 | 26 | 360.5 | 12500 | 360.0 | | 1 |
| 2 | 109 | 26 | 367.5 | 12500 | 367.0 | | 1 |
| 2 | 109 | 25 | 374.5 | 12500 | 374.0 | | 1 |
| 2 | 109 | 24 | 380.5 | 12500 | 380.0 | | 1 |
| 2 | 110 | 23 | 392.5 | 12500 | 392.0 | | 1 |
| 2 | 110 | 22 | 397.5 | 12500 | 397.0 | | 1 |
| 2 | 110 | 21 | 400.5 | 12500 | 400.0 | | 1 |
| 2 | 110 | 20 | 403.0 | 12500 | 403.0 | | 1 |
| 2 | 109 | 20 | 406.0 | 12500 | 406.0 | | 1 |
| 2 | 108 | 20 | 409.0 | 12500 | 409.0 | | 1 |
| 2 | 108 | 19 | 412.0 | 12500 | 412.0 | | 1 |
| 2 | 108 | 18 | 415.0 | 12500 | 415.0 | | 1 |
| 1 | 10 | 41 | 228.0 | 125000 | 223.0 | Flannagan | 1 |
| 1 | 10 | 42 | 228.0 | 125000 | 223.0 | Pond | 1 |
| 1 | 9 | 41 | 228.0 | 125000 | 223.0 | | 1 |
| 1 | 9 | 42 | 228.0 | 125000 | 223.0 | | 1 |
| 1 | 9 | 43 | 228.0 | 125000 | 223.0 | | 1 |
| 1 | 9 | 44 | 228.0 | 125000 | 223.0 | | 1 |
| 1 | 9 | 45 | 228.0 | 125000 | 223.0 | | 1 |
| 1 | 8 | 45 | 228.0 | 125000 | 223.0 | | 1 |
| 1 | 7 | 46 | 228.0 | 125000 | 223.0 | | 1 |
| 1 | 6 | 46 | 228.0 | 125000 | 223.0 | | 1 |
| 1 | 11 | 41 | 220.0 | 25000 | 217.0 | Outfall | 1 |
| 1 | 11 | 42 | 220.0 | 25000 | 217.0 | to Grove | 1 |
| 1 | 12 | 42 | 219.0 | 25000 | 216.0 | | 1 |
| 1 | 13 | 42 | 218.0 | 25000 | 215.0 | | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 13 | 43 | 217.0 | 25000 | 214.0 | | 1 |
| 1 | 15 | 34 | 216.9 | 125000 | 211.9 | Plow Shop | 1 |
| 1 | 16 | 34 | 216.9 | 125000 | 211.9 | Pond | 1 |
| 1 | 17 | 34 | 216.9 | 125000 | 211.9 | | 1 |
| 1 | 17 | 35 | 216.9 | 125000 | 211.9 | | 1 |
| 1 | 18 | 35 | 216.9 | 125000 | 211.9 | | 1 |
| 1 | 16 | 36 | 216.9 | 125000 | 211.9 | Grove Pond | 1 |
| 1 | 17 | 36 | 216.9 | 125000 | 211.9 | | 1 |
| 1 | 17 | 37 | 216.9 | 125000 | 211.9 | | 1 |
| 1 | 17 | 38 | 216.9 | 125000 | 211.9 | | 1 |
| 1 | 17 | 39 | 216.9 | 125000 | 211.9 | | 1 |
| 1 | 18 | 38 | 216.9 | 125000 | 211.9 | | 1 |
| 1 | 17 | 40 | 216.9 | 50000 | 211.9 | | 0.4 |
| 1 | 16 | 38 | 216.9 | 125000 | 211.9 | | 1 |
| 1 | 16 | 39 | 216.9 | 125000 | 211.9 | | 1 |
| 1 | 16 | 40 | 216.9 | 125000 | 211.9 | | 1 |
| 1 | 15 | 40 | 216.9 | 75000 | 211.9 | | 0.6 |
| 1 | 15 | 41 | 216.9 | 125000 | 211.9 | | 1 |
| 1 | 15 | 42 | 216.9 | 125000 | 211.9 | | 1 |
| 1 | 15 | 43 | 216.9 | 125000 | 211.9 | | 1 |
| 1 | 31 | 35 | 243.59 | 125000 | 238.6 | Robbins Pond | 1 |
| 1 | 31 | 36 | 243.59 | 125000 | 238.6 | | 1 |
| 1 | 39 | 38 | 240.85 | 125000 | 235.9 | Mirror Lake | 1 |
| 1 | 40 | 37 | 240.85 | 125000 | 235.9 | | 1 |
| 1 | 41 | 37 | 240.85 | 125000 | 235.9 | | 1 |
| 1 | 42 | 38 | 240.85 | 125000 | 235.9 | | 1 |
| 1 | 41 | 36 | 240.85 | 125000 | 235.9 | | 1 |
| 1 | 41 | 39 | 240.85 | 125000 | 235.9 | | 1 |
| 1 | 40 | 39 | 240.85 | 125000 | 235.9 | | 1 |
| 1 | 68 | 4 | 345.0 | 125000 | 340.0 | Ltl Spectcl | 1 |
| 1 | 68 | 5 | 345.0 | 125000 | 340.0 | Pond | 1 |
| 1 | 69 | 6 | 345.0 | 25000 | 343.0 | | 1 |
| 1 | 70 | 6 | 345.0 | 125000 | 340.0 | Spectical | 1 |
| 1 | 70 | 8 | 345.0 | 125000 | 340.0 | Pond | 1 |
| 1 | 70 | 9 | 345.0 | 125000 | 340.0 | | 1 |
| 1 | 69 | 8 | 345.0 | 125000 | 340.0 | | 1 |
| 1 | 69 | 9 | 345.0 | 125000 | 340.0 | | 1 |
| 1 | 69 | 10 | 345.0 | 125000 | 340.0 | | 1 |
| 1 | 68 | 9 | 345.0 | 125000 | 340.0 | | 1 |
| 1 | 68 | 10 | 345.0 | 125000 | 340.0 | | 1 |
| 1 | 67 | 8 | 345.0 | 125000 | 340.0 | | 1 |
| 1 | 67 | 9 | 345.0 | 125000 | 340.0 | | 1 |
| 1 | 71 | 14 | 363.0 | 6250 | 358.0 | Oak Hill Pnd | 0.5 |
| 1 | 64 | 31 | 238.87 | 6250 | 235.9 | Cranb'ry Pnd | 1 |
| 1 | 63 | 30 | 238.87 | 6250 | 235.9 | | 1 |
| 1 | 5 | 41 | 235.0 | 125000 | 230.0 | N. Flannagan | 1 |
| 1 | 6 | 41 | 235.0 | 125000 | 230.0 | Pond | 1 |
| 1 | 7 | 41 | 235.0 | 125000 | 230.0 | | 1 |
| 1 | 8 | 41 | 235.0 | 125000 | 230.0 | | 1 |
| 1 | 4 | 20 | 210.0 | 125000 | 205.0 | Nash 3 Pond | 1 |
| 1 | 5 | 20 | 210.0 | 125000 | 205.0 | | 1 |
| 1 | 89 | 38 | 230.0 | 125000 | 225.0 | Pine Hill | 1 |
| 1 | 90 | 39 | 230.0 | 125000 | 225.0 | Pond | 1 |
| 1 | 86 | 36 | 236.76 | 125000 | 231.8 | Heron | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 37 | 236.76 | 125000 | 231.8 | Rookery | 1 |
| 1 | 88 | 37 | 236.76 | 125000 | 231.8 | | 1 |

## SIP SOLUTION INPUT

```
 500          5                       MXITER,NPARM
.10    .010              11.0000        1    ACCL,HCLOSE,IPCALC,WSEED,IPRSIP
```

FORT DEVENS GROUND WATER MODEL
MODFLOW OUTPUT

```
1                  U.S. GEOLOGICAL SURVEY MODULAR FINITE-DIFFERENCE GROUND-WATER MODEL
0'ORT DEVENS ARMY FACILITY, MA                                                STEADY STATE RUN
    2 LAYERS       110 ROWS        66 COLUMNS
   1 STRESS PERIOD(S) IN SIMULATION
 MODEL TIME UNIT IS DAYS
0I/O UNITS:
 ELEMENT OF IUNIT:  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
         I/O UNIT:  2  3  0  4  0  0  0  8  9  0  0 10  0  0  0  0  0  0  0  0  0  0  0  0
0BAS1 -- BASIC MODEL PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT  1
 ARRAYS RHS AND BUFF WILL SHARE MEMORY.
 START HEAD WILL BE SAVED
 138124 ELEMENTS IN X ARRAY ARE USED BY BAS
 138124 ELEMENTS OF X ARRAY USED OUT OF 300000
0BCF1 -- BLOCK-CENTERED FLOW PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT  2
 STEADY-STATE SIMULATION
      LAYER  AQUIFER TYPE
      ------------------
         1         1
         2         3
  36302 ELEMENTS IN X ARRAY ARE USED BY BCF
 174426 ELEMENTS OF X ARRAY USED OUT OF 300000
0WEL1 -- WELL PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM  3
 MAXIMUM OF   11 WELLS
     44 ELEMENTS IN X ARRAY ARE USED FOR WELLS
 174470 ELEMENTS OF X ARRAY USED OUT OF 300000
0RCH1 -- RECHARGE PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT  8
 OPTION 3 -- RECHARGE TO HIGHEST ACTIVE NODE IN EACH VERTICAL COLUMN
   7260 ELEMENTS OF X ARRAY USED FOR RECHARGE
 181730 ELEMENTS OF X ARRAY USED OUT OF 300000
0RIV1 -- RIVER PACKAGE, VERSION 1,  12/08/83 INPUT READ FROM UNIT  4
 MAXIMUM OF  753 RIVER NODES
 CELL-BY-CELL FLOWS WILL BE RECORDED ON UNIT 16
   4518 ELEMENTS IN X ARRAY ARE USED FOR RIVERS
 186248 ELEMENTS OF X ARRAY USED OUT OF 300000
0SIP1 -- STRONGLY IMPLICIT PROCEDURE SOLUTION PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT  9
 MAXIMUM OF 500 ITERATIONS ALLOWED FOR CLOSURE
  5 ITERATION PARAMETERS
  60085 ELEMENTS IN X ARRAY ARE USED BY SIP
 246333 ELEMENTS OF X ARRAY USED OUT OF 300000
1'ORT DEVENS ARMY FACILITY, MA                                                STEADY STATE RUN
  IN =           1
0


                                    BOUNDARY ARRAY FOR LAYER  1 WILL BE READ ON UNIT  1 USING
FORMAT: (3X,4012)
                          ------------------------------------------------------------------
-------------------------
  IN =           1
0


                                    BOUNDARY ARRAY FOR LAYER  2 WILL BE READ ON UNIT  1 USING
FORMAT: (3X,4012)
```

```
                                  ------------------------------------------------------------
-------------------------
0AQUIFER HEAD WILL BE SET TO  999.90     AT ALL NO-FLOW NODES (IBOUND=0).
0

                                        INITIAL HEAD FOR LAYER  1 WILL BE READ ON UNIT  1 USING
FORMAT: (3X,10F6.1)
                                  ------------------------------------------------------------
-------------------------
0

                                        INITIAL HEAD FOR LAYER  2 WILL BE READ ON UNIT  1 USING
FORMAT: (3X,10F6.1)
                                  ------------------------------------------------------------
-------------------------
0HEAD PRINT FORMAT IS FORMAT NUMBER   3    DRAWDOWN PRINT FORMAT IS FORMAT NUMBER   3
0HEADS WILL BE SAVED ON UNIT200    DRAWDOWNS WILL BE SAVED ON UNIT  0
0OUTPUT CONTROL IS SPECIFIED EVERY TIME STEP
0                                            COLUMN TO ROW ANISOTROPY =   1.000000
0                                                        DELR =   500.0000
0                                                        DELC =   500.0000
0

                               HYD. COND. ALONG ROWS FOR LAYER  1 WILL BE READ ON UNIT 11 USING
FORMAT: (3x,10f6.0)

                                           BOTTOM FOR LAYER  1 WILL BE READ ON UNIT 12 USING
FORMAT: (3x,10f6.1)

                              VERT HYD COND /THICKNESS FOR LAYER  1 WILL BE READ ON UNIT 13 USING
FORMAT: (3x,10f6.2)

                                           BOTTOM FOR LAYER  2 WILL BE READ ON UNIT 14 USING
FORMAT: (3x,10f6.1)

                                              TOP FOR LAYER  2 WILL BE READ ON UNIT 15 USING
FORMAT: (3x,10f6.1)

                                                   SOLUTION BY THE STRONGLY IMPLICIT PROCEDURE
                                                   -----------------------------------------
0                                          MAXIMUM ITERATIONS ALLOWED FOR CLOSURE =      500
                                                        ACCELERATION PARAMETER =    0.10000
                                              HEAD CHANGE CRITERION FOR CLOSURE =
0.10000E-01
                                              SIP HEAD CHANGE PRINTOUT INTERVAL =        1
0                                             CALCULATE ITERATION PARAMETERS FROM MODEL
CALCULATED WSEED
1                                            STRESS PERIOD NO.   1, LENGTH =   5.000000
                                             ----------------------------------------------

                                             NUMBER OF TIME STEPS =     1
```

MULTIPLIER FOR DELT = 1.000

INITIAL TIME STEP SIZE = 5.000000

0 11 WELLS

| LAYER | ROW | COL | STRESS RATE | WELL NO. |
|---|---|---|---|---|
| 1 | 18 | 39 | -814.00 | 1 |
| 1 | 18 | 40 | -1652.7 | 2 |
| 1 | 45 | 38 | -48760. | 3 |
| 1 | 21 | 25 | -46731. | 4 |
| 1 | 37 | 38 | -39448. | 5 |
| 1 | 15 | 19 | 43450. | 6 |
| 1 | 15 | 20 | 43450. | 7 |
| 1 | 16 | 20 | 43450. | 8 |
| 1 | 16 | 21 | 43450. | 9 |
| 1 | 22 | 17 | -28075. | 10 |
| 1 | 40 | 15 | -8021.0 | 11 |

0

RECHARGE WILL BE READ ON UNIT 8 USING FORMAT:

(3x,10f6.1)

753 RIVER REACHES

0AVERAGE SEED = 0.00018217
MINIMUM SEED = 0.00000017
0
5 ITERATION PARAMETERS CALCULATED FROM AVERAGE SEED:

0.0000000E+00 0.8838237E+00 0.9865031E+00 0.9984320E+00 0.9998178E+00

0**********NODE 31 45 1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 3 TIME STEP = 1 STRESS PERIOD = 1
0**********NODE 25 40 1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 4 TIME STEP = 1 STRESS PERIOD = 1
0**********NODE 34 47 1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 4 TIME STEP = 1 STRESS PERIOD = 1
0**********NODE 32 43 1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 5 TIME STEP = 1 STRESS PERIOD = 1
0**********NODE 31 44 1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 5 TIME STEP = 1 STRESS PERIOD = 1
0**********NODE 32 44 1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 5 TIME STEP = 1 STRESS PERIOD = 1
0**********NODE 33 44 1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 5 TIME STEP = 1 STRESS PERIOD = 1
0**********NODE 32 45 1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 5 TIME STEP = 1 STRESS PERIOD = 1
0**********NODE 34 46 1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 5 TIME STEP = 1 STRESS PERIOD = 1
0**********NODE 34 45 1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 6 TIME STEP = 1 STRESS PERIOD = 1
0**********NODE 13 67 1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 6 TIME STEP = 1 STRESS PERIOD = 1

```
0**********NODE  35  85   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  6  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  32  42   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  9  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  33  43   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  9  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  19   2   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 10  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  36  87   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 10  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  35  12   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 11  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  37  12   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 11  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  38  12   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 11  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  30  23   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 11  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  33  25   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 11  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  13  30   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 11  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  13  31   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 11  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  24  38   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 11  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  25  38   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 11  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  32  41   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 11  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  33  42   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 11  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  10  84   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 11  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  10  86   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 11  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  34  83   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 14  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  13  29   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 15  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  13  32   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 15  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE   9  85   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 15  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  10  85   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 15  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  32  20   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 16  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  34  42   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 16  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  32  19   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 18  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  13  28   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 19  TIME STEP =  1  STRESS
PERIOD =  1
```

```
0**********NODE  34  25   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 20  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  13  33   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 20  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  12  36   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 20  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  14  31   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 21  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  34  66   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 21  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  34  67   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 21  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  34  43   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 24  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  13  34   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 26  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  34  39   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 26  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  36  88   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 26  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  33  23   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 28  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  33  74   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 31  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  34  82   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 34  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  33  66   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 35  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  18  66   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 36  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  29  67   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 36  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  30  67   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 36  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  34  75   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 36  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  30  40   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 39  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  32  33   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 40  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  31  40   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 40  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  29  39   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 41  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  31  41   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 43  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  32  40   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 45  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  15  63   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 46  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  12  66   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 46  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  24  37   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 51  TIME STEP =  1  STRESS
PERIOD =  1
```

```
0**********NODE  25  41   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 56  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  37  28   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 60  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  33  75   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 66  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  31  33   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 70  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  34  81   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 75  TIME STEP =  1  STRESS
PERIOD =  1
0**********NODE  24  41   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =178  TIME STEP =  1  STRESS
PERIOD =  1
0
   228 ITERATIONS FOR TIME STEP   1 IN STRESS PERIOD  1
0MAXIMUM HEAD CHANGE FOR EACH ITERATION:
0 HEAD CHANGE LAYER,ROW,COL HEAD CHANGE LAYER,ROW,COL HEAD CHANGE LAYER,ROW,COL HEAD CHANGE
LAYER,ROW,COL HEAD CHANGE LAYER,ROW,COL
 ------------------------------------------------------------------------------------------------
--------------------------------
    76.31     (  1, 90, 39)   11.38     (  2,101, 25)   21.65     (  2, 44, 34)  -27.44     (  2,
85,  8)   72.50     (  2, 44, 34)
   -9.944     (  1, 44, 34)  -6.773     (  2,  5,  4)  -13.23     (  1, 44, 34)   23.59     (  2,
8, 31)   33.90     (  1, 48,  8)
   -7.101     (  1, 44, 34)  -9.720     (  1, 44, 34)   7.580     (  2, 97, 15)  -17.13     (  2,
85,  8)   33.61     (  2, 41, 31)
   -8.726     (  1, 44, 34)  -6.567     (  2, 44, 33)  -8.944     (  1, 44, 34)   9.052     (  2,
41, 31)  -11.87     (  2, 85,  8)
   -5.144     (  1, 44, 34)  -5.756     (  1, 44, 34)  -7.495     (  2, 44, 33)  -5.121     (  2,
85,  8)   9.692     (  2, 41, 31)
   -4.263     (  1,  8, 31)  -4.887     (  2, 42, 31)  -4.488     (  1,  8, 31)  -4.731     (  2,
44, 32)  -6.338     (  1, 41, 31)
   -3.131     (  2, 41, 30)  -3.527     (  1,  8, 31)  -4.511     (  2, 42, 31)  -3.975     (  1,
8, 31)  -4.994     (  2,104, 58)
   -2.654     (  1,  8, 31)  -3.243     (  2, 42, 31)  -3.122     (  1,  8, 31)  -3.254     (  2,
42, 31)  -3.732     (  1,  8, 31)
   -2.164     (  2, 41, 32)  -2.234     (  1,  8, 31)  -3.070     (  2, 42, 31)  -2.721     (  1,
8, 31)  -3.466     (  2,104, 58)
    1.635     (  2, 40, 49)  -1.674     (  2, 41, 30)  -1.979     (  1,  8, 31)  -1.862     (  2,
42, 31)  -2.448     (  1,  8, 31)
   -1.193     (  2,  9, 31)  -1.329     (  1,  8, 31)  -1.306     (  2, 41, 30)  -1.730     (  1,
8, 31)  -2.484     (  2,103, 58)
   -1.114     (  2,  9, 31) -0.9867     (  2,  9, 31)  -1.189     (  1,  8, 31)  -1.321     (
2,103, 58)  -1.535     (  1,  8, 31)
  -0.8760     (  2,  9, 31) -0.7590     (  1,  8, 31)  -1.069     (  2,101, 63)  -1.054     (  1,
8, 31)  -1.941     (  2,103, 58)
  -0.7893     (  2,102, 58) -0.7454     (  2,101, 59) -0.6912     (  1,  8, 31)  -1.326     (
2,101, 63) -0.9380     (  1,  8, 31)
  -0.6175     (  2,  9, 31)  0.5423     (  2, 77, 58) -0.8694     (  2,101, 59) -0.6249     (  1,
8, 31)  -1.609     (  2,100, 62)
  -0.6219     (  2,102, 58) -0.5992     (  2,101, 59) -0.3929     (  1,  8, 31) -0.8966     (
2,101, 62) -0.6322     (  1,103, 54)
  -0.4676     (  2,102, 58)  0.4188     (  2, 77, 58) -0.6663     (  2,101, 59) -0.4153     (  1,
97, 54)  -1.140     (  2,100, 61)
```

```
  -0.4816     (  2,102,  58) -0.4682     (  2,101,  59) -0.2705     (  1,  97,  54) -0.6435     (
2,101,  60) -0.4769     (  2,  99,  54)
  -0.3560     (  2,102,  58)  0.3244     (  2,  77,  58) -0.5046     (  2,101,  59) -0.3136     (  1,
98,  54) -0.8199     (  2,100,  61)
  -0.3665     (  2,102,  58) -0.3579     (  2,101,  59) -0.1883     (  1,  97,  54) -0.4720     (
2,101,  60) -0.3512     (  1,  21,  50)
  -0.2672     (  2,101,  59) -0.2521     (  2,  43,  48) -0.3773     (  2,101,  59) -0.2186     (  1,
98,  54) -0.5876     (  2,100,  61)
  -0.2744     (  2,102,  58) -0.2688     (  2,101,  59) -0.1305     (  1,  97,  54) -0.3446     (
2,101,  60) -0.2871     (  1,  21,  50)
  -0.2012     (  2,101,  59)  0.1959     (  2,  77,  58) -0.2791     (  2,101,  59) -0.1517     (  1,
98,  54) -0.4198     (  2,100,  61)
  -0.2027     (  2,102,  58) -0.1992     (  2,101,  59) -0.9003E-01 (  1,  97,  54) -0.2507     (
2,101,  60) -0.2351     (  1,  21,  50)
  -0.1494     (  2,101,  59)  0.1525     (  2,  77,  58) -0.2047     (  2,101,  59) -0.1164     (  1,
21,  50) -0.2992     (  2,100,  61)
  -0.1482     (  2,102,  58) -0.1462     (  2,101,  59) -0.7069E-01 (  1,  21,  50) -0.1817     (
2,101,  60) -0.1927     (  1,  21,  50)
  -0.1098     (  2,101,  59)  0.1188     (  2,  77,  58) -0.1491     (  2,101,  59) -0.9497E-01 (  1,
21,  50) -0.2127     (  2,100,  61)
  -0.1074     (  2,102,  58) -0.1064     (  2,101,  59) -0.5760E-01 (  1,  21,  50) -0.1313     (
2,101,  60) -0.1582     (  1,  21,  50)
  -0.8000E-01 (  2,101,  59)  0.9249E-01 (  2,  77,  58) -0.1080     (  2,101,  59) -0.7768E-01 (  1,
21,  50) -0.1509     (  2,100,  61)
  -0.8095E-01 (  2,  43,  48) -0.7697E-01 (  2,101,  59) -0.4705E-01 (  1,  21,  50)  0.9585E-01 (  2,
74,  58) -0.1299     (  1,  21,  50)
  -0.6275E-01 (  2,  20,  48)  0.7201E-01 (  2,  77,  58)  0.7969E-01 (  2,  74,  58) -0.6367E-01 (  1,
20,  50) -0.1068     (  2,100,  61)
  -0.6109E-01 (  2,  43,  48) -0.5537E-01 (  2,101,  59) -0.3851E-01 (  1,  21,  50)  0.7440E-01 (  2,
74,  58) -0.1068     (  1,  21,  50)
  -0.5219E-01 (  2,  20,  48)  0.5603E-01 (  2,  77,  58)  0.6181E-01 (  2,  74,  58) -0.5227E-01 (  1,
20,  50) -0.7551E-01 (  2,100,  61)
  -0.4593E-01 (  2,  43,  48) -0.4180E-01 (  2,  20,  48) -0.3157E-01 (  1,  21,  50)  0.5768E-01 (  2,
74,  58) -0.8781E-01 (  1,  21,  50)
  -0.4327E-01 (  2,  20,  48)  0.4357E-01 (  2,  77,  58)  0.4789E-01 (  2,  74,  58) -0.4295E-01 (  1,
20,  50) -0.5329E-01 (  2,100,  61)
  -0.3559E-01 (  2,  20,  48) -0.3459E-01 (  2,  20,  48) -0.2592E-01 (  1,  21,  50)  0.4467E-01 (  2,
74,  58) -0.7225E-01 (  1,  21,  50)
  -0.3581E-01 (  2,  20,  48)  0.3385E-01 (  2,  77,  58)  0.3707E-01 (  2,  74,  58) -0.3532E-01 (  1,
20,  50) -0.4164E-01 (  2,  15,  50)
  -0.2943E-01 (  2,  20,  48) -0.2859E-01 (  2,  20,  48) -0.2129E-01 (  1,  21,  50)  0.3456E-01 (  2,
74,  58) -0.5947E-01 (  1,  21,  50)
  -0.2959E-01 (  2,  20,  48)  0.2627E-01 (  2,  77,  58)  0.2867E-01 (  2,  74,  58) -0.2906E-01 (  1,
20,  50) -0.3453E-01 (  2,  15,  50)
  -0.2431E-01 (  2,  20,  48) -0.2360E-01 (  2,  20,  48) -0.1751E-01 (  1,  21,  50)  0.2672E-01 (  2,
74,  58) -0.4897E-01 (  1,  21,  50)
  -0.2442E-01 (  2,  20,  48)  0.2037E-01 (  2,  77,  58)  0.2216E-01 (  2,  74,  58) -0.2392E-01 (  1,
20,  50) -0.2859E-01 (  2,  15,  50)
  -0.2006E-01 (  2,  20,  48) -0.1947E-01 (  2,  20,  48) -0.1441E-01 (  1,  21,  50)  0.2064E-01 (  2,
74,  58) -0.4033E-01 (  1,  21,  50)
  -0.2015E-01 (  2,  20,  48)  0.1579E-01 (  2,  77,  58) -0.1791E-01 (  2,  15,  52) -0.1970E-01 (  1,
20,  50) -0.2365E-01 (  2,  15,  50)
  -0.1655E-01 (  2,  20,  48) -0.1606E-01 (  2,  20,  48) -0.1186E-01 (  1,  21,  50) -0.1610E-01 (  2,
15,  51) -0.3322E-01 (  1,  21,  50)
```

```
  -0.1662E-01 (  2, 20, 48)  0.1222E-01 (  2, 77, 58) -0.1482E-01 (  2, 15, 52) -0.1623E-01 (  1,
20, 50) -0.1955E-01 (  2, 15, 50)
  -0.1365E-01 (  2, 20, 48) -0.1324E-01 (  2, 20, 48) -0.9764E-02 (  1, 21, 50)
0
OHEAD/DRAWDOWN PRINTOUT FLAG = 1     TOTAL BUDGET PRINTOUT FLAG = 1     CELL-BY-CELL FLOW TERM FLAG
= 1
OOUTPUT FLAGS FOR EACH LAYER:
         HEAD     DRAWDOWN  HEAD  DRAWDOWN
 LAYER  PRINTOUT  PRINTOUT  SAVE    SAVE
 ----------------------------------------
    1       1         0       1       0
    2       1         0       1       0
 "   RIVER LEAKAGE" BUDGET VALUES WILL BE SAVED ON UNIT 16 AT END OF TIME STEP  1, STRESS PERIOD  1
1                    HEAD IN LAYER  1 AT END OF TIME STEP  1 IN STRESS PERIOD  1
           ------------------------------------------------------------------------

           1       2       3       4       5       6       7       8       9      10      11      12
13       14      15
           16      17      18      19      20      21      22      23      24      25      26      27
28       29      30
           31      32      33      34      35      36      37      38      39      40      41      42
43       44      45
           46      47      48      49      50      51      52      53      54      55      56      57
58       59      60
           61      62      63      64      65      66

.....................................................................................................
.........................
0  1    230.0   228.0   226.0   225.0   224.0   224.0   223.0   222.0   221.0   220.0   219.0
215.0   212.0   210.0   210.0
        205.0   204.0   203.0   202.0   200.0   202.0   205.0   209.0   212.0   217.0   222.0
233.0   235.0   237.0   240.0
        246.0   247.0   247.5   250.0   253.0   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0  2    232.0   228.5   226.0   224.0   221.8   221.7   221.1   220.0   218.8   217.5   215.9
213.4   211.2   209.8   208.4
        205.8   204.1   205.7 *******   200.0   201.1   203.1   206.1   209.1   212.2   232.5
238.6   242.7   245.3   247.8
        250.1   251.4   252.5   254.7   257.2   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0  3    235.0   228.0   226.1   223.9   221.7   219.6   219.2   217.9   216.6   215.0   213.3
211.1   209.5   208.4   206.8
        204.8   200.1   200.0   200.0   200.1   206.6   210.8   215.5   220.6   226.9   235.0
240.9   245.7   248.3   250.3
        252.1   253.4   255.3   258.0   999.9   999.9   999.9   999.9   999.9   999.9   244.1
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
```

