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REPORT #
RRTAC 92-5

A Computer Program to Simulate Groundwater Flow and Contaminant Transport in the Vicinity of Active and Reclaimed Strip Mines: A User's Guide

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Additional information on the Reclamation Research Program may be obtained by contacting:

Chris Powter, Chairman

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Alberta Environment

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REPORT # C.1
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A Computer Program To Simulate Groundwater Flow and Contaminant Transport in the Vicinity of Active and Reclaimed Strip Mines: A User's Guide

by

A.S. Crowe
F.W. Schwartz
SIMCO Groundwater Research Ltd.

Prepared for

The Plains Coal Reclamation Research Program
ALBERTA LAND CONSERVATION AND RECLAMATION COUNCIL
(Reclamation Research Technical Advisory Committee)

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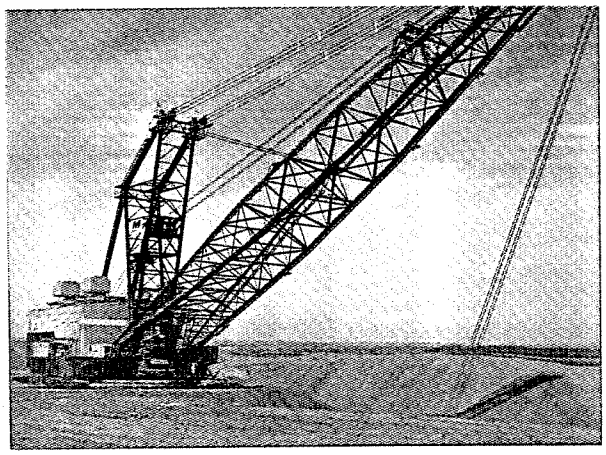
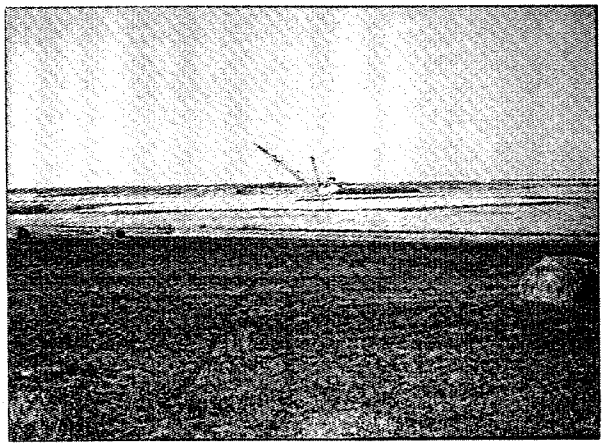
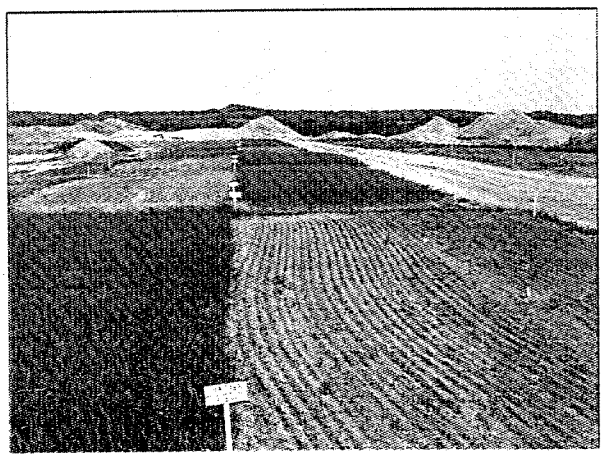
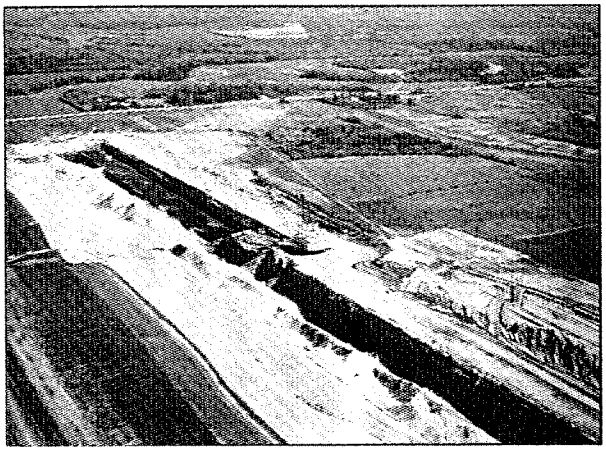

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This report is intended to provide government and industry staff with up-to-date technical information to assist in the preparation and review of Development and Reclamation Approvals, and development of guidelines and operating procedures. This report is also available to the public so that interested individuals similarly have access to the most current information on land reclamation topics.

The opinions, findings, conclusions, and recommendations expressed in this report are those of the authors and do not necessarily reflect the views of government or industry. Mention of trade names or commercial products does not constitute endorsement, or recommendation for use, by government or industry.

REVIEWS

This report was reviewed by members of the Plaind Coal Reclamation Research Program Committee and RRTAC.

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PREFACE

This report is one of a series reports that presents the findings of the Plains Hydrology and Reclamation Project (PHRP), an interdisciplinary study that focuses primarily on hydrologic aspects of the reclamation of surface coal mines in the Plains of Alberta. This research has been conducted by the Alberta Research Council, as part of the Alberta Government's Reclamation Research Program. The program is managed by the Land Conservation and Reclamation Council and is supported by the Heritage Trust Fund.

The focus of the PHRP is to develop a predictive framework that will permit projection of success for reclamation and impact of mining on water resources on a long-term basis. The predictive framework is based on an understanding of processes acting within the landscape so that, in the future, mine sites that are not totally analogous to those that have been studied can be evaluated as well.

The project involves a holistic approach to reclamation by integration of studies of geology, hydrogeology, and soils, not only in the proposed mining area, but also in the adjoining unmined areas. This approach permits the assessment of impacts and of long-term performance, not only in reclaimed areas, but also in the surrounding area.

This report is a description and user guide of a computer program developed to simulate groundwater flow and mass transport in and around active and reclaimed mines. Its results support the PHRP investigations on a variety of fronts, from resaturation of spoil and steady-state water tables to the decline in water levels in the vicinity of the mine as a result of dewatering.

A discussion of the parameters that influence groundwater flow and contaminant transport is given in another report in this series, entitled 'Computer Analysis of the Factors Influencing Groundwater Flow and Mass Transport in a System Disturbed by Strip Mining'.

ABSTRACT

This manual describes a computer model that was developed to study the influence of coal strip mining on groundwater flow systems and to simulate the transport of generated contaminants, both spatially and in time, in the vicinity of a mine. Through the use of this model, it is possible to solve for the hydraulic head distribution and the position of the water table within a two-dimensional region and for the location of seepage faces at the mine as a function of time. All three phases of a strip mining scenario can be simulated: the pre-mining regional groundwater flow system; the mining and reclamation phase; and the post-mining water level readjustment phase. A finite element technique, utilizing linear triangular elements is used to solve for the hydraulic head distribution and the groundwater velocity field. A deterministic - probabilistic technique is used to model the transport of contaminants that are generated at the mine through the flow system. The mass transport portion of the model can account for convection, dispersion, and cation exchange. The model is sufficiently general to enable the user to specify virtually any type of geological conditions, mining scenario and boundary conditions. Emphasis has been placed on developing a model which is simple to operate. Should changes to the model be necessary to handle special problems, the program is sufficiently documented so that changes should be easily facilitated.

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ABBREVIATIONS AND SYMBOLS

a_i = coefficients of the equation of a plane defined by the nodes bounding an element

cec = cation exchange capacity, (C / m)

C = concentration of a contaminant, (m / l^3)

C^+ = concentration of the cations in the solution, (m / l^3)

C_c = concentration of the contaminant in a cell, (m / l^3)

C_t = present concentration of the contaminant in a cell, (m / l^3)

C_{t-1} = previous concentration of the contaminant in a cell, (m / l^3)

D_{ij} = combined dispersion and diffusion coefficient tensor, (l)

D_L = longitudinal dispersivity coefficient, (l^2 / t)

D_T = transverse dispersivity coefficient, (l^2 / t)

{F} = flux vector

[G] = global coefficient or conductivity matrix

h = hydraulic head, (l)

h_o = initial hydraulic head, (l)

$h_{i,t}$ = hydraulic head calculated during present time step, (l)

$h_{i,t-1}$ = hydraulic head calculated during previous time step, (l)

H = hydraulic head along a constant head boundary, (L)

$\{h\}$ = vector of unknown head values

i = hydraulic gradient across an element

I = net vertical specific rate of infiltration along the free surface, (L / t)

K_{ij} = hydraulic conductivity tensor, (L / T)

K_i = hydraulic conductivity in the x_i directions, (L / T)

$K_{a/b}$ = selectivity coefficient for exchange between cation pair a - b

K_d = distribution coefficient (adsorption proportionality factor)

k_n = chemical reaction rate constants for *n* reactions

l = length

m = mass

m_i = mass of a reference particle in a cell, (m)

n_i = unit outward normal vector, (l)

p_i = total number of particles in a cell

$p_{i,0}$ = number of particles in a cell at the start of time step

$p_{j,in}$ = number of particles entering a cell during a time step

$p_{k,out}$ = number of particles leaving a cell during a time step

Q = prescribed flux along a flux boundary, (l / t)

q_i = Darcy velocity in the x_i coordinate directions, (l / t)

R_θ^1 = random number between 0 and 1

S_s = elastic specific storage, (l^{-1})

S_y = specific yield

t = time

t_t = elapsed time to the end of the present time step, (t)

t_{t-1} = elapsed time to the end of the previous time step, (t)

Δt = size of the time step, (t)

Δt_t = size of time step during the present step, (t)

Δt_{t-1} = size of the time step during the previous step, (t)

Δt_{inc} = time step increment, (t)

u = pore velocity in the direction of flow, (l / t)

v_i = pore velocity in the x_1 and x_2 directions, (l / t)

v_1 = pore velocity in the x_1 direction, (l / t)

v_2 = pore velocity in the x_2 direction, (l / t)

V = volume of a cell, (l^3)

x_i = coordinate vector, i=1,2, (l)

$x_{i,t-1}$ = previous x_i position of a particle, (l)

$x_{i,t}$ = present x_i position of a particle, (l)

x_1' = displacement of a particle due to dispersive motion in the x_1 direction, (l)

x_2' = displacement of a particle due to dispersive motion in the x_2 direction, (l)

β = inclination of the gradient from the x_1 axis, (°)

δ = elevation of the free surface above a horizontal datum from which hydraulic head is measured, (l)

δ_0 = initial elevation of the free surface, (l)

δ_i = elevation of a node at the water table at column i, (l)

θ = porosity

λ = convergence tolerance

ξ_L = longitudinal dispersivity of a geological unit, (l)

ξ_T = transverse dispersivity of a geological unit, (l)

ρ = bulk density of a geological medium, (m/l^3)

1. INTRODUCTION

The strip mining of large reserves of coal from the western plains region of Canada and the United States has raised concerns about the potential impact of mining on the environment. An important thrust of research on this problem has been focused specifically on the examination of the impact of coal mining on groundwater flow systems. There are two major problems associated with dewatering coal strip mines. The first is that the mine acts as a groundwater sink causing a decline in the water table in the surrounding area and flow toward the mine. The second concern is that the mine and spoil generate undesirable dissolved constituents which can cause groundwater contamination problems. Because it is difficult to predict long-term or regional effects from field studies, mathematical modelling has proven useful as one way to generate a longer-term perspective.

As part of an on-going project to examine the disruption of the hydrogeological regime in the vicinity of coal strip mines in Alberta, the Alberta Research Council has solicited a modelling study to aid in the understanding of how strip mining can influence groundwater systems. The model must simulate changes to the position of the water table and the hydraulic head distribution within the flow system due to strip mining and the position of seepage faces at the mine over a period of time as well as modelling the generation and transportation of contaminants from spoil into the flow system.

The purpose of this manual is to describe the numerical technique for modelling and the computer model which has been designed specifically for strip-mining related problems. The development of the model and its verification is discussed in Section 2. Section 3 consists of a description of the computer program, including a detailed description of the input and output parameters. To demonstrate the operation of the model, two example simulations illustrating groundwater flow system changes and contaminant transport in the vicinity of a strip mine are presented in Section 4. In addition to the scenarios presented here, additional simulations of mining and post-mining regional groundwater level recovery for numerous conditions have been previously discussed in detail (Schwartz and Crowe 1985a, 1985b; Schwartz et al. 1982).

The primary use of the model is oriented towards understanding how strip mining can influence the hydrogeological and hydrochemical systems in and around a mine. The simulation of all three hydrogeological phases associated with strip mining can be undertaken. These phases include (i) the simulation of the pre-mining steady

state regional groundwater flow regime; (ii) the hydraulic head distribution during mining and reclamation; and (iii) hydrogeological conditions during the post-mining phase when mining and dewatering of the pits has ceased, and the groundwater system re-adjusts to a new regional steady state. In particular, the model can aid in analyzing the role of various hydrogeological parameters, reclamation strategies and geographical features in influencing the magnitude, timing and extent of water level changes. This model differs from the earlier modelling work in the treatment of groundwater flow in the vicinity of the mine as a free surface problem; incorporation of seepage faces at the mine; adoption of a regional flow system as the basic scale element; a more realistic consideration of the actual mining process; emphasis on the behaviour of flow systems once mining has been completed; and in the incorporation of a mass transport routine.

The model is sufficiently general to enable the user to specify virtually any type of geological configuration, hydrogeological setting, topography, mining scenario and a variety of boundary conditions. With the information provided in this user's manual, changes to the computer code which may be necessary for specific applications should be relatively easy to make. A major emphasis in the model development has been placed on making it simple to use. To accomplish this goal, a variety of simplifying features in the input data requirements, output, program structure and coding has been included. Although care has been taken to insure that the code is free from errors, we would recommend that the user check their version carefully with the given test sets of data before extensive use, to ensure that no system-related or other errors are present.

2. MODELLING METHODOLOGY

2.1 THEORETICAL DEVELOPMENT

The simulation of groundwater flow in relation to surface mining is most properly described as a "free surface problem". Such problems are distinguished by the fact that within a given domain both the hydraulic head distribution and the water table configuration are unknowns. Free surface problems exist in a diverse array of applications such as seepage through earth dams or leakage from ponds. As an example of a free surface problem, consider the flow of groundwater along the hypothetical two-dimensional, cross section shown in Figure 1a. Recharge, moving downward, results in a rising water table and causes increased quantities of groundwater to move along the flow system to the stream located at the left end of the section. The patterns of groundwater flow are defined by simulating both the hydraulic head distribution within the saturated domain (S) and the position of the upper boundary or free surface (F) (Figure 1b).

Another feature commonly observed in systems with a free surface is what are termed "seepage faces". A seepage face is a zone of free groundwater outflow from a flow system. The hydraulic head at any point along the seepage face is equal to the elevation at that point. In Figure 1b, the seepage face corresponds to the line segment **a-b**.

For model studies involving free surfaces, there are two possible numerical approaches. The first of these approaches involves simultaneously modelling both the saturated and unsaturated parts of the groundwater system (Neuman 1973). Because this method can deal with the continuum of pressure heads that exists in and between the saturated and unsaturated zones, the position of the free surface can be defined without considering it to be a boundary within the system. A significant disadvantage of this approach is that considerably more data are required to characterize the unsaturated zone than the saturated zone. In addition, data for the unsaturated zone are not routinely collected during most site specific studies.

The second approach, adopted for this study, concentrates only on the saturated part of the flow system below the water table. It is assumed that the effect of the unsaturated zone can be approximated simply by fluxes of water at the free surface. For many problems, this simplification is justifiable (Neuman and Witherspoon 1971). Inflow to, or outflow from the saturated zone causes the free surface to rise or fall and the hydraulic head distribution to change. For transient flow problems it

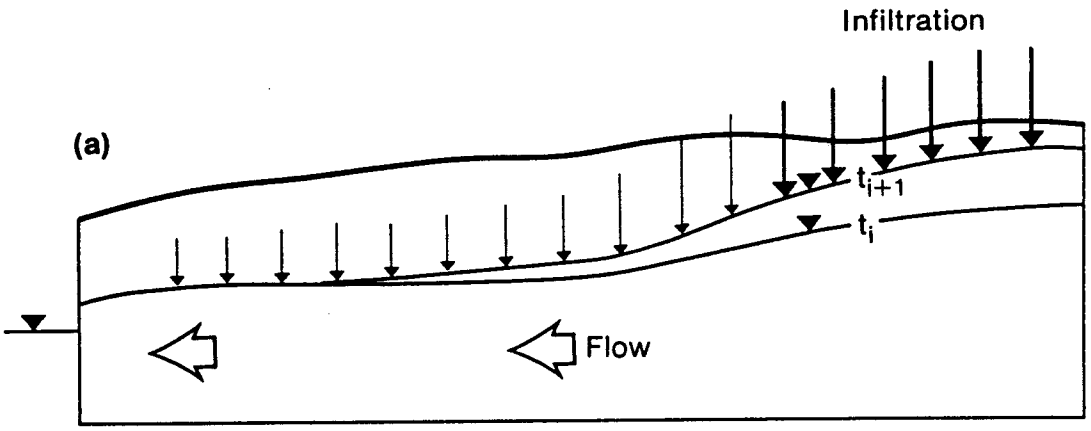


Fig. 1a. Schematic representation of groundwater flow in a two-dimensional cross section.

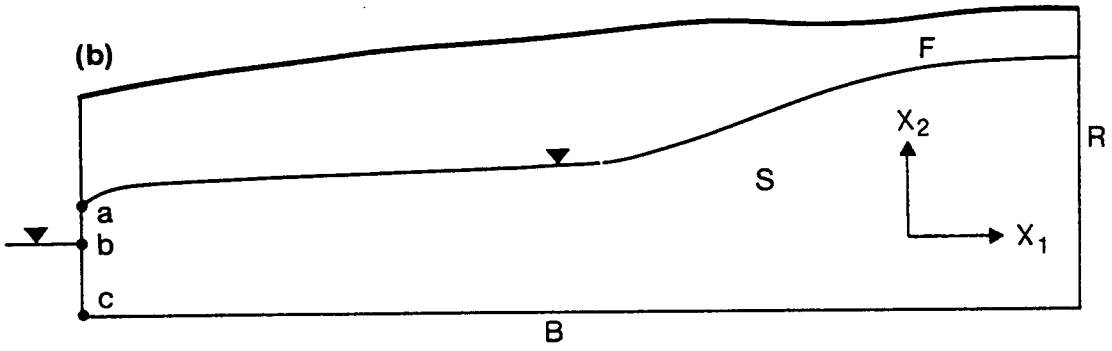


Fig. 1b. Various boundaries of the domain discussed in the text.

becomes necessary to both relocate the water table and to solve for hydraulic head during each time step. Major computational difficulties arise because of the necessity of providing the capability of changing the shape of the flow domain with time.

The problem of solving for the position of the free surface and the hydraulic head distribution was first addressed by Taylor and Brown (1967) and Finn (1967). An alternative procedure has been proposed by Neuman and Witherspoon (1970). This latter work, originally developed for a case of steady flow, was subsequently generalized to handle transient seepage problems with recharge across the free surface (Neuman and Witherspoon 1971). This basic theory and mathematical approach is adopted in this study.

For problems like the one depicted in Figure 1a, Neuman and Witherspoon (1971) have developed a governing partial differential equation describing flow within the saturated domain (equation (1)), initial conditions (equations (2) and (3)), and boundary conditions (equations (4) to (8)):

$$\frac{\partial}{\partial x_i} K_{ij} \left[\frac{\partial h}{x_i} \right] = S_s \frac{\partial h}{\partial t} \qquad \text{on S} \qquad \ldots . (1)$$

$$h(x_i, 0) = h_0(x_i) \qquad \ldots . (2)$$

$$\delta(x_1, x_2, 0) = \delta_0(x_1, x_2) \qquad \ldots . (3)$$

$$h(x_i, t) = H(x_i, t) \qquad \text{on b-c} \qquad \ldots . (4)$$

$$K_{ij} \frac{\partial h}{\partial x_i} n_i = -Q(x_i, t) \qquad \ldots . (5)$$

$$\delta(x_1, x_2, t) = h(x_1, x_2, \delta, t) \qquad \text{on F} \qquad \ldots . (6)$$

$$K_{ij} \frac{\partial h}{\partial x_i} n_i = \left[I - S_y \frac{\partial \delta}{\partial t} \right] n_2 \qquad \text{on F} \qquad \ldots . (7)$$

$$h(x_i, t) = x_2 \qquad \text{on a-b} \qquad \ldots . (8)$$

where: δ = elevation of the free surface above a horizontal datum from which h is measured, (l)

δ_0 = initial elevation of the free surface, (l)

h = hydraulic head, (l)

h_0 = initial hydraulic head, (l)

H = hydraulic head on a constant head boundary, (l)

I = net vertical specific rate of infiltration at the free surface, (l / t)

K_{ij} = hydraulic conductivity tensor, i,j=1,2, (l / t)

l = length

n_i = unit outward normal vector, (l)

S_s = elastic specific storage, (l^{-1})

S_y = specific yield

Q = prescribed flux along a flux boundary, (l / t)

t = time

x_i = coordinate vector, i=1,2, (l)

With reference to Figure 1b, the initial conditions (equations (2) and (3)) state that hydraulic head values and elevations of the free surface (F) must be assigned to appropriate nodes at the start of the simulation. As far as the boundary conditions are concerned, equation (4) indicates that fixed values of hydraulic head are assigned along **b-c**. Note that it is possible to specify flux conditions across these boundaries either by fixing hydraulic heads (equation (4)) or actually specifying flux values with equation (5). No flow conditions are assumed to exist along the bottom (B) and right side (R) of Figure 1b, and are calculated by setting the flux term in equation (5) to zero. Equations (6) and (7) describe two different conditions that can occur along the free surface depending upon whether infiltration is present or not present, respectively. Finally, equation (8) states that head along the seepage face (**a-b**) is a function of elevation.

Equation (1), subject to these initial and boundary conditions, can be solved in two-dimensions using an iterative finite element procedure. Neuman and Witherspoon (1971) present a more thorough discussion of the theoretical development and guidelines for numerical implementation of the method.

The contaminant transport portion of the program is based on a deterministic - probabilistic mass transport model. The basic concepts of this model are similar to a method first developed and applied by Ahlstrom et al. (1977), and has been applied in similar studies (Schwartz 1978; Schwartz and Crowe 1980).

The transport of a chemical species in a groundwater system is characterized by two fundamental quantities, namely, the mass of the solute contained within the system and the concentration of the solute in the water. In a groundwater flow system, the mass of the contaminant is controlled by the physical transport of the solute through the flow system and by the addition or removal of solute due to various chemical reaction mechanisms. The concentration of the contaminant is a function of both the mass of the solute and the volume of water.

Advection, dispersion, and diffusion are the primary physical processes controlling the transport of a contaminant within a groundwater flow system. Advective transport occurs when mass is transported by the bulk movement of the groundwater in which the solute is dissolved. Thus, the direction and velocity of the contaminant is generally assumed to coincide with that of the groundwater. Hydrodynamic dispersion refers to the phenonema which acts to produce solute spreading and mixing due to the structure of the porous medium. Such mixing occurs because of the fact that advective flow may occur at different velocities in different flow channels within the porous medium due to the tortuous nature of the flow paths. Molecular diffusion is a random process by which a solute spreads in water from a region of high concentration to one of a lower concentration. The net effect of dispersion and diffusion is a dilution of the contaminant concentration and the spreading of the solute throughout a larger portion of the flow system.

There are several reactive mechanisms that act in a contaminated groundwater system. These include, adsorption, absorption, precipitation, dissolution, ion exchange and decay. Adsorption is the process by which a chemical species is attracted to and held on the surface of a solid. Absorption is a process by which a solute penetrates into the structure of a solid. Precipitation is a chemical process by which dissolved species are removed from solution by forming a solid phase. Dissolution refers to the process by which a solid phase dissociates in an aqueous system to form individual ions. Decay describes the breakdown of unstable ions over a period of time. The net result of these processes (with the exception of dissolution) is an overall reduction in the concentration and mass of the solute.

These physical and chemical process can be stated mathematically in the following equation, known as the advection - dispersion equation:

$$\frac{\partial C}{\partial t} = -\frac{\partial}{\partial x_i}(v_i C) + \frac{\partial}{\partial x_i}\left[D_{i,j}\frac{\partial C}{\partial x_i}\right] - \Sigma k_n C \qquad \ldots . (9)$$

where: C = concentration of a contaminant, (m/l^3)

v_i = average pore velocity in the x_i directions, (l/t)

D_{ij} = combined dispersion and diffusion coefficient tensor i,j=1,2, (l^2/t)

k_n = chemical reaction rate constants for *n* reactions

While most models of mass transport in active groundwater systems involve a direct numerical solution to the advection - dispersion equation, it has been found that deterministic - probabilistic modelling techniques represent a simple yet versatile and powerful approach. This technique uses a "particle" as the basic unit representing the contaminant, and is entered into and transported through the groundwater flow system. This method addresses the fundamental problem of describing the spread of a large number of moving reference particles within a region. In practice, the moving reference particles, each with a given mass, are introduced to the flow system at locations where the contaminant is generated. The reference particles are then transported within the region. It is impossible to produce an exact mathematical description of individual particle motion because several factors contribute to their motion. Statistical features of the motion of particle assemblages do provide a basis for representing an idealized pattern of motion for individual reference particles. Because the position of the individual particles are known within the region, the distribution of contaminant mass associated with each particle can easily be determined. This distribution can be expressed simply in terms of concentration.

The first transport mechanism that must be considered is the process of advective transport. Vertical and horizontal components of groundwater velocity must be calculated at the position of each particle so that the particles can be moved by the motion of groundwater flow. The vertical and horizontal Darcy velocities in an anisotropic, heterogeneous medium, with the principal axis of hydraulic conductivity oriented at an angle to the principal coordinate axis are calculated by:

$$q_i = K_{ij}\frac{\partial h}{\partial x_i} \qquad \ldots . (10)$$

where: q_i = Darcy velocity in the x_1 and x_2 coordinate directions, (l/t)

K_{ij} = hydraulic conductivity tensor, i,j=1,2, (l/t)

$\frac{\partial h}{\partial x_i}$ = hydraulic gradient in the x_1 and x_2 directions

This program presently assumes that the principal axis of horizontal and vertical hydraulic conductivity parallel the coordinate directions. Hence, equation (10) is simplified to:

$$q_i = K_i \frac{\partial h}{\partial x_i} \quad \ldots . (11)$$

where: K_i = hydraulic conductivity in the x_1 and x_2 coordinate directions, (l / t)

The hydraulic gradients in the two coordinate directions are calculated by:

$$\frac{\partial h}{\partial x_1} = i \cdot cos(\beta) \quad \ldots . (12)$$

$$\frac{\partial h}{\partial x_2} = i \cdot sin(\beta) \quad \ldots . (13)$$

where: i = the hydraulic gradient in the direction of flow

β = inclination of the gradient (groundwater flow) from the x_1 axis

The Darcy velocity is corrected for the porosity of the geological units to give a pore velocity as follows:

$$v_i = \frac{q_i}{\theta} \quad \ldots . (14)$$

where: v_i = pore velocity in the x_1 and x_2 directions, (l / t)

θ = porosity

The reference particles move along their respective vectors a distance that is determined by the magnitude of the time step, direction of the gradient and the magnitude of the velocities. This displacement, representing the deterministic component of motion, is:

$$x_{i,t} = x_{i,t-1} + v_i \cdot \Delta t \quad \ldots . (15)$$

where: $x_{i,t}$ = new x_i position of the particle, (l)

$x_{i,t-1}$ = x_i position of the particle during the previous time step, (l)

Δt = size of the time step, (t)

Dispersion is incorporated into the particle motion by adding a random component to the deterministic particle motion. The character of this random motion is related to the dispersive character of the porous medium. Relocation of any particle is accomplished by calculating displacements in the two coordinate directions, by using the following equations from Ahlstrom et al. (1977):

$$x_{1,t} = x_{1,t-1} + x_1' \cdot \frac{v_1}{u} \; x_2' \cdot \frac{v_2}{u} \qquad \ldots . (16)$$

$$x_{2,t} = x_{2,t-1} + x_1' \cdot \frac{v_2}{u} \; x_2' \cdot \frac{v_1}{u} \qquad \ldots . (17)$$

where: x_1' = displacement of a particle in the x_1 direction due to dispersion, (l)

x_2' = displacement of a particle in the x_2 direction due to dispersion, (l)

v_1 = velocity in the x_1 direction, (l / t)

v_2 = velocity in the x_2 direction, (l / t)

u = pore velocity in the direction of flow, (l / t)

The pore velocity in the direction of flow is defined as:

$$u = \sqrt{v_1^2 + v_2^2} \qquad \ldots . (18)$$

The equation for the distance that a particle moves due to dispersive motion in the x_1 and x_2 directions are related to the dispersivity characteristics of the porous medium and multiplied by a random number to account for the tortuosity of porous media. This distance can be described mathematically as:

$$x_1' = \sqrt{(24 \cdot D_L \cdot \Delta t)} \cdot (0.5 - R_0^1) \qquad \ldots . (19)$$

$$x_2' = \sqrt{(24 \cdot D_T \cdot \Delta t)} \cdot (0.5 - R_0^1) \qquad \ldots . (20)$$

where: D_L = longitudinal dispersivity coefficient, (l^2 / t)

D_T = transverse dispersivity coefficient, (l^2 / t)

R_0^1 = a random number between 0 and 1

The longitudinal and transverse dispersivity coefficients are defined by the following relations:

$$D_L = \xi_L |u| \qquad \ldots . (21)$$

$$D_T = \xi_T |u| \quad \text{or} \quad D_T = 0.4 \cdot \xi_L |u| \qquad \ldots . (22)$$

where: ξ_L = longitudinal dispersivity of the geological unit, (l)

ξ_T = transverse dispersivity of the geological unit, (l)

Readers interested in the derivations of these equations are referred to Ahlstrom et al. (1977).

The reference particles and their associated mass represent the contaminant and are added to the region where the contaminant is generated. The rate at which the contaminant enters the groundwater flow system is controlled by fixing the number of reference particles and adjusting the mass attached to each, or by fixing the mass and adjusting the number of reference particles. Calculation of the concentration of the contaminant requires the entire flow domain to be divided into "cells", which are blocks of the cross section having a unit thickness. During each time step the number of particles in a given cell is modified by having particles enter and leave the cell. By summing the mass carried by all of the particles in a given cell and by determining the volume of water in the cell, it is possible to calculate the contaminant concentration within the flow system. Mathematically, this can be expressed as:

$$C_c = (\Sigma p_{i,0} m_{i,0} + \Sigma p_{j,in} m_{j,in} - \Sigma p_{k,out} m_{k,out}) / V \cdot \theta \qquad \ldots . (23)$$

where: $p_{i,0}$ = number of particles in the cell at the start of the time step

$p_{i,in}$ = number of particles entering the cell during the time step

$p_{k,out}$ = number of particles leaving the cell during the time step

m = mass of a particle, (m)

V = volume of the cell, (l^3)

C_c = concentration of a contaminant in the cell, (m/l^3)

When only advective and dispersive processes act, the quantity of the mass associated with each reference particle remains constant. However, when various chemical reaction mechanisms, such as cation exchange, absorption, precipitation, etc., act on the contaminant, the quantity of mass changes with time. Cation exchange is approximated as an equilibrium process described in terms of a distribution coefficient (or adsorption proportionality factor). The distribution coefficient used in this model is a function of cation exchange capacity, selectivity coefficient for exchange between two cations, and the total cation concentration of the contaminant in solution. It is expressed as:

$$K_d = K_{a/b} \cdot \frac{cec}{C^+} \qquad \ldots . (24)$$

where: K_d = distribution coefficient or adsorption proportionality factor

cec = cation exchange capacity, (C/m)

$K_{a/b}$ = selectivity coefficient for exchange between cation pair a - b

C^+ = concentration of the cations in solution, (m/l^3)

Other chemical process, including absorption, and adsorption are approximated by the cation exchange calculations. This model does not handle these processes individually.

The amount of a contaminant available for exchange within a cell is dependent on the bulk density and the porosity of the geological material. Thus, from equations (23) and (24), the concentration of the contaminant in a cell is defined as:

$$C_t = \left[\frac{\Sigma p_i m_i}{V\theta} + K_d C_{t-1} \cdot \frac{\rho}{\theta}\right] / \left[1 + K_d \cdot \frac{\rho}{\theta}\right] \qquad \ldots . (25)$$

where: C_t = present concentration in the cell, (m/l^3)

C_{t-1} = previous concentration in the cell, (m/l^3)

p_i = total number of particles in a cell

m_i = mass of a particle in a cell, (m)

ρ = bulk density of the geological material, (m/l^3)

2.2 MODEL DEVELOPMENT

The finite element method uses the Galerkin technique to solve for the hydraulic head distribution of the flow region, as described by equations (1) to (8). Readers interested in further information regarding this technique, are referred to Pinder and Gray (1977) and Wang and Anderson (1981). The flow domain is discretized by a network of triangular elements for solution by the finite element method. An "element" is the basic unit representing the flow domain during the calculation of hydraulic head. It is triangular in shape, bounded by three nodes at the corners, and is half a cell in size. A "node" is the point of intersection of the grid lines (or the corners of the elements and cells) and is the point at which head values are calculated. The nodal positions for each element are generated automatically in the computer code during each time step to conform to the variablity of the flow domain and the position of the water table. To facilitate the automatic generation of meshes repeatedly throughout a simulation and to more closely conform to the geometry of the cross section, the grid blocks in the mesh are rectangular except along the upper boundary of the saturated domain.

The simple set of grids shown by Figure 2 illustrates the formation and adjustment of the grid through a series of time steps for the hypothetical cross section illustrated in Figure 1. Before the simulation commences, the grid system is formed, an initial value of hydraulic head is assigned to each node and the initial position of the water table is defined (see (a) of Figure 2). At the beginning of any time step, the elevation of all nodes along the free surface is fixed. Values of hydraulic head can be calculated at all nodes within the flow domain and at nodes along the free surface which have not been designated as constant head nodes. The calculated head values along the free surface should be equal to the elevation of these nodes for the position of the free surface to be considered correct (refer to equation (6)). In reality, the sum of the absolute value of the differences between the head and the elevation of all the nodes along the free surface is required to be less than a small tolerance value. The "tolerance" is the user supplied allowable difference between the heads along the water table and the elevation of the nodes along the water table. If this condition is not met, the grid is adjusted by moving nodes at the free surface to an elevation equal to the calculated value of hydraulic head (see (b) of Figure 2). This entire procedure is repeated for successive iterations until the convergence criterium is met. An "iteration" is a repeated calculation during the same time step undertaken when the

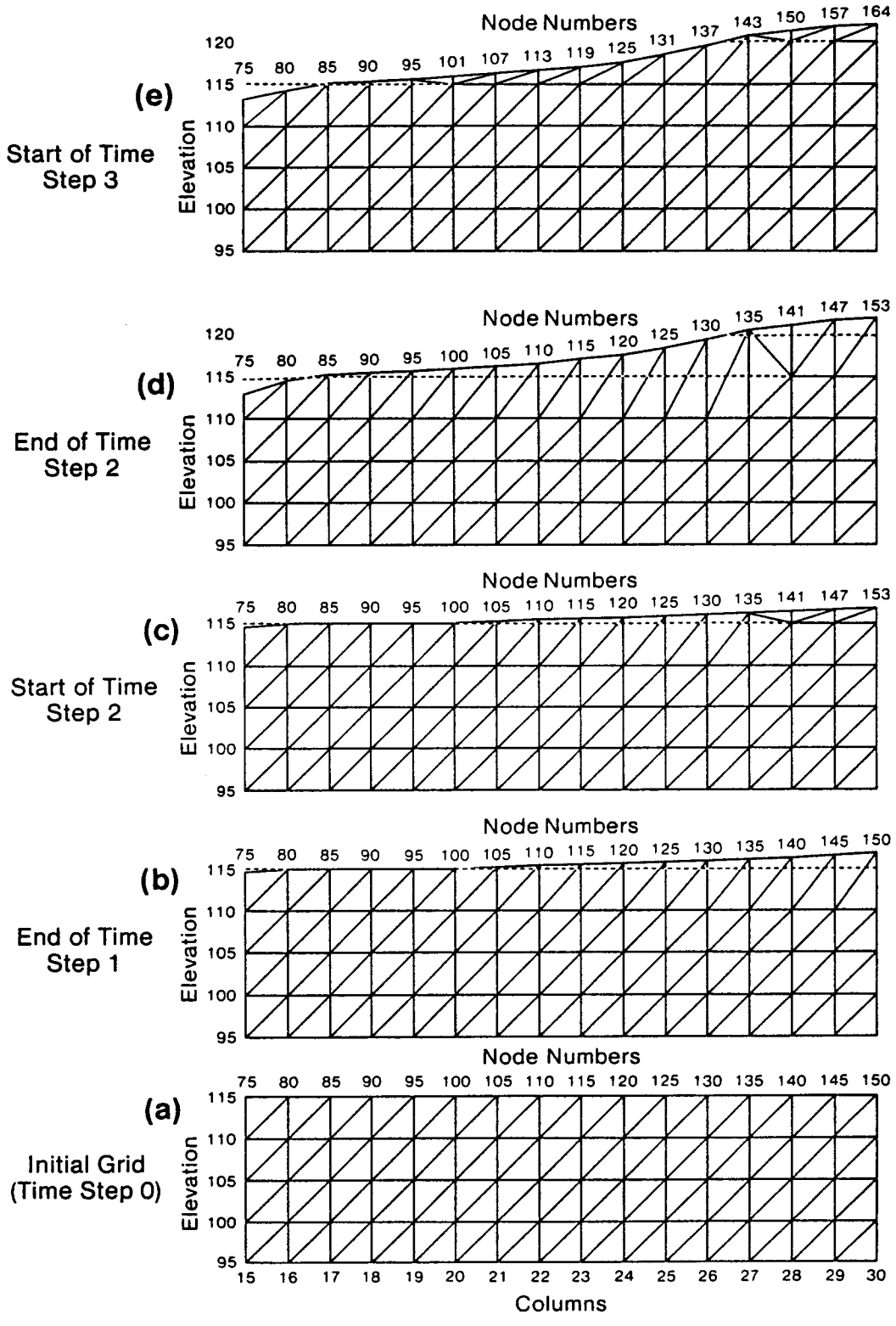


Fig. 2. A series of finite element meshes showing the manner in which the grid changes as a function of time with recharge along the top boundary.

solution is converging to the true position of the water table. Once the solution converges, the simulation moves to the next time step.

At the start of each successive time step, the grid may be reconstructed by adding or removing nodes located along the water table. In cases where the required adjustments to the free surface are only minor, nodes are simply displaced vertically causing the upper row of elements to stretch. However, once an element stretches by more than $\frac{5}{4}$ of the vertical node spacing, additional nodes and elements are added to the grid (see (c) of Figure 2). Conversely, if an element contracts to less than $\frac{3}{4}$ of the vertical node spacing, nodes and elements are removed. Using this procedure, it is possible to maintain a rectangular grid system except in the immediate vicinity of the water table. A regular grid is used to fit elements more closely to the geological boundaries of the domain and to simplify the input parameters. The above procedure is repeated for each successive time step (see (d) and (e) of Figure 2).

A typical mining simulation begins with the pre-mining hydraulic head distribution, proceeds through a mining and reclamation phase and ends at some time following the cessation of mining and reclamation during the so-called post-mining phase. The reason for carrying out the simulations in this way results from the great difficulty in specifying initial values of hydraulic head except for the situation before mining actually begins. The head distribution during the mining and post-mining phase is not in equilibrium, and hence, the hydraulic head distribution is not known. Thus, it has been necessary to build into the model the capability for simulating the process of mining and reclamation in at least an approximate way.

The numerical implementation of the mining process involves modifying the finite element grid to account for the presence of the open cut. Constant head nodes are defined at the base of the open cut with hydraulic head values equal to the elevation of the base of the cut. This implies that dewatering and draining of a cut maintains the water level at the elevation of the pit floor. It is also necessary to account for seepage faces that form at the pit wall. Nodes at the seepage face are defined as constant heads with values of hydraulic head equal to the elevation of the node. The elements at a seepage face are able to expand and contract according to the size of the seepage face. If gross changes occur in the size of the seepage face, nodes and elements are added or removed following the procedure described above.

Following the opening of the first cut, reclamation is simulated by placing fill from the cut now being mined into the adjacent cut that was previously opened. Reclamation is assumed to proceed concurrently with the mining with the resultant

levelling of the piles of spoil. An option is provided in the computer code to either fill or leave any of the cuts open. The width of an individual cut is linked to the node spacing in the horizontal direction. Thus for large-scale problems, an individual cut may be wider than those observed at actual mines. Hence, it is best to consider the simulation procedure as a approximation of the real process. Heads along the pit floor and seepage faces of the previous cut are no longer fixed as constant, thus allowing the water table to rise through the spoil as groundwater flows into the spoil.

Implicit in the two-dimensional approach is the assumption that the mine is infinite in the third dimension. Thus, the results of simulations undertaken with this model apply directly to very long mines constructed across the regional flow system. If these conditions are not met in an actual field setting, then the simulation will probably over-estimate changes to the groundwater system because it does not account correctly for the dimensionality of the problem.

The groundwater flow model has been verified by comparing various solutions for the buildup of a mound due to infiltration with result for the same problem that were calculated with this model. As illustrated on Figure 3, the solution for the test problem compares well with those determined: (i) experimentally by Marino (1967); (ii) analytically by Hantush (1963); and (iii) numerically by Neuman and Witherspoon (1971).

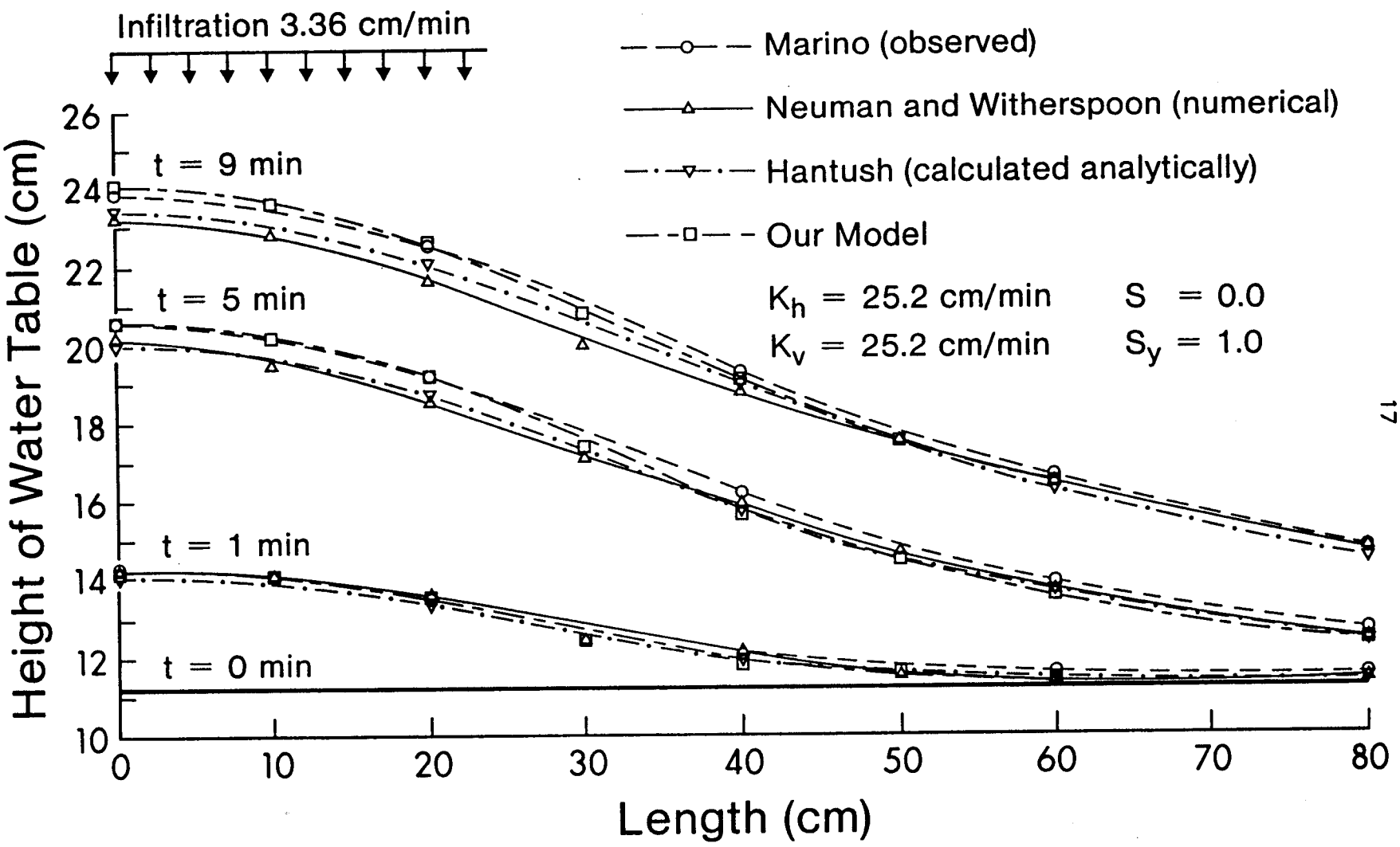


Fig.3. Comparision of various solutions for the buildup of a groundwater mound due to infiltration

3. THE COMPUTER PROGRAM

A brief description of the model and its operation is presented in this section. First, a discussion of the structure of the computer program is presented. This is followed by a description of input and output variables and operations.

3.1 MODEL STRUCTURE

The basic sequence of operations of the model is discussed in this section. First, all input data are read and a data echo is printed to provide the model user with a check on the values of the input data. Input data falls into six catagories: (i) problem control parameters; (ii) cross section geometry parameters; (iii) time step control parameters; (iv) hydrogeological parameters; (v) mining and reclamation variables; and (vi) contaminant transport parameters. These values control the simulation and define the region to be modelled. Also at this time, if the run is a continuation of a previous simulation, the starting head values and if necessary, the starting particle distribution, are input.

Once the input is complete, a grid comprised of linear triangular finite elements is generated by the model and appropriate hydrogeological parameters are assigned to the nodes and elements Should mining or reclamation occur, the grid is modified to account for the opening of a cut and/or the filling of a cut with spoil.

The finite element technique, based on a grid of triangular elements, simulates the hydraulic head distribution in the region. The head values are calculated during each time step, and this procedure is repeated until the required number of time steps is satisfied, or until the flow system attains a steady state. Two operations are performed to accomplish this. First, because the flow region deforms as the water table rises or falls during each time step, the position of the nodes along the water table must be determined by iterating towards a point where the total head values of these nodes equal the elevation of these nodes. Secondly, the regional steady state criteria is satisfied when the hydraulic head values of the nodes along the water table differ between successive time steps to within a prescribed tolerance.

Because the flow domain changes during the simulation, the grid must be reconstructed at the beginning of each time step and at each successive iteration during a time step. This may involve simply a vertical displacement of nodes along the water table, or may involve the addition or removal of nodes. Thus, the procedure of constructing a grid, assigning hydrogeological properties to the nodes and elements, calculating the hydraulic head distribution, and checking the convergence criteria is

repeated throughout the simulation, both during a time step and as the program loops through the required number of time steps.

Once the hydraulic head values are solved, the hydraulic gradient, the direction of groundwater flow and the velocity values in the two coordinate directions are calculated for each element. The direction of the hydraulic gradient is measured in degrees from the positive x axis. The gradient is calculated by first using Crammer's rule to solve for the equation of a plane representing an element, which is bounded by three nodes with coordinates of x, z and hydraulic head. Once the equation of the plane is determined, the direction of flow is found by using vector geometry. The velocity field consists of pore velocities in the x and z coordinate directions. These fields provide valuable insight into contaminant transport, direction and magnitude of groundwater flow, development of seepage faces, potential slope failure and quick conditions.

The transport of a contaminant in the groundwater flow system is simulated by tracking reference particles, each having a prescribed mass, through the region. A specified number of particles are added to the region at the source of the contaminant at the beginning of each time step. By varying the number of particles added during a time step, it is possible to approximate the spread of the contaminant from the spoil. Particles are moved according to advective flow of the groundwater and by a random motion which simulates dispersion. At the end of each time step, the distribution of the reference particles and the concentration of the contaminant within each cell is calculated. Should the simulation include mass transport, the values of groundwater velocity and direction of flow are calculated on a element by element basis as needed when the mass transport routine is activated; hence it is not necessary to explicitly calculate these entire fields to run the contaminant transport routine.

Finally, at the end of each time step, any calculated information that the user may require, such as grid geometry and hydrogeological properties, convergence information, hydraulic head distributions, hydraulic gradient, groundwater velocities, contaminant concentrations, and particle distributions, may be printed. Options are also available to allow for some of these values to be output to disk files for later plotting or to be used as input to continue a simulation.

The model was programmed in FORTRAN IV and run and tested using the AMDAHL 5860 computer at the University of Alberta. The computer code consists of twelve parts, corresponding to the tasks outlined above. These include the main program, subroutines FEGRID, ELMENT, MINE, HEADS, SOLVE, HYGRAD, VELCTY,

SEARCH, TRANS, RANDNO, and OUTPUT. These segments are discussed in detail below. A complete listing of the program code is presented in Section 6.2. A list of all parameters and variables used in the main program and in each of the subroutines is contained in Section 6.3. Flow charts illustrating the sequence of operations undertaken by the main program and the subroutines are contained in Section 6.4.

3.1.1 Main Program

The purpose of the main program is to read the input data, provide the user with an echo of the input data, dimension the arrays, and control the sequence of program steps in the simulation by calling appropriate subroutines. None of the actual simulation calculations are performed in the main program; they are all done in the subroutines.

The storage requirements for the arrays are outlined in Section 6.1. For simplicity of use, it is only necessary to specify array sizes in the main program. The subroutines use execution-time dimensioning with estimates of the array sizes either input by the user or calculated in the main program. A more specific description of the input necessary for a simulation is discussed in Section 3.2.1 and is summarized in Section 6.1.

3.1.2 Subroutine FEGRID

The finite element technique used to calculate the hydraulic head distribution is based on linear triangular elements. This subroutine constructs a grid comprised of nodes and elements which fit the cross section geometry, hydrogeological parameters and the mining and/or reclamation conditions. Except for the upper and lower boundaries of the region, the grid has regular horizontal and vertical node spacings, and forms a regular mesh of triangular elements (Figure 2). At the water table and base of the section, the grid is modified to fit these elevations. This essentially regular grid is generated to allow for a minimal amount of input data to construct a grid and to allow the computer program to rapidly construct the grid. The only information required to construct the finite element grid is the number of rows and columns, the elevations of the water table and the base of the cross section, and the horizontal and vertical node spacings.

