# Hydrogeology and Simulation of Ground-Water Flow in the Upper Aquifer of the Río Camuy to Río Grande de Manatí Area, Puerto Rico

By Sigfredo Torres-González, Michael Planert, and José M. Rodríguez

U.S. GEOLOGICAL SURVEY

Water-Resources Investigations Report 95-4286

Prepared in cooperation with the

Puerto Rico Aqueduct and Sewer Authority
Puerto Rico Industrial Development Corporation
Puerto Rico Department of Natural and Environmental Resources

San Juan, Puerto Rico
1996

U.S. DEPARTMENT OF THE INTERIOR
BRUCE BABBITT, Secretary

U.S. GEOLOGICAL SURVEY
Gordon P. Eaton, Director

For additional information write to:

District Chief
U.S. Geological Survey
GSA Center, Suite 400-15
651 Federal Drive
San Juan, Puerto Rico 00965

Copies of this report can be purchased from:

U.S. Geological Survey
Branch of Information Services
Box 25286
Denver, CO 80225-0286

# CONTENTS

## Figures

## Tables

## CONVERSION FACTORS, ABBREVIATED WATER-QUALITY UNIT, AND ACRONYMS

| Multiply | By | To obtain |
|---|---|---|
| inch (in.) | 2.540 | centimeter |
| foot (ft) | 0.3048 | meter |
| square mile ($mi^2$) | 2.590 | square kilometer |
| cubic foot per second ($ft^3/s$) | 0.02832 | cubic meter per second |
| million gallons per day (Mgal/d) | 3.785 | million liters per day |

**Abbreviated water-quality unit used in this report:**

mg/L milligrams per liter

**Acronyms used in this report:**

| | |
|---|---|
| GWSI | Ground-Water Site Inventory |
| PRASA | Puerto Rico Aqueduct and Sewer Authority |
| PRDNER | Puerto Rico Department of Natural and Environmental Resources |
| PRIDCO | Puerto Rico Industrial Development Corporation |
| USGS | U.S. Geological Survey |

# Hydrogeology and Simulation of Ground-Water Flow in the Upper Aquifer of the Río Camuy to Río Grande de Manatí Area, Puerto Rico

*By* Sigfredo Torres-González, Michael Planert, *and* José M. Rodríguez

## ABSTRACT

The hydrogeologic characteristics and ground-water flow of the upper aquifer in the Río Camuy to Río Grande de Manatí area of the North Coast Province were defined and evaluated by digital-model simulation. A quasi-three-dimensional finite-difference, ground-water flow model was developed and calibrated to simulate steady-state hydrologic conditions for two time periods - 1965 and 1987. The study area covers about 195 square miles and includes the municipalities of Manatí, Barceloneta, Arecibo, Camuy, and Hatillo. The most important streams in the study area that interact with the upper aquifer are the Río Camuy, Río Tanamá, Río Grande de Arecibo, and Río Grande de Manatí. The climate of the study area is tropical humid. Mean annual rainfall ranges from 60 inches along the coast to 70 inches inland.

The hydrogeologic framework of the Río Camuy to Río Grande de Manatí area consists of an unconfined upper aquifer, a confined lower aquifer, and an intermediate confining unit separating the two aquifers. The upper aquifer is contained within the Aguada and Aymamón Limestones and alluvial deposits. The section of the upper aquifer containing freshwater generally is not greater than 300 feet thick; it thins to zero thickness at some point offshore and its maximum freshwater thickness is about 400 feet. Transmissivity values for the upper aquifer can be as much as 100,000 feet squared per day in the central part of the study area. Transmissivity values in the Aguada and Aymamón Limestones calculated for wells near the shoreline are somewhat lower as a result of the position of the diminished thickness of the freshwater part of the aquifer in coastal areas. In the southern part of the study area, average transmissivity values are generally not greater than 3,000 feet squared per day. Estimated hydraulic conductivity values for alluvial deposits in the upper aquifer range from 25 to 40 feet per day in the lower Río Grande de Arecibo valley and from 20 to 30 feet per day in the Río Grande de Manatí valley.

Most ground-water recharge to the upper aquifer occurs in the outcrop area of the Aguada Limestone and generally flows north through the Aguada Limestone into the Aymamón Limestone. Recharge occurs mainly in the central and southern parts of the study area where karst features predominate. The higher rates of recharge of 20 to 28 inches per year occur where limestone is at or near land surface.

The most important regional drainage feature of the study area is the Caño Tiburones, a former marine slough between the lower Río Grande de Arecibo and Río Grande de Manatí. The Caño Tiburones, with an area of approximately 18 square miles, drains surface-water runoff and ground-water discharge towards a main channel. This main channel is called the Canal Central, in which surface-water is pumped out towards the ocean by four 50,000 gallons per minute turbine pumps. Pumpage from El Vigía, a pump station on the western section of the Caño Tiburones, amounts to 111 cubic feet per second under normal conditions and is a mixture of freshwater and seawater.

A two-layer digital model was used to simulate ground-water flow within the upper aquifer. Hydrologic conditions prior to 1965 were considered to be near average-annual predevelopment conditions and were simulated to develop calibrated arrays of aquifer hydraulic characteristics and recharge. For hydrologic conditions prior to 1965, thirty-six of a total of 38 heads at locations in which water levels were measured were calibrated to within 18 feet of measured heads at wells. For hydrologic conditions during 1987, thirty-five of a total 38 heads at locations in which water levels were measured were calibrated to within 18 feet of measured heads at wells.

Simulated ground-water inflow for predevelopment, prior to 1965, hydrologic conditions included areal recharge of 140 cubic feet per second, subsurface contributions from unconfined parts of the lower aquifer of 6.4 cubic feet per second, northern flow to the Caño Tiburones of 20 cubic feet per second, and streamflow infiltration to the upper aquifer of 10 cubic feet per second. Simulated ground-water outflow for predevelopment, prior to 1965, hydrologic conditions are discharge to the Caño Tiburones of 69 cubic feet per second, discharge to the sea of 26 cubic feet per second, and upper aquifer discharge to streamflow of 81 cubic feet per second. For hydrologic conditions during 1987, simulated ground-water inflow included areal recharge of 140 cubic feet per second, subsurface contributions from the unconfined parts of the lower aquifer of 6.4 cubic feet per second, nothward flow towards the Caño Tiburones of 20 cubic feet per second, and streamflow infiltration of 14 cubic feet per second. Simulated ground-water outflow for 1987 hydrologic conditions are discharge to the Caño Tiburones of 63 cubic feet per second, discharge to the ocean of 24 cubic feet per second, discharge to pumping wells of 24 cubic feet per second, and upper aquifer discharge to river reaches of 70 cubic feet per second. The simulated sources of water for the 24 cubic feet per second of pumping, compared to predevelopment conditions were a 3.6 cubic feet per second increase in streamflow infiltration, a 2.5 cubic feet per second reduction in discharge to the sea, a 6.4 cubic feet per second reduction in flow to the Caño Tiburones, and an 11 cubic feet per second reduction in streamflow gain.

Simulated freshwater discharge to the Caño Tiburones was 69 cubic feet per second, which falls between the estimated values of 67 to 78 cubic feet per second reported by previous investigations. Simulated discharge to the Río Camuy and Río Grande de Manatí was 12 and 18 cubic feet per second compared to an estimated of 17 cubic feet per second based on an analysis of streamflow records. Because of regulation, there were insufficient data to evaluate the ground-water discharge to the Río Grande de Arecibo; however, the model simulated a gain of 7 cubic feet per second for this river. The model simulated the Río Tanamá to be losing water in most reaches. The simulated net gain to the Río Tanamá was about 2 cubic feet per second ($ft^3/s$). This discharge represents a loss of about 5 cubic feet per second upstream of the alluvial deposits of the lower Río Grande de Arecibo while within the alluvial deposits it gained 7 cubic feet per second. Simulation of the 1987 average pumping rates of 15.5 million gallons per day resulted in significant head differences between observed and simulated heads in the southernmost areas where the aquifer transmissivity is less than 1,000 square feet per day. Along the central and northernmost parts of the study area, differences between measured and simulated heads were minimal.

## INTRODUCTION

The Río Camuy to Río Grande de Manatí area is located 35 miles west of the San Juan metropolitan areas (fig. 1). The Río Camuy to Río Grande de Manatí area extends from about 3 mi west of the Río Camuy in northwestern Puerto Rico, to about 3 mi east of the Río Grande de Manatí in north-central Puerto Rico (fig. 2). The most productive and permeable aquifers in Puerto Rico are contained within this area. The aquifer system in the Río Camuy to Río Grande de Manatí area consists of an upper unconfined aquifer that extends throughout much of the area and a lower confined aquifer. The most important water-supply source in the area is the upper aquifer. In 1982, withdrawals from the upper aquifer were estimated at about 20 Mgal/d (Torres-González and Wolansky, 1984). Future water withdrawals from the upper aquifer are expected to increase to meet the growing demands of industrial development and public water supply in the area.

In 1983, the U.S. Geological Survey, in cooperation with the Puerto Rico Aqueduct and Sewer Authority (PRASA), the Puerto Rico Industrial Development Corporation (PRIDCO), and the Puerto Rico Department of Natural and Environmental Resources (PRDNER), began hydrogeologic investigations to provide a comprehensive appraisal of the ground-water resources of the North Coast Province of Puerto Rico (fig. 1). This report describes the results of one component of these investigations: the hydrogeologic characteristics of the upper aquifer in the Río Camuy to Río Grande de Manatí area of the North Coast Province (fig. 2) and the calibration of a digital model of ground-water flow in the upper aquifer.

The purpose of this investigation component is to quantitatively define the hydrogeology of the upper aquifer in the Río Camuy to Río Grande de Manatí area. To accomplish this, the geology and hydrology were described, aquifer inflows and outflows were estimated, and a quasi-three-dimensional finite-difference, steady-state ground-water flow model was developed and calibrated. Model calibration was based on the simulation of hydrologic conditions for two time periods, 1965 when the aquifer was basically undeveloped (predevelopment conditions) and 1987 when the aquifer was basically fully developed (present conditions).

Data used to define and describe aquifer hydrogeology and to design and calibrate the ground-water flow model were compiled from existing well records, information from three deep exploratory test wells, water-level measurements in wells, stream discharge data, and PRASA and PRDNER production and franchise water records.

## Acknowledgments

The authors gratefully acknowledge the assistance of María Villalobos and the employees of the Franchise Division of PRDNER, who provided valuable information on specific capacity and pumpage of wells in the area.

## Description of the Study Area

The study area is located within the North Coast Province of Puerto Rico and is bounded by the Atlantic Ocean to the north, areas of outcrop of the Cibao Formation to the south and southeast, and areas of outcrop of the Aguada Limestone to the southwest (fig. 2 and table 1). The study area covers about 195 $mi^2$, and includes the municipalities of Manatí, Barceloneta, Arecibo, Camuy, and Hatillo. In 1990, the population within the area was about 176,000 (U.S. Department of Commerce, 1991).

The most important regional drainage feature of the area is Caño Tiburones, a former marine slough located between the lower Río Grande de Arecibo and lower Río Grande de Manatí (fig. 2). Caño Tiburones is a low area, parallel to the coast, that extends 12 mi in length and has an average width of 1.5 mi (an area of about 18 $mi^2$). The scarcity of land resources for agriculture prompted engineers in 1907 to drain the Caño Tiburones by gravity, using closely-spaced herringbone laterals (Zack and Class-Cacho, 1984, p. 6). Caño Tiburones consists of a series of canals which drain surface-water runoff and ground-water discharge towards a main channel called the Canal Central. In 1949, additional drainage of the soil zone was accomplished by the installation of four low-lift turbine pumps at El Vigía (Zack and Class-Cacho, 1984, p. 7). The water in the Canal Central was then pumped out towards the ocean by the four turbine pumps, each rated at 50,000 gal/min (Díaz, 1973, pl. 2). Usually only one pump is necessary to maintain the required water levels in the canals. However, during heavy rains and subsequent flooding, all four pumps are operated to drain the area.

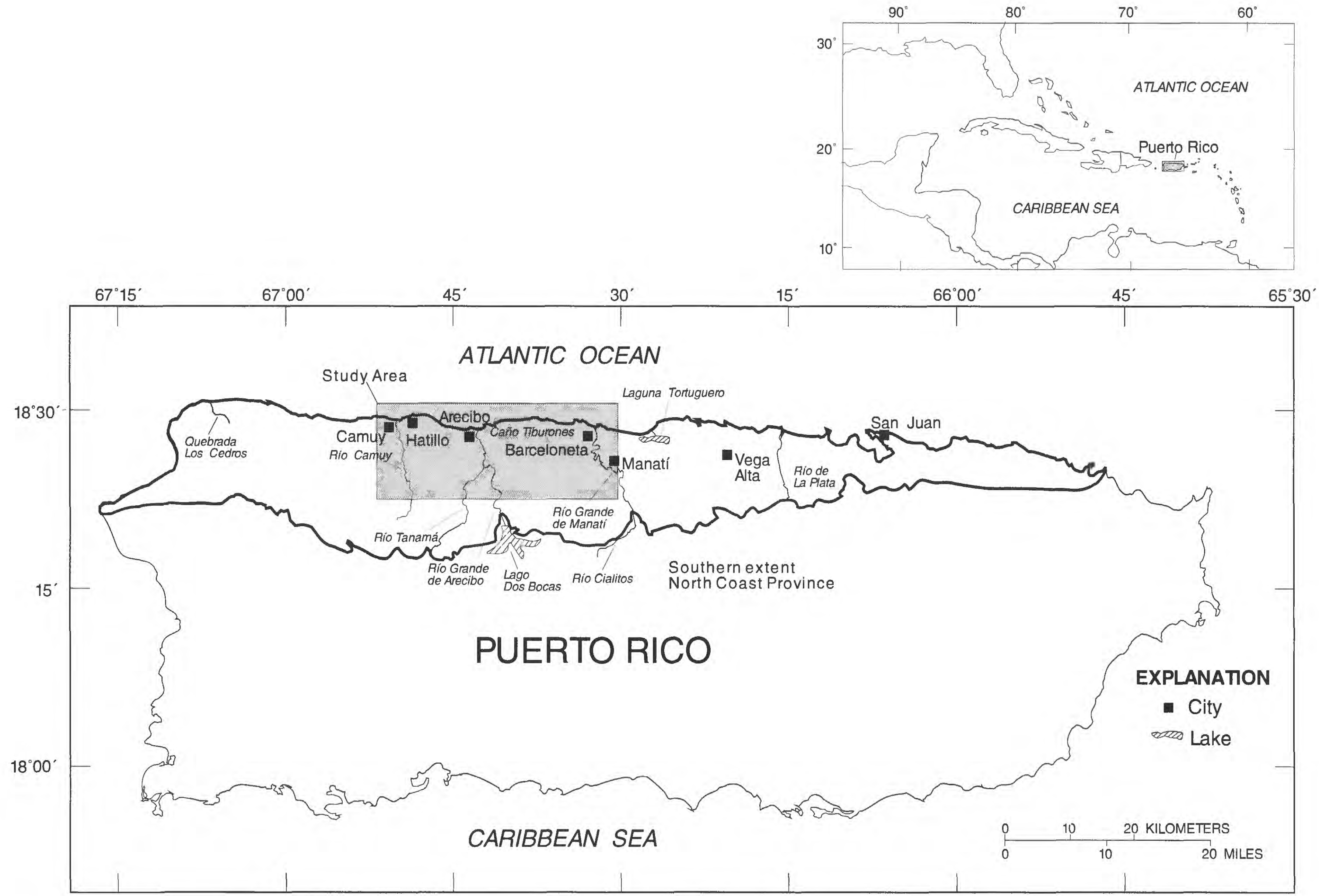



**Figure 1.** Location of the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico.

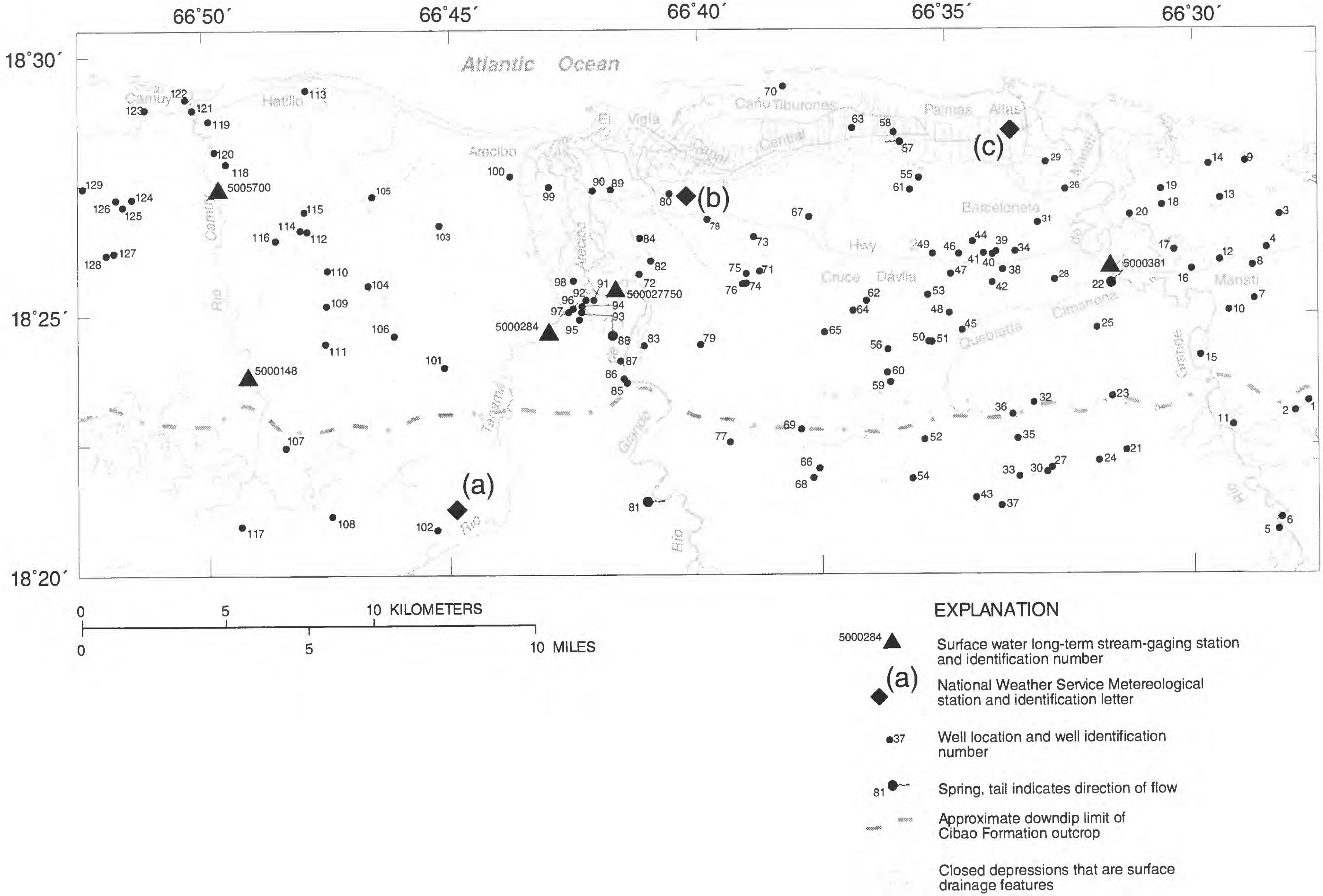



**Figure 2.** Location of wells, springs, and meteorological and stream-gaging stations in the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico.

**Table 1.** Well data collection sites and related status in the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico

| Map Number | Well name | Site identification | Pre-development water altitude | Post-development water altitude | Lithologic data available | Reported Ground-water Discharge | Transmissivity determined at well |
|---|---|---|---|---|---|---|---|
| 1 | Río Arriba Saliente #3 | 1823120662748 | | X | | | |
| 2 | Río Arriba Saliente #1 | 1823030662759 | X | | | | |
| 3 | Dupont | 1827030662807 | | X | | | |
| 4 | IAS #2 | 1826240662814 | | | X | | |
| 5 | Ciales | 1820520662816 | X | | | | |
| 6 | Rossy #3 | 1821040662818 | | x | | | |
| 7 | Acrópolis | 1825340662830 | | X | | | |
| 8 | Vocacional | 1826050662833 | | X | | | |
| 9 | Meléndez | 1827550662856 | | X | | | |
| 10 | Coto Sur #4 | 1825140662902 | | X | | | |
| 11 | Bloques Carmelo | 1822530662923 | X | | | | |
| 12 | Oficina PRASA | 1826050662925 | | | | | X |
| 13 | Rábanos | 1827140662925 | | X | | | X |
| 14 | Boquillas | 1827520662937 | | X | | | |
| 15 | Monserrate Sur | 1824120662949 | | X | | | |
| 16 | Manatí #1 | 1825490663002 | | X | | X | |
| 17 | F. Calaf | 1826210663025 | X | | | | |
| 18 | Cantito La Luisa | 1827100663037 | | X | | | |
| 19 | Medina Dairy | 1827200663037 | | X | | | |
| 20 | Chardón | 1826520663117 | | X | | | |
| 21 | Montebello #2 | 1822190663120 | | | | X | |
| 22 | Ojo de Guillo | 1825410663136 | | | | X | |
| 23 | Montebello #4 | 1823220663143 | | | | X | |
| 24 | Montebello #5 | 1822110663144 | | | | X | |
| 25 | Bajura Adentro | 1824460663157 | | X | | | |
| 26 | January | 1827250663232 | | | | | X |
| 27 | Florida #6 | 1822030663244 | | | | X | |
| 28 | MSD #2 | 1825460663249 | | | | X | |
| 29 | Plazuela #2 | 1827570663256 | | X | | | |
| 30 | Florida #4 | 1821580663257 | | | | X | |
| 31 | Fortuna | 1826470663308 | | | | X | |
| 32 | Pajonal #2 | 1823230663311 | | X | | X | |
| 33 | Florida #2 | 1821520663330 | | | | X | |
| 34 | Florida Afuera | 1826030663336 | X | | | X | |
| 35 | Florida #8 | 1822360663343 | | | X | X | |
| 36 | Pajonal #1 | 1823050663347 | X | X | | X | X |
| 37 | Florida #5 | 1821240663350 | | | | X | |
| 38 | Winthrop | 1825510663351 | | | | | X |
| 39 | Abbott (north) | 1826030663402 | | | | X | |
| 40 | Abbott (south) | 1826010663405 | | | | X | |
| 41 | Pfizer | 1826080663413 | | | | X | |
| 42 | NC-5 | 1825440663415 | | | X | | |

**Table 1.** Well data collection sites and related status in the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico--Continued

| Map Number | Well name | Site identification | Pre-development water altitude | Post-development water altitude | Lithologic data available | Reported Ground-water Discharge | Transmissivity determined at well |
|---|---|---|---|---|---|---|---|
| 43 | Florida #7 | 1821330663428 | | | | X | |
| 44 | Lederle | 1826210663438 | | | X | | |
| 45 | Cimarrona | 1824420663439 | | | X | X | |
| 46 | NC-10 | 1826050663444 | | | X | | |
| 47 | RCA (Piñas) | 1825490663453 | | X | | | |
| 48 | Sabana Pike | 1825030663501 | | | | | X |
| 49 | A.H. Robbins | 1826090663520 | | | X | | |
| 50 | Mr. Pike East | 1824380663524 | X | | | | |
| 51 | Mr. Pike West | 1824380663528 | X | | | | X |
| 52 | Pérez Reyes | 1822380663529 | | | X | | |
| 53 | Upjohn (new) | 1825290663533 | | | X | | X |
| 53a | UpJohn UE-1 | 1825490663518 | | | | X | |
| 54 | Florida #3 | 1821500663540 | | | X | X | |
| 55 | Garrochales #3 | 1827360663558 | | | X | X | |
| 56 | Sabana Hoyos #3 | 1824400663603 | | X | | | |
| 59 | Sabana Hoyos #1 | 1823320663607 | | | X | X | X |
| 60 | Sabana Hoyos #2 | 1823510663611 | | | X | X | X |
| 61 | Garrochales #1 | 1827230663628 | | | | | |
| 62 | Sabana Hoyos #5 | 1825190663638 | | X | X | X | |
| 63 | USGS #2 | 1828390663652 | | X | | | |
| 64 | Sabana Hoyos #4 | 1825120663656 | | | X | | |
| 65 | Espino | 1824360663729 | X | | | | |
| 66 | Jobales #2 | 1821570663731 | | | | X | |
| 67 | Factor #1 | 1826520663737 | | X | | X | |
| 68 | Jobales #1 | 1821440663746 | | | | X | |
| 69 | Jobales #3 | 1822480663759 | | X | | X | X |
| 70 | CPR #4 | 1829290663813 | | | X | | |
| 71 | Natez | 1825460663838 | | X | | | |
| 72 | Valencia | | | | | | |
| 73 | Santana #2 | 1826290663848 | X | | | X | X |
| 74 | Miraflores #1 | 1825280663855 | X | | | | |
| 75 | Miraflores #3 | 1825410663856 | | | | X | |
| 76 | Miraflores #2 | 1825290663857 | X | | | | |
| 77 | Arrozal | 1822310663918 | | | | | X |
| 78 | Santana (new) | 1826480663942 | | | | X | |
| 79 | Biafara | 1824360663947 | X | | | | |
| 80 | Lizas | 1827200664028 | | | | | X |
| 81 | Los Chorros Spring | 1821230664052 | | | | X | |
| 82 | Bajadero | 1825580664056 | | X | | X | X |
| 83 | Carreras | 1824270664107 | | X | | X | X |
| 84 | Master | 1826260664108 | | X | | | |
| 85 | Ojo de Agua #2 | 1823440664122 | | X | | X | |

**Table 1.** Well data collection sites and related status in the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico--Continued

| Map Number | Well name | Site identification | Pre-development water altitude | Post-development water altitude | Lithologic data available | Reported Ground-water Discharge | Transmissivity determined at well |
|---|---|---|---|---|---|---|---|
| 86 | Ojo de Agua #1 | 1823450664125 | | X | | X | |
| 87 | Ojo de Agua #3 | 1824050664131 | | | | X | X |
| 88 | San Pedro Spring | 1824350664145 | | | | X | |
| 89 | Monte Grande | 1827250664146 | X | | | | |
| 90 | Cambalache | 1827270664208 | | | | | X |
| 91 | Arecibo #3 | 1825160664209 | | | | X | |
| 92 | Arecibo #9 | 1825150664220 | | | | X | |
| 93 | Arecibo #8 | 1825040664223 | | | | X | |
| 94 | Arecibo #5 | 1825090664223 | | | | X | |
| 95 | Nuevo #4 | 1824560664225 | | | | X | |
| 96 | Arecibo #6 | 1825090664232 | | | | X | X |
| 97 | Arecibo #7 | 1825030664235 | | | | X | X |
| 98 | Los Caños (new) | 1825420664236 | | X | | | |
| 101 | Esperanza #1 | 1823570664511 | | | | X | |
| 102 | Arecibo Observatoty | 1820560664513 | | | | | X |
| 103 | Cunetas | 1826410664523 | X | | | | |
| 104 | Delgado Q. | 1825360664636 | X | | | | |
| 105 | Corcovado | 1827250664637 | X | X | | | X |
| 106 | Campo Alegre #1 | 1824320664657 | | | X | | X |
| 107 | Bayaney #1 | 1822310664708 | | | X | | X |
| 108 | Doña Antonia | 1821050664715 | | | X | | |
| 109 | Campo Alegre #2 | 1825110664721 | | | X | | |
| 110 | Pajuíl #1 | 1825500664725 | X | | X | X | X |
| 111 | Campo Alegre #3 | 1824260664730 | | X | X | X | X |
| 112 | Paloma #2 | 1826360664748 | | X | | | |
| 113 | Santiago H. | 1829200664754 | | X | | | |
| 114 | Paloma #3 | 1826370664759 | | | | X | |
| 115 | Delgado | 1827020664804 | | | | | X |
| 116 | Paloma #1 | 1826230664828 | | | X | X | |
| 117 | Quebradas | 1820550664912 | | | X | | |
| 118 | NC-6 | 1827570664926 | | | X | | |
| 119 | Peraza | 1828500664940 | X | | | | |
| 120 | Camuy #2 | 1828150664945 | X | | X | | X |
| 121 | Río Camuy | 1828580665015 | X | | X | | X |
| 122 | Palo Viejo #4 | 1829070665018 | | X | | | |
| 123 | V. Amador | 1828560665109 | | X | | | |
| 124 | Zanjas #4 | 1827230665112 | | X | | | |
| 125 | Zanjas #3 | 1827090665120 | X | | | X | |
| 126 | Zanjas #1 | 1827140665132 | | | | X | X |
| 127 | Torrado | 1826110665139 | | X | | | |
| 128 | Matojillo | 1826100665150 | X | | | | |
| 129 | Eyramil Dairy | 1827260665223 | | X | | | |

The most important streams in the study area are the Río Camuy, Río Tanamá, Río Grande de Arecibo, and Río Grande de Manatí (fig. 2). Both the Río Camuy and Río Tanamá flow within deeply incised limestone canyons throughout most of their course. At their headwaters and near the coast, these streams flow across alluvial deposits. The Río Grande de Arecibo and Río Grande de Manatí also flow along valleys cut through limestone but these valleys are not as deep as those formed by the Río Camuy and Río Tanamá. Both streams have large floodplains near the coast where alluvial deposits are relatively thick.

Land surface altitude ranges from sea level in the north to about 1,000 ft to the south in the karst uplands. Typical physiographic features in the study area are karst landforms. The most prominent karst landforms are mogotes which are steep-sided erosional remnants of weathered limestone rocks that extend above the surrounding blanket sand plains. The mogotes are located inland from the coastal plain and rise to an altitude of about 400 ft. Mogotes take the shape of haystacks and are referred to as "haystack hills." The blanket sands are unconsolidated deposits which consist of sand, silt, and clay (Briggs, 1966, p. 62).

The climate of the Río Camuy to Río Grande de Manatí area is tropical humid. Mean annual rainfall ranges from 60 in. along the coast to 70 in. near the southern limit of the study area (U.S. Department of Commerce, 1970). There are two relatively dry seasons that extend from December to March and from June to July and two relatively wet seasons that extend from April to May and from August to November (fig. 3).

## Water Use

The principal source of water in the study area is ground water. Production of water totalled 20 Mgal/d in 1990 from about 40 wells distributed generally in coastal areas, at the banks of major streams, and next to urban population centers. The second most important source of water is from surface-water filtration plants located at the Río Tanamá in Charco Hondo and at the Río Camuy in the hills south of the town of Hatillo. Production of water from these two filtration plants totalled 6.5 Mgal/d in 1990.

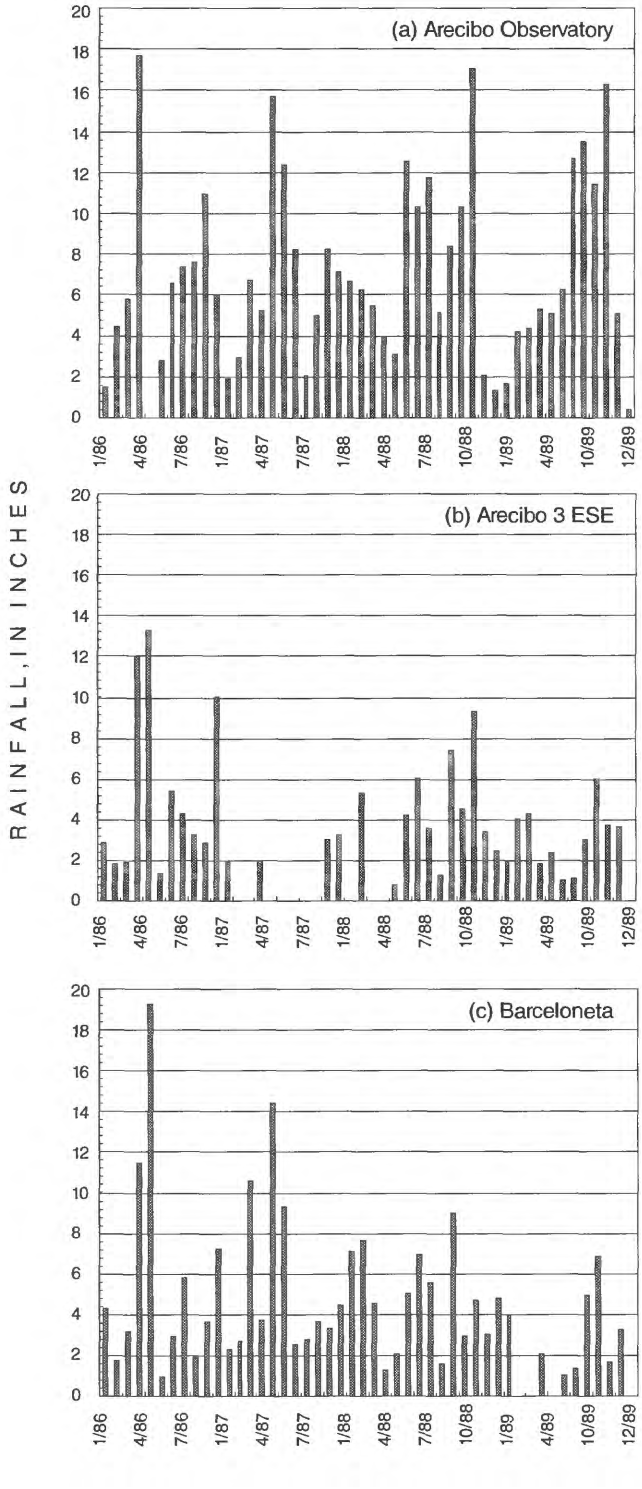



**Figure 3.** Monthly rainfall at National Weather Bureau stations in the Camuy-Barceloneta area, Puerto Rico, 1986-1989.

Water use is distributed among users as follows: 14 Mgal/d for public-supply, 4 Mgal/d for industrial use, and 2 Mgal/d for commercial use (Wanda Molina, U.S. Geological Survey, written commun., 1995). Other uses, such as domestic and most low-yield wells, are not considered in this report. Estimates of these low-yield wells to the total accountable water use in the area can be considered insignificant or negligible.

## GEOLOGIC SETTING

The area from Río Camuy to Río Grande de Manatí is underlain by rocks of middle Tertiary age, herein informally termed the middle Tertiary sequence. These rocks, grouped into six formations from oldest to youngest, are: the San Sebastian Formation of early Oligocene age; the Lares Limestone of late Oligocene age; the Cibao Formation of Oligocene and Miocene age; the Aguada and Aymamón Limestones of Miocene age; and the Camuy Formation of Pliocene age. Blanket sand deposits and alluvial deposits of Pliocene and Quaternary age, overlie these rocks in floodplains and along the coast (Monroe, 1976, p. 10-16). The middle Tertiary sequence is underlain by interbedded volcanic and sedimentary rocks of Late Cretaceous and early Tertiary age. The average dip of the middle Tertiary sequence is 4 to 4.5 degrees north (Briggs, 1961, p. 11). The dip of the contact between the Aymamón and Aguada Limestones averages about 6 to 7 degrees in the southernmost areas and decreases toward the north to about 2 degrees near the coast (Monroe, 1980).

The San Sebastian Formation, is composed of coastal and fluvial terrigenous clastic, marginal-marine clay, and limestone (Jesús Rodríguez-Martínez, U.S. Geological Survey, oral commun., 1991). The Lares Limestone consists of mid-platform, and minor inner- and outer-platform carbonate rocks. The Cibao Formation consists mainly of claystone, marl, and limestone containing terrigenous material. The Cibao Formation is divided into two members. The lower member is the Montebello Limestone, a mid-platform limestone. The unnamed upper member consists mainly of coastal and marginal-marine marl, claystone, and limestone. The Aguada Limestone consists of inner-platform carbonates that are locally terrigenous, grading downward into chalk and claystone (Monroe, 1976, p. 10). The Aymamón Limestone, which is remarkably uniform in lithology throughout its outcrop belt, consists mainly of thick-bedded to massive, very pure limestone, and is commonly quartz free. The Quebradillas Formation, called the Camuy Formation by Monroe (1976), primarily consists of deep-water chalk and is exposed near the coast.

Where the Aymamón Limestone is exposed between the Río Grande de Arecibo and Río Grande de Manatí, swales have developed by dissolution of the limestone surface that surrounds the mogotes. These swales are filled with quartz sand, clayey sand, sandy clay, and clay deposits called blanket sand deposits (Briggs, 1966, p. 62). Alluvial deposits occur along the lower Río Grande de Arecibo, Río Grande de Manatí, and the Río Camuy valleys and consist of a mixture of sand, gravel, and clay (Giusti and Bennett, 1976, p. 4). Figure 5, which is a generalized hydrogeologic section through the Cruce Dávila and Camuy areas (see fig. 4 for location), shows the extent and vertical distribution of each of the geologic formations.

The average thickness of alluvial deposits is about 130 ft along the lower Río Grande de Arecibo valley (Quiñones-Aponte, 1986, p. 13) and is as much as 300 ft along the lower Río Grande de Manatí valley (Gómez-Gómez, 1984, p. 12-15). The thickness of alluvial deposits in the mouth of the Río Camuy is unknown but could be as much as 120 ft thick. Maximum thicknesses for the limestones are about 650 ft for the Quebradillas Formation (Giusti, 1978, p. 5), about 290 ft for the Aguada Limestone (Giusti, 1978, p. 5), and about 410 ft for the Aymamón Limestone (Monroe, 1976, p. 56).

## HYDROGEOLOGIC SETTING

The hydrogeologic framework of the Río Camuy to Río Grande de Manatí area consists of an unconfined upper aquifer, a confined lower aquifer, and a confining unit separating the two aquifers. A description of the upper aquifer, the fine-grained confining unit, and the lower aquifer follows.

### Upper Aquifer

The upper aquifer is contained within the Aguada Limestone, Aymamón Limestone, and the alluvial deposits. Giusti and Bennett (1976, p. 8) estimated the ratio of vertical to horizontal hydraulic conductivity

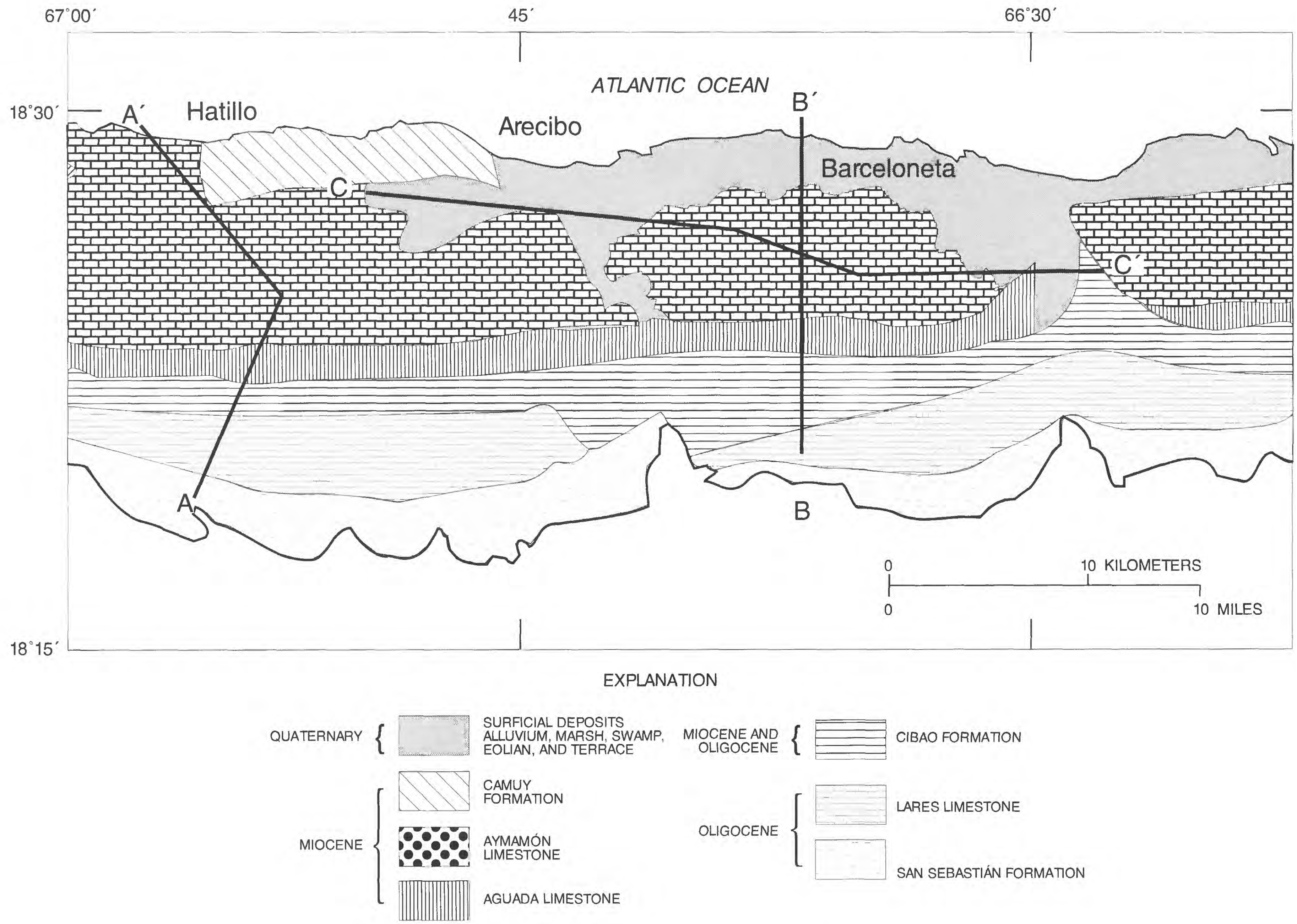



**Figure 4.** Generalized geology of the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico (refer to figures 5 and 6 for cross-section layout, modified from Monroe and Pease, 1962).

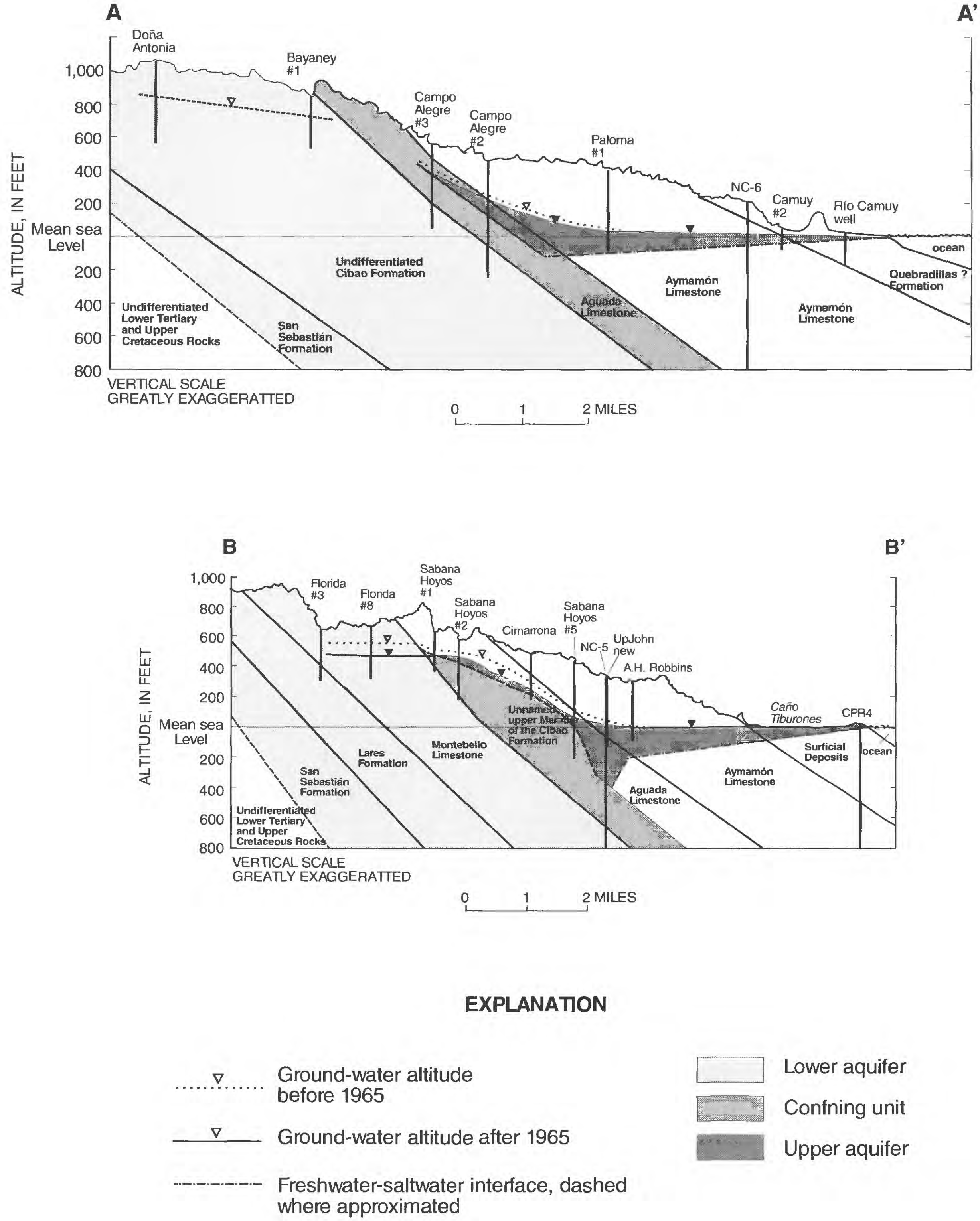



**Figure 5.** Generalized cross sections of the Camuy and Cruce Dávila areas, North Coast Province, Puerto Rico, showing the upper aquifer system.

within the Aguada and Aymamón Limestones to be between 1:1 and 1:10, therefore, these two units are considered as one aquifer. The top of the unnamed upper member of the Cibao Formation forms the base of the upper aquifer throughout the central and eastern parts of the study area. West of the Río Grande de Arecibo, the base of the upper aquifer consists of low permeability units of the Aguada Limestone. The maximum thickness of the rock units is about 2,000 ft (fig. 5). However, near the coast, the upper aquifer is limited as a resource by the saturated thickness of freshwater. To evaluate the upper aquifer as a resource for industrial and public supply, only the freshwater part of the aquifer was investigated. For the purposes for this report, the upper aquifer is defined to be the freshwater section of the aquifer and does not include the deeper section containing saltwater. The base of freshwater was defined as the depth at which the dissolved-solids concentration in ground-water first exceeds 5,000 mg/L.

The freshwater section of the aquifer is generally less than 300 ft thick; at the coast, it is about 150 ft and thins to zero at some undetermined distance offshore. The maximum observed thickness of the upper aquifer is about 400 ft and occurs at latitude 18°26'35" near the community of Santana at Arecibo (wells 73 and 78, fig. 2). The southernmost extent of the freshwater/saltwater interface is located north of well NC-5 (well 42, fig. 2) because saltwater was not detected in the upper aquifer when drilling this well. North of well 42, the estimated thickness of the aquifer is determined by the depth to the freshwater/saltwater interface; south of this well, the thickness of the aquifer is determined by the depth to either the top of the unnamed member of the Cibao Formation or to the low-permeability units of the Aguada Limestone. Figure 6 shows the estimated thickness of the freshwater lens in an east-west hydrogeologic section of the upper aquifer.

Transmissivity values for the upper aquifer were calculated from specific-capacity data (Theis and others, 1963) stored in the U.S. Geological Survey's Ground-Water Site Inventory (GWSI) computer database. Anomalously high specific capacities were not used because they were probably the result of local solution conduits or fractures. Ground-water flow through such karst features was not accounted for in this study. Other studies along the north coast of Puerto Rico (Gómez-Gómez and Torres-Sierra, 1988, p. 20; Torres-González, 1985) also used this same approach, estimating transmissivity of the limestone units using specific capacity and basing these estimates on porous media assumptions. Figure 7 shows the estimated point transmissivity of the freshwater section of the upper aquifer.

Average transmissivity values for the upper aquifer can be as much as 100,000 ft$^2$/d in the central part of the study area, just north of Highway 2 (fig. 7). Transmissivity values in the Aguada and Aymamón Limestones calculated for wells near the shoreline are somewhat lower (20,000 ft$^2$/d) as a result of the position of the freshwater/saltwater interface in coastal areas. In the southern part of the study area, apparently transmissivity is generally less than 1,000 ft$^2$/d because the total saturated thickness of the upper aquifer is relatively thin.

Values of transmissivity of the alluvium were estimated based on average thickness of the deposits and estimates of horizontal hydraulic conductivity. Hydraulic conductivity estimates ranged from 25 to 40 ft/d for the lower Río Grande de Arecibo valley (Quiñones-Aponte, 1986, p. 22) and from 20 to 30 ft/d for the Río Grande de Manatí valley (Gómez-Gómez, 1984, p. 29). Estimated transmissivity for the alluvial deposits ranged from 100 ft$^2$/d to about 5,000 ft$^2$/d in both the lower Río Grande de Arecibo and Río Grande de Manatí.

## Basal and Fine-Grained Confining Units

The unnamed upper member of the Cibao Formation that forms the base of the upper aquifer consists of an interbedded sequence of marl, chalk, limestone, sand, and clay. Maximum thickness of this unit is about 750 ft. The estimated vertical hydraulic conductivity of the unnamed upper member of the Cibao Formation is 0.00002 ft/d or less (Heisel and others, 1983, p. 35). To the west, apparently towards the Río Camuy, the base of the upper aquifer is within fine-grained deposits in the middle part of the Aguada Limestone. There are no estimates for the vertical hydraulic conductivity for this unit. The estimated regional distribution of the altitude at the base of the upper aquifer is shown in figure 8.

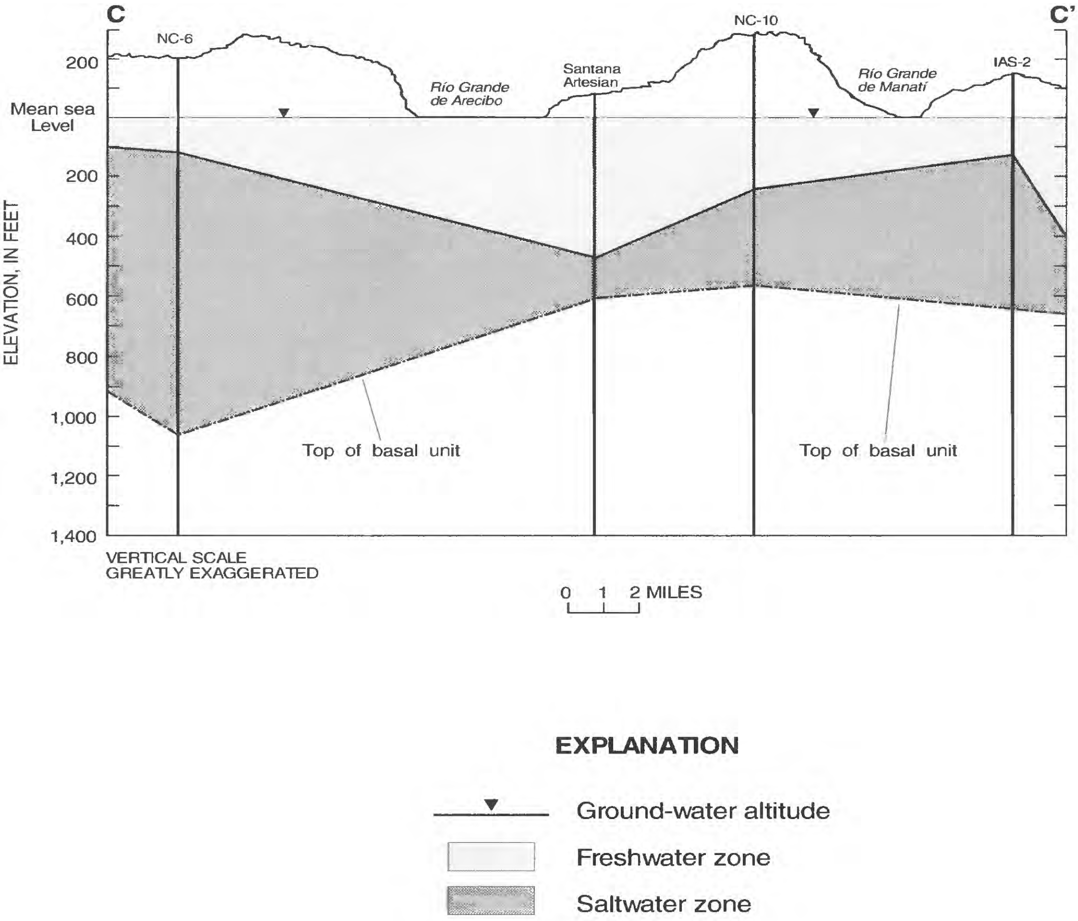



**Figure 6.** Estimated thickness of the upper aquifer freshwater lens along a west-east hydrogeologic section in areas in the North Coast Province, Puerto Rico.

## Lower Aquifer

The lower aquifer in the study area is contained within the Montebello Limestone member of the Cibao Formation and the Lares Limestone. These units have about one fiftieth the average permeability of the limestones of the upper aquifer (Giusti and Bennett, 1976, p. 17). The lower (artesian) aquifer was first discovered in the area along Highway 2 near Barceloneta when a well, 1,200 ft deep, was drilled. When first tapped, the head in the aquifer was 200 ft above land surface and 450 ft above the water table in the upper aquifer (Giusti and Bennett, 1976, p. 17). This difference in head is attributable to the thickness and low permeability of the upper member of the Cibao Formation which effectively confines the lower aquifer in the northern three quarters of the study area.

The lower aquifer is recharged in the outcrop areas of the Montebello and Lares Limestones (fig. 5). In the south-central part of the study area, the unnamed member of the Cibao Formation subcrops (fig. 4), creating a direct connection between the Montebello and Aguada Limestones, allowing the potential for some ground-water flow to move from the unconfined parts of the lower aquifer into the upper aquifer.

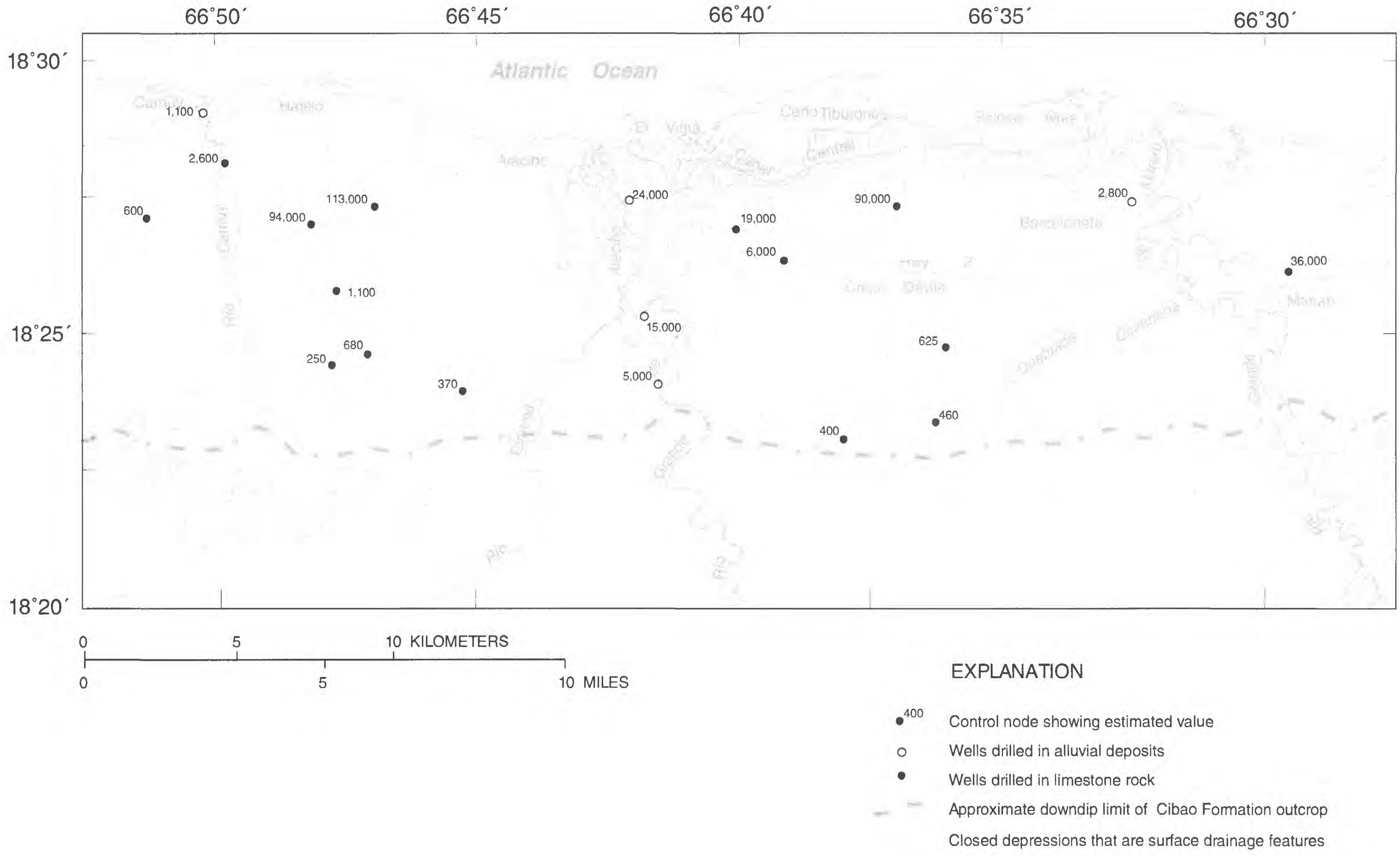



**Figure 7.** Regionalized distribution of the estimated aquifer transmissivity for the upper aquifer system in the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico.