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 4 | 999.9 | 228.2 | 226.6 | 224.3 | 221.8 | 219.4 | 217.2 | 214.8 | 213.4 | 212.7 | 211.1 |
| 208.4 | 207.0 | 206.3 | 205.2 | | | | | | | | |
| | 203.6 | 200.1 | 202.0 | 204.6 | 210.0 | 211.8 | 214.9 | 218.9 | 222.7 | 226.1 | 999.9 |
| 999.9 | 248.9 | 250.3 | 251.9 | | | | | | | | |
| | 253.5 | 254.9 | 257.3 | 261.1 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 241.0 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 5 | 999.9 | 999.9 | 999.9 | 999.9 | 222.2 | 219.7 | 217.1 | 214.5 | 211.6 | 210.6 | 209.4 |
| 207.9 | 206.5 | 204.8 | 203.9 | | | | | | | | |
| | 202.3 | 200.1 | 202.4 | 205.5 | 210.0 | 211.7 | 214.6 | 218.2 | 221.8 | 224.8 | 999.9 |
| 999.9 | 999.9 | 251.0 | 252.3 | | | | | | | | |
| | 254.0 | 255.7 | 258.6 | 263.3 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 235.1 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 6 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 220.7 | 218.1 | 215.4 | 212.8 | 211.0 | 209.4 |
| 207.7 | 206.1 | 204.8 | 202.7 | | | | | | | | |
| | 201.4 | 200.2 | 202.3 | 204.8 | 207.6 | 209.9 | 212.3 | 215.2 | 218.7 | 222.5 | 225.9 |
| 999.9 | 999.9 | 249.1 | 251.5 | | | | | | | | |
| | 253.9 | 255.8 | 258.9 | 264.1 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 235.0 |
| 999.9 | 999.9 | 999.9 | 238.0 | | | | | | | | |
| | 238.0 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 7 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 219.8 | 217.4 | 214.4 | 211.8 | 209.7 |
| 207.7 | 206.1 | 204.8 | 203.3 | | | | | | | | |
| | 202.1 | 200.3 | 202.0 | 203.9 | 206.1 | 208.3 | 210.4 | 212.5 | 215.1 | 218.7 | 224.1 |
| 230.6 | 237.2 | 243.7 | 248.6 | | | | | | | | |
| | 252.9 | 255.6 | 258.2 | 263.3 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 235.0 |
| 999.9 | 999.9 | 999.9 | 231.5 | | | | | | | | |
| | 228.1 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 8 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 220.3 | 217.0 | 213.7 | 210.7 |
| 208.5 | 206.5 | 204.8 | 203.5 | | | | | | | | |
| | 202.1 | 200.5 | 201.8 | 203.4 | 205.2 | 207.1 | 208.9 | 210.7 | 212.6 | 214.8 | 219.4 |
| 226.6 | 233.6 | 239.8 | 245.3 | | | | | | | | |
| | 251.5 | 254.9 | 255.1 | 259.3 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 235.0 |
| 233.2 | 999.9 | 228.7 | 228.1 | | | | | | | | |
| | 229.0 | 230.2 | 231.5 | 233.4 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 216.6 | 213.0 |
| 210.1 | 207.9 | 205.7 | 203.7 | | | | | | | | |
| | 202.2 | 200.6 | 201.7 | 203.0 | 204.4 | 206.0 | 207.7 | 209.5 | 211.3 | 213.1 | 215.4 |
| 220.9 | 228.3 | 234.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 248.0 | 250.8 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 228.0 |
| 228.0 | 228.0 | 228.0 | 228.0 | | | | | | | | |
| | 228.8 | 230.0 | 231.6 | 235.0 | 239.4 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |

```
        999.9   999.9   999.9   999.9   999.9   999.9
 0 10   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   216.3
213.3   210.9   208.1   205.0
        202.3   200.7   201.5   202.6   203.7   205.0   206.4   208.0   209.7   211.4   213.3
215.9   221.1   999.9   999.9
        999.9   234.6   238.3   240.5   999.9   999.9   999.9   999.9   999.9   999.9   228.0
227.9   225.9   226.1   226.8
        227.9   229.4   231.1   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 11   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
217.5   217.0   212.8   208.3
        202.5   200.8   201.3   201.9   203.0   204.1   205.2   206.5   207.9   209.4   211.0
212.8   215.6   218.1   999.9
        225.0   227.4   229.3   230.6   999.9   999.9   999.9   999.9   999.9   999.9   220.2
220.4   222.9   224.0   225.2
        226.5   228.5   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 12   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   227.5   221.0   214.7
        205.5   201.4   201.0   201.1   202.0   203.2   204.1   205.1   206.4   207.6   208.8
210.2   211.8   213.6   999.9
        220.1   221.3   222.3   222.8 *******   235.4 ******* *******   222.2   220.5   219.6
219.2   220.3   221.4   223.2
        224.6   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 13   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
246.8   240.5   230.6   220.2
        210.1   204.8   203.2   201.4   201.4   202.2   202.9   203.7   205.2   206.5   207.7
208.9   210.1   211.5   213.3
        215.7   217.3   218.3   218.6   218.4   218.5   218.9   219.1   219.2   218.9   218.6
218.1   217.5   217.8   221.2
        223.3   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 14   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   260.2   256.9
251.3   245.1   234.5   224.1
        214.9   208.6   205.9   204.5   202.0   201.8   201.8   202.0   204.3   206.0   207.3
208.5   209.7   211.0   212.4
        214.0   215.5   216.6   217.4   217.7   217.9   218.0   218.0   218.0   217.9   217.8
217.6   217.5   217.4   220.4
        223.6   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 15   999.9   999.9   999.9   999.9   999.9   999.9   999.9   269.2   264.5   261.9   258.8
253.4   246.3   237.5   227.5
        218.4   212.0   208.9   208.9   207.6   205.3   203.6   202.3   204.2   205.8   207.2
208.5   209.7   210.9   212.1
        213.3   214.9   215.9   216.9   217.3   217.4   217.5   217.5   217.4   217.0   216.9
216.9   216.9   217.2   221.0
        229.1   244.5   255.3   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
```

```
        999.9   999.9   999.9   999.9   999.9   999.9
 0 16   999.9   999.9   999.9   999.9   999.9   999.9   273.5   272.1   265.3   260.8   257.4
 253.3  247.8   240.3   230.4
        220.9   214.6   211.1   210.0   209.9   207.9   204.9   202.8   204.3   205.8   207.2
 208.5  209.7   210.9   212.3
        213.8   214.9   215.3   216.8   217.0   216.9   217.1   216.9   216.9   216.9   217.2
 217.3  217.3   217.3   221.5
        232.0   247.1   261.3   278.3   287.6   291.6   999.9   999.9   999.9   999.9   999.9
 999.9  999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 17   999.9   999.9   999.9   999.9   999.9   999.9   271.4   267.1   262.5   259.6   256.7
 253.5  249.6   243.5   232.7
        222.3   216.2   212.8   210.8   209.3   207.2   205.1   203.1   204.4   205.8   207.1
 208.4  209.6   210.2   212.4
        214.1   215.1   216.2   216.9   216.9   216.9   216.9   216.9   216.9   217.0   217.6
 217.6  217.1   217.1   999.9
        999.9   999.9   999.9   285.9   289.9   292.0   999.9   999.9   999.9   999.9   999.9
 999.9  999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 18   999.9   999.9   999.9   999.9   999.9   999.9   272.9   265.0   261.1   258.4   255.9
 253.4  250.7   247.7   999.9
        221.5   217.3   214.3   211.9   209.7   207.3   205.0   203.4   204.1   205.7   207.1
 208.2  209.1   210.1   212.3
        999.9   216.0   216.9   217.8   217.0   217.8   217.9   217.1   217.9   218.1   218.3
 218.2  217.6   218.3   999.9
        999.9   999.9   289.3   290.1   292.0   292.8   999.9   999.9   999.9   999.9   999.9
 999.9  999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 19   999.9   999.9   999.9   999.9   999.9   999.9   999.9   265.3   260.2   257.2   255.0
 252.6  250.1   247.6   999.9
        223.6   219.2   216.0   213.4   210.8   208.0   205.0   203.8   204.6   206.5   207.7
 208.2  209.1   210.1   999.9
        999.9 *******   218.5   219.3   219.0   219.4   219.5   219.3   219.4   219.5   219.4
 218.9  217.7   219.1   999.9
        999.9   999.9   290.1   291.8   293.2   293.5   999.9   999.9   999.9   999.9   999.9
 999.9  999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 20   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   259.9   256.6   254.2
 251.6  248.6   244.6   237.2
        228.0   221.4   217.8   215.1   212.6   210.2   207.7   204.3   204.5   205.8   207.6
 209.7  210.2   211.0   999.9
        999.9 *******   221.5   220.4   220.5   220.7   220.7   220.7   220.6   220.5   220.3
 219.7  218.3   219.8   999.9
        999.9   999.9   999.9   293.2   294.1   999.9   999.9   999.9   999.9   999.9   999.9
 999.9  999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 21   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   262.3   257.0   253.6
 250.5  247.3   242.9   236.1
        228.3   221.9   219.0   216.7   214.8   212.9   209.5   206.8   205.0   204.9   207.2
 210.2  210.9   213.8   999.9
        999.9   999.9   233.0   222.5   222.0   222.1   222.0   221.9   221.8   221.6   221.5
 221.0  220.1   220.9   999.9
        999.9   999.9   999.9   999.9   294.7   999.9   999.9   999.9   999.9   999.9   999.9
 999.9  999.9   999.9   999.9
```

```
        999.9   999.9   999.9   999.9   999.9   999.9
 0 22   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   268.7   258.5   253.8
250.2   246.4   241.1   234.5
        227.7   220.1   219.6   218.0   216.6   214.4   210.9   208.4   206.9   205.7   206.2
209.7   211.8   215.1   999.9
        999.9   999.9   999.9   999.9   224.2   223.7   223.5   223.4   223.3   223.0   222.9
222.4   222.0   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 23   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   264.3   254.6
250.4   245.9   240.6   234.6
        227.7   222.7   220.2   218.1   216.0   213.6   211.3   209.1   208.0   206.8   206.5
210.3   214.7   218.3  *******
        999.9   999.9  *******  999.9   226.0   225.1   224.9   224.7   224.6   224.4   224.0
223.3   222.1   221.2   223.1
        225.1   231.4   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 24   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
250.3   244.2   239.5   233.5
        227.2   223.3   220.6   218.2   215.5   212.2   211.1   209.8   208.5   207.2   206.9
213.5   219.5   223.8   226.2
        999.9   999.9   238.0   233.1   227.8   226.3   226.1   225.9   225.7   225.4   224.8
224.0   223.2   224.3   226.3
        228.0   230.1   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 25   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   243.7   238.0   232.8
        227.2   223.5   220.9   218.5   215.1   213.7   212.0   210.2   208.0   207.7   213.5
218.7   223.1   226.6   228.2
        231.3   999.9  *******  *******  228.4   227.2   227.0   226.9   226.7   226.2   225.2
224.2   225.1   226.5   228.4
        230.0   231.1   233.1   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 26   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   246.8   237.9   233.2
        228.2   223.7   221.5   219.5   217.2   215.0   211.9   208.8   208.5   215.3   220.9
224.9   227.9   229.9   230.2
        231.5   999.9   999.9   999.9   230.4   228.1   227.8   227.7   227.6   226.9   225.2
225.1   226.5   228.0   999.9
        999.9   234.6   235.1   237.7   238.1   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 27   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   254.3   240.0   233.6
        229.4   225.9   222.8   220.6   218.4   215.2   209.8   209.3   216.5   223.2   227.5
230.6   232.5   233.6   232.9
        231.6   238.0   241.2   999.9   999.9   230.4   228.5   228.5   228.5   227.9   226.2
227.0   227.9   999.9   999.9
        999.9   999.9   236.3   238.0   238.0   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
```

```
        999.9   999.9   999.9   999.9   999.9   999.9
0 28    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 *******   245.1   235.3
        231.1   227.8   223.8   221.1   218.6   214.7   210.1   216.2   223.6   228.7   232.2
235.5   237.7   239.0   238.7
        238.5   241.2   242.6   999.9   999.9   999.9 *******   229.4   229.6   229.3   227.3
228.7   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 29    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 *******   250.7   239.2
        234.8   228.1   223.9   220.9   218.0   211.0   210.7   221.4   228.9   232.6   237.9
243.9   246.4   246.7   246.1
        244.1   244.0   244.5   245.4   245.8   999.9   999.9   999.9   231.7   231.1   229.5
231.1   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 30    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 *******   250.5   245.2
        237.0   227.6   223.4   220.1   217.1   211.3   218.2   228.1   233.6   238.7   251.0
257.9   259.6   257.9   255.3
        250.9   247.6   245.1   245.1   245.0   244.9   999.9   999.9   234.6   233.2   233.2
234.2   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 31    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 ******* *******   238.9
        232.2   226.7   222.6   218.4   215.4   211.8   223.0   233.1   238.8   246.2   258.9
266.4   268.4   267.8   265.6
        262.9   258.8   253.8   249.2   243.6   243.6   241.1   239.1   237.2   235.3   235.8
237.0   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 32    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 *******   251.4   236.3
        230.9   227.4   222.5   215.0   212.2   217.3   228.3   237.8   243.6   251.1   262.4
269.5   272.3   272.9   273.3
        272.8   268.3   262.7   256.3   249.8   245.7   241.5   240.0   238.4   236.1   237.8
239.1   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 33    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 *******   245.4   235.9
        232.1   230.6   225.9   220.1   212.7   220.1   234.1   242.7   247.1   254.0   266.3
274.7   277.6   287.3   290.0
      ******* *******   266.3   259.3   251.4   245.3   242.6   241.5   240.6   239.3   240.3
241.1   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
```

```
        999.9   999.9   999.9   999.9   999.9   999.9
0 34    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 *******   240.6   235.9
        232.9   227.9   223.5   218.9   213.0   999.9   244.1   247.0   249.8   260.9   275.2
282.1   291.5   300.3   302.4
        299.8   290.0   276.8   260.0   250.5   245.2   243.5   242.9   243.0   243.2   242.7
243.1   244.6   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 35    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   253.3   240.4   236.4
        230.1   225.6   221.9   218.1   213.4   999.9   248.7   250.9   256.4   271.1   282.6
290.8   300.0   305.6   307.4
        304.9   297.7   283.7   261.8   247.2   245.0   243.8   243.6   244.4   244.4   243.8
243.9   244.6   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 36    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
*******   248.4   236.8   231.8
        227.3   223.8   220.7   217.5   213.7   999.9   252.4   254.9   264.4   279.9   290.5
298.8   304.6   308.0   307.5
        303.3   294.9   284.6   265.0   246.8   244.7   243.3   242.9   243.4   243.7   243.8
244.0   244.6   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 37    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
256.4   243.2   233.9   229.0
        225.3   222.2   219.5   217.1   214.1   999.9   254.2   258.6 *******   291.2   298.7
304.9   309.4   311.8   309.2
        304.2   295.9   284.8   263.9   246.4   243.9   242.4   241.3   242.6   243.1   243.5
243.9   244.5   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 38    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   258.0
245.7   237.8   232.0   227.4
        223.7   220.5   217.8   215.9   214.1   219.2   999.9   263.3 *******  *******   303.4
308.5   312.4   314.6   312.1
        306.4   297.5   288.6   266.7   244.9   243.0   242.1   241.7   242.2   242.8   243.2
243.7   244.6   246.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 39    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   257.2   248.3
242.3   236.8   231.4   226.5
        222.1   221.9   220.9   220.8   214.3   215.0   999.9   264.5   276.9   289.6   300.7
999.9   999.9 *******   315.5
        309.8   298.3   292.6 *******   243.6   242.2   241.6   241.0   241.7   242.4   243.0
243.5   244.4   246.7   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
```

```
        999.9   999.9   999.9   999.9   999.9   999.9
0 40    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   258.4   251.9   247.1
242.5   237.3   231.7   225.8
        224.9   223.9   222.9   222.9   217.6   214.2   999.9   264.0   272.8 *******   999.9
999.9   999.9   999.9 *******
      ******* *******   287.9   266.1   243.2   241.6   240.9   241.0   241.0   242.0   242.8
243.4   244.3   247.0   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 41    999.9   999.9   999.9   999.9   999.9   999.9   999.9   263.0   255.1   251.3   247.8
243.6   238.6   233.3   229.7
        227.4   225.6   223.8   221.8   218.1   214.1   999.9   999.9 ******* *******   999.9
999.9   999.9   999.9   999.9
      ******* *******   286.3   266.8   242.5   240.9   240.9   240.9   240.9   241.8   242.6
243.3   244.2   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 42    999.9   999.9   999.9   999.9   999.9   265.0   261.1   258.1   254.9   251.9   248.9
245.0   240.9   236.7   232.4
        229.4   227.0   224.6   222.0   218.5   214.2   214.0   999.9   264.8   276.0   999.9
999.9   999.9   999.9   999.9
        999.9 ******* ******* *******   241.8   240.9   240.7   240.8   241.0   241.7   242.6
243.4   244.6   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 43    999.9   999.9   999.9   999.9   265.0   265.0   264.6   262.2   256.3   252.4   249.4
245.9   242.1   238.0   234.1
        231.0   228.2   225.5   222.6   219.4   216.2   214.1   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9 ******* ******* *******   241.3   240.5   240.1   240.1   240.5   241.5   242.6
243.9   245.6   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 44    999.9   999.9   999.9   270.0   271.4   271.0   272.7   267.5   261.6   255.7   251.1
247.2   244.0   240.2   236.4
        232.7   229.5   226.5   223.4   220.1   217.0   214.1   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
      ******* ******* *******   253.5   241.0   239.9   239.2   238.8   239.6   241.0   242.8
244.8   248.5   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 45    999.9   999.9   999.9   275.0   275.8   274.1   278.8   276.3   270.2   263.3   258.7
253.2   250.3   247.6   243.8
        238.6   233.0   228.3   224.6   221.0   217.4   214.1   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
      ******* *******   999.9 *******   240.0   238.8   237.6   234.6   238.1   240.4   242.5
246.0   257.1   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
```

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 46 | 999.9 | 999.9 | 999.9 | 999.9 | 280.0 | 277.1 | 284.2 | 286.6 | 999.9 | 999.9 | 999.9 |
| 999.9 | 268.6 | 265.8 | 262.3 | | | | | | | | |
| | 255.9 | 247.8 | 237.1 | 229.8 | 223.1 | 218.4 | 214.1 | 214.6 | 999.9 | 218.3 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | ******* | 239.0 | 238.2 | 237.4 | 236.4 | 237.6 | 239.2 | 241.4 |
| 245.1 | 252.5 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 47 | 999.9 | 999.9 | 999.9 | 285.0 | 285.0 | 280.3 | 289.6 | 293.5 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 293.4 | 289.7 | | | | | | | | |
| | 280.6 | 269.2 | 254.3 | 241.0 | 230.0 | 221.9 | 217.1 | 214.3 | 214.1 | 215.0 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | ******* | 237.4 | 236.7 | 236.3 | 236.0 | 236.3 | 236.6 | 237.6 |
| 240.5 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 48 | 999.9 | 999.9 | 290.0 | 290.0 | 290.0 | 291.0 | 296.4 | 300.7 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 315.7 | 312.3 | | | | | | | | |
| | 303.9 | 289.5 | 272.5 | 255.2 | 239.9 | 228.6 | 221.0 | 217.3 | 215.6 | 214.1 | 214.0 |
| 215.0 | 217.6 | 220.1 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 233.5 | 233.7 | 233.9 | 233.9 | 233.6 | 233.0 | 231.0 |
| 237.2 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 49 | 999.9 | 295.0 | 297.6 | 295.5 | 296.3 | 299.6 | 304.7 | 309.1 | 999.9 | 999.9 | 337.1 |
| 999.9 | 999.9 | 327.0 | 323.3 | | | | | | | | |
| | 318.9 | 305.0 | 286.0 | 267.9 | 250.5 | 236.2 | 226.8 | 220.6 | 217.8 | 216.0 | 214.2 |
| 214.3 | 214.7 | 215.1 | 215.4 | | | | | | | | |
| | 217.9 | 220.6 | 222.4 | 224.3 | 227.3 | 229.3 | 230.3 | 230.8 | 230.9 | 229.9 | 232.8 |
| 237.1 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 50 | 999.9 | 300.0 | 300.8 | 300.0 | 301.9 | 307.6 | 312.6 | 317.3 | 999.9 | 999.9 | 337.6 |
| 337.6 | 336.0 | 333.4 | 330.2 | | | | | | | | |
| | 326.5 | 317.7 | 298.5 | 278.9 | 260.7 | 244.8 | 233.5 | 226.2 | 220.6 | 218.2 | 216.8 |
| 215.8 | 214.2 | 214.2 | 214.3 | | | | | | | | |
| | 215.3 | 216.7 | 218.5 | 220.8 | 223.5 | 225.7 | 227.3 | 228.3 | 228.7 | 230.9 | 233.8 |
| 238.2 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 51 | 999.9 | 305.0 | 301.2 | 301.2 | 301.7 | 311.2 | 318.5 | 325.4 | 331.9 | 335.5 | 337.2 |
| 337.9 | 337.6 | 336.3 | 334.6 | | | | | | | | |
| | 332.4 | 329.8 | 318.6 | 999.9 | 999.9 | 256.4 | 243.7 | 235.2 | 229.1 | 223.3 | 219.0 |
| 217.5 | 216.3 | 215.5 | 214.9 | | | | | | | | |
| | 214.3 | 216.0 | 217.4 | 219.2 | 221.6 | 224.0 | 226.1 | 227.5 | 228.8 | 231.1 | 234.2 |
| 240.5 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 52 | 999.9 | 310.0 | 310.0 | 308.9 | 312.7 | 318.3 | 324.6 | 329.2 | 332.3 | 334.8 | 336.9 |
| 338.2 | 338.5 | 338.2 | 337.5 | | | | | | | | |
| | 336.4 | 334.9 | 330.5 | 999.9 | 284.9 | 268.7 | 253.3 | 243.6 | 239.4 | 231.8 | 225.0 |
| 220.4 | 217.9 | 216.4 | 215.3 | | | | | | | | |
| | 214.4 | 215.3 | 216.2 | 217.5 | 220.0 | 222.6 | 225.3 | 226.7 | 228.5 | 231.2 | 234.7 |
| 242.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 53 | 999.9 | 999.9 | 312.0 | 312.3 | 318.8 | 324.3 | 327.6 | 330.4 | 332.9 | 335.1 | 336.9 |
| 338.1 | 338.8 | 339.1 | 339.0 | | | | | | | | |
| | 338.7 | 338.3 | 336.1 | 999.9 | 999.9 | 277.8 | 263.1 | 251.7 | 247.9 | 242.9 | 235.8 |
| 229.0 | 223.6 | 219.1 | 215.3 | | | | | | | | |
| | 214.4 | 214.5 | 214.5 | 214.6 | 218.4 | 221.2 | 223.6 | 225.5 | 228.0 | 231.2 | 234.4 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 54 | 999.9 | 999.9 | 314.0 | 314.0 | 318.9 | 324.3 | 329.3 | 331.7 | 333.9 | 335.5 | 336.9 |
| 338.1 | 339.0 | 339.4 | 339.6 | | | | | | | | |
| | 339.6 | 339.5 | 339.5 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 258.2 | 253.9 | 246.2 |
| 237.8 | 230.2 | 225.2 | 214.8 | | | | | | | | |
| | 214.6 | 215.1 | 215.0 | 214.6 | 217.7 | 220.3 | 222.4 | 224.3 | 227.2 | 231.0 | 234.5 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 55 | 999.9 | 999.9 | 999.9 | 316.0 | 316.0 | 323.6 | 329.6 | 333.0 | 335.1 | 335.9 | 337.1 |
| 338.2 | 339.0 | 339.6 | 339.8 | | | | | | | | |
| | 339.7 | 339.5 | 338.8 | 336.9 | 999.9 | 999.9 | 999.9 | 999.9 | 273.0 | 264.6 | 253.8 |
| 242.5 | 231.9 | 225.4 | 221.0 | | | | | | | | |
| | 217.8 | 216.1 | 215.5 | 214.6 | 217.5 | 219.8 | 221.6 | 223.3 | 226.3 | 230.5 | 234.6 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 56 | 999.9 | 999.9 | 999.9 | 999.9 | 318.0 | 323.5 | 328.2 | 331.7 | 334.1 | 335.8 | 337.1 |
| 338.3 | 339.1 | 339.6 | 339.8 | | | | | | | | |
| | 339.7 | 339.1 | 337.9 | 335.3 | 330.1 | 322.8 | 315.0 | 306.3 | 289.6 | 273.6 | 258.2 |
| 243.0 | 225.7 | 225.4 | 224.4 | | | | | | | | |
| | 221.4 | 218.2 | 216.7 | 214.6 | 217.8 | 219.5 | 220.8 | 222.3 | 225.2 | 229.4 | 236.0 |
| 248.4 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 57 | 999.9 | 999.9 | 999.9 | 999.9 | 320.0 | 323.4 | 327.6 | 331.0 | 333.7 | 335.7 | 337.2 |
| 338.5 | 339.3 | 339.8 | 339.9 | | | | | | | | |
| | 339.7 | 338.9 | 337.3 | 334.7 | 330.2 | 323.5 | 316.1 | 309.1 | 297.0 | 277.6 | 258.1 |
| 240.0 | 225.6 | 227.7 | 227.2 | | | | | | | | |
| | 224.3 | 220.7 | 218.1 | 214.7 | 217.5 | 218.9 | 219.9 | 221.1 | 223.8 | 227.9 | 234.8 |
| 246.2 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |

```
        999.9   999.9   999.9   999.9   999.9   999.9
 0 58   999.9   999.9   999.9   999.9   999.9   322.0   327.2   330.8   333.6   335.7   337.5
338.8   339.7   340.2   340.2
        339.9   338.9   337.3   335.1   331.2   325.2   317.1   308.5   300.1   276.9   250.6
225.9   225.5   229.9   229.9
        227.1   223.2   219.6   214.7   217.0   218.0   218.9   219.9   222.0   225.8   232.8
243.7   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 59   999.9   999.9   999.9   999.9   999.9   324.0   328.0   331.2   333.8   336.1   338.1
339.6   340.5   340.9   340.8
        340.3   339.3   337.7   335.9   333.1   329.2   323.3   999.9   999.9   257.0   226.2
225.7   231.1   233.4   233.0
        230.0   226.0   221.6   214.7   216.2   217.0   217.7   218.4   219.7   222.9   230.0
241.0   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 60   999.9   999.9   999.9   999.9   999.9   326.0   329.4   332.1   334.7   337.2   339.3
340.9   341.9   342.2   341.9
        341.2   340.1   338.5   336.9   335.1   332.8   999.9   999.9   999.9   999.9   225.6
233.2   236.3   237.1   236.1
        233.5   229.9   225.5   214.8   214.9   215.9   216.4   216.7   217.1   219.0   226.1
240.0   258.7   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 61   999.9   999.9   999.9   999.9   328.0   329.5   331.5   333.8   336.4   338.9   341.0
342.7   343.9   344.1   343.5
        342.5   341.2   339.6   337.9   336.0   334.0   999.9   999.9   999.9   227.2   999.9
238.1   239.1   239.0   237.6
        235.6   233.4   231.3   999.9   214.8   214.9   214.9   214.9   215.0   215.0   220.0
235.0   256.7   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 62   999.9   999.9   999.9   330.0   331.4   332.4   334.0   336.1   338.4   340.8   343.1
345.1   346.4   346.7   345.1
        343.8   342.4   340.8   338.7   335.9   333.0   329.8   999.9   999.9   999.9   999.9
999.9   240.7   240.0   238.6
        236.6   234.3   231.3   226.4   220.3   218.1   217.2   216.8   216.4   216.1   215.0
227.6   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 63   999.9   999.9   330.0   333.1   335.2   336.4   337.6   338.2   340.1   343.0   345.5
347.6   349.2   350.1  *******
        999.9   344.2   342.2   339.4   335.8   331.5   327.1   319.6   999.9   999.9   999.9
999.9   242.4   241.2   239.5
        237.9   235.7   232.4   227.6   222.8   220.2   219.0   218.2   217.5   216.6   215.0
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
```

```
        999.9   999.9   999.9   999.9   999.9   999.9
0 64    999.9   999.9   330.0   336.4   339.4   340.9   341.9   999.9   999.9   347.0   348.6
350.6   352.4   354.0   356.7
        999.9   999.9   343.5   340.2   335.7   330.1   322.9   314.4   309.6   999.9   248.7
246.9   244.2   242.7   241.2
        239.3   237.7   234.2   229.3   224.5   221.8   220.4   219.4   218.0   216.8   215.2
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 65    999.9   999.9   330.0   340.7   343.6   344.6   345.4   347.2   348.3   349.0   350.5
352.7   355.0   356.4   357.6
        358.4   999.9   999.9   340.7   336.1   329.5   319.9   310.2   250.4   240.2   251.3
248.7   246.3   244.5   242.9
        241.7   240.8   240.3   235.9   225.8   223.1   221.8   220.6   218.0   216.5   215.3
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 66    999.9   999.9   340.0   348.2   347.8   347.1   346.8   346.9   347.5   348.8   350.3
*******  357.1   357.6   357.7
        357.5   356.7 *******  342.1   337.2   330.1   316.7   300.7   270.4   266.2   257.3
251.6   249.2   247.1   246.5
        246.3   249.7 ******* *******  230.5   224.4   223.4   223.0   223.5   219.4   215.7
215.4   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 67    999.9   999.9   999.9   360.0   351.0   348.2   346.9   345.0   345.0   347.3   349.7
352.4 *******  999.9   357.1
        356.2   354.3   350.3   344.5   338.3   331.3   314.5   292.7   275.5   273.8   270.2
267.2   263.0 ******* *******
        999.9   999.9   999.9 *******  234.7   226.2   224.5   224.5   222.6   220.2   217.9
215.6   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 68    999.9   999.9   999.9   380.0   345.5   346.6   346.4   345.6   345.0   345.0   348.9
351.6   353.4   360.4   355.7
        354.4   352.2   348.7   343.9   337.8   331.3   313.7   291.2   280.2   280.3   280.7
279.7   999.9   999.9   999.9
        999.9   999.9   269.1   254.7   238.4   226.7   224.9   223.5   222.0   220.3   218.4
215.7   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 69    999.9   999.9   380.0   368.5   355.4   345.5   345.6   345.0   345.0   345.0   348.4
350.9   353.0   354.4   353.9
        352.1   349.5   346.1   341.6   336.2   330.2   313.3   291.9   282.8   284.7   286.8
999.9   999.9   999.9   999.9
        999.9   999.9   272.0   253.5   239.0   225.1   224.2   222.8   221.6   220.1   218.4
215.8   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
```

```
        999.9   999.9   999.9   999.9   999.9   999.9
 0 70   999.9   390.0   370.3   365.7   356.9   345.1   344.6   345.0   345.0   346.2   348.1
350.1   352.4   354.7   352.1
        349.0   345.8   342.4   338.6   334.0   327.8   312.7   293.6   285.3   288.0   290.7
999.9   999.9   999.9   999.9
        999.9   999.9   270.2   254.3   240.3   226.1   224.0   222.4   221.3   220.0   218.3
215.9   217.7   226.8   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 71   380.0   376.0   370.8   365.4   358.4   350.4   343.8   344.5   344.9   345.7   346.8
348.3   351.3   358.2   349.7
        344.7   341.0   337.9   335.4   330.1   323.6   312.8   297.1   287.7   290.8   293.6
999.9   999.9   999.9   999.9
        999.9   999.9   274.4   256.5   242.0   226.6   223.9   222.2   221.1   219.9   218.3
216.0   217.1   223.0   234.4
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 72   375.0   375.0   370.5   365.4   359.2   351.8   342.9   343.2   343.6   343.9   344.3
344.7   345.5   346.3   342.6
        338.8   335.5   332.7   329.8   324.6   320.1   309.5   297.2   290.3   293.5   296.0
999.9   999.9   999.9   999.9
        999.9   999.9   284.5   266.7   246.2   226.5   224.1   222.1   221.1   220.0   218.4
216.2   216.1   219.2   224.8
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 73   999.9   999.9   370.0   365.2   359.5   352.4   342.1   340.7   341.3   341.1   340.4
339.7   338.8   337.7   335.0
        331.9   328.7   325.7   321.0   317.2   313.4   305.6   298.5   295.1   296.3   298.0
999.9   999.9   999.9   999.9
        999.9   309.2   291.9   270.8   246.6   226.6   224.4   222.2   221.2   220.2   218.9
217.5   216.2   216.1   216.1
        216.1   217.1   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 74   999.9   999.9   999.9   365.0   359.8   353.5   346.6   342.2   338.7   337.8   335.9
333.5   331.5   329.7   327.4
        324.4   321.4   318.0   308.9   309.4   307.3   303.6   299.7   297.7   298.0   299.0
999.9   999.9   999.9   999.9
        317.8   311.4  *******  269.6   241.9   227.1   224.9   222.4   221.5   220.5   219.3
218.0   216.4   216.8   217.3
        217.7   218.0   219.1   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 75   999.9   999.9   999.9   999.9   360.0   353.4   346.8   341.7   337.6   335.4   332.1
327.8   325.0   323.3   321.3
        317.7   315.5   312.9   306.7   306.1   304.4   301.9   299.3   298.1   298.1   299.0
300.6   999.9   316.1   316.9
        315.7   309.1  *******  *******  241.6   227.1   225.0   222.7   221.7   220.8   219.7
218.3   216.5   217.0   217.0
        217.0   218.9   221.0   223.2   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
```

```
        999.9   999.9   999.9   999.9   999.9   999.9
 0 76   999.9   999.9   999.9   999.9   354.0   350.2   344.1   339.7   336.3   334.3   329.7
321.3   317.7   317.3   316.7
        309.3   309.8   308.2   305.4   303.5   301.6   299.4   297.6   296.9   296.9   297.8
299.3   303.1   309.9   313.4
        311.3   301.4   282.6   258.8   244.4   227.1   225.2   223.1   222.0   221.1   220.0
218.7   216.8   216.6   216.7
        217.5   217.1   221.9   225.0   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 77   999.9   999.9   999.9   999.9   999.9   347.0   341.4   337.1   334.1   332.3   330.8
324.8   318.0   314.3   311.0
        307.0   305.7   304.1   302.3   300.5   299.1   297.2   295.3   294.3   294.3   295.6
297.8   301.1   305.8   309.6
        306.5   293.8   277.4   259.8   245.9   228.1   225.6   223.4   222.3   221.4   220.4
219.3   218.2   217.6   216.8
        217.5   217.1   221.7   226.0   227.1   228.1   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 78   999.9   999.9   999.9   999.9   999.9   340.0   338.1   333.7   331.0   328.8   325.6
319.7   313.3   307.8   303.3
        303.6   301.5   299.9   298.3   297.1   297.2   295.1   291.6   289.9   289.9   291.7
296.1   300.0   304.2   307.9
        304.8   291.1   277.5   261.4   246.9   228.6   226.0   223.8   222.6   221.6   220.7
219.7   218.7   217.9   216.9
        217.4   217.2   221.5   225.2   228.0   230.2   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 79   999.9   999.9   999.9   999.9   999.9   999.9   337.0   330.6   327.2   324.2   319.5
312.6   305.3   297.8   288.1
        295.9   296.3   295.2   293.7   292.1   291.0   290.2   286.4   284.5   283.9   284.4
999.9   999.9   999.9   999.9
        999.9   999.9   279.9   264.8   245.8   228.6   226.7   224.1   222.8   221.8   220.9
219.9   218.9   218.0   217.1
        217.6   218.1   221.2   225.1   228.4   231.2   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 80   999.9   999.9   999.9   999.9   999.9   999.9   335.0   327.8   322.8   318.1   310.9
302.3   294.4   287.1   279.4
        290.3   291.8   290.4   288.6   286.9   285.3   283.4   280.2   278.2   277.6   277.6
276.2   999.9   999.9   999.9
        999.9   999.9   284.2   267.8   247.3   228.6   227.8   224.5   222.8   221.8   220.9
219.9   218.8   217.9   217.1
        217.7   218.1   220.4   224.5   228.6   233.6   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 0 81   999.9   999.9   999.9   999.9   999.9   999.9   332.0   326.4   317.6   309.4   294.3
284.1   277.4   272.3   270.3
        284.7   287.7   285.4   283.1   281.6   280.1   278.1   274.9   269.8   270.7   271.6
271.3   999.9   999.9   999.9
        999.9   999.9   999.9 *******   999.9   230.0   228.8   224.7   222.8   221.8   220.7
219.6   218.4   217.3   217.2
        217.9   218.1   218.3   223.6   228.1   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
```

```
        999.9   999.9   999.9   999.9   999.9   999.9
0 82    999.9   999.9   999.9   999.9   999.9   999.9   999.9   330.0   309.9   294.5   255.3
255.1   254.1   253.1   261.8
        999.9   999.9   277.1   276.5   275.9   274.9   273.2   270.6   267.0   262.8   266.4
267.6   267.8   999.9   999.9
        999.9   999.9   999.9 *******   999.9   230.0   229.3   224.8   222.9   221.7   220.5
219.3   217.5   217.3   217.9
        218.5   219.0   219.2   224.3   229.5   238.4   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 83    999.9   999.9   999.9   999.9   999.9   999.9   999.9   262.0   257.3   257.2   255.9
251.0   251.0   252.0   254.1
        999.9   999.9   268.4   269.7   269.9   269.5   268.3   266.4   263.8   260.4   263.1
264.7   265.5   266.5   999.9
        999.9   999.9   999.9 *******   230.6   230.6   229.7   225.2   223.0   221.7   220.4
219.1   217.5   217.9   218.4
        219.0   219.9   219.5   225.5   231.1   242.1   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 84    999.9   999.9   999.9   999.9   999.9   999.9   333.0   333.0   258.4 *******   257.8
250.0   250.9   250.8   248.7
        251.0   254.1   261.0   263.1   264.0   264.1   263.4   262.2   260.5   258.3   260.5
262.1   263.2   264.2   265.7
        999.9   999.9   999.9   999.9   231.0   230.5   230.1   225.6   223.3   221.7   220.4
219.0   217.5   218.0   218.7
        219.2   219.7   222.0   227.7   235.4   246.9   256.0   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 85    999.9   999.9   999.9   999.9   999.9   334.0   261.7   311.5 ******* *******   262.2
250.1   249.0   249.0   248.0
        248.0   247.1   253.5   257.1   258.7   259.2   259.1   258.5   257.5   256.2   257.7
259.4   260.8   262.0   263.3
        265.8   999.9   999.9   999.9 *******   225.6   230.0   226.3   223.6   221.8   220.3
219.0   217.6   217.6   218.8
        219.6   220.5   221.0   229.1   241.7   251.0   257.5   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 86    999.9   999.9   999.9   999.9   999.9   277.8   262.1   999.9   999.9 *******   274.5
265.6   262.3   259.9   257.1
        251.3   246.2   249.4   252.3   254.2   255.2   255.4   255.2   254.6   254.0   254.5
256.2   258.2   259.8   260.9
        999.9   999.9   999.9   999.9   999.9   236.8   231.9   227.9   224.4   221.8   220.3
219.1   218.0   217.6   219.0
        219.9   220.8   221.7   227.8   235.6   247.7   262.4   279.7   293.9   303.1   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 87    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   268.7
        258.3   246.1   245.2   248.1   250.2   251.5   251.9   251.9   251.7   251.1   250.3
252.2   255.2   257.7   259.5
        260.8   999.9   999.9   999.9   999.9 *******   236.8   228.9   224.8   221.9   220.1
218.8   217.8   217.8   219.4
        220.4   221.2   221.6   222.3   226.6   245.2   262.2   282.3   297.3   307.4   313.9
999.9   999.9   999.9   999.9
```

```
        999.9   999.9   999.9   999.9   999.9   999.9
0 88    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   280.3
        270.0   255.8   245.0   244.1   246.5   247.8   248.3   248.6   248.5   248.2   248.0
247.8   252.2   255.9   258.7
        260.5   262.1   999.9   999.9   999.9 *******   236.8   229.6   225.8   222.4   219.6
218.0   217.8   218.9   220.1
        221.0   221.8   222.5   222.6   234.5   245.5   260.4   276.8   288.2   296.1   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 89    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   257.7   243.1   243.1   244.8   244.9   244.9   245.1   244.9   245.3
245.4   250.3   254.6   258.3
        260.8   262.1   999.9   999.9   999.9   999.9   237.0   230.0   227.0   222.3   219.3
218.0   218.1   219.6   220.7
        221.8   222.6   223.2   229.7   238.1   246.0   258.6   272.4   281.8   288.7   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 90    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   260.8   242.1   242.1   241.1   241.1   241.0   240.1   242.5
243.5   249.1   254.0   258.3
        261.7   262.6   265.8   999.9   999.9   245.3   238.1   232.8   230.0   221.7   218.3
218.2   218.2   220.2   221.5
        222.6   223.3   224.2   232.2   239.8   246.3   257.0   269.0   277.4   284.2   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 91    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   252.8   243.6   241.5   240.0   240.0   240.5
244.3   249.0   253.8   258.7
        264.2   999.9   999.9   999.9   999.9   244.1   238.9   233.2   226.9   220.5   218.4
219.3   220.0   221.2   222.3
        223.3   224.1   224.5   233.4   240.7   246.5   255.8   266.6   274.8   282.7   290.5
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 92    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   242.6   239.1   240.4   241.4
243.7   249.0   253.6   257.9
        262.2   261.6   261.3   260.4   999.9   245.0   240.0   233.7   225.6   218.5   218.6
220.0   220.9   221.9   223.0
        224.0   225.1   228.2   234.8   241.5   246.7   255.0   264.9   273.0   281.1   288.7
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0 93    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   239.0   240.5   241.1
240.2   249.7   253.3   256.5
        259.4   260.3   260.3   258.9   255.2   248.7   241.8   234.3   225.3   218.6   219.6
220.5   221.3   222.2   223.3
        224.3   225.2   229.4   235.8   242.1   247.0   254.7   263.8   271.8   279.9   287.3
999.9   999.9   999.9   999.9
```

