SIMULATION OF GROUND-WATER FLOW IN THE MISSISSIPPI RIVER VALLEY ALLUVIAL AQUIFER IN EASTERN ARKANSAS

By Gary L. Mahon and A.H. Ludwig

U.S. GEOLOGICAL SURVEY

Water-Resources Investigations Report 89-4145

Prepared in cooperation with the

U.S. ARMY CORPS OF ENGINEERS

Little Rock, Arkansas

1990

DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR., Secretary

U.S. GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information
write to:

District Chief
U.S. Geological Survey
2301 Federal Office Building
700 West Capitol Avenue
Little Rock, Arkansas 72201

Copies of this report can be
purchased from:

U.S. Geological Survey
Books and Open-File Reports
Federal Center, Building 810
Box 25425
Denver, Colorado 80225

CONTENTS

ILLUSTRATIONS

[Plates are located in back pocket at end of report]

TABLES

CONVERSION FACTORS

For use of readers who prefer to use metric (International System) units, rather than the inch-pound units used in this report, the following conversion factors may be used:

Multiply inch-pound unit	By	To obtain metric unit
foot (ft)	0.3048	meter (m)
foot per day (ft/d)	0.3048	meter per day (m/d)
cubic foot per second (ft^3/s)	0.02832	cubic meter per second (m^3/s)
inch (in.)	25.4	millimeter (mm)
inch per year (in/yr)	25.4	millimeter per year (mm/yr)
mile (mi)	1.609	kilometer (km)
square mile (mi^2)	2.590	square kilometer (km^2)

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called "Sea Level Datum of 1929."

SIMULATION OF GROUND-WATER FLOW IN THE MISSISSIPPI RIVER VALLEY ALLUVIAL AQUIFER IN EASTERN ARKANSAS

By Gary L. Mahon and A.H. Ludwig

ABSTRACT

The U.S. Geological Survey's participation in a study of the water resources in eastern Arkansas involved the development and calibration of a digital ground-water flow model of the Mississippi River Valley alluvial aquifer and the use of that model to evaluate the effects of future pumping on the saturated thickness of the aquifer. The study was prompted by the growing concern about significant water-level declines in the alluvial aquifer north of the Arkansas River.

Thickness of alluvial sediments in the study area ranges from 125 to 200 feet and averages about 150 feet. The most permeable material lies in the lower part of the sediments and averages about 100 feet in thickness. Hydraulic conductivity of the aquifer ranges from about 120 to about 390 feet/day.

Recharge to the aquifer occurs mainly by percolation through the overlying confining layer in interstream areas and by seepage through riverbeds. A small amount of recharge also comes from the sediments underlying the alluvium. Recharge rates in interstream areas range from less than 1 to as much as 10 inches in areas where recharge from underlying sediments is substantial.

Digital model simulations were made to represent flow in the aquifer and to quantify flow into and out of the system. The dynamic ground-water system was simulated by using seven stress periods between 1917 and 1987. Pumpage used in the simulation ranged from 86,950,000 to 420,970,000 cubic feet per day. Pumpage was distributed uniformly over each county after eliminating areas where the predominant land use precluded ground-water withdrawals. Storage coefficient values of 0.3 and 1×10^{-4} for unconfined and confined aquifer conditions, respectively, were used in the simulations.

The effects of increased future pumpage on saturated thickness of the aquifer are shown for each decade from 2000 to 2050. The pumpage projections are based on projected water needs as determined by the U.S. Soil Conservation Service assuming two scenarios, one without and one with conservation measures in place. They assumed that conservation measures in 1990 would decrease pumpage by about 9 percent, and that the percentage decrease would be about 30 percent by the year 2040.

There were no critical areas where saturated thickness of the alluvial aquifer was 20 feet or less in 1980. However, model simulation indicated that projected pumpage for 2050 would result in less than 20 feet of saturated thickness in 422 of the 1,595 active cells (2,430,720 acres) if conservation

measures were not in place and 258 (1,486,080 acres) of the active cells with conservation measures in place. Simulation indicated that these critical areas would be in the Grand Prairie; west of Crowleys Ridge, in all or part of St. Francis, Cross, Poinsett, and Craighead Counties; and east of Crowleys Ridge in all or part of Crittenden, St. Francis, Cross, Poinsett, and Mississippi Counties.

INTRODUCTION

This study is a component of the U.S. Army Corps of Engineers' Eastern Arkansas Region Comprehensive Study (EARCS), which began in 1985. The EARCS is a multiagency study comprising work activities by the U.S. Army Corps of Engineers, Memphis District; the U.S. Soil Conservation Service; the Arkansas Soil and Water Conservation Commission; the U.S. Geological Survey; and the University of Arkansas. The primary objective of the EARCS is the feasibility determination of developing hydraulic structures for supplying irrigation water from surface sources for use in areas of potential ground-water deficiency. Other objectives of the feasibility study include an assessment of future irrigation water needs and an evaluation of the capability of the Mississippi River Valley alluvial aquifer (hereafter referred to as the alluvial aquifer) to meet these needs.

To accomplish the forementioned objectives, work activities were divided as follows: the U.S. Soil Conservation Service provided data on cropping patterns, irrigation-water needs for certain land-use and soil-type combinations, the cost of changing crop patterns in areas where irrigation needs cannot be met, power costs, and projected water needs by decade to 2040. Development and calibration of a ground-water-flow model of the alluvial aquifer and assessment of the effects of future pumping on the aquifer was done by the U.S. Geological Survey. The development of the methodology for determining a sustained yield pumping strategy and the application of the strategy to the aquifer system, as simulated by the Survey's flow model, was done by Dr. Richard Peralta, University of Arkansas.

Purpose and Scope

This report documents the calibration procedure for the flow model of the alluvial aquifer and describes the effects of projected future withdrawals on the saturated thickness of the aquifer. The area of interest includes all or part of 23 counties in eastern Arkansas north of the Arkansas River (plate 1). For modeling purposes, however, it was necessary to include about 1,340 square miles (mi^2) of southeastern Missouri in the area of study. The study is limited to a definition of the flow regime and effects of pumping in the alluvial aquifer.

Previous Investigations

Many reports that describe local hydrologic conditions have been published by the U.S. Army Corps of Engineers, the U.S. Geological Survey, and other State and Federal agencies. Reports that describe regional aspects of the alluvial aquifer and contain references to many of the reports describing local conditions include those by Krinitzsky and Wire (1964) and Boswell and others (1968). More recent reports by Griffis (1972), Broom and Lyford (1981), Peralta and others (1985), and Ackerman (1989) describe the results of modeling of ground-water flow for parts of the alluvial aquifer.

GEOHYDROLOGY

The Mississippi River Valley alluvial aquifer underlies nearly all of the study area except for Crowleys Ridge. The alluvial sediments can be described simply as being divided into a lower unit or aquifer, which is composed of coarse sand and gravel grading upward to fine sand, and an upper confining unit, which is composed of clay, silt, and fine sand. However, when examined in detail, wide variation in lithology can be noted within short distances. Channel fill, point bar, and backswamp deposits associated with present or former channels of the major rivers can produce abrupt differences in lithology, which result in large spatial variations in the infiltration potential of the upper confining unit as well as the hydraulic properties of the aquifer.

The vertical and lateral distribution of the alluvial sediments was determined from driller logs obtained from the Arkansas Geological Commission. The thickness of the alluvial sediments generally ranges from 125 to 200 feet and averages about 150 feet. The thickness of the lower part, or aquifer, ranges from 30 to 180 feet and averages about 100 feet (plate 2). The aquifer is thickest where the upper confining unit is thin or absent or where depressions occur in the underlying Tertiary sediments. The upper confining unit generally ranges from 1 to 50 feet in thickness but is as much as 70 feet thick in places, mainly in the Grand Prairie (plates 1 and 3).

Crowleys Ridge constitutes a hydrologic barrier to the movement of water in the alluvial aquifer as well as a prominent topographic feature on an otherwise flat alluvial plain. The ridge trends north to south through northeastern Arkansas and bisects the alluvial aquifer. The ridge is an erosional remnant of strata of Tertiary age and is capped by several tens of feet of loess in places.

Recharge to the alluvial aquifer comes principally from precipitation, which averages about 49 inches annually (Freiwald, 1985). Moisture reaches the aquifer by percolation through the fine-grained material in the confining layer above the aquifer. An unknown, but probably small amount of recharge is derived from the formations of Tertiary age underlying the alluvium and from the formations of Paleozoic age which flank the western side of the valley. Infiltration of water from streams and lakes, particularly those which are in good hydraulic connection with the aquifer, is an important source of recharge. Recharge also may occur from downward seepage from irrigated lands (Boswell and others, 1968).

Ground-water movement in the alluvial aquifer generally is southward but locally is toward streams and toward areas of large withdrawals, such as in the Grand Prairie area and in the upper L'Anguille River basin. In some areas flow may be away from the streams, especially during periods of high streamflow and ground-water pumpage. Regional ground-water movement is controlled by the generally southward slope of the Mississippi River Alluvial Plain (plate 4). The ground surface slopes from an altitude of about 310 feet above sea level at the Arkansas-Missouri State line to about 140 feet at the confluence of the Mississippi and Arkansas Rivers.

DESCRIPTION OF DIGITAL MODEL

A three-dimensional finite-difference ground-water flow model (McDonald and Harbaugh, 1984) was used to simulate the stress-response relation for the alluvial aquifer. The flow model is modular in its programming structure, which allows for use of program packages to simulate various hydrologic effects on the flow system. The solution algorithm used for this study was the Strongly Implicit Procedure (SIP) (McDonald and Harbaugh, 1984) iterative technique.

Flow in the alluvial aquifer was modeled as being two-dimensional, that is, flow was considered in only one layer. The single-layer representation was believed to be adequate for the needs of this study, although it is a simplification of the generally accepted concept of flow in the system which allows for a small amount of inflow from the Paleozoic and Tertiary rocks adjacent to and underlying the alluvial aquifer.

The model consisted of a rectangular grid of 70 rows and 52 columns of cells, with each cell representing an area measuring 3 miles on each side (plate 5). The area modeled was represented by 3,640 cells, of which 1,595 were active cells representing the alluvial aquifer.

Boundaries

The lateral boundaries of the model included the Mississippi River on the east and the Arkansas River on the south. The Mississippi and Arkansas Rivers were considered to fully penetrate the aquifer and interact with the aquifer essentially as constant-head boundaries. The rivers were modeled as active cells, however, and will be described in further detail later in this report.

No-flow boundary conditions were applied to several geohydrologic conditions during model simulation. The Paleozoic to Tertiary rocks that form the western boundary of the aquifer were considered to be essentially impermeable and a no-flow boundary was therefore applied. The amount of water exchanged between the alluvium and the underlying rocks is believed to be relatively small, so the bottom of the alluvial aquifer also was modeled as a no-flow boundary. Crowleys Ridge, which bisects the alluvial aquifer, was modeled using a no-flow boundary condition because the flow direction is away from the ridge in some areas, and water levels on opposite sides of the ridge may vary as much as 20 to 30 feet (Plafcan and Edds, 1986; Plafcan and Fugitt, 1987). Potentiometric maps suggest that ground water does not flow through the sediments comprising Crowleys Ridge.

Because no natural hydrologic boundary existed at the northern end of the study area, the model grid was extended northward into Missouri and expressed as a constant-head boundary to allow for ground-water flow from outside the area of interest. Row 1, the northernmost row, in the active part of the model was designated as a constant-head boundary.

Simulation of Interstream Recharge

Recharge to the alluvial aquifer occurs in interstream areas as percolation of precipitation through the aquifer's overlying confining unit. Interstream recharge has been estimated previously by model simulation generally to be less than 2 inches/year (Ackerman, 1989; Broom and Lyford, 1981; Sumner and Wasson, 1984) for predevelopment conditions in eastern Arkansas. This rate has increased since predevelopment (D.J. Ackerman, U.S. Geological Survey, written commun., 1988) which suggests that recharge is dependent on the hydraulic gradient across and the hydraulic properties of the confining unit. However, the forementioned hydraulic properties are seldom measured in the field.

The "River Package" (McDonald and Harbaugh, 1984) was used to simulate recharge in the flow model. This subroutine computes the rate and direction of flow dependent on riverbed conductance and the difference between a reference water level and the head in the aquifer. Riverbed conductance is further defined in a cell as a function of the vertical hydraulic conductivity and thickness of the riverbed sediments, the width of the wetted riverbed, and the length of the river in that cell. The flow is computed for each cell designated as a river cell based on the hydraulic parameters specified.

The reference water level in the flow model for the interstream areas represents the altitude of land surface, assuming this level is the maximum driving force for the areal recharge. The bottom of the confining unit was assumed to be equivalent to the riverbed bottom in the "River Package." Consequently, the thickness of the confining unit, along with the assumed value of 1×10^{-4} ft/d for vertical hydraulic conductivity (Ackerman, 1989), was used in initial calculation of the riverbed conductance value. The resulting conductance values were adjusted during calibration to achieve an adequate representation of the ground-water system. Adjustment of the conductance value also was necessary to compensate for the small amount of water entering the system from adjacent and underlying Paleozoic and Tertiary aquifers.

Simulation of Rivers

Nine rivers (plate 1) in eastern Arkansas were modeled because of their interaction with the alluvial aquifer. Several of the rivers provided a large amount of recharge to the alluvial aquifer; however, there are several areas where the aquifer discharges through the rivers. Some river reaches have only a small degree of interconnection with the aquifer and, consequently, there is little exchange between the river and the aquifer. Parameters controlling the interconnection between the aquifer and rivers are seldom quantified from field observation, so this value commonly is estimated initially and ultimately "backed out" of the model calibration.

The Arkansas and Mississippi Rivers have a high degree of interconnection and function essentially as constant-head boundaries. The high degree of interaction is modeled by assigning a very high conductance value in the input data for the "River Package." The high conductance value is assumed appropriate because of the large wetted river width and the deep penetration of the river into the aquifer. Hydraulic conductivity of the riverbed materials was assumed to be $1x10^{-2}$ ft/d. Measurements in the field show little difference between stage in the river and head in the aquifer measured in wells adjacent to the river. Comparison of computed aquifer heads and reference water levels show that the difference in these river wells may vary by less than 0.01 feet.

Other rivers have varying degrees of interconnection, sometimes on the same river reach. Conductance values for these river cells are computed using a hydraulic conductivity value of $1x10^{-2}$ ft/d. The reference water level corresponds to an average stage in the river. The river width was estimated from field observation and topographic maps, while the riverbed bottom was assumed to be 10 feet below the river bottom.

Data Preparation

Input data for the model were obtained from several sources including water-level records, drillers' logs, the files and computerized data bases of the U.S. Geological Survey (well data), and the computerized data of the U.S. Soil Conservation Service (soil and water-use data) bases. The data bases used were referenced to specified cartographic projections; and, for this reason, the positioning and orientation of the model grid was computed and plotted by computer program such that the coordinates of each intersection point on the grid were defined in accordance with the desired land net used as a base. To accommodate the needs of the various agencies, two map coordinate systems were used; latitude and longitude and Universal Transverse Mercator (UTM). The model grid was based on a Lambert conformal conic map projection with the grid origin at latitude 36°38'21" N and longitude 92°17'01" W.

Contouring packages used in the study to compute the land surface altitude, altitude of the top and bottom of the aquifer, and thickness of the aquifer and confining layer required the coordinates of the centers of each cell. Computer software was written to determine the center of each cell and to tabulate the county, latitude and longitude coordinates, UTM coordinates, and the drainage basin for each cell in the model.

Hydraulic conductivity of the porous material in the alluvial aquifer ranges from about 120 to 390 ft/d (Ackerman, 1989; Krinitzsky and Wire, 1964). In the initial stages of model development, an average hydraulic conductivity value of 300 ft/d was used to represent the hydraulic conductivity of the alluvial aquifer, as had been done by Ackerman (1989), Peralta and others (1985), and Broom and Lyford (1981). The hydraulic conductivity value was varied nodally during the calibration process to obtain an accurate representation of the geohydrologic system, but most values remained within about 5 percent of the original estimated value.

If the hydraulic conductivity of an aquifer varies with the direction of measurement, the aquifer is anisotropic. In this investigation, there were no field measurements of the anisotropy of the alluvial aquifer; and the aquifer was assumed to be isotropic. The model was developed accordingly.

To facilitate the input of data into the model, each active cell was classified as being in a particular county and drainage basin. Maps showing the county and basin cell designations are shown in plates 5 and 6, respectively. The numeric value assigned to each basin (plate 6) identifies cells in the boundary (IBOUND) array of the flow model. By convention, the two-digit value beginning with eight indicates a nonriver cell value, whereas those beginning with nine indicate a river cell. For example, 83 represents a nonriver cell in the Cache River basin and 93 represents a river cell in that basin. This convention allowed for ease of input-data modification during calibration. All input data except pumpage values are given in Appendix 1.

Calibration Procedure

Calibration tests were made on both the steady-state and transient models to insure that the final model adequately represented the stress-response relation that exists in the alluvial aquifer. The calibration procedure involved a trial and error process in which the hydraulic parameters such as conductance of streambed and confining layers, hydraulic conductivity, and aquifer storage coefficients (transient simulation only) were varied within plausible limits until a suitable match was obtained between computed and observed water levels. Water-budget terms in the model were monitored to assure their values were reasonable.

Steady-State Calibration

The initial calibration process involved development of a steady-state model to evaluate the validity of the conceptual model framework. The steady-state model procedure and the various types of input data required are shown in figure 1.

The steady-state model was calibrated using estimated pumpage values for 1970 to stress the system. Pumpage for 1970 was used because pumpage and water-level conditions were relatively stable during this period. Model generated water levels were compared with water levels measured in 1972, the end of the period of uniform pumpage, to determine the "goodness of fit" and the adequacy of the model.

The difference between the head value computed by the model and the observed water level were computed for each cell in the model (plate 7). Most computed values were less than about 6 feet below (+) or above (-) the observed level. An evaluation of the reasonableness of recharge rates (plate 8) also was used as a criteria for calibration. The very low recharge rates (generally less than 1 inch) for the Grand Prairie are appropriate for the thick confining layers that exist in that area.

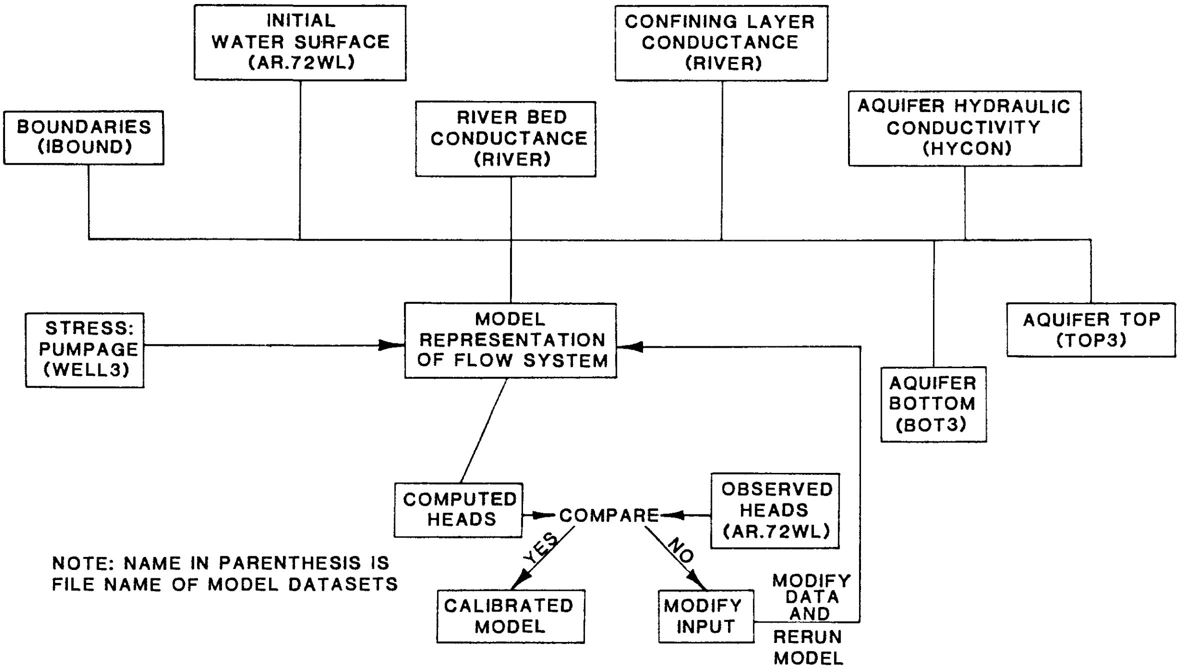


Figure 1.--Flow diagram of digital-model procedure for steady-state calibration.

Transient Calibration

Calibration of the transient model basically involved the operation and modification of the steady-state model to a transient mode, with the introduction of confined and unconfined aquifer storage coefficients and varying pumpage with time (fig. 2). The transient simulation evaluated the dynamic operation of the aquifer through a series of seven stress (pumping) periods beginning in 1917. All but the first represented a 5-year time period.

Initial water-level conditions for the transient calibration were assumed because the only predevelopment-potentiometric surface available for the alluvial aquifer is an estimate resulting from previous model simulations. Broom and Lyford (1981) published a model generated predevelopment-potentiometric surface map of the eastern Arkansas alluvial aquifer that showed water levels in wells unaffected by pumping generally were less than 20 feet below land surface and the predevelopment surface generally conformed to the slope and land surface. Initial water levels were set at 5 feet below land surface in each model cell for this model simulation.

Stress periods and total pumpages used in the transient model are given in table 1. Pumpages were distributed uniformly, by county, over the active model cells after eliminating those cells in which the predominant land use, for example forest, urban area, or lakes, precluded the withdrawal of ground water. Uniform values of 0.3 and 10^{-4} were used as the storage coefficient for unconfined and confined conditions, respectively.

Table 1.--Total pumpages per stress period used in the transient model calibration

Stress period	Interval	Pumpage x 10^8 (ft^3/day)
1	1917-1957	0.86950
2	1958-1962	1.3483
3	1963-1967	1.7483
4	1968-1972	1.6486
5	1973-1977	2.5186
6	1978-1982	4.3891
7	1983-1987	4.2097

The difference between computed head values for each of the stress periods and observed water-level measurements in observation wells were computed for 19 different locations in the study area. The locations were selected in both overdeveloped and unstressed areas. Comparisons of computed and observed heads for selected sites in five of the basins are shown in figures 3 through 7. Some of the largest differences between observed water levels and computed heads exist in Bayou Meto basin (fig. 6), where large variations of clay thickness occur and water levels are more sensitive to pumpage distributions. These comparisons were used as part of the transient model calibration procedure.

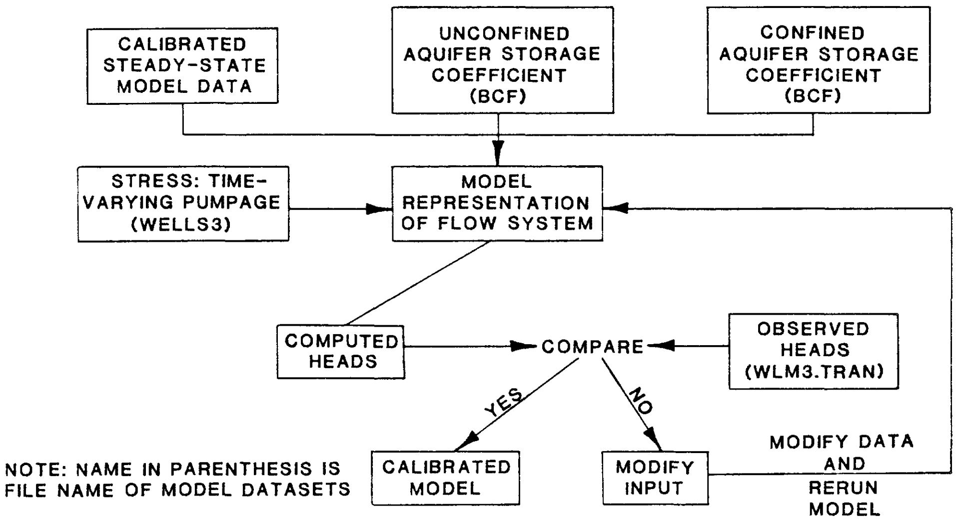


Figure 2.--Flow diagram of digital-model procedure for transient-state calibration.

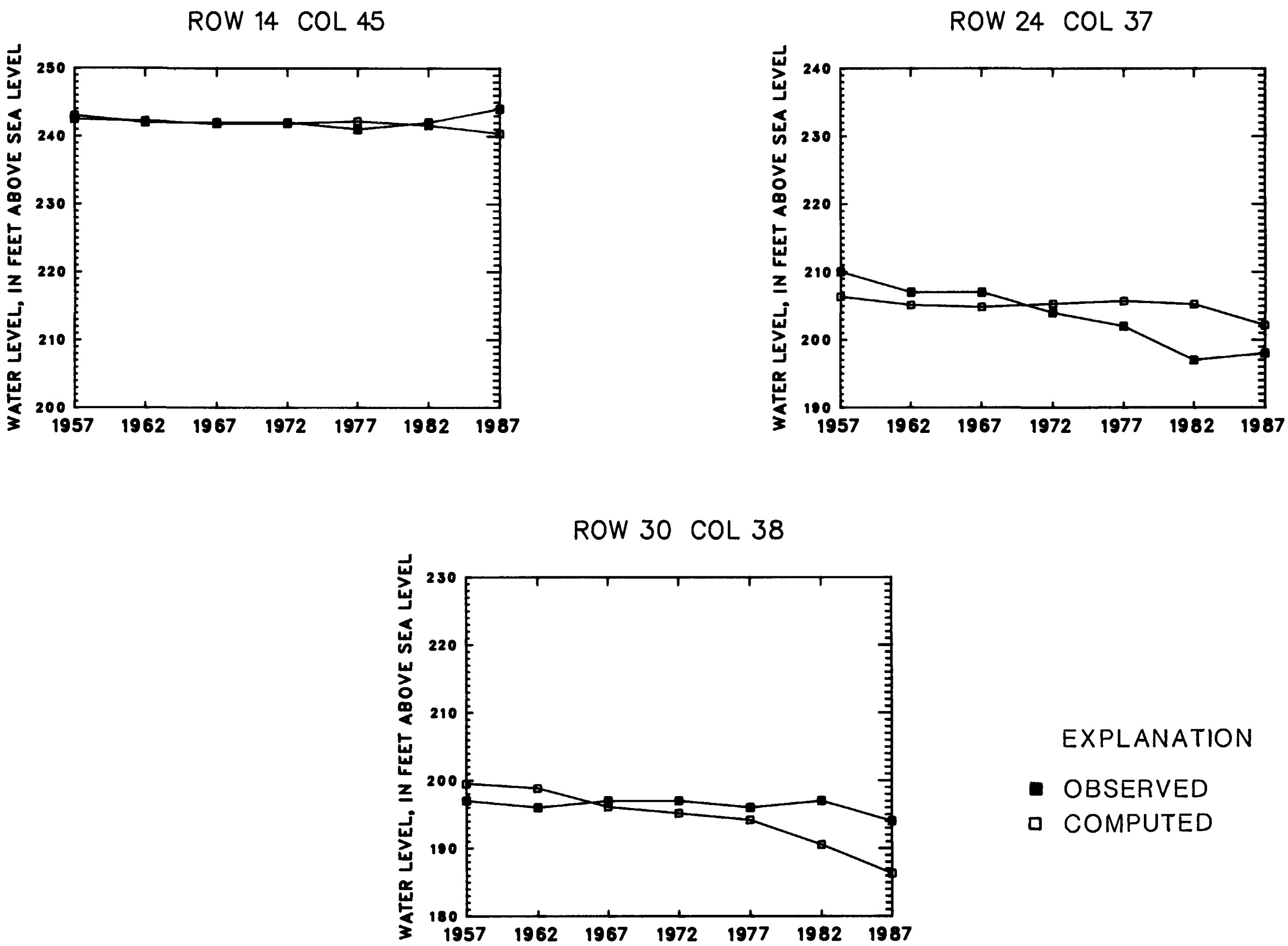


Figure 3.--Computed and observed heads for the transient model calibration for St. Francis basin.