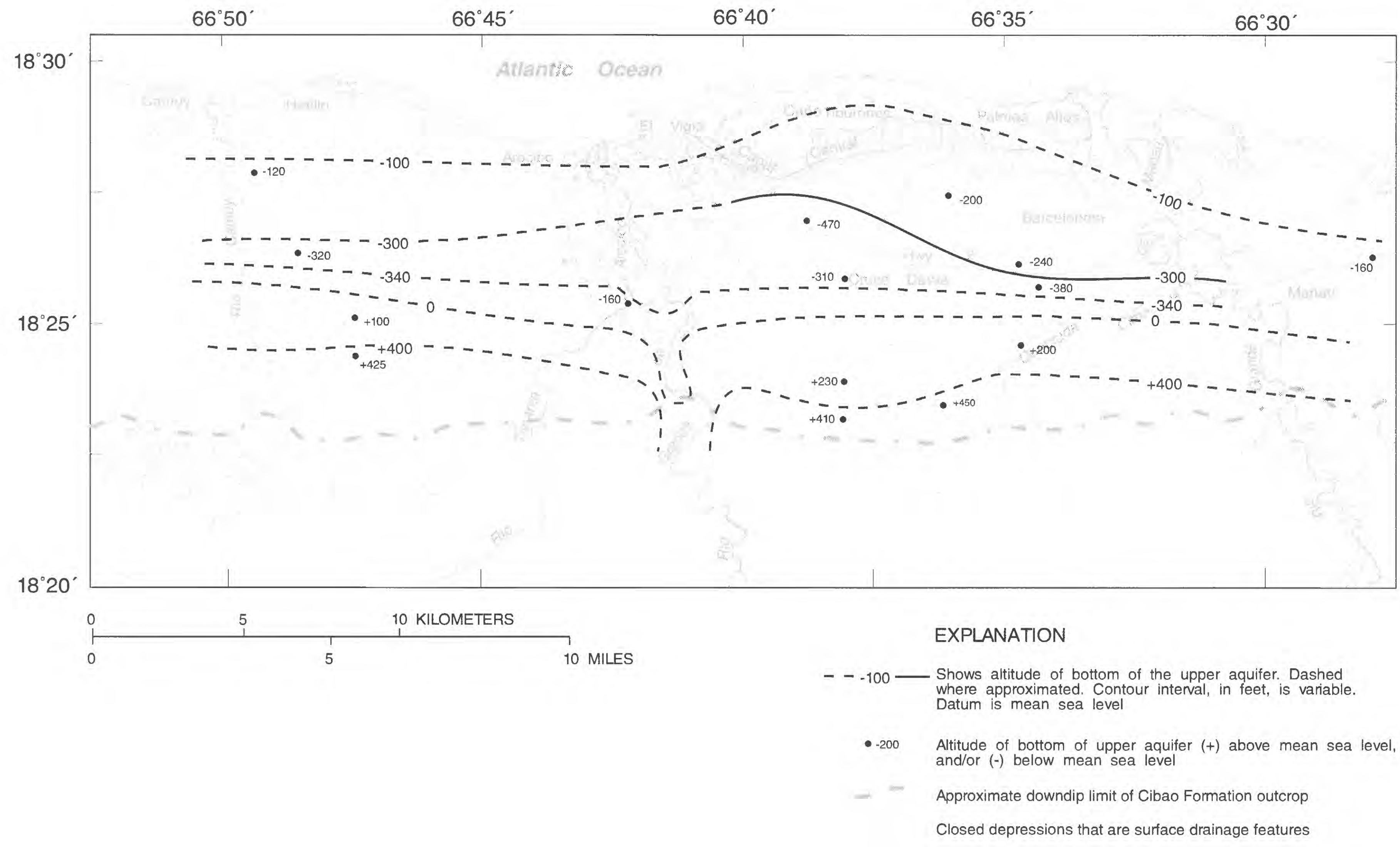



**Figure 8.** Estimated altitude at the base of the upper aquifer in the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico.

## Potentiometric Surface of the Upper Aquifer

Potentiometric-surface maps of the study area representing steady-state conditions were constructed using water-level data for both 1965 and 1987. Observed water-level changes in the upper aquifer were minimal during this period (tables 2 and 3) and a composite potentiometric map was constructed. Potentiometric-surface contours were originally plotted on topographic quadrangle maps at a scale of 1:20,000 and were later reduced as shown in figure 9. The USGS has monitored water levels with time in the study area, beginning in 1960, and there were no significant fluctuations in ground-water levels within the upper aquifer prior to 1965 (fig. 10). By 1987, pumpage from the upper aquifer totaled about 15 Mgal/d and declines in the potentiometric surface were observed in the areas along Highway 2 in the central part of the study area and east of the Río Grande de Manatí (fig. 10). These declines are not reflected in the surface shown on figure 9. In the late 1960's, ground-water levels began declining in some areas due to increased pumpage in the upper aquifer. Recent water-level measurements (1995) in the study area suggest that the potentiometric surface has been relatively stable since the early 1980's, but at lower levels than in 1965.

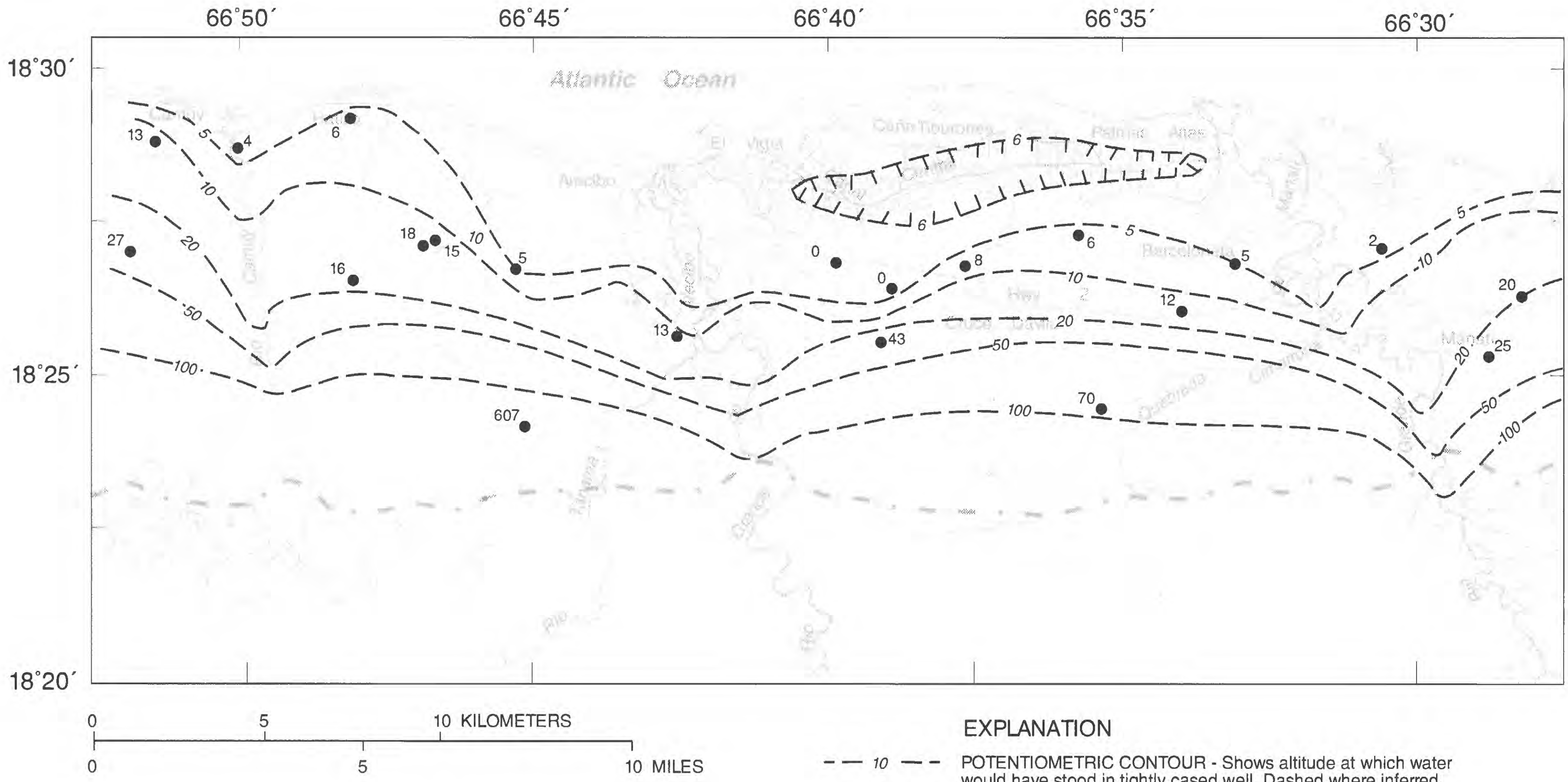
## Ground-Water Flow

The Río Camuy to Río Grande de Manatí area contains some of the most productive and permeable aquifers in Puerto Rico. Most of the drainage is subterranean in nature and recharge areas are characterized by karst which is dominated by numerous sinkholes and caves. Most ground-water recharge to the upper aquifer occurs in the outcrop area of the Aguada Limestone and generally flows north through the Aguada Limestone into the Aymamón Limestone (fig. 5). Recharge occurs mainly in the central and southern parts of the study area where karst features predominate (fig. 11). The higher rates of recharge (20 to 28 in/yr) occur where limestone is at or near the surface; that is, in the areas of outcrop for the Aguada in the south and the areas of Aymamón mogotes in the central part of the study area. Medium rates of recharge (10 to 20 in/yr) occur in the central part of the study area where soils are well-drained (fig. 11) and the water table is more than 20 ft below land surface. Along the coast, there are deposits of sand that are excessively drained, however, a dense clay, called tosca, lays below these sands and prevents the appreciable downward infiltration to the upper aquifer.

Ground-water flow in the upper aquifer is mainly northward from recharge areas toward the coast (fig. 9). As ground water flows north, it can become locally confined, probably as a result of low permeable materials at the base of the surficial deposits (Zack and Class-Cacho, 1984, p. 12-13). These locally confined conditions result in a pressure buildup in the upper aquifer and may explain the existence of freshwater springs in the Caño Tiburones area. Continuous removal of water from the Caño Tiburones by the pumping station at El Vigía depressed the water-table until it was lowered below sea level, thereby reversing the hydraulic gradient with the ocean and producing saltwater springs within the Caño (Zack and Class-Cacho, 1984, p. 7).

## Surface-Water/Ground-Water Interaction

The Caño Tiburones is the principal surface-water feature within the study area. The Río Camuy, Río Tanamá, Río Grande de Arecibo, and Río Grande de Manatí are the principal streams in the study area. All of the rivers head in the volcanic rocks and upstream gaging stations are placed near the contact between the volcanic and limestone rocks. Downstream gaging stations are placed as close to the coast as possible but far enough inland to avoid influences from tides. Therefore, long-term streamflow data are available for the entire sequence of limestone rocks. Few data have been collected to document gains and losses between the rivers and aquifers along particular reaches and only data from a pair of stations located on the Río Camuy can be used to evaluate streamflow gains from the outcrop areas of the upper and lower aquifer (fig. 2). Therefore, evaluation of surface-water/ground-water interaction reflect discharges from both aquifers. There also has been no definitive relation made between average-annual discharge of streams and




EXPLANATION

— — 10 — — POTENTIOMETRIC CONTOUR - Shows altitude at which water would have stood in tightly cased well. Dashed where inferred. Hachures indicate depression. Contour interval is variable. Datum is mean sea level

12 ● OBSERVATION WELL - Well used as control point to construct potentiometric surface map. Number shows measured water level

Approximate downdip limit of Cibao Formation outcrop

Closed depressions that are surface drainage features

**Figure 9.** Composite potentiometric surface of the upper aquifer for the years 1965 and 1987 in the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico.

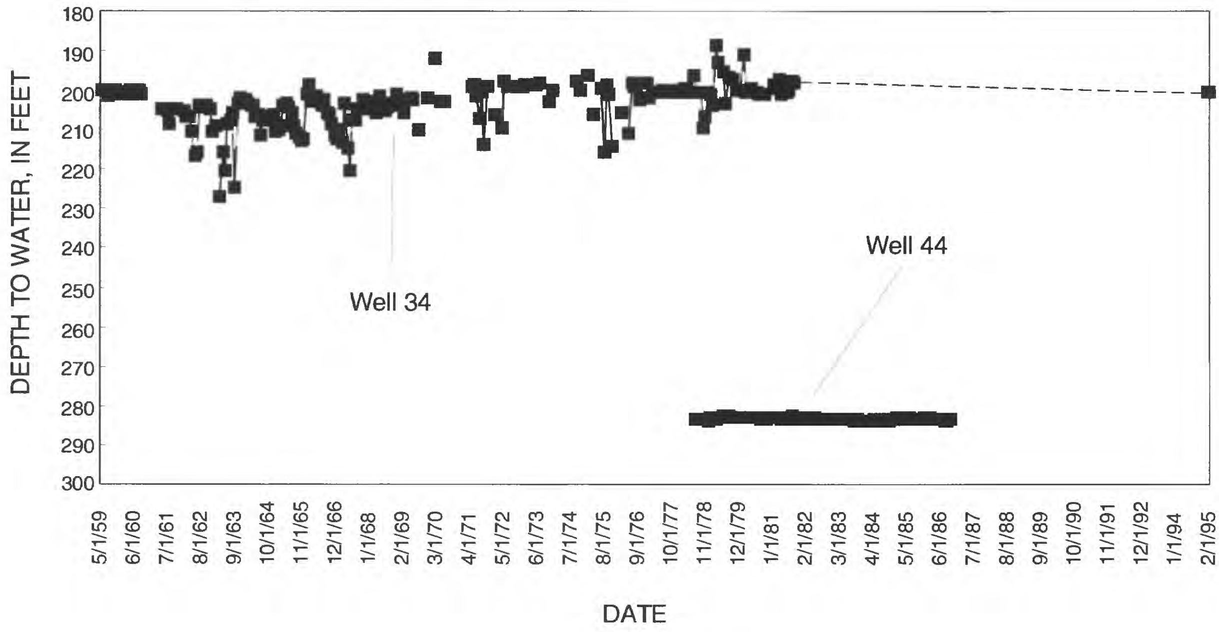


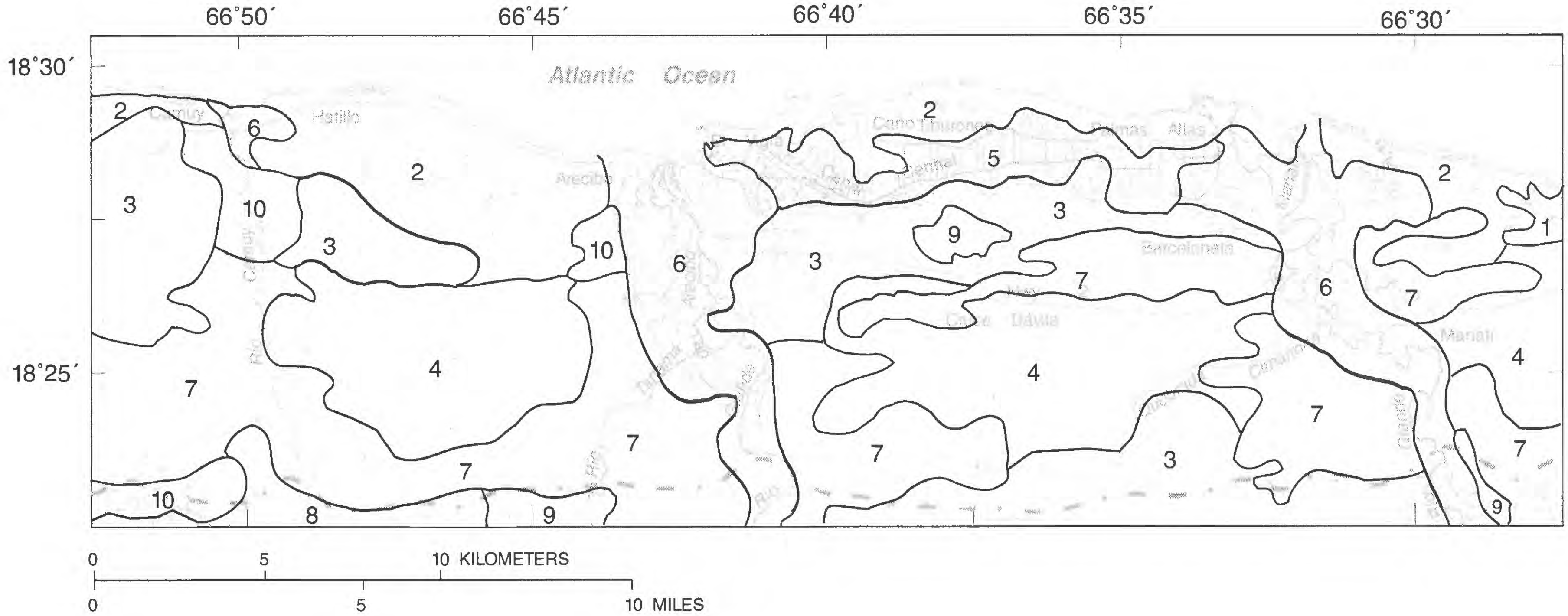

**Figure 10.** Hydrograph of ground-water levels at wells 34 and 44 in the Barceloneta area, Puerto Rico (refer to figure 2 for well location).

average baseflow. A study in Florida (Vecchioli and others, 1990) has shown that baseflow could be 60 to 85 percent of annual-average discharge depending on the drainage area of the basin. These ratios were used to estimate the ground-water discharge to streams from the limestone aquifers in the study area.

The Caño Tiburones covers an area of approximately 18 $mi^2$ and is an area of concentrated ground-water discharge. Pumpage from El Vigía, a pump station on the western section of the Caño Tiburones, amounts to 111 $ft^3/s$ under normal conditions (Díaz, 1973, pl. 2) and is a mixture of freshwater and seawater. Fresh ground-water input has been estimated to be between 60 and 70 percent of the total pumpage (67 to 78 $ft^3/s$; Díaz, 1973, pl. 2). This discharge accounts for about 80 percent of the total ground-water flow (about 90 $ft^3/s$) moving through the upper aquifer, as estimated by Giusti and Bennett (1976).

Between 1985 and 1990, the average annual discharge for the Río Camuy at station 50015700 was 177 $ft^3/s$. Low-flow data, collected from 1959 to 1967 at five sites in the Río Camuy basin, indicate that the Río Camuy gains about 42 $ft^3/s$ through the limestone aquifers, 25 $ft^3/s$ as it flows through the lower aquifer and 17 $ft^3/s$ from the upstream edge of the upper aquifer to the mouth of the river (Kipple and others, 1963; Rickher, 1968). These measurements indicate that about 40 percent (17/42 $ft^3/s$) of the baseflow to the river is from the upper aquifer. As this is the only information to separate contributions to baseflow between the aquifers, this relationship will be used to defined the baseflow contributions from the upper aquifer to the other major rivers in the study area.

The headwaters of the Río Grande de Arecibo also occur in the volcanic interior of Puerto Rico. It is the only regulated river in the study area, with water from Lago




EXPLANATION

SOILS ON COASTAL PLAINS

1 Algarrobo Corozo Arecibo association: Deep, gently sloping to sloping excessively drained and well drained sandy soils

2 Guerrero Carrizales Jobos association Deep, gently sloping to sloping excessively drained and moderately well drained, sandy and loamy soils

3 Almirante Espinosa Vega Alta association Deep, gently sloping to sloping, well drained, loamy and clayey soil

4 Bayamón Matanzas association: Deep, gently sloping to sloping, well; drained, clayey soils

5 Tiburones Palmar Garrochales association: Deep, nearly level, poorly drained mucky soil

SOILS ON FLOOD PLAINS

6 Toa Coloso Bajura association Deep, nearly level, well drained to poorly drained, loamy to clayey soils

SOILS ON UPLANDS

7 Rock outcrop Tanamá San Sebastián association; Rock outcrop and, shallow, to deep, sloping to very steep, well drained, clayey soils

8 Moca Perchas association: Deep, gently sloping to steep, moderately well drained and poorly drained, clayey soil

9 Colinas Naranjito Juncal association Deep and moderatery deep, moderately well drained and well drained, clayey to loamy soils

10 Soller San Germán Rock outcrop association Shallow and moderately deep, sloping to very steep, well drained, loamy to clayey soils; rock outcrop

Approximate downdip limit of Cibao Formation outcrop

Closed depressions that are surface drainage features

**Figure 11.** Generalized soils map of the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico.

Dos Bocas used to produce hydroelectric power. Downstream of the dam, the Río Grande de Arecibo cuts through the North Coast Limestone belt forming a wide canyon with almost vertical walls and a flood plain characterized by long meanders. In addition to streamflow from most of its tributaries, the Río Grande de Arecibo discharge is increased by flow from Los Chorros and San Pedro Springs (map numbers 81 and 88, fig. 2), with average discharge rates of about 2 and 13 $ft^3/s$, respectively (Guzmán-Ríos, 1988, p. 13-14). As the Río Grande de Arecibo flows out of the limestone canyon, it enters a wide coastal alluvial valley characterized by abandoned channels (Giusti, 1978, p. 55, and Quiñones-Aponte, 1986, p. 5). The average-annual discharge of the Río Grande de Arecibo at station 50027750 was 438 $ft^3/s$ from 1983 to 1990 (Curtis and others, 1990). Because of regulation, no other gaging stations record the flow and there is no information about ground-water discharge to the Río Grande de Arecibo.

The Río Tanamá is the principal tributary to the Río Grande de Arecibo. Its headwaters are in the mountainous interior of Puerto Rico and it flows through the North Coast Limestone belt in a narrow, deeply incised canyon. The average-annual discharge for Río Tanamá from 1981 to 1990 (Curtis and others, 1990) was 51 $ft^3/s$ at station 50028000 (upstream) and 86 $ft^3/s$ at station 50028400 (downstream). The baseflow component of this total gain is estimated to ranged between 20 and 30 $ft^3/s$. The contribution of baseflow from the upper aquifer is thus estimated to be between 8 and 12 $ft^3/s$. However, a low-flow measurement during February 1994 estimated a net loss of about 2 $ft^3/s$ for this river (Luis Santiago, U.S. Geological Survey, written commun., 1994).

The headwaters of the Río Grande de Manatí are also located in the volcanic interior of Puerto Rico. The river's course through the North Coast Limestone belt is characterized by a narrow flood plain and several meanders. Northwest of the town of Manatí, the river enters a wide coastal plain that is characterized by large and well-developed meanders. Low flow discharge measurements (Kipple and others, 1963) indicate that the Río Grande de Manatí gains about 25 $ft^3/s$ at the reach between the mouth of the Río Cialitos and a site located 1.2 mi south of Manatí. These data also indicate that, within the reach between the town of Manatí and the surface-water station at Highway 2 bridge, the stream's net water gain is 0 $ft^3/s$. The average-annual discharges from 1981 to 1990 (Curtis and others, 1990) were at station 50035500 (upstream) on the Río Grande de Manatí, 160 $ft^3/s$, at station 50035950 on the Río Cialitos, 17 $ft^3/s$; and at station 50028400 (downstream) on the Río Grande de Manatí, 295 $ft^3/s$, for an estimated gain in ground-water discharge of 70 to 100 $ft^3/s$. However, there are also two springs that rise in the Lares Limestone and contribute 11 $ft^3/s$ to the flow of the Río Grande de Manatí. The contribution of baseflow from the upper aquifer is estimated to be between 28 and 40 $ft^3/s$, so that the final estimated baseflow is between 17 and 29 $ft^3/s$ once thus point discharge is removed from the totals.

## Hydrologic Budget

The hydrologic budget for the limestone aquifers in the North Coast Province was estimated by Giusti and Bennett (1976) using the mass-balance approach. The water budget computed by Giusti and Bennett included all areas underlain by Tertiary limestone extending from the vicinity of Quebrada Los Cedros (near Aguadilla) to Río de La Plata, over a 405 $mi^2$ area (fig. 1). Hydrographs, obtained from streamflow records for the period of November 1969 to October 1970, were separated into flood-flow and baseflow components to determine the amount of ground-water discharge to streams (Giusti and Bennett, 1976, p. 30). Average hydraulic conductivity values, obtained by Giusti and Bennett (1976, p. 20), were used with the average south-to-north hydraulic gradient and the width of flow to estimate seaward discharge of ground water. Figure 12 shows the coastal areas within the study area covered by Giusti and Bennett (1976), and for which an estimated hydrologic budget is available.

Giusti and Bennett (1976) determined that infiltration of rainfall is the largest component of ground-water recharge in the North Coast Province. However, rainfall during the period in which they conducted their study was about 20 percent greater than normal (Giusti and Bennett, 1976, p. 27-29). Giusti and Bennett (1976, p. 23) also determined water budgets for individual areas between the major rivers. These budgets include ground-water components of both the lower and upper aquifers. Considering the water budget computed for the area between the Río Camuy and Río Grande de Manatí, the average rates for their period of study are summarized as follows: from an average of 70 in/yr of rainfall, about 6 in/yr constitutes flood flow, 12 in/yr constitutes baseflow to streams, 6 in/yr is discharged from the Caño Tiburones through El Vigía dewatering pumps, 4 in/yr is discharged to the ocean, and 42 in/yr is evapotranspired.

## GROUND-WATER FLOW MODEL OF THE UPPER AQUIFER

A two-layer digital model was used to simulate ground-water flow within the upper aquifer. The following sections summarize the flow-model assumptions used to construct and calibrate the model. MODFLOW, the finite-difference modular model of McDonald and Harbaugh (1988), was used to simulate ground-water flow in the upper aquifer system. The model uses finite-difference techniques to solve the ground-water flow equation for three-dimensional, steady-state or transient flow in an anisotropic, heterogeneous, porous media.

The conceptual model used to describe ground-water flow is shown in figure 13. Horizontal, as well as vertical, flow components were considered in the conceptualization of the upper aquifer. Other important aspects in model development are the differences in hydraulic characteristics between the limestones and alluvial deposits. These differences were accommodated in the model by setting up two layers: layer 1 included the alluvial deposits and the upper part of the limestone rocks to a saturated depth of 200 ft; layer 2 included the remaining thickness of the limestone rocks.

### Calibration Strategy

Hydrologic conditions prior to 1965 were considered to be near average-annual predevelopment conditions and were simulated to develop calibrated arrays of aquifer hydraulic characteristics and recharge. Hydrologic conditions for 1987 were simulated to further refine these arrays and develop an understanding of the effects of withdrawals from wells on water levels during the period 1965 to 1987. Major pumping in the upper aquifer began in the early 1970's and has occurred at a steady annual rate since the early 1980's (PRDNER water franchise records). Therefore, pre-1965 and 1987 conditions were simulated using assumptions of steady-state, diffuse flow and average-annual conditions were simulated for both periods.

The model was calibrated using water-level and budget data. Water levels in wells were matched to the calculated water levels in appropriate model cells to within 18 ft. This criterion was chosen because the datum for the wells were taken from topographic maps that had 5-meter contour intervals. Discharges for the rivers and the Caño Tiburones are estimates, no historical data were available to determine ground-water discharge from the upper aquifer to the streams and the Caño Tiburones, and these estimates have a wide margin of error.

### Model Assumptions

Various assumptions were necessary to develop and calibrate the flow model of the upper aquifer. A summary of these assumptions follows:

- At a regional scale, ground-water flow is diffuse and nonpreferential (conduit flow is assumed to be negligible or insignificant);
- During and prior to 1965, the ground-water system was considered to be at steady-state. In the Caño Tiburones area, the upper aquifer has been drained by pumps since 1949. The local impact on ground-water flow caused by the pumping station was assumed to be negligible during 1965 and 1987. The amount of ground-water discharged into the Caño Tiburones was estimated to equal the known volumes of freshwater pumped to the sea at the El Vigía pump house.
- During 1987, the ground-water system was considered to be at steady state (constant pumping, constant drawdown distribution).

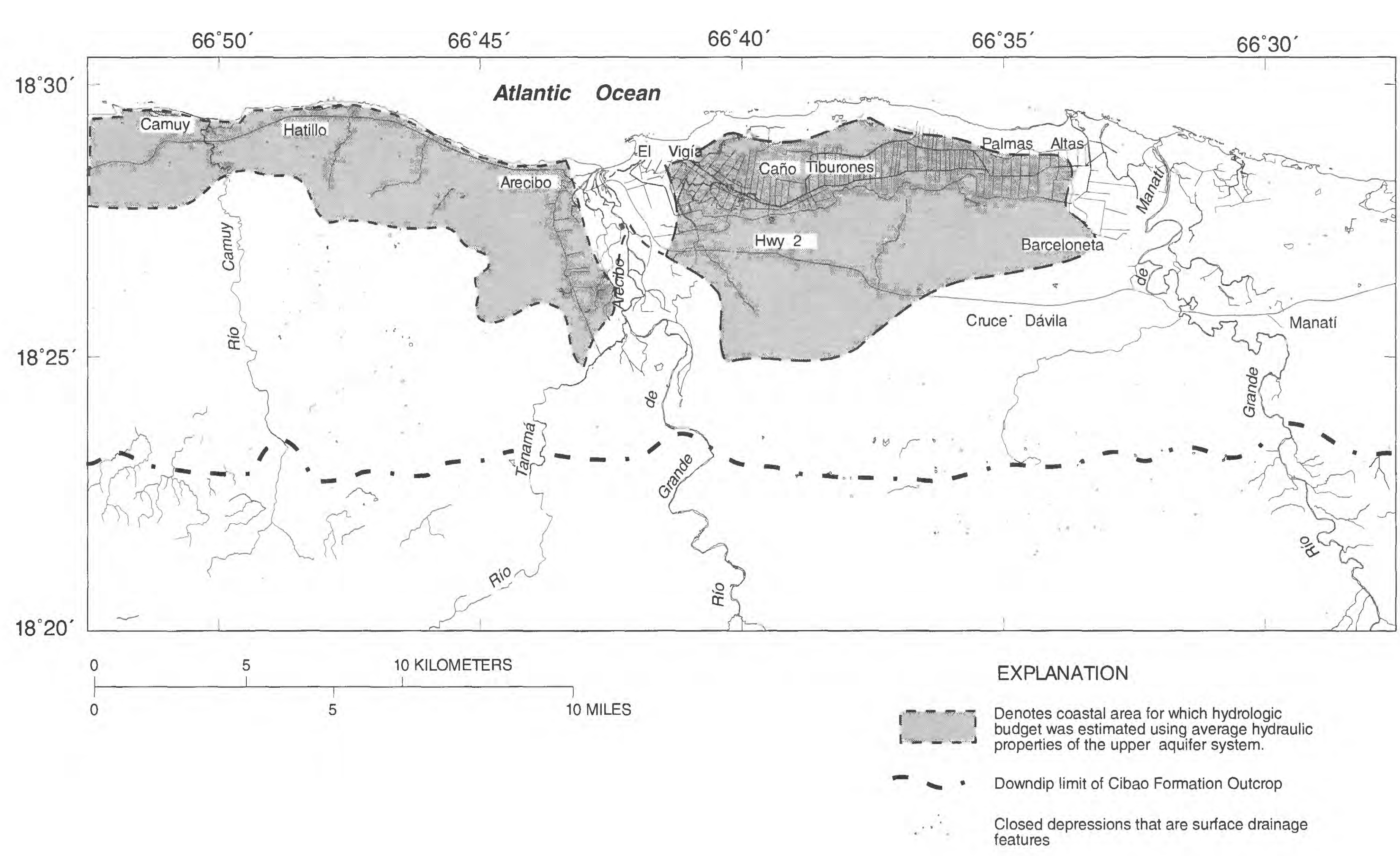



**Figure 12.** Coastal areas in the North Coast Province of Puerto Rico covered by Giusti and Bennett (1976), and for which an estimated hydrologic budget is available.

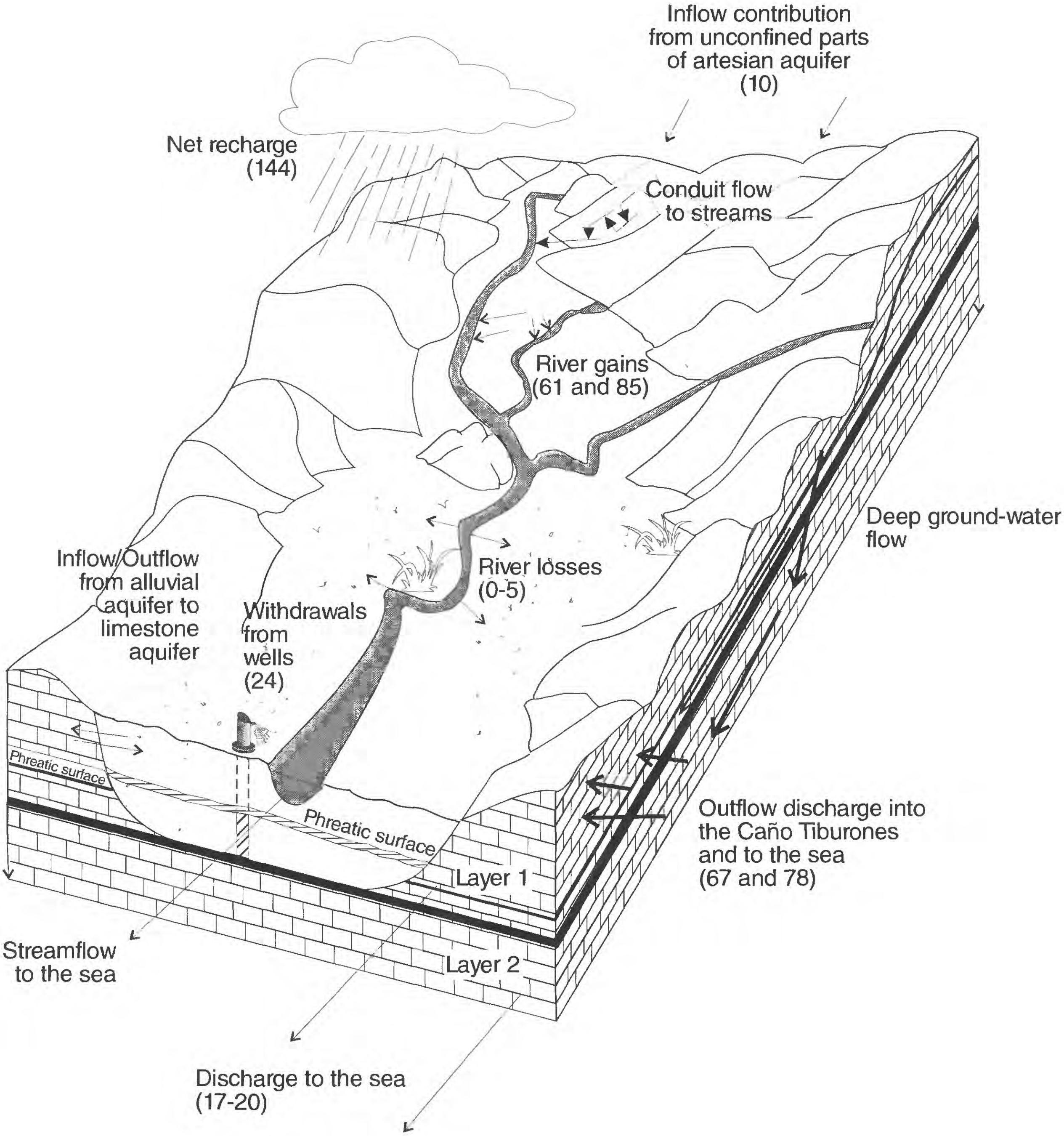



**Figure 13.** Schematic diagram of the upper aquifer showing the vertical and horizontal direction of ground-water flow (numbers in parenthesis indicate estimated budget terms, in cubic feet per second).

- Density differences between fresh and saline ground water were assumed to be negligible within the saturated part of the upper aquifer containing dissolved solids concentrations of 5,000 mg/L or less. In reality, the flow system consists of zones that shift coastward toward gradually increasing salinity and dissolved solids concentration.
- Changes in the saturated thickness in the upper aquifer were assumed to be negligible between 1965 and 1987 (aquifer transmissivity remains constant).
- The position of the fresh-saltwater interface was assumed to remain unchanged between 1965 and 1987 (aquifer transmissivity remained constant).
- Ground-water discharge to streams, to the sea along the shoreline, to the Caño Tiburones area, and withdrawals from public-supply and industrial wells are constant and within the range of estimate previously described.
- Evapotranspiration was not considered in the model because recharge rates were considered as "net recharge" in which the effects of evapotranspiration were already accounted.

### Model Design

The model design was based on the determination of the aquifer boundaries. Once the boundary locations were chosen, a model grid (fig. 14) was prepared. The grid was oriented in a north-south/east-west pattern, generally in line with the regionally predominant south-to-north hydraulic gradient. A grid of 38 rows and 138 columns was made of uniformly-spaced squares having a length of 1,000 ft on each side. The modeled grid was also discretized vertically into two layers to separate the alluvial valleys from the underlying Aymamón-Aguada Limestone hydrogeologic unit.

## Boundary Conditions

Boundary conditions used to simulate the 1965 and 1987 flow conditions are illustrated in figures 14a and b. A constant-head boundary was applied along the coastline was used to represent the ocean (head equal 0.0 ft). No-flow conditions were assigned along the east and west boundaries to coincide with north-south flow paths between river basins. The southern boundary was modeled as a no-flow boundary along the southern outcrop of the permeable parts of the Aguada Limestone. The upper model boundary throughout the study area is the potentiometric surface of the Aymamón-Aguada Limestone hydrologic unit and the approximate potentiometric surface of the alluvial valleys of the Río Grande de Arecibo (Quiñones-Aponte, 1986) and the Río Grande de Manatí (Gómez-Gómez, 1984). The bottom boundary was set as a no-flow boundary and coincides with the top of the upper unnamed member of the Cibao Formation in the central and eastern parts of the study area, the top of the impermeable part of the Aguada Limestone in the western part of the study area, and the estimated depth at which ground water contains more than 5,000 mg/L of dissolved solids in the coastal part of the study area. Internal boundaries consist of river cells that represent the streams within the study area and drain cells that represent the Caño Tiburones area.

## Hydrologic Input Data

Spatially distributed input data requirements for the upper aquifer system model are: water-level data interpreted from a series of discrete points spatially distributed and representative of the aquifer system, estimated recharge, the hydraulic properties of the aquifer (transmissivity or hydraulic conductivity), and water withdrawals as related to estimates of pumpage. The potentiometric surface map was used (fig. 9) to represent hydrologic conditions for both model layers of the upper aquifer. The model arrays used to represent the hydrologic conditions during 1965 and 1987 are listed in Appendix 1.

### Transmissivity Distribution

Aquifer transmissivities were estimated initially using data shown in figure 7 and discretized vertically into two-layers (fig. 15a, b). The vertical discretization was controlled by the thickness of the alluvial deposits in both the Río Grande de Arecibo and Río Grande de Manatí valleys (fig. 13). The thickness of the Río Camuy alluvial deposits was also considered in the vertical discretization of transmissivities, however, the size and configuration of

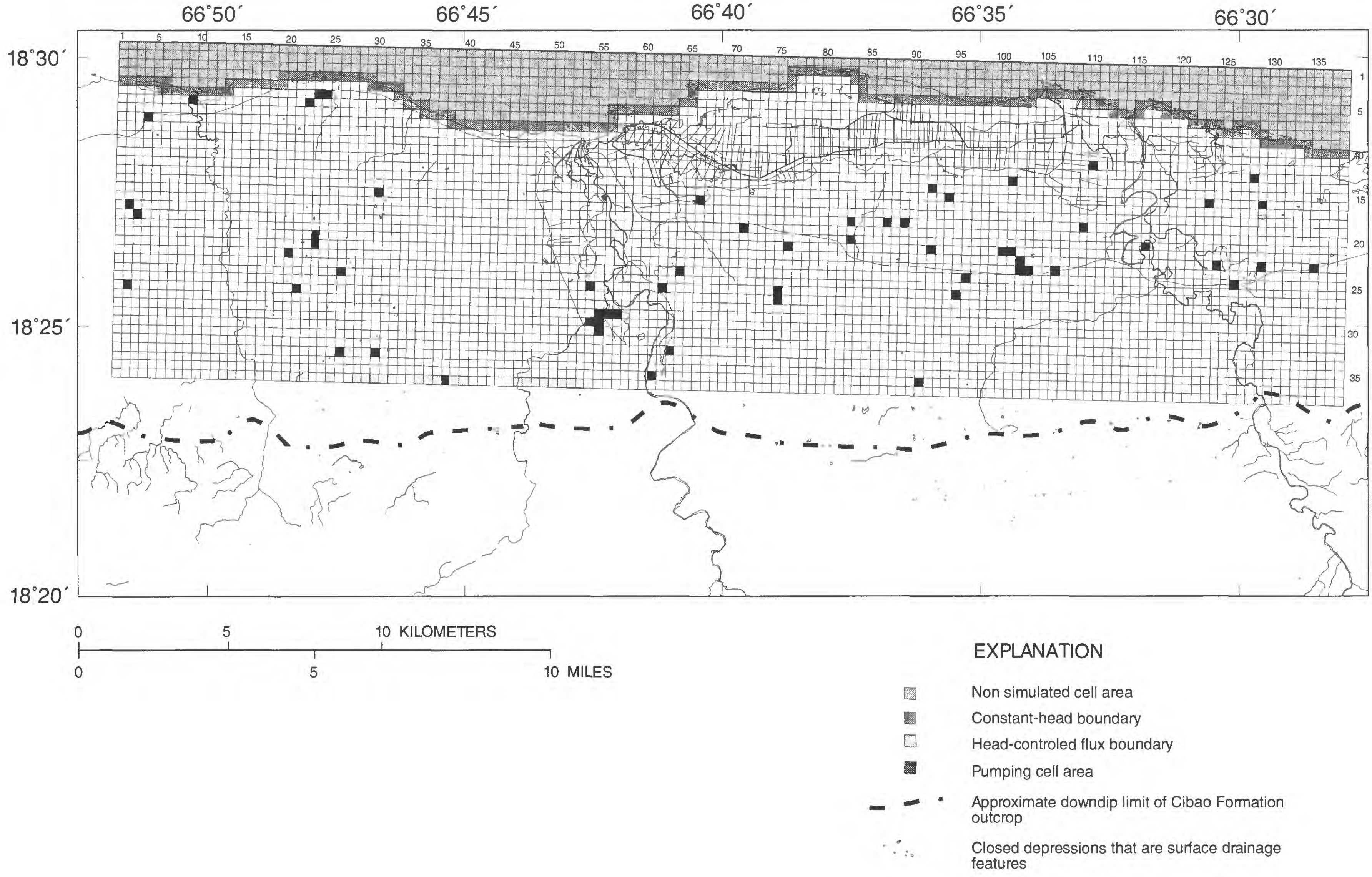



**Figure 14a.** Model grid and boundary conditions for the ground-water flow model of the upper aquifer in the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico, layer one.

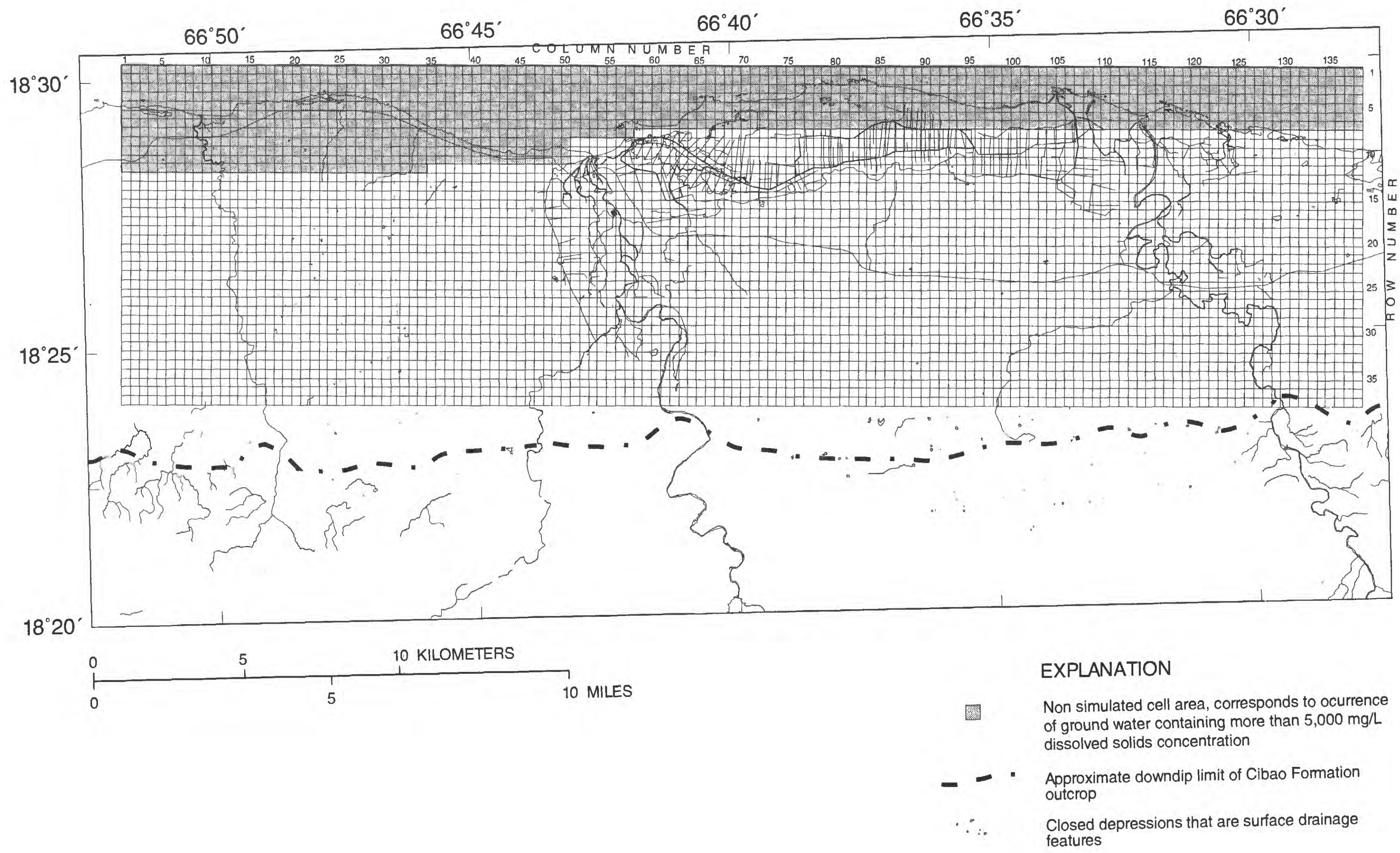



**Figure 14b.** Model grid and boundary conditions for the ground-water flow model of the upper aquifer in the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico, layer two.

the coastal alluvial valley formed by the Río Camuy is relatively small. For areas in which the alluvial deposits exist, the transmissivity values in the upper layer, layer 1, correspond to those of the alluvial deposits solely and the transmissivity values in the lower layer, layer 2, were assigned values representing transmissivities of the limestone units. In areas where the limestone deposits extend over the entire saturated thickness of the aquifer, the transmissivity of the limestone was vertically discretized with roughly the equivalent of 200 ft of the estimated transmissivity value for the upper aquifer being assigned to layer 1. The remaining estimate for the transmissivity of the aquifer was assigned to layer 2. Where the aquifer was less than 200 ft thick, an arbitrary assignment of the estimated limestone transmissivity was 75 percent to layer 1 and 25 percent to layer 2.

### Aquifer Recharge

Ground-water recharge was assumed to vary according to the area's topography. Highland areas, characterized by karst features like mogotes and sinkholes with soils that are typically well drained, lowland areas, characterized by blanket sands, dry valleys, marsh and swamp deposits with soils that are poorly drained, and alluvial sediments, with soils that are moderately drained, were assumed to correspond to zones of different aquifer recharge rates. Ground-water recharge was initially assumed to be higher in the mogote and sinkhole areas and was gradually decreased to near zero in northern parts of the coastal plain. During model calibration, applied ground-water recharge was adjusted according to topographic features from zero in areas within the northern coastal plain, 10 to 15 in/yr in the alluvial valleys, to a maximum of 28 in/yr along the southern highland regions. Net recharge to the alluvial valleys was applied at rates ranging from 10 to 15 in/yr.

### Riverbed Conductance

Another important step in the construction of the model was the estimation of riverbed conductance values to simulate river aquifer interaction. Riverbed conductance values (RC) were determined using equation (1):

$$RC = (K_{zb} / D_x) * A \qquad (1)$$

where

$K_{zb}$ vertical hydraulic conductivity of the riverbed,

$D_x$ the thickness of the riverbed, and

$A$ the area of the river (length of the river in a cell multiplied by the average river width).

The vertical hydraulic conductivity of the riverbed was assumed to be identical to the vertical hydraulic conductivity of the aquifer for an initial estimate, the thickness of the riverbed was assumed to be 1 ft, and the area of the river was estimated by choosing appropriate widths of the streams (10 to 100 ft) and using 1,000 ft as a length per model cell.

### Vertical Conductance

The two aquifer layers were linked by vertical conductance values calculated by equation 2:

$$VC = (K_z / D_x) * A \qquad (2)$$

where

$K_z$ vertical hydraulic conductivity of the aquifer,

$D_x$ one-half the thickness of the aquifer, and

$A$ the area of the model cell (1,000 by 1,000 ft).

In the alluvial valleys, the vertical flow across the contact between the alluvial deposits and the underlying limestone was modeled using a vertical hydraulic conductivity of the alluvium equal to one tenth the horizontal hydraulic conductivity. The limestone units were assumed to be isotropic and the estimated limestone horizontal hydraulic conductivity was used as the vertical hydraulic conductivity.

## Calibration Process

The calibration process of the flow model representing 1965 conditions proceeded as follows: recharge to the upper aquifer was varied from a minimum of 4 in/yr for alluvial-valley areas (Quiñones-Aponte, 1986, Torres-González, 1985, and Gómez-Gómez and Torres-Sierra,

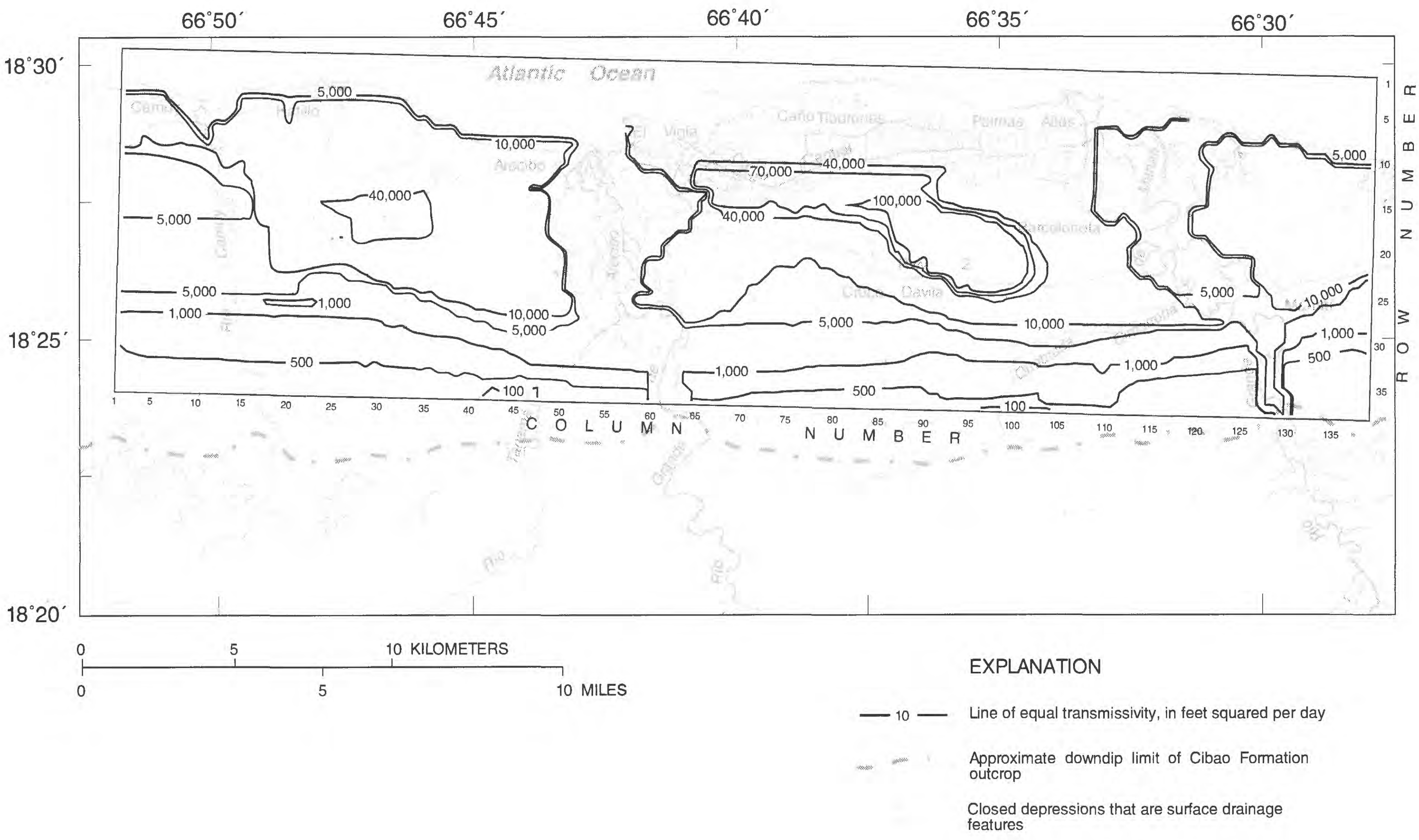



**Figure 15a.** Calibrated distribution of the upper aquifer transmissivity of the ground-water flow model in the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico, layer one.

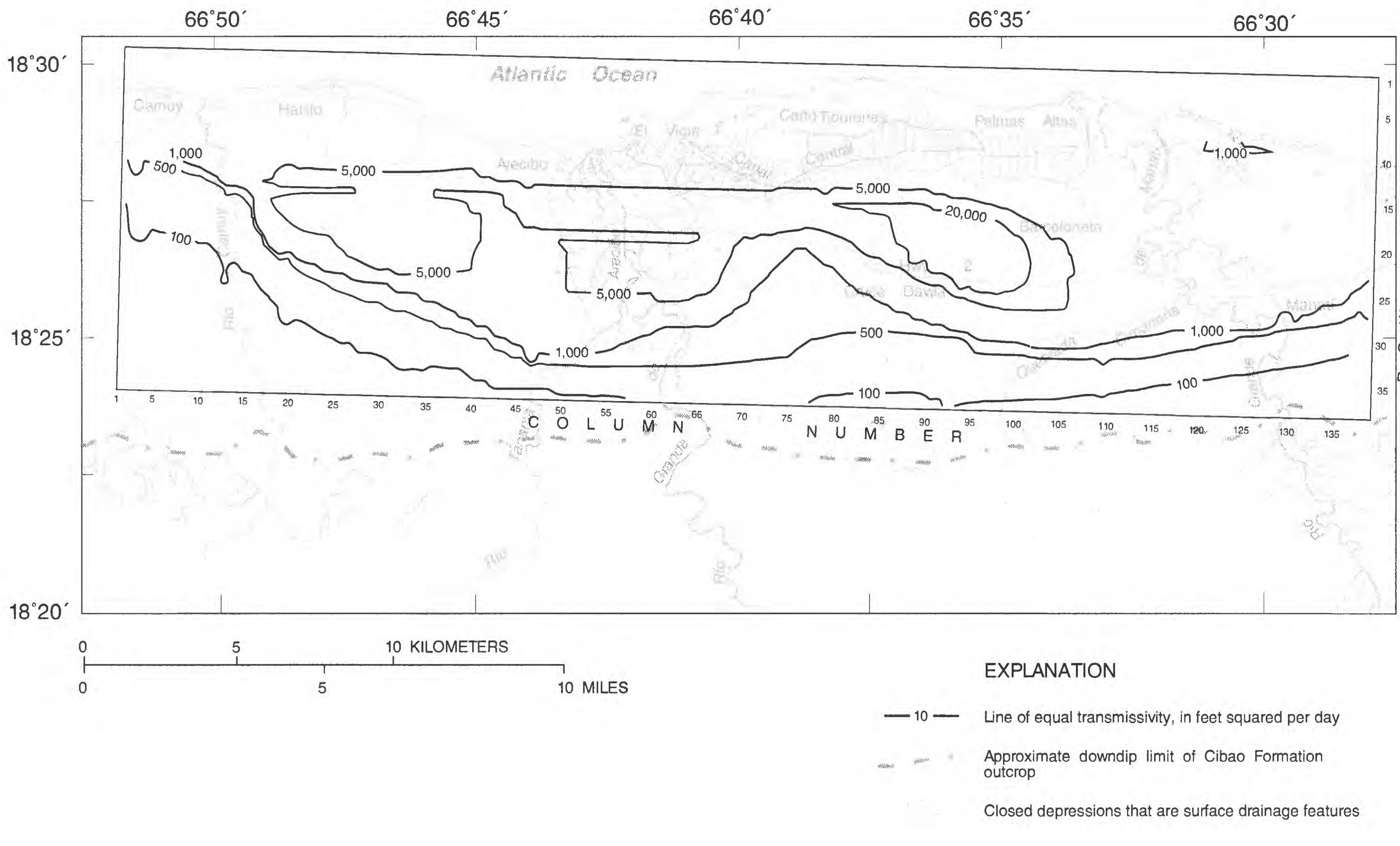



**Figure 15b.** Calibrated distribution of the upper aquifer transmissivity of the ground-water flow model in the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico, layer two.

1988) to a maximum of 28 in/yr for the karst areas (Giusti and Bennett, 1976). Except for those areas near the coastline where mogotes are present, aquifer recharge was assumed to be negligible near the coast (Torres-González, 1985, p. 26).