The subroutine first fills two vectors with the x and z coordinates of the nodes. Nodes are numbered consecutively from 1, starting at the lower left corner of the cross section and moving upwards to the water table. This procedure is repeated for each column of nodes proceeding from left to right. At the same time, constant

head values are designated as such and stored in a separate vector.

The subroutine actually forms the grid in two ways. First, at the beginning of a simulation when the hydraulic head distribution is unknown, the cross section geometry parameters are used to construct the grid. This section of the subroutine is actually utilized only once. The second method forms the grid on the basis of the head distribution. Because the grid deforms as the head distribution changes, both while iterating during a time step and from one time step to the next, the grid must be continually changed to allow the grid to conform to the area occupied by the flow region. Also, if the run is a continuation of a previous simulation (i.e. a hydraulic head distribution is input), the initial grid will be constructed by the latter method. The second grid generator is reached via an ENTRY statement sourced from either the main program at the beginning of a time step, or from subroutine HEADS during an iteration within a time step. Should mining or reclamation occur, subroutine MINE is used to modify the arrays of node coordinates before the elements are actually formed.

Following the designation of the nodes and coordinates, elements are constructed and numbered sequentially upwards from the lower left corner (with two elements per cell), repeating for each column of cells. Within each element nodes are numbered in a counter-clockwise direction, and stored in an array. At the upper and lower boundaries where the elevation changes, single elements may be constructed according to the criteria outlined in Section 2.2. Finally, hydraulic conductivity and storativity values corresponding to the elements, are assigned to three respective vectors.

3.1.3 Subroutine ELMENT

Subroutine ELMENT constructs a linear triangular finite element by assigning the nodes and values of horizontal hydraulic conductivity, vertical hydraulic conductivity and storativity to the element. Each time an element is formed by, subroutine ELMENT is called from subroutine FEGRID.

3.1.4 Subroutine MINE

Should mining or reclamation occur, the grid will be modified within Subroutine MINE to account for the opening of a cut or the filling of a previous cut with spoil. This is accomplished by modifying the grid, changing hydrogeological parameters, and reassigning the type of nodes located at the mine. The arrays of node coordinates are modified before the elements are constructed.

The subroutine is divided into two sections. The first approximates the opening of a cut by removing nodes which are located in the interior region of the pit from the grid generated in subroutine FEGRID. To simulate the presence of seepage faces at the boundaries of the pit, the nodes along the sides of the cut are changed to constant head nodes, with the value of hydraulic head remaining the same. Nodes along the base of the pit are also changed to constant head nodes to represent the dewatering elevation of the water table. The size of the cut is determined by specified left and right mine boundaries and by the elevation of the base of the cut.

Removing nodes is accomplished by progressing from left to right through the grid and reassigning the node coordinates, heads and constant heads to new arrays. When the cut is reached, nodes that were generated in FEGRID that are currently in the region occupied by the mine are simply not assigned to the new arrays. The size of these arrays are adjusted by the number of nodes not reassigned. Hence, the entire grid is renumbered, from the left side of the new pit to the right side of the cross section, and the constant head vector reformed when the are removed. Once the cut has been opened, the horizontal and vertical hydraulic conductivities and the storativity of the cells occupying the cut are assigned a value of zero by modifying the hydrogeological parameter code of the cells.

Secondly, the subroutine accounts for reclamation by changing the elevation of the ground surface at the cut from a value equal to that at base of the cut to a new reclaimed ground surface elevation. The node types along the sides and base of the previous cut change from constant head nodes to free nodes (done in subroutine FEGRID), thus simulating the effect of shutting off the de-watering system. This is done to allow the water table to rise. The value of hydraulic head does not change. Also, the hydraulic conductivities and storativity of the reclaimed cut are changed to those of the spoil units.

3.1.5 Subroutine HEADS

Subroutine HEADS calculates the hydraulic head distribution within the region with a finite element technique. The subroutine requires the input of the finite element grid and hydrogeological parameters (horizontal and vertical hydraulic conductivity, storativity and specific yield) from subroutine FEGRID, the initial estimate of hydraulic head that was input by the user, and the size of the time step.

The procedure for calculating the heads basically involves setting up a system of n equations, one for each node, to solve for the n unknown heads in the

grid. In matrix notation, this system of equations has the form:

$$[G] \cdot \{h\} = \{F\} \quad \ldots . (26)$$

where: [G] = global coefficient or conductivity matrix

{h} = vector of unknown head values

{F} = flux vector containing the inhomogeneous (unknown) terms

Head values are calculated by sequentially progressing through all finite elements in the grid. An element conductivity matrix is formed for each element. All the individual element conductivity matrices are assembled in a global conductivity or coefficient matrix. This matrix is partitioned to remove the equations that solves for head values where the head is already known (i.e. constant head nodes). A vector containing the inhomogeneous terms of the system of equations, such as, the known values of head, the effect of the previous head distribution, and the flux terms describing flow across element boundaries are assembled in a column vector called a flux vector. Once these steps have been completed, the coefficient matrix, the flux vector and the vector of unknown head values are passed to subroutine SOLVE to facilitate the solution of the unknown heads.

Because the position of the water table, and hence, the size of the flow domain can vary, an iterative scheme must be used to arrive at the actual head distribution during a time step. This is done by comparing the head values of the nodes along the water table to the elevation of these nodes. If the sum of the differences of all nodes is less than a specified tolerance, the solution is deemed to have converged for that time step. This can be expressed as:

$$\Sigma \left| \delta_i - h_i \right| < \lambda \quad \ldots . (27)$$

where: δ_i = elevation of a node along the water table at column i, (l)

h_i = head at a node along the water table at column i, (l)

λ = convergence tolerance

If the difference exceeds the convergence tolerance, elements at the water table are stretched or contracted vertically to form a new grid. Should the movement of any node along the water table be excessive, a new grid must be formed by having the operation of the model return to subroutine FEGRID. The criteria for altering the shape of the grid has been discussed previously. At the same time, a check is performed to ensure that numerical or geometrical problems do not cause a situation where convergence is not possible. This is accomplished by comparing the actual number of iterations to the maximum number of iterations that are allowed during a time step.

The entire procedure above is repeated during each time step. At the end of each time step, a check is performed to determine whether or not the groundwater flow system has attained a steady state by comparing the heads along the water table, at the present time step, to those at the previous time step:

$$\Sigma \left| h_{i,t} - h_{i,t-1} \right| < \lambda \qquad \ldots . (28)$$

where: $h_{i,t}$ = head calculated during the present time step, (l)

$h_{i,t-1}$ = head calculated during the previous time step, (l)

λ = convergence tolerance

If the solution has converged, the simulation will stop. If the system has not reached steady state, the procedure will continue until either steady state is reached or until the alloted number of time steps is reached.

3.1.6 Subroutine SOLVE

Subroutine SOLVE uses a form of LU decomposition, known as the Cholesky square root method, to decompose the coefficient matrix and ultimately, to yield the solution for the hydraulic head distribution (Gerald 1977). This decomposition method is applied to matrices that are symmetrical. The matrix of coefficients for the system of linear equations describing the solution to the unknown hydraulic heads can be rapidly and efficiently solved with this routine. The coefficient matrix, assembled in subroutine HEADS, is transformed into upper and lower triangular matrices and stored in the original matrix, thus economizing storage. A special feature of this particular subroutine is that it is designed to work with banded matrices.

The decomposed upper triangular matrix is used to solve for the unknown heads by back substitution. The matrix terms of the system of equations that are solved is comprised of the upper triangluar matrix (coefficient matrix), the unknown head vector, and the inhomogeneous terms (flux vector). The hydraulic head distribution solved in this subroutine is returned in a vector to subroutine HEADS.

3.1.7 Subroutine HYGRAD

Subroutine HYGRAD calculates the hydraulic gradient and the direction of groundwater flow (direction of the gradient) within an element. It is assumed that the gradient is linear across an element. The direction is measured in degrees from the positive x-axis, which give values in the range of 0° to 360°. The gradient always has a positive value.

Because each element is bounded by three nodes, having an x and z coordinate and a head value, the element can be considered as a plane in three-dimensions described by the equation:

$$a_1x + a_2z + a_3h = 1 \qquad \ldots . (29)$$

where: a_i = coefficient of the equation defining the plane of the element

x = x coordinate of a node

z = z coordinate of a node

h = head at the node

Substituting the x and z coordinates and the hydraulic head values for each node gives three equations with three unknown coefficients a_1, a_2, and a_3. This subroutine uses Crammers Rule to solve for the values of the coefficients a_1, a_2, a_3. Direction cosines (i.e. the cosines of the angles between a line passing through the origin which is normal to the plane, and the three mutually perpendicular axes) are calculated and used to determine the strike, dip, plunge and trend of the plane. These calculations are extended to find the hydraulic gradient and the orientation of the gradient.

Subroutine HYGRAD is accessed two ways. First, the subroutine may be accessed to calculate a field of hydraulic gradients and their directions within all of the elements. The second calculates hydraulic gradients and directions of only one element, and is accessed from subroutine TRANS.

3.1.8 Subroutine VELCTY

The movement of a contaminant in a groundwater system is controlled primarily by the velocity of the groundwater and its direction of flow. The velocity, which is calculated in this subroutine is a pore velocity, defined as the Darcy velocity divided by porosity (see equation (14)). The equations of flow in an anisotropic medium, with the principal axis of hydraulic conductivity oriented obliquely to the principal coordinate directions is given by equation (10). However, because this program assumes that the axis of horizontal and vertical hydraulic conductivity coincide with the coordinate axes, the form of the velocity equation used for calculations is equation (14) with the Darcy velocities calculated by equation (11). The hydraulic gradient and its direction are calculated in subroutine HYGRAD.

Velocity values in both the x and z coordinate directions are calculated for each element in the groundwater flow system. Because the gradient is linear across an element and the hydraulic conductivities are homogeneous within an element, the horizontal and vertical velocity within an element is the same everywhere. The orientations of the horizontal and vertical velocity vectors are listed in Table 1.

Velocities for each element are stored in two vectors, one for the horizontal velocities and one for the vertical velocities. Subroutine VELCTY can calculate the velocities in two ways. It can calculate the velocities of all the elements, and produce a complete velocity field of the groundwater flow system or it can calculate the velocities on an element by element basis when accessed from subroutine TRANS.

3.1.9 Subroutine TRANS

Subroutine TRANS is the mass transport portion of the model. The subroutine is designed to move contaminant particles through the groundwater flow system according to the deterministic - probabilistic modelling technique discussed in the previous section. The operations undertaken by subroutine TRANS are discussed below.

Particles are randomly placed within a predefined source cell below the water table in either of two methods. The first is to define the rows and columns that bound the cell or cells which represent the contaminant source. The second method involves placing the particles in spoil by defining the sides of the cells comprised of spoil. The program will automatically take the present base of the spoil and position of the water table as the lower and upper boundaries, respectively, as the contaminant

Table 1. Orientation of the groundwater velocity vectors.

Direction of Flow	V_x	V_z
$0^\circ <$ direction $< 90^\circ$	+ve	+ve
$90^\circ <$ direction $< 180^\circ$	-ve	+ve
$180^\circ <$ direction $< 270^\circ$	-ve	-ve
$270^\circ <$ direction $< 360^\circ$	+ve	-ve
direction $= 0^\circ$	+ve	0
direction $= 90^\circ$	0	+ve
direction $= 180^\circ$	-ve	0
direction $= 270^\circ$	0	-ve

source.

The position of a particle is defined by an x and z coordinate. The movement of the particles is accomplished as follows. Subroutine SEARCH is referenced to identify which finite element contains the particle. Subroutine VELCTY is then called to determine the horizontal and vertical velocities of groundwater flow within this element. The movement of the particles occurs with both a deterministic and probabilistic motion. The deterministic or advective movement is calculated according to the size of the time step, and the horizontal and vertical velocities within an element (see equation (15)). The probabilistic or dispersive movement is accomplished by generating uniformly distributed random numbers, generated in subroutine RANDNO, to disperse the particles. The magnitude of this motion is a function of the random numbers, dispersion coefficient, groundwater velocities and the size of the time step (see equations (19) and (20)). Once the particle has moved, its position is checked to determine whether or not the particle has moved beyond the boundaries of the flow system, such as the edge of the cross section, into a confining layer, or above the ground surface. The particle will be relocated (reflected) back into the flow region if the particle moved through a no-flow boundary. If the particle moved through a constant head boundary, it will be removed from the system.

Once the movement of a particle is complete, the amount of mass associated with the particle is calculated and adjusted to account for chemical processes. After all the particles have been moved during a time step, the concentration values are calculated for each cell by summing the total mass of contaminant in the cell and dividing by the volume (assuming a unit thickness) of water in the cell.

This sequence of operations is repeated for each particle in the system. New particles may be added to the source cells at the beginning of each time step.

3.1.10 Subroutine RANDNO

The movement of the reference particles is controlled by deterministic and probabilistic components of particle motion. One requirement for calculation of the probabilistic motion is uniformly distributed random numbers. Subroutine RANDO generates pseudo-random numbers in the range of 0 to 1 by overflow of a single precision integer variable. It is machine dependent, suitable for use with computers that have a 32 bit word, for example the IBM and AMDAHL computers. Otherwise, it may be necessary to replace this subroutine.

3.1.11 Subroutine SEARCH

The position of the reference particles as they move through the groundwater flow system is defined by an x and z coordinate. However, the velocity of the groundwater and the hydraulic conductivities, porosity and chemical properties of the geological medium are referenced according to the elements or cells. Thus, to move the particles, the element number and the row and column number of the cell which contain the particle must be determined. Subroutine SEARCH is used to determine the element number and the row and column number of the cell which contain the particle, given the x and z coordinates of the particle.

Because the position of the water table can fluctuate, the uppermost portion of the grid may be deformed dramatically, producing a variety of element and cell shapes and orientations (Figure 4). Along the water table, the uppermost cells may be comprised of either two elements (see Figure 4, cell types A-G,L) or one element (see Figure 4, cell types H-K). In most cases where a single element is present, the cell below this element is also deformed. Below this uppermost row of cells, all elements are regular (see Figure 4, cell type L). To identify the row and column numbers of the cell and the element number which contain the particle, the subroutine approximates the area occupied by a triangluar element by a series of rectangles. Both the left and right sides of the cells are divided into four parts and the width of the cell into three parts (Figure 4). By using this information plus the length of the sides of the cells and the slope of the upper side of the element, the subroutine can determine the location of the particle. First, a check is performed to see if the particle is in a regular cell either below the uppermost row of cells or along the water table, or if it is in the row of deformed cells along the water table. If it is in a deformed cell, the subroutine checks to see if the cell is comprised of two or only one element. Once the shape of the cell and the element is determined, the direction of the slope of the upper side of the uppermost element is calculated. This will give the row and column number of the cell containing the particle. An element code is used to identify the element number. The element code has a value of either "1" or "2". A "1" indicates that the particle is in an element which is in the lower half of the cell, or it is a singular element in a cell at the water table. A value of "2" indicates that the particle is in an element which is in the upper half of a cell or is in a single cell at the base of the flow system. The row and column number of the cell and the element code is returned to subroutine TRANS in an array. This is used in conjunction with an array composed in subroutine FEGRID which can give the element number of the element which contains the particle, given the row

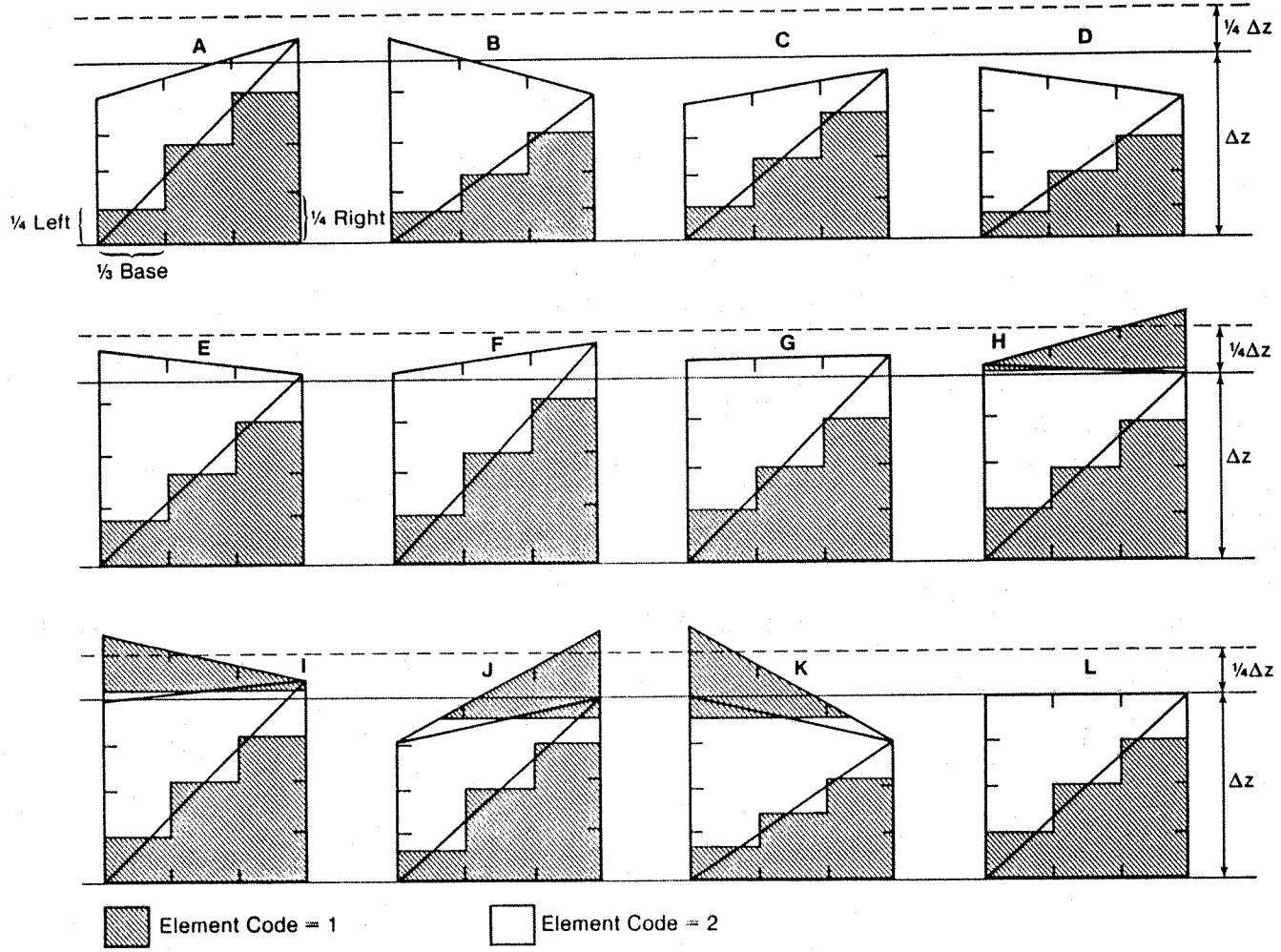


Fig.4. Orientation and shapes of cells and elements along the water table

and column number of the cell and the element code.

3.1.12 Subroutine OUTPUT

Options are available to allow the user to output various calculated values to a line printer or to disk storage files so that the information can be used for plotting or as input to future simulations. Types of information that may be printed includes the grid geometry (node coordinates and nodes bounding each element), hydrogeological parameters (hydraulic conductivity and storativity of the elements), hydraulic gradient, direction of flow, horizontal and vertical velocity fields, the calculated head distribution, distribution of contaminant particles and the contaminant concentration distribution. Information that may be plotted includes the finite element grid, the head distribution, hydraulic gradient information and the contaminant distributions. The head distribution may also be output to a disk file so that it can be used as a starting head distribution for a continuation of a simulation.

Subroutine OUTPUT is referenced at the end of each time step. It receives the above information and options that are specified by the user to allow for the choice of output. The choice of output is discussed in more detail in the following section.

3.2 INPUT AND OUTPUT OPERATIONS

3.2.1 Input

Data required as input to the model are discussed in this section. A USER'S GUIDE containing a list of all input parameters and variables, and the preparation of the input data is presented in Section 6.1. Sections 6.5 and 6.6 contain examples of input data that illustrate the form of the input data

Twenty-four program option parameters (*OPTION*) are used in the program to control the nature of the simulation and the choice of output. If the user wishes to choose one of the particular fuctions, *OPTION* should be set to *T* (true), a value of *F* (false) indicates that the routine or output is not required. The user has the option of running various routines such as:

OPTION(6) : calculate the head distribution

OPTION(12) : simulate mining and/or reclamation

OPTION(13) : calculate the hydraulic gradient and its direction

OPTION(16) : calculate the velocity field

OPTION(18) : run the mass transport routine

The finite element grid is automatically generated. Several groups of calculations may be output to a printer, including:

OPTION(1) : node coordinates

OPTION(2) : nodes bounding each element

OPTION(3) : hydraulic conductivity and storativity of the elements

OPTION(5) : total head values at every node

OPTION(9) : information describing the convergence at the water table

OPTION(14) : hydraulic gradient and its direction within each element

OPTION(17) : velocity field

OPTION(19) : concentration and particle distributions

OPTION(24) : mass, x and z coordinates of the particles

The convergence information may be printed during each iteration within a time step in subroutine HEADS, to allow the user to follow the progress of the convergence towards the proper position of the water table. The following information may be written to a disk file and for use as input to a program which will plot these data:

OPTION(4) : node coordinates and nodes bounding the elements

OPTION(7) : all head distributions

OPTION(8) : only the final head distribution

OPTION(15) : hydraulic gradient and its direction

OPTION(20) : contaminant concentration

OPTION(21) : distribution of particles in the flow domain

The x and z coordinates of the nodes are typically required to plot or contour the hydraulic head distribution, and thus, the node coordinates are also output. In addition, should the user wish to simulate a scenario in several stages or runs, an option is available to output the last head distribution and the last particle distribution that is calculated to be used as input as the initial conditions for the next run:

OPTION(11) : output heads for input to continue the present simulation

OPTION(10) : input these heads to continue a former run

OPTION(22) : output the particle distribution for input to continue a run

OPTION(23) : input the particle distribution to continue a former run

The user may wish to change the initial elapsed time or the size of the time step (*DELT*) when a run is continued in this way (compare Sections 6.5.1.3 and 6.5.2.2). Both of these variables are printed on the disk file and override the values specified by the user in the basic data set. The change is made by altering the first line of the disk file.

The grid used by the model is generally a regular array of nodes and elements and is constructed within subroutine FEGRID according to the user's input parameters. The user must specify the number of rows (*NROWS*) and the number of columns (*NCOL*) of nodes, the vertical (*DELZ*) and horizontal (*DELX*) node spacing, the elevation of the base of the region (*ELVBAS*), and the initial position or elevation of the water table (*HEADWT*). Also, because the water table can fluctuate, the elevation of the ground surface (*ELVGRD*) must also be specified, as an upper limit to the height to which the water table may rise. Storage may be reduced by an estimation of the maximum number of nodes in the grid (*NNODEE*), the maximum number of finite elements that will be generated (*NELME*), and the maximum bandwidth (*NBANDE*). *NNODEE* can be estimated by *NROW x NCOL*, and reduced by the number of grid intersections above the ground surface. *NELME* is *NROW-1 x NCOL-1 x 2*, minus 2 times the number of cells above the ground surface. *NBANDE* is set to the value of the number of rows to the highest elevation of the ground surface, plus 2.

The cross section is divided into cells, each bounded by rows and columns of nodes. The distribution of the hydrostratigraphic units comprising the cross section is identified by coding each cell with a number from 1 to 9, with one number corresponding to each hydrostratigraphic unit. Figure 5 illustrates the manner in which the cells should be assigned at the ground surface and at hydrogeological boundaries. Along the ground surface, if the length of either side of a cell is greater than $\frac{5}{4}\Delta z$, the cell is assigned a code equal to those below the ground surface. If it is less than or equal to $\frac{1}{4}\Delta z$, the cell is assigned a different code. Cells at a hydrogeological boundary are assigned codes that identify the unit occupying the majority of the area of the cell. The coded map produced in this way (*MAPGEO*) is entered from the top of the section to the bottom, and from left to right, with one number per cell. It is also important to leave at least one row of cells above the uppermost row of the cross section to allow the position of the grid to converge during a time step. This row corresponds to the region above the ground surface (sky) and has hydrogeological parameters equal to 0.0. The section may have up to 9 units (*NGEOL*). Hydrogeological parameters corresponding to each unit includes the horizontal hydraulic conductivity (*KHORZ*), the vertical hydraulic conductivity (*KVERT*), storativity (*STOR*), and porosity (*PORSTY*). These values are entered as one unit per line, corresponding to each hydrostratigraphic unit (*UNIT*). This procedure is a very simple method for entering the data. As illustrated in the examples in Section 4, a simple graphical representation of the cross section depiciting a complex

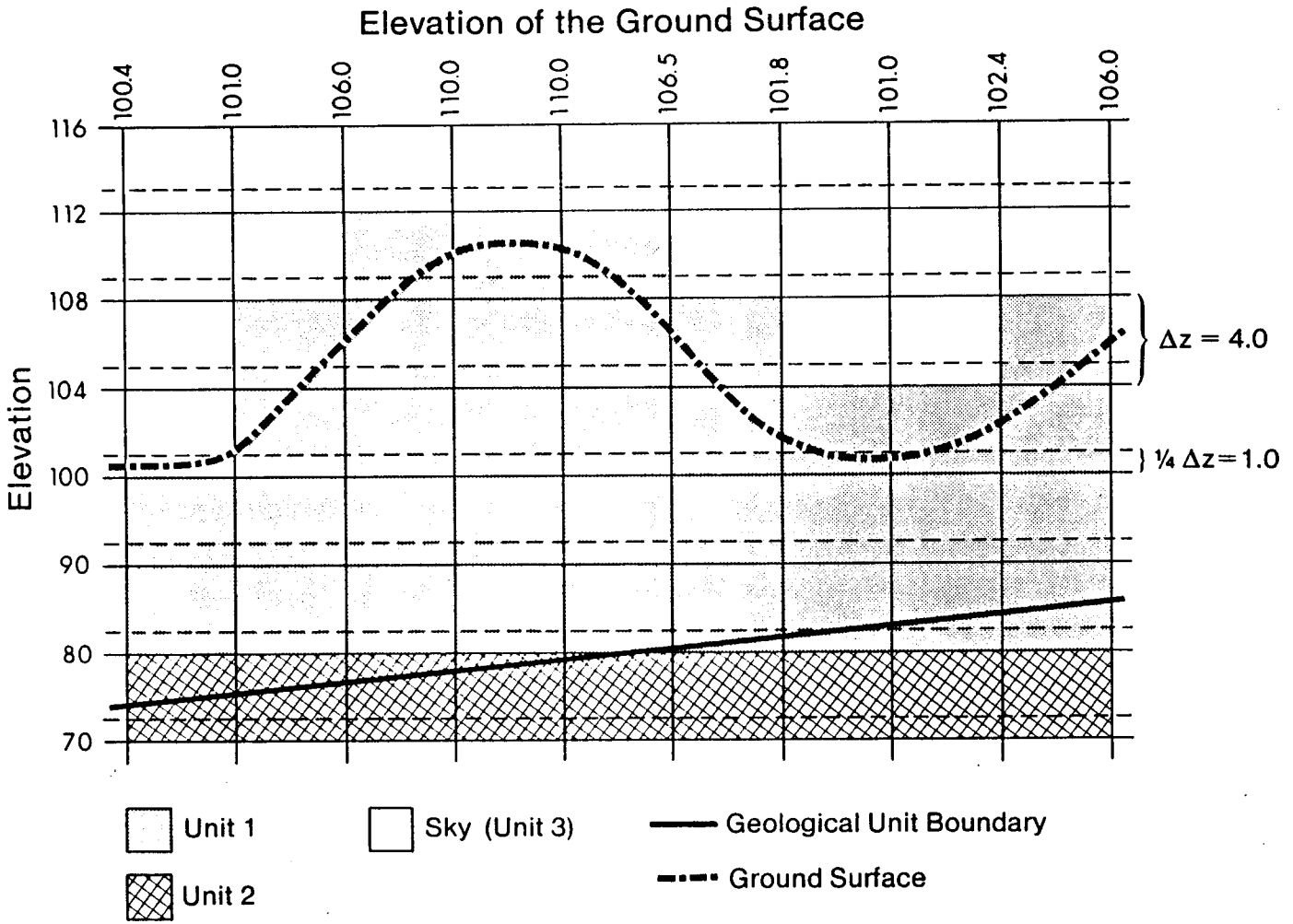


Fig.5. Example illustrating the use of the code that defines the hydrogeological properties of each cell

hydrostratigraphic setting can rapidly be entered, rapidly altered and easily checked. In addition, to the above hydrogeological parameters, the specific yield (*SPECYD*) of the upper most row of elements (at the water table) is also entered.

Several hydrogeological parameters are required to estimate a hydraulic head distribution. First an initial estimate of the hydraulic head in the region should be given. If the run is not a continuation of a previous simulation, a single value is entered (*HEADI*) and assigned to each non-constant head node. If the run is a continuation, the entire hydraulic head distribution is read from a disk file. Constant head nodes are assigned by defining the column (*ICOL*) and the row (*JROW*) of the grid at which the constant head node appears, and the value of head (*CHVAL*). These data are to be omitted if no constant head nodes are entered. Because the water table typically fluctuates, a code (*WTMOVE*) is used to indicate which nodes along the water table may rise or fall, and which nodes, though not a constant head node, may not rise or fall. A value of *T* indicates it may move and a value of *F* means its position is fixed. The actual number of constant head nodes being entered by the user (*NCHEAD*) and an estimate of the maximum number of constant head nodes that may be formed during the simulation (*NCHEDE*) must be entered. The number of constant head nodes may increase if the water table rises to the ground surface, or if seepage faces form along the pit walls and floor of a cut during mining.

Recharge, entering the groundwater system as infiltration along the water table, is an important process controlling the groundwater flow system. Recharge is entered at the water table at a specific column during a time step. The amount of recharge (*RCHARG*) and the column at which the recharge is applied (*NRECOL*) during this time step, must also be entered at this time. Because both the amount and location of recharge may either remain constant throughout the simulation, change at every time step, or remain constant for a few time steps, it is possible to specify at which time step the amount of recharge changes (*RESTEP*) and the columns where it is applied. For example, if recharge commences at the second time step and changes during the fifth, two values of *RESTEP*, 2 and 5, should be entered along with the amount of recharge and the columns at which it is occuring. Recharge entered during time step 2 will remain constant during time steps 2, 3 and 4. A parameter indicating the number of recharge periods (*NRSTEP*) must be entered. Should recharge not occur, these data are omitted.

Parameters and variables are required to control the mining and reclamation simulation. Variables that are used to determine the lateral extent of the

mine pits during each time step are the left (*MNLEFT*) and right (*MNRITE*) columns of nodes that bound a pit. A value of 0 for both indicates that no pit is to be opened during this time step, and repeating the columns from the previous time step will keep a cut open during the time step. Any cut previously opened will automatically be closed and reclaimed if the boundaries of the pit are outside of *MNLEFT* and *MNRITE* for the present time step. Also, when continuing a simulation, pit boundaries that exist previous to the first time step (*MLEFTP, MRITEP*) should be entered. These have a value of 0 should there not be a previous pit, or are assigned values equal to the column numbers of the pit opened during previous time steps. Figure 6 depicts a series mining and reclamation scenarios designed to illustrate the use of *MNLEFT, MNRITE, MLEFTP* and *MRITEP*. The base of each pit is defined by specifying, at each node, the elevation of the ground surface, including the base of all the pits (*ELVMNE*) that will exist during mining if reclamation were not to occur.

Reclamation is simulated by changing the hydrogeological parameters of the cells forming the cut, from values of 0.0 to values corresponding to spoil. Several spoil units can exist, but the maximum number of spoil units (*NSPOIL*) plus the number of geological units (*NGEOL*) must not exceed 9. In the same way in which the values of the hydrogeological parameters of the undisturbed geology was entered, the values of horizontal (*SPOLKH*) and vertical (*SPOLKV*) hydraulic conductivity, storativity (*SPOLS*), and porosity (*SPOLP*) are entered, with one line of input corresponding to a geological or spoil unit (*UNIT*). The distribution of spoil units (*MAPSPL*) is entered by copying the map of the geological units and changing the code of the cells at the location of the proposed reclaimed pits. In addition, because the elevation of the reclaimed ground surface may vary from the pre-mining setting, the reclaimed elevation (*ELVREC*) at each node along the water table must be entered. As before, should mining or reclamation not occur during the simulation, these data may be omitted.

There are several parameters and variables which must be input to simulate the transport of a contaminant through the groundwater flow system. The first set of data includes the parameters that characterize the chemical and physical properties of the geological medium and the contaminant. The total concentration of the contaminant as it is introduced to the groundwater zone (*SOLUTE*), the selectivity coefficient of exchange (*SELC*), and the initial mass of a reference particle (*XMASSI*) are entered. Properties of the geological units include the cation exchange capacity (*CEC*), the bulk density (*BULK*), and the dispersivity of the material (*DISPER*). The same three parameters are assigned to spoil units (*SCEC, SBULK, SDISPR*, respectively).

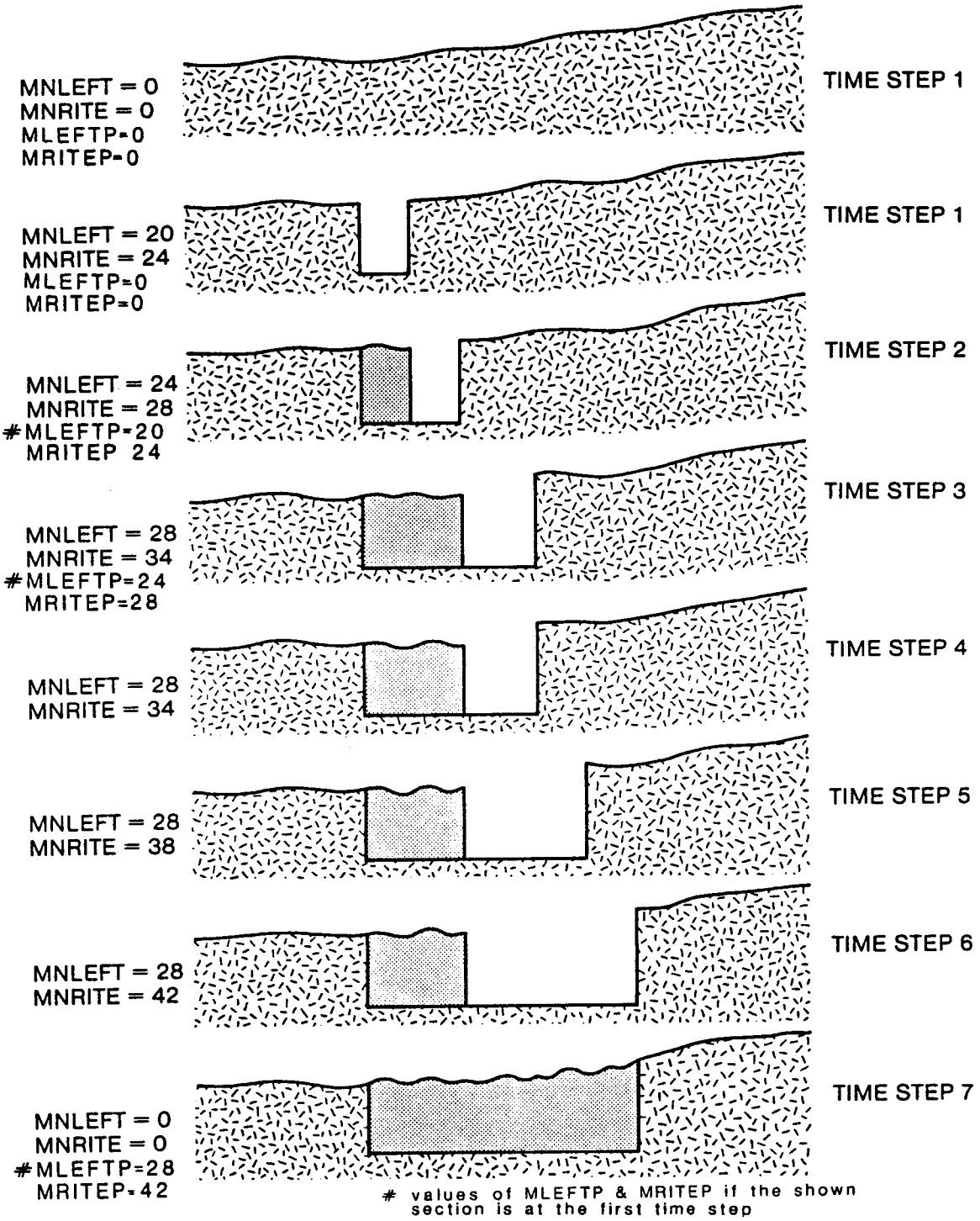


Fig.6. Example illustrating the use of variables that define the various stages of mining and reclamation

For some simulations, it may be necessary to limit the movement of particles to certain parts of the region. For example, in a case where there is an extreme contrast in hydraulic conductivity across a geological boundary, a suitable time step for a region of higher hydraulic conductivity (high groundwater velocity) would result in a time step too small to produce a significant movement in a unit with a low hydraulic conductivity (low velocity). Vice versa, an appropriate time step in the low hydraulic conductivity unit would produce extremely large transport distances in the high velocity zone, thus reducing the accuracy and mislocating the particles. To overcome these problems, a binary particle transport code (*PTC*) is used to indicate in which cells particles may move (*PTC = T*), and in which cells the particles may not move (*PTC = F*). Once a particle leaves a region of movement, it remains stationary in the cell in which it is now contained , but can be presumed to be lost from the system if the groundwater velocity in the region of no movement is considerable greater than that in the region of movement.

The second set of contaminant transport data which are required concerns the source and number of particles. Reference particles are introduced into the system at specific cells, defined by the column of nodes on the left (*PLCOL*) and the right (*PRCOL*) boundaries of the region, and the top (*PTROW*) and bottom (*PBROW*) rows of nodes confining the source cells. Because the water table may fluctuate and mining and reclamation may occur, the shape of the grid, and hence the number of cells, may vary considerable during a simulation. Therefore, the flexibility of always having the water table as the top boundary of the source zone, by setting *PTROW* = -1, is included in the model. At the same time, it is also possible to place the particles only in the spoil (the lower boundary is the elevation of the base of the spoil), by setting *PBROW* = -1. The number of particles added during each time step (*NPPER*) must be input by the user if the mass transport routine is run. However, if there are any time steps during which additional contaminants will not enter the flow system, the user can account for this by setting *NPPER* = 0. Again, should the transport of a contaminant through the groundwater flow system not be required, these data are omitted.

The final group of parameters which must be entered are those controlling the time through which the simulation progresses. These parameters include the total number of time steps (*NTIME*) through which the simulation will progress, the initial size of the time step (*DELT*), and a parameter which controls the rate at which the time step increases (*DELTIN*) between time steps. If the size of the

initial time step is to be the same through all time steps, *DELTIN* should be set to 1.0. A *DELTIN* value of 2.0 will produce values of *DELT* of 1.0, 2.0, 4.0, 8.0, etc., at time steps 1, 2, 3, 4, etc. The corresponding total elapsed time will be 1.0, 3.0, 7.0, 15.0, etc. The expression for calculating a new value of *DELT* at the beginning of the time step and the resulting elapsed simulation times are:

$$\Delta t_t = \Delta t_{t-1} \times \Delta t_{inc} \quad \ldots . (30)$$

$$t_t = t_{t-1} + \Delta t_t \quad \ldots . (31)$$

where: Δt_t = size of time step during present step, (t)

Δt_{t-1} = size of time step during the previous step, (t)

Δt_{inc} = time step increment, (t)

t_t = total elapsed time to the end of the present time step, (t)

t_{t-1} = total elapsed time to the end of the previous time step, (t)

Also, the maximum number of iterations (*NITMAX*) allowed when converging to a solution along the water table during a time step, and the tolerance for convergence both along the water table and at steady state (*TOLRNC*) must be entered. A parameter (*NSKIP*) is available to control how many time steps pass before a head distribution is printed. For example, *NSKIP*=3 indicates that the heads are printed at time steps 3, 6, 9, 12, etc. To print data at every time step, set *NSKIP*=1. The steady state head distribution will always be printed regardless of the value of *NSKIP*, as long as printed output of head distributions is requested.

3.2.2 Output

The computer model will produce two groups of output, that being an echo of the input data and output various calculations. The data echo is always printed and it includes such information as the problem title, the program control parameters, all geological, hydrogeological, contaminant, and geometrical parameters, the time step and simulation control parameters, and any mining and reclamation data. Users are encouraged to check their input data against this listing to ensure that the desired input has been properly read into the program.

Optional output includes all calculated values, as well as information that enables the user to follow the progress of hydraulic head convergence at the water table within a time step. Data output at the end of a time step may consist of grid geometry information (node coordinates, nodes bounding each element, position of the water table) hydrogeological parameters (hydraulic conductivities and storativities), the hydraulic gradient within each element and the direction of flow, the hydraulic head distribution, the horizontal and vertical velocity fields, the mass of the reference particles, x and z coordinates of the particles, the contaminant concentration distribution, and the distribution of particles. These listings may be produced at the end of each time step or every few time steps. In addition, the grid geometry information, hydraulic gradient data, hydraulic heads distributions, and the contaminant distributions may be output to a disk file for use as plotting the hydraulic head distributions or as input to continue a simulation. Plotting routines, that produced the plots in this report, are not included because each computer centre typically has a unique set of plotting routines. Sections 6.5 and 6.6 contain examples of output listings, showing the typical optional output available.

3.3 COMPUTING REQUIREMENTS

The source code of the model is written in IBM FORTRAN IV language, as described in the IBM publication *IBM System/360 and System/370 FORTRAN IV Language*, (form GC28-6515). It has been compiled using the IBM FORTRAN G compiler (IBM's OS release 21.7), and the IBM FORTRAN H Extended compiler (*IBM OS FORTRAN IV (H Extended) Compiler Programmer's Guide*, (form SC28-6852)), on the AMDAHL 5860 computer at the University of Alberta, Edmonton, Canada. Simulations and test problems were successfully run with these compilers. While the program was also compiled using an IBM FORTRAN H compiler (IBM's OS release 21.7), it did not correctly interpret line 279 of Subroutine FEGRID. It is expected that with minor modifications, the model could be run using most FORTRAN compilers and with most large computers.

Both of the simulation examples which are discussed in detail in the following section were run with the FORTRAN H Extended compiler. This compiler was chosen because it produces object programs that generally require less storage and run faster than programs compiled with FORTRAN G. The storage requirement for the model is listed in Table 2. The storage requirement for the program alone, that is all arrays dimensioned to a value of 1, is also included in Table 2, as well as the storage

Table 2. Storage requirements, in bytes, for the main program and the subroutines.

routine	FORT-G[1]	FORT-X[1,2]	example[3]
main prog.	12 344	11 048	812 128
FEGRID	8000	7384	7384
ELMENT	816	608	608
MINE	3784	3216	3216
HEADS	8072	6632	6632
SOLVE	1648	1248	1248
HYGRAD	2040	2200	2200
VELCTY	1168	1048	1048
TRANS	7776	6576	6576
SEARCH	2400	1568	1568
RANDNO	440	336	336
OUTPUT	8176	7880	7880
TOTAL	56 664	49 744	850 824

[1] All arrays are dimensioned to 1.
[2] FORTRAN H extended compiler.
[3] Arrays are dimensioned to the size required to run example 2.

requirements that were required to run example 2. The dimensioning requirements of each array for an actual simulation are listed in Section 6.1. Example 2, presented in the following section of the report, required 850 824 bytes. The majority of this storage, 632 400 bytes, was used just for three matrices (*GLCOND, SC, SP*) used to form the set of equations that calculate the hydraulic head distribution.

The run time increases with the complexity of the problem, the size of the grid and the number of time steps. CPU times on an AMDAHL 5860, using the FORTRAN H Extended compiler, (FORT-X) for the two example simulations listed in Section 4, are as follows. The run of the pre-mining regional steady state required 38.337 seconds of CPU time and required 15 time steps. The simulation of the six mining and reclamation steps, with out mass transport with all convergence information printed, took 23.293 seconds and required 36 iterations for the six time steps. The run of the recovery of the flow system to a post-mining regional steady state, also with without mass transport, required 27.614 seconds and 13 time steps. The run of a single time step, calculating and outputting the hydraulic gradient and velocity field, required 6.254 seconds of CPU time. The simulation of the six mining and reclamation steps with contaminant transport used 21.685 seconds of CPU time; convergence information was not printed. Simulating contaminant transport with up to 50 reference particles during six time steps of the post-mining flow system recovery stage required 18.936 seconds of CPU time. No times are available for runs using the FORTRAN G compiler.

4. SIMULATION EXAMPLES

In this section, two simulations are presented from the many trials that have been run to date. The purpose of this section is to illustrate the preparation of the input data, the simulation procedure, and available output. The two examples are of the recovery of the groundwater flow system to a new post-mining regional steady state condition, and a simulation of the generation of a contaminant in spoil at a reclaimed mine site and transport of the contaminant away from the mine via groundwater flow. The readers are referred to the examples presented by Schwartz and Crowe (1985a, 1985b), and Schwartz et al. (1982) for further examples.

4.1 BASIC INPUT DATA

The two-dimensional domain depicted in Figure 7a is typical of a layered sequence of sedimentary rock in which a strip mine in western Canada or the United States may be situated. However, it is hypothetical to the extent that only three layers are chosen. These layers represent a unit of coal surrounded by a geological unit which represents all other sediments. The ground surface rises from a low, occupied by a major surface drainage feature, to a topographic high. The dimensions of the section are approximately 18 km wide and the thickness varies from 160.0 m to 205.0 m. Boundaries are designated as no-flow along the right side and base of the domain, and mixed no-flow and constant head along the left boundary. The hydraulic conductivities and storativity of the units are present in Figure 7a.

The program automatically superimposes a grid over the flow domain on the basis of several parameters (Figure 7b). The cross section is divided into 61 columns by 23 rows with horizontal and vertical node spacings of 300.0 m and 10.0 m respectively (Table 3). Even though the cross section has 23 rows, the maximum possible rows of nodes in a grid will be 22 because the water table can not rise above the ground surface. Hence, the calculated maximum number of nodes and elements is $61x22=1342$ and $60x21x2=2520$, respectively, and the calculated bandwith is 24. However, much of the right portion of the region has less than the 22 rows of nodes. Therefore, the estimated number of nodes and elements can be reduced to conserve storage to 1275 and 2300, respectively (Table 3).

The elevation along the base of the cross section is assumed level at an elevation of 90.0 m above a datum. The ground surface varies from 250.0 m to 295.0 m. The exact values assigned to each node along the ground surface is listed in Table 4.

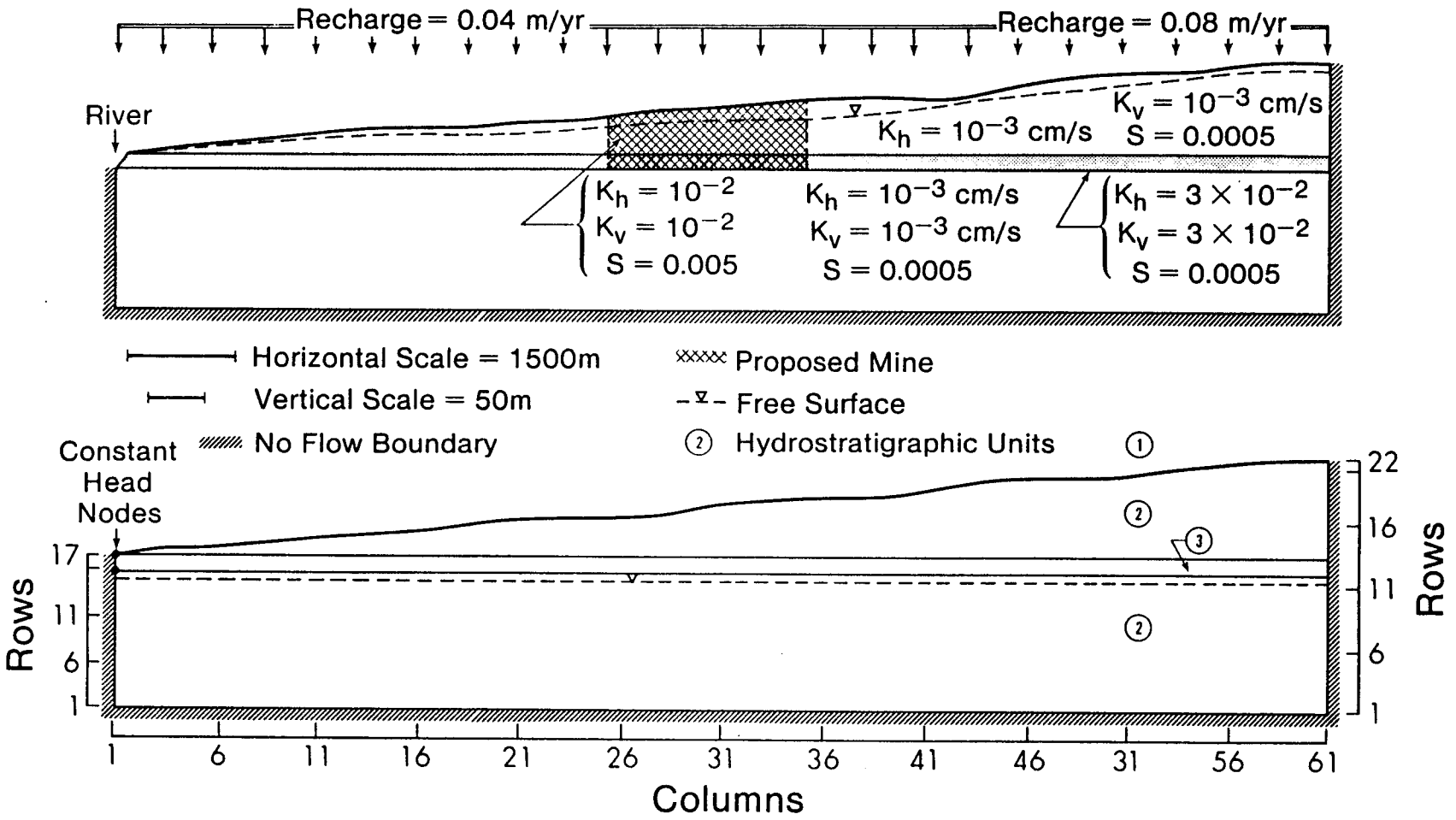


Fig.7a. Schematic diagram of the geological cross section and the setting of example 1

Fig.7b. Schematic diagram showing the partitioning of the cross section for modeling example 1

Table 3. Parameters that define the basic geometry of the cross section.