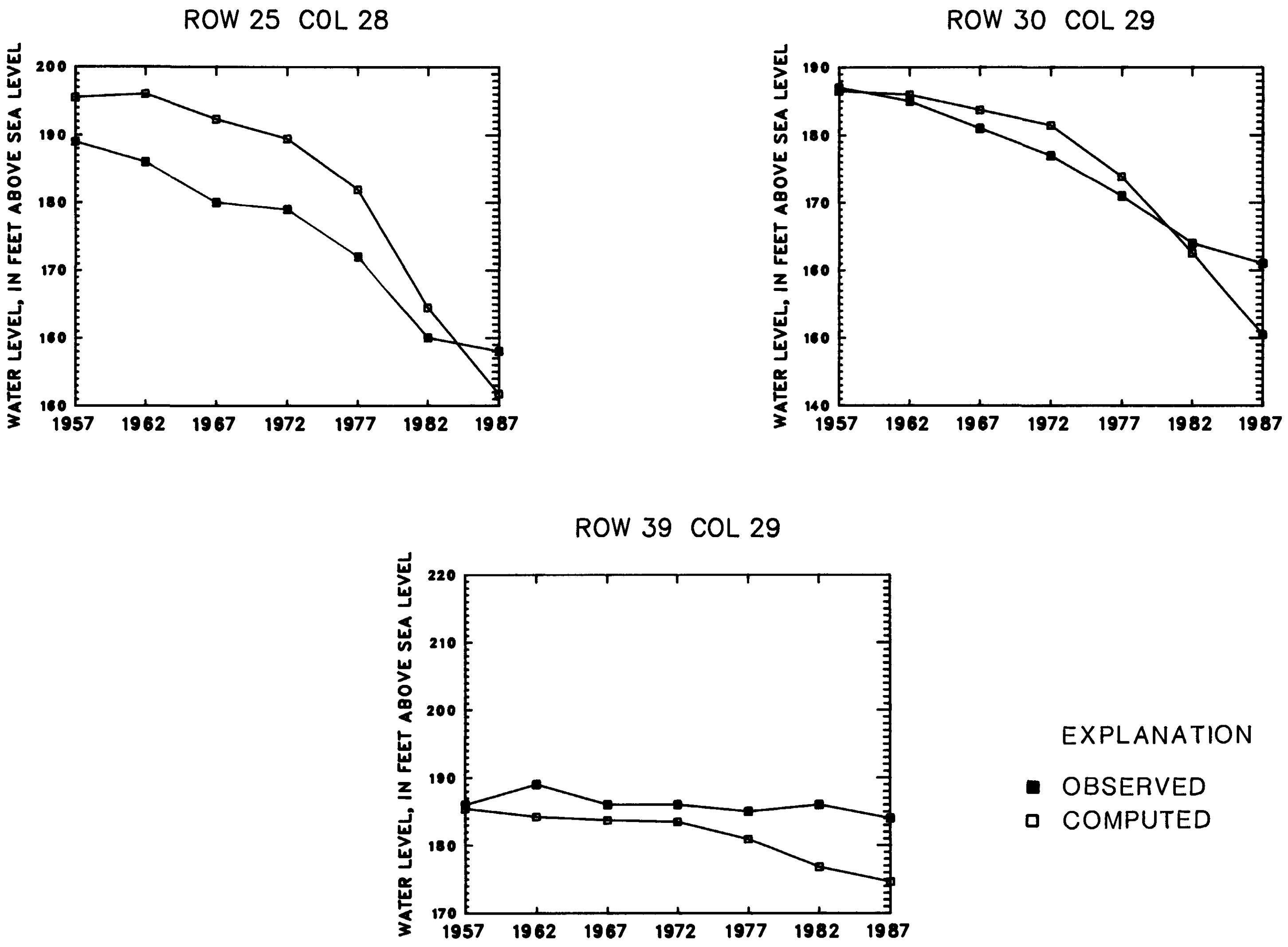


Figure 4.--Computed and observed heads for the transient model calibration for L'Anguille basin.

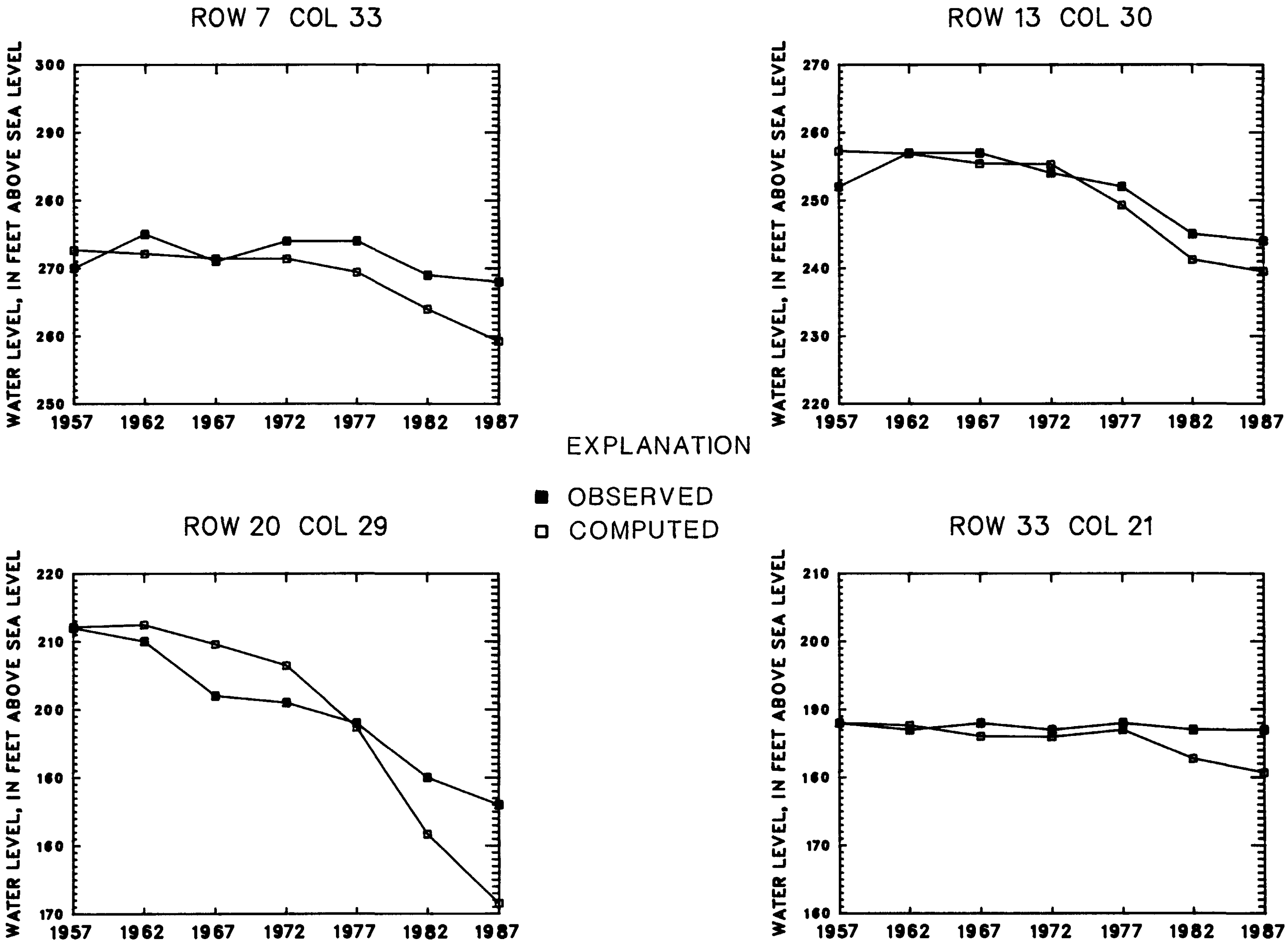


Figure 5.--Computed and observed heads for the transient model calibration for Cache basin.

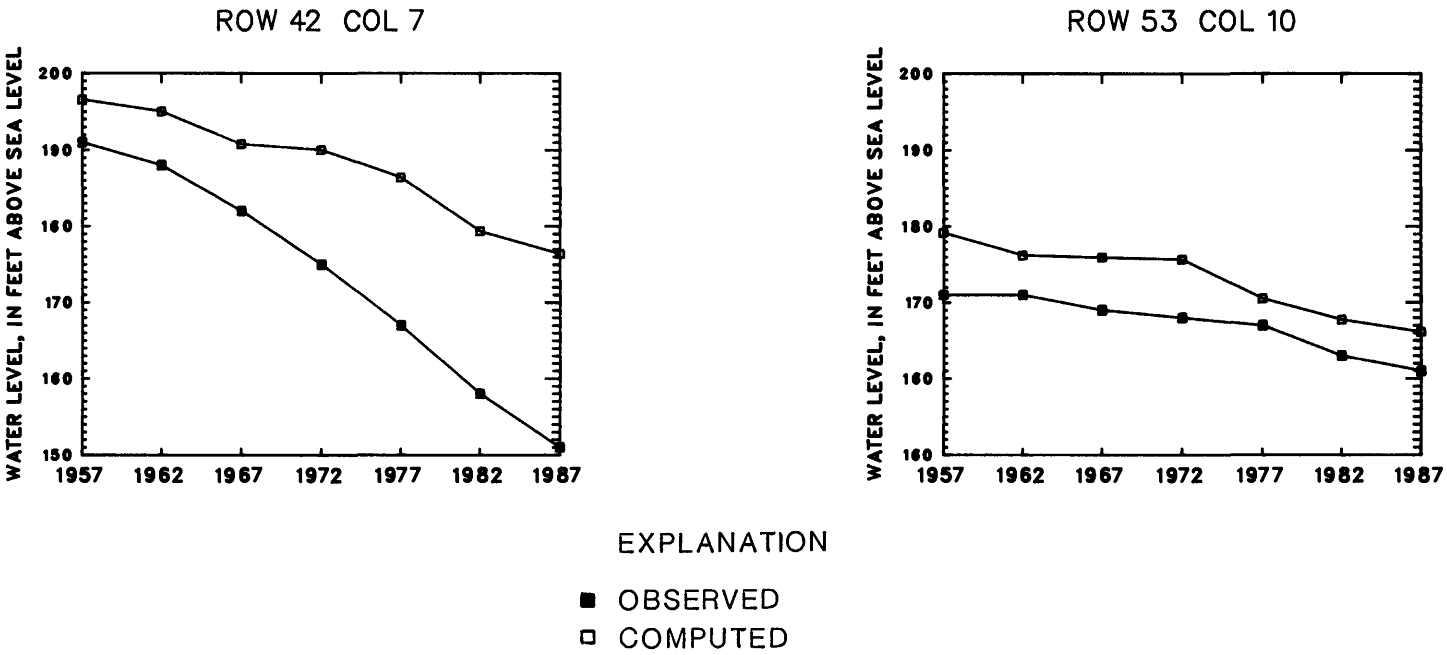


Figure 6.--Computed and observed heads for the transient model calibration for Bayou Meto basin.

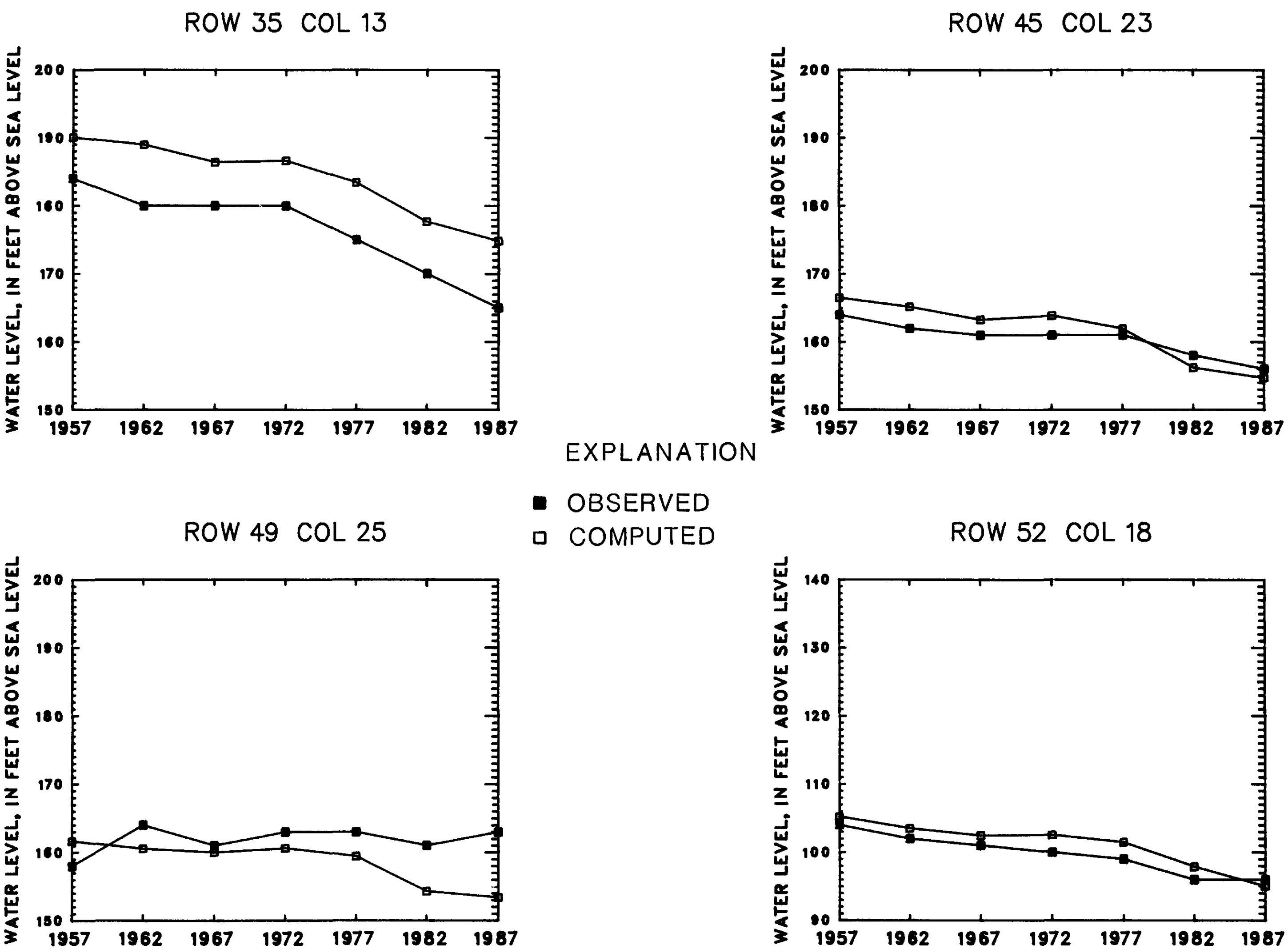


Figure 7.--Computed and observed heads for the transient model calibration for Lower White basin.

Sensitivity Analysis

Calibration of a digital model does not produce a unique solution or representation of the ground-water system modeled. Consequently, there is a degree of uncertainty concerning the choice of input parameter values. It is desirable, therefore, to test the sensitivity of the model to changes in input parameters within reasonable upper and lower limits for each parameter.

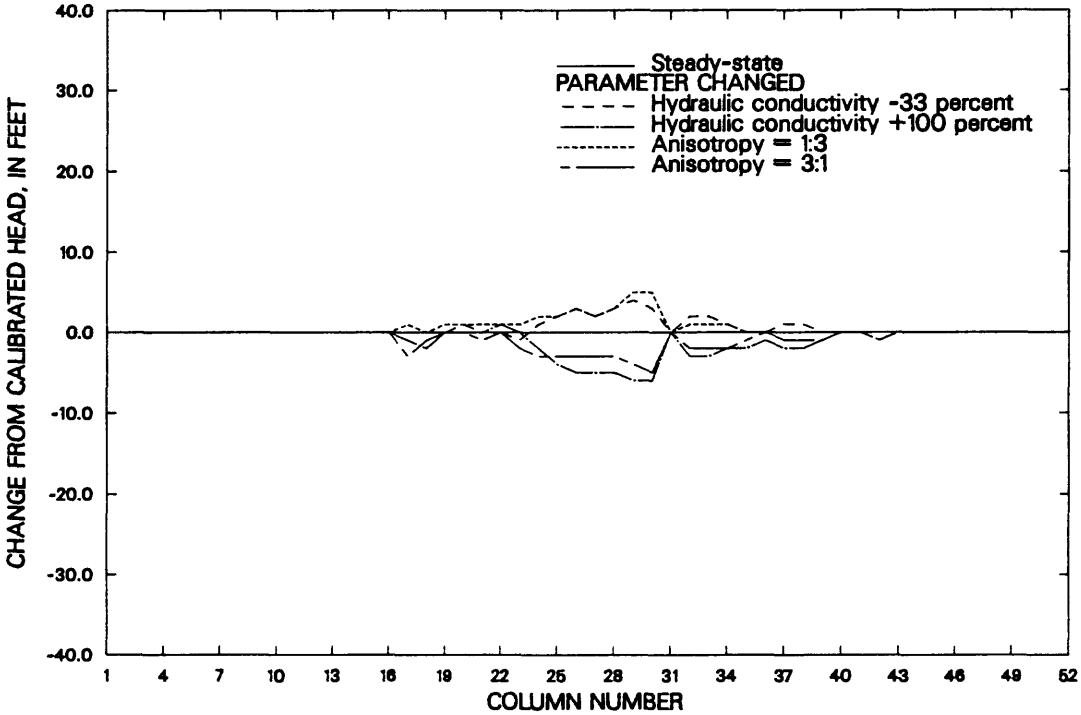
The process of sensitivity analysis involves uniformly varying one parameter from the calibrated model while all others remain unchanged. Although exact results of head changes can be meaningful, relative changes in head can provide insight as to the degree to which a change in a given parameter may affect the results of any simulation. The model is rerun in the same manner as the calibrated run, and changes in output head between the calibrated model and the sensitivity run for the changed parameter are noted. Large differences in head between the calibrated output and the output from the sensitivity run indicate that the model is very sensitive to the magnitude of change of that parameter at that node. Conversely, small head differences indicate insensitivity of the model to the magnitude of change of the parameter in the sensitivity run.

For the steady-state alluvial aquifer model, values defining hydraulic conductivity, isotropy, riverbed conductance, and pumpage were each changed from their steady-state value to note the sensitivity of the model to that change. The values were modified as shown below:

Hydraulic conductivity	-- +100 percent
	-- -33 percent
Anisotropy	-- 3:1
	-- 1:3
Riverbed conductance	-- ±25 percent
Pumpage	-- ±10 percent

Figures 8 through 10 illustrate the comparison between the steady-state and the sensitivity run heads along the specified row or column of nodes. As indicated in the illustrations, the model is sensitive to hydraulic conductivity in the Grand Prairie but is less sensitive to changes in this parameter in other parts of the model. The model shows the greatest sensitivity to changes in riverbed conductance, and thus recharge, on the west side of Crowleys Ridge along row 25 near columns 26 through 30.

The anisotropy factor in the modular model (McDonald and Harbaugh, 1984) is the ratio of hydraulic conductivity along a column to hydraulic conductivity along a row. Changes from isotropic conditions to anisotropy ratios of 3:1 and 1:3 show some sensitivity of the model in highly stressed areas. The sensitivity of this parameter generally is similar to that for hydraulic conductivity. Changes in pumpage show the model is most sensitive to change where historic pumpage has been the greatest. Increasing pumpage by 10 percent has a lesser effect than decreasing riverbed conductance by 25 percent.



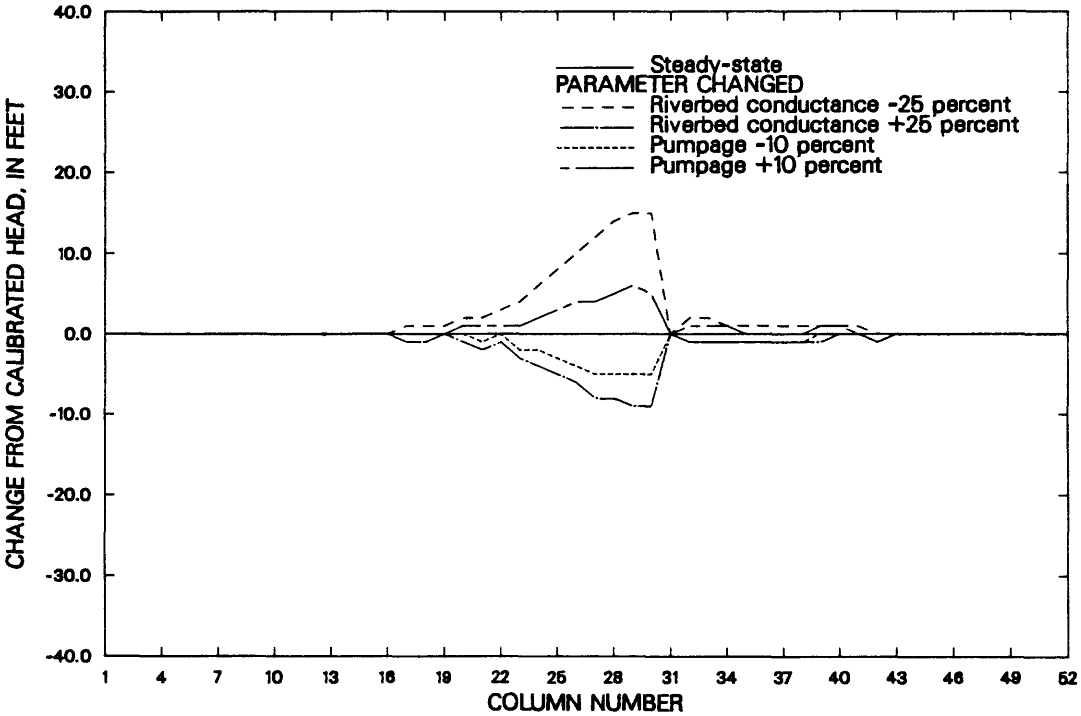
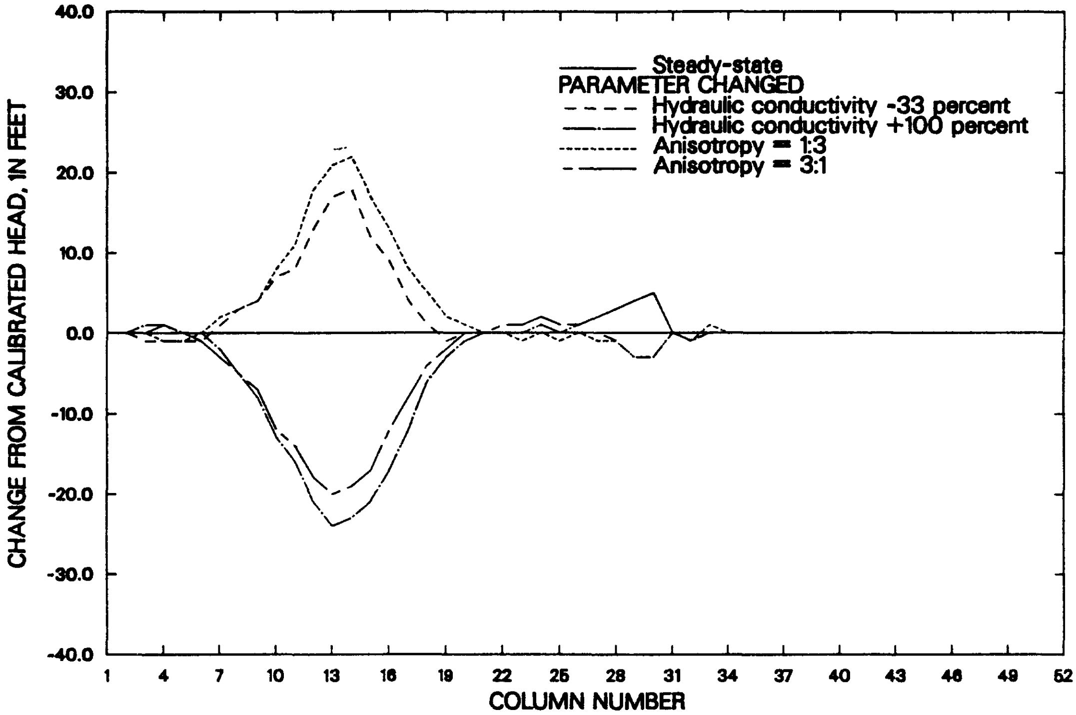


Figure 8.--Sensitivity of calibrated steady-state model to changes in selected parameters along row 25.



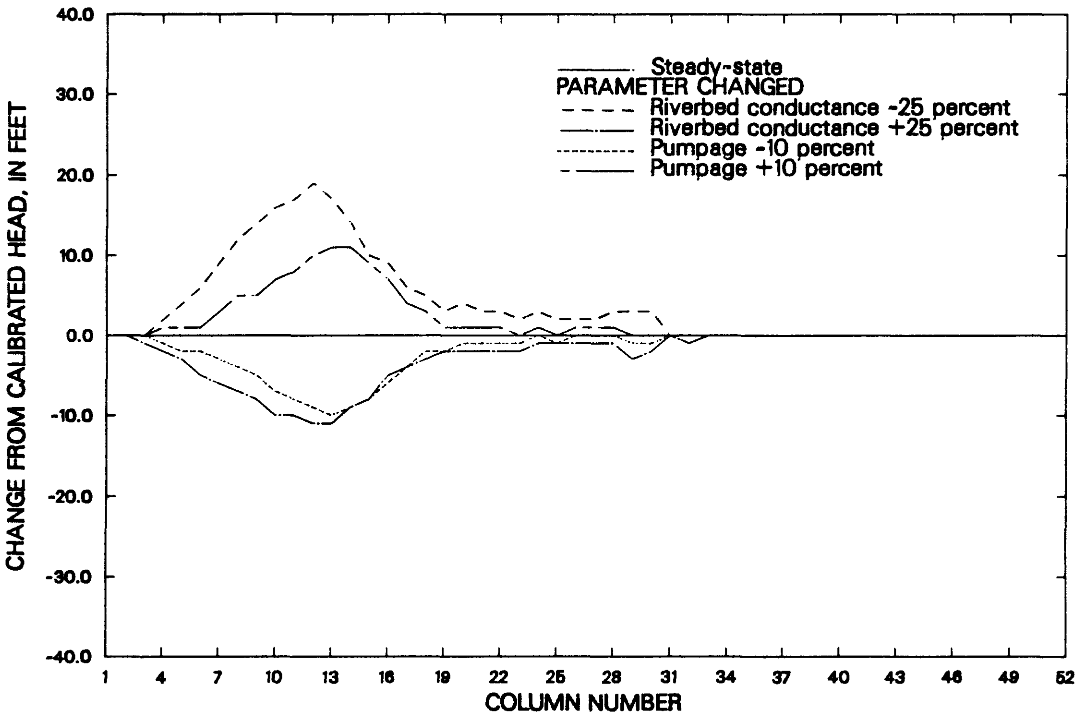
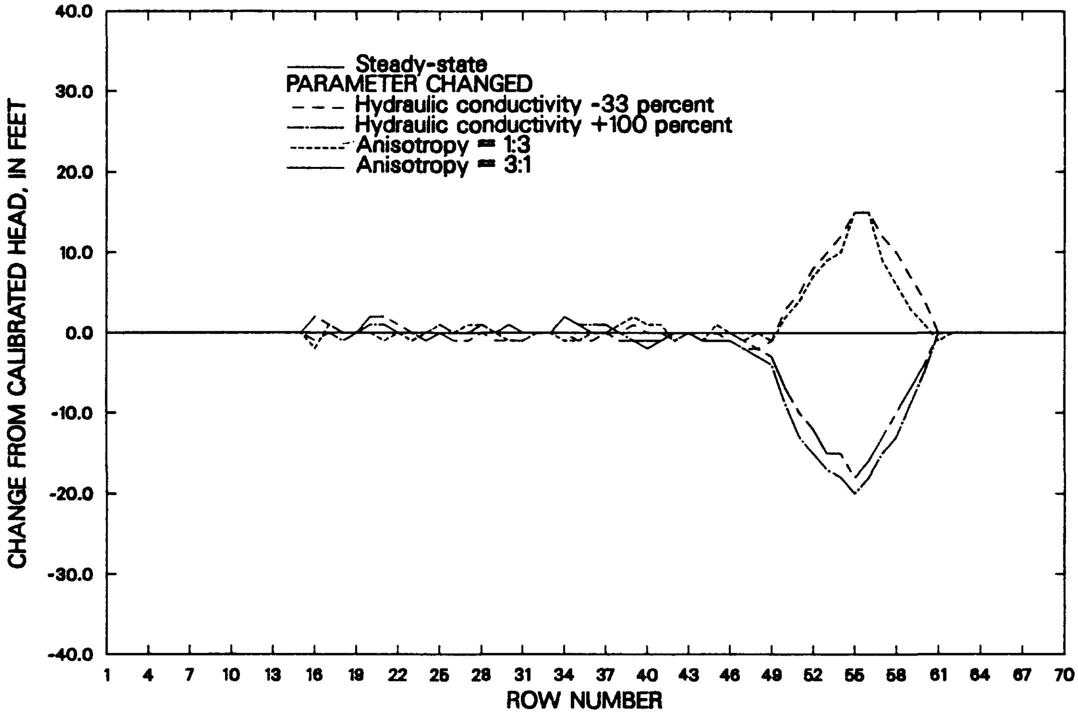


Figure 9.--Sensitivity of calibrated steady-state model to changes in selected parameters along row 45.



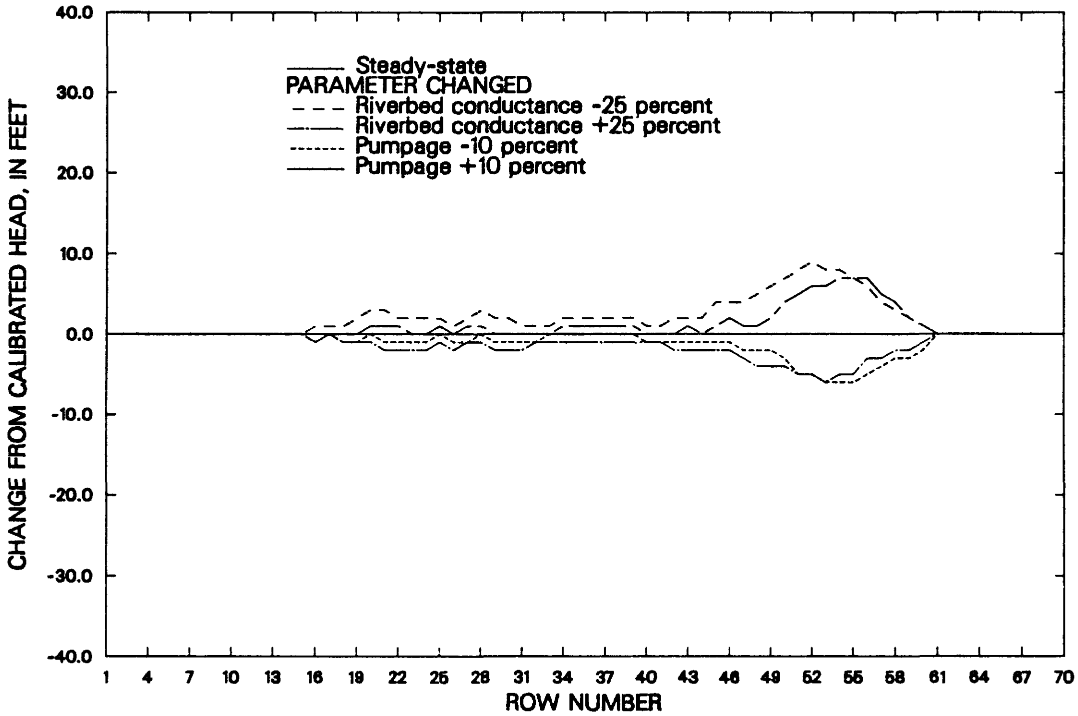


Figure 10.--Sensitivity of calibrated steady-state model to changes in selected parameters along column 20.