The initial distribution of aquifer recharge (within 4 to 28 in/yr) was applied with a match for control cell locations (model cells with well measurements) differing in the range of 10-200 ft. Most of the large errors were in the southwest part of the model where simulated water levels were consistently below observed water levels. Additional runs were made altering recharge, but it became evident that another ground-water flow contribution should be considered. It was postulated that northward flow from the unconfined parts of the lower aquifer could be providing water to the upper aquifer. Using Darcy's one-dimensional ground-water flow equation, transmissivity estimates of the Montebello member of the Cibao Formation, and hydraulic gradient estimates by Giusti (1978), the estimated contribution from the unconfined parts of the lower aquifer to the upper aquifer was estimated to be about 10 $ft^3/s$. This estimated flux was applied using injection wells along the southwest boundary of the modeled area (fig. 15).

After adding the inflow of 10 $ft^3/s$ from the unconfined part of the lower aquifer, the simulated potentiometric surface in the southwest areas of the model for 1965 was too high. Therefore, the contribution from the unconfined parts of the lower aquifer was decreased from 10 $ft^3/s$ to 6.4 $ft^3/s$. This decrease improved the calibration of wells located immediately to the south of the Camuy area, and was mostly responsible for correcting the relatively high simulated potentiometric surface in the southwest part of the model area.

During calibration, an improvement of 5 to 10 ft in matching the heads along the coastal alluvial deposits was achieved by increasing or decreasing riverbed conductance values by 10 to 20 percent. Elsewhere, only minor differences were noted in simulated water levels when riverbed conductance was adjusted by these percentages.

Finally, the transmissive properties of the aquifer in layers 1 and 2 were modified to achieve a better match between simulated and measured water levels. The estimates of transmissivity in the southernmost parts of the study area and in areas west of the Río Grande de Arecibo had to be substantially reduced from initial estimates to match head values. Calibrated transmissivity values ranged from about 100 $ft^2/d$ along the southern boundary to about 150,000 $ft^2/d$ in the central parts of the study area (fig. 15 a, b).

Thirty-six of a total 38 heads at control cell locations (cells in which water levels were measured) were calibrated to within 18 feet of measured heads at wells. The two unmatched wells were suspected of having datum errors as surrounding wells were matched within the error criterion. Table 2 shows the simulated and measured heads for the wells and the margin of error.

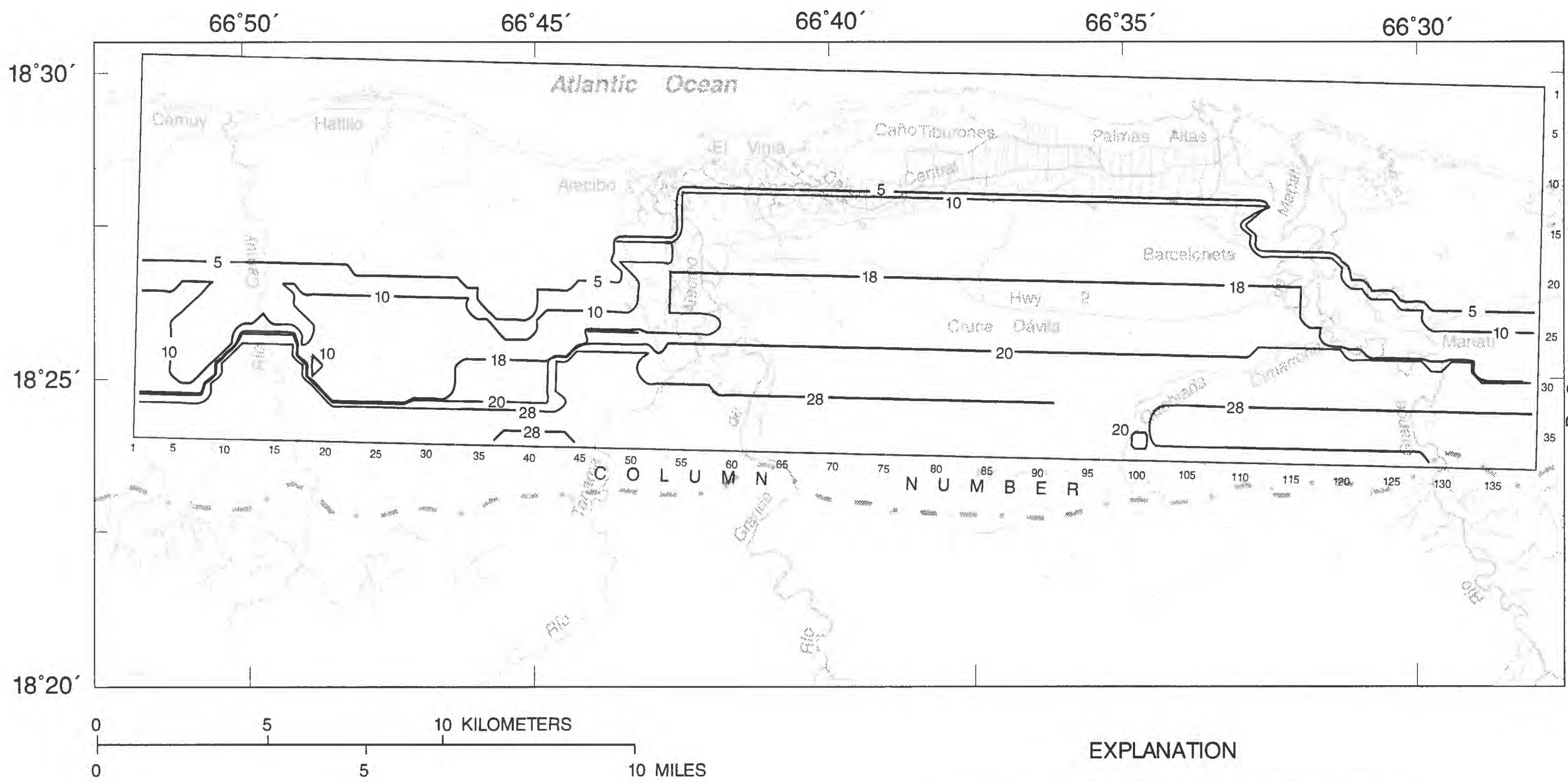
Estimates for ground-water discharge to two of the three rivers and the Caño Tiburones were matched with the model. Freshwater discharge to the Caño Tiburones was simulated at a rate of 69 $ft^3/s$ which falls between the estimates of 67 to 78 $ft^3/s$. The Río Camuy and Río Grande de Manatí were simulated as receiving 12 and 18 $ft^3/s$ of ground-water discharge, respectively, compared to an estimated 17 $ft^3/s$, based on streamflow record analysis. The model simulated the Río Tanamá to be losing water in most reaches. Río Tanamá's net gain was about 2 $ft^3/s$, however, this stream lost about 5 $ft^3/s$ before merging into the alluvial deposits of the lower Río Grande de Arecibo where it gained 7 $ft^3/s$ within three model cells. Because of regulation, there were no data to evaluate the ground-water discharge to the Río Grande de Arecibo, however, the model simulated a gain of 7 $ft^3/s$ for this river.

The calibrated recharge distribution for the steady-state hydrologic conditions in 1965 is shown in figure 16. The calibrated values of vertical leakance is shown in figure 17. The calibrated potentiometric surface for 1965 hydrologic conditions is shown in figure 18.

**Table 2.** Simulated and measured 1965 heads in the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico

[Measured or estimated head are in feet above mean sea level. Head differences at wells and the margin of error are in feet]

| Layer | Row | Column | Measured or estimated head | Calibrated head | Margin of error |
|---|---|---|---|---|---|
| 1 | 24 | 135 | 20.00 | 19.65 | -0.35 |
| 1 | 15 | 55 | 8.00 | 1 | -7 |
| 1 | 20 | 70 | 10.00 | 9.84 | -0.16 |
| 1 | 22 | 75 | 10.00 | 18.37 | 8.37 |
| 1 | 20 | 3 | 50.00 | 61.53 | 11.53 |
| 1 | 27 | 2 | 96.00 | 89.31 | -6.69 |
| 1 | 28 | 75 | 43.00 | 47.26 | 4.26 |
| 1 | 35 | 62 | 55.00 | 43.64 | -11.36 |
| 1 | 16 | 56 | 4.00 | 1.36 | -2.64 |
| 1 | 21 | 82 | 10.00 | 16.03 | 6.03 |
| 1 | 27 | 136 | 25.00 | 38.03 | 13.03 |
| 1 | 22 | 100 | 14.00 | 23.03 | 9.03 |
| 1 | 12 | 50 | 0.50 | 8.77 | 8.27 |
| 1 | 19 | 108 | 15.00 | 19.33 | 4.33 |
| 1 | 23 | 124 | 6.50 | 10.81 | 4.31 |
| 1 | 17 | 122 | 2.00 | 6.55 | 4.55 |
| 1 | 16 | 106 | 12.00 | 16.67 | 4.67 |
| 1 | 10 | 12 | 4.00 | 9.2 | 5.2 |
| 1 | 13 | 12 | 8.00 | 11.51 | 3.51 |
| 1 | 17 | 30 | 18.00 | 34.48 | 16.48 |
| 1 | 23 | 62 | 3.00 | 18.31 | 15.31 |
| 1 | 25 | 126 | 4.45 | 14.05 | 9.6 |
| 1 | 38 | 39 | 607.00 | 595.8 | -11.2 |
| 1 | 33 | 95 | 100.00 | 91.42 | -8.58 |
| 1 | 22 | 37 | 5.00 | 42.05 | 37.05 |
| 1 | 9 | 4 | 16.85 | 5.44 | -11.41 |
| 1 | 7 | 8 | 10.06 | 2.51 | -7.55 |
| 1 | 22 | 23 | 95.00 | 38.49 | -56.51 |
| 1 | 7 | 22 | 9.35 | 14.29 | 4.94 |
| 1 | 6 | 22 | 6.33 | 12.26 | 5.93 |
| 1 | 6 | 23 | 6.00 | 12.73 | 6.73 |
| 1 | 27 | 54 | 12.92 | 24.88 | 11.96 |
| 1 | 17 | 66 | 2.73 | 2.74 | 0.01 |
| 1 | 27 | 61 | 12.00 | 23.53 | 11.53 |
| 1 | 16 | 93 | 6.20 | 16.02 | 9.82 |
| 1 | 26 | 95 | 13.85 | 24.73 | 10.88 |
| 1 | 14 | 100 | 1.00 | 13.67 | 12.67 |
| 1 | 24 | 102 | 22.18 | 25.27 | 3.09 |




EXPLANATION

- 10 — Isopach line of equal aquifer recharge, in inches per year
- Approximate downdip limit of Cibao Formation outcrop
- Closed depressions that are surface drainage features

**Figure 16.** Calibrated distribution of recharge rates for the ground-water flow model of the upper aquifer system in the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico.

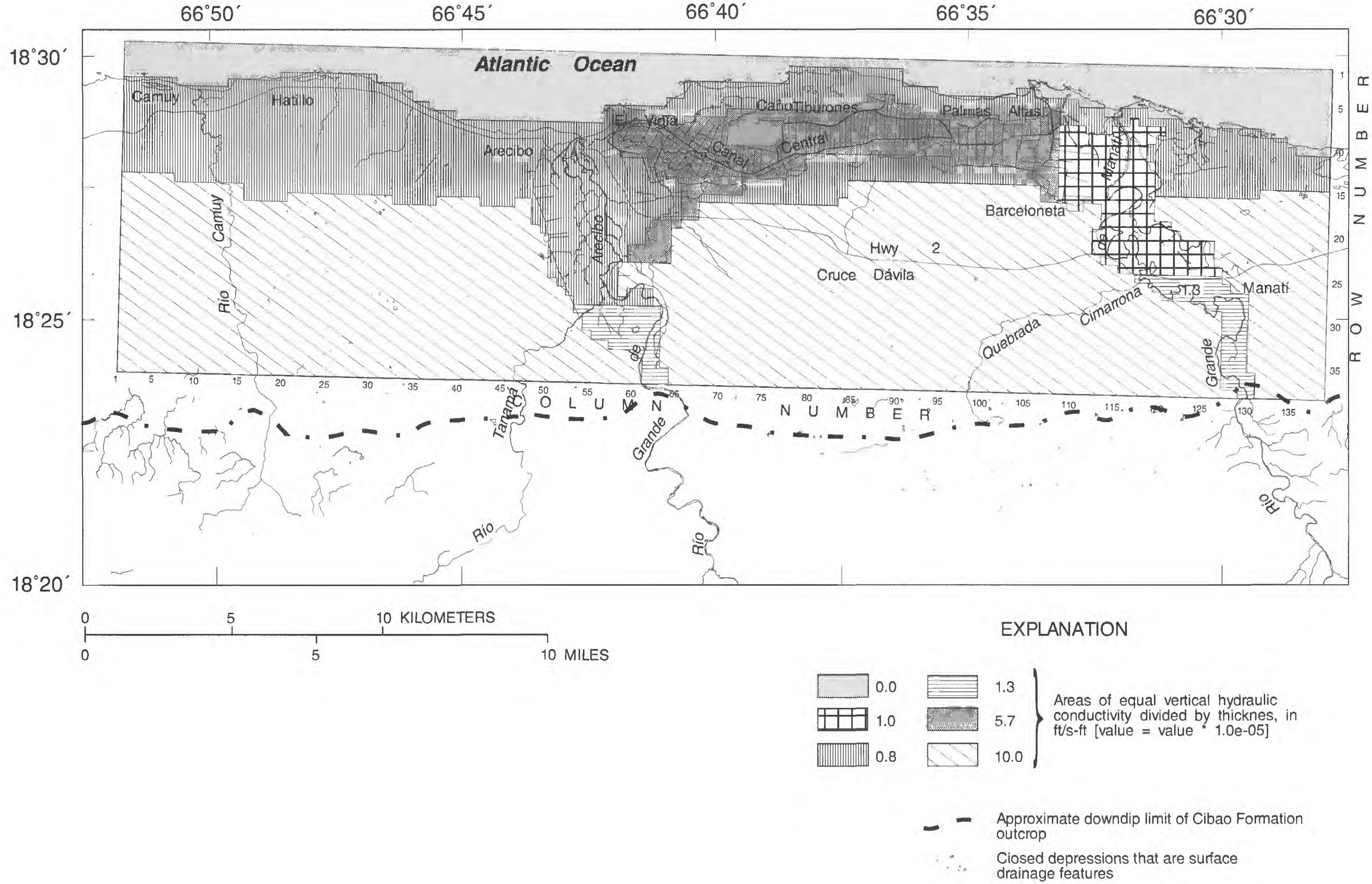



**Figure 17.** Calibrated vertical hydraulic conductivity divided by the average thickness of the (1) limestone-limestone and (2) the limestone-alluvium aquifer zones in the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico.

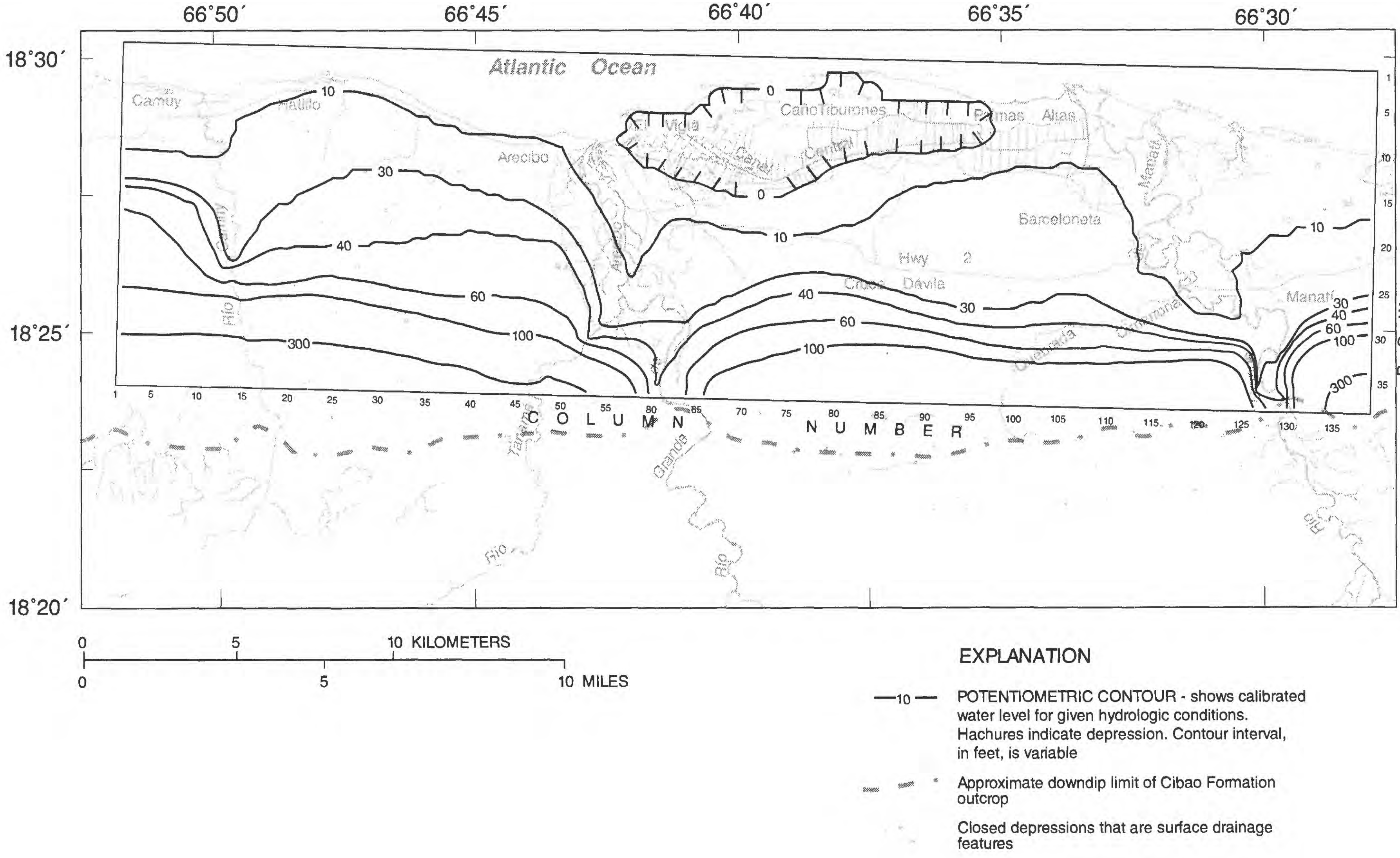



**Figure 18.** Simulated potentiometric surface for 1965 conditions in the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico.

The initial calibration of the steady-state hydrologic conditions for 1987 condition began with the results of model simulated conditions for 1965. The only addition to the 1987 model was the inclusion of ground-water withdrawals from industrial and public-supply wells at appropriate model cells (fig 14a). After adding the 1987 average aquifer pumping rates totaling 15.5 Mgal/d (24 $ft^3/s$), significant simulated head declines were observed in the southernmost part of the model where the aquifer transmissivity is less than 1,000 $ft^2/d$. Along the central and northernmost parts of the study area, the assignment of pumpage to the model did not produce significant changes between 1965 and 1987 calibrated heads. For the central and northernmost areas, differences between 1965 and 1987 simulated heads were less than 5 feet.

Thirty-five of a total 38 heads at control cell locations (locations in which water levels were measured) were calibrated to within 18 feet of measured heads at wells. Two of the three unmatched wells were also suspected of having datum errors as surrounding wells were matched within the error criterion. One well that was not matched (well 101) was at the southern boundary, only had a 1965 water level for the composite potentiometric surface, and should not be considered as reliable for 1987 conditions. The simulated head for that well dropped about 40 ft showing the effects of pumping on the small values of transmissivity along the southern boundary. Table 3 shows the simulated and measured heads for the wells and the margin of error. The calibrated potentiometric surface for 1987 hydrologic conditions is shown in figure 19. Two wells had measurements for 1965 and 1987 that reflect impacts form pumping. Comparing the actual to the simulated change, the actual changes for the wells were 22 and 31 ft and the simulated changes were 6 and 7 ft. The simulated changes are reasonable when the cell size of the model is considered and that the head calculated is an average for the entire cell. These changes do reflect pumping in these cells as the majority of model control cells had 2 ft or less of change between 1965 and 1987.

After calibrating for 1965 and 1987 conditions, the respective volumetric budgets for each of the contributing ground-water flow components were computed and are summarized in figure 20. Ground-water inflow terms for 1965 conditions are areal recharge, 140 $ft^3/s$, ground-water contributions from the unconfined parts of the lower aquifer, 6.4 $ft^3/s$, northward subsurface flow to the Caño Tiburones, 20 $ft^3/s$, and streamflow infiltration, 10 $ft^3/s$. Ground-water outflow terms are subsurface discharge to the Caño Tiburones, 69 $ft^3/s$, subsurface discharge to the sea 26 $ft^3/s$, and aquifer discharge to the river reaches wherever they gain water, 81 $ft^3/s$. The total calibrated ground-water budget was 176.4 $ft^3/s$.

For 1987 conditions, ground-water inflow terms were equal to 1965 conditions and included areal recharge, 140 $ft^3/s$, ground-water contributions from the unconfined parts of the lower aquifer, 6.4 $ft^3/s$, northward subsurface flow towards the Caño Tiburones, 20 $ft^3/s$, and streamflow infiltration, 14 $ft^3/s$. Ground-water outflow terms for 1987 conditions are subsurface discharge to the Caño Tiburones, 63 $ft^3/s$, subsurface discharge to the sea, 24 $ft^3/s$, discharge to pumping wells, 24 $ft^3/s$, and aquifer discharge to the river reaches wherever they gain water, 70 $ft^3/s$. The total calibrated ground-water flow budget was 180 $ft^3/s$. The source of water for the 24 $ft^3/s$ of pumping was a 3.6 $ft^3/s$ increase in streamflow infiltration, a 2.5 $ft^3/s$ reduction in flow to the sea, a 6.4 $ft^3/s$ reduction in subsurface flow to the Caño Tiburones, and an 11 $ft^3/s$ reduction in streamflow gain.

## Sensitivity Analysis

A sensitivity analysis was conducted to determine how the ground-water flow system responds to variations in simulated hydrologic input parameters. The results from this analysis are used as a tool to understand the limitations of the data upon which the model is based. The sensitivity of a particular parameter was determined by the reaction of a set of water-level data from discrete well-locations and by the changes in budget terms. The following is a brief explanation of the sensitivity analysis results.

**Table 3.** Simulated and measured 1987 heads in the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico

[Measured or estimated head are in feet above mean sea level. Head differences at wells and the margin of error are in feet. *, indicates different than 1965 heads]

| Layer | Row | Column | Measured or estimated head | Calibrated head | Margin of error |
|---|---|---|---|---|---|
| 1 | 24 | 135 | 20.00 | 16.72 | -3.28 |
| 1 | 15 | 55 | 8.00 | 0.97 | -7.03 |
| 1 | 20 | 70 | 10.00 | 8.23 | -1.77 |
| 1 | 22 | 75 | 10.00 | 14.8 | 4.8 |
| 1 | 20 | 3 | 28.00* | 55.39 | 27.39 |
| 1 | 27 | 2 | 96.00 | 86.15 | -9.85 |
| 1 | 28 | 75 | 12.17* | 41.79 | 29.62 |
| 1 | 35 | 62 | 55.00 | 41.25 | -13.75 |
| 1 | 16 | 56 | 4.00 | 1.32 | -2.68 |
| 1 | 21 | 82 | 10.00 | 13.21 | 3.21 |
| 1 | 27 | 136 | 25.00 | 35.46 | 10.46 |
| 1 | 22 | 100 | 14.00 | 18.11 | 4.11 |
| 1 | 12 | 50 | 0.50 | 8.53 | 8.03 |
| 1 | 19 | 108 | 15.00 | 15.9 | 0.9 |
| 1 | 23 | 124 | 6.50 | 8.85 | 2.35 |
| 1 | 17 | 122 | 2.00 | 4.8 | 2.8 |
| 1 | 16 | 106 | 12.00 | 13.66 | 1.66 |
| 1 | 10 | 12 | 4.00 | 9.07 | 5.07 |
| 1 | 13 | 12 | 8.00 | 11.39 | 3.39 |
| 1 | 17 | 30 | 18.00 | 33.06 | 15.06 |
| 1 | 23 | 62 | 3.00 | 17.22 | 14.22 |
| 1 | 25 | 126 | 4.45 | 9.02 | 4.57 |
| 1 | 38 | 39 | 607.00 | 548.26 | -58.74 |
| 1 | 33 | 95 | 100.00 | 84.03 | -15.97 |
| 1 | 22 | 37 | 5.00 | 40.64 | 35.64 |
| 1 | 9 | 4 | 16.85 | 5.19 | -11.66 |
| 1 | 7 | 8 | 10.06 | 2.46 | -7.6 |
| 1 | 22 | 23 | 95.00 | 36.41 | -58.59 |
| 1 | 7 | 22 | 9.35 | 13.73 | 4.38 |
| 1 | 6 | 22 | 6.33 | 11.77 | 5.44 |
| 1 | 6 | 23 | 6.00 | 12.22 | 6.22 |
| 1 | 27 | 54 | 12.92 | 24.55 | 11.63 |
| 1 | 17 | 66 | 2.73 | 2.2 | -0.53 |
| 1 | 27 | 61 | 12.00 | 22.96 | 10.96 |
| 1 | 16 | 93 | 6.20 | 12.18 | 5.98 |
| 1 | 26 | 95 | 13.85 | 19.78 | 5.93 |
| 1 | 14 | 100 | 1.00 | 10.86 | 9.86 |
| 1 | 24 | 102 | 22.18 | 19.87 | -2.31 |

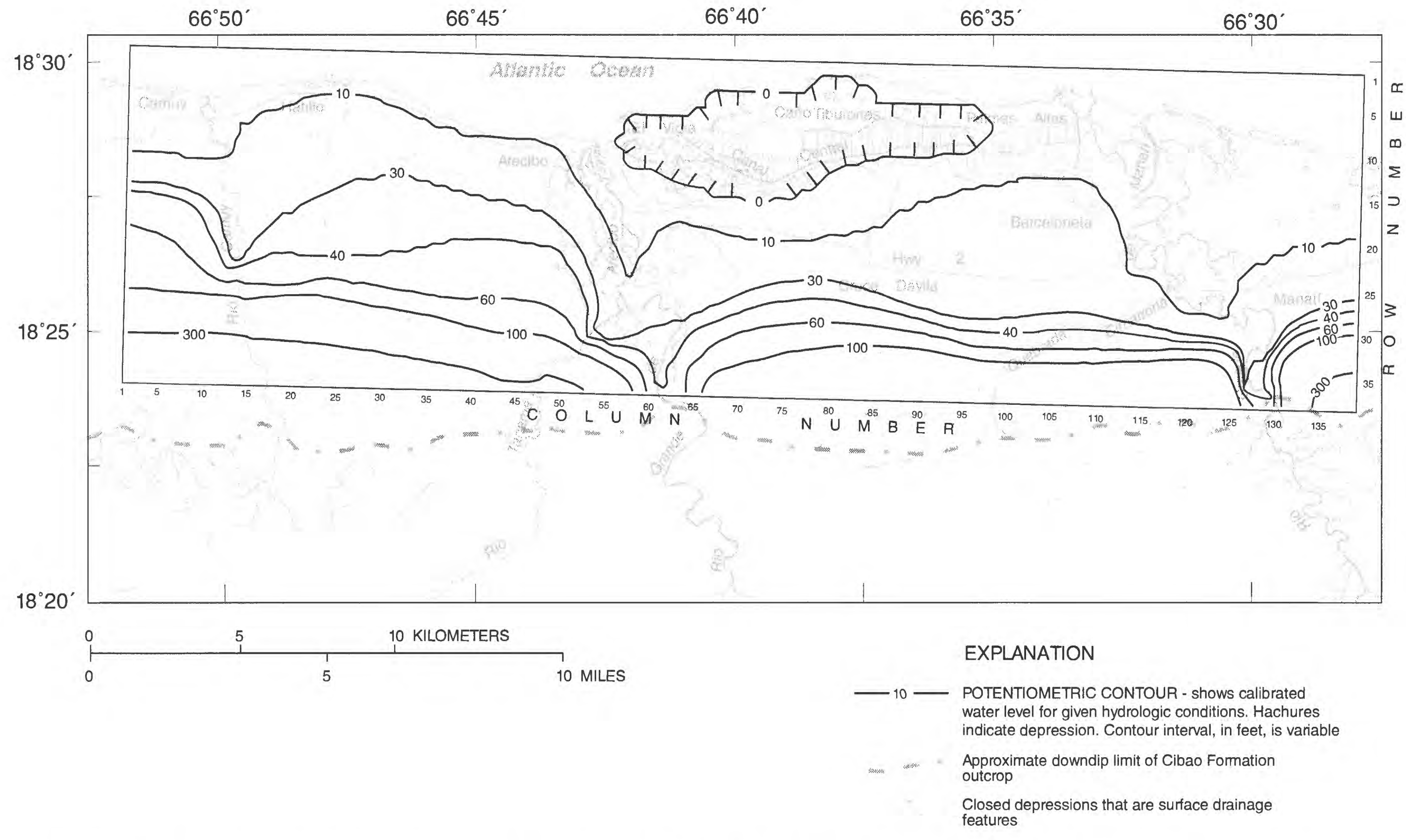



**Figure 19.** Simulated potentiometric surface for 1987 conditions in the Río Camuy to Río Grande de Manatí study area, North Coast Province, Puerto Rico.

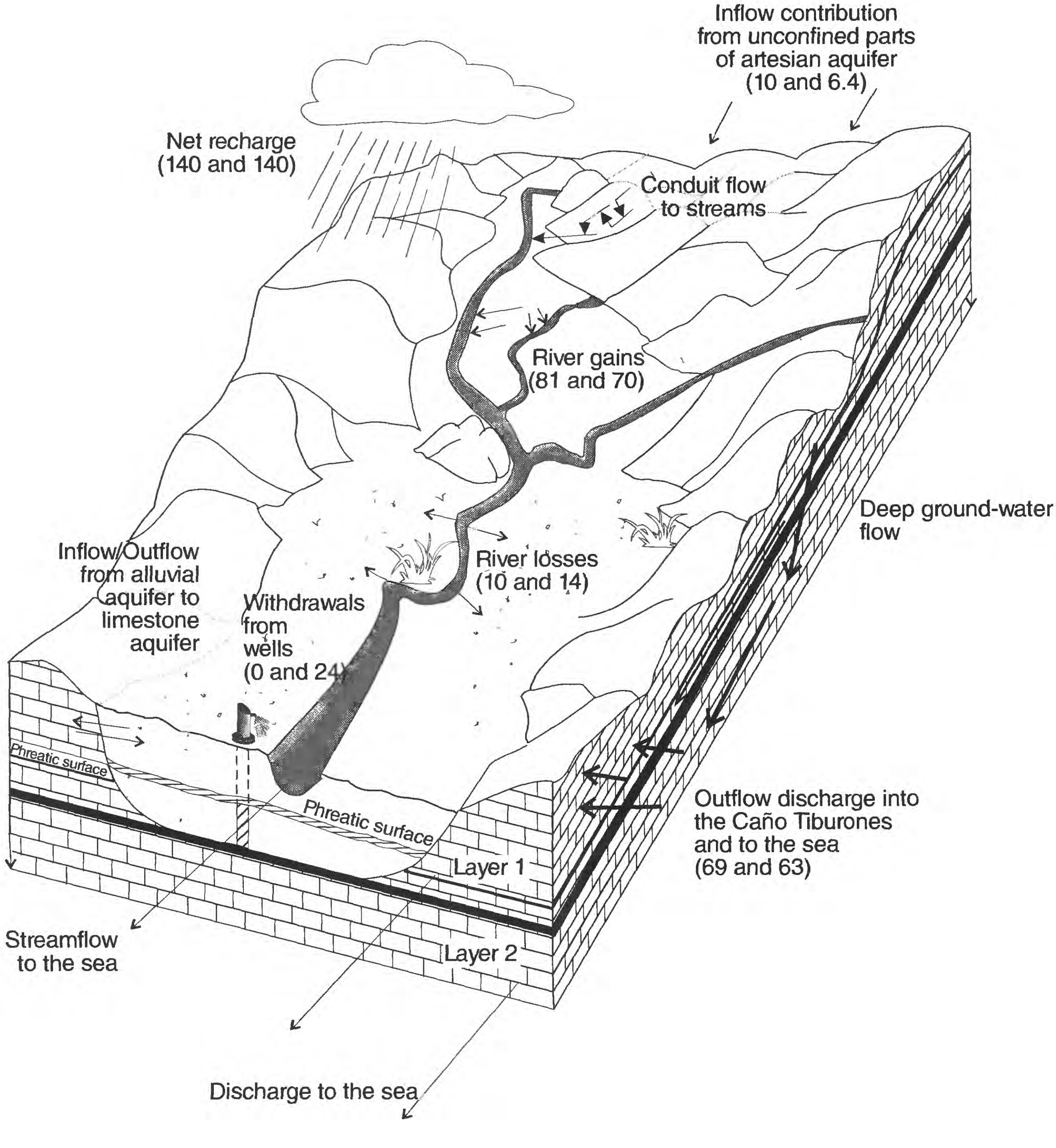



**Figure 20.** Schematic diagram of the upper aquifer showing simulated ground-water budget rates for 1965 and 1987 conditions (number in parenthesis indicate calibrated budget terms for 1965 and 1987 hydrologic conditions, respectively, in cubic feet per second).

The parameters included in the sensitivity analysis for hydrologic conditions of 1965 are aquifer recharge from rainfall, contributions from the unconfined parts of the lower aquifer (simulated as injection wells along the southern boundary of the model area), aquifer transmissivity, and the conductance values of the drains at Caño Tiburones and stream riverbeds.

The sensitivity of aquifer recharge rate was tested by decreasing the amount by 25 percent of the model calibrated value of 140 $ft^3/s$ (Appendix 2a). Only 30 of the 38 control cells matched the criterion of 18 ft. When the rate of aquifer recharge from rainfall was increased by 50 percent above the calibrated value only 23 of the 38 control cells matched the 18 ft criterion.

Sensitivity analysis of ground-water flow contributions from unconfined parts of the lower aquifer and withdrawals from wells indicated little impact on the differences between measured and calibrated heads and the magnitude of the budget terms. Appendix 2b summarizes the sensitivity analysis of the rate of injection derived for the unconfined parts of the lower aquifer and withdrawals from wells, and its influence on the recharge and discharge flow budget terms.

Changes in the magnitude of aquifer transmissivity were applied simultaneously to layers 1 and 2 (Appendix 2c). A summary of the difference between computed and measured heads for layers 1 and 2 is also shown in Appendix 2c (same conditions applied to minimum and maximum head differences explained on sensitivity analysis for aquifer recharge). Based on the results obtained from the sensitivity analysis, it appears that transmissivity is the most sensitive parameter, with the head match dropping to 18 of 38 control cells for 0.50 the calibrated transmissivity and 32 of 38 control cells for 1.50 the calibrated transmissivity. Obviously, there are some areas which are very sensitive to changes in aquifer transmissivity near the southern boundary of the modeled area. But these are low yield areas that contribute little to the overall water budget of the upper aquifer. Many of the modeled coastal areas did not reflect large differences between the computed and measured heads, as expected, given the high values of estimated aquifer transmissivity. On the other hand, the total budget was affected by 10 percent of its calibrated value. Instead of having 176.4 $ft^3/s$, sensitivity analysis results showed 154 $ft^3/s$ and 193 $ft^3/s$ (Appendix 2c).

Changes in drain and riverbed conductance values are shown in Appendixes 2d and 2e. Changes of $\pm$ 50 percent of the drain conductance values changed discharge to the Caño Tiburones by about 2 to 4.5 $ft^3/s$. Changes of $\pm$ 50 percent of the riverbed conductance values changed river budget terms by 2 to 4 $ft^3/s$.

## Additional Data Needs and Model Limitations

The understanding of the hydrogeologic system was improved substantially after constructing the ground-water flow model. However, this approach should not be considered unique or as a final tool for interpretation of any hydrologic analysis that may follow. Some of the data requirements needed to better apply the finite-difference numerical analysis are still incomplete and to fill these deficiencies are essential to any future investigation. Emphasis must be given to the need for leveling of all wells in the coastal areas. Errors in datum for referenced control points are probably the main cause in the lack of calibration for some control points. Other inherent limitations of the data are the lack of information on streamflow seepage for the reaches of streams crossing the upper aquifer and the existing withdrawals rates from industrial and public-supply wells in the study area. These two aspects of the hydrologic analysis are very important since they may reduce the uncertainty of ground-water inflow and outflow terms.

The vertical extent of the alluvial deposits as they cut into the limestone rocks northward is another aspect which limits the application of the subject model. If these alluvium deposits extend deeper into the limestone than presently thought near the coast, down to the confining unit (upper unnamed member of the Cibao Formation), the transmissive properties of the upper layer could be reduced by an order of magnitude.

The hydrologic analysis of the upper aquifer presented in this report could be improved by integrating most hydrologic aspects for the alluvium deposits and limestone rocks. Other information needed to improve this modeling effort will be the compilation of water-use information, movement of the saltwater/freshwater interface (related to withdrawals from wells and a decrease in aquifer recharge, or both), and streamflow seepage related solely to the upper aquifer. Additional water-level information is needed; both areal synoptic measurements to develop potentiometric-surface maps and a network of continuous-record wells to document long-term trends.

## Summary

An hydrologic investigation of the Río Camuy to Río Grande de Manatí area was presented, and a model of the ground-water flow conditions was constructed for 1965 and 1987 hydrologic conditions. In summary, the hydrologic investigation findings are as follows:

1. Calibrated transmissivity values ranged from about 100 $ft^2/d$ along the southern boundary to about 140,000 $ft^2/d$ along the central portions of the study area.

2. Vertical hydraulic conductivity calibrated values ranged from $1.6(10^{-5})$ $days^{-1}$ to $1(10^{-4})days^{-1}$.

3. Model calibrated aquifer recharge ranged from a minimum of zero in/yr at the shoreline to 4 in/yr for alluvial valley areas to a maximum of 28 in/yr for the karst areas.

4. A summary of the volumetric budget terms for each of the contributing ground-water flow components for 1965 and 1987 hydrologic conditions follows:

- Ground-water budget terms for hydrologic conditions of 1965 are areal recharge, 140 $ft^3/s$, ground-water contributions from the unconfined parts of the lower aquifer, 6.4 $ft^3/s$, northern flow to the Caño Tiburones, 20 $ft^3/s$, and streamflow infiltration, 10 $ft^3/s$. Ground-water outflow terms are discharge to the Caño Tiburones, 69 $ft^3/s$, discharge to the sea 26 $ft^3/s$, and discharge to the river reaches wherever they gain water, 81 $ft^3/s$. The total calibrated ground-water flow was 176.4 $ft^3/s$.
- During 1987, ground-water recharge from rainfall contribute about 140 $ft^3/s$ plus water contributions from the unconfined parts of the lower aquifer of 6.4 $ft^3/s$, simulated as injection wells, seawater inflow towards the Canal Central at the Caño Tiburones of 20 $ft^3/s$, and river infiltration totaled about 14 $ft^3/s$. Ground-water discharge budget terms for 1987 hydrologic conditions are: ground-water outflow to the Caño Tiburones of 63 $ft^3/s$, to the sea 24 $ft^3/s$, to pumping wells 24 $ft^3/s$, and to the river reaches wherever they gain water 70 $ft^3/s$. The total calibrated ground-water flow was 180 $ft^3/s$.

5. Based on the results obtained from the sensitivity analysis, it appears that transmissivity is the most sensitive parameter.

## SELECTED REFERENCES


Briggs, R.P.,, 1961, Oil and gas possibilities of northern Puerto Rico: Geology of Kewanee Interamerican Oil Company Test Well Number 4CPR, Northern Puerto Rico; Puerto Rico Mining Commission, San Juan, Puerto Rico, Office of the Governor, 23 p.

_____, 1965, Geologic map of the Barceloneta quadrangle, Puerto Rico: U.S. Geological Survey Miscellaneous Geologic Investigations Map I-421, scale 1:20,000.

_____, 1966, The blanket sands of northern Puerto Rico: in Caribbean Geological Conference, 3rd Kingston Jamaica, 1962, Transactions: Jamaica Geology Survey Publication 95, p. 60-69.

_____, 1968, Geologic map of the Arecibo quadrangle, Puerto Rico: U.S. Geological Survey Miscellaneous Geologic Investigations Map I-551, scale 1:20;000.

Briggs, R.P., and Akers, J.P., 1965, Hydrologic map of Puerto Rico and adjacent islands: U.S. Geological Survey Hydrologic Investigations Atlas Map HA-197, scale 1:240,000.

Colón-Dieppa, Eloy, and Quiñones-Aponte, Vicente, 1985, Estimates of 7-day, 10-year low flow at ungaged streams in Puerto Rico: U.S. Geological Survey Water-Resources Investigations Report 84-4087, 1 pl.

Curtis, R.E., Jr., Aquino, Zaida, Díaz, P.L., and Vachier, Ricardo, 1990, Water resources data Puerto Rico and the U.S. Virgin Islands, Water Year 1989: U.S. Geological Survey Water-Data Report PR-89-1, 419 p.

Díaz, J.R., 1973, Chemical quality of water in Caño Tiburones, Puerto Rico: U.S. Geological Survey Open-File Report, 1 pl.

Giusti, E.V., 1978, Hydrogeology of the karst of Puerto Rico: U.S. Geological Survey Professional Paper 1012, 68 p., 2 pl.

Giusti, E.V., and Bennett, G.D., 1976, Water resources of the north coast limestone area, Puerto Rico: U.S. Geological Survey Water-Resources Investigations Report 75-42, 42 p.

Gómez-Gómez, Fernando, 1984, Water resources of the lower Río Grande de Manatí valley, Puerto Rico: U.S. Geological Survey Water-Resources Investigations Report 83-4199, 42 p.

Gómez-Gómez, Fernando, and Heisel, J.E., 1980, Summary appraisals of the Nation's ground-water resources - Caribbean Region: U.S. Geological Survey Professional Paper 813-U, 32 p., 2 pls.

Gómez-Gómez, Fernando, and Torres-Sierra, Heriberto, 1988, Hydrology and effects of development on the water-table aquifer in the Vega Alta quadrangle, Puerto Rico: U.S. Geological Survey Water-Resources Investigations Report 87-4105, 54 p.

Guzmán-Ríos, Senén, 1988, Hydrology and water quality of the principal springs in Puerto Rico: U.S. Geological Survey Water-Resources Investigations Report 85-4269, 30 p.

Heisel J.E., González, J.R., and Cruz, Carlos, 1983, Analog model analysis of the north coast limestone aquifer, Puerto Rico: U.S. Geological Survey Open-File Report 82-52, 49 p.

Kipple, F.P., and others, 1968, Water records of Puerto Rico, 1958-63: U.S. Geological Survey Open-File Report, 353 p.

McDonald, M.G., and Harbaugh, A.W., 1988, A modular three dimensional finite-difference ground-water flow model: Techniques of Water-Resources Investigations of the U.S. Geological Survey, Book 6, Chap. A1.

Monroe, W.H., 1963, Geology of the Camuy quadrangle, Puerto Rico: U.S. Geological Survey Geologic Quadrangles of the United States Map GQ-197, scale 1:20,000.

_____, 1976, The karst landforms of Puerto Rico: U.S. Geological Survey Professional Paper 899, 69 p., 1 pl.

_____, 1980, Geology of the middle Tertiary Formations of Puerto Rico: U.S. Geological Survey Professional Paper 953, 93 p., 1 pl.

Nelson, A.E., and Monroe, W.H., 1966, Geology of the Florida quadrangle, Puerto Rico: U.S. Geological Survey Bulletin 1221-C, scale 1:20,000.

Nelson, A.E., and Tobish, O.T., 1968, Geologic map of the Bayaney quadrangle, Puerto Rico: U.S. Geological Survey Miscellaneous Geologic Investigations Map I-525, scale 1:20,000.

Puerto Rico Water Resources Authority, 1977, Soil Survey of Arecibo area northern Puerto Rico: U.S. Department of Agriculture, Soil Conservation Service, 169 p., 50 sheets.

Quiñones-Aponte, Vicente, 1986, Water resources of the lower Río Grande de Arecibo alluvial valley, Puerto Rico: U.S. Geological Survey Water-Resources Investigations Report 85-4160, 38 p., 1 pl.

Rickher, J.G., and others, 1970, Water records of Puerto Rico, 1964-67, Volume 1, North and Northeast slopes: U.S. Geological Survey Open-File Report, 308 p.

Theis, C. V., Brown, R.H., and Meyer, R.R., 1963, Estimating the transmissivity of aquifers from the specific capacity of wells, in R. Bentall, Methods of Determining Permeability Transmissibility and Drawdown: U.S. Geological Survey Water-Supply Paper 1536-I, p. 331-341.

Torres-González, Arturo, 1985, Simulation of ground-water flow in the water-table aquifer near Barceloneta, Puerto Rico: U.S. Geological Survey Water-Resources Investigations Report 84-4113, 39 p.

Torres-González, Arturo, and Wolansky, R.M., 1984, Planning report for the comprehensive appraisal of the ground-water resources of the north coast limestone area of Puerto Rico: U.S. Geological Survey Open-File Data Report 84-427, 32 p.

U.S. Department of Commerce, 1986, Climatological data annual summary- Puerto Rico and Virgin Islands: National Oceanic and Atmospheric Administration, v. 32, no. 13.

_____, 1991, Census of population and housing: Puerto Rico Bureau of the Census, table 1, 2-7 p.

U.S. Soil Conservation Service, 1973-1975, Preliminary Safety Analysis Report (NORCO-NP-1, PSAR), North Coast Nuclear Plant No. 1, U.S. Atomic Energy Commission Docket No. 50-376, Volume II, p. 2.5.119-2.5.180.

Vecchioli, John, Tibbals, C.H., Duerr, A.D., and Hutchinson, C.B., 1990, Ground-water recharge in Florida-- A pilot study in Okaloosa, Pasco, and Volusia Counties: U.S. Geological Survey Water-Resources Investigations Report 90-4195, 16 p.

Zack, A.L., and Class-Cacho, Angel, 1984, Restoration of freshwater in the Caño Tiburones area, Puerto Rico: U.S. Geological Survey Water-Resources Investigations Report 83-4071, 33 p.

# APPENDIXES

**Appendix 1.** Model input files for upper aquifer in the Rio Camuy to Rio Grande de Manati area.

```
BASIC INPUT PACKAGE:

NORTH COAST - RIO CAMUY TO RIO MANATI TWO-LAYER DIGITAL MODEL,
HYDROLOGIC CONDITIONS OF 1965.
         2        38       138         1         1
  7 08 09 63 00 00 00 11 61 00 00 62
         1         1
         5         1(20I3.0)                           -11
  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0             /*    01
  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
  0  0  0  0  0  0  0  0  0  0  0  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  0  0  0  0  0  0  0  0  0  0
  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0             /*    02
  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
  0  0  0  0  0  0  0  0  0  0  0  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  7  7  7  7
  7  7 -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  0  0  0  0  0  0  0  0             /*    03
  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  0  0  0  0  0  0  0  0  0  0  0
  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  7  7  7  7
  7  7  7 -1  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  0  0
  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0             /*    04
 -1 -1 -1 -1 -1 -1  0  0  0  0  0  0 -1 -1 -1 -1 -1 -1 -1  7
  7  7  7  7  7  7  7  7 -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 -1  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7
  7  7  7 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
 -1 -1 -1  7  7  7  7  7 -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             /*    05
  7  7  7  7  7 -1 -1 -1 -1 -1 -1 -1 -1  7  7  7  7  7  7  7
  7  7  7  7  7  7  7  7  7  7  7 -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 -1 -1 -1  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7
  7  7  2  2  2  2  2  2  2  2  2  7  7  7  7  7  7  7  7  7
  7  7  7  7  7  2  2  7  7  7  7 -1 -1 -1 -1  9  9 -1 -1 -1
 -1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0             /*    06
  7  7  7  7  7  7 11 11 11 11 11 11 11  7  7  7  7  7  7  7
  7  7  7  7  7  7  7  7  7  7  7  7 -1 -1 -1  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  7  7  7  7  7  7  2  2  2  2  2  2  2  2  2  2  2
  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
  7  7  7  2  2  2  2  2  2  2  7  7  7  9  9  9  9  9  9  9
 -1 -1 -1 -1  0 -1 -1 -1  0  0  0  0  0  0  0  0  0  0             /*    07
  7  7  7  7  7  7  7 11 11 11 11 11  7  7  7  7  7  7  7  7
  7  7  7  7  7  7  7  7  7  7  7  7  7  7 -1 -1 -1 -1  0  0
  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0 -1  7  7  7  7
  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
  2  2  2  2  2  2  2  2  2  2  2  2  2  9  9  9  9  9  9  9
  9  7  7 -1 -1 -1  7 -1 -1 -1 -1  0  0  0  0  0  0  0             /*    08
  7  7  7  7  7  7  7  7 11 11  7  7  7  7  7  7  7  7  7  7
  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7 -1 -1 -1
 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -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  2  2
  2  2  2  2  2  2  2  2  2  2  2  2  2  9  9  9  9  9  9  7
```

```
 7  7  7  7  7  7  7  7 -1 -1 -1 -1 -1 -1  0  0  0  0          /*   09
 7  7  7  7  7  7  7  7  7 11  7  7  7  7  7  7  7  7  7  7
 7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7
 7  7  7  7  7  7  7  7  7  7  7  8  8  8  8  8  2  2  2  2
 2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
 2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
 2  2  2  2  2  2  2  9  9  9  9  9  9  9  9  9  9  9  9  7
 7  7  7  7  7  7  7  7  7  7  7  7  7 -1 -1 -1 -1 -1          /*   10
 7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7
 7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7
 7  7  7  7  7  7  7  7  7  8  8  8  8  8  8  8  2  2  2  2
 2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
 2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
 2  2  2  2  2  2  2  9  9  9  9  9  9  9  9  9  9  9  9  9
 7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7          /*   11
 7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7
 7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7
 7  7  7  7  7  7  7  7  7  8  8  8  8  8  8  8  8  2  2  2
 2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  7  7
 7  7  7  7  7  7  7  7  7  7  7  7  2  2  2  2  2  2  2  2
 2  2  2  2  2  2  2  9  9  9  9  9  9  9  9  9  9  9  9  9
 7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7          /*   12
 7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7
 7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7
 7  7  7  7  7  7  7  7  8  8  8  8  8  8  8  8  8  8  8  8
 2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  7  7
 7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7
 2  2  2  2  2  2  2  2  9  9  9  9  9  9  9  9  9  9  9  9
 7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7          /*   13
 7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7
 7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7
 7  7  7  7  7  7  7  8  8  8  8  8  8  8  8  8  8  8  8  8
 8  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  7  7  7  7
 7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7
 7  7  2  2  2  2  2  2  9  9  9  9  9  9  9  9  9  9  9  9
 7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7          /*   14
 7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7
 7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7
 7  7  7  7  7  7  7  8  8  8  8  8  8  8  8  8  8  8  8  8
 8  8  8  8  8  2  2  2  2  2  2  7  7  7  7  7  7  7  7  7
 7  7  7  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  2  2  9  9  9  9  9  9  9  9  9  9  9  9  9
 7  7  7  7  7  7  7  7  7  7  7  6  6  6  6  6  6  6          /*   15
 6  6  6  6  6  6  7  7  7  7  7  7  7  7  7  7  7  7  7  7
 7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7
 7  7  7  7  7  7  7  8  8  8  8  8  8  8  8  8  8  8  8  8
 8  8  8  8  2  2  2  2  2  2  2  7  7  7  7  7  7  7  7  7
 7  7  7  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  2  9  9  9  9  9  9  9  9  9  9  9  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6          /*   16
 6  6  6  6  6  6  6  6  6  6  6  6  6  7  7  7  7  7  7  7
 7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7  7
 7  7  7  7  7  7  7  8  8  8  8  8  8  8  8  8  8  8  8  8
 8  8  8  8  2  2  7  7  7  7  7  7  7  7  7  7  7  7  7  7
 7  7  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  9  9  9  9  9  9  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6          /*   17
 6  6  6  6  6  6  6  6  6  6  6  6  6  7  7  7  7  7  7  6
 6  6  6  6  6  6  6  6  6  6  6  7  7  7  7  7  6  6  6  6
 6  7  7  7  7  6  6  8  8  8  8  8  8  8  8  8  8  8  8  8
 8  8  8  2  2  2  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  9  9  9  9  9  9  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6          /*   18
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  8  8  8  8  8  8  8  8  8  8  8  8  8
 8  8  8  2  2  2  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  9  9  9  9  9  9  9  9
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6          /*   19
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
```

```
6   6   6   6   6   6   6   8   8   8   8   8   8   8   8   8   8   8   8   8
8   2   2   2   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   9   9   9   9   9   9   9   9   9
9   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6                /*    20
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   8   8   8   8   8   8   8   8   8   8   8   8
2   2   2   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   9   9   9   9   9   9   9   9   9
9   9   9   9   9   6   6   6   6   6   6   6   6   6   6   6   6   6                /*    21
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   8   8   8   8   8   8   8   8   8   8   8
2   2   2   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   9   9   9   9   9   9   9   9   9
9   9   9   9   9   6   6   6   6   6   6   6   6   6   6   6   6   6                /*    22
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   8   8   8   8   8   8   8   8   8   2   2
2   2   2   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   9   9   9   9   9   9   9
9   9   9   9   9   6   6   6   6   6   6   6   6   6   6   6   6   6                /*    23
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   8   8   8   8   8   8   8   8   8   2   2
2   2   2   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   9   9   9   9   9   9
9   9   9   9   9   9   6   6   6   6   6   6   6   6   6   6   6   6                /*    24
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   8   8   8   8   8   8   8   8   8   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   9   9   9   9
9   9   9   9   9   9   9   6   6   6   6   6   6   6   6   6   6   6                /*    25
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   8   8   8   8   8   8   8   8   8   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   9   9   9
9   9   9   9   9   9   9   6   6   6   6   6   6   6   6   6   6   6                /*    26
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   8   8   8   8   8   8   8   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   9
9   9   9   9   9   9   9   9   9   6   6   6   6   6   6   6   6   6                /*    27
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   8   8   8   8   8   8   8   8   8   8
8   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   9   9   9   9   9   9   9   6   6   6   6   6   6   6   6   6                /*    28
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   8   8   8   8   8   8   8   8   8
8   8   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   9   9   9   9   9   6   6   6   6   6   6   6   6   6                /*    29
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   8   8   8   8   8   8   8   8
8   8   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6
```

```
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  9  9  9  9  6  6  6  6  6  6  6  6  6              /*    30
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  8  8  8  8  8  8  8
 8  8  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  9  9  9  6  6  6  6  6  6  6  6  6  6              /*    31
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  8  8  8  8  8  8
 8  8  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  9  9  6  6  6  6  6  6  6  6  6  6              /*    32
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  8  8  8  8
 8  8  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  9  9  6  6  6  6  6  6  6  6  6  6              /*    33
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  8  8  8
 8  8  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  9  9  6  6  6  6  6  6  6  6  6  6              /*    34
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  8
 8  8  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  9  9  6  6  6  6  6  6  6  6  6  6              /*    35
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  8
 8  8  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  9  9  6  6  6  6  6  6  6  6  6  6              /*    36
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  8
 8  8  8  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  9  9  9  6  6  6  6  6  6  6  6  6              /*    37
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  8
 8  8  8  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6  6
 6  6  6  6  6  6  6  6  9  6  6  6  6  6  6  6  6  6              /*    38
        5          1(20I2)                          0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
```

```
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 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 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 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 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 1 1 1 1 1 1 1 1 1 1 1 1 1 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 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 1 1 1 1 1 1 1 1 1 1 1 1 1 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 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 1 1 1 1 1 1 1 1 1 1 1 1 1 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 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
```

```
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 6 6 6 1 1 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 6 6 6
6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 6 6 6 6
6 6 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 6 6 6 6 6
6 6 6 6 6 6 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 6 6 6 6 6
```

```
6 6 6 6 6 6 6 6 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 1 1 1 1 1 1 1 1 1 1
6 6 6 6 6 6 6 6 6 6 6 6 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
```

```
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 6 6 6
6 6 6 6 6 6 6 6 1 1 1 1 1 1 1 1 1 1
6 6 6 6 6 6 6 6 6 6 6 6 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
6 6 6 6 6 6 6 6 6 6 6 6 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 6 6 6 6 6 6 6 6 6 6 6 6 6
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
6 6 6 6 6 6 6 6 6 6 6 6 6 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
6 6 6 6 6 6 6 6 6 6 6 6 6 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
     999.
        5        1.(10F7.2)                      -1
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
```