NROW:	23	DELX:	300.0	NNODEE:	1275
NCOL:	61	DELZ:	10.0	NELME:	2300
NCHEDE:	18	HEAD:	230.0	NBANDE:	22
NCHEAD:	3	SPECYD:	0.0	NGEOL:	3

Table 4. Elevation of the pre-mining ground surface.

col.	*ELVGRD*	col.	*ELVGRD*	col.	*ELVGRD*	col.	*ELVGRD*
1	250.0	16	281.0	31	289.5	46	291.5
2	251.0	17	282.0	32	289.7	47	291.7
3	252.0	18	281.2	33	289.8	48	291.8
4	253.0	19	281.7	34	290.0	49	292.0
5	254.0	20	282.0	35	290.1	50	293.0
6	256.0	21	283.0	36	290.2	51	295.0
7	259.0	22	284.0	37	290.3	52	295.0
8	262.0	23	286.0	38	290.4	53	295.0
9	265.0	24	286.0	39	290.5	54	295.0
10	268.0	25	287.0	40	290.6	55	295.0
11	271.0	26	288.0	41	290.7	56	295.0
12	274.0	27	289.1	42	290.8	57	295.0
13	277.0	28	289.2	43	291.0	58	295.0
14	279.0	29	289.3	44	291.2	59	295.0
15	280.0	30	289.4	45	291.4	60	295.0
						61	295.0

Three hydrostratigraphic units are defined and the corresponding values of horizontal and vertical hydraulic conductivity, storativity and porosity are presented in Table 5. The code defining which cells are represented by the units is presented in Section 6.5.1.1.

Because the actual configuration of the water table before mining commences is generally unknown, it must be simulated from a first approximation of its position. In this example, the initial position of the water table is estimated to be horizontal at an elevation of 230.0 m (i.e. 61 values of *HEADWT*=230.0). Recharge, which in this example uses rates typical of the plains region of Canada and the United States, is applied along the ground surface, and will cause the water table to rise at columns where *WTMOVE=T*. Only at column 1, where a constant head node exists, will the water table not move (*WTMOVE=F*). One recharge rate is used during all the time steps, *NRESTP*=1, and recharge is applied at 60 columns, *NRECOL*=60. The recharge rates at each node along the water table are listed in Table 6. Constant head nodes assigned to nodes along a portion of the left boundary act as a drain for groundwater in the cross section. A constant head value *(CHVAL)* of 230.0 m is assigned to three nodes located at *ICOL*=1, and *JCOL*=13, 14, and 15.

4.2 EXAMPLE 1: GROUNDWATER FLOW SYSTEM STUDY

4.2.1 Simulation of Pre-mining Regional Steady State Flow

As mentioned previously, the hydraulic head distribution and the position of the water table at the start of the mining stage are unknown. By arbitrarily fixing the position of the water table and hence the head distribution within the flow domain by assigning constant head values along the water table, the user will not create a regional pre-mining steady state flow system. Should this procedure be attempted, the flow system will be continuously adjusting towards steady state conditions during the mining and reclamation stage. Thus, the effect of mining on a steady state flow system can not be observed. The only way in which a pre-mining steady state distribution of hydraulic head can be defined for mining and reclamation studies is to actually simulate the formation of the pre-mining steady state flow system. Once this has been accomplished, this head distribution can serve as a basis for all future modelling studies. A discussion of the preparation of the data set required to simulate the premining steady state hydraulic head distribution is discussed in this section.

The basic input data set, which is discussed in Section 4.1, is used as the basis of this example. The application of recharge (Table 6) along the horizontal water

Table 5. Parameters assigned to the hydrostratigraphic units.

UNIT	*KHORZ* (m / a)	*KVERT* (m / a)	*STOR*	*PORSTY*
1:[1]	0.0	0.0	0.0	0.0
2:	316.0	316.0	0.0005	1.0
3:	9480.0	9480.0	0.0005	1.0

[1] The region of the grid above the water table.

Table 6. Recharge rates along the water table.

IRECOL	*RCHARG* (m/a)	*IRECOL*	*RCHARG* (m/a)	*IRECOL*	*RCHARG* (m/a)
2	0.040	22	0.040	42	0.080
3	0.040	23	0.040	43	0.080
4	0.040	24	0.040	44	0.080
5	0.040	25	0.040	45	0.080
6	0.040	26	0.040	46	0.080
7	0.040	27	0.040	47	0.080
8	0.040	28	0.040	48	0.080
9	0.040	29	0.040	49	0.080
10	0.040	30	0.040	50	0.080
11	0.040	31	0.040	51	0.080
12	0.040	32	0.040	52	0.080
13	0.040	33	0.040	53	0.080
14	0.040	34	0.040	54	0.080
15	0.040	35	0.040	55	0.080
16	0.040	36	0.040	56	0.080
17	0.040	37	0.040	57	0.080
18	0.040	38	0.040	58	0.080
19	0.040	39	0.040	59	0.080
20	0.040	40	0.040	60	0.080
21	0.040	41	0.080	61	0.160

table will cause the water table to rise until a mass balance is attained between the inflow of water due to recharge and the outflow of water at the constant head nodes.

Because mining, reclamation, and contaminant transport is not being undertaken at this stage of example 1, all parameters related to these processes are not included (see lines 14 to 21, in User's Guide, Section 6.1), or are set to zero (e.g. *CEC, DISPER, BULK*).

The number of time steps is arbitrarily set to 30 because the actual number of time steps that is required to achieve steady state conditions is unknown, but assumed to be less than 30. The initial size of the time step, 1 year, will be gradually increased as the heads converge towards steady state flow by setting the time step increment, *DELTIN*, to 1.5. A tolerance for convergence of 0.1 is selected. Only the last head distribution is required. However, to monitor the progress of the simulation, every tenth head distribution, plus the final steady state head distribution are printed.

Option codes which are chosen for this stage of example 1 are summarized in Table 7. The only printed output requested is the hydraulic head distributions (*OPTION(6)*). Two disk files are required to store the last head distribution (that at steady state) for plotting (*OPTION(8)*) and to be used as input to serve as the initial flow conditions during the mining and reclamation simulations (*OPTION(11)*).

The printed output, including the input data echo and the head distributions is listed in Section 6.5.1.2. A listing of the disk files for storing the head distributions to be used as input for future runs and for plotting are included in Sections 6.5.1.3 and 6.5.1.4, respectively. The plot of the steady state head distribution, shown in Figure 8a, was produced from the data presented in Section 6.5.1.4.

4.2.2 Simulation of Mining and Initial Reclamation Conditions

The simulation of mining and initial reclamation of a strip mine is undertaken separately from the simulation of the pre-mining steady state flow simulation for several reasons. First, the simulation of mining is undertaken with a one year time step, hence *DELTIN*=1.0, whereas *DELTIN*=1.5 in the previous simulation. Secondly, because the number of time steps required to reach the pre-mining steady state is unknown, the starting time step for the commencement of mining can not be specified. Third, by outputting the pre-mining steady state heads distribution to a file that can be read as starting heads for the mining stage, several mining and reclamation

Table 7. Program control parameters for the pre-mining regional steady state simulation, example 1.

OPTION(1)=F	OPTION(7)=F	OPTION(13)=F	OPTION(19)=F
OPTION(2)=F	OPTION(8)=T	OPTION(14)=F	OPTION(20)=F
OPTION(3)=F	OPTION(9)=F	OPTION(15)=F	OPTION(21)=F
OPTION(4)=F	OPTION(10)=F	OPTION(16)=F	OPTION(22)=F
OPTION(5)=T	OPTION(11)=T	OPTION(17)=F	OPTION(23)=F
OPTION(6)=T	OPTION(12)=F	OPTION(18)=F	OPTION(24)=F

scenarios can be run without having to re-calculate the pre-mining steady state conditions at the begining of each simulation.

While the basic input data set, shown in Section 6.5.2.1, is much the same as that of the previous data set, there are several differences. Only six time steps are run (*NTIME*=6) and the head distributions are printed every time step (*NSKIP*=1). The first five periods of mining are followed by reclamation of the previously opened cut; the last cut is left open for a sixth time step. This sequence of mining and reclamation steps is summarized in Table 8. Because mining and reclamation of a pit is assumed to proceed during a single year, both *DELT*=1.0 and *DELTIN*=1.0.

The elevation of the base of the open cuts (*ELVMNE*) is specified by defining the elevation of the ground surface, both within the mine and in the surrounding area, that will occur during all mining steps (Table 9). Note that the elevation of the left boundary of the first pit (column 25) and the right boundary of the last pit (column 35) are set to a value equal to the elevation of the pre-mining ground surface. Also presented in Table 9 is the elevation of the ground surface that will exist following implacement of spoil and reclamation of the mine (*ELVREC*).

The hydrogeological parameters of the spoil are assigned in the same manner as the background geological units. In this example, there is only one spoil unit, hence *NSPOIL*=1. Parameters representing the horizontal and vertical hydraulic conductivity, the storativity, and the porosity of the spoil are *SPOLKH*=31.6 m/a, *SPOLKV*=31.6 m/a, *SPOLS*=0.005 and *SPLOP*=1.0, respectively. These parameters (see Section 6.5.2.1) are appended to the parameters describing the background geological units. The hydrogeological code for the geological units and the spoil (*MAPSPL*) is listed in Section 6.5.2.1.

Because the pre-mining steady state head distribution is being input as the starting point for the simulation, the initial estimate of heads in throughout the region (*HEADI*), heads along the water table (*HEADWT*), the size of the time step (*DELT*) and the elapsed time are over-ridden by the values input from the disk file containing the previously calculated head distribution. Thus, the values of *HEADI*, *HEADWT*, *DELT* in the basic input data set may be arbitrarily set. However, the values of *DELT* and elapsed time in the disk file of starting heads must be changed. In this example, the values of *DELT* and elapsed time are changed to 1.0 and 0.0, respectively (see Section 6.5.2.2).

All other parameters, with the exception of *TITLE* and the program option codes, remain the same as those in the previous simulation. The option codes that are

Table 8. Parameters used to simulate the mining and initial reclamation simulation, example 1.

time step	*MNLEFT*	*MNRITE*	time step	*MNLEFT*	*MNRITE*
1:	25	27	4:	31	33
2:	27	29	5:	33	35
3:	29	31	7:	33	35

Table 9. Elevation of the ground surface during mining and following reclamation.

col	*ELVMNE*	*ELVREC*	col	*ELVMNE*	*ELVREC*	col	*ELVMNE*	*ELVREC*
1:	250.0	250.0	21:	283.0	283.0	41:	290.7	290.7
2:	251.0	251.0	22:	284.0	284.0	42:	290.8	290.8
3:	252.0	252.0	23:	286.0	286.0	43:	291.0	291.0
4:	253.0	253.0	24:	286.0	286.0	44:	291.2	291.2
5:	254.0	254.0	25:	287.0	287.0	45:	291.4	291.4
6:	256.0	256.0	26:	230.0	290.6	46:	291.5	291.5
7:	259.0	259.0	27:	230.0	291.2	47:	291.7	291.7
8:	262.0	262.0	28:	230.0	289.2	48:	291.8	291.8
9:	265.0	265.0	29:	230.0	291.6	49:	292.0	292.0
10:	268.0	268.0	30:	230.0	291.8	50:	293.0	293.0
11:	271.0	271.0	31:	230.0	289.5	51:	295.0	295.0
12:	274.0	274.0	32:	230.0	290.9	52:	295.0	295.0
13:	277.0	277.0	33:	230.0	287.0	53:	295.0	295.0
14:	279.0	279.0	34:	230.0	260.0	54:	295.0	295.0
15:	280.0	280.0	35:	290.1	285.0	55:	295.0	295.0
16:	281.0	281.0	36:	290.2	290.2	56:	295.0	295.0
17:	282.0	282.0	37:	290.3	290.3	57:	295.0	295.0
18:	281.2	281.2	38:	290.4	290.4	58:	295.0	295.0
19:	281.7	281.7	39:	290.5	290.5	59:	295.0	295.0
20:	282.0	282.0	40:	290.6	290.6	60:	295.0	295.0
						61:	295.0	295.0

used for this run are summarized in Table 10. In addition to calculating and printing the head distributions at the end of each time step, (*OPTION(5), OPTION(6)*), these heads are output to a disk file which can be used for plotting (*OPTION(7)*). *OPTION(10)* and *OPTION(11)* are set to *T* to read the pre-mining head distribution from a disk file and to output the last head distribution to another disk file to be used as a starting point for future simulations of the post-mining recovery of the flow system. Also, the water table convergence information (*OPTION(9)*), is requested to follow the convergence of the water table during each time step. The printed output for this part of example 1 is listed in Section 6.5.2.3. Figures 8b to 8f illustrate changes to the steady state head distribution due to mining and reclamation. It was plotted with the data generated by specifying *OPTION(7)=T*.

4.2.3 Simulation of the Post-mining Flow System Recovery

The simulate the recovery of a regional groundwater flow system was run separately from the previous simulation for two reasons. First, the time step increment changes from the previous value of *DELTIN*=1.0 to a new value of *DELTIN*=1.5. Secondly, several final reclamation strategies can be run by using the same mining and initial reclamation head distribution as a starting point.

The basic data, listed in Section 6.5.3.1, are essentially the same as that used to simulate the mining and initial reclamation stage. The major change concerns the reclamation sequence at each column (see Section 6.1, USER'S GUIDE, Line 17). Even though mining conditions are not being simulated, these data, and subsequent mining and reclamation related data are still required because the last cut must be reclaimed. Thus, for the present simulation, the last cut previously opened is specified (*MLEFTP*=33, *MRITEP*=35), and all values of *MNLEFT* and *MNRITE* are set to 0, indicating that all cuts are closed. Should the user desire to maintain this cut in an open state for all time steps, *MNLEFT*=33 and *MNRITE*=35 would be specified.

The number of time steps required to reach steady state conditions is unknown. Therefore, as in the case of the pre-mining steady state simulation, an arbitrary value of 35 time steps has been selected. The hydraulic head values are printed every fifth time step to both the printer (*OPTION(6)*) and to a file for plotting (*OPTION(7)*). The program control parameters are summarized in Table 11. The resulting printed output is listed in Section 6.5.3.2. Figure 9 illustrates the recovery of the post-mining regional flow system to new steady state conditions. This diagram was plotted from the data in the file that contains the head distributions for plotting.

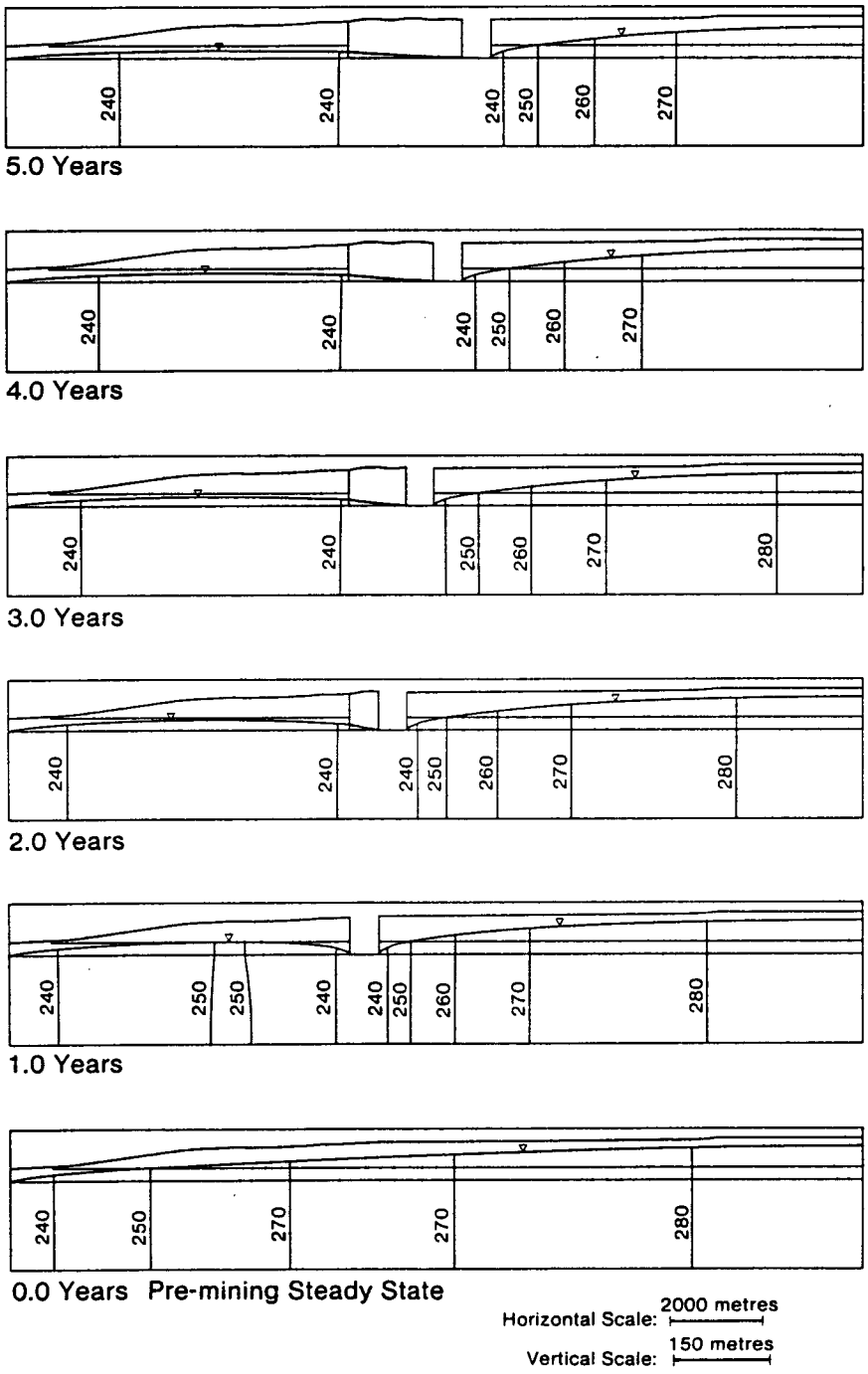
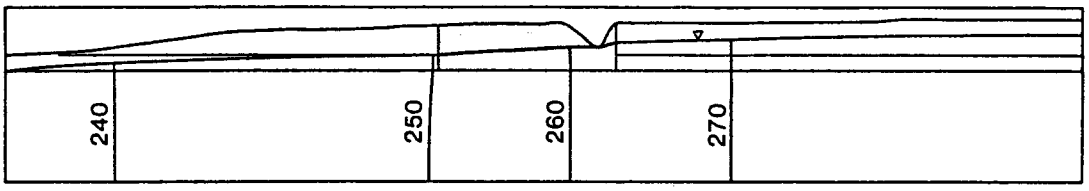
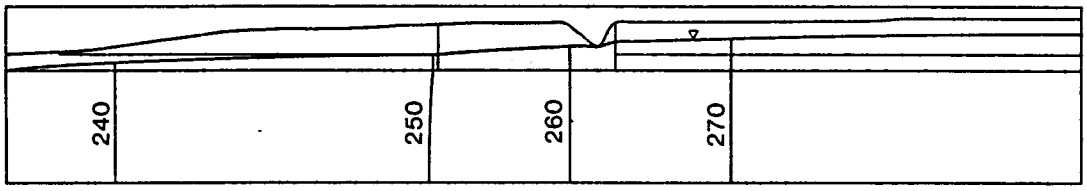


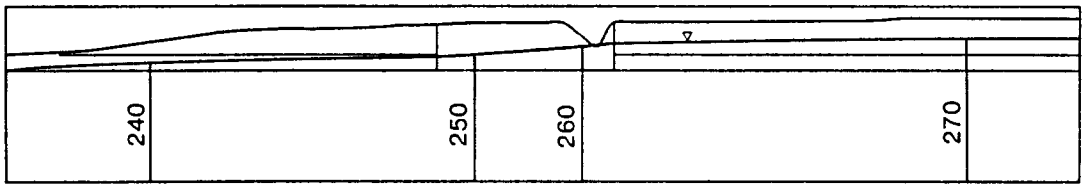
Fig.8. Head distribution from the pre-mining steady state through 5 years of mining



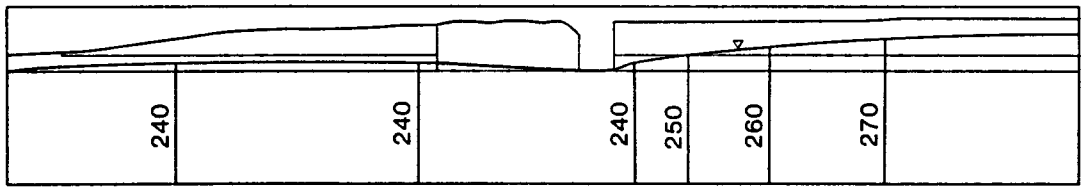
586.6 Years Post-mining Steady State



176.0 Years



25.8 Years



6.0 Years

Horizontal Scale: 2000 metres

Vertical Scale: 150 metres

Fig.9. Recovery of the post-mining regional groundwater flow system to new steady state conditions

Table 10. Program control parameters for the mining and initial reclamation simulation, example 1.

OPTION(1)=F	OPTION(7)=T	OPTION(13)=F	OPTION(19)=F
OPTION(2)=F	OPTION(8)=F	OPTION(14)=F	OPTION(20)=F
OPTION(3)=F	OPTION(9)=T	OPTION(15)=F	OPTION(21)=F
OPTION(4)=F	OPTION(10)=T	OPTION(16)=F	OPTION(22)=F
OPTION(5)=T	OPTION(11)=T	OPTION(17)=F	OPTION(23)=F
OPTION(6)=T	OPTION(12)=T	OPTION(18)=F	OPTION(24)=F

Table 11. Program control parameters for the post-mining flow system recovery simulation, example 1.

OPTION(1)=F	OPTION(7)=T	OPTION(13)=F	OPTION(19)=F
OPTION(2)=F	OPTION(8)=F	OPTION(14)=F	OPTION(20)=F
OPTION(3)=F	OPTION(9)=F	OPTION(15)=F	OPTION(21)=F
OPTION(4)=F	OPTION(10)=T	OPTION(16)=F	OPTION(22)=F
OPTION(5)=T	OPTION(11)=F	OPTION(17)=F	OPTION(23)=F
OPTION(6)=T	OPTION(12)=T	OPTION(18)=F	OPTION(24)=F

4.2.4 Examples of Additional Calculations and Output

This section is included in the report to illustrate some of the additional calculations and output which may be requested by the user. To illustrate these features, the first groundwater flow system recovery step of the post-mining water level recovery, discussed in the previous section, is used. The basic data are listed in Section 6.5.4.1 and the printed output is listed in Section 6.5.4.2.

There are two differences between this data set and the one used in the previous simulation. First, only one time step is run (*NTIME*=1). Second, considerably more program options have been requested, as indicated in Table 12. Additional printed output includes the node coordinates (*OPTION(1)*), nodes bounding the elements (*OPTION*(2)), the vertical and horizontal hydraulic conductivities and the storativity of the elements (*OPTION*(3)), the hydraulic gradient field (*OPTION*(14)), and the velocity field (*OPTION*(17)). The hydraulic head distribution, *OPTION*(6), is also printed. Files created for plotting these data contain the node coordinates and nodes bounding each of the finite elements within the grid (*OPTION*(4)), and the hydraulic gradient field (*OPTION*(15)). The contents of these two disk files are listed in Sections 6.5.4.3 and 6.5.4.4, respectively. The last head distribution that was simulated is listed in Section 6.5.4.5. An example of plotted finite element grids, using the data in Section 6.5.4.3, is shown on Figure 10.

4.3 EXAMPLE 2: CONTAMINANT TRANSPORT FROM SPOIL

4.3.1 Simulation of Pre-mining Regional Steady State Flow

The input data used to simulate the pre-mining regional steady state flow system for example 2 are the same as that used for example 1. Because these data are exactly the same, it is not necessary to rerun the simulation. Contaminant transport parameters are not included here because spoil is not yet in the system, and hence, contaminants can not be generated. The reader is referred to the previous example and to Sections 6.5.1.1 to 6.5.1.4 for further information regarding the basic input data, printed output and disk files.

4.3.2 Simulation of Mining and Initial Reclamation Conditions

The simulation of contaminant generation and transport from the spoil during mining and initial reclamation can be divided into two parts. The first part requires the simulation of the hydraulic head distribution and the position of the water table. The second part involves generating contaminant particles and transporting them

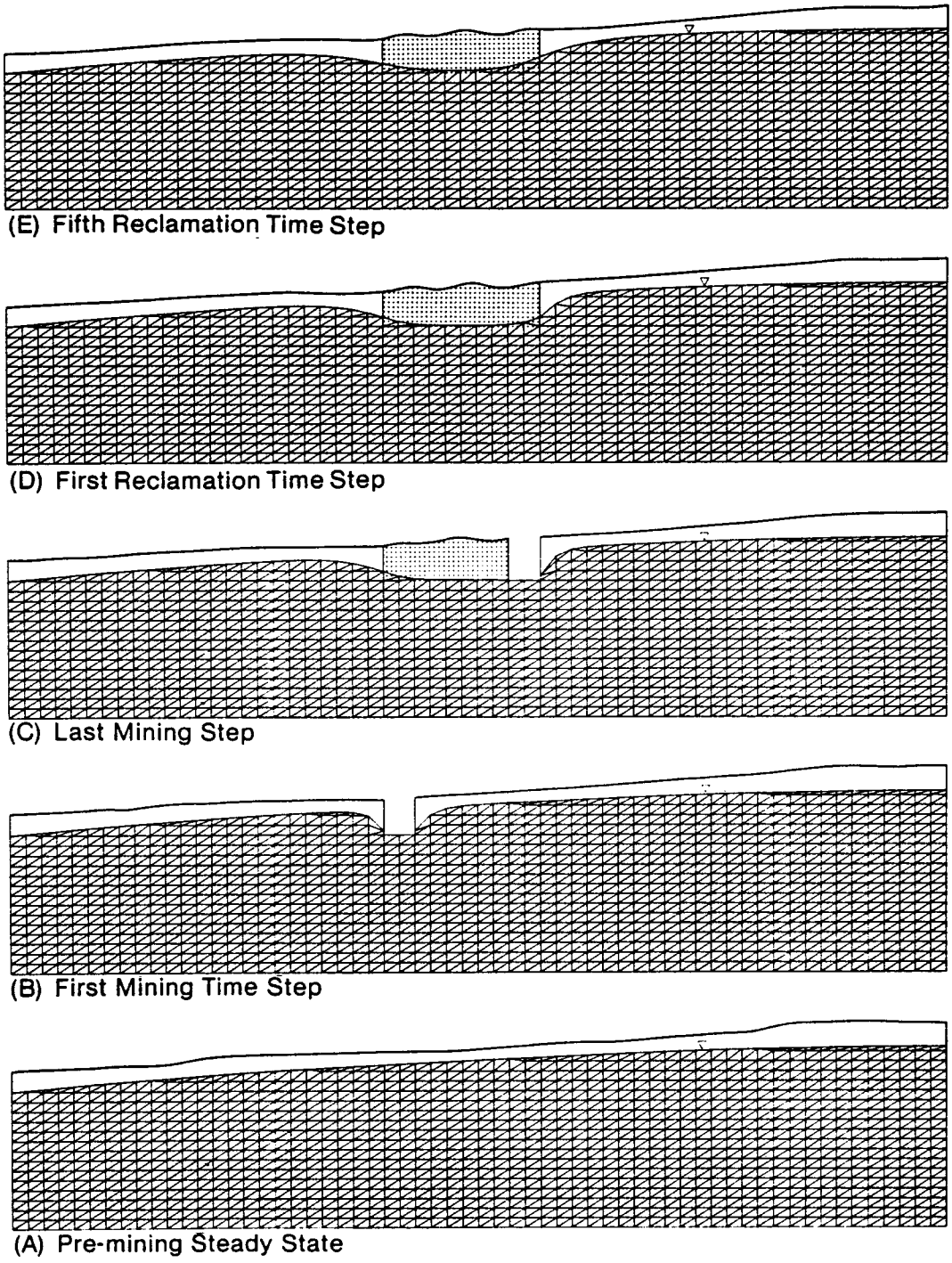


Fig.10. Changes in the finite element grid during a simulation

Table 12. Program control parameters for the run of additional calculations and output, example 1.

OPTION(1)=T	OPTION(7)=F	OPTION(13)=T	OPTION(19)=F
OPTION(2)=T	OPTION(8)=T	OPTION(14)=T	OPTION(20)=F
OPTION(3)=T	OPTION(9)=F	OPTION(15)=T	OPTION(21)=F
OPTION(4)=T	OPTION(10)=T	OPTION(16)=T	OPTION(22)=F
OPTION(5)=T	OPTION(11)=F	OPTION(17)=F	OPTION(23)=F
OPTION(6)=T	OPTION(12)=T	OPTION(18)=F	OPTION(24)=F

within the flow system. The input data for this simulation are presented in Section 6.6.1.1.

The hydraulic head distributions calculated by the model are the same as those in example 1. Hence, all parameters, including those defining the mining and reclamation steps, are the same as those in Section 4.2.2, and therefore, will not be discussed here.

Several parameters and variables are entered that define the location of the source of the contaminant. The source of the contaminant in this example is the spoil. At each time step, 5 particles (*NPPER=5*) are entered into the spoil. Each particle has an initial mass (*XMASSI*) of 1000.0 gm, a selectivity coefficient for exchange (*SELC*) of 0.0, and an initial concentration (*SOLUTE*) of 0.1 gm/m^3. The boundaries of the region where the particles are placed during each time step are listed in Table 13. Because spoil is not present during the first time step, a contaminant cannot be generated and hence, particles are not entered. During this first time step, the row and column boundaries are arbitrarily set to a value of 1. The remaining five time steps have particles placed in spoil. The right column boundaries (*PRCOL*) is one step behind the mining steps (see Table 8). The left boundary (*PLCOL*), is always the leftmost column of the spoil. The upper boundary of the zone receiving particles has *PTROW=-1*, indicating that the water table is the boundary. The lower boundary, *PBROW*, also has a value of -1 indicating that this boundary is the base of the spoil. However, the lower boundary of the first zone accepting particles has a value of 15 because the elevation of the base of the spoil (*ELVMNE*) at the left column (*PLCOL*), has a value equal to the elevation of the pre-mining ground surface (*ELVGRD*). Hence, a value of 15 will indicate that the elevation of this row, 230.0 m, and not the elevation of the ground surface, 287.0 m, is the required base of the contaminant zone. The same principle would hold if particles are placed in spoil in the last cut that was mined.

The dispersivity, cation exchange capacity, and bulk density of the geological and spoil units are also entered. Values of these parameters are summarized in Table 14. These values are entered for both the geological units and the spoil units (see Section 6.1, User's Guide, lines 12 and 19).

The particle transport code is listed with the input data in Section 6.6.1.1. Particles are allowed to move in any geological or spoil unit (*PTC=T*), and are not allowed to move in the region above the ground surface (*PTC=F*).

Table 13. Cells representing the source of the contaminant particles during the mining and initial reclamation simulation, example 2.

time step	*NPPER*	*PLCOL*	*PRCOL*	*PBROW*	*PTROW*
1:	0	1	1	1	1
2:	5	25	27	15	-1
3:	5	25	29	-1	-1
4:	5	25	31	-1	-1
5:	5	25	33	-1	-1
6:	5	25	33	-1	-1

Table 14. Parameters describing the chemical properties of the geological media.

UNIT	*DISPER* (m)	*CEC* (meq/gm[4])	*BULK* (gm/m[3])
1:[1]	0.0	0.0	0.0
2:	5.0	0.1	1.0
3:	5.0	0.1	1.0
4:[2]	5.0	0.1	1.0

[1] Region above the ground surface.
[2] Spoil.

Program option codes are presented in Table 15. Printed output includes the data echo, plus the hydraulic head distributions (*OPTION(6)*), contaminant concentration distributions (*OPTION(19)*), and the particle distributions (*OPTION(19)*), at the end of each time step. A disk file for plotting the particle distributions (*OPTION(22)*) is listed in Section 6.6.1.3. This file is plotted on Figure 11. The last particle distribution (*OPTION(21)*) and the last head distribution (*OPTION(11)*) are both output to the same disk file that can be used as input for the simulation of various post-mining flow system recovery and mass transport scenarios. This file is listed in Section 6.6.1.1. The printed output from this simulation is contained in Section 6.6.1.2.

4.3.3 Simulation of the Post-mining Flow System Recovery

The input data, shown in Section 6.6.2.1, used to simulate the introduction of particles into spoil and their transport through the groundwater flow system are essentially the same as that used to simulate contaminant transport during the mining and reclamation stage. All parameters relating to the formation of the grid, calculation of the hydraulic head distribution, and the approximation of the mining and reclamation stage, are the same as those discussed previously in Section 4.2.3. However, the width of the last cut that was left open has been enlarged for this example. Parameters used to describe the chemical and physical characteristics of the spoil and geological units are discussed in Section 4.3.2. The reader is referred to these two sections for any information regarding these parameters.

Differences between this run and the former simulation are as follows. The time step increment, *DELTIN*, is increased from the value of 1.0 that was used in the mining and initial reclamation simulation to a new value of 2.0. The number of time steps (*NTIME*) remains the same at 6. An examination of example 1 indicates that the simulation of post-mining steady state flow conditions requires 13 time steps. Only six time steps are run here and hence, the final head distribution will not reach steady state. Heads are printed and output to a file for plotting at the end of every time step.

Five particles per time step will continue to be added to the spoil for the first five time steps. No new particles will be introduced to the spoil during the final time step. The area in which particles are added has increased from the mining and reclamation simulation because the last cut has been reclaimed. The parameters describing the introduction of reference particles into the spoil is summarized in Table 16. *PBROW* if given a value of 15 during the first five time steps because the

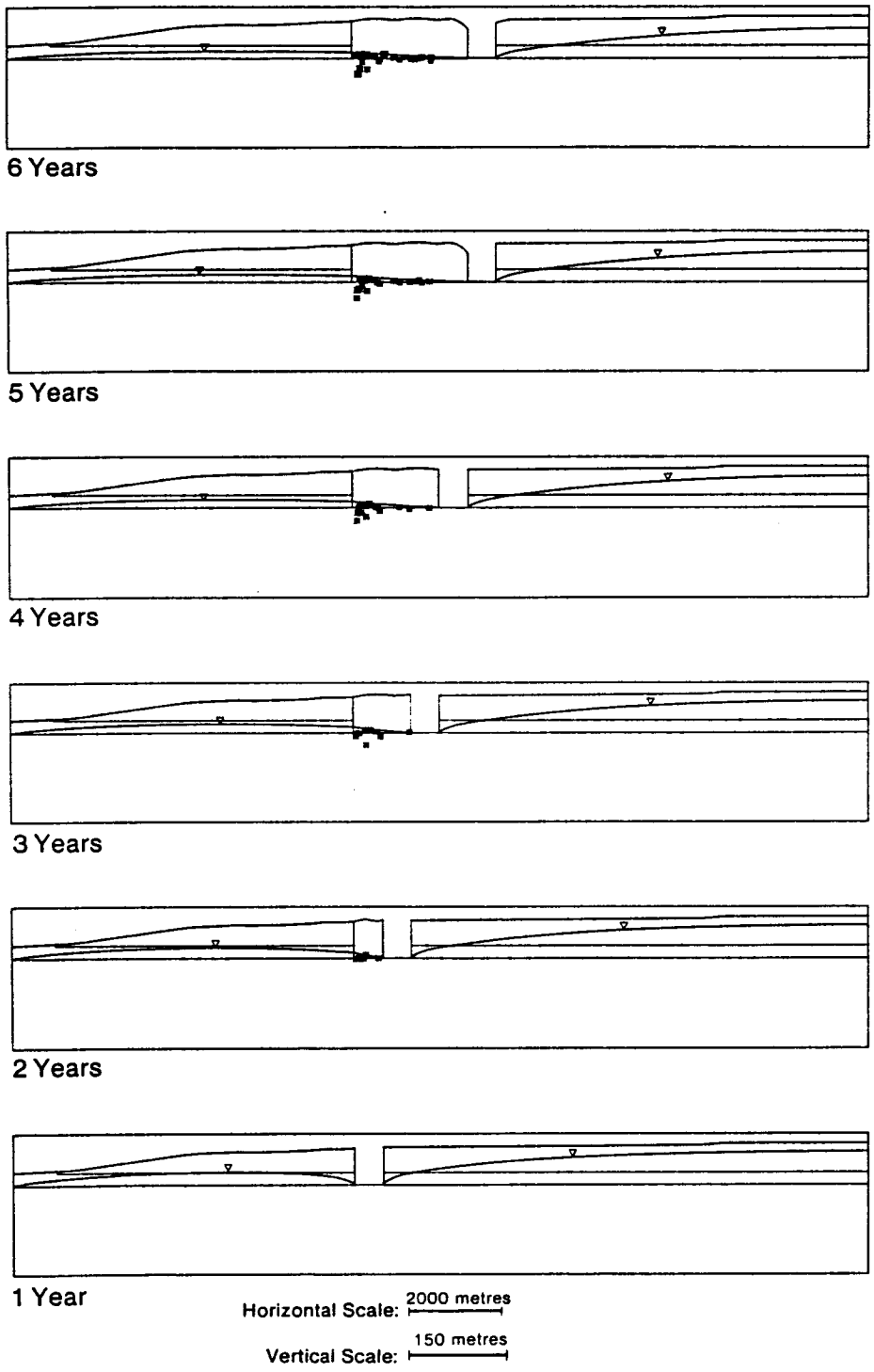


Fig.11. Distribution of reference particles during mining and reclamation

Table 15. Program control parameters for the mining and initial reclamation simulation, example 2.

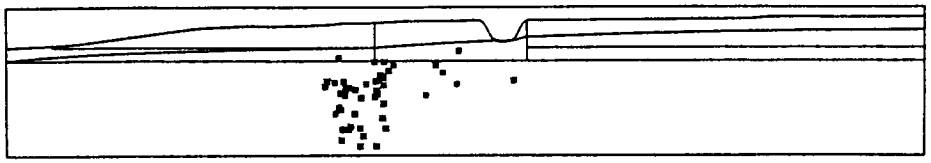
OPTION(1)=F	OPTION(7)=F	OPTION(13)=F	OPTION(19)=T
OPTION(2)=F	OPTION(8)=F	OPTION(14)=F	OPTION(20)=F
OPTION(3)=F	OPTION(9)=F	OPTION(15)=F	OPTION(21)=T
OPTION(4)=F	OPTION(10)=T	OPTION(16)=F	OPTION(22)=T
OPTION(5)=T	OPTION(11)=T	OPTION(17)=F	OPTION(23)=F
OPTION(6)=T	OPTION(12)=T	OPTION(18)=T	OPTION(24)=F

Table 16. Cells representing the source of the contaminant particles during the post-mining flow system recovery simulation, example 2.

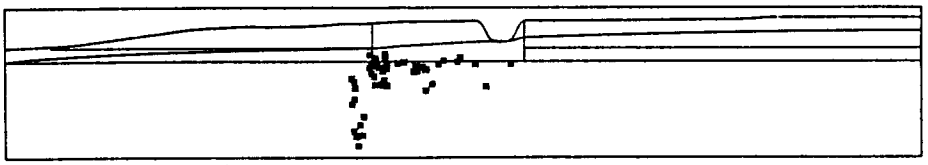
time step	*NPPER*	*PLCOL*	*PRCOL*	*PBROW*	*PTROW*
1:	5	25	35	15	-1
2:	5	25	35	15	-1
3:	5	25	35	15	-1
4:	5	25	35	15	-1
5:	5	25	35	15	-1
6:	0	1	1	1	1

elevation of the base of the spoil at its rightmost boundary, column 35, is the same as the pre-mining ground surface. A value of 15 will indicate to the model that the basal elevation which is required is 230.0 m, and not the ground surface.

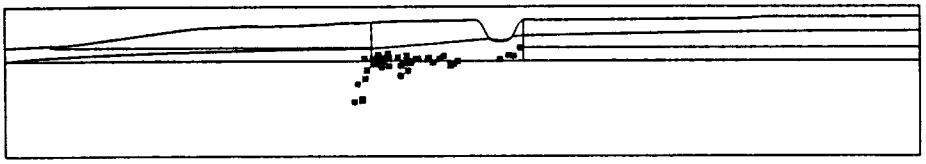
Because this simulation is a continuation of the contaminant transport that started during the mining and reclamation stage, the previous head distribution and particle distribution are read in (*OPTION(10)*). These distributions were calculated during the previous simulation (see Section 6.6.1.1). Printed output is listed in Section 6.6.2.2. This includes the contaminant concentration and particle distributions (*OPTION(19)*) and the hydraulic head distributions (*OPTION(6)*). Two disk files are created that will allow plotting of the hydraulic head distributions (*OPTION(7)*) and the distribution of the reference particles (*OPTION(22)*). This latter file has been plotted, and the particle distribution shown in Figure 12. All program option codes are summarized in Table 17.



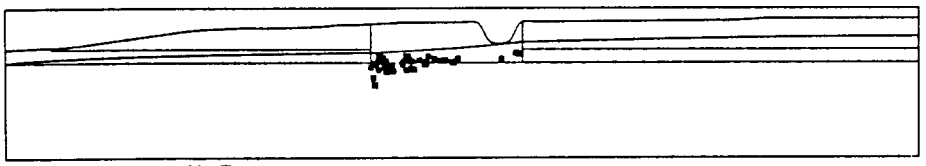
132.0 YEARS



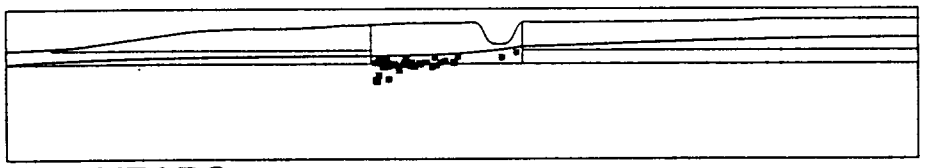
68.0 YEARS



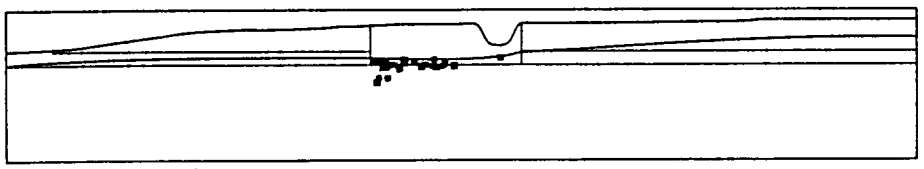
36.0 YEARS



20.0 YEARS



12.0 YEARS



8.0 YEARS

Fig.12. Distribution of reference particles during the post-mining flow system recovery stage

Table 17. Program control parameters for the post-mining flow system recovery stage, example 2.

OPTION(1)=F	OPTION(7)=T	OPTION(13)=F	OPTION(19)=T
OPTION(2)=F	OPTION(8)=F	OPTION(14)=F	OPTION(20)=F
OPTION(3)=F	OPTION(9)=F	OPTION(15)=F	OPTION(21)=T
OPTION(4)=F	OPTION(10)=T	OPTION(16)=F	OPTION(22)=F
OPTION(5)=T	OPTION(11)=F	OPTION(17)=F	OPTION(23)=T
OPTION(6)=T	OPTION(12)=T	OPTION(18)=T	OPTION(24)=F

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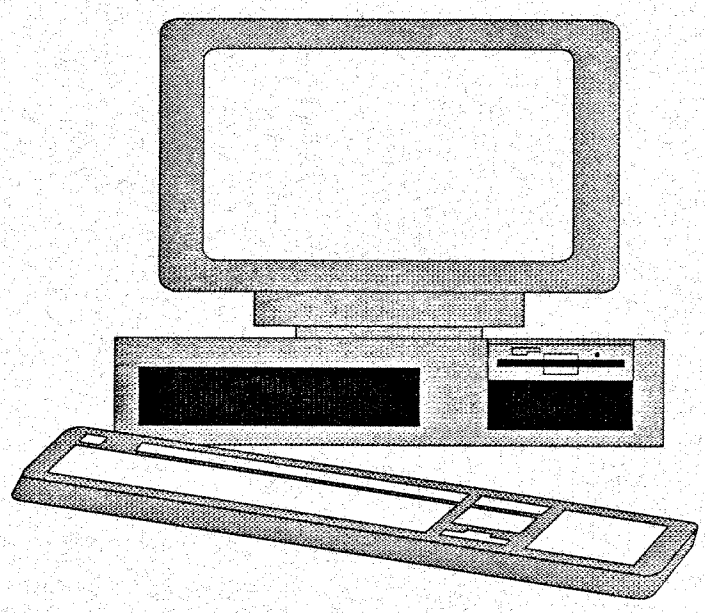
Computer Program



6. APPENDICES

6.1 USER'S GUIDE

6.1.1 Dimensions of the Arrays

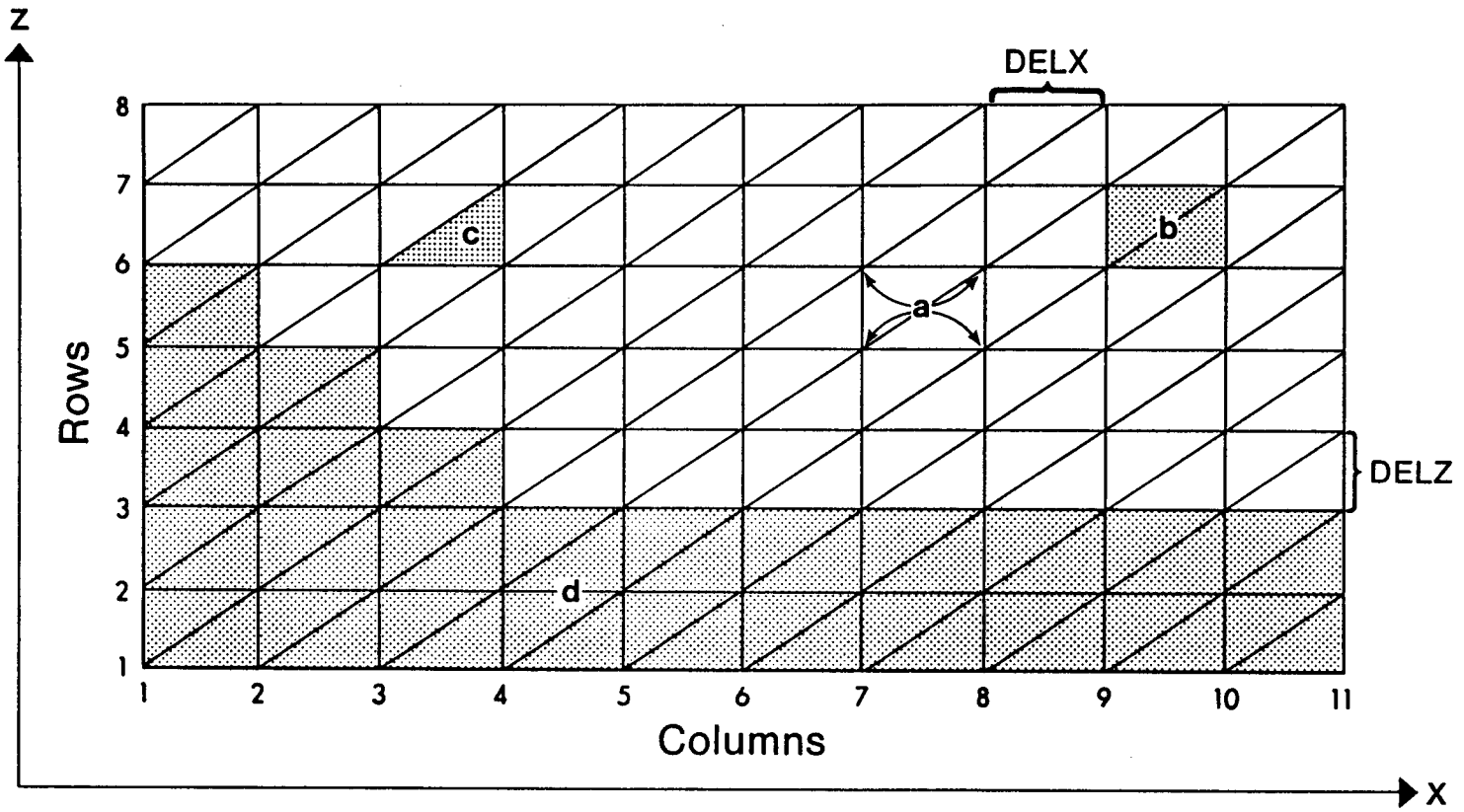
There are arrays contained within the program which must be properly dimensioned for each simulation. Each time a new data set is run, or a data set is modified, changes are only required in the main program because execution time dimensioning of the arrays is utilized by the subroutines. The following information provides a basis for dimensioning individual arrays for a given problem. Figure 13 illustrates various terms used by the model.

```
REAL*8 CHEAD(cheade), HEAD(nodee), HEADP(nodee), F(nodee),
       GLCOND(nodee,bande), SC(nodee,cheade), SP(nodee,bande)

REAL TITLE(20), STOR(unit), KHORZ(unit), KVERT(unit), BULK(unit), CEC(unit),
       SPOLS(unit), SCEC(unit), PORSTY(unit), X(nodee), PORSTY(unit),
       SPOLP(unit), SPOLKH(unit), SPLOKV(unit), ELVGRD(col), ELVBAS(col),
       ELVMNE(col), ELVREC(col), CHVAL(col,row), RCHARG(rech,col), Z(nodee),
       HEADWP(col), HEADWT(nodee), KVELM(elme), CONR(hcell,vcell),
       GRAD(elme), DIRECT(elme), VX(elme), VZ(elme), KHELM(elme),
       STRELM(elme), DISPER(unit), SBULK(unit), SDISPR(unit), XPOS(part),
       ZPOS(part), XMASS(part), NFLUX(col), NPPER(time), CONC(hcell,vcell),
       CONCP(hcell,vcell)

INTEGER*2 IDBBR(col), IDWTR(col), DIVCD(nodee), NODEWT(col), MAPGEO(hcell,vcell),
       MAPSPL(hcell,vcell), RESTEP(rech), NRECOL(rech), IRECOL(rech,col),
       INCID(elme,3), MNRITE(time), MNLEFT(time), ICH(chead), JCH(chead),
       NPPER(time), PLCOL(time), PRCOL(time), IELCEL(hcell,vcell,2),
       PBROW(time), PTROW(time), PART(hcell,vcell), PARTGN(hcell,vcell)

LOGICAL*1 TYPEND(nodee), TYPELM(elme), WTMOVE(col), OPTION(25),
       PTCODE(hcell,vcell)
```

where:
- col = number of columns of nodes
- row = number of rows of nodes
- hcell = number of horizontal cells (col-1)
- vcell = number of vertical cells (row-1)
- nodee = estimated number of nodes
- chead = actual number of constant head nodes input
- cheade = estimated number of constant head nodes
- elme = estimated number of finite elements
- bande = estimated bandwith of the finite element coefficient matrix
- time = number of time steps
- rech = number of times that recharge changes during the simulation
- part = total number of particles added during the simulation
- unit = number of geological and spoil units

6.1.2 Input Variables

This section provides the user with a list of the input variables and parameters, as well as their definitions.