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 94 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 239.0 | 240.4 | 241.7 |
| 244.0 | 247.6 | 250.3 | 253.5 | | | | | | | | |
| | 256.5 | 258.5 | 259.6 | 258.6 | 256.0 | 251.6 | 243.8 | 234.9 | 224.9 | 218.7 | 219.9 |
| 220.6 | 221.2 | 222.0 | 223.4 | | | | | | | | |
| | 224.4 | 225.2 | 229.9 | 236.5 | 242.6 | 247.3 | 254.6 | 263.4 | 271.2 | 279.2 | 286.4 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 95 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 238.2 | 238.1 | 240.5 |
| 242.0 | 244.1 | 246.6 | 249.4 | | | | | | | | |
| | 253.0 | 256.6 | 999.9 | 999.9 | 257.4 | 255.9 | 999.9 | 999.9 | 223.5 | 218.8 | 219.8 |
| 220.2 | 220.6 | 220.9 | 223.2 | | | | | | | | |
| | 224.4 | 225.3 | 230.2 | 236.9 | 243.0 | 247.7 | 254.8 | 263.5 | 271.2 | 279.2 | 286.4 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 96 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 238.1 | 238.2 |
| 239.8 | 241.0 | 242.8 | 244.7 | | | | | | | | |
| | 247.5 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 218.9 | 219.4 |
| 219.5 | 219.8 | 221.8 | 223.6 | | | | | | | | |
| | 224.6 | 225.3 | 230.4 | 237.2 | 243.3 | 248.0 | 255.2 | 263.8 | 271.7 | 280.1 | 288.5 |
| 296.5 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 97 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 237.0 |
| 237.3 | 238.3 | 239.4 | 240.6 | | | | | | | | |
| | 242.7 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 219.1 | 219.3 | 218.9 |
| 217.9 | 220.5 | 222.6 | 224.0 | | | | | | | | |
| | 224.9 | 225.5 | 230.8 | 237.6 | 243.6 | 248.5 | 255.9 | 264.5 | 272.2 | 280.7 | 289.0 |
| 295.7 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 98 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 237.0 |
| 236.1 | 236.1 | 236.1 | 237.7 | | | | | | | | |
| | 239.1 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 219.2 | 219.3 | 218.7 |
| 217.1 | 221.3 | 223.6 | 224.7 | | | | | | | | |
| | 225.2 | 227.0 | 231.8 | 238.3 | 243.9 | 249.6 | 257.0 | 264.9 | 272.7 | 281.3 | 289.3 |
| 295.5 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 99 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 240.6 | 236.7 | 235.1 | 236.0 | | | | | | | | |
| | 237.2 | 238.2 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 226.1 | 219.4 | 219.5 |
| 216.6 | 223.2 | 225.7 | 225.4 | | | | | | | | |
| | 225.3 | 227.5 | 232.2 | 238.7 | 244.7 | 250.6 | 257.6 | 265.4 | 273.2 | 281.7 | 289.5 |
| 295.4 | 999.9 | 999.9 | 999.9 | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0100 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 250.2 | 236.5 | 235.0 | 235.2 | | | | | | | | |
| | 235.6 | 236.6 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 226.7 | 221.0 | 219.6 |
| 220.6 | 223.1 | 224.7 | 225.2 | | | | | | | | |
| | 225.3 | 227.6 | 232.2 | 238.4 | 245.3 | 251.7 | 258.6 | 266.2 | 273.7 | 282.0 | 289.6 |
| 295.5 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0101 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 247.1 | 238.8 | 234.1 | 234.1 | | | | | | | | |
| | 234.0 | 234.5 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 225.3 | 221.9 | 219.8 |
| 221.8 | 223.4 | 224.6 | 225.2 | | | | | | | | |
| | 225.2 | 227.1 | 231.7 | 237.7 | 245.2 | 253.0 | 260.3 | 267.0 | 274.3 | 282.4 | 289.5 |
| 295.7 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0102 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 239.7 | 236.1 | 234.1 | | | | | | | | |
| | 233.1 | 232.9 | 232.6 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 224.6 | 222.0 | 219.9 |
| 222.2 | 223.7 | 224.8 | 225.3 | | | | | | | | |
| | 225.2 | 225.6 | 231.0 | 237.6 | 244.9 | 253.5 | 261.6 | 267.9 | 275.1 | 282.6 | 288.2 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0103 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 242.2 | 238.1 | 234.9 | | | | | | | | |
| | 233.0 | 232.0 | 230.9 | 230.0 | 999.9 | 999.9 | 999.9 | 225.6 | 224.0 | 221.9 | 220.0 |
| 222.3 | 223.9 | 225.1 | 225.9 | | | | | | | | |
| | 226.5 | 227.6 | 230.4 | 238.5 | 244.3 | 254.4 | 263.7 | 268.9 | 275.8 | 283.6 | 288.8 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0104 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 246.2 | 239.9 | 235.6 | | | | | | | | |
| | 232.1 | 231.0 | 229.3 | 228.0 | 226.6 | 225.4 | 224.5 | 223.8 | 222.7 | 221.1 | 220.0 |
| 222.4 | 224.1 | 225.3 | 226.3 | | | | | | | | |
| | 227.3 | 228.8 | 231.5 | 236.2 | 240.7 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0105 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 241.7 | 237.3 | | | | | | | | |
| | 233.0 | 229.1 | 227.1 | 226.1 | 225.0 | 224.0 | 223.1 | 222.0 | 221.2 | 220.1 | 220.1 |
| 222.6 | 224.3 | 225.5 | 226.6 | | | | | | | | |
| | 227.6 | 229.2 | 231.8 | 234.5 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |

```
      999.9   999.9   999.9   999.9   999.9   999.9
0106  999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 999.9   999.9   999.9
      999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 999.9   244.7   239.8
      235.8   230.9   228.3   226.7   225.2   224.5   223.3   221.1   220.1   220.1   221.4
223.0 224.4   225.6   226.6
      227.8   228.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 999.9   999.9   999.9
      999.9   999.9   999.9   999.9   999.9   999.9
0107  999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 999.9   999.9   999.9
      999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 999.9   999.9   242.8
      240.0   232.3   229.9   227.1   226.1   225.2   224.0   222.3   221.3   221.0   222.0
223.3 224.6   225.6   226.4
      999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 999.9   999.9   999.9
      999.9   999.9   999.9   999.9   999.9   999.9
0108  999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 999.9   999.9   999.9
      999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 999.9   999.9   249.6
      247.5   237.6   231.7   228.1   226.7   225.7   225.0   999.9   999.9   999.9   999.9
999.9 999.9   999.9   999.9
      999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 999.9   999.9   999.9
      999.9   999.9   999.9   999.9   999.9   999.9
0109  999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 999.9   999.9   999.9
      999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 999.9   277.3   263.8
      255.8   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 999.9   999.9   999.9
      999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 999.9   999.9   999.9
      999.9   999.9   999.9   999.9   999.9   999.9
0110  999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 999.9   999.9   999.9
      999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 999.9   999.9   999.9
      999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 999.9   999.9   999.9
      999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9 999.9   999.9   999.9
      999.9   999.9   999.9   999.9   999.9   999.9
1                     HEAD IN LAYER  2 AT END OF TIME STEP  1 IN STRESS PERIOD  1
      ------------------------------------------------------------------------

        1       2       3       4       5       6       7       8       9       10      11      12
13      14      15
          16      17      18      19      20      21      22      23      24      25      26      27
28      29      30
```

| | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 43 | 44 | 45 | | | | | | | | | | |
| | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 |
| 58 | 59 | 60 | | | | | | | | | | |
| | 61 | 62 | 63 | 64 | 65 | 66 | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 1 | 230.0 | 228.0 | 226.0 | 225.0 | 224.0 | 224.0 | 223.0 | 222.0 | 221.0 | 220.0 | 219.0 |
| 215.0 | 212.0 | 210.0 | 210.0 | | | | | | | | |
| | 205.0 | 204.0 | 203.0 | 202.0 | 200.0 | 202.0 | 205.0 | 209.0 | 212.0 | 217.0 | 222.0 |
| 233.0 | 235.0 | 237.0 | 240.0 | | | | | | | | |
| | 246.0 | 247.0 | 247.5 | 250.0 | 253.0 | 255.0 | 255.0 | 255.0 | 255.0 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 2 | 232.0 | 228.5 | 226.0 | 224.0 | 221.8 | 221.7 | 221.1 | 220.0 | 218.8 | 217.5 | 215.9 |
| 213.4 | 211.2 | 209.8 | 208.4 | | | | | | | | |
| | 205.8 | 204.1 | 205.6 | 207.6 | 200.0 | 201.1 | 203.1 | 206.1 | 209.2 | 212.3 | 232.5 |
| 238.6 | 242.7 | 245.3 | 247.8 | | | | | | | | |
| | 250.1 | 251.4 | 252.5 | 254.7 | 257.2 | 265.3 | 267.8 | 268.3 | 267.6 | 265.0 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 3 | 235.0 | 228.0 | 226.1 | 223.9 | 221.7 | 219.7 | 219.2 | 217.9 | 216.6 | 215.0 | 213.3 |
| 211.2 | 209.5 | 208.3 | 206.8 | | | | | | | | |
| | 204.8 | 200.1 | 200.0 | 200.0 | 200.1 | 206.5 | 210.8 | 215.5 | 220.6 | 226.9 | 235.0 |
| 240.9 | 245.7 | 248.3 | 250.3 | | | | | | | | |
| | 252.1 | 253.4 | 255.3 | 258.0 | 270.6 | 276.8 | 278.3 | 276.2 | 271.1 | 260.5 | 244.1 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 4 | 237.0 | 228.5 | 226.9 | 224.6 | 221.8 | 219.4 | 217.2 | 214.9 | 213.4 | 212.7 | 211.1 |
| 208.5 | 207.0 | 206.3 | 205.2 | | | | | | | | |
| | 203.6 | 200.1 | 202.0 | 204.6 | 210.0 | 211.8 | 214.9 | 218.9 | 222.7 | 226.1 | 245.4 |
| 253.6 | 248.9 | 250.3 | 251.9 | | | | | | | | |
| | 253.4 | 254.9 | 257.3 | 261.1 | 278.9 | 288.4 | 290.9 | 289.0 | 277.4 | 259.2 | 241.0 |
| 266.3 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 5 | 999.9 | 249.6 | 247.8 | 244.0 | 222.8 | 219.8 | 217.1 | 214.5 | 211.7 | 210.6 | 209.4 |
| 207.9 | 206.5 | 204.8 | 203.9 | | | | | | | | |
| | 202.3 | 200.2 | 202.4 | 205.5 | 210.0 | 211.7 | 214.6 | 218.2 | 221.8 | 224.8 | 243.9 |
| 256.5 | 258.2 | 251.0 | 252.3 | | | | | | | | |
| | 254.0 | 255.7 | 258.6 | 263.3 | 284.0 | 296.4 | 304.2 | 299.5 | 281.5 | 258.3 | 235.1 |
| 268.7 | 286.0 | 289.7 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 6 | 999.9 | 999.9 | 999.9 | 258.0 | 249.2 | 221.4 | 218.2 | 215.4 | 212.8 | 211.0 | 209.4 |
| 207.7 | 206.1 | 204.8 | 202.7 | | | | | | | | |
| | 201.4 | 200.2 | 202.3 | 204.8 | 207.6 | 209.9 | 212.3 | 215.2 | 218.7 | 222.5 | 225.9 |
| 247.4 | 253.7 | 249.1 | 251.5 | | | | | | | | |
| | 253.9 | 255.8 | 258.9 | 264.1 | 286.1 | 300.1 | 308.2 | 303.6 | 283.2 | 257.5 | 235.1 |
| 264.5 | 276.8 | 270.5 | 238.4 | | | | | | | | |
| | 238.0 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 7 | 999.9 | 999.9 | 999.9 | 999.9 | 271.7 | 254.7 | 220.7 | 217.4 | 214.4 | 211.8 | 209.7 |
| 207.8 | 206.1 | 204.8 | 203.3 | | | | | | | | |
| | 202.1 | 200.4 | 202.0 | 203.9 | 206.1 | 208.3 | 210.4 | 212.5 | 215.1 | 218.7 | 224.1 |
| 230.6 | 237.2 | 243.7 | 248.6 | | | | | | | | |
| | 252.9 | 255.6 | 258.2 | 263.3 | 284.8 | 299.3 | 308.4 | 306.1 | 287.9 | 256.0 | 235.1 |
| 254.7 | 263.2 | 254.4 | 231.8 | | | | | | | | |
| | 228.3 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 8 | 999.9 | 999.9 | 999.9 | 999.9 | 288.3 | 282.1 | 261.2 | 221.5 | 217.5 | 213.7 | 210.7 |
| 208.5 | 206.5 | 204.9 | 203.5 | | | | | | | | |
| | 202.1 | 200.6 | 201.8 | 203.4 | 205.2 | 207.1 | 208.9 | 210.7 | 212.6 | 214.9 | 219.4 |
| 226.6 | 233.6 | 239.8 | 245.3 | | | | | | | | |
| | 251.5 | 254.9 | 255.1 | 259.3 | 280.1 | 294.6 | 300.6 | 303.4 | 287.8 | 252.7 | 235.0 |
| 233.2 | 244.2 | 229.3 | 228.1 | | | | | | | | |
| | 229.0 | 230.2 | 231.5 | 233.4 | 237.6 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 301.3 | 297.7 | 278.3 | 257.1 | 217.6 | 213.1 |
| 210.1 | 207.9 | 205.7 | 203.8 | | | | | | | | |
| | 202.2 | 200.7 | 201.7 | 203.0 | 204.4 | 206.0 | 207.7 | 209.5 | 211.3 | 213.1 | 215.5 |
| 220.9 | 228.3 | 234.9 | 243.2 | | | | | | | | |
| | 246.1 | 248.7 | 248.0 | 250.8 | 270.5 | 286.0 | 292.0 | 296.9 | 287.9 | 248.1 | 228.1 |
| 228.0 | 228.2 | 228.0 | 228.0 | | | | | | | | |
| | 228.8 | 230.0 | 231.6 | 235.0 | 239.5 | 276.4 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 10 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 327.1 | 313.9 | 292.3 | 259.7 | 217.3 |
| 213.4 | 210.9 | 208.1 | 205.0 | | | | | | | | |
| | 202.3 | 200.7 | 201.5 | 202.6 | 203.7 | 205.0 | 206.4 | 208.0 | 209.7 | 211.4 | 213.3 |
| 215.9 | 221.1 | 230.2 | 235.1 | | | | | | | | |
| | 236.3 | 234.6 | 238.3 | 240.5 | 257.5 | 267.8 | 272.9 | 275.2 | 270.0 | 243.2 | 228.0 |
| 227.9 | 225.9 | 226.1 | 226.8 | | | | | | | | |
| | 227.9 | 229.4 | 232.1 | 269.5 | 290.4 | 311.1 | 322.7 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 11 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 346.8 | 335.1 | 315.8 | 288.8 | 255.6 |
| 218.4 | 217.0 | 212.8 | 208.3 | | | | | | | | |
| | 202.6 | 200.8 | 201.3 | 201.9 | 203.0 | 204.1 | 205.2 | 206.5 | 207.9 | 209.4 | 211.0 |
| 212.8 | 215.6 | 218.1 | 226.0 | | | | | | | | |
| | 225.0 | 227.4 | 229.3 | 230.6 | 243.4 | 249.4 | 250.4 | 247.0 | 241.2 | 236.4 | 220.3 |
| 220.4 | 222.9 | 224.0 | 225.2 | | | | | | | | |
| | 226.6 | 229.4 | 267.0 | 297.6 | 318.8 | 331.9 | 332.1 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 12 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 355.5 | 341.3 | 324.0 | 301.1 | 275.3 |
| 247.8 | 227.7 | 221.0 | 214.6 | | | | | | | | |
| | 205.6 | 201.5 | 201.1 | 201.1 | 202.0 | 203.1 | 204.1 | 205.1 | 206.4 | 207.6 | 208.8 |
| 210.2 | 211.8 | 213.6 | 219.8 | | | | | | | | |
| | 220.1 | 221.3 | 222.3 | 222.8 | 232.8 | 235.4 | 237.2 | 233.6 | 222.2 | 220.5 | 219.6 |
| 219.2 | 220.3 | 221.4 | 223.2 | | | | | | | | |
| | 225.0 | 255.9 | 286.0 | 312.4 | 332.5 | 342.7 | 339.4 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 13 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 327.6 | 314.9 | 293.5 | 274.0 |
| 247.1 | 240.3 | 230.5 | 220.2 | | | | | | | | |
| | 210.1 | 204.8 | 203.2 | 201.5 | 201.4 | 202.2 | 202.9 | 203.7 | 205.2 | 206.5 | 207.7 |
| 208.9 | 210.1 | 211.5 | 213.3 | | | | | | | | |
| | 215.7 | 217.3 | 218.3 | 218.6 | 218.5 | 218.8 | 218.9 | 219.1 | 219.2 | 218.9 | 218.6 |
| 218.1 | 217.5 | 217.9 | 221.2 | | | | | | | | |
| | 223.8 | 260.5 | 285.8 | 310.6 | 333.1 | 344.3 | 341.1 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 14 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 303.8 | 291.9 | 261.0 | 257.2 |
| 251.3 | 245.0 | 234.5 | 224.1 | | | | | | | | |
| | 214.9 | 208.6 | 205.9 | 204.5 | 202.1 | 201.9 | 201.8 | 202.1 | 204.3 | 206.0 | 207.3 |
| 208.5 | 209.7 | 211.0 | 212.4 | | | | | | | | |
| | 214.0 | 215.5 | 216.6 | 217.4 | 217.7 | 217.9 | 218.0 | 218.0 | 218.0 | 217.9 | 217.8 |
| 217.6 | 217.5 | 217.5 | 220.5 | | | | | | | | |
| | 223.6 | 253.7 | 274.8 | 299.7 | 322.3 | 337.4 | 337.3 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 15 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 269.2 | 264.9 | 261.9 | 258.7 |
| 253.4 | 246.2 | 237.5 | 227.5 | | | | | | | | |
| | 218.4 | 212.1 | 208.9 | 208.9 | 207.6 | 205.3 | 203.6 | 202.4 | 204.2 | 205.8 | 207.2 |
| 208.5 | 209.7 | 210.9 | 212.1 | | | | | | | | |
| | 213.3 | 214.9 | 215.9 | 216.9 | 217.3 | 217.4 | 217.5 | 217.5 | 217.4 | 217.0 | 216.9 |
| 216.9 | 216.9 | 217.3 | 221.0 | | | | | | | | |
| | 229.1 | 244.5 | 255.4 | 286.4 | 307.6 | 322.7 | 331.2 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 16 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 272.1 | 265.3 | 260.8 | 257.4 |
| 253.3 | 247.8 | 240.2 | 230.4 | | | | | | | | |
| | 220.9 | 214.6 | 211.1 | 210.0 | 209.8 | 207.9 | 204.9 | 202.8 | 204.3 | 205.8 | 207.2 |
| 208.5 | 209.7 | 210.9 | 212.3 | | | | | | | | |
| | 213.8 | 214.8 | 215.4 | 216.8 | 217.0 | 216.9 | 217.1 | 216.9 | 216.9 | 216.9 | 217.2 |
| 217.3 | 217.2 | 217.3 | 221.5 | | | | | | | | |
| | 232.0 | 247.1 | 261.3 | 278.3 | 287.6 | 291.7 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 17 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 271.4 | 267.1 | 262.5 | 259.6 | 256.7 |
| 253.5 | 249.5 | 243.4 | 232.8 | | | | | | | | |
| | 222.4 | 216.2 | 212.9 | 210.8 | 209.3 | 207.2 | 205.1 | 203.2 | 204.4 | 205.8 | 207.1 |
| 208.4 | 209.6 | 210.2 | 212.4 | | | | | | | | |
| | 214.1 | 215.1 | 216.2 | 216.9 | 216.9 | 217.0 | 217.0 | 216.9 | 217.0 | 217.1 | 217.6 |
| 217.6 | 217.1 | 217.2 | 235.0 | | | | | | | | |
| | 247.5 | 261.7 | 275.8 | 285.9 | 289.9 | 292.0 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |

0 18 999.9 999.9 999.9 999.9 999.9 999.9 272.9 265.1 261.1 258.4 255.9
253.4 250.7 247.6 242.1
221.8 217.3 214.3 211.9 209.7 207.3 205.0 203.5 204.2 205.7 207.1
208.2 209.1 210.1 212.3
217.0 216.1 216.9 217.8 217.0 217.8 217.9 217.1 217.9 218.1 218.3
218.2 217.6 218.4 242.3
256.8 271.9 289.3 290.1 292.0 292.8 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 19 999.9 999.9 999.9 999.9 999.9 999.9 279.2 265.4 260.2 257.3 255.0
252.6 250.1 247.6 243.5
223.8 219.2 216.0 213.4 210.8 208.0 205.1 203.8 204.6 206.5 207.7
208.3 209.1 210.2 224.4
227.3 223.7 218.6 219.3 219.0 219.4 219.5 219.3 219.4 219.5 219.3
218.9 217.8 219.1 247.6
260.8 275.0 290.0 291.8 293.2 293.5 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 20 999.9 999.9 999.9 999.9 999.9 999.9 287.8 279.9 260.0 256.6 254.2
251.5 248.6 244.5 237.2
228.0 221.5 217.8 215.1 212.6 210.2 207.6 204.3 204.5 205.8 207.6
209.7 210.2 211.0 222.9
238.2 231.6 221.6 220.4 220.5 220.7 220.7 220.7 220.6 220.5 220.3
219.7 218.4 219.9 245.2
259.4 272.7 285.2 293.2 294.1 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 21 999.9 999.9 999.9 999.9 999.9 999.9 292.9 283.5 262.3 257.0 253.6
250.5 247.3 242.8 236.1
228.3 221.9 219.0 216.7 214.7 212.9 209.5 206.8 205.0 205.0 207.2
210.2 210.9 213.8 224.4
252.6 251.3 233.0 222.6 222.0 222.1 222.0 221.9 221.8 221.6 221.5
221.0 220.1 220.9 242.6
254.3 266.5 279.9 291.6 294.7 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 22 999.9 999.9 999.9 999.9 999.9 999.9 296.0 287.6 268.7 258.5 253.8
250.2 246.4 241.1 234.5
227.7 220.3 219.6 217.9 216.5 214.3 210.9 208.4 206.9 205.7 206.2
209.7 211.9 215.1 227.9
244.5 251.2 247.4 239.5 224.4 223.7 223.5 223.4 223.3 223.0 222.9
222.4 222.1 231.3 238.2
244.3 254.6 271.7 286.7 293.3 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 23 999.9 999.9 999.9 999.9 999.9 999.9 999.9 290.8 280.6 264.3 254.6
250.4 245.9 240.6 234.6
227.7 222.7 220.2 218.1 215.9 213.6 211.3 209.2 207.9 206.8 206.6
210.3 214.7 218.4 231.5
241.1 250.8 250.8 243.1 226.2 225.1 224.9 224.7 224.6 224.4 224.0
223.3 222.1 221.3 223.1
225.2 231.4 261.1 278.8 287.0 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9