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 2.00 | 2.03 | 2.00 | 2.06 | 2.07 | 2.05 | 2.03 | 2.01 | 2.01 | 2.02 |
| 2.00 | 1.89 | 1.80 | 1.77 | 1.75 | 1.74 | 1.72 | 1.72 | 1.09 | 1.00 |
| 1.25 | 1.16 | 1.09 | 0.38 | 1.02 | 0.98 | 0.91 | 0.84 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 3.00 | 2.34 | 2.18 | 2.47 | 2.52 | 2.61 | 2.52 | 2.49 | 2.53 | 2.50 |
| 2.40 | 2.42 | 2.45 | 2.50 | 2.58 | 2.64 | 2.69 | 2.78 | 6.32 | 3.34 |
| 2.33 | 2.24 | 2.15 | 1.56 | 2.02 | 1.98 | 1.91 | 1.67 | 1.23 | 1.10 |
| 0.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.01 | 0.02 | 0.02 | 0.02 | 0.01 | 0.02 | 0.04 | 0.05 |
| 0.07 | 0.08 | 0.10 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.17 |
| 0.12 | 0.08 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 5.00 | 3.61 | 2.76 | 3.68 | 3.67 | 3.81 | 3.46 | 3.28 | 3.31 | 3.16 |
| 2.91 | 2.97 | 3.09 | 3.23 | 3.40 | 3.55 | 3.68 | 3.83 | 6.02 | 3.55 |
| 4.02 | 3.96 | 3.85 | 4.78 | 3.74 | 3.64 | 3.47 | 3.14 | 2.38 | 2.18 |
| 2.00 | 1.22 | 1.47 | 0.47 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.07 | 0.01 |
| 0.01 | 0.02 | 0.04 | 0.03 | 0.03 | 0.07 | 0.13 | 0.14 | 0.16 | 0.17 |
| 0.19 | 0.21 | 0.22 | 0.28 | 0.30 | 0.31 | 0.32 | 0.34 | 0.34 | 0.34 |
| 0.32 | 0.24 | 0.22 | 0.19 | 0.15 | 0.12 | 0.08 | 0.03 | 0.01 | 0.00 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 7.00 | 5.86 | 3.79 | 5.81 | 5.66 | 5.89 | 5.07 | 4.65 | 4.63 | 4.28 |
| 3.77 | 3.87 | 4.13 | 4.38 | 4.67 | 4.92 | 5.13 | 5.35 | 6.88 | 5.38 |
| 5.72 | 5.70 | 5.58 | 4.86 | 5.46 | 5.36 | 5.23 | 4.30 | 4.72 | 4.42 |
| 4.12 | 4.98 | 3.39 | 1.61 | 2.07 | 1.85 | 1.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.05 | 0.01 | 0.01 | 0.02 | 0.04 | 0.06 | 0.06 |
| 0.10 | 0.12 | 0.14 | 0.07 | 0.08 | 0.18 | 0.25 | 0.25 | 0.27 | 0.29 |
| 0.30 | 0.32 | 0.33 | 0.41 | 0.42 | 0.43 | 0.46 | 0.46 | 0.47 | 0.39 |
| 0.38 | 0.36 | 0.35 | 0.33 | 0.31 | 0.29 | 0.27 | 0.25 | 0.23 | 0.20 |
| 0.17 | 0.15 | 0.09 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 8.00 | 8.05 | 6.27 | 7.99 | 7.82 | 7.06 | 6.81 | 6.36 | 6.47 | 6.23 |
| 5.95 | 6.29 | 6.72 | 7.08 | 7.40 | 7.63 | 7.80 | 7.92 | 7.94 | 7.72 |
| 7.81 | 7.83 | 7.76 | 6.50 | 7.69 | 7.64 | 7.17 | 6.73 | 6.80 | 6.53 |
| 6.34 | 5.00 | 4.84 | 5.00 | 4.42 | 3.72 | 3.87 | 2.26 | 1.94 | 1.50 |
| 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.01 | 0.02 | 0.04 | 0.06 | 0.09 | 0.12 | 0.14 | 0.17 | 0.18 |
| 0.23 | 0.25 | 0.28 | 0.17 | 0.19 | 0.34 | 0.40 | 0.48 | 0.50 | 0.53 |
| 0.55 | 0.58 | 0.59 | 0.61 | 0.64 | 0.66 | 0.67 | 0.70 | 0.71 | 0.59 |
| 0.60 | 0.60 | 0.60 | 0.60 | 0.59 | 0.58 | 0.58 | 0.58 | 0.57 | 0.56 |
| 0.55 | 0.55 | 0.52 | 0.50 | 0.48 | 0.44 | 0.42 | 0.30 | | |
| 9.00 | 8.52 | 9.70 | 9.11 | 9.00 | 8.25 | 7.88 | 7.17 | 7.22 | 6.86 |
| 6.52 | 6.92 | 7.37 | 7.69 | 7.91 | 7.97 | 8.00 | 8.18 | 8.11 | 8.10 |
| 8.22 | 8.36 | 8.46 | 8.56 | 8.63 | 8.68 | 8.71 | 8.61 | 8.30 | 8.24 |
| 8.17 | 8.09 | 7.84 | 5.07 | 6.66 | 6.03 | 4.98 | 5.61 | 4.49 | 3.00 |
| 2.50 | 0.61 | 1.76 | 1.03 | 0.74 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.08 | 0.10 | 0.36 | 0.50 |
| 0.50 | 0.24 | 0.31 | 0.42 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.56 |
| 0.61 | 0.63 | 0.64 | 0.38 | 0.40 | 0.69 | 0.77 | 0.89 | 0.91 | 0.92 |
| 0.95 | 0.97 | 0.97 | 1.00 | 1.01 | 1.03 | 1.06 | 1.06 | 1.07 | 1.08 |
| 0.90 | 0.91 | 0.92 | 0.92 | 0.91 | 0.92 | 0.92 | 0.92 | 0.93 | 0.92 |
| 0.92 | 0.93 | 0.91 | 0.90 | 0.89 | 0.87 | 0.87 | 0.60 | | |
| 11.00 | 9.70 | 10.17 | 10.47 | 10.24 | 9.79 | 9.41 | 8.01 | 7.40 | 7.32 |
| 6.80 | 7.32 | 7.79 | 7.93 | 8.12 | 8.04 | 8.07 | 8.17 | 8.23 | 8.48 |
| 8.64 | 8.81 | 8.95 | 9.10 | 9.20 | 9.29 | 9.38 | 9.43 | 9.49 | 9.64 |
| 9.48 | 9.42 | 9.22 | 9.03 | 8.31 | 8.01 | 7.73 | 6.80 | 6.59 | 5.00 |
| 4.00 | 3.67 | 3.19 | 2.64 | 2.00 | 1.81 | 1.35 | 1.16 | 0.92 | 0.90 |
| 0.53 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.14 | 0.21 | 0.44 | 0.69 | 0.95 | 1.22 | 1.00 |
| 1.00 | 1.16 | 1.60 | 1.69 | 1.89 | 1.90 | 1.91 | 1.91 | 1.82 | 1.78 |
| 1.76 | 1.72 | 1.68 | 0.77 | 0.79 | 1.61 | 1.73 | 1.91 | 1.88 | 1.86 |
| 1.84 | 1.82 | 1.78 | 1.78 | 1.75 | 1.75 | 1.74 | 1.72 | 1.70 | 1.69 |
| 1.39 | 1.38 | 1.37 | 1.36 | 1.34 | 1.33 | 1.33 | 1.32 | 1.31 | 1.30 |
| 1.30 | 1.30 | 1.27 | 1.27 | 1.26 | 1.25 | 1.25 | 0.90 | | |
| 13.00 | 11.62 | 10.76 | 12.31 | 11.73 | 11.28 | 10.05 | 9.75 | 8.04 | 7.45 |
| 7.08 | 7.63 | 7.99 | 8.01 | 8.05 | 8.10 | 8.29 | 8.44 | 8.57 | 8.86 |
| 9.06 | 9.26 | 9.45 | 9.64 | 9.77 | 9.89 | 10.01 | 10.11 | 10.21 | 10.49 |
| 10.27 | 10.27 | 10.18 | 9.45 | 9.87 | 9.55 | 9.39 | 8.48 | 8.13 | 8.00 |
| 7.50 | 4.79 | 5.47 | 4.90 | 4.19 | 3.45 | 2.81 | 2.15 | 1.93 | 1.29 |
| 1.32 | 1.13 | 0.84 | 0.74 | 0.48 | 0.35 | 0.24 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.11 |
| 0.20 | 0.22 | 0.44 | 0.67 | 0.89 | 1.11 | 1.33 | 1.56 | 1.78 | 2.00 |
| 2.00 | 2.06 | 2.06 | 2.08 | 2.06 | 2.07 | 2.19 | 2.24 | 2.29 | 2.27 |
| 2.11 | 2.06 | 2.00 | 1.37 | 1.41 | 1.95 | 1.85 | 1.81 | 2.14 | 2.10 |
| 2.08 | 2.04 | 1.98 | 1.97 | 1.94 | 1.93 | 1.93 | 1.90 | 1.87 | 1.86 |
| 1.53 | 1.52 | 1.52 | 1.51 | 1.49 | 1.49 | 1.48 | 1.47 | 1.47 | 1.46 |
| 1.46 | 1.46 | 1.45 | 1.44 | 1.44 | 1.43 | 1.44 | 1.00 | | |
| 14.50 | 14.47 | 13.25 | 13.59 | 13.90 | 13.34 | 12.39 | 11.48 | 10.00 | 8.01 |
| 7.63 | 7.97 | 8.04 | 8.06 | 8.21 | 8.33 | 8.59 | 8.79 | 9.00 | 9.31 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 9.55 | 9.80 | 10.05 | 10.30 | 10.47 | 10.65 | 10.82 | 10.98 | 11.13 | 11.53 |
| 11.31 | 11.39 | 11.41 | 11.10 | 11.39 | 11.26 | 11.40 | 10.67 | 10.53 | 9.00 |
| 9.00 | 8.04 | 7.91 | 7.30 | 6.45 | 5.72 | 5.08 | 4.35 | 3.66 | 4.00 |
| 2.06 | 1.84 | 1.45 | 1.37 | 0.98 | 0.75 | 0.60 | 0.53 | 0.39 | 0.29 |
| 0.20 | 0.17 | 0.00 | 0.00 | 0.00 | 0.03 | 0.03 | 0.03 | 0.02 | 0.01 |
| 0.02 | 0.02 | 0.00 | 0.08 | 0.18 | 0.20 | 0.40 | 0.60 | 0.80 | 1.00 |
| 1.20 | 1.40 | 1.60 | 1.80 | 1.82 | 1.95 | 2.00 | 2.08 | 2.37 | 2.50 |
| 2.50 | 2.11 | 2.10 | 2.17 | 2.31 | 2.21 | 2.43 | 2.48 | 2.53 | 2.57 |
| 2.57 | 2.56 | 2.52 | 4.48 | 4.66 | 2.43 | 2.29 | 2.10 | 2.45 | 2.40 |
| 2.36 | 2.30 | 2.22 | 2.20 | 2.17 | 2.15 | 2.14 | 2.10 | 2.06 | 2.05 |
| 1.69 | 1.68 | 1.69 | 1.68 | 1.67 | 1.67 | 1.67 | 1.66 | 1.66 | 1.66 |
| 1.66 | 1.67 | 1.66 | 1.66 | 1.67 | 1.67 | 1.69 | 1.30 | | |
| 18.00 | 16.49 | 17.58 | 20.03 | 16.40 | 15.00 | 14.58 | 13.15 | 11.71 | 9.85 |
| 7.68 | 8.30 | 8.97 | 9.64 | 10.31 | 10.98 | 11.65 | 12.32 | 12.99 | 13.66 |
| 14.33 | 14.39 | 14.85 | 14.94 | 14.89 | 14.85 | 14.82 | 14.78 | 14.74 | 14.18 |
| 14.10 | 13.97 | 13.84 | 13.53 | 13.61 | 13.44 | 13.71 | 12.96 | 12.88 | 11.00 |
| 11.00 | 8.31 | 9.33 | 8.91 | 8.22 | 8.00 | 7.34 | 6.41 | 5.64 | 5.00 |
| 4.21 | 3.53 | 2.03 | 1.54 | 1.49 | 1.23 | 1.09 | 1.07 | 0.95 | 0.90 |
| 0.88 | 0.91 | 0.87 | 0.99 | 1.04 | 1.11 | 1.17 | 1.25 | 1.31 | 1.39 |
| 1.45 | 1.55 | 1.73 | 1.70 | 1.77 | 1.84 | 1.90 | 1.95 | 1.98 | 1.99 |
| 1.89 | 2.00 | 2.06 | 2.14 | 2.23 | 2.30 | 2.53 | 3.02 | 3.43 | 3.00 |
| 3.00 | 2.29 | 2.21 | 2.38 | 2.52 | 2.34 | 2.65 | 2.71 | 2.77 | 2.83 |
| 2.85 | 2.87 | 2.87 | 4.05 | 4.17 | 2.87 | 2.80 | 3.31 | 3.28 | 3.14 |
| 3.06 | 2.93 | 2.57 | 2.59 | 2.46 | 2.40 | 2.38 | 2.32 | 2.24 | 2.23 |
| 1.83 | 1.83 | 1.83 | 1.82 | 1.81 | 1.80 | 1.81 | 1.80 | 1.80 | 1.80 |
| 1.80 | 1.81 | 1.81 | 1.82 | 1.83 | 1.84 | 1.86 | 1.60 | | |
| 20.00 | 17.38 | 18.98 | 18.81 | 21.67 | 21.10 | 19.88 | 14.98 | 13.43 | 10.54 |
| 10.16 | 8.85 | 9.69 | 10.54 | 11.39 | 12.24 | 13.08 | 13.93 | 14.78 | 15.49 |
| 15.23 | 15.40 | 16.02 | 16.86 | 17.29 | 17.76 | 18.19 | 18.53 | 18.78 | 17.48 |
| 16.16 | 15.74 | 15.29 | 15.00 | 14.89 | 14.75 | 13.75 | 13.86 | 13.88 | 12.00 |
| 12.00 | 8.61 | 10.45 | 9.42 | 9.71 | 9.61 | 8.93 | 8.16 | 7.81 | 6.00 |
| 6.16 | 5.50 | 4.22 | 3.87 | 1.96 | 1.59 | 1.39 | 1.37 | 1.19 | 1.11 |
| 1.08 | 1.10 | 1.08 | 1.19 | 1.24 | 1.31 | 1.38 | 1.47 | 1.52 | 1.62 |
| 1.68 | 1.78 | 1.82 | 1.90 | 1.94 | 1.98 | 1.99 | 2.00 | 2.19 | 2.21 |
| 2.44 | 2.69 | 2.95 | 3.23 | 3.39 | 3.84 | 3.83 | 4.48 | 4.81 | 4.00 |
| 4.00 | 2.72 | 2.46 | 2.80 | 2.95 | 2.58 | 3.06 | 3.11 | 3.17 | 3.21 |
| 3.23 | 3.25 | 3.26 | 3.93 | 4.00 | 3.27 | 3.22 | 3.82 | 3.83 | 3.68 |
| 3.62 | 3.17 | 3.53 | 4.12 | 3.88 | 3.70 | 3.54 | 3.24 | 2.41 | 2.16 |
| 2.05 | 2.01 | 2.02 | 1.99 | 1.98 | 1.97 | 1.96 | 1.91 | 1.88 | 1.87 |
| 1.87 | 1.88 | 1.87 | 1.88 | 1.89 | 1.91 | 1.94 | 1.80 | | |
| 30.00 | 20.01 | 21.76 | 22.02 | 23.66 | 24.99 | 21.09 | 21.12 | 15.01 | 13.33 |
| 11.77 | 12.11 | 12.83 | 13.64 | 14.52 | 14.86 | 14.92 | 15.02 | 15.32 | 15.80 |
| 16.36 | 17.07 | 17.84 | 18.82 | 19.24 | 19.82 | 20.38 | 20.91 | 21.38 | 21.11 |
| 21.34 | 21.24 | 21.00 | 20.78 | 20.39 | 19.63 | 21.74 | 15.50 | 14.95 | 14.00 |
| 14.00 | 9.21 | 12.63 | 11.28 | 11.26 | 11.27 | 9.56 | 9.64 | 9.16 | 9.11 |
| 8.01 | 7.48 | 6.22 | 4.71 | 3.89 | 2.00 | 1.71 | 1.67 | 1.44 | 1.32 |
| 1.27 | 1.29 | 1.28 | 1.38 | 1.44 | 1.51 | 1.58 | 1.67 | 1.72 | 1.82 |
| 1.87 | 1.95 | 1.94 | 1.99 | 1.99 | 2.12 | 2.24 | 2.27 | 2.51 | 2.85 |
| 3.14 | 3.46 | 3.78 | 4.11 | 4.35 | 4.79 | 4.75 | 5.49 | 5.84 | 5.00 |
| 5.00 | 3.37 | 2.82 | 3.42 | 3.57 | 2.94 | 3.65 | 3.69 | 3.73 | 3.76 |
| 3.77 | 3.78 | 3.79 | 4.01 | 4.05 | 3.76 | 3.71 | 3.66 | 3.70 | 3.55 |
| 3.49 | 3.18 | 4.21 | 5.23 | 4.97 | 4.76 | 4.57 | 4.30 | 3.34 | 3.26 |
| 3.11 | 3.08 | 3.09 | 3.00 | 2.89 | 2.85 | 2.82 | 2.73 | 2.63 | 2.25 |
| 2.22 | 2.16 | 2.00 | 1.99 | 1.98 | 1.97 | 1.96 | 1.90 | | |
| 42.00 | 24.77 | 26.55 | 26.84 | 26.43 | 30.11 | 26.89 | 27.26 | 22.74 | 15.00 |
| 13.23 | 12.73 | 13.29 | 14.08 | 14.84 | 14.29 | 15.61 | 15.69 | 16.64 | 17.70 |
| 18.81 | 20.04 | 21.30 | 22.82 | 23.77 | 24.92 | 26.07 | 27.20 | 28.28 | 28.83 |
| 29.72 | 30.35 | 30.87 | 31.38 | 31.78 | 31.95 | 29.62 | 30.93 | 30.16 | 25.00 |
| 23.00 | 14.16 | 13.58 | 13.43 | 13.08 | 13.24 | 11.27 | 11.07 | 10.63 | 9.34 |
| 9.22 | 8.76 | 8.03 | 7.43 | 5.01 | 4.91 | 2.08 | 1.74 | 1.67 | 1.50 |
| 1.42 | 1.42 | 1.43 | 1.52 | 1.58 | 1.65 | 1.72 | 1.81 | 1.86 | 1.94 |
| 1.97 | 1.98 | 2.00 | 2.23 | 2.24 | 2.50 | 2.74 | 3.07 | 3.22 | 3.65 |
| 3.94 | 4.24 | 4.55 | 4.86 | 5.10 | 5.50 | 5.36 | 6.14 | 6.46 | 5.50 |
| 5.50 | 3.98 | 3.24 | 4.09 | 4.25 | 3.48 | 4.37 | 4.43 | 4.49 | 4.55 |
| 4.59 | 4.64 | 4.68 | 4.51 | 4.57 | 4.75 | 4.74 | 4.74 | 4.83 | 4.73 |
| 4.73 | 4.59 | 5.87 | 6.92 | 6.76 | 6.64 | 6.53 | 6.38 | 5.20 | 5.21 |
| 5.19 | 5.22 | 5.27 | 5.28 | 5.28 | 5.32 | 5.39 | 5.43 | 5.48 | 5.53 |
| 5.61 | 5.66 | 5.62 | 5.63 | 5.65 | 5.71 | 5.79 | 5.00 | | |
| 49.00 | 29.70 | 31.64 | 32.14 | 28.91 | 35.79 | 33.09 | 33.72 | 29.70 | 24.35 |
| 13.50 | 13.25 | 13.69 | 14.50 | 14.87 | 15.17 | 16.05 | 17.36 | 18.76 | 20.22 |
| 21.69 | 23.28 | 24.89 | 26.84 | 28.07 | 29.59 | 31.12 | 32.64 | 34.09 | 35.08 |
| 36.33 | 37.37 | 38.27 | 39.15 | 39.94 | 40.57 | 39.30 | 40.60 | 40.39 | 30.00 |
| 28.00 | 39.50 | 20.52 | 15.24 | 14.84 | 13.72 | 12.90 | 12.44 | 12.09 | 10.68 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 10.37 | 9.17 | 9.27 | 8.72 | 8.00 | 6.32 | 5.02 | 2.26 | 1.96 | 1.73 |
| 1.61 | 1.60 | 1.61 | 1.68 | 1.74 | 1.81 | 1.86 | 1.94 | 1.97 | 1.98 |
| 2.00 | 2.22 | 2.25 | 2.49 | 2.78 | 3.06 | 3.31 | 3.64 | 3.74 | 4.22 |
| 4.51 | 4.81 | 5.11 | 5.41 | 5.67 | 6.02 | 5.86 | 6.64 | 6.94 | 6.00 |
| 6.00 | 4.77 | 3.90 | 5.07 | 5.29 | 4.55 | 5.58 | 5.73 | 5.87 | 6.01 |
| 6.15 | 6.29 | 6.43 | 6.26 | 6.43 | 6.82 | 6.94 | 7.08 | 7.24 | 7.36 |
| 7.51 | 7.65 | 9.41 | 8.15 | 8.60 | 8.24 | 7.96 | 7.64 | 7.39 | 7.38 |
| 6.15 | 6.20 | 6.27 | 6.29 | 6.33 | 6.42 | 6.55 | 6.66 | 6.78 | 6.91 |
| 7.05 | 7.16 | 7.23 | 7.31 | 7.40 | 7.51 | 7.62 | 7.00 | | |
| 57.00 | 35.92 | 37.74 | 38.17 | 31.16 | 41.62 | 39.22 | 39.82 | 36.12 | 23.11 |
| 15.29 | 14.11 | 14.10 | 14.70 | 15.00 | 17.08 | 17.27 | 18.99 | 20.74 | 22.52 |
| 24.30 | 26.19 | 28.11 | 30.44 | 31.94 | 33.81 | 35.69 | 37.57 | 39.36 | 40.77 |
| 42.37 | 43.78 | 45.05 | 46.28 | 47.44 | 48.49 | 48.20 | 49.49 | 49.79 | 35.00 |
| 34.00 | 31.35 | 19.19 | 20.95 | 19.84 | 15.13 | 14.54 | 13.81 | 13.54 | 12.03 |
| 11.53 | 10.33 | 10.42 | 9.01 | 9.00 | 8.24 | 7.93 | 5.22 | 4.76 | 2.00 |
| 1.81 | 1.78 | 1.79 | 1.84 | 1.89 | 1.94 | 1.97 | 1.97 | 2.00 | 2.22 |
| 2.26 | 2.53 | 2.81 | 3.09 | 3.38 | 3.67 | 3.94 | 4.24 | 4.39 | 4.82 |
| 5.11 | 5.40 | 5.69 | 5.98 | 6.26 | 6.57 | 6.57 | 7.15 | 7.45 | 7.00 |
| 7.00 | 5.90 | 4.52 | 6.12 | 6.28 | 5.09 | 6.47 | 6.56 | 6.65 | 6.75 |
| 6.83 | 6.93 | 7.02 | 6.46 | 6.61 | 7.23 | 7.30 | 7.38 | 7.50 | 7.54 |
| 7.64 | 9.28 | 9.46 | 9.60 | 9.76 | 9.60 | 9.18 | 8.74 | 8.46 | 8.45 |
| 8.50 | 7.14 | 7.22 | 7.27 | 7.35 | 7.46 | 7.60 | 7.73 | 7.84 | 7.93 |
| 7.95 | 7.73 | 7.80 | 7.85 | 7.93 | 8.08 | 8.68 | 9.00 | | |
| 63.00 | 42.54 | 44.42 | 44.99 | 33.51 | 48.53 | 46.44 | 47.06 | 43.51 | 31.41 |
| 22.29 | 14.07 | 14.53 | 14.96 | 15.76 | 17.23 | 17.96 | 19.96 | 21.98 | 24.05 |
| 26.13 | 28.31 | 30.52 | 33.18 | 34.98 | 37.19 | 39.42 | 41.64 | 43.79 | 45.62 |
| 47.57 | 49.35 | 50.99 | 52.58 | 54.11 | 55.59 | 56.20 | 57.55 | 58.35 | 40.00 |
| 40.00 | 32.50 | 23.13 | 25.25 | 24.94 | 22.42 | 20.24 | 15.19 | 13.79 | 13.37 |
| 12.68 | 11.50 | 11.56 | 10.02 | 10.00 | 9.20 | 8.75 | 8.01 | 5.00 | 4.88 |
| 2.31 | 1.98 | 1.97 | 1.98 | 1.99 | 2.16 | 2.39 | 2.25 | 2.26 | 2.52 |
| 2.79 | 3.05 | 3.32 | 3.59 | 3.86 | 4.13 | 4.40 | 4.67 | 4.85 | 5.21 |
| 5.48 | 5.75 | 6.03 | 6.30 | 6.56 | 6.84 | 6.94 | 7.38 | 7.65 | 7.50 |
| 7.50 | 6.82 | 5.02 | 6.97 | 7.07 | 5.52 | 7.18 | 7.23 | 7.28 | 7.34 |
| 7.39 | 7.45 | 7.51 | 6.56 | 6.70 | 7.59 | 7.61 | 7.64 | 7.73 | 7.71 |
| 7.76 | 9.38 | 9.52 | 9.60 | 9.97 | 10.32 | 10.19 | 10.18 | 9.60 | 9.54 |
| 9.53 | 9.49 | 9.47 | 9.42 | 9.40 | 7.85 | 7.95 | 8.01 | 8.14 | 8.26 |
| 8.32 | 8.68 | 9.14 | 9.54 | 10.05 | 10.64 | 11.28 | 10.00 | | |
| 65.00 | 47.59 | 49.43 | 50.16 | 34.52 | 53.60 | 51.96 | 52.57 | 49.32 | 38.66 |
| 24.03 | 23.44 | 14.79 | 15.64 | 17.13 | 20.62 | 21.31 | 23.72 | 26.07 | 28.44 |
| 30.80 | 33.24 | 35.70 | 38.64 | 40.69 | 43.17 | 45.67 | 48.16 | 50.58 | 52.76 |
| 54.99 | 57.09 | 59.06 | 60.97 | 62.85 | 64.72 | 66.18 | 67.64 | 68.97 | 50.00 |
| 50.00 | 35.63 | 27.88 | 29.70 | 29.41 | 27.47 | 22.25 | 23.00 | 22.08 | 14.93 |
| 13.83 | 12.67 | 12.71 | 11.04 | 11.00 | 10.17 | 8.99 | 9.05 | 8.88 | 8.00 |
| 5.37 | 5.36 | 5.37 | 5.62 | 5.99 | 6.29 | 6.52 | 6.34 | 7.01 | 7.22 |
| 7.40 | 7.51 | 7.61 | 7.64 | 7.75 | 7.80 | 7.82 | 7.87 | 7.41 | 7.93 |
| 7.96 | 7.98 | 7.98 | 7.83 | 7.84 | 7.85 | 6.52 | 7.88 | 7.89 | 7.90 |
| 7.90 | 7.87 | 6.67 | 7.96 | 7.97 | 6.73 | 7.98 | 7.98 | 7.99 | 8.00 |
| 8.03 | 8.06 | 8.12 | 8.09 | 8.03 | 7.98 | 7.95 | 7.90 | 7.47 | 7.66 |
| 7.72 | 7.83 | 7.93 | 8.04 | 8.27 | 8.50 | 8.70 | 9.06 | 9.28 | 9.45 |
| 9.66 | 9.85 | 10.06 | 10.26 | 10.46 | 10.67 | 10.93 | 11.14 | 11.41 | 11.69 |
| 12.00 | 12.30 | 12.71 | 12.95 | 13.30 | 13.66 | 14.02 | 13.00 | | |
| 77.00 | 59.36 | 60.62 | 60.84 | 37.79 | 63.09 | 61.08 | 61.08 | 57.33 | 46.98 |
| 33.04 | 24.23 | 30.78 | 16.79 | 18.79 | 22.29 | 23.65 | 26.30 | 28.90 | 31.51 |
| 34.11 | 36.78 | 39.47 | 42.60 | 44.92 | 47.64 | 50.39 | 53.13 | 55.80 | 58.31 |
| 60.82 | 63.23 | 65.52 | 67.76 | 69.98 | 72.22 | 74.39 | 76.07 | 77.89 | 60.00 |
| 60.00 | 39.50 | 34.16 | 35.57 | 34.97 | 33.04 | 28.80 | 28.94 | 22.70 | 20.89 |
| 15.03 | 13.83 | 13.85 | 12.05 | 12.00 | 11.13 | 9.99 | 10.04 | 9.01 | 8.95 |
| 8.91 | 8.13 | 8.13 | 8.15 | 8.17 | 8.17 | 8.17 | 8.05 | 8.15 | 8.12 |
| 8.16 | 8.16 | 8.16 | 8.16 | 8.17 | 8.19 | 8.20 | 8.19 | 6.58 | 8.19 |
| 8.20 | 8.22 | 8.12 | 8.14 | 8.29 | 8.44 | 10.14 | 8.76 | 8.94 | 8.50 |
| 8.50 | 8.09 | 8.61 | 8.19 | 8.23 | 9.15 | 8.37 | 8.44 | 8.52 | 8.61 |
| 8.71 | 8.82 | 8.95 | 9.00 | 8.99 | 9.00 | 8.97 | 8.88 | 9.19 | 8.24 |
| 8.14 | 8.10 | 9.17 | 9.40 | 10.80 | 12.20 | 13.60 | 13.83 | 14.86 | 12.95 |
| 12.59 | 12.21 | 12.17 | 12.19 | 12.21 | 12.36 | 12.73 | 12.87 | 13.24 | 13.64 |
| 14.00 | 14.30 | 14.67 | 14.77 | 14.92 | 14.95 | 14.73 | 14.50 | | |
| 81.00 | 66.80 | 67.46 | 67.33 | 41.67 | 68.37 | 66.70 | 66.42 | 63.49 | 56.57 |
| 47.68 | 42.48 | 38.58 | 41.78 | 46.44 | 62.75 | 57.64 | 61.93 | 64.76 | 67.10 |
| 69.05 | 70.97 | 72.71 | 75.69 | 75.97 | 77.40 | 78.77 | 80.04 | 81.09 | 81.89 |
| 82.62 | 83.24 | 83.71 | 84.14 | 84.61 | 85.17 | 85.95 | 85.83 | 86.16 | 68.00 |
| 68.00 | 42.95 | 41.58 | 42.66 | 41.80 | 39.78 | 36.14 | 35.58 | 30.26 | 28.11 |
| 22.40 | 15.00 | 14.00 | 13.07 | 13.02 | 12.13 | 11.05 | 11.11 | 10.14 | 10.05 |
| 9.23 | 9.46 | 9.45 | 9.52 | 9.57 | 9.59 | 9.60 | 8.78 | 9.62 | 9.41 |
| 9.68 | 9.72 | 9.74 | 9.76 | 9.81 | 9.88 | 9.92 | 9.94 | 11.85 | 9.97 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 10.00 | 10.04 | 9.73 | 10.15 | 10.19 | 10.21 | 11.96 | 10.30 | 10.35 | 9.00 |
| 9.00 | 8.48 | 8.97 | 8.99 | 9.22 | 9.67 | 9.74 | 9.99 | 10.24 | 10.49 |
| 10.74 | 10.99 | 11.24 | 11.48 | 11.71 | 11.95 | 12.19 | 12.42 | 12.63 | 12.89 |
| 13.13 | 13.37 | 13.62 | 13.88 | 14.14 | 14.37 | 14.60 | 14.97 | 15.00 | 15.00 |
| 14.57 | 13.70 | 13.44 | 13.32 | 13.17 | 13.22 | 13.57 | 13.62 | 13.99 | 14.36 |
| 14.67 | 14.88 | 14.91 | 14.96 | 16.50 | 18.83 | 21.95 | 20.00 | | |
| 84.00 | 74.58 | 75.15 | 75.11 | 43.76 | 75.88 | 74.40 | 73.93 | 70.93 | 64.47 |
| 56.04 | 50.79 | 46.05 | 48.58 | 52.91 | 65.11 | 63.48 | 67.56 | 70.30 | 72.59 |
| 74.52 | 76.39 | 78.07 | 81.06 | 81.28 | 82.68 | 84.00 | 85.23 | 86.22 | 87.01 |
| 87.69 | 88.27 | 88.70 | 89.10 | 89.54 | 90.09 | 91.03 | 90.83 | 91.22 | 75.00 |
| 75.00 | 46.04 | 49.79 | 50.46 | 49.28 | 47.11 | 43.99 | 42.58 | 37.99 | 35.33 |
| 29.63 | 22.53 | 15.11 | 14.08 | 14.02 | 13.11 | 12.07 | 12.14 | 11.22 | 11.10 |
| 10.40 | 10.57 | 10.58 | 10.65 | 10.71 | 10.74 | 10.76 | 9.43 | 10.82 | 10.47 |
| 10.91 | 10.97 | 11.02 | 11.05 | 11.11 | 11.19 | 11.26 | 11.31 | 12.20 | 11.35 |
| 11.39 | 11.43 | 11.21 | 11.53 | 11.58 | 11.61 | 12.42 | 11.73 | 11.78 | 10.00 |
| 10.00 | 8.97 | 9.43 | 9.46 | 9.64 | 10.07 | 10.18 | 10.42 | 10.66 | 10.90 |
| 11.14 | 11.37 | 11.59 | 11.80 | 12.01 | 12.23 | 12.44 | 12.64 | 12.80 | 13.05 |
| 13.26 | 13.47 | 13.71 | 13.95 | 14.19 | 14.38 | 14.58 | 14.92 | 15.00 | 15.00 |
| 21.32 | 16.59 | 15.00 | 14.56 | 13.99 | 13.85 | 14.18 | 14.11 | 14.49 | 14.82 |
| 14.93 | 15.00 | 18.34 | 20.13 | 26.47 | 30.85 | 41.49 | 30.00 | | |
| 95.00 | 90.08 | 90.34 | 90.14 | 48.26 | 90.10 | 88.39 | 87.36 | 83.66 | 76.72 |
| 67.56 | 61.37 | 54.87 | 56.66 | 60.82 | 69.69 | 71.31 | 75.34 | 78.01 | 80.22 |
| 82.05 | 83.79 | 85.32 | 88.33 | 88.22 | 89.45 | 90.58 | 91.59 | 92.33 | 92.89 |
| 93.28 | 93.59 | 93.74 | 93.86 | 94.03 | 94.33 | 95.14 | 94.64 | 94.82 | 80.00 |
| 80.00 | 48.27 | 58.08 | 58.37 | 56.94 | 54.68 | 52.15 | 49.84 | 45.96 | 42.71 |
| 36.91 | 29.91 | 21.80 | 15.05 | 14.15 | 14.05 | 13.02 | 13.09 | 12.19 | 12.04 |
| 11.43 | 11.56 | 11.57 | 11.64 | 11.70 | 11.73 | 11.76 | 9.96 | 11.84 | 11.37 |
| 11.96 | 12.04 | 12.09 | 12.14 | 12.20 | 12.30 | 12.38 | 12.45 | 12.53 | 12.50 |
| 12.53 | 12.58 | 12.44 | 12.67 | 12.73 | 12.77 | 12.87 | 12.89 | 12.96 | 11.00 |
| 11.00 | 9.73 | 9.89 | 10.19 | 10.28 | 10.47 | 10.86 | 11.09 | 11.32 | 11.54 |
| 11.76 | 11.96 | 12.15 | 12.33 | 12.50 | 12.69 | 12.87 | 13.04 | 13.16 | 13.37 |
| 13.54 | 13.72 | 13.91 | 14.11 | 14.31 | 14.46 | 14.61 | 14.88 | 14.98 | 15.00 |
| 18.41 | 22.66 | 23.70 | 21.17 | 16.28 | 14.91 | 14.21 | 14.57 | 14.84 | 15.10 |
| 19.94 | 20.61 | 27.03 | 35.44 | 43.13 | 49.25 | 59.87 | 45.00 | | |
| 100.00 | 102.73 | 102.85 | 102.39 | 216.54 | 101.08 | 99.37 | 97.12 | 92.32 | 84.45 |
| 73.85 | 66.11 | 56.96 | 58.06 | 62.48 | 67.94 | 74.02 | 78.47 | 81.43 | 83.88 |
| 85.90 | 87.77 | 89.38 | 92.81 | 92.46 | 93.72 | 94.84 | 95.79 | 96.42 | 96.89 |
| 97.10 | 97.23 | 97.20 | 97.13 | 97.13 | 97.28 | 98.04 | 97.36 | 97.45 | 85.00 |
| 85.00 | 50.54 | 67.16 | 66.98 | 65.25 | 62.84 | 60.87 | 57.54 | 54.30 | 50.35 |
| 44.32 | 37.31 | 28.66 | 21.94 | 15.00 | 14.17 | 13.99 | 14.04 | 13.15 | 12.95 |
| 12.44 | 12.50 | 12.51 | 12.57 | 12.63 | 12.66 | 12.68 | 10.46 | 12.77 | 12.19 |
| 12.90 | 12.98 | 13.04 | 13.09 | 13.15 | 13.24 | 13.33 | 13.41 | 12.85 | 13.45 |
| 13.48 | 13.52 | 13.44 | 13.59 | 13.64 | 13.68 | 13.32 | 13.80 | 13.86 | 12.00 |
| 12.00 | 10.82 | 10.50 | 11.36 | 11.41 | 11.25 | 12.14 | 12.41 | 12.67 | 12.92 |
| 13.16 | 13.37 | 13.56 | 13.75 | 13.93 | 14.12 | 14.31 | 14.48 | 14.65 | 14.83 |
| 14.84 | 14.66 | 14.73 | 14.80 | 14.84 | 14.82 | 14.68 | 15.00 | 15.00 | 15.00 |
| 20.02 | 23.74 | 25.71 | 22.04 | 24.32 | 22.35 | 23.31 | 16.31 | 19.77 | 20.59 |
| 26.48 | 34.46 | 41.66 | 50.92 | 58.43 | 65.23 | 74.69 | 60.00 | | |
| 125.00 | 106.33 | 110.75 | 114.73 | 245.89 | 120.23 | 118.73 | 114.04 | 99.99 | 92.59 |
| 83.08 | 76.11 | 67.40 | 68.63 | 73.12 | 74.72 | 83.69 | 87.61 | 90.30 | 92.49 |
| 94.24 | 95.75 | 96.96 | 98.71 | 98.84 | 99.42 | 99.80 | 99.89 | 99.42 | 99.83 |
| 99.88 | 99.84 | 99.55 | 99.13 | 98.77 | 98.65 | 94.48 | 96.91 | 97.81 | 90.00 |
| 90.00 | 52.83 | 77.08 | 76.38 | 74.30 | 71.72 | 70.30 | 65.84 | 63.20 | 58.45 |
| 52.08 | 44.93 | 35.61 | 28.31 | 20.36 | 19.44 | 15.00 | 14.15 | 14.09 | 13.83 |
| 13.37 | 13.37 | 13.36 | 13.42 | 13.46 | 13.47 | 13.49 | 10.82 | 13.57 | 12.88 |
| 13.69 | 13.77 | 13.83 | 13.87 | 13.92 | 14.01 | 14.09 | 14.17 | 13.14 | 14.18 |
| 14.20 | 14.24 | 14.19 | 14.28 | 14.32 | 14.36 | 13.77 | 14.46 | 14.51 | 13.00 |
| 13.00 | 12.32 | 11.63 | 13.19 | 13.39 | 13.31 | 14.35 | 14.69 | 14.74 | 14.86 |
| 14.99 | 16.74 | 18.10 | 19.43 | 21.10 | 17.46 | 26.29 | 27.75 | 28.11 | 28.28 |
| 19.07 | 19.69 | 24.70 | 30.11 | 32.96 | 42.30 | 31.87 | 20.23 | 18.50 | 18.30 |
| 18.86 | 22.65 | 26.25 | 29.09 | 32.54 | 35.47 | 37.85 | 41.29 | 44.38 | 49.83 |
| 54.72 | 61.69 | 66.18 | 73.20 | 77.28 | 81.29 | 86.82 | 70.00 | | |
| 130.00 | 111.23 | 118.17 | 124.74 | 236.94 | 134.67 | 136.51 | 124.17 | 121.43 | 100.00 |
| 91.28 | 83.90 | 74.15 | 74.83 | 79.10 | 77.62 | 88.84 | 92.32 | 94.67 | 96.50 |
| 97.87 | 98.89 | 99.59 | 99.76 | 99.34 | 101.94 | 101.33 | 102.59 | 106.87 | 111.84 |
| 116.99 | 121.62 | 124.16 | 124.55 | 123.96 | 125.39 | 140.91 | 108.26 | 105.89 | 100.00 |
| 95.00 | 55.15 | 87.82 | 86.54 | 84.06 | 81.27 | 80.41 | 74.70 | 72.65 | 66.99 |
| 60.21 | 52.83 | 42.72 | 34.74 | 25.59 | 19.69 | 18.91 | 18.85 | 15.05 | 14.75 |
| 14.34 | 14.28 | 14.28 | 14.34 | 14.38 | 14.40 | 14.42 | 12.18 | 14.53 | 14.05 |
| 14.66 | 14.73 | 14.78 | 14.83 | 14.87 | 14.93 | 14.97 | 14.77 | 11.75 | 14.48 |
| 14.49 | 14.53 | 14.49 | 14.56 | 14.62 | 14.67 | 13.75 | 14.80 | 14.86 | 14.00 |
| 14.00 | 14.27 | 13.67 | 14.86 | 14.62 | 15.09 | 23.84 | 57.50 | 57.50 | 86.42 |
| 89.80 | 92.40 | 95.89 | 99.90 | 101.00 | 71.38 | 100.12 | 100.04 | 102.67 | 101.02 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 98.11 | 96.97 | 95.21 | 94.49 | 91.87 | 75.55 | 59.39 | 61.37 | 57.44 | 53.28 |
| 75.48 | 74.20 | 72.57 | 66.10 | 66.45 | 65.17 | 63.63 | 65.91 | 68.60 | 76.11 |
| 82.39 | 89.38 | 90.95 | 95.71 | 95.88 | 96.57 | 97.69 | 88.00 | | |
| 140.00 | 117.09 | 125.80 | 134.19 | 232.77 | 147.09 | 151.33 | 143.70 | 123.33 | 125.55 |
| 92.21 | 91.41 | 79.61 | 79.38 | 83.36 | 79.03 | 92.38 | 95.44 | 97.39 | 98.76 |
| 99.60 | 99.82 | 100.00 | 102.08 | 103.07 | 107.54 | 113.53 | 121.47 | 130.21 | 138.08 |
| 146.65 | 154.28 | 160.01 | 163.91 | 166.69 | 171.11 | 158.68 | 170.26 | 168.24 | 125.00 |
| 120.00 | 104.74 | 99.92 | 97.60 | 94.73 | 91.73 | 91.50 | 84.44 | 83.00 | 76.36 |
| 69.07 | 61.36 | 50.31 | 41.52 | 31.01 | 24.44 | 23.01 | 19.05 | 19.18 | 17.82 |
| 16.34 | 15.38 | 15.23 | 15.25 | 15.21 | 15.17 | 15.02 | 13.04 | 15.64 | 14.32 |
| 17.58 | 19.65 | 20.97 | 21.60 | 22.45 | 25.81 | 28.94 | 31.20 | 29.54 | 28.45 |
| 26.99 | 26.29 | 23.82 | 22.89 | 24.10 | 23.99 | 24.91 | 27.60 | 44.35 | 60.00 |
| 65.00 | 61.34 | 57.50 | 96.13 | 102.54 | 104.46 | 108.74 | 112.49 | 101.86 | 102.53 |
| 105.68 | 109.56 | 114.63 | 119.76 | 124.59 | 151.47 | 132.17 | 105.48 | 140.24 | 143.33 |
| 142.23 | 141.43 | 139.18 | 144.04 | 133.38 | 116.99 | 100.03 | 91.30 | 82.75 | 77.48 |
| 86.32 | 83.73 | 82.22 | 76.62 | 76.67 | 76.27 | 76.76 | 79.37 | 83.40 | 89.47 |
| 94.69 | 98.23 | 99.14 | 99.27 | 98.58 | 99.11 | 99.86 | 100.00 | | |
| 150.00 | 123.62 | 133.48 | 143.04 | 229.75 | 157.72 | 163.64 | 159.64 | 142.20 | 124.90 |
| 127.30 | 91.73 | 85.33 | 84.05 | 87.74 | 81.66 | 95.85 | 98.23 | 99.49 | 99.85 |
| 103.59 | 103.60 | 104.35 | 109.85 | 116.95 | 125.12 | 134.93 | 147.19 | 160.05 | 170.68 |
| 182.95 | 193.82 | 202.65 | 209.50 | 214.78 | 221.59 | 215.74 | 223.92 | 223.09 | 150.00 |
| 140.00 | 114.19 | 118.41 | 109.26 | 104.18 | 99.88 | 92.51 | 92.36 | 92.18 | 86.13 |
| 80.51 | 75.27 | 67.63 | 62.57 | 56.70 | 54.67 | 56.25 | 56.93 | 60.00 | 62.42 |
| 64.94 | 68.00 | 70.95 | 74.37 | 77.43 | 80.68 | 83.95 | 93.63 | 94.98 | 96.60 |
| 98.83 | 99.18 | 92.03 | 94.08 | 97.53 | 100.08 | 100.75 | 100.83 | 100.93 | 100.92 |
| 100.84 | 100.79 | 101.02 | 101.58 | 102.52 | 103.13 | 103.73 | 104.71 | 117.63 | 125.00 |
| 125.00 | 26.59 | 105.66 | 109.26 | 112.53 | 116.49 | 122.11 | 128.18 | 126.47 | 143.05 |
| 149.61 | 156.52 | 164.16 | 170.07 | 175.47 | 172.77 | 183.55 | 112.24 | 190.33 | 193.06 |
| 191.68 | 189.65 | 186.82 | 197.86 | 181.52 | 169.07 | 154.90 | 146.61 | 121.46 | 102.21 |
| 97.16 | 91.18 | 88.56 | 81.45 | 80.12 | 79.39 | 80.68 | 83.32 | 88.41 | 94.25 |
| 98.71 | 99.09 | 99.95 | 108.24 | 109.95 | 120.72 | 132.44 | 125.00 | | |
| 200.00 | 143.80 | 153.45 | 162.77 | 249.13 | 175.88 | 181.85 | 178.95 | 161.44 | 147.49 |
| 127.47 | 100.57 | 92.74 | 90.43 | 93.39 | 89.12 | 99.09 | 99.77 | 104.82 | 105.59 |
| 112.35 | 118.13 | 128.52 | 137.65 | 148.75 | 160.42 | 173.81 | 190.05 | 206.52 | 219.29 |
| 234.63 | 248.09 | 259.45 | 268.79 | 276.24 | 285.05 | 285.72 | 290.84 | 291.64 | 200.00 |
| 200.00 | 127.73 | 133.39 | 121.53 | 119.04 | 116.31 | 117.78 | 99.97 | 93.14 | 92.51 |
| 86.08 | 80.29 | 71.60 | 65.89 | 59.14 | 57.03 | 58.70 | 59.93 | 63.48 | 66.51 |
| 69.72 | 73.53 | 76.95 | 81.17 | 84.67 | 88.56 | 92.45 | 98.02 | 98.66 | 100.52 |
| 103.53 | 103.76 | 107.61 | 111.54 | 115.84 | 120.38 | 124.95 | 129.33 | 134.00 | 138.41 |
| 143.36 | 148.08 | 153.19 | 158.70 | 165.08 | 171.33 | 178.11 | 185.88 | 194.20 | 170.00 |
| 170.00 | 35.88 | 124.91 | 134.44 | 139.31 | 147.04 | 156.60 | 166.49 | 169.98 | 188.39 |
| 197.33 | 206.11 | 214.74 | 220.43 | 226.14 | 180.00 | 235.24 | 118.12 | 240.85 | 243.45 |
| 242.14 | 238.91 | 235.39 | 252.51 | 229.79 | 218.76 | 205.49 | 207.13 | 175.17 | 162.93 |
| 141.59 | 103.17 | 98.21 | 88.10 | 84.25 | 82.43 | 84.06 | 86.22 | 92.03 | 97.37 |
| 98.84 | 101.52 | 112.96 | 124.24 | 140.73 | 154.77 | 169.08 | 150.00 | | |
| 250.00 | 170.00 | 178.86 | 187.38 | 272.54 | 197.53 | 202.95 | 200.32 | 181.46 | 169.56 |
| 152.83 | 127.74 | 100.71 | 95.17 | 97.78 | 89.92 | 100.17 | 106.11 | 106.69 | 114.20 |
| 123.15 | 131.05 | 143.29 | 153.93 | 166.98 | 180.43 | 195.84 | 214.58 | 233.55 | 247.78 |
| 265.51 | 281.02 | 294.40 | 305.67 | 314.64 | 324.81 | 330.30 | 332.20 | 333.48 | 220.00 |
| 220.00 | 140.42 | 147.07 | 134.38 | 132.45 | 133.52 | 120.36 | 120.05 | 101.69 | 93.15 |
| 92.67 | 86.16 | 76.06 | 69.17 | 60.81 | 57.87 | 58.95 | 59.98 | 63.39 | 66.35 |
| 69.54 | 73.39 | 76.64 | 80.99 | 84.32 | 88.24 | 92.14 | 97.69 | 100.00 | 104.18 |
| 108.99 | 114.00 | 119.11 | 124.37 | 130.47 | 136.78 | 143.04 | 148.90 | 155.25 | 161.15 |
| 168.06 | 174.52 | 181.41 | 188.67 | 196.97 | 205.22 | 214.27 | 224.47 | 235.42 | 200.00 |
| 200.00 | 80.68 | 197.74 | 230.89 | 255.85 | 282.04 | 306.65 | 329.26 | 332.11 | 347.91 |
| 350.17 | 350.32 | 350.46 | 350.46 | 350.48 | 350.50 | 350.46 | 360.91 | 350.28 | 350.21 |
| 350.00 | 344.46 | 338.77 | 297.35 | 309.70 | 293.46 | 274.71 | 282.72 | 236.06 | 221.46 |
| 166.34 | 167.75 | 143.32 | 99.72 | 90.51 | 86.44 | 87.48 | 87.77 | 93.70 | 98.42 |
| 100.00 | 112.24 | 129.95 | 145.33 | 164.64 | 182.70 | 200.27 | 175.00 | | |
| 300.00 | 202.41 | 210.13 | 217.49 | 300.38 | 223.67 | 228.17 | 225.23 | 203.84 | 193.02 |
| 178.30 | 156.61 | 131.50 | 100.01 | 97.86 | 102.71 | 109.09 | 115.27 | 125.95 | 134.71 |
| 145.97 | 155.85 | 169.64 | 181.12 | 195.72 | 210.38 | 227.27 | 248.04 | 268.83 | 283.51 |
| 302.67 | 319.14 | 333.38 | 345.36 | 354.66 | 365.05 | 373.93 | 371.95 | 372.82 | 240.00 |
| 240.00 | 156.92 | 164.88 | 150.37 | 148.57 | 153.56 | 141.90 | 141.51 | 123.44 | 121.55 |
| 93.35 | 92.70 | 81.07 | 72.92 | 62.84 | 59.06 | 59.53 | 60.40 | 63.71 | 66.64 |
| 69.86 | 73.78 | 76.92 | 81.45 | 84.67 | 88.64 | 92.60 | 97.79 | 100.00 | 105.67 |
| 111.53 | 117.67 | 123.97 | 130.48 | 138.22 | 146.16 | 154.02 | 161.36 | 169.23 | 176.55 |
| 185.15 | 193.20 | 201.68 | 210.49 | 220.44 | 230.41 | 241.36 | 253.53 | 266.60 | 225.00 |
| 225.00 | 111.37 | 247.68 | 289.86 | 320.40 | 326.88 | 349.99 | 350.08 | 350.15 | 350.43 |
| 350.74 | 350.90 | 351.19 | 351.43 | 351.69 | 351.95 | 352.15 | 364.15 | 352.41 | 352.53 |
| 352.46 | 352.18 | 351.83 | 352.61 | 350.48 | 350.01 | 341.78 | 309.57 | 293.16 | 278.44 |
| 232.68 | 224.61 | 163.67 | 155.54 | 101.98 | 92.81 | 93.30 | 91.84 | 97.33 | 99.62 |
| 109.10 | 116.46 | 139.18 | 158.93 | 181.45 | 204.49 | 226.09 | 200.00 | | |

```
320.00 226.02 233.41 240.46 315.11 244.69 249.15 247.00 224.29 215.12
202.65 184.22 163.02 136.34 220.51 109.37 118.38 127.60 143.15 154.29
169.89 187.23 202.82 216.97 233.56 250.10 268.31 289.45 310.62 327.07
347.10 365.13 381.64 396.55 409.42 422.92 437.33 439.88 446.43 350.00
340.00 204.55 209.11 191.31 185.11 196.39 179.70 175.16 149.39 125.50
100.00  93.79  86.64  77.07  65.06  60.31  60.09  60.77  63.95  66.84
 70.08  74.05  77.07  81.76  84.87  88.90  92.91  97.81 100.15 106.93
113.72 120.91 128.28 135.92 145.20 154.68 164.02 172.76 181.90 190.47
200.43 209.77 219.55 229.60 240.77 252.01 264.29 277.76 292.16 250.00
255.00 158.43 308.09 322.65 350.04 350.11 350.18 350.47 350.84 351.29
351.72 351.78 352.14 352.45 352.77 353.09 353.37 362.79 353.82 354.03
354.11 354.04 353.91 352.56 353.40 352.92 352.18 350.93 350.00 335.43
299.02 281.48 227.33 220.36 160.09 100.39  95.14  95.31  97.70 103.63
118.23 136.40 162.98 182.46 204.39 228.27 249.29 220.00
350.00 257.36 263.44 269.25 322.89 272.32 277.03 277.97 264.57 263.69
262.09 258.68 255.29 250.86 261.11 286.72 295.50 297.95 318.97 326.95
341.63 353.55 368.23 378.15 392.97 405.92 420.58 438.37 454.15 461.97
473.99 482.83 489.80 495.21 498.93 503.38 509.83 506.42 507.77 450.00
440.00 266.36 266.87 246.65 235.36 257.25 234.84 224.31 185.06 156.26
110.87 100.00  93.34  82.85  69.51  64.02  63.08  63.51  66.36  69.02
 72.08  75.91  78.56  83.19  85.92  89.77  93.57  97.91 100.35 109.01
117.54 126.55 135.79 145.37 156.96 168.74 180.33 191.28 202.02 212.41
223.67 234.54 245.67 256.93 268.88 280.87 293.52 306.86 320.78 300.00
310.00 198.44 344.34 350.12 350.17 350.33 350.89 351.35 351.83 352.39
352.89 352.80 353.21 353.57 353.94 354.31 354.64 362.58 355.22 355.50
355.68 355.74 355.76 354.63 355.40 355.16 354.71 353.91 353.32 352.66
350.90 338.35 291.00 285.18 223.40 147.59 111.39  99.97 102.46 115.48
129.90 149.05 179.02 198.03 219.34 243.91 264.35 230.00
375.00 290.25 296.00 301.50 348.74 302.40 307.02 308.26 292.89 292.64
291.85 289.56 287.47 284.65 313.25 325.01 328.38 328.72 349.46 355.58
371.02 386.39 399.62 408.98 423.24 435.48 449.18 465.51 479.68 486.50
496.96 504.55 510.57 515.35 518.86 522.94 529.06 527.73 530.52 500.00
480.00 312.69 312.34 289.67 275.85 307.12 283.32 268.18 219.64 188.20
124.38 109.84  93.77  87.82  72.17  65.52  63.75  63.94  66.63  69.22
 72.31  76.13  78.67  83.45  86.07  89.98  93.83  97.89 100.59 110.00
119.18 128.94 138.97 149.40 162.26 175.30 188.11 200.20 211.60 222.80
234.51 246.00 257.63 269.34 281.43 293.57 306.09 319.02 332.29 325.00
330.00 350.28 350.17 350.38 350.99 351.26 352.09 352.68 353.28 353.94
354.52 354.20 354.67 355.09 355.51 355.94 356.33 363.49 357.04 357.39
357.65 357.81 357.94 356.90 357.65 357.57 357.32 356.80 356.45 356.04
354.78 353.33 350.03 297.37 289.59 232.48 207.80 198.52 200.62 232.15
243.00 264.64 288.94 289.29 290.10 297.64 301.24 260.00
400.00 330.61 340.21 349.59 394.44 356.02 364.60 370.00 355.71 359.43
362.50 363.95 365.45 366.06 300.00 300.00 300.00 300.00 265.72 282.02
296.19 313.02 343.36 370.48 401.12 429.16 456.98 484.40 508.70 529.53
532.72 550.00 550.27 550.21 549.26 543.95 519.90 511.58 518.10 510.00
485.00 344.53 345.04 322.06 307.94 348.99 327.16 309.79 254.30 221.66
142.92 114.29 100.00  94.01  77.18  69.87  67.39  67.32  69.64  71.97
 74.84  78.50  80.62  85.29  87.49  91.15  94.73  98.17 101.22 111.43
121.12 131.51 142.20 153.36 167.37 181.55 195.45 208.54 220.33 232.12
243.91 255.70 267.48 279.27 291.06 302.85 314.64 326.42 338.21 350.00
355.00 354.89 351.65 352.04 353.13 353.43 354.53 355.22 355.86 356.55
357.15 356.80 357.25 357.64 358.04 358.44 358.80 365.41 359.47 359.81
360.06 360.23 360.39 359.45 360.11 360.10 359.96 359.61 359.40 359.16
358.28 354.75 355.15 350.01 307.29 287.09 270.30 256.90 245.75 264.17
268.62 282.35 305.59 304.04 302.72 310.79 313.67 280.00
         5      1.000(10F7.2)                        -1
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
```