EVALUATION OF THE EFFECTS OF PUMPING

Predevelopment Conditions

Before describing existing and projected saturated thicknesses of the alluvial aquifer, it is appropriate to briefly discuss predevelopment conditions in eastern Arkansas. Predevelopment potentiometric surfaces have not been estimated and documented with the exception of the results of a model simulation study by Broom and Lyford, 1981. Broom and Lyford (1981) also describe the data used to generate the map and state that generally the water levels in wells unaffected by pumpage are less than 20 feet below land surface. Generally the predevelopment surface is presumed to have followed the slope of land surface. Consequently, ground water would have flowed southward toward the major rivers such as the Arkansas, Mississippi, St. Francis, and White. The aquifer probably was fully saturated until the onset of pumping in the Grand Prairie.

The earliest records of significant withdrawals are from about 1910 in Arkansas County in the Grand Prairie. Declines in water levels were documented in 1929 (Engler and others, 1945) occurring in this same region as a result of irrigation.

As the use of ground-water resources has increased, the direction of ground-water movement has been altered and the aquifer no longer discharges to the rivers in many areas, but is recharged by them. As an example, in predevelopment time when the aquifer was fully saturated, the alluvial aquifer most likely discharged to the Arkansas River. However, recent model simulations indicate that recharge from the river to the aquifer in the Grand Prairie area was about 7,500,000 ft^3/d in 1987 (D.J. Ackerman, U.S. Geological Survey, written commun., 1988). This flux into the aquifer is a result of the declining saturated thickness of the alluvial aquifer in the Grand Prairie, where many farmers have experienced wells going dry.

Saturated Thicknesses and Critical Areas

Measured saturated aquifer thickness in 1982 is shown in plate 9. Although no critical areas (areas where the saturated thickness of the aquifer is less than 20 feet) resulted during model simulation, some localized areas of less than 20 feet of saturation may have existed. The potentiometric surface calculated for each cell in the model is an average potentiometric surface and does not reflect local critical areas caused by a single or several closely spaced pumped wells. Some localized critical areas of less than 20 feet of saturation have been identified in the Grand Prairie area by Plafcan and Edds (1986).

Projected Saturated Thicknesses

The principal application of the transient model in this study is to make use of its predictive capability to project the effects of future increased ground-water withdrawals on the saturated thickness of the aquifer. The projections made for this study are based on estimated irrigation-water needs and pumpage for the period 1990 to 2040 (U.S. Soil Conservation Service, 1987). The pumpage for each decade was applied to the model and simulated for 10 years. Heads were calculated at the end of each decade, based on the pumpage at the beginning of that decade, and saturated aquifer thickness was then determined.

Projected water-needs data were developed on the assumption that 95 percent of all available land, except for wetlands and urban areas, would be placed in production by 2040 and that the land would be irrigated according to a traditional crop-rotation scheme. The projections were based on the distribution and magnitude of 1982 water use uniformly extrapolated to the level of irrigation estimated for the year 2040.

The water-use projections provided by the U.S. Soil Conservation Service for 1990 and beyond did not include a breakdown of the sources of irrigation water. For this study it was assumed that the same amount of surface water used in 1982 would be used in future years. To determine projected ground-water requirements for each cell, the 1982 surface-water use was subtracted from the projected total water requirements. Inasmuch as future water needs may be satisfied in part by the increased use of surface water, the projections developed herein may be conservative and model results may indicate a larger area of critical ground-water levels than actually may exist.

Two types of water-needs projections were estimated by the U.S. Soil Conservation Service. One type was based on continued use of current irrigation schedules without imposition of any conservation measures. The other type was with imposition of conservation measures and was based on modifications to current irrigation practices. Total pumpage without and with conservation measures imposed are given in table 2. Both types of data were used to stress the transient model. Initial conditions for projection simulations were measured 1982 water levels. Pumpage from the transient calibration's stress period 7 was used to stress the aquifer until 1990 when the projected pumpage in table 2 was applied.

Table 2.--Total projected pumpages used per decade to stress the calibrated flow model

Interval	Pumpage x 10^8 (ft³/day)	
	Without conservation	With conservation
1990-2000	6.8883	6.2026
2000-2010	7.7934	6.5047
2010-2020	9.0859	6.9486
2020-2030	10.1440	7.3257
2030-2040	11.2300	7.6646
2040-2050	12.3160	8.0032

Model simulations show there are three areas in which critical cells may develop as a result of projected pumpage, both without and with conservation measures. Saturated thickness in the Grand Prairie area diminished to critical levels by the year 2000 in the model simulations. The critical area extends laterally to the northwest during the simulation period and reaches the western boundary near the Little Red River by the end of the simulation (2050).

The second major area where saturated thickness is projected to decline to less than 20 feet is west of Crowleys Ridge near the southern end of the ridge. In the model the critical area would include parts of St. Francis, Cross, Poinsett, and Craighead Counties by the year 2050 without conservation measures. The area was projected to be much smaller when conservation measures were applied to the projected pumpage.

The third area of critical saturated aquifer thickness was projected to develop east of Crowleys Ridge beginning in Cross and Crittenden Counties during model simulation. By the year 2050 the simulated critical area is projected to extend to include St. Francis and Poinsett Counties if conservation measures are employed and would include Mississippi County if conservation measures are not used.

Other smaller critical areas such as in the Bayou Meto basin and adjacent to the western boundary developed during model simulation of projected pumpage. The number of cells in which saturated thickness reached critical levels during the simulation period are listed in table 3 for pumpage without and with conservation practices.

Table 3.--Number of critical cells resulting from projected pumpage simulations

Time period	Total number of critical cells: Without conservation	With conservation
1990 - 2000	25	25
2000 - 2010	75	51
2010 - 2020	175	88
2020 - 2030	268	139
2030 - 2040	341	181
2040 - 2050	405	210

Plates 10 through 21 show the saturated thickness of the aquifer at the specified date, without and with conservation practices in place, and the cells in which 20 feet or less of saturated thickness remain. Because of the continued increase in pumpage during the simulation period (1990 to 2040), the numbers of cells becoming critical increases each decade. However, with conservation measures, the number of critical cells is less than that without conservation during any given decade. The simulations indicate that by the year 2050, pumpage without conservation will create critical areas in excess of 26 percent of the model area (422 cells). Simulations using pumpage with conservation indicate that by the year 2050, 258 or over 16 percent of the active cells will have saturated thicknesses less than or equal to 20 feet. The reduction in the number of critical cells when using conservation measures is particularly evident during the stress periods using pumpage estimates for the years 2030 and 2040.

It should be noted that the critical cells described previously account for cells that have 20 feet or less of saturated thickness and also for cells that "went dry" during the stress period in the model simulation. Cells that go dry during the simulation did so because there was more water removed from that cell than was added by lateral flow and recharge. This condition would not occur in the field because complete dewatering of an aquifer would be accomplished only at a local scale (at a well site). When dewatering occurs, either completely or to some level below the top of the screen, pumping typically ceases or is diminished, thus allowing natural recharge processes to rewater the aquifer.

Model simulations for this project did not allow for revival of the aquifer, an effect resulting from eliminating or decreasing pumpage from one stress period to the next. The version of the model code (McDonald and Harbaugh, 1984) used for these simulations does not allow for rewetting or any flow into or out of the cells once it has gone dry. Cells that went dry during a stress period of the simulation had the same effect on the aquifer as a no-flow boundary condition. Consequently, no flow is associated with the cell, and the flow components imposed in the input data, pumpage and recharge for example, were not accounted for in the overall budget of the simulation.

SUMMARY

The Eastern Arkansas Region Comprehensive Study (EARCS) is a multiagency investigation that began in 1985 and is comprised of work activities by the U.S. Army Corps of Engineers, Memphis District; the U.S. Soil Conservation Service; the Arkansas Soil and Water Conservation Commission; the U.S. Geological Survey; and the University of Arkansas. The primary objective of the EARCS is the determination of the feasibility of developing hydraulic structures for supplying irrigation water from surface sources for use in areas of potential ground-water deficiency. To aid in accomplishing this objective, the U.S. Geological Survey developed and calibrated a digital model to simulate the ground-water flow system of the Mississippi River Valley alluvial aquifer. The flow model also was developed to aid in the definition of critical areas to the year 2050 resulting from pumpage projections to the year 2040.

The alluvial aquifer in eastern Arkansas is composed of two units--a confined aquifer, consisting of coarse sand and gravel grading upward to fine sand, overlain by an upper confining unit, composed of clay, silt, and fine sand. Abrupt lateral variations in lithology result in spatial variations in the infiltration potential of the upper confining unit as well as the transmissive character of the aquifer. Recharge to the aquifer principally is from precipitation but is supplemented by infiltration from streams, particularly from those that have substantial hydraulic connection with the aquifer. Ground-water movement in the aquifer generally is southward but locally is toward streams and toward areas of large withdrawals.

A steady-state model was developed to simulate the potentiometric surface of the alluvial aquifer under equilibrium conditions and to quantify the flows into and out of the aquifer. Boundaries for the model consist of a constant-head boundary near the Arkansas-Missouri State line, the Mississippi River on

the eastern side, the Arkansas River on the southern side, and a simulated no-flow boundary representing the Paleozoic and Tertiary rocks on the western side. The Mississippi and Arkansas Rivers potentially provide an unlimited source of water to the aquifer and emulate a constant-head boundary condition. Crowleys Ridge functions as a barrier to ground-water movement in the north-central part of the aquifer and is, consequently, simulated as a no-flow boundary.

Nonsteady-state simulations were made to further understand the ground-water flow system and also to make estimates of the saturated thickness of the aquifer to the year 2050, based on estimates of pumpage through the year 2040 made by the U.S. Soil Conservation Service. Critical areas where saturated aquifer thickness decreased to less than 20 feet were determined. Model simulation indicates that without conservation measures, projected pumpage in the year 2050 is expected to create critical areas of less than 20 feet of saturation in 422 of the 1,595 active cells in the model. With conservation measures the number of critical cells in the model is projected to be 258. Three principal areas of concern were determined based on these simulations - the Grand Prairie area and areas to the east and to the west of Crowleys Ridge.

SELECTED REFERENCES

Ackerman, D.J., 1989, Hydrology of the Mississippi River Valley alluvial aquifer, south-central United States--A preliminary assessment of the regional flow system: U.S. Geological Survey Water-Resources Investigations Report 88-4028, 74 p.

Boswell, E.H., Cushing, E.M., Hosman, R.L., 1968, Quaternary aquifers in the Mississippi embayment *with a discussion of* Quality of the water by H.G. Jeffery: U.S. Geological Survey Professional Paper 448-E, 15 p.

Boswell, E.H., Moore, G.K., MacCary, L.M., and others, 1965, Cretaceous aquifers in the Mississippi embayment, *with discussion of* Quality of the water by H.G. Jeffery: U.S. Geological Survey Professional Paper 448-C, 37 p.

Broom, M.E., and Lyford, F.P., 1981, Alluvial aquifer of the Cache and St. Francis River basins, northeastern Arkansas: U.S. Geological Survey Open-File Report 81-476, 48 p.

Broom, M.E., and Reed, J.E., 1973, Hydrology of the Bayou Bartholomew alluvial-aquifer stream system, Arkansas: U.S. Geological Survey Open-File Report, 91 p.

Cushing, E.M., Boswell, E.H., and Hosman, R.L., 1964, General geology of the Mississippi embayment: U.S. Geological Survey Professional Paper 448-B, 28 p.

Engler, Lyle, Thompson, D.G., and Kazmann, R.G., 1945, Ground-water supplies for rice irrigation in the Grand Prairie region, Arkansas: Arkansas University Agricultural Experiment Station Bulletin 457, 56 p.

Fenneman, N.M., 1938, Physiography of the eastern United States: New York and London, McGraw Hill Book Co., 714 p.

Fisk, H.N., 1944, Geological investigation of the alluvial aquifer of the lower Mississippi River: U.S. Department of the Army, Mississippi River Commission, 78 p.

----- 1947, Fine-grained alluvial deposits and their effects on Mississippi River activity: U.S. Army Corps of Engineers, Waterways Experiment Station, 82 p.

Freeze, R.A., and Cherry, J.A., 1979, Groundwater: New Jersey, Prentice-Hall, 604 p.

Freiwald, D.A., 1985, Average annual precipitation and runoff for Arkansas, 1951-80: U.S. Geological Survey Water-Resources Investigations Report 85-4363, 1 sheet.

Griffis, C.L., 1972, Groundwater-surface water integration study in the Grand Prairie of Arkansas: Arkansas Water Resources Research Center Publication No. 11.

Hosman, R.L., Long, A.T., Lambert, T.W., and others, 1968, Tertiary aquifers in the Mississippi embayment, *with discussions of* Quality of the water by H.G. Jeffery: U.S. Geological Survey Professional Paper 448-D, 29 p.

Krinitzsky, E.L., and Wire, J.C., 1964, Ground water in alluvium of lower Mississippi Valley (upper and central areas): U.S. Department of the Army, Corps of Engineers, Waterways Experiment Station Technical Report 3-658, v. 1 and 2, 400 p.

McDonald, M.G., and Harbaugh, A.W., 1984, A modular three-dimensional finite-difference ground-water flow model: U.S. Geological Survey Open-File Report 83-875, 528 p.

Peralta, R.C., Yazdanian, A., Killian, P.J., and Shulstad, R.N., 1985, Future Quaternary groundwater accessibility in the Grand Prairie--1993: University of Arkansas, Agricultural Experiment Station Bulletin no. 877, 37 p.

Plafcan, Maria, and Edds, Joe, 1986, Water level and saturated thickness maps of the alluvial aquifer in eastern Arkansas, 1984: U.S. Geological Survey Water-Resources Investigations Report 86-4014, 1 sheet.

Plafcan, Maria, and Fugitt, D.T., 1987, Water-level maps of the alluvial aquifer in eastern Arkansas, 1985: U.S. Geological Survey Water-Resources Investigations Report 86-4178, 1 sheet.

Plebuch, R.O., 1961, Fresh-water aquifers of Crittenden County, Arkansas: Arkansas Geological and Conservation Commission Water Resources Circular 8, 65 p.

Ryling, R.W., 1960, Ground-water potential of Mississippi County, Arkansas: Arkansas Geological and Conservation Commission Water Resources Circular 7, 87 p.

Saucier, R.T., 1964, Geological investigation of the St. Francis basin: U.S. Army Corps of Engineers, Waterways Experiment Station Technical Report 3-659.

Smith, F.L., and Saucier, R.T., 1971, Geological investigation of the western lowlands area, lower Mississippi Valley: U.S. Army Corps of Engineers, Waterways Experiment Station Technical Report S-71-5.

Sumner, D.M., and Wasson, P.E., 1984, Geohydrology and simulated effects of large ground-water withdrawals on the Mississippi River alluvial aquifer in northwestern Mississippi: U.S. Geological Survey Open-File Report 84-822, 82 p.

U.S. Department of Agriculture, Soil Conservation Service, 1987, Present and projected land and water use: Eastern Arkansas Region Comprehensive Study, 141 p.

APPENDIX 1

MODEL INPUT DATA USED FOR CALIBRATION AND PROJECTED PUMPAGE SCENARIOS

APPENDIX 1 -- MODEL INPUT DATA USED FOR CALIBRATION AND PROJECTED PUMPAGE SCENARIOS

```
.......................................................................................................
                U.S. GEOLOGICAL SURVEY MODULAR FINITE-DIFFERENCE GROUND-WATER MODEL
                                EASTERN ARKANSAS COMPREHENSIVE STUDY
                            1 LAYERS         70 ROWS         52 COLUMNS
                                     MODEL TIME UNIT IS DAYS

I/O UNITS:
ELEMENT OF IUNIT:  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
        I/O UNIT: 31 56  0 55  0  0  0  0 32  0  0 62  0  0  0  0  0  0  0  0  0  0  0  0
BAS1 -- BASIC MODEL PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT  5
ARRAYS RHS AND BUFF WILL SHARE MEMORY.
START HEAD WILL BE SAVED
 40390 ELEMENTS IN X ARRAY ARE USED BY BAS
 40390 ELEMENTS OF X ARRAY USED OUT OF 330000
BCF1 -- BLOCK-CENTERED FLOW PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT 31
STEADY-STATE SIMULATION
CELL-BY-CELL FLOWS WILL BE RECORDED ON UNIT 48
     LAYER  AQUIFER TYPE
     ------------------
        1         3
 13417 ELEMENTS IN X ARRAY ARE USED BY BCF
 53807 ELEMENTS OF X ARRAY USED OUT OF 330000
WEL1 -- WELL PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM 56
MAXIMUM OF 1522 WELLS
  6088 ELEMENTS IN X ARRAY ARE USED FOR WELLS
 59895 ELEMENTS OF X ARRAY USED OUT OF 330000
RIV1 -- RIVER PACKAGE, VERSION 1,  12/08/83 INPUT READ FROM UNIT 55
MAXIMUM OF 1574 RIVER NODES
CELL-BY-CELL FLOWS WILL BE RECORDED ON UNIT 48
  9444 ELEMENTS IN X ARRAY ARE USED FOR RIVERS
 69339 ELEMENTS OF X ARRAY USED OUT OF 330000
SIP1 --STRONGLY IMPLICIT PROCEDURE SOLUTION PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT 3
MAXIMUM OF 310 ITERATIONS ALLOWED FOR CLOSURE
 5 ITERATION PARAMETERS
 19133 ELEMENTS IN X ARRAY ARE USED BY SIP
 88472 ELEMENTS OF X ARRAY USED OUT OF 330000
EASTERN ARKANSAS COMPREHENSIVE STUDY : STEADY-STATE SIMULATION
```

A. Boundary array for layer 1

	1 26 51	2 27 52	3 28	4 29	5 30	6 31	7 32	8 33	9 34	10 35	11 36	12 37	13 38	14 39	15 40	16 41	17 42	18 43	19 44	20 45	21 46	22 47	23 48	24 49	25 50
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	-88	-88	-88	-88	-88	-88	-88	-98	-81	-91	-81	-81	0	-81	-81	-81	-81	-81	-81	-81	-81
	-81	0																							
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	88	88	88	88	88	88	98	83	83	91	81	81	0	81	81	81	81	81	91	81	81
	90	0																							
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	98	88	88	88	88	88	98	83	83	83	0	91	81	81	81	81	81	81	91	81	81	81
	90	0																							
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	98	88	88	88	88	98	83	83	83	83	0	91	81	81	81	81	81	91	81	81	81	81
	90	0																							
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	88	98	88	88	88	98	83	83	83	0	0	0	81	91	81	81	81	81	91	81	81	81	81
	90	0																							
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	88	98	88	88	98	83	83	83	0	0	0	81	81	81	91	81	81	91	81	81	81	81	81
	90	0																							
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	88	98	88	98	98	83	83	83	83	0	0	0	81	81	91	81	81	81	91	81	81	81	81	81
	90	0																							
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	98	98	98	98	88	83	83	83	83	0	0	0	81	81	81	91	81	81	91	81	81	81	81	81	90
	90	0																							
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	98
	98	98	88	88	83	83	83	83	0	0	81	81	81	81	91	81	81	81	91	81	81	81	81	90	0
	0	0																							
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	98
	88	85	85	83	83	83	83	0	0	0	81	81	81	91	81	81	81	91	81	81	81	81	81	81	90
	0	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	98	88
	85	85	83	93	83	83	0	0	0	81	81	81	81	91	81	81	91	81	81	81	81	81	81	81	90
	0	0																							
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	98	88	88
	85	83	83	93	83	83	0	0	0	81	81	81	91	81	81	81	91	81	81	81	81	81	81	90	90
	0	0																							
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	98	88	85
	85	83	93	83	83	0	0	0	81	81	81	91	81	81	81	91	81	81	81	81	81	81	81	90	0
	0	0																							
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	98	88	88	85
	85	93	83	83	83	0	0	0	81	81	91	81	81	81	81	91	81	81	81	81	81	81	90	0	0
	0	0																							
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	98	88	85	85
	85	93	83	83	0	0	0	0	81	81	91	81	81	81	81	91	81	81	81	81	81	81	81	90	0
	0	0																							
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	98	88	85	85	85
	83	93	83	83	0	0	0	81	81	81	91	81	81	81	81	91	81	81	81	81	81	81	90	90	90
	0	0																							
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	98	88	85	85	83
	83	93	83	0	0	0	0	81	81	91	81	81	81	81	81	91	81	81	81	81	81	81	90	0	0
	0	0																							
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	98	85	85	83	83
	93	83	0	0	0	0	81	81	81	91	81	81	81	81	81	91	81	81	81	81	81	81	81	90	0

19	0/0/83	0/0/83	0/83	0/0	0/0	0/81	0/81	0/81	0/81	0/81	0/91	0/81	0/81	0/81	0/91	0/81	0/81	0/81	88/81	98/81	85/81	85/81	85/90	83/0	93/0
20	0/0/83	0/0/83	0/83	0/83	0/0	0/81	0/81	0/81	0/81	0/81	0/91	0/81	0/81	0/91	0/81	0/81	0/81	88/81	98/81	85/90	85/90	85/90	83/0	83/0	93/0
21	0/0/83	0/0/83	0/83	0/82	0/82	0/0	0/81	0/81	0/81	0/91	0/81	0/81	0/91	0/81	0/81	0/81	0/81	88/81	98/90	85/0	85/0	85/0	83/0	93/0	83/0
22	0/0/83	0/0/83	0/82	0/82	0/82	0/0	0/81	0/81	0/81	0/91	0/81	0/91	0/81	0/81	95/81	85/81	88/81	98/81	85/81	85/90	85/0	83/0	83/0	93/0	83/0
23	0/0/83	0/0/82	0/82	0/82	0/82	0/0	0/81	0/81	0/81	0/91	0/91	0/81	0/81	0/81	0/81	95/81	95/81	95/81	95/81	85/90	85/0	83/0	83/0	93/0	83/0
24	0/0/83	0/0/82	0/82	0/82	0/82	0/0	0/81	0/81	0/81	0/91	0/81	0/81	0/81	0/81	0/81	85/81	85/81	85/81	95/81	85/90	83/0	83/0	93/0	83/0	83/0
25	0/0/82	0/0/82	0/82	0/82	0/82	0/0	0/81	0/81	0/81	0/81	0/91	0/81	0/81	0/81	0/81	0/81	85/81	85/81	95/90	85/90	83/0	93/0	83/0	83/0	83/0
26	0/0/82	0/0/82	0/82	0/82	0/0	0/81	0/81	0/81	0/81	0/91	0/81	0/81	0/81	0/81	0/81	0/81	0/81	85/90	95/0	85/0	83/0	93/0	83/0	83/0	83/0
27	0/0/82	0/0/82	0/82	0/92	0/0	0/81	0/81	0/81	0/91	0/91	0/81	0/81	0/81	0/81	0/81	0/81	85/81	95/90	85/0	85/0	83/0	93/0	83/0	83/0	83/0
28	0/0/82	0/0/82	0/92	0/82	0/0	0/81	0/81	0/91	0/81	0/81	0/81	0/81	0/81	0/81	0/81	0/81	85/81	95/90	85/0	83/0	83/0	93/0	83/0	83/0	82/0
29	0/0/82	0/0/82	0/92	0/82	0/0	0/81	0/81	0/91	0/81	0/81	0/81	0/81	0/81	0/81	0/81	85/81	95/90	85/0	85/0	83/0	83/0	93/0	83/0	83/0	82/0
30	0/0/82	0/0/92	0/82	0/82	0/0	0/81	0/81	0/91	0/81	0/81	0/81	0/81	0/81	0/81	87/81	85/81	95/90	85/0	85/0	83/0	93/0	83/0	83/0	83/0	82/0
31	0/0/82	0/0/92	0/82	0/82	0/0	0/81	0/81	0/91	0/81	0/81	0/81	0/81	0/81	87/81	87/81	85/81	95/90	85/0	83/0	83/0	93/0	83/0	83/0	82/0	82/0
32	0/0/82	0/0/92	0/82	0/82	0/0	0/91	0/91	0/81	0/81	0/81	0/81	0/81	97/81	87/81	87/81	85/81	85/90	95/0	83/0	93/0	83/0	83/0	83/0	82/0	82/0
33	0/0/82	0/0/92	0/82	0/82	0/0	0/91	0/81	0/81	0/81	0/81	86/81	86/81	87/81	97/81	97/81	97/81	95/90	95/0	83/0	93/0	83/0	83/0	83/0	82/0	82/0
34	0/0/82	0/0/92	0/82	0/0	0/0	0/91	0/81	0/81	86/81	86/81	86/81	86/81	86/81	86/81	86/81	86/90	96/90	83/0	83/0	93/0	83/0	83/0	83/0	82/0	82/0
35	0/0/82	0/0/92	0/82	0/0	0/0	0/91	0/81	0/81	86/81	86/81	86/81	86/81	86/81	86/81	86/90	86/0	96/0	83/0	93/0	83/0	83/0	83/0	83/0	83/0	82/0
36	0/0/82	0/0/92	0/82	0/0	0/0	0/91	0/81	0/81	86/81	86/81	86/81	86/81	86/81	86/81	86/90	96/0	83/0	83/0	93/0	83/0	83/0	83/0	83/0	86/0	82/0
37	0/0/82	0/0/92	0/82	0/82	0/0	0/91	0/81	86/81	86/81	86/81	86/81	86/81	86/81	86/90	86/0	96/0	83/0	83/0	93/0	83/0	83/0	83/0	86/0	86/0	82/0
38	0/0	0/0	0	0	0	0	0	86	86	86	86	86	86	86	86	96	83	83	93	83	83	86	86	86	86

	82	92	82	82	0	91	91	81	81	81	81	81	81	90	0	0	0	0	0	0	0	0	0	0	0
	0	0																							
39	0	0	0	0	0	0	0	86	86	86	86	86	86	86	86	96	83	83	93	83	83	86	86	86	86
	82	82	92	82	0	81	91	81	81	81	81	81	81	90	0	0	0	0	0	0	0	0	0	0	0
	0	0																							
40	0	0	0	0	0	0	0	86	86	86	86	86	86	86	86	96	86	93	83	83	83	86	86	86	86
	86	82	92	82	81	81	91	81	81	81	81	81	90	90	0	0	0	0	0	0	0	0	0	0	0
	0	0																							
41	0	0	0	0	0	0	0	84	86	86	86	86	86	86	86	96	86	83	93	83	83	86	86	86	86
	86	82	82	92	82	81	91	81	81	81	90	90	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0																							
42	0	0	84	84	94	84	84	84	84	84	86	86	86	86	86	86	96	83	93	83	86	86	86	86	86
	86	86	86	92	82	82	91	81	81	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0																							
43	0	84	84	84	84	94	94	84	84	84	84	86	86	86	86	86	96	83	93	83	86	86	86	86	86
	86	86	86	86	92	92	81	91	90	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0																							
44	0	99	99	89	84	84	84	94	84	84	84	86	86	86	86	86	86	96	93	86	86	86	86	86	86
	86	86	86	86	86	0	91	90	0	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0																							
45	0	0	99	89	84	84	84	84	94	84	84	84	86	86	86	86	86	86	96	86	86	86	86	86	86
	86	86	86	86	86	0	91	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0																							
46	0	0	99	89	89	84	84	84	84	94	84	84	84	86	86	86	86	86	96	86	86	86	86	86	86
	86	86	86	86	86	86	0	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0																							
47	0	0	99	89	89	89	84	84	84	84	94	84	84	84	86	86	86	86	96	96	86	86	86	86	86
	86	86	86	86	86	86	0	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0																							
48	0	0	0	99	89	89	84	84	84	84	84	94	84	84	86	86	86	86	86	96	86	86	86	86	86
	86	86	86	86	86	86	86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0																							
49	0	0	0	99	89	89	89	84	84	84	84	94	84	84	84	86	86	86	86	96	86	86	86	86	86
	86	86	86	86	86	86	86	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0																							
50	0	0	0	99	89	89	89	84	84	84	84	84	94	84	84	84	86	86	86	86	96	86	86	86	86
	86	86	86	86	86	86	86	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0																							
51	0	0	0	99	89	89	89	84	84	84	84	84	84	94	84	84	86	86	86	86	86	96	86	86	86
	86	86	86	86	86	86	86	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0																							
52	0	0	0	0	99	89	89	84	84	84	84	84	94	84	84	84	84	86	86	86	86	86	96	86	86
	86	86	86	86	90	90	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0																							
53	0	0	0	0	99	89	89	89	84	84	84	84	84	94	84	84	84	86	86	86	86	86	86	96	86
	86	86	86	86	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0																							
54	0	0	0	0	0	99	99	89	84	84	84	84	84	94	84	84	84	84	86	86	86	86	86	96	86
	86	86	86	90	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0																							
55	0	0	0	0	0	0	99	99	89	84	84	84	84	94	84	84	84	84	86	86	86	86	86	96	86
	86	86	86	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0																							
56	0	0	0	0	0	0	0	0	99	99	84	84	84	84	94	84	84	84	86	86	86	86	86	96	86
	86	86	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0																							
57	0	0	0	0	0	0	0	0	0	0	99	99	84	84	84	94	84	84	86	86	86	86	86	96	86
	86	90	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0																							

```
58    0    0    0    0    0    0    0    0    0    0    0    0   99   99   84   84   94   84   86   86   86   86   96   86   86
     86   90    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
      0    0
59    0    0    0    0    0    0    0    0    0    0    0    0    0   99   99   99   99   84   86   86   86   96   86   86   86
     86   90    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
      0    0
60    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0   99   86   86   86   86   96   86   86   86
     90   90    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
      0    0
61    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0   99   99   99   99   86   96   90   90
      0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
      0    0
62    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0   99   99   86   90
      0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
      0    0
63    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0   86   86   90
      0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
      0    0
64    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0   86   90    0
      0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
      0    0
65    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0   86   86   90
      0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
      0    0
66    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0   90   90    0
      0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
      0    0
67    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
      0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
      0    0
68    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
      0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
      0    0
69    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
      0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
      0    0
70    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
      0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
      0    0
```