0 24 999.9 999.9 999.9 999.9 999.9 999.9 999.9 292.9 287.3 278.8 267.3
250.3 244.2 239.5 233.5
227.2 223.3 220.6 218.2 215.5 212.3 211.1 209.8 208.5 207.2 206.9
213.5 219.5 223.8 226.2
237.0 245.1 238.0 233.1 227.8 226.3 226.1 225.9 225.7 225.4 224.8
224.0 223.2 224.3 226.3
228.0 230.1 251.2 269.0 277.5 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 25 999.9 999.9 999.9 999.9 999.9 999.9 999.9 298.8 294.4 285.5 274.3
261.3 243.7 238.0 232.8
227.3 223.5 220.9 218.5 215.2 213.7 211.9 210.1 208.0 207.7 213.5
218.7 223.1 226.6 228.2
231.3 243.9 245.0 240.4 228.4 227.2 227.0 226.9 226.7 226.2 225.2
224.2 225.1 226.5 228.4
230.0 231.1 233.2 257.0 265.1 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 26 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 304.3 293.3 280.2
265.6 246.8 237.9 233.2
228.2 223.7 221.5 219.5 217.2 215.0 211.9 208.9 208.5 215.3 220.9
224.9 227.9 229.9 230.2
231.5 242.7 246.0 243.6 230.5 228.2 227.8 227.7 227.6 226.9 225.3
225.2 226.5 228.0 243.4
248.1 234.6 235.1 237.7 238.1 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 27 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 316.3 302.9 286.3
271.3 254.3 240.0 233.6
229.4 225.9 222.8 220.5 218.3 215.2 209.9 209.3 216.5 223.2 227.5
230.6 232.5 233.6 232.9
231.7 238.0 241.2 246.3 241.1 230.4 228.8 228.5 228.5 227.9 226.2
227.0 227.9 246.0 257.8
261.4 254.4 236.4 238.0 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 28 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 308.9 293.9
277.6 261.6 245.1 235.3
231.1 227.8 223.8 221.1 218.6 214.6 210.2 216.2 223.6 228.7 232.2
235.5 237.7 239.0 238.7
238.5 241.2 242.6 247.9 245.8 243.8 244.7 229.8 229.6 229.3 227.4
228.7 245.5 258.7 268.9
273.8 273.7 266.5 258.0 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 29 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 337.6 302.6
284.4 267.3 250.7 239.2
234.7 228.1 223.9 220.9 217.9 211.1 210.9 221.4 228.9 232.7 237.9
243.9 246.4 246.7 246.1
244.1 244.0 244.5 245.4 245.8 249.8 253.4 246.5 231.7 231.0 229.6
231.1 255.4 270.0 280.7
286.9 288.6 286.7 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9

0 30 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 365.8 352.4 318.0
292.0 270.8 250.6 245.2
237.0 227.7 223.4 220.1 217.0 211.5 218.2 228.1 233.6 238.9 250.9
257.8 259.5 257.9 255.3
250.9 247.6 245.2 245.1 245.0 244.9 249.8 248.3 234.6 233.2 233.2
234.3 263.5 280.5 292.5
299.8 302.5 300.3 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 31 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 366.6 358.3 324.3
297.3 276.1 257.1 239.0
232.2 226.7 222.6 218.4 215.4 212.0 223.0 233.0 238.8 246.3 258.7
266.4 268.4 267.8 265.6
262.9 258.8 253.8 249.2 243.6 243.6 241.2 239.3 237.2 235.3 235.8
237.1 272.6 291.4 304.4
312.8 316.8 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 32 999.9 999.9 999.9 999.9 999.9 999.9 999.9 367.7 366.2 350.0 324.9
300.3 278.7 251.4 236.3
231.0 227.4 222.5 215.2 212.4 217.3 228.3 237.8 243.6 251.1 262.4
269.5 272.3 273.0 273.3
272.8 268.3 262.7 256.3 249.8 245.7 241.5 240.0 238.4 236.2 237.8
239.6 275.6 296.5 309.6
318.9 323.6 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 33 999.9 999.9 999.9 999.9 999.9 999.9 999.9 364.5 359.0 345.4 324.6
301.5 277.5 245.4 235.9
232.1 230.5 225.8 220.0 212.9 220.1 234.1 242.6 247.1 254.1 266.3
274.7 277.6 287.3 290.0
288.8 281.2 266.3 259.3 251.4 245.3 242.6 241.5 240.6 239.3 240.3
241.5 270.9 298.0 314.9
326.1 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 34 999.9 999.9 999.9 999.9 999.9 999.9 999.9 362.2 357.0 344.6 322.7
299.9 273.7 241.1 236.0
232.8 227.9 223.5 218.9 213.4 234.1 244.0 247.0 250.0 261.0 275.2
282.1 291.5 300.3 302.4
299.8 290.0 276.8 260.1 250.5 245.3 243.5 242.9 243.0 243.2 242.7
243.1 245.5 290.1 313.0
329.8 340.2 341.7 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 35 999.9 999.9 999.9 999.9 999.9 999.9 357.4 354.0 351.0 342.0 317.2
290.5 253.3 240.5 236.3
230.1 225.7 221.9 218.1 213.7 236.3 248.6 250.9 256.4 271.1 282.6
290.8 300.0 305.6 307.4
304.9 297.7 283.6 261.8 247.4 245.0 243.8 243.6 244.4 244.3 243.8
243.9 245.2 285.5 304.4
321.9 336.0 340.8 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 36 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 362.6 | 357.1 | 346.4 | 333.4 | 302.1 |
| 280.3 | 248.7 | 236.9 | 231.8 | | | | | | | | |
| | 227.4 | 223.8 | 220.7 | 217.5 | 214.1 | 237.0 | 252.4 | 255.0 | 264.4 | 279.9 | 290.5 |
| 298.8 | 304.6 | 308.0 | 307.5 | | | | | | | | |
| | 303.3 | 294.9 | 284.6 | 265.0 | 247.1 | 244.7 | 243.3 | 242.9 | 243.4 | 243.7 | 243.8 |
| 244.0 | 245.0 | 280.6 | 297.8 | | | | | | | | |
| | 312.8 | 331.9 | 342.3 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 37 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 361.7 | 354.1 | 339.5 | 320.2 | 300.0 |
| 257.0 | 243.3 | 234.0 | 229.1 | | | | | | | | |
| | 225.3 | 222.2 | 219.5 | 217.1 | 214.1 | 234.0 | 254.2 | 258.6 | 279.6 | 291.1 | 298.7 |
| 304.9 | 309.4 | 311.7 | 309.2 | | | | | | | | |
| | 304.2 | 295.9 | 284.8 | 264.0 | 246.6 | 243.9 | 242.4 | 241.4 | 242.6 | 243.1 | 243.5 |
| 243.9 | 244.8 | 271.1 | 289.2 | | | | | | | | |
| | 304.2 | 331.4 | 353.1 | 363.1 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 38 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 357.2 | 346.5 | 325.8 | 296.4 | 258.8 |
| 245.8 | 237.9 | 232.1 | 227.5 | | | | | | | | |
| | 223.7 | 220.5 | 217.9 | 216.0 | 214.2 | 219.2 | 248.4 | 263.3 | 281.4 | 294.2 | 303.3 |
| 308.5 | 312.4 | 314.6 | 312.1 | | | | | | | | |
| | 306.4 | 297.5 | 288.5 | 266.8 | 245.2 | 243.0 | 242.1 | 241.7 | 242.2 | 242.8 | 243.2 |
| 243.7 | 244.6 | 247.0 | 279.1 | | | | | | | | |
| | 299.0 | 322.3 | 352.5 | 365.3 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 39 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 340.5 | 326.2 | 298.1 | 258.1 | 248.5 |
| 242.4 | 236.9 | 231.4 | 226.5 | | | | | | | | |
| | 222.2 | 221.9 | 220.9 | 220.7 | 214.5 | 215.1 | 245.5 | 264.5 | 276.9 | 289.6 | 300.7 |
| 309.7 | 316.8 | 320.5 | 315.5 | | | | | | | | |
| | 309.8 | 298.3 | 292.6 | 273.1 | 244.0 | 242.2 | 241.6 | 241.0 | 241.7 | 242.4 | 243.0 |
| 243.5 | 244.5 | 246.7 | 276.7 | | | | | | | | |
| | 298.2 | 314.3 | 347.1 | 368.1 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 40 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 315.3 | 296.8 | 259.3 | 252.0 | 247.2 |
| 242.6 | 237.3 | 231.7 | 225.9 | | | | | | | | |
| | 224.9 | 223.9 | 222.9 | 222.7 | 217.6 | 214.6 | 242.5 | 264.0 | 272.8 | 287.4 | 299.0 |
| 310.0 | 318.9 | 323.2 | 323.4 | | | | | | | | |
| | 319.1 | 310.0 | 287.9 | 266.2 | 243.5 | 241.6 | 240.9 | 241.0 | 241.0 | 242.0 | 242.8 |
| 243.4 | 244.4 | 247.1 | 278.5 | | | | | | | | |
| | 299.1 | 313.0 | 336.3 | 381.7 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 41 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 280.0 | 285.8 | 263.5 | 255.2 | 251.4 | 247.8 |
| 243.6 | 238.6 | 233.3 | 229.7 | | | | | | | | |
| | 227.4 | 225.6 | 223.8 | 221.8 | 218.1 | 214.5 | 234.5 | 254.8 | 270.0 | 283.0 | 294.6 |
| 307.1 | 318.1 | 323.5 | 324.5 | | | | | | | | |
| | 321.9 | 313.7 | 286.3 | 266.8 | 242.8 | 240.9 | 240.9 | 240.9 | 240.9 | 241.8 | 242.6 |
| 243.3 | 244.5 | 269.2 | 286.4 | | | | | | | | |
| | 302.2 | 314.4 | 328.0 | 356.0 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 42 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 265.0 | 261.5 | 258.2 | 255.0 | 251.9 | 248.9 |
| 245.0 | 240.9 | 236.6 | 232.4 | | | | | | | | |
| | 229.4 | 227.0 | 224.6 | 222.0 | 218.5 | 214.3 | 214.7 | 246.3 | 264.8 | 276.0 | 288.3 |
| 300.9 | 313.8 | 321.3 | 323.6 | | | | | | | | |
| | 322.1 | 316.8 | 298.7 | 275.8 | 242.2 | 240.9 | 240.7 | 240.8 | 241.0 | 241.7 | 242.6 |
| 243.4 | 245.0 | 276.0 | 291.0 | | | | | | | | |
| | 304.5 | 314.9 | 321.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 43 | 999.9 | 999.9 | 999.9 | 999.9 | 265.0 | 265.0 | 264.6 | 262.2 | 256.3 | 252.5 | 249.4 |
| 245.9 | 242.1 | 238.0 | 234.2 | | | | | | | | |
| | 231.0 | 228.2 | 225.5 | 222.6 | 219.4 | 216.2 | 214.5 | 239.3 | 256.5 | 269.1 | 280.3 |
| 291.7 | 305.1 | 315.6 | 319.7 | | | | | | | | |
| | 318.2 | 313.1 | 299.9 | 273.1 | 241.7 | 240.5 | 240.1 | 240.1 | 240.5 | 241.5 | 242.6 |
| 243.9 | 246.0 | 275.9 | 292.6 | | | | | | | | |
| | 305.2 | 314.2 | 320.3 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 44 | 999.9 | 999.9 | 999.9 | 270.0 | 271.4 | 271.0 | 272.7 | 267.5 | 261.6 | 255.7 | 251.1 |
| 247.3 | 244.0 | 240.3 | 236.5 | | | | | | | | |
| | 232.8 | 229.5 | 226.5 | 223.4 | 220.1 | 217.0 | 214.4 | 235.4 | 248.2 | 259.0 | 270.1 |
| 280.3 | 291.4 | 304.1 | 312.7 | | | | | | | | |
| | 311.5 | 305.9 | 288.3 | 253.5 | 241.1 | 239.9 | 239.2 | 238.7 | 239.6 | 241.0 | 242.8 |
| 244.9 | 248.5 | 277.5 | 293.6 | | | | | | | | |
| | 305.1 | 311.8 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 45 | 999.9 | 999.9 | 999.9 | 275.0 | 275.8 | 274.2 | 278.8 | 276.3 | 270.2 | 263.3 | 258.7 |
| 253.2 | 250.4 | 247.6 | 243.8 | | | | | | | | |
| | 238.6 | 233.0 | 228.4 | 224.7 | 221.0 | 217.4 | 214.3 | 228.3 | 237.3 | 244.1 | 257.2 |
| 267.4 | 277.0 | 288.6 | 303.2 | | | | | | | | |
| | 301.2 | 293.4 | 278.5 | 258.2 | 240.1 | 238.8 | 237.6 | 234.7 | 238.1 | 240.4 | 242.5 |
| 246.0 | 257.1 | 280.5 | 294.8 | | | | | | | | |
| | 305.0 | 311.6 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 46 | 999.9 | 999.9 | 999.9 | 999.9 | 280.0 | 277.3 | 284.2 | 286.5 | 286.4 | 285.3 | 278.4 |
| 277.9 | 268.6 | 265.8 | 262.3 | | | | | | | | |
| | 255.9 | 247.8 | 237.1 | 229.8 | 223.2 | 218.4 | 214.2 | 214.7 | 224.0 | 218.4 | 242.7 |
| 253.3 | 260.5 | 267.9 | 288.5 | | | | | | | | |
| | 284.6 | 279.7 | 268.8 | 255.1 | 239.1 | 238.2 | 237.4 | 236.4 | 237.6 | 239.2 | 241.4 |
| 245.1 | 252.5 | 281.3 | 295.3 | | | | | | | | |
| | 305.3 | 312.7 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 47 | 999.9 | 999.9 | 999.9 | 285.0 | 285.0 | 280.6 | 289.6 | 293.5 | 298.2 | 305.4 | 299.8 |
| 296.5 | 293.9 | 293.4 | 289.7 | | | | | | | | |
| | 280.6 | 269.2 | 254.3 | 241.0 | 230.0 | 222.0 | 217.1 | 214.4 | 214.3 | 215.0 | 230.3 |
| 238.2 | 243.0 | 244.6 | 248.7 | | | | | | | | |
| | 257.2 | 259.0 | 254.3 | 246.4 | 237.4 | 236.7 | 236.3 | 236.0 | 236.3 | 236.6 | 237.6 |
| 240.6 | 264.4 | 285.2 | 296.9 | | | | | | | | |
| | 305.6 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |

0 48 999.9 999.9 290.0 290.0 290.0 291.1 296.4 300.7 312.0 322.3 324.7
320.5 316.0 315.6 312.3
303.9 289.5 272.5 255.2 239.9 228.7 221.1 217.3 215.7 214.2 214.1
215.0 217.7 220.1 231.8
237.3 237.4 237.3 238.3 233.5 233.7 233.9 233.9 233.6 233.0 231.0
237.2 267.7 287.1 299.5
309.2 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 49 999.9 295.0 297.4 295.5 296.3 299.6 304.7 309.1 322.8 332.2 337.1
340.6 329.1 327.0 323.3
318.9 305.0 286.0 267.9 250.5 236.2 226.8 220.7 217.8 216.0 214.3
214.3 214.7 215.1 215.5
217.9 220.6 222.4 224.3 227.3 229.3 230.3 230.8 230.9 229.9 232.8
237.2 270.7 291.5 304.7
315.4 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 50 999.9 300.0 300.7 300.0 301.9 307.6 312.6 317.3 328.7 336.5 337.6
337.6 336.0 333.4 330.2
326.5 317.7 298.5 279.0 260.8 244.8 233.5 226.2 220.7 218.3 216.8
215.8 214.3 214.2 214.4
215.3 216.8 218.5 220.8 223.5 225.7 227.3 228.3 228.7 230.9 233.8
238.2 275.0 299.4 312.6
323.0 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 51 999.9 305.0 301.4 301.3 302.0 311.2 318.5 325.4 331.9 335.5 337.1
337.9 337.6 336.3 334.6
332.4 329.8 318.5 297.3 277.5 256.4 243.7 235.2 229.1 223.3 219.1
217.5 216.3 215.5 214.9
214.4 216.0 217.4 219.2 221.6 224.0 226.1 227.5 228.8 231.1 234.2
240.5 280.2 307.1 322.1
331.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 52 999.9 310.0 310.0 308.9 312.7 318.3 324.6 329.2 332.3 334.8 336.9
338.2 338.5 338.2 337.5
336.4 334.9 330.5 310.2 285.0 268.7 253.3 243.6 239.4 231.8 225.0
220.4 217.9 216.4 215.3
214.4 215.3 216.2 217.5 220.0 222.6 225.3 226.7 228.5 231.2 234.7
242.9 286.6 315.4 333.2
342.7 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 53 999.9 999.9 312.0 312.0 318.8 324.1 327.6 330.4 332.9 335.1 336.9
338.1 338.8 339.1 339.0
338.7 338.3 336.1 322.9 301.5 277.8 263.1 251.8 247.9 242.9 235.8
229.0 223.6 219.1 215.4
214.4 214.5 214.5 214.7 218.4 221.2 223.6 225.5 228.0 231.2 234.5
263.7 296.7 323.2 341.2
350.4 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 54 | 999.9 | 999.9 | 314.0 | 314.0 | 318.9 | 324.2 | 329.3 | 331.7 | 333.9 | 335.5 | 336.9 |
| 338.1 | 339.0 | 339.4 | 339.6 | | | | | | | | |
| | 339.6 | 339.5 | 339.4 | 331.9 | 316.3 | 300.1 | 287.0 | 276.0 | 258.3 | 253.9 | 246.2 |
| 237.8 | 230.2 | 225.2 | 214.8 | | | | | | | | |
| | 214.7 | 215.1 | 215.0 | 214.7 | 217.7 | 220.3 | 222.4 | 224.3 | 227.2 | 231.0 | 234.5 |
| 269.4 | 301.7 | 328.1 | 346.5 | | | | | | | | |
| | 356.0 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 55 | 999.9 | 999.9 | 999.9 | 316.0 | 316.0 | 323.6 | 329.5 | 332.9 | 335.1 | 335.9 | 337.1 |
| 338.2 | 339.0 | 339.5 | 339.8 | | | | | | | | |
| | 339.7 | 339.5 | 338.8 | 336.9 | 327.4 | 314.8 | 304.2 | 295.6 | 273.1 | 264.6 | 253.8 |
| 242.5 | 231.9 | 225.4 | 221.0 | | | | | | | | |
| | 217.8 | 216.1 | 215.5 | 214.7 | 217.5 | 219.8 | 221.6 | 223.3 | 226.3 | 230.5 | 234.7 |
| 266.3 | 301.1 | 329.6 | 349.4 | | | | | | | | |
| | 359.5 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 56 | 999.9 | 999.9 | 999.9 | 999.9 | 318.0 | 323.4 | 328.2 | 331.7 | 334.1 | 335.8 | 337.1 |
| 338.3 | 339.1 | 339.6 | 339.8 | | | | | | | | |
| | 339.7 | 339.1 | 337.8 | 335.3 | 330.1 | 322.8 | 315.0 | 306.3 | 289.6 | 273.6 | 258.2 |
| 243.0 | 225.7 | 225.4 | 224.4 | | | | | | | | |
| | 221.4 | 218.2 | 216.7 | 214.6 | 217.8 | 219.5 | 220.8 | 222.3 | 225.2 | 229.4 | 236.0 |
| 248.5 | 295.3 | 328.5 | 350.6 | | | | | | | | |
| | 361.8 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 57 | 999.9 | 999.9 | 999.9 | 999.9 | 320.0 | 323.4 | 327.6 | 331.0 | 333.7 | 335.7 | 337.2 |
| 338.5 | 339.3 | 339.8 | 339.9 | | | | | | | | |
| | 339.7 | 338.9 | 337.3 | 334.7 | 330.2 | 323.5 | 316.1 | 309.1 | 297.0 | 277.6 | 258.0 |
| 240.0 | 225.6 | 227.7 | 227.2 | | | | | | | | |
| | 224.3 | 220.8 | 218.1 | 214.8 | 217.5 | 218.9 | 219.9 | 221.2 | 223.8 | 227.9 | 234.8 |
| 246.2 | 292.0 | 327.0 | 351.2 | | | | | | | | |
| | 363.8 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 58 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 322.0 | 327.2 | 330.8 | 333.5 | 335.7 | 337.5 |
| 338.8 | 339.7 | 340.2 | 340.2 | | | | | | | | |
| | 339.8 | 338.9 | 337.3 | 335.1 | 331.2 | 325.2 | 317.1 | 308.5 | 300.0 | 276.9 | 250.6 |
| 225.9 | 225.5 | 229.9 | 229.9 | | | | | | | | |
| | 227.1 | 223.2 | 219.6 | 214.8 | 217.0 | 218.0 | 218.9 | 219.9 | 222.0 | 225.8 | 232.8 |
| 243.7 | 288.0 | 324.8 | 351.8 | | | | | | | | |
| | 367.2 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 59 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 324.0 | 328.0 | 331.2 | 333.8 | 336.1 | 338.1 |
| 339.6 | 340.5 | 340.9 | 340.8 | | | | | | | | |
| | 340.3 | 339.3 | 337.7 | 335.9 | 333.1 | 329.2 | 323.3 | 308.6 | 287.6 | 257.0 | 226.3 |
| 225.7 | 231.1 | 233.4 | 233.0 | | | | | | | | |
| | 230.0 | 226.0 | 221.6 | 214.8 | 216.2 | 217.0 | 217.7 | 218.4 | 219.7 | 222.9 | 230.0 |
| 241.1 | 280.0 | 321.0 | 352.9 | | | | | | | | |
| | 374.4 | 388.6 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |

0 60 999.9 999.9 999.9 999.9 999.9 326.0 329.4 332.1 334.7 337.2 339.3
340.9 341.9 342.2 341.9
341.2 340.1 338.5 336.9 335.1 332.8 324.2 303.5 273.1 226.2 225.7
233.1 236.3 237.1 236.1
233.5 229.9 225.5 215.1 214.9 215.9 216.4 216.7 217.1 219.0 226.1
240.0 258.7 314.7 352.8
377.7 391.3 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 61 999.9 999.9 999.9 999.9 328.0 329.5 331.5 333.8 336.4 338.9 341.0
342.7 343.9 344.1 343.5
342.5 341.2 339.6 337.9 336.0 334.0 325.8 303.5 270.7 227.2 235.3
238.1 239.1 239.0 237.6
235.6 233.3 231.2 227.7 215.1 215.0 215.0 215.0 215.0 215.1 220.0
235.0 256.7 315.1 354.5
380.7 396.3 402.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 62 999.9 999.9 999.9 330.0 331.4 332.4 334.0 336.1 338.4 340.8 343.1
345.1 346.4 346.7 345.3
344.0 342.4 340.8 338.7 335.9 333.0 329.8 309.7 274.3 228.2 239.0
244.1 240.7 240.0 238.6
236.6 234.3 231.3 226.4 220.3 218.1 217.2 216.8 216.4 216.0 215.3
227.7 277.8 322.9 357.9
383.0 399.0 407.2 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 63 999.9 999.9 330.0 333.1 335.2 336.4 337.6 338.4 340.2 343.1 345.5
347.6 349.2 350.2 358.3
358.4 344.2 342.2 339.4 335.8 331.5 327.1 319.5 284.3 229.2 243.9
247.2 242.4 241.2 239.5
237.9 235.7 232.4 227.7 222.8 220.3 219.0 218.2 217.4 216.6 215.6
254.7 292.4 329.3 360.0
382.8 397.9 408.3 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 64 999.9 999.9 330.0 336.4 339.4 340.9 341.9 350.6 352.2 347.0 348.6
350.6 352.4 354.0 356.7
366.1 359.8 343.5 340.2 335.7 330.1 322.9 314.4 309.4 230.2 248.7
246.9 244.2 242.7 241.2
239.4 237.7 234.2 229.4 224.5 221.8 220.4 219.4 218.0 216.8 215.8
260.4 296.5 330.4 358.5
378.9 390.3 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 65 999.9 999.9 330.0 340.7 343.6 344.6 345.4 347.2 348.3 349.0 350.5
352.7 355.0 356.4 357.6
358.4 365.8 356.9 340.7 336.1 329.5 319.9 310.1 250.6 240.2 251.2
248.7 246.4 244.5 242.9
241.7 240.8 240.5 236.0 225.9 223.1 221.8 220.6 218.1 216.5 215.8
251.8 291.5 326.0 353.3
372.6 382.7 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9