Legend : **a** – Node
b – Cell
c – Element
d – Unit

Fig. 13. Illustration of terms used in this manual

problem identifier:

TITLE : any title up to 80 characters

program control parameters:

OPTION(1) : print the node coordinates
OPTION(2) : print the nodes which bound the elements
OPTION(3) : print the hydraulic conductivity and storativity of the elements
OPTION(4) : output nodes and elements to a file for plotting
OPTION(5) : calculate the hydraulic head distribution
OPTION(6) : print the total head values
OPTION(7) : output all head distributions to a file for plotting
OPTION(8) : output only the last head distribution to a file for plotting
OPTION(9) : print the water table convergence information
OPTION(10) : input previously calculated heads to continue a simulation
OPTION(11) : output the last head distribution for input to continue a simulation
OPTION(12) : simulate mining and/or reclamation conditions
OPTION(13) : calculate the hydraulic gradient and its its direction
OPTION(14) : print the hydraulic gradients and its directions
OPTION(15) : output the gradients and directions for plotting
OPTION(16) : generate a velocity field
OPTION(17) : output the velocity field
OPTION(18) : run the mass transport routine
OPTION(19) : print the concentration and particle distributions
OPTION(20) : output the concentration distribution for plotting
OPTION(21) : output the particle distribution for plotting
OPTION(22) : output last particles for input to continue a simulation
OPTION(23) : input the last particle distribution to continue a simulation
OPTION(24) : print the mass, x and z coordinates of the particles

cross section geometry parameters:

NROW : number of rows of nodes
NCOL : number of columns of nodes
NNODEE : estimated maximum number of nodes in the grid
NELME : estimated maximum number of elements in the grid
NBANDE : estimated bandwidth of the coefficient matrix
DELX : horizontal node spacing
DELZ : vertical node spacing
ELVGRD : elevation of the pre-mining ground surface
ELVBAS : elevation along the base of the cross section
NGEOL : number of geological units in the cross section
MAPGEO : code mapping the location of the geological units

hydrogeological parameters:

NCHEAD : actual number of constant head nodes input
NCHEDE : estimated total number of constant head nodes
NRESTP : number of times that recharge changes during a simulation
HEADI : initial estimate of head (assigned at the start of a simulation)
SPECYD : specific yield

WTMOVE : code to identify whether or not a water table node may rise or fall
HEADWT : initial head values (elevation) along the water table
RESTEP : the time step at which the recharge changes
NRECOL : number of columns where recharge is applied during a recharge period
RCHARG : amount of recharge applied at a specific column
CHVAL : constant head value at a given row and column
KHORZ : horizontal hydraulic conductivity of a geologic unit
KVERT : vertical hydraulic conductivity of a geologic unit
STOR : storitivity of a geological unit
PORSTY : porosity of a geological unit
HEADP : head values calculated during a previous simulation

mining and reclamation parameters:

MLEFTP : column at the left side of a previous mine cut
MRITEP : column at the right side of a previous mine cut
MNLEFT : columns defining the left sides of mine cuts
MNRITE : columns defining the right sides of mine cuts
ELVMNE : elevation of the ground surface during mining
NSPOIL : number of different units of spoil
MAPSPL : code mapping the different units of spoil
SPOLKH : horizontal hydraulic conductivity of spoil
SPOLKV : vertical hydraulic conductivity of spoil
SPOLKS : storitivity of spoil units
SPOLP : porosity of spoil units
ELVREC : elevation of the ground surface after reclamation

time step parameters:

NTIME : total number of time steps
DELT : size of the initial time step
DELTIN : factor for increasing the size of the time step at the beginning of each time step
NSKIP : number of time steps that pass before the results are printed
TOLRNC : error tolerence for convergence of the heads along the water table during a time step and convergence of the flow system to steady state
NITMAX : maximum number of iterations allowed for the water table to converge during a time step

contaminant transport parameters:

SOLUTE : total concentration of the contaminant in solution
SELC : selectivity coefficient for exchange
XMASSI : initial mass of a particle
DISPER : longitudinal dispersivity of a geological unit
CEC : cation exchange capacity of a geological unit
BULK : bulk density of a geological unit
SDISPR : longitudinal dispersivity of a spoil unit
SCEC : cation exchange capacity of a spoil unit
SBULK : bulk density of a spoil unit
PTCODE : particle transport code (identifies cells where particles may move)
PLCOL : left boundary (column) of the source zone of the contaminant

PRCOL : right boundary (column) of the source zone of the contaminant
PTROW : top boundary (row) of the source zone of the contaminant
PBROW : bottom boundary (row) of the source zone of the contaminant
NPPER : number of particles added to the system at the start of each time step

6.1.3 Input Data Instructions

The variables and parameters input into the program must conform to the order, format and columns of the following lines.

line	*variable*	*format*	*columns*
1	TITLE	20A4	1-80
2	OPTION	24L1	1, 2, 3, 4, ... 24
3	NROW	I5	1- 5
	NCOL	I5	6-10
	NTIME	I5	11-15
	NSKIP	I5	16-20
	NCHEAD	I5	21-25
	NRESTP	I5	26-30
	NNODEE	I5	31-35
	NELME	I5	36-40
	NBANDE	I5	41-45
	NCHEDE	I5	46-50
	NGEOL	I5	51-55
	NSPOIL	I5	56-60
	NITMAX	I5	61-65
4	DELX	F10.0	1-10
	DELZ	F10.0	11-20
	DELT	F10.0	21-30
	HEADI	F10.0	31-40
	SPECYD	F10.0	50
	TOLRNC	F10.0	60
	DELTIN	F10.0	70
5[1]	ELVGRD	8F10.0	1-10, 11-20, 21-30, ... 71-80
6[1]	WTMOVE	80L1	1, 2, 3, 4, ... 80
7[1]	HEADWT	8F10.0	1-10, 11-20, 21-30, ... 71-80
8[1]	ELVBAS	8F10.0	1-10, 11-20, 21-30, ... 71-80
9[23]	RESTEP	I5	1- 5
	NRECOL	I5	6-10
10[231]	IRECOL	8*I3	1- 3, 11-13, 21-23, ... 71-73
	RCHARG	8*F7.0	4-10, 14-20, 24-30, ... 74-80
11[514]	ICH	6*I3	1- 3, 14-16, 27-29, ... 66-68

	JCH	6*I3	4- 6, 17-19, 30-32, ... 69-71
	CHVAL	6*F7.0	7-13, 20-26, 33-39, ... 72-78
12[1]	UNIT	I5	1- 5
	KHORZ	E10.4	6-15
	KVERT	E10.4	16-25
	STOR	E10.4	26-35
	PORSTY	E10.4	36-45
	DISPER	E10.4	46-55
	CEC	E10.4	56-65
	BULK	E10.4	65-75
13[1]	MAPGEO	80I1	1, 2, 3, 4, ... 80
14[3]	SOLUTE	F10.0	1-10
	SELC	F10.0	11-20
	XMASSI	F10.0	21-30
15[3,19]	NPPER	3*I9	1- 9, 26-34, 51-59
	PLCOL	3*I4	10-13, 35-38, 60-63
	PRCOL	3*I4	14-17, 39-42, 64-67
	PBROW	3*I4	18-21, 43-46, 68-71
	PTROW	3*I4	22-25, 47-50, 72-75
16[31]	PTCODE	80L1	1, 2, 3, 4, ... 80
17[6,17]	MLEFTP	I5	1-5
	MRITEP	I5	6-10
	MNLEFT	7*I5	11-15, 21-25, 31-35, ... 71-75
	MNRITE	7*I5	16-20, 26-30, 36-40, ... 76-80
18[61]	ELVMNE	8F10.0	1-10, 11-20, 21-30, ... 71-80
19[61]	UNIT	I5	5
	SPOLKH	E10.4	6-15
	SPOLKV	E10.4	16-25
	SPOLS	E10.4	26-35
	SPOLP	E10.4	36-45
	SDISPR	E10.4	46-55
	SCEC	E10.4	56-65
	SBULK	E10.4	65-75
20[61]	MAPSPL	80I1	1, 2, 3, 4, ... 80
21[61]	ELVREC	8F10.0	1-10, 11-20, 21-30, ... 71-80

NOTES:

[1] :continue with as many lines as necessary
[2] :skip these data if there is no recharge
[3] :alternate values of IRECOL and RCHARG
[4] :alternate values of ICH, JCH and CHVAL
[5] :if there are no constant head nodes, skip these data
[6] :if there is no mining or reclamation, skip these data

[7] :alternate values of MNLEFT and MNRITE
[8] :skip these data if there is no mass transport
[9] :alternate values of PLCOL, PRCOL, PBROW, PTROW, NPPER

6.2 LIST OF VARIABLES IN THE COMPUTER PROGRAM

A list of all the variables and parameters used within the computer code, and their definitions, are presented in this section of the user's manual. Variables are listed for the main program and all subroutines.

Parameters and Variables for the Main Program:

BASE : test to see if a node has reached the base of the mine
BASELV : lowest elevation along the base of the flow system
BULK : bulk density of a geologic unit
CEC : cation exchange capacity of a geologic unit
CHEAD : vector containing all constant head values
CHVAL : constant head values at a given row and column
DELT : size of the time step
DELTIN : time step increment
DELX : horizontal node spacing
DELZ : vertical node spacing
DELZQ : 1/4 of the vertical node spacing
DELZ3Q : 3/4 of the vertical node spacing
DIRECT : direction of flow within an element (in degress from +ve x-axis)
DISPER : longitudinal dispersivity of a geologic unit
ELVBAS : elevation of the base of the region, at each column
ELVGRD : elevation of the ground surface before mining, at each column
ELVMNE : elevation of the base of the mine, at each column
ELVREC : elevation of the ground surface following reclamation, at each column
FLUX : recharge applied at the top of a column during each time step
GRAD : hydraulic gradient within each element
HEADI : initial head value (assigned at the start of the simulation)
HEADP : head values calculated during the previous time step
HEADWP : head values along the water table calculated during the previous time step
HEADWT : head values along the water table calculated during the present time step (elevation of the water table)
ICR : unit number assigned to file from which the basic data set is input
ICH : column number of constant head nodes that are input
IDH : unit number assigned to the file from which head and particle distributions input to continue a simulation
IDBBR : row numbers of the nodes along the base of the flow section
IDWTR : row numbers of the nodes along the water table
INCID : node bounding a finite element
INO : node number counter
IPT : particle counter
IRCH : recharge period counter
IRECOL : columns where recharge occurs
JCH : row number of constant head nodes that are input
KHELM : horizontal hydraulic conductivity within an element
KHORZ : horizontal hydraulic conductivity assigned to a geologic unit
KVELM : vertical hydraulic conductivity within an element
KVERT : vertical hydraulic conductivity assigned to a geologic unit

KTIME : time step counter
LDH : unit number assigned to the file to which head and particle distributions are stored to continue a simulation
LLP : unit number assigned to the line printer
LPC : unit number assigned to the file into which the concentration distributions are stored for plotting
LPG : unit number assigned to the file into which node coordinates and nodes bounding the elements are stored for plotting a finite element grid
LPH : unit number assigned to the file into which head values are stored for plotting
LPI : unit number assigned to the file into which the hydraulic gradient and its direction are stored for plotting
LPP : unit number assigned to the file into which the distributions of particles are stored for plotting
MAPGEO : map of the various geologic units
MAPSPL : map of the various units within the spoil
MNLEFT : columns defining the left side of the mine cuts that are input
MNRITE : columns defining the right side of the mine cuts that are input
MLEFT : column defining the left side of a mine cut
MRITE : column defining the right side of a mine cut
MLEFTP : column defining the left side of the previous cut
MRITEP : column defining the right side of the previous cut
NBAND : actual bandwidth
NBANDE : estimated bandwidth
NCHEAD : actual number of constant head nodes
NCHEDE : estimated number of constant head nodes
NCOL : number of columns of nodes
NELM : actual number of elements in the finite element grid
NELME : estimated number of elements in the finite element grid
NGEOL : number of geologic units
NHCELL : number of cells in the horizontal direction
NITMAX : maximum number of iterations allowed per time step for the water table to converge
NNODE : actual number of nodes in the finite element grid
NNODEE : estimated number of nodes in the finite element grid
NODEWT : node number along the water table
NP : total number of particles added to the system
NPPER : number of particles added during a time step
NRECOL : number of columns where recharge occurs during a time step
NRESTP : number of times that recharge changes during a simulation
NROW : number of rows of nodes
NSPOIL : number of spoil units
NSKIP : number of time steps that pass before any results are printed
NTIME : total number of time steps
NVCELL : number of cells in the vertical direction
OPTION : parameter used to control the execution, printing and output to disk files
PBROW : bottom boundary (row) of the zone which receives the particles
PLCOL : left boundary (column) of the zone which receives the particles
PRCOL : right boundary (column) of the zone which receives the particles
PTROW : top boundary (row) of the zone which receives the particles
PORSTY : porosity value assigned to a geologic unit
PTCODE : particle transport code (identifies cells where particles may move)
RCHARG : recharge applied at the ground surface during each time step
RESTEP : time step at which the recharge changes
SBULK : the bulk density of the spoil units
SCEC : the cation exchange capacity of the spoil units

SDISPR : longitudinal dispersivity of the spoil units
SELC : selectivity coefficient for exchange
SOLUTE : total concentration of the contaminant in solution
SPECYD : specific yield
SPOLKH : horizontal hydraulic conductivity of a spoil unit
SPOLKV : vertical hydraulic conductivity of a spoil unit
SPOLP : porosity of a spoil unit
SPOLS : storativity of a spoil unit
STEADY : code which checks whether the flow system has reached steady state
STOR : storativity assigned to a geologic unit
STRELM : storativity assigned to an element
TITLE : problem identifier (any title, up to 80 characters)
TIME : total time that has elapsed since the beginning of the simulation
TOLRNC : error tolerence for convergence of the heads along the water table
TYPEND : node type identifier (*T*=along the free surface, *F*=all other nodes)
VX : groundwater velocity in the horizontal direction
VZ : groundwater velocity in the vertical direction
WTMOVE : code which designates which water table nodes may move
XMASS : mass assigned to a particle
XMASSI : initial mass assigned to each particle
XPOS : x coordinate of the location of a particle
ZPOS : z coordinate of the location of a particle

Parameters and Variables for Subroutine FEGRID:

BASELV : lowest elevation along the base of the flow system
CHEAD : vector containing all constant head values
CHVAL : constant head values at a given row and column location
DELX : horizontal node spacing
DELZ : vertical node spacing
DELZQ : 1/4 of the vertical node spacing
DELZ3Q : 3/4 of the vertical node spacing
DIG : code which determines whether or not a new cut is to be inserted into the mine during the present time step
ELVBAS : elevation of the base of the region
ELVGRD : elevation of the ground surface, before mining
HEAD : hydraulic head value at each node
HEADI : initial head value assigned to all nodes at the start of the simulation
HEADT : temporary array containing head values in the reconstructed grid
HEADWT : head values along the water table (elevation of the water table)
I : column counter
II : counter for the number of rows of nodes in a column
IDBBR : row numbers of nodes along the base of the flow section
IDIF : number of rows between adjacent water table nodes
IDWTR : row numbers of the nodes along the water table
IEL : element number counter
IELCEL : parameter which identifies which elements occupy a cell
INC : constant head node counter
INCID : nodes which bound each of the elements
INO : node number counter
INON : counter for the nodes added to, or removed from the previous grid
INP : node number corresponding to the first node which bounds an element
J : row counter
JJ : row counter for the constant head node matrix
JSTP : stopping row number

JSTR : starting row number
KHORZ : horizontal hydraulic conductivity assigned to a geologic unit
KHELM : horizontal hydraulic conductivity of an element
KK : element counter when forming single elements along the water table
KVELM : vertical hydraulic conductivity of an element
KVERT : vertical hydraulic conductivity assigned to a geologic unit
LLP : unit number assigned to the line printer
MAPGEO : code identifying the geologic units
MLEFT : column defining the left side of a mine cut
MRITE : column defining the right side of a mine cut
MLEFTP : column defining the left side of the previous mine cut
MRITEP : column defining the right side of the previous mine cut
NCHEAD : number of constant head nodes
NCOL : number of columns of nodes
NELM : actual number of elements in the finite element grid
NELME : estimated number of elements in the finite element grid
NHCELL : number of cells in the horizontal direction
NNODE : actual number of nodes in the finite element grid
NNODEE : estimated number of nodes in the finite element grid
NODEWT : node numbers along the water table
NROW : number of rows of nodes
NVCELL : number of cells in the vertical direction
OPTION : codes which control the program, input and output
STOR : storativity assigned to a geologic unit
STRELM : storativity assigned to a element
TYPEND : node type identifier
TYPELM : element type identifier
WTMOVE : code which disignates which water table nodes may move
X : x coordinate of a node
XXX : x coordinate of a column of nodes
Z : z coordinate of a node

Parameters and Variables for Subroutine ELMENT:

HORZK : horizontal hydraulic conductivity assigned to a geologic unit
I : node number corresponding to the first nodes that bounds an element
IEL : element number counter
IELCEL : parameter which identifies which elements occupy a cell
IG : node number of the first node bounding an element
INCID : nodes which bound each of the elements
J : node number corresponding to the second node that bounds an element
K : node number corresponding to the third node that bounds an element
KHELM : horizontal hydraulic conductivity of an element
KVELM : vertical hydraulic conductivity of an element
NELME : estimated number of elements in the finite element grid
STOR : storativity of a geologic unit
STRELM : storativity assigned to a element
TYPE : element type identifier assigned to an element
TYPELM : element type identifier
VERTK : vertical hydraulic conductivity assigned to a geologic unit

Parameters and Variables for Subroutine MINE:

BASE : code which determines if a node is at the base of the mine

BASELV : lowest elevation along the base of the flow system
CHEAD : vector containing all the constant head values
CHVAL : constant head values at a given row and column location
DELZ : vertical node spacing
DELZQ : 1/4 of the vertical node spacing
DELZ3Q : 3/4 of the vertical node spacing
ELVGRD : elevation of the ground surface, before mining
ELVMNE : elevation of the ground surface during mining
ELVREC : elevation of the ground surface following reclamation
HEADP : head values calculated during the previous time step
I : column counter
IDBBR : row numbers of nodes along the base of the flow section
IDWTR : row numbers of the nodes along the water table
INO : counter for nodes in the previous grid
INOMNS : counter for nodes in the new grid (as a cut is opened)
INOM : number of nodes removed when forming the new grid
INOMR : number of rows removed from a column during mining
IP : code which determines whether nodes are being generated along a boundary of a mine cut
IQ : mine column boundary identifier
ISTP : stopping column number
J : row counter
JSTP : stopping row number
JSTR : starting row number
LLP : unit number assigned to the line printer
MAP : code identifying a hydrostartigraphic unit
MAPGEO : code identifying the geologic units
MAPSPL : code identifying various geologic and spoil units after reclamation
MAPZRO : code used to assign 0.0 to K and S of the cells occupying a mine cut
MNBS : row number at the base of a cut
MLEFT : column defining the left side of a cut
MRITE : column defining the right side of a cut
MLEFTP : column defining the left side of the previous cut
MRITEP : column defining the right side of the previous cut
NCHEAD : actual number of constant head nodes
NCOL : number of columns of nodes
NHCELL : number of cells in the horizontal direction
NNODE : actual number of nodes in the finite element grid
NODEWT : node numbers along the water table
NROW : number of rows of nodes
NVCELL : number of cells in the vertical direction
OPTION : codes which control the program, input and output
TYPEND : node type identifier
X : x coordinate of a node
Z : z coordinate of a node

Parameters and Variables for Subroutine HEADS:

B : shape function parameter
BX : shape function parameter, horizontal direction
BZ : shape function parameter, vertical direction
C : shape function parameter
CCX : double precision conversion of horizontal hydraulic conductivity (KHELM)
CCZ : double precision conversion of vertical hydraulic conductivity (KVELM)
CHEAD : vector containing constant head values

DEL : area of a finite element
DELT : size of the time step
DELZ : vertical node spacing
DELZQ : 1/4 of the vertical node spacing
DELZ5Q : 5/4 of the vertical node spacing
DIVCD : code used to partition the global conductivity matrix
DMN : parameter used to account for groundwater storage along the water table
DMNN : parameter used to account for groundwater storage along the water table
ELCOND : element conductivity matrix
ELVGRD : elevation of the ground surface, before mining
ERR : difference between the head values, along the water table, calculated during the previous and present time steps
F : flux vector
FORM : code used to check whether a new grid should be formed
FLUX : recharge at the top of a column during each time step
GLCOND : global conductivity matrix
HEAD : calculated hydraulic head distribution
HEADP : head values calculated during the previous time step
HEADWP : head values along the water table calculated during the previous time step
HEADWT : head values along the water table calculated during the present time step
HOLD : former head value of a node at the water table
IDWTR : row number (of each column of nodes) that defines the position of the water table
IEL : element counter
INC : constant head node counter
IND : node number counter
INCID : nodes which bound each of the elements
KHELM : horizontal hydraulic conductivity of an element
KK : element counter when forming single elements along the water table
KVELM : vertical hydraulic conductivity of an element
LENGTH : length of the upper boundary of the elements along the water table
LLP : unit number assigned to the line printer
MLEFT : column defining the left side of a mine cut
MLEFTP : column defining the left side of the previous mine cut
MRITE : column defining the right side of a mine cut
MRITEP : column defining the right side of the previous mine cut
NBANDE : estimated bandwidth
NBAND : actual bandwidth
NCHEDE : estimated number of constant head nodes
NCHEAD : actual number of constant head nodes
NCOL : number of columns of nodes
NDWT : node numbers for nodes along the water table
NELME : estimated number of elements in the finite element grid
NELM : actual number of elements in the finite element grid
NHCELL : number of cells in the horizontal direction
NITER : counter for the number of iterations required for the solution to converge along the water table
NITMAX : maximum number of iterations allowed per time step
NNODE : actual number of nodes in the finite element grid
NNODEE : estimated number of nodes in the finite element grid
NODEWT : node numbers for nodes along the water table
NROW : number of rows of nodes
NUHEAD : number of degrees of freedom (nodes with unknown head values)
NVCELL : number of cells in the vertical direction
OPTION : codes which control the execution, printing, output to disk files
SC : portion of the global conductivity matrix containing coefficients of

constant head nodes
SP : global conductivity matrix used to account for previously calculated heads
SPECYD : specific yield
SPL : parameter used to account for groundwater storage in the saturated zone
SPP : parameter used to account for groundwater storage in the unsaturated zone
SPLDMN : parameter used to account for both saturated and unsaturated storage at each node
STEADY : code which checks whether the flow system has reached steady state
STRELM : storativity assigned to a element
STRR : double precision conversion of storativity (STRELM)
TIME : total time that has elapsed since the beginning of the simulation
TOLRNC : error tolerence for convergence of the heads along the water table
TYPEND : node type identifier
TYPELM : element type identifier
WTMOVE : code which designates which water table nodes may move
X : x coordinate of a node
XI : double precision conversion of the x coordinate (X)
XLENL : area, to the left of a water table node, over which recharge occurs
XLENR : area, to the right of a water table node, over which recharge occurs
Z : z coordinate of a node
ZI : double precision conversion of the z coordinate (Z)
ZOLD : former z coordinate of a node at the water table

Parameters and Variables for Subroutine SOLVE:

F : flux vector
GLCOND : global conductivity matrix
HEAD : hydraulic head values
I : node counter
LLP : unit number assigned to the line printer
NBAND : actual bandwidth
NUHEAD : number of degrees of freedom (nodes with unknown head values)

Parameters and Variables for Subroutine HYGRAD:

A : 3x3 matrix containing the x and z coordinates and heads at the nodes bounding an element
A1 : the first matrix coefficient
A2 : the second matrix coefficient
A3 : the third matrix coefficient
COSL : direction cosine of the angle between the x axis and the normal to the plane formed by a finite element
COSM : direction cosine of the angle between the x axis and the normal to the plane formed by a finite element
COSN : direction cosine of the angle between the x axis and the normal to the plane formed by a finite element
DET : the determinant of matrix A
DIRECT : the direction of flow
GRAD : the hydraulic gradient within an element
HEAD : hydraulic head at a node
IEL : element counter
IELSTR : number of the first element for calculating velocities
IELSTP : number of the last element for calculating velocities

INCID : nodes which bound each of the elements
NELME : estimated number of elements in the finite element grid
PLUNGE : plunge of the plane defined by a finite element
RADIAN : degrees in 1 radian
STRIKE : strike of the plane represnted by a finite element
X : x coordinate of a node
Z : z coordinate of a node

Parameters and Variables for Subroutine VELCTY

BASELV : the lowest elevation along the base of the flow section
DELX : horizontal node spacing
DELZ : vertical node spacing
DIRECT : direction of the hydraulic gradient (direction of flow) in degrees
DIRCT : direction of the hydraulic gradient in radians
GRAD : hydraulic gradient
I : column number used to identify a cell
INCID : nodes which bound each of the elements
IEL : element number counter
IELSTR : number of the first element for which velocities will be calculated
IELSTP : number of the last element for which velocities will be calculated
J : row number used to identify a cell
KHELM : horizontal hydraulic conductivity of an element
KVELM : vertical hydraulic conductivity of an element
MAPGEO : code identifying the different geologic units
NELME : estimated number of elements in the finite element grid
NHCELL : number of cells in the horizontal direction
NVCELL : number of cells in the vertical direction
POR : porosity of a cell
PORSTY : porosity value assigned to a geologic unit
VX : groundwater velocity in the horizontal direction
VZ : groundwater velocity in the vertical direction
X : x coordinate of a node
Z : z coordinate of a node

Parameters and Variables for Subroutine TRANS:

A : parameter used to determine whether a particle moved horizontally out of the flow domain
B : parameter used to determine whether a particle moved vertically out of the flow domain
BASELV : lowest elevation along the base of the flow system
BULK : bulk density of the geologic medium
BULL : bulk density of the media corrected for porosity
CEC : cation exchange capacity values assigned to each geologic unit
CHVAL : constant head values at given row and column location
CONC : concentration of the contaminant in each cell
CONI : concentration in a cell before being adjusted for chemical processes
CONR : concentration used to adjust the mass of each particle
CONCP : previous concentration of the contaminant
DELT : size of the time step
DELX : horizontal node spacing
DELXH : 1/2 of the horizontal node spacing
DELXT : 1/3 of the horizontal node spacing

DELZ : vertical node spacing
DELZQ : 1/4 of the vertical node spacing
DELZH : 1/2 of the vertical node spacing
DELZT : 1/3 of the vertical node spacing
DISPER : longitudinal dispersivity values assigned to each geologic unit
DISPLO : longitudinal dispersivity coefficient
DISPTR : longitudinal dispersivity coefficient
DZ : vertical thickness of a cell along the water table
ELVMNE : elevation of the base of the mine, at each column
HEADWT : head values along the water table (elevation of the water table)
IB1 : left column bounding the cell containing a particle
IB2 : right column bounding the cell containing a particle
ICELL : column number of the cell or element which contains the particle
ICELLP : column number of the cell or element which previously contained the particle
IDBBR : row numbers of nodes along the base of the flow section
IEL : number of the element which contains the particle
IELCEL : parameter which identifies which elements occupy a cell
IELM : code that indicates whether the element that contains a particle is in the lower or upper half of the cell
IPT : particle counter
IRAND1 : random number generator seed
IRAND2 : random number generator seed
JCELL : row number of the cell containing the particle
JCELLP : row number of the cell which previously contained the particle
KTIME : time step counter
LCOL1 : left column bounding the source zone for the particles
LCOL2 : right column bounding the source zone for the particles
LLP : unit number assigned to the line printer
LROW1 : lower row bounding the source zone for the particles
LROW2 : upper row bounding the source zone for the particles
MAPGEO : code identifying the geologic units
MAP : code identifying a hydrostartigraphic unit
MOVHOR : code used to determine if a particle has moved horizontally out of the flow domain
NCOL : number of columns of nodes
NELME : estimated number of elements in the finite element grid
NHCELL : number of cells in the horizontal direction
NODEWT : node numbers for nodes along the water table
NP : total number of particles in the simulation
NPSTOP : total number of particles in region of no movement
NPGONE : total number of particles that have left the flow domain
NPPER : number of particles added during the present time step
NROW : number of rows of nodes
NVCELL : number of cells in the vertical direction
OPTION : codes which control the program, input and output
PART : distribution of particles (per cell) within the region where they may move
PARTGN : distribution of particles (per cell) that are outside of the region where they may move
PORSTY : porosity values assigned to a geologic unit
PTCODE : particle transport code (identifies the cells where particles may move)
RAND : random number
RAND1 : random number used to disperse a particle
RAND2 : random number used to disperse a particle
SELC : selectivity coefficient for exchange
SOLUTE : total concentration of the contaminant in solution

TYPEND : node type identifier
VEL : average velocity of a particle
VEX : horizontal velocity of a particle
VEZ : vertical velocity of a particle
VOLUME : volume of a cell (in litres)
VX : groundwater velocity in the horizontal direction
VZ : groundwater velocity in the vertical direction
X : x coordinate of a node
XBS : horizontal distance of a cell at the water table from the left boundary of the flow system
XLEFT : horizontal distance from the left boundary of the flow system to the cell receiving particles
XMASS : mass assigned to each particle
XMASSI : initial mass assigned to each particles
XMAX : total length of the cross section
XPOSP : former x coordinate of a particle
XPOS : x coordinate of the location of a particle
XRANGE : horizontal thickness of the zone that receives the particles
X1T : horizontal distance to the left side of the cell containing the particle, plus 1/3 DELX
X2T : horizontal distance to the left side of the cell containing the particle, plus 2/3 DELX
Z : z coordinate of a node
ZBOT : average elevation along the base of the source zone for the particles
ZBS : minimum elevation along the base of a cell at the water table
ZTOP : average elevation along the top of the sourcezone for the particles
ZRANGE : vertical thickness of zone receiving particles
ZPOSP : former z coordinate of a particle
ZPOS : z coordinate of the location of a particle
ZRFLCT : z coordinate of a particle after reflecting off a no-flow boundary
Z11 : 1/6 of the thickness of a cell at the water table
Z16 : elevation of a cell at the water table, plus 1/6 of the thickness of a cell
Z1H : elevation of a cell at the water table, plus 1/2 of the thickness of a cell
Z56 : elevation of a cell at the water table, plus 5/6 of the thickness of a cell

Parameters and Variables for Subroutine RANDO

IRAND1 : random number generator seed
IRAND2 : random number generator seed
RAND : random number

Parameters and Variables for Subroutine SEARCH:

BASELV : the lowest elevation along the base of the flow section
DELX : horizontal node spacing
DELXT : 1/3 of the horizontal node spacing
DELZ : vertical node spacing
DELZQ : 1/4 of the vertical node spacing
DELZ5Q : 5/4 of the vertical node spacing
I : column number of the cell containing the particle
IELM : code that indicates whether the element that contains the particle is in the lower or upper half of the cell
IT1 : code that indicates if the left side of the cell at the free surface is > DELZ (IT1=*1*)

IT2 : code that indicates if the right side of the cell at the free surface is > DELZ (IT2=*7*)
J : row number of the cell containing the particle
JLEFT : row number of the base of the left side of a cell along the water table
JRGHT : row number of the base of the right side of a cell along the water table
NCOL : number of columns of nodes
NODEWT : node numbers along the water table
XBASE : x coordinate of the left side of the cell containing the particle
X1T : horizontal distance to the left side of the cell containing the particle, plus 1/3 DELX
X2T : horizontal distance to the left side of the cell containing the particle, plus 2/3 DELX
XPOS : x coordinate defining the position of a particle
Z : z coordinate of a node
ZBASE : z coordinate of the base of the cell containing the particle
ZPOS : z coordinate defining the position of a particle
ZLEFT : length of the left side of the cell that bounds the free surface
ZL1H : vertical distance to the base of the cell containing the particle, plus 1/2 of the length of the left side of the cell
ZL1Q : vertical distance to the base of the cell containing the particle, plus 1/4 of the length of the left side of the cell
ZRGHT : length of the right side of the cell that bounds the free surface
ZR1H : vertical distance to the base of the cell containing the particle, plus 1/2 of the length of the right side of the cell
ZR3Q : vertical distance to the base of the cell containing the particle, plus 3/4 of the length of the right side of the cell
ZWT1 : z coordinate of the water table node at column i
ZWT2 : z coordinate of the water table node at column i+1
ZWT1M : z coordinate of the node immediately below the water table at column i
ZWT2M : z coordinate of the node immediately below the water table at column i+1

Parameters and Variables for Subroutine OUTPUT:

CONC : concentration of the contaminant in each cell
DELT : size of the time step
DIRECT : direction of the hydraulic gradient in degrees
ELVGRD : elevation of the ground surface, before mining
GRAD : hydraulic gradient within an element
HEAD : hydraulic head values
HEADWT : hydraulic head values of the nodes at the water table
I : column counter
IEL : element number counter
INCID : nodes which bound each of the elements
INO : node number counter
IPT : particle counter
J : row counter
KHELM : horizontal hydraulic conductivity of an element
KVELM : vertical hydraulic conductivity of an element
KTIME : time step number
LDH : unit number assigned to the file into which the head and particle distributions are stored to be used as input to continue a run
LLP : unit number assigned to the line printer
LPC : unit number assigned to the file into which the concentration distributions are stored for plotting
LPG : unit assigned to the file into which the finite element data are stored for

plotting a finite element grid
LPH : unit number assigned to the file into which heads are stored for plotting
LPI : unit number assigned to the file into which hydraulic gradients and their directions are stored for plotting
LPP : unit number assigned to the file into which the distribution of particles are stored for plotting
MAPGEO : code identifying the geologic units
NCOL : number of columns of nodes
NELM : actual number of elements in the finite element grid
NELME : estimated number of elements in the finite element grid
NHCELL : number of rows of cells
NVCELL : number of columns of cells
NNODE : actual number of nodes in the finite element grid
NODEWT : node numbers along the water table
NP : total number of particles entred into the system
NPFLOW : number of particles currently in the flow system
NPGONE : number of particles which have left the flow system
NPPER : number of particles added during a time step
NPSTOP : number of particles in the region of no movement
NTIME : total number of time steps
OPTION : codes which control the program execution, input and output
PART : distribution of particles within the region where they may move
PARTGN : distribution of particles within the region where they may not move
STEADY : code which checks whether the flow system has reached steady state
STRELM : storativity assigned to a element
TIME : elapsed time since the beginning of the simulation
TYPEND : node type identifier
TYPELM : element type identifier
VX : groundwater velocity in the horizontal direction
VZ : groundwater velocity in the vertical direction
X : x coordinate of a node
XMASS : mass of a single particle
XPOS : x coordinate of the location of a particle
ZPOS : z coordinate of the location of a particle
Z : z coordinate of a node