B. Initial head array for layer 1

```
------------------------------------------------------------------------------------------------------------
            1          2          3          4          5          6          7          8          9         10
           11         12         13         14         15         16         17         18         19         20
           21         22         23         24         25         26         27         28         29         30
           31         32         33         34         35         36         37         38         39         40
           41         42         43         44         45         46         47         48         49         50
           51         52
............................................................................................................
 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        0.0        0.0      300.0
        300.0      300.0      300.0      300.0      299.0      300.0      301.0      301.0      298.0      296.0
        290.0        0.0      285.0      284.0      281.0      276.0      273.0      271.0      272.0      274.0
        275.0        0.0
 2        0.0        0.0        0.0        0.0        0.0        0.0        0.0        0.0        0.0        0.0
          0.0        0.0        0.0        0.0        0.0        0.0        0.0        0.0        0.0        0.0
          0.0        0.0        0.0        0.0        0.0        0.0        0.0        0.0        0.0      294.0
```

	295.0	295.0	295.0	296.0	297.0	297.0	299.0	297.0	294.0	291.0
	287.0	0.0	282.0	281.0	277.0	272.0	270.0	268.0	269.0	273.0
	274.0	0.0								
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	288.0	289.0
	289.0	290.0	290.0	291.0	292.0	293.0	294.0	292.0	0.0	287.0
	283.0	280.0	279.0	277.0	273.0	269.0	268.0	268.0	270.0	274.0
	274.0	0.0								
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	282.0	283.0
	284.0	284.0	285.0	287.0	288.0	288.0	288.0	286.0	0.0	281.0
	278.0	275.0	273.0	271.0	268.0	266.0	266.0	267.0	271.0	272.0
	272.0	0.0								
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	273.0	276.0	278.0
	278.0	279.0	282.0	283.0	283.0	283.0	0.0	0.0	0.0	275.0
	273.0	269.0	268.0	266.0	263.0	263.0	263.0	263.0	268.0	271.0
	270.0	0.0								
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	266.0	271.0	273.0
	273.0	276.0	278.0	278.0	277.0	0.0	0.0	0.0	271.0	269.0
	267.0	265.0	263.0	261.0	259.0	260.0	260.0	261.0	265.0	267.0
	266.0	0.0								
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	257.0	260.0	267.0	270.0
	270.0	272.0	274.0	273.0	272.0	0.0	0.0	0.0	265.0	263.0
	262.0	260.0	258.0	256.0	255.0	256.0	256.0	258.0	261.0	262.0
	262.0	0.0								
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	254.0	254.0	257.0	264.0	266.0
	266.0	267.0	269.0	268.0	0.0	0.0	0.0	261.0	260.0	258.0
	257.0	255.0	253.0	252.0	252.0	253.0	253.0	254.0	256.0	257.0
	257.0	0.0								
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	257.0	254.0	253.0	257.0	262.0	262.0
	262.0	262.0	263.0	0.0	0.0	256.0	255.0	255.0	255.0	253.0
	252.0	251.0	250.0	248.0	247.0	249.0	250.0	253.0	254.0	0.0
	0.0	0.0								
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	259.0	258.0	257.0	256.0	259.0	262.0	261.0
	260.0	259.0	0.0	0.0	0.0	251.0	250.0	250.0	250.0	248.0
	248.0	248.0	246.0	245.0	244.0	246.0	250.0	253.0	252.0	250.0
	0.0	0.0								
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	257.0	256.0	256.0	256.0	259.0	260.0	259.0
	258.0	0.0	0.0	0.0	245.0	245.0	245.0	244.0	244.0	244.0
	244.0	243.0	243.0	245.0	246.0	247.0	250.0	253.0	252.0	249.0
	0.0	0.0								
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	0.0	0.0	253.0	253.0	253.0	253.0	254.0	257.0	257.0	256.0
	256.0	0.0	0.0	0.0	237.0	238.0	240.0	240.0	241.0	240.0
	240.0	239.0	240.0	244.0	247.0	247.0	249.0	252.0	252.0	250.0
	0.0	0.0								
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	249.0	248.0	247.0	248.0	250.0	253.0	254.0	254.0
	0.0	0.0	0.0	232.0	231.0	235.0	237.0	238.0	238.0	238.0
	238.0	237.0	237.0	240.0	244.0	245.0	247.0	249.0	250.0	0.0
	0.0	0.0								
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	246.0	246.0	244.0	243.0	243.0	246.0	250.0	251.0	250.0
	0.0	0.0	0.0	227.0	226.0	232.0	235.0	235.0	235.0	237.0
	238.0	236.0	236.0	239.0	241.0	243.0	245.0	246.0	0.0	0.0
	0.0	0.0								
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	242.0	243.0	242.0	242.0	240.0	240.0	244.0	247.0	247.0	0.0
	0.0	0.0	0.0	229.0	228.0	229.0	230.0	230.0	231.0	234.0
	235.0	235.0	235.0	238.0	240.0	242.0	243.0	244.0	244.0	0.0
	0.0	0.0								
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	235.0
	238.0	239.0	238.0	238.0	237.0	236.0	240.0	243.0	242.0	0.0
	0.0	0.0	231.0	231.0	230.0	227.0	226.0	226.0	227.0	229.0
	231.0	231.0	233.0	237.0	239.0	241.0	241.0	241.0	242.0	242.0
	0.0	0.0								
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	229.0
	233.0	235.0	234.0	233.0	231.0	228.0	228.0	234.0	0.0	0.0
	0.0	0.0	229.0	228.0	227.0	226.0	224.0	224.0	225.0	226.0
	227.0	228.0	230.0	235.0	238.0	239.0	239.0	238.0	0.0	0.0
	0.0	0.0								
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	223.0
	228.0	231.0	229.0	227.0	225.0	218.0	215.0	0.0	0.0	0.0
	0.0	226.0	226.0	226.0	225.0	224.0	223.0	224.0	224.0	224.0
	225.0	226.0	227.0	232.0	236.0	236.0	236.0	235.0	235.0	0.0
	0.0	0.0								
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	219.0	220.0
	226.0	232.0	229.0	224.0	219.0	211.0	208.0	206.0	0.0	0.0
	222.0	222.0	222.0	222.0	222.0	222.0	221.0	221.0	222.0	223.0
	224.0	225.0	227.0	231.0	233.0	234.0	233.0	233.0	0.0	0.0
	0.0	0.0								
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	220.0	221.0	222.0
	226.0	232.0	229.0	224.0	216.0	206.0	202.0	200.0	200.0	0.0
	215.0	217.0	218.0	218.0	219.0	220.0	220.0	220.0	220.0	222.0
	223.0	226.0	229.0	231.0	232.0	232.0	232.0	0.0	0.0	0.0
	0.0	0.0								
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	217.0	219.0	220.0
	224.0	227.0	224.0	219.0	212.0	202.0	196.0	196.0	196.0	197.0
	0.0	209.0	214.0	216.0	216.0	217.0	218.0	219.0	219.0	219.0
	222.0	226.0	229.0	230.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	0.0	0.0	0.0	0.0	211.0	210.0	210.0	210.0	210.0	214.0
	221.0	221.0	218.0	212.0	207.0	196.0	189.0	188.0	188.0	189.0
	0.0	204.0	212.0	214.0	211.0	212.0	214.0	217.0	218.0	218.0
	221.0	225.0	228.0	228.0	229.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	208.0	208.0	205.0	203.0	207.0
	217.0	217.0	213.0	207.0	200.0	188.0	184.0	183.0	183.0	184.0
	0.0	202.0	209.0	210.0	206.0	207.0	209.0	212.0	215.0	218.0
	220.0	223.0	226.0	226.0	227.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	206.0	206.0	203.0	201.0	207.0
	214.0	213.0	208.0	198.0	190.0	184.0	181.0	181.0	180.0	181.0
	0.0	196.0	203.0	204.0	202.0	203.0	205.0	207.0	213.0	219.0
	221.0	223.0	224.0	224.0	225.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	201.0	201.0	202.0	207.0
	211.0	209.0	201.0	190.0	184.0	180.0	179.0	178.0	176.0	178.0
	0.0	192.0	197.0	199.0	201.0	203.0	202.0	204.0	212.0	222.0
	224.0	223.0	222.0	222.0	223.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	198.0	201.0	209.0
	210.0	207.0	197.0	186.0	182.0	179.0	176.0	174.0	175.0	0.0
	180.0	189.0	194.0	197.0	198.0	200.0	200.0	202.0	209.0	218.0
	221.0	220.0	220.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	194.0	193.0	198.0	208.0
	209.0	204.0	193.0	185.0	182.0	179.0	176.0	174.0	174.0	0.0
	178.0	186.0	191.0	193.0	193.0	195.0	197.0	200.0	205.0	213.0
	217.0	217.0	217.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	194.0	192.0	197.0	204.0
	204.0	197.0	187.0	183.0	180.0	178.0	176.0	176.0	176.0	0.0
	179.0	185.0	188.0	189.0	189.0	191.0	195.0	198.0	203.0	208.0
	212.0	214.0	215.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	203.0	197.0	195.0	198.0	200.0
	198.0	192.0	183.0	181.0	179.0	176.0	175.0	176.0	176.0	0.0
	180.0	184.0	187.0	188.0	188.0	190.0	195.0	199.0	202.0	205.0
	208.0	211.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	203.0	201.0	198.0	196.0	196.0	197.0
	195.0	190.0	182.0	179.0	177.0	174.0	174.0	176.0	177.0	0.0
	179.0	182.0	184.0	185.0	187.0	190.0	195.0	198.0	201.0	204.0
	206.0	208.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	201.0	199.0	197.0	195.0	193.0	192.0	192.0
	191.0	188.0	181.0	176.0	174.0	173.0	174.0	175.0	175.0	0.0
	179.0	180.0	181.0	183.0	185.0	190.0	194.0	197.0	200.0	202.0
	204.0	205.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								

32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	206.0	195.0	190.0	190.0	191.0	191.0	190.0	189.0
	188.0	187.0	182.0	175.0	173.0	172.0	175.0	175.0	175.0	0.0
	179.0	179.0	179.0	181.0	185.0	190.0	194.0	197.0	199.0	200.0
	201.0	203.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	213.0	214.0	203.0	187.0	184.0	184.0	187.0	188.0	188.0	188.0
	186.0	186.0	183.0	177.0	173.0	175.0	179.0	180.0	180.0	0.0
	178.0	177.0	178.0	180.0	185.0	190.0	194.0	197.0	197.0	198.0
	198.0	199.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	209.0	209.0
	208.0	205.0	193.0	184.0	181.0	181.0	184.0	186.0	186.0	185.0
	184.0	183.0	181.0	177.0	176.0	177.0	182.0	183.0	0.0	0.0
	176.0	177.0	178.0	179.0	184.0	189.0	193.0	195.0	194.0	194.0
	195.0	196.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	206.0	206.0
	204.0	192.0	181.0	177.0	177.0	179.0	182.0	183.0	184.0	183.0
	181.0	177.0	174.0	174.0	174.0	176.0	182.0	183.0	0.0	0.0
	176.0	176.0	177.0	178.0	182.0	188.0	191.0	192.0	191.0	191.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	205.0	201.0
	195.0	184.0	177.0	173.0	174.0	175.0	179.0	180.0	181.0	182.0
	179.0	172.0	170.0	171.0	173.0	175.0	180.0	182.0	0.0	0.0
	172.0	174.0	176.0	178.0	181.0	186.0	187.0	187.0	188.0	188.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
37	0.0	0.0	0.0	0.0	0.0	0.0	0.0	209.0	206.0	196.0
	182.0	177.0	172.0	169.0	170.0	172.0	176.0	177.0	178.0	180.0
	179.0	167.0	163.0	165.0	168.0	173.0	180.0	182.0	181.0	0.0
	171.0	172.0	174.0	177.0	180.0	182.0	184.0	184.0	184.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
38	0.0	0.0	0.0	0.0	0.0	0.0	0.0	208.0	206.0	197.0
	176.0	173.0	168.0	161.0	162.0	169.0	172.0	173.0	173.0	175.0
	173.0	165.0	161.0	162.0	164.0	170.0	180.0	182.0	185.0	0.0
	173.0	173.0	173.0	174.0	178.0	180.0	181.0	181.0	181.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	206.0	200.0	192.0
	174.0	170.0	166.0	156.0	155.0	162.0	170.0	171.0	168.0	168.0
	167.0	161.0	159.0	160.0	163.0	168.0	178.0	184.0	187.0	0.0
	178.0	174.0	172.0	172.0	176.0	178.0	179.0	179.0	179.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	194.0	177.0	169.0
	158.0	161.0	158.0	154.0	156.0	161.0	168.0	170.0	166.0	165.0
	164.0	160.0	158.0	160.0	164.0	171.0	178.0	184.0	186.0	184.0
	178.0	176.0	176.0	177.0	177.0	177.0	177.0	177.0	177.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	175.0	166.0	157.0
	146.0	143.0	149.0	151.0	152.0	157.0	165.0	170.0	166.0	164.0
	164.0	161.0	160.0	162.0	169.0	177.0	181.0	183.0	181.0	179.0
	175.0	176.0	180.0	181.0	179.0	177.0	176.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	0.0	0.0								
42	0.0	0.0	213.0	209.0	206.0	203.0	183.0	168.0	160.0	152.0
	140.0	137.0	137.0	145.0	147.0	150.0	162.0	167.0	165.0	163.0
	164.0	161.0	160.0	164.0	171.0	176.0	181.0	182.0	179.0	178.0
	175.0	174.0	178.0	178.0	177.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
43	0.0	229.0	226.0	220.0	213.0	198.0	192.0	169.0	157.0	147.0
	136.0	133.0	129.0	130.0	131.0	145.0	151.0	159.0	162.0	161.0
	162.0	163.0	162.0	167.0	171.0	174.0	179.0	183.0	184.0	184.0
	177.0	176.0	176.0	176.0	175.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
44	0.0	231.0	232.0	233.0	218.0	198.0	188.0	161.0	155.0	150.0
	140.0	133.0	128.0	125.0	126.0	139.0	143.0	148.0	160.0	164.0
	163.0	163.0	164.0	168.0	172.0	175.0	180.0	185.0	191.0	194.0
	0.0	183.0	180.0	0.0	174.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
45	0.0	0.0	228.0	230.0	219.0	208.0	187.0	167.0	156.0	148.0
	142.0	134.0	127.0	123.0	122.0	130.0	135.0	142.0	155.0	163.0
	165.0	164.0	163.0	168.0	173.0	176.0	178.0	183.0	192.0	197.0
	0.0	192.0	187.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
46	0.0	0.0	225.0	229.0	217.0	207.0	187.0	176.0	171.0	155.0
	147.0	143.0	125.0	116.0	114.0	120.0	134.0	140.0	146.0	157.0
	166.0	167.0	166.0	171.0	173.0	174.0	176.0	180.0	188.0	194.0
	197.0	0.0	192.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
47	0.0	0.0	224.0	226.0	219.0	203.0	186.0	177.0	174.0	169.0
	154.0	148.0	130.0	114.0	109.0	111.0	129.0	139.0	141.0	150.0
	162.0	165.0	166.0	169.0	171.0	172.0	173.0	175.0	178.0	181.0
	183.0	0.0	180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
48	0.0	0.0	0.0	216.0	213.0	198.0	189.0	183.0	174.0	172.0
	167.0	154.0	140.0	130.0	109.0	105.0	119.0	127.0	139.0	142.0
	153.0	158.0	162.0	165.0	167.0	169.0	169.0	167.0	165.0	166.0
	169.0	172.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
49	0.0	0.0	0.0	212.0	208.0	198.0	189.0	182.0	173.0	170.0
	166.0	157.0	140.0	127.0	111.0	105.0	114.0	122.0	135.0	138.0
	144.0	153.0	157.0	160.0	163.0	165.0	164.0	161.0	160.0	161.0
	165.0	167.0	167.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
50	0.0	0.0	0.0	207.0	203.0	196.0	193.0	182.0	175.0	170.0
	165.0	162.0	151.0	127.0	113.0	109.0	108.0	114.0	128.0	135.0
	137.0	144.0	151.0	154.0	158.0	159.0	158.0	158.0	160.0	162.0
	165.0	165.0	164.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
51	0.0	0.0	0.0	203.0	205.0	198.0	194.0	184.0	174.0	170.0
	163.0	162.0	155.0	140.0	119.0	109.0	105.0	110.0	121.0	134.0
	136.0	140.0	145.0	147.0	150.0	150.0	151.0	154.0	159.0	162.0
	164.0	163.0	162.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
52	0.0	0.0	0.0	0.0	197.0	193.0	193.0	189.0	175.0	168.0
	163.0	159.0	150.0	138.0	121.0	107.0	101.0	101.0	113.0	126.0
	131.0	137.0	141.0	141.0	144.0	145.0	146.0	150.0	157.0	160.0
	161.0	162.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
53	0.0	0.0	0.0	0.0	193.0	192.0	192.0	190.0	179.0	170.0
	166.0	166.0	159.0	140.0	126.0	105.0	102.0	99.00	104.0	115.0
	124.0	134.0	139.0	140.0	141.0	142.0	144.0	147.0	153.0	156.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
54	0.0	0.0	0.0	0.0	0.0	191.0	191.0	189.0	182.0	175.0
	172.0	172.0	166.0	156.0	134.0	117.0	108.0	99.00	102.0	112.0
	120.0	130.0	135.0	139.0	140.0	141.0	143.0	145.0	149.0	153.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
55	0.0	0.0	0.0	0.0	0.0	0.0	188.0	186.0	183.0	179.0
	176.0	174.0	169.0	155.0	138.0	120.0	114.0	101.0	101.0	111.0
	117.0	129.0	133.0	138.0	139.0	140.0	142.0	144.0	146.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
56	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	183.0	180.0
	178.0	176.0	174.0	168.0	152.0	125.0	115.0	104.0	104.0	112.0
	116.0	126.0	132.0	139.0	142.0	141.0	141.0	142.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	179.0	177.0	175.0	172.0	161.0	145.0	125.0	119.0	112.0	117.0
	123.0	129.0	134.0	141.0	143.0	142.0	141.0	141.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	173.0	169.0	160.0	147.0	137.0	135.0	128.0	127.0
	128.0	131.0	136.0	140.0	140.0	140.0	139.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	165.0	156.0	144.0	140.0	139.0	142.0	134.0
	132.0	133.0	137.0	139.0	138.0	137.0	137.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
60	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	146.0	151.0	152.0	143.0
	135.0	135.0	137.0	138.0	137.0	136.0	135.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
61	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	149.0	149.0	145.0
	140.0	137.0	138.0	138.0	137.0	0.0	0.0	0.0	0.0	0.0

	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
62	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	138.0	138.0	138.0	137.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
63	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	138.0	138.0	137.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
64	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	137.0	137.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	135.0	136.0	136.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
66	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	133.0	135.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
67	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
68	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
69	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								

AQUIFER HEAD WILL BE SET TO 999.00 AT ALL NO-FLOW NODES (IBOUND=0).

C. Hydraulic conductivity array, anisotropy ratio, and cell dimensions for layer 1

HYD. COND. ALONG ROWS FOR LAYER 1 WILL BE READ ON UNIT 54 USING FORMAT: (6E12.4)

	1	2	3	4	5	6	7	8	9	10	11
	12	13	14	15	16	17	18	19	20	21	22
	23	24	25	26	27	28	29	30	31	32	33
	34	35	36	37	38	39	40	41	42	43	44
	45	46	47	48	49	50	51	52			
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.	350.	350.	350.	350.
	350.	350.	350.	350.	350.	350.	350.	350.	350.	350.	350.
	350.	350.	350.	350.	350.	350.	350.	0.			
2	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	350.	350.	350.	350.
	350.	350.	350.	350.	350.	350.	350.	350.	350.	350.	350.
	350.	350.	350.	350.	350.	350.	350.	0.			
3	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	350.	350.	350.	350.	350.
	350.	350.	350.	350.	350.	350.	350.	350.	350.	350.	350.
	350.	350.	350.	350.	350.	350.	350.	0.			
4	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	350.	350.	350.	350.	350.
	350.	307.	307.	307.	307.	300.	299.	299.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	0.			
5	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	350.	350.	350.	350.	350.	350.
	307.	307.	307.	300.	300.	300.	299.	299.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	0.			
6	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	304.	304.	304.	304.	304.	307.
	307.	307.	300.	300.	300.	299.	299.	299.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	0.			
7	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	304.	304.	304.	304.	304.	307.	307.
	307.	307.	300.	300.	300.	299.	299.	299.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	0.			
8	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	304.	304.	304.	304.	304.	307.	307.	307.
	307.	300.	300.	300.	299.	299.	299.	299.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	0.			
9	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	304.	304.	304.	304.	304.	307.	307.	307.	307.
	300.	300.	299.	299.	299.	299.	299.	299.	299.	299.	299.
	299.	299.	299.	299.	299.	0.	0.	0.			
10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	304.	304.	304.	300.	300.	307.	307.	307.	307.	300.
	300.	300.	299.	299.	299.	299.	299.	299.	299.	299.	299.

	299.	299.	299.	299.	299.	299.	0.	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.	304.	304.	300.	300.	307.	307.	307.	307.	300.	300.
	300.	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	0.	0.			
12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	304.	304.	304.	300.	307.	307.	307.	307.	307.	300.	300.
	300.	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	0.	0.			
13	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	304.	304.	300.	300.	307.	307.	307.	307.	300.	300.	300.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.
	299.	299.	299.	299.	299.	0.	0.	0.			
14	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	304.
	304.	304.	300.	300.	307.	307.	307.	307.	300.	300.	300.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.
	299.	299.	299.	299.	0.	0.	0.	0.			
15	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	304.	304.
	304.	300.	300.	300.	307.	307.	307.	300.	300.	300.	300.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.
	299.	299.	299.	299.	299.	0.	0.	0.			
16	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	304.	304.	304.
	300.	300.	300.	307.	307.	307.	307.	300.	300.	300.	299.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	0.	0.			
17	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	304.	304.	304.
	300.	300.	307.	307.	307.	307.	300.	300.	300.	300.	299.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.
	299.	299.	299.	299.	0.	0.	0.	0.			
18	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	304.	304.	300.
	300.	307.	307.	307.	307.	300.	300.	300.	300.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.
	299.	299.	299.	299.	299.	0.	0.	0.			
19	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	304.	304.	300.	300.
	300.	307.	307.	307.	307.	307.	300.	300.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.
	299.	299.	299.	299.	0.	0.	0.	0.			
20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	304.	304.	300.	300.	300.
	307.	307.	307.	307.	307.	400.	400.	400.	400.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.
	299.	299.	299.	0.	0.	0.	0.	0.			
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	304.	304.	300.	300.	300.
	307.	307.	307.	307.	307.	400.	400.	400.	400.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.
	0.	0.	0.	0.	0.	0.	0.	0.			
22	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	300.	300.	300.	300.	300.	300.	300.	307.
	307.	307.	307.	307.	307.	400.	400.	400.	400.	299.	299.

	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.
	299.	0.	0.	0.	0.	0.	0.	0.			
23	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	300.	300.	300.	300.	300.	300.	307.
	307.	307.	307.	307.	305.	400.	400.	400.	400.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.
	299.	0.	0.	0.	0.	0.	0.	0.			
24	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	300.	300.	300.	300.	300.	307.	307.
	307.	307.	307.	307.	305.	305.	305.	305.	300.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.
	299.	0.	0.	0.	0.	0.	0.	0.			
25	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	300.	300.	300.	300.	307.	307.
	307.	307.	307.	305.	305.	305.	305.	305.	300.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.
	299.	0.	0.	0.	0.	0.	0.	0.			
26	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	300.	300.	300.	307.	307.
	307.	307.	307.	305.	305.	305.	305.	300.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
27	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	300.	300.	300.	300.	307.	307.
	307.	307.	307.	305.	305.	305.	305.	300.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
28	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	300.	300.	300.	307.	307.	307.
	307.	307.	305.	305.	305.	305.	305.	300.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	299.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
29	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	300.	300.	300.	300.	307.	307.	307.
	307.	307.	305.	305.	305.	305.	305.	300.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	298.	300.	300.	300.	300.	307.	307.	307.
	307.	307.	305.	305.	305.	305.	305.	300.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	298.	298.	300.	300.	300.	307.	307.	307.	307.
	307.	305.	305.	305.	305.	305.	305.	300.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
32	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	298.	298.	298.	300.	300.	300.	307.	307.	307.	307.
	307.	305.	305.	305.	305.	305.	305.	300.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
33	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	300.
	300.	298.	298.	298.	298.	300.	300.	307.	307.	307.	307.
	307.	305.	305.	305.	305.	305.	305.	300.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
34	0.	0.	0.	0.	0.	0.	0.	0.	300.	300.	300.
	300.	300.	300.	300.	300.	300.	307.	307.	307.	307.	307.

	307.	305.	305.	305.	305.	305.	300.	300.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	299.	299.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
35	0.	0.	0.	0.	0.	0.	0.	0.	300.	300.	300.
	300.	300.	300.	300.	300.	450.	460.	460.	460.	307.	307.
	307.	307.	305.	305.	305.	305.	300.	300.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
36	0.	0.	0.	0.	0.	0.	0.	0.	300.	300.	300.
	300.	300.	300.	300.	300.	460.	460.	460.	460.	307.	307.
	307.	300.	305.	305.	305.	305.	300.	300.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	299.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
37	0.	0.	0.	0.	0.	0.	0.	400.	400.	400.	300.
	300.	300.	300.	300.	300.	460.	460.	460.	460.	307.	307.
	300.	300.	305.	305.	305.	305.	305.	300.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
38	0.	0.	0.	0.	0.	0.	0.	400.	400.	400.	400.
	300.	300.	300.	300.	300.	460.	460.	460.	460.	307.	300.
	300.	300.	300.	305.	305.	305.	305.	300.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
39	0.	0.	0.	0.	0.	0.	0.	400.	400.	400.	400.
	300.	300.	300.	300.	300.	460.	460.	460.	460.	307.	300.
	300.	300.	300.	305.	305.	305.	305.	300.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
40	0.	0.	0.	0.	300.	300.	300.	300.	300.	300.	300.
	300.	450.	300.	300.	300.	300.	460.	460.	460.	307.	300.
	300.	300.	300.	300.	305.	305.	305.	299.	299.	299.	299.
	299.	299.	299.	299.	299.	299.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
41	0.	0.	0.	0.	228.	228.	228.	228.	300.	300.	300.
	300.	300.	300.	300.	300.	450.	460.	460.	460.	307.	300.
	300.	300.	300.	300.	305.	305.	305.	305.	299.	299.	299.
	299.	299.	299.	299.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
42	0.	0.	228.	228.	228.	228.	228.	228.	228.	228.	300.
	300.	300.	300.	300.	300.	450.	460.	460.	460.	300.	300.
	300.	300.	300.	300.	300.	300.	305.	305.	305.	299.	299.
	299.	299.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
43	0.	228.	228.	228.	228.	228.	228.	228.	228.	228.	228.
	300.	300.	300.	300.	300.	300.	307.	307.	307.	300.	300.
	300.	300.	300.	300.	300.	300.	300.	305.	305.	299.	299.
	299.	299.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
44	0.	292.	292.	292.	228.	228.	228.	228.	228.	228.	228.
	300.	300.	300.	300.	300.	300.	300.	307.	300.	300.	300.
	300.	300.	300.	300.	300.	300.	300.	300.	300.	299.	299.
	0.	299.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
45	0.	0.	292.	292.	228.	228.	228.	228.	228.	228.	228.
	228.	300.	300.	300.	300.	300.	300.	300.	300.	300.	300.
	300.	300.	300.	300.	300.	300.	300.	300.	300.	299.	299.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
46	0.	0.	292.	292.	292.	300.	300.	228.	228.	228.	228.