0 66 999.9 999.9 340.0 348.2 347.8 347.1 346.8 346.9 347.5 348.8 350.3
358.8 357.1 357.6 357.7
357.5 356.7 357.2 342.1 337.2 330.1 316.7 300.6 270.4 266.2 257.3
251.9 249.4 247.4 246.5
246.4 249.7 258.8 251.7 230.5 224.4 223.4 223.0 223.4 219.3 215.8
216.8 280.1 317.2 344.8
363.9 373.8 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 67 999.9 999.9 999.9 360.0 351.0 348.2 346.9 345.0 345.0 347.3 349.7
352.4 364.2 365.6 357.1
356.2 354.3 350.3 344.5 338.3 331.3 314.5 292.7 275.5 273.8 270.2
267.2 263.1 272.7 275.1
274.5 272.7 270.5 258.6 234.7 226.2 224.5 224.4 222.6 220.2 217.9
216.4 272.1 306.5 333.5
353.0 363.5 362.0 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 68 999.9 999.9 999.9 380.0 345.5 346.6 346.4 345.6 345.0 345.1 348.9
351.6 353.4 360.4 355.7
354.4 352.2 348.7 343.9 337.8 331.3 313.7 291.2 280.2 280.3 280.7
279.8 288.1 293.7 295.4
292.5 284.5 269.1 254.7 238.4 226.7 224.9 223.5 222.0 220.3 218.4
216.4 262.6 291.8 318.3
339.6 353.5 358.4 361.4 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 69 999.9 999.9 380.0 368.5 355.3 345.5 345.6 345.0 345.0 345.0 348.4
350.9 353.0 354.4 353.9
352.1 349.5 346.1 341.6 336.2 330.1 313.3 291.9 282.8 284.7 286.8
297.2 304.4 307.1 308.8
304.3 292.3 272.0 253.6 239.0 225.2 224.2 222.8 221.6 220.1 218.4
216.2 247.1 268.5 296.9
322.2 341.3 354.1 362.2 372.0 378.7 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 70 999.9 390.0 370.3 365.7 356.9 345.2 344.6 345.0 345.0 346.2 348.1
350.1 352.4 354.7 352.1
349.0 345.8 342.4 338.6 334.0 327.7 312.7 293.6 285.3 288.0 290.7
306.4 313.7 317.0 317.1
312.1 297.1 270.2 254.3 240.3 226.1 224.0 222.4 221.3 220.0 218.3
216.0 218.2 226.9 267.3
299.5 323.8 343.2 359.1 372.9 383.1 388.2 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0 71 380.0 376.1 370.8 365.4 358.4 350.4 343.8 344.5 344.9 345.7 346.8
348.3 351.3 358.1 349.7
344.7 341.0 337.9 335.4 330.1 323.6 312.8 297.1 287.7 290.8 293.6
312.5 322.6 325.4 325.8
318.6 302.3 274.4 256.5 242.0 226.6 223.9 222.2 221.1 219.9 218.3
216.0 217.2 223.1 234.5
273.4 299.9 324.4 346.6 365.8 381.1 391.0 400.8 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 72 | 375.0 | 375.0 | 370.5 | 365.4 | 359.2 | 351.8 | 342.9 | 343.2 | 343.6 | 343.9 | 344.3 |
| 344.7 | 345.5 | 346.3 | 342.6 | | | | | | | | |
| | 338.8 | 335.5 | 332.7 | 329.8 | 324.6 | 320.1 | 309.5 | 297.2 | 290.3 | 293.5 | 296.0 |
| 315.9 | 327.3 | 331.7 | 330.6 | | | | | | | | |
| | 322.8 | 307.5 | 284.5 | 266.7 | 246.2 | 226.6 | 224.1 | 222.2 | 221.1 | 220.0 | 218.4 |
| 216.3 | 216.2 | 219.2 | 224.8 | | | | | | | | |
| | 248.1 | 266.6 | 296.6 | 325.6 | 351.3 | 373.3 | 391.6 | 408.3 | 424.8 | 431.3 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 73 | 999.9 | 999.9 | 370.0 | 365.2 | 359.5 | 352.4 | 342.1 | 340.7 | 341.3 | 341.1 | 340.4 |
| 339.7 | 338.8 | 337.7 | 335.0 | | | | | | | | |
| | 331.9 | 328.7 | 325.7 | 321.0 | 317.2 | 313.4 | 305.6 | 298.5 | 295.1 | 296.3 | 298.0 |
| 316.4 | 327.6 | 332.2 | 330.8 | | | | | | | | |
| | 323.0 | 309.2 | 291.9 | 270.8 | 246.6 | 226.6 | 224.4 | 222.2 | 221.2 | 220.2 | 218.9 |
| 217.5 | 216.3 | 216.1 | 216.1 | | | | | | | | |
| | 216.1 | 217.3 | 258.5 | 296.4 | 329.1 | 357.6 | 382.3 | 404.6 | 423.5 | 435.4 | 447.8 |
| 454.6 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 74 | 999.9 | 999.9 | 999.9 | 365.0 | 359.8 | 353.5 | 346.6 | 342.2 | 338.7 | 337.8 | 335.9 |
| 333.5 | 331.5 | 329.7 | 327.4 | | | | | | | | |
| | 324.4 | 321.4 | 318.0 | 308.9 | 309.4 | 307.3 | 303.6 | 299.7 | 297.7 | 298.0 | 299.0 |
| 312.7 | 323.1 | 327.2 | 326.0 | | | | | | | | |
| | 317.8 | 311.4 | 293.9 | 269.6 | 241.9 | 227.1 | 224.9 | 222.4 | 221.5 | 220.5 | 219.3 |
| 218.0 | 216.4 | 216.8 | 217.3 | | | | | | | | |
| | 217.7 | 218.0 | 219.2 | 260.8 | 299.8 | 334.2 | 364.2 | 392.9 | 417.7 | 436.8 | 451.1 |
| 459.2 | 460.7 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 75 | 999.9 | 999.9 | 999.9 | 999.9 | 360.0 | 353.4 | 346.8 | 341.7 | 337.6 | 335.4 | 332.1 |
| 327.8 | 325.0 | 323.3 | 321.3 | | | | | | | | |
| | 317.7 | 315.5 | 312.9 | 306.7 | 306.1 | 304.4 | 301.9 | 299.3 | 298.1 | 298.1 | 299.0 |
| 300.6 | 313.6 | 316.1 | 316.9 | | | | | | | | |
| | 315.7 | 309.0 | 291.3 | 268.2 | 241.7 | 227.1 | 225.0 | 222.7 | 221.7 | 220.8 | 219.7 |
| 218.3 | 216.5 | 216.9 | 217.0 | | | | | | | | |
| | 217.0 | 218.9 | 221.0 | 223.4 | 270.3 | 304.0 | 335.9 | 373.6 | 406.2 | 431.6 | 449.3 |
| 458.9 | 459.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 76 | 999.9 | 999.9 | 999.9 | 999.9 | 354.0 | 350.2 | 344.1 | 339.7 | 336.3 | 334.3 | 329.7 |
| 321.4 | 317.7 | 317.3 | 316.7 | | | | | | | | |
| | 309.3 | 309.8 | 308.2 | 305.4 | 303.5 | 301.6 | 299.4 | 297.6 | 296.9 | 296.9 | 297.8 |
| 299.3 | 303.2 | 309.9 | 313.4 | | | | | | | | |
| | 311.3 | 301.4 | 282.6 | 258.9 | 244.4 | 227.1 | 225.2 | 223.1 | 222.0 | 221.1 | 220.0 |
| 218.7 | 216.8 | 216.7 | 216.7 | | | | | | | | |
| | 217.5 | 217.1 | 221.9 | 225.1 | 249.5 | 270.9 | 297.5 | 347.8 | 390.6 | 422.6 | 444.2 |
| 455.8 | 457.8 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 77 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 347.0 | 341.4 | 337.1 | 334.1 | 332.2 | 330.7 |
| 324.8 | 318.0 | 314.3 | 311.0 | | | | | | | | |
| | 307.0 | 305.7 | 304.1 | 302.3 | 300.5 | 299.1 | 297.2 | 295.3 | 294.3 | 294.3 | 295.6 |
| 297.8 | 301.1 | 305.8 | 309.6 | | | | | | | | |
| | 306.5 | 293.8 | 277.4 | 259.8 | 245.9 | 228.1 | 225.6 | 223.5 | 222.3 | 221.4 | 220.4 |
| 219.3 | 218.2 | 217.5 | 216.8 | | | | | | | | |
| | 217.5 | 217.1 | 221.7 | 226.0 | 227.1 | 228.1 | 230.7 | 318.0 | 374.4 | 412.8 | 437.5 |
| 451.0 | 455.5 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 78 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 340.0 | 338.1 | 333.7 | 331.0 | 328.8 | 325.6 |
| 319.7 | 313.3 | 307.8 | 303.3 | | | | | | | | |
| | 303.6 | 301.5 | 299.9 | 298.3 | 297.1 | 297.2 | 295.1 | 291.6 | 289.9 | 289.9 | 291.6 |
| 296.1 | 300.0 | 304.2 | 307.9 | | | | | | | | |
| | 304.8 | 291.2 | 277.5 | 261.4 | 246.9 | 228.6 | 226.0 | 223.8 | 222.6 | 221.6 | 220.7 |
| 219.7 | 218.7 | 217.9 | 217.0 | | | | | | | | |
| | 217.4 | 217.2 | 221.5 | 225.2 | 228.0 | 230.2 | 230.2 | 307.6 | 365.0 | 405.0 | 430.8 |
| 443.7 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 79 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 337.0 | 330.6 | 327.2 | 324.2 | 319.5 |
| 312.6 | 305.3 | 297.8 | 288.1 | | | | | | | | |
| | 295.9 | 296.3 | 295.2 | 293.7 | 292.1 | 291.0 | 290.2 | 286.4 | 284.5 | 283.9 | 284.4 |
| 292.3 | 300.9 | 306.4 | 308.8 | | | | | | | | |
| | 306.0 | 296.5 | 279.9 | 264.8 | 245.8 | 228.6 | 226.7 | 224.1 | 222.8 | 221.8 | 220.9 |
| 219.9 | 218.9 | 218.0 | 217.1 | | | | | | | | |
| | 217.6 | 218.1 | 221.2 | 225.1 | 228.4 | 231.2 | 231.3 | 305.9 | 361.4 | 400.2 | 425.4 |
| 437.9 | 437.6 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 80 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 335.0 | 327.8 | 322.8 | 318.1 | 310.8 |
| 302.3 | 294.4 | 287.1 | 279.5 | | | | | | | | |
| | 290.3 | 291.8 | 290.4 | 288.6 | 286.9 | 285.3 | 283.4 | 280.2 | 278.2 | 277.6 | 277.6 |
| 276.3 | 293.4 | 300.5 | 303.4 | | | | | | | | |
| | 302.3 | 297.4 | 284.2 | 267.8 | 247.3 | 228.6 | 227.7 | 224.5 | 222.8 | 221.8 | 220.8 |
| 219.9 | 218.8 | 217.8 | 217.1 | | | | | | | | |
| | 217.7 | 218.1 | 220.4 | 224.5 | 228.6 | 233.6 | 269.9 | 318.8 | 363.1 | 397.6 | 421.3 |
| 433.7 | 434.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 81 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 332.0 | 326.4 | 317.6 | 309.4 | 294.3 |
| 284.0 | 277.4 | 272.3 | 270.3 | | | | | | | | |
| | 284.7 | 287.7 | 285.4 | 283.1 | 281.6 | 280.1 | 278.1 | 274.9 | 269.8 | 270.7 | 271.6 |
| 271.4 | 284.5 | 294.1 | 297.5 | | | | | | | | |
| | 297.6 | 295.3 | 284.8 | 268.7 | 248.8 | 230.1 | 228.8 | 224.7 | 222.8 | 221.8 | 220.7 |
| 219.6 | 218.4 | 217.3 | 217.2 | | | | | | | | |
| | 217.9 | 218.1 | 218.3 | 223.6 | 228.1 | 249.1 | 284.6 | 324.8 | 363.2 | 394.5 | 416.9 |
| 429.3 | 431.1 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 82 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 330.0 | 309.9 | 294.4 | 255.4 |
| 255.1 | 254.1 | 253.2 | 261.8 | | | | | | | | |
| | 276.0 | 280.6 | 277.1 | 276.5 | 275.9 | 274.9 | 273.2 | 270.6 | 267.0 | 262.8 | 266.4 |
| 267.6 | 267.9 | 282.6 | 290.4 | | | | | | | | |
| | 290.8 | 288.3 | 277.9 | 263.9 | 244.5 | 230.0 | 229.3 | 224.8 | 222.9 | 221.7 | 220.5 |
| 219.2 | 217.6 | 217.4 | 217.9 | | | | | | | | |
| | 218.5 | 219.0 | 219.2 | 224.3 | 229.5 | 238.5 | 283.1 | 321.3 | 358.8 | 388.9 | 411.1 |
| 424.2 | 426.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 83 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 332.0 | 257.5 | 257.2 | 255.9 |
| 251.0 | 251.0 | 252.0 | 254.1 | | | | | | | | |
| | 265.7 | 270.0 | 268.4 | 269.7 | 269.9 | 269.5 | 268.3 | 266.4 | 263.8 | 260.4 | 263.1 |
| 264.7 | 265.5 | 266.6 | 279.1 | | | | | | | | |
| | 282.3 | 275.3 | 262.7 | 252.7 | 230.6 | 230.6 | 229.7 | 225.2 | 223.0 | 221.7 | 220.4 |
| 219.1 | 217.5 | 217.9 | 218.4 | | | | | | | | |
| | 219.0 | 219.9 | 219.5 | 225.5 | 231.1 | 242.1 | 276.7 | 314.0 | 350.5 | 379.9 | 402.9 |
| 418.1 | 423.0 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 84 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 333.0 | 333.0 | 258.6 | 271.1 | 257.8 |
| 250.0 | 250.9 | 250.8 | 248.7 | | | | | | | | |
| | 251.0 | 254.1 | 261.0 | 263.1 | 264.0 | 264.1 | 263.4 | 262.2 | 260.5 | 258.3 | 260.5 |
| 262.1 | 263.2 | 264.2 | 265.8 | | | | | | | | |
| | 271.9 | 261.6 | 233.1 | 242.6 | 231.1 | 230.5 | 230.1 | 225.6 | 223.3 | 221.7 | 220.4 |
| 219.0 | 217.5 | 218.0 | 218.7 | | | | | | | | |
| | 219.2 | 219.7 | 222.0 | 227.8 | 235.4 | 246.9 | 256.1 | 303.0 | 337.7 | 365.9 | 391.2 |
| 410.9 | 421.8 | 430.3 | 434.2 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 85 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 334.0 | 262.0 | 311.4 | 297.4 | 288.1 | 262.3 |
| 250.1 | 249.1 | 249.0 | 248.2 | | | | | | | | |
| | 248.1 | 247.3 | 253.5 | 257.1 | 258.7 | 259.2 | 259.1 | 258.5 | 257.5 | 256.2 | 257.7 |
| 259.4 | 260.8 | 262.0 | 263.3 | | | | | | | | |
| | 265.8 | 262.6 | 253.0 | 249.6 | 240.2 | 225.6 | 230.0 | 226.3 | 223.7 | 221.8 | 220.3 |
| 219.0 | 217.6 | 217.6 | 218.8 | | | | | | | | |
| | 219.6 | 220.5 | 221.0 | 229.2 | 241.6 | 251.0 | 257.5 | 292.9 | 319.8 | 343.5 | 373.7 |
| 401.0 | 420.7 | 432.7 | 435.8 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 86 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 335.0 | 262.4 | 311.5 | 320.0 | 310.1 | 274.6 |
| 265.7 | 262.4 | 259.9 | 257.1 | | | | | | | | |
| | 251.3 | 246.3 | 249.4 | 252.3 | 254.2 | 255.2 | 255.4 | 255.2 | 254.6 | 254.0 | 254.5 |
| 256.2 | 258.2 | 259.8 | 260.9 | | | | | | | | |
| | 266.1 | 265.4 | 261.8 | 257.6 | 249.9 | 236.8 | 232.0 | 227.9 | 224.4 | 221.8 | 220.3 |
| 219.1 | 218.0 | 217.6 | 219.0 | | | | | | | | |
| | 219.9 | 220.8 | 221.7 | 227.8 | 235.6 | 247.7 | 262.4 | 279.7 | 293.9 | 303.2 | 347.5 |
| 387.5 | 415.7 | 432.7 | 438.2 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 87 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 321.9 | 340.8 | 349.5 | 346.5 | 333.4 |
| 324.1 | 316.8 | 300.7 | 268.7 | | | | | | | | |
| | 258.3 | 246.4 | 245.3 | 248.1 | 250.2 | 251.5 | 251.9 | 251.9 | 251.7 | 251.1 | 250.3 |
| 252.2 | 255.2 | 257.7 | 259.5 | | | | | | | | |
| | 260.8 | 266.6 | 266.7 | 264.3 | 259.9 | 249.5 | 236.8 | 228.9 | 224.8 | 222.0 | 220.1 |
| 218.8 | 217.8 | 217.8 | 219.4 | | | | | | | | |
| | 220.4 | 221.2 | 221.6 | 222.3 | 226.6 | 245.2 | 262.2 | 282.3 | 297.3 | 307.4 | 314.1 |
| 374.4 | 410.5 | 432.6 | 443.8 | | | | | | | | |
| | 454.9 | 462.3 | 466.2 | 999.9 | 999.9 | 999.9 | | | | | |
| 0 88 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 351.1 | 368.9 | 379.3 | 381.5 | 377.0 |
| 369.2 | 357.1 | 334.6 | 280.5 | | | | | | | | |
| | 270.1 | 255.8 | 245.4 | 244.2 | 246.5 | 247.8 | 248.3 | 248.6 | 248.5 | 248.2 | 248.0 |
| 247.8 | 252.2 | 255.9 | 258.7 | | | | | | | | |
| | 260.5 | 262.1 | 269.7 | 268.4 | 264.4 | 253.3 | 236.8 | 229.6 | 225.8 | 222.4 | 219.7 |
| 218.0 | 217.9 | 218.9 | 220.1 | | | | | | | | |
| | 221.0 | 221.8 | 222.5 | 222.6 | 234.5 | 245.5 | 260.4 | 276.8 | 288.2 | 296.2 | 331.5 |
| 373.9 | 408.0 | 432.1 | 447.3 | | | | | | | | |
| | 456.3 | 463.4 | 467.9 | 469.7 | 999.9 | 999.9 | | | | | |
| 0 89 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 393.0 | 405.7 | 412.0 | 412.3 |
| 407.3 | 396.4 | 377.3 | 348.5 | | | | | | | | |
| | 326.4 | 299.8 | 257.8 | 243.1 | 243.1 | 244.7 | 244.9 | 244.9 | 245.1 | 244.9 | 245.3 |
| 245.4 | 250.3 | 254.6 | 258.3 | | | | | | | | |
| | 260.8 | 262.1 | 270.0 | 270.8 | 264.5 | 251.2 | 237.0 | 230.0 | 227.0 | 222.3 | 219.3 |
| 218.1 | 218.2 | 219.6 | 220.7 | | | | | | | | |
| | 221.8 | 222.6 | 223.2 | 229.7 | 238.0 | 246.0 | 258.6 | 272.4 | 281.8 | 288.8 | 330.4 |
| 370.4 | 404.0 | 429.0 | 445.5 | | | | | | | | |
| | 455.0 | 462.7 | 467.6 | 469.3 | 999.9 | 999.9 | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 90 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 427.1 | 437.1 | 441.4 |
| 439.9 | 432.4 | 418.4 | 398.3 | | | | | | | | |
| | 375.9 | 347.9 | 310.3 | 260.9 | 242.2 | 242.2 | 241.2 | 241.2 | 241.0 | 240.2 | 242.5 |
| 243.5 | 249.1 | 254.0 | 258.3 | | | | | | | | |
| | 261.7 | 262.6 | 265.8 | 268.8 | 260.3 | 245.3 | 238.2 | 232.8 | 230.0 | 221.8 | 218.4 |
| 218.2 | 218.3 | 220.2 | 221.5 | | | | | | | | |
| | 222.6 | 223.3 | 224.2 | 232.2 | 239.7 | 246.3 | 257.0 | 269.0 | 277.4 | 284.2 | 319.6 |
| 361.8 | 397.2 | 422.9 | 439.2 | | | | | | | | |
| | 451.0 | 460.2 | 466.0 | 468.2 | 999.9 | 999.9 | | | | | |
| 0 91 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 456.7 | 464.7 |
| 467.1 | 463.6 | 454.1 | 439.1 | | | | | | | | |
| | 419.5 | 394.3 | 363.0 | 327.2 | 295.0 | 252.9 | 243.7 | 241.5 | 240.1 | 240.0 | 240.5 |
| 244.3 | 249.0 | 253.8 | 258.7 | | | | | | | | |
| | 264.2 | 270.1 | 268.9 | 266.9 | 257.9 | 244.1 | 238.9 | 233.2 | 226.9 | 220.6 | 218.5 |
| 219.3 | 220.0 | 221.2 | 222.3 | | | | | | | | |
| | 223.3 | 224.1 | 224.5 | 233.4 | 240.7 | 246.5 | 255.8 | 266.6 | 274.8 | 282.7 | 290.6 |
| 348.7 | 388.6 | 414.8 | 426.1 | | | | | | | | |
| | 445.1 | 456.5 | 463.5 | 467.0 | 999.9 | 999.9 | | | | | |
| 0 92 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 482.4 |
| 488.7 | 489.3 | 484.0 | 473.2 | | | | | | | | |
| | 457.0 | 435.5 | 408.9 | 378.4 | 346.4 | 312.0 | 282.4 | 242.7 | 239.2 | 240.4 | 241.4 |
| 243.7 | 249.0 | 253.6 | 257.9 | | | | | | | | |
| | 262.2 | 261.6 | 261.3 | 260.4 | 255.8 | 245.0 | 240.0 | 233.7 | 225.6 | 218.7 | 218.6 |
| 220.0 | 220.9 | 221.9 | 223.0 | | | | | | | | |
| | 224.0 | 225.1 | 228.2 | 234.8 | 241.5 | 246.7 | 255.0 | 264.9 | 273.0 | 281.1 | 288.7 |
| 342.2 | 382.4 | 410.0 | 429.1 | | | | | | | | |
| | 442.3 | 452.6 | 460.0 | 464.7 | 466.6 | 999.9 | | | | | |
| 0 93 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 504.7 | 509.3 | 508.1 | 501.2 | | | | | | | | |
| | 488.5 | 470.4 | 447.1 | 419.6 | 388.8 | 355.0 | 319.8 | 281.9 | 239.6 | 240.5 | 241.1 |
| 240.2 | 249.7 | 253.3 | 256.5 | | | | | | | | |
| | 259.4 | 260.3 | 260.3 | 258.9 | 255.2 | 248.7 | 241.8 | 234.3 | 225.3 | 218.7 | 219.6 |
| 220.5 | 221.3 | 222.2 | 223.3 | | | | | | | | |
| | 224.3 | 225.2 | 229.4 | 235.8 | 242.1 | 247.0 | 254.7 | 263.8 | 271.8 | 279.9 | 287.4 |
| 337.7 | 377.4 | 406.7 | 426.6 | | | | | | | | |
| | 437.8 | 447.0 | 454.6 | 460.7 | 463.9 | 999.9 | | | | | |
| 0 94 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 523.6 | 526.5 | 523.5 | | | | | | | | |
| | 514.2 | 498.9 | 478.3 | 452.7 | 422.6 | 388.0 | 348.5 | 302.7 | 239.9 | 240.4 | 241.7 |
| 243.9 | 247.6 | 250.3 | 253.5 | | | | | | | | |
| | 256.5 | 258.5 | 259.6 | 258.7 | 256.0 | 251.6 | 243.8 | 234.9 | 224.9 | 218.8 | 219.9 |
| 220.6 | 221.2 | 222.0 | 223.3 | | | | | | | | |
| | 224.4 | 225.3 | 229.9 | 236.5 | 242.6 | 247.3 | 254.6 | 263.4 | 271.2 | 279.2 | 286.5 |
| 332.4 | 371.4 | 401.5 | 421.2 | | | | | | | | |
| | 430.5 | 438.6 | 446.2 | 455.1 | 459.8 | 999.9 | | | | | |
| 0 95 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 539.4 | 540.8 | | | | | | | | |
| | 534.3 | 521.4 | 502.9 | 478.9 | 449.6 | 414.5 | 372.0 | 317.8 | 238.4 | 238.2 | 240.5 |
| 242.0 | 244.1 | 246.6 | 249.4 | | | | | | | | |
| | 253.0 | 256.7 | 263.4 | 262.4 | 257.4 | 255.9 | 252.6 | 242.0 | 223.6 | 218.9 | 219.8 |
| 220.2 | 220.6 | 221.0 | 223.2 | | | | | | | | |
| | 224.4 | 225.3 | 230.2 | 236.9 | 243.0 | 247.7 | 254.8 | 263.5 | 271.2 | 279.2 | 286.5 |
| 322.5 | 363.1 | 395.0 | 415.0 | | | | | | | | |
| | 420.0 | 426.0 | 432.1 | 448.9 | 455.9 | 999.9 | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 96 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 554.7 | | | | | | | | |
| | 549.4 | 538.3 | 521.5 | 499.1 | 471.0 | 436.8 | 395.8 | 346.8 | 290.1 | 239.3 | 238.2 |
| 239.8 | 241.0 | 242.8 | 244.7 | | | | | | | | |
| | 247.5 | 259.0 | 263.7 | 265.5 | 265.9 | 263.4 | 257.2 | 245.6 | 229.7 | 219.1 | 219.4 |
| 219.4 | 219.9 | 221.8 | 223.6 | | | | | | | | |
| | 224.6 | 225.4 | 230.4 | 237.2 | 243.3 | 248.0 | 255.2 | 263.8 | 271.7 | 280.1 | 288.5 |
| 296.7 | 351.9 | 389.0 | 412.4 | | | | | | | | |
| | 423.3 | 431.9 | 439.5 | 448.2 | 454.3 | 999.9 | | | | | |
| 0 97 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 562.4 | | | | | | | | |
| | 558.8 | 549.4 | 534.3 | 513.6 | 487.1 | 454.7 | 416.2 | 372.0 | 324.3 | 279.9 | 237.6 |
| 237.3 | 238.3 | 239.4 | 240.6 | | | | | | | | |
| | 242.7 | 256.6 | 262.3 | 265.5 | 266.0 | 263.0 | 255.7 | 242.2 | 219.2 | 219.3 | 218.9 |
| 218.0 | 220.5 | 222.6 | 224.0 | | | | | | | | |
| | 224.9 | 225.5 | 230.8 | 237.6 | 243.6 | 248.5 | 255.9 | 264.5 | 272.2 | 280.7 | 289.0 |
| 295.8 | 347.5 | 385.5 | 410.7 | | | | | | | | |
| | 424.2 | 434.2 | 441.3 | 445.4 | 999.9 | 999.9 | | | | | |
| 0 98 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 562.5 | 554.7 | 541.4 | 522.3 | 497.7 | 467.2 | 430.9 | 389.4 | 343.9 | 295.5 | 237.2 |
| 236.2 | 236.1 | 236.1 | 237.7 | | | | | | | | |
| | 239.1 | 251.0 | 258.7 | 263.7 | 265.0 | 262.6 | 255.7 | 243.6 | 219.3 | 219.3 | 218.7 |
| 217.1 | 221.3 | 223.6 | 224.7 | | | | | | | | |
| | 225.2 | 227.0 | 231.8 | 238.3 | 243.9 | 249.6 | 257.0 | 264.9 | 272.7 | 281.3 | 289.3 |
| 295.5 | 345.5 | 383.3 | 409.4 | | | | | | | | |
| | 424.0 | 434.7 | 441.6 | 444.4 | 999.9 | 999.9 | | | | | |
| 0 99 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 554.4 | 542.6 | 525.3 | 502.7 | 474.1 | 439.3 | 399.2 | 355.2 | 309.6 | 265.4 |
| 240.6 | 236.7 | 235.1 | 236.1 | | | | | | | | |
| | 237.2 | 238.3 | 253.4 | 260.8 | 263.3 | 261.9 | 256.4 | 246.0 | 226.1 | 219.5 | 219.4 |
| 216.8 | 223.1 | 225.6 | 225.4 | | | | | | | | |
| | 225.3 | 227.6 | 232.2 | 238.7 | 244.7 | 250.6 | 257.6 | 265.4 | 273.2 | 281.7 | 289.5 |
| 295.5 | 344.0 | 381.6 | 408.0 | | | | | | | | |
| | 423.3 | 434.5 | 441.4 | 443.8 | 999.9 | 999.9 | | | | | |
| 0100 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 538.1 | 522.1 | 502.3 | 475.6 | 441.8 | 401.4 | 356.6 | 311.0 | 262.7 |
| 250.2 | 236.5 | 235.0 | 235.2 | | | | | | | | |
| | 235.6 | 236.6 | 251.4 | 258.1 | 261.0 | 260.7 | 257.5 | 246.5 | 226.7 | 221.1 | 219.7 |
| 220.5 | 223.1 | 224.7 | 225.2 | | | | | | | | |
| | 225.3 | 227.6 | 232.2 | 238.4 | 245.3 | 251.7 | 258.6 | 266.2 | 273.7 | 282.0 | 289.6 |
| 295.5 | 342.2 | 379.7 | 406.1 | | | | | | | | |
| | 422.3 | 434.0 | 441.1 | 443.5 | 999.9 | 999.9 | | | | | |
| 0101 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 | 999.9 |
| 999.9 | 999.9 | 999.9 | 999.9 | | | | | | | | |
| | 999.9 | 999.9 | 999.9 | 511.4 | 497.4 | 473.0 | 439.3 | 396.7 | 347.3 | 303.7 | 295.3 |
| 247.2 | 238.8 | 234.2 | 234.1 | | | | | | | | |
| | 234.0 | 234.5 | 246.2 | 254.6 | 257.4 | 257.7 | 255.0 | 244.2 | 225.4 | 221.9 | 219.8 |
| 221.8 | 223.4 | 224.6 | 225.2 | | | | | | | | |
| | 225.2 | 227.1 | 231.7 | 237.7 | 245.2 | 253.0 | 260.3 | 267.1 | 274.3 | 282.4 | 289.5 |
| 295.8 | 338.0 | 377.4 | 403.1 | | | | | | | | |
| | 421.2 | 433.5 | 440.8 | 443.3 | 999.9 | 999.9 | | | | | |

0102 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 503.3 491.3 468.4 434.3 387.3 320.8 316.3 302.2
273.8 239.8 236.1 234.1
233.1 232.9 232.7 245.2 251.9 253.1 249.1 238.8 224.7 222.0 219.9
222.2 223.7 224.8 225.3
225.2 225.7 231.0 237.6 244.9 253.5 261.6 267.9 275.1 282.6 288.3
307.8 325.3 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0103 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 495.6 484.9 463.4 430.8 386.1 328.2 327.0 311.8
283.2 242.2 238.1 234.9
233.0 232.0 230.9 230.1 240.5 242.2 238.2 225.6 224.0 221.9 220.0
222.3 223.9 225.1 225.9
226.5 227.6 230.4 238.5 244.3 254.4 263.7 268.9 275.8 283.6 288.8
310.4 318.7 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0104 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 487.4 477.8 458.2 427.8 386.7 344.1 340.2 323.5
293.6 246.3 239.9 235.6
232.1 231.0 229.3 228.0 226.6 225.5 224.5 223.8 222.7 221.1 220.0
222.4 224.1 225.3 226.3
227.3 228.8 231.6 236.2 240.7 999.9 999.9 999.9 999.9 300.1 305.1
315.0 317.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0105 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 477.4 477.3 469.2 452.4 424.3 377.2 360.1 354.6 337.1
310.1 277.0 241.8 237.3
233.0 229.2 227.2 226.1 225.1 224.1 223.1 222.0 221.2 220.1 220.2
222.6 224.3 225.5 226.6
227.6 229.2 231.8 234.5 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0106 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 466.1 463.9 457.7 446.7 428.3 403.4 384.9 369.4 348.9
321.1 287.0 244.8 239.8
235.8 230.9 228.3 226.7 225.2 224.5 223.3 221.1 220.1 220.1 221.4
223.0 224.4 225.6 226.6
227.8 228.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9
0107 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 446.1 445.5 443.1 439.6 437.0 427.3 411.9 395.1 378.0 356.5
327.1 293.8 261.2 242.9
240.0 232.3 229.9 227.2 226.1 225.1 224.0 222.3 221.3 221.0 222.0
223.3 224.6 225.6 226.4
999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9
999.9 999.9 999.9 999.9 999.9 999.9

```
0108    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   435.3   415.2   412.1   409.2   422.8   420.8   410.2   394.3   379.7   360.5
325.6   288.6   251.7   249.6
        247.5   237.6   231.7   228.1   226.7   225.7   225.0   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0109    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   433.3   419.8   413.4   406.1   412.9   411.4   402.4   380.7   374.6   367.5
349.0   321.6   277.4   263.8
        255.8   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
0110    999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   406.0   404.0   402.0   400.0   398.0   396.0   394.0   390.0   380.0
370.0   360.0   350.0   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9   999.9
999.9   999.9   999.9   999.9
        999.9   999.9   999.9   999.9   999.9   999.9
 OHEAD WILL BE SAVED ON UNIT200 AT END OF TIME STEP  1, STRESS PERIOD  1
 0

                VOLUMETRIC BUDGET FOR ENTIRE MODEL AT END OF TIME STEP  1 IN STRESS PERIOD  1
                ---------------------------------------------------------------------------

 0    CUMULATIVE VOLUMES      L**3                    RATES FOR THIS TIME STEP      L**3/T
      ------------------                              ------------------------

           IN:                                             IN:
           ---                                             ---
             STORAGE =   0.00000                             STORAGE =   0.00000
      CONSTANT HEAD =   0.99552E+07                   CONSTANT HEAD =   0.19910E+07
               WELLS =   0.86900E+06                           WELLS =   0.17380E+06
            RECHARGE =   0.15111E+08                        RECHARGE =   0.30223E+07
       RIVER LEAKAGE =   0.52617E+07                   RIVER LEAKAGE =   0.10523E+07
 0          TOTAL IN =   0.31197E+08                        TOTAL IN =   0.62395E+07
 0        OUT:                                            OUT:
          ----                                            ----
             STORAGE =   0.00000                             STORAGE =   0.00000
      CONSTANT HEAD =   0.10828E+07                   CONSTANT HEAD =   0.21655E+06
               WELLS =   0.86751E+06                           WELLS =   0.17350E+06
            RECHARGE =   0.00000                            RECHARGE =   0.00000
       RIVER LEAKAGE =   0.29251E+08                   RIVER LEAKAGE =   0.58502E+07
 0          TOTAL OUT =   0.31201E+08                       TOTAL OUT =   0.62402E+07
 0           IN - OUT =   -3884.0                            IN - OUT =   -777.00

 0              PERCENT DISCREPANCY =-0.01              PERCENT DISCREPANCY =-0.01
```

0

TIME SUMMARY AT END OF TIME STEP 1 IN STRESS PERIOD 1

| | SECONDS | MINUTES | HOURS | DAYS | YEARS |
|---|---|---|---|---|---|
| TIME STEP LENGTH | 432000. | 7200.00 | 120.000 | 5.00000 | 0.136893E-01 |
| STRESS PERIOD TIME | 432000. | 7200.00 | 120.000 | 5.00000 | 0.136893E-01 |
| TOTAL SIMULATION TIME | 432000. | 7200.00 | 120.000 | 5.00000 | 0.136893E-01 |