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 2.00 | 2.03 | 2.00 | 2.06 | 2.07 | 2.05 | 2.03 | 2.01 | 2.01 | 2.02 |
| 2.00 | 1.89 | 1.80 | 1.77 | 1.75 | 1.74 | 1.72 | 1.72 | 1.09 | 1.00 |
| 1.25 | 1.16 | 1.09 | 0.38 | 1.02 | 0.98 | 0.91 | 0.84 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 3.00 | 2.34 | 2.18 | 2.47 | 2.52 | 2.61 | 2.52 | 2.49 | 2.53 | 2.50 |
| 2.40 | 2.42 | 2.45 | 2.50 | 2.58 | 2.64 | 2.69 | 2.78 | 6.32 | 3.34 |
| 2.33 | 2.24 | 2.15 | 1.56 | 2.02 | 1.98 | 1.91 | 1.67 | 1.23 | 1.10 |
| 0.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.01 | 0.02 | 0.02 | 0.02 | 0.01 | 0.02 | 0.04 | 0.05 |
| 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.14 |
| 0.12 | 0.08 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 5.00 | 3.61 | 2.76 | 3.68 | 3.67 | 3.81 | 3.46 | 3.28 | 3.31 | 3.16 |
| 2.91 | 2.97 | 3.09 | 3.23 | 3.40 | 3.55 | 3.68 | 3.83 | 6.02 | 3.55 |
| 4.02 | 3.96 | 3.85 | 4.78 | 3.74 | 3.64 | 3.47 | 3.14 | 2.38 | 2.18 |
| 2.00 | 1.22 | 1.47 | 0.47 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.07 | 0.01 |
| 0.01 | 0.02 | 0.04 | 0.03 | 0.03 | 0.07 | 0.13 | 0.14 | 0.16 | 0.17 |
| 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.28 | 0.28 | 0.28 |
| 0.27 | 0.24 | 0.22 | 0.19 | 0.15 | 0.12 | 0.08 | 0.03 | 0.01 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 7.00 | 5.86 | 3.79 | 5.81 | 5.66 | 5.89 | 5.07 | 4.65 | 4.63 | 4.28 |
| 3.77 | 3.87 | 4.13 | 4.38 | 4.67 | 4.92 | 5.13 | 5.35 | 6.88 | 5.38 |
| 5.72 | 5.70 | 5.58 | 4.86 | 5.46 | 5.36 | 5.23 | 4.30 | 4.72 | 4.42 |
| 4.12 | 4.98 | 3.39 | 1.61 | 2.07 | 1.85 | 1.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.05 | 0.01 | 0.01 | 0.02 | 0.04 | 0.06 | 0.06 |
| 0.10 | 0.12 | 0.14 | 0.07 | 0.08 | 0.18 | 0.25 | 0.25 | 0.27 | 0.29 |
| 0.30 | 0.32 | 0.33 | 0.34 | 0.35 | 0.36 | 0.38 | 0.38 | 0.39 | 0.39 |
| 0.38 | 0.36 | 0.35 | 0.33 | 0.31 | 0.29 | 0.27 | 0.25 | 0.23 | 0.20 |
| 0.17 | 0.15 | 0.09 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 8.00 | 8.05 | 6.27 | 7.99 | 7.82 | 7.06 | 6.81 | 6.36 | 6.47 | 6.23 |
| 5.95 | 6.29 | 6.72 | 7.08 | 7.40 | 7.63 | 7.80 | 7.92 | 7.94 | 7.72 |
| 7.81 | 7.83 | 7.76 | 6.50 | 7.69 | 7.64 | 7.17 | 6.73 | 6.80 | 6.53 |
| 6.34 | 5.00 | 4.84 | 5.00 | 4.42 | 3.72 | 3.87 | 2.26 | 1.94 | 1.50 |
| 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.01 | 0.02 | 0.04 | 0.06 | 0.09 | 0.12 | 0.14 | 0.17 | 0.18 |
| 0.23 | 0.25 | 0.28 | 0.17 | 0.19 | 0.34 | 0.40 | 0.40 | 0.42 | 0.44 |
| 0.46 | 0.48 | 0.49 | 0.51 | 0.53 | 0.55 | 0.56 | 0.58 | 0.59 | 0.59 |
| 0.60 | 0.60 | 0.60 | 0.60 | 0.59 | 0.58 | 0.58 | 0.58 | 0.57 | 0.56 |
| 0.55 | 0.55 | 0.52 | 0.50 | 0.48 | 0.44 | 0.42 | 0.30 | | |
| 9.00 | 8.52 | 9.70 | 9.11 | 9.00 | 8.25 | 7.88 | 7.17 | 7.22 | 6.86 |
| 6.52 | 6.92 | 7.37 | 7.69 | 7.91 | 7.97 | 8.00 | 8.18 | 8.11 | 8.10 |
| 8.22 | 8.36 | 8.46 | 8.56 | 8.63 | 8.68 | 8.71 | 8.61 | 8.30 | 8.24 |
| 8.17 | 8.09 | 7.84 | 5.07 | 6.66 | 6.03 | 4.98 | 5.61 | 4.49 | 3.00 |
| 2.50 | 0.61 | 1.76 | 1.03 | 0.74 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.08 | 0.10 | 0.36 | 0.50 |
| 0.50 | 0.24 | 0.31 | 0.42 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.56 |
| 0.61 | 0.63 | 0.64 | 0.38 | 0.40 | 0.69 | 0.77 | 0.74 | 0.76 | 0.77 |
| 0.79 | 0.81 | 0.81 | 0.83 | 0.84 | 0.86 | 0.88 | 0.88 | 0.89 | 0.90 |
| 0.90 | 0.91 | 0.92 | 0.92 | 0.91 | 0.92 | 0.92 | 0.92 | 0.93 | 0.92 |
| 0.92 | 0.93 | 0.91 | 0.90 | 0.89 | 0.87 | 0.87 | 0.60 | | |
| 11.00 | 9.70 | 10.17 | 10.47 | 10.24 | 9.79 | 9.41 | 8.01 | 7.40 | 7.32 |
| 6.80 | 7.32 | 7.79 | 7.93 | 8.12 | 8.04 | 8.07 | 8.17 | 8.23 | 8.48 |
| 8.64 | 8.81 | 8.95 | 9.10 | 9.20 | 9.29 | 9.38 | 9.43 | 9.49 | 9.64 |
| 9.48 | 9.42 | 9.22 | 9.03 | 8.31 | 8.01 | 7.73 | 6.80 | 6.59 | 5.00 |
| 4.00 | 3.67 | 3.19 | 2.64 | 2.00 | 1.81 | 1.35 | 1.16 | 0.92 | 0.90 |
| 0.53 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.14 | 0.21 | 0.44 | 0.69 | 0.95 | 1.22 | 1.00 |
| 1.00 | 1.16 | 1.60 | 1.69 | 1.89 | 1.90 | 1.91 | 1.91 | 1.82 | 1.78 |
| 1.76 | 1.72 | 1.68 | 0.77 | 0.79 | 1.61 | 1.73 | 1.59 | 1.57 | 1.55 |
| 1.53 | 1.52 | 1.48 | 1.48 | 1.46 | 1.46 | 1.45 | 1.43 | 1.42 | 1.41 |
| 1.39 | 1.38 | 1.37 | 1.36 | 1.34 | 1.33 | 1.33 | 1.32 | 1.31 | 1.30 |
| 1.30 | 1.30 | 1.27 | 1.27 | 1.26 | 1.25 | 1.25 | 0.90 | | |
| 13.00 | 11.62 | 10.76 | 12.31 | 11.73 | 11.28 | 10.05 | 9.75 | 8.04 | 7.45 |
| 7.08 | 7.63 | 7.99 | 8.01 | 8.05 | 8.10 | 8.29 | 8.44 | 8.57 | 8.86 |
| 9.06 | 9.26 | 9.45 | 9.64 | 9.77 | 9.89 | 10.01 | 10.11 | 10.21 | 10.49 |
| 10.27 | 10.27 | 10.18 | 9.45 | 9.87 | 9.55 | 9.39 | 8.48 | 8.13 | 8.00 |
| 7.50 | 4.79 | 5.47 | 4.90 | 4.19 | 3.45 | 2.81 | 2.15 | 1.93 | 1.29 |
| 1.32 | 1.13 | 0.84 | 0.74 | 0.48 | 0.35 | 0.24 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.11 |
| 0.20 | 0.22 | 0.44 | 0.67 | 0.89 | 1.11 | 1.33 | 1.56 | 1.78 | 2.00 |
| 2.00 | 2.06 | 2.06 | 2.08 | 2.06 | 2.07 | 2.19 | 2.24 | 2.29 | 2.27 |
| 2.11 | 2.06 | 2.00 | 1.37 | 1.41 | 1.95 | 1.85 | 1.81 | 1.78 | 1.75 |
| 1.73 | 1.70 | 1.65 | 1.64 | 1.62 | 1.61 | 1.61 | 1.58 | 1.56 | 1.55 |
| 1.53 | 1.52 | 1.52 | 1.51 | 1.49 | 1.49 | 1.48 | 1.47 | 1.47 | 1.46 |
| 1.46 | 1.46 | 1.45 | 1.44 | 1.44 | 1.43 | 1.44 | 1.00 | | |
| 14.50 | 14.47 | 13.25 | 13.59 | 13.90 | 13.34 | 12.39 | 11.48 | 10.00 | 8.01 |
| 7.63 | 7.97 | 8.04 | 8.06 | 8.21 | 8.33 | 8.59 | 8.79 | 9.00 | 9.31 |
| 9.55 | 9.80 | 10.05 | 10.30 | 10.47 | 10.65 | 10.82 | 10.98 | 11.13 | 11.53 |
| 11.31 | 11.39 | 11.41 | 11.10 | 11.39 | 11.26 | 11.40 | 10.67 | 10.53 | 9.00 |
| 9.00 | 8.04 | 7.91 | 7.30 | 6.45 | 5.72 | 5.08 | 4.35 | 3.66 | 4.00 |
| 2.06 | 1.84 | 1.45 | 1.37 | 0.98 | 0.75 | 0.60 | 0.53 | 0.39 | 0.29 |
| 0.20 | 0.17 | 0.00 | 0.00 | 0.00 | 0.03 | 0.03 | 0.03 | 0.02 | 0.01 |
| 0.02 | 0.02 | 0.00 | 0.08 | 0.18 | 0.20 | 0.40 | 0.60 | 0.80 | 1.00 |
| 1.20 | 1.40 | 1.60 | 1.80 | 1.82 | 1.95 | 2.00 | 2.08 | 2.37 | 2.50 |
| 2.50 | 2.11 | 2.10 | 2.17 | 2.31 | 2.21 | 2.43 | 2.48 | 2.53 | 2.57 |
| 2.57 | 2.56 | 2.52 | 4.48 | 4.66 | 2.43 | 2.29 | 2.10 | 2.04 | 2.00 |
| 1.97 | 1.92 | 1.85 | 1.83 | 1.81 | 1.79 | 1.78 | 1.75 | 1.72 | 1.71 |
| 1.69 | 1.68 | 1.69 | 1.68 | 1.67 | 1.67 | 1.67 | 1.66 | 1.66 | 1.66 |
| 1.66 | 1.67 | 1.66 | 1.66 | 1.67 | 1.67 | 1.69 | 1.30 | | |
| 18.00 | 16.49 | 17.58 | 20.03 | 16.40 | 15.00 | 14.58 | 13.15 | 11.71 | 9.85 |
| 7.68 | 8.30 | 8.97 | 9.64 | 10.31 | 10.98 | 11.65 | 12.32 | 12.99 | 13.66 |
| 14.33 | 14.39 | 14.85 | 14.94 | 14.89 | 14.85 | 14.82 | 14.78 | 14.74 | 14.18 |
| 14.10 | 13.97 | 13.84 | 13.53 | 13.61 | 13.44 | 13.71 | 12.96 | 12.88 | 11.00 |
| 11.00 | 8.31 | 9.33 | 8.91 | 8.22 | 8.00 | 7.34 | 6.41 | 5.64 | 5.00 |
| 4.21 | 3.53 | 2.03 | 1.54 | 1.49 | 1.23 | 1.09 | 1.07 | 0.95 | 0.90 |
| 0.88 | 0.91 | 0.87 | 0.99 | 1.04 | 1.11 | 1.17 | 1.25 | 1.31 | 1.39 |
| 1.45 | 1.55 | 1.73 | 1.70 | 1.77 | 1.84 | 1.90 | 1.95 | 1.98 | 1.99 |
| 1.89 | 2.00 | 2.06 | 2.14 | 2.23 | 2.30 | 2.53 | 3.02 | 3.43 | 3.00 |
| 3.00 | 2.29 | 2.21 | 2.38 | 2.52 | 2.34 | 2.65 | 2.71 | 2.77 | 2.83 |
| 2.85 | 2.87 | 2.87 | 4.05 | 4.17 | 2.87 | 2.80 | 2.76 | 2.73 | 2.62 |
| 2.55 | 2.44 | 2.14 | 2.16 | 2.05 | 2.00 | 1.98 | 1.93 | 1.87 | 1.86 |
| 1.83 | 1.83 | 1.83 | 1.82 | 1.81 | 1.80 | 1.81 | 1.80 | 1.80 | 1.80 |
| 1.80 | 1.81 | 1.81 | 1.82 | 1.83 | 1.84 | 1.86 | 1.60 | | |
| 20.00 | 17.38 | 18.98 | 18.81 | 21.67 | 21.10 | 19.88 | 14.98 | 13.43 | 10.54 |
| 10.16 | 8.85 | 9.69 | 10.54 | 11.39 | 12.24 | 13.08 | 13.93 | 14.78 | 15.49 |
| 15.23 | 15.40 | 16.02 | 16.86 | 17.29 | 17.76 | 18.19 | 18.53 | 18.78 | 17.48 |
| 16.16 | 15.74 | 15.29 | 15.00 | 14.89 | 14.75 | 13.75 | 13.86 | 13.88 | 12.00 |
| 12.00 | 8.61 | 10.45 | 9.42 | 9.71 | 9.61 | 8.93 | 8.16 | 7.81 | 6.00 |
| 6.16 | 5.50 | 4.22 | 3.87 | 1.96 | 1.59 | 1.39 | 1.37 | 1.19 | 1.11 |
| 1.08 | 1.10 | 1.08 | 1.19 | 1.24 | 1.31 | 1.38 | 1.47 | 1.52 | 1.62 |
| 1.68 | 1.78 | 1.82 | 1.90 | 1.94 | 1.98 | 1.99 | 2.00 | 2.19 | 2.21 |
| 2.44 | 2.69 | 2.95 | 3.23 | 3.39 | 3.84 | 3.83 | 4.48 | 4.81 | 4.00 |
| 4.00 | 2.72 | 2.46 | 2.80 | 2.95 | 2.58 | 3.06 | 3.11 | 3.17 | 3.21 |
| 3.23 | 3.25 | 3.26 | 3.93 | 4.00 | 3.27 | 3.22 | 3.18 | 3.19 | 3.07 |
| 3.02 | 2.64 | 2.94 | 3.43 | 3.23 | 3.08 | 2.95 | 2.70 | 2.41 | 2.16 |
| 2.05 | 2.01 | 2.02 | 1.99 | 1.98 | 1.97 | 1.96 | 1.91 | 1.88 | 1.87 |
| 1.87 | 1.88 | 1.87 | 1.88 | 1.89 | 1.91 | 1.94 | 1.80 | | |
| 30.00 | 20.01 | 21.76 | 22.02 | 23.66 | 24.99 | 21.09 | 21.12 | 15.01 | 13.33 |
| 11.77 | 12.11 | 12.83 | 13.64 | 14.52 | 14.86 | 14.92 | 15.02 | 15.32 | 15.80 |
| 16.36 | 17.07 | 17.84 | 18.82 | 19.24 | 19.82 | 20.38 | 20.91 | 21.38 | 21.11 |
| 21.34 | 21.24 | 21.00 | 20.78 | 20.39 | 19.63 | 21.74 | 15.50 | 14.95 | 14.00 |
| 14.00 | 9.21 | 12.63 | 11.28 | 11.26 | 11.27 | 9.56 | 9.64 | 9.16 | 9.11 |
| 8.01 | 7.48 | 6.22 | 4.71 | 3.89 | 2.00 | 1.71 | 1.67 | 1.44 | 1.32 |
| 1.27 | 1.29 | 1.28 | 1.38 | 1.44 | 1.51 | 1.58 | 1.67 | 1.72 | 1.82 |
| 1.87 | 1.95 | 1.94 | 1.99 | 1.99 | 2.12 | 2.24 | 2.27 | 2.51 | 2.85 |
| 3.14 | 3.46 | 3.78 | 4.11 | 4.35 | 4.79 | 4.75 | 5.49 | 5.84 | 5.00 |
| 5.00 | 3.37 | 2.82 | 3.42 | 3.57 | 2.94 | 3.65 | 3.69 | 3.73 | 3.76 |
| 3.77 | 3.78 | 3.79 | 4.01 | 4.05 | 3.76 | 3.71 | 3.66 | 3.70 | 3.55 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 3.49 | 3.18 | 3.51 | 4.36 | 4.14 | 3.97 | 3.81 | 3.58 | 3.34 | 3.26 |
| 3.11 | 3.08 | 3.09 | 3.00 | 2.89 | 2.85 | 2.82 | 2.73 | 2.63 | 2.25 |
| 2.22 | 2.16 | 2.00 | 1.99 | 1.98 | 1.97 | 1.96 | 1.90 | | |
| 42.00 | 24.77 | 26.55 | 26.84 | 26.43 | 30.11 | 26.89 | 27.26 | 22.74 | 15.00 |
| 13.23 | 12.73 | 13.29 | 14.08 | 14.84 | 14.29 | 15.61 | 15.69 | 16.64 | 17.70 |
| 18.81 | 20.04 | 21.30 | 22.82 | 23.77 | 24.92 | 26.07 | 27.20 | 28.28 | 28.83 |
| 29.72 | 30.35 | 30.87 | 31.38 | 31.78 | 31.95 | 29.62 | 30.93 | 30.16 | 25.00 |
| 23.00 | 14.16 | 13.58 | 13.43 | 13.08 | 13.24 | 11.27 | 11.07 | 10.63 | 9.34 |
| 9.22 | 8.76 | 8.03 | 7.43 | 5.01 | 4.91 | 2.08 | 1.74 | 1.67 | 1.50 |
| 1.42 | 1.42 | 1.43 | 1.52 | 1.58 | 1.65 | 1.72 | 1.81 | 1.86 | 1.94 |
| 1.97 | 1.98 | 2.00 | 2.23 | 2.24 | 2.50 | 2.74 | 3.07 | 3.22 | 3.65 |
| 3.94 | 4.24 | 4.55 | 4.86 | 5.10 | 5.50 | 5.36 | 6.14 | 6.46 | 5.50 |
| 5.50 | 3.98 | 3.24 | 4.09 | 4.25 | 3.48 | 4.37 | 4.43 | 4.49 | 4.55 |
| 4.59 | 4.64 | 4.68 | 4.51 | 4.57 | 4.75 | 4.74 | 4.74 | 4.83 | 4.73 |
| 4.73 | 4.59 | 4.89 | 5.77 | 5.63 | 5.53 | 5.44 | 5.32 | 5.20 | 5.21 |
| 5.19 | 5.22 | 5.27 | 5.28 | 5.28 | 5.32 | 5.39 | 5.43 | 5.48 | 5.53 |
| 5.61 | 5.66 | 5.62 | 5.63 | 5.65 | 5.71 | 5.79 | 5.00 | | |
| 49.00 | 29.70 | 31.64 | 32.14 | 28.91 | 35.79 | 33.09 | 33.72 | 29.70 | 24.35 |
| 13.50 | 13.25 | 13.69 | 14.50 | 14.87 | 15.17 | 16.05 | 17.36 | 18.76 | 20.22 |
| 21.69 | 23.28 | 24.89 | 26.84 | 28.07 | 29.59 | 31.12 | 32.64 | 34.09 | 35.08 |
| 36.33 | 37.37 | 38.27 | 39.15 | 39.94 | 40.57 | 39.30 | 40.60 | 40.39 | 30.00 |
| 28.00 | 39.50 | 20.52 | 15.24 | 14.84 | 13.72 | 12.90 | 12.44 | 12.09 | 10.68 |
| 10.37 | 9.17 | 9.27 | 8.72 | 8.00 | 6.32 | 5.02 | 2.26 | 1.96 | 1.73 |
| 1.61 | 1.60 | 1.61 | 1.68 | 1.74 | 1.81 | 1.86 | 1.94 | 1.97 | 1.98 |
| 2.00 | 2.22 | 2.25 | 2.49 | 2.78 | 3.06 | 3.31 | 3.64 | 3.74 | 4.22 |
| 4.51 | 4.81 | 5.11 | 5.41 | 5.67 | 6.02 | 5.86 | 6.64 | 6.94 | 6.00 |
| 6.00 | 4.77 | 3.90 | 5.07 | 5.29 | 4.55 | 5.58 | 5.73 | 5.87 | 6.01 |
| 6.15 | 6.29 | 6.43 | 6.26 | 6.43 | 6.82 | 6.94 | 7.08 | 7.24 | 7.36 |
| 7.51 | 7.65 | 7.84 | 6.79 | 7.17 | 6.87 | 6.63 | 6.37 | 6.16 | 6.15 |
| 6.15 | 6.20 | 6.27 | 6.29 | 6.33 | 6.42 | 6.55 | 6.66 | 6.78 | 6.91 |
| 7.05 | 7.16 | 7.23 | 7.31 | 7.40 | 7.51 | 7.62 | 7.00 | | |
| 57.00 | 35.92 | 37.74 | 38.17 | 31.16 | 41.62 | 39.22 | 39.82 | 36.12 | 23.11 |
| 15.29 | 14.11 | 14.10 | 14.70 | 15.00 | 17.08 | 17.27 | 18.99 | 20.74 | 22.52 |
| 24.30 | 26.19 | 28.11 | 30.44 | 31.94 | 33.81 | 35.69 | 37.57 | 39.36 | 40.77 |
| 42.37 | 43.78 | 45.05 | 46.28 | 47.44 | 48.49 | 48.20 | 49.49 | 49.79 | 35.00 |
| 34.00 | 31.35 | 19.19 | 20.95 | 19.84 | 15.13 | 14.54 | 13.81 | 13.54 | 12.03 |
| 11.53 | 10.33 | 10.42 | 9.01 | 9.00 | 8.24 | 7.93 | 5.22 | 4.76 | 2.00 |
| 1.81 | 1.78 | 1.79 | 1.84 | 1.89 | 1.94 | 1.97 | 1.97 | 2.00 | 2.22 |
| 2.26 | 2.53 | 2.81 | 3.09 | 3.38 | 3.67 | 3.94 | 4.24 | 4.39 | 4.82 |
| 5.11 | 5.40 | 5.69 | 5.98 | 6.26 | 6.57 | 6.57 | 7.15 | 7.45 | 7.00 |
| 7.00 | 5.90 | 4.52 | 6.12 | 6.28 | 5.09 | 6.47 | 6.56 | 6.65 | 6.75 |
| 6.83 | 6.93 | 7.02 | 6.46 | 6.61 | 7.23 | 7.30 | 7.38 | 7.50 | 7.54 |
| 7.64 | 7.73 | 7.88 | 8.00 | 8.13 | 8.00 | 7.65 | 7.28 | 7.05 | 7.04 |
| 7.08 | 7.14 | 7.22 | 7.27 | 7.35 | 7.46 | 7.60 | 7.73 | 7.84 | 7.93 |
| 7.95 | 7.73 | 7.80 | 7.85 | 7.93 | 8.08 | 8.68 | 9.00 | | |
| 63.00 | 42.54 | 44.42 | 44.99 | 33.51 | 48.53 | 46.44 | 47.06 | 43.51 | 31.41 |
| 22.29 | 14.07 | 14.53 | 14.96 | 15.76 | 17.23 | 17.96 | 19.96 | 21.98 | 24.05 |
| 26.13 | 28.31 | 30.52 | 33.18 | 34.98 | 37.19 | 39.42 | 41.64 | 43.79 | 45.62 |
| 47.57 | 49.35 | 50.99 | 52.58 | 54.11 | 55.59 | 56.20 | 57.55 | 58.35 | 40.00 |
| 40.00 | 32.50 | 23.13 | 25.25 | 24.94 | 22.42 | 20.24 | 15.19 | 13.79 | 13.37 |
| 12.68 | 11.50 | 11.56 | 10.02 | 10.00 | 9.20 | 8.75 | 8.01 | 5.00 | 4.88 |
| 2.31 | 1.98 | 1.97 | 1.98 | 1.99 | 2.16 | 2.39 | 2.25 | 2.26 | 2.52 |
| 2.79 | 3.05 | 3.32 | 3.59 | 3.86 | 4.13 | 4.40 | 4.67 | 4.85 | 5.21 |
| 5.48 | 5.75 | 6.03 | 6.30 | 6.56 | 6.84 | 6.94 | 7.38 | 7.65 | 7.50 |
| 7.50 | 6.82 | 5.02 | 6.97 | 7.07 | 5.52 | 7.18 | 7.23 | 7.28 | 7.34 |
| 7.39 | 7.45 | 7.51 | 6.56 | 6.70 | 7.59 | 7.61 | 7.64 | 7.73 | 7.71 |
| 7.76 | 7.82 | 7.93 | 8.00 | 8.31 | 8.60 | 8.49 | 8.48 | 8.00 | 7.95 |
| 7.94 | 7.91 | 7.89 | 7.85 | 7.83 | 7.85 | 7.95 | 8.01 | 8.14 | 8.26 |
| 8.32 | 8.68 | 9.14 | 9.54 | 10.05 | 10.64 | 11.28 | 10.00 | | |
| 65.00 | 47.59 | 49.43 | 50.16 | 34.52 | 53.60 | 51.96 | 52.57 | 49.32 | 38.66 |
| 24.03 | 23.44 | 14.79 | 15.64 | 17.13 | 20.62 | 21.31 | 23.72 | 26.07 | 28.44 |
| 30.80 | 33.24 | 35.70 | 38.64 | 40.69 | 43.17 | 45.67 | 48.16 | 50.58 | 52.76 |
| 54.99 | 57.09 | 59.06 | 60.97 | 62.85 | 64.72 | 66.18 | 67.64 | 68.97 | 50.00 |
| 50.00 | 35.63 | 27.88 | 29.70 | 29.41 | 27.47 | 22.25 | 23.00 | 22.08 | 14.93 |
| 13.83 | 12.67 | 12.71 | 11.04 | 11.00 | 10.17 | 8.99 | 9.05 | 8.88 | 8.00 |
| 5.37 | 5.36 | 5.37 | 5.62 | 5.99 | 6.29 | 6.52 | 6.34 | 7.01 | 7.22 |
| 7.40 | 7.51 | 7.61 | 7.64 | 7.75 | 7.80 | 7.82 | 7.87 | 7.41 | 7.93 |
| 7.96 | 7.98 | 7.98 | 7.83 | 7.84 | 7.85 | 6.52 | 7.88 | 7.89 | 7.90 |
| 7.90 | 7.87 | 6.67 | 7.96 | 7.97 | 6.73 | 7.98 | 7.98 | 7.99 | 8.00 |
| 8.03 | 8.06 | 8.12 | 8.09 | 8.03 | 7.98 | 7.95 | 7.90 | 7.47 | 7.66 |
| 7.72 | 7.83 | 7.93 | 8.04 | 8.27 | 8.50 | 8.70 | 9.06 | 9.28 | 9.45 |
| 9.66 | 9.85 | 10.06 | 10.26 | 10.46 | 10.67 | 10.93 | 11.14 | 11.41 | 11.69 |
| 12.00 | 12.30 | 12.71 | 12.95 | 13.30 | 13.66 | 14.02 | 13.00 | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 77.00 | 59.36 | 60.62 | 60.84 | 37.79 | 63.09 | 61.08 | 61.08 | 57.33 | 46.98 |
| 33.04 | 24.23 | 30.78 | 16.79 | 18.79 | 22.29 | 23.65 | 26.30 | 28.90 | 31.51 |
| 34.11 | 36.78 | 39.47 | 42.60 | 44.92 | 47.64 | 50.39 | 53.13 | 55.80 | 58.31 |
| 60.82 | 63.23 | 65.52 | 67.76 | 69.98 | 72.22 | 74.39 | 76.07 | 77.89 | 60.00 |
| 60.00 | 39.50 | 34.16 | 35.57 | 34.97 | 33.04 | 28.80 | 28.94 | 22.70 | 20.89 |
| 15.03 | 13.83 | 13.85 | 12.05 | 12.00 | 11.13 | 9.99 | 10.04 | 9.01 | 8.95 |
| 8.91 | 8.13 | 8.13 | 8.15 | 8.17 | 8.17 | 8.17 | 8.05 | 8.15 | 8.12 |
| 8.16 | 8.16 | 8.16 | 8.16 | 8.17 | 8.19 | 8.20 | 8.19 | 6.58 | 8.19 |
| 8.20 | 8.22 | 8.12 | 8.14 | 8.29 | 8.44 | 10.14 | 8.76 | 8.94 | 8.50 |
| 8.50 | 8.09 | 8.61 | 8.19 | 8.23 | 9.15 | 8.37 | 8.44 | 8.52 | 8.61 |
| 8.71 | 8.82 | 8.95 | 9.00 | 8.99 | 9.00 | 8.97 | 8.88 | 9.19 | 8.24 |
| 8.14 | 8.10 | 9.17 | 9.40 | 10.80 | 12.20 | 13.60 | 13.83 | 14.86 | 12.95 |
| 12.59 | 12.21 | 12.17 | 12.19 | 12.21 | 12.36 | 12.73 | 12.87 | 13.24 | 13.64 |
| 14.00 | 14.30 | 14.67 | 14.77 | 14.92 | 14.95 | 14.73 | 14.50 | | |
| 81.00 | 66.80 | 67.46 | 67.33 | 41.67 | 68.37 | 66.70 | 66.42 | 63.49 | 56.57 |
| 47.68 | 42.48 | 38.58 | 41.78 | 46.44 | 62.75 | 57.64 | 61.93 | 64.76 | 67.10 |
| 69.05 | 70.97 | 72.71 | 75.69 | 75.97 | 77.40 | 78.77 | 80.04 | 81.09 | 81.89 |
| 82.62 | 83.24 | 83.71 | 84.14 | 84.61 | 85.17 | 85.95 | 85.83 | 86.16 | 68.00 |
| 68.00 | 42.95 | 41.58 | 42.66 | 41.80 | 39.78 | 36.14 | 35.58 | 30.26 | 28.11 |
| 22.40 | 15.00 | 14.00 | 13.07 | 13.02 | 12.13 | 11.05 | 11.11 | 10.14 | 10.05 |
| 9.23 | 9.46 | 9.45 | 9.52 | 9.57 | 9.59 | 9.60 | 8.78 | 9.62 | 9.41 |
| 9.68 | 9.72 | 9.74 | 9.76 | 9.81 | 9.88 | 9.92 | 9.94 | 11.85 | 9.97 |
| 10.00 | 10.04 | 9.73 | 10.15 | 10.19 | 10.21 | 11.96 | 10.30 | 10.35 | 9.00 |
| 9.00 | 8.48 | 8.97 | 8.99 | 9.22 | 9.67 | 9.74 | 9.99 | 10.24 | 10.49 |
| 10.74 | 10.99 | 11.24 | 11.48 | 11.71 | 11.95 | 12.19 | 12.42 | 12.63 | 12.89 |
| 13.13 | 13.37 | 13.62 | 13.88 | 14.14 | 14.37 | 14.60 | 14.97 | 15.00 | 15.00 |
| 14.57 | 13.70 | 13.44 | 13.32 | 13.17 | 13.22 | 13.57 | 13.62 | 13.99 | 14.36 |
| 14.67 | 14.88 | 14.91 | 14.96 | 16.50 | 18.83 | 21.95 | 20.00 | | |
| 84.00 | 74.58 | 75.15 | 75.11 | 43.76 | 75.88 | 74.40 | 73.93 | 70.93 | 64.47 |
| 56.04 | 50.79 | 46.05 | 48.58 | 52.91 | 65.11 | 63.48 | 67.56 | 70.30 | 72.59 |
| 74.52 | 76.39 | 78.07 | 81.06 | 81.28 | 82.68 | 84.00 | 85.23 | 86.22 | 87.01 |
| 87.69 | 88.27 | 88.70 | 89.10 | 89.54 | 90.09 | 91.03 | 90.83 | 91.22 | 75.00 |
| 75.00 | 46.04 | 49.79 | 50.46 | 49.28 | 47.11 | 43.99 | 42.58 | 37.99 | 35.33 |
| 29.63 | 22.53 | 15.11 | 14.08 | 14.02 | 13.11 | 12.07 | 12.14 | 11.22 | 11.10 |
| 10.40 | 10.57 | 10.58 | 10.65 | 10.71 | 10.74 | 10.76 | 9.43 | 10.82 | 10.47 |
| 10.91 | 10.97 | 11.02 | 11.05 | 11.11 | 11.19 | 11.26 | 11.31 | 12.20 | 11.35 |
| 11.39 | 11.43 | 11.21 | 11.53 | 11.58 | 11.61 | 12.42 | 11.73 | 11.78 | 10.00 |
| 10.00 | 8.97 | 9.43 | 9.46 | 9.64 | 10.07 | 10.18 | 10.42 | 10.66 | 10.90 |
| 11.14 | 11.37 | 11.59 | 11.80 | 12.01 | 12.23 | 12.44 | 12.64 | 12.80 | 13.05 |
| 13.26 | 13.47 | 13.71 | 13.95 | 14.19 | 14.38 | 14.58 | 14.92 | 15.00 | 15.00 |
| 21.32 | 16.59 | 15.00 | 14.56 | 13.99 | 13.85 | 14.18 | 14.11 | 14.49 | 14.82 |
| 14.93 | 15.00 | 18.34 | 20.13 | 26.47 | 30.85 | 41.49 | 30.00 | | |
| 95.00 | 90.08 | 90.34 | 90.14 | 48.26 | 90.10 | 88.39 | 87.36 | 83.66 | 76.72 |
| 67.56 | 61.37 | 54.87 | 56.66 | 60.82 | 69.69 | 71.31 | 75.34 | 78.01 | 80.22 |
| 82.05 | 83.79 | 85.32 | 88.33 | 88.22 | 89.45 | 90.58 | 91.59 | 92.33 | 92.89 |
| 93.28 | 93.59 | 93.74 | 93.86 | 94.03 | 94.33 | 95.14 | 94.64 | 94.82 | 80.00 |
| 80.00 | 48.27 | 58.08 | 58.37 | 56.94 | 54.68 | 52.15 | 49.84 | 45.96 | 42.71 |
| 36.91 | 29.91 | 21.80 | 15.05 | 14.15 | 14.05 | 13.02 | 13.09 | 12.19 | 12.04 |
| 11.43 | 11.56 | 11.57 | 11.64 | 11.70 | 11.73 | 11.76 | 9.96 | 11.84 | 11.37 |
| 11.96 | 12.04 | 12.09 | 12.14 | 12.20 | 12.30 | 12.38 | 12.45 | 12.53 | 12.50 |
| 12.53 | 12.58 | 12.44 | 12.67 | 12.73 | 12.77 | 12.87 | 12.89 | 12.96 | 11.00 |
| 11.00 | 9.73 | 9.89 | 10.19 | 10.28 | 10.47 | 10.86 | 11.09 | 11.32 | 11.54 |
| 11.76 | 11.96 | 12.15 | 12.33 | 12.50 | 12.69 | 12.87 | 13.04 | 13.16 | 13.37 |
| 13.54 | 13.72 | 13.91 | 14.11 | 14.31 | 14.46 | 14.61 | 14.88 | 14.98 | 15.00 |
| 18.41 | 22.66 | 23.70 | 21.17 | 16.28 | 14.91 | 14.21 | 14.57 | 14.84 | 15.10 |
| 19.94 | 20.61 | 27.03 | 35.44 | 43.13 | 49.25 | 59.87 | 45.00 | | |
| 100.00 | 102.73 | 102.85 | 102.39 | 216.54 | 101.08 | 99.37 | 97.12 | 92.32 | 84.45 |
| 73.85 | 66.11 | 56.96 | 58.06 | 62.48 | 67.94 | 74.02 | 78.47 | 81.43 | 83.88 |
| 85.90 | 87.77 | 89.38 | 92.81 | 92.46 | 93.72 | 94.84 | 95.79 | 96.42 | 96.89 |
| 97.10 | 97.23 | 97.20 | 97.13 | 97.13 | 97.28 | 98.04 | 97.36 | 97.45 | 85.00 |
| 85.00 | 50.54 | 67.16 | 66.98 | 65.25 | 62.84 | 60.87 | 57.54 | 54.30 | 50.35 |
| 44.32 | 37.31 | 28.66 | 21.94 | 15.00 | 14.17 | 13.99 | 14.04 | 13.15 | 12.95 |
| 12.44 | 12.50 | 12.51 | 12.57 | 12.63 | 12.66 | 12.68 | 10.46 | 12.77 | 12.19 |
| 12.90 | 12.98 | 13.04 | 13.09 | 13.15 | 13.24 | 13.33 | 13.41 | 12.85 | 13.45 |
| 13.48 | 13.52 | 13.44 | 13.59 | 13.64 | 13.68 | 13.32 | 13.80 | 13.86 | 12.00 |
| 12.00 | 10.82 | 10.50 | 11.36 | 11.41 | 11.25 | 12.14 | 12.41 | 12.67 | 12.92 |
| 13.16 | 13.37 | 13.56 | 13.75 | 13.93 | 14.12 | 14.31 | 14.48 | 14.65 | 14.83 |
| 14.84 | 14.66 | 14.73 | 14.80 | 14.84 | 14.82 | 14.68 | 15.00 | 15.00 | 15.00 |
| 20.02 | 23.74 | 25.71 | 22.04 | 24.32 | 22.35 | 23.31 | 16.31 | 19.77 | 20.59 |
| 26.48 | 34.46 | 41.66 | 50.92 | 58.43 | 65.23 | 74.69 | 60.00 | | |
| 125.00 | 106.33 | 110.75 | 114.73 | 245.89 | 120.23 | 118.73 | 114.04 | 99.99 | 92.59 |
| 83.08 | 76.11 | 67.40 | 68.63 | 73.12 | 74.72 | 83.69 | 87.61 | 90.30 | 92.49 |
| 94.24 | 95.75 | 96.96 | 98.71 | 98.84 | 99.42 | 99.80 | 99.89 | 99.42 | 99.83 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 99.88 | 99.84 | 99.55 | 99.13 | 98.77 | 98.65 | 94.48 | 96.91 | 97.81 | 90.00 |
| 90.00 | 52.83 | 77.08 | 76.38 | 74.30 | 71.72 | 70.30 | 65.84 | 63.20 | 58.45 |
| 52.08 | 44.93 | 35.61 | 28.31 | 20.36 | 19.44 | 15.00 | 14.15 | 14.09 | 13.83 |
| 13.37 | 13.37 | 13.36 | 13.42 | 13.46 | 13.47 | 13.49 | 10.82 | 13.57 | 12.88 |
| 13.69 | 13.77 | 13.83 | 13.87 | 13.92 | 14.01 | 14.09 | 14.17 | 13.14 | 14.18 |
| 14.20 | 14.24 | 14.19 | 14.28 | 14.32 | 14.36 | 13.77 | 14.46 | 14.51 | 13.00 |
| 13.00 | 12.32 | 11.63 | 13.19 | 13.39 | 13.31 | 14.35 | 14.69 | 14.74 | 14.86 |
| 14.99 | 16.74 | 18.10 | 19.43 | 21.10 | 17.46 | 26.29 | 27.75 | 28.11 | 28.28 |
| 19.07 | 19.69 | 24.70 | 30.11 | 32.96 | 42.30 | 31.87 | 20.23 | 18.50 | 18.30 |
| 18.86 | 22.65 | 26.25 | 29.09 | 32.54 | 35.47 | 37.85 | 41.29 | 44.38 | 49.83 |
| 54.72 | 61.69 | 66.18 | 73.20 | 77.28 | 81.29 | 86.82 | 70.00 | | |
| 130.00 | 111.23 | 118.17 | 124.74 | 236.94 | 134.67 | 136.51 | 124.17 | 121.43 | 100.00 |
| 91.28 | 83.90 | 74.15 | 74.83 | 79.10 | 77.62 | 88.84 | 92.32 | 94.67 | 96.50 |
| 97.87 | 98.89 | 99.59 | 99.76 | 99.34 | 101.94 | 101.33 | 102.59 | 106.87 | 111.84 |
| 116.99 | 121.62 | 124.16 | 124.55 | 123.96 | 125.39 | 140.91 | 108.26 | 105.89 | 100.00 |
| 95.00 | 55.15 | 87.82 | 86.54 | 84.06 | 81.27 | 80.41 | 74.70 | 72.65 | 66.99 |
| 60.21 | 52.83 | 42.72 | 34.74 | 25.59 | 19.69 | 18.91 | 18.85 | 15.05 | 14.75 |
| 14.34 | 14.28 | 14.28 | 14.34 | 14.38 | 14.40 | 14.42 | 12.18 | 14.53 | 14.05 |
| 14.66 | 14.73 | 14.78 | 14.83 | 14.87 | 14.93 | 14.97 | 14.77 | 11.75 | 14.48 |
| 14.49 | 14.53 | 14.49 | 14.56 | 14.62 | 14.67 | 13.75 | 14.80 | 14.86 | 14.00 |
| 14.00 | 14.27 | 13.67 | 14.86 | 14.62 | 15.09 | 23.84 | 57.50 | 57.50 | 86.42 |
| 89.80 | 92.40 | 95.89 | 99.90 | 101.00 | 71.38 | 100.12 | 100.04 | 102.67 | 101.02 |
| 98.11 | 96.97 | 95.21 | 94.49 | 91.87 | 75.55 | 59.39 | 61.37 | 57.44 | 53.28 |
| 75.48 | 74.20 | 72.57 | 66.10 | 66.45 | 65.17 | 63.63 | 65.91 | 68.60 | 76.11 |
| 82.39 | 89.38 | 90.95 | 95.71 | 95.88 | 96.57 | 97.69 | 88.00 | | |
| 140.00 | 117.09 | 125.80 | 134.19 | 232.77 | 147.09 | 151.33 | 143.70 | 123.33 | 125.55 |
| 92.21 | 91.41 | 79.61 | 79.38 | 83.36 | 79.03 | 92.38 | 95.44 | 97.39 | 98.76 |
| 99.60 | 99.82 | 100.00 | 102.08 | 103.07 | 107.54 | 113.53 | 121.47 | 130.21 | 138.08 |
| 146.65 | 154.28 | 160.01 | 163.91 | 166.69 | 171.11 | 158.68 | 170.26 | 168.24 | 125.00 |
| 120.00 | 104.74 | 99.92 | 97.60 | 94.73 | 91.73 | 91.50 | 84.44 | 83.00 | 76.36 |
| 69.07 | 61.36 | 50.31 | 41.52 | 31.01 | 24.44 | 23.01 | 19.05 | 19.18 | 17.82 |
| 16.34 | 15.38 | 15.23 | 15.25 | 15.21 | 15.17 | 15.02 | 13.04 | 15.64 | 14.32 |
| 17.58 | 19.65 | 20.97 | 21.60 | 22.45 | 25.81 | 28.94 | 31.20 | 29.54 | 28.45 |
| 26.99 | 26.29 | 23.82 | 22.89 | 24.10 | 23.99 | 24.91 | 27.60 | 44.35 | 60.00 |
| 65.00 | 61.34 | 57.50 | 96.13 | 102.54 | 104.46 | 108.74 | 112.49 | 101.86 | 102.53 |
| 105.68 | 109.56 | 114.63 | 119.76 | 124.59 | 151.47 | 132.17 | 105.48 | 140.24 | 143.33 |
| 142.23 | 141.43 | 139.18 | 144.04 | 133.38 | 116.99 | 100.03 | 91.30 | 82.75 | 77.48 |
| 86.32 | 83.73 | 82.22 | 76.62 | 76.67 | 76.27 | 76.76 | 79.37 | 83.40 | 89.47 |
| 94.69 | 98.23 | 99.14 | 99.27 | 98.58 | 99.11 | 99.86 | 100.00 | | |
| 150.00 | 123.62 | 133.48 | 143.04 | 229.75 | 157.72 | 163.64 | 159.64 | 142.20 | 124.90 |
| 127.30 | 91.73 | 85.33 | 84.05 | 87.74 | 81.66 | 95.85 | 98.23 | 99.49 | 99.85 |
| 103.59 | 103.60 | 104.35 | 109.85 | 116.95 | 125.12 | 134.93 | 147.19 | 160.05 | 170.68 |
| 182.95 | 193.82 | 202.65 | 209.50 | 214.78 | 221.59 | 215.74 | 223.92 | 223.09 | 150.00 |
| 140.00 | 114.19 | 118.41 | 109.26 | 104.18 | 99.88 | 92.51 | 92.36 | 92.18 | 86.13 |
| 80.51 | 75.27 | 67.63 | 62.57 | 56.70 | 54.67 | 56.25 | 56.93 | 60.00 | 62.42 |
| 64.94 | 68.00 | 70.95 | 74.37 | 77.43 | 80.68 | 83.95 | 93.63 | 94.98 | 96.60 |
| 98.83 | 99.18 | 92.03 | 94.08 | 97.53 | 100.08 | 100.75 | 100.83 | 100.93 | 100.92 |
| 100.84 | 100.79 | 101.02 | 101.58 | 102.52 | 103.13 | 103.73 | 104.71 | 117.63 | 125.00 |
| 125.00 | 26.59 | 105.66 | 109.26 | 112.53 | 116.49 | 122.11 | 128.18 | 126.47 | 143.05 |
| 149.61 | 156.52 | 164.16 | 170.07 | 175.47 | 172.77 | 183.55 | 112.24 | 190.33 | 193.06 |
| 191.68 | 189.65 | 186.82 | 197.86 | 181.52 | 169.07 | 154.90 | 146.61 | 121.46 | 102.21 |
| 97.16 | 91.18 | 88.56 | 81.45 | 80.12 | 79.39 | 80.68 | 83.32 | 88.41 | 94.25 |
| 98.71 | 99.09 | 99.95 | 108.24 | 109.95 | 120.72 | 132.44 | 125.00 | | |
| 200.00 | 143.80 | 153.45 | 162.77 | 249.13 | 175.88 | 181.85 | 178.95 | 161.44 | 147.49 |
| 127.47 | 100.57 | 92.74 | 90.43 | 93.39 | 89.12 | 99.09 | 99.77 | 104.82 | 105.59 |
| 112.35 | 118.13 | 128.52 | 137.65 | 148.75 | 160.42 | 173.81 | 190.05 | 206.52 | 219.29 |
| 234.63 | 248.09 | 259.45 | 268.79 | 276.24 | 285.05 | 285.72 | 290.84 | 291.64 | 200.00 |
| 200.00 | 127.73 | 133.39 | 121.53 | 119.04 | 116.31 | 117.78 | 99.97 | 93.14 | 92.51 |
| 86.08 | 80.29 | 71.60 | 65.89 | 59.14 | 57.03 | 58.70 | 59.93 | 63.48 | 66.51 |
| 69.72 | 73.53 | 76.95 | 81.17 | 84.67 | 88.56 | 92.45 | 98.02 | 98.66 | 100.52 |
| 103.53 | 103.76 | 107.61 | 111.54 | 115.84 | 120.38 | 124.95 | 129.33 | 134.00 | 138.41 |
| 143.36 | 148.08 | 153.19 | 158.70 | 165.08 | 171.33 | 178.11 | 185.88 | 194.20 | 170.00 |
| 170.00 | 35.88 | 124.91 | 134.44 | 139.31 | 147.04 | 156.60 | 166.49 | 169.98 | 188.39 |
| 197.33 | 206.11 | 214.74 | 220.43 | 226.14 | 180.00 | 235.24 | 118.12 | 240.85 | 243.45 |
| 242.14 | 238.91 | 235.39 | 252.51 | 229.79 | 218.76 | 205.49 | 207.13 | 175.17 | 162.93 |
| 141.59 | 103.17 | 98.21 | 88.10 | 84.25 | 82.43 | 84.06 | 86.22 | 92.03 | 97.37 |
| 98.84 | 101.52 | 112.96 | 124.24 | 140.73 | 154.77 | 169.08 | 150.00 | | |
| 250.00 | 170.00 | 178.86 | 187.38 | 272.54 | 197.53 | 202.95 | 200.32 | 181.46 | 169.56 |
| 152.83 | 127.74 | 100.71 | 95.17 | 97.78 | 89.92 | 100.17 | 106.11 | 106.69 | 114.20 |
| 123.15 | 131.05 | 143.29 | 153.93 | 166.98 | 180.43 | 195.84 | 214.58 | 233.55 | 247.78 |
| 265.51 | 281.02 | 294.40 | 305.67 | 314.64 | 324.81 | 330.30 | 332.20 | 333.48 | 220.00 |
| 220.00 | 140.42 | 147.07 | 134.38 | 132.45 | 133.52 | 120.36 | 120.05 | 101.69 | 93.15 |
| 92.67 | 86.16 | 76.06 | 69.17 | 60.81 | 57.87 | 58.95 | 59.98 | 63.39 | 66.35 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 69.54 | 73.39 | 76.64 | 80.99 | 84.32 | 88.24 | 92.14 | 97.69 | 100.00 | 104.18 |
| 108.99 | 114.00 | 119.11 | 124.37 | 130.47 | 136.78 | 143.04 | 148.90 | 155.25 | 161.15 |
| 168.06 | 174.52 | 181.41 | 188.67 | 196.97 | 205.22 | 214.27 | 224.47 | 235.42 | 200.00 |
| 200.00 | 80.68 | 197.74 | 230.89 | 255.85 | 282.04 | 306.65 | 329.26 | 332.11 | 347.91 |
| 350.17 | 350.32 | 350.46 | 350.46 | 350.48 | 350.50 | 350.46 | 360.91 | 350.28 | 350.21 |
| 350.00 | 344.46 | 338.77 | 297.35 | 309.70 | 293.46 | 274.71 | 282.72 | 236.06 | 221.46 |
| 166.34 | 167.75 | 143.32 | 99.72 | 90.51 | 86.44 | 87.48 | 87.77 | 93.70 | 98.42 |
| 100.00 | 112.24 | 129.95 | 145.33 | 164.64 | 182.70 | 200.27 | 175.00 | | |
| 300.00 | 202.41 | 210.13 | 217.49 | 300.38 | 223.67 | 228.17 | 225.23 | 203.84 | 193.02 |
| 178.30 | 156.61 | 131.50 | 100.01 | 97.86 | 102.71 | 109.09 | 115.27 | 125.95 | 134.71 |
| 145.97 | 155.85 | 169.64 | 181.12 | 195.72 | 210.38 | 227.27 | 248.04 | 268.83 | 283.51 |
| 302.67 | 319.14 | 333.38 | 345.36 | 354.66 | 365.05 | 373.93 | 371.95 | 372.82 | 240.00 |
| 240.00 | 156.92 | 164.88 | 150.37 | 148.57 | 153.56 | 141.90 | 141.51 | 123.44 | 121.55 |
| 93.35 | 92.70 | 81.07 | 72.92 | 62.84 | 59.06 | 59.53 | 60.40 | 63.71 | 66.64 |
| 69.86 | 73.78 | 76.92 | 81.45 | 84.67 | 88.64 | 92.60 | 97.79 | 100.00 | 105.67 |
| 111.53 | 117.67 | 123.97 | 130.48 | 138.22 | 146.16 | 154.02 | 161.36 | 169.23 | 176.55 |
| 185.15 | 193.20 | 201.68 | 210.49 | 220.44 | 230.41 | 241.36 | 253.53 | 266.60 | 225.00 |
| 225.00 | 111.37 | 247.68 | 289.86 | 320.40 | 326.88 | 349.99 | 350.08 | 350.15 | 350.43 |
| 350.74 | 350.90 | 351.19 | 351.43 | 351.69 | 351.95 | 352.15 | 364.15 | 352.41 | 352.53 |
| 352.46 | 352.18 | 351.83 | 352.61 | 350.48 | 350.01 | 341.78 | 309.57 | 293.16 | 278.44 |
| 232.68 | 224.61 | 163.67 | 155.54 | 101.98 | 92.81 | 93.30 | 91.84 | 97.33 | 99.62 |
| 109.10 | 116.46 | 139.18 | 158.93 | 181.45 | 204.49 | 226.09 | 200.00 | | |
| 320.00 | 226.02 | 233.41 | 240.46 | 315.11 | 244.69 | 249.15 | 247.00 | 224.29 | 215.12 |
| 202.65 | 184.22 | 163.02 | 136.34 | 220.51 | 109.37 | 118.38 | 127.60 | 143.15 | 154.29 |
| 169.89 | 187.23 | 202.82 | 216.97 | 233.56 | 250.10 | 268.31 | 289.45 | 310.62 | 327.07 |
| 347.10 | 365.13 | 381.64 | 396.55 | 409.42 | 422.92 | 437.33 | 439.88 | 446.43 | 350.00 |
| 340.00 | 204.55 | 209.11 | 191.31 | 185.11 | 196.39 | 179.70 | 175.16 | 149.39 | 125.50 |
| 100.00 | 93.79 | 86.64 | 77.07 | 65.06 | 60.31 | 60.09 | 60.77 | 63.95 | 66.84 |
| 70.08 | 74.05 | 77.07 | 81.76 | 84.87 | 88.90 | 92.91 | 97.81 | 100.15 | 106.93 |
| 113.72 | 120.91 | 128.28 | 135.92 | 145.20 | 154.68 | 164.02 | 172.76 | 181.90 | 190.47 |
| 200.43 | 209.77 | 219.55 | 229.60 | 240.77 | 252.01 | 264.29 | 277.76 | 292.16 | 250.00 |
| 255.00 | 158.43 | 308.09 | 322.65 | 350.04 | 350.11 | 350.18 | 350.47 | 350.84 | 351.29 |
| 351.72 | 351.78 | 352.14 | 352.45 | 352.77 | 353.09 | 353.37 | 362.79 | 353.82 | 354.03 |
| 354.11 | 354.04 | 353.91 | 352.56 | 353.40 | 352.92 | 352.18 | 350.93 | 350.00 | 335.43 |
| 299.02 | 281.48 | 227.33 | 220.36 | 160.09 | 100.39 | 95.14 | 95.31 | 97.70 | 103.63 |
| 118.23 | 136.40 | 162.98 | 182.46 | 204.39 | 228.27 | 249.29 | 220.00 | | |
| 350.00 | 257.36 | 263.44 | 269.25 | 322.89 | 272.32 | 277.03 | 277.97 | 264.57 | 263.69 |
| 262.09 | 258.68 | 255.29 | 250.86 | 261.11 | 286.72 | 295.50 | 297.95 | 318.97 | 326.95 |
| 341.63 | 353.55 | 368.23 | 378.15 | 392.97 | 405.92 | 420.58 | 438.37 | 454.15 | 461.97 |
| 473.99 | 482.83 | 489.80 | 495.21 | 498.93 | 503.38 | 509.83 | 506.42 | 507.77 | 450.00 |
| 440.00 | 266.36 | 266.87 | 246.65 | 235.36 | 257.25 | 234.84 | 224.31 | 185.06 | 156.26 |
| 110.87 | 100.00 | 93.34 | 82.85 | 69.51 | 64.02 | 63.08 | 63.51 | 66.36 | 69.02 |
| 72.08 | 75.91 | 78.56 | 83.19 | 85.92 | 89.77 | 93.57 | 97.91 | 100.35 | 109.01 |
| 117.54 | 126.55 | 135.79 | 145.37 | 156.96 | 168.74 | 180.33 | 191.28 | 202.02 | 212.41 |
| 223.67 | 234.54 | 245.67 | 256.93 | 268.88 | 280.87 | 293.52 | 306.86 | 320.78 | 300.00 |
| 310.00 | 198.44 | 344.34 | 350.12 | 350.17 | 350.33 | 350.89 | 351.35 | 351.83 | 352.39 |
| 352.89 | 352.80 | 353.21 | 353.57 | 353.94 | 354.31 | 354.64 | 362.58 | 355.22 | 355.50 |
| 355.68 | 355.74 | 355.76 | 354.63 | 355.40 | 355.16 | 354.71 | 353.91 | 353.32 | 352.66 |
| 350.90 | 338.35 | 291.00 | 285.18 | 223.40 | 147.59 | 111.39 | 99.97 | 102.46 | 115.48 |
| 129.90 | 149.05 | 179.02 | 198.03 | 219.34 | 243.91 | 264.35 | 230.00 | | |
| 375.00 | 290.25 | 296.00 | 301.50 | 348.74 | 302.40 | 307.02 | 308.26 | 292.89 | 292.64 |
| 291.85 | 289.56 | 287.47 | 284.65 | 313.25 | 325.01 | 328.38 | 328.72 | 349.46 | 355.58 |
| 371.02 | 386.39 | 399.62 | 408.98 | 423.24 | 435.48 | 449.18 | 465.51 | 479.68 | 486.50 |
| 496.96 | 504.55 | 510.57 | 515.35 | 518.86 | 522.94 | 529.06 | 527.73 | 530.52 | 500.00 |
| 480.00 | 312.69 | 312.34 | 289.67 | 275.85 | 307.12 | 283.32 | 268.18 | 219.64 | 188.20 |
| 124.38 | 109.84 | 93.77 | 87.82 | 72.17 | 65.52 | 63.75 | 63.94 | 66.63 | 69.22 |
| 72.31 | 76.13 | 78.67 | 83.45 | 86.07 | 89.98 | 93.83 | 97.89 | 100.59 | 110.00 |
| 119.18 | 128.94 | 138.97 | 149.40 | 162.26 | 175.30 | 188.11 | 200.20 | 211.60 | 222.80 |
| 234.51 | 246.00 | 257.63 | 269.34 | 281.43 | 293.57 | 306.09 | 319.02 | 332.29 | 325.00 |
| 330.00 | 350.28 | 350.17 | 350.38 | 350.99 | 351.26 | 352.09 | 352.68 | 353.28 | 353.94 |
| 354.52 | 354.20 | 354.67 | 355.09 | 355.51 | 355.94 | 356.33 | 363.49 | 357.04 | 357.39 |
| 357.65 | 357.81 | 357.94 | 356.90 | 357.65 | 357.57 | 357.32 | 356.80 | 356.45 | 356.04 |
| 354.78 | 353.33 | 350.03 | 297.37 | 289.59 | 232.48 | 207.80 | 198.52 | 200.62 | 232.15 |
| 243.00 | 264.64 | 288.94 | 289.29 | 290.10 | 297.64 | 301.24 | 260.00 | | |
| 400.00 | 330.61 | 340.21 | 349.59 | 394.44 | 356.02 | 364.60 | 370.00 | 355.71 | 359.43 |
| 362.50 | 363.95 | 365.45 | 366.06 | 300.00 | 300.00 | 300.00 | 300.00 | 265.72 | 282.02 |
| 296.19 | 313.02 | 343.36 | 370.48 | 401.12 | 429.16 | 456.98 | 484.40 | 508.70 | 529.53 |
| 532.72 | 550.00 | 550.27 | 550.21 | 549.26 | 543.95 | 519.90 | 511.58 | 518.10 | 510.00 |
| 485.00 | 344.53 | 345.04 | 322.06 | 307.94 | 348.99 | 327.16 | 309.79 | 254.30 | 221.66 |
| 142.92 | 114.29 | 100.00 | 94.01 | 77.18 | 69.87 | 67.39 | 67.32 | 69.64 | 71.97 |
| 74.84 | 78.50 | 80.62 | 85.29 | 87.49 | 91.15 | 94.73 | 98.17 | 101.22 | 111.43 |
| 121.12 | 131.51 | 142.20 | 153.36 | 167.37 | 181.55 | 195.45 | 208.54 | 220.33 | 232.12 |
| 243.91 | 255.70 | 267.48 | 279.27 | 291.06 | 302.85 | 314.64 | 326.42 | 338.21 | 350.00 |

```
 355.00 354.89 351.65 352.04 353.13 353.43 354.53 355.22 355.86 356.55
 357.15 356.80 357.25 357.64 358.04 358.44 358.80 365.41 359.47 359.81
 360.06 360.23 360.39 359.45 360.11 360.10 359.96 359.61 359.40 359.16
 358.28 354.75 355.15 350.01 307.29 287.09 270.30 256.90 245.75 264.17
 268.62 282.35 305.59 304.04 302.72 310.79 313.67 280.00
    86400.         1        1.5

BLOCK CENTER FLOW INPUT PACKAGE:

         1         -1
 0 0
         0         1.
         0      1000.
         0      1000.
         7 1.157e-05(12F7.0)                   -11
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000.
 23000. 23000. 23000. 23000. 23000.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000.
 23000. 23000. 23000. 23000. 23000.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.  2500.  2500.  2500.  2500.  2500.  2500.
  2500.  2500.  2500.  2500.  2500.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000.
 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000.
 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000.     0.     0.     0.
     0.     0.     0.     0.     0.     0. 20000. 20000. 20000. 20000. 20000. 20000.
 20000.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.
  2500.  2500.  2500.  2500.  2500.  2500.     0.     0.     0.     0.     0.     0.
  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2700.  2700.  2700.  2700.  2700.
  2700.  2700.  2700.  2700.  2500.  2500.  2500.  2500.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
     0.     0.     0.     0. 20000. 27000. 27000. 27000. 27000. 27000. 27000. 27000.
 27000. 27000. 27000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000.
 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000.
 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000.
 20000. 20000. 20000. 20000.     0.     0. 20000. 20000. 20000. 20000.     0.     0.
```

```
    0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
    0.     0.     0.     0.     0.     0.
16875. 16590. 16528. 16498. 16349.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
 2500. 12564. 12359. 11652. 11286. 11533.  7961. 10753. 10805. 10730. 10692. 10696.
10723. 11074. 10664. 10664. 10606. 10626. 10627.  2500.  2500.     0.     0.     0.
    0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
    0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
    0.     0. 20000. 20000. 20000. 27000. 27000. 27000. 27000. 27000. 27000. 27000.
27000. 27000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000.
23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000.
23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000. 23000.
20000. 20000. 20000. 20000. 20000. 20000. 20000.  2500.  2500.  2500.  2500.  2500.
 2500.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
    0.     0.     0.     0.     0.     0.
16875. 16880. 16875. 16875. 16875. 15183.  2500.  2500.  2500.  2500.  2500.  2500.
 2500. 14611. 14346. 13474. 13030. 13326.  9087. 12407. 12478. 12400. 12370. 12389.
12434. 12841. 12404. 12424. 12384. 12431. 12459. 12510.  2500.  2500.  2500.     0.
    0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
    0.     0.     0.     0.     0.     0.     0. 20000. 20000. 20000. 20000. 20000.
20000. 20000. 20000. 27000. 27000. 27000. 27000. 27000. 27000. 23000. 23000. 23000.
23000. 23000. 23000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000.
27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000.
27000. 27000. 27000. 20000. 20000. 20000. 20000. 20000. 20000. 20000. 20000.  2500.
 2500.  2500. 20000. 20000.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
 2500.  2500.  2500.  2500.     0.  2500.  2500.  2500.     0.     0.     0.     0.
    0.     0.     0.     0.     0.     0.
15841. 15841. 14506. 14413. 14453. 13500. 13500.  2500.  2500.  2500.  2500.  2500.
16875. 16857. 16398. 15264. 14680. 15011.  9814. 13835. 13896. 13781. 13725. 13730.
13767. 14220. 13705. 13719. 13665. 13712. 13740. 13796. 13821. 13917.  2500.  2500.
 2500.  2500.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
    0.     0.     0.     0.     0.     0.     0.  7891. 10899. 11167. 24947. 25227.
27000. 27000. 27000. 27030. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000.
27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000.
27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 20000.
20000. 20000. 20000. 20000. 20000. 20000. 20000. 20000. 20000. 20000. 20000.  2500.
 2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
 2500. 20000. 20000.  2500.  2500.  2500. 20000.  2500.  2500.  2500.  2500.     0.
    0.     0.     0.     0.     0.     0.
14900. 14900. 12523. 13500. 13500. 13500. 13500. 13500.  2500.  2500. 15123. 15857.
14889. 16875. 16875. 16991. 16705. 15991. 10479. 15337. 15366. 15185. 15078. 15043.
15050. 15537. 14911. 14897. 14810. 14839. 14850. 14892. 14904. 14993. 15017. 15121.
15216.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
 2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500. 27000. 27000. 27000. 27000.
27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000.
27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000.
27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 27000. 20250.
20000. 20000. 20000. 20000. 20000. 20000. 20000. 20000. 20000. 20000. 20000.  2500.
 2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500. 20000.
20000. 20000. 20000. 20000. 20000. 20000. 20000. 20000. 20000. 20000.  2500.  2500.
 2500.  2500.     0.     0.     0.     0.
13838. 13838. 10264. 10800. 13500. 13500. 11175. 11457. 11763.  2500. 13357. 15089.
13288. 13885. 14344. 17866. 17897. 18087. 14164. 16960. 16948. 16791. 16681. 16610.
16564. 15356. 15869. 15787. 15606. 15597. 15568. 15586. 15572. 15663. 15678. 15794.
15903. 16030. 16157. 13500. 13500. 11304. 11471. 11675. 11826. 11926. 12072. 12195.
12353. 12532.  2500.  2500.  2500.  2500.  2500.  2500. 17550. 17550. 29700. 29700.
29700. 29700. 29700. 29700. 29700. 29700. 29700. 29700. 29700. 29700. 29700. 29700.
29700. 29700. 29700. 29700. 29700. 29700. 29700. 29700. 29700. 29700. 29700. 29700.
29700. 29700. 29700. 29700. 29700. 29700. 29700. 29700. 29700. 29700. 29700. 20250.
20250. 20250. 20250. 20250. 20250. 20250. 20250. 20250. 20250. 20250. 20000.  2500.
 2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500. 11000.
10886. 11151. 11444. 11741. 11985. 13422. 13869. 14070. 14409. 14853. 15071. 15371.
14542.  2500.  2500.  2500.  2500.  2500.
13060. 13060.  8593.  9450. 10800. 10800.  9639.  9956. 10269. 10730. 11827. 14434.
11918. 12600. 13966. 17719. 17730. 18058. 18256. 17708. 17936. 18022. 16879. 16875.
16875. 17512. 17322. 17199. 16945. 16848. 16754. 16683. 16569. 16285. 16093. 16191.
16288. 16421. 16567. 15188. 15188. 13851. 13896. 13987. 14013. 13970. 13983. 13968.
14000.  2500.  2500.  2500.  2500.  2500.  2500.  2500. 17550. 17550. 20250. 33750.
33750. 33750. 33750. 33750. 33750. 33750. 33750. 33750. 33750. 33750. 33750. 33750.
33750. 33750. 33750. 33750. 33750. 33750. 33750. 33750. 33750. 33750. 33750. 33750.
33750. 33750. 33750. 33750. 33750. 33750. 33750. 33750. 33750. 33750. 20250. 20250.
20250. 20250. 20250. 20250. 20250. 20250. 20250. 20250. 20250. 20250. 20000.  2500.
 2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
12012. 12330. 12666. 13003. 13304. 14187. 14610. 14828. 15147. 15525. 15738. 15991.
```

```
15676. 16412. 16582. 16736. 16747. 16875.
 5065.  5065.  5065.  5364.  5814.  6399.  6703.  7167.  7596.  8247.  9454. 12046.
 9809. 10712. 12212. 18275. 20127. 19042. 18950. 17813. 18141. 18490. 17134. 17453.
17763. 17775. 18245. 18445. 18488. 18567. 18603. 18630. 18475. 18394. 17489. 17431.
17342. 17269. 17165. 16875. 16875. 16829. 16812. 16833. 16812. 16744. 16713. 16659.
16637.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500. 17550. 20250. 20250.
20250. 20250. 20250. 47250. 47250. 47250. 47250. 47250. 47250. 47250. 47250. 47250.
47250. 47250. 47250. 47250. 47250. 47250. 47305. 47297. 47286. 47262. 47257. 47355.
47328. 47304. 47322. 47326. 47354. 47318. 47318. 20313. 20250. 20315. 20295. 20250.
20250. 20250. 20250. 20250. 20250. 20250. 20250. 20250. 20250. 17550. 20000.  2500.
 2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
16824. 17158. 17512. 16515. 16834. 14857. 15264. 15487. 15790. 16122. 16322. 16538.
16555. 16745. 16875. 16875. 16875. 16875.
 3105.  3240.  3264.  3262.  3290.  3814.  4367.  4960.  5493.  6349.  7677. 10592.
10072.  9604. 11371. 20442. 21971. 21979. 22301. 20520. 20880. 20478. 20162. 19796.
19494. 20084. 19618. 19270. 18938. 19412. 19848. 20266. 20659. 20926. 21393. 21744.
22078. 22380. 22644. 21094. 21094. 18483. 18482. 18567. 17171. 18498. 18521. 18484.
 2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
17550. 20250. 20250. 94500. 94500. 94500. 94500. 94500. 94500. 94500. 94500. 94500.
94500. 94500. 94500. 94500. 94500. 94500. 94620. 94604. 94586. 94557. 94547. 94508.
94612. 94588. 94582. 94573. 94574. 54119. 20369. 20311. 20307. 20320. 20363. 20377.
21361. 20864. 20459. 20416. 20250. 20250. 20250. 20250. 20250. 20250. 20000.  2500.
 2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
20000. 20000. 20000. 20880. 21080. 20288. 20524. 20600. 21002. 20864. 20899. 20918.
21429. 16875. 16875. 16875. 16875. 16875.
 2700.  2700.  2700.  2160.  2160.  2223.  2268.  2961.  3598.  4703.  6225.  9144.
 9246.  9373. 11781. 20694. 21971. 23676. 24138. 25005. 25121. 25222. 25218. 25256.
25263. 25308. 25258. 25242. 25157. 25024. 24993. 24955. 24864. 24774. 24849. 24805.
24777. 24687. 24368. 22781. 22781. 21453. 21377. 21434. 17954. 21419. 21538.  2500.
 2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
 2500. 17550. 20250. 94500. 94500. 94500. 94500. 94500. 94500. 94500. 94500. 94500.
94500. 94500. 94500. 94500. 94928. 95221. 94882. 94897. 94921. 94889. 94956. 94917.
94944. 95033. 95086. 95134. 54752. 54844. 21094. 20000. 20000. 20000. 20000. 20000.
20000. 20000. 20000. 20000. 20000. 20000. 20000. 20000. 20000. 20000. 20000.  2500.
 2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
24608. 24839. 25079. 25310. 25511. 24579. 24782. 24843. 24930. 24951. 24975. 24975.
24975. 24975. 24975. 24975. 24975. 24975.
 1350.  1350.  1350.  1350.  1350.  1350.  1350.  1350.  1373.  2392.  3729.  6807.
 6938.  7266.  9788. 22533. 22806. 25312. 25312. 25312. 25312. 25312. 25312. 25113.
25076. 25020. 32985. 33838. 34362. 34438. 35134. 35725. 35928. 36879. 24906. 25312.
25312. 25312. 25312. 25312. 25312. 25312. 25312. 25312. 21912.  2500.  2500.  2500.
 2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
 2500.  2500.  2500.  2500.  2500. 94500. 94500. 94500. 94500. 94500. 94500. 95792.
95261. 95130. 95033. 95009. 94921. 95672. 94743. 94716. 94717. 94682. 94712. 94705.
94779. 94929. 94882. 94813. 94547. 64800. 24300. 22198. 22880. 22009. 20934. 20000.
20000. 20000. 20000. 16253. 15734. 15925. 14997. 14477. 15279. 17550. 17550.  2500.
 2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
24936. 25150. 25373. 25581. 24409. 24720. 24891. 24924. 24971. 24975. 24975. 24975.
24975. 24975. 24975. 24975. 24975. 24975.
 1215.  1270.  1269.  1269.  1303.  1318.  1310.  1315.  1326.  1347.  1235.  2624.
 2364.  4066.  6142. 18575. 20250. 20250. 20250. 20250. 20250. 20250. 20250. 19830.
19784. 19707. 34224. 35510. 36658. 37627. 38860. 40053. 41091. 42433. 19476. 20250.
20250. 20250. 20250. 20250. 20250. 21809. 23389. 31209. 29715. 35188. 37125.  2500.
 2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
 2500.  2500.  2500.  2500. 17550. 94500. 94500. 94500. 94500. 94500. 94500. 59430.
72823. 75812. 87822. 79892. 83240. 66033. 92015. 96896.100140.101293.106265.107552.
111441.124362.124409.122105.121703.121500. 67500. 58554. 43164. 36045. 25875. 24920.
23722. 21960. 20403. 17354. 16783. 16227. 15750. 15775. 15891. 17234. 14738.  2500.
 2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500. 15571. 25221.
25420. 25619. 25816. 25989. 26129. 26274. 26294. 26050. 25245. 24975. 24975. 24975.
24975. 24975. 24975. 24975. 24975. 24975.
 1485.  1485.  1485.  1620.  1620.  1647.  1755.  1755.  1755.  1984.  2002.  1974.
 2126.  2190.  4138. 20205. 22791. 25383. 28407. 31280. 34232. 37512. 40859. 42998.
46166. 48507. 67500. 67500. 67500. 67500. 67500. 67500. 67500. 67500. 29090. 27444.
25564. 23698. 21630. 20250. 20250. 21692. 23155. 24620. 29797. 34476. 36283.  2500.
 2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
 2500.  2500.  2500.  2500. 17550. 17550. 54455. 51554. 50274. 49545. 48192. 60070.
62967. 65742. 71936. 49333. 51694. 66797. 62662. 72089. 77802. 76916. 87827. 88148.
96517.126218.140062.140062.140062.140062.126563.126563.126563.124895.101592. 80248.
64561. 35080. 25020. 22068. 20180. 17161. 16704. 15927. 17365. 17244. 16079. 14930.
 2500.  2500. 14949.  2500.  2500.  2500.  2500.  2500.  2500.  2500. 15992. 16166.
16331. 27000. 27000. 27000. 27000. 27000. 24300. 24300. 24300. 24300. 24300. 24300.
24300. 24300. 24300. 24300. 24300. 24300.
```

```
  1904.  1904.  1904.  1906.  1910.  1921.  1922.  1926.  1959.  1951.  1970.  2122.
  2128.  2140.  2282. 19609. 21426. 23556. 26321. 28875. 31466. 34507. 37542. 39011.
 41827. 43577. 67500. 67500. 67500. 67500. 67500. 67500. 67500. 67500. 32358. 30129.
 27556. 25018. 22320. 20250. 20250. 20250. 20925. 22275. 24975. 25312. 25312.  2500.
  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
  2500.  2500.  2500. 17550. 17550. 17550. 25312. 25312. 25312. 25312. 25312. 25155.
 24922. 24930. 25312. 24820. 24959. 25312. 26348. 28798. 34783. 37751. 52017. 57405.
 74426.126563.140062.140062.140062.140062.140062.140062.140062.126563.126563.126563.
125550. 84988. 72253. 35717. 25052. 22255. 20668. 16871. 16211. 17260. 16759. 15498.
 15420. 15475. 15494. 15625.  2500.  2500.  2500.  2500.  2500.  2500. 16492. 16627.
 19437. 24300. 24300. 24300. 24300. 24300. 24300. 20250. 20250. 20250. 20250. 20250.
 20250. 20250. 20250. 20250. 20250. 20250.
  4473.  4501.  4522.  4639.  4710.  4718.  4724.  4728.  4759.  4752.  4772.  4824.
  4825.  4826.  5517. 12056. 20397. 21321. 23544. 25761. 28040. 30889. 33704. 34667.
 37240. 38528. 67500. 67500. 67500. 67500. 67500. 67500. 67500. 67500. 40015. 35116.
 29765. 25740. 25817. 20250. 20250. 20250. 20250. 20250. 23625. 23625. 23625.  2500.
  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
  2500.  2500.  2500. 17550. 17550. 17550. 25312. 25267. 25234. 25094. 24862. 24212.
 23217. 22797. 22629. 21595. 21746. 21948. 23111. 25024. 25312. 27451. 31282. 36119.
 54148.125010.140062.140062.140062.140062.140062.140062.140062.140062.140062.136012.
136012.126563. 91215. 81142. 27770. 25312. 20921. 20979. 16944. 16806. 16323. 16123.
 15995. 16041. 16081. 16191.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
 16875. 16875. 16875. 16875. 16875. 16875. 16875. 16875. 16875. 16875. 16875. 16875.
 16875. 16875. 16875. 16875. 16875. 16875.
  7155.  7155.  7155.  7185.  7229.  7263.  7263.  7270.  7270.  7270.  7270.  7250.
  7409.  7403.  7438.  8332.  9155. 21037. 21176. 22793. 24643. 27190. 29753. 30286.
 32615. 33468. 67500. 67500. 67500. 67500. 67500. 67500. 67500. 67500. 38894. 35501.
 31543. 27662. 23701. 20250. 20250. 20250. 20250. 20250. 20250. 20250. 21600.  2500.
  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
  2500. 17550. 17550. 17550. 25312. 25312. 24508. 23906. 22500. 22444. 21037. 20982.
 20770. 16875. 15441. 16008. 16999. 17925. 21005. 21198. 22905. 24608. 25312. 29340.
 36389. 93396.126563.126563.140062.140062.140062.140062.140062.140062.136012.136012.
136012.126563.126563. 95206. 50088. 32620. 27460. 28524. 20312. 17138. 16947. 16875.
 16758. 16731. 16720.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
  2500. 16875. 16875. 16875. 16875. 16875. 16875. 16875. 16875. 16875. 16875. 16875.
 16875. 16875. 16875. 16875. 16875. 16875.
  8471.  8622.  8626.  8532.  8539.  8539.  8558.  8562.  8597.  8591.  8618.  9150.
  9150.  9150.  9150.  9150.  9150. 19150. 19150. 21150. 22150. 22150. 22150. 40102.
 39234. 39150. 42880. 41301. 39938. 37780. 37238. 35026. 32331. 31050. 31050. 31050.
 31050. 31050. 31050. 22950. 20250. 20250. 20250. 20250. 20250. 20250. 20250. 20250.
  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
 17550. 17550. 17550. 25312. 25312. 25264. 23861. 22464. 21067. 20344. 19622. 17840.
 17296. 10000. 10000. 10000. 10753. 11880. 16857. 17800. 19854. 22766. 22972. 25137.
 27436. 69765. 70797.126563.126563.126563.140062.140062.140062.136012.136012.136012.
136012.126563.126563.122711. 67044. 41364. 29693. 31358. 22858. 20513. 20752. 20506.
 17530. 17464. 17441.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
  2500.  2500.  2500.  2500.  2500. 18043. 17862. 18118. 18050. 18056. 18091. 17935.
 17565. 17667. 17499. 17314. 17102. 16875.
  7138.  7209.  7239.  7205.  7182.  7181.  7208.  7213.  7251.  7248.  9150.  9150.
  9150.  9150.  9150.  9150.  9150. 15956. 16197. 19759. 17250. 15250. 15250. 18426.
 20873. 26255. 37315. 36356. 36106. 33892. 34950. 32608. 33325. 33060. 33750. 33750.
 33750. 33750. 28350. 22950. 20250. 20250. 20250. 20250. 20250. 20250. 20250. 20250.
 20250.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
 17550. 17550. 17550. 25312. 25312. 24802. 23472. 22143. 20813. 19483. 18153. 16508.
 11000. 10000. 10000. 10000. 10000. 10000. 10927. 13427. 16868. 19233. 22297. 21867.
 23371. 25159. 75938.118679. 83345.126563.126563.140062.136012.136012.136012.136012.
136012.136012.126563.126502. 77805. 49154. 35386. 32717. 23729. 20710. 20301. 20737.
 19794. 18352. 18291.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
  2500.  2500.  2500.  2500.  2500. 18194. 17936. 18148. 18041. 17975. 17929. 17724.
 17352. 17345. 17121. 17126. 14297. 12656.
  7321.  7331.  7338.  7338.  7342.  9150.  9150.  9150.  9150.  9150.  9150.  9150.
  9150.  9150.  9150.  9150.  9171. 13692. 14630. 14095. 14815. 14250. 15250. 15569.
 18907. 24578. 30794. 30573. 31998. 29700. 32386. 29850. 29740. 31050. 31050. 31050.
 31050. 31050. 28350. 22950. 20250. 20250. 20250. 20250. 20250. 20250. 20250. 20250.
 20250.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500. 17550. 17550.
 17550. 17550. 17550. 25312. 25312. 24291. 22831. 21373. 19914. 18454. 16996. 11000.
 10000. 10000. 10000.  9919.  9993. 10000. 10000. 10365. 10473. 16064. 19113. 19048.
 21682. 21910. 22677. 26665. 66620.126563.126563.126563.136012.136012.136012.136012.
136012.136012.136012.126563. 77128. 56619. 38486. 32635. 23882. 21537. 20478. 20914.
 20376. 19173. 19067. 18969.  2500.  2500.  2500.  2500.  2500.  2500.  2500.  2500.
  2500.  2500.  2500.  2500.  2500. 18102. 17797. 17894. 17727. 17564. 17393. 17134.
 17060. 16875. 14583. 12656.  8438.  4219.
  9150.  9150.  9150.  9150.  9150.  9150.  9150.  9150.  9150.  9150.  9150.  9150.
```