6.3 COMPUTER PROGRAM LISTING

```
C*************************************************************************
C
C
C  PROGRAM TO SIMULATE GROUNDWATER FLOW AND CONTAMINANT TRANSPORT
C  IN THE VICINITY OF ACTIVE AND RECLAIMED STRIP MINES.
C
C  PROGRAM CALCULATES TRANSIENT HYDRAULIC HEAD DISTRIBUTIONS WITH
C  A FREE SURFACE IN A TWO-DIMENSIONAL CROSS SECTION, UTILIZING
C  LINEAR TRIANGULAR FINITE ELEMENTS.
C
C  A DETERMINISTIC-PROBABILISTIC MOVING PARTICLE MASS TRANSPORT
C  ROUTINE IS USED TO SIMULATE CONTAMINANT TRANSPORT FROM SPOIL.
C
C*************************************************************************
C
C              PROGRAM VARIABLES AND PARAMETERS
C
C  BASE   : TEST TO SEE IF THE MINE CUT HAS REACHED THE BASE OF THE MINE
C  BASELV: LOWEST ELEVATION ALONG THE BASE OF THE FLOW SYSTEM
C  BULK   : BULK DENSITY OF A GEOLOGICAL UNIT
C  CEC    : CATION EXCHANGE CAPACITY OF A GEOLOGICAL UNIT
C  CHEAD  : VECTOR CONTAINING ALL CONSTANT HEAD VALUES
C  CHVAL  : CONSTANT HEAD VALUE AT A GIVEN ROW AND COLUMN THAT IS READ IN
C  DELT   : SIZE OF THE TIME-STEP
C  DELTIN: TIME STEP INCREMENT
C  DELX   : HORIZONTAL NODE SPACING
C  DELZ   : VERTICAL NODE SPACING
C  DIRECT: DIRECTION OF FLOW IN AN ELEMENT (IN DEGREES FROM +VE X-AXIS)
C  DISPER: LONGITUDINAL DISPERSIVITY OF A GEOLOGICAL UNIT
C  ELVBAS: ELEVATION OF THE BASE OF THE REGION, AT EACH COLUMN
C  ELVGRD: ELEVATION OF THE GROUND SURFACE BEFORE MINING AT EACH COLUMN
C  ELVMNE: ELEVATION OF THE BASE OF THE MINE, AT EACH COLUMN
C  ELVREC: ELEVATION OF THE GROUND SURFACE FOLLOWING RECLAMATION
C  FLUX   : FLUX ASSIGNED TO AT THE TOP OF A COLUMN PER TIME STEP
C  GRAD   : HYDRAULIC GRADIENT WITHIN AN ELEMENT
C  HEAD   : HYDRAULIC HEAD VALUES CALCULATED DURING AN ITERATION
C  HEADI  : INITIAL HEAD VALUE READ IN USED TO START THE SIMULATION
C  HEADP  : HEAD VALUE CALCULATED DURING THE PREVIOUS TIME STEP
C  HEADWP: HEAD VALUE AT THE WATER TABLE FROM THE PREVIOUS TIME STEP
C  HEADWT: HEAD VALUES (ELEVATION) ALONG THE WATER TABLE
C  ICR    : UNIT NUMBER ASSIGNED TO THE CARD READER
C  IDH    : DISK FILE FROM WHICH HEAD AND PARTICLE DISTRIBUTIONS ARE READ TO
C           CONTINUE A SIMULATION
C  IDBBR  : ROW NUMBER THAT DEFINES THE POSITION OF THE BASE OF THE SECTION
C  IDWTR  : ROW NUMBER (OF EACH COLUMN OF NODES) THAT DEFINES THE
C           POSITION OF THE WATER TABLE
C  INCID  : FINITE ELEMENT INCIDENCES
C  IRECOL: COLUMN, AT EACH TIME STEP, WHERE THE RECHARGE CHANGES
C  ICH    : COLUMN NUMBER OF THE CONSTANT READ VALUES THAT ARE READ IN
C  JCH    : ROW NUMBER OF THE CONSTANT READ VALUES THAT ARE READ IN
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51      C  KHORZ : HORIZONTAL HYDRAULIC CONDUCTIVITY ASSIGNED TO A GEOLOGIC UNIT
52      C  KVERT : VERTICAL HYDRAULIC CONDUCTIVITY ASSIGNED TO A GEOLOGIC UNIT
53      C  KHELM : HORIZONTAL HYDRAULIC CONDUCTIVITY OF AN ELEMENT
54      C  KVELM    : VERTICAL HYDRAULIC CONDUCTIVITY OF AN ELEMENT
55      C  KTIME : TIME STEP COUNTER
56      C  LDH   : DISK FILE FROM WHICH HEAD AND PARTICLE DISTRIBUTIONS ARE READ TO
57      C            TO CONTINUE A SIMULATION
58      C  LLP   : UNIT NUMBER ASSIGNED TO THE LINE PRINTER
59      C  LPC   : UNIT NUMBER ASSIGNED TO THE DEVICE ONTO WHICH THE CONCENTRATION
60      C            DISTRIBUTION OF PARTICLES ARE STORED FOR PLOTTING
61      C  LPP   : UNIT NUMBER ASSIGNED TO THE DEVICE ONTO WHICH THE DISTRIBUTION
62      C            OF PARTICLES IS STORED FOR PLOTTING
63      C  LPH   : UNIT NUMBER ASSIGNED TO THE DEVICE INTO WHICH THE HEAD VALUES
64      C            ARE STORED FOR PLOTTING
65      C  LPI   : UNIT NUMBER ASSIGNED TO THE DEVICE INTO WHICH THE HYDRAULIC GRADIENT
66      C            AND ITS DIRECTION ARE STORED FOR PLOTTING
67      C  LPG   : UNIT NUMBER ASSIGNED TO THE DEVICE INTO WHICH NODE COORDINATES
68      C            AND ELEMENTS ARE STORED FOR PLOTTING A FINITE ELEMENT GRID
69      C  MAPGEO: MAP OF THE VARIOUS GEOLOGICAL UNITS
70      C  MAPSPL: MAP OF THE VARIOUS UNITS WITHIN THE SPOIL
71      C  MNLEFT: COLUMNS DEFINING THE LEFT SIDE OF THE MINE PIT
72      C  MNRITE: COLUMNS DEFINING THE RIGHT SIDE OF THE MINE PIT
73      C  MLEFT : COLUMN DEFINING THE LEFT SIDE OF A MINE CUT
74      C  MRITE : COLUMN DEFINING THE RIGHT SIDE OF A MINE CUT
75      C  MLEFTP: COLUMN DEFINING THE LEFT SIDE OF THE PREVIOUS MINE CUT
76      C  MRITEP: COLUMN DEFINING THE RIGHT SIDE OF THE PREVIOUS MINE CUT
77      C  NBAND : ACTUAL BANDWIDTH
78      C  NBANDE: ESTIMATED BANDWIDTH
79      C  NCHEAD: ACTUAL NUMBER OF CONSTANT HEAD NODES
80      C  NCHEDE: ESTIMATED NUMBER OF CONSTANT HEAD NODES
81      C  NCOL  : NUMBER OF COLUMNS OF NODES
82      C  NELM  : ACTUAL NUMBER OF ELEMENTS IN THE FINITE ELEMENT GRID
83      C  NELME : ESTIMATED NUMBER OF ELEMENTS IN THE FINITE ELEMENT GRID
84      C  NPPER : NUMBER OF PARTICLES ADD DURING A TIME STEP
85      C  NRECOL: NUMBER OF COLUMNS WHERE FLUX IS APPLIED PER TIME STEP
86      C  NHCELL: NUMBER OF CELLS IN THE HORIZONTAL DIRECTION
87      C  NITMAX: MAXIMUM NUMBER OF ITERATIONS ALLOWED PER TIME STEP FOR THE
88      C            WATER TABLE TO CONVERGE
89      C  NNODE : ACTUAL NUMBER OF NODES IN THE FINITE ELEMENT GRID
90      C  NNODEE: ESTIMATED NUMBER OF NODES IN THE FINITE ELEMENT GRID
91      C  NODEWT: NODE NUMBER ALONG THE WATER TABLE
92      C  NGEOL : NUBER OF GEOLOGICAL UNITS
93      C  NRESTP: NUMBER OF TIMES THAT THE RECHARGE CHANGES DURING THE SIMULATION
94      C  NROW  : NUMBER OF ROWS OF NODES
95      C  NTIME : TOTAL NUMBER OF TIME-STEPS
96      C  NSPOIL: NUMBER OF SPOIL UNITS
97      C  NSKIP : NUMBER OF TIME-STEPS THAT PASS BEFORE RESULTS ARE PRINTED
98      C  NVCELL: NUMBER OF CELLS IN THE VERTICAL DIRECTION
99      C  OPTION( 1): PRINT NODE CO-ORDINATES
100     C  OPTION( 2): PRINT ELEMENT INCIDENCES
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101     C  OPTION( 3): PRINT ELEMENT HYDRAULIC CONDUCTIVITY AND STORATIVITY
102     C  OPTION( 4): OUTPUT NODES AND ELEMENT TO A FILE FOR PLOTTING A GRID
103     C  OPTION( 5): CALCULATE THE HEAD DISTRIBUTIONS
104     C  OPTION( 6): PRINT TOTAL HEAD VALUES DURING ALL OR SELECTED TIME STEPS
105     C  OPTION( 7): OUTPUT ALL HEAD DISTRIBUTIONS FOR PLOTTING
106     C  OPTION( 8): OUTPUT ONLY THE LAST HEAD DISTRIBUTION TO A PLOTTING FILE
107     C  OPTION( 9): PRINT WATER TABLE CONVERGENCE INFORMATION AT EACH ITERATION
108     C  OPTION(10): READ IN PREVIOUSLY CALCULATED HEAD VALUES TO CONTINUE A RUN
109     C  OPTION(11): OUTPUT THE LAST HEAD VALUES FOR INPUT TO CONTINUE A RUN
110     C  OPTION(12): SIMULATE MINING AND/OR RECLAMATION CONDITIONS
111     C  OPTION(13): CALCULATE THE HYDRAULIC GRADIENT AND DIRECTION OF GRADIENT FIELD
112     C  OPTION(14): PRINT THE GRADIENT AND THE DIRECTION OF THE GRADIENT FIELD
113     C  OPTION(15): OUTPUT THE GRADIENT AND ITS DIRECTION FOR PLOTTING
114     C  OPTION(16): CALCULATE THE VELOCITY FIELD
115     C  OPTION(17): PRINT THE VELOCITY FIELD
116     C  OPTION(18): RUN THE MASS TRANSPORT ROUTINE
117     C  OPTION(19): PRINT THE PARTICLE AND CONCENTRATION DISTRIBUTIONS
118     C  OPTION(20): OUTPUT THE CONCENTRATION DISTRIBUTION FOR PLOTTING
119     C  OPTION(21): OUTPUT THE PARTICLE DISTRIBUTION FOR PLOTTING
120     C  OPTION(22): OUTPUT LAST PARTICLE DISTRIBUTION FOR INPUT TO CONTINUE A RUN
121     C  OPTION(23): INPUT A PREVIOUS PARTICLE DISTRIBUTION TO CONTINUE A RUN
122     C  OPTION(24): PRINT THE MASS, X AND Z COORDINATES OF THE PARTICLES
123     C  PLCOL : LEFT BOUNDARY (COLUMN) OF THE ZONE WHICH RECIEVES THE PARTICLES
124     C  PRCOL : RIGHT BOUNDARY (COLUMN) OF THE ZONE WHICH RECIEVES THE PARTICLES
125     C  PBROW : BOTTOM BOUNDARY (ROW) OF THE ZONE WHICH RECEIVES THE PARTICLES
126     C  PTROW : TOP BOUNDARY (ROW) OF THE ZONE WHICH RECEIVES THE PARTICLES
127     C  PORSTY: POROSITY VALUE ASSIGNED TO A GEOLOGIC UNIT
128     C  PTCODE: PARTICLE TRANSPORT CODE WHICH IDENTIFIES CELLS WHERE PARTICLES
129     C          ARE ALLOWED TO MOVE (T=MOVEMENT, F=NO MOVEMENT)
130     C  RCHARG: RECHARGE APPLIED AT THE SURFACE DURING ALL TIME STEPS
131     C  RESTEP: TIME STEP AT WHICH THE RECHARGE CHANGES
132     C  SBULK : THE BULK DENSITY OF THE SPOIL UNITS
133     C  SCEC  : THE CATION EXCHANGE CAPACITY OF THE SPOIL UNITS
134     C  SDISPR:  LONGITUDINAL DISPERSIVITY OF THE SPOIL UNITS
135     C  SELC  : SELECTIVITY COEFFICIENT FOR EXCHANGE
136     C  SOLUTE: TOTAL CONCENTRATION OF THE CONTAMINANT IN SOLUTION
137     C  SPECYD: SPECIFIC YIELD
138     C  SPOLKH: HORIZONTAL HYDRAULIC CONDUCTIVITY OF A UNIT OF THE SPOIL
139     C  SPOLKV: VERTICAL HYDRAULIC CONDUCTIVITY OF A UNIT OF THE SPOIL
140     C  SPOLP : POROSITY OF A UNIT OF SPOIL
141     C  SPOLS : STORATIVITY OF A UNIT OF THE SPOIL
142     C  STEADY: CODE THAT CHECKS IF THE FLOW SYSTEM IS AT STEADY STATE
143     C  STOR  : STORATIVITY ASSIGNED TO A GEOLOGICAL UNIT
144     C  STRELM: STORATIVITY ASSIGNED TO AN ELEMENT
145     C  TITLE : PROBLEM IDENTIFIER (ANY TITLE WITH UP TO 80 CHARACTERS)
146     C  TIME  : TOTAL TIME THAT HAS ELAPSED SINCE THE BEGINNING OF THE SIMULATION
147     C  TOLRNC: ERROR TOLERENCE FOR CONVERGENCE OF THE HEADS ALONG THE WATER TABLE
148     C  TYPEND: NODE TYPE IDENTIFIER (T=CONSTANT HEAD; F=VARIABLE HEAD)
149     C  TYPELM: ELEMENT TYPE IDENTIFIER (T=AT FREE SURFACE; F=OTHER ELEMENT)
150     C  VX    : GROUNDWATER VELOCITY IN THE HORIZONTAL DIRECTION
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151     C  VZ     : GROUNDWATER VELOCITY IN THE VERTICAL DIRECTION
152     C  WTMOVE: CODE TO IDENTIFY WHETHER OR NOT A WATER TABLE NODE MAY MOVE
153     C          (T=NODE MAY MOVE; F=NODE CAN NOT MOVE)
154     C  XMASSI: INITIAL MASS OF A PARTICLE
155     C  X      : X CO-ORDINATE OF A NODE
156     C  Z      : Z CO-ORDINATE OF A NODE
157     C
158     C*******************************************************************************
159     C
160     C  INPUT AND OUTPUT UNITS
161     C        INPUT UNIT 5 : BASIC DATA SET
162     C          "     "  4 : HEAD AND/OR PARTICLE DISTRIBUTIONS FOR CONTINUING A RUN
163     C
164     C       OUTPUT UNIT 6 : OUTPUT TO PRINTER
165     C          "     "  8 : HEAD AND/OR PARTICLE DISTRIBUTIONS FOR A FUTURE RUN
166     C          "     "  10: HEADS FOR PLOTTING
167     C          "     "  11: FINITE ELEMENT GRID FOR PLOTTING
168     C          "     "  12: HYDRAULIC GRADIENT FOR PLOTTING
169     C          "     "  14: CONCENTRATION DISTRIBUTION FOR PLOTTING
170     C          "     "  15: DISTRIBUTION OF PARTICLES FOR PLOTTING
171     C
172     C
173     C*******************************************************************************
174     C
175           REAL*8 CHEAD(18),HEAD(1275),F(1275),HEADP(1275),SP(1275,22),
176          1      GLCOND(1275,22),SC(1275,18)
177           REAL TITLE(20),STOR(10),PORSTY(10),KHORZ(10),KVERT(10),SPOLKH(10),
178          1      SPOLKV(10),SPOLP(10),SPOLS(10),X(1275),Z(1275),RCHARG(1,61),
179          2      ELVGRD(61),ELVMNE(61),ELVREC(61),ELVBAS(61),CHVAL(61,23),
180          3      FLUX(61),HEADWT(61),HEADWP(61),VX(2300),VZ(2300),KHELM(2300),
181          4      KVELM(2300),STRELM(2300),GRAD(2300),DIRECT(2300),DISPER(10),
182          5      CEC(10),BULK(10),SDISPR(10),SCEC(10),SBULK(10),CONCP(60,22),
183          6      CONC(60,22),CONR(60,22),XPOS(60),ZPOS(60),XMASS(60)
184           INTEGER*2 IDBBR(61),IDWTR(61),NODEWT(61),MAPGEO(60,22),ICH(5),
185          1        JCH(5),INCID(2300,3),DIVCD(1275),NRECOL(61),IRECOL(1,61),
186          2        RESTEP(5),MNRITE(20),MNLEFT(20),MAPSPL(60,22),NPPER(20),
187          3        PLCOL(20),PRCOL(20),PBROW(20),PTROW(20),PART(60,22),
188          4        PARTGN(60,22),IELCEL(60,22,2)
189           LOGICAL*1 TYPEND(1275),OPTION(25),WTMOVE(61),TYPELM(2300),
190          1        PTCODE(60,22),STEADY/.FALSE./
191           COMMON BASELV,DELX,DELZ,LLP,NROW,NCOL,NNODE,NELM,NHCELL,NVCELL,
192          1        NNODEE,NELME,NBANDE,NCHEDE,NCHEAD,OPTION
193           COMMON /A1/GLCOND /A2/SC /A3/SP
194     C
195     C  INPUT AND OUTPUT UNIT DEVICE NUMBERS
196           ICR=5
197           LLP=6
198           IDH=4
199           LDH=8
200           LPH=10
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      LPG=11
      LPI=12
      LPC=14
      LPP=15
C
C  PROBLEM TITLE
      READ(ICR,8)TITLE
    8 FORMAT(20A4)
      WRITE(LLP,9)TITLE
    9 FORMAT(//1X,130('*')//1X,20A4//1X,130('*')//)
C
C  READ AND WRITE PROGAM OPTION CODES
      READ(ICR,11)(OPTION(L),L=1,24)
   11 FORMAT(80L1)
      WRITE(LLP,13)(OPTION(L),L=1,8)
   13 FORMAT(/' OUTPUT LISTINGS AND PROBLEM CONTROL'/
     1       /' OPTION( 1)=',L2,' :PRINT THE NODE CO-ORDINATES'
     2       /' OPTION( 2)=',L2,' :PRINT THE ELEMENT INCIDENCES'
     3       /' OPTION( 3)=',L2,' :PRINT THE ELEMENT HYDRAULIC ',
     4                          'CONDUCTIVITIES AND STORATIVITIES'
     5       /' OPTION( 4)=',L2,' :PLOT THE FINITE ELEMENT GRID'
     6       /' OPTION( 5)=',L2,' :CALCULATE THE HEAD DISTRIBUTIONS'
     7       /' OPTION( 6)=',L2,' :PRINT THE HEAD DISTRIBUTIONS'
     8       /' OPTION( 7)=',L2,' :PLOT ALL HEAD DISTRIBUTIONS'
     9       /' OPTION( 8)=',L2,' :PLOT ONLY THE LAST HEAD VALUES')
      WRITE(LLP,14)(OPTION(L),L=9,14)
   14 FORMAT(' OPTION( 9)=',L2,' :PRINT THE WATER TABLE CONVERGENCE',
     1                         ' INFORMATION AT EACH ITERATION'
     2       /' OPTION(10)=',L2,' :INPUT PREVIOUSLY CALCULATED HEADS TO',
     3                         ' CONTINUE AN EARLIER RUN'
     4       /' OPTION(11)=',L2,' :OUTPUT THE LAST HEAD DISTRIBUTION',
     5                         ' FOR USE AS INPUT IN A LATER RUN'
     6       /' OPTION(12)=',L2,' :SIMULATE MINING AND RECLAMATION'
     7       /' OPTION(13)=',L2,' :CALCULATE THE HYDRAULIC GRADIENT AND',
     8                         ' THE DIRECTION OF THE GRADIENT FIELD'
     9       /' OPTION(14)=',L2,' :PRINT THE HYDRAULIC GRADIENT AND ITS',
     1                         ' ITS DIRECTION FIELDS')
      WRITE(LLP,15)(OPTION(L),L=15,21)
   15 FORMAT(' OPTION(15)=',L2,' :PLOT THE HYDRAULIC GRADIENT AND ITS',
     1                         ' DIRECTION'
     2       /' OPTION(16)=',L2,' :CALCULATE THE VELOCITY FIELD'
     3       /' OPTION(17)=',L2,' :PRINT THE VELOCITY FIELD'
     4       /' OPTION(18)=',L2,' :RUN THE MASS TRANSPORT ROUTINE'
     5       /' OPTION(19)=',L2,' :PRINT THE CONCENTRATION AND PARTICLE',
     6                         ' DISTRIBUTIONS'
     7       /' OPTION(20)=',L2,' :PLOT THE PARTICLE CONCENTRATION'
     8       /' OPTION(21)=',L2,' :PLOT THE PARTICLE DISTRIBUTION')
      WRITE(LLP,16)(OPTION(L),L=22,24)
   16 FORMAT(' OPTION(22)=',L2,' :OUTPUT THE LAST PARTICLE DISTRIBUTION'
     1                        ,' TO CONTINUE THE RUN'
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     2      /' OPTION(23)=',L2,' :INPUT THE LAST PARTICLE DISTRIBUTION',
     3                       ' TO CONTINUE A PREVIOUS RUN'
     4      /' OPTION(24)=',L2,' :PRINT THE MASS, X AND Z COORDINATES',
     5                       ' OF THE REFERENCE PARTICLES'/)
C
C  READ CROSS-SECTION GRID AND CONTAMINANT PARAMETERS
      READ(ICR,21)NROW,NCOL,NTIME,NSKIP,NCHEAD,NRESTP,NNODEE,NELME,
     1            NBANDE,NCHEDE,NGEOL,NSPOIL,NITMAX
   21 FORMAT(16I5)
      READ(ICR,22)DELX,DELZ,DELT,HEADI,SPECYD,TOLRNC,DELTIN
   22 FORMAT(8F10.0)
      TIME=DELT
C
C  PRINT FINITE ELEMENT GRID PARAMETERS
      WRITE(LLP,23)NROW,DELX,NCOL,DELZ,NGEOL,DELT,NSPOIL,HEADI,NCHEDE,
     1             SPECYD,NCHEAD,TOLRNC,NNODEE,NTIME
   23 FORMAT(//' CROSS SECTION AND SIMULATION PARAMETERS'//
     1       I9,' :NUMBER OF ROWS',F54.3,' :HORIZONTAL NODE SPACING'/
     2       I9,' :NUMBER OF COLUMNS',F51.3,' :VERTICAL NODE SPACING'/
     3       I9,' :NUMBER OF GEOLOGICAL UNITS',F42.3,' :TIME STEP'/
     4       I9,' :NUMBER OF SPOIL UNITS',F47.3,' :INITIAL HEAD VALUE'/
     5       I9,' :ESTIMATED NUMBER OF CONSTANT HEAD NODES',F29.3,' :',
     6      'SPECIFIC YIELD'/I9,' :ACTUAL NUMBER OF CONSTANT HEAD NODES',
     7       ' ENTERED',F24.3,' :WATER TABLE AND STEADY STATE ',
     8       'CONVERGENCE TOLERANCE'/I9,' :ESTIMATED NUMBER OF NODES',
     9       I43,' :NUMBER OF TIME STEPS')
      WRITE(LLP,24)NELME,DELTIN,NBANDE,NITMAX,NRESTP,NSKIP
   24 FORMAT(I9,' :ESTIMATED NUMBER OF ELEMENTS',F40.3,' :TIME STEP ',
     1        'INCREMENT'/I9,' :ESTIMATED BANDWIDTH',I49,' :MAXIMUM ',
     2        'NUMBER OF ITERATIONS PER TIME STEP'/I9,' :NUMBER OF ',
     3        'PERIODS OF RECHARGE',I39,' :NUMBER OF TIME STEPS BETWEEN',
     4        ' LISTINGS')
C
C  READ THE ELEVATION OF THE GROUND SURFACE AT EACH COLUMN
      READ(ICR,22)(ELVGRD(I),I=1,NCOL)
C
C  READ THE CODE WHICH DEFINE WHICH WATER TABLE NODE CAN MOVE
      READ(ICR,11)(WTMOVE(I),I=1,NCOL)
C
C  WRITE GROUND SURFACE PARAMETERS
      WRITE(LLP,32)
   32 FORMAT('1GROUND SURFACE PARAMETERS'//8(' COL ELEVATION  ')/)
      WRITE(LLP,33)(I,WTMOVE(I),ELVGRD(I),I=1,NCOL)
   33 FORMAT(8(I4,L2,F8.2,2X))
C
C  READ AND WRITE THE INITIAL ELEVATION OF THE WATER TABLE
      READ(ICR,22)(HEADWT(I),I=1,NCOL)
      WRITE(LLP,34)
   34 FORMAT(/////' WATER TABLE ELEVATION'//8(' COL ELEVATION  ')/)
      WRITE(LLP,35)(I,HEADWT(I),I=1,NCOL)
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      35 FORMAT(8(I4,F10.2,2X))
C
C  READ THE ELEVATION OF THE BASE OF THE REGION AT EACH COLUMN
      READ(ICR,22)(ELVBAS(I),I=1,NCOL)
C  FIND THE LOWEST ELEVATION ALONG THE BASE OF THE REGION
      BASELV=ELVBAS(1)
      DO 36 I=2,NCOL
      IF(ELVBAS(I).LT.BASELV)BASELV=ELVBAS(I)
   36 CONTINUE
      BASELV=IFIX(BASELV/DELZ)*DELZ
C
C  WRITE THE BASAL PARAMETERS
      WRITE(LLP,37)
   37 FORMAT(/////' BOTTOM BOUNDARY ELEVATION'//8(' COL ELEVATION  ')/)
      WRITE(LLP,35)(I,ELVBAS(I),I=1,NCOL)
C
C  INITIALIZE VECTORS
      DO 55 I=1,NCOL
      HEADWP(I)=HEADI
      DO 50 J=1,NROW
      CHVAL(I,J)=-1.E35
   50 CONTINUE
   55 CONTINUE
C
C  INPUT RECHARGE AND THE COLUMN WHERE IT IS APPLIED
      IF(NRESTP.EQ.0)GO TO 70
      WRITE(LLP,61)
   61 FORMAT('1RECHARGE VALUES    (+VE=RECHARGE; -VE=EVAPORATION)'/)
      DO 65 L=1,NRESTP
      READ(ICR,21)RESTEP(L),NRECOL(L)
      N=NRECOL(L)
      READ(ICR,63)(IRECOL(L,K),RCHARG(RESTEP(L),IRECOL(L,K)),K=1,N)
   63 FORMAT(8(I3,F7.0))
      WRITE(LLP,64)RESTEP(L)
   64 FORMAT(//' CHANGE AT TIME STEP:',I3//8(' COL  RECHARGE  '))
      WRITE(LLP,35)(IRECOL(L,K),RCHARG(RESTEP(L),IRECOL(L,K)),K=1,N)
   65 CONTINUE
C
C  READ CONSTANT HEAD VALUES AND ROW AND COLUMN LOCATIONS
   70 IF(NCHEAD.EQ.0)GO TO 80
      READ(ICR,71)(ICH(K),JCH(K),CHVAL(ICH(K),JCH(K)),K=1,NCHEAD)
   71 FORMAT(6(I3,I3,F7.0))
      WRITE(LLP,72)
   72 FORMAT(/////' CONSTANT HEAD VALUES'//1X,6('COL ROW    HEAD    ')/)
      WRITE(LLP,74)(ICH(K),JCH(K),CHVAL(ICH(K),JCH(K)),K=1,NCHEAD)
   74 FORMAT(6(I4,I4,F8.2,3X))
C
C  READ AND WRITE HYDROGEOLOGICAL PARAMETERS OF THE GEOLOGICAL UNITS
   80 NVCELL=NROW-1
      NHCELL=NCOL-1
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      WRITE(LLP,81)
   81 FORMAT('1HYDROGEOLOGICAL PARAMETERS OF THE GEOLOGICAL UNITS'/)
      WRITE(LLP,82)
   82 FORMAT(' UNIT',13X,'Kh',12X,' Kv',10X,'STOR.',7X,'POROSITY',8X,
     1       'DISPER.',12X,'CEC',6X,'BULK DEN.'/)
      DO 85 K=1,NGEOL
      READ(ICR,83)L,KHORZ(L),KVERT(L),STOR(L),PORSTY(L),DISPER(L),
     1            CEC(L),BULK(L)
   83 FORMAT(I5,8E10.3)
      WRITE(LLP,84)L,KHORZ(L),KVERT(L),STOR(L),PORSTY(L),DISPER(L),
     1             CEC(L),BULK(L)
   84 FORMAT(I5,8E15.4)
   85 CONTINUE
C
C  READ AND WRITE THE MAP OF THE GEOLOGICAL UNITS
      WRITE(LLP,86)
   86 FORMAT(//' MAP OF THE GEOLOGICAL UNITS'/)
      DO 89 K=1,NVCELL
      J=NROW-K
      READ(ICR,87)(MAPGEO(I,J),I=1,NHCELL)
   87 FORMAT(80I1)
      WRITE(LLP,88)(MAPGEO(I,J),I=1,NHCELL)
   88 FORMAT(1X,80I1)
   89 CONTINUE
C
C  READ AND PRINT THE CONTAMINANT TRANSPORT PARAMETERS
      IF(.NOT.OPTION(18))GO TO 90
      NP=0
      READ(ICR,22)SOLUTE,SELC,XMASSI
      WRITE(LLP,41)SOLUTE,SELC,XMASSI
   41 FORMAT('1CONTAMINANT TRANSPORT PARAMETERS'//F9.3,
     1       ' :TOTAL CONCENTRATION IN SOLUTION'/F9.3,
     2       ' :SELECTIVITY COEFFICIENT FOR EXCHANGE'/F9.3,
     4       ' :INITIAL MASS ADDED PER PARTICLE'//)
C
C  READ AND WRITE LOCATIONS WHERE PARTICLES ARE ADDED TO THE SYSTEM
      READ(ICR,43)(NPPER(I),PLCOL(I),PRCOL(I),PBROW(I),PTROW(I),
     1                  I=1,NTIME)
   43 FORMAT(I9,4I4,I9,4I4,I9,4I4)
      WRITE(LLP,44)
   44 FORMAT(///' PARTICLES ADDED TO THE SYSTEM DURING A TIME STEP'/
     1       '  (IF T.ROW OR B.ROW ARE NEGATIVE, THEN THE ELEVATIONS OF',
     2       ' THE WATER TABLE OR BASE OF THE MINE, RESPECTIVELY, ARE ',
     3       'ASSUMED)'//3(' L.COL R.COL B.ROW T.ROW  PARTICLES    ')//)
      WRITE(LLP,46)(PLCOL(I),PRCOL(I),PBROW(I),PTROW(I),NPPER(I),
     1                  I=1,NTIME)
   46 FORMAT(4I6,I11,I10,3I6,I11,I10,3I6,I11)
C
C  READ AND WRITE THE PARTICLE TRANSPORT CODE
      WRITE(LLP,47)
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      47 FORMAT('1PARTICLE TRANSPORT CODE'/' (F=NO MOVEMENT ALLOWED IN '
     1       ,'THE CELL;  T=MOVEMENT ALLOWED IN THE CELL)'/)
         DO 49 K=1,NVCELL
         J=NROW-K
         READ(ICR,11)(PTCODE(I,J),I=1,NHCELL)
         WRITE(LLP,48)(PTCODE(I,J),I=1,NHCELL)
      48 FORMAT(1X,80L1)
      49 CONTINUE
C
C  INPUT INDIVIDUAL MINE CUT BOUNDARIES DURING EACH MINING STEP
      90 MLEFT=0
         MRITE=0
         MLEFTP=0
         MRITEP=0
         IF(.NOT.OPTION(12))GO TO 105
         READ(ICR,21)MLEFTP,MRITEP,(MNLEFT(I),MNRITE(I),I=1,NTIME)
         WRITE(LLP,91)MLEFTP,MRITEP
      91 FORMAT('1SIDE BOUNDARIES OF THE MINE DURING MINING  (COL.) '
     1       //' PREVIOUS BOUNDARIES:',2I4/'   FUTURE BOUNDARIES:')
         WRITE(LLP,94)(MNLEFT(I),MNRITE(I),I=1,NTIME)
      94 FORMAT(I25,I4,9(I6,I4))
         MLEFT=MNLEFT(1)
         MRITE=MNRITE(1)
C
C  READ AND WRITE THE GROUND ELEVATION DURING MINING AT EACH COLUMN
         READ(ICR,22)(ELVMNE(I),I=1,NCOL)
         WRITE(LLP,92)
      92 FORMAT(////' GROUND ELEVATION DURING MINING'//
     1       8(' COL ELEVATION  ')/)
         WRITE(LLP,35)(I,ELVMNE(I),I=1,NCOL)
C
C  INPUT THE HYDROGEOLOGIC PARAMETERS OF THE SPOIL
         NGEOL=NGEOL+NSPOIL
         WRITE(LLP,93)
      93 FORMAT('1HYDROGEOLOGICAL PARAMETERS OF THE SPOIL'//)
         WRITE(LLP,82)
         DO 95 K=1,NGEOL
         READ(ICR,83)I,SPOLKH(I),SPOLKV(I),SPOLS(I),SPOLP(I),SDISPR(I),
     1             SCEC(I),SBULK(I)
         WRITE(LLP,84)I,SPOLKH(I),SPOLKV(I),SPOLS(I),SPOLP(I),SDISPR(I),
     1              SCEC(I),SBULK(I)
         PORSTY(I)=SPOLP(I)
         KHORZ(I)=SPOLKH(I)
         KVERT(I)=SPOLKV(I)
         STOR(I)=SPOLS(I)
         DISPER(I)=SDISPR(I)
         CEC(I)=SCEC(I)
         BULK(I)=SBULK(I)
      95 CONTINUE
C
```

```
C  READ AND WRITE THE MAP OF THE SPOIL AND GEOLOGICAL UNITS
      WRITE(LLP,96)
   96 FORMAT(//' MAP OF THE SPOIL AND GEOLOGICAL UNITS'/)
      DO 97 K=1,NVCELL
      J=NROW-K
      READ(ICR,87)(MAPSPL(I,J),I=1,NHCELL)
      WRITE(LLP,88)(MAPSPL(I,J),I=1,NHCELL)
   97 CONTINUE
C
C  READ AND WRITE THE GROUND ELEVATION FOLLOWING RECLAMATION
      READ(ICR,22)(ELVREC(I),I=1,NCOL)
      WRITE(LLP,101)
  101 FORMAT(////' GROUND ELEVATION FOLLOWING RECLAMATION'//
     1       8(' COL ELEVATION  ')/)
      WRITE(LLP,35)(I,ELVREC(I),I=1,NCOL)
C
C  OUTPUT PROBLEM TITLE TO PLOTTING FILES
  105 IF(OPTION(7) .OR. OPTION(8))WRITE(LPH,106)TITLE,NROW,NCOL,NGEOL,
     1                                          DELX,DELZ
  106 FORMAT(1X,20A4/3I5,2F10.2)
      IF(OPTION(4))WRITE(LPG,8)TITLE
      IF(OPTION(20))WRITE(LPC,8)TITLE
      IF(OPTION(21))WRITE(LPP,106)TITLE,NROW,NCOL,NGEOL,DELX,DELZ
C
C  READ IN PREVIOUSLY CALCULATED HEAD DISTRIBUTION TO RESTART A SIMULATION
      IF(.NOT.OPTION(10))GO TO 121
      READ(IDH,83)NNODE,TIME,DELT
      DELT=DELT*DELTIN
      TIME=TIME+DELT
      DO 110 J=1,NVCELL
      READ(IDH,87)(MAPGEO(I,J),I=1,NHCELL)
  110 CONTINUE
      READ(IDH,111)(HEADWT(I),I=1,NCOL)
  111 FORMAT(8F14.6)
      READ(IDH,112)(INO,HEADP(INO),I=1,NNODE)
  112 FORMAT(5(I5,D20.13))
      DELZQ=DELZ*0.25
      DELZ3Q=DELZ-DELZQ
      DO 115 I=1,NCOL
      IDWTR(I)=IFIX((HEADWT(I)-BASELV+DELZ3Q)/DELZ)+1
      IDBBR(I)=IFIX((ELVBAS(I)-BASELV+DELZQ )/DELZ)+1
      HEADWP(I)=HEADWT(I)
  115 CONTINUE
C
C  READ IN PREVIOUSLY CALCULATED PARTICLE DISTRIBUTION TO CONTINUE A RUN
  121 IF(.NOT.OPTION(23))GO TO 201
      READ(IDH,122)NP
  122 FORMAT(I10)
      READ(IDH,123)(IPT,XPOS(IPT),ZPOS(IPT),XMASS(IPT),II=1,NP)
  123 FORMAT(I5,3E12.5,I5,3E12.5,I5,3E12.5)
```

```
C
C  LOOP THROUGH THE VARIOUS SIMULATIONS
C
  201 KTIME=1
      IRCH=1
C
C
C  SET UP THE INITIAL FINITE ELEMENT GRID
C
      CALL FEGRID(MAPGEO,KHORZ,KVERT,KHELM,KVELM,STOR,STRELM,MAPSPL,
     1            IDWTR,IDBBR,NODEWT,WTMOVE,ELVGRD,ELVMNE,ELVBAS,X,Z,
     2            TYPEND,INCID,TYPELM,HEADP,HEAD,HEADI,CHVAL,HEADWT,
     3            CHEAD,MLEFTP,MRITEP,MLEFT,MRITE,ELVREC,IELCEL)
      GO TO 221
C
C
C  SET UP THE FINITE ELEMENT GRID DURING SUBSEQUENT TIME STEPS
C
  211 CALL FEIN(X,Z,IDWTR,TYPEND,TYPELM,CHEAD,NODEWT,STRELM,HEADP,INCID,
     1          KHELM,KVELM,CHVAL,HEADWT,ELVGRD,MLEFT,MRITE,MLEFTP,
     2          MRITEP,.TRUE.,IELCEL)
C
C
C  CALCULATE THE TOTAL HEAD VALUES AT EACH NODE
  221 IF(.NOT.OPTION(5))GO TO 241
      IF(NRESTP.EQ.0 .OR. KTIME.GT.NRESTP)GO TO 222
      IF(KTIME.NE.RESTEP(IRCH))GO TO 222
      DO 220 I=1,NCOL
      FLUX(I)=0.0
  220 CONTINUE
      NFL=NRECOL(IRCH)
      DO 225 I=1,NFL
      FLUX(IRECOL(IRCH,I))=RCHARG(RESTEP(IRCH),IRECOL(IRCH,I))
  225 CONTINUE
      IRCH=IRCH+1
C
  222 CALL HEADS(IDWTR,X,Z,TYPEND,INCID,F,HEAD,DELT,FLUX,KHELM,KVELM,
     1           CHEAD,DIVCD,TIME,STRELM,NODEWT,CHVAL,TYPELM,HEADP,
     2           SPECYD,TOLRNC,WTMOVE,HEADWT,STEADY,ELVGRD,MLEFT,MRITE,
     3           MLEFTP,MRITEP,HEADWP,NITMAX,IELCEL)
C
C
C  CALCULATE THE HYDRAULIC GRADIENT AND THE DIRECTION OF THE GRADIENT FIELD
      IF(OPTION(13))CALL HYGRAD(X,Z,INCID,HEAD,1,NELM,GRAD,DIRECT)
C
C
C  CALCULATE VELOCITY FIELD
      IF(OPTION(16))CALL VELCTY(PORSTY,MAPGEO,GRAD,DIRECT,KHELM,KVELM,
     1                          INCID,X,Z,1,NELM,VX,VZ)
C
```

```
C  RUN THE MASS TRANSPORT ROUTINE
      IF(OPTION(18))CALL TRANS(PLCOL(KTIME),PRCOL(KTIME),PBROW(KTIME),
     1                         PTROW(KTIME),NPPER(KTIME),PTCODE,MAPGEO,
     2                         DISPER,CEC,PORSTY,DELT,VX,VZ,CONR,PARTGN,
     3                         CONC,PART,CONCP,SOLUTE,SELC,BULK,XMASSI,
     4                         XPOS,ZPOS,XMASS,IDBBR,CHVAL,X,Z,NODEWT,
     5                         TYPEND,IELCEL,HEADWT,ELVMNE,INCID,HEAD,
     6                         KHELM,KVELM,GRAD,DIRECT,NP,NPGONE,NPSTOP,
     7                         KTIME)
C
C
C  OUTPUT THE RESULTS OF THE SIMULATION
  241 IF(KTIME/NSKIP*NSKIP.EQ.KTIME .OR. STEADY .OR. (KTIME.EQ.NTIME
     1  .AND. OPTION(11)))CALL OUTPUT(LPH,LPG,LDH,LPP,LPC,X,Z,TYPEND,
     2                                INCID,HEAD,DELT,KHELM,KVELM,STRELM,
     3                                TIME,HEADWT,STEADY,KTIME,NTIME,
     4                                ELVGRD,MAPGEO,NODEWT,TYPELM,GRAD,
     5                                DIRECT,VX,VZ,LPI,NP,XPOS,ZPOS,
     6                                XMASS,NPPER(KTIME),NPSTOP,NPGONE,
     7                                PART,PARTGN,CONC)
C
C
C  END OF TIME LOOP
      IF(KTIME.EQ.NTIME .OR. STEADY)STOP
C  ADJUST THE SIZE OF THE TIME STEP
      DELT=DELT*DELTIN
      TIME=TIME+DELT
      KTIME=KTIME+1
      IF(.NOT.OPTION(12))GO TO 211
      MLEFTP=MLEFT
      MRITEP=MRITE
      MLEFT=MNLEFT(KTIME)
      MRITE=MNRITE(KTIME)
      GO TO 211
      END
```

```
C
C
C
C*************************************************************************
      SUBROUTINE FEGRID(MAPGEO,KHORZ,KVERT,KHELM,KVELM,STOR,STRELM,
     1                  MAPSPL,IDWTR,IDBBR,NODEWT,WTMOVE,ELVGRD,ELVMNE,
     2                  ELVBAS,X,Z,TYPEND,INCID,TYPELM,HEAD,HEADT,HEADI,
     3                  CHVAL,HEADWT,CHEAD,MLEFTP,MRITEP,MLEFT,MRITE,
     4                  ELVREC,IELCEL)
C*************************************************************************
C
C  SUBROUTINE THAT SETS UP THE NODES, CO-ORDINATES, ELEMENTS AND ELEMENT
C  INCIDENCES THAT COMPRISE THE LINEAR TRIANGULAR FINITE ELEMENT GRID
C  AND ASSIGNS HYDRAULIC CONDUCTIVITIES AND STORATIVITIES TO THE ELEMENTS
C
C*************************************************************************
C
C               SUBROUTINE PARAMETERS AND VARIABLES
C
C  CHEAD : VECTOR CONTAINING ALL CONSTANT HEAD VALUES
C  CHVAL : CONSTANT HEAD VALUE AT A GIVEN ROW AND COLUMN THAT IS READ IN
C  KHORZ : HORIZONTAL HYDRAULIC CONDUCTIVITY ASSIGNED TO A GEOLOGIC UNIT
C  KVERT : VERTICAL HYDRAULIC CONDUCTIVITY ASSIGNED TO A GEOLOGIC UNIT
C  KHELM : HORIZONTAL HYDRAULIC CONDUCTIVITY OF AN ELEMENT
C  KVELM : VERTICAL HYDRAULIC CONDUCTIVITY OF AN ELEMENT
C  DELX  : HORIZONTAL NODE SPACING
C  DELZ  : VERTICAL NODE SPACING
C  DELZQ :  1/4 OF THE VERTICAL NODE SPACING
C  DELZ3Q:  3/4 OF THE VERTICAL NODE SPACING
C  ELVBAS: ELEVATION OF THE BASE OF THE REGION
C  ELVGRD: ELEVATION OF THE GROUND SURFACE, AT EACH COLUMN
C  HEAD  : HYDRAULIC HEAD VALUE AT A NODE
C  HEADT : TEMPORARY ARRAY CONTAINING THE NEW HEAD VALUES AT
C          EACH NODE IN THE REFORMED GRID
C  HEADWT: HYDRAULIC HEAD VALUES ALONG THE WATER TABLE
C  MAPGEO: CODE IDENTIFYING THE GEOLOGICAL UNITS
C  IDBBR : ROW NUMBER (OF EACH COLUMN OF NODES THAT DEFINES THE
C          POSITION OF THE BOTTOM OF THE FLOW SYSTEM
C  IDWTR : ROW NUMBER (OF EACH COLUMN OF NODES) THAT DEFINES THE
C          POSITION OF THE WATER TABLE
C  IEL   : ELEMENT NUMBER COUNTER
C  IELCEL: PARAMETER WHICH TELLS WHICH ELEMENTS COMPRISE A CELL
C  INC   : CONSTANT HEAD COUNTER
C  INO   : NODE NUMBER COUNTER
C  INON  : COUNTER FOR NODES ADDED TO, OR REMOVED FROM THE PREVIOUS GRID
C  INCID : FINITE ELEMENT INCIDENCES
C  NCHEAD: NUMBER OF CONSTANT HEAD NODES
C  LLP   : UNIT NUMBER ASSIGNED TO THE LINE PRINTER
C  NCOL  : NUMBER OF COLUMNS OF NODES
C  NELM  : ACTUAL NUMBER OF ELEMENTS IN THE FINITE ELEMENT GRID
```

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51      C  NELME : ESTIMATED NUMBER OF ELEMENTS IN THE FINITE ELEMENT GRID
52      C  NHCELL: NUMBER OF CELLS, HORIZONTAL DIRECTION
53      C  NODEWT: NODE NUMBERS ALONG THE WATER TABLE
54      C  NNODE : ACTUAL NUMBER OF NODES IN THE FINITE ELEMENT GRID
55      C  NNODEE: ESTIMATED NUMBER OF NODES IN THE FINITE ELEMENT GRID
56      C  NROW  : NUMBER OF ROWS OF NODES
57      C  TYPEND: NODE TYPE IDENTIFIER (T=CONSTANT HEAD; F=VARIABLE HEAD)
58      C  TYPELM: ELEMENT TYPE IDENTIFIER (T=AT FREE SURFACE; F=OTHER ELEMENT)
59      C  WTMOVE: CODE WHICH IDENTIFIES WHETHER OR NOT A WATER TABLE NODE MAY MOVE
60      C          (T=NODE MAY MOVE, F=NODE CAN NOT MOVE)
61      C  X     : X CO-ORDINATE OF A NODE
62      C  Z     : Z CO-ORDINATE OF A NODE
63      C
64      C ***************************************************************************
65      C
66      C
67            REAL*8 CHEAD(1),HEAD(1),HEADT(1)
68            REAL   X(1),Z(1),KHORZ(1),KVERT(1),CHVAL(NCOL,NROW),STOR(1),
69           1       KHELM(1),KVELM(1),ELVBAS(1),ELVGRD(1),ELVMNE(1),
70           2       ELVREC(1),HEADWT(1),STRELM(1)
71            INTEGER*2 NODEWT(1),MAPGEO(NHCELL,NVCELL),MAPSPL(NHCELL,NVCELL),
72           1       INCID(NELME,3),IDWTR(1),IDBBR(1),IELCEL(NHCELL,NVCELL,2)
73            LOGICAL*1 TYPEND(1),OPTION(25),TYPELM(1),WTMOVE(1),DIG*4
74            COMMON BASELV,DELX,DELZ,LLP,NROW,NCOL,NNODE,NELM,NHCELL,NVCELL,
75           1       NNODEE,NELME,NBANDE,NCHEDE,NCHEAD,OPTION
76      C
77            DELZQ=.25*DELZ
78            DELZ3Q=.75*DELZ
79            DIG=.TRUE.
80      C
81      C  IF HEADS WERE PREVIOUS READ IN, CONSTRUCT GRID FROM HEADS
82            IF(OPTION(10))GO TO 31
83      C
84      C  SET UP INITIAL X AND Z CO-ORDINATES OF THE NODES AND DESIGNATE WHICH
85      C  ARE CONSTANT HEAD NODES
86            INO=0
87            INC=0
88      C
89      C  CALCULATE NODES
90            DO 15 I=1,NCOL
91            IDWTR(I)=IFIX((HEADWT(I)-BASELV+DELZ3Q)/DELZ) +1
92            IDBBR(I)=IFIX((ELVBAS(I)-BASELV+DELZQ )/DELZ) +1
93            JSTR=IDBBR(I)
94            JSTP=IDWTR(I)
95            XXX=FLOAT(I-1)*DELX
96            DO 10 J=JSTR,JSTP
97            INO=INO+1
98            X(INO)=XXX
99            Z(INO)=FLOAT(J-1)*DELZ+BASELV
100           IF(J.EQ.JSTR)Z(INO)=ELVBAS(I)
```

```
101            IF(J.EQ.JSTP)Z(INO)=HEADWT(I)
102            HEAD(INO)=HEADI
103            TYPEND(INO)=.FALSE.
104            IF(CHVAL(I,J).LE.-1.E34)GO TO 10
105            TYPEND(INO)=.TRUE.
106            INC=INC+1
107            CHEAD(INC)=CHVAL(I,J)
108            HEAD(INO)=CHEAD(INC)
109         10 CONTINUE
110            NODEWT(I)=INO
111         15 CONTINUE
112            NNODE=INO
113            NCHEAD=INC
114            GO TO 51
115      C
116      C*******************************************************************************
117      C
118      C  SET UP X AND Z CO-ORDINATES OF THE NODES FOR SUBSEQUENT RUNS
119      C
120            ENTRY FEIN(X,Z,IDWTR,TYPEND,TYPELM,CHEAD,NODEWT,STRELM,HEAD,INCID,
121           1           KHELM,KVELM,CHVAL,HEADWT,ELVGRD,MLEFT,MRITE,MLEFTP,
122           2           MRITEP,DIG,IELCEL)
123      C
124      C*******************************************************************************
125      C
126         31 INO=0
127            INON=0
128            INC=0
129            DO 40 I=1,NCOL
130            JSTR=IDBBR(I)
131            JSTP=IDWTR(I)
132            XXX=FLOAT(I-1)*DELX
133            DO 45 J=JSTR,NROW
134      C  CALCULATE X AND Z COORDINATES
135            INO=INO+1
136            X(INO)=XXX
137            Z(INO)=FLOAT(J-1)*DELZ+BASELV
138            IF(J.EQ.JSTR)Z(INO)=ELVBAS(I)
139            HEADT(INO)=HEAD(INO+INON)
140            TYPEND(INO)=.FALSE.
141            JJ=J+1
142      C  CHECK FOR A CONSTANT HEAD NODE
143            IF(CHVAL(I,J).GT.-1.E34)GO TO 37
144      C  CHECK FOR A NODE BELOW THE WATER TABLE
145            IF(J.LT.IDWTR(I))GO TO 45
146      C  NODE IS AT THE WATER TABLE; SEE IF IT MAY MOVE
147            IF(.NOT.WTMOVE(I) .AND. Z(INO)+DELZQ.GT.ELVGRD(I))GO TO 34
148      C  NODE CAN MOVE; IS THE HEAD ABOVE THE GROUND SURFACE
149            IF(HEADWT(I).LT.ELVGRD(I))GO TO 35
150      C  HEAD IS ABOVE GROUND SURFACE; ADJUST Z AND MAKE IT A CONSTANT HEAD NODE
```

```
151         32 II=0
152            IF(ELVGRD(I).GT.Z(INO)+DELZQ)II=1
153            INO=INO+II
154            INC=INC+1
155            X(INO)=XXX
156            CHVAL(I,J+II)=ELVGRD(I)
157            CHEAD(INC)=ELVGRD(I)
158            TYPEND(INO)=.TRUE.
159            HEADT(INO)=CHEAD(INC)
160            IDWTR(I)=IDWTR(I)+II
161         34 Z(INO)=ELVGRD(I)
162            NODEWT(I)=INO
163            GO TO 40
164      C  ADD OR REMOVE NODES DEPENDING ON THE HEAD
165            IF(HEADWT(I).LT.Z(INO)-DELZ3Q)GO TO 36
166            IF(HEADWT(I).GE.Z(INO)+DELZQ)GO TO 33
167            Z(INO)=HEADWT(I)
168            HEADT(INO)=HEADWT(I)
169            NODEWT(I)=INO
170            GO TO 40
171         33 IDWTR(I)=IDWTR(I)+1
172            INON=INON-1
173            GO TO 45
174         36 IDWTR(I)=IDWTR(I)-1
175            INO=INO-1
176            INON=INON+1
177            HEADT(INO)=HEAD(INO+INON)
178            JJ=JJ-1
179            IF(CHVAL(I,JJ).LT.-1.E34)GO TO 35
180            CHVAL(I,JJ)=-1.E35
181            INC=INC-1
182            IF(I.NE.MLEFT .AND. I.NE.MRITE)GO TO 35
183            CHVAL(I,J)=HEADWT(I)
184            CHEAD(INC)=HEADWT(I)
185            GO TO 35
186      C  NODE IS A CONSTANT HEAD NODE
187            IF(.NOT.OPTION(12) .OR. J.EQ.JSTR)GO TO 39
188               IF(I.LT.MLEFT .OR. I.GT.MRITE)GO TO 39
189      C  DURING THE MINING, SHUT THESE CONSTANT HEADS OFF
190               IF(.NOT.DIG)GO TO 39
191            38 CHVAL(I,J)=-1.E35
192               GO TO 41
193            39 IF(I.GE.MLEFTP .AND. I.LE.MRITEP .AND. DIG)GO TO 38
194      C  SEE IF THE NODE IS ABOVE THE GROUND SURFACE
195               IF(Z(INO)+DELZQ.GT.ELVGRD(I))GO TO 32
196               TYPEND(INO)=.TRUE.
197               INC=INC+1
198               CHEAD(INC)=CHVAL(I,J)
199            41 IF(J.EQ.JSTP)GO TO 35
200            45 CONTINUE
```

```
201         40 CONTINUE
202            NNODE=INO
203            NCHEAD=INC
204       C
205       C SET UP THE HEAD VECTOR
206            DO 50 INO=1,NNODE
207            HEAD(INO)=HEADT(INO)
208         50 CONTINUE
209       C
210       C  CHECK ESTIMATED NUMBER OF NODES AGAINST ACTUAL NUMBER OF NODES
211         51 IF(NNODE.LE.NNODEE)GO TO 60
212            WRITE(LLP,999)NNODEE,NNODE
213        999 FORMAT(///' ***** ERROR *****'/' THE ESTIMATED NO. OF NODES:',I5,
214           1       ', IS LESS THAN THE ACTUAL NO. OF NODES:', I5//)
215            STOP
216       C
217       C
218       C  GRADUALLY FORM OR RECLAIM A STRIP MINE
219       C
220       C  IF THE PREVIOUS CUT IS LEFT OPEN, DO NOT RECLAIM THE CUT
221         60 IF(MLEFT.EQ.MLEFTP .AND. MRITE.EQ.MRITEP)DIG=.FALSE.
222            IF(OPTION(12) .AND. DIG)CALL MINE(ELVGRD,ELVMNE,MAPSPL,HEAD,X,Z,
223           1                          CHEAD,IDWTR,IDBBR,MLEFT,MRITE,CHVAL,NODEWT,
224           2                          TYPEND,MAPGEO,ELVREC,MLEFTP,MRITEP,KHORZ)
225       C
226       C  ASSIGN ELEMENT INCIDENCES, HYDRAULIC CONDUCTIVITIES AND STORATIVITIES
227       C
228            IEL=0
229            INO=0
230            DO 65 I=1,NHCELL
231            DO 65 J=1,NVCELL
232            IELCEL(I,J,1)=-1
233            IELCEL(I,J,2)=-1
234         65 CONTINUE
235            DO 80 I=1,NHCELL
236            JSTR=IDBBR(I)
237            IF(IDBBR(I).LT.IDBBR(I+1))JSTR=IDBBR(I+1)
238            JSTP=IDWTR(I)-1
239            IF(IDWTR(I+1).LT.IDWTR(I))JSTP=IDWTR(I+1)-1
240       C
241       C  FORM A SINGULAR TRIANGULAR ELEMENT WHERE THE LOWER BOUNDARY CHANGES
242            INO=NODEWT(I)-IDWTR(I)+1
243            INP=NODEWT(I)+1
244            KK=0
245            IDIF=IDBBR(I)-IDBBR(I+1)
246            IDIF=IABS(IDIF)
247            J=JSTR-IDIF
248         70 KK=KK+1
249            J=J+1
250            K=MAPGEO(I,J)
```

```
251           IF(KK.GT.IDIF)GO TO 72
252           IF(IDBBR(I)-IDBBR(I+1))71,72,73
253       C  RIGHT SLOPING BOTTOM ELEMENT
254          73 IEL=IEL+1
255             CALL ELMENT(IEL,INCID,INO,INP,INP+1,INP,KHELM(IEL),KVELM(IEL),
256            1            STRELM(IEL),KHORZ(K),KVERT(K),STOR(K),TYPELM(IEL),
257            2            .FALSE.,NELME,IELCEL(I,J,2))
258             GO TO 70
259       C  LEFT SLOPING BOTTOM ELEMENT
260          71 IEL=IEL+1
261             CALL ELMENT(IEL,INCID,INO,INP,INO+1,INO,KHELM(IEL),KVELM(IEL),
262            1            STRELM(IEL),KHORZ(K),KVERT(K),STOR(K),TYPELM(IEL),
263            2            .FALSE.,NELME,IELCEL(I,J,2))
264             GO TO 70
265       C
266       C  FORM ELEMENTS WITH THE INTERIOR OF THE FLOW REGIME, WHERE CELLS ARE RECTANG.
267          72 DO 75 J=JSTR,JSTP
268             K=MAPGEO(I,J)
269             IEL=IEL+1
270             CALL ELMENT(IEL,INCID,INO,INP,INP+1,INP,KHELM(IEL),KVELM(IEL),
271            1            STRELM(IEL),KHORZ(K),KVERT(K),STOR(K),TYPELM(IEL),
272            2            .FALSE.,NELME,IELCEL(I,J,1))
273             IEL=IEL+1
274             CALL ELMENT(IEL,INCID,INO,INP,INO+1,INO,KHELM(IEL),KVELM(IEL),
275            1            STRELM(IEL),KHORZ(K),KVERT(K),STOR(K),TYPELM(IEL),
276            2            .FALSE.,NELME,IELCEL(I,J,2))
277          75 CONTINUE
278             IF((.NOT.TYPEND(INCID(IEL,2)) .AND. .NOT.TYPEND(INCID(IEL,3)))
279            2    .AND. WTMOVE(I) .AND. WTMOVE(I+1))TYPELM(IEL)=.TRUE.
280             IF(I.GE.MLEFTP-1 .AND. I.LE.MRITEP)TYPELM(IEL)=.FALSE.
281       C
282       C  FORM A SINGULAR TRIANGULAR ELEMENT WHERE THE UPPER BOUNDARY CHANGES
283       C  IF MINING IS TAKING PLACE, DO NOT ADD THE SINGLE ELEMENT
284             IF(OPTION(12) .AND. (I.EQ.MLEFT .OR .I.EQ.MRITE-1))GO TO 80
285             J=JSTP+1
286          74 K=MAPGEO(I,J)
287             IF(IDWTR(I)-IDWTR(I+1))77,80,78
288       C  LEFT SLOPING WATER TABLE ELEMENT
289          77 IEL=IEL+1
290             CALL ELMENT(IEL,INCID,INO,INP,INP+1,INP,KHELM(IEL),KVELM(IEL),
291            1            STRELM(IEL),KHORZ(K),KVERT(K),STOR(K),TYPELM(IEL),
292            2            TYPELM(IEL-1),NELME,IELCEL(I,J,1))
293             GO TO 79
294       C  RIGHT SLOPING WATER TABLE ELEMENT
295          78 IEL=IEL+1
296             CALL ELMENT(IEL,INCID,INO,INP,INO+1,INO,KHELM(IEL),KVELM(IEL),
297            1            STRELM(IEL),KHORZ(K),KVERT(K),STOR(K),TYPELM(IEL),
298            2            TYPELM(IEL-1),NELME,IELCEL(I,J,1))
299          79 TYPELM(IEL-1)=.FALSE.
300             J=J+1
```

```
301            IF(OPTION(13) .AND. (I.EQ.MLEFTP .OR. I.EQ.MRITEP-1))TYPELM(IEL)=
302           1    .FALSE.
303            IF(J.NE.IDWTR(I) .AND. J.NE.IDWTR(I+1))GO TO 74
304          80 CONTINUE
305            NELM=IEL
306       C
307       C  CHECK ESTIMATED NUMBER OF ELEMENTS AGAINST ACTUAL NUMBER OF ELEMENTS
308            IF(NELM.LE.NELME)RETURN
309            WRITE(LLP,998)NELME,NELM
310         998 FORMAT(///' ***** ERROR *****'/' THE ESTIMATED NO. OF ELEMENTS:',
311           1      I5,', IS LESS THAN THE ACTUAL NO. OF ELEMENTS:', I5//)
312            STOP
313            END
```

```
      C
      C
      C
      C*****************************************************************************
            SUBROUTINE ELMENT(IEL,INCID,I,J,K,IG,KHELM,KVELM,STRELM,HORZK,
           1                  VERTK,STOR,TYPELM,TYPE,NELME,IELCEL)
      C*****************************************************************************
      C
      C  SUBROUTINE THAT CONSTRUCTS A FINITE ELEMENT
      C
      C*****************************************************************************
      C
      C
            REAL KHELM,KVELM
            INTEGER*2 INCID(NELME,3),IELCEL
            LOGICAL*1 TYPELM,TYPE
      C
            IELCEL=IEL
            INCID(IEL,1)=I
            INCID(IEL,2)=J
            INCID(IEL,3)=K
            KHELM=HORZK
            KVELM=VERTK
            STRELM=STOR
            TYPELM=TYPE
            IG=IG+1
            RETURN
            END
```

```
C
C
C
C*************************************************************************
      SUBROUTINE MINE(ELVGRD,ELVMNE,MAPSPL,HEADP,X,Z,CHEAD,IDWTR,IDBBR,
     1                MLEFT,MRITE,CHVAL,NODEWT,TYPEND,MAPGEO,ELVREC,
     2                MLEFTP,MRITEP,KHORZ)
C*************************************************************************
C
C  SUBROUTINE TO FORM A NEW GRID DURING THE SIMULATION OF MINING
C  OR RECLAIM A PREVIOUSLY OPENED CUT
C
C*************************************************************************
C
C         SUBROUTINE VARIABLES AND PARAMETERS
C
C  BASE   : CHECK TO SEE IF THE NODE IS AT THE BASE OF THE MINE
C  CHEAD  : VECTOR CONTAINING ALL THE CONSTANT HEAD VALUES
C  CHVAL  : CONSTANT HEAD VALUES AT A GIVEN ROW AND COLUMN, VALUES INPUT
C  DELZ   : VERTICAL NODE SPACING
C  ELVGRD: ELEVATION OF THE GROUND SURFACE, AT EACH COLUMN, BEFORE MINING
C  ELVMNE: ELEVATION OF THE GROUND SURFACE DURING MINING
C  ELVREC: ELEVATION OF THE GROUND SURFACE FOLLOWING RECLAMATION
C  HEADP  : HEAD VALUES CALCULATED DURING THE PREVIOUS TIME STEP
C  IDBBR  : ROW NUMBER THAT DEFINES THE POSITION OF THE BASE OF THE SECTION
C  IDWTR  : ROW NUMBER THAT DEFINES THE POSITION OF THE WATER TABLE
C  INO    : NODE COUNTER FOR NODES IN THE PREVIOUS GRID
C  INOMNS: NODE COUNTER FOR NODES IN THE NEW GRID (AFTER A CUT IS OPENED)
C  INOM   : NUMBER OF NODES REMOVED FROM PREVIOUS GRID WHEN FORMING THE NEW GRID
C  INOMR  : NUMBER OF ROWS REMOVED FROM A COLUMN DURING MINING
C  IP     : CHECK TO SEE IF THE GRID IS AT THE BOUNDARY OF A CUT
C  KHORZ :HORIZONTAL HYDRAULIC CONDUCTIVITY ASSIGNED TO A GEOLOGICAL UNIT
C  MAPGEO: CODE IDENTIFYING THE GEOLOGICAL UNITS
C  MAPSPL: CODE IDENTIFYING VARIOUS GEOLOGICAL AND SPOIL UNITS AFTER RECLAMATION
C  MAPZRO: CODE USED TO ASSIGN 0.0 TO K AND S OF THE SECTION OCCUPIED BY THE CUT
C  MLEFT :COLUMN DEFINING THE LEFT SIDE OF A CUT
C  MRITE  : COLUMN DEFINING THE RIGHT SIDE OF A CUT
C  MLEFTP: COLUMN DEFINING THE LEFT SIDE OF THE PREVIOUS CUT
C  MRITEP: COLUMN DEFINING THE RIGHT SIDE OF THE PREVIOUS CUT
C  NCOL   : NUMBER OF COLUMNS OF NODES
C  NROW   : NUMBER OF ROWS OF NODES
C  TYPEND: NODE TYPE IDENTIFIER (T=CONSTANT HEAD; F=VARIABLE HEAD)
C  X      : X CO-ORDINATE OF A NODE
C  Z      : Z CO-ORDINATE OF A NODE
C
C*************************************************************************
C
C
      REAL X(1),Z(1),ELVGRD(1),ELVMNE(1),CHVAL(NCOL,NROW),ELVREC(1),
     1     KHORZ(1)
```