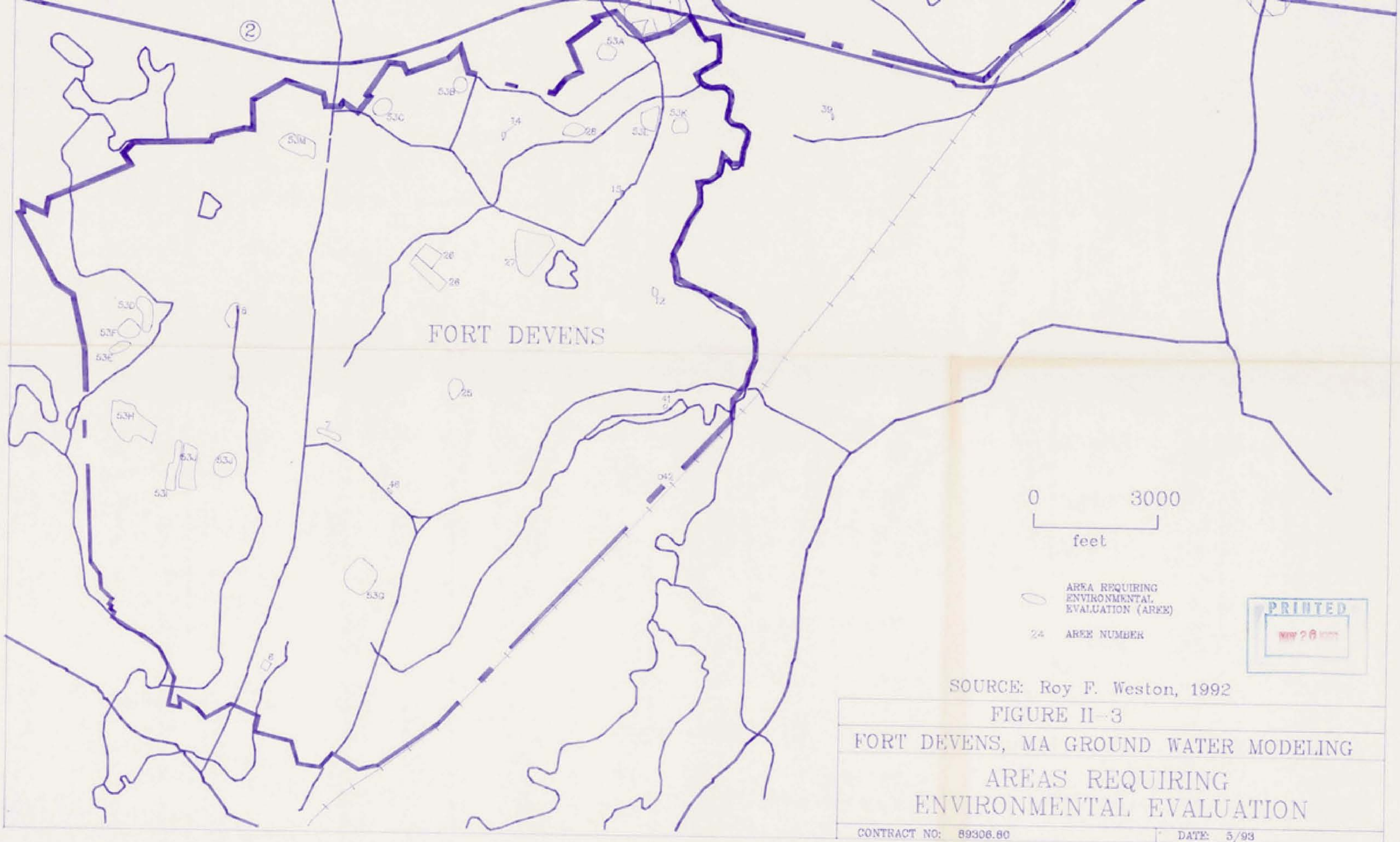
1

FORT DEVENS

NASHUA RIVER

FORT DEVENS

②



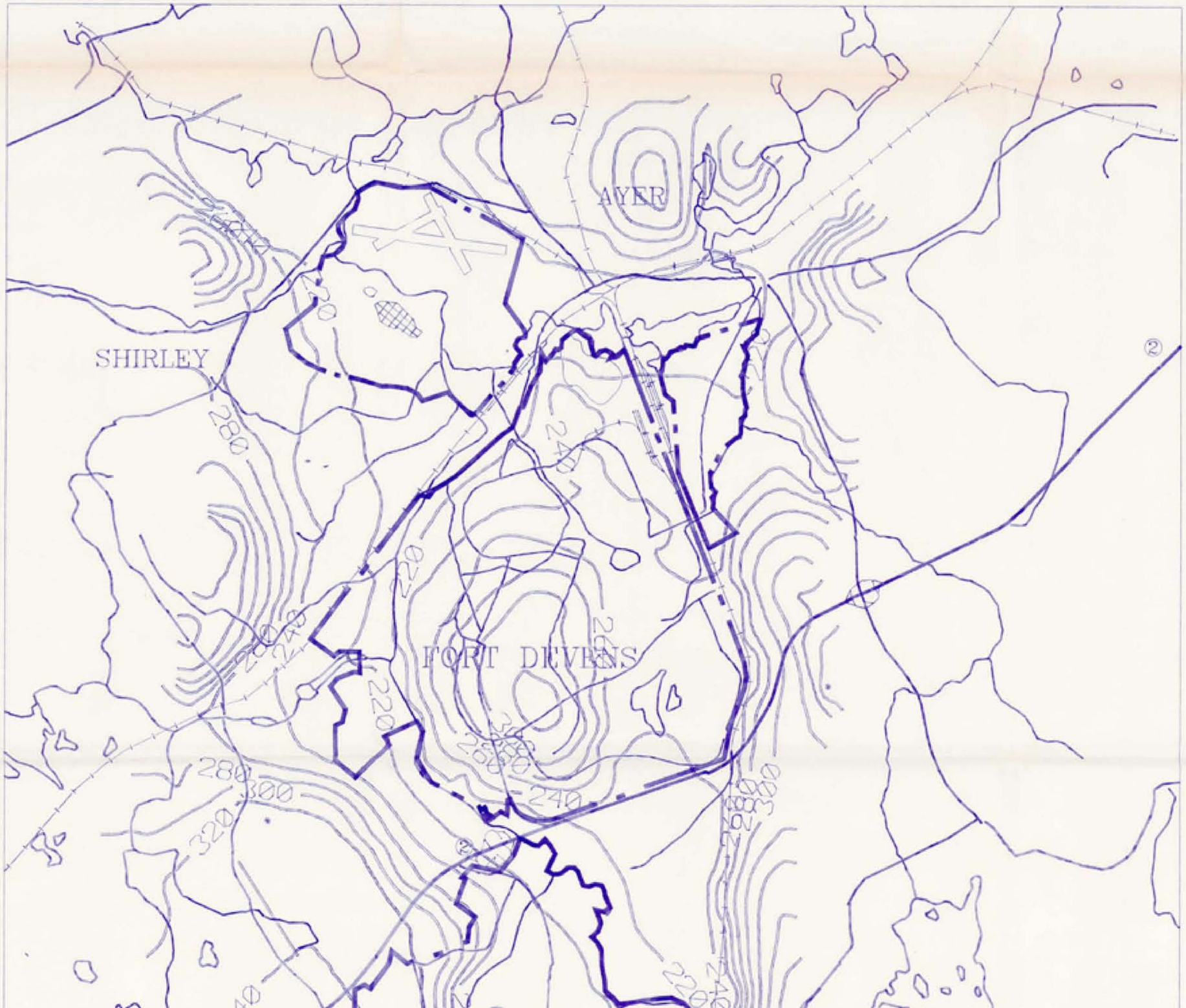

SOURCE: Roy F. Weston, 1992

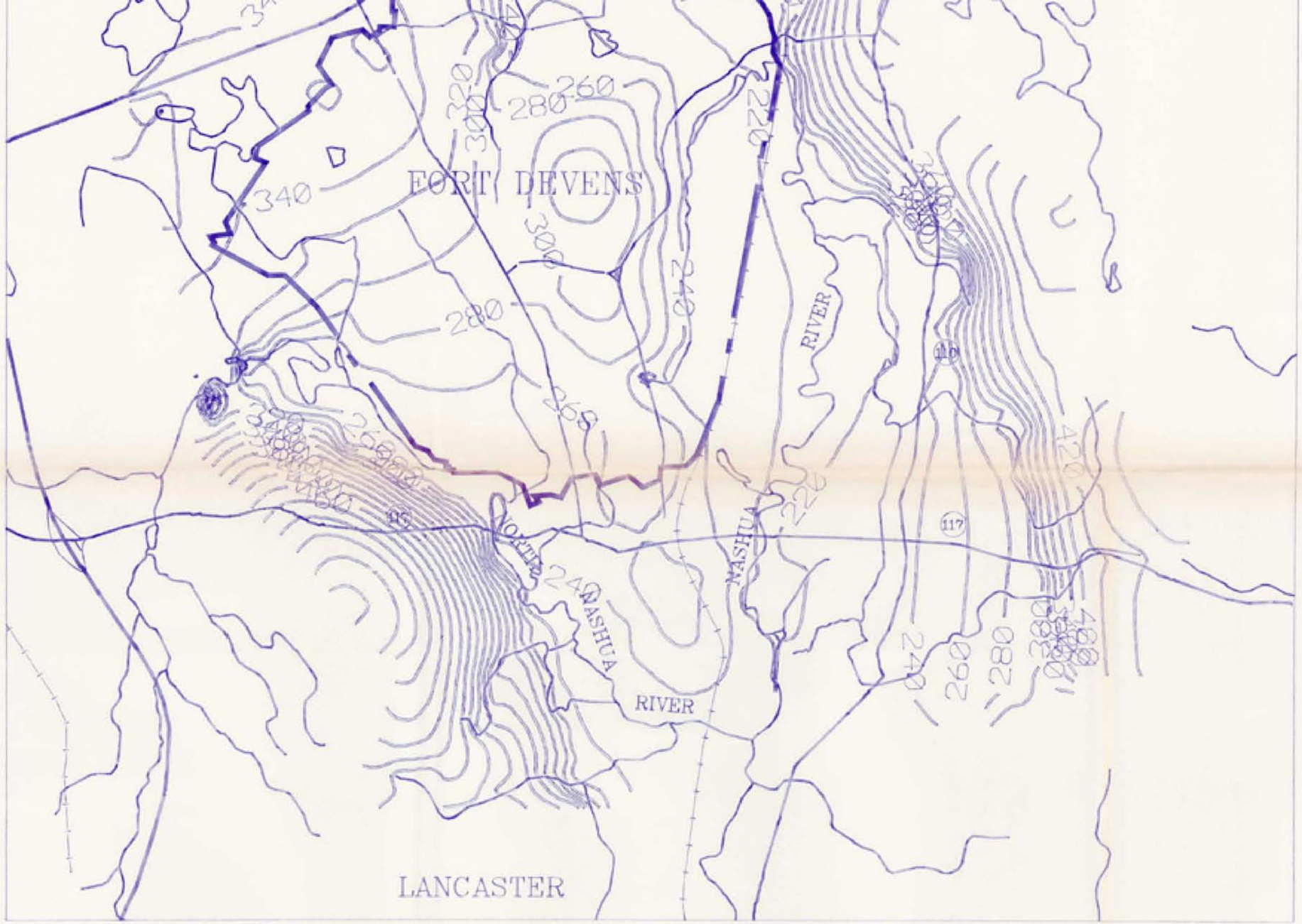
FIGURE II-3

FORT DEVENS, MA GROUND WATER MODELING

AREAS REQUIRING ENVIRONMENTAL EVALUATION

CONTRACT NO: 89306.60 | DATE: 5/93


AYER
SHIRLEY
FORT DEVENS
280
240
220
260
300
320
②


FORT DEVENS
LANCASTER
NASHUA RIVER
NASHUA RIVER
340
320
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0
-20
-40
-60
-80
-100
-120
-140
-160
-180
-200
-220
-240
-260
-280
-300
-320
-340
-360
-380
-400
-420
-440
-460
-480
-500
-520
-540
-560
-580
-600
-620
-640
-660
-680
-700
-720
-740
-760
-780
-800

AYER
NASHUA
RIVER
248
244
240
236
232
228
224
220
216
212
208
204

● PRODUCTION WELL LOCATION

—220— WATER LEVELS

0 3000

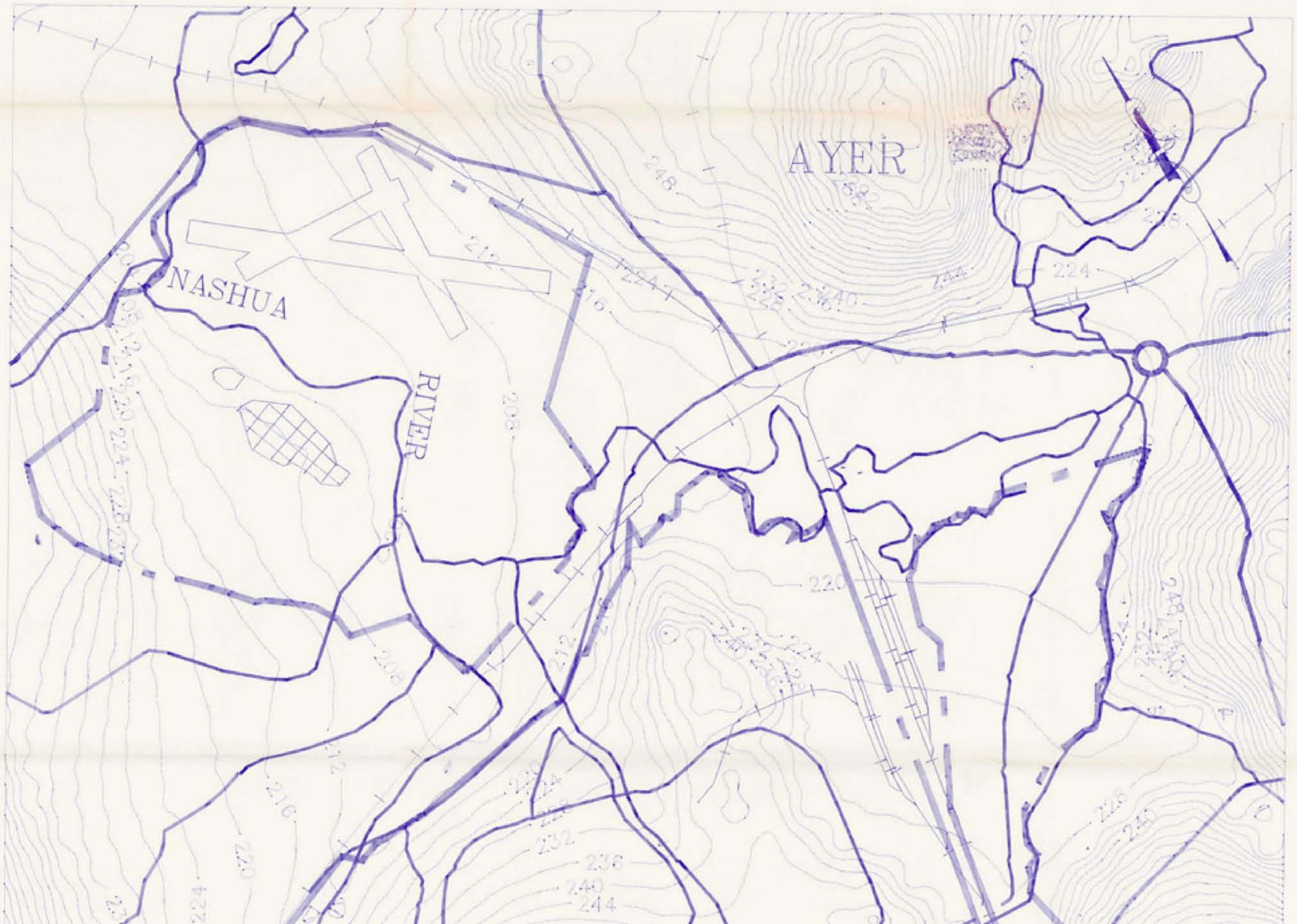
feet

FIGURE III-18

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED GLACIAL OUTWASH AQUIFER WATER LEVELS – MAIN POST

CONTRACT NO.: 89306.8 | DATE: 5/93

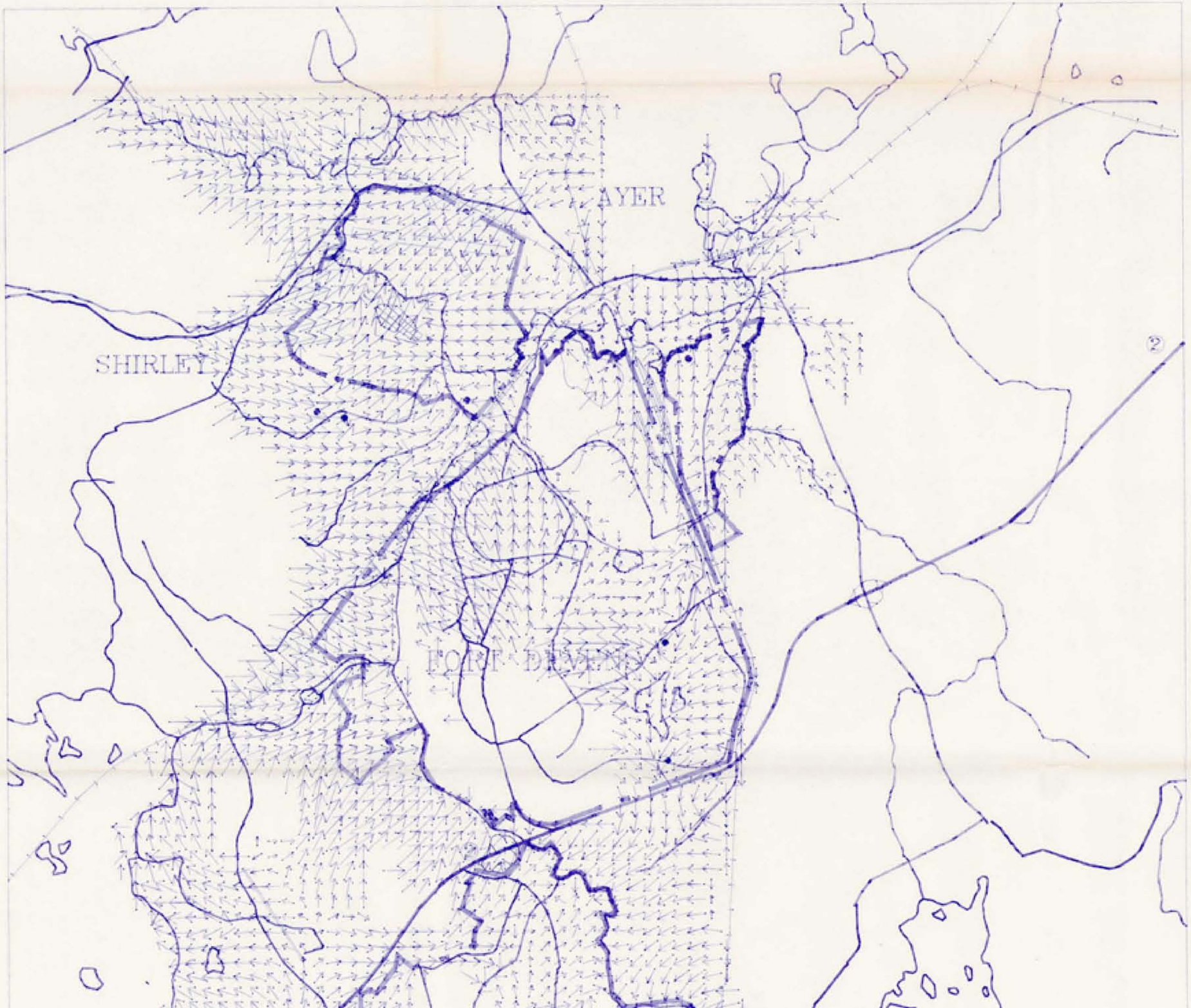

AYER
NASHUA
NASHUA RIVER

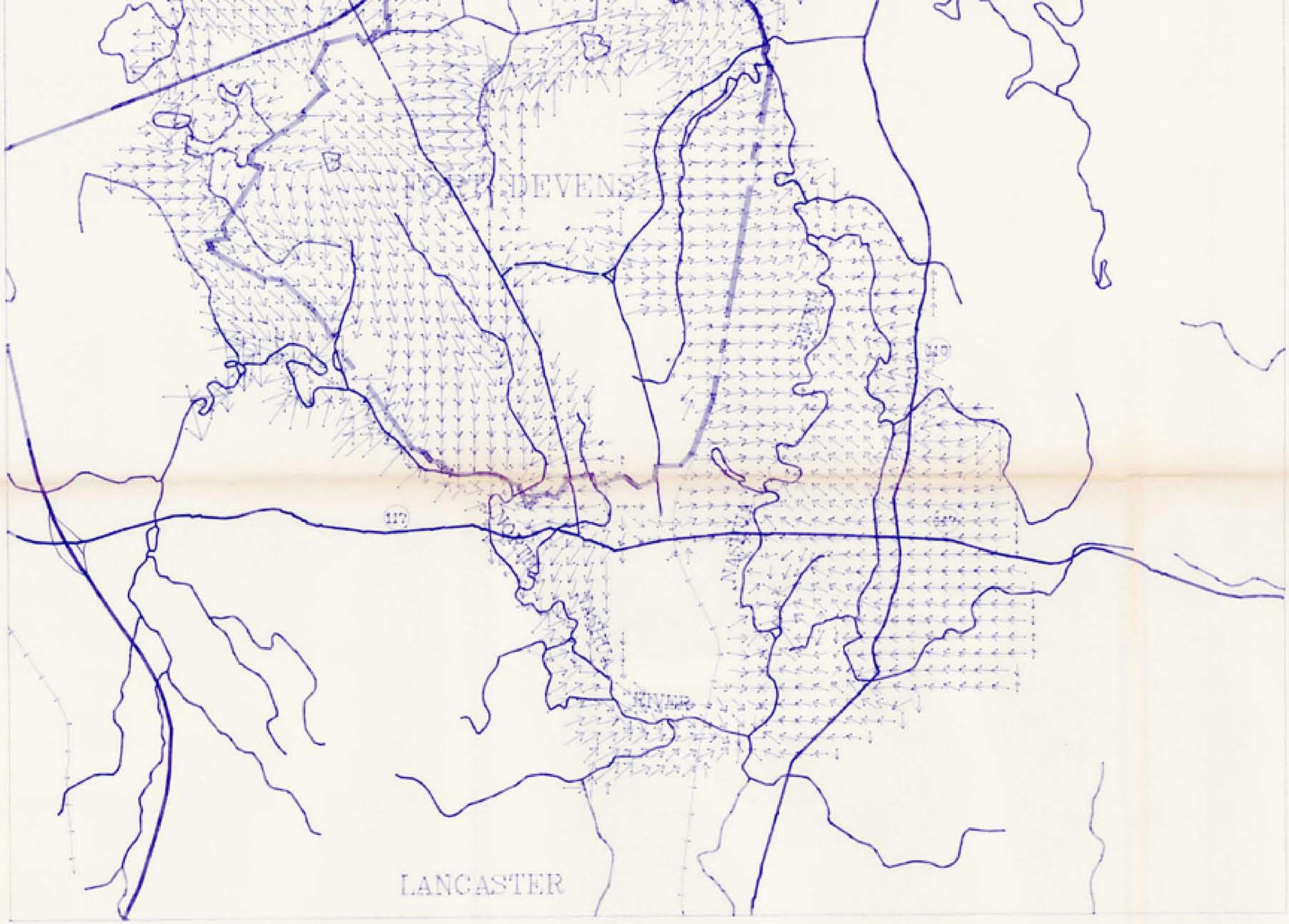
PRINTED
MAY 26 93

—220— WATER LEVELS

0 3000
feet

FIGURE III-19
FORT DEVENS, MA GROUND WATER MODELING
CALCULATED BEDROCK AQUIFER
WATER LEVELS - MAIN POST
CONTRACT NO.: 89306.8 DATE: 5/93


AYER
SHIRLEY
FORT DEVENS




PRINTED
MAY 26 1993

• PRODUCTION WELL LOCATION

→ VELOCITY VECTOR

0 6000
feet

FIGURE III-20

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED GLACIAL OUTWASH AQUIFER
VELOCITY VECTORS

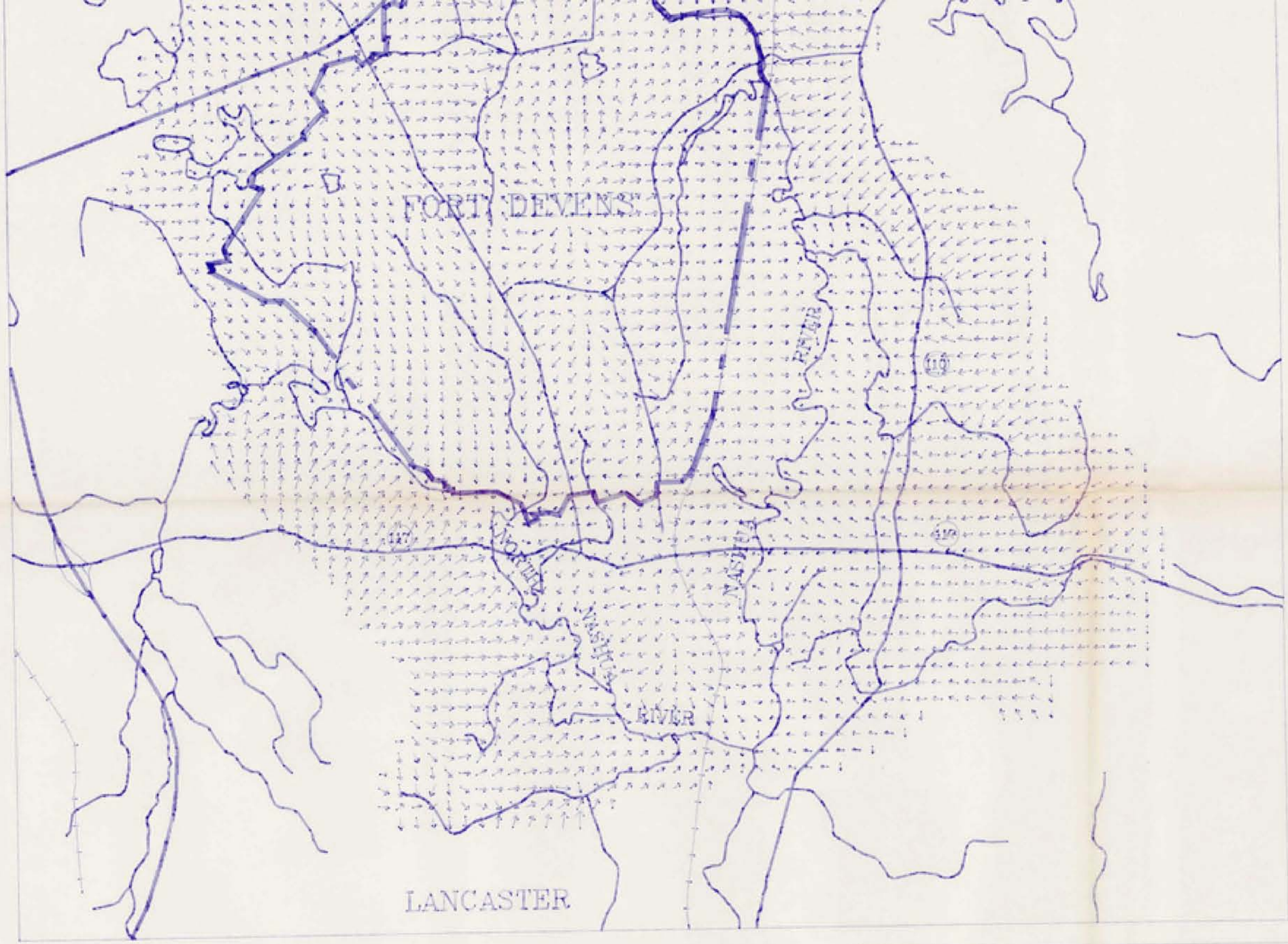
CONTRACT NO.: 89306.8 | DATE: 10/92

AYER

SHIRLEY

FORT DEVENS

2




→ VELOCITY VECTOR

0 6000
feet

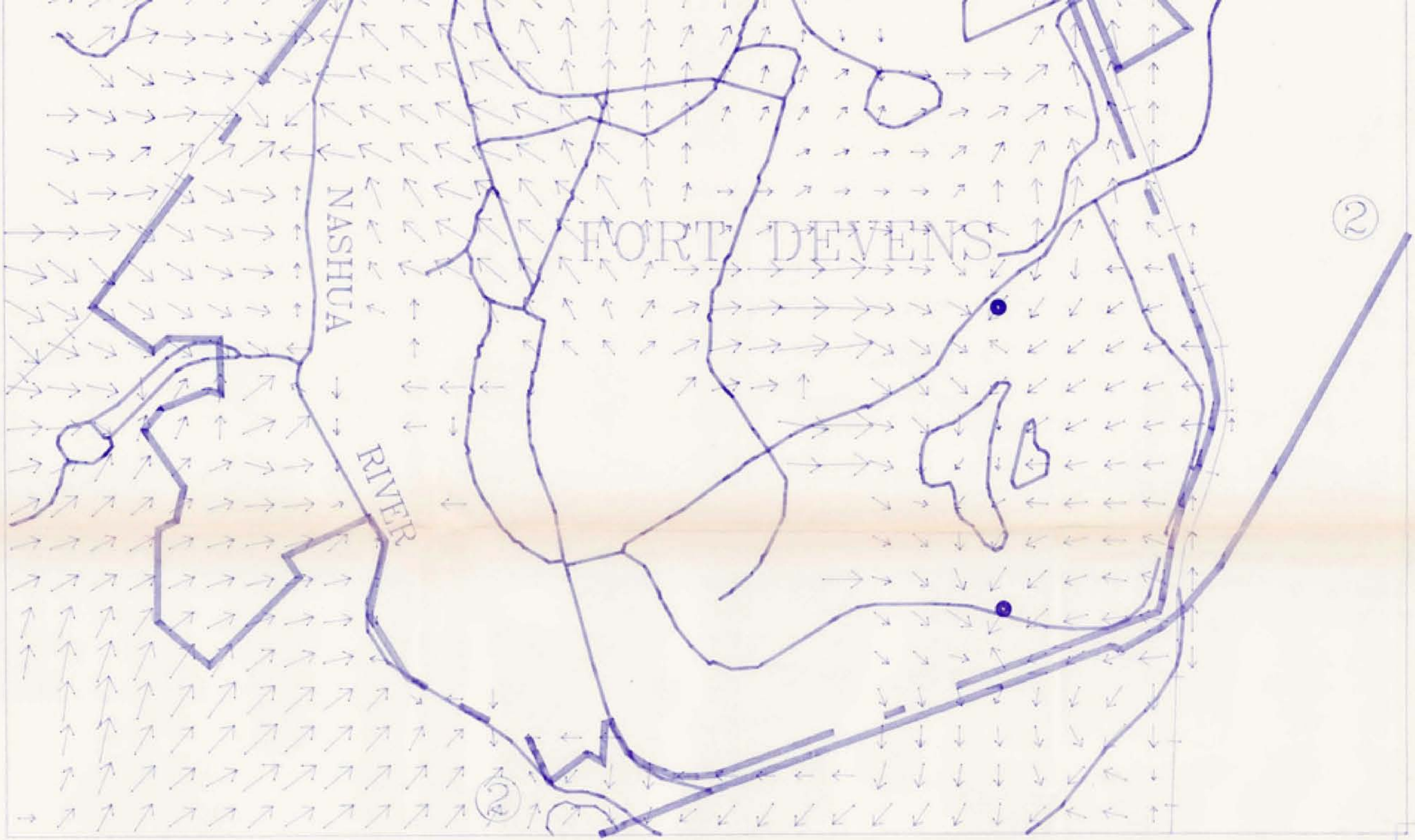
FIGURE III-21
FORT DEVENS, MA GROUND WATER MODELING
CALCULATED BEDROCK AQUIFER
VELOCITY VECTORS
CONTRACT NO.: 89306.8 DATE: 10/92