	228.	131.	173.	225.	225.	300.	300.	300.	300.	300.	300.
	300.	300.	300.	300.	300.	300.	300.	300.	300.	300.	299.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
47	0.	0.	292.	292.	292.	292.	300.	300.	228.	228.	228.
	228.	118.	118.	118.	172.	300.	300.	300.	300.	300.	300.
	300.	300.	300.	300.	300.	300.	300.	300.	300.	300.	299.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
48	0.	0.	0.	292.	292.	292.	228.	228.	300.	300.	500.
	350.	350.	390.	119.	119.	300.	300.	300.	300.	300.	300.
	300.	300.	300.	300.	300.	300.	390.	390.	390.	390.	300.
	299.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
49	0.	0.	0.	292.	292.	292.	292.	300.	300.	300.	300.
	300.	300.	299.	133.	225.	300.	300.	300.	300.	300.	300.
	300.	300.	390.	390.	300.	300.	390.	390.	390.	390.	300.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
50	0.	0.	0.	292.	292.	292.	292.	228.	228.	228.	228.
	228.	228.	228.	228.	228.	300.	300.	300.	300.	300.	300.
	300.	300.	300.	300.	300.	300.	300.	300.	300.	300.	300.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
51	0.	0.	0.	292.	292.	292.	292.	228.	228.	228.	228.
	228.	228.	228.	228.	228.	300.	300.	300.	300.	300.	300.
	300.	300.	300.	300.	300.	300.	300.	300.	300.	300.	300.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
52	0.	0.	0.	0.	292.	292.	292.	228.	228.	228.	228.
	228.	228.	228.	228.	228.	228.	300.	300.	300.	300.	300.
	300.	300.	300.	300.	300.	300.	300.	300.	300.	300.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
53	0.	0.	0.	0.	292.	292.	292.	292.	228.	228.	228.
	228.	228.	350.	228.	228.	228.	300.	300.	300.	300.	300.
	300.	300.	300.	300.	300.	300.	300.	300.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
54	0.	0.	0.	0.	0.	292.	292.	292.	228.	228.	228.
	228.	228.	228.	228.	228.	228.	228.	300.	300.	300.	300.
	300.	300.	300.	300.	300.	300.	300.	300.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
55	0.	0.	0.	0.	0.	0.	292.	292.	292.	228.	228.
	228.	228.	228.	228.	228.	228.	228.	300.	300.	300.	300.
	300.	300.	300.	300.	300.	300.	300.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
56	0.	0.	0.	0.	0.	0.	0.	0.	292.	292.	228.
	228.	228.	228.	228.	228.	228.	228.	300.	300.	300.	300.
	300.	300.	300.	300.	300.	300.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	292.
	292.	228.	228.	228.	228.	228.	228.	300.	300.	300.	300.
	300.	300.	300.	300.	300.	300.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			

58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	292.	292.	228.	228.	228.	228.	300.	300.	300.	300.
	300.	300.	300.	300.	300.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
59	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	292.	100.	100.	100.	228.	300.	300.	300.	300.
	300.	300.	300.	300.	300.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	100.	300.	300.	300.	300.	300.
	300.	300.	300.	300.	300.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	292.	292.	292.	292.	300.
	300.	300.	300.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
62	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	292.
	292.	300.	300.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
63	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	300.	300.	300.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
64	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	300.	300.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
65	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	300.	300.	300.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
66	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	300.	300.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
67	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
68	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
69	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

```
       0.        0.        0.        0.        0.        0.        0.        0.
 70    0.        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
       0.        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
       0.        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
       0.        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
       0.        0.        0.        0.        0.        0.        0.        0.

                                        COLUMN TO ROW ANISOTROPY =   1.000000
                                                            DELR =   15840.00
                                                            DELC =   15840.00

                                        D.  Bottom array for layer 1

                         BOTTOM FOR LAYER  1 WILL BE READ ON UNIT 43 USING FORMAT:          (8G10.3)
------------------------------------------------------------------------------------------------------------
           1         2         3         4         5         6         7         8         9        10        11
          12        13        14        15        16        17        18        19        20        21        22
          23        24        25        26        27        28        29        30        31        32        33
          34        35        36        37        38        39        40        41        42        43        44
          45        46        47        48        49        50        51        52
............................................................................................................
  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.      231.      235.      225.      201.
         181.      174.      168.      155.      147.      167.      198.      194.        0.      169.      164.
         155.      143.      129.      117.      94.6      89.2      97.8        0.
  2        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
           0.        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
           0.        0.        0.        0.        0.        0.        0.      213.      214.      192.      184.
         181.      173.      174.      173.      171.      190.      203.      195.        0.      165.      163.
         164.      151.      133.      129.      114.      98.1      96.1        0.
  3        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
           0.        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
           0.        0.        0.        0.        0.        0.      228.      207.      182.      182.      182.
         185.      180.      180.      187.      191.        0.      196.      189.      176.      164.      167.
         173.      164.      138.      129.      121.      106.      98.0        0.
  4        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
           0.        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
           0.        0.        0.        0.        0.        0.      228.      226.      181.      178.      169.
         189.      191.      183.      197.      197.        0.      190.      186.      186.      195.      186.
         175.      168.      151.      132.      122.      110.      101.        0.
  5        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
           0.        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
           0.        0.        0.        0.        0.      206.      182.      165.      175.      163.      155.
         175.      183.      183.        0.        0.        0.      184.      181.      181.      183.      178.
         171.      164.      148.      132.      121.      114.      106.        0.
  6        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
           0.        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
           0.        0.        0.        0.        0.      210.      167.      148.      147.      138.      148.
         166.      170.        0.        0.        0.      183.      175.      163.      160.      163.      162.
         157.      142.      128.      116.      112.      110.      107.        0.
  7        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
           0.        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
           0.        0.        0.        0.      202.      193.      172.      154.      129.      120.      127.
         142.      144.        0.        0.        0.      179.      162.      137.      135.      153.      158.
         139.      117.      110.      105.      106.      107.      105.        0.
  8        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
           0.        0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
           0.        0.        0.      185.      187.      179.      169.      154.      134.      125.      121.
```

	118.	0.	0.	0.	113.	138.	130.	110.	107.	138.	150.
	126.	107.	102.	98.5	107.	106.	102.	0.			
9	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	172.	171.	171.	173.	165.	161.	149.	131.	117.
	0.	0.	93.0	94.5	98.9	107.	101.	93.2	92.4	124.	130.
	103.	99.9	96.2	99.7	113.	0.	0.	0.			
10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	174.	172.	172.	170.	170.	167.	171.	161.	142.	0.
	0.	0.	84.5	104.	123.	103.	71.2	77.0	84.6	103.	104.
	83.9	87.7	93.1	102.	98.4	93.1	0.	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.	166.	166.	167.	165.	162.	163.	164.	159.	0.	0.
	0.	79.2	81.0	93.8	136.	89.4	53.1	58.7	59.4	71.4	86.3
	84.9	86.2	85.0	91.1	92.1	88.9	0.	0.			
12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	164.	162.	158.	149.	148.	151.	158.	157.	156.	0.	0.
	0.	99.3	89.6	82.6	94.9	76.9	55.7	59.6	57.8	67.1	87.4
	91.1	92.3	73.3	84.2	86.7	85.1	0.	0.			
13	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	157.	155.	150.	138.	141.	147.	158.	157.	0.	0.	0.
	135.	99.2	86.3	83.5	83.1	73.4	65.7	69.4	71.6	88.9	112.
	108.	81.0	72.1	92.9	90.9	0.	0.	0.			
14	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	151.
	155.	150.	145.	133.	137.	143.	162.	175.	0.	0.	0.
	96.3	85.0	82.9	80.4	77.7	71.9	68.2	72.7	85.5	117.	138.
	140.	110.	90.4	94.0	0.	0.	0.	0.			
15	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	151.	146.
	151.	143.	134.	130.	133.	139.	161.	0.	0.	0.	0.
	93.2	100.	91.7	84.9	77.2	71.1	69.5	80.7	106.	134.	143.
	142.	127.	105.	96.1	93.2	0.	0.	0.			
16	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	180.	156.	147.
	147.	147.	141.	135.	133.	135.	143.	0.	0.	0.	87.0
	116.	117.	105.	91.4	79.7	70.7	69.2	82.5	114.	136.	142.
	135.	126.	113.	101.	94.9	91.7	0.	0.			
17	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	163.	149.	145.
	145.	149.	144.	133.	130.	138.	0.	0.	0.	0.	105.
	107.	102.	81.9	75.6	75.8	68.1	62.4	79.2	109.	119.	112.
	98.6	99.4	99.5	97.2	0.	0.	0.	0.			
18	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	156.	143.	134.
	130.	127.	119.	122.	121.	0.	0.	0.	0.	106.	110.
	95.1	80.5	69.0	70.6	82.5	82.6	80.5	104.	120.	122.	90.1
	75.0	83.5	87.8	87.5	90.2	0.	0.	0.			
19	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	156.	148.	140.	113.
	110.	115.	108.	122.	127.	140.	0.	0.	88.8	91.9	75.1
	83.2	85.6	82.3	83.2	99.8	115.	140.	149.	126.	123.	98.2
	84.9	87.4	88.6	88.5	0.	0.	0.	0.			
20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	146.	145.	139.	130.	115.

	113.	115.	108.	123.	125.	124.	114.	0.	68.9	97.3	81.1
	77.7	96.4	96.4	98.3	105.	115.	156.	167.	126.	120.	111.
	94.7	93.1	91.6	0.	0.	0.	0.	0.			
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	136.	131.	127.	123.	109.
	104.	116.	113.	120.	111.	107.	108.	116.	0.	94.6	84.3
	76.4	89.0	92.5	94.6	104.	114.	128.	127.	109.	120.	94.1
	0.	0.	0.	0.	0.	0.	0.	0.			
22	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	191.	179.	164.	132.	124.	124.	117.	101.
	98.7	109.	112.	117.	110.	108.	97.9	120.	0.	77.4	78.1
	62.4	80.1	86.0	85.3	95.7	111.	115.	105.	102.	117.	101.
	94.9	0.	0.	0.	0.	0.	0.	0.			
23	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	172.	164.	134.	120.	124.	111.	98.8
	98.1	107.	108.	98.8	90.8	88.2	81.2	111.	0.	77.8	68.3
	68.9	79.8	82.4	83.6	85.4	93.0	114.	104.	97.9	114.	109.
	99.5	0.	0.	0.	0.	0.	0.	0.			
24	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	171.	163.	133.	123.	119.	109.	101.
	94.4	98.6	85.8	88.5	95.4	79.9	83.5	91.3	0.	77.9	72.5
	77.4	80.3	86.1	87.4	82.9	108.	112.	98.3	94.7	88.0	93.0
	93.4	0.	0.	0.	0.	0.	0.	0.			
25	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	155.	128.	110.	109.	107.	101.
	93.9	92.8	77.9	78.9	90.4	90.4	86.5	88.4	0.	89.3	85.3
	91.1	75.8	81.1	86.6	92.9	110.	113.	104.	95.9	76.8	82.1
	85.8	0.	0.	0.	0.	0.	0.	0.			
26	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	121.	123.	112.	108.	104.
	92.8	83.2	78.3	84.3	97.6	97.3	88.5	0.	109.	83.5	95.2
	89.2	83.3	78.3	79.8	97.0	118.	111.	99.7	96.5	85.1	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
27	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	128.	126.	117.	105.	105.	94.4
	79.6	86.1	83.9	78.8	74.0	88.3	98.1	0.	109.	104.	93.5
	82.7	88.5	81.4	78.4	92.1	127.	119.	104.	97.3	89.8	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
28	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	140.	119.	114.	106.	97.6	89.6
	81.9	79.3	80.0	73.2	73.2	87.2	97.1	0.	104.	89.0	81.3
	93.1	100.	96.8	99.4	101.	115.	119.	114.	111.	102.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
29	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	146.	126.	104.	108.	98.2	89.4	87.1
	83.0	76.7	75.5	76.8	83.1	86.2	99.5	0.	85.7	81.9	81.3
	95.6	99.4	97.4	102.	111.	114.	115.	117.	116.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	141.	128.	109.	97.3	103.	98.9	91.8	94.9
	86.2	79.1	74.4	75.9	86.1	82.2	101.	0.	85.0	80.4	83.6
	101.	96.4	89.7	98.5	109.	113.	115.	118.	117.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	145.	134.	118.	106.	105.	101.	90.9	83.8	81.8
	72.8	71.0	73.5	77.0	72.9	80.5	99.9	0.	86.4	89.5	93.0
	87.0	97.6	94.7	99.2	106.	114.	118.	118.	116.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
32	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

	0.	151.	141.	127.	113.	103.	94.4	86.3	78.9	75.0	83.4
	74.9	73.0	72.2	90.6	73.4	82.3	91.3	0.	92.8	93.0	110.
	93.8	95.5	91.1	98.9	102.	107.	106.	107.	110.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
33	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	121.
	141.	146.	129.	119.	109.	99.9	88.1	81.8	75.4	75.7	75.1
	73.2	69.4	65.5	75.2	80.2	89.8	91.3	0.	99.8	88.5	90.0
	88.1	94.1	96.9	96.9	101.	96.8	82.2	96.5	108.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
34	0.	0.	0.	0.	0.	0.	0.	0.	123.	103.	94.4
	99.3	118.	118.	112.	101.	96.7	96.4	82.4	83.8	78.7	78.6
	76.3	72.5	71.1	67.9	86.6	88.4	0.	0.	92.3	86.4	91.2
	87.5	82.3	98.5	101.	96.8	99.4	83.0	113.	112.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
35	0.	0.	0.	0.	0.	0.	0.	0.	132.	114.	94.7
	93.0	106.	107.	102.	102.	90.6	87.8	79.8	73.2	78.2	75.3
	79.0	71.7	78.0	76.4	84.7	91.9	0.	0.	94.9	92.5	90.4
	82.4	86.3	91.1	88.7	89.6	93.3	91.8	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
36	0.	0.	0.	0.	0.	0.	0.	0.	136.	124.	105.
	100.	99.7	91.9	48.9	58.5	79.5	84.5	78.9	79.9	81.1	79.0
	86.9	74.4	76.8	82.6	87.4	86.9	0.	0.	87.0	87.5	77.3
	78.4	76.4	85.2	89.0	83.6	86.7	90.1	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
37	0.	0.	0.	0.	0.	0.	0.	136.	135.	134.	102.
	96.1	81.8	72.4	43.7	50.3	60.5	79.2	73.8	75.5	78.0	74.5
	77.6	71.7	75.7	75.7	82.6	85.9	96.6	0.	84.6	83.2	79.1
	83.6	81.8	79.9	78.2	75.9	82.6	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
38	0.	0.	0.	0.	0.	0.	0.	120.	120.	121.	96.0
	78.8	78.4	79.1	80.0	67.9	57.2	54.4	62.8	71.2	65.8	80.7
	76.0	77.9	76.2	81.4	80.9	86.7	94.0	0.	85.6	79.5	78.4
	75.6	76.8	72.9	31.1	37.4	49.9	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
39	0.	0.	0.	0.	0.	0.	0.	104.	92.8	78.9	89.4
	72.1	85.4	80.0	74.9	78.6	48.2	32.3	54.0	66.3	56.3	71.8
	78.8	83.2	81.7	81.1	89.9	78.6	88.6	0.	90.6	82.4	76.8
	76.0	79.2	77.3	63.7	60.4	58.1	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
40	0.	0.	0.	0.	0.	0.	0.	96.9	94.2	72.5	85.4
	76.2	78.7	62.7	69.4	71.4	52.3	44.9	61.9	68.3	63.6	66.3
	75.4	71.7	75.2	75.6	80.3	70.7	74.6	82.0	85.4	87.8	76.6
	68.9	77.7	97.5	81.9	75.6	70.0	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
41	0.	0.	0.	0.	0.	0.	0.	98.8	79.7	69.1	79.7
	78.8	82.4	82.5	72.4	70.8	61.9	64.2	68.8	55.6	56.7	61.9
	63.7	65.0	69.0	70.5	71.4	79.9	73.1	79.2	82.3	83.4	73.6
	65.5	73.0	91.0	86.0	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
42	0.	0.	165.	162.	154.	144.	117.	92.5	78.7	73.3	70.3
	74.3	91.0	71.2	70.4	72.9	62.0	65.1	59.6	61.4	65.3	56.1
	67.5	66.1	63.9	60.8	71.3	80.1	67.1	69.9	80.2	73.0	69.3
	66.3	71.0	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
43	0.	156.	156.	148.	139.	124.	102.	86.5	55.5	73.9	68.0
	71.1	89.5	81.1	70.3	77.6	51.3	37.0	55.2	66.2	60.5	60.9
	62.8	60.3	54.6	66.2	67.9	74.5	73.3	79.5	81.5	67.9	67.7
	65.9	64.1	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			

44	0.	153.	149.	145.	141.	132.	113.	82.5	58.5	64.2	67.2
	66.2	80.1	74.1	60.5	71.1	58.2	27.8	58.9	67.7	65.2	62.1
	56.1	48.4	49.1	57.5	62.5	71.1	83.4	89.5	0.	91.5	66.5
	0.	59.6	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
45	0.	0.	153.	145.	143.	134.	99.7	82.8	67.6	51.4	70.0
	74.8	77.0	71.1	63.6	73.5	68.8	61.8	62.9	66.7	68.9	63.0
	56.3	61.6	60.1	61.7	56.4	61.6	62.7	55.7	0.	83.2	70.7
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
46	0.	0.	159.	146.	136.	127.	107.	86.9	77.5	81.2	74.9
	81.6	77.2	84.2	74.6	72.9	69.5	61.9	37.6	55.6	54.8	63.2
	58.5	66.7	66.2	59.5	43.9	55.1	71.7	76.9	86.7	0.	86.2
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
47	0.	0.	160.	145.	133.	129.	115.	116.	99.1	78.3	73.8
	81.9	78.3	85.1	74.5	68.0	64.6	50.2	36.0	44.3	59.2	56.8
	55.1	53.4	61.3	60.0	47.4	48.7	64.3	77.2	86.5	0.	90.5
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
48	0.	0.	0.	144.	123.	114.	112.	109.	98.5	88.3	68.9
	80.5	69.0	76.1	64.5	62.2	57.7	51.0	37.4	35.5	55.3	60.1
	55.5	48.5	56.3	62.0	61.4	51.5	58.2	66.7	89.7	90.7	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
49	0.	0.	0.	143.	132.	108.	111.	110.	107.	106.	94.0
	81.6	78.8	84.9	72.1	70.7	64.3	55.4	55.1	49.8	50.1	49.9
	50.5	50.3	47.7	52.2	81.0	63.5	53.8	61.0	71.6	67.7	71.6
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
50	0.	0.	0.	141.	136.	122.	106.	101.	102.	106.	92.5
	91.8	88.2	89.4	74.9	76.0	67.9	50.7	45.7	44.8	48.7	46.9
	52.0	48.8	48.2	48.4	60.4	53.0	52.3	60.5	81.4	77.8	69.7
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
51	0.	0.	0.	118.	118.	106.	90.8	95.6	96.6	96.2	101.
	99.2	85.5	84.6	83.7	63.9	61.3	42.2	32.5	35.6	44.8	45.7
	48.8	46.8	43.6	44.7	47.8	47.9	53.2	61.1	73.5	77.8	71.0
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
52	0.	0.	0.	0.	71.5	79.1	78.6	86.0	93.4	99.7	103.
	92.1	87.6	87.5	90.6	73.4	56.3	45.8	30.9	25.5	37.7	45.8
	49.2	45.7	43.8	44.4	45.3	46.7	57.6	60.5	67.5	71.8	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
53	0.	0.	0.	0.	51.5	73.5	73.2	79.9	81.0	96.1	98.4
	81.6	84.8	88.7	82.2	82.4	65.1	41.8	27.0	37.6	38.3	42.0
	45.0	45.0	43.8	44.7	41.7	47.6	54.6	60.9	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
54	0.	0.	0.	0.	0.	74.7	51.6	69.2	87.6	92.4	93.9
	83.7	95.7	80.0	80.1	67.1	44.2	31.4	29.1	35.0	24.8	27.1
	38.8	42.6	43.8	44.6	46.8	51.1	56.5	62.0	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
55	0.	0.	0.	0.	0.	0.	42.3	71.0	83.1	80.9	78.8
	70.7	78.2	77.2	79.0	71.2	52.2	42.4	33.2	37.6	27.0	24.2
	40.2	40.4	40.8	42.4	48.4	54.6	57.9	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

	0.	0.	0.	0.	0.	0.	0.	0.			
56	0.	0.	0.	0.	0.	0.	0.	0.	78.8	84.9	80.7
	70.2	66.6	32.3	61.6	78.4	57.2	39.5	35.0	32.0	28.0	25.5
	31.3	35.0	35.6	36.1	42.7	50.6	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	85.8
	75.5	66.6	38.7	49.4	69.8	53.1	42.4	47.9	22.5	21.8	25.9
	26.8	25.6	29.4	33.0	36.0	40.3	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	67.9	66.1	70.5	76.8	58.8	41.3	37.4	19.1	22.5	25.9
	25.3	25.6	32.1	32.1	30.8	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
59	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	64.7	71.9	73.5	59.4	35.5	32.1	18.3	19.4	21.1
	23.2	26.7	29.5	29.3	28.4	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	63.1	24.5	21.6	24.7	17.3	14.7
	14.2	21.3	27.6	26.6	25.9	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	55.1	39.7	26.4	15.0	21.2
	29.4	44.5	42.7	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
62	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	38.1
	46.8	55.4	59.2	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
63	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	52.2	54.7	56.9	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
64	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	47.9	47.9	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
65	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	40.2	39.8	39.5	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
66	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	39.8	38.3	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
67	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
68	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
69	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			
70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.			

E. Aquifer top array for layer 1

TOP FOR LAYER 1 WILL BE READ ON UNIT 41 USING FORMAT: (8G10.4)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
	41	42	43	44	45	46	47	48	49	50	51	52								
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.	288.	288.	281.	273.	288.	299.	295.	283.	277.	283.	291.
	286.	281.	281.	279.	273.	266.	262.	263.	267.	270.	279.	0.								
2	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	281.	278.	263.	266.	284.	298.	297.	294.	288.	288.	288.
	282.	276.	277.	274.	267.	260.	257.	256.	259.	265.	272.	0.								
3	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	269.	281.	274.	272.	280.	279.	287.	293.	297.	296.	287.	281.
	273.	265.	268.	263.	256.	254.	253.	252.	254.	259.	265.	0.								
4	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	270.	278.	270.	287.	281.	274.	279.	289.	294.	292.	281.	275.
	267.	251.	235.	240.	250.	249.	248.	249.	250.	253.	259.	0.								
5	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	261.	272.	287.	275.	277.	277.	280.	279.	282.	282.	278.	273.	270.
	264.	251.	238.	240.	246.	246.	246.	247.	249.	251.	257.	0.								
6	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	262.	271.	274.	259.	270.	274.	275.	270.	272.	266.	260.	263.	262.
	262.	258.	248.	246.	246.	249.	250.	251.	253.	257.	259.	0.								
7	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	260.	262.	264.	263.	266.	274.	275.	273.	275.	264.	247.	251.	254.	258.
	263.	260.	252.	248.	247.	250.	250.	250.	253.	256.	259.	0.								
8	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	259.	256.	262.	264.	265.	269.	268.	272.	273.	265.	235.	225.	250.	252.	255.
	260.	261.	251.	246.	247.	250.	248.	246.	252.	255.	256.	0.								
9	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	253.	257.	260.	262.	261.	248.	261.	253.	251.	265.	247.	224.	194.	245.	248.	250.
	255.	259.	246.	240.	242.	244.	243.	245.	251.	0.	0.	0.								
10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	254.	250.	259.	266.	259.	252.	253.	252.	253.	248.	227.	203.	223.	216.	240.	244.	246.
	248.	248.	243.	238.	238.	239.	242.	244.	246.	247.	0.	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.	256.	252.	258.	250.	243.	234.	236.	241.	247.	238.	220.	199.	203.	234.	239.	241.	243.
	242.	238.	237.	236.	237.	240.	239.	239.	240.	242.	0.	0.								

12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	259.	259.	253.	254.	249.	225.	223.	239.	243.	242.	232.	228.	207.	191.	220.	232.	236.	238.
	237.	234.	232.	232.	238.	244.	229.	231.	232.	235.	0.	0.								
13	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	239.	247.	251.	251.	245.	222.	234.	244.	246.	245.	226.	207.	178.	174.	197.	215.	229.	234.
	234.	232.	227.	224.	228.	228.	224.	228.	228.	0.	0.	0.								
14	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	242.	242.	248.	251.	248.	237.	228.	225.	264.	261.	255.	253.	204.	211.	219.	216.	222.	226.	231.
	230.	227.	222.	217.	216.	227.	234.	231.	0.	0.	0.	0.								
15	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	231.	238.	246.	243.	245.	243.	241.	236.	228.	265.	264.	252.	248.	221.	227.	230.	233.	226.	225.	228.
	226.	220.	220.	219.	217.	228.	236.	236.	235.	0.	0.	0.								
16	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	238.
	225.	234.	238.	239.	237.	239.	232.	220.	227.	240.	241.	238.	233.	223.	223.	231.	234.	228.	226.	227.
	224.	214.	214.	217.	220.	230.	235.	237.	235.	234.	0.	0.								
17	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	226.
	221.	231.	235.	226.	229.	232.	229.	229.	234.	234.	230.	229.	226.	221.	220.	230.	231.	230.	229.	226.
	221.	210.	210.	209.	215.	225.	231.	232.	0.	0.	0.	0.								
18	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	214.
	226.	237.	234.	226.	228.	223.	231.	240.	231.	230.	231.	218.	214.	216.	220.	227.	230.	232.	231.	229.
	219.	211.	212.	205.	216.	216.	211.	218.	221.	0.	0.	0.								
19	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	208.	214.
	231.	236.	233.	226.	217.	225.	225.	224.	219.	222.	225.	214.	215.	207.	212.	222.	225.	227.	229.	236.
	226.	208.	208.	210.	222.	211.	202.	204.	0.	0.	0.	0.								
20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	213.	216.	223.
	229.	230.	227.	222.	216.	217.	215.	225.	219.	216.	219.	210.	205.	203.	206.	214.	218.	217.	219.	231.
	239.	206.	204.	207.	208.	213.	204.	0.	0.	0.	0.	0.								
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	215.	219.	226.
	228.	228.	223.	217.	217.	211.	214.	222.	219.	223.	217.	208.	207.	203.	202.	209.	213.	211.	212.	215.
	201.	199.	201.	206.	0.	0.	0.	0.	0.	0.	0.	0.								
22	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	222.	213.	209.	209.	217.	221.
	223.	223.	217.	220.	220.	214.	231.	232.	228.	225.	210.	207.	210.	214.	211.	208.	209.	208.	206.	197.
	194.	198.	210.	210.	211.	0.	0.	0.	0.	0.	0.	0.								
23	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	211.	204.	197.	208.	216.
	221.	217.	212.	221.	223.	220.	229.	231.	225.	222.	209.	203.	206.	209.	206.	202.	201.	197.	208.	197.
	193.	203.	216.	217.	217.	0.	0.	0.	0.	0.	0.	0.								
24	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	207.	202.	189.	191.	211.
	218.	211.	210.	218.	219.	225.	229.	228.	224.	225.	208.	201.	202.	203.	198.	197.	202.	202.	198.	196.
	202.	208.	206.	202.	211.	0.	0.	0.	0.	0.	0.	0.								
25	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	203.	188.	191.	205.
	210.	203.	210.	215.	217.	222.	225.	226.	224.	221.	203.	197.	199.	202.	197.	196.	199.	202.	188.	194.
	199.	211.	208.	198.	202.	0.	0.	0.	0.	0.	0.	0.								
26	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	184.	186.	206.
	213.	206.	199.	208.	211.	219.	223.	224.	215.	210.	202.	197.	196.	195.	197.	194.	196.	204.	205.	204.
	212.	209.	208.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
27	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	178.	183.	183.	201.
	207.	201.	200.	207.	213.	217.	221.	219.	215.	214.	206.	194.	192.	193.	195.	196.	202.	207.	202.	198.
	207.	209.	208.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
28	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	172.	185.	197.	207.
	200.	199.	204.	206.	210.	209.	214.	214.	208.	212.	199.	189.	192.	185.	189.	195.	185.	203.	188.	213.
	214.	215.	215.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
29	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	171.	176.	190.	205.	202.
	199.	191.	197.	203.	211.	206.	210.	198.	208.	200.	186.	183.	183.	188.	187.	188.	181.	191.	205.	215.
	212.	211.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	198.	175.	187.	203.	206.	207.
	197.	193.	195.	205.	207.	202.	195.	200.	215.	195.	183.	181.	173.	192.	197.	191.	197.	197.	205.	206.
	205.	213.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	218.	199.	182.	184.	206.	211.	205.
	202.	196.	197.	204.	202.	200.	202.	205.	209.	191.	188.	177.	187.	184.	177.	191.	186.	185.	207.	194.

	189.	204.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
32	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	193.	190.	191.	180.	172.	194.	201.	193.
	198.	194.	198.	201.	192.	194.	198.	201.	203.	178.	188.	188.	195.	190.	183.	193.	180.	183.	195.	190.
	194.	195.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
33	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	203.	194.	184.	177.	180.	185.	178.	192.	192.	188.
	194.	191.	196.	198.	195.	190.	195.	192.	216.	201.	190.	185.	190.	188.	182.	182.	167.	179.	181.	182.
	195.	197.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
34	0.	0.	0.	0.	0.	0.	0.	0.	204.	196.	191.	187.	187.	183.	174.	177.	180.	196.	198.	192.
	188.	190.	191.	195.	184.	190.	193.	184.	200.	199.	190.	187.	176.	186.	187.	181.	169.	169.	174.	177.
	201.	198.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
35	0.	0.	0.	0.	0.	0.	0.	0.	198.	195.	181.	176.	180.	182.	175.	173.	160.	182.	186.	172.
	175.	180.	187.	188.	184.	183.	190.	192.	193.	195.	191.	182.	186.	182.	186.	177.	169.	169.	180.	174.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
36	0.	0.	0.	0.	0.	0.	0.	0.	197.	181.	175.	177.	179.	171.	164.	155.	163.	172.	169.	178.
	184.	182.	191.	192.	190.	182.	187.	186.	204.	200.	189.	177.	178.	172.	176.	175.	176.	191.	180.	182.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
37	0.	0.	0.	0.	0.	0.	0.	182.	184.	181.	185.	179.	167.	163.	160.	156.	165.	163.	173.	184.
	184.	182.	188.	189.	187.	184.	186.	191.	229.	202.	190.	183.	187.	179.	177.	168.	166.	180.	174.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
38	0.	0.	0.	0.	0.	0.	183.	189.	183.	189.	187.	178.	170.	171.	158.	169.	170.	160.	178.	180.
	172.	183.	183.	185.	184.	186.	188.	186.	197.	190.	174.	175.	174.	183.	176.	179.	172.	171.	168.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
39	0.	0.	0.	0.	0.	217.	189.	183.	181.	202.	186.	169.	172.	167.	159.	161.	173.	158.	163.	171.
	166.	170.	177.	177.	180.	184.	185.	180.	183.	218.	176.	172.	182.	178.	185.	189.	154.	156.	158.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
40	0.	0.	0.	0.	222.	212.	195.	182.	188.	191.	188.	170.	155.	150.	148.	165.	175.	156.	154.	158.
	164.	163.	168.	180.	182.	179.	184.	167.	184.	194.	175.	175.	182.	175.	186.	190.	158.	157.	158.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
41	0.	0.	0.	0.	200.	202.	197.	188.	174.	172.	171.	180.	163.	158.	144.	164.	169.	163.	153.	152.
	166.	163.	159.	172.	171.	177.	174.	174.	165.	169.	168.	174.	184.	164.	172.	184.	172.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
42	0.	0.	220.	212.	216.	221.	194.	177.	172.	166.	165.	154.	166.	165.	151.	149.	154.	155.	156.	159.
	167.	163.	153.	162.	172.	180.	175.	174.	175.	162.	167.	168.	170.	161.	161.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
43	0.	233.	231.	230.	211.	198.	196.	198.	173.	160.	157.	153.	159.	158.	155.	143.	140.	125.	148.	167.
	167.	164.	158.	154.	154.	172.	178.	173.	169.	168.	167.	165.	176.	177.	169.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
44	0.	231.	232.	226.	220.	216.	192.	186.	192.	187.	173.	168.	160.	162.	146.	142.	141.	130.	154.	168.
	167.	167.	162.	154.	140.	158.	172.	172.	168.	168.	173.	177.	183.	0.	178.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
45	0.	0.	230.	225.	220.	204.	199.	192.	183.	179.	174.	168.	152.	153.	145.	140.	146.	144.	145.	168.
	165.	164.	164.	157.	140.	155.	163.	169.	164.	161.	162.	173.	181.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
46	0.	0.	228.	218.	206.	196.	191.	188.	180.	183.	170.	171.	164.	159.	140.	137.	134.	127.	121.	154.
	164.	165.	165.	158.	150.	157.	160.	164.	159.	163.	170.	181.	199.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
47	0.	0.	220.	211.	204.	191.	196.	194.	182.	176.	176.	183.	164.	145.	135.	136.	138.	135.	126.	145.
	164.	162.	160.	160.	163.	160.	152.	142.	154.	156.	169.	206.	213.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
48	0.	0.	0.	215.	206.	198.	199.	189.	180.	174.	170.	168.	176.	151.	145.	139.	146.	146.	140.	128.
	154.	161.	159.	162.	163.	166.	165.	144.	151.	155.	181.	215.	189.	176.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
49	0.	0.	0.	208.	201.	196.	183.	189.	180.	175.	174.	167.	169.	166.	154.	145.	142.	151.	159.	123.
	132.	154.	154.	158.	155.	158.	158.	152.	154.	154.	161.	154.	154.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
50	0.	0.	0.	204.	200.	201.	188.	188.	179.	173.	161.	165.	157.	149.	136.	135.	136.	143.	138.	132.
	128.	145.	149.	149.	151.	151.	144.	150.	151.	155.	161.	156.	151.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
51	0.	0.	0.	195.	189.	186.	190.	185.	188.	172.	162.	164.	166.	160.	140.	129.	129.	131.	138.	128.