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9150. | 9150. | 9150. | 9150. | 9150. | 12150. | 14150. | 14150. | 14150. | 13150. | 10321. | 10148. |
| 9607. | 9920. | 15380. | 18711. | 30146. | 27224. | 31360. | 27884. | 27338. | 27000. | 24300. | 24300. |
| 24300. | 24300. | 24300. | 22950. | 20250. | 20250. | 20250. | 20250. | 20250. | 20250. | 20250. | 20250. |
| 20250. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 17550. | 17550. |
| 17550. | 17550. | 17550. | 25312. | 25199. | 23574. | 21973. | 20370. | 18768. | 17165. | 11178. | 9996. |
| 9578. | 9800. | 9895. | 9792. | 9827. | 9969. | 9992. | 9917. | 9981. | 10769. | 13287. | 15688. |
| 18052. | 19116. | 21480. | 22401. | 24222. | 25312. | 25312. | 83738. | 126563. | 126563. | 126563. | 126563. |
| 126563. | 126563. | 126563. | 101378. | 68703. | 47050. | 32569. | 28393. | 21252. | 20929. | 20571. | 20331. |
| 20469. | 19907. | 19756. | 19611. | 19460. | 19375. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. |
| 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 16274. | 17608. | 17385. | 17146. | 17181. | 16875. |
| 14236. | 13086. | 7947. | 5508. | 3991. | 3798. | | | | | | |
| 9150. | 9150. | 9150. | 9150. | 9150. | 9150. | 9150. | 9150. | 9150. | 9150. | 9150. | 9150. |
| 9150. | 9150. | 9150. | 9150. | 9150. | 9150. | 9150. | 9000. | 7808. | 2784. | 3105. | 3366. |
| 4205. | 7787. | 8010. | 9680. | 18080. | 23761. | 24756. | 23660. | 23657. | 23340. | 20512. | 20250. |
| 20250. | 20250. | 20250. | 20250. | 20250. | 20250. | 20250. | 20250. | 20250. | 20250. | 20250. | 20250. |
| 20250. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 25312. | 25312. |
| 25312. | 25312. | 25312. | 25312. | 24108. | 23344. | 21376. | 19409. | 17439. | 10267. | 9909. | 9578. |
| 9389. | 9400. | 9798. | 9706. | 9719. | 9803. | 9946. | 9914. | 9967. | 9974. | 9998. | 10499. |
| 13709. | 15733. | 17115. | 18924. | 19545. | 21094. | 21094. | 25265. | 95778. | 80243. | 126563. | 126563. |
| 126563. | 101660. | 92812. | 59062. | 47496. | 30033. | 28361. | 27014. | 22055. | 21719. | 21370. | 21117. |
| 20837. | 20636. | 20430. | 20231. | 20025. | 19873. | 19724. | 19574. | 5000. | 5000. | 5000. | 5000. |
| 5000. | 5000. | 5000. | 5000. | 5000. | 5000. | 5000. | 15147. | 15159. | 14850. | 13804. | 12656. |
| 8438. | 7383. | 6908. | 3803. | 3268. | 3375. | | | | | | |
| 9150. | 9150. | 9150. | 9150. | 9150. | 9150. | 9150. | 9150. | 9150. | 9150. | 9150. | 9150. |
| 9100. | 9100. | 9100. | 9100. | 9100. | 6750. | 6750. | 6750. | 2944. | 2048. | 2295. | 2705. |
| 2885. | 3051. | 3186. | 3336. | 3464. | 4620. | 13624. | 13393. | 13909. | 14961. | 14032. | 16890. |
| 20250. | 20250. | 20250. | 20250. | 20250. | 20250. | 20250. | 20250. | 20250. | 20250. | 20250. | 20250. |
| 20250. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 25312. |
| 25312. | 25312. | 25303. | 23620. | 23400. | 21485. | 19571. | 17657. | 11825. | 9219. | 9188. | 9111. |
| 9199. | 9300. | 9691. | 9594. | 9584. | 9632. | 9711. | 9769. | 9858. | 9893. | 9909. | 9311. |
| 9025. | 9976. | 13500. | 15274. | 16945. | 17719. | 17719. | 21226. | 21236. | 23919. | 25308. | 38941. |
| 49221. | 43216. | 31066. | 26903. | 25001. | 24988. | 27364. | 24339. | 22386. | 22054. | 21734. | 21478. |
| 21199. | 20963. | 20716. | 20473. | 20223. | 20014. | 19811. | 19613. | 19389. | 5000. | 5000. | 5000. |
| 5000. | 5000. | 5000. | 5000. | 5000. | 5000. | 5000. | 12938. | 12868. | 12656. | 8438. | 6685. |
| 4824. | 4768. | 4298. | 3779. | 3035. | 2954. | | | | | | |
| 6750. | 6750. | 6750. | 6750. | 6750. | 6750. | 6750. | 6750. | 6750. | 6750. | 6750. | 6750. |
| 6750. | 6750. | 6750. | 6750. | 6750. | 6750. | 6750. | 6750. | 2700. | 2124. | 2025. | 2080. |
| 2302. | 2479. | 2669. | 2780. | 2853. | 3035. | 3208. | 3328. | 4080. | 8429. | 8327. | 12663. |
| 13311. | 13689. | 14523. | 13500. | 13500. | 18830. | 20250. | 20250. | 20250. | 20250. | 20250. | 20250. |
| 20250. | 20250. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 20250. | 20234. | 24878. |
| 24153. | 23968. | 22622. | 21277. | 19931. | 18587. | 17241. | 11885. | 9565. | 9194. | 9132. | 9038. |
| 9020. | 9000. | 9427. | 9530. | 9506. | 9521. | 9546. | 9567. | 9622. | 9870. | 9900. | 8912. |
| 8224. | 8260. | 9107. | 9378. | 12155. | 15188. | 15188. | 16875. | 21094. | 19462. | 20443. | 21364. |
| 22545. | 24975. | 24962. | 24610. | 24258. | 23906. | 24905. | 23204. | 22126. | 21774. | 21450. | 21160. |
| 20851. | 20555. | 20241. | 19933. | 19620. | 19328. | 19044. | 18762. | 18459. | 18147. | 17827. | 5000. |
| 5000. | 5000. | 5000. | 5000. | 5000. | 5000. | 5000. | 5000. | 5000. | 6920. | 5188. | 5013. |
| 4521. | 4095. | 4050. | 3555. | 2934. | 2801. | | | | | | |
| 1350. | 1350. | 1350. | 1350. | 1350. | 1350. | 1350. | 1350. | 1350. | 1350. | 1350. | 1350. |
| 1350. | 1350. | 1720. | 1742. | 713. | 768. | 630. | 605. | 618. | 674. | 1254. | 1455. |
| 1719. | 1908. | 2151. | 2273. | 2308. | 2561. | 2728. | 2758. | 2951. | 3191. | 3374. | 5191. |
| 7834. | 8101. | 9632. | 11475. | 11475. | 12932. | 13217. | 13339. | 13492. | 16292. | 14162. | 14616. |
| 16155. | 16656. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. |
| 2500. | 14018. | 13793. | 13627. | 13585. | 13441. | 10000. | 10000. | 9000. | 9000. | 9000. | 9000. |
| 9000. | 9000. | 9084. | 8704. | 8768. | 8755. | 8740. | 8703. | 8754. | 8982. | 9816. | 8050. |
| 6033. | 6267. | 6556. | 5507. | 5824. | 6750. | 6750. | 10905. | 11406. | 12257. | 13092. | 13257. |
| 13401. | 13500. | 13573. | 13599. | 13551. | 13577. | 13635. | 13596. | 13500. | 13500. | 13500. | 13500. |
| 13500. | 13466. | 13491. | 13500. | 13500. | 13499. | 13393. | 13233. | 13145. | 13006. | 13034. | 12933. |
| 12794. | 11813. | 5000. | 5000. | 5000. | 5000. | 5000. | 5000. | 5000. | 3104. | 3090. | 2801. |
| 2597. | 2678. | 2573. | 2560. | 2502. | 2700. | | | | | | |
| 1350. | 1350. | 1350. | 1350. | 1350. | 1350. | 1350. | 1350. | 1350. | 1350. | 1350. | 1350. |
| 1350. | 1350. | 1350. | 1350. | 1350. | 1350. | 1350. | 1350. | 1350. | 1350. | 1350. | 1350. |
| 1350. | 1350. | 1634. | 1766. | 1763. | 2088. | 2249. | 2238. | 2461. | 2660. | 2808. | 2977. |
| 3372. | 5844. | 6421. | 8775. | 8775. | 9756. | 9817. | 9964. | 9042. | 9450. | 9258. | 9380. |
| 9581. | 8179. | 6288. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. | 2500. |
| 2500. | 2500. | 13584. | 13171. | 10295. | 8811. | 8122. | 7363. | 7356. | 6280. | 6210. | 6125. |
| 6031. | 5928. | 6819. | 5140. | 4999. | 4673. | 4632. | 4597. | 4619. | 4697. | 4627. | 4785. |
| 4750. | 4896. | 4028. | 4263. | 4440. | 4725. | 4725. | 7592. | 8251. | 8902. | 9150. | 9246. |
| 9215. | 9130. | 8983. | 8802. | 8660. | 8509. | 8334. | 8116. | 7868. | 7615. | 7313. | 6985. |
| 6682. | 6395. | 6134. | 5866. | 5612. | 5330. | 5030. | 4714. | 4446. | 4061. | 3945. | 3726. |
| 3530. | 3494. | 3953. | 3364. | 5000. | 5000. | 5000. | 5000. | 5000. | 3105. | 1350. | 1126. |
| 833. | 802. | 810. | 757. | 752. | 675. | | | | | | |
| 780. | 760. | 765. | 761. | 765. | 768. | 768. | 776. | 772. | 781. | 784. | 791. |
| 810. | 810. | 830. | 834. | 849. | 891. | 845. | 839. | 861. | 804. | 831. | 858. |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 899. | 868. | 815. | 858. | 819. | 1115. | 1171. | 1117. | 1371. | 1428. | 1564. | 1618. |
| 1619. | 2222. | 2525. | 3600. | 3600. | 6801. | 6978. | 7249. | 7252. | 6538. | 6657. | 6694. |
| 4227. | 4628. | 3396. | 3136. | 5000. | 5000. | 5000. | 5000. | 5000. | 5000. | 5000. | 5000. |
| 5000. | 5000. | 4328. | 3853. | 3617. | 3380. | 3337. | 3330. | 3264. | 3166. | 3078. | 2984. |
| 2885. | 2781. | 2774. | 2688. | 2522. | 2464. | 2390. | 2336. | 2303. | 2303. | 2218. | 2263. |
| 2196. | 2230. | 2253. | 2329. | 2371. | 2498. | 2632. | 2653. | 2723. | 4172. | 6022. | 6367. |
| 6453. | 6511. | 6485. | 6423. | 6548. | 6531. | 6433. | 6296. | 6136. | 5916. | 5681. | 5414. |
| 5157. | 4919. | 4699. | 4475. | 4273. | 4055. | 3839. | 3637. | 3487. | 3461. | 4131. | 3513. |
| 3241. | 2700. | 2476. | 1575. | 1350. | 5000. | 5000. | 5000. | 5000. | 1629. | 663. | 662. |
| 659. | 641. | 622. | 597. | 580. | 608. | | | | | | |
| 696. | 748. | 765. | 749. | 753. | 757. | 756. | 762. | 760. | 768. | 771. | 749. |
| 658. | 658. | 680. | 696. | 698. | 708. | 715. | 769. | 795. | 735. | 795. | 783. |
| 720. | 741. | 769. | 693. | 780. | 842. | 892. | 896. | 1081. | 1096. | 1220. | 1360. |
| 1398. | 1681. | 1732. | 2375. | 2375. | 3489. | 3967. | 4677. | 4913. | 4337. | 4256. | 4202. |
| 4487. | 4997. | 4836. | 4624. | 4392. | 5000. | 5000. | 5000. | 5000. | 5000. | 5000. | 5000. |
| 5000. | 5000. | 3553. | 3452. | 3363. | 3297. | 3231. | 3143. | 3050. | 2935. | 2838. | 2738. |
| 2635. | 2531. | 2426. | 2333. | 2253. | 2176. | 2080. | 2014. | 1951. | 1902. | 1809. | 1783. |
| 1698. | 1665. | 1624. | 1609. | 1577. | 1552. | 1552. | 1540. | 1731. | 2254. | 3345. | 3490. |
| 3641. | 3787. | 3885. | 4497. | 5127. | 5293. | 5272. | 5211. | 5126. | 4896. | 4699. | 4456. |
| 4217. | 4007. | 3812. | 3636. | 3492. | 3463. | 3827. | 3388. | 3243. | 2700. | 2476. | 1575. |
| 1350. | 968. | 680. | 668. | 663. | 5000. | 5000. | 5000. | 613. | 578. | 578. | 566. |
| 536. | 520. | 498. | 467. | 454. | 506. | | | | | | |
| 544. | 590. | 623. | 794. | 799. | 703. | 703. | 710. | 706. | 715. | 619. | 622. |
| 640. | 640. | 664. | 677. | 680. | 690. | 711. | 711. | 730. | 768. | 777. | 706. |
| 742. | 753. | 791. | 706. | 757. | 745. | 713. | 788. | 671. | 715. | 781. | 820. |
| 826. | 842. | 1021. | 1325. | 1325. | 2370. | 1543. | 1672. | 1896. | 2379. | 2199. | 2218. |
| 2452. | 2095. | 2976. | 2783. | 1781. | 1592. | 5000. | 5000. | 5000. | 5000. | 5000. | 5000. |
| 5000. | 5000. | 3421. | 3298. | 3290. | 3198. | 3109. | 3010. | 2909. | 2801. | 2700. | 2599. |
| 2496. | 2392. | 2288. | 2190. | 2095. | 2001. | 1895. | 1812. | 1723. | 1638. | 1538. | 1463. |
| 1365. | 1285. | 1202. | 1126. | 1045. | 1013. | 1013. | 1030. | 1038. | 1396. | 2462. | 2519. |
| 2523. | 2552. | 2578. | 2631. | 3136. | 3237. | 3274. | 3363. | 3436. | 3391. | 3405. | 3352. |
| 3355. | 3182. | 3062. | 2943. | 2850. | 2476. | 2025. | 1575. | 983. | 765. | 674. | 670. |
| 660. | 659. | 643. | 625. | 609. | 590. | 5000. | 5000. | 537. | 514. | 500. | 483. |
| 458. | 441. | 421. | 394. | 378. | 405. | | | | | | |
| 510. | 552. | 609. | 861. | 701. | 705. | 708. | 706. | 703. | 704. | 600. | 602. |
| 621. | 621. | 641. | 754. | 758. | 767. | 788. | 783. | 792. | 707. | 668. | 630. |
| 664. | 665. | 613. | 618. | 681. | 632. | 619. | 711. | 632. | 633. | 779. | 808. |
| 870. | 889. | 824. | 750. | 750. | 740. | 865. | 1125. | 1372. | 1500. | 1742. | 1638. |
| 1798. | 1688. | 1503. | 1524. | 1548. | 1596. | 1519. | 1532. | 5000. | 5000. | 5000. | 5000. |
| 5000. | 5000. | 3266. | 3283. | 3187. | 3090. | 2994. | 2894. | 2796. | 2693. | 2593. | 2493. |
| 2394. | 2294. | 2194. | 2095. | 1998. | 1901. | 1796. | 1705. | 1609. | 1515. | 1415. | 1323. |
| 1223. | 1129. | 1033. | 938. | 842. | 878. | 878. | 883. | 878. | 896. | 872. | 872. |
| 930. | 930. | 857. | 791. | 764. | 1068. | 1073. | 1004. | 1007. | 896. | 855. | 824. |
| 2358. | 810. | 810. | 666. | 664. | 663. | 660. | 659. | 643. | 628. | 612. | 595. |
| 579. | 563. | 547. | 531. | 514. | 498. | 5000. | 5000. | 451. | 435. | 418. | 402. |
| 386. | 370. | 354. | 354. | 347. | 338. | | | | | | |
| 476. | 510. | 594. | 624. | 637. | 642. | 646. | 656. | 653. | 668. | 673. | 675. |
| 695. | 698. | 714. | 727. | 732. | 741. | 760. | 757. | 765. | 781. | 794. | 769. |
| 733. | 730. | 634. | 630. | 638. | 711. | 617. | 759. | 741. | 749. | 761. | 773. |
| 787. | 798. | 730. | 745. | 745. | 750. | 777. | 753. | 717. | 1205. | 1394. | 1287. |
| 1363. | 1403. | 1454. | 1414. | 1383. | 1387. | 1736. | 1691. | 1695. | 5000. | 5000. | 5000. |
| 5000. | 5000. | 2835. | 2700. | 2565. | 2430. | 2295. | 2160. | 2025. | 1890. | 1755. | 1620. |
| 1485. | 1350. | 1215. | 1080. | 945. | 810. | 803. | 736. | 736. | 734. | 728. | 734. |
| 725. | 718. | 705. | 697. | 612. | 560. | 574. | 587. | 601. | 613. | 612. | 609. |
| 614. | 612. | 612. | 612. | 612. | 810. | 810. | 810. | 810. | 810. | 810. | 872. |
| 861. | 850. | 840. | 559. | 549. | 539. | 528. | 517. | 506. | 495. | 486. | 475. |
| 464. | 454. | 443. | 433. | 423. | 412. | 5000. | 5000. | 381. | 370. | 359. | 348. |
| 348. | 346. | 338. | 335. | 332. | 331. | | | | | | |
| 360. | 378. | 344. | 391. | 403. | 407. | 410. | 415. | 413. | 421. | 424. | 422. |
| 433. | 432. | 457. | 461. | 463. | 464. | 453. | 448. | 441. | 438. | 438. | 436. |
| 444. | 417. | 413. | 499. | 403. | 478. | 488. | 502. | 506. | 510. | 505. | 537. |
| 542. | 548. | 567. | 618. | 618. | 645. | 645. | 662. | 683. | 641. | 612. | 644. |
| 642. | 640. | 664. | 734. | 776. | 852. | 848. | 858. | 818. | 899. | 877. | 5000. |
| 5000. | 5000. | 714. | 703. | 675. | 675. | 675. | 672. | 672. | 672. | 671. | 671. |
| 671. | 670. | 667. | 668. | 667. | 666. | 668. | 667. | 659. | 651. | 643. | 634. |
| 625. | 616. | 605. | 594. | 585. | 540. | 540. | 567. | 576. | 567. | 559. | 549. |
| 541. | 599. | 591. | 583. | 579. | 810. | 810. | 810. | 810. | 810. | 810. | 921. |
| 910. | 904. | 896. | 510. | 475. | 468. | 460. | 452. | 444. | 436. | 428. | 421. |
| 413. | 404. | 397. | 389. | 382. | 374. | 5000. | 5000. | 352. | 346. | 344. | 338. |
| 336. | 336. | 332. | 327. | 323. | 328. | | | | | | |
| 308. | 324. | 308. | 328. | 345. | 351. | 359. | 368. | 366. | 370. | 374. | 349. |
| 330. | 306. | 385. | 395. | 399. | 408. | 430. | 429. | 437. | 457. | 467. | 476. |
| 493. | 475. | 475. | 475. | 475. | 493. | 472. | 483. | 470. | 456. | 433. | 463. |

```
  467.   495.   437.   444.   544.   519.   517.   519.   411.   499.   498.   498.
  504.   503.   599.   596.   595.   691.   688.   687.   687.   684.   663.  5000.
 5000.  5000.   675.   667.   612.   609.   608.   583.   579.   574.   568.   566.
  562.   558.   549.   547.   543.   537.   533.   529.   525.   520.   516.   513.
  508.   504.   498.   494.   489.   540.   540.   601.   602.   593.   583.   574.
  564.   555.   547.   537.   535.   521.   810.   810.   810.   810.   810.   878.
  878.   863.   490.   441.   435.   428.   420.   413.   406.   398.   392.   385.
  378.   370.   363.   356.   351.   344.  5000.  5000.  5000.   338.   336.   336.
  333.   332.   327.   320.   315.   324.
  301.   308.   340.   321.   326.   332.   340.   349.   347.   363.   371.   343.
  310.   286.   354.   362.   366.   372.   398.   498.   509.   430.   440.   448.
  452.   472.   468.   468.   468.   475.   438.   441.   444.   379.   383.   351.
  354.   359.   358.   338.   338.   102.   121.   104.   101.   106.   100.   293.
  441.   451.   447.   444.   444.   440.   437.   439.   448.   447.   471.  5000.
 5000.  5000.  5000.   602.   555.   554.   552.   516.   512.   505.   497.   493.
  489.   483.   474.   471.   466.   460.   456.   452.   447.   443.   437.   433.
  429.   427.   421.   417.   418.   472.   472.   567.   536.   526.   517.   508.
  498.   487.   479.   471.   467.   456.   810.   810.   810.   810.   826.   819.
  842.   944.   397.   392.   386.   381.   375.   370.   364.   359.   354.   348.
  343.   343.   347.   343.   338.   338.  5000.  5000.  5000.   333.   332.   331.
  328.   327.   320.   312.   308.   321.
  294.   303.   340.   306.   308.   313.   321.   328.   324.   336.   340.   336.
  310.   310.   372.   372.   313.   340.   340.   440.   502.   410.   408.   404.
  436.   471.   498.   498.   495.   500.   489.   483.   475.   335.   193.   134.
  130.   100.    90.    90.    90.    70.    70.    78.    77.    73.    98.   204.
  313.   339.   336.   333.   337.   333.   329.   337.   364.   363.   374.  5000.
 5000.  5000.  5000.   460.   489.   489.   490.   491.   482.   472.   472.   472.
  472.   466.   466.   464.   446.   432.   418.   142.   148.   148.   155.   148.
  135.   128.   123.   128.   132.   135.   135.   134.   126.   128.   113.    97.
   82.    80.    80.    76.    73.    72.    69.   135.   135.   135.   135.   135.
  162.   201.   255.   336.   336.   336.   336.   336.   336.   336.   336.   335.
  335.   336.   336.   333.   333.   333.   332.   331.  5000.   328.   327.   327.
  325.   324.   313.   302.   300.   315.
         7   1.0E-05(13F7.2)                   -11
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00  10.00  10.00  10.00
 10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00  10.00  10.00  10.00
 10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.80   0.80   0.80   0.80   0.80   0.80   0.80   0.80
  0.80   0.80   0.80   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00  10.00
 10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00
```

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.00 | 0.00 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 5.70 | 5.70 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.80 | 0.80 | 0.80 | 0.80 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.80 | 0.80 | 0.80 | 5.70 |
| 5.70 | 5.70 | 5.70 | 1.00 | 1.00 | 1.00 | 0.80 | 0.80 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.80 | 0.80 | 0.80 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.80 | 0.80 | 0.80 | 0.80 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 0.80 | 0.80 | 0.80 | 1.00 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | | | | | |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | | | | | |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 |
| 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 |
| 5.70 | 5.70 | 5.70 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | | | | | |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 10.00 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 |
| 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 5.70 | 5.70 | 5.70 | 5.70 |
| 5.70 | 5.70 | 5.70 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | | | | | |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 10.00 | 10.00 | 5.70 | 5.70 | 5.70 | 5.70 |
| 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 5.70 | 5.70 |
| 5.70 | 5.70 | 5.70 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | | | | | |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 5.70 | 5.70 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 5.70 |
| 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 5.70 |
| 5.70 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 1.00 | 1.00 | 10.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 0.80 | 0.80 | 0.80 | 0.80 | 10.00 | 10.00 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 5.70 | 5.70 |
| 5.70 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 5.70 | 5.70 |
| 5.70 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 5.70 | 5.70 | 5.70 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 1.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 5.70 | 5.70 | 5.70 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 5.70 | 5.70 | 5.70 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 | 10.00 | 10.00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.30 |
| 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.80 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.80 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 0.80 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 10.00 | 0.80 | 0.80 | 0.80 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.30 | 1.30 | 1.30 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.30 | 1.30 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.30 | 1.30 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 1.00 | 1.00 | 1.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.30 | 1.30 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 1.00 | 1.00 | 1.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.30 | 1.30 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.30 | 1.30 | 1.30 | 1.30 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 1.00 | 1.00 | 1.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.30 | 1.30 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.30 | 1.30 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 1.00 | 1.00 | 1.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.30 | 1.30 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.30 | 1.30 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.30 | 1.30 | 1.30 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 1.30 | 1.30 | 1.30 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |

```
10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00
10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00   1.30   1.30   1.30  10.00
10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00
10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00
10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00
10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00
10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00
10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00   1.30   1.30   1.30  10.00  10.00
10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00
10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00
10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00
10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00
10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00   1.30  10.00
10.00  10.00  10.00  10.00  10.00  10.00  10.00  10.00
       7 1.157E-05(12F7.0)                  -11
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.  1037.  1092.  1143.  1176.  1194.  1207.  1214.  1213.  1202.
1193.  1265.  1201.  1208.  1221.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.  1657.  1764.  1863.  1931.  1972.  1006.  1030.  1040.  1033.
1030.  1166.  1069.  1095.  1130.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.  2405.  2478.  2547.  2625.  2556.  2700.  2873.  3062.
3379.  3512.  3780.  3993.  4123.  4240.  4310.  4340.  4361.  4369.  4358.  4325.
4299.  4468.  4314.  4331.  4363.  3125.  3125.  1621.  1700.     0.     0.     0.
   0.     0.     0.     0.     0.     0.  2052.  2091.  2173.  2199.  2782.  2794.
2804.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.     0.
   0.     0.     0.     0.     0.     0.
5000.  5000.  5000.  5000.  5000.  5000.  5000.  5000.  5000.  5000.  5000.  5000.
5000.  5000.  5000.  5000.  5000.  5000.  5000.  5056.  5467.  5522.  5592.  5678.
5773.  6019.  5907.  5985.  6000.  6000.  6000.  6000.  6000.  6000.  6000.  6000.
6000.  6000.  6000.  6000.  6000.  6000.  6000.  6000.  6000.  6000.  5000.  5000.
5000.  5000.  5000.  5000.  5000.  4500.  4500.  4500.  4500.  4500.  4500.  4000.
4000.  4000.  4000.  4000.  4030.  4030.  4023.  4027.  4180.  4154.  4261.  4284.
4247.  4402.  4505.  4347.  4495.  4628.  4711.  4753.  4785.  4805.  5006.  5485.
5773.  6500.  6000.  5500.  5000.  4688.  4688.  2827.  3042.  3228.  3390.  2828.
3742.  3912.  4098.  4204.  4335.  4368.  4489.  4622.  4862.  4961.  3257.  3191.
3188.  3125.  2651.  2717.  2600.  2500.  2432.  2397.  2408.  2432.  2000.  2000.
```