```
      REAL*8 HEADP(1),CHEAD(1)
      INTEGER*2 IDWTR(1),IDBBR(1),NODEWT(1),MAPGEO(NHCELL,NVCELL),MAP,
     1      MNBS(150),MAPSPL(NHCELL,NVCELL)
      LOGICAL*1 TYPEND(1),BASE,OPTION(25)
      COMMON BASELV,DELX,DELZ,LLP,NROW,NCOL,NNODE,NELM,NHCELL,NVCELL,
     1       NNODEE,NELME,NBANDE,NCHEDE,NCHEAD,OPTION
C
C
      DELZQ=0.25*DELZ
      DELZ3Q=DELZ-DELZQ
C
C  CHECK TO SEE IF A NEW CUT SHOULD BE OPENED
      IF(MLEFT.EQ.0)GO TO 49
      INO=0
      INOM=0
      INC=0
C  DETERMINE THE NEW MINING LEVEL
      DO 29 I=1,NCOL
      BASE=.FALSE.
      JSTR=IDBBR(I)
      JSTP=IFIX((Z(NODEWT(I))-BASELV+DELZ3Q)/DELZ)+1
      IP=0
      INOMR=0
      DO 28 J=JSTR,JSTP
      INO=INO+1
      INOMNS=INO-INOM
      TYPEND(INOMNS)=.FALSE.
C  LOCATE THE AREA WHERE THE MINE WILL BE
      IF(I.LT.MLEFT .OR. I.GT.MRITE)GO TO 21
      IF(I.EQ.MLEFT .AND. MLEFT.NE.1)IP=1
      IF(I.EQ.MRITE .AND. MRITE.NE.NCOL)IP=-1
      IF(BASE)GO TO 23
C  REMOVE NODES FROM WITHIN THE PRESENT CUT
   25 IF(Z(INO)+DELZQ.LT.ELVMNE(I+IP))GO TO 21
      BASE=.TRUE.
      ELVGRD(I)=ELVMNE(I)
      Z(INOMNS)=ELVMNE(I+IP)
      INC=INC+1
      CHEAD(INC)=ELVMNE(I+IP)
      MNBS(I)=J
      GO TO 22
   23 IF(I.GT.MLEFT .AND. I.LT.MRITE)GO TO 24
      IF(I.EQ.MLEFT .AND. MRITEP.EQ.MLEFT)GO TO 24
      IF(I.EQ.1 .OR. I.EQ.NCOL)GO TO 24
      Z(INOMNS)=Z(INO)
      INC=INC+1
      CHEAD(INC)=Z(INOMNS)
   22 X(INOMNS)=X(INO)
      TYPEND(INOMNS)=.TRUE.
      CHVAL(I,J)=CHEAD(INC)
```

```
101           HEADP(INOMNS)=CHEAD(INC)
102           GO TO 28
103       C  RENUMBER THE NODES OUTSIDE OF THE MINE AREA
104          21 HEADP(INOMNS)=HEADP(INO)
105           X(INOMNS)=X(INO)
106           Z(INOMNS)=Z(INO)
107           IF(CHVAL(I,J).LT.-1.E34)GO TO 28
108           TYPEND(INOMNS)=.TRUE.
109           INC=INC+1
110           CHEAD(INC)=CHVAL(I,J)
111           HEADP(INOMNS)=CHEAD(INC)
112           GO TO 28
113          24 INOMR=INOMR+1
114           INOM=INOM+1
115           INOMNS=INO-INOM
116          28 CONTINUE
117           NODEWT(I)=INOMNS
118           IDWTR(I)=IDWTR(I)-INOMR
119          29 CONTINUE
120           NNODE=INOMNS
121           NCHEAD=INC
122       C
123       C  CHANGE HYDRAULIC CONDUCTIVITY OF THE CUT
124           DO 40 I=1,10
125           IF(KHORZ(I).EQ.0.0)GO TO 41
126          40 CONTINUE
127          41 MAPZRO=I
128           ISTP=MRITE-1
129           DO 45 I=MLEFT,ISTP
130           JSTR=MNBS(I)
131           DO 48 J=JSTR,NVCELL
132           IF(MAPGEO(I,J).EQ.MAPZRO)GO TO 45
133           MAPGEO(I,J)=MAPZRO
134          48 CONTINUE
135          45 CONTINUE
136       C
137       C  CHECK TO SEE IF A PREVIOUS CUT SOULD BE RECLAIMED
138          49 IF(MLEFTP.EQ.0 .OR. MLEFT.EQ.MLEFTP)GO TO 70
139       C
140       C  CHANGE THE HYDRAULIC CONDUCTIVITY OF THE RECLAIMED ZONE
141           ISTP=MRITEP-1
142           IP=1
143           DO 55 I=MLEFTP,ISTP
144           ELVGRD(I)=ELVREC(I)
145           JSTR=IFIX((ELVMNE(I+IP)+DELZQ-BASELV)/DELZ)+1
146           IQ=0
147           IF(ELVREC(I).GT.ELVREC(I+1))IQ=1
148           JSTP=IFIX((ELVREC(I+IQ)+DELZ3Q-BASELV)/DELZ)
149           DO 50 J=JSTR,JSTP
150           MAPGEO(I,J)=MAPSPL(I,J)
```

```
151         50 CONTINUE
152            IP=0
153         55 CONTINUE
154            ELVGRD(MRITEP)=ELVREC(MRITEP)
155      C
156      C  OUTPUT THE NEW HYDRAULIC CONDUCTIVITY MAP
157         70 IF(.NOT.OPTION(9))RETURN
158            WRITE(LLP,71)
159         71 FORMAT(1H1,'NEW HYDRAULIC CONDUCTIVITY DISTRIBUTION'/)
160            DO 75 K=1,NVCELL
161            J=NVCELL-K+1
162            WRITE(LLP,73)(MAPGEO(I,J),I=1,NHCELL)
163         73 FORMAT(1X,100I1)
164         75 CONTINUE
165      C
166            RETURN
167            END
```

```
      C
      C
      C
      C*************************************************************************
            SUBROUTINE HEADS(IDWTR,X,Z,TYPEND,INCID,F,HEAD,DELT,FLUX,KHELM,
           1                 KVELM,CHEAD,DIVCD,TIME,STRELM,NODEWT,CHVAL,TYPELM,
           2                 HEADP,SPECYD,TOLRNC,WTMOVE,HEADWT,STEADY,ELVGRD,
           4                 MLEFT,MRITE,MLEFTP,MRITEP,HEADWP,NITMAX,IELCEL)
      C*************************************************************************
      C
      C  SUBROUTINE WHICH CALCULATES THE STEADY-STATE HYDRAULIC HEAD DISTRIBUTION
      C  IN A TWO-DIMENSIONAL CROSS-SECTION COMPRISED OF LINEAR TRIANGULAR
      C  FINITE ELEMENTS.
      C
      C  THIS FINITE ELEMENT PROGRAM IS MODIFIED FROM VERGE(1972)
      C
      C
      C*************************************************************************
      C
      C        SUBROUTINE PARAMETERS AND VARIABLES
      C
      C  BX     : HORIZONTAL SHAPE FUNCTION
      C  BZ     : VERTICAL SHAPE FUNCTION
      C  CHEAD  : CONSTANT HEAD VALUES
      C  DEL    : AREA OF A FINITE ELEMENT
      C  DIVCD  : CODE USED TO PARTITION THE GLOBAL CONDUCTIVITY MATRIX
      C  F      : FLUX VECTOR
      C  HEAD   : HYDRAULIC HEAD VALUES
      C  IDWTR  : ROW NUMBER (OF EACH COLUMN OF NODES) THAT DEFINES THE
      C           POSITION OF THE WATER TABLE
      C  INCID  : ELEMENT INCIDENCES
      C  IEL    : ELEMENT COUNTER
      C  IND    : NODE COUNTER
      C  LLP    : UNIT NUMBER ASSIGNED TO THE LINE PRINTER
      C           ARE STORED FOR PLOTTING
      C  NUHEAD: NUMBER OF DEGREES OF FREEDOM (NODES WITH UNKNOWN HEAD VALUES)
      C  NBANDE: ESTIMATED BANDWIDTH
      C  NBAND : ACTUAL BANDWIDTH
      C  NCHEAD: TOTAL NUMBER OF CONSTANT HEAD NODES
      C  NCOL   : NUMBER OF COLUMNS OF NODES
      C  NDWT   : NODE NUMBER AT THE WATER TABLE
      C  NELME  : ESTIMATED NUMBER OF ELEMENTS IN THE FINITE ELEMENT GRID
      C  NELM   : ACTUAL NUMBER OF ELEMENTS IN THE FINITE ELEMENT GRID
      C  NITMAX: MAXIMUM NUMBER OF ITERATIONS ALLOWED PER TIME STEP
      C  NNODE  : NUMBER OF NODES
      C  NNODEE: ESTIMATED NUMBER OF NODES IN THE FINITE ELEMENT GRID
      C  NROW   : NUMBER OF ROWS OF NODES
      C  ELCOND: ELEMENT CONDUCTIVITY MATRIX
      C  STEADY: TEST TO SEE WHETHER OR NOT STEADY STATE HAS BEEN REACHED
      C  TOLRNC: ERROR TOLERENCE FOR CONVERGENCE OF THE HEADS ALONG THE WATER TABLE
```

```
C  TYPEND: NODE TYPE IDENTIFIER
C  TYPELM: ELEMENT TYPE IDENTIFIER (T=AT FREE SURFACE; F=OTHER ELEMENT)
C  GLCOND: GLOBAL CONDUCTIVITY MATRIX
C  WTMOVE: CODE TO IDENTIFY WHETHER OR NOT A WATER TABLE NODE MAY MOVE
C          (T=NODE MAY MOVE; F=NODE CAN NOT MOVE)
C
C*************************************************************************
      REAL*8 GLCOND(1275,22),SC(1275,18),SP(1275,22),SPL,SPR,SPP,STRR,
     1       B(3),C(3),BX,BZ,HEADP(1),CXX,CZZ,DMN,DMNN,XI(3),ZI(3),
     2       ELCOND(3,3),CHEAD(1),F(1),HEAD(1),DEL,SPLDMN(3,3),LENGTH
      REAL X(1),Z(1),KHELM(1),KVELM(1),FLUX(1),ELVGRD(1),STRELM(1),
     1     HEADWT(1),HEADWP(1),CHVAL(NCOL,NROW)
      INTEGER*2 INCID(NELME,3),DIVCD(1),IDWTR(1),NODEWT(1),
     1     IELCEL(NHCELL,NVCELL,2)
      LOGICAL*1 TYPEND(1),OPTION(25),TYPELM(1),WTMOVE(1),STEADY,FORM
      COMMON BASELV,DELX,DELZ,LLP,NROW,NCOL,NNODE,NELM,NHCELL,NVCELL,
     1       NNODEE,NELME,NBANDE,NCHEDE,NCHEAD,OPTION
      COMMON /A1/GLCOND /A2/SC /A3/SP
C
      DELZQ=0.25*DELZ
      DELZ5Q=DELZ+DELZQ
      NITER=0
C
C  START OF ITERATION LOOP WHEN GRID IS REFORMED
C
C  CODE FOR PARTIONING THE GLOBAL CONDUCTIVITY MATRIX
       1 DIVCD(1)=0
        IF(TYPEND(1))DIVCD(1)=1
        DO 20 IND=2,NNODE
        INC=0
        IF(TYPEND(IND))INC=1
        DIVCD(IND)=DIVCD(IND-1)+INC
     20 CONTINUE
C
        NCHEAD=DIVCD(NNODE)
        NUHEAD=NNODE-NCHEAD
C
C  OUTPUT FINITE ELEMENT GRID SUMMARY
        IF(OPTION(9))WRITE(LLP,26)NNODEE,NNODE,NELME,NELM,NBANDE,NCHEDE,
     1                            NCHEAD,NUHEAD
     26 FORMAT(///' FINITE ELEMENT GRID SUMMARY'//I7,
     1     ': ESTIMATED NUMBER OF NODES'/I7,': ACTUAL NUMBER OF NODES'
     2     /I7,': ESTIMATED NUMBER OF ELEMENTS'
     3     /I7,': ACTUAL NUMBER OF ELEMENTS'/I7,': ESTIMATED BANDWITH'
     5     /I7,': ESTIMATED NUMBER OF CONSTANT HEAD NODES'
     6     /I7,': ACTUAL NUMBER OF CONSTANT HEAD NODES'
     7     /I7,': NUMBER OF NODES WITH UNKNOWN HEADS')
C
C  START OF ITERATION LOOP WHEN GRID IS NOT REFORMED
     31 NITER=NITER+1
```

```
C
C  CLEAR ARRAYS
      DO 30 IND=1,NUHEAD
      F(IND)=0.
      DO 32 J=1,NBANDE
      SP(IND,J)=0.
      GLCOND(IND,J)=0.
   32 CONTINUE
      IF(NCHEAD.EQ.0)GO TO 30
      DO 35 J=1,NCHEDE
      SC(IND,J)=0.
   35 CONTINUE
   30 CONTINUE
C
C
C  LOOP OVER ELEMENTS TO SET UP THE COEFFICIENT MATRIX
      NBAND=0
      DO 70 IEL=1,NELM
C
C  ELEMENT CONDUCTIVITY MATRIX
      DO 40 I=1,3
      IND=INCID(IEL,I)
      XI(I)=X(IND)
      ZI(I)=Z(IND)
   40 CONTINUE
C
C  SHAPE FUNCTIONS
      B(1)=ZI(2)-ZI(3)
      B(2)=ZI(3)-ZI(1)
      B(3)=ZI(1)-ZI(2)
      C(1)=XI(3)-XI(2)
      C(2)=XI(1)-XI(3)
      C(3)=XI(2)-XI(1)
C
C  CALCULATE THE AREA OF THE ELEMENT
      DEL=(B(1)*XI(1)+B(2)*XI(2)+B(3)*XI(3))/2.
C
C  CHANGE FROM SINGLE PRECISION TO DOUBLE PRECISION
      CCX=KHELM(IEL)
      CCZ=KVELM(IEL)
      BX=CCX/DEL
      BZ=CCZ/DEL
C
C  ASSIGN ZERO STORATIVITY TO UPPER-MOST ROW OF CELLS
      STRR=STRELM(IEL)
      SPP=STRR*DEL/12./DELT
      DMN=0.
      IF(.NOT.TYPELM(IEL))GO TO 51
      INJ=INCID(IEL,3)
      INI=INCID(IEL,2)
```

```
      LENGTH=SQRT((X(INJ)-X(INI))**2 + (Z(INJ)-Z(INI))**2)
      SPP=0.
      DMN=LENGTH*SPECYD/6.
C
C  SET UP THE ELEMENT CONDUCTIVITY MATRIX
   51 DO 56 I=1,3
      DO 55 J=1,3
      SPL=SPP
      IF(I.EQ.J)SPL=SPP+SPP
      DMNN=DMN
      IF(I.EQ.J)DMNN=DMN+DMN
      IF(I.EQ.1 .OR. J.EQ.1)DMNN=0.
      SPLDMN(I,J)=SPL+DMNN
      ELCOND(I,J)=(BX*B(I)*B(J)+BZ*C(I)*C(J))/4.
   55 CONTINUE
   56 CONTINUE
C
C  PARTITION THE GLOBAL CONDUCTIVITY MATRIX
      DO 60 I=1,3
      IF(TYPEND(INCID(IEL,I)))GO TO 60
      II=INCID(IEL,I)-DIVCD(INCID(IEL,I))
      DO 65 J=1,3
      IF(TYPEND(INCID(IEL,J)))GO TO 64
      JJ=INCID(IEL,J)-DIVCD(INCID(IEL,J))-II+1
      IF(JJ.LT.1)GO TO 65
      IF(JJ.GT.NBAND)NBAND=JJ
      IF(JJ.GT.NBANDE)GO TO 65
      GLCOND(II,JJ)=GLCOND(II,JJ)+ELCOND(I,J)+SPLDMN(I,J)
      SP(II,JJ)=SP(II,JJ)+SPLDMN(I,J)
      GO TO 65
   64 JJ=DIVCD(INCID(IEL,J))
      SC(II,JJ)=SC(II,JJ)+ELCOND(I,J)
   65 CONTINUE
   60 CONTINUE
C
C  END OF ELEMENT LOOP
   70 CONTINUE
C
      IF(NITER.EQ.1 .AND. OPTION(9))WRITE(LLP,74)NBAND
   74 FORMAT(I7,': FINAL BANDWIDTH')
      IF(NBAND.LE.NBANDE)GO TO 71
      WRITE (LLP,993)NBANDE,NBAND
  993 FORMAT(///1X,57('*')/' ***',51X,'***'/' ***    ',
     1       'EXECUTION TERMINATED BECAUSE BANDWIDTH EXCEEDED  ***'/
     2       ' *** ESTIMATED BANDWITH =',I3,'    REQUIRED BANDWITH =',
     3       ' ***'/' ***',51X,'***'/1X,57('*'))
      STOP
C
C  SET UP THE FLUX VECTOR
C
```

```
C  ADD EFFECT OF CONSTANT HEAD NODES
   71 DO 72 IND=1,NUHEAD
      IF(NCHEAD.EQ.0)GO TO 72
      DO 73 INC=1,NCHEAD
      F(IND)=F(IND)-SC(IND,INC)*CHEAD(INC)
   73 CONTINUE
   72 CONTINUE
C
C  ADD EFFECT OF PREVIOUSLY CALCULATED HEAD VALUES
      DO 75 J=1,NBAND
      DO 75 IND=1,NNODE
      IF(TYPEND(IND))GO TO 75
      II=IND-DIVCD(IND)
      F(II)=F(II)+SP(II,J)*HEADP(IND)
      IF(J.EQ.1 .OR. II.LT.J)GO TO 75
      F(II)=F(II)+SP(II-J+1,J)*HEADP(IND)
   75 CONTINUE
C
C  ADD FLUX ALONG WATER TABLE
      DO 79 I=1,NCOL
      IF(FLUX(I).EQ.0. .OR. TYPEND(NODEWT(I)))GO TO 79
      II=NODEWT(I)-DIVCD(NODEWT(I))
      XLENL=DELX
      XLENR=DELX
      IF(I.EQ.1)XLENL=0.
      IF(I.EQ.NCOL)XLENR=0.
      F(II)=F(II)+(XLENL+XLENR)/2.*FLUX(I)
   79 CONTINUE
C
C  DECOMPOSE THE GLOBAL CONDUCTIVITY MATRIX AND SOLVE FOR HEADS
      CALL SOLVE(NUHEAD,F,HEAD,NBAND,LLP)
C
C  EXPAND HEAD VECTOR
      INCC=NCHEAD
      DO 80 INO=1,NNODE
      IND=NNODE-INO+1
      IF(TYPEND(IND))GO TO 81
      INC=IND-DIVCD(IND)
      HEAD(IND)=HEAD(INC)
      GO TO 80
   81 HEAD(IND)=CHEAD(INCC)
      INCC=INCC-1
   80 CONTINUE
C
C
C  CHECK THE CONVERGENCE AND GRID ALONG THE WATER TABLE
      IF(OPTION(9))WRITE(LLP,101)NITER,TIME
  101 FORMAT(///' ITERATION:',I2,'          TIME:',F10.2//5X,
     1       '   COL    NODEWT    Z(OLD)    Z(NEW) HEADWT(OLD)',
     2       ' HEADWT(NEW) PREV.HEADWT    ELVGRD')
```

```
      ERR=0.
      FORM=.FALSE.
      DO 110 I=1,NCOL
      NDWT=NODEWT(I)
      ZOLD=Z(NDWT)
      HOLD=HEAD(NDWT)
      IF(.NOT.WTMOVE(I))GO TO 108
C IF THE WATER TABLE HAS RISEN BY GREATER THAN DELZ, REFORM THE GRID
      IF((HEAD(NDWT)-Z(NDWT)).GT.DELZ5Q)FORM=.TRUE.
      ERR=ERR+DABS(Z(NDWT)-HEAD(NDWT))
C  RAISE THE NODE AT THE WATER TABLE TO EQUAL THE ELEVATION OF THE WATER TABLE
      IF(I.EQ.MLEFT .AND. (MLEFT.EQ.MLEFTP .OR. MLEFTP.EQ.0))GO TO 103
      IF(I.NE.MRITE)GO TO 105
C  EXTRAPOLATE A HEAD VALUE AT THE SEEPAGE FACE
  103 IF(I.EQ.MLEFT)HEAD(NDWT)=(HEAD(NODEWT(I+1))+
     1              0.2*DABS(HEAD(NODEWT(I-1))-HEAD(NODEWT(I+1))))
      IF(I.EQ.MRITE)HEAD(NDWT)=(HEAD(NODEWT(I-1))+
     1              0.2*DABS(HEAD(NODEWT(I+1))-HEAD(NODEWT(I-1))))
      CHEAD(DIVCD(NDWT))=HEAD(NDWT)
  105 Z(NDWT)=HEAD(NDWT)
C  IF THE WATER TABLE HAS FALLEN BELOW THE NEXT LOWER NODE, REFORM THE GRID
      IF(Z(NDWT-1)+DELZQ.GT.Z(NDWT))FORM=.TRUE.
      HEADWT(I)=HEAD(NDWT)
  108 IF(OPTION(9))WRITE(LLP,109)I,TYPEND(NDWT),NDWT,ZOLD,Z(NDWT),HOLD,
     1                           HEAD(NDWT),HEADWP(I),ELVGRD(I)
  109 FORMAT(1X,I10,L3,I7,2F10.4,3F12.4,F10.4)
  110 CONTINUE
      IF(OPTION(9) .AND. FORM)WRITE(LLP,111)
  111 FORMAT(' *******  REFORM THE GRID  *******')
C
C  WRITE ITERATION CONVERGENCE INFORMATION
      IF(OPTION(9))WRITE(LLP,114)ERR,TOLRNC
  114 FORMAT(/' ITERATION CONVERGENCE;   ERROR:',F7.3,'   TOLERENCE:',
     1       F5.3)
C
C  CHECK TO SEE IF THE HEADS ALONG THE WATER TABLE HAVE CONVERGED
      IF(ERR.LT.TOLRNC)GO TO 131
      IF(NITER.LT.NITMAX)GO TO 121
      WRITE(LLP,931)NITMAX
  931 FORMAT(///' *** NUMBER OF ITERATIONS EXCEEDS LIMIT OF',I3,' ***')
      STOP
C
C  IF THE WATER TABLE RISES OR FALLS BY MORE THAN DELZ, FORM A NEW GRID
  121 IF(.NOT.FORM)GO TO 31
      CALL FEIN(X,Z,IDWTR,TYPEND,TYPELM,CHEAD,NODEWT,STRELM,HEADP,INCID,
     1          KHELM,KVELM,CHVAL,HEADWT,ELVGRD,MLEFT,MRITE,MLEFTP,
     2          MRITEP,.FALSE.,IELCEL)
      GO TO 1
C
C
```

```
C  TEST TO SEE IF THE SYSTEM IS AT STEADY STATE
  131 ERR=0.
      DO 135 I=1,NCOL
      ERR=ERR+ABS(HEADWT(I)-HEADWP(I))
  135 CONTINUE
C
C  WRITE STEADY STATE CONVERGENCE INFORMATION
      WRITE(LLP,136)ERR,TOLRNC
  136 FORMAT(/' STEADY STATE CONVERGENCE;   ERROR:',F7.3,'   TOLERENCE:'
     1       ,F5.3)
      IF(ERR.LE.TOLRNC)STEADY=.TRUE.
      IF(STEADY)WRITE(LLP,137)
  137 FORMAT(1H1//////////////////////
     1        //' ***********************************************',
     2        //' ********** SYSTEM IS AT STEADY STATE **********',
     3        //' ***********************************************')
      DO 140 IND=1,NNODE
      HEADP(IND)=HEAD(IND)
  140 CONTINUE
      DO 145 I=1,NCOL
      HEADWP(I)=HEADWT(I)
  145 CONTINUE
C
C  END OF A TIME STEP
C
      RETURN
      END
```

```
      C
      C
      C
      C*************************************************************************
            SUBROUTINE SOLVE(NUHEAD,F,HEAD,NBAND,LLP)
      C*************************************************************************
      C
      C  SUBROUTINE WHICH DECOMPOSES THE GLOBAL CONDUCTIVITY MATRIX BY THE
      C  CHOLESKY SQUARE ROOT METHOD FOR SYMMETRIC, BANDED MATRICES
      C  AND SOLVES FOR THE UNKNOWNS IN A SYSTEM OF LINEAR EQUATIONS BY
      C  BACK SUBSTITUTION OF THE DECOMPOSED GLOBAL CONDUCTIVITY MATRIX
      C
      C*************************************************************************
      C
            REAL*8 GLCOND(1275,22),TEMP,DSQRT,SUM,HEAD(1),F(1)
            COMMON /A1/GLCOND
      C
      C  DECOMPOSE THE MATRIX
            DO 20 I=1,NUHEAD
            IP=NUHEAD-I+1
            IF(NBAND.LT.IP)IP=NBAND
            DO 20 J=1,IP
            IQ=NBAND-J
            IF((I-1).LT.IQ)IQ=I-1
            SUM=GLCOND(I,J)
            IF(IQ.LT.1)GO TO 25
            DO 21 K=1,IQ
            II=I-K
            JZ=J+K
            SUM=SUM-GLCOND(II,K+1)*GLCOND(II,JZ)
         21 CONTINUE
         25 IF(J.NE.1)GO TO 23
            IF(SUM.LE.0.)GO TO 26
            TEMP=1./DSQRT(SUM)
            GLCOND(I,J)=TEMP
            GO TO 20
         26 WRITE(LLP,999)I
        999 FORMAT(///10X,'DECOMPOSITION FAILED-EXECUTION TERMINATED'/
           1       10X,'CHECK UNKNOWN HEAD:',I5)
            STOP
         23 GLCOND(I,J)=SUM*TEMP
         20 CONTINUE
      C
      C  SOLVE FOR UNKNOWN HEADS
            DO 35 I=1,NUHEAD
            J=I-NBAND+1
            IF((I+1).LE.NBAND)J=1
            SUM=F(I)
            K1=I-1
            IF(J.GT.K1)GO TO 34
```

```
51            DO 30 K=J,K1
52            II=I-K+1
53            SUM=SUM-GLCOND(K,II)*HEAD(K)
54          30 CONTINUE
55          34 HEAD(I)=SUM*GLCOND(I,1)
56          35 CONTINUE
57            DO 40 I1=1,NUHEAD
58            I=NUHEAD-I1+1
59            J=I+NBAND-1
60            IF(J.GT.NUHEAD)J=NUHEAD
61            SUM=HEAD(I)
62            K2=I+1
63            IF(K2.GT.J)GO TO 45
64            DO 50 K=K2,J
65            KK=K-I+1
66            SUM=SUM-GLCOND(I,KK)*HEAD(K)
67          50 CONTINUE
68          45 HEAD(I)=SUM*GLCOND(I,1)
69          40 CONTINUE
70            RETURN
71            END
```

```
C
C
C
C*************************************************************************
C
      SUBROUTINE HYGRAD(X,Z,INCID,HEAD,IELSTR,IELSTP,GRAD,DIRECT)
C
C*************************************************************************
C
C  SUBROUTINE USED TO CALCULATE THE HYDRAULIC GRADIENT WITHIN EACH ELEMENT
C  AND THE DIRECTION OF THE GRADIENT (DIRECTION OF FLOW). THE DIRECTION OF
C  FLOW IS MEASURED IN DEGREES FROM THE POSTIVE X-AXIS.
C
C*************************************************************************
C
C                 SUBROUTINE PARAMETERS AND VARIABLES
C
C  A      : MATRIX CONTAINING THE X & Z COORDINATES AND HEAD OF AN ELEMENT
C  A1     : FIRST MATRIX COEFFICIENT
C  A2     : SECOND MATRIX COEFFICIENT
C  A3     : THIRD MATRIX COEFFICIENT
C  COSL   : DIRECTION COSINE OF THE ANGLE BETWEEN NORMAL TO THE PLANE AND X-AXIS
C  COSM   : DIRECTION COSINE OF THE ANGLE BETWEEN NORMAL TO THE PLANE AND X-AXIS
C  COSN   : DIRECTION COSINE OF THE ANGLE BETWEEN NORMAL TO THE PLANE AND X-AXIS
C  DET    : DETERMINANT OF THE 3X3 A MATRIX
C  DIRECT: DIRECTION OF FLOW
C  GRAD   : THE HYDRAULIC GRADIENT WITHIN AN ELEMENT
C  HEAD   : HYDRAULIC HEAD AT A NODE
C  IEL    : ELEMENT COUNTER
C  IELSTR: STARTING ELEMENT NUMBER FOR CALCULATING VELOCITIES
C  IELSTP: STOPPING ELEMENT NUMBER FOR CALCULATING VELOCITIES
C  INCID  : ELEMENT INCIDENCES
C  RADIAN: DEGREES IN 1 RADIAN
C  STRIKE: STRIKE OF THE PLANE BOUNDED BY THE THREE ELEMENT INCIDENCES
C  X      : X-COORDINATE OF A NODE
C  Z      : Z-COORDINATE OF A NODE
C
C*************************************************************************
C
C
      REAL*8 A(3,4),A1,A2,A3,U,DSQRT,COSL,COSM,COSN,DET,
     1       RADIAN,HEAD(1)
      REAL GRAD(1),DIRECT(1),X(1),Z(1)
      INTEGER*2 INCID(NELME,3)
      LOGICAL*1 OPTION(25)
      COMMON BASELV,DELX,DELZ,LLP,NROW,NCOL,NNODE,NELM,NHCELL,NVCELL,
     1       NNODEE,NELME,NBANDE,NCHNDE,NCHEAD,OPTION
C
      RADIAN=57.29577951308232
C
```

```
C  LOOP THROUGH THE ELEMENTS  (IELSTR=IELSTP WHEN CALLED FROM TRANS)
      DO 100 IEL=IELSTR,IELSTP
C
C  WRITE ELEMENT DATA AS THREE EQUATIONS IN A 3X4 MATRIX
      DO 10 I=1,3
      A(I,1)=X(INCID(IEL,I))
      A(I,2)=Z(INCID(IEL,I))
      A(I,3)=HEAD(INCID(IEL,I))
      A(I,4)=1.0
   10 CONTINUE
C
C  CHECK TO SEE IF ALL THREE HEADS ARE EQUAL
      IF(A(1,3).NE.A(2,3) .OR. A(2,3).NE.A(3,3))GO TO 11
      GRAD(IEL)=0.0
      DIRECT(IEL)=0.0
      GO TO 100
C
C  USE CRAMMERS RULE TO SOLVE FOR THE COEFFICIENTS OF THE EQUATION OF THE PLANE
C  BOUNDED BY THE THREE ELEMENT INCIDENCES
C
C  FIND THE DETERMINANT OF THE 3X3 MATRIX
   11 DET=A(1,1)*A(2,2)*A(3,3) + A(1,2)*A(2,3)*A(3,1) +
     1    A(1,3)*A(2,1)*A(3,2) - A(1,3)*A(2,2)*A(3,1) -
     2    A(1,2)*A(2,1)*A(3,3) - A(1,1)*A(2,3)*A(3,2)
C
C  TRANSPOSE THE MATRIX IF THE DETERMINANT IS ZERO
      IF(DET.NE.0.0)GO TO 41
      DO 20 I=1,3
      A(I,1)=A(I,1)+1.0
      A(I,2)=A(I,2)+1.0
   20 CONTINUE
      GO TO 11
C
C  DETERMINE THE THREE COEFFICIENTS  OF THE EQUATION OF THE PLANE
   41 A1=(A(1,4)*A(2,2)*A(3,3) + A(1,2)*A(2,3)*A(3,4) +
     1    A(1,3)*A(2,4)*A(3,2) - A(1,3)*A(2,2)*A(3,4) -
     2    A(1,2)*A(2,4)*A(3,3) - A(1,4)*A(2,3)*A(3,2))/DET
       A2=(A(1,1)*A(2,4)*A(3,3) + A(1,4)*A(2,3)*A(3,1) +
     1    A(1,3)*A(2,1)*A(3,4) - A(1,3)*A(2,4)*A(3,1) -
     2    A(1,4)*A(2,1)*A(3,3) - A(1,1)*A(2,3)*A(3,4))/DET
       A3=(A(1,1)*A(2,2)*A(3,4) + A(1,2)*A(2,4)*A(3,1) +
     1    A(1,4)*A(2,1)*A(3,2) - A(1,4)*A(2,2)*A(3,1) -
     2    A(1,2)*A(2,1)*A(3,4) - A(1,1)*A(2,4)*A(3,2))/DET
C
C  CALCULATE THE HYDRAULIC GRADIENT AND ITS DIRECTION FROM THE DIRECTION COSINES
C
C  DETERMINE THE THREE DIRECTION COSINES
      U=DSQRT(1./(A1*A1+A2*A2+A3*A3))
      COSL=U*A1
      COSM=U*A2
```

```
101            COSN=U*A3
102      C
103      C  CALCULATE THE GRADIENT AND THE DIRECTION OF FLOW
104            IF(COSM)71,72,73
105         71 STRIKE=DATAN(-1.0*(COSL/COSM))*RADIAN+180.0
106            GO TO 74
107         72 STRIKE=-90.0
108            IF(A1.LT.0.0)STRIKE=STRIKE+180.0
109            GO TO 74
110         73 STRIKE=DATAN(-1.0*(COSL/COSM))*RADIAN
111         74 DIRECT(IEL)=STRIKE+90.0
112            PLUNGE=DASIN(-1.0*COSN)
113            GRAD(IEL)=TAN(1.570796326794897+PLUNGE)
114            IF(GRAD(IEL).GE.0.0)GO TO 100
115            GRAD(IEL)=-1.0*GRAD(IEL)
116            DIRECT(IEL)=DIRECT(IEL)+180.0
117      C
118        100 CONTINUE
119            RETURN
120            END
```

```
C
C
C
C*************************************************************************
      SUBROUTINE VELCTY(PORSTY,MAPGEO,GRAD,DIRECT,KHELM,KVELM,INCID,
     1                  X,Z,IELSTR,IELSTP,VX,VZ)
C*************************************************************************
C
C  SUBROUTINE WHICH CALCULATES THE HORIZONTAL AND VERTICAL VELOCITIES
C  FOR EACH FINITE ELEMENT IN THE CROSS-SECTION
C  VELOCITIES CALCULATED ARE PORE VELOCITIES (i.e v=q/n)
C
C*************************************************************************
C
C        SUBROUTINE PARAMETERS AND VARIABLES
C
C  BASELV:  THE LOWEST ELEVATION ALONG THE BASE OF .THE FLOW SECTION
C  KHELM: HORIZONTAL HYDRAULIC CONDUCTIVITY OF AN ELEMENT
C  KVELM    : VERTICAL HYDRAULIC CONDUCTIVITY OF AN ELEMENT
C  DELX   : HORIZONTAL NODE SPACING, IN METERS
C  DELZ   : VERTICAL NODE SPACING, IN METERS
C  DIRECT: DIRECTION OF THE HYDRAULIC GRADIENT (DIRECTION OF FLOW) IN DEGREES
C  DIRCT : DIRECTION OF THE HYDRAULIC GRADIENT IN RADIANS
C  GRAD   : HYDRAULIC GRADIENT
C  I      : COLUMN NUMBER USED TO IDENTIFY A CELL
C  INCID : FINITE ELEMENT INCIDENCES
C  IEL    : ELEMENT NUMBER COUNTER
C  IELSTR: STARTING ELEMENT NUMBER FOR CALCULATING VELOCITIES
C  IELSTP: STOPPING ELEMENT NUMBER FOR CALCULATING VELOCITIES
C  J      : ROW NUMBER USED TO IDENTIFY A CELL
C  MAPGEO: CODE IDENTIFYING THE DIFFERENT GEOLOGIC UNITS
C  PORSTY: POROSITY VALUE ASSIGNED TO A GEOLOGIC UNIT
C  VX     : GROUNDWATER VELOCITY IN THE HORIZONTAL DIRECTION
C  VZ     : GROUNDWATER VELOCITY IN THE VERTICAL DIRECTION
C
C*************************************************************************
C
      REAL X(1),Z(1),PORSTY(10),VX(1),VZ(1),KHELM(1),KVELM(1),GRAD(1),
     1    DIRECT(1)
      INTEGER*2 MAPGEO(NHCELL,NVCELL),INCID(NELME,3)
      LOGICAL*1 OPTION(25)
      COMMON BASELV,DELX,DELZ,LLP,NROW,NCOL,NNODE,NELM,NHCELL,NVCELL,
     1       NNODEE,NELME,NBANDE,NCHEDE,NCHEAD,OPTION
C
C  LOOP THROUGH THE ELEMENTS  (IELSTR=IELSTP WHEN CALLED FROM TRANS)
      DO 10 IEL=IELSTR,IELSTP
C
C  DETERMINE THE POROSITY OF THE CELL CONTAINING THE ELEMENT
      I=IFIX(X(INCID(IEL,1))/DELX)+1
      J=IFIX((Z(INCID(IEL,1))-BASELV)/DELZ)+1
```

```
51            POR=PORSTY(MAPGEO(I,J))
52      C
53      C  CALCULATE THE HORIZONTAL AND VERTICAL VELOCITIES
54            DIRCT=DIRECT(IEL)/57.29577951308232
55            VX(IEL)=COS(DIRCT)*GRAD(IEL)*KHELM(IEL)/POR
56            VZ(IEL)=SIN(DIRCT)*GRAD(IEL)*KVELM(IEL)/POR
57      C
58         10 CONTINUE
59            RETURN
60            END
```

```
C
C
C
C*************************************************************************
      SUBROUTINE TRANS(LCOL1,LCOL2,LROW1,LROW2,NPPER,PTCODE,MAPGEO,
     1                 DISPER,CEC,PORSTY,DELT,VX,VZ,CONR,PARTGN,CONC,
     2                 PART,CONCP,SOLUTE,SELC,BULK,XMASSI,XPOS,ZPOS,
     3                 XMASS,IDBBR,CHVAL,X,Z,NODEWT,TYPEND,IELCEL,HEADWT,
     4                 ELVMNE,INCID,HEAD,KHELM,KVELM,GRAD,DIRECT,NP,
     5                 NPGONE,NPSTOP,KTIME)
C*************************************************************************
C
C  SUBROUTINE WHICH TRANSPORTS PARTICLES THROUGH THE CROSS-SECTION BY MOVING
C  THE PARTICLES FROM ONE CELL TO THE NEXT BY A DETERMINISTIC-PROBABILISTIC
C  METHOD
C
C*************************************************************************
C
C           SUBROUTINE PARAMETERS AND VARIABLES
C
C  BULK   : BULK DENSITY OF THE GEOLOGIC MEDIUM
C  CEC    : CATION EXCHANGE CAPACITY VALUES ASSIGNED TO A GEOLOGIC UNIT
C  CONC   : CONCENTRATION OF THE CONTAMINANT IN THE SYSTEM (ONE VALUE
C           FOR EACH CELL)
C  CONCP  : PREVIOUS CONCENTRATION OF THE CONTAMINANT IN THE SYSTEM
C  DELT   : SIZE OF THE TIME-STEP, IN DAYS
C  DELX   : HORIZONTAL NODE SPACING, IN METERS
C  DELZ   : VERTICAL NODE SPACING, IN METERS
C  DISPER: LONGITUDINAL DISPERSIVITY VALUES ASSIGNED TO EACH GEOLOGIC UNIT
C  DISPLO: LONGITUDINAL DISPERSIVITY COEFFICIENT
C  DISPTR: LONGITUDINAL DISPERSIVITY COEFFICIENT
C  IDBBR  : ROW NUMBER (OF EACH COLUMN OF NODES THAT DEFINES THE
C           POSITION OF THE BOTTOM OF THE FLOW SYSTEM
C  IEL    : ELEMENT NUMBER WHICH CONTAINS THE PARTICLE
C  IPT    : PARTICLE COUNTER
C  IRAND1: RANDOM NUMBER GENERATOR SEED
C  IRAND2: RANDOM NUMBER GENERATOR SEED
C  ICELL  : COLUMN NUMBER OF THE CELL OR ELEMENT WHICH CONTAINS THE PARTICLE
C  ICELLP: PREVIOUS COLUMN NUMBER OF THE CELL OR ELEMENT CONTAINING THE PARTICLE
C  JCELL  : ROW NUMBER OF THE CELL WHICH CONTAINS THE PARTICLE
C  JCELLP: PREVIOUS ROW NUMBER OF THE CELL CONTAINING THE PARTICLE
C  LCOL1  : LEFT BOUNDARY (COLUMN) OF THE ZONE WHICH RECEIVES THE PARTICLES
C  LCOL2  : RIGHT BOUNDARY (COLUMN) OF THE ZONE WHICH RECEIVES THE PARTICLES
C  LROW1  : BOTTOM BOUNDARY (ROW) OF THE ZONE WHICH RECEIVES THE PARTICLES
C  LROW2  : TOP BOUNDARY (ROW) OF THE ZONE WHICH RECEIVES THE PARTICLES
C  NP     : NUMBER OF PARTICLE ENTERED INTO THE SYSTEM
C  NPSTOP: TOTAL NUMBER OF PARTICLES IN REGION OF NO MOVEMENT
C  NPGONE: TOTAL NUMBER OF PARTICLES THAT HAVE LEFT THE FLOW SYSTEM
C  NCOL   : NUMBER OF COLUMNS OF NODES
C  NPPER  : NUMBER OF CONTAMINANT PARTICLES ADDED DURING A TIME STEP
```

```
C  NROW   : NUMBER OF ROWS OF NODES
C  PARTGN: DISTRIBUTION OF PARTICLES (PER CELL) THAT HAVE LEFT THE REGION WHERE
C           THEY CAN MOVE
C  PART   : DISTRIBUTION OF PARTICLES (PER CELL) WITHIN THE REGION WHERE THEY
C           CAN MOVE
C  PORSTY: POROSITY VALUES ASSIGNED TO A GEOLOGIC UNIT
C  PTCODE: PARTICLE TRANSPORT CODE (IDENTIFIES CELLS WHERE PARTICLES
C           ARE ALLOWED TO MOVE)
C  RAND   : RANDOM NUMBER
C  RAND1  : RANDOM NUMBER USED TO CALCULATE THE DISPERSION OF A PARTICLE
C  RAND2  : RANDOM NUMBER USED TO CALCULATE THE DISPERSION OF A PARTICLE
C  SOLUTE: TOTAL CONCENTRATION OF THE CONTAMINANT IN SOLUTION
C  VEL    : AVERAGE VELOCITY OF A PARTICLE
C  VEX    : HORIZONTAL VELOCITY OF A PARTICLE
C  VEZ    : VERTICAL VELOCITY OF A PARTICLE
C  VOLUME: VOLUME OF A CELL (IN LITRES)
C  VX     : GROUNDWATER VELOCITY IN THE HORIZONTAL DIRECTION
C  VZ     : GROUNDWATER VELOCITY IN THE VERTICAL DIRECTION
C  XMASS  : MASS ASIGNED TO EACH PARTICLE
C  XMASSI: INITIAL MASS OF THE PARTICLES
C  XMAX   : TOTAL LENGTH OF THE CROSS-SECTION
C  XPOSP  : FORMER X CO-ORDINATE OF A PARTICLE
C  XPOS   : X CO-ORDINATE OF THE LOCATION OF A PARTICLE
C  ZBOT   : AVERAGE ELEVATION ALONG THE BASE OF THE ZONE RECEIVING PARTICLES
C  ZTOP   : AVERAGE ELEVATION ALONG THE TOP OF THE ZONE RECEIVING PARTICLES
C  ZRANGE: VERTICAL DISTANCE OF ZONE RECEIVING PARTICLES
C  ZPOSP  : FORMER Z CO-ORDINATE OF A PARTICLE
C  ZPOS   : Z CO-ORDINATE OF THE LOCATION OF A PARTICLE
C  ZRFLCT: Z CO-ORDINATE OF A PARTICLE AFTER IT HAS BEEN REFLECTED
C           OFF A NO-FLOW BOUNDARY
C
C*******************************************************************************
C
      REAL*8 HEAD(1)
      REAL CONR(NHCELL,NVCELL),ZPOS(1),XPOS(1),KHELM(1),KVELM(1),
     1     CONC(NHCELL,NVCELL),X(1),Z(1),XMASS(1),DIRECT(1),GRAD(1),
     2     DISPER(1),CEC(1),CONCP(NHCELL,NVCELL),CHVAL(NCOL,NROW),
     3     ELVMNE(1),PORSTY(1),HEADWT(1),VX(1),VZ(1),BULK(1)
      INTEGER*2 LROW1,LROW2,LCOL1,LCOL2,IDBBR(1),NODEWT(1),NPPER,
     2     MAPGEO(NHCELL,NVCELL),IELCEL(NHCELL,NVCELL,2),INCID(NELME,3),
     3     PART(NHCELL,NVCELL),PARTGN(NHCELL,NVCELL)
      LOGICAL*1 OPTION(25),PTCODE(NHCELL,NVCELL),MOVHOR,TYPEND(1)
      COMMON BASELV,DELX,DELZ,LLP,NROW,NCOL,NNODE,NELM,NHCELL,NVCELL,
     1       NNODEE,NELME,NBANDE,NCHEDE,NCHEAD,OPTION
      DATA IRAND1/512275045/
C
C
      IF(KTIME.GT.1)GO TO 21
      DELXH=.5*DELX
      DELXT=DELX/3.
```

```
101           DELZH=.5*DELZ
102           DELZQ=.25*DELZ
103           DELZT=DELZ+DELZ
104           VOLUME=DELX*DELZ*1000.
105           NPGONE=0
106           NPSTOP=0
107           XMAX=FLOAT(NHCELL)*DELX
108           DO 10 I=1,NHCELL
109           DO 10 J=1,NVCELL
110           CONR(I,J)=1.0
111           PARTGN(I,J)=0
112        10 CONTINUE
113     C
114     C  ADD NEW PARTICLE TO THE SYSTEM AND RANDOMLY PLACE THEM BELOW THE WATER TABLE
115        21 IF(NPPER.EQ.0)GO TO 31
116           XRANGE=DELX*(LCOL2-LCOL1)
117           XLEFT=FLOAT(LCOL1-1)*DELX
118           DO 20 J=1,NPPER
119           NP=NP+1
120           CALL RANDNO(IRAND1,IRAND2,RAND)
121           IRAND1=IRAND2
122           XPOS(NP)=XLEFT+RAND*XRANGE
123           CALL RANDNO(IRAND1,IRAND2,RAND)
124           IRAND1=IRAND2
125           IB1=IFIX(XPOS(NP)/DELX)+1
126           IB2=IB1+1
127     C
128     C  IF LROW1 OR LROW2 LESS THAN ZERO, PUT PARTICLES IN THE SPOIL
129           IF(LROW1.LE.0)ZBOT=(ELVMNE(IB1)+ELVMNE(IB2))/2.
130           IF(LROW1.GT.0)ZBOT=BASELV+(LROW1-1)*DELZ
131           IF(LROW2.LE.0)ZTOP=(HEADWT(IB1)+HEADWT(IB2))/2.
132           IF(LROW2.GT.0)ZTOP=BASELV+(LROW2-1)*DELZ
133           ZRANGE=ZTOP-ZBOT
134           CALL RANDNO(IRAND1,IRAND2,RAND)
135           IRAND1=IRAND2
136           ZPOS(NP)=ZBOT+RAND*ZRANGE
137           CALL RANDNO(IRAND1,IRAND2,RAND)
138           IRAND1=IRAND2
139           XMASS(NP)=XMASSI
140        20 CONTINUE
141     C
142     C  CHECK TO SEE IF THERE ARE ANY PARTICLES IN THE SYSTEM
143        31 IF(NP.EQ.0)RETURN
144     C
145     C  CLEAR ARRAYS
146           DO 30 I=1,NHCELL
147           DO 30 J=1,NVCELL
148           CONC(I,J)=0.0
149           PART(I,J)=0
150        30 CONTINUE
```

```
151      C
152      C
153      C  START OF PARTICLE TRANSPORT LOOP
154      C  MOVE PARTICLES ONE AT A TIME
155            DO 50 IPT=1,NP
156      C
157      C   TEST TO SEE IF THE PARTICLE HAS LEFT THE SYSTEM
158            IF (XPOS(IPT).LT.-1.E30) GO TO 50
159      C
160      C  FIND THE ELEMENT AND THE CELL CONTAINING THE PARTICLE
161            CALL SEARCH(DELX,DELZ,Z,NODEWT,XPOS(IPT),ZPOS(IPT),ICELL,JCELL,
162           1            IELM,NCOL,BASELV)
163            IEL=IELCEL(ICELL,JCELL,IELM)
164            ICELLP=ICELL
165            JCELLP=JCELL
166            MAP=MAPGEO(ICELL,JCELL)
167            XPOSP=XPOS(IPT)
168            ZPOSP=ZPOS(IPT)
169      C
170      C  FIND VELOCITY OF THE PARTICLE
171            IF(.NOT.OPTION(13))CALL HYGRAD(X,Z,INCID,HEAD,IEL,IEL,GRAD,DIRECT)
172            IF(.NOT.OPTION(16))CALL VELCTY(PORSTY,MAPGEO,GRAD,DIRECT,KHELM,
173           1                               KVELM,INCID,X,Z,IEL,IEL,VX,VZ)
174            VEX=VX(IEL)
175            VEZ=VZ(IEL)
176            VEL=SQRT(VEX*VEX+VEZ*VEZ)
177      C
178      C  CALCULATE THE MASS OF THE PARTICLES
179            XMASS(IPT)=XMASS(IPT)*CONR(ICELL,JCELL)
180      C
181      C  GENERATE RANDOM NUMBERS TO DISPERSE THE PARTICLES
182            CALL RANDNO(IRAND1,IRAND2,RAND)
183            IRAND1=IRAND2
184            RAND1=RAND
185            CALL RANDNO(IRAND1,IRAND2,RAND)
186            IRAND1=IRAND2
187            RAND2=RAND
188            RAND1=.5-RAND1
189            RAND2=.5-RAND2
190      C
191      C  CALCULATE THE LONGITUDINAL AND TRANSVERSE DISPERSIVITY COEFFICIENTS
192            DISPLO=SQRT((DISPER(MAP)*VEL)*24.*DELT)
193            DISPTR=SQRT((DISPER(MAP)*VEL*.04)*24.*DELT)
194      C
195      C  MOVE PARTICLES TO A NEW POSITION BY ADVECTION AND DISPERSION
196            XPOS(IPT)=XPOSP+DELT*VEX+(DISPLO*RAND1*VEX+DISPTR*RAND2*VEZ)/VEL
197            ZPOS(IPT)=ZPOSP+DELT*VEZ+(DISPLO*RAND1*VEZ+DISPTR*RAND2*VEX)/VEL
198      C
199      C  FIND ROW AND COLUMN NUMBER OF THE CELL WHICH NOW CONTAINS THE PARTICLE
200         61 ICELL=XPOS(IPT)/DELX+1
```