	143.	143.	143.	145.	148.	145.	147.	151.	152.	154.	158.	157.	154.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
52	0.	0.	0.	0.	184.	190.	191.	187.	177.	171.	167.	162.	170.	163.	156.	136.	127.	130.	137.	114.
	130.	132.	140.	143.	142.	143.	147.	150.	158.	157.	150.	148.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
53	0.	0.	0.	0.	180.	181.	177.	174.	173.	172.	169.	163.	160.	150.	144.	146.	132.	124.	125.	128.
	130.	135.	145.	145.	147.	142.	141.	147.	139.	146.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
54	0.	0.	0.	0.	0.	175.	179.	173.	178.	171.	161.	166.	166.	148.	137.	154.	124.	129.	134.	130.
	121.	141.	138.	142.	147.	143.	143.	134.	118.	136.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
55	0.	0.	0.	0.	0.	0.	191.	182.	184.	178.	164.	167.	160.	152.	138.	144.	119.	130.	131.	127.
	126.	138.	139.	139.	142.	145.	145.	134.	120.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
56	0.	0.	0.	0.	0.	0.	0.	0.	187.	179.	171.	162.	156.	122.	134.	131.	122.	145.	125.	117.
	123.	128.	131.	135.	138.	135.	135.	135.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	173.	159.	156.	133.	129.	150.	135.	124.	123.	114.
	118.	112.	117.	131.	137.	136.	131.	131.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	148.	141.	135.	144.	138.	129.	123.	119.
	122.	108.	110.	127.	138.	139.	135.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
59	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	140.	146.	150.	141.	123.	123.	119.
	119.	114.	114.	125.	137.	138.	134.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	140.	125.	120.	115.
	112.	110.	109.	124.	135.	138.	135.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	135.	125.	115.
	105.	109.	113.	121.	134.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
62	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	116.	119.	119.	124.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
63	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	117.	113.	110.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
64	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	102.	101.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
65	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	104.	103.	103.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
66	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	114.	111.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
67	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
68	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
69	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								
70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.								

F. Solution method

```
                    SOLUTION BY THE STRONGLY IMPLICIT PROCEDURE
                    -------------------------------------------
         MAXIMUM ITERATIONS ALLOWED FOR CLOSURE =      310
                         ACCELERATION PARAMETER =     1.0000
              HEAD CHANGE CRITERION FOR CLOSURE =    0.10000E-01
              SIP HEAD CHANGE PRINTOUT INTERVAL =      999

5 ITERATION PARAMETERS CALCULATED FROM SPECIFIED WSEED =    0.70000 :
      0.0E+00  0.8373423E+00  0.9735425E+00  0.9956964E+00  0.9992999E+00
                  STRESS PERIOD NO.   1, LENGTH =   1.000000
                  ----------------------------------------------
                  NUMBER OF TIME STEPS =     1
                   MULTIPLIER FOR DELT =     1.000
                INITIAL TIME STEP SIZE =   1.000000
```

G. River location, stage, conductance, and bottom elevation

1574 RIVER REACHES

LAYER	ROW	COL	STAGE	CONDUCTANCE	BOTTOM ELEVATION	RIVER REACH
1	2	40	293.0	7111.	0.0	1
1	2	41	278.8	7111.	0.0	2
1	2	43	275.8	7111.	0.0	3
1	2	44	272.2	7111.	0.0	4
1	2	45	267.0	7111.	0.0	5
1	2	46	264.4	7111.	0.0	6
1	2	47	265.7	7111.	0.0	7
1	2	49	267.3	7111.	0.0	8
1	2	50	270.3	7111.	0.0	9
1	3	41	269.6	7111.	0.0	10
1	3	42	272.3	7111.	0.0	11
1	3	43	269.1	7111.	0.0	12
1	3	44	266.0	7111.	0.0	13
1	3	45	260.7	7111.	0.0	14
1	3	46	258.8	7111.	0.0	15
1	3	48	262.9	7111.	0.0	16
1	3	49	263.3	7111.	0.0	17
1	3	50	265.7	7111.	0.0	18
1	4	41	274.7	7111.	0.0	19
1	4	42	271.4	7111.	0.0	20
1	4	43	269.6	7111.	0.0	21
1	4	44	263.9	7111.	0.0	22
1	4	45	256.0	7111.	0.0	23
1	4	47	255.7	7111.	0.0	24
1	4	48	258.6	7111.	0.0	25
1	4	49	259.9	7111.	0.0	26
1	4	50	262.0	7111.	0.0	27
1	5	40	269.6	7111.	0.0	28
1	5	42	266.0	7111.	0.0	29
1	5	43	263.3	7111.	0.0	30
1	5	44	258.4	7111.	0.0	31
1	5	45	253.7	7111.	0.0	32
1	5	47	252.7	7111.	0.0	33
1	5	48	255.7	7111.	0.0	34
1	5	49	258.1	7111.	0.0	35
1	5	50	260.7	7111.	0.0	36
1	6	39	259.9	7111.	0.0	37

1	6	40	265.0	7111.	0.0	38
1	6	41	262.4	7111.	0.0	39
1	6	43	255.7	7111.	0.0	40
1	6	44	252.8	7111.	0.0	41
1	6	46	253.0	7111.	0.0	42
1	6	47	255.8	7111.	0.0	43
1	6	48	258.4	7111.	0.0	44
1	6	49	261.0	7111.	0.0	45
1	6	50	264.6	7111.	0.0	46
1	7	39	265.4	7111.	0.0	47
1	7	40	260.1	7111.	0.0	48
1	7	42	257.6	7111.	0.0	49
1	7	43	251.0	7111.	0.0	50
1	7	44	249.3	7111.	0.0	51
1	7	46	253.7	7111.	0.0	52
1	7	47	256.9	7111.	0.0	53
1	7	48	259.2	7111.	0.0	54
1	7	49	262.0	7111.	0.0	55
1	7	50	265.0	7111.	0.0	56
1	8	38	253.7	7111.	0.0	57
1	8	39	254.9	7111.	0.0	58
1	8	40	255.9	7111.	0.0	59
1	8	42	255.6	7111.	0.0	60
1	8	43	247.9	7111.	0.0	61
1	8	45	248.4	7111.	0.0	62
1	8	46	253.4	7111.	0.0	63
1	8	47	256.3	7111.	0.0	64
1	8	48	258.0	7111.	0.0	65
1	8	49	260.3	7111.	0.0	66
1	9	36	264.6	7111.	0.0	67
1	9	37	260.7	7111.	0.0	68
1	9	38	250.6	7111.	0.0	69
1	9	39	248.8	7111.	0.0	70
1	9	41	254.1	7111.	0.0	71
1	9	42	254.2	7111.	0.0	72
1	9	43	244.2	7111.	0.0	73
1	9	45	247.7	7111.	0.0	74
1	9	46	252.2	7111.	0.0	75
1	9	47	255.3	7111.	0.0	76
1	9	48	256.7	7111.	0.0	77
1	10	36	261.9	7111.	0.0	78
1	10	37	251.0	7111.	0.0	79
1	10	38	243.4	7111.	0.0	80
1	10	40	247.9	7111.	0.0	81
1	10	41	247.8	7111.	0.0	82
1	10	42	245.8	7111.	0.0	83
1	10	44	243.3	7111.	0.0	84
1	10	45	247.3	7111.	0.0	85
1	10	46	250.2	7111.	0.0	86
1	10	47	254.7	7111.	0.0	87
1	10	48	256.0	7111.	0.0	88
1	10	49	259.0	7111.	0.0	89
1	11	35	259.8	7111.	0.0	90
1	11	36	252.0	7111.	0.0	91
1	11	37	243.2	7111.	0.0	92
1	11	38	238.8	7111.	0.0	93
1	11	40	246.7	7111.	0.0	94
1	11	41	242.2	7111.	0.0	95
1	11	43	239.2	7111.	0.0	96

1	11	44	242.6	7111.	0.0	97
1	11	45	246.0	7111.	0.0	98
1	11	46	249.4	7111.	0.0	99
1	11	47	252.9	7111.	0.0	100
1	11	48	254.9	7111.	0.0	101
1	11	49	257.2	7111.	0.0	102
1	12	35	260.2	7111.	0.0	103
1	12	36	246.1	7111.	0.0	104
1	12	37	240.2	7111.	0.0	105
1	12	39	237.6	7111.	0.0	106
1	12	40	242.7	7111.	0.0	107
1	12	41	239.3	7111.	0.0	108
1	12	43	236.9	7111.	0.0	109
1	12	44	241.7	7111.	0.0	110
1	12	45	245.9	7111.	0.0	111
1	12	46	248.3	7111.	0.0	112
1	12	47	251.9	7111.	0.0	113
1	12	48	252.0	7111.	0.0	114
1	13	34	251.2	7111.	0.0	115
1	13	35	250.3	7111.	0.0	116
1	13	36	238.7	7111.	0.0	117
1	13	38	231.2	7111.	0.0	118
1	13	39	233.3	7111.	0.0	119
1	13	40	237.0	7111.	0.0	120
1	13	42	238.0	7111.	0.0	121
1	13	43	239.0	7111.	0.0	122
1	13	44	242.9	7111.	0.0	123
1	13	45	245.6	7111.	0.0	124
1	13	46	248.0	7111.	0.0	125
1	13	47	250.1	7111.	0.0	126
1	13	48	248.9	7111.	0.0	127
1	14	34	249.7	7111.	0.0	128
1	14	35	241.7	7111.	0.0	129
1	14	37	228.1	7111.	0.0	130
1	14	38	226.0	7111.	0.0	131
1	14	39	227.9	7111.	0.0	132
1	14	40	233.1	7111.	0.0	133
1	14	42	237.4	7111.	0.0	134
1	14	43	240.8	7111.	0.0	135
1	14	44	242.6	7111.	0.0	136
1	14	45	244.3	7111.	0.0	137
1	14	46	245.9	7111.	0.0	138
1	14	47	246.7	7111.	0.0	139
1	15	34	244.2	7111.	0.0	140
1	15	35	234.4	7111.	0.0	141
1	15	37	225.4	7111.	0.0	142
1	15	38	223.6	7111.	0.0	143
1	15	39	225.2	7111.	0.0	144
1	15	40	229.4	7111.	0.0	145
1	15	42	235.3	7111.	0.0	146
1	15	43	239.4	7111.	0.0	147
1	15	44	241.9	7111.	0.0	148
1	15	45	242.6	7111.	0.0	149
1	15	46	244.2	7111.	0.0	150
1	15	47	246.2	7111.	0.0	151
1	15	48	248.6	7111.	0.0	152
1	16	33	234.6	7111.	0.0	153
1	16	34	232.2	7111.	0.0	154
1	16	35	222.6	7111.	0.0	155

1	16	37	224.0	7111.	0.0	156
1	16	38	222.8	7111.	0.0	157
1	16	39	224.2	7111.	0.0	158
1	16	40	227.2	7111.	0.0	159
1	16	42	231.6	7111.	0.0	160
1	16	43	235.1	7111.	0.0	161
1	16	44	238.0	7111.	0.0	162
1	16	45	239.9	7111.	0.0	163
1	16	46	243.6	7111.	0.0	164
1	16	47	246.8	7111.	0.0	165
1	17	33	235.4	7111.	0.0	166
1	17	34	229.0	7111.	0.0	167
1	17	36	222.3	7111.	0.0	168
1	17	37	220.8	7111.	0.0	169
1	17	38	221.6	7111.	0.0	170
1	17	39	224.0	7111.	0.0	171
1	17	40	226.9	7111.	0.0	172
1	17	42	227.8	7111.	0.0	173
1	17	43	228.8	7111.	0.0	174
1	17	44	231.8	7111.	0.0	175
1	17	45	235.3	7111.	0.0	176
1	17	46	240.8	7111.	0.0	177
1	17	47	245.0	7111.	0.0	178
1	18	32	229.6	7111.	0.0	179
1	18	33	226.2	7111.	0.0	180
1	18	34	224.9	7111.	0.0	181
1	18	36	223.3	7111.	0.0	182
1	18	37	220.1	7111.	0.0	183
1	18	38	222.7	7111.	0.0	184
1	18	39	226.2	7111.	0.0	185
1	18	40	230.6	7111.	0.0	186
1	18	42	224.4	7111.	0.0	187
1	18	43	224.2	7111.	0.0	188
1	18	44	228.0	7111.	0.0	189
1	18	45	232.7	7111.	0.0	190
1	18	46	238.6	7111.	0.0	191
1	18	47	243.2	7111.	0.0	192
1	18	48	246.8	7111.	0.0	193
1	19	31	231.8	7111.	0.0	194
1	19	32	222.6	7111.	0.0	195
1	19	33	221.0	7111.	0.0	196
1	19	34	218.6	7111.	0.0	197
1	19	35	214.7	7111.	0.0	198
1	19	37	216.4	7111.	0.0	199
1	19	38	220.3	7111.	0.0	200
1	19	39	228.3	7111.	0.0	201
1	19	41	240.8	7111.	0.0	202
1	19	42	221.6	7111.	0.0	203
1	19	43	222.2	7111.	0.0	204
1	19	44	228.3	7111.	0.0	205
1	19	45	233.9	7111.	0.0	206
1	19	46	239.8	7111.	0.0	207
1	19	47	243.3	7111.	0.0	208
1	20	31	224.6	7111.	0.0	209
1	20	32	217.9	7111.	0.0	210
1	20	33	215.2	7111.	0.0	211
1	20	34	212.1	7111.	0.0	212
1	20	35	210.9	7111.	0.0	213
1	20	37	212.4	7111.	0.0	214

1	20	38	215.3	7111.	0.0	215
1	20	40	235.3	7111.	0.0	216
1	20	41	259.0	7111.	0.0	217
1	20	42	220.9	7111.	0.0	218
1	20	43	220.6	7111.	0.0	219
1	20	44	230.0	7111.	0.0	220
1	21	32	215.0	7111.	0.0	221
1	21	33	212.8	7111.	0.0	222
1	21	34	210.8	7111.	0.0	223
1	21	36	209.7	7111.	0.0	224
1	21	37	211.3	7111.	0.0	225
1	21	39	216.4	7111.	0.0	226
1	21	40	221.0	7111.	0.0	227
1	21	41	220.9	7111.	0.0	228
1	21	42	220.1	7111.	0.0	229
1	21	43	222.3	7111.	0.0	230
1	22	32	212.0	7111.	0.0	231
1	22	33	209.8	7111.	0.0	232
1	22	34	210.1	7111.	0.0	233
1	22	36	208.9	7111.	0.0	234
1	22	38	214.2	7111.	0.0	235
1	22	39	216.1	7111.	0.0	236
1	22	40	215.7	7111.	0.0	237
1	22	41	217.1	7111.	0.0	238
1	22	42	221.3	7111.	0.0	239
1	22	43	223.7	7111.	0.0	240
1	22	44	226.8	7111.	0.0	241
1	23	32	208.8	7111.	0.0	242
1	23	33	208.0	7111.	0.0	243
1	23	34	207.4	7111.	0.0	244
1	23	37	210.2	7111.	0.0	245
1	23	38	212.1	7111.	0.0	246
1	23	39	214.2	7111.	0.0	247
1	23	40	212.4	7111.	0.0	248
1	23	41	217.9	7111.	0.0	249
1	23	42	220.0	7111.	0.0	250
1	23	43	222.4	7111.	0.0	251
1	23	44	227.4	7111.	0.0	252
1	24	32	204.4	3000.	0.0	253
1	24	33	205.1	7111.	0.0	254
1	24	34	205.4	7111.	0.0	255
1	24	36	206.1	7111.	0.0	256
1	24	37	208.8	7111.	0.0	257
1	24	38	211.9	7111.	0.0	258
1	24	39	212.6	7111.	0.0	259
1	24	40	215.0	7111.	0.0	260
1	24	41	219.0	7111.	0.0	261
1	24	42	220.7	7111.	0.0	262
1	24	43	223.8	7111.	0.0	263
1	24	44	226.4	7111.	0.0	264
1	25	32	202.2	3000.	0.0	265
1	25	33	203.2	3000.	0.0	266
1	25	34	204.6	3000.	0.0	267
1	25	35	204.6	3000.	0.0	268
1	25	37	207.7	3000.	0.0	269
1	25	38	211.0	3000.	0.0	270
1	25	39	212.9	7111.	0.0	271
1	25	40	217.8	7111.	0.0	272
1	25	41	221.8	7111.	0.0	273

1	25	42	222.1	7111.	0.0	274
1	25	43	224.1	7111.	0.0	275
1	26	31	199.7	50.00	0.0	276
1	26	32	199.1	1000.	0.0	277
1	26	33	201.1	1000.	0.0	278
1	26	34	203.1	1000.	0.0	279
1	26	36	206.7	1000.	0.0	280
1	26	37	208.4	1000.	0.0	281
1	26	38	211.3	1000.	0.0	282
1	26	39	214.9	3000.	0.0	283
1	26	40	216.3	8000.	0.0	284
1	26	41	217.9	8000.	0.0	285
1	26	42	220.6	8000.	0.0	286
1	27	31	209.9	50.00	0.0	287
1	27	32	197.9	1000.	0.0	288
1	27	33	199.8	1000.	0.0	289
1	27	36	207.8	1000.	0.0	290
1	27	37	208.1	1000.	0.0	291
1	27	38	210.8	1000.	0.0	292
1	27	39	216.1	3000.	0.0	293
1	27	40	217.4	8000.	0.0	294
1	27	41	218.0	8000.	0.0	295
1	27	42	218.7	8000.	0.0	296
1	28	31	198.7	50.00	0.0	297
1	28	32	197.0	1000.	0.0	298
1	28	34	201.0	1000.	0.0	299
1	28	35	204.2	1000.	0.0	300
1	28	36	208.0	1000.	0.0	301
1	28	37	209.0	1000.	0.0	302
1	28	38	210.0	1000.	0.0	303
1	28	39	213.2	3000.	0.0	304
1	28	40	215.9	3000.	0.0	305
1	28	41	216.9	8000.	0.0	306
1	28	42	216.1	8000.	0.0	307
1	29	31	192.3	50.00	0.0	308
1	29	32	193.8	1000.	0.0	309
1	29	34	199.2	1000.	0.0	310
1	29	35	202.9	1000.	0.0	311
1	29	36	202.9	1000.	0.0	312
1	29	37	206.7	3000.	0.0	313
1	29	38	209.0	3000.	0.0	314
1	29	39	210.6	3000.	0.0	315
1	29	40	213.0	3000.	0.0	316
1	29	41	214.6	8000.	0.0	317
1	30	31	191.2	50.00	0.0	318
1	30	32	194.3	1000.	0.0	319
1	30	34	200.6	1000.	0.0	320
1	30	35	203.3	1000.	0.0	321
1	30	36	203.3	1000.	0.0	322
1	30	37	208.1	3000.	0.0	323
1	30	38	211.2	3000.	0.0	324
1	30	39	212.2	3000.	0.0	325
1	30	40	214.9	3000.	0.0	326
1	30	41	214.9	8000.	0.0	327
1	31	31	196.2	1000.	0.0	328
1	31	32	197.3	1000.	0.0	329
1	31	34	199.9	1000.	0.0	330
1	31	35	201.4	1000.	0.0	331
1	31	36	203.7	3000.	0.0	332

1	31	37	209.2	3000.	0.0	333
1	31	38	212.6	3000.	0.0	334
1	31	39	212.4	3000.	0.0	335
1	31	40	211.7	3000.	0.0	336
1	31	41	211.1	7111.	0.0	337
1	32	33	199.2	1000.	0.0	338
1	32	34	199.3	1000.	0.0	339
1	32	35	199.2	1000.	0.0	340
1	32	36	200.9	3000.	0.0	341
1	32	37	206.4	3000.	0.0	342
1	32	38	209.4	3000.	0.0	343
1	32	39	209.2	3000.	0.0	344
1	32	40	208.3	3000.	0.0	345
1	32	41	205.2	7111.	0.0	346
1	33	32	197.1	1000.	0.0	347
1	33	33	196.4	1000.	0.0	348
1	33	34	196.4	1000.	0.0	349
1	33	35	196.2	3000.	0.0	350
1	33	36	199.1	7111.	0.0	351
1	33	37	202.4	7111.	0.0	352
1	33	38	204.4	7111.	0.0	353
1	33	39	204.6	7111.	0.0	354
1	33	40	202.7	7111.	0.0	355
1	33	41	204.7	7111.	0.0	356
1	34	32	191.4	1000.	0.0	357
1	34	33	196.6	1000.	0.0	358
1	34	34	194.2	1000.	0.0	359
1	34	35	192.7	7111.	0.0	360
1	34	36	196.2	7111.	0.0	361
1	34	37	197.2	7111.	0.0	362
1	34	38	199.2	7111.	0.0	363
1	34	39	199.8	7111.	0.0	364
1	34	40	202.0	7111.	0.0	365
1	35	32	187.7	1000.	0.0	366
1	35	33	191.7	3000.	0.0	367
1	35	34	190.6	3000.	0.0	368
1	35	35	190.8	7111.	0.0	369
1	35	36	190.3	7111.	0.0	370
1	35	37	191.7	7111.	0.0	371
1	35	38	195.0	7111.	0.0	372
1	35	39	198.2	7111.	0.0	373
1	36	32	188.9	1000.	0.0	374
1	36	33	187.8	3000.	0.0	375
1	36	34	188.7	3000.	0.0	376
1	36	35	188.9	7111.	0.0	377
1	36	36	191.4	7111.	0.0	378
1	36	37	192.0	7111.	0.0	379
1	36	38	194.9	7111.	0.0	380
1	36	39	196.6	7111.	0.0	381
1	37	32	189.4	1000.	0.0	382
1	37	33	189.7	3000.	0.0	383
1	37	34	184.4	3000.	0.0	384
1	37	35	188.0	7111.	0.0	385
1	37	36	190.9	7111.	0.0	386
1	37	37	187.7	7111.	0.0	387
1	37	38	191.7	7111.	0.0	388
1	38	33	184.3	3000.	0.0	389
1	38	34	187.1	3000.	0.0	390
1	38	35	189.8	7111.	0.0	391

1	38	36	188.9	7111.	0.0	392
1	38	37	189.7	7111.	0.0	393
1	38	38	189.8	7111.	0.0	394
1	39	31	190.1	3000.	0.0	395
1	39	33	185.2	3000.	0.0	396
1	39	34	186.9	3000.	0.0	397
1	39	35	190.6	3000.	0.0	398
1	39	36	189.6	3000.	0.0	399
1	39	37	190.1	3000.	0.0	400
1	39	38	190.8	3000.	0.0	401
1	40	30	209.8	3000.	0.0	402
1	40	31	182.2	7111.	0.0	403
1	40	33	183.7	7111.	0.0	404
1	40	34	180.4	7111.	0.0	405
1	40	35	185.8	7111.	0.0	406
1	40	36	192.9	7111.	0.0	407
1	40	37	193.3	7111.	0.0	408
1	41	31	181.8	7111.	0.0	409
1	41	33	184.2	7111.	0.0	410
1	41	34	177.1	7111.	0.0	411
1	41	35	178.3	7111.	0.0	412
1	42	33	175.0	7111.	0.0	413
1	42	34	173.9	7111.	0.0	414
1	43	32	177.9	7111.	0.0	415
1	21	29	239.3	0.1000E+05	0.0	416
1	21	30	239.3	0.1000E+05	0.0	417
1	22	28	237.8	6000.	0.0	418
1	22	29	237.2	6000.	0.0	419
1	22	30	236.8	6000.	0.0	420
1	23	27	233.7	6000.	0.0	421
1	23	28	234.7	6000.	0.0	422
1	23	29	236.6	6000.	0.0	423
1	23	30	235.2	3000.	0.0	424
1	24	27	232.4	6000.	0.0	425
1	24	28	232.1	6000.	0.0	426
1	24	29	236.2	6000.	0.0	427
1	24	30	247.8	3000.	0.0	428
1	25	26	226.2	6000.	0.0	429
1	25	27	230.3	6000.	0.0	430
1	25	28	229.7	6000.	0.0	431
1	25	29	236.0	3000.	0.0	432
1	25	30	236.2	3000.	0.0	433
1	26	26	223.2	6000.	0.0	434
1	26	27	228.2	6000.	0.0	435
1	26	28	227.9	6000.	0.0	436
1	26	29	233.2	6000.	0.0	437
1	27	26	222.3	6000.	0.0	438
1	27	27	226.2	4000.	0.0	439
1	27	28	224.8	4000.	0.0	440
1	28	25	215.3	4000.	0.0	441
1	28	26	218.1	4000.	0.0	442
1	28	27	222.1	4000.	0.0	443
1	28	29	241.9	4000.	0.0	444
1	29	25	217.3	4000.	0.0	445
1	29	26	215.8	4000.	0.0	446
1	29	27	219.3	4000.	0.0	447
1	29	29	247.3	4000.	0.0	448
1	30	25	215.2	4000.	0.0	449
1	30	26	215.1	4000.	0.0	450

1	30	28	225.0	4000.	0.0	451
1	30	29	246.6	4000.	0.0	452
1	31	24	211.7	4000.	0.0	453
1	31	25	212.0	4000.	0.0	454
1	31	26	214.1	4000.	0.0	455
1	31	28	224.6	4000.	0.0	456
1	31	29	233.9	4000.	0.0	457
1	32	24	208.8	4000.	0.0	458
1	32	25	206.8	4000.	0.0	459
1	32	26	209.2	4000.	0.0	460
1	32	28	220.6	4000.	0.0	461
1	32	29	226.1	4000.	0.0	462
1	33	24	206.2	4000.	0.0	463
1	33	25	205.2	4000.	0.0	464
1	33	26	204.6	4000.	0.0	465
1	33	28	217.7	4000.	0.0	466
1	33	29	235.2	4000.	0.0	467
1	34	24	203.7	4000.	0.0	468
1	34	25	202.2	4000.	0.0	469
1	34	26	203.4	4000.	0.0	470
1	34	28	221.4	4000.	0.0	471
1	35	25	200.8	4000.	0.0	472
1	35	26	203.4	4000.	0.0	473
1	35	28	216.7	4000.	0.0	474
1	36	25	199.3	4000.	0.0	475
1	36	26	198.8	4000.	0.0	476
1	36	28	212.7	4000.	0.0	477
1	37	25	199.9	4000.	0.0	478
1	37	26	198.2	4000.	0.0	479
1	37	28	208.1	4000.	0.0	480
1	37	29	250.3	4000.	0.0	481
1	38	26	199.4	4000.	0.0	482
1	38	28	203.9	4000.	0.0	483
1	38	29	231.7	4000.	0.0	484
1	39	26	198.2	4000.	0.0	485
1	39	27	197.0	4000.	0.0	486
1	39	29	219.3	4000.	0.0	487
1	40	27	199.0	4000.	0.0	488
1	40	29	207.2	4000.	0.0	489
1	41	27	193.8	4000.	0.0	490
1	41	28	195.9	4000.	0.0	491
1	41	30	184.9	4000.	0.0	492
1	42	30	175.9	4000.	0.0	493
1	42	31	180.7	4000.	0.0	494
1	2	37	296.9	0.1298E+05	0.0	495
1	2	38	298.4	0.1298E+05	0.0	496
1	3	36	290.6	0.1298E+05	0.0	497
1	3	37	297.0	0.1298E+05	0.0	498
1	3	38	298.9	0.1298E+05	0.0	499
1	4	35	282.6	0.1298E+05	0.0	500
1	4	36	291.0	0.1298E+05	0.0	501
1	4	37	295.1	0.1298E+05	0.0	502
1	4	38	287.0	0.1298E+05	0.0	503
1	5	34	281.6	0.1298E+05	0.0	504
1	5	35	280.3	0.1298E+05	0.0	505
1	5	36	281.8	0.1298E+05	0.0	506
1	6	33	274.9	0.1298E+05	0.0	507
1	6	34	278.0	0.1298E+05	0.0	508
1	6	35	274.7	0.1298E+05	0.0	509