PRINTED
MAY 26 1992

AYER

NASHUA

RIVER




PRINTED
NOV 26 1993

● PRODUCTION WELL LOCATION

→ VELOCITY VECTOR

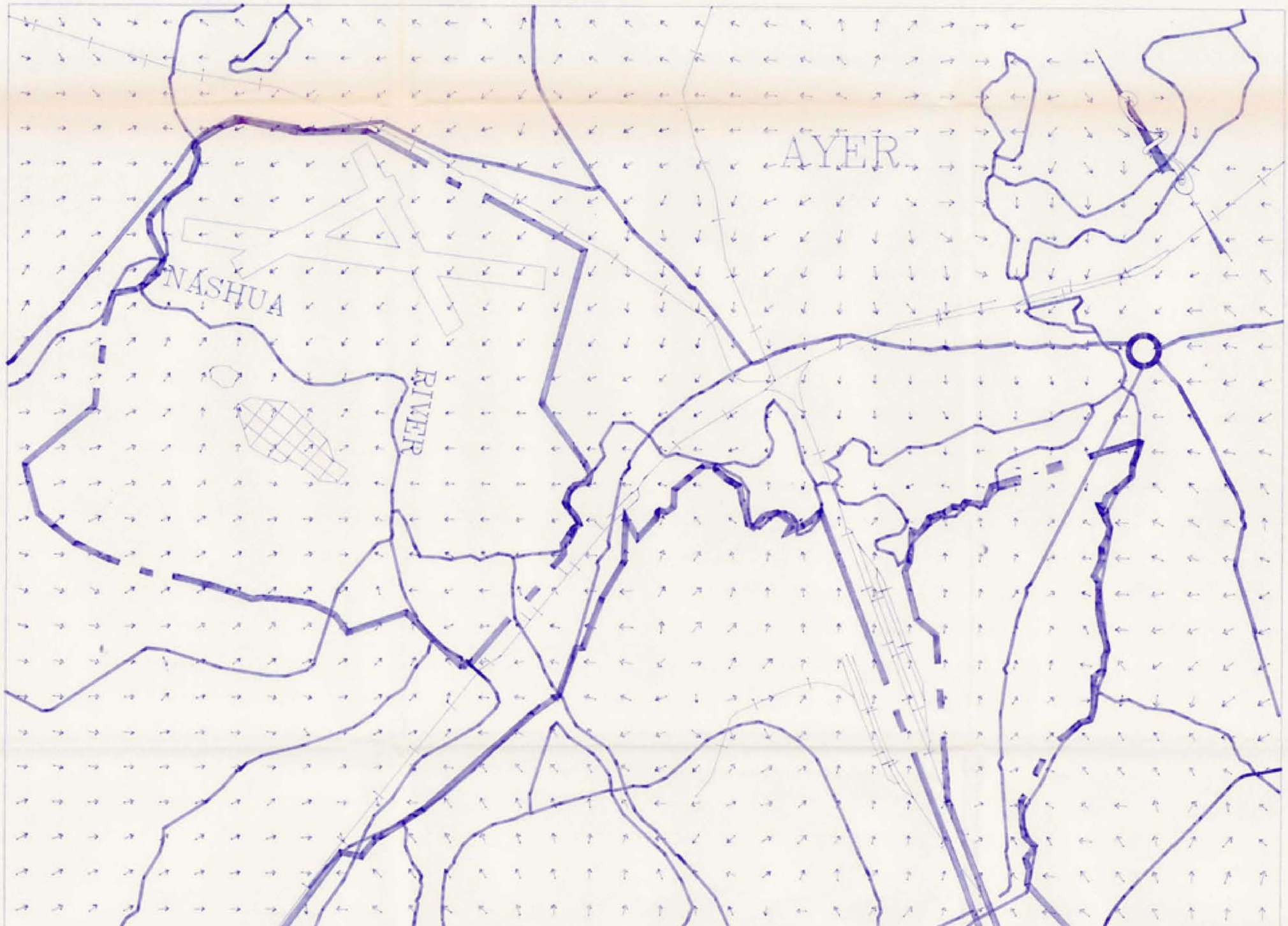
0 3000
feet

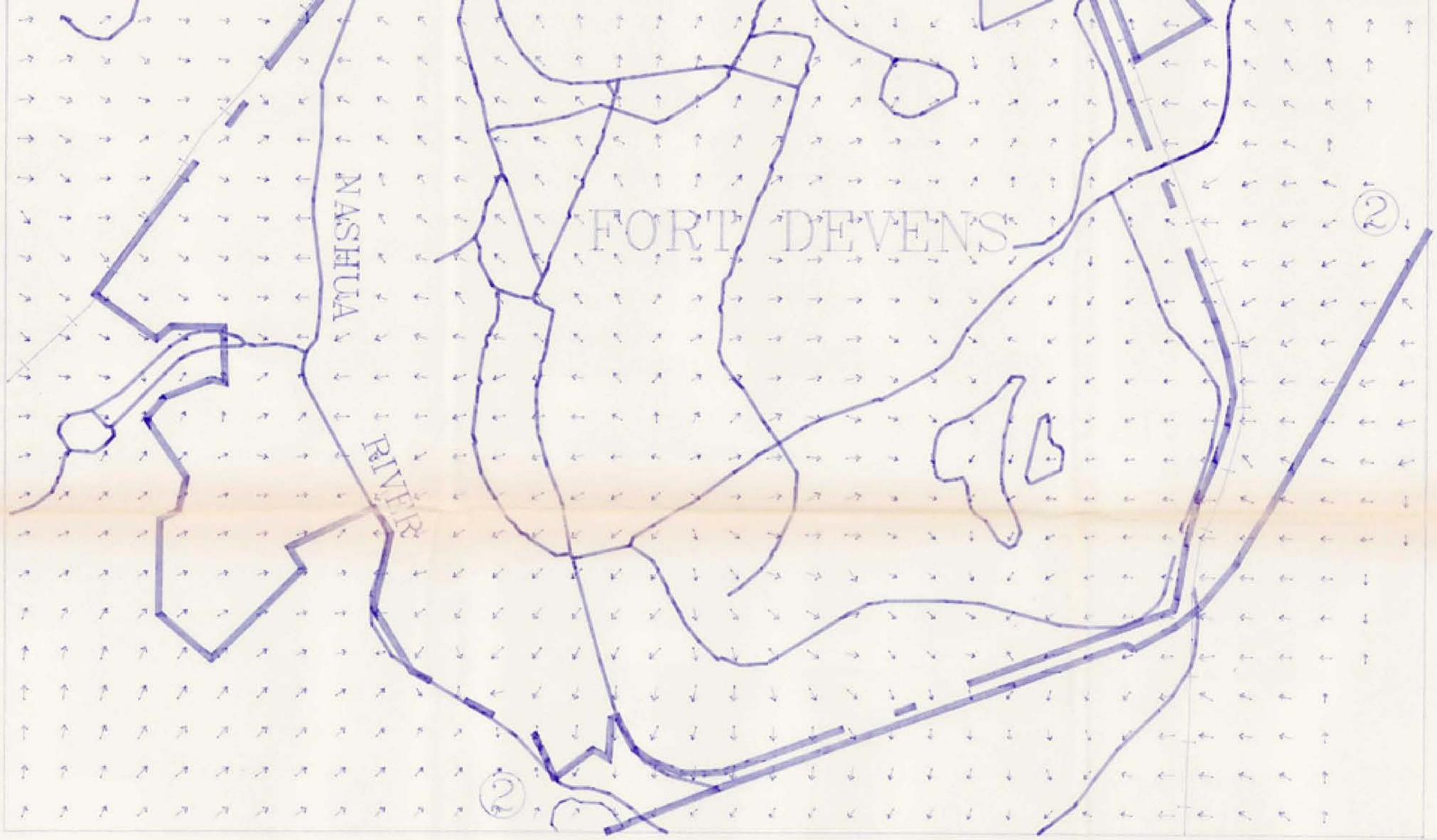
FIGURE III-22

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED GLACIAL OUTWASH AQUIFER VELOCITY VECTORS – MAIN POST

CONTRACT NO.: 89306.8 | DATE: 5/93


AYER
NASHUA
RIVER




PRINTED
MAY 26 1993

0 3000
feet

→ VELOCITY VECTOR

FIGURE III-23

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED BEDROCK AQUIFER
VELOCITY VECTORS – MAIN POST

CONTRACT NO.: 89306.8 | DATE: 5/93

AYER

NASHUA

RIVER

PRINTED
MAY 28 1993

● PRODUCTION WELL LOCATION

—220— WATER LEVELS

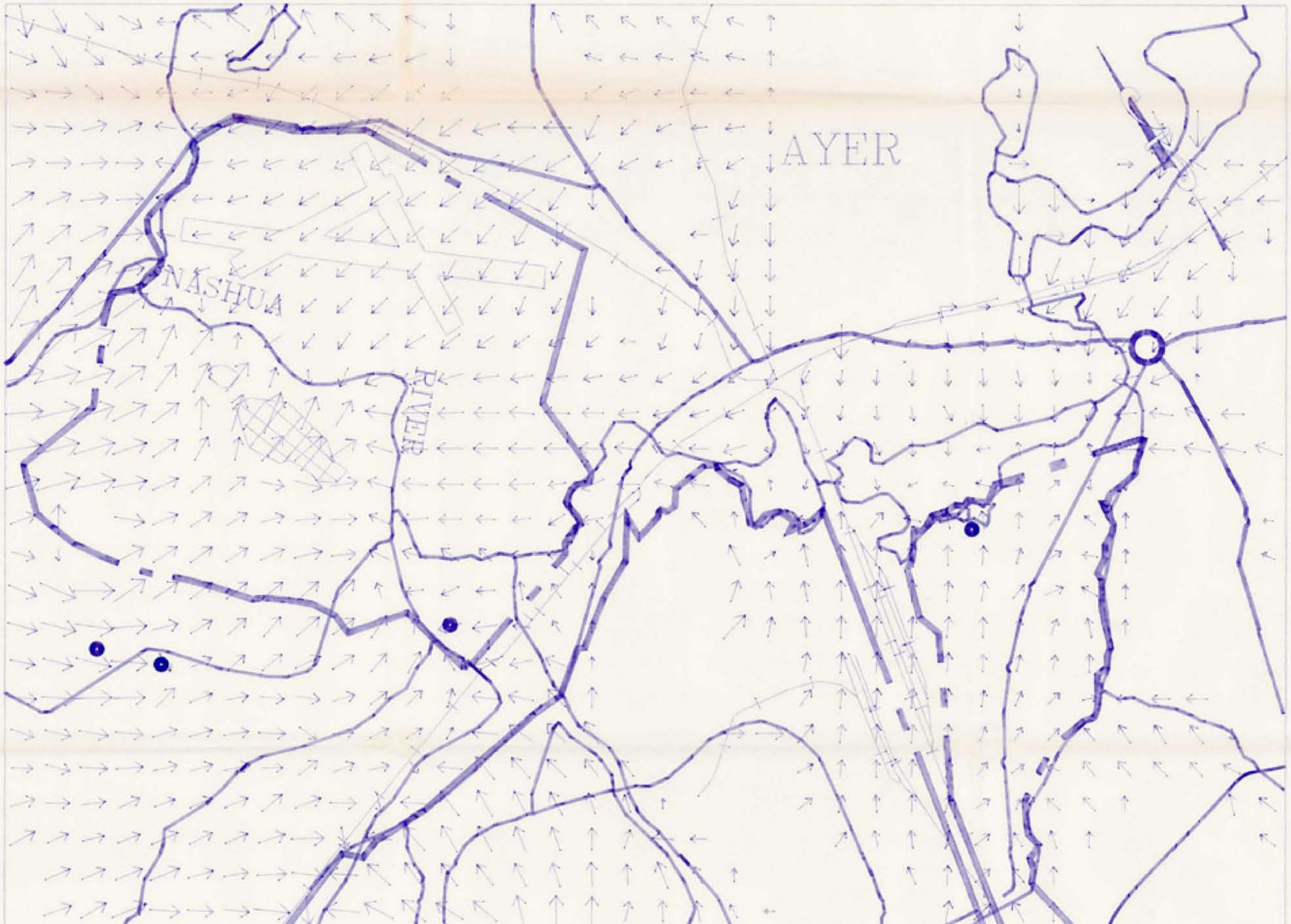
0 3000
feet

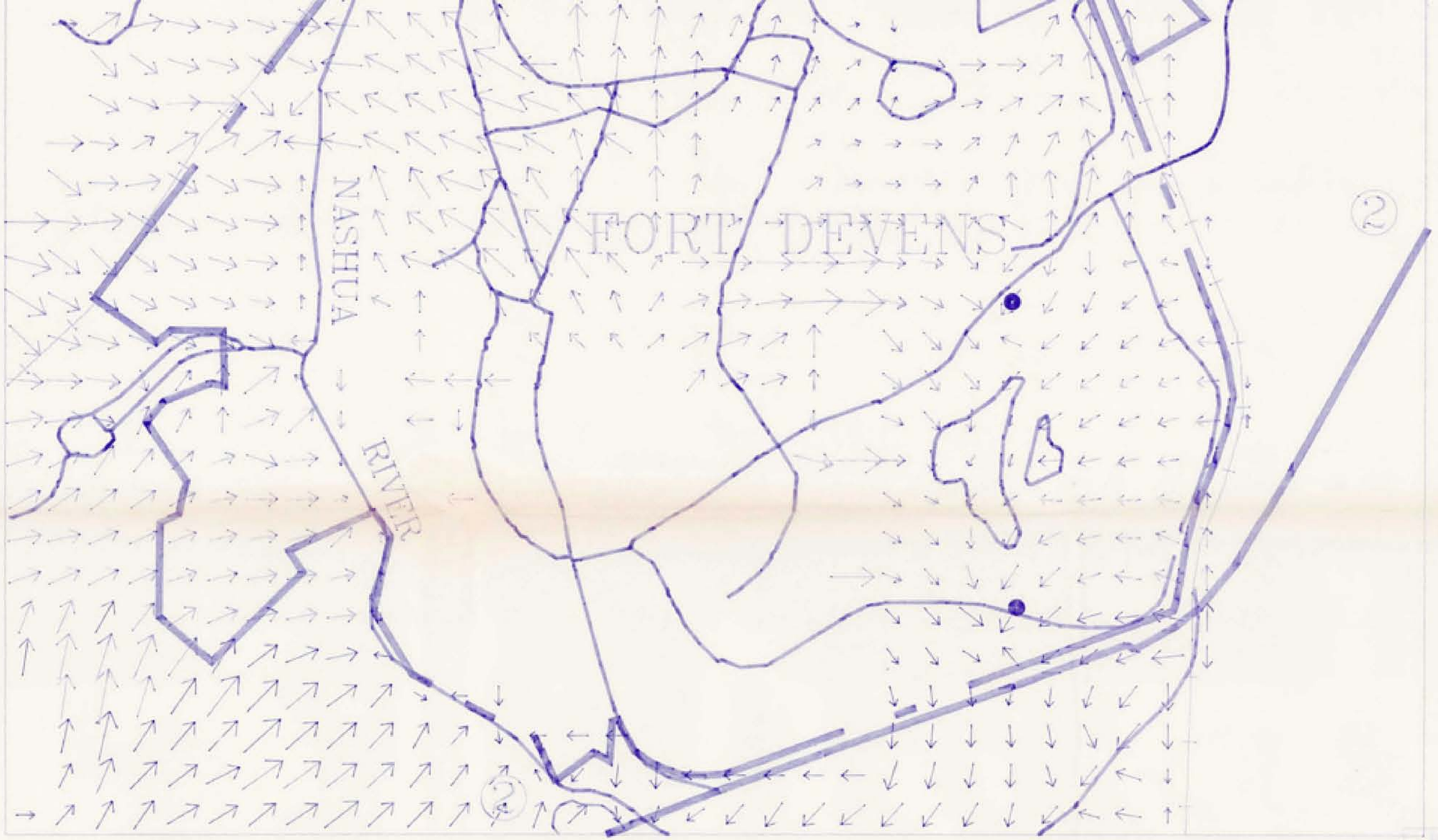
FIGURE IV-1

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED GLACIAL OUTWASH AQUIFER
WATER LEVELS – MAIN POST
INCREASED HYDRAULIC CONDUCITIVITY

CONTRACT NO.: 89306.8 | DATE: 5/93


AYER
NASHUA
RIVER




PRINTED
MAY 25 1993

● PRODUCTION WELL LOCATION

→ VELOCITY VECTOR

0 3000
feet

FIGURE IV-2

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED GLACIAL OUTWASH AQUIFER
VELOCITY VECTORS - MAIN POST
INCREASED HYDRAULIC CONDUCITIVITY

CONTRACT NO.: 89306.8 | DATE: 5/93

AYER

NASHUA

RIVER

● PRODUCTION WELL LOCATION

—220— WATER LEVELS

0 3000

feet

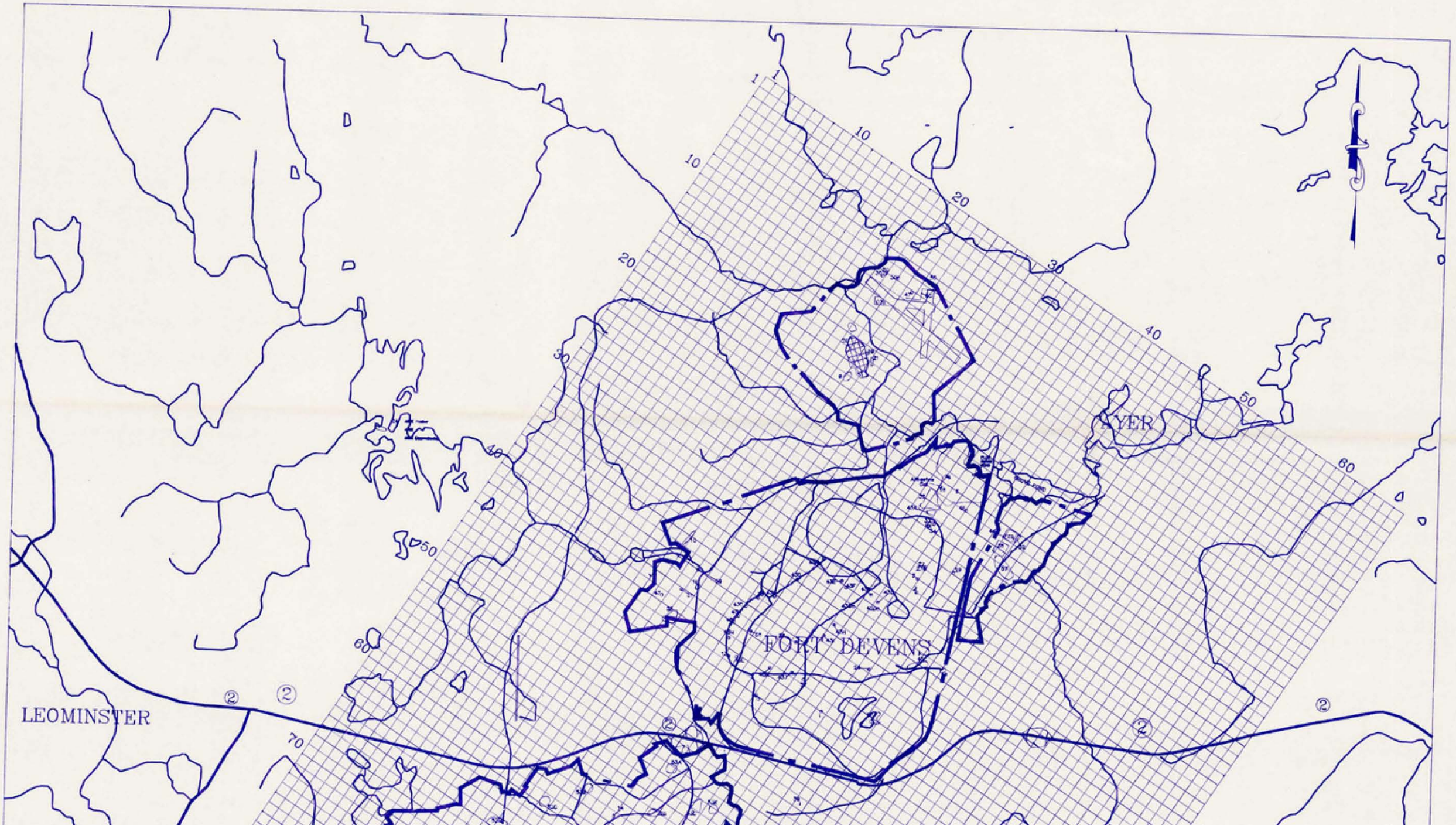
FIGURE IV-3

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED GLACIAL OUTWASH AQUIFER
WATER LEVELS - MAIN POST
DECREASED HYDRAULIC CONDUCITIVITY

CONTRACT NO.: 89306.8 | DATE: 5/93

PRINTED
MAY 26 1993


1
10
10
20
20
30
30
40
40
50
50
60
60
70
YER
FORT DEVENS
LEOMINSTER
2
2
2
2

PRINTED
MAY 26 1993

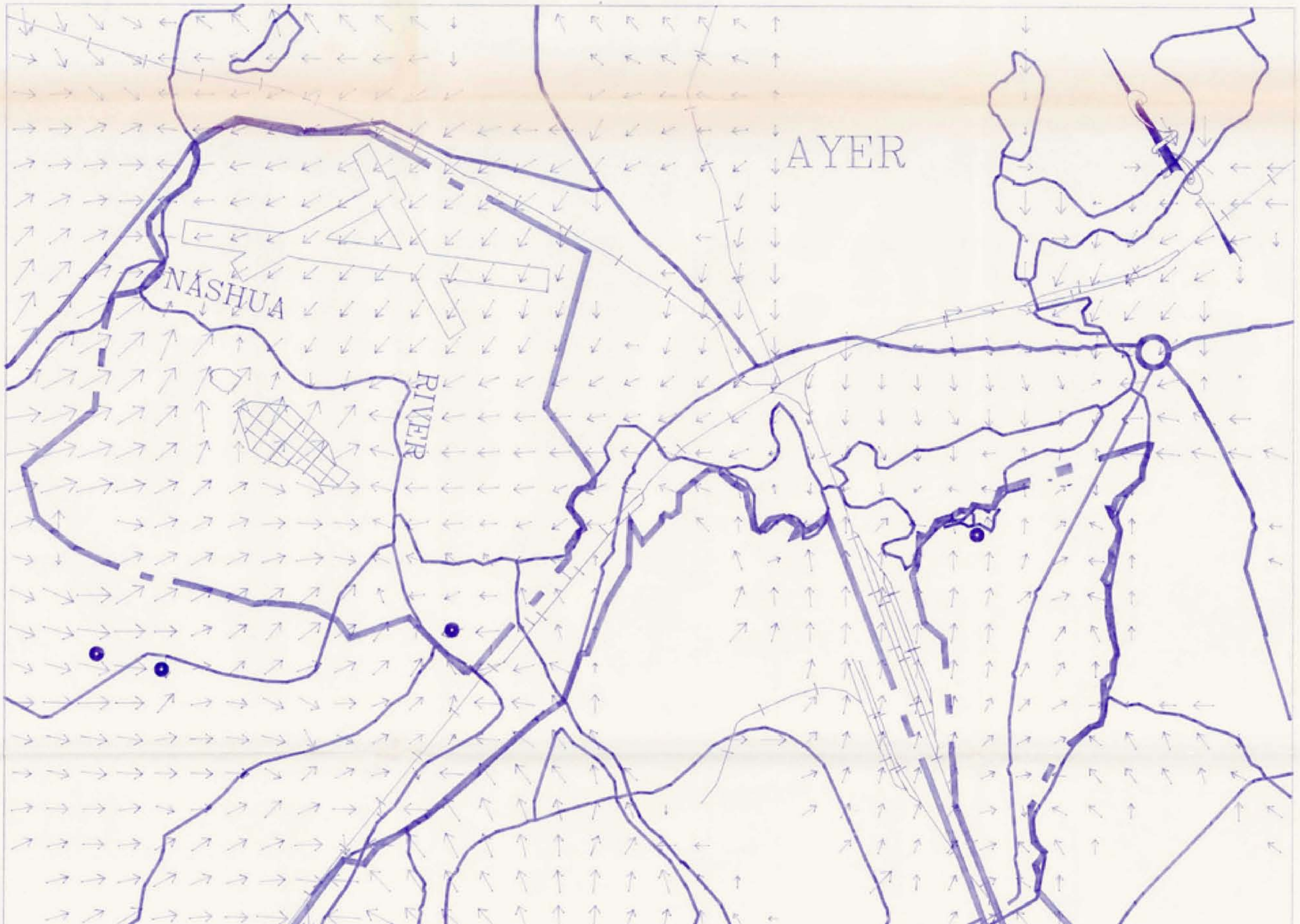
SOURCE: Roy F. Weston, 1992

FIGURE III-1

FORT DEVENS, MA GROUND WATER MODELING

MODEL GRID

CONTRACT NO: 89306.80 | DATE: 10/92


AYER
NASHUA
RIVER

PRINTED
MAY 26

● PRODUCTION WELL LOCATION

→ VELOCITY VECTOR

0 3000
feet

FIGURE IV-4

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED GLACIAL OUTWASH AQUIFER
VELOCITY VECTORS - MAIN POST
DECREASED HYDRAULIC CONDUCITIVITY

CONTRACT NO.: 89306.8 | DATE: 5/93

AYER

NASHUA

RIVER

402

208

212

216

220

224

228

232

236

240

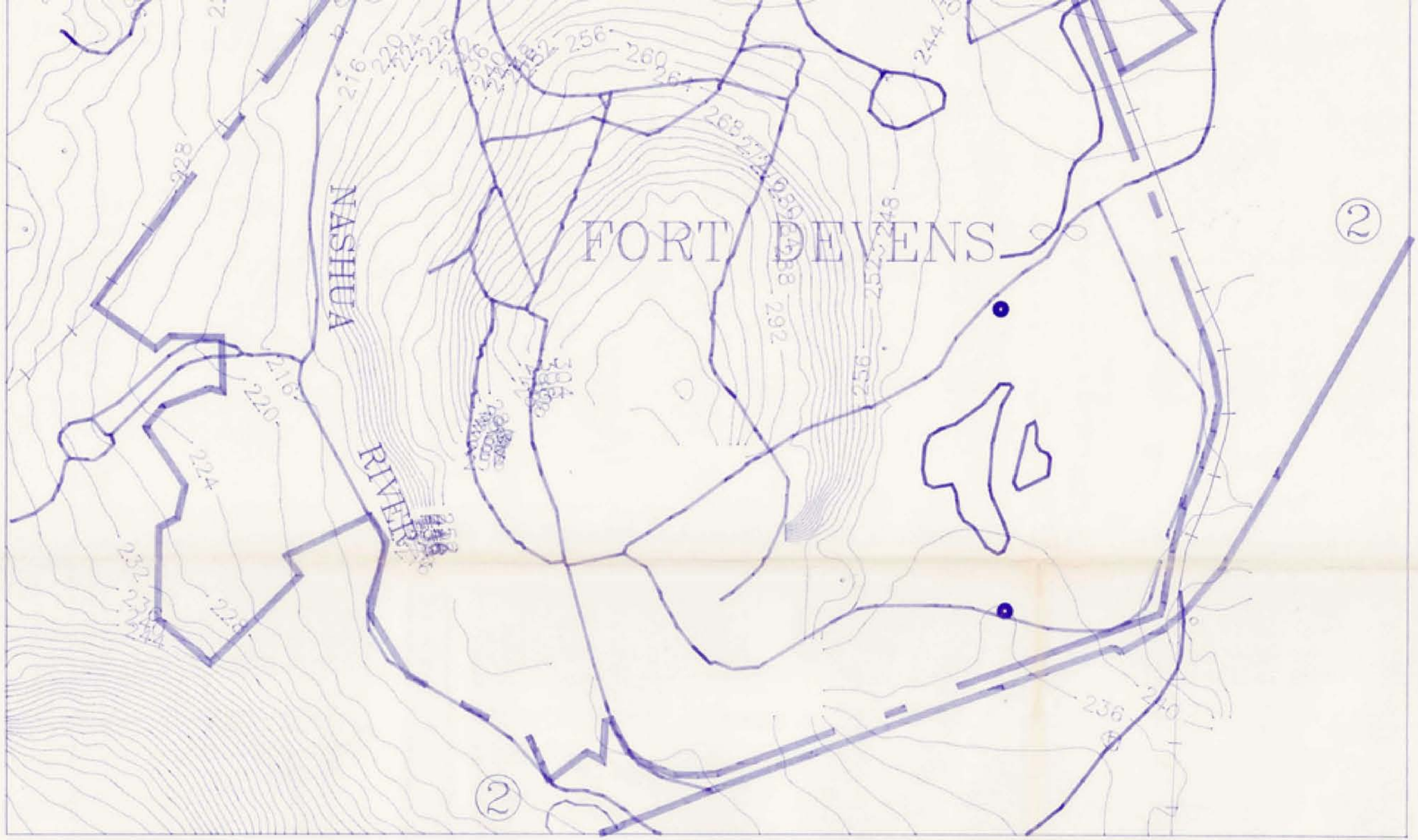
244

248

252

FORT DEVENS
NASHUA
RIVER
220
224
228
232
216
252
256
260
240
236
244
248
264
268
272
276
280
284
288
292
296
300
304
308
312
316
320
324
328
332
336
340
344
348
352
356
360
364
368
372
376
380
384
388
392
396
400
404
408
412
416
420

AYER
NASHUA
RIVER




● PRODUCTION WELL LOCATION

—220— WATER LEVELS

0 3000

feet

FIGURE IV–11

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED GLACIAL OUTWASH AQUIFER
WATER LEVELS – MAIN POST
DECREASED RECHARGE

CONTRACT NO.: 89306.8 DATE: 5/93

NASHUA

AYER

NASHUA RIVER

—220— WATER LEVELS

0 3000
feet

FIGURE IV–12

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED BEDROCK AQUIFER
WATER LEVELS – MAIN POST
DECREASED RECHARGE

CONTRACT NO.: 89306.8 DATE: 5/93

AYER

NASHUA

NASHUA RIVER

PRINTED
MAY 28 1993

● PRODUCTION WELL LOCATION

—220— WATER LEVELS

0 3000
feet

FIGURE IV-13

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED GLACIAL OUTWASH AQUIFER
WATER LEVELS – MAIN POST
INCREASED RECHARGE