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2000. | 2000. | 2000. | 2000. | 2000. | 2000. | 2000. | 2000. | 2000. | 2000. | 2000. | 2000. |
| 2000. | 2000. | 2000. | 2000. | 2000. | 2000. | | | | | | |
| 12500. | 12289. | 12243. | 12221. | 12110. | 12000. | 12000. | 11000. | 11000. | 10000. | 10000. | 10000. |
| 9500. | 9307. | 9155. | 8631. | 8360. | 8543. | 5897. | 7965. | 8004. | 7948. | 7920. | 7923. |
| 7943. | 8203. | 7899. | 7899. | 7856. | 7871. | 7872. | 7800. | 7800. | 7500. | 7500. | 7500. |
| 7300. | 7300. | 7300. | 7100. | 7100. | 6900. | 6900. | 6700. | 6700. | 6700. | 6700. | 6500. |
| 6500. | 6500. | 6500. | 6300. | 6300. | 6300. | 6100. | 6100. | 6000. | 6000. | 5500. | 5500. |
| 5500. | 5400. | 5327. | 5459. | 5578. | 5695. | 5806. | 5928. | 5668. | 5858. | 6078. | 6313. |
| 6686. | 6845. | 7150. | 7388. | 7535. | 7667. | 7750. | 7796. | 7833. | 7862. | 7700. | 7700. |
| 7600. | 7200. | 7000. | 6000. | 5000. | 4500. | 4300. | 4195. | 4000. | 3700. | 3600. | 3414. |
| 4618. | 4690. | 4792. | 4780. | 4810. | 4713. | 4558. | 4614. | 4802. | 4300. | 3950. | 3799. |
| 3808. | 3708. | 3723. | 3152. | 3022. | 2832. | 2725. | 2500. | 2500. | 2500. | 2500. | 2500. |
| 2500. | 2500. | 2000. | 2000. | 2000. | 2000. | 2000. | 2000. | 2000. | 2000. | 2000. | 2000. |
| 2000. | 2000. | 2000. | 2000. | 2000. | 2000. | | | | | | |
| 9375. | 12504. | 12500. | 12500. | 12500. | 12500. | 12500. | 12500. | 12000. | 12000. | 12000. | 12000. |
| 11000. | 10823. | 10627. | 9981. | 9652. | 9871. | 6731. | 9190. | 9243. | 9185. | 9163. | 9177. |
| 9210. | 9512. | 9188. | 9203. | 9173. | 9208. | 9229. | 9267. | 9200. | 9200. | 9200. | 9200. |
| 9000. | 9000. | 9000. | 9000. | 9000. | 8600. | 8600. | 8600. | 8200. | 8200. | 7900. | 7900. |
| 7700. | 7600. | 7300. | 7300. | 7200. | 7100. | 7000. | 6882. | 7087. | 7303. | 7526. | 7750. |
| 7978. | 8213. | 8434. | 8648. | 8848. | 9048. | 9244. | 9451. | 8473. | 8400. | 8400. | 8400. |
| 8400. | 8200. | 8200. | 8200. | 8000. | 8000. | 8000. | 8000. | 7800. | 7800. | 7800. | 7800. |
| 7600. | 7600. | 7600. | 7400. | 7400. | 7400. | 7200. | 7200. | 7200. | 7000. | 7000. | 7000. |
| 7000. | 6800. | 6800. | 6000. | 5671. | 5455. | 5043. | 5000. | 5000. | 4800. | 4500. | 4000. |
| 3800. | 3800. | 3747. | 3859. | 3500. | 3500. | 3500. | 3500. | 3500. | 3500. | 3300. | 3300. |
| 3300. | 3300. | 3300. | 3300. | 3000. | 3000. | 3000. | 3000. | 3000. | 3000. | 3000. | 3000. |
| 3000. | 3000. | 3000. | 3000. | 3000. | 3000. | | | | | | |
| 6250. | 11734. | 10745. | 10676. | 10706. | 12500. | 12500. | 12500. | 12500. | 12500. | 12500. | 12500. |
| 12500. | 12487. | 12147. | 11307. | 10874. | 11119. | 7270. | 10248. | 10293. | 10208. | 10167. | 10170. |
| 10198. | 10533. | 10152. | 10162. | 10122. | 10157. | 10178. | 10219. | 10238. | 10309. | 10200. | 10200. |
| 10100. | 10100. | 10100. | 10100. | 10100. | 10100. | 9800. | 9800. | 9800. | 9800. | 9800. | 9800. |
| 9800. | 9800. | 9600. | 9400. | 9200. | 9000. | 8500. | 7891. | 8073. | 8272. | 2544. | 2606. |
| 2640. | 2700. | 2790. | 2857. | 2910. | 3000. | 3000. | 3000. | 2850. | 2850. | 2850. | 2850. |
| 2850. | 2790. | 2790. | 2790. | 2790. | 2790. | 2730. | 2730. | 2730. | 2640. | 2640. | 2640. |
| 2580. | 2580. | 2580. | 2460. | 2460. | 2460. | 2280. | 2280. | 2280. | 2280. | 2160. | 2160. |
| 2160. | 2040. | 2040. | 2040. | 2040. | 1860. | 1860. | 1860. | 1740. | 1740. | 1740. | 1680. |
| 1680. | 1680. | 1530. | 1530. | 1530. | 1410. | 1410. | 1410. | 1260. | 1260. | 1140. | 960. |
| 891. | 905. | 921. | 1050. | 1200. | 1500. | 1713. | 1650. | 1650. | 1650. | 1590. | 1590. |
| 1590. | 1500. | 1500. | 1500. | 1500. | 1500. | | | | | | |
| 4375. | 11037. | 9276. | 9278. | 10000. | 10000. | 10000. | 10000. | 10500. | 10700. | 11202. | 11746. |
| 11029. | 12500. | 12500. | 12586. | 12374. | 11845. | 7762. | 11361. | 11382. | 11248. | 11169. | 11143. |
| 11148. | 11509. | 11045. | 11035. | 10970. | 10992. | 11000. | 11031. | 11040. | 11106. | 11124. | 11201. |
| 11271. | 11200. | 10000. | 10000. | 10000. | 10000. | 8500. | 8500. | 8500. | 8400. | 8400. | 8400. |
| 8400. | 8600. | 2580. | 2628. | 2628. | 2400. | 2400. | 2400. | 2460. | 2520. | 2550. | 2610. |
| 2700. | 2760. | 2880. | 2940. | 3000. | 3000. | 3000. | 3000. | 3000. | 2700. | 2700. | 2700. |
| 2700. | 2700. | 2700. | 2700. | 2700. | 2700. | 2700. | 2700. | 2700. | 2700. | 2700. | 2700. |
| 2700. | 2700. | 2700. | 2700. | 2700. | 2640. | 2640. | 2640. | 2640. | 2640. | 2580. | 2580. |
| 2580. | 2580. | 2580. | 2520. | 2520. | 2520. | 2520. | 2460. | 2460. | 2460. | 2400. | 2400. |
| 2280. | 2280. | 2160. | 2160. | 2040. | 2040. | 1860. | 1740. | 1530. | 1350. | 1050. | 950. |
| 944. | 938. | 945. | 951. | 748. | 771. | 1020. | 1235. | 1472. | 1731. | 1800. | 1800. |
| 1800. | 1800. | 1800. | 1800. | 1800. | 1800. | | | | | | |
| 3125. | 10250. | 7603. | 7671. | 8000. | 10000. | 10000. | 9000. | 8713. | 0. | 9894. | 11177. |
| 9843. | 10285. | 10625. | 13234. | 13257. | 13398. | 10492. | 12563. | 12554. | 12438. | 12356. | 12304. |
| 12270. | 11375. | 11755. | 11694. | 11560. | 11553. | 11532. | 11545. | 11535. | 11602. | 11613. | 11699. |
| 11780. | 11874. | 11968. | 10000. | 10000. | 8373. | 8497. | 8648. | 8760. | 8834. | 8942. | 9033. |
| 9150. | 9283. | 2760. | 2760. | 2700. | 2700. | 2700. | 2700. | 2700. | 2700. | 2700. | 2700. |
| 2700. | 3000. | 3000. | 3000. | 3000. | 3000. | 3000. | 3000. | 3000. | 2940. | 2940. | 2940. |
| 2940. | 2940. | 2880. | 2880. | 2880. | 2880. | 2880. | 2880. | 2880. | 2880. | 2880. | 2880. |
| 2880. | 2820. | 2700. | 2640. | 2640. | 2640. | 2640. | 2580. | 2580. | 2550. | 2550. | 2550. |
| 2550. | 2550. | 2550. | 2550. | 2520. | 2520. | 2520. | 2520. | 2520. | 2520. | 2520. | 2520. |
| 2520. | 2520. | 2520. | 2520. | 2520. | 2520. | 2460. | 2460. | 2400. | 2370. | 2322. | 2363. |
| 2419. | 2478. | 2543. | 2609. | 2663. | 2983. | 3082. | 3127. | 3202. | 3301. | 3349. | 3416. |
| 3232. | 3232. | 3232. | 3232. | 3232. | 3232. | | | | | | |
| 3125. | 9674. | 6365. | 6472. | 7681. | 8097. | 9140. | 8675. | 7607. | 7948. | 8761. | 10692. |
| 8828. | 9333. | 10345. | 13125. | 13133. | 13376. | 13523. | 13117. | 13286. | 13350. | 12503. | 12500. |
| 12500. | 12972. | 12831. | 12740. | 12552. | 12480. | 12410. | 12358. | 12273. | 12063. | 11921. | 11993. |
| 12065. | 12164. | 12272. | 11250. | 11250. | 10260. | 10293. | 10361. | 10380. | 10348. | 10358. | 10347. |
| 10370. | 10200. | 3060. | 3060. | 3060. | 3030. | 3030. | 3030. | 3030. | 3030. | 3000. | 3000. |
| 3000. | 3000. | 3000. | 3000. | 3000. | 3000. | 3000. | 3000. | 3000. | 2940. | 2940. | 2940. |
| 2880. | 2880. | 2880. | 2820. | 2820. | 2820. | 2820. | 2760. | 2760. | 2760. | 2760. | 2700. |
| 2700. | 2700. | 2700. | 2640. | 2640. | 2640. | 2640. | 2580. | 2580. | 2580. | 2580. | 2550. |
| 2550. | 2550. | 2550. | 2550. | 2520. | 2520. | 2520. | 2520. | 2520. | 2520. | 2520. | 2520. |
| 2520. | 2520. | 2535. | 2535. | 2535. | 2535. | 2535. | 2538. | 2538. | 2541. | 2545. | 2602. |
| 2669. | 2740. | 2815. | 2890. | 2956. | 3153. | 3247. | 3295. | 3366. | 3450. | 3497. | 3554. |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3484. | 3647. | 3685. | 3719. | 3722. | 3750. | | | | | | |
| 1250. | 8441. | 3752. | 3973. | 4307. | 4740. | 4965. | 5309. | 5627. | 6109. | 7003. | 8923. |
| 7266. | 7935. | 9046. | 13537. | 14909. | 14105. | 14037. | 13195. | 13438. | 13696. | 12692. | 12928. |
| 13158. | 13167. | 13515. | 13663. | 13695. | 13753. | 13780. | 13800. | 13685. | 13625. | 12955. | 3874. |
| 3854. | 3838. | 3814. | 3750. | 3750. | 3740. | 3736. | 3741. | 3736. | 3721. | 3714. | 3702. |
| 3697. | 3900. | 3900. | 3900. | 3900. | 3900. | 3900. | 3900. | 3900. | 3900. | 3900. | 3900. |
| 3900. | 3900. | 3900. | 3900. | 3900. | 3900. | 3900. | 3900. | 3900. | 3900. | 3900. | 3900. |
| 3900. | 3900. | 3900. | 3900. | 3900. | 3900. | 3642. | 3640. | 3638. | 3633. | 3632. | 3623. |
| 3617. | 3612. | 3616. | 3617. | 3623. | 3375. | 3375. | 3254. | 3210. | 3164. | 3190. | 3120. |
| 3120. | 3120. | 3060. | 3060. | 3060. | 3060. | 3060. | 3030. | 3030. | 3030. | 3030. | 3000. |
| 3000. | 3000. | 3000. | 3000. | 2946. | 2946. | 2910. | 2880. | 2820. | 2760. | 2766. | 3036. |
| 3049. | 3033. | 3052. | 3070. | 3141. | 3302. | 3392. | 3442. | 3509. | 3583. | 3627. | 3675. |
| 3679. | 3721. | 3750. | 3750. | 3750. | 3750. | | | | | | |
| 188. | 2260. | 515. | 605. | 731. | 848. | 970. | 1102. | 1221. | 1411. | 1706. | 2354. |
| 2238. | 2134. | 2527. | 4543. | 4882. | 4884. | 4956. | 4560. | 4640. | 4551. | 4480. | 4399. |
| 4332. | 4463. | 4360. | 4282. | 4208. | 4314. | 4411. | 4504. | 4591. | 4650. | 4754. | 4832. |
| 4906. | 4973. | 5032. | 4688. | 4688. | 4107. | 4107. | 4126. | 3816. | 4111. | 4116. | 4108. |
| 4200. | 4200. | 4200. | 4200. | 4200. | 4200. | 4200. | 4200. | 4200. | 4200. | 4200. | 4200. |
| 4200. | 4200. | 4200. | 4200. | 4200. | 4200. | 4200. | 4200. | 4200. | 4200. | 4200. | 4200. |
| 4200. | 4200. | 4200. | 4200. | 4200. | 4050. | 3747. | 3743. | 3739. | 3733. | 3730. | 3722. |
| 3715. | 3710. | 3708. | 3706. | 3706. | 3656. | 3656. | 3554. | 3613. | 3556. | 3535. | 3328. |
| 3547. | 3436. | 3346. | 3337. | 3330. | 3330. | 3330. | 3300. | 3300. | 3270. | 3270. | 3270. |
| 3270. | 3270. | 3270. | 3270. | 3270. | 3255. | 3255. | 3252. | 3249. | 3249. | 3243. | 3242. |
| 3288. | 3337. | 3389. | 3440. | 3484. | 3608. | 3661. | 3678. | 3707. | 3736. | 3744. | 3748. |
| 2362. | 3750. | 3750. | 3750. | 3750. | 3750. | | | | | | |
| 169. | 1102. | 199. | 187. | 217. | 344. | 504. | 658. | 800. | 1045. | 1383. | 2032. |
| 2055. | 2083. | 2618. | 4599. | 4882. | 5261. | 5364. | 5557. | 5582. | 5605. | 5604. | 5612. |
| 5614. | 5624. | 5613. | 5609. | 5590. | 5561. | 5554. | 5546. | 5525. | 5505. | 5522. | 5512. |
| 5506. | 5486. | 5415. | 5062. | 5062. | 4767. | 4750. | 4763. | 3990. | 4760. | 4786. | 4800. |
| 4800. | 4800. | 4800. | 4800. | 4800. | 4800. | 4800. | 4800. | 4800. | 4800. | 4800. | 4800. |
| 4800. | 4800. | 4800. | 4800. | 4800. | 4800. | 4800. | 4800. | 4800. | 4800. | 4800. | 4800. |
| 4800. | 4800. | 4800. | 4800. | 4800. | 4660. | 4885. | 4888. | 4894. | 4886. | 4901. | 4893. |
| 4899. | 4918. | 4930. | 4941. | 4967. | 4688. | 4688. | 4078. | 3917. | 3814. | 3742. | 3442. |
| 3632. | 3586. | 3501. | 3450. | 3316. | 3352. | 3330. | 3327. | 3315. | 3312. | 3309. | 3306. |
| 3303. | 3300. | 3300. | 3300. | 3300. | 3300. | 3300. | 3300. | 3309. | 3312. | 3315. | 3319. |
| 3368. | 3420. | 3473. | 3524. | 3569. | 3662. | 3707. | 3721. | 3740. | 3745. | 3750. | 3750. |
| 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | | | | | | |
| 160. | 167. | 180. | 179. | 180. | 181. | 186. | 188. | 305. | 532. | 829. | 1513. |
| 1542. | 1615. | 2175. | 5007. | 5068. | 5625. | 5625. | 5625. | 5625. | 5625. | 5625. | 5581. |
| 5572. | 5560. | 7330. | 7520. | 7636. | 7653. | 7808. | 7939. | 7984. | 8195. | 5535. | 5625. |
| 5625. | 5625. | 5625. | 5625. | 5625. | 5625. | 5625. | 5625. | 4869. | 5100. | 5100. | 5100. |
| 5100. | 5100. | 5100. | 5100. | 5100. | 5100. | 5100. | 5100. | 5100. | 5100. | 5100. | 5100. |
| 5100. | 5100. | 5100. | 5100. | 5100. | 5100. | 5100. | 5100. | 5100. | 5100. | 5100. | 5087. |
| 5569. | 5540. | 5518. | 5513. | 5494. | 5060. | 5454. | 5448. | 5448. | 5440. | 5447. | 5446. |
| 5462. | 5495. | 5485. | 5470. | 5410. | 5250. | 5250. | 4933. | 5084. | 4891. | 4652. | 4407. |
| 4182. | 3826. | 3710. | 3612. | 3496. | 3539. | 3333. | 3217. | 3395. | 3210. | 3150. | 3150. |
| 3150. | 3150. | 3150. | 3150. | 3150. | 3180. | 3180. | 3210. | 3240. | 3270. | 3300. | 3395. |
| 3441. | 3489. | 3538. | 3585. | 3624. | 3693. | 3731. | 3739. | 3749. | 3750. | 3750. | 3750. |
| 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | | | | | | |
| 120. | 132. | 132. | 132. | 140. | 143. | 141. | 142. | 145. | 149. | 274. | 583. |
| 525. | 904. | 1365. | 4128. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4407. |
| 4396. | 4379. | 7605. | 7891. | 8146. | 8362. | 8636. | 8901. | 9131. | 9430. | 4328. | 4500. |
| 4500. | 4500. | 4500. | 4500. | 4500. | 4846. | 5198. | 6935. | 6603. | 7820. | 8250. | 9000. |
| 9000. | 9000. | 9000. | 9000. | 9000. | 9000. | 9000. | 10500. | 10500. | 10500. | 10500. | 10500. |
| 10500. | 10500. | 10500. | 12000. | 12000. | 12000. | 12000. | 12000. | 12000. | 12000. | 12000. | 13207. |
| 16183. | 16847. | 19516. | 17754. | 18498. | 14674. | 20448. | 21532. | 22253. | 22510. | 23614. | 23900. |
| 24765. | 27636. | 27646. | 26234. | 24345. | 15000. | 15000. | 13012. | 9592. | 8010. | 5750. | 5538. |
| 5272. | 4880. | 4534. | 3856. | 3730. | 3606. | 3500. | 3506. | 3531. | 3830. | 3275. | 3210. |
| 3180. | 3150. | 3150. | 3150. | 3150. | 3150. | 3150. | 3240. | 3270. | 3360. | 3460. | 3505. |
| 3549. | 3593. | 3637. | 3675. | 3706. | 3739. | 3743. | 3749. | 3750. | 3750. | 3750. | 3750. |
| 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | | | | | | |
| 113. | 130. | 129. | 129. | 134. | 136. | 135. | 136. | 143. | 141. | 145. | 439. |
| 472. | 487. | 920. | 4490. | 5065. | 5641. | 6313. | 6951. | 7607. | 8336. | 9080. | 9555. |
| 10259. | 10779. | 15000. | 15000. | 15000. | 15000. | 15000. | 15000. | 15000. | 15000. | 6464. | 6099. |
| 5681. | 5266. | 4807. | 4500. | 4500. | 4820. | 5146. | 5471. | 6622. | 7661. | 8063. | 9900. |
| 9900. | 9900. | 9900. | 9900. | 9900. | 9900. | 9900. | 10800. | 10800. | 10800. | 10800. | 10800. |
| 10800. | 10800. | 10800. | 12000. | 12000. | 12000. | 12101. | 11456. | 11172. | 11010. | 10709. | 13349. |
| 10393. | 10709. | 15986. | 10963. | 11488. | 14844. | 13925. | 16020. | 17289. | 17092. | 19517. | 19588. |
| 21448. | 28048. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 27754. | 22576. | 17833. |
| 14347. | 7796. | 5560. | 4904. | 4484. | 3814. | 3712. | 3539. | 3859. | 3832. | 3573. | 3318. |
| 3319. | 3320. | 3322. | 3327. | 3600. | 3600. | 3600. | 3600. | 3600. | 3600. | 3554. | 3592. |
| 3629. | 3664. | 3697. | 3723. | 3740. | 3748. | 3750. | 3750. | 3750. | 3750. | 3750. | 3750. |
| 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 98. | 123. | 123. | 124. | 125. | 127. | 127. | 128. | 135. | 134. | 138. | 112. |
| 143. | 454. | 507. | 4358. | 4761. | 5235. | 5849. | 6417. | 6992. | 7668. | 8343. | 8669. |
| 9295. | 9684. | 15000. | 15000. | 15000. | 15000. | 15000. | 15000. | 15000. | 15000. | 7191. | 6695. |
| 6124. | 5560. | 5050. | 5010. | 4500. | 4500. | 4650. | 4950. | 5550. | 5625. | 5625. | 5625. |
| 5625. | 5625. | 5625. | 5625. | 5625. | 5625. | 5625. | 5625. | 5625. | 5625. | 5625. | 5625. |
| 5625. | 5625. | 5625. | 5625. | 5625. | 5625. | 5625. | 5625. | 5625. | 5625. | 5625. | 5590. |
| 5538. | 5540. | 5625. | 5516. | 5546. | 5625. | 5855. | 6400. | 7730. | 8389. | 11559. | 12757. |
| 16539. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. |
| 27900. | 18886. | 16056. | 7937. | 5567. | 4946. | 4593. | 3749. | 3602. | 3836. | 3724. | 3444. |
| 3427. | 3439. | 3443. | 3472. | 3600. | 3600. | 3630. | 3630. | 3630. | 3660. | 3665. | 3695. |
| 3719. | 3739. | 3744. | 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | 3750. |
| 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | | | | | | |
| 94. | 121. | 120. | 131. | 117. | 119. | 120. | 121. | 128. | 126. | 130. | 112. |
| 142. | 142. | 536. | 2679. | 4533. | 4738. | 5232. | 5725. | 6231. | 6864. | 7490. | 7704. |
| 8276. | 8562. | 15000. | 15000. | 15000. | 15000. | 15000. | 15000. | 15000. | 15000. | 8892. | 7804. |
| 6614. | 5720. | 5737. | 5100. | 4500. | 4500. | 4500. | 4500. | 5250. | 5250. | 5250. | 5250. |
| 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. |
| 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5625. | 5615. | 5608. | 5576. | 5525. | 5380. |
| 5159. | 5066. | 5029. | 4799. | 4832. | 4877. | 5136. | 5561. | 5625. | 6100. | 6952. | 8026. |
| 12033. | 27780. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. |
| 28125. | 28125. | 20270. | 18032. | 6171. | 5625. | 4649. | 4662. | 3765. | 3735. | 3627. | 3583. |
| 3554. | 3565. | 3574. | 3598. | 3600. | 3600. | 3600. | 3600. | 3600. | 3750. | 3750. | 3750. |
| 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | 3750. |
| 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | | | | | | |
| 90. | 120. | 119. | 109. | 113. | 114. | 114. | 116. | 116. | 116. | 116. | 111. |
| 146. | 145. | 153. | 1852. | 4257. | 4675. | 4706. | 5065. | 5476. | 6042. | 6612. | 6730. |
| 7248. | 7437. | 15000. | 15000. | 15000. | 15000. | 15000. | 15000. | 15000. | 15000. | 8643. | 7889. |
| 7010. | 6147. | 5267. | 5100. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4800. | 4800. |
| 4800. | 4800. | 4800. | 4800. | 4800. | 4800. | 4800. | 4800. | 4800. | 4800. | 4800. | 4800. |
| 4800. | 4800. | 4800. | 4800. | 5625. | 5625. | 5446. | 5312. | 5000. | 4988. | 4675. | 4663. |
| 4616. | 3750. | 3431. | 3557. | 3778. | 3983. | 4668. | 4711. | 5090. | 5468. | 5625. | 6520. |
| 8086. | 20755. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. |
| 28125. | 28125. | 28125. | 21157. | 11131. | 7249. | 6102. | 6339. | 4514. | 3808. | 3766. | 3750. |
| 3724. | 3718. | 3716. | 3690. | 3690. | 3720. | 3720. | 3750. | 3750. | 3750. | 3750. | 3750. |
| 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | 3750. |
| 3750. | 3750. | 3750. | 3750. | 3750. | 3750. | | | | | | |
| 82. | 116. | 117. | 96. | 98. | 98. | 102. | 103. | 110. | 109. | 115. | 111. |
| 126. | 134. | 142. | 403. | 2204. | 3370. | 4500. | 4500. | 4500. | 4500. | 4500. | 5312. |
| 5719. | 6409. | 9529. | 9178. | 8875. | 8396. | 8275. | 7784. | 7185. | 6891. | 5798. | 5700. |
| 5700. | 5700. | 5700. | 5100. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4650. |
| 5100. | 5100. | 5100. | 5100. | 5100. | 5100. | 5100. | 5100. | 5100. | 5100. | 5100. | 5100. |
| 5100. | 5100. | 5100. | 5625. | 5625. | 5614. | 5302. | 4992. | 4682. | 4521. | 4360. | 3964. |
| 3844. | 1867. | 936. | 938. | 2390. | 2640. | 3746. | 3956. | 4412. | 5059. | 5105. | 5586. |
| 6097. | 15503. | 15733. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. |
| 28125. | 28125. | 28125. | 27269. | 14899. | 9192. | 6598. | 6968. | 5080. | 4558. | 4612. | 4557. |
| 3896. | 3881. | 3876. | 3900. | 3900. | 3900. | 3900. | 3900. | 3900. | 3900. | 3900. | 3900. |
| 3900. | 3930. | 3930. | 3960. | 3990. | 4010. | 3969. | 4026. | 4011. | 4012. | 4020. | 3986. |
| 3903. | 3926. | 3889. | 3848. | 3800. | 3750. | | | | | | |
| 75. | 91. | 98. | 90. | 85. | 85. | 91. | 92. | 100. | 100. | 106. | 109. |
| 118. | 125. | 133. | 138. | 1355. | 1757. | 2710. | 4391. | 4500. | 4500. | 4500. | 4761. |
| 5305. | 5834. | 8292. | 8079. | 8024. | 7532. | 7767. | 7246. | 6506. | 6447. | 6000. | 6000. |
| 6000. | 6000. | 5700. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. |
| 4500. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. |
| 5250. | 5250. | 5250. | 5625. | 5625. | 5512. | 5216. | 4921. | 4625. | 4330. | 4034. | 3668. |
| 1545. | 927. | 918. | 900. | 935. | 1186. | 2428. | 2984. | 3748. | 4274. | 4955. | 4859. |
| 5194. | 5591. | 16875. | 26373. | 18521. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. |
| 28125. | 28125. | 28125. | 28112. | 17290. | 10923. | 7864. | 7270. | 5273. | 4602. | 4511. | 4608. |
| 4399. | 4078. | 4065. | 3960. | 3930. | 3900. | 3900. | 3900. | 3900. | 3900. | 3900. | 3900. |
| 3900. | 3900. | 3990. | 4020. | 4020. | 4043. | 3986. | 4033. | 4009. | 3994. | 3984. | 3939. |
| 3856. | 3854. | 3805. | 3806. | 3177. | 2812. | | | | | | |
| 71. | 74. | 75. | 75. | 76. | 83. | 82. | 83. | 92. | 91. | 99. | 108. |
| 110. | 117. | 123. | 140. | 149. | 943. | 551. | 1332. | 2692. | 4464. | 4500. | 4571. |
| 4646. | 5462. | 6843. | 6794. | 7111. | 6600. | 7197. | 6633. | 6009. | 6000. | 6000. | 6000. |
| 6000. | 5700. | 5100. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. |
| 4500. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. |
| 5250. | 5250. | 5250. | 5625. | 5625. | 5398. | 5074. | 4750. | 4425. | 4101. | 3777. | 1646. |
| 932. | 926. | 892. | 871. | 887. | 894. | 980. | 2303. | 2327. | 3570. | 4247. | 4233. |
| 4818. | 4869. | 5039. | 5926. | 14804. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. | 28125. |
| 28125. | 28125. | 28125. | 25936. | 17140. | 12582. | 8552. | 7252. | 5307. | 4786. | 4551. | 4648. |
| 4528. | 4261. | 4237. | 4215. | 4200. | 4200. | 4230. | 4200. | 4200. | 4200. | 4140. | 3990. |
| 3900. | 3870. | 3720. | 3840. | 3960. | 4023. | 3955. | 3976. | 3939. | 3903. | 3865. | 3808. |
| 3791. | 3750. | 3241. | 2812. | 1875. | 938. | | | | | | |
| 68. | 73. | 61. | 72. | 72. | 72. | 75. | 82. | 84. | 83. | 91. | 106. |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 101. | 108. | 114. | 129. | 142. | 180. | 453. | 587. | 733. | 1036. | 2294. | 2788. |
| 3024. | 2204. | 4084. | 5269. | 6699. | 6050. | 6969. | 6196. | 6075. | 5666. | 5575. | 5550. |
| 5400. | 5400. | 5100. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. |
| 4500. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. |
| 5250. | 5250. | 5250. | 5625. | 5600. | 5239. | 4883. | 4527. | 4171. | 3814. | 2484. | 932. |
| 928. | 904. | 866. | 843. | 850. | 882. | 887. | 937. | 1796. | 2393. | 2953. | 3486. |
| 4012. | 4248. | 4773. | 4978. | 5383. | 5625. | 5625. | 18608. | 28125. | 28125. | 28125. | 28125. |
| 28125. | 28125. | 23643. | 22528. | 15267. | 10456. | 7238. | 6310. | 4723. | 4651. | 4571. | 4518. |
| 4549. | 4424. | 4390. | 4358. | 4324. | 4306. | 4260. | 4230. | 4200. | 4200. | 4140. | 3990. |
| 3900. | 3870. | 3720. | 3540. | 3480. | 3600. | 3616. | 3913. | 3863. | 3810. | 3818. | 3750. |
| 3164. | 2908. | 1766. | 1224. | 887. | 844. | | | | | | |
| 64. | 71. | 62. | 70. | 70. | 72. | 71. | 72. | 75. | 81. | 83. | 102. |
| 93. | 100. | 104. | 119. | 131. | 138. | 150. | 464. | 535. | 619. | 690. | 748. |
| 934. | 1430. | 2591. | 3029. | 3329. | 3480. | 4601. | 4778. | 4657. | 4587. | 4558. | 4500. |
| 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. |
| 4500. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5625. | 5625. |
| 5625. | 5625. | 5625. | 5625. | 5357. | 5188. | 4750. | 4313. | 3875. | 2282. | 935. | 928. |
| 909. | 880. | 844. | 824. | 826. | 845. | 877. | 870. | 929. | 1216. | 1877. | 2333. |
| 3046. | 3496. | 3803. | 4205. | 4343. | 4688. | 4688. | 5614. | 21284. | 17832. | 28125. | 28125. |
| 28125. | 22591. | 20625. | 13125. | 10555. | 6674. | 6302. | 6003. | 4901. | 4826. | 4749. | 4693. |
| 4630. | 4586. | 4540. | 4496. | 4450. | 4416. | 4383. | 4350. | 4320. | 4260. | 4200. | 4050. |
| 4050. | 3900. | 3750. | 3600. | 3540. | 3600. | 3402. | 3366. | 3369. | 3300. | 3068. | 2812. |
| 1875. | 1641. | 1535. | 845. | 726. | 750. | | | | | | |
| 60. | 70. | 63. | 69. | 68. | 70. | 69. | 71. | 71. | 74. | 75. | 113. |
| 85. | 92. | 94. | 108. | 120. | 137. | 144. | 153. | 354. | 455. | 510. | 601. |
| 641. | 678. | 708. | 741. | 770. | 1027. | 3028. | 2976. | 3091. | 3325. | 3118. | 3753. |
| 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. |
| 4500. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5250. | 5625. |
| 5625. | 5625. | 5623. | 5249. | 5200. | 4774. | 4349. | 3924. | 2628. | 938. | 931. | 914. |
| 889. | 857. | 820. | 799. | 796. | 807. | 825. | 815. | 857. | 878. | 935. | 1180. |
| 2006. | 2217. | 3000. | 3394. | 3766. | 3938. | 3938. | 4717. | 4719. | 5315. | 5624. | 8654. |
| 10938. | 9604. | 6904. | 5978. | 5556. | 5553. | 6081. | 5409. | 4975. | 4901. | 4830. | 4773. |
| 4711. | 4658. | 4604. | 4550. | 4494. | 4448. | 4402. | 4358. | 4309. | 4256. | 4200. | 3900. |
| 3900. | 3900. | 3600. | 3300. | 3300. | 2910. | 2880. | 2875. | 2860. | 2812. | 1875. | 1486. |
| 922. | 850. | 715. | 660. | 554. | 656. | | | | | | |
| 56. | 68. | 62. | 66. | 66. | 67. | 67. | 69. | 68. | 70. | 71. | 74. |
| 77. | 83. | 85. | 98. | 110. | 124. | 144. | 138. | 154. | 292. | 330. | 462. |
| 512. | 551. | 593. | 618. | 634. | 674. | 713. | 740. | 907. | 1873. | 1850. | 2814. |
| 2958. | 3042. | 3227. | 3000. | 3000. | 4184. | 4446. | 4500. | 4500. | 4500. | 4500. | 4500. |
| 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4500. | 4496. | 5528. |
| 5367. | 5326. | 5027. | 4728. | 4429. | 4130. | 3831. | 2641. | 1237. | 932. | 918. | 897. |
| 871. | 841. | 806. | 784. | 779. | 782. | 788. | 778. | 805. | 860. | 844. | 869. |
| 939. | 1613. | 2024. | 2084. | 2701. | 3375. | 3375. | 3750. | 4688. | 4325. | 4543. | 4748. |
| 5010. | 5550. | 5547. | 5469. | 5391. | 5312. | 5534. | 5156. | 4917. | 4839. | 4767. | 4702. |
| 4634. | 4568. | 4498. | 4430. | 4360. | 4295. | 4232. | 4169. | 4102. | 4033. | 3962. | 3900. |
| 3870. | 3750. | 3300. | 2700. | 2100. | 2100. | 1800. | 1500. | 0. | 1538. | 943. | 874. |
| 855. | 760. | 656. | 550. | 442. | 562. | | | | | | |
| 52. | 64. | 61. | 64. | 64. | 64. | 64. | 66. | 65. | 67. | 68. | 70. |
| 72. | 75. | 82. | 87. | 98. | 111. | 140. | 134. | 137. | 150. | 279. | 323. |
| 382. | 424. | 478. | 505. | 513. | 569. | 606. | 613. | 656. | 709. | 750. | 1154. |
| 1741. | 1800. | 2140. | 2550. | 2550. | 2874. | 2937. | 2964. | 2998. | 3620. | 3147. | 3248. |
| 3590. | 3701. | 3700. | 3600. | 3600. | 3600. | 3600. | 3600. | 3600. | 3410. | 3300. | 3300. |
| 3300. | 3115. | 3065. | 3028. | 3019. | 2987. | 1882. | 1082. | 747. | 742. | 728. | 711. |
| 690. | 667. | 641. | 623. | 615. | 612. | 609. | 601. | 612. | 640. | 626. | 678. |
| 674. | 726. | 790. | 1224. | 1294. | 1500. | 1500. | 2423. | 2535. | 2724. | 2909. | 2946. |
| 2978. | 3000. | 3016. | 3022. | 3011. | 3017. | 3030. | 3021. | 3000. | 3000. | 3000. | 3000. |
| 3000. | 2992. | 2998. | 3000. | 3000. | 3000. | 2976. | 2941. | 2921. | 2890. | 2896. | 2874. |
| 2843. | 2625. | 2250. | 2100. | 1950. | 1800. | 1500. | 900. | 600. | 690. | 687. | 622. |
| 547. | 475. | 422. | 329. | 256. | 300. | | | | | | |
| 45. | 59. | 58. | 59. | 60. | 61. | 60. | 62. | 62. | 64. | 64. | 66. |
| 71. | 70. | 75. | 86. | 96. | 98. | 137. | 119. | 123. | 133. | 148. | 184. |
| 252. | 297. | 363. | 392. | 392. | 464. | 500. | 497. | 547. | 591. | 624. | 662. |
| 749. | 1299. | 1427. | 1950. | 1950. | 2612. | 2626. | 2659. | 2676. | 2100. | 2724. | 2751. |
| 2796. | 2929. | 2953. | 2977. | 2700. | 2700. | 2700. | 2700. | 2700. | 2700. | 2700. | 2700. |
| 2700. | 3052. | 3019. | 2927. | 2288. | 1958. | 916. | 747. | 746. | 729. | 713. | 694. |
| 674. | 651. | 626. | 609. | 600. | 594. | 585. | 577. | 582. | 599. | 584. | 619. |
| 611. | 644. | 673. | 725. | 764. | 1050. | 1050. | 1687. | 1834. | 1978. | 2033. | 2055. |
| 2048. | 2029. | 1996. | 1956. | 1924. | 1891. | 1852. | 1804. | 1748. | 1692. | 1625. | 1552. |
| 1485. | 1421. | 1363. | 1304. | 1247. | 1184. | 1118. | 1048. | 988. | 902. | 877. | 828. |
| 784. | 776. | 878. | 748. | 704. | 679. | 630. | 450. | 420. | 390. | 270. | 250. |
| 185. | 178. | 300. | 168. | 167. | 150. | | | | | | |
| 42. | 56. | 57. | 56. | 57. | 57. | 57. | 59. | 58. | 60. | 61. | 62. |
| 67. | 67. | 71. | 81. | 90. | 94. | 134. | 103. | 108. | 118. | 131. | 137. |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 146. | 170. | 248. | 280. | 271. | 359. | 394. | 382. | 438. | 473. | 503. | 604. |
| 604. | 716. | 828. | 1200. | 1200. | 1956. | 1995. | 2055. | 2056. | 1831. | 2035. | 1999. |
| 2050. | 1917. | 1866. | 1808. | 1500. | 1350. | 1200. | 1200. | 1200. | 1200. | 1140. | 1050. |
| 990. | 960. | 962. | 856. | 804. | 751. | 742. | 740. | 725. | 704. | 684. | 663. |
| 641. | 618. | 594. | 575. | 560. | 548. | 531. | 519. | 512. | 512. | 493. | 503. |
| 488. | 496. | 501. | 518. | 527. | 555. | 585. | 590. | 605. | 927. | 1338. | 1415. |
| 1434. | 1447. | 1441. | 1427. | 1455. | 1451. | 1430. | 1399. | 1364. | 1315. | 1262. | 1203. |
| 1146. | 1093. | 1044. | 994. | 950. | 901. | 853. | 808. | 775. | 769. | 798. | 781. |
| 720. | 600. | 550. | 350. | 300. | 199. | 165. | 150. | 148. | 148. | 147. | 147. |
| 146. | 142. | 138. | 133. | 129. | 135. | | | | | | |
| 41. | 53. | 57. | 53. | 54. | 55. | 55. | 56. | 56. | 57. | 58. | 59. |
| 63. | 63. | 68. | 78. | 87. | 87. | 93. | 93. | 93. | 102. | 114. | 121. |
| 129. | 134. | 148. | 158. | 224. | 254. | 287. | 266. | 329. | 355. | 382. | 458. |
| 466. | 551. | 607. | 750. | 750. | 1220. | 1326. | 1484. | 1536. | 1630. | 1612. | 1600. |
| 1664. | 1555. | 1519. | 1472. | 1420. | 1350. | 1290. | 1200. | 1140. | 1050. | 990. | 900. |
| 840. | 810. | 790. | 767. | 747. | 733. | 718. | 698. | 678. | 652. | 631. | 608. |
| 586. | 562. | 539. | 518. | 501. | 484. | 462. | 448. | 434. | 423. | 402. | 396. |
| 377. | 370. | 361. | 358. | 350. | 345. | 345. | 342. | 385. | 501. | 743. | 776. |
| 809. | 842. | 863. | 999. | 1139. | 1176. | 1172. | 1158. | 1139. | 1088. | 1044. | 990. |
| 937. | 890. | 847. | 808. | 776. | 770. | 850. | 753. | 721. | 600. | 550. | 350. |
| 300. | 215. | 151. | 148. | 147. | 147. | 138. | 138. | 136. | 128. | 128. | 126. |
| 119. | 116. | 111. | 104. | 101. | 113. | | | | | | |
| 38. | 48. | 55. | 49. | 50. | 51. | 51. | 52. | 51. | 53. | 54. | 55. |
| 59. | 59. | 64. | 73. | 86. | 85. | 90. | 90. | 90. | 90. | 97. | 104. |
| 112. | 114. | 130. | 134. | 145. | 150. | 165. | 242. | 216. | 226. | 240. | 271. |
| 272. | 298. | 360. | 450. | 450. | 749. | 876. | 1127. | 1221. | 1706. | 1378. | 1382. |
| 1434. | 1354. | 1328. | 1285. | 1240. | 1198. | 1080. | 990. | 900. | 840. | 780. | 765. |
| 762. | 762. | 760. | 733. | 731. | 711. | 691. | 669. | 646. | 622. | 600. | 578. |
| 555. | 532. | 508. | 487. | 466. | 445. | 421. | 403. | 383. | 364. | 342. | 325. |
| 303. | 286. | 267. | 250. | 232. | 225. | 225. | 229. | 231. | 310. | 547. | 560. |
| 561. | 567. | 573. | 585. | 697. | 719. | 728. | 747. | 764. | 754. | 757. | 745. |
| 746. | 707. | 680. | 654. | 633. | 550. | 450. | 350. | 218. | 170. | 150. | 149. |
| 147. | 146. | 143. | 139. | 135. | 131. | 126. | 120. | 119. | 114. | 111. | 107. |
| 102. | 98. | 94. | 88. | 84. | 90. | | | | | | |
| 30. | 39. | 52. | 41. | 44. | 44. | 45. | 47. | 46. | 49. | 50. | 50. |
| 55. | 55. | 59. | 68. | 78. | 80. | 85. | 84. | 84. | 84. | 87. | 87. |
| 94. | 94. | 113. | 114. | 128. | 131. | 138. | 135. | 147. | 147. | 150. | 156. |
| 170. | 204. | 242. | 300. | 300. | 498. | 548. | 739. | 838. | 1800. | 1098. | 1120. |
| 1155. | 1108. | 1090. | 1050. | 1011. | 977. | 938. | 896. | 840. | 810. | 780. | 795. |
| 750. | 750. | 726. | 730. | 708. | 687. | 665. | 643. | 621. | 598. | 576. | 554. |
| 532. | 510. | 488. | 466. | 444. | 422. | 399. | 379. | 358. | 337. | 314. | 294. |
| 272. | 251. | 230. | 208. | 187. | 225. | 225. | 235. | 228. | 220. | 194. | 194. |
| 201. | 195. | 190. | 176. | 170. | 237. | 238. | 223. | 224. | 199. | 178. | 153. |
| 524. | 149. | 148. | 148. | 148. | 147. | 147. | 146. | 143. | 140. | 136. | 132. |
| 129. | 125. | 122. | 118. | 114. | 111. | 105. | 102. | 100. | 97. | 93. | 89. |
| 86. | 82. | 79. | 79. | 77. | 75. | | | | | | |
| 22. | 30. | 49. | 33. | 36. | 37. | 38. | 40. | 40. | 43. | 44. | 44. |
| 49. | 50. | 53. | 60. | 72. | 72. | 78. | 78. | 78. | 78. | 81. | 81. |
| 84. | 87. | 95. | 94. | 96. | 113. | 122. | 131. | 127. | 129. | 131. | 134. |
| 137. | 140. | 147. | 150. | 150. | 166. | 217. | 434. | 426. | 1379. | 754. | 797. |
| 814. | 823. | 834. | 825. | 818. | 819. | 808. | 798. | 754. | 723. | 690. | 660. |
| 645. | 630. | 630. | 600. | 570. | 540. | 510. | 480. | 450. | 420. | 390. | 360. |
| 330. | 300. | 270. | 240. | 210. | 180. | 178. | 164. | 164. | 163. | 162. | 163. |
| 161. | 160. | 157. | 155. | 136. | 125. | 128. | 130. | 134. | 136. | 136. | 135. |
| 136. | 136. | 136. | 136. | 136. | 136. | 136. | 137. | 138. | 138. | 136. | 134. |
| 131. | 129. | 127. | 124. | 122. | 120. | 117. | 115. | 113. | 110. | 108. | 106. |
| 103. | 101. | 98. | 96. | 94. | 92. | 90. | 87. | 85. | 82. | 80. | 77. |
| 77. | 77. | 75. | 74. | 74. | 74. | | | | | | |
| 19. | 23. | 45. | 26. | 28. | 29. | 30. | 31. | 31. | 32. | 33. | 33. |
| 35. | 35. | 46. | 53. | 60. | 60. | 64. | 66. | 70. | 69. | 72. | 75. |
| 76. | 76. | 76. | 73. | 70. | 75. | 103. | 109. | 107. | 108. | 110. | 111. |
| 112. | 119. | 115. | 135. | 135. | 145. | 142. | 138. | 147. | 148. | 149. | 172. |
| 198. | 209. | 214. | 230. | 239. | 234. | 233. | 235. | 226. | 222. | 217. | 223. |
| 195. | 177. | 159. | 156. | 150. | 150. | 150. | 149. | 149. | 149. | 149. | 149. |
| 149. | 149. | 148. | 148. | 148. | 148. | 148. | 148. | 146. | 145. | 143. | 141. |
| 139. | 137. | 134. | 132. | 130. | 120. | 120. | 126. | 128. | 126. | 124. | 122. |
| 120. | 133. | 131. | 130. | 129. | 126. | 124. | 122. | 120. | 119. | 116. | 115. |
| 112. | 111. | 109. | 107. | 106. | 104. | 102. | 101. | 99. | 97. | 95. | 94. |
| 92. | 90. | 88. | 86. | 85. | 83. | 60. | 30. | 78. | 77. | 76. | 75. |
| 75. | 75. | 74. | 73. | 72. | 73. | | | | | | |
| 15. | 19. | 45. | 20. | 23. | 25. | 26. | 28. | 28. | 32. | 33. | 33. |
| 38. | 39. | 40. | 45. | 55. | 54. | 56. | 59. | 60. | 60. | 60. | 60. |
| 64. | 60. | 60. | 60. | 60. | 64. | 88. | 91. | 91. | 92. | 34. | 34. |

```
 35.   39.   96.  128.  128.  144.  144.  144.  142.  140.  140.  140.
141.  141.  140.  139.  139.  138.  137.  137.  137.  136.  162.  189.
150.  150.  150.  148.  136.  135.  135.  130.  129.  128.  126.  126.
125.  124.  122.  122.  121.  119.  119.  118.  117.  116.  115.  114.
113.  112.  111.  110.  109.  120.  120.  134.  134.  132.  130.  128.
125.  123.  122.  119.  119.  116.  114.  112.  110.  108.  107.  105.
105.  102.  100.   98.   97.   95.   93.   92.   90.   88.   87.   86.
 84.   82.   81.   79.   78.   76.   76.   76.   75.   75.   75.   75.
 74.   74.   73.   71.   70.   72.
 14.   15.   30.   18.   19.   20.   22.   24.   24.   27.   29.   29.
 34.   34.   36.   44.   48.   49.   49.   49.   54.   53.   54.   54.
 55.   59.   58.   58.   58.   58.   74.   75.   75.   76.   17.   18.
 19.   20.   20.   75.   75.  125.  125.  126.  122.  108.  109.  110.
120.  122.  122.  121.  121.  120.  119.  120.  122.  122.  171.  170.
150.  135.  135.  134.  123.  123.  123.  115.  114.  112.  110.  110.
109.  107.  105.  105.  104.  102.  101.  101.   99.   98.   97.   96.
 95.   95.   94.   93.   93.  105.  105.  126.  119.  117.  115.  113.
111.  108.  107.  105.  104.  101.  100.   98.   97.   95.   94.   92.
 97.   90.   88.   87.   86.   85.   83.   82.   81.   80.   79.   77.
 76.   76.   77.   76.   75.   75.   75.   74.   74.   74.   74.   74.
 73.   73.   71.   69.   68.   71.
 12.   14.   14.   15.   15.   16.   18.   20.   19.   21.   22.   21.
 26.   30.   45.   45.   45.   45.   52.   50.   52.   53.   53.   52.
 37.   51.   45.   33.   20.   21.   19.   17.   16.   14.   10.    9.
  7.    6.    4.    8.   22.   40.   40.   40.   36.   65.   66.   68.
 92.   98.   97.   96.   97.   96.   95.   97.  103.  103.  128.  136.
120.  117.  111.  102.  109.  109.  109.  109.  107.  105.  105.  105.
105.  104.  104.  103.   99.   96.   93.   92.   93.   93.   94.   93.
 90.   88.   90.   92.   92.   90.   90.  114.   94.   89.   85.   82.
 78.   78.   78.   77.   76.   76.   75.   75.   75.   75.   75.   75.
 75.   75.   75.   75.   75.   75.   75.   75.   75.   75.   75.   74.
 74.   75.   75.   74.   74.   74.   74.   74.   73.   73.   73.   73.
 72.   72.   70.   67.   67.   70.
```

WELL PACKAGE (INJECTION WELLS CALIBRATED FOR 1965 AND 1987 HYDROLOGIC CONDITIONS PLUS WITHDRAWALS FROM PUBLIC-SUPPLY AND INDUSTRIAL WELLS IN THE WITHIN THE STUDY AREA):

```
91       0
91   /*      Q(cfs)    Dia (ft)
 1      38      13     0.30      0.67     /* injection Cibao
 1      38      14     0.30      0.67     /* injection Cibao
 1      38      20     0.30      0.67     /* injection Cibao
 1      38      22     0.30      0.67     /* injection Cibao
 1      38      25     0.40      0.67     /* injection Cibao
 1      38      28     0.20      0.67     /* injection Cibao
 1      38      29     0.20      0.67     /* injection Cibao
 1      38      30     0.15      0.67     /* injection Cibao
 1      38      31     0.10      0.67     /* injection Cibao
 1      38      35     0.10      0.67     /* injection Cibao
 1      38      36     0.10      0.67     /* injection Cibao
 1      38      37     0.10      0.67     /* injection Cibao
 1      38      38     0.28      0.67     /* injection Cibao
 1      38      39     0.40      0.67     /* injection Cibao
 1      38      40     0.35      0.67     /* injection Cibao
 1      38      46     0.30      0.67     /* injection Cibao
 1      38      47     0.30      0.67     /* injection Cibao
 1      38      48     0.40      0.67     /* injection Cibao
 1      38      49     0.40      0.67     /* injection Cibao
 1      38      50     0.40      0.67     /* injection Cibao
 1      38      51     0.40      0.67     /* injection Cibao
 1      38      52     0.30      0.67     /* injection Cibao
 1      38      53     0.30      0.67     /* injection Cibao
 1      24     104    -1.01      0.67     /* ABBOTT NORTH -IND
 1      24     104    -0.69      0.67     /* ABBOTT SOUTH -IND
 1      24     103    -0.00      0.67     /* ABBOTT NESTLE -IND
 1      30      57    -0.91      0.67     /* ARECIBO #3 -PRASA
 1      30      55    -1.11      0.67     /* ARECIBO #5 -PRASA
 1      30      55    -0.75      0.67     /* ARECIBO #6 -PRASA
 1      31      54    -1.19      0.67     /* ARECIBO #7 -PRASA
 1      31      55    -1.75      0.67     /* ARECIBO #8 -PRASA
 1      30      56    -1.36      0.67     /* ARECIBO #9 -PRASA
 1      21     116    -0.00      0.67     /* BAJURA ADENTRO
 1      25      64    -0.69      0.67     /* BAJADERO -PRASA
```

```
    1         17         30      -0.00       0.67       /* CORCOVADO -OBS
    1         34         63      -0.30       0.67       /* CARRERAS -PRASA
    1         35         30      -0.21       0.67       /* CAMPO ALEGR #1 -PRASA
    1         36         26      -0.29       0.67       /* CAMPO ALEGR #3 -PRASA
    1         22        100      -0.31       0.67       /* CIMARRONA
    1         28         21      -0.00       0.67       /* DELGADO Q. -OBS
    1         45         31      -0.00       0.67       /* ESPINOSA #1 -OBS
    1         38         39      -0.11       0.67       /* ESPERANZA #1 -PRASA
    1         19        109      -0.20       0.67       /* FORTUNA -PRASA
    1         19         83      -0.24       0.67       /* FACTOR #1 -PRASA
    1         24        106      -0.34       0.67       /* FLORIDA AFUERA -PRASA
    1         15         92      -1.28       0.67       /* GARROCHALES #3 -PRASA
    1         50         83      -0.38       0.67       /* JOVALES #1 -PRASA
    1         27         54      -0.00       0.67       /* LOS CANOS -OBS
    1         17         66      -0.00       0.67       /* LIZAS -OBS
    1         22        101      -0.00       0.67       /* LEDERLE -OBS
    1         06         24      -0.00       0.67       /* LINARES -OBS
    1         28         02      -0.00       0.67       /* MORELL -OBS
    1         14        101      -0.00       0.67       /* MENA -DOM
    1         28         75      -0.21       0.67       /* MIRAFLORES #2 -PRASA
    1         27         75      -0.33       0.67       /* MIRAFLORES #3 -PRASA
    1         32         55      -1.09       0.67       /* NUEVO #4 -PRASA
    1         39         61      -1.12       0.67       /* OJO DE AGUA #2 -PRASA
    1         39         61      -3.14       0.67       /* OJO DE AGUA #1 -PRASA
    1         37         61      -1.06       0.67       /* OJO DE AGUA #3 -PRASA
    1         45         96      -0.00       0.67       /* PEREZ REYES -DOM
    1         23        102      -0.38       0.67       /* PFIZER -IND
    1         07         09      -0.00       0.67       /* PALO VIEJO #7 -OBS
    1         12        110      -0.00       0.67       /* PLAZUELA #2 -OBS
    1         27         26      -0.31       0.67       /* PAJUIL #1 -PRASA
    1         22         23      -0.00       0.67       /* PALOMA #3 -OBS
    1         24         20      -0.22       0.67       /* PALOMA #1 -PRASA
    1         23         23      -0.27       0.67       /* PALOMA #2 -PRASA
    1         21         83      -0.00       0.67       /* ROEHRS -DOM
    1         07         22      -0.00       0.67       /* ROMAN #2 -OBS
    1         06         24      -0.00       0.67       /* RUFINO -OBS
    1         22         76      -0.73       0.67       /* SANTANA #2 -PRASA
    1         20         71      -0.50       0.67       /* SANTANA #3 -PRASA
    1         06         23      -0.00       0.67       /* SANTIAGO -OBS
    1         37         91      -0.34       0.67       /* S.HOYOS #2 -PRASA
    1         22         92      -0.18       0.67       /* S.HOYOS #3 -PRASA
    1         19         87      -0.19       0.67       /* S.HOYOS #4 -PRASA
    1         19         89      -0.34       0.67       /* S.HOYOS #5 -PRASA
    1         16         94      -0.00       0.67       /* TORRES -DOM
    1         27         95      -0.00       0.67       /* UPJOHN NEW -IND
    1         25         96      -1.60       0.67       /* UPJOHN UE-1 -IND
    1         27         62      -0.00       0.67       /* VALENCIA -OBS
    1         09         04      -0.00       0.67       /* V.AMADOR -OBS
    1         19         02      -0.20       0.67       /* ZANJAS #1 -PRASA
    1         20         03      -0.29       0.67       /* ZANJAS #3 -PRASA
    1         16        123      -0.22       0.67       /* CANTITO LUISA
    1         23        124      -0.00       0.67       /* MCKESSON OLD
    1         25        126      -0.82       0.67       /* MANATI #1
    1         13        128      -0.34       0.67       /* BOQUILLA
    1         16        129      -0.35       0.67       /* RABANOS
    1         23        129      -0.84       0.67       /* OFICINA PRASA
    1         23        135      -0.22       0.67       /* VOCACIONAL
```

DRAIN PACKAGE INPUT FILE:

```
  173        -1
  173
    1          7         59     -05.00      0.500       /* areal discharge Cano Tiburones
    1          7         60     -05.00      0.500       /* areal discharge Cano Tiburones
    1          7         61     -05.00      0.500       /* areal discharge Cano Tiburones
    1          7         62     -05.00      0.500       /* areal discharge Cano Tiburones
    1          7         63     -05.00      0.500       /* areal discharge Cano Tiburones
    1          7         64     -05.00      0.500       /* areal discharge Cano Tiburones
    1          7         65     -05.00      0.500       /* areal discharge Cano Tiburones
    1          7         66     -05.00      0.500       /* areal discharge Cano Tiburones
    1          7         67     -05.00      0.500       /* areal discharge Cano Tiburones
    1          7         68     -05.00      0.500       /* areal discharge Cano Tiburones
```

```
1	7	69	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	70	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	71	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	72	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	73	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	74	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	75	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	76	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	77	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	78	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	79	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	80	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	81	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	82	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	83	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	84	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	85	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	86	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	87	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	88	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	89	-05.00	0.500	/* areal discharge Cano Tiburones
1	7	90	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	59	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	60	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	61	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	62	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	63	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	64	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	65	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	66	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	67	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	68	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	69	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	70	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	71	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	72	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	73	 05.00	0.500	/* areal discharge Cano Tiburones
1	8	74	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	75	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	76	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	77	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	78	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	79	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	80	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	81	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	82	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	83	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	84	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	85	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	86	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	87	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	88	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	89	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	90	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	91	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	92	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	93	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	94	-05.00	0.500	/* areal discharge Cano Tiburones
1	8	95	-05.00	0.500	/* areal discharge Cano Tiburones
1	9	62	-05.00	0.500	/* areal discharge Cano Tiburones
1	9	63	-05.00	0.500	/* areal discharge Cano Tiburones
1	9	64	-05.00	0.500	/* areal discharge Cano Tiburones
1	9	65	-05.00	0.500	/* areal discharge Cano Tiburones
1	9	66	-05.00	0.500	/* areal discharge Cano Tiburones
1	9	67	-05.00	0.500	/* areal discharge Cano Tiburones
1	9	68	-05.00	0.500	/* areal discharge Cano Tiburones
1	9	69	-05.00	0.500	/* areal discharge Cano Tiburones
1	9	70	-05.00	0.500	/* areal discharge Cano Tiburones
1	9	71	-05.00	0.500	/* areal discharge Cano Tiburones
1	9	72	-05.00	0.500	/* areal discharge Cano Tiburones
1	9	73	-05.00	0.500	/* areal discharge Cano Tiburones
1	9	74	-05.00	0.500	/* areal discharge Cano Tiburones
1	9	75	-05.00	0.500	/* areal discharge Cano Tiburones
```

```
1    9    76   -05.00   0.500   /* areal discharge Cano Tiburones
1    9    77   -05.00   0.500   /* areal discharge Cano Tiburones
1    9    78   -05.00   0.500   /* areal discharge Cano Tiburones
1    9    79   -05.00   0.500   /* areal discharge Cano Tiburones
1    9    80   -05.00   0.500   /* areal discharge Cano Tiburones
1    9    81   -05.00   0.500   /* areal discharge Cano Tiburones
1    9    82   -05.00   0.500   /* areal discharge Cano Tiburones
1    9    83   -05.00   0.500   /* areal discharge Cano Tiburones
1    9    84   -05.00   0.500   /* areal discharge Cano Tiburones
1    9    85   -05.00   0.500   /* areal discharge Cano Tiburones
1    9    86   -05.00   0.500   /* areal discharge Cano Tiburones
1    9    87   -05.00   0.500   /* areal discharge Cano Tiburones
1    9    88   -05.00   0.500   /* areal discharge Cano Tiburones
1    9    89   -05.00   0.500   /* areal discharge Cano Tiburones
1    9    90   -05.00   0.500   /* areal discharge Cano Tiburones
1    9    91   -05.00   0.500   /* areal discharge Cano Tiburones
1    9    92   -05.00   0.500   /* areal discharge Cano Tiburones
1    9    93   -05.00   0.500   /* areal discharge Cano Tiburones
1    9    94   -05.00   0.500   /* areal discharge Cano Tiburones
1    9    95   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   63   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   64   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   65   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   66   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   67   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   68   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   69   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   70   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   71   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   72   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   73   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   74   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   75   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   76   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   77   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   78   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   79   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   80   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   81   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   82   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   83   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   84   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   85   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   86   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   87   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   88   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   89   -05.00   0.500   /* areal discharge Cano Tiburones
1    10   90   -05.00   0.500   /* areal discharge Cano Tiburones
1    11   64   -05.00   0.500   /* areal discharge Cano Tiburones
1    11   65   -05.00   0.500   /* areal discharge Cano Tiburones
1    11   66   -05.00   0.500   /* areal discharge Cano Tiburones
1    11   67   -05.00   0.500   /* areal discharge Cano Tiburones
1    11   68   -05.00   0.500   /* areal discharge Cano Tiburones
1    11   69   -05.00   0.500   /* areal discharge Cano Tiburones
1    11   70   -05.00   0.500   /* areal discharge Cano Tiburones
1    11   71   -05.00   0.500   /* areal discharge Cano Tiburones
1    11   72   -05.00   0.500   /* areal discharge Cano Tiburones
1    11   73   -05.00   0.500   /* areal discharge Cano Tiburones
1    11   74   -05.00   0.500   /* areal discharge Cano Tiburones
1    11   75   -05.00   0.500   /* areal discharge Cano Tiburones
1    11   76   -05.00   0.500   /* areal discharge Cano Tiburones
1    11   77   -05.00   0.500   /* areal discharge Cano Tiburones
1    11   78   -05.00   0.500   /* areal discharge Cano Tiburones
1    11   79   -05.00   0.500   /* areal discharge Cano Tiburones
1    11   80   -05.00   0.500   /* areal discharge Cano Tiburones
1    11   81   -05.00   0.500   /* areal discharge Cano Tiburones
1    12   66   -05.00   0.500   /* areal discharge Cano Tiburones
1    12   67   -05.00   0.500   /* areal discharge Cano Tiburones
1    12   68   -05.00   0.500   /* areal discharge Cano Tiburones
1    12   69   -05.00   0.500   /* areal discharge Cano Tiburones
1    12   70   -05.00   0.500   /* areal discharge Cano Tiburones
1    12   71   -05.00   0.500   /* areal discharge Cano Tiburones
1    12   72   -05.00   0.500   /* areal discharge Cano Tiburones
```

```
        1        12        73    -05.00     0.500     /* areal discharge Cano Tiburones
        1        12        74    -05.00     0.500     /* areal discharge Cano Tiburones
        1        12        75    -05.00     0.500     /* areal discharge Cano Tiburones
        1        12        76    -05.00     0.500     /* areal discharge Cano Tiburones
        1        12        77    -05.00     0.500     /* areal discharge Cano Tiburones
        1        13        68    -05.00     0.500     /* areal discharge Cano Tiburones
        1        13        69    -05.00     0.500     /* areal discharge Cano Tiburones
        1        13        70    -05.00     0.500     /* areal discharge Cano Tiburones
        1        13        71    -05.00     0.500     /* areal discharge Cano Tiburones
        1        13        72    -05.00     0.500     /* areal discharge Cano Tiburones
        1        13        73    -05.00     0.500     /* areal discharge Cano Tiburones
        1        13        74    -05.00     0.500     /* areal discharge Cano Tiburones
        1        13        75    -05.00     0.500     /* areal discharge Cano Tiburones
        1        14        70    -05.00     0.500     /* areal discharge Cano Tiburones
        1        14        71    -05.00     0.500     /* areal discharge Cano Tiburones
        1        14        72    -05.00     0.500     /* areal discharge Cano Tiburones
        1        14        73    -05.00     0.500     /* areal discharge Cano Tiburones
```

AQUIFER RECHARGE INPUT FILE:

```
        1        -1
        0
       11  2.64E-09(12F7.2)                  -11
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.01   0.01   0.01   0.01
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.01   0.01   0.01   0.01
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.01   0.01   0.01   0.01
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
   0.00   0.00   0.01   0.01   0.01   0.01
   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
```

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | |
| 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
| 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
| 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
| 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
| 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
| 15.00 | 15.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 2.00 | 2.00 |
| 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | | | |
| 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 3.00 | 3.00 | 3.00 | 9.00 |
| 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
| 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
| 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
| 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
| 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
| 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 10.00 | 10.00 | 10.00 | 10.00 | 3.00 |
| 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | | | | | | |
| 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
| 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
| 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
| 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
| 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
| 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 10.00 | 10.00 | 10.00 | 10.00 | 4.00 |
| 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | | | | | | |
| 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 4.00 | 4.00 | 4.00 |
| 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | | | | | | |
| 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 1.00 | 4.00 | 4.00 | 4.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| 5.00 | 11.00 | 11.00 | 11.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.0 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | | | | | | |
| 5.00 | 5.00 | 5.00 | 5.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 9.00 | 10.00 | 10.00 | 10.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5.00 | 11.00 | 11.00 | 11.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 |
| 9.00 | 9.00 | 9.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 5.00 | 1.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| 5.00 | 11.00 | 11.00 | 11.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 |
| 9.00 | 9.00 | 9.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 5.00 | 5.00 | 1.00 |
| 1.00 | 1.00 | 1.00 | 5.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 14.00 | 14.00 | 14.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 |
| 10.00 | 9.00 | 9.00 | 9.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 5.00 |
| 5.00 | 5.00 | 5.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 9.00 | 9.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 5.00 | 5.00 | 5.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 18.00 |
| 18.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 14.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 9.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 18.00 | 18.00 | 20.00 | 20.00 | 20.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 10.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 9.00 | 9.00 | 9.00 | 9.00 | 10.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 10.00 | | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 9.00 | 9.00 | 9.00 | 10.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 9.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 10.00 | | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 9.00 | 9.00 | 10.00 | 10.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 25.00 | 25.00 | 25.00 | 25.00 |
| 25.00 | 25.00 | 25.00 | 25.00 | 25.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 10.00 | | | | | | |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 |
| 25.00 | 25.00 | 25.00 | 25.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | | | | | | |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| 10.00 | 10.00 | 10.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 27.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 27.00 |
| 27.00 | 27.00 | 27.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 |
| 25.00 | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 |
| 25.00 | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | | | | | | |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |
| 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 27.00 |
| 27.00 | 27.00 | 27.00 | 27.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 | 28.00 |

```
  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00
  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00
  25.00  25.00  25.00  25.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  27.00  27.00  27.00  27.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00
  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00
  25.00  25.00  18.00  18.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  27.00  27.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00
  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00
  25.00  25.00  18.00  18.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  25.00  25.00  25.00  25.00  25.00  25.00  25.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  27.00  27.00  27.00  28.00  28.00  28.00  28.00  28.00  25.00  25.00
  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00
  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00
  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00
  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00  25.00
  25.00  25.00  25.00  25.00  25.00  25.00  25.00  28.00  28.00  28.00  28.00  28.00
  28.00  28.00  28.00  28.00  28.00  28.00
```