1	7	32	270.1	0.1298E+05	0.0	510
1	7	33	274.6	0.1298E+05	0.0	511
1	7	34	277.0	0.1298E+05	0.0	512
1	7	35	270.4	0.1298E+05	0.0	513
1	8	31	270.0	0.1298E+05	0.0	514
1	8	32	269.0	0.1298E+05	0.0	515
1	8	33	276.6	0.1298E+05	0.0	516
1	8	34	279.0	0.1298E+05	0.0	517
1	9	30	270.8	0.1298E+05	0.0	518
1	9	31	269.8	0.1298E+05	0.0	519
1	9	32	271.7	0.1298E+05	0.0	520
1	9	33	273.1	0.1298E+05	0.0	521
1	10	29	262.7	0.1298E+05	0.0	522
1	10	30	267.2	0.1298E+05	0.0	523
1	10	31	271.1	0.1298E+05	0.0	524
1	10	32	268.8	0.1298E+05	0.0	525
1	11	28	259.8	0.1298E+05	0.0	526
1	11	30	260.1	0.1298E+05	0.0	527
1	11	31	274.2	0.1298E+05	0.0	528
1	12	27	258.4	0.1298E+05	0.0	529
1	12	28	254.3	0.1298E+05	0.0	530
1	12	30	262.0	0.1298E+05	0.0	531
1	12	31	266.9	0.1298E+05	0.0	532
1	13	27	253.4	0.1298E+05	0.0	533
1	13	29	253.2	0.1298E+05	0.0	534
1	13	30	262.1	0.1298E+05	0.0	535
1	14	28	245.0	0.1298E+05	0.0	536
1	14	29	257.2	0.1298E+05	0.0	537
1	14	30	277.7	0.1298E+05	0.0	538
1	15	28	243.8	0.1298E+05	0.0	539
1	15	29	250.0	0.1298E+05	0.0	540
1	16	26	244.8	0.1298E+05	0.0	541
1	16	28	241.1	0.1298E+05	0.0	542
1	16	29	242.0	0.1298E+05	0.0	543
1	17	25	245.3	0.1298E+05	0.0	544
1	17	26	238.4	0.1298E+05	0.0	545
1	17	28	244.9	0.1298E+05	0.0	546
1	18	24	239.8	0.1298E+05	0.0	547
1	18	25	235.7	0.1298E+05	0.0	548
1	18	27	241.3	6000.	0.0	549
1	19	24	238.2	0.1298E+05	0.0	550
1	19	26	236.0	6000.	0.0	551
1	19	27	241.9	6000.	0.0	552
1	19	28	247.6	6000.	0.0	553
1	20	23	234.2	0.1298E+05	0.0	554
1	20	24	228.6	0.1298E+05	0.0	555
1	20	26	233.9	6000.	0.0	556
1	20	27	234.6	6000.	0.0	557
1	20	28	241.3	6000.	0.0	558
1	20	29	248.4	6000.	0.0	559
1	21	23	227.7	0.1298E+05	0.0	560
1	21	25	231.2	0.1298E+05	0.0	561
1	21	26	228.9	6000.	0.0	562
1	21	27	230.8	6000.	0.0	563
1	21	28	238.7	6000.	0.0	564
1	22	22	226.9	0.1298E+05	0.0	565
1	22	23	220.0	0.1298E+05	0.0	566
1	22	25	225.8	0.1298E+05	0.0	567
1	22	26	224.7	6000.	0.0	568

1	22	27	236.1	6000.	0.0	569
1	23	22	220.8	0.1298E+05	0.0	570
1	23	23	217.4	0.1298E+05	0.0	571
1	23	25	224.4	0.1298E+05	0.0	572
1	23	26	227.2	6000.	0.0	573
1	24	21	222.7	0.1298E+05	0.0	574
1	24	22	215.6	0.1298E+05	0.0	575
1	24	24	221.6	0.1298E+05	0.0	576
1	24	25	220.4	6000.	0.0	577
1	24	26	228.1	6000.	0.0	578
1	25	21	215.3	0.1298E+05	0.0	579
1	25	23	215.0	0.1298E+05	0.0	580
1	25	24	218.9	6000.	0.0	581
1	25	25	220.0	6000.	0.0	582
1	26	21	212.8	0.1298E+05	0.0	583
1	26	23	210.6	0.1298E+05	0.0	584
1	26	24	215.0	6000.	0.0	585
1	26	25	216.4	6000.	0.0	586
1	27	21	211.1	0.1298E+05	0.0	587
1	27	23	208.3	0.1298E+05	0.0	588
1	27	24	213.1	6000.	0.0	589
1	27	25	217.4	6000.	0.0	590
1	28	20	207.4	0.1298E+05	0.0	591
1	28	21	208.9	0.1298E+05	0.0	592
1	28	23	210.1	8000.	0.0	593
1	28	24	211.0	8000.	0.0	594
1	29	20	206.4	0.1298E+05	0.0	595
1	29	21	203.6	0.1298E+05	0.0	596
1	29	23	207.3	8000.	0.0	597
1	29	24	210.0	8000.	0.0	598
1	30	20	208.4	0.1298E+05	0.0	599
1	30	22	203.8	0.1298E+05	0.0	600
1	30	23	204.6	8000.	0.0	601
1	30	24	210.6	8000.	0.0	602
1	31	19	204.9	0.1298E+05	0.0	603
1	31	20	199.9	0.1298E+05	0.0	604
1	31	22	201.9	0.1298E+05	0.0	605
1	31	23	208.8	8000.	0.0	606
1	32	19	196.9	0.1298E+05	0.0	607
1	32	21	193.9	0.1298E+05	0.0	608
1	32	22	195.8	0.1298E+05	0.0	609
1	32	23	204.2	8000.	0.0	610
1	33	19	191.2	0.1298E+05	0.0	611
1	33	21	194.2	0.1298E+05	0.0	612
1	33	22	195.0	0.1298E+05	0.0	613
1	33	23	204.7	8000.	0.0	614
1	34	18	189.6	0.1298E+05	0.0	615
1	34	19	191.0	0.1298E+05	0.0	616
1	34	21	198.4	0.1298E+05	0.0	617
1	34	22	191.7	0.1298E+05	0.0	618
1	34	23	198.7	8000.	0.0	619
1	35	18	183.2	0.3000E+05	0.0	620
1	35	20	192.6	0.3000E+05	0.0	621
1	35	21	193.7	0.1298E+05	0.0	622
1	35	22	187.4	0.1298E+05	0.0	623
1	35	23	196.0	8000.	0.0	624
1	35	24	201.0	8000.	0.0	625
1	36	17	177.4	0.3000E+05	0.0	626
1	36	18	174.1	0.3000E+05	0.0	627

1	36	20	188.7	0.3000E+05	0.0	628
1	36	21	190.6	0.1298E+05	0.0	629
1	36	22	188.7	0.1298E+05	0.0	630
1	36	23	201.8	8000.	0.0	631
1	37	17	172.2	0.3000E+05	0.0	632
1	37	18	168.6	0.3000E+05	0.0	633
1	37	20	181.9	0.3000E+05	0.0	634
1	37	21	184.3	0.1298E+05	0.0	635
1	37	22	193.0	0.1298E+05	0.0	636
1	38	17	174.7	0.3000E+05	0.0	637
1	38	18	165.6	0.3000E+05	0.0	638
1	38	20	177.4	0.3000E+05	0.0	639
1	38	21	180.0	0.1298E+05	0.0	640
1	39	17	175.9	0.3000E+05	0.0	641
1	39	18	163.9	0.3000E+05	0.0	642
1	39	20	169.3	0.3000E+05	0.0	643
1	39	21	179.9	0.1298E+05	0.0	644
1	40	19	160.3	0.3000E+05	0.0	645
1	40	20	168.1	0.3000E+05	0.0	646
1	40	21	179.2	0.1298E+05	0.0	647
1	41	18	165.9	0.3000E+05	0.0	648
1	41	20	167.4	0.3000E+05	0.0	649
1	41	21	176.8	0.1298E+05	0.0	650
1	42	18	172.6	0.3000E+05	0.0	651
1	42	20	173.9	0.3000E+05	0.0	652
1	43	18	169.2	0.1298E+05	0.0	653
1	43	20	173.3	0.1298E+05	0.0	654
1	41	8	236.7	2500.	0.0	655
1	42	3	234.7	50.00	0.0	656
1	42	4	231.9	50.00	0.0	657
1	42	6	246.2	0.1000E+05	0.0	658
1	42	7	238.0	5000.	0.0	659
1	42	8	229.9	5000.	0.0	660
1	42	9	230.1	2500.	0.0	661
1	42	10	225.6	2500.	0.0	662
1	43	2	235.3	7854.	0.0	663
1	43	3	235.0	7854.	0.0	664
1	43	4	236.6	7854.	0.0	665
1	43	5	229.9	0.1000E+05	0.0	666
1	43	8	226.2	2500.	0.0	667
1	43	9	218.4	2500.	0.0	668
1	43	10	215.9	2500.	0.0	669
1	43	11	215.9	2500.	0.0	670
1	44	5	232.1	0.1000E+05	0.0	671
1	44	6	225.1	0.1000E+05	0.0	672
1	44	7	215.9	0.1000E+05	0.0	673
1	44	9	221.6	2500.	0.0	674
1	44	10	217.0	2500.	0.0	675
1	44	11	204.9	2500.	0.0	676
1	45	5	228.6	0.2300E+05	0.0	677
1	45	6	222.7	0.2300E+05	0.0	678
1	45	7	217.7	0.1000E+05	0.0	679
1	45	8	212.6	7854.	0.0	680
1	45	10	212.1	2500.	0.0	681
1	45	11	205.2	2500.	0.0	682
1	45	12	208.9	395.0	0.0	683
1	46	6	218.8	0.3000E+05	0.0	684
1	46	7	215.2	0.1000E+05	0.0	685
1	46	8	211.3	7854.	0.0	686

1	46	9	200.1	8000.	0.0	687
1	46	11	195.0	4000.	0.0	688
1	46	12	198.7	4000.	0.0	689
1	46	13	204.2	40.00	0.0	690
1	47	7	214.7	0.1000E+05	0.0	691
1	47	8	212.0	7854.	0.0	692
1	47	9	201.7	0.1500E+05	0.0	693
1	47	10	196.9	8000.	0.0	694
1	47	12	189.8	7000.	0.0	695
1	47	13	193.1	40.00	0.0	696
1	47	14	201.8	10.00	0.0	697
1	48	7	221.6	0.1000E+05	0.0	698
1	48	8	208.9	7854.	0.0	699
1	48	9	201.0	0.1200E+05	0.0	700
1	48	10	193.3	0.1500E+05	0.0	701
1	48	11	188.7	0.1500E+05	0.0	702
1	48	13	190.0	40.00	0.0	703
1	48	14	197.2	40.00	0.0	704
1	49	8	206.3	7854.	0.0	705
1	49	9	201.0	7854.	0.0	706
1	49	10	191.1	0.1200E+05	0.0	707
1	49	11	189.2	0.1200E+05	0.0	708
1	49	13	183.6	40.00	0.0	709
1	49	14	188.1	40.00	0.0	710
1	49	15	201.6	40.00	0.0	711
1	50	8	204.8	7854.	0.0	712
1	50	9	197.0	7854.	0.0	713
1	50	10	187.0	7854.	0.0	714
1	50	11	185.0	0.1200E+05	0.0	715
1	50	12	185.1	0.1200E+05	0.0	716
1	50	14	184.3	40.00	0.0	717
1	50	15	199.0	40.00	0.0	718
1	50	16	198.8	10.00	0.0	719
1	51	8	204.0	7854.	0.0	720
1	51	9	198.3	7854.	0.0	721
1	51	10	186.0	7854.	0.0	722
1	51	11	180.3	7854.	0.0	723
1	51	12	181.1	7854.	0.0	724
1	51	13	179.3	7854.	0.0	725
1	51	15	193.0	40.00	0.0	726
1	51	16	194.0	40.00	0.0	727
1	52	8	199.2	7854.	0.0	728
1	52	9	198.0	7854.	0.0	729
1	52	10	187.9	7854.	0.0	730
1	52	11	178.8	7854.	0.0	731
1	52	12	172.7	7854.	0.0	732
1	52	14	177.6	40.00	0.0	733
1	52	15	184.9	40.00	0.0	734
1	52	16	186.0	40.00	0.0	735
1	52	17	188.0	40.00	0.0	736
1	53	9	193.1	7854.	0.0	737
1	53	10	186.0	7854.	0.0	738
1	53	11	177.9	7854.	0.0	739
1	53	12	173.6	7854.	0.0	740
1	53	13	171.2	7854.	0.0	741
1	53	15	187.9	40.00	0.0	742
1	53	16	184.7	40.00	0.0	743
1	53	17	182.0	40.00	0.0	744
1	54	9	194.1	7854.	0.0	745

1	54	10	182.1	7854.	0.0	746
1	54	11	174.4	7854.	0.0	747
1	54	12	170.1	7854.	0.0	748
1	54	13	169.4	7854.	0.0	749
1	54	15	178.1	40.00	0.0	750
1	54	16	182.0	40.00	0.0	751
1	54	17	175.2	40.00	0.0	752
1	54	18	181.9	40.00	0.0	753
1	55	10	185.0	7854.	0.0	754
1	55	11	174.6	7854.	0.0	755
1	55	12	170.0	7854.	0.0	756
1	55	13	168.9	7854.	0.0	757
1	55	15	171.1	40.00	0.0	758
1	55	16	178.6	40.00	0.0	759
1	55	17	173.6	40.00	0.0	760
1	55	18	178.3	40.00	0.0	761
1	56	11	180.8	7854.	0.0	762
1	56	12	176.1	7854.	0.0	763
1	56	13	170.8	7854.	0.0	764
1	56	14	169.4	7854.	0.0	765
1	56	16	174.9	40.00	0.0	766
1	56	17	171.2	40.00	0.0	767
1	56	18	172.1	40.00	0.0	768
1	57	13	174.0	7854.	0.0	769
1	57	14	171.4	7854.	0.0	770
1	57	15	171.8	7854.	0.0	771
1	57	17	168.8	20.00	0.0	772
1	57	18	172.3	20.00	0.0	773
1	58	15	172.1	7854.	0.0	774
1	58	16	171.8	7854.	0.0	775
1	58	18	168.6	20.00	0.0	776
1	59	18	166.7	20.00	0.0	777
1	10	27	265.6	0.1645E+05	0.0	778
1	10	28	263.0	0.1645E+05	0.0	779
1	11	26	259.7	0.1645E+05	0.0	780
1	11	27	262.2	0.1645E+05	0.0	781
1	12	26	257.4	0.1645E+05	0.0	782
1	13	25	255.1	0.1645E+05	0.0	783
1	13	26	255.8	0.1645E+05	0.0	784
1	14	25	254.6	0.1645E+05	0.0	785
1	14	26	255.1	0.1645E+05	0.0	786
1	15	24	248.1	0.1645E+05	0.0	787
1	15	25	251.4	0.1645E+05	0.0	788
1	15	26	251.1	0.1645E+05	0.0	789
1	16	23	244.0	0.1645E+05	0.0	790
1	16	24	246.1	0.1645E+05	0.0	791
1	16	25	247.6	0.1645E+05	0.0	792
1	17	23	241.9	0.1645E+05	0.0	793
1	17	24	242.9	0.1645E+05	0.0	794
1	18	22	237.7	0.1645E+05	0.0	795
1	18	23	237.6	0.1645E+05	0.0	796
1	19	21	236.1	0.1645E+05	0.0	797
1	19	22	236.0	0.1645E+05	0.0	798
1	19	23	237.2	0.1645E+05	0.0	799
1	20	20	228.6	0.1645E+05	0.0	800
1	20	21	234.3	0.1645E+05	0.0	801
1	20	22	234.9	0.1645E+05	0.0	802
1	21	20	230.6	0.1645E+05	0.0	803
1	21	21	232.3	0.1645E+05	0.0	804

1	21	22	231.6	0.1645E+05	0.0	805
1	22	16	229.5	6000.	0.0	806
1	22	19	222.0	6000.	0.0	807
1	22	20	226.0	6000.	0.0	808
1	22	21	227.9	0.1645E+05	0.0	809
1	23	20	222.1	6000.	0.0	810
1	23	21	224.9	0.1645E+05	0.0	811
1	24	16	221.7	6000.	0.0	812
1	24	17	215.1	6000.	0.0	813
1	24	18	211.0	6000.	0.0	814
1	24	20	217.6	6000.	0.0	815
1	25	17	208.4	6000.	0.0	816
1	25	18	207.7	6000.	0.0	817
1	25	20	209.6	6000.	0.0	818
1	26	18	205.0	0.1645E+05	0.0	819
1	26	20	209.3	0.1645E+05	0.0	820
1	27	17	201.5	0.1645E+05	0.0	821
1	27	19	198.0	0.1645E+05	0.0	822
1	27	20	205.6	0.1645E+05	0.0	823
1	28	17	202.4	0.1645E+05	0.0	824
1	28	19	201.8	0.1645E+05	0.0	825
1	29	16	207.1	0.1645E+05	0.0	826
1	29	18	194.8	0.1645E+05	0.0	827
1	29	19	208.7	0.1645E+05	0.0	828
1	30	16	202.7	0.1645E+05	0.0	829
1	30	18	195.7	0.1645E+05	0.0	830
1	30	19	206.0	0.1645E+05	0.0	831
1	31	16	197.0	0.1645E+05	0.0	832
1	31	18	201.7	0.1645E+05	0.0	833
1	32	16	190.7	0.1645E+05	0.0	834
1	32	17	186.3	0.1645E+05	0.0	835
1	33	11	228.1	0.1360E+05	0.0	836
1	33	12	212.0	0.1360E+05	0.0	837
1	34	9	230.6	5000.	0.0	838
1	34	10	215.7	0.1360E+05	0.0	839
1	34	11	207.7	0.1360E+05	0.0	840
1	34	12	204.8	0.1360E+05	0.0	841
1	34	13	206.6	680.0	0.0	842
1	34	14	196.6	680.0	0.0	843
1	34	15	190.8	680.0	0.0	844
1	34	16	187.2	680.0	0.0	845
1	35	9	224.1	7500.	0.0	846
1	35	10	212.2	0.1360E+05	0.0	847
1	35	11	200.0	0.1360E+05	0.0	848
1	35	12	200.9	2500.	0.0	849
1	35	13	202.3	1800.	0.0	850
1	35	14	197.3	1800.	0.0	851
1	35	15	191.8	1800.	0.0	852
1	35	16	186.6	2500.	0.0	853
1	36	9	216.2	0.1000E+05	0.0	854
1	36	10	202.0	0.1700E+05	0.0	855
1	36	11	192.9	2500.	0.0	856
1	36	12	195.4	2500.	0.0	857
1	36	13	197.1	1800.	0.0	858
1	36	14	193.2	1800.	0.0	859
1	36	15	189.2	2500.	0.0	860
1	36	24	201.2	340.0	0.0	861
1	37	8	209.2	0.7500E+05	0.0	862
1	37	9	207.9	0.1700E+05	0.0	863

1	37	10	203.9	0.1700E+05	0.0	864
1	37	11	201.4	1800.	0.0	865
1	37	12	194.1	2500.	0.0	866
1	37	13	187.6	1800.	0.0	867
1	37	14	183.4	1800.	0.0	868
1	37	15	184.4	2500.	0.0	869
1	37	23	200.4	340.0	0.0	870
1	37	24	199.4	340.0	0.0	871
1	38	8	215.8	0.3000E+05	0.0	872
1	38	9	218.7	0.2500E+05	0.0	873
1	38	10	221.9	7500.	0.0	874
1	38	11	224.6	2500.	0.0	875
1	38	12	200.0	2500.	0.0	876
1	38	13	194.1	2500.	0.0	877
1	38	14	192.8	1800.	0.0	878
1	38	15	188.7	1800.	0.0	879
1	38	22	191.3	340.0	0.0	880
1	38	23	196.2	340.0	0.0	881
1	38	24	196.8	340.0	0.0	882
1	38	25	197.7	340.0	0.0	883
1	39	8	228.4	0.2000E+05	0.0	884
1	39	9	227.0	0.1000E+05	0.0	885
1	39	10	241.4	7500.	0.0	886
1	39	11	231.4	3000.	0.0	887
1	39	12	203.6	2500.	0.0	888
1	39	13	201.2	2500.	0.0	889
1	39	14	199.6	1800.	0.0	890
1	39	15	192.4	1800.	0.0	891
1	39	22	186.1	340.0	0.0	892
1	39	23	194.0	340.0	0.0	893
1	39	24	194.9	340.0	0.0	894
1	39	25	195.7	340.0	0.0	895
1	40	8	239.2	0.1000E+05	0.0	896
1	40	9	240.8	2500.	0.0	897
1	40	10	233.1	2500.	0.0	898
1	40	11	220.8	2500.	0.0	899
1	40	12	208.0	2500.	0.0	900
1	40	13	199.8	2500.	0.0	901
1	40	14	194.4	1800.	0.0	902
1	40	15	191.1	1800.	0.0	903
1	40	17	174.4	0.2000E+05	0.0	904
1	40	22	180.7	340.8	0.0	905
1	40	23	189.7	340.8	0.0	906
1	40	24	195.0	340.8	0.0	907
1	40	25	193.6	340.8	0.0	908
1	40	26	195.7	340.8	0.0	909
1	41	9	227.7	2500.	0.0	910
1	41	10	221.4	2500.	0.0	911
1	41	11	220.1	1800.	0.0	912
1	41	12	213.7	1800.	0.0	913
1	41	13	206.4	1800.	0.0	914
1	41	14	196.7	2000.	0.0	915
1	41	15	189.4	1800.	0.0	916
1	41	17	169.7	0.2000E+05	0.0	917
1	41	22	181.6	340.8	0.0	918
1	41	23	181.4	340.8	0.0	919
1	41	24	189.6	340.8	0.0	920
1	41	25	186.2	340.8	0.0	921
1	41	26	193.4	340.8	0.0	922

1	42	11	223.4	1800.	0.0	923
1	42	12	221.2	1800.	0.0	924
1	42	13	221.3	1800.	0.0	925
1	42	14	214.3	2000.	0.0	926
1	42	15	204.9	1800.	0.0	927
1	42	16	193.1	2000.	0.0	928
1	42	21	177.8	0.1360E+05	0.0	929
1	42	22	180.0	0.1360E+05	0.0	930
1	42	23	175.9	0.1360E+05	0.0	931
1	42	24	180.4	0.1360E+05	0.0	932
1	42	25	188.1	0.1360E+05	0.0	933
1	42	26	192.4	0.1360E+05	0.0	934
1	42	27	193.2	0.1360E+05	0.0	935
1	42	28	199.1	0.1360E+05	0.0	936
1	43	12	222.0	40.00	0.0	937
1	43	13	221.4	10.00	0.0	938
1	43	14	217.1	10.00	0.0	939
1	43	15	215.6	10.00	0.0	940
1	43	16	207.8	40.00	0.0	941
1	43	21	174.4	0.1360E+05	0.0	942
1	43	22	178.7	0.1360E+05	0.0	943
1	43	23	176.1	0.1360E+05	0.0	944
1	43	24	173.0	0.1360E+05	0.0	945
1	43	25	175.2	0.1360E+05	0.0	946
1	43	26	186.7	0.1360E+05	0.0	947
1	43	27	191.3	0.1360E+05	0.0	948
1	43	28	197.6	0.1360E+05	0.0	949
1	43	29	206.7	0.1360E+05	0.0	950
1	44	12	210.2	40.00	0.0	951
1	44	13	213.0	40.00	0.0	952
1	44	14	208.7	10.00	0.0	953
1	44	15	209.2	10.00	0.0	954
1	44	16	207.1	40.00	0.0	955
1	44	17	201.0	40.00	0.0	956
1	44	20	169.9	0.1360E+05	0.0	957
1	44	21	173.0	0.1360E+05	0.0	958
1	44	22	175.0	0.1360E+05	0.0	959
1	44	23	175.7	0.1360E+05	0.0	960
1	44	24	171.0	0.1360E+05	0.0	961
1	44	25	168.8	0.1360E+05	0.0	962
1	44	26	176.7	0.1360E+05	0.0	963
1	44	27	190.7	0.1360E+05	0.0	964
1	44	28	194.9	0.1360E+05	0.0	965
1	44	29	211.6	0.1360E+05	0.0	966
1	44	30	204.3	0.1360E+05	0.0	967
1	45	13	209.3	40.00	0.0	968
1	45	14	204.4	10.00	0.0	969
1	45	15	203.3	10.00	0.0	970
1	45	16	204.8	40.00	0.0	971
1	45	17	204.4	40.00	0.0	972
1	45	18	175.0	40.00	0.0	973
1	45	20	169.1	0.1360E+05	0.0	974
1	45	21	170.2	0.1360E+05	0.0	975
1	45	22	170.2	0.1360E+05	0.0	976
1	45	23	172.6	0.1360E+05	0.0	977
1	45	24	176.3	0.1360E+05	0.0	978
1	45	25	170.1	0.1360E+05	0.0	979
1	45	26	171.3	0.1360E+05	0.0	980
1	45	27	180.9	0.1360E+05	0.0	981

1	45	28	191.1	0.1360E+05	0.0	982
1	45	29	200.0	0.1360E+05	0.0	983
1	45	30	200.1	0.1360E+05	0.0	984
1	46	14	207.6	10.00	0.0	985
1	46	15	204.0	10.00	0.0	986
1	46	16	200.1	10.00	0.0	987
1	46	17	197.7	40.00	0.0	988
1	46	18	185.0	40.00	0.0	989
1	46	20	168.3	0.1360E+05	0.0	990
1	46	21	168.6	0.1360E+05	0.0	991
1	46	22	168.0	0.1360E+05	0.0	992
1	46	23	169.0	0.1360E+05	0.0	993
1	46	24	174.4	0.1360E+05	0.0	994
1	46	25	172.8	0.1360E+05	0.0	995
1	46	26	172.6	0.1360E+05	0.0	996
1	46	27	173.9	0.1360E+05	0.0	997
1	46	28	186.3	0.1360E+05	0.0	998
1	46	29	201.0	0.1360E+05	0.0	999
1	46	30	201.9	0.1360E+05	0.0	1000
1	46	31	213.2	0.1360E+05	0.0	1001
1	47	15	203.0	10.00	0.0	1002
1	47	16	197.0	10.00	0.0	1003
1	47	17	193.4	40.00	0.0	1004
1	47	18	191.8	40.00	0.0	1005
1	47	21	164.2	0.1360E+05	0.0	1006
1	47	22	164.6	0.1360E+05	0.0	1007
1	47	23	164.1	0.1360E+05	0.0	1008
1	47	24	165.7	0.1360E+05	0.0	1009
1	47	25	171.6	0.1360E+05	0.0	1010
1	47	26	177.3	0.1360E+05	0.0	1011
1	47	27	179.4	0.1360E+05	0.0	1012
1	47	28	185.0	0.1360E+05	0.0	1013
1	47	29	192.0	7000.	0.0	1014
1	47	30	200.2	7000.	0.0	1015
1	47	31	203.7	7000.	0.0	1016
1	48	15	207.0	10.00	0.0	1017
1	48	16	200.0	10.00	0.0	1018
1	48	17	198.8	40.00	0.0	1019
1	48	18	197.6	40.00	0.0	1020
1	48	19	187.9	40.00	0.0	1021
1	48	21	161.2	0.1360E+05	0.0	1022
1	48	22	162.6	0.1360E+05	0.0	1023
1	48	23	159.9	0.1360E+05	0.0	1024
1	48	24	163.0	0.1360E+05	0.0	1025
1	48	25	168.2	0.1360E+05	0.0	1026
1	48	26	175.1	0.1360E+05	0.0	1027
1	48	27	186.9	0.1360E+05	0.0	1028
1	48	28	169.9	5000.	0.0	1029
1	48	29	179.0	5000.	0.0	1030
1	48	30	183.6	5000.	0.0	1031
1	48	31	193.2	5000.	0.0	1032
1	48	32	217.4	5000.	0.0	1033
1	49	16	197.3	10.00	0.0	1034
1	49	17	192.4	40.00	0.0	1035
1	49	18	194.2	40.00	0.0	1036
1	49	19	190.4	2500.	0.0	1037
1	49	21	154.9	0.1360E+05	0.0	1038
1	49	22	154.7	0.1360E+05	0.0	1039
1	49	23	155.2	0.1360E+05	0.0	1040