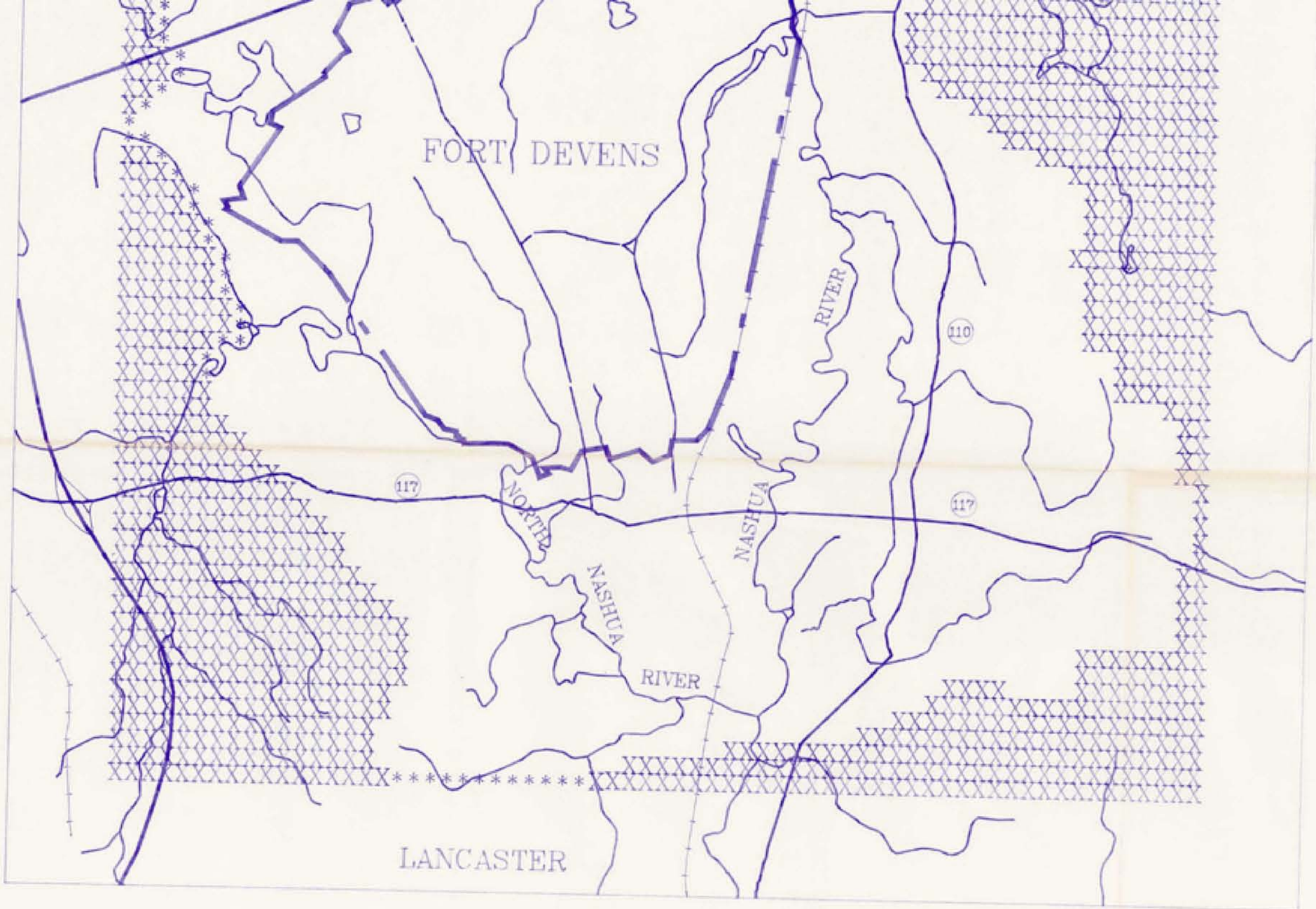
CONTRACT NO.: 89306.8 | DATE: 5/93

AYER

SHIRLEY

FORT DEVENS

2



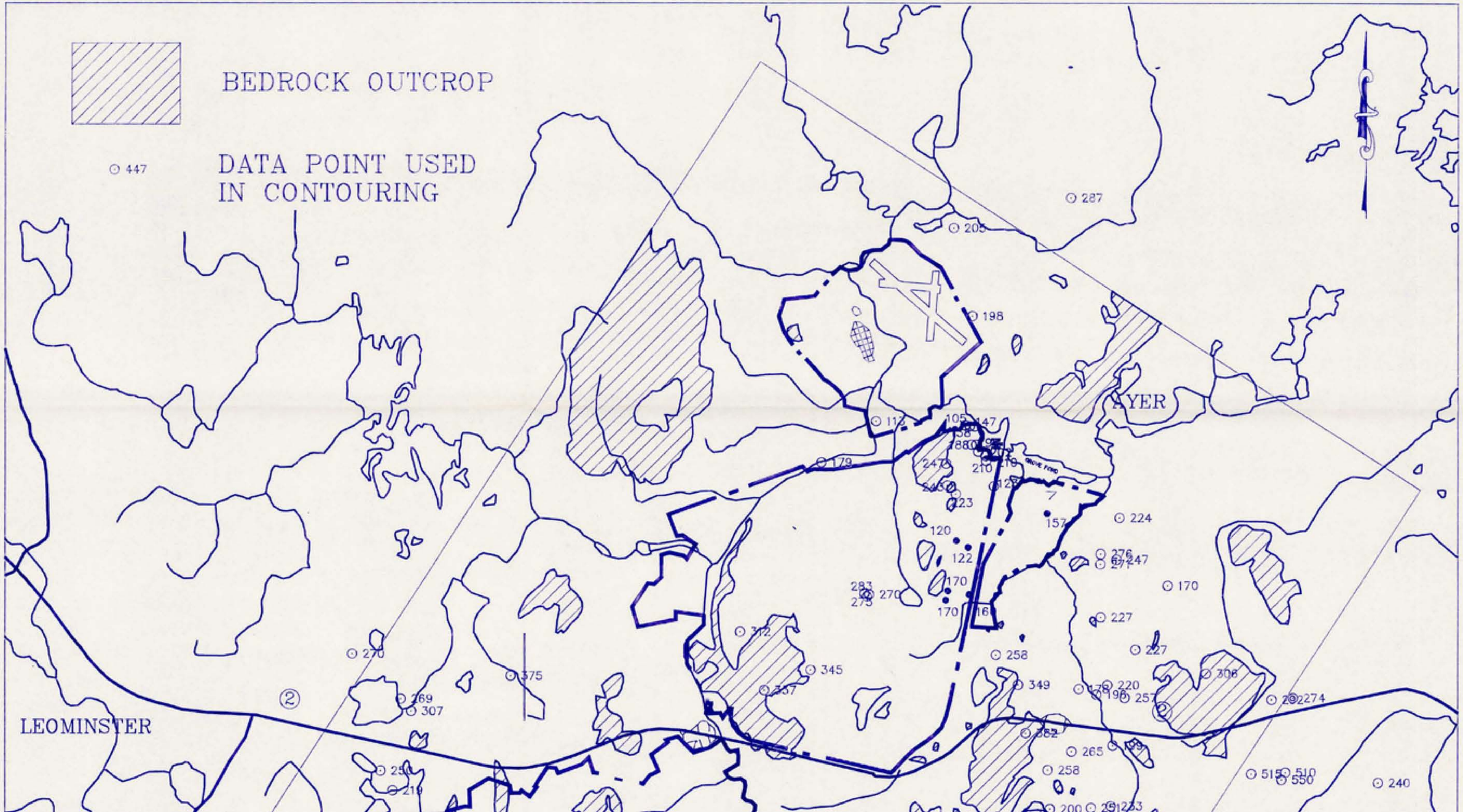

* CONSTANT HEAD NODE
X INACTIVE NODE

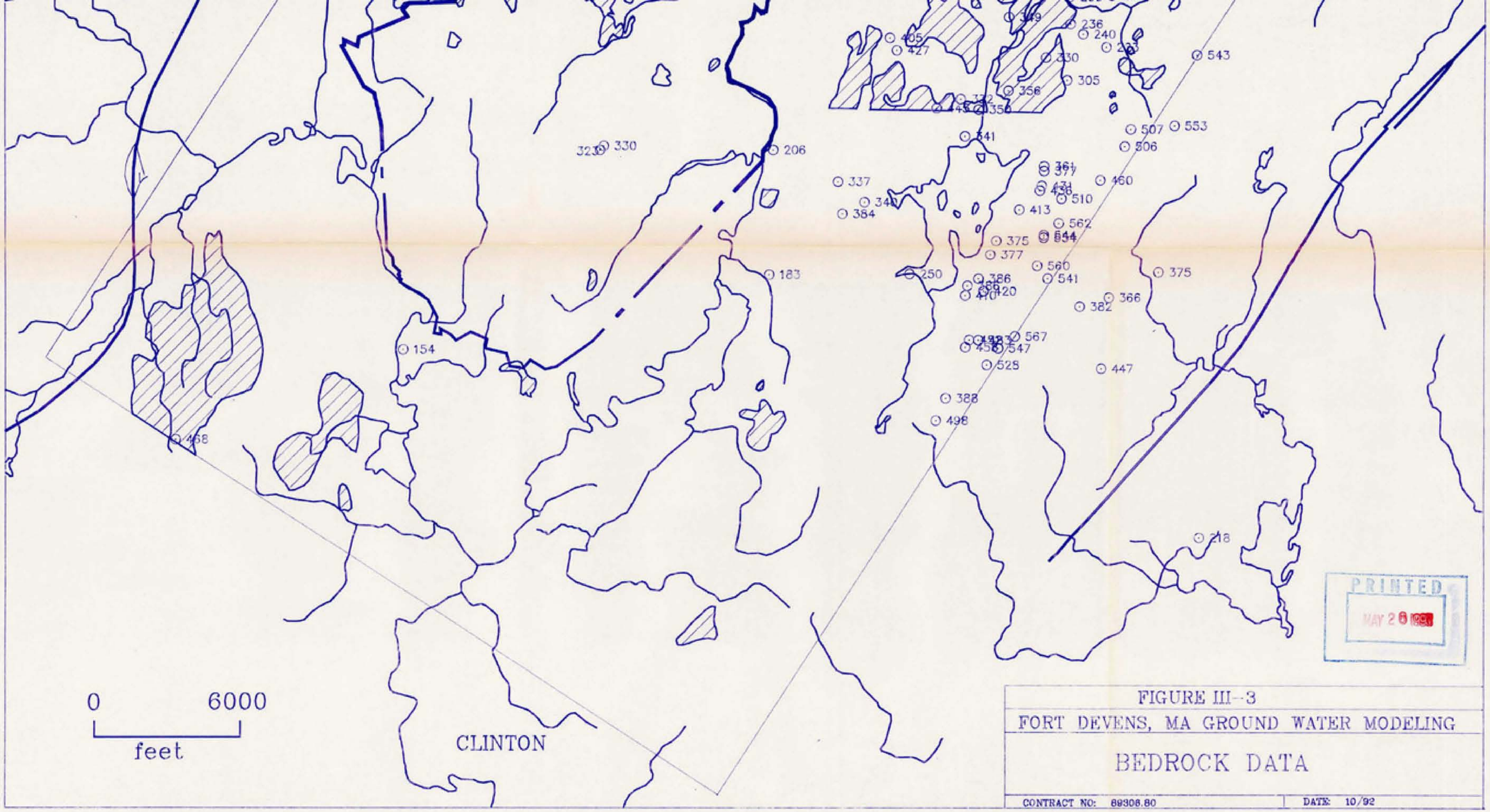
0 6000
feet

FIGURE III-2
FORT DEVENS, MA GROUND WATER MODELING
MODEL BOUNDARY

CONTRACT NO.: 89306.8 | DATE: 10/92

RECEIVED
MAY 26 1993


BEDROCK OUTCROP
447
DATA POINT USED
IN CONTOURING
LEOMINSTER
AYER




PRINTED
MAY 26

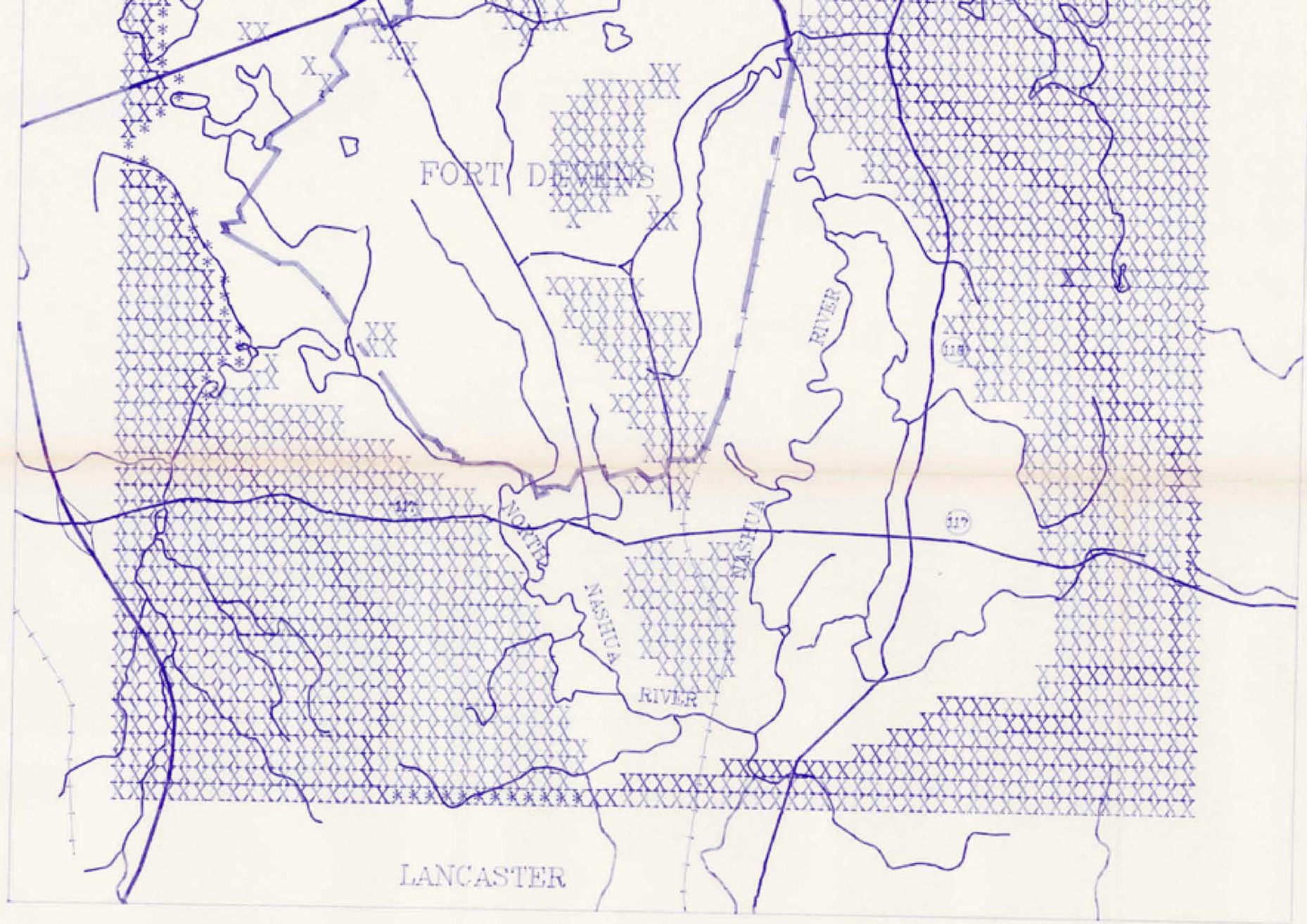
FIGURE III-3

FORT DEVENS, MA GROUND WATER MODELING

BEDROCK DATA

CONTRACT NO: 89306.80 | DATE: 10/92

FORT DEVENS




* CONSTANT HEAD NODE
X INACTIVE NODE

0 6000
feet

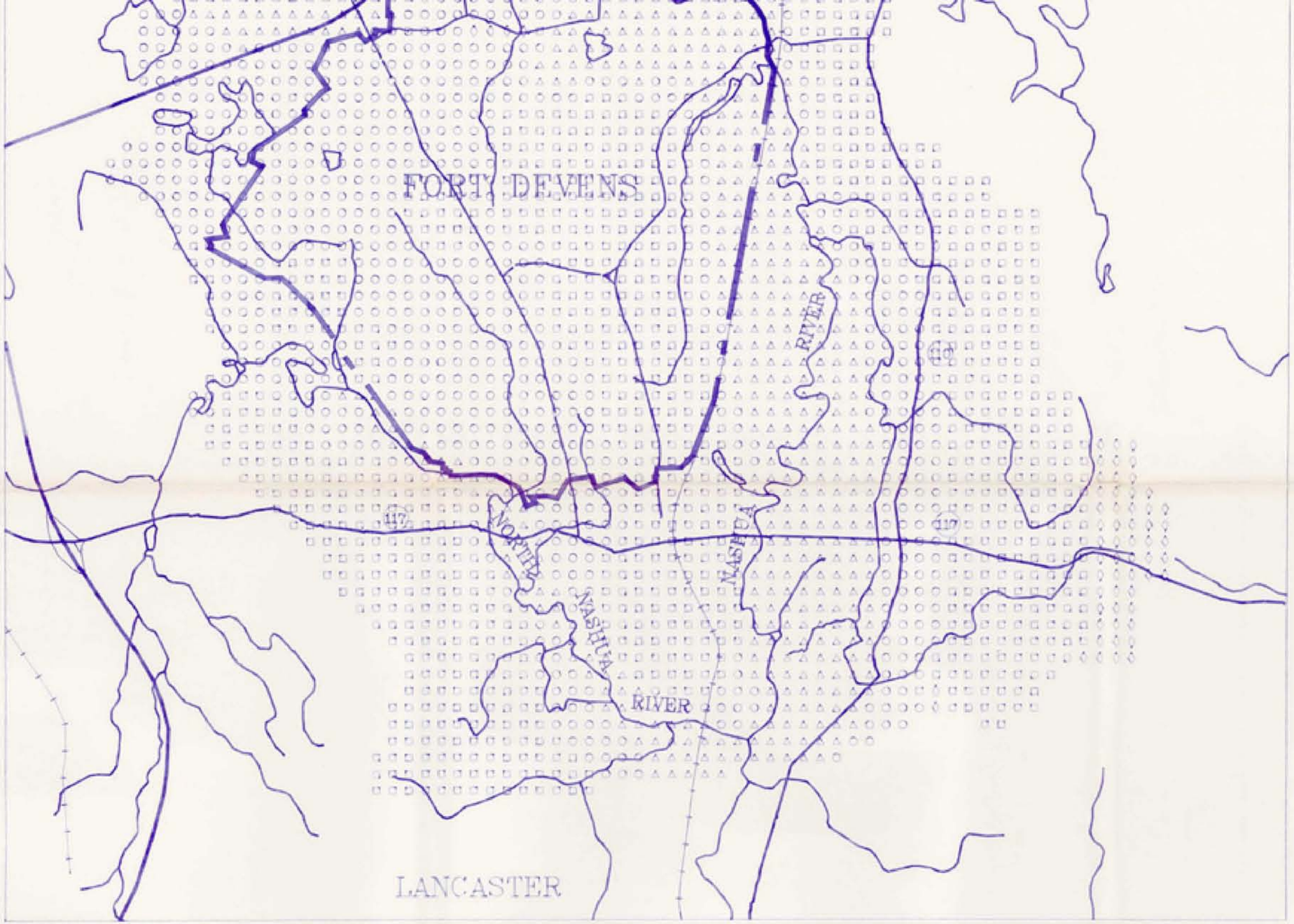
FIGURE III-5
FORT DEVENS, MA GROUND WATER MODELING
GLACIAL OUTWASH AQUIFER MODEL AREA
CONTRACT NO.: 89306.8 DATE: 10/92

AYER

SHIRLEY

FORT DEVENS

②




| | |
|---|---|
| ○ | $< K \leq$ 5 ft/day |
| □ | $5 < K \leq$ 10 ft/day |
| ○ | $10 < K \leq$ 25 ft/day |
| △ | $25 < K \leq$ 50 ft/day |
| ▽ | $50 < K \leq$ 100 ft/day |

NOTE: K = HYDRAULIC CONDUCTIVITY

0 6000

feet

PRINTED
MAY 28 1993

FIGURE III-9

FORT DEVENS, MA GROUND WATER MODELING

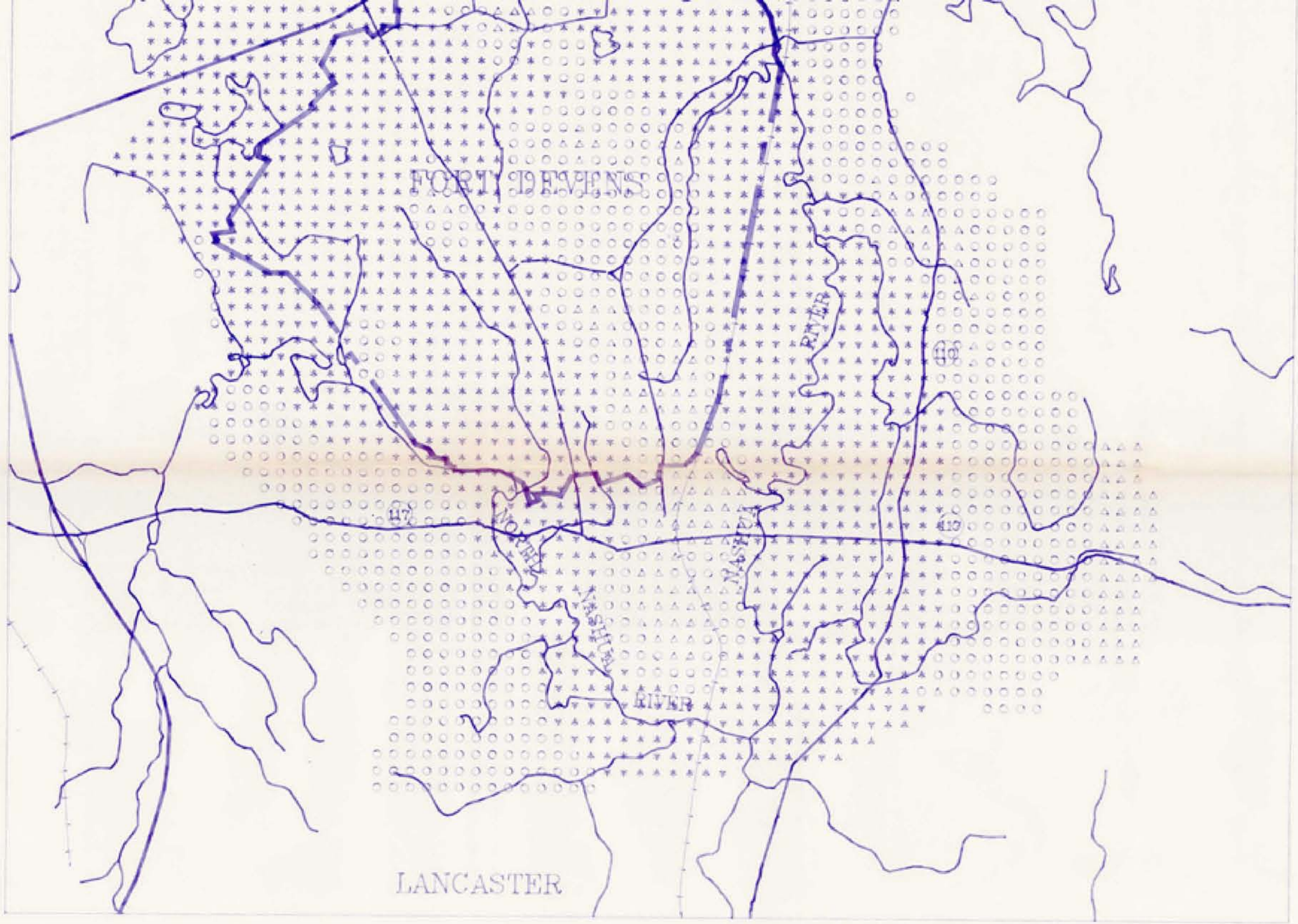
GLACIAL OUTWASH AQUIFER
HYDRAULIC CONDUCTIVITIES

CONTRACT NO.: 89306.8 | DATE: 10/92

SHIRLEY

POOR DRIVERS

②

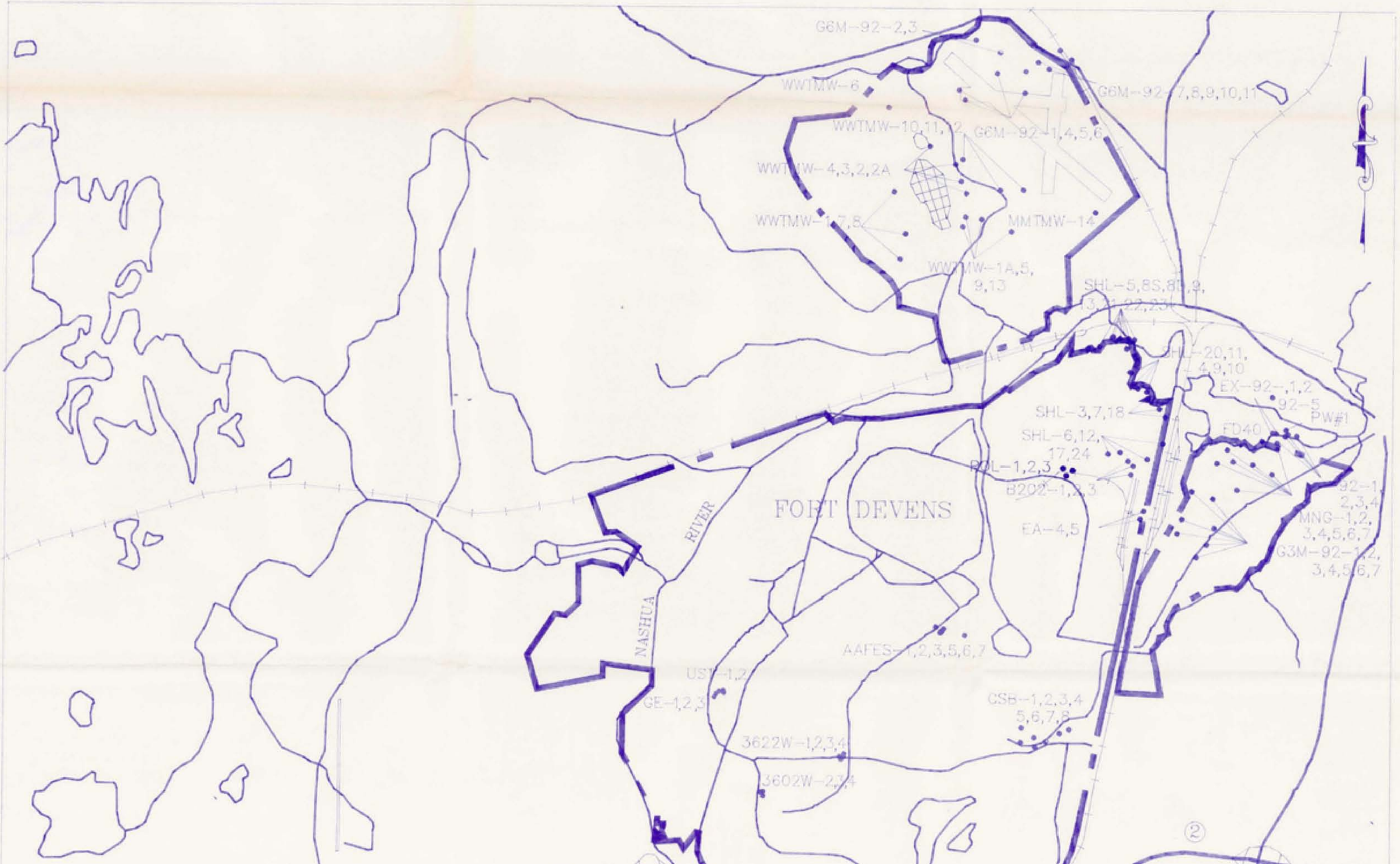



PRINTED
MAY 26 1993

- 2.8 IN/YR
- 7.0 IN/YR
- 14. IN/YR

0 6000
feet

FIGURE III-13
FORT DEVENS, MA GROUND WATER MODELING
RECHARGE DISTRIBUTION
CONTRACT NO.: 89306.8 DATE: 10/92


G6M-92-2,3
WWTMW-6
G6M-92-7,8,9,10,11
WWTMW-10,11,12
G6M-92-1,4,5,6
WWTMW-4,3,2,2A
WWTMW-1,7,8
MMTMW-14
WWTMW-1A,5,9,13
SHL-5,8S,8D,9,13,21,22,23
SHL-20,11,4,9,10
EX-92-,1,2
92-5
PW#1
SHL-3,7,18
FD40
SHL-6,12,17,24
PDL-1,2,3
B202-1,2,3
FORT DEVENS
EA-4,5
92-1,2,3,4
MNG-1,2,3,4,5,6,7
G3M-92-1,2,3,4,5,6,7
RIVER
NASHUA
AAFES-1,2,3,5,6,7
USTA-1,2
GE-1,2,3
CSB-1,2,3,4,5,6,7,8
3622W-1,2,3,4
3602W-2,3,4
②

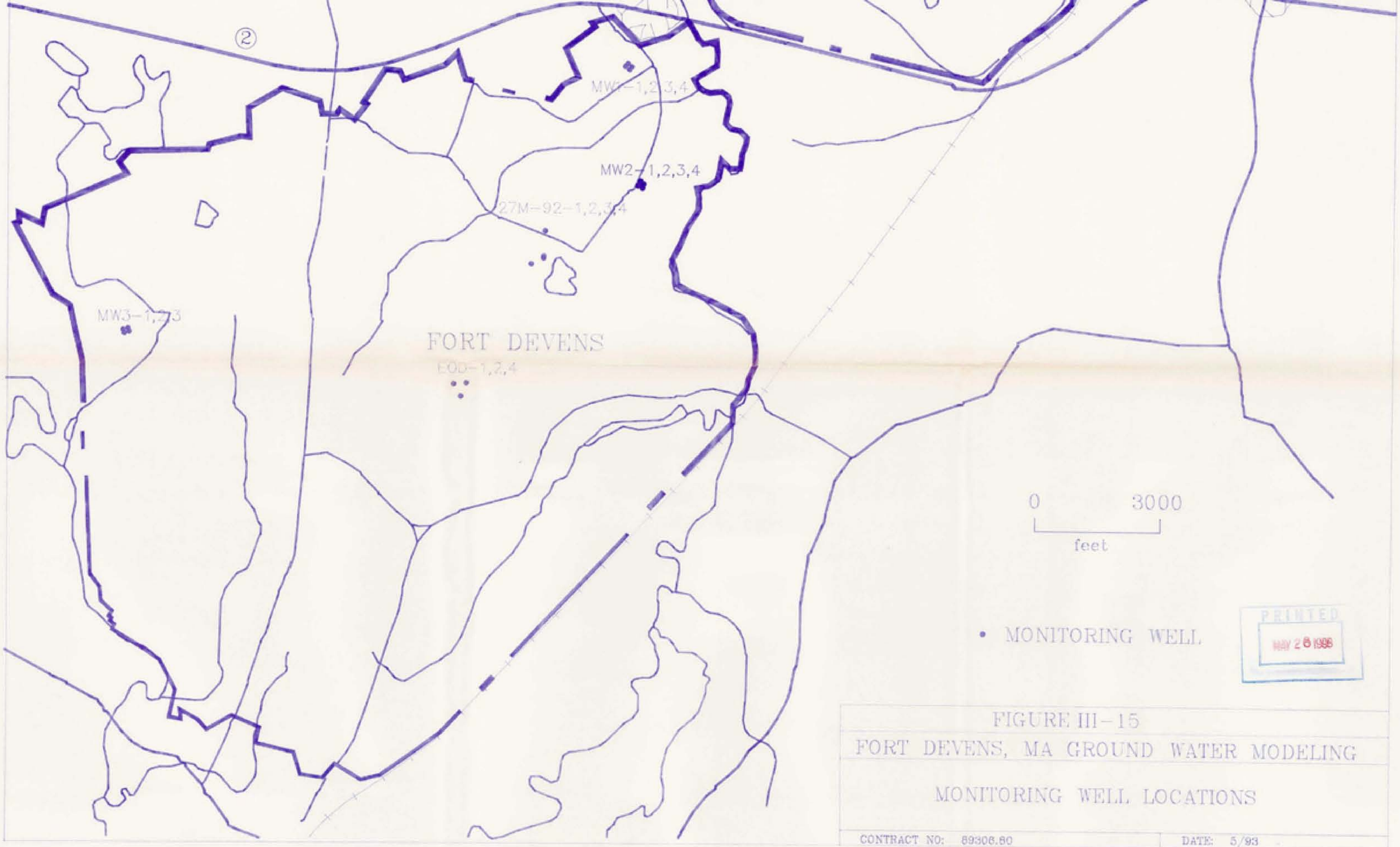



FIGURE III-15

FORT DEVENS, MA GROUND WATER MODELING

MONITORING WELL LOCATIONS

CONTRACT NO: 69306.80 | DATE: 5/93

AYER

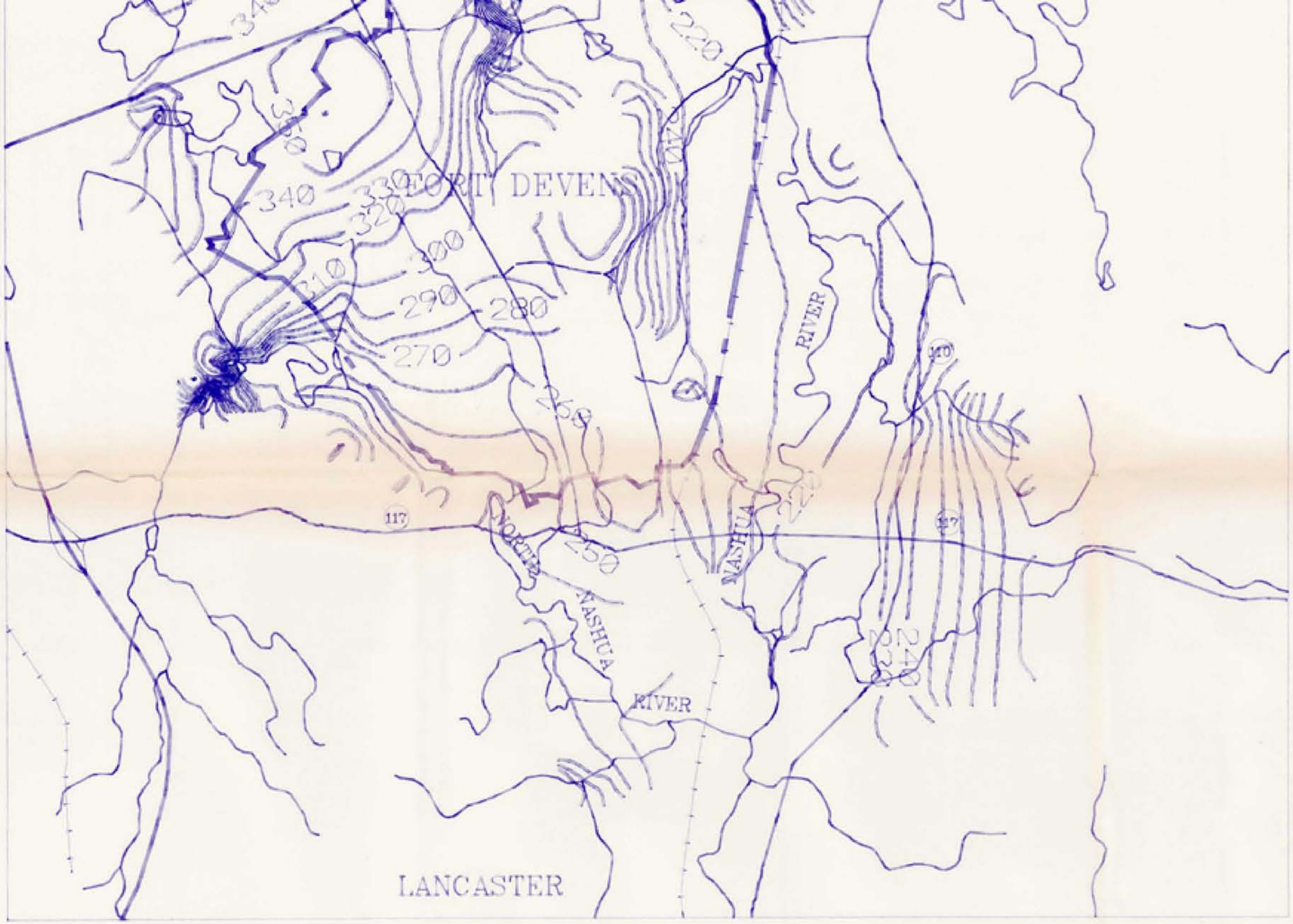
SHIRLEY

FORT DEVENS

210

220

230




PRINTED
MAY 26 1993

FIGURE III-16

FORT DEVENS, MA GROUND WATER MODELING

CALCULATED GLACIAL OUTWASH AQUIFER WATER LEVELS

CONTRACT NO.: 89306.8 | DATE: 10/92