RIVER PACKAGE INPUT FILE:

```
       180       -1            /*         RIVERBED
       180                     /*  STAGE   CONDUC.      BOT
         1       07       114      0.00    0.1000     -1.00        /* RIO MANATI
         1       08       114      0.00    0.1000     -1.00        /* RIO MANATI
         1       08       115      0.00    0.1000     -1.00        /* RIO MANATI
         1       09       115      0.00    0.1000     -1.00        /* RIO MANATI
         1       10       115      0.00    0.1000     -1.00        /* RIO MANATI
         1       11       115      0.00    0.1000     -1.00        /* RIO MANATI
         1       12       115      0.15    0.1000      0.00        /* RIO MANATI
         1       13       115      0.35    0.1000      0.00        /* RIO MANATI
         1       14       114      0.55    0.1000      0.00        /* RIO MANATI
         1       15       113      0.60    0.1000      0.00        /* RIO MANATI
         1       16       113      0.70    0.1000      0.00        /* RIO MANATI
         1       15       114      1.05    0.1000      0.00        /* RIO MANATI
         1       15       115      1.17    0.1000      1.00        /* RIO MANATI
         1       15       116      1.25    0.1000      1.00        /* RIO MANATI
         1       15       117      1.33    0.1000      1.00        /* RIO MANATI
         1       16       117      1.44    0.1000      1.00        /* RIO MANATI
         1       16       116      1.50    0.1000      1.00        /* RIO MANATI
         1       17       116      1.70    0.1000      1.00        /* RIO MANATI
         1       17       115      1.80    0.1000      1.00        /* RIO MANATI
         1       18       114      2.50    0.1000      2.00        /* RIO MANATI
         1       18       113      2.60    0.1000      2.00        /* RIO MANATI
         1       19       112      2.70    0.1000      2.00        /* RIO MANATI
         1       19       113      2.90    0.1000      2.00        /* RIO MANATI
         1       19       114      3.10    0.1000      2.00        /* RIO MANATI
```

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | 20 | 114 | 3.11 | 0.1000 | 2.00 | /* RIO MANATI |
| 1 | 21 | 113 | 3.14 | 0.1000 | 2.00 | /* RIO MANATI |
| 1 | 22 | 113 | 3.20 | 0.1000 | 2.00 | /* RIO MANATI |
| 1 | 23 | 113 | 3.46 | 3.0000 | 2.00 | /* RIO MANATI |
| 1 | 23 | 114 | 3.63 | 3.0000 | 2.00 | /* RIO MANATI |
| 1 | 23 | 115 | 3.79 | 3.0000 | 2.00 | /* RIO MANATI |
| 1 | 22 | 115 | 3.96 | 3.0000 | 2.00 | /* RIO MANATI |
| 1 | 21 | 115 | 4.05 | 3.0000 | 3.00 | /* RIO MANATI |
| 1 | 20 | 116 | 4.25 | 3.0000 | 3.00 | /* RIO MANATI |
| 1 | 21 | 117 | 4.35 | 3.0000 | 3.00 | /* RIO MANATI |
| 1 | 22 | 117 | 4.41 | 3.0000 | 3.00 | /* RIO MANATI |
| 1 | 23 | 118 | 4.91 | 3.0000 | 3.00 | /* RIO MANATI |
| 1 | 23 | 119 | 5.04 | 3.0000 | 4.00 | /* RIO MANATI |
| 1 | 24 | 119 | 5.07 | 3.0000 | 4.00 | /* RIO MANATI |
| 1 | 24 | 118 | 5.10 | 3.0000 | 4.00 | /* RIO MANATI |
| 1 | 24 | 117 | 5.22 | 5.0000 | 4.00 | /* RIO MANATI |
| 1 | 25 | 117 | 5.26 | 5.0000 | 4.00 | /* RIO MANATI |
| 1 | 25 | 118 | 5.32 | 5.0000 | 4.00 | /* RIO MANATI |
| 1 | 26 | 118 | 6.03 | 5.0000 | 4.00 | /* RIO MANATI |
| 1 | 26 | 119 | 6.06 | 5.0000 | 4.00 | /* RIO MANATI |
| 1 | 27 | 119 | 6.08 | 5.0000 | 4.00 | /* RIO MANATI |
| 1 | 27 | 120 | 6.11 | 5.0000 | 4.00 | /* RIO MANATI |
| 1 | 27 | 121 | 6.14 | 5.7500 | 4.00 | /* RIO MANATI |
| 1 | 26 | 121 | 6.21 | 5.7500 | 4.00 | /* RIO MANATI |
| 1 | 26 | 122 | 6.37 | 5.7500 | 4.00 | /* RIO MANATI |
| 1 | 26 | 123 | 6.40 | 5.7500 | 5.00 | /* RIO MANATI |
| 1 | 27 | 123 | 7.22 | 5.7500 | 6.00 | /* RIO MANATI |
| 1 | 28 | 123 | 8.04 | 5.7500 | 7.00 | /* RIO MANATI |
| 1 | 28 | 124 | 9.86 | 5.7500 | 8.00 | /* RIO MANATI |
| 1 | 29 | 124 | 10.68 | 5.7500 | 9.00 | /* RIO MANATI |
| 1 | 29 | 125 | 11.50 | 5.7500 | 10.00 | /* RIO MANATI |
| 1 | 29 | 126 | 12.32 | 5.7500 | 11.00 | /* RIO MANATI |
| 1 | 28 | 126 | 13.90 | 5.7500 | 12.00 | /* RIO MANATI |
| 1 | 27 | 125 | 14.20 | 5.7500 | 13.00 | /* RIO MANATI |
| 1 | 27 | 126 | 15.80 | 5.7500 | 15.00 | /* RIO MANATI |
| 1 | 27 | 127 | 16.75 | 5.7500 | 15.00 | /* RIO MANATI |
| 1 | 27 | 128 | 17.30 | 5.7500 | 16.00 | /* RIO MANATI |
| 1 | 27 | 129 | 18.60 | 5.7500 | 17.00 | /* RIO MANATI |
| 1 | 28 | 129 | 19.40 | 5.7500 | 18.00 | /* RIO MANATI |
| 1 | 29 | 129 | 19.80 | 5.7500 | 18.00 | /* RIO MANATI |
| 1 | 30 | 129 | 20.00 | 5.3000 | 19.00 | /* RIO MANATI |
| 1 | 31 | 129 | 20.50 | 5.3000 | 19.00 | /* RIO MANATI |
| 1 | 32 | 128 | 21.72 | 5.3000 | 19.00 | /* RIO MANATI |
| 1 | 31 | 127 | 22.53 | 5.3000 | 20.00 | /* RIO MANATI |
| 1 | 32 | 126 | 22.88 | 5.3000 | 20.00 | /* RIO MANATI |
| 1 | 33 | 126 | 24.52 | 5.3000 | 22.00 | /* RIO MANATI |
| 1 | 34 | 126 | 26.39 | 5.0000 | 24.00 | /* RIO MANATI |
| 1 | 35 | 126 | 28.03 | 5.0000 | 26.00 | /* RIO MANATI |
| 1 | 36 | 126 | 31.34 | 5.0000 | 30.00 | /* RIO MANATI |
| 1 | 36 | 127 | 34.66 | 5.0000 | 33.00 | /* RIO MANATI |
| 1 | 36 | 128 | 38.30 | 5.0000 | 37.00 | /* RIO MANATI |
| 1 | 37 | 128 | 39.26 | 5.0000 | 38.00 | /* RIO MANATI |
| 1 | 37 | 129 | 40.25 | 5.0000 | 40.00 | /* RIO MANATI |
| 1 | 38 | 129 | 43.20 | 5.0000 | 40.00 | /* RIO MANATI |
| 1 | 7 | 9 | 0.23 | 5.0000 | 0.00 | /* RIO CAMUY |
| 1 | 8 | 9 | 2.50 | 5.0000 | 1.00 | /* RIO CAMUY |
| 1 | 9 | 9 | 4.00 | 5.0000 | 3.00 | /* RIO CAMUY |
| 1 | 9 | 10 | 5.00 | 5.0000 | 4.00 | /* RIO CAMUY |
| 1 | 10 | 10 | 6.00 | 5.0000 | 5.00 | /* RIO CAMUY |
| 1 | 11 | 10 | 7.00 | 5.0000 | 6.00 | /* RIO CAMUY |
| 1 | 11 | 11 | 8.00 | 5.0000 | 7.00 | /* RIO CAMUY |
| 1 | 12 | 12 | 9.00 | 5.0000 | 8.00 | /* RIO CAMUY |
| 1 | 13 | 11 | 10.00 | 5.0000 | 9.00 | /* RIO CAMUY |
| 1 | 14 | 11 | 11.00 | 5.0000 | 10.00 | /* RIO CAMUY |
| 1 | 15 | 11 | 12.00 | 5.0000 | 11.00 | /* RIO CAMUY |
| 1 | 16 | 11 | 13.00 | 5.0000 | 12.00 | /* RIO CAMUY |
| 1 | 17 | 12 | 14.50 | 5.0000 | 13.00 | /* RIO CAMUY |
| 1 | 17 | 13 | 15.00 | 5.0000 | 14.00 | /* RIO CAMUY |
| 1 | 18 | 13 | 16.00 | 5.0000 | 15.00 | /* RIO CAMUY |
| 1 | 19 | 13 | 17.00 | 5.0000 | 16.00 | /* RIO CAMUY |
| 1 | 20 | 13 | 18.02 | 5.0000 | 17.00 | /* RIO CAMUY |
| 1 | 21 | 13 | 19.96 | 5.0000 | 18.00 | /* RIO CAMUY |
| 1 | 22 | 13 | 20.90 | 5.0000 | 19.00 | /* RIO CAMUY |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | 23 | 13 | 21.59 | 5.0000 | 20.00 | /* RIO CAMUY |
| 1 | 24 | 13 | 22.14 | 5.0000 | 21.00 | /* RIO CAMUY |
| 1 | 25 | 12 | 33.44 | 1.0000 | 30.00 | /* RIO CAMUY |
| 1 | 26 | 13 | 50.04 | 1.0000 | 45.00 | /* RIO CAMUY |
| 1 | 27 | 13 | 65.16 | 1.0000 | 60.00 | /* RIO CAMUY |
| 1 | 28 | 13 | 85.72 | 1.0000 | 83.00 | /* RIO CAMUY |
| 1 | 29 | 14 | 105.36 | 1.0000 | 103.00 | /* RIO CAMUY |
| 1 | 30 | 14 | 160.32 | 1.0000 | 155.00 | /* RIO CAMUY |
| 1 | 31 | 14 | 213.44 | 1.0000 | 208.00 | /* RIO CAMUY |
| 1 | 32 | 15 | 273.06 | 1.0000 | 268.00 | /* RIO CAMUY |
| 1 | 33 | 15 | 290.02 | 1.0000 | 285.00 | /* RIO CAMUY |
| 1 | 33 | 14 | 305.12 | 1.0000 | 300.00 | /* RIO CAMUY |
| 1 | 34 | 14 | 320.24 | 1.0000 | 315.00 | /* RIO CAMUY |
| 1 | 34 | 15 | 335.52 | 1.0000 | 330.00 | /* RIO CAMUY |
| 1 | 35 | 15 | 343.36 | 1.0000 | 338.00 | /* RIO CAMUY |
| 1 | 36 | 15 | 351.48 | 1.0000 | 345.00 | /* RIO CAMUY |
| 1 | 36 | 16 | 359.32 | 1.0000 | 354.00 | /* RIO CAMUY |
| 1 | 37 | 17 | 368.66 | 1.0000 | 362.00 | /* RIO CAMUY |
| 1 | 38 | 17 | 376.56 | 1.0000 | 370.00 | /* RIO CAMUY |
| 1 | 28 | 56 | 14.55 | 1.1000 | 11.00 | /* RIO TANAMA |
| 1 | 29 | 56 | 18.54 | 1.1000 | 17.00 | /* RIO TANAMA |
| 1 | 30 | 55 | 21.44 | 1.1000 | 19.00 | /* RIO TANAMA |
| 1 | 30 | 54 | 25.37 | 1.1000 | 23.00 | /* RIO TANAMA |
| 1 | 31 | 53 | 30.36 | 1.1000 | 28.00 | /* RIO TANAMA |
| 1 | 32 | 53 | 35.64 | 1.1000 | 34.00 | /* RIO TANAMA |
| 1 | 32 | 52 | 40.23 | 1.1000 | 39.00 | /* RIO TANAMA |
| 1 | 33 | 52 | 90.76 | 0.0100 | 89.00 | /* RIO TANAMA |
| 1 | 34 | 51 | 140.20 | 0.0100 | 139.00 | /* RIO TANAMA |
| 1 | 35 | 50 | 190.64 | 0.0100 | 189.00 | /* RIO TANAMA |
| 1 | 35 | 49 | 240.24 | 0.0100 | 239.00 | /* RIO TANAMA |
| 1 | 35 | 48 | 280.04 | 1.0100 | 279.00 | /* RIO TANAMA |
| 1 | 35 | 47 | 284.76 | 1.0100 | 283.00 | /* RIO TANAMA |
| 1 | 36 | 47 | 288.32 | 1.0100 | 287.00 | /* RIO TANAMA |
| 1 | 37 | 47 | 292.60 | 1.0100 | 291.00 | /* RIO TANAMA |
| 1 | 37 | 46 | 297.88 | 1.0100 | 296.00 | /* RIO TANAMA |
| 1 | 38 | 46 | 303.44 | 1.0100 | 301.00 | /* RIO TANAMA |
| 1 | 09 | 53 | 0.00 | 0.1600 | -1.00 | /* RIO ARECIB |
| 1 | 10 | 53 | 0.00 | 0.1600 | -1.00 | /* RIO ARECIB |
| 1 | 11 | 52 | 0.00 | 0.1600 | -1.00 | /* RIO ARECIB |
| 1 | 12 | 52 | 0.01 | 0.1600 | 0.00 | /* RIO ARECIBO |
| 1 | 13 | 52 | 0.02 | 2.0000 | 0.00 | /* RIO ARECIBO |
| 1 | 13 | 53 | 0.05 | 2.0000 | 0.00 | /* RIO ARECIBO |
| 1 | 14 | 53 | 0.16 | 2.0000 | 0.00 | /* RIO ARECIBO |
| 1 | 14 | 54 | 0.22 | 2.0000 | 0.00 | /* RIO ARECIBO |
| 1 | 15 | 54 | 0.23 | 2.0000 | 0.00 | /* RIO ARECIBO |
| 1 | 16 | 55 | 0.33 | 2.0000 | 0.00 | /* RIO ARECIBO |
| 1 | 17 | 56 | 0.44 | 2.0000 | 0.00 | /* RIO ARECIBO |
| 1 | 18 | 56 | 0.50 | 2.0000 | 0.00 | /* RIO ARECIBO |
| 1 | 19 | 56 | 1.15 | 2.0000 | 1.00 | /* RIO ARECIBO |
| 1 | 20 | 57 | 1.14 | 2.0000 | 1.00 | /* RIO ARECIBO |
| 1 | 21 | 58 | 1.52 | 2.0000 | 1.00 | /* RIO ARECIBO |
| 1 | 20 | 56 | 1.81 | 2.0000 | 1.00 | /* RIO ARECIBO |
| 1 | 21 | 56 | 2.14 | 2.0000 | 1.00 | /* RIO ARECIBO |
| 1 | 22 | 58 | 3.78 | 2.0000 | 1.00 | /* RIO ARECIBO |
| 1 | 22 | 57 | 4.43 | 2.0000 | 1.00 | /* RIO ARECIBO |
| 1 | 22 | 56 | 5.74 | 2.0000 | 2.00 | /* RIO ARECIBO |
| 1 | 23 | 57 | 6.07 | 2.0000 | 2.00 | /* RIO ARECIBO |
| 1 | 24 | 57 | 6.40 | 2.0000 | 2.00 | /* RIO ARECIBO |
| 1 | 25 | 57 | 9.02 | 2.0000 | 4.00 | /* RIO ARECIBO |
| 1 | 25 | 56 | 10.34 | 2.0000 | 5.00 | /* RIO ARECIBO |
| 1 | 26 | 56 | 12.96 | 2.0000 | 10.00 | /* RIO ARECIBO |
| 1 | 26 | 55 | 14.60 | 2.0000 | 10.00 | /* RIO ARECIBO |
| 1 | 27 | 55 | 16.24 | 2.0000 | 11.00 | /* RIO ARECIBO |
| 1 | 27 | 56 | 17.22 | 2.0000 | 12.00 | /* RIO ARECIBO |
| 1 | 28 | 56 | 18.21 | 2.0000 | 13.00 | /* RIO ARECIBO |
| 1 | 29 | 57 | 19.52 | 2.0000 | 14.00 | /* RIO ARECIBO |
| 1 | 29 | 58 | 20.83 | 2.0000 | 15.00 | /* RIO ARECIBO |
| 1 | 28 | 59 | 22.14 | 1.8000 | 17.00 | /* RIO ARECIBO |
| 1 | 27 | 60 | 24.11 | 1.8000 | 18.00 | /* RIO ARECIBO |
| 1 | 28 | 60 | 24.77 | 1.8000 | 18.00 | /* RIO ARECIBO |
| 1 | 29 | 60 | 25.42 | 1.8000 | 20.00 | /* RIO ARECIBO |
| 1 | 29 | 61 | 26.08 | 1.8000 | 21.00 | /* RIO ARECIBO |
| 1 | 29 | 62 | 27.72 | 1.8000 | 22.00 | /* RIO ARECIBO |

```
      1        30        63      29.36     1.8000     23.00       /* RIO ARECIBO
      1        31        62      31.00     1.8000     26.00       /* RIO ARECIBO
      1        32        62      31.98     1.8000     26.00       /* RIO ARECIBO
      1        32        61      32.64     1.8000     27.00       /* RIO ARECIBO
      1        33        61      33.95     1.8000     28.00       /* RIO ARECIBO
      1        34        61      35.26     1.8000     30.00       /* RIO ARECIBO
      1        35        60      36.58     1.8000     31.00       /* RIO ARECIBO
      1        36        60      37.56     1.8000     32.00       /* RIO ARECIBO
      1        37        60      39.54     1.8000     33.00       /* RIO ARECIBO
      1        38        60      40.53     1.8000     30.00       /* RIO ARECIBO
```

STRONGLY IMPLICIT PROCEDURE INPUT FILE:

```
   7000         5
      1   0.00003           0.00001256         1
```

OUTPUT CONTROL INPUT FILE:

```
      7         7        31        32       /*    31        32
      1         1         1         1
      1         1         1         1
      1         1         1         1
```

## **Appendix 2a.** Summary of sensitivity analysis of ground-water recharge

[Outlined values indicate final calibration results for 1965 hydrologic conditions. Results presented consists of: the difference between simulated and computed head, the percentage difference within feet intervals, and the volumetric budget terms. Factors applied to the ground-water recharge array are underlined. Refer to fig. 14a for control-cell location]

| | 0.25 | 0.50 | 0.75 | 1.00 | 1.25 | 1.50 | ROW | COLUMN | WELL NAME |
|---|---|---|---|---|---|---|---|---|---|
| DIFFERENCE BETWEEN COMPUTED AND SIMULATED HEAD, IN FEET | | | | | | | | | |
| | -9.62 | -6.53 | -3.44 | -0.35 | 2.74 | 5.84 | 24 | 135 | VOCACIONAL |
| | -7.59 | -7.39 | -7.2 | -7 | -6.81 | -6.61 | 15 | 55 | GRACE |
| | -7.88 | -5.31 | -2.73 | -0.16 | 2.41 | 4.98 | 20 | 70 | SANTANA NUEVO - 1965 |
| | -6.38 | -1.46 | 3.46 | 8.37 | 13.3 | 18.22 | 22 | 75 | SANTANA #1 - 1987 |
| | -11.46 | -3.8 | 3.88 | 11.53 | 19.21 | 26.87 | 20 | 3 | ZANJAS #3 - 1965 |
| | -44.42 | -31.85 | -19.25 | -6.69 | 5.9 | 18.48 | 27 | 2 | ONOFRE MORELL - 1987 |
| | -29.74 | -18.41 | -7.06 | 4.26 | 15.61 | 26.95 | 28 | 75 | MIRAFLORES #1 - 1965 |
| | -18.05 | -15.82 | -13.59 | -11.36 | -9.13 | -6.9 | 35 | 62 | CARRERAS |
| | -3.42 | -3.16 | -2.9 | -2.64 | -2.38 | -2.12 | 16 | 56 | CAMBALACHE |
| | -8.4 | -3.59 | 1.22 | 6.03 | 10.85 | 15.66 | 21 | 82 | ROHERS - 1965 |
| | -8.85 | -1.56 | 5.74 | 13.03 | 20.33 | 27.63 | 27 | 136 | ACROPOLIS |
| | -9.89 | -3.58 | 2.73 | 9.03 | 15.35 | 21.65 | 22 | 100 | LEDERLE |
| | 4.49 | 5.75 | 7.01 | 8.27 | 9.53 | 10.75 | 12 | 50 | SUREDA |
| | -10.22 | -5.37 | -0.51 | 4.33 | 9.19 | 14.04 | 19 | 108 | FORTUNA |
| | 1.44 | 2.4 | 3.36 | 4.31 | 5.27 | 6.23 | 23 | 124 | MCKESSON OLD |
| | 2.39 | 3.11 | 3.83 | 4.55 | 5.27 | 5.99 | 17 | 122 | CANTITO LA LUISA |
| | -8.51 | -4.12 | 0.28 | 4.67 | 9.07 | 13.46 | 16 | 106 | ABANDONED PRASA |
| | 4.03 | 4.42 | 4.81 | 5.2 | 5.59 | 5.98 | 10 | 12 | PERAZA |
| | 2.53 | 2.85 | 3.18 | 3.51 | 3.84 | 4.16 | 13 | 12 | CAMUY #2 |
| | 2.05 | 6.86 | 11.67 | 16.48 | 21.29 | 26.03 | 17 | 30 | CONCORVADO |
| | 8.56 | 10.81 | 13.06 | 15.31 | 17.57 | 19.82 | 23 | 62 | MASTER |
| | 7.05 | 7.9 | 8.75 | 9.6 | 10.45 | 11.3 | 25 | 126 | MANATI #1 |
| | -203.82 | -139.63 | -75.32 | -11.2 | 53.11 | 16.79 | 38 | 39 | ESPERANZA #1 |
| | -78.75 | -55.37 | -31.94 | -8.58 | 14.85 | 38.25 | 33 | 95 | SABANA PIKE |
| | 18.54 | 24.71 | 30.89 | 37.05 | 43.23 | 49.28 | 22 | 37 | CUNETAS |
| | -12.5 | -12.14 | -11.77 | -11.41 | -11.04 | 10.68 | 9 | 4 | V. AMADOR - 1987 |
| | -7.77 | -7.7 | -7.62 | -7.55 | -7.48 | -7.4 | 7 | 8 | PALO VIEJO 7 - 1987 |
| | -71.21 | -66.31 | -61.4 | -56.51 | -51.6 | 46.76 | 22 | 23 | PALOMA NEW - 1987 |
| | -0.24 | 1.49 | 3.22 | 4.94 | 6.67 | 8.38 | 7 | 22 | ROMAN #2 - 1987 |
| | 1.48 | 2.97 | 4.45 | 5.93 | 7.41 | 8.87 | 6 | 22 | HIPOLITO STGO. - 1987 |
| | 2.03 | 3.59 | 5.16 | 6.73 | 8.3 | 9.84 | 6 | 23 | ANTONIO ARIAS - 1987 |
| | 6.98 | 8.64 | 10.3 | 11.96 | 13.63 | 15.23 | 27 | 54 | HAC. LOS CANOS - 1987 |
| | -3.6 | -2.4 | -1.19 | 0.01 | 1.21 | 2.41 | 17 | 66 | LIZAS - 1987 |
| | 7.99 | 9.17 | 10.35 | 11.53 | 12.71 | 13.88 | 27 | 61 | VALENCIA - 1987 |
| | -4.47 | 0.29 | 5.07 | 9.82 | 14.59 | 19.36 | 16 | 93 | M. TORRES - 1987 |
| | -9.54 | -2.73 | 4.08 | 10.88 | 17.7 | 24.51 | 26 | 95 | UPJOHN NEW - 1987 |
| | 0.91 | 4.83 | 8.76 | 12.67 | 16.6 | 20.52 | 14 | 100 | ARMANDO MENA - 1987 |
| | -17.22 | -10.45 | -3.67 | 3.09 | 9.88 | 16.65 | 24 | 102 | ABBOTT NESTLE - 1987 |
| **PERCENT DIFFERENCE:** | | | | | | | | | |
| 1.FEET | 5 | 2 | 5 | 7 | 0 | 0 | | | |
| 5.FEET | 34 | 47 | 47 | 31 | 13 | 10 | | | |
| 10.FEET | 71 | 73 | 71 | 65 | 50 | 36 | | | |
| 18.FEET | 81 | 84 | 86 | 94 | 84 | 60 | | | |
| 33.FEET | 89 | 92 | 94 | 94 | 92 | 89 | | | |
| VOLUMETRIC BUDGET TERMS, IN CUBIC FEET PER SECOND | | | | | | | | | |
| **IN:** | | | | | | | | | |
| STORAGE = | - | - | - | - | - | - | | | |
| CONSTANT HEAD = | 21.423 | 20.994 | 20.693 | 20.458 | 20.234 | 20.043 | | | |
| WELLS = | 6.38 | 6.38 | 6.38 | 6.38 | 6.38 | 6.38 | | | |
| DRAINS = | - | - | - | - | - | - | | | |
| RECHARGE = | 34.926 | 69.831 | 104.8 | 139.66 | 174.63 | 209.55 | | | |
| RIVER LEAKAGE = | 22.478 | 17.131 | 13.098 | 9.9809 | 7.847 | 6.3321 | | | |
| TOTAL IN = | 85.208 | 114.34 | 144.97 | 176.48 | 209.09 | 242.3 | | | |
| **OUT:** | | | | | | | | | |
| STORAGE = | - | - | - | - | - | - | | | |
| CONSTANT HEAD = | 14.22 | 18.075 | 22.068 | 26.113 | 30.181 | 34.233 | | | |
| WELLS = | - | - | - | - | - | - | | | |
| DRAINS = | 39.499 | 49.431 | 59.381 | 69.301 | 79.251 | 89.186 | | | |
| RECHARGE = | - | - | - | - | - | - | | | |
| RIVER LEAKAGE = | 31.489 | 46.829 | 63.522 | 81.067 | 99.658 | 118.88 | | | |
| **TOTAL OUT =** | 85.208 | 114.34 | 144.97 | 176.48 | 209.09 | 242.3 | | | |

## Appendix 2b. Summary of sensitivity analysis for simulated injection and pumping rates at wells

[Outlined values indicate final calibration results for 1987 hydrologic conditions. Results consists of: the difference between simulated and computed head, the percentage difference within feet intervals, and the volumetric budget terms. Factors applied to the calibrated rate values are underlined. Refer to fig. 14a for control-cell location.]

DIFFERENCE BETWEEN COMPUTED AND SIMULATED HEAD, IN FEET

| | 0.25 | 0.50 | 0.75 | 1.00 | 1.25 | 1.50 | ROW | COLUMN | WELL NAME |
|---|---|---|---|---|---|---|---|---|---|
| | -1.08 | -1.82 | -2.55 | -3.28 | -4.01 | -4.75 | 24 | 135 | VOCACIONAL |
| | -7.02 | -7.02 | -7.02 | -7.03 | -7.03 | -7.03 | 15 | 55 | GRACE |
| | -0.57 | -0.97 | -1.37 | -1.77 | -2.17 | -2.57 | 20 | 70 | SANTANA NUEVO - 1965 |
| | 7.48 | 6.59 | 5.69 | 4.8 | 3.91 | 3.02 | 22 | 75 | SANTANA #1 - 1987 |
| | 9.7 | 8.26 | 6.83 | 5.39 | 3.96 | 2.52 | 20 | 3 | ZANJAS #3 - 1965 |
| | -8.01 | -8.62 | -9.24 | -9.85 | -10.46 | -11.07 | 27 | 2 | ONOFRE MORELL - 1987 |
| | 2.89 | 1.53 | 0.16 | -1.21 | -2.57 | -3.94 | 28 | 75 | MIRAFLORES #1 - 1965 |
| | -11.97 | -12.57 | -13.16 | -13.75 | -14.35 | -14.94 | 35 | 62 | CARRERAS |
| | -2.66 | -2.67 | -2.68 | -2.68 | -2.69 | -2.7 | 16 | 56 | CAMBALACHE |
| | 5.32 | 4.62 | 3.91 | 3.21 | 2.5 | 1.8 | 21 | 82 | ROHERS - 1965 |
| | 12.39 | 11.74 | 11.1 | 10.46 | 9.82 | 9.17 | 27 | 136 | ACROPOLIS |
| | 7.8 | 6.57 | 5.34 | 4.11 | 2.88 | 1.65 | 22 | 100 | LEDERLE |
| | 7.74 | 7.83 | 7.93 | 8.03 | 8.12 | 8.21 | 12 | 50 | SUREDA |
| | 3.48 | 2.62 | 1.76 | 0.9 | 0.04 | -0.81 | 19 | 108 | FORTUNA |
| | 3.82 | 3.33 | 2.84 | 2.35 | 1.86 | 1.37 | 23 | 124 | MCKESSON OLD |
| | 4.11 | 3.68 | 3.24 | 2.8 | 2.37 | 1.93 | 17 | 122 | CANTITO LA LUISA |
| | 3.92 | 3.16 | 2.41 | 1.66 | 0.9 | 0.15 | 16 | 106 | ABANDONED PRASA |
| | 5.02 | 5.04 | 5.05 | 5.07 | 5.08 | 5.1 | 10 | 12 | PERAZA |
| | 3.36 | 3.37 | 3.38 | 3.39 | 3.4 | 3.42 | 13 | 12 | CAMUY #2 |
| | 14.21 | 14.49 | 14.78 | 15.06 | 15.34 | 15.61 | 17 | 30 | CONCORVADO |
| | 15.04 | 14.77 | 14.49 | 14.22 | 13.95 | 13.68 | 23 | 62 | MASTER |
| | 8.34 | 7.08 | 5.82 | 4.57 | 3.31 | 2.05 | 25 | 126 | MANATI #1 |
| | -241.38 | -180.5 | -119.62 | -58.74 | 2.13 | 62.98 | 38 | 39 | ESPERANZA #1 |
| | -10.42 | -12.27 | -14.12 | -15.97 | -17.81 | -19.66 | 33 | 95 | SABANA PIKE |
| | 34.19 | 34.68 | 35.16 | 35.64 | 36.12 | 36.59 | 22 | 37 | CUNETAS |
| | -11.48 | -11.54 | -11.6 | -11.66 | -11.72 | -11.78 | 9 | 4 | V. AMADOR - 1987 |
| | -7.57 | -7.58 | -7.59 | -7.6 | -7.61 | -7.62 | 7 | 8 | PALO VIEJO 7 - 1987 |
| | -58.9 | -58.79 | -58.69 | -58.59 | -58.49 | -58.39 | 22 | 23 | PALOMA NEW - 1987 |
| | 4.13 | 4.21 | 4.29 | 4.38 | 4.46 | 4.53 | 7 | 22 | ROMAN #2 - 1987 |
| | 5.23 | 5.3 | 5.37 | 5.44 | 5.51 | 5.58 | 6 | 22 | HIPOLITO STGO. - 1987 |
| | 5.99 | 6.07 | 6.14 | 6.22 | 6.29 | 6.37 | 6 | 23 | ANTONIO ARIAS - 1987 |
| | 11.38 | 11.46 | 11.55 | 11.63 | 11.69 | 11.65 | 27 | 54 | HAC. LOS CANOS - 1987 |
| | -0.13 | -0.26 | -0.4 | -0.53 | -0.67 | -0.8 | 17 | 66 | LIZAS - 1987 |
| | 11.38 | 11.24 | 11.1 | 10.96 | 10.81 | 10.67 | 27 | 61 | VALENCIA - 1987 |
| | 8.86 | 7.9 | 6.94 | 5.98 | 5.02 | 4.06 | 16 | 93 | M. TORRES - 1987 |
| | 9.64 | 8.41 | 7.17 | 5.93 | 4.69 | 3.45 | 26 | 95 | UPJOHN NEW - 1987 |
| | 11.97 | 11.27 | 10.56 | 9.86 | 9.16 | 8.46 | 14 | 100 | ARMANDO MENA - 1987 |
| | 1.74 | 0.39 | -0.96 | -2.31 | -3.67 | -5.02 | 24 | 102 | ABBOTT NESTLE - 1987 |
| **PERCENT DIFFERENCE:** | | | | | | | | | |
| 1.FEET | 5 | 7 | 7 | 5 | 7 | 7 | | | |
| 5.FEET | 31 | 34 | 34 | 42 | 50 | 47 | | | |
| 10.FEET | 68 | 68 | 68 | 71 | 73 | 71 | | | |
| 18.FEET | 92 | 92 | 92 | 92 | 94 | 89 | | | |
| 33.FEET | 92 | 92 | 92 | 92 | 94 | 92 | | | |
| **IN:** | | | | | | | | | |
| STORAGE = | - | - | - | - | - | - | | | |
| CONSTANT HEAD = | 20.493 | 20.528 | 20.563 | 20.598 | 20.639 | 20.686 | | | |
| WELLS = | 1.595 | 3.19 | 4.785 | 6.38 | 7.975 | 9.57 | | | |
| DRAINS = | - | - | - | - | - | - | | | |
| RECHARGE = | 139.66 | 139.66 | 139.66 | 139.66 | 139.66 | 139.66 | | | |
| RIVER LEAKAGE = | 10.756 | 11.363 | 12.385 | 13.565 | 15.045 | 16.439 | | | |
| TOTAL IN = | 172.51 | 174.74 | 177.4 | 180.21 | 183.32 | 186.36 | | | |
| **OUT:** | | | | | | | | | |
| STORAGE = | - | - | - | - | - | - | | | |
| CONSTANT HEAD = | 24.537 | 24.194 | 23.851 | 23.509 | 23.171 | 22.834 | | | |
| WELLS = | 6.0375 | 12.075 | 18.113 | 24.15 | 30.187 | 36.225 | | | |
| DRAINS = | 67.631 | 65.962 | 64.293 | 62.625 | 60.956 | 59.287 | | | |
| RECHARGE = | - | - | - | - | - | - | | | |
| RIVER LEAKAGE = | 74.301 | 72.512 | 71.138 | 69.922 | 69.007 | 68.011 | | | |
| **TOTAL OUT =** | 172.51 | 174.74 | 177.4 | 180.2 | 183.32 | 186.36 | | | |

VOLUMETRIC BUDGET TERMS, IN CUBIC FEET PER SECOND

## **Appendix 2c.** Summary of sensitivity analysis of aquifer transmissivity of layers 1 and 2

[Outlined values indicate final calibration results for 1965 hydrologic conditions. Results consists of: the difference between simulated and computed head, the percentage difference within feet intervals, and the volumetric budget terms. Factors applied to the aquifer transmissivity are underlined. Refer to fig. 14a for control-cell location.]

| | 0.25 | 0.50 | 0.75 | 1.00 | 1.25 | 1.50 | ROW | COLUMN | WELL NAME |
|---|---|---|---|---|---|---|---|---|---|
| DIFFERENCE BETWEEN COMPUTED AND SIMULATED HEAD, IN FEET | 36.47 | 11.93 | 3.74 | -0.35 | -2.82 | -4.46 | 24 | 135 | VOCACIONAL |
| | -5.6 | -6.56 | -6.86 | -7 | -7.08 | -7.12 | 15 | 55 | GRACE |
| | 27.04 | 8.96 | 2.88 | -0.16 | -2.01 | -3.23 | 20 | 70 | SANTANA NUEVO - 1965 |
| | 63.19 | 26.72 | 14.5 | 8.37 | 4.68 | 2.22 | 22 | 75 | SANTANA #1 - 1987 |
| | 102.91 | 42 | 21.68 | 11.53 | 5.41 | 1.35 | 20 | 3 | ZANJAS #3 - 1965 |
| | 144.2 | 43.62 | 10.07 | -6.69 | -16.8 | -23.52 | 27 | 2 | ONOFRE MORELL - 1987 |
| | 136.35 | 48.38 | 18.97 | 4.26 | -4.61 | -10.51 | 28 | 75 | MIRAFLORES #1 - 1965 |
| | 14.01 | -2.87 | -8.53 | -11.36 | -13.08 | -14.24 | 35 | 62 | CARRERAS |
| | -0.62 | -1.99 | -2.43 | -2.64 | -2.76 | -2.83 | 16 | 56 | CAMBALACHE |
| | 59 | 23.77 | 11.95 | 6.03 | 2.45 | 0.08 | 21 | 82 | ROHERS - 1965 |
| | 100.26 | 42.11 | 22.72 | 13.03 | 7.19 | 3.31 | 27 | 136 | ACROPOLIS |
| | 79.71 | 32.72 | 16.94 | 9.03 | 4.25 | 1.07 | 22 | 100 | LEDERLE |
| | 23.48 | 13.44 | 10.06 | 8.27 | 7.13 | 6.35 | 12 | 50 | SUREDA |
| | 55.37 | 21.68 | 10.18 | 4.33 | 0.76 | -1.63 | 19 | 108 | FORTUNA |
| | 15.49 | 8.04 | 5.55 | 4.31 | 3.56 | 3.07 | 23 | 124 | MCKESSON OLD |
| | 12.57 | 7.21 | 5.43 | 4.55 | 4.02 | 3.66 | 17 | 122 | CANTITO LA LUISA |
| | 52.25 | 20.72 | 10.05 | 4.67 | 1.4 | -0.78 | 16 | 106 | ABANDONED PRASA |
| | 10.1 | 6.86 | 5.77 | 5.2 | 4.85 | 4.61 | 10 | 12 | PERAZA |
| | 7.53 | 4.86 | 3.97 | 3.51 | 3.22 | 3.02 | 13 | 12 | CAMUY #2 |
| | 78.96 | 37.57 | 23.68 | 16.48 | 11.98 | 8.93 | 17 | 30 | CONCORVADO |
| | 39.99 | 23.66 | 18.12 | 15.31 | 13.58 | 12.41 | 23 | 62 | MASTER |
| | 19.58 | 12.93 | 10.71 | 9.6 | 8.92 | 8.47 | 25 | 126 | MANATI #1 |
| | 1616.97 | 32.88 | 70.99 | -11.2 | -122.04 | -196.34 | 38 | 39 | ESPERANZA #1 |
| | 267.09 | 83.43 | 22.09 | -8.58 | -27.06 | -39.33 | 33 | 95 | SABANA PIKE |
| | 116.71 | 64.03 | 46.32 | 37.05 | 31.22 | 27.24 | 22 | 37 | CUNETAS |
| | -7.09 | -9.97 | 10.93 | -11.41 | -11.7 | -11.89 | 9 | 4 | V. AMADOR - 1987 |
| | -6.69 | -7.27 | -7.46 | -7.55 | -7.6 | -7.64 | 7 | 8 | PALO VIEJO 7 - 1987 |
| | 7.32 | 35.01 | 49.21 | -56.51 | -61.03 | -64.09 | 22 | 23 | PALOMA NEW - 1987 |
| | 27.35 | 12.5 | 7.52 | 4.94 | 3.34 | 2.25 | 7 | 22 | ROMAN #2 - 1987 |
| | 25.15 | 12.41 | 8.14 | 5.93 | 4.56 | 3.62 | 6 | 22 | HIPOLITO STGO. - 1987 |
| | 27.06 | 13.59 | 9.06 | 6.73 | 5.27 | 4.29 | 6 | 23 | ANTONIO ARIAS - 1987 |
| | 30.58 | 18.38 | 14.23 | 11.96 | 10.49 | 9.46 | 27 | 54 | HAC. LOS CANOS - 1987 |
| | 11.22 | 3.76 | 1.26 | 0.01 | -0.74 | -1.23 | 17 | 66 | LIZAS - 1987 |
| | 23.49 | 15.8 | 13.03 | 11.53 | 10.53 | 9.81 | 27 | 61 | VALENCIA - 1987 |
| | 62.11 | 27.35 | 15.67 | 9.82 | 6.29 | 3.94 | 16 | 93 | M. TORRES - 1987 |
| | 87.64 | 36.58 | 19.46 | 10.88 | 5.7 | 2.26 | 26 | 95 | UPJOHN NEW - 1987 |
| | 55.59 | 27.07 | 17.48 | 12.67 | 9.77 | 7.84 | 14 | 100 | ARMANDO MENA - 1987 |
| | 79.29 | 28.63 | 11.62 | 3.09 | -2.06 | -5.49 | 24 | 102 | ABBOTT NESTLE - 1987 |
| **PERCENT DIFFERENCE:** | | | | | | | | | |
| 1.FEET | 2 | 0 | 0 | 7 | 5 | 5 | | | |
| 5.FEET | 2 | 10 | 13 | 31 | 44 | 52 | | | |
| 10.FEET | 15 | 28 | 36 | 65 | 71 | 76 | | | |
| 18.FEET | 28 | 47 | 73 | 94 | 89 | 86 | | | |
| 33.FEET | 50 | 73 | 92 | 94 | 94 | 92 | | | |
| **IN:** | | | | | | | | VOLUMETRIC BUDGET TERMS, IN CUBIC FEET PER SECOND | |
| STORAGE = | - | - | - | - | - | - | | | |
| CONSTANT HEAD = | 5.9733 | 11.273 | 16.062 | 20.458 | 24.553 | 28.377 | | | |
| WELLS = | 6.38 | 6.38 | 6.38 | 6.38 | 6.38 | 6.38 | | | |
| DRAINS = | - | - | - | - | - | - | | | |
| RECHARGE = | 139.66 | 139.66 | 139.66 | 139.66 | 139.66 | 139.66 | | | |
| RIVER LEAKAGE = | 2.3784 | 3.4914 | 6.3174 | 9.9809 | 14.319 | 18.635 | | | |
| TOTAL IN = | 154.39 | 160.81 | 168.42 | 176.48 | 184.91 | 193.06 | | | |
| **OUT:** | | | | | | | | | |
| STORAGE = | - | - | - | - | - | - | | | |
| CONSTANT HEAD = | 18.704 | 21.227 | 23.74 | 26.113 | 28.385 | 30.596 | | | |
| WELLS = | - | - | - | - | - | - | | | |
| DRAINS = | 48.932 | 56.285 | 63.026 | 69.301 | 75.239 | 80.859 | | | |
| RECHARGE = | - | - | - | - | - | - | | | |
| RIVER LEAKAGE = | 86.757 | 83.293 | 81.655 | 81.067 | 81.29 | 81.6 | | | |
| **TOTAL OUT =** | 154.39 | 160.81 | 168.42 | 176.48 | 184.91 | 193.05 | | | |

## **Appendix 2d.** Summary of sensitivity analysis of drain conductance

[Outlined values indicate final calibration results for 1965 hydrologic conditions. Results consists of: the difference between simulated and computed head, the percentage difference within feet intervals, and the volumetric budget terms. Factors applied to the drain conductance calibrated values are underlined. Refer to fig. 14a for control-cell location.]

| | 0.25 | 0.50 | 0.75 | 1.00 | 1.25 | 1.50 | ROW | COLUMN | WELL NAME |
|---|---|---|---|---|---|---|---|---|---|
| DIFFERENCE BETWEEN COMPUTED AND SIMULATED HEAD, IN FEET | | | | | | | | | |
| | -0.35 | -0.35 | -0.35 | -0.35 | -0.35 | -0.35 | 24 | 135 | VOCACIONAL |
| | -6.87 | -6.95 | -6.98 | -7 | -7.02 | -7.03 | 15 | 55 | GRACE |
| | 2.2 | 0.78 | 0.18 | -0.16 | -0.39 | -0.56 | 20 | 70 | SANTANA NUEVO - 1965 |
| | 10.95 | 9.4 | 8.75 | 8.37 | 8.12 | 7.95 | 22 | 75 | SANTANA #1 - 1987 |
| | 11.53 | 11.53 | 11.53 | 11.53 | 11.53 | 11.53 | 20 | 3 | ZANJAS #3 - 1965 |
| | -6.69 | -6.69 | -6.69 | -6.69 | -6.69 | -6.69 | 27 | 2 | ONOFRE MORELL - 1987 |
| | 6.46 | 5.14 | 4.58 | 4.26 | 4.05 | 3.89 | 28 | 75 | MIRAFLORES #1 - 1965 |
| | -11.3 | -11.34 | -11.35 | -11.36 | -11.37 | -11.37 | 35 | 62 | CARRERAS |
| | -2.45 | -2.56 | -2.61 | -2.64 | -2.66 | -2.68 | 16 | 56 | CAMBALACHE |
| | 8.82 | 7.15 | 6.44 | 6.03 | 5.76 | 5.57 | 21 | 82 | ROHERS - 1965 |
| | 13.03 | 13.03 | 13.03 | 13.03 | 13.03 | 13.03 | 27 | 136 | ACROPOLIS |
| | 11.27 | 9.93 | 9.36 | 9.03 | 8.81 | 8.65 | 22 | 100 | LEDERLE |
| | 8.27 | 8.27 | 8.27 | 8.27 | 8.27 | 8.27 | 12 | 50 | SUREDA |
| | 5.57 | 4.83 | 4.52 | 4.33 | 4.21 | 4.13 | 19 | 108 | FORTUNA |
| | 4.31 | 4.31 | 4.31 | 4.31 | 4.31 | 4.31 | 23 | 124 | MCKESSON OLD |
| | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 | 17 | 122 | CANTITO LA LUISA |
| | 6.08 | 5.24 | 4.88 | 4.67 | 4.53 | 4.43 | 16 | 106 | ABANDONED PRASA |
| | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 10 | 12 | PERAZA |
| | 3.51 | 3.51 | 3.51 | 3.51 | 3.51 | 3.51 | 13 | 12 | CAMUY #2 |
| | 16.48 | 16.48 | 16.48 | 16.48 | 16.48 | 16.48 | 17 | 30 | CONCORVADO |
| | 16.28 | 15.69 | 15.45 | 15.31 | 15.22 | 15.15 | 23 | 62 | MASTER |
| | 9.6 | 9.6 | 9.6 | 9.6 | 9.6 | 9.6 | 25 | 126 | MANATI #1 |
| | -11.2 | -11.2 | -11.2 | -11.2 | -11.2 | -11.2 | 38 | 39 | ESPERANZA #1 |
| | -6.28 | -7.65 | -8.24 | -8.58 | -8.8 | -8.96 | 33 | 95 | SABANA PIKE |
| | 37.05 | 37.05 | 37.05 | 37.05 | 37.05 | 37.05 | 22 | 37 | CUNETAS |
| | -11.41 | -11.41 | -11.41 | -11.41 | -11.41 | -11.41 | 9 | 4 | V. AMADOR - 1987 |
| | -7.55 | -7.55 | -7.55 | -7.55 | -7.55 | -7.55 | 7 | 8 | PALO VIEJO 7 - 1987 |
| | -56.51 | -56.51 | -56.51 | -56.51 | -56.51 | -56.51 | 22 | 23 | PALOMA NEW - 1987 |
| | 4.94 | 4.94 | 4.94 | 4.94 | 4.94 | 4.94 | 7 | 22 | ROMAN #2 - 1987 |
| | 5.93 | 5.93 | 5.93 | 5.93 | 5.93 | 5.93 | 6 | 22 | HIPOLITO STGO. - 1987 |
| | 6.73 | 6.73 | 6.73 | 6.73 | 6.73 | 6.73 | 6 | 23 | ANTONIO ARIAS - 1987 |
| | 11.96 | 11.96 | 11.96 | 11.96 | 11.96 | 11.96 | 27 | 54 | HAC. LOS CANOS - 1987 |
| | 2.32 | 0.92 | 0.34 | 0.01 | -0.21 | -0.37 | 17 | 66 | LIZAS - 1987 |
| | 11.89 | 11.67 | 11.58 | 11.53 | 11.49 | 11.47 | 27 | 61 | VALENCIA - 1987 |
| | 12.44 | 10.88 | 10.21 | 9.82 | 9.57 | 9.38 | 16 | 93 | M. TORRES - 1987 |
| | 13.28 | 11.85 | 11.24 | 10.88 | 10.65 | 10.48 | 26 | 95 | UPJOHN NEW - 1987 |
| | 14.6 | 13.46 | 12.96 | 12.67 | 12.48 | 12.34 | 14 | 100 | ARMANDO MENA - 1987 |
| | 5.19 | 3.94 | 3.4 | 3.09 | 2.89 | 2.74 | 24 | 102 | ABBOTT NESTLE - 1987 |
| **PERCENT DIFFERENCE:** | | | | | | | | | |
| 1.FEET | 2 | 7 | 7 | 7 | 7 | 7 | | | |
| 5.FEET | 21 | 26 | 31 | 31 | 31 | 31 | | | |
| 10.FEET | 57 | 63 | 63 | 65 | 65 | 65 | | | |
| 18.FEET | 94 | 94 | 94 | 94 | 94 | 94 | | | |
| 33.FEET | 94 | 94 | 94 | 94 | 94 | 94 | | | |
| VOLUMETRIC BUDGET TERMS, IN CUBIC FEET PER SECOND | | | | | | | | | |
| **IN:** | | | | | | | | | |
| STORAGE = | - | - | - | - | - | - | | | |
| CONSTANT HEAD = | 12.136 | 16.885 | 19.103 | 20.458 | 21.389 | 22.079 | | | |
| WELLS = | 6.38 | 6.38 | 6.38 | 6.38 | 6.38 | 6.38 | | | |
| DRAINS = | - | - | - | - | - | - | | | |
| RECHARGE = | 139.66 | 139.66 | 139.66 | 139.66 | 139.66 | 139.66 | | | |
| RIVER LEAKAGE = | 9.7485 | 9.8737 | 9.9419 | 9.9809 | 10.007 | 10.025 | | | |
| TOTAL IN = | 167.93 | 172.8 | 175.09 | 176.48 | 177.44 | 178.15 | | | |
| **OUT:** | | | | | | | | | |
| STORAGE = | - | - | - | - | - | - | | | |
| CONSTANT HEAD = | 27.263 | 26.531 | 26.26 | 26.113 | 26.014 | 25.943 | | | |
| WELLS = | - | - | - | - | - | - | | | |
| DRAINS = | 58.468 | 64.762 | 67.599 | 69.301 | 70.465 | 71.321 | | | |
| RECHARGE = | - | - | - | - | - | - | | | |
| RIVER LEAKAGE = | 82.195 | 81.508 | 81.228 | 81.067 | 80.96 | 80.882 | | | |
| **TOTAL OUT =** | 167.93 | 172.8 | 175.09 | 176.48 | 177.44 | 178.15 | | | |

## **Appendix 2e.** Summary of sensitivity analysis of riverbed conductance

[Outlined values indicate final calibration results for 1965 hydrologic conditions. Results consists of: the difference between simulated and computed head, the percentage difference within feet intervals, and the volumetric budget terms. Factors applied to the riverbed conductance calibrated values are underlined. Refer to fig. 14a for control-cell location.]

| | 0.25 | 0.50 | 0.75 | 1.00 | 1.25 | 1.50 | ROW | COLUMN | WELL NAME |
|---|---|---|---|---|---|---|---|---|---|
| DIFFERENCE BETWEEN COMPUTED AND SIMULATED HEAD, IN FEET | -0.2 | -0.29 | -0.33 | -0.35 | -0.36 | -0.37 | 24 | 135 | VOCACIONAL |
| | -6.2 | -6.72 | -6.91 | -7 | -7.06 | -7.1 | 15 | 55 | GRACE |
| | -0.09 | -0.14 | -0.16 | -0.16 | -0.17 | -0.17 | 20 | 70 | SANTANA NUEVO - 1965 |
| | 8.48 | 8.41 | 8.39 | 8.37 | 8.36 | 8.35 | 22 | 75 | SANTANA #1 - 1987 |
| | 12.8 | 12.02 | 11.71 | 11.53 | 11.42 | 11.34 | 20 | 3 | ZANJAS #3 - 1965 |
| | -5.26 | -6.14 | -6.49 | -6.69 | -6.82 | -6.91 | 27 | 2 | ONOFRE MORELL - 1987 |
| | 4.43 | 4.32 | 4.28 | 4.26 | 4.25 | 4.23 | 28 | 75 | MIRAFLORES #1 - 1965 |
| | -10.37 | -11.02 | -11.25 | -11.36 | -11.43 | -11.48 | 35 | 62 | CARRERAS |
| | -1.8 | -2.35 | -2.54 | -2.64 | -2.7 | -2.75 | 16 | 56 | CAMBALACHE |
| | 6.24 | 6.12 | 6.06 | 6.03 | 6 | 5.98 | 21 | 82 | ROHERS - 1965 |
| | 13.18 | 13.09 | 13.05 | 13.03 | 13.02 | 13.01 | 27 | 136 | ACROPOLIS |
| | 9.65 | 9.31 | 9.14 | 9.03 | 8.95 | 8.9 | 22 | 100 | LEDERLE |
| | 8.54 | 8.33 | 8.27 | 8.27 | 8.27 | 8.24 | 12 | 50 | SUREDA |
| | 6.14 | 5.17 | 4.66 | 4.33 | 4.09 | 3.91 | 19 | 108 | FORTUNA |
| | 4.55 | 4.4 | 4.34 | 4.31 | 4.29 | 4.28 | 23 | 124 | MCKESSON OLD |
| | 5.05 | 4.74 | 4.62 | 4.55 | 4.5 | 4.47 | 17 | 122 | CANTITO LA LUISA |
| | 5.78 | 5.18 | 4.87 | 4.67 | 4.53 | 4.42 | 16 | 106 | ABANDONED PRASA |
| | 5.33 | 5.23 | 5.21 | 5.2 | 5.2 | 5.19 | 10 | 12 | PERAZA |
| | 3.69 | 3.56 | 3.52 | 3.51 | 3.5 | 3.49 | 13 | 12 | CAMUY #2 |
| | 16.09 | 16.19 | 16.33 | 16.48 | 16.59 | 16.62 | 17 | 30 | CONCORVADO |
| | 15.47 | 15.34 | 15.32 | 15.31 | 15.31 | 15.31 | 23 | 62 | MASTER |
| | 9.7 | 9.64 | 9.61 | 9.6 | 9.59 | 9.58 | 25 | 126 | MANATI #1 |
| | -16.54 | -14.04 | -12.46 | -11.2 | -10.28 | -10.1 | 38 | 39 | ESPERANZA #1 |
| | -8.01 | -8.33 | -8.48 | -8.58 | -8.65 | -8.7 | 33 | 95 | SABANA PIKE |
| | 36.29 | 36.54 | 36.8 | 37.05 | 37.25 | 37.29 | 22 | 37 | CUNETAS |
| | -11.3 | -11.37 | -11.39 | -11.41 | -11.42 | -11.42 | 9 | 4 | V. AMADOR - 1987 |
| | -7.48 | -7.52 | -7.54 | -7.55 | -7.56 | -7.56 | 7 | 8 | PALO VIEJO 7 - 1987 |
| | -56.69 | -56.7 | -56.61 | -56.51 | -56.43 | -56.41 | 22 | 23 | PALOMA NEW - 1987 |
| | 4.87 | 4.87 | 4.9 | 4.94 | 4.98 | 4.98 | 7 | 22 | ROMAN #2 - 1987 |
| | 5.87 | 5.86 | 5.89 | 5.93 | 5.96 | 5.96 | 6 | 22 | HIPOLITO STGO. - 1987 |
| | 6.65 | 6.66 | 6.69 | 6.73 | 6.76 | 6.77 | 6 | 23 | ANTONIO ARIAS - 1987 |
| | 12.68 | 12.11 | 11.98 | 11.96 | 11.97 | 11.94 | 27 | 54 | HAC. LOS CANOS - 1987 |
| | 0.07 | 0.03 | 0.01 | 0.01 | 0 | 0 | 17 | 66 | LIZAS - 1987 |
| | 11.27 | 11.37 | 11.46 | 11.53 | 11.57 | 11.6 | 27 | 61 | VALENCIA - 1987 |
| | 10.19 | 9.99 | 9.88 | 9.82 | 9.78 | 9.74 | 16 | 93 | M. TORRES - 1987 |
| | 11.4 | 11.11 | 10.97 | 10.88 | 10.82 | 10.77 | 26 | 95 | UPJOHN NEW - 1987 |
| | 13.16 | 12.89 | 12.76 | 12.67 | 12.61 | 12.57 | 14 | 100 | ARMANDO MENA - 1987 |
| | 3.83 | 3.42 | 3.22 | 3.09 | 3 | 2.93 | 24 | 102 | ABBOTT NESTLE - 1987 |
| **PERCENT DIFFERENCE:** | | | | | | | | | |
| 1.FEET | 7 | 7 | 7 | 7 | 7 | 7 | | | |
| 5.FEET | 23 | 26 | 31 | 31 | 31 | 31 | | | |
| 10.FEET | 63 | 65 | 65 | 65 | 65 | 65 | | | |
| 18.FEET | 94 | 94 | 94 | 94 | 94 | 94 | | | |
| 33.FEET | 94 | 94 | 94 | 94 | 94 | 94 | | | |
| **IN:** | | | | | | | | | VOLUMETRIC BUDGET TERMS, IN CUBIC FEET PER SECOND |
| STORAGE = | - | - | - | - | - | - | | | |
| CONSTANT HEAD = | 20.402 | 20.435 | 20.45 | 20.458 | 20.463 | 20.467 | | | |
| WELLS = | 6.38 | 6.38 | 6.38 | 6.38 | 6.38 | 6.38 | | | |
| DRAINS = | - | - | - | - | - | - | | | |
| RECHARGE = | 139.66 | 139.66 | 139.66 | 139.66 | 139.66 | 139.66 | | | |
| RIVER LEAKAGE = | 4.4181 | 6.9724 | 8.6288 | 9.9809 | 11.143 | 12.047 | | | |
| TOTAL IN = | 170.86 | 173.45 | 175.12 | 176.48 | 177.65 | 178.56 | | | |
| **OUT:** | | | | | | | | | |
| STORAGE = | - | - | - | - | - | - | | | |
| CONSTANT HEAD = | 26.55 | 26.219 | 26.129 | 26.113 | 26.112 | 26.078 | | | |
| WELLS = | - | - | - | - | - | - | | | |
| DRAINS = | 69.9 | 69.549 | 69.395 | 69.301 | 69.237 | 69.188 | | | |
| RECHARGE = | - | - | - | - | - | - | | | |
| RIVER LEAKAGE = | 74.412 | 77.683 | 79.597 | 81.067 | 82.299 | 83.289 | | | |
| **TOTAL OUT =** | 170.86 | 173.45 | 175.12 | 176.48 | 177.65 | 178.56 | | | |