1	49	24	158.0	0.1360E+05	0.0	1041
1	49	25	165.1	0.1360E+05	0.0	1042
1	49	26	172.6	0.1360E+05	0.0	1043
1	49	27	175.1	0.1360E+05	0.0	1044
1	49	28	168.8	2500.	0.0	1045
1	49	29	160.2	2500.	0.0	1046
1	49	30	162.6	2500.	0.0	1047
1	49	31	170.0	2500.	0.0	1048
1	49	32	176.8	2500.	0.0	1049
1	50	17	193.7	40.00	0.0	1050
1	50	18	189.7	40.00	0.0	1051
1	50	19	184.3	2500.	0.0	1052
1	50	20	167.2	2500.	0.0	1053
1	50	22	153.4	0.1360E+05	0.0	1054
1	50	23	158.4	0.1360E+05	0.0	1055
1	50	24	155.2	0.1360E+05	0.0	1056
1	50	25	158.4	0.1360E+05	0.0	1057
1	50	26	171.2	0.1360E+05	0.0	1058
1	50	27	170.7	0.1360E+05	0.0	1059
1	50	28	159.0	0.1360E+05	0.0	1060
1	50	29	156.6	0.1360E+05	0.0	1061
1	50	30	159.9	0.1360E+05	0.0	1062
1	50	31	166.2	0.1360E+05	0.0	1063
1	50	32	168.2	0.1360E+05	0.0	1064
1	51	17	193.6	40.00	0.0	1065
1	51	18	186.3	40.00	0.0	1066
1	51	19	185.8	40.00	0.0	1067
1	51	20	184.0	2500.	0.0	1068
1	51	21	183.2	2500.	0.0	1069
1	51	23	160.9	0.1360E+05	0.0	1070
1	51	24	152.8	0.1360E+05	0.0	1071
1	51	25	155.9	0.1360E+05	0.0	1072
1	51	26	158.3	4500.	0.0	1073
1	51	27	158.3	4500.	0.0	1074
1	51	28	157.2	4500.	0.0	1075
1	51	29	160.4	0.1360E+05	0.0	1076
1	51	30	162.8	0.1360E+05	0.0	1077
1	51	31	163.9	0.1360E+05	0.0	1078
1	51	32	166.2	0.1360E+05	0.0	1079
1	52	18	187.0	40.00	0.0	1080
1	52	19	185.7	40.00	0.0	1081
1	52	20	176.3	2500.	0.0	1082
1	52	21	179.0	2500.	0.0	1083
1	52	22	178.2	2500.	0.0	1084
1	52	24	159.3	4500.	0.0	1085
1	52	25	151.1	4500.	0.0	1086
1	52	26	149.3	4500.	0.0	1087
1	52	27	149.6	4500.	0.0	1088
1	52	28	153.7	4500.	0.0	1089
1	52	29	161.1	0.1360E+05	0.0	1090
1	53	18	183.0	40.00	0.0	1091
1	53	19	179.1	40.00	0.0	1092
1	53	20	180.4	2500.	0.0	1093
1	53	21	173.2	2500.	0.0	1094
1	53	22	178.1	2500.	0.0	1095
1	53	23	173.2	2500.	0.0	1096
1	53	25	149.7	4500.	0.0	1097
1	53	26	147.0	4500.	0.0	1098
1	53	27	148.3	4500.	0.0	1099

1	53	28	153.9	4500.	0.0	1100
1	53	29	157.2	0.1360E+05	0.0	1101
1	54	19	174.1	40.00	0.0	1102
1	54	20	176.9	2500.	0.0	1103
1	54	21	173.8	2500.	0.0	1104
1	54	22	171.9	2500.	0.0	1105
1	54	23	172.3	2500.	0.0	1106
1	54	25	149.0	4500.	0.0	1107
1	54	26	146.9	4500.	0.0	1108
1	54	27	149.9	4500.	0.0	1109
1	54	28	155.6	4500.	0.0	1110
1	55	19	180.7	40.00	0.0	1111
1	55	20	181.8	40.00	0.0	1112
1	55	21	172.9	40.00	0.0	1113
1	55	22	170.0	40.00	0.0	1114
1	55	23	166.3	40.00	0.0	1115
1	55	25	148.8	4500.	0.0	1116
1	55	26	150.9	4500.	0.0	1117
1	55	27	151.6	4500.	0.0	1118
1	55	28	155.2	4500.	0.0	1119
1	56	19	176.4	40.00	0.0	1120
1	56	20	175.0	40.00	0.0	1121
1	56	21	173.8	40.00	0.0	1122
1	56	22	167.9	40.00	0.0	1123
1	56	23	159.0	40.00	0.0	1124
1	56	25	143.9	0.1360E+05	0.0	1125
1	56	26	147.2	0.1360E+05	0.0	1126
1	56	27	150.9	4500.	0.0	1127
1	57	19	169.6	40.00	0.0	1128
1	57	20	164.2	40.00	0.0	1129
1	57	21	170.7	40.00	0.0	1130
1	57	22	159.0	40.00	0.0	1131
1	57	23	151.8	40.00	0.0	1132
1	57	25	144.2	0.1360E+05	0.0	1133
1	57	26	146.2	0.1360E+05	0.0	1134
1	58	19	167.4	40.00	0.0	1135
1	58	20	160.2	40.00	0.0	1136
1	58	21	164.4	40.00	0.0	1137
1	58	22	153.8	40.00	0.0	1138
1	58	24	144.1	0.1360E+05	0.0	1139
1	58	25	143.2	0.1360E+05	0.0	1140
1	58	26	145.6	0.1360E+05	0.0	1141
1	59	19	165.2	40.00	0.0	1142
1	59	20	167.8	40.00	0.0	1143
1	59	21	164.4	40.00	0.0	1144
1	59	23	151.7	0.1360E+05	0.0	1145
1	59	24	144.2	0.1360E+05	0.0	1146
1	59	25	141.7	0.1360E+05	0.0	1147
1	59	26	143.1	0.1360E+05	0.0	1148
1	60	18	163.0	40.00	0.0	1149
1	60	19	163.0	40.00	0.0	1150
1	60	20	161.4	40.00	0.0	1151
1	60	21	157.7	40.00	0.0	1152
1	60	23	147.8	0.1360E+05	0.0	1153
1	60	24	142.7	0.1360E+05	0.0	1154
1	60	25	140.0	0.1360E+05	0.0	1155
1	61	22	141.3	0.1360E+05	0.0	1156
1	62	24	138.2	0.1360E+05	0.0	1157
1	63	23	142.7	0.1360E+05	0.0	1158

1	63	24	144.0	0.1360E+05	0.0	1159
1	64	23	138.5	0.1360E+05	0.0	1160
1	65	23	136.2	0.1360E+05	0.0	1161
1	65	24	137.9	0.1360E+05	0.0	1162
1	30	15	208.7	9109.	0.0	1163
1	31	14	222.5	9109.	0.0	1164
1	31	15	207.2	9109.	0.0	1165
1	32	14	203.1	9109.	0.0	1166
1	32	15	200.2	9109.	0.0	1167
1	33	13	206.0	9109.	0.0	1168
1	2	30	282.8	7500.	0.0	1169
1	2	31	288.7	0.1553E+05	0.0	1170
1	2	32	290.8	0.1553E+05	0.0	1171
1	2	33	290.3	0.1553E+05	0.0	1172
1	2	34	286.8	0.1553E+05	0.0	1173
1	2	35	288.0	0.1553E+05	0.0	1174
1	3	30	279.4	7500.	0.0	1175
1	3	31	285.2	0.1553E+05	0.0	1176
1	3	32	286.4	0.1553E+05	0.0	1177
1	3	33	285.8	0.1553E+05	0.0	1178
1	3	34	282.8	0.1553E+05	0.0	1179
1	4	30	279.7	0.1553E+05	0.0	1180
1	4	31	280.6	0.1553E+05	0.0	1181
1	4	32	284.1	0.1553E+05	0.0	1182
1	4	33	282.4	0.1553E+05	0.0	1183
1	5	28	268.8	7500.	0.0	1184
1	5	30	282.2	0.1553E+05	0.0	1185
1	5	31	278.8	0.1553E+05	0.0	1186
1	5	32	276.2	0.1553E+05	0.0	1187
1	6	28	267.0	0.1553E+05	0.0	1188
1	6	30	275.6	0.1553E+05	0.0	1189
1	6	31	268.0	0.1553E+05	0.0	1190
1	7	27	258.9	0.1553E+05	0.0	1191
1	7	29	264.6	0.1553E+05	0.0	1192
1	8	30	267.3	0.1553E+05	0.0	1193
1	9	28	264.1	0.1553E+05	0.0	1194
1	9	29	266.8	0.1553E+05	0.0	1195
1	10	24	251.2	0.1553E+05	0.0	1196
1	10	26	260.1	0.1553E+05	0.0	1197
1	11	25	253.3	0.1553E+05	0.0	1198
1	12	24	252.4	0.1553E+05	0.0	1199
1	12	25	254.4	0.1553E+05	0.0	1200
1	13	24	251.4	0.1553E+05	0.0	1201
1	14	23	243.8	0.1553E+05	0.0	1202
1	14	24	250.1	0.1553E+05	0.0	1203
1	15	21	232.9	0.1553E+05	0.0	1204
1	15	23	242.8	0.1553E+05	0.0	1205
1	16	20	237.3	0.1553E+05	0.0	1206
1	16	22	236.3	0.1553E+05	0.0	1207
1	17	20	228.2	0.1553E+05	0.0	1208
1	17	22	235.9	0.1553E+05	0.0	1209
1	18	20	221.6	0.1553E+05	0.0	1210
1	19	19	218.4	0.1553E+05	0.0	1211
1	20	18	221.0	0.1553E+05	0.0	1212
1	21	18	220.2	0.1553E+05	0.0	1213
1	22	17	224.2	0.1200E+05	0.0	1214
1	44	4	237.9	0.2800E+05	0.0	1215
1	45	4	234.2	0.2800E+05	0.0	1216
1	46	4	231.4	0.2800E+05	0.0	1217

1	46	5	225.0	0.2800E+05	0.0	1218
1	47	4	225.6	0.2800E+05	0.0	1219
1	47	5	222.6	0.2800E+05	0.0	1220
1	47	6	217.6	0.2800E+05	0.0	1221
1	48	5	218.0	0.2261E+05	0.0	1222
1	48	6	217.3	0.2261E+05	0.0	1223
1	49	5	216.1	0.2261E+05	0.0	1224
1	49	6	211.8	0.2261E+05	0.0	1225
1	49	7	210.4	0.2261E+05	0.0	1226
1	50	5	211.1	0.2261E+05	0.0	1227
1	50	6	213.0	0.2261E+05	0.0	1228
1	50	7	208.3	0.2261E+05	0.0	1229
1	51	5	206.2	0.2261E+05	0.0	1230
1	51	6	204.8	0.2261E+05	0.0	1231
1	51	7	207.6	0.2261E+05	0.0	1232
1	52	6	206.6	0.2261E+05	0.0	1233
1	52	7	205.0	0.2261E+05	0.0	1234
1	53	6	202.2	0.2261E+05	0.0	1235
1	53	7	201.0	0.2261E+05	0.0	1236
1	53	8	198.4	0.2261E+05	0.0	1237
1	54	8	192.8	0.2261E+05	0.0	1238
1	55	9	190.1	0.2261E+05	0.0	1239
1	2	51	273.9	0.5359E+06	0.0	1240
1	3	51	270.0	0.5359E+06	0.0	1241
1	4	51	266.7	0.5359E+06	0.0	1242
1	5	51	265.2	0.5359E+06	0.0	1243
1	6	51	266.7	0.5359E+06	0.0	1244
1	7	51	266.4	0.5359E+06	0.0	1245
1	8	50	262.7	0.5359E+06	0.0	1246
1	8	51	264.3	0.5359E+06	0.0	1247
1	9	49	257.7	0.5359E+06	0.0	1248
1	10	50	257.2	0.5359E+06	0.0	1249
1	11	50	256.7	0.5359E+06	0.0	1250
1	12	49	251.9	0.5359E+06	0.0	1251
1	12	50	251.2	0.5359E+06	0.0	1252
1	13	49	248.2	0.5359E+06	0.0	1253
1	14	48	246.7	0.5359E+06	0.0	1254
1	15	49	246.2	0.5359E+06	0.0	1255
1	16	48	245.9	0.5359E+06	0.0	1256
1	16	49	249.8	0.5359E+06	0.0	1257
1	16	50	241.3	0.5359E+06	0.0	1258
1	17	48	237.0	0.5359E+06	0.0	1259
1	18	49	236.3	0.5359E+06	0.0	1260
1	19	48	240.2	0.5359E+06	0.0	1261
1	20	45	232.4	0.5359E+06	0.0	1262
1	20	46	234.6	0.5359E+06	0.0	1263
1	20	47	229.8	0.5359E+06	0.0	1264
1	21	44	229.0	0.5359E+06	0.0	1265
1	22	45	224.9	0.5359E+06	0.0	1266
1	23	45	227.0	0.5359E+06	0.0	1267
1	24	45	226.1	0.5359E+06	0.0	1268
1	25	44	223.2	0.5359E+06	0.0	1269
1	25	45	222.7	0.5359E+06	0.0	1270
1	26	43	220.4	0.5359E+06	0.0	1271
1	27	43	216.5	0.5359E+06	0.0	1272
1	28	43	215.2	0.5359E+06	0.0	1273
1	29	42	211.4	0.5359E+06	0.0	1274
1	30	42	209.0	0.5359E+06	0.0	1275
1	31	42	203.0	0.5359E+06	0.0	1276

1	32	42	201.8	0.5359E+06	0.0	1277
1	33	42	202.5	0.5359E+06	0.0	1278
1	34	41	200.9	0.5359E+06	0.0	1279
1	34	42	201.2	0.5359E+06	0.0	1280
1	35	40	196.0	0.5359E+06	0.0	1281
1	36	40	194.3	0.5359E+06	0.0	1282
1	37	39	189.7	0.5359E+06	0.0	1283
1	38	39	186.2	0.5359E+06	0.0	1284
1	39	39	188.0	0.5359E+06	0.0	1285
1	40	38	189.7	0.5359E+06	0.0	1286
1	40	39	188.8	0.5359E+06	0.0	1287
1	41	36	187.2	0.5359E+06	0.0	1288
1	41	37	180.0	0.5359E+06	0.0	1289
1	42	35	172.3	0.5359E+06	0.0	1290
1	43	34	170.9	0.5359E+06	0.0	1291
1	43	35	168.9	0.5359E+06	0.0	1292
1	44	33	172.8	0.5750E+06	0.0	1293
1	44	35	169.2	0.5750E+06	0.0	1294
1	45	33	175.3	0.5750E+06	0.0	1295
1	46	33	188.2	0.5359E+06	0.0	1296
1	47	33	194.2	0.4500E+06	0.0	1297
1	49	33	165.3	0.5359E+06	0.0	1298
1	50	33	164.1	0.5359E+06	0.0	1299
1	51	33	160.9	0.5359E+06	0.0	1300
1	52	30	158.4	0.5359E+06	0.0	1301
1	52	31	159.6	0.5359E+06	0.0	1302
1	52	32	160.3	0.5359E+06	0.0	1303
1	53	30	157.4	0.5359E+06	0.0	1304
1	54	29	155.6	0.5359E+06	0.0	1305
1	54	30	158.5	0.5359E+06	0.0	1306
1	55	29	155.2	0.5359E+06	0.0	1307
1	56	28	151.0	0.5359E+06	0.0	1308
1	57	27	146.4	0.5359E+06	0.0	1309
1	57	28	152.4	0.5359E+06	0.0	1310
1	58	27	145.3	0.5359E+06	0.0	1311
1	59	27	142.2	0.5359E+06	0.0	1312
1	60	26	138.3	0.5359E+06	0.0	1313
1	60	27	139.1	0.5359E+06	0.0	1314
1	61	24	135.6	0.5359E+06	0.0	1315
1	61	25	133.8	0.5359E+06	0.0	1316
1	62	25	134.7	0.5359E+06	0.0	1317
1	63	25	134.0	0.5359E+06	0.0	1318
1	64	24	133.6	0.5359E+06	0.0	1319
1	65	25	122.3	0.5359E+06	0.0	1320
1	66	23	128.5	0.5359E+06	0.0	1321
1	66	24	125.2	0.5359E+06	0.0	1322
1	2	39	288.0	0.8000E+05	0.0	1323
1	2	48	267.0	0.1602E+06	0.0	1324
1	3	40	279.7	0.1602E+06	0.0	1325
1	3	47	262.2	0.1602E+06	0.0	1326
1	4	40	268.1	0.1602E+06	0.0	1327
1	4	46	256.0	0.1602E+06	0.0	1328
1	5	41	268.3	0.1602E+06	0.0	1329
1	5	46	253.2	0.1602E+06	0.0	1330
1	6	42	260.9	0.1602E+06	0.0	1331
1	6	45	252.2	0.1602E+06	0.0	1332
1	7	41	257.8	0.1602E+06	0.0	1333
1	7	45	250.1	0.1602E+06	0.0	1334
1	8	41	256.2	0.1602E+06	0.0	1335

1	8	44	245.8	0.1602E+06	0.0	1336
1	9	40	253.4	0.1602E+06	0.0	1337
1	9	44	242.4	0.1602E+06	0.0	1338
1	10	39	245.6	0.1602E+06	0.0	1339
1	10	43	242.7	0.1602E+06	0.0	1340
1	11	39	243.1	0.1602E+06	0.0	1341
1	11	42	237.8	0.1602E+06	0.0	1342
1	12	38	237.0	0.1602E+06	0.0	1343
1	12	42	235.7	0.1602E+06	0.0	1344
1	13	37	235.6	0.1602E+06	0.0	1345
1	13	41	237.1	0.1602E+06	0.0	1346
1	14	36	232.3	0.1602E+06	0.0	1347
1	14	41	234.9	0.1602E+06	0.0	1348
1	15	36	230.0	0.1602E+06	0.0	1349
1	15	41	232.1	0.1602E+06	0.0	1350
1	16	36	225.3	0.1602E+06	0.0	1351
1	16	41	230.0	0.1602E+06	0.0	1352
1	17	35	224.1	0.1602E+06	0.0	1353
1	17	41	228.8	0.1602E+06	0.0	1354
1	18	35	222.0	0.1602E+06	0.0	1355
1	18	41	227.6	0.1602E+06	0.0	1356
1	19	36	215.9	0.1602E+06	0.0	1357
1	19	40	236.2	0.1602E+06	0.0	1358
1	20	36	212.1	0.1602E+06	0.0	1359
1	20	39	220.9	0.1602E+06	0.0	1360
1	21	35	210.7	0.1602E+06	0.0	1361
1	21	38	215.2	0.1602E+06	0.0	1362
1	22	35	209.8	0.1602E+06	0.0	1363
1	22	37	211.3	0.1602E+06	0.0	1364
1	23	35	207.6	0.8000E+05	0.0	1365
1	23	36	209.8	0.8000E+05	0.0	1366
1	24	35	205.7	0.8000E+05	0.0	1367
1	25	36	206.2	0.8000E+05	0.0	1368
1	26	35	205.3	0.1500E+05	0.0	1369
1	27	34	201.2	0.1500E+05	0.0	1370
1	27	35	203.1	0.1500E+05	0.0	1371
1	28	33	200.0	0.1500E+05	0.0	1372
1	29	33	195.7	0.1500E+05	0.0	1373
1	30	33	197.1	0.1500E+05	0.0	1374
1	31	33	196.7	0.1000E+05	0.0	1375
1	32	31	188.2	0.1500E+05	0.0	1376
1	32	32	190.7	0.1500E+05	0.0	1377
1	33	31	188.7	0.1500E+05	0.0	1378
1	34	31	189.8	0.1500E+05	0.0	1379
1	35	31	184.1	0.1500E+05	0.0	1380
1	36	31	185.6	0.1500E+05	0.0	1381
1	37	31	181.8	0.1500E+05	0.0	1382
1	38	31	185.6	0.1500E+05	0.0	1383
1	38	32	178.0	0.1500E+05	0.0	1384
1	39	32	179.8	0.1500E+05	0.0	1385
1	40	32	177.6	0.1500E+05	0.0	1386
1	41	32	173.4	0.1500E+05	0.0	1387
1	42	32	175.4	0.1500E+05	0.0	1388
1	43	33	169.1	0.1500E+05	0.0	1389
1	44	32	166.6	0.1500E+05	0.0	1390
1	45	32	177.3	0.1500E+05	0.0	1391
1	27	29	234.1	5000.	0.0	1392
1	28	28	223.0	7000.	0.0	1393
1	29	28	224.3	7000.	0.0	1394

1	30	27	215.8	7000.	0.0	1395
1	31	27	213.8	0.1300E+05	0.0	1396
1	32	27	209.1	0.1300E+05	0.0	1397
1	33	27	205.4	0.1300E+05	0.0	1398
1	34	27	203.2	0.1300E+05	0.0	1399
1	35	27	202.2	0.1300E+05	0.0	1400
1	36	27	198.3	0.1000E+05	0.0	1401
1	37	27	194.7	0.1000E+05	0.0	1402
1	38	27	192.2	0.1000E+05	0.0	1403
1	39	28	192.6	0.1000E+05	0.0	1404
1	40	28	187.1	0.1000E+05	0.0	1405
1	41	29	182.2	0.1000E+05	0.0	1406
1	42	29	188.3	0.1000E+05	0.0	1407
1	43	30	184.6	0.1000E+05	0.0	1408
1	43	31	175.7	0.1000E+05	0.0	1409
1	11	29	256.2	0.5712E+05	0.0	1410
1	12	29	252.1	0.5712E+05	0.0	1411
1	13	28	246.1	0.5712E+05	0.0	1412
1	14	27	247.1	0.5712E+05	0.0	1413
1	15	27	244.2	0.5712E+05	0.0	1414
1	16	27	236.9	0.5712E+05	0.0	1415
1	17	27	235.8	0.5712E+05	0.0	1416
1	18	26	232.7	0.5712E+05	0.0	1417
1	19	25	230.8	0.5712E+05	0.0	1418
1	20	25	229.4	0.5712E+05	0.0	1419
1	21	24	223.7	0.5712E+05	0.0	1420
1	22	24	223.1	0.5712E+05	0.0	1421
1	23	24	221.7	0.5712E+05	0.0	1422
1	24	23	215.8	0.5712E+05	0.0	1423
1	25	22	209.1	0.5712E+05	0.0	1424
1	26	22	206.3	0.5712E+05	0.0	1425
1	27	22	204.8	0.5712E+05	0.0	1426
1	28	22	202.0	0.5712E+05	0.0	1427
1	29	22	199.4	0.5712E+05	0.0	1428
1	30	21	198.9	0.5712E+05	0.0	1429
1	31	21	195.2	0.5712E+05	0.0	1430
1	32	20	188.9	0.5712E+05	0.0	1431
1	33	20	186.9	0.5712E+05	0.0	1432
1	34	20	191.7	0.5712E+05	0.0	1433
1	35	19	181.8	0.1200E+06	0.0	1434
1	36	19	173.8	0.1200E+06	0.0	1435
1	37	19	173.0	0.1200E+06	0.0	1436
1	38	19	170.3	0.1200E+06	0.0	1437
1	39	19	163.6	0.1200E+06	0.0	1438
1	40	18	163.7	0.1200E+06	0.0	1439
1	41	19	161.8	0.1200E+06	0.0	1440
1	42	19	162.9	0.1200E+06	0.0	1441
1	43	19	157.4	0.7000E+05	0.0	1442
1	44	19	161.2	0.7000E+05	0.0	1443
1	42	5	226.2	0.1500E+05	0.0	1444
1	43	6	221.4	0.1500E+05	0.0	1445
1	43	7	215.0	0.1500E+05	0.0	1446
1	44	8	212.2	4000.	0.0	1447
1	45	9	203.3	8000.	0.0	1448
1	46	10	199.4	8000.	0.0	1449
1	47	11	189.2	0.1500E+05	0.0	1450
1	48	12	181.9	0.1500E+05	0.0	1451
1	49	12	181.7	0.1500E+05	0.0	1452
1	50	13	179.4	0.1500E+05	0.0	1453

1	51	14	180.7	0.1500E+05	0.0	1454
1	52	13	174.1	0.1500E+05	0.0	1455
1	53	14	177.6	0.1500E+05	0.0	1456
1	54	14	170.3	0.1500E+05	0.0	1457
1	55	14	167.6	0.1500E+05	0.0	1458
1	56	15	167.7	0.1500E+05	0.0	1459
1	57	16	167.9	0.1500E+05	0.0	1460
1	58	17	163.7	0.1500E+05	0.0	1461
1	22	15	237.5	5000.	0.0	1462
1	23	16	224.7	5000.	0.0	1463
1	23	17	219.4	5000.	0.0	1464
1	23	18	213.1	5000.	0.0	1465
1	23	19	214.9	0.1500E+06	0.0	1466
1	24	19	209.0	0.1500E+06	0.0	1467
1	25	19	204.4	0.1747E+06	0.0	1468
1	26	19	201.6	0.1747E+06	0.0	1469
1	27	18	199.0	0.1500E+06	0.0	1470
1	28	18	196.1	0.1500E+06	0.0	1471
1	29	17	195.1	0.1747E+06	0.0	1472
1	30	17	194.2	0.1747E+06	0.0	1473
1	31	17	192.8	0.1747E+06	0.0	1474
1	32	18	195.8	0.1747E+06	0.0	1475
1	33	17	186.4	0.1747E+06	0.0	1476
1	33	18	190.4	0.1747E+06	0.0	1477
1	34	17	184.2	0.1800E+05	0.0	1478
1	35	17	180.1	0.2000E+05	0.0	1479
1	36	16	176.1	0.1800E+05	0.0	1480
1	37	16	178.8	0.1800E+05	0.0	1481
1	38	16	177.6	0.1800E+05	0.0	1482
1	39	16	177.6	0.1000E+05	0.0	1483
1	40	16	184.2	0.1000E+05	0.0	1484
1	41	16	181.3	0.1000E+05	0.0	1485
1	42	17	172.9	0.1500E+05	0.0	1486
1	43	17	179.7	0.1300E+05	0.0	1487
1	44	18	177.4	0.1300E+05	0.0	1488
1	45	19	158.9	0.1300E+05	0.0	1489
1	46	19	163.2	0.1300E+05	0.0	1490
1	47	19	181.3	0.1300E+05	0.0	1491
1	47	20	168.2	0.1300E+05	0.0	1492
1	48	20	164.3	0.1300E+05	0.0	1493
1	49	20	164.3	0.1300E+05	0.0	1494
1	50	21	161.7	0.1300E+05	0.0	1495
1	51	22	169.7	0.1300E+05	0.0	1496
1	52	23	163.8	0.1300E+05	0.0	1497
1	53	24	156.2	0.1726E+05	0.0	1498
1	54	24	157.9	0.1726E+05	0.0	1499
1	55	24	152.9	0.1726E+05	0.0	1500
1	56	24	145.6	0.3451E+05	0.0	1501
1	57	24	143.0	0.3451E+05	0.0	1502
1	58	23	142.7	0.3451E+05	0.0	1503
1	59	22	150.3	0.3451E+05	0.0	1504
1	60	22	144.4	0.3451E+05	0.0	1505
1	61	23	135.1	0.3451E+05	0.0	1506
1	32	13	205.2	0.1060E+05	0.0	1507
1	33	14	187.3	8000.	0.0	1508
1	33	15	189.3	8000.	0.0	1509
1	33	16	186.9	8000.	0.0	1510
1	2	36	290.2	0.1156E+05	0.0	1511
1	3	29	279.4	1556.	0.0	1512

1	3	35	288.2	0.1156E+05	0.0	1513
1	4	29	278.2	1556.	0.0	1514
1	4	34	280.2	0.1156E+05	0.0	1515
1	5	29	274.9	0.1156E+05	0.0	1516
1	5	33	278.0	0.1156E+05	0.0	1517
1	6	29	271.3	0.1156E+05	0.0	1518
1	6	32	270.3	0.1156E+05	0.0	1519
1	7	28	263.8	0.1156E+05	0.0	1520
1	7	30	264.9	0.1156E+05	0.0	1521
1	7	31	268.7	0.1156E+05	0.0	1522
1	8	26	254.0	0.1156E+05	0.0	1523
1	8	27	257.0	0.1156E+05	0.0	1524
1	8	28	261.7	0.1156E+05	0.0	1525
1	8	29	262.6	0.1156E+05	0.0	1526
1	9	25	252.1	0.1156E+05	0.0	1527
1	9	26	253.0	0.1156E+05	0.0	1528
1	9	27	255.4	0.1156E+05	0.0	1529
1	10	25	252.3	0.1156E+05	0.0	1530
1	11	24	248.1	0.5778E+05	0.0	1531
1	12	23	243.8	0.5778E+05	0.0	1532
1	13	23	243.4	0.5778E+05	0.0	1533
1	14	22	238.7	0.5778E+05	0.0	1534
1	15	22	233.0	0.5778E+05	0.0	1535
1	16	21	227.9	0.5778E+05	0.0	1536
1	17	21	224.3	0.5778E+05	0.0	1537
1	18	21	227.3	0.5778E+05	0.0	1538
1	19	20	220.6	0.1156E+05	0.0	1539
1	20	19	221.3	0.1156E+05	0.0	1540
1	21	19	221.1	0.1156E+05	0.0	1541
1	22	18	215.9	0.1156E+05	0.0	1542
1	44	2	238.8	0.3500E+06	0.0	1543
1	44	3	237.3	0.3500E+06	0.0	1544
1	45	3	235.3	0.3500E+06	0.0	1545
1	46	3	228.3	0.3500E+06	0.0	1546
1	47	3	222.5	0.5000E+06	0.0	1547
1	48	4	216.4	0.5000E+06	0.0	1548
1	49	4	213.5	0.5000E+06	0.0	1549
1	50	4	209.7	0.5000E+06	0.0	1550
1	51	4	206.2	0.3500E+06	0.0	1551
1	52	5	206.7	0.3500E+06	0.0	1552
1	53	5	206.2	0.3500E+06	0.0	1553
1	54	6	198.1	0.5000E+06	0.0	1554
1	54	7	196.9	0.5000E+06	0.0	1555
1	55	7	193.8	0.5000E+06	0.0	1556
1	55	8	188.2	0.5000E+06	0.0	1557
1	56	9	186.2	0.5000E+06	0.0	1558
1	56	10	184.6	0.5000E+06	0.0	1559
1	57	11	180.0	0.5000E+06	0.0	1560
1	57	12	177.7	0.5000E+06	0.0	1561
1	58	13	172.0	0.5000E+06	0.0	1562
1	58	14	170.3	0.5000E+06	0.0	1563
1	59	14	167.0	0.1000E+06	0.0	1564
1	59	15	165.8	0.1000E+06	0.0	1565
1	59	16	166.5	0.1000E+06	0.0	1566
1	59	17	161.0	0.1000E+06	0.0	1567
1	60	17	156.8	0.1000E+06	0.0	1568
1	61	18	153.7	0.1000E+06	0.0	1569
1	61	19	147.8	0.5000E+06	0.0	1570
1	61	20	148.3	0.5000E+06	0.0	1571

1	61	21	141.0	0.5000E+06	0.0	1572
1	62	22	132.0	0.5000E+06	0.0	1573
1	62	23	135.3	0.5000E+06	0.0	1574