```
201           JCELL=(ZPOS(IPT)-BASELV)/DELZ+1
202       C
203       C  CHECK TO SEE IF THE PARTICLE HAS MOVED TO FAR OUT OF THE SYSTEM
204           IF(IABS(ICELL).LT.NCOL+NCOL .OR. IABS(JCELL).LT.NROW+NROW)GO TO 81
205           WRITE(LLP,72)ICELL,JCELL
206          72 FORMAT(//'****** ERROR ******'/' PARTICLE HAS MOVED TOO FAR',
207             1          ' BEYOND THE EDGE OF THE REGION'/' CALCULATED ROW AND',
208             2          ' COLUMN ARE:',2I10/' CHECK PARTICLE TRANSPORT CODE'///)
209           GO TO 102
210       C
211       C  CHECK BOUNDARY CONDITIONS ON PARTICLE MOTION
212          81 IF(ICELL.LT.1 .OR. ICELL.GE.NCOL)GO TO 82
213           IF(JCELL.GT.IDBBR(ICELL) .AND. JCELL.GT.IDBBR(ICELL+1))GO TO 91
214       C  DETERMINE IF PARTICLE MOVED HORIZONTALLY OR VERTICALLY OUT OF THE ELEMENT
215          82 A=1.E35
216           IF(JCELLP.GT.JCELL)A=ZPOSP-(JCELLP-1)*DELZ
217           IF(JCELLP.LT.JCELL)A=JCELLP*DELZ-ZPOSP
218           B=1.E35
219           IF(ICELLP.GT.ICELL)B=XPOSP-(ICELLP-1)*DELX
220           IF(ICELLP.LT.ICELL)B=ICELLP*DELX-XPOSP
221           MOVHOR=.TRUE.
222           IF(A/VEZ .LT. B/VEX)MOVHOR=.FALSE.
223           IF(MOVHOR .AND. ICELL.LT.ICELLP)GO TO 87
224           IF(MOVHOR .AND. ICELL.GT.ICELLP)GO TO 86
225           IF(.NOT.MOVHOR .AND. JCELL.LT.JCELLP)GO TO 84
226           IF(.NOT.MOVHOR .AND. JCELL.GT.JCELLP)GO TO 83
227       C  ADJUST FOR VERTICAL MOVEMENT OUT OF THE REGION
228          83 IF(CHVAL(ICELLP,JCELLP+1).GT.-1.E34 .AND. CHVAL(ICELLP+1,JCELLP+1)
229             1    .GT.-1.E34)GO TO 103
230           ZPOS(IPT)=2.*JCELLP*DELZ-ZPOS(IPT)
231           GO TO 61
232          84 IF(CHVAL(ICELLP,JCELLP).GT.-1.E34 .AND. CHVAL(ICELLP+1,JCELLP)
233             1    .GT.-1.E34)GO TO 103
234           ZPOS(IPT)=2.*(JCELLP-1)*DELZ-ZPOS(IPT)
235           GO TO 61
236       C  ADJUST FOR HORIZONTAL MOVEMENT OUT OF THE REGION
237          86 IF(CHVAL(ICELLP+1,JCELLP).GT.-1.E34 .AND. CHVAL(ICELLP+1,JCELLP+1)
238             1    .GT.-1.E34)GO TO 103
239           XPOS(IPT)=2.*ICELLP*DELX-XPOS(IPT)
240           GO TO 61
241          87 IF(CHVAL(ICELLP,JCELLP).GT.-1.E34 .AND. CHVAL(ICELLP,JCELLP+1)
242             1    .GT.-1.E34)GO TO 103
243           XPOS(IPT)=2.*(ICELLP-1)*DELX-XPOS(IPT)
244           GO TO 61
245       C
246       C  TEST TO SEE IF THE PARTICLE IS ABOVE THE WATERTABLE
247          91 IF(ZPOS(IPT).LE.Z(NODEWT(ICELL)) .OR. ZPOS(IPT).LE.
248             1      Z(NODEWT(ICELL+1)))GO TO 101
249           DZ=Z(NODEWT(ICELL))-Z(NODEWT(ICELL+1))
250           ZBS=AMIN1(Z(NODEWT(ICELL)),Z(NODEWT(ICELL+1)))
```

```
251           Z11=ABS(DZ)/6.
252           Z16=ZBS+Z11
253           Z1H=Z16+Z11+Z11
254           Z56=Z1H+Z11+Z11
255           XBS=(ICELL-1)*DELX
256           X1T=DELTX+XBS
257           X2T=DELTX+X1T
258           ZRFLCT=ZPOS(IPT)
259     C
260           IF(DZ)92,93,94
261     C  LEFT SIDE OF THE CELL < RIGHT SIDE OF THE CELL
262        92 IF(XPOS(IPT).LT.X1T .AND.ZPOS(IPT).GT.Z16)ZRFLCT=Z16-ZPOS(IPT)+Z16
263           IF(XPOS(IPT).GT.X2T .AND.ZPOS(IPT).GT.Z56)ZRFLCT=Z56-ZPOS(IPT)+Z56
264           IF(XPOS(IPT).GT.X1T .AND. XPOS(IPT).LT.X2T .AND. ZPOS(IPT).GT.Z1H)
265          1      ZRFLCT=Z1H-ZPOS(IPT)+Z1H
266           GO TO 96
267     C  LEFT SIDE OF THE CELL = RIGHT SIDE OF THE CELL
268        93 IF(ZPOS(IPT).GT.Z(NODEWT(ICELL)))ZRFLCT=Z(NODEWT(ICELL))-ZPOS(IPT)
269          1      +Z(NODEWT(ICELL))
270           GO TO 96
271     C  LEFT SIDE OF THE CELL > RIGHT SIDE OF THE CELL
272        94 IF(XPOS(IPT).LT.X1T .AND.ZPOS(IPT).GT.Z56)ZRFLCT=Z56-ZPOS(IPT)+Z56
273           IF(XPOS(IPT).GT.X2T .AND.ZPOS(IPT).GT.Z16)ZRFLCT=Z16-ZPOS(IPT)+Z16
274           IF(XPOS(IPT).GT.X1T .AND. XPOS(IPT).LT.X2T .AND. ZPOS(IPT).GT.Z1H)
275          1      ZRFLCT=Z1H-ZPOS(IPT)+Z1H
276     C
277     C  TEST TO SEE IF PARTICLE MAY LEAVE THE SYSTEM
278        96 IF(ZRFLCT.EQ.ZPOS(IPT))GO TO 101
279           IF(TYPEND(NODEWT(ICELL)) .AND. TYPEND(NODEWT(ICELL+1)))GO TO 103
280           ZPOS(IPT)=ZRFLCT
281           GO TO 61
282     C
283     C  CHECK TO SEE IF THE PARTICLE IS IN A REGION OF NO MOVEMENT
284       101 IF(.NOT.PTCODE(ICELL,JCELL))GO TO 102
285           PART(ICELL,JCELL)=PART(ICELL,JCELL)+1
286           CONC(ICELL,JCELL)=CONC(ICELL,JCELL)+XMASS(IPT)
287           GO TO 50
288       102 NPSTOP=NPSTOP+1
289           PARTGN(ICELL,JCELL)=PARTGN(ICELL,JCELL)+1
290           XPOS(IPT)=-1.E40
291           GO TO 50
292     C  PARTICLE HAS LEFT THE FLOW SYSTEM
293       103 NPGONE=NPGONE+1
294           XPOS(IPT)=-1.E50
295     C
296     C  END PARTICLE MOVEMENT LOOP
297        50 CONTINUE
298     C
299     C  CALCULATE CONCENTRATION AND DISTRIBUTION OF PARTICLES IN A CELL
300           DO 110 I=1,NHCELL
```

```
      DO 110 J=1,NVCELL
      MAP=MAPGEO(I,J)
      IF (CONC(I,J).EQ.0.0) GO TO 110
      CONI=CONC(I,J)/(PORSTY(MAP)*VOLUME)
      BULL=BULK(MAP)/PORSTY(MAP)
      CONC(I,J)=(CONI+BULL*SELC*CEC(MAP)*CONCP(I,J)/SOLUTE)/
     1        (1.+BULL*SELC*CEC(MAP)/SOLUTE)
      CONR(I,J)=CONC(I,J)/CONI
      CONCP(I,J)=CONC(I,J)
  110 CONTINUE
C
      RETURN
      END
```

```
      C
      C
      C
      C*************************************************************************
            SUBROUTINE RANDNO(IRAND1,IRAND2,RAND)
      C*************************************************************************
      C
      C  SUBROUTINE WHICH GENERATES PSEUDO-RANDOM NUMBERS BETWEEN 0 AND 1
      C
      C*************************************************************************
      C
            IRAND2=IRAND1*65539
            IF(IRAND2)1,2,2
          1 IRAND2=IRAND2+2147483647+1
          2 RAND=IRAND2
            RAND=RAND*.4656613E-9
            RETURN
            END
```

```
C
C
C
C*************************************************************************
      SUBROUTINE SEARCH(DELX,DELZ,Z,NODEWT,XPOS,ZPOS,I,J,IELM,NCOL,
     1                  BASELV)
C*************************************************************************
C
C
C  SUBROUTINE USED TO FIND THE FINITE ELEMENT AND THE ROW AND COLUMN
C  NUMBER OF THE CELL WHICH CONTAINS THE PARTICLE.
C
C
C*************************************************************************
C
C          SUBROUTINE PARAMETERS AND VARIABLES
C
C  DELX   : HORIZONTAL NODE SPACING, IN METERS
C  DELXT  : 1/3 OF THE HORIZONTAL NODE SPACING
C  DELZ   : VERTICAL NODE SPACING, IN METERS
C  DELZQ  : 1/4 OF THE VERTICAL NODE SPACING
C  DELZ5Q: 5/4 OF THE VERTICAL NODE SPACING
C  I      : COLUMN NUMBER OF THE CELL CONTAINING THE PARTICLE
C  IELM   : CODE THAT INDICATES WHETHER THE ELEMENT THAT CONTAINS THE
C           PARTICLE IS IN THE LOWER (1) OR UPPER (2) HALF OF THE CELL
C  IT1    : CODE THAT INDICATES IF THE LEFT SIDE OF THE CELL AT THE
C           FREE SURFACE IS > DELZ (IT1=T)
C  IT2    : CODE THAT INDICATES IF THE RIGHT SIDE OF THE CELL AT THE
C           FREE SURFACE IS > DELZ (IT2=T)
C  J      : ROW NUMBER OF THE CELL CONTAINING THE PARTICLE
C  JLEFT  : ROW NUMBER OF THE BASE OF THE LEFT SIDE OF THE CELL AT THE
C           WATER TABLE
C  JRGHT  : ROW NUMBER OF THE BASE OF THE RIGHT SIDE OF THE CELL AT THE
C           WATER TABLE
C  NCOL   : NUMBER OF COLUMNS OF NODES
C  NODEWT: NODE NUMBERS ALONG THE WATER TABLE
C  XBASE  : X VALUE OF THE LEFT SIDE OF THE CELL CONTAINING THE PARTICLE
C  XPOS   : X CO-ORDINATE DEFINING THE HORIZONTAL POSITION OF A PARTICLE
C  Z      : Z-COORDINATE OF A NODE
C  ZBASE  : Z VALUE OF THE BASE OF THE CELL CONTAINING THE PARTICLE
C  ZPOS   : Z CO-ORDINATE DEFINING THE VERTICAL POSITION OF A PARTICLE
C  ZLEFT  : LENGHT OF THE LEFT SIDE OF THE CELL THAT BOUNDS THE FREE SURFACE
C  ZRGHT  : LENGHT OF THE RIGHT SIDE OF THE CELL THAT BOUNDS THE FREE SURFACE
C  ZWT1   : Z-COORDINATE OF THE NODE AT THE WATER TABLE AT COLUMN i
C  ZWT2   : Z-COORDINATE OF THE NODE AT THE WATER TABLE AT COLUMN i+1
C  ZWT1M  : Z-COORDINATE OF THE NODE BELOW THE WATER TABLE AT COLUMN i
C  ZWT2M  : Z-COORDINATE OF THE NODE BELOW THE WATER TABLE AT COLUMN i+1
C
C
C*************************************************************************
```

```
51      C
52      C
53            DIMENSION Z(1)
54            INTEGER*2 NODEWT(1)
55            LOGICAL*1 IT1,IT2
56      C
57            DELZQ=0.25*DELZ
58      C
59      C  DETERMINE ROW AND COLUMN OF THE CELL CONTAINING THE PARTICLE
60            I=IFIX(XPOS/DELX)+1
61            J=IFIX((ZPOS-BASELV)/DELZ)+1
62            DELZ5Q=DELZ+DELZQ
63      C
64      C  CALCULATE LENGTHS OF THE LEFT & RIGHT SIDES OF CELL CONTAINING THE PARTICLE
65            ZWT1=Z(NODEWT(I))
66            ZWT2=Z(NODEWT(I+1))
67            ZWT1M=Z(NODEWT(I)-1)
68            ZWT2M=Z(NODEWT(I+1)-1)
69            IF(I.GE.NCOL)I=NCOL-1
70            ZLEFT=ZWT1-ZWT1M
71            ZRGHT=ZWT2-ZWT2M
72      C
73      C  DETERMINE THE ROW AT BASE OF LEFT & RIGHT SIDES OF CELL AT THE WATER TABLE
74            JLEFT=IFIX((ZWT1-BASELV-DELZQ)/DELZ)+1
75            JRGHT=IFIX((ZWT2-BASELV-DELZQ)/DELZ)+1
76            IF(ZLEFT.GT.DELZ5Q)JLEFT=JLEFT-1
77            IF(ZRGHT.GT.DELZ5Q)JRGHT=JRGHT-1
78            IT1=.FALSE.
79            IT2=.FALSE.
80      C
81      C  DIVIDE BASE OF CELL INTO THIRDS
82            XBASE=(I-1)*DELX
83            DELXT=.33333*DELX
84            X1T=DELXT+XBASE
85            X2T=DELXT+X1T
86      C
87      C  CELL BELOW ROW OF WATER TABLE CELLS
88            IF(J.LT.JLEFT .AND. J.LT.JRGHT)GO TO 21
89      C
90      C   CHECK FOR CELL TYPE 'L'
91            IF(ZLEFT.EQ.DELZ .AND. ZRGHT.EQ.DELZ)GO TO 22
92      C
93      C  SEE IF SIDE OF CELL > DELZ
94            IF(ZLEFT.GT.DELZ)IT1=.TRUE.
95            IF(ZRGHT.GT.DELZ)IT2=.TRUE.
96      C
97      C   CHECK FOR CELL TYPE 'A' 'B' 'C' 'D' 'E' 'F' 'G'
98            J=JLEFT
99            IF(JLEFT.EQ.JRGHT)GO TO 22
100     C
```

```
101      C  SINGULAR ELEMENT ALONG THE WATER TABLE IS IDENTIFIED BY IELM=1
102      C  CHECK FOR CELL TYPE 'H'
103           IF(      IT1 .AND. .NOT.IT2)GO TO 1
104      C  CHECK FOR CELL TYPE 'I'
105           IF(.NOT.IT1 .AND.       IT2)GO TO 2
106      C  CHECK FOR CELL TYPE 'J'
107           IF(JLEFT.LT.JRGHT)GO TO 3
108      C  CELL TYPE 'K'
109             J=JRGHT
110             IF(ZPOS.LT.ZWT2+0.5*(ZWT1M-ZWT2))GO TO 22
111             J=JLEFT
112             IELM=1
113             GO TO 50
114      C  CELL TYPE 'J'
115           3 J=JLEFT
116             IF(ZPOS.LT.ZWT1+0.5*(ZWT2M-ZWT1))GO TO 22
117             J=JRGHT
118             IELM=1
119             GO TO 50
120      C  CELL TYPE 'I'
121           2 J=JRGHT
122             IF(ZPOS.LT.ZWT2-0.5*(ZWT2-ZWT1M))GO TO 22
123             J=JLEFT
124             IELM=1
125             GO TO 50
126      C  CELL TYPE 'H'
127           1 J=JLEFT
128             IF(ZPOS.LT.ZWT1-0.5*(ZWT1-ZWT2M))GO TO 22
129             J=JRGHT
130             IELM=1
131             GO TO 50
132      C
133      C  FIND THE NUMBER OF THE ELEMENT WHICH CONTAINS THE PARTICLE
134      C       (IELM = 1 :ELEMENT IN THE LOWER HALF OF THE CELL)
135      C       (IELM = 2 :ELEMENT IN THE UPPER HALF OF THE CELL)
136          21 ZLEFT=DELZ
137             ZRGHT=DELZ
138          22 ZBASE=(J-1)*DELZ+BASELV
139             ZR3Q=ZBASE+.75*ZRGHT
140             ZR1H=ZBASE+.50*ZRGHT
141             ZL1H=ZBASE+.50*ZLEFT
142             ZL1Q=ZBASE+.25*ZLEFT
143      C      WRITE(26,37)ZBASE,ZR3Q,ZR1H,ZL1H,ZL1Q,XBASE,X1T,X2T
144      C  37 FORMAT(' ZBASE  ZR3Q  ZR1H  ZL1H  ZL1Q   XBASE     X1T     X2T',/
145      C     1   5F6.1,3F8.1)
146      C
147             IELM=2
148             IF(ZLEFT-ZRGHT)31,32,33
149      C  LEFT SIDE OF THE CELL < RIGHT SIDE OF THE CELL
150          31 IF(ZPOS.GT.ZR3Q)GO TO 50
```

```
151           IF(ZPOS.GT.ZR1H .AND. XPOS.LE.X2T)GO TO 50
152           IF(ZPOS.GT.ZL1Q .AND. XPOS.LE.X1T)GO TO 50
153           IELM=1
154           GO TO 50
155       C  LEFT SIDE OF THE CELL = RIGHT SIDE OF THE CELL
156          32 IF(ZPOS.GT.ZR3Q)GO TO 50
157           IF(ZPOS.GT.ZR1H .AND. XPOS.LE.X2T)GO TO 50
158           IF(ZPOS.GT.ZL1Q .AND. XPOS.LE.X1T)GO TO 50
159           IELM=1
160           GO TO 50
161       C  LEFT SIDE OF THE CELL > RIGHT SIDE OF THE CELL
162          33 IF(ZPOS.GT.ZR3Q)GO TO 50
163           IF(ZPOS.GT.ZR1H .AND. XPOS.LE.X2T)GO TO 50
164           IF(ZPOS.GT.ZR1Q .AND. XPOS.LE.X1T)GO TO 50
165           IELM=1
166          50 CONTINUE
167       C
168       C     WRITE(26,39)
169       C  39 FORMAT(' IT1 IT2 JLFT JRGT  ZLFT  ZRGT    ZP      XP    I    J,
170       C     1       ,' IELM')
171       C     WRITE(26,43)IT1,IT2,JLEFT,JRGHT,ZLEFT,ZRGHT,ZPOS,XPOS,I,J,IELM
172       C  43 FORMAT(1X,L4,L3,2I5,3F6.1,F8.1,3I5//)
173       C
174           RETURN
175           END
```

```
      C
      C
      C
      C*************************************************************************
            SUBROUTINE OUTPUT(LPH,LPG,LDH,LPP,LPC,X,Z,TYPEND,INCID,HEAD,DELT,
           1                  KHELM,KVELM,STRELM,TIME,HEADWT,STEADY,KTIME,
           2                  NTIME,ELVGRD,MAPGEO,NODEWT,TYPELM,GRAD,DIRECT,VX,
           3                  VZ,LPI,NP,XPOS,ZPOS,XMASS,NPPER,NPSTOP,NPGONE,
           4                  PART,PARTGN,CONC)
      C*************************************************************************
      C
      C  THIS SUBROUTINE OUTPUTS THE VARIOUS CALCULATED VALUES TO THE PRINTER
      C  AND TO FILES WHICH CAN BE USED EITHER TO PLOT THE CALCULATED RESULTS
      C  OR BE READ IN TO CONTINUE A SIMULATION
      C
      C
      C*************************************************************************
      C
      C        SUBROUTINE PARAMETERS AND VARIABLES
      C
      C  CONC   : CONCENTRATION OF THE CONTAMINANT IN EACH CELL
      C  DIRECT: DIRECTION OF THE HYDRAULIC GRADIENT IN DEGREES
      C  ELVGRD: ELEVATION OF THE GROUND SURFACE, AT EACH COLUMN
      C  GRAD   : HYDRAULIC GRADIENT WITHIN AN ELEMENT
      C  HEAD   : HYDRAULIC HEAD VALUES
      C  HEADWT: HYDRAULIC HEAD VALUES OF THE NODES AT THE WATER TABLE
      C  INCID  : ELEMENT INCIDENCES
      C  IEL    : ELEMENT COUNTER
      C  INO    : NODE COUNTER
      C  KHELM  : HORIZONTAL HYDRAULIC CONDUCTIVITY OF AN ELEMENT
      C  KVELM  : VERTICAL HYDRAULIC CONDUCTIVITY OF AN ELEMENT
      C  KTIME  : TIME STEP NUMBER
      C  LDH    : UNIT NUMBER ASSIGNED TO THE DEVICE INTO WHICH THE HEAD AND PARTICLE
      C           DISTRIBUTIONS ARE STORED TO BE USED AS INPUT TO CONTINUE A RUN
      C  LLP    : UNIT NUMBER ASSIGNED TO THE LINE PRINTER
      C  LPC    : UNIT NUMBER ASSIGNED TO THE DEVICE INTO WHICH THE CONCENTRATION
      C           DISTRIBUTIONS ARE STORED FOR PLOTTING
      C  LPG    : UNIT ASSIGNED TO THE DEVICE INTO WHICH THE FINITE ELEMENT
      C           DATA ARE STORED FOR PLOTTING
      C  LPH    : UNIT NUMBER ASSIGNED TO THE DEVICE INTO WHICH THE HEAD VALUES
      C           ARE STORED FOR PLOTTING
      C  LPI    : UNIT NUMBER ASSIGNED TO THE DEVICE INTO WHICH THE HYDRAULIC GRADIENT
      C           AND ITS DIRECTION ARE STORED FOR PLOTTING
      C  LPP    : UNIT NUMBER ASSIGNED TO THE DEVICE INTO WHICH THE DISTRIBUTION OF
      C           PARTICLES ARE STORED FOR PLOTTING
      C  MAPGEO: CODE IDENTIFYING THE GEOLOGICAL UNITS
      C  NCOL   : NUMBER OF COLUMNS OF NODES
      C  NELM   : ACTUAL NUMBER OF ELEMENTS IN THE FINITE ELEMENT GRID
      C  NHCELL: NUMBER OF ROWS OF CELLS
      C  NVCELL: NUMBER OF COLUMNS OF CELLS
```

```
C  NNODE  : NUMBER OF NODES
C  NP     : TOTAL NUMBER OF PARTICLES ENTERED INTO THE SYSTEM
C  NPFLOW: NUMBER OF PARTICLES CURRENTLY IN THE FLOW SYSTEM
C  NPGONE: NUMBER OF PARTICLES WHICH HAVE LEFT THE FLOW SYSTEM
C  NPPER  : NUMBER OF PARTICLES ADDED DURING A TIME STEP
C  NPSTOP: NUMBER OF PARTICLES IN THE REGION OF NO MOVEMENT
C  NODEWT: NODE NUMBERS ALONG THE WATER TABLE
C  PART   : DISTRIBUTION OF PARTICLES WITHINS THE REGION WHERE THEY MAY MOVE
C  PARTGN: DISTRIBUTION OF PARTICLES WITHINS THE REGION WHERE THEY MAY NOT MOVE
C  STEADY: TEST TO SEE WHETHER OR NOT STEADY STATE HAS BEEN REACHED
C  TIME   : ELAPSED TIME SINCE THE BEGINNING OF THE SIMULATION
C  TYPEND: NODE TYPE IDENTIFIER
C  TYPELM: ELEMENT TYPE IDENTIFIER (T=AT FREE SURFACE; F=OTHER ELEMENT)
C  VX     : GROUNDWATER VELOCITY IN THE HORIZONTAL DIRECTION
C  VZ     : GROUNDWATER VELOCITY IN THE VERTICAL DIRECTION
C  XMASS  : MASS OF A SINGLE PARTICLE
C  XPOS   : X COORDINATE OF A PARTICLE
C  ZPOS   : Z COORDINATE OF A PARTICLE
C  X      : X COORDINATE OF A NODE
C  Z      : Z COORDINATE OF A NODE
C
C*************************************************************************************
C
C
      REAL*8 HEAD(1)
      REAL X(1),Z(1),KHELM(1),KVELM(1),STRELM(1),ELVGRD(1),HEADWT(1),
     1     GRAD(1),DIRECT(1),VX(1),VZ(1),XPOS(1),ZPOS(1),XMASS(1),
     2     CONC(NHCELL,NVCELL)
      INTEGER*2 INCID(NELME,3),MAPGEO(NHCELL,NVCELL),NODEWT(1),
     1      PART(NHCELL,NVCELL),PARTGN(NHCELL,NVCELL),NPPER
      LOGICAL*1 TYPEND(1),OPTION(25),TYPELM(1),STEADY
      COMMON BASELV,DELX,DELZ,LLP,NROW,NCOL,NNODE,NELM,NHCELL,NVCELL,
     1       NNODEE,NELME,NBANDE,NCHNDE,NCHEAD,OPTION
C
C
C  PRINT THE NODE CO-ORDINATES AND NODE TYPES
      IF(.NOT.OPTION(1))GO TO 110
      WRITE(LLP,101)
  101 FORMAT('1FINITE ELEMENT GRID NODE CO-ORDINATES'////1X,
     1     4('NODE TYPE',6X,'X',10X,'Z',8X)/)
      WRITE(LLP,102)(INO,TYPEND(INO),X(INO),Z(INO),INO=1,NNODE)
  102 FORMAT(I5,L4,2F10.3,I11,L4,2F10.3,I11,L4,2F10.3,I11,L4,2F10.3)
C
C  PRINT THE ELEMENT INCIDENCES
  110 IF(.NOT.OPTION(2))GO TO 120
      WRITE(LLP,112)
  112 FORMAT('1ELEMENT INCIDENCES AND TYPE'/////1X,
     1     4('ELEMENT   INCIDENCES   TYPE       ')/)
      WRITE(LLP,114)(IEL,(INCID(IEL,J),J=1,3),TYPELM(IEL),IEL=1,NELM)
  114 FORMAT(I6,':',3I5,L6,I12,':',3I5,L6,I12,':',3I5,L6,I12,':',3I5,L6)
```

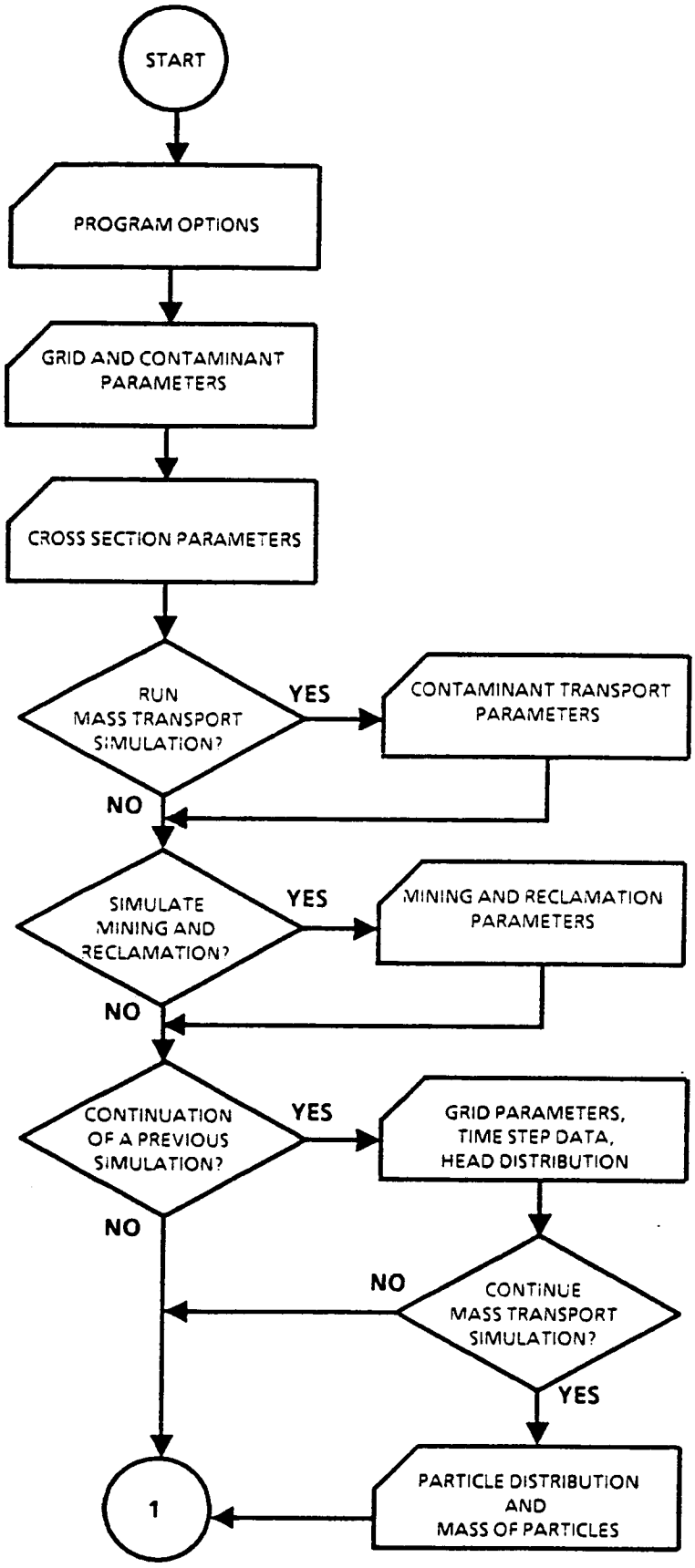
```
101     C
102     C  PRINT THE HYDRAULIC CONDUCTIVITIES AND STORATIVITIES OF THE ELEMENTS
103       120 IF(.NOT.OPTION(3))GO TO 130
104           WRITE(LLP,123)
105       123 FORMAT('1ELEMENT HYDRAULIC CONDUCTIVITIES AND STORATIVITIES'///)
106           WRITE(LLP,128)
107       128 FORMAT(3('   ELEM.         Kh         Kv      STOR.'))
108           WRITE(LLP,129)(IEL,KHELM(IEL),KVELM(IEL),STRELM(IEL),IEL=1,NELM)
109       129 FORMAT(3(I8,': ',E9.4,1X,E9.4,1X,E9.4))
110     C
111     C  PRINT THE HEAD DISTRIBUTION
112       130 IF(.NOT.OPTION(5))GO TO 140
113           IF(.NOT.OPTION(6) .AND. .NOT.STEADY)GO TO 140
114           WRITE(LLP,131)TIME,KTIME
115       131 FORMAT('1HYDRAULIC HEAD DISTRIBUTION'//' TIME IN YEARS:',F10.2,
116          2       '  TIME STEP:',I3//' NODE   HEAD  ',7('    NODE   HEAD  ')/)
117           WRITE(LLP,132)(INO,HEAD(INO),INO=1,NNODE)
118       132 FORMAT(1X,I4,F9.3,I8,F9.3,I8,F9.3,I8,F9.3,I8,F9.3,I8,F9.3,I8,F9.3,
119          1        I8,F9.3)
120     C
121     C  PRINT NODE NUMBERS ALONG THE WATER TABLE
122           WRITE(LLP,135)(NODEWT(I),I=1,NCOL)
123       135 FORMAT(///' NODES ALONG THE WATER TABLE'//25I5/25I5/25I5/25I5)
124     C
125     C  PRINT THE HYDRAULIC GRADIENT AND THE DIRECTION OF THE GRADIENT
126       140 IF(.NOT.OPTION(14))GO TO 150
127           WRITE(LLP,141)
128       141 FORMAT('1HYDRAULIC GRADIENT AND THE DIRECTION OF THE GRADIENT'
129          1      //'                ( IN DEGREES FROM THE POSITIVE X-AXIS)'///
130          2      5('  ELEM GRADIENT  DIRECT  ')/)
131           WRITE(LLP,142)(IEL,GRAD(IEL),DIRECT(IEL),IEL=1,NELM)
132       142 FORMAT(5(1X,I5,1X,E8.3,F8.2,2X))
133     C
134     C  PRINT THE VELOCITY FIELD
135       150 IF(.NOT.OPTION(17))GO TO 160
136           WRITE(LLP,151)
137       151 FORMAT('1VELOCITY FIELD'///4('  ELEM.    HORZ.VEL.    VERT.VEL. ')/)
138           WRITE(LLP,152)(IEL,VX(IEL),VZ(IEL),IEL=1,NELM)
139       152 FORMAT(4(1X,I5,2E12.4,2X))
140     C
141     C  OUTPUT NODES AND ELEMENT FOR A PLOT OF THE GRID
142       160 IF(.NOT.OPTION(4))GO TO 170
143           WRITE(LPG,164)NNODE,NELM
144           WRITE(LPG,162)(I,X(I),Z(I),TYPEND(I),I=1,NNODE)
145       162 FORMAT(4(I5,2F10.3,4X,L1))
146           WRITE(LPG,164)(IEL,(INCID(IEL,J),J=1,3),IEL=1,NELM)
147       164 FORMAT(4I5,4I5,4I5,4I5,4I5,4I5)
148     C
149     C  PREPARE DATA FOR HEAD PLOT
150       170 IF(.NOT.OPTION(5))GO TO 180
```

```
151           IF(.NOT.OPTION(7) .AND. .NOT.OPTION(8))GO TO 180
152           IF(OPTION(8) .AND. KTIME.LT.NTIME .AND. .NOT.STEADY)GO TO 180
153           WRITE(LPH,171)TIME,NNODE
154         171 FORMAT(F10.1/I5)
155           DO 174 J=1,NVCELL
156           WRITE(LPH,173)(MAPGEO(I,J),I=1,NHCELL)
157         173 FORMAT(100I1)
158         174 CONTINUE
159           WRITE(LPH,175)(ELVGRD(I),I=1,NCOL)
160         175 FORMAT(8F14.3)
161           WRITE(LPH,176)(INO,X(INO),Z(INO),INO=1,NNODE)
162         176 FORMAT(5(I5,2F10.3))
163           WRITE(LPH,177)(INO,HEAD(INO),INO=1,NNODE)
164         177 FORMAT(7(I5,D13.6))
165       C
166       C  OUTPUT HEAD DISTRIBUTION TO A FILE THAT CAN BE INPUT IN LATER RUNS
167         180 IF(.NOT.OPTION(5) .OR. .NOT.OPTION(11))GO TO 190
168           IF(KTIME.LT.NTIME .AND. .NOT.STEADY)GO TO 190
169           WRITE(LDH,181)NNODE,TIME,DELT
170         181 FORMAT(I5,2E10.3)
171           DO 185 J=1,NVCELL
172           WRITE(LDH,173)(MAPGEO(I,J),I=1,NHCELL)
173         185 CONTINUE
174           WRITE(LDH,182)(HEADWT(I),I=1,NCOL)
175         182 FORMAT(8F14.6)
176           WRITE(LDH,183)(INO,HEAD(INO),INO=1,NNODE)
177         183 FORMAT(5(I5,D20.13))
178       C
179       C  OUTPUT THE HYDRAULIC GRADIENT AND ITS DIRECTION TO A FILE FOR A PLOT
180         190 IF(.NOT.OPTION(15))GO TO 200
181           WRITE(LPI,191)TIME,NNODE,NELM
182         191 FORMAT(F10.1/2I5)
183           DO 195 J=1,NVCELL
184           WRITE(LPI,173)(MAPGEO(I,J),I=1,NHCELL)
185         195 CONTINUE
186           WRITE(LPI,175)(ELVGRD(I),I=1,NCOL)
187           WRITE(LPI,176)(INO,X(INO),Z(INO),INO=1,NNODE)
188           WRITE(LPI,164)(IEL,(INCID(IEL,J),J=1,3),IEL=1,NELM)
189           WRITE(LPI,197)(IEL,GRAD(IEL),DIRECT(IEL),IEL=1,NELM)
190         197 FORMAT(4(I5,2E12.4,2X))
191       C
192       C  WRITE CONTAMINANT TRANSPORT RESULTS
193         200 IF(.NOT.OPTION(19) .AND. .NOT.OPTION(24))GO TO 250
194           NPFLOW=NP-NPSTOP-NPGONE
195           WRITE(LLP,201)TIME,KTIME,NP,NPPER,NPFLOW,NPSTOP,NPGONE
196         201 FORMAT('1RESULTS OF THE MASS TRANSPORT SIMULATION'///
197            1        '   TIME:',F9.2/'   TIME STEP:',I4//
198            2        I9,' PARTICLES HAVE BEEN ADDED TO THE SYSTEM'/
199            3        I9,' PARTICLES ADDED DURING THIS TIME STEP'/
200            4        I9,' PARTICLES PRESENT IN THE FLOW SYSTEM'/
```

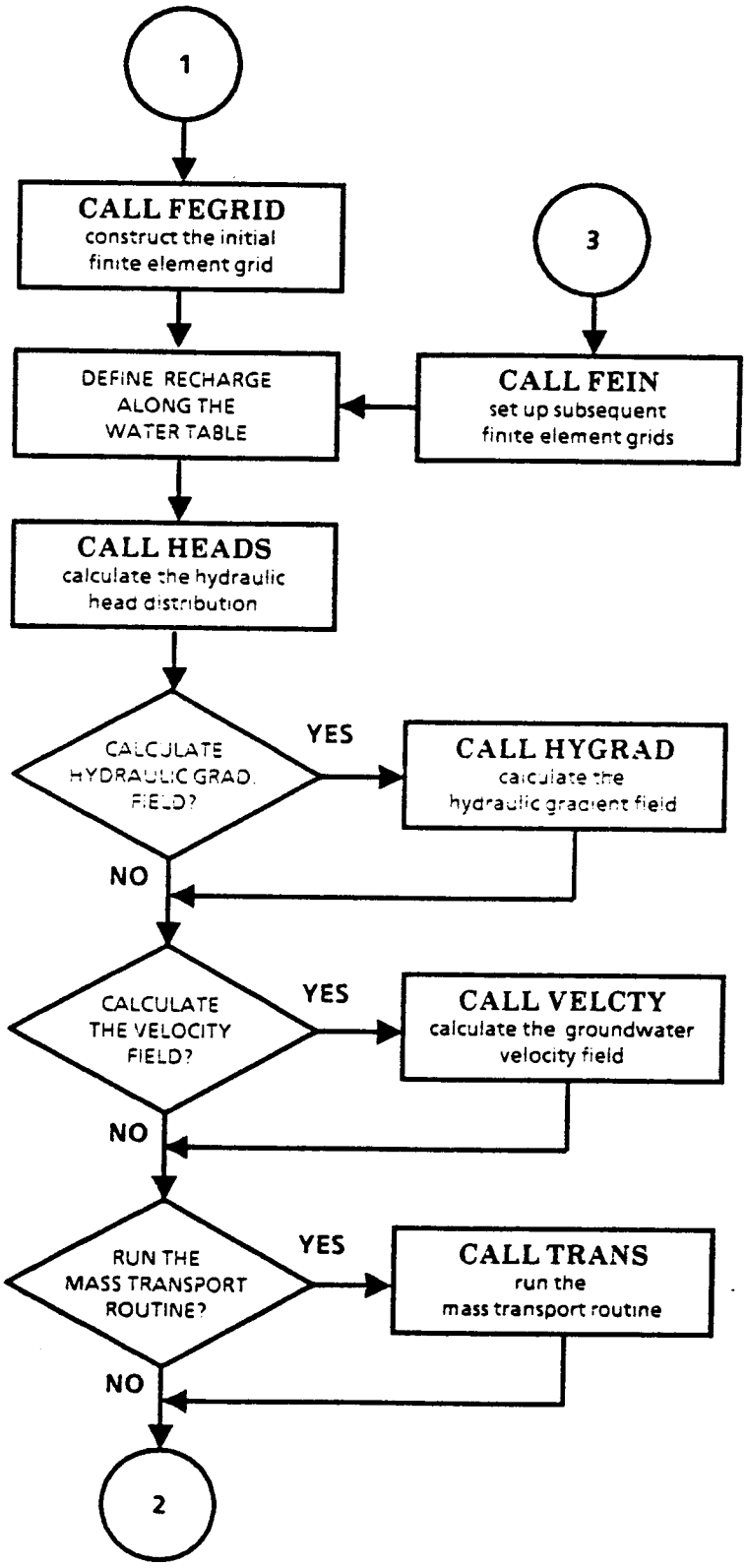
```
201          5       I9,' PARTICLES HAVE LEFT THE REGION OF MOVEMENT'/
202          6       I9,' PARTICLES HAVE LEFT THE FLOW SYSTEM')
203      C
204      C  IF THERE ARE NO PARTICLES, DO NOT PRINT THE DISTRIBUTIONS
205            IF(NP.EQ.0)GO TO 250
206      C
207      C  WRITE THE MASS AND THE X AND Z COORDINATES OF THE PARTICLES
208            IF(.NOT.OPTION(24))GO TO 220
209            WRITE(LLP,211)
210        211 FORMAT('1MASS AND X AND Z COORDINATES OF THE PARTICLES'//
211           1       1X,4('  NP        X        Z        MASS')/)
212            WRITE(LLP,212)(IPT,XPOS(IPT),ZPOS(IPT),XMASS(IPT),IPT=1,NP)
213        212 FORMAT(4(I4,':',2F8.2,1X,E10.3))
214      C
215      C  PRINT THE DISTRIBUTION OF REFERENCE PARTICLES
216        220 IF(.NOT.OPTION(19))GO TO 250
217            WRITE(LLP,221)
218        221 FORMAT('1DISTRIBUTION OF REFERENCE PARTICLES'///)
219            WRITE(LLP,222)(J,J=1,NVCELL)
220        222 FORMAT(8X,' VERTICAL CELLS'/7X,40I4//)
221            DO 225 I=1,NHCELL
222            WRITE(LLP,223)I,(PART(I,J),J=1,NVCELL)
223        223 FORMAT(1X,I5,':',40I4)
224        225 CONTINUE
225      C
226      C  PRINT THE DISTRIBUTION OF NON-MOVING REFERENCE PARTICLES
227            WRITE(LLP,231)
228        231 FORMAT('1DISTRIBUTION OF NON-MOVING REFERENCE PARTICLES'///)
229            WRITE(LLP,222)(J,J=1,NVCELL)
230            DO 235 I=1,NHCELL
231            WRITE(LLP,223)I,(PARTGN(I,J),J=1,NVCELL)
232        235 CONTINUE
233      C
234      C  PRINT THE CONCENTRATION DISTRIBUTION
235            WRITE(LLP,241)
236        241 FORMAT('1CONCENTRATION DISTRIBUTION'///)
237            WRITE(LLP,242)(J,J=1,NVCELL)
238        242 FORMAT(8X,' VERTICAL CELLS'/6X,40I5//)
239            DO 245 I=1,NHCELL
240            WRITE(LLP,243)I,(CONC(I,J),J=1,NVCELL)
241        243 FORMAT(1X,I5,':',40F5.2)
242        245 CONTINUE
243      C
244      C  OUTPUT DISTRIBUTION OF PARTICLES TO A PLOTTING FILE
245        250 IF(.NOT.OPTION(21))GO TO 261
246            WRITE(LPP,251)TIME,NP
247        251 FORMAT(F10.2,I10)
248            DO 255 J=1,NVCELL
249            WRITE(LPP,173)(MAPGEO(I,J),I=1,NHCELL)
250        255 CONTINUE
```

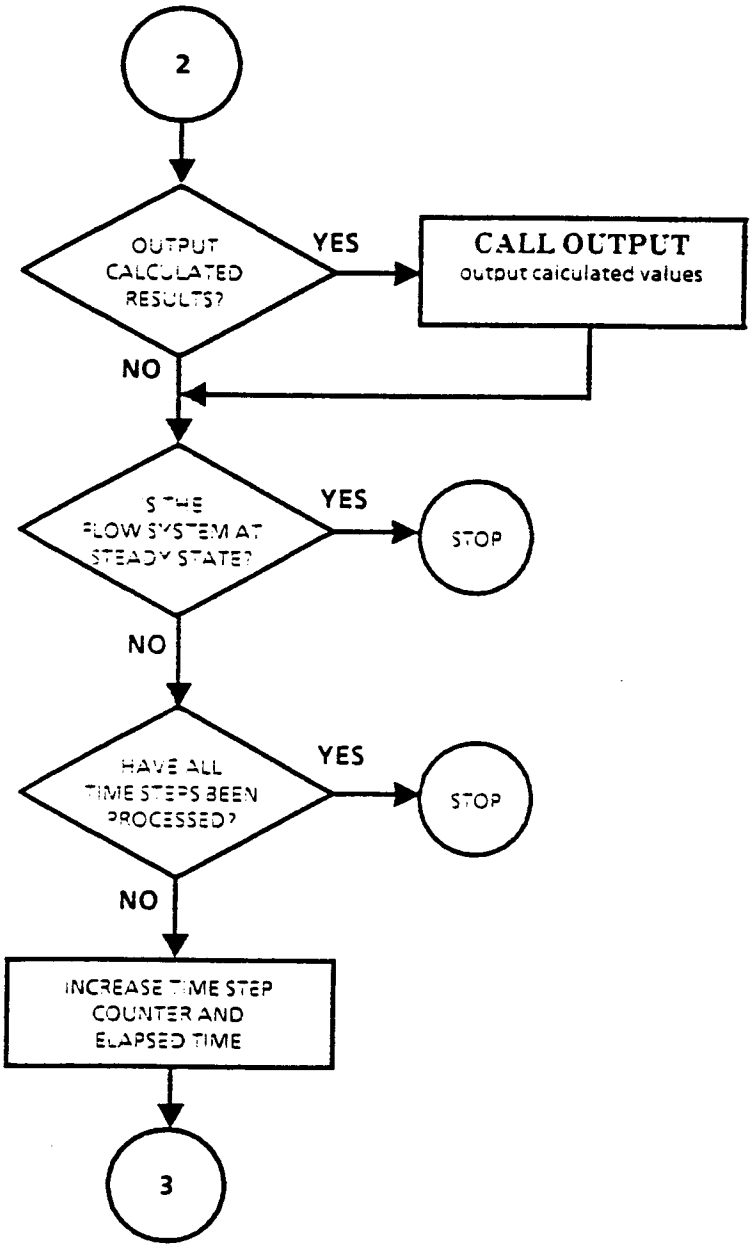
```
      WRITE(LPP,175)(ELVGRD(I),I=1,NCOL)
      WRITE(LPP,182)(HEADWT(I),I=1,NCOL)
      IF(NP.EQ.0)GO TO 261
      WRITE(LPP,252)(IPT,XPOS(IPT),ZPOS(IPT),XMASS(IPT),IPT=1,NP)
  252 FORMAT(3(I5,3E12.5))
C
C  OUTPUT CONCENTRATION DISTRIBUTION TO A PLOTTING FILE
  261 IF(.NOT.OPTION(20))GO TO 271
      WRITE(LPC,251)TIME,NP
      DO 262 J=1,NVCELL
      WRITE(LPC,173)(MAPGEO(I,J),I=1,NHCELL)
  262 CONTINUE
      WRITE(LPC,175)(ELVGRD(I),I=1,NCOL)
      WRITE(LPC,182)(HEADWT(I),I=1,NCOL)
      IF(NP.EQ.0)GO TO 271
      DO 265 J=1,NVCELL
      WRITE(LPC,263)(CONC(I,J),I=1,NHCELL)
  263 FORMAT(13E10.4)
  265 CONTINUE
C
C  OUTPUT THE DISTRIBUTION OF PARTICLES TO BE USED TO CONTINUE A SIMULATION
  271 IF(.NOT.OPTION(22) .OR. KTIME.NE.NTIME)RETURN
      WRITE(LDH,272)NP
  272 FORMAT(I10)
      IF(NP.EQ.0)RETURN
      WRITE(LDH,252)(IPT,XPOS(IPT),ZPOS(IPT),XMASS(IPT),IPT=1,NP)
C
      RETURN
      END
```

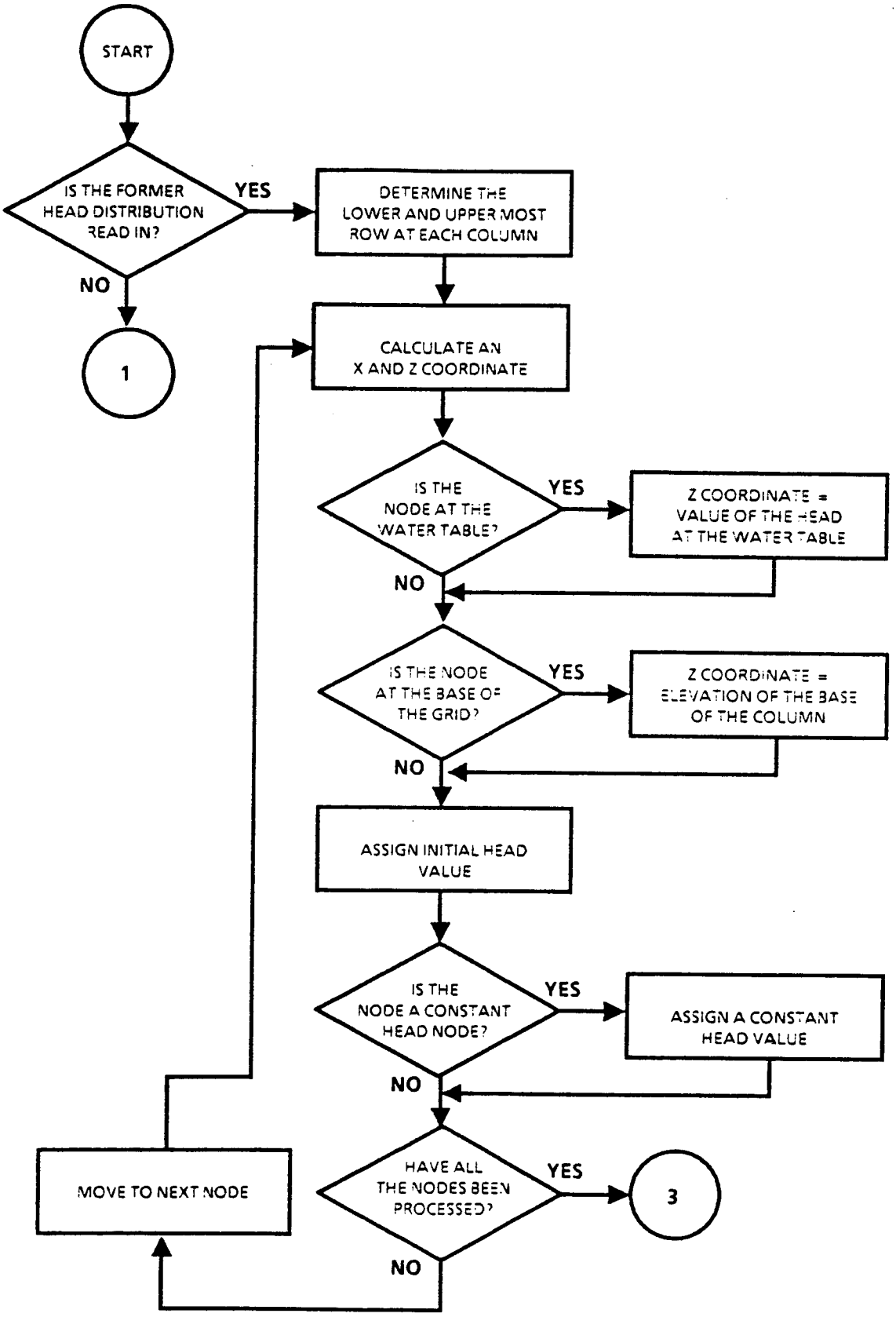
6.4 FLOW CHARTS FOR THE MAIN PROGRAM AND THE SUBROUTINES



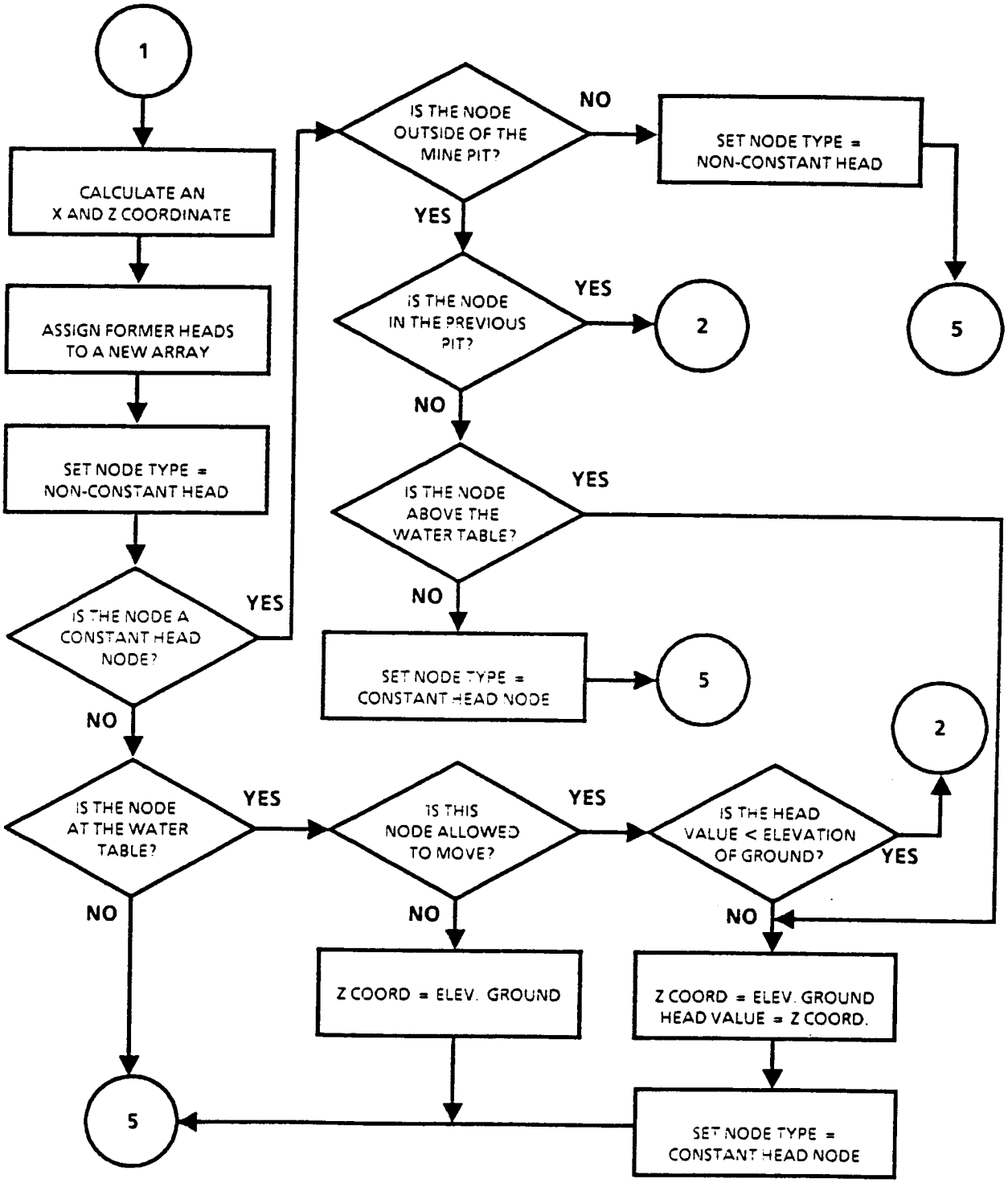
FLOW CHART FOR THE MAIN PROGRAM

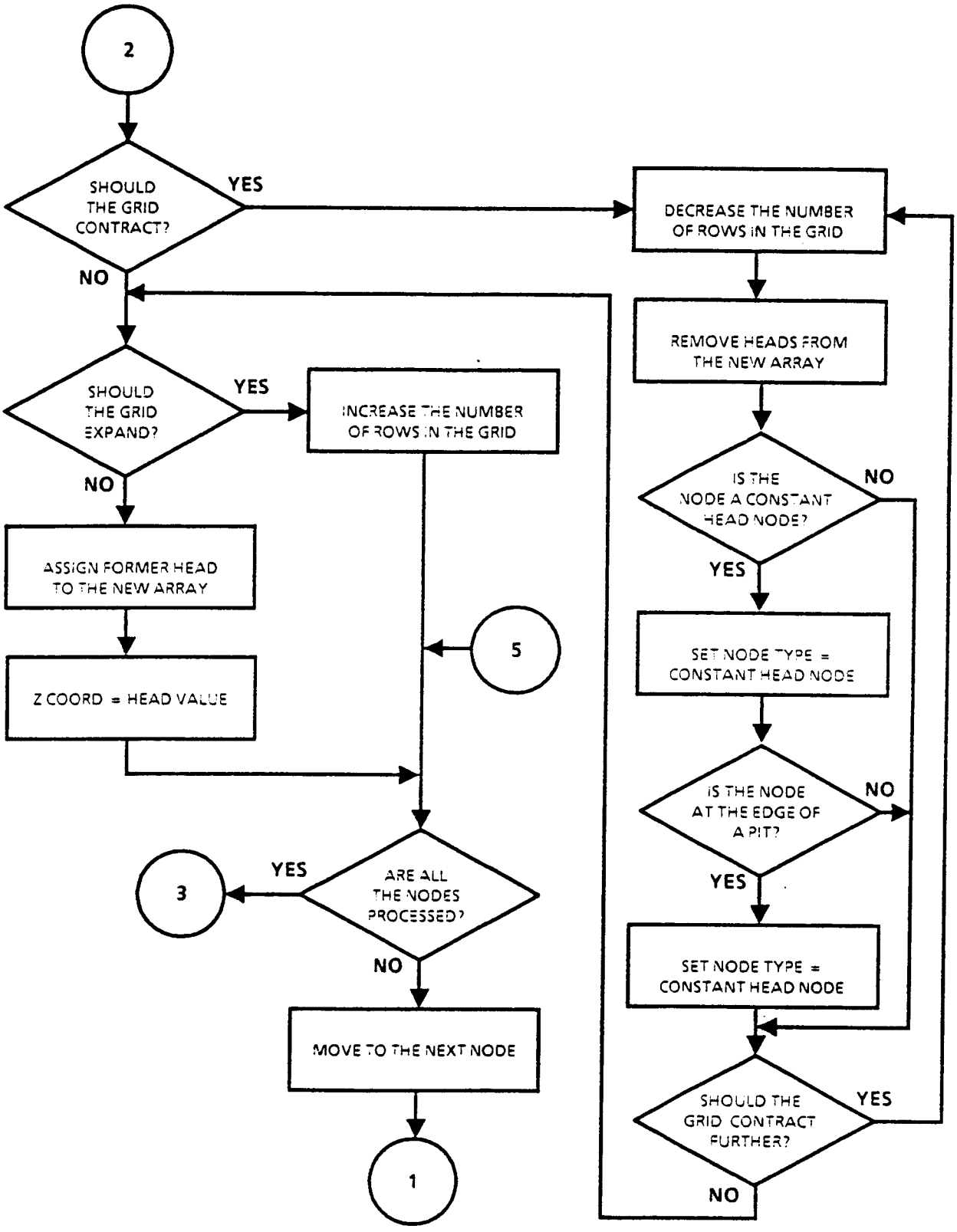

1
CALL FEGRID
construct the initial
finite element grid
3
DEFINE RECHARGE
ALONG THE
WATER TABLE
CALL FEIN
set up subsequent
finite element grids
CALL HEADS
calculate the hydraulic
head distribution
CALCULATE
HYDRAULIC GRAD.
FIELD?
YES
CALL HYGRAD
calculate the
hydraulic gradient field
NO
CALCULATE
THE VELOCITY
FIELD?
YES
CALL VELCTY
calculate the groundwater
velocity field
NO
RUN THE
MASS TRANSPORT
ROUTINE?
YES
CALL TRANS
run the
mass transport routine
NO
2

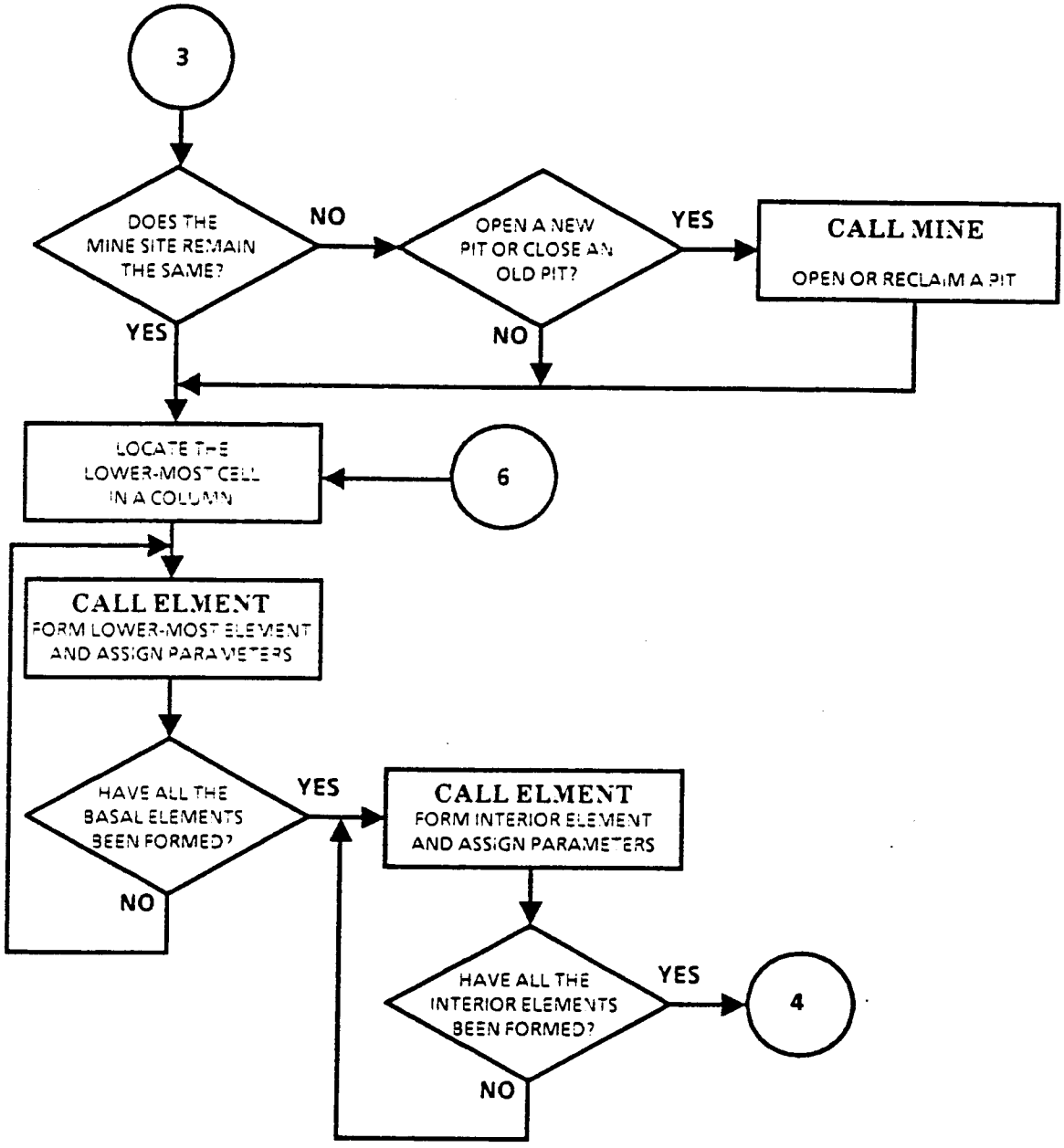

2
OUTPUT CALCULATED RESULTS?
YES
CALL OUTPUT
output calculated values
NO
S THE FLOW SYSTEM AT STEADY STATE?
YES
STOP
NO
HAVE ALL TIME STEPS BEEN PROCESSED?
YES
STOP
NO
INCREASE TIME STEP COUNTER AND ELAPSED TIME
3

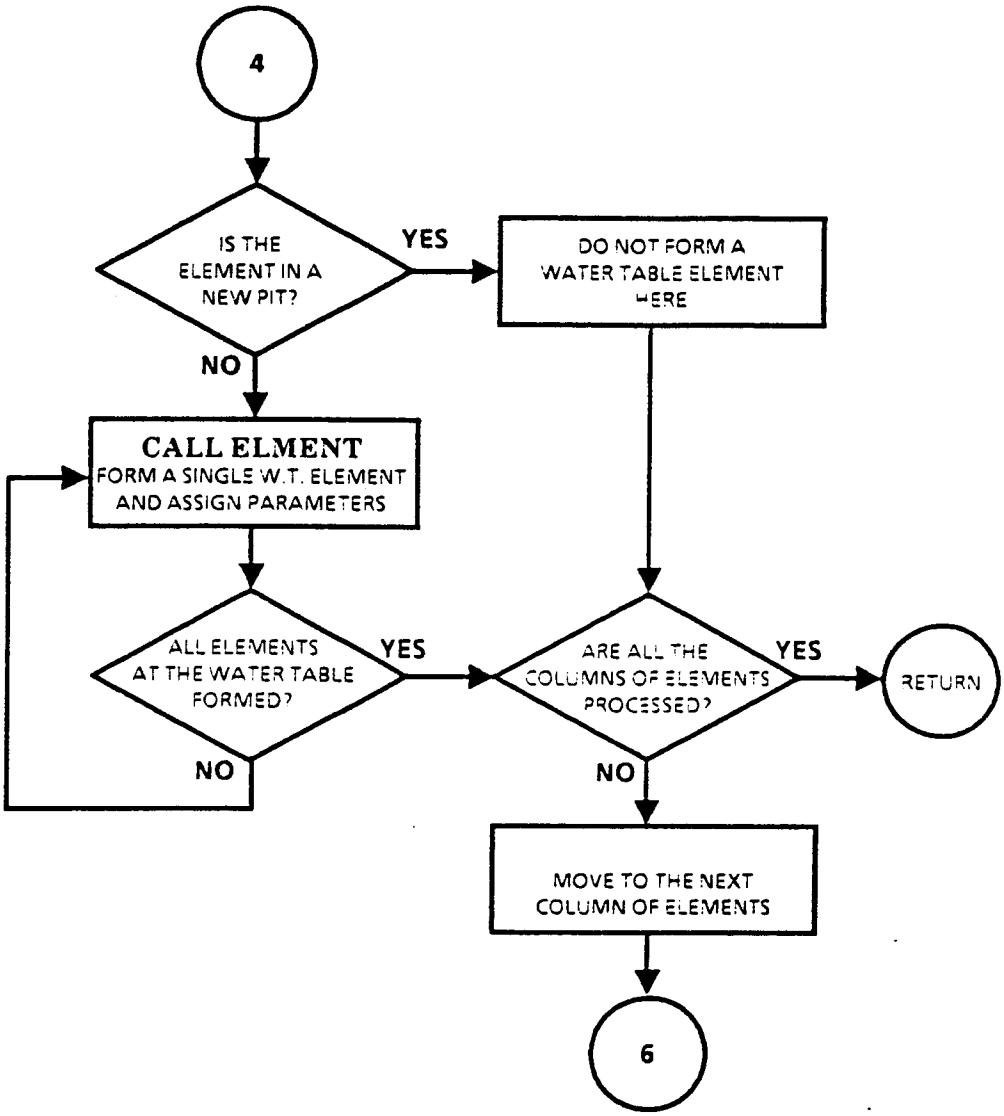


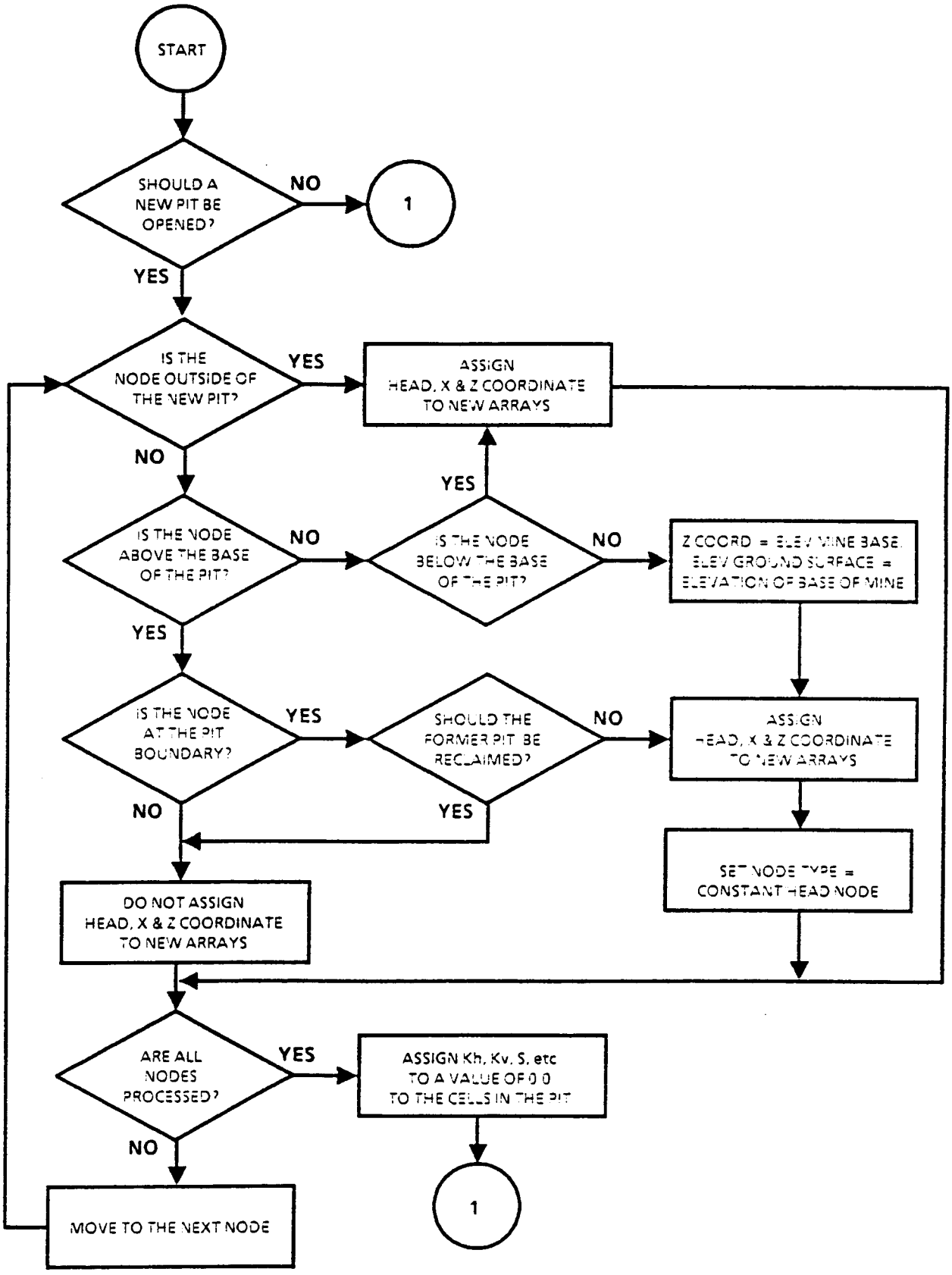
FLOW CHART FOR SUBROUTINE FEGRID


1
CALCULATE AN X AND Z COORDINATE
ASSIGN FORMER HEADS TO A NEW ARRAY
SET NODE TYPE = NON-CONSTANT HEAD
IS THE NODE A CONSTANT HEAD NODE?
YES
NO
IS THE NODE AT THE WATER TABLE?
YES
NO
5
IS THE NODE OUTSIDE OF THE MINE PIT?
NO
SET NODE TYPE = NON-CONSTANT HEAD
5
YES
IS THE NODE IN THE PREVIOUS PIT?
YES
2
NO
IS THE NODE ABOVE THE WATER TABLE?
YES
NO
SET NODE TYPE = CONSTANT HEAD NODE
5
IS THIS NODE ALLOWED TO MOVE?
YES
NO
Z COORD = ELEV. GROUND
IS THE HEAD VALUE < ELEVATION OF GROUND?
YES
NO
2
Z COORD = ELEV. GROUND
HEAD VALUE = Z COORD.
SET NODE TYPE = CONSTANT HEAD NODE

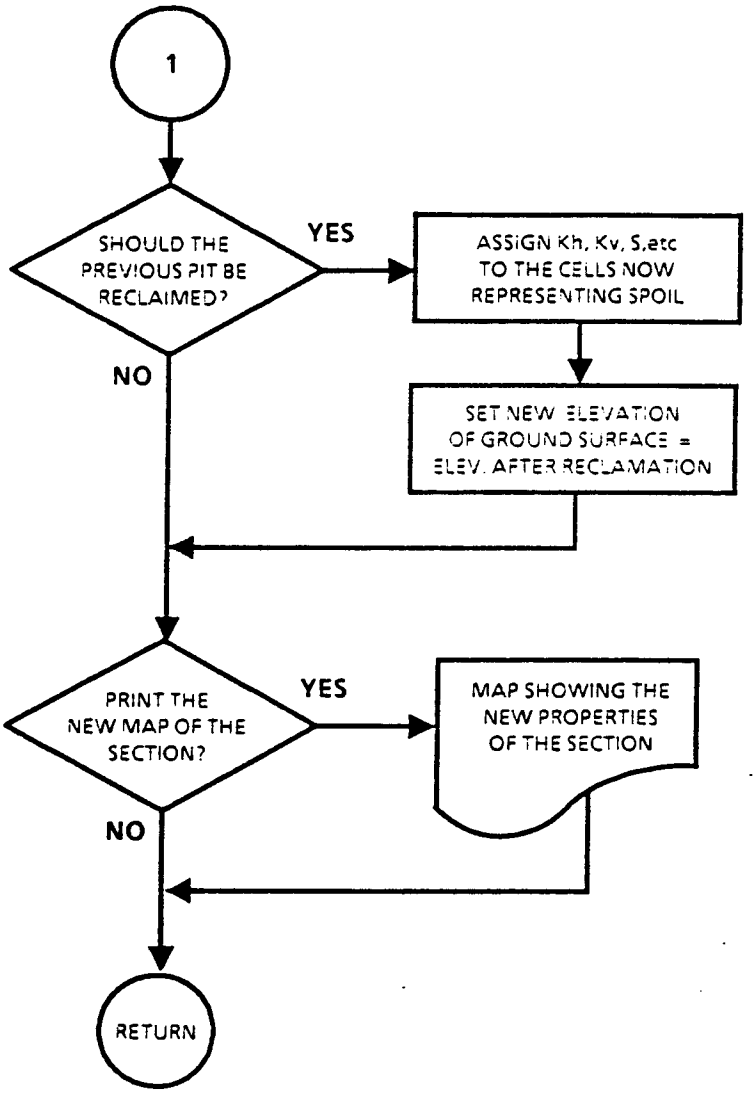

2
SHOULD THE GRID CONTRACT?
YES
DECREASE THE NUMBER OF ROWS IN THE GRID
NO
REMOVE HEADS FROM THE NEW ARRAY
SHOULD THE GRID EXPAND?
YES
INCREASE THE NUMBER OF ROWS IN THE GRID
NO
IS THE NODE A CONSTANT HEAD NODE?
NO
YES
ASSIGN FORMER HEAD TO THE NEW ARRAY
5
SET NODE TYPE = CONSTANT HEAD NODE
Z COORD = HEAD VALUE
IS THE NODE AT THE EDGE OF A PIT?
NO
YES
3
YES
ARE ALL THE NODES PROCESSED?
SET NODE TYPE = CONSTANT HEAD NODE
NO
MOVE TO THE NEXT NODE
SHOULD THE GRID CONTRACT FURTHER?
YES
1
NO

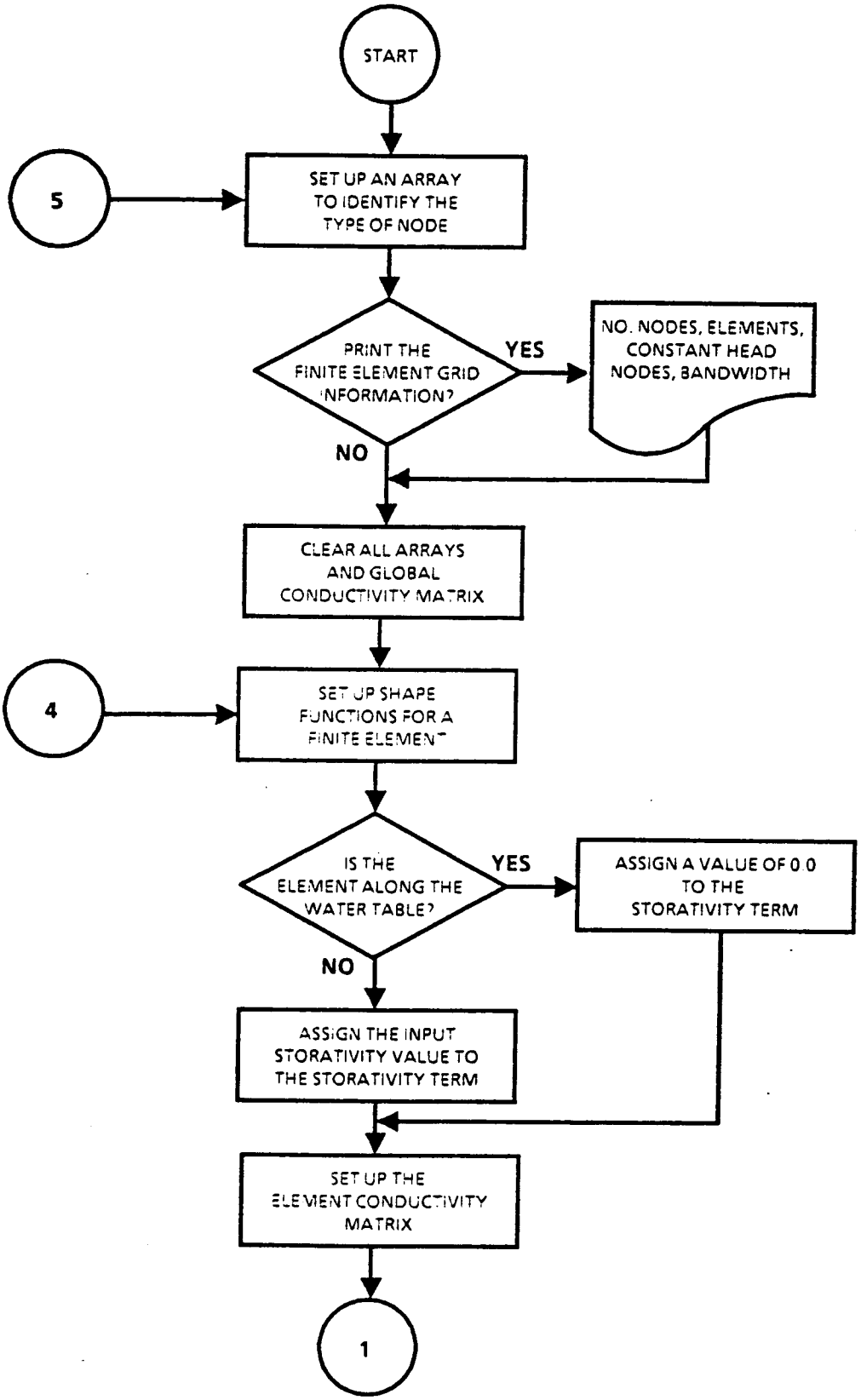

3
DOES THE MINE SITE REMAIN THE SAME?
NO
OPEN A NEW PIT OR CLOSE AN OLD PIT?
YES
CALL MINE
OPEN OR RECLAIM A PIT
YES
NO
LOCATE THE LOWER-MOST CELL IN A COLUMN
6
CALL ELMENT
FORM LOWER-MOST ELEMENT AND ASSIGN PARAMETERS
HAVE ALL THE BASAL ELEMENTS BEEN FORMED?
YES
NO
CALL ELMENT
FORM INTERIOR ELEMENT AND ASSIGN PARAMETERS
HAVE ALL THE INTERIOR ELEMENTS BEEN FORMED?
YES
4
NO


4
IS THE ELEMENT IN A NEW PIT?
YES
DO NOT FORM A WATER TABLE ELEMENT HERE
NO
CALL ELMENT
FORM A SINGLE W.T. ELEMENT AND ASSIGN PARAMETERS
ALL ELEMENTS AT THE WATER TABLE FORMED?
YES
NO
ARE ALL THE COLUMNS OF ELEMENTS PROCESSED?
YES
RETURN
NO
MOVE TO THE NEXT COLUMN OF ELEMENTS
6

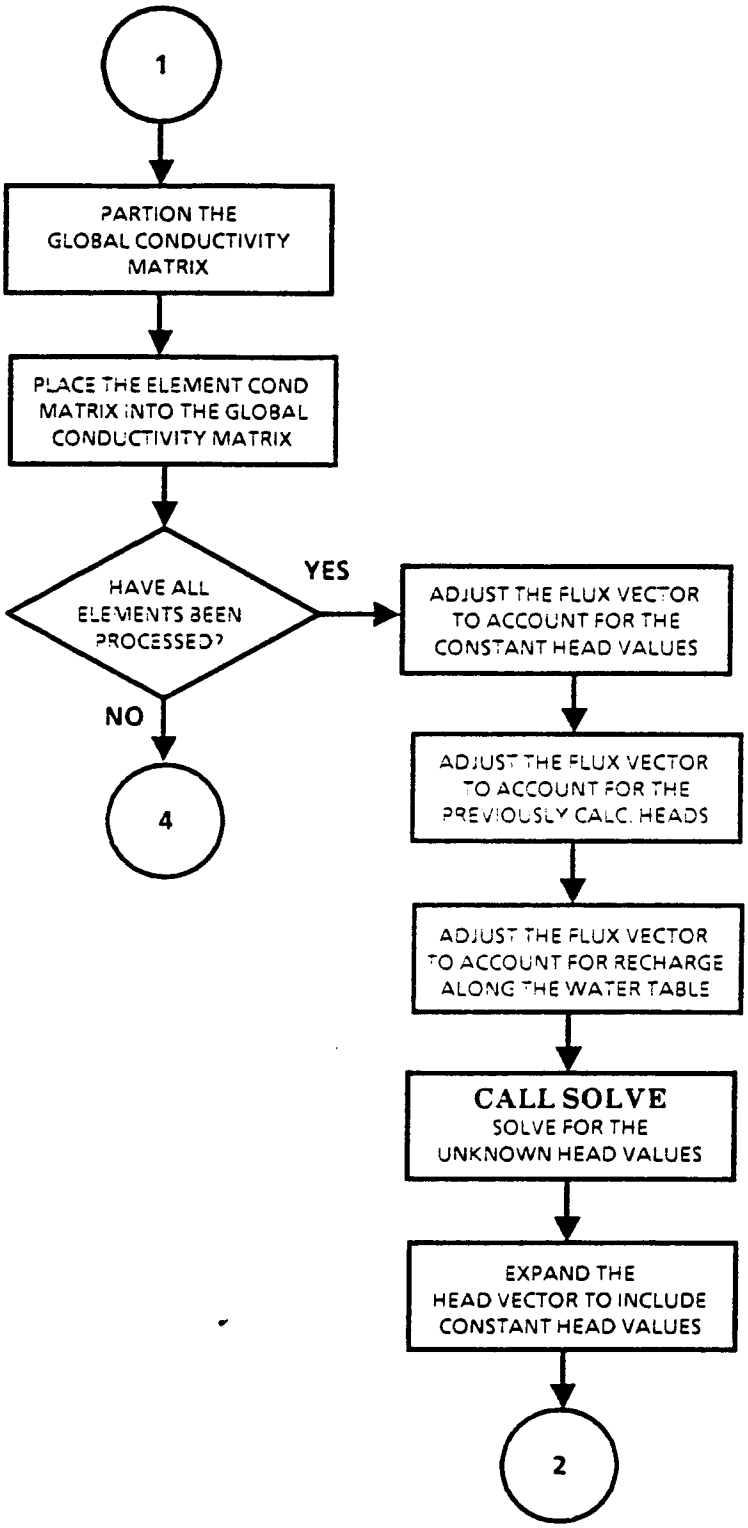


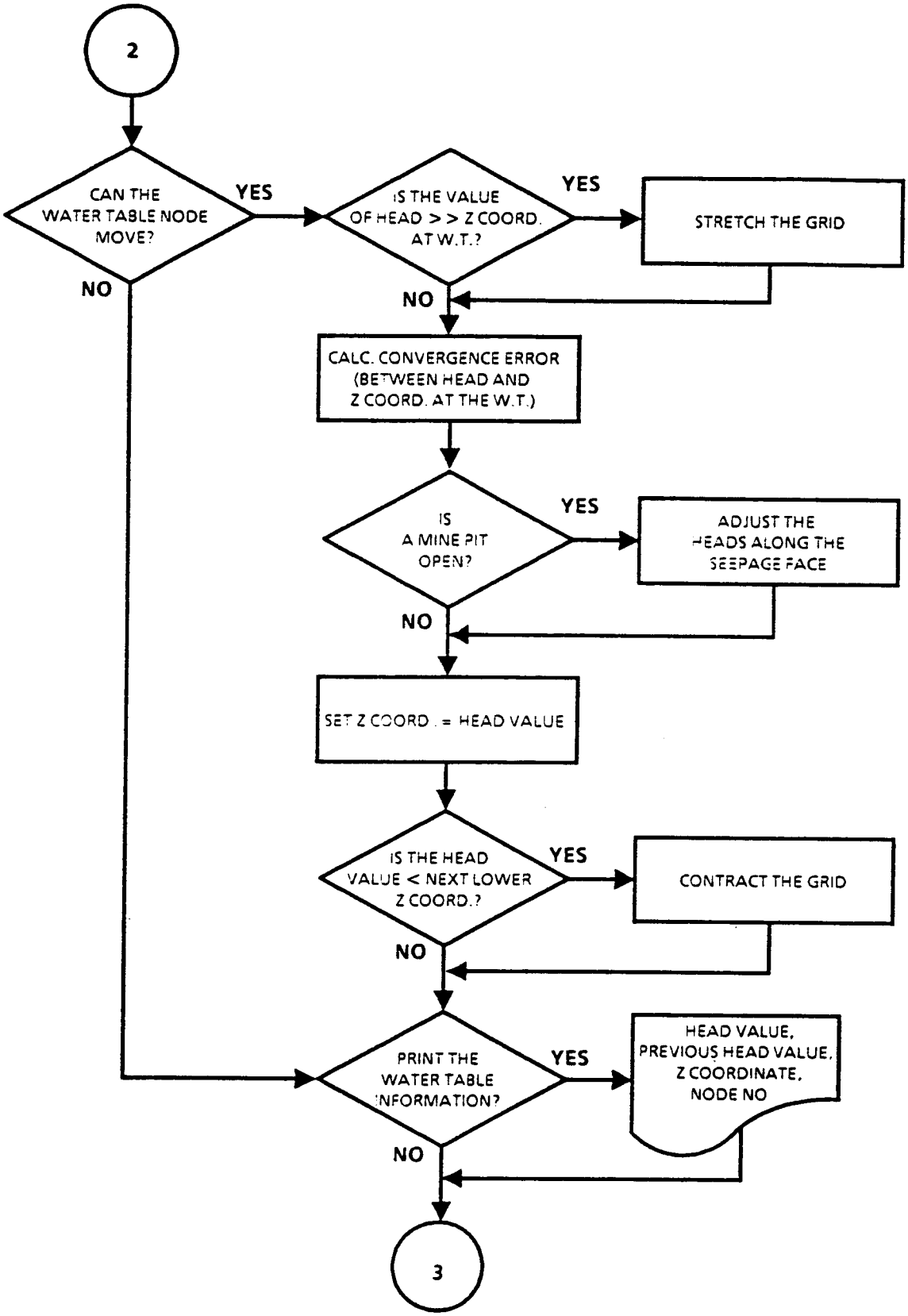
FLOW CHART FOR SUBROUTINE MINE

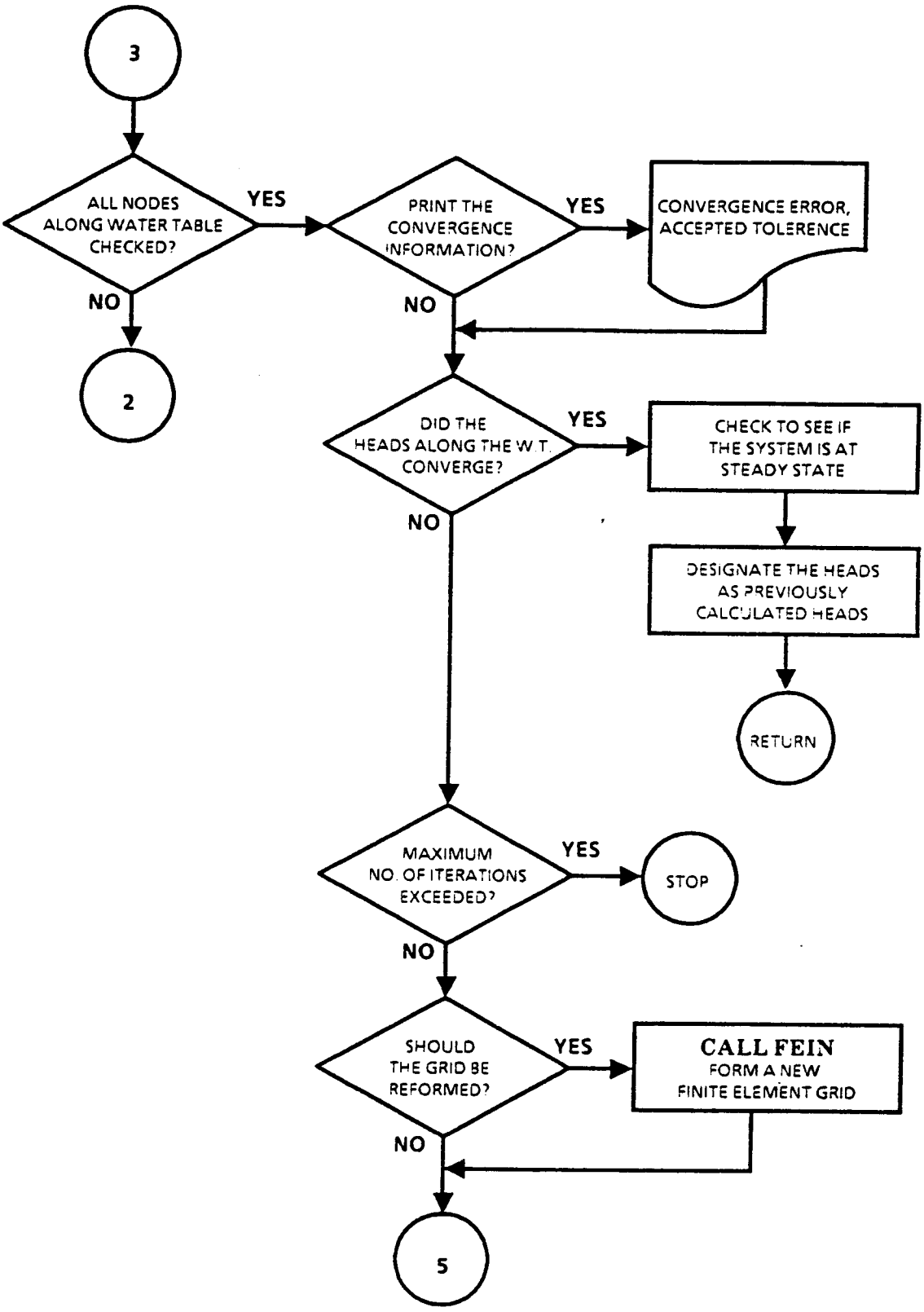

1
SHOULD THE PREVIOUS PIT BE RECLAIMED?
YES
NO
ASSIGN Kh, Kv, S,etc TO THE CELLS NOW REPRESENTING SPOIL
SET NEW ELEVATION OF GROUND SURFACE = ELEV. AFTER RECLAMATION
PRINT THE NEW MAP OF THE SECTION?
YES
NO
MAP SHOWING THE NEW PROPERTIES OF THE SECTION
RETURN

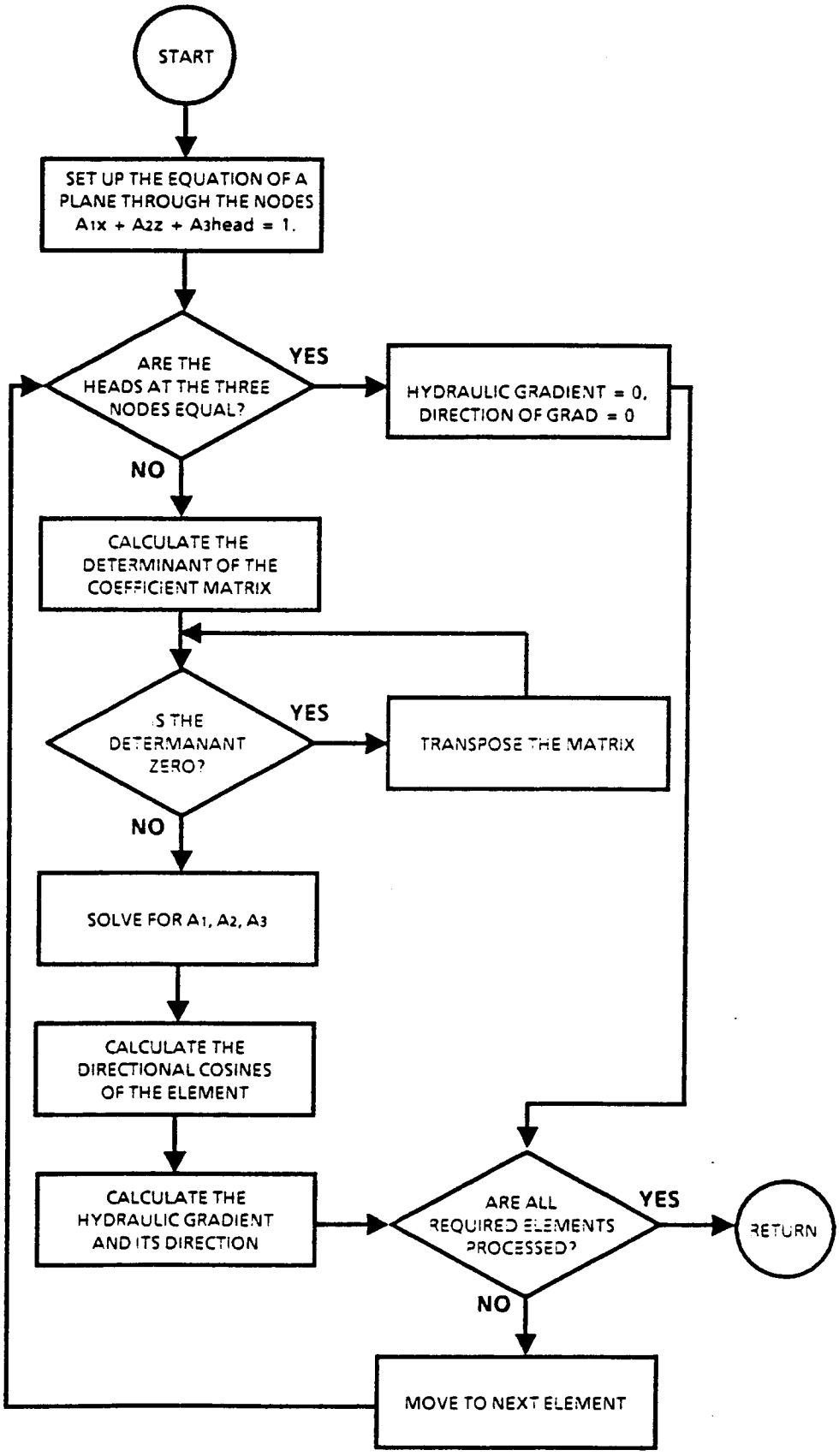


FLOW CHART FOR SUBROUTINE HEADS

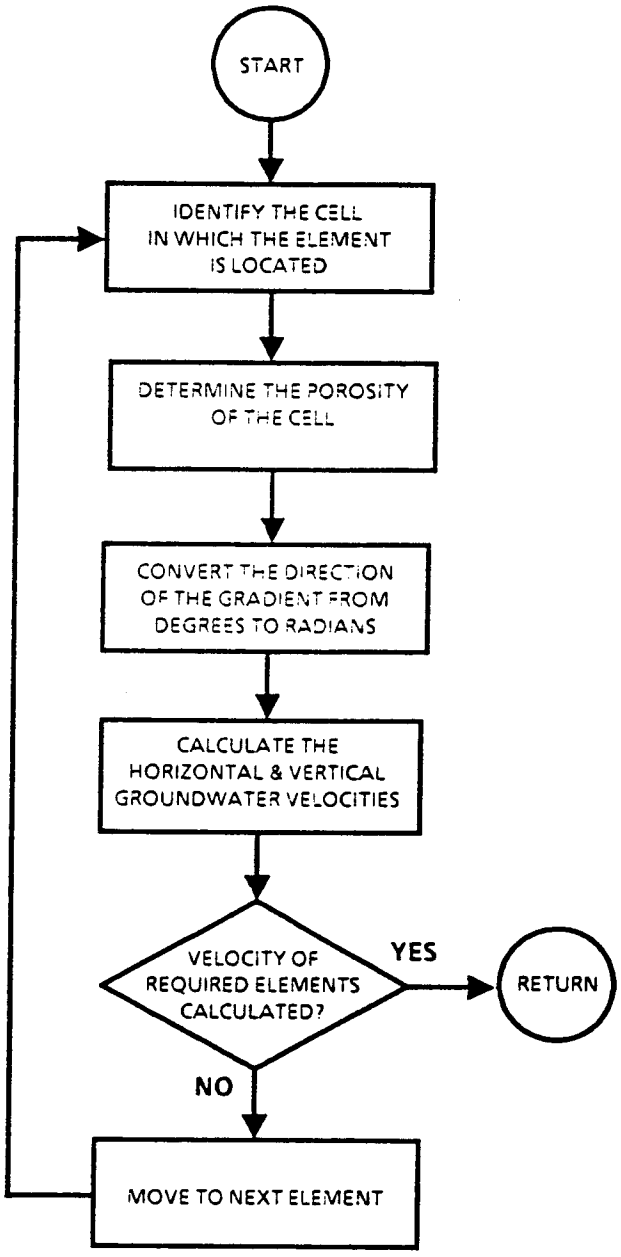

1
PARTION THE GLOBAL CONDUCTIVITY MATRIX
PLACE THE ELEMENT COND MATRIX INTO THE GLOBAL CONDUCTIVITY MATRIX
HAVE ALL ELEMENTS BEEN PROCESSED?
YES
NO
4
ADJUST THE FLUX VECTOR TO ACCOUNT FOR THE CONSTANT HEAD VALUES
ADJUST THE FLUX VECTOR TO ACCOUNT FOR THE PREVIOUSLY CALC. HEADS
ADJUST THE FLUX VECTOR TO ACCOUNT FOR RECHARGE ALONG THE WATER TABLE
CALL SOLVE
SOLVE FOR THE UNKNOWN HEAD VALUES
EXPAND THE HEAD VECTOR TO INCLUDE CONSTANT HEAD VALUES
2


2
CAN THE WATER TABLE NODE MOVE?
YES
NO
IS THE VALUE OF HEAD > > Z COORD. AT W.T.?
YES
STRETCH THE GRID
NO
CALC. CONVERGENCE ERROR (BETWEEN HEAD AND Z COORD. AT THE W.T.)
IS A MINE PIT OPEN?
YES
ADJUST THE HEADS ALONG THE SEEPAGE FACE
NO
SET Z COORD. = HEAD VALUE
IS THE HEAD VALUE < NEXT LOWER Z COORD.?
YES
CONTRACT THE GRID
NO
PRINT THE WATER TABLE INFORMATION?
YES
HEAD VALUE, PREVIOUS HEAD VALUE, Z COORDINATE, NODE NO
NO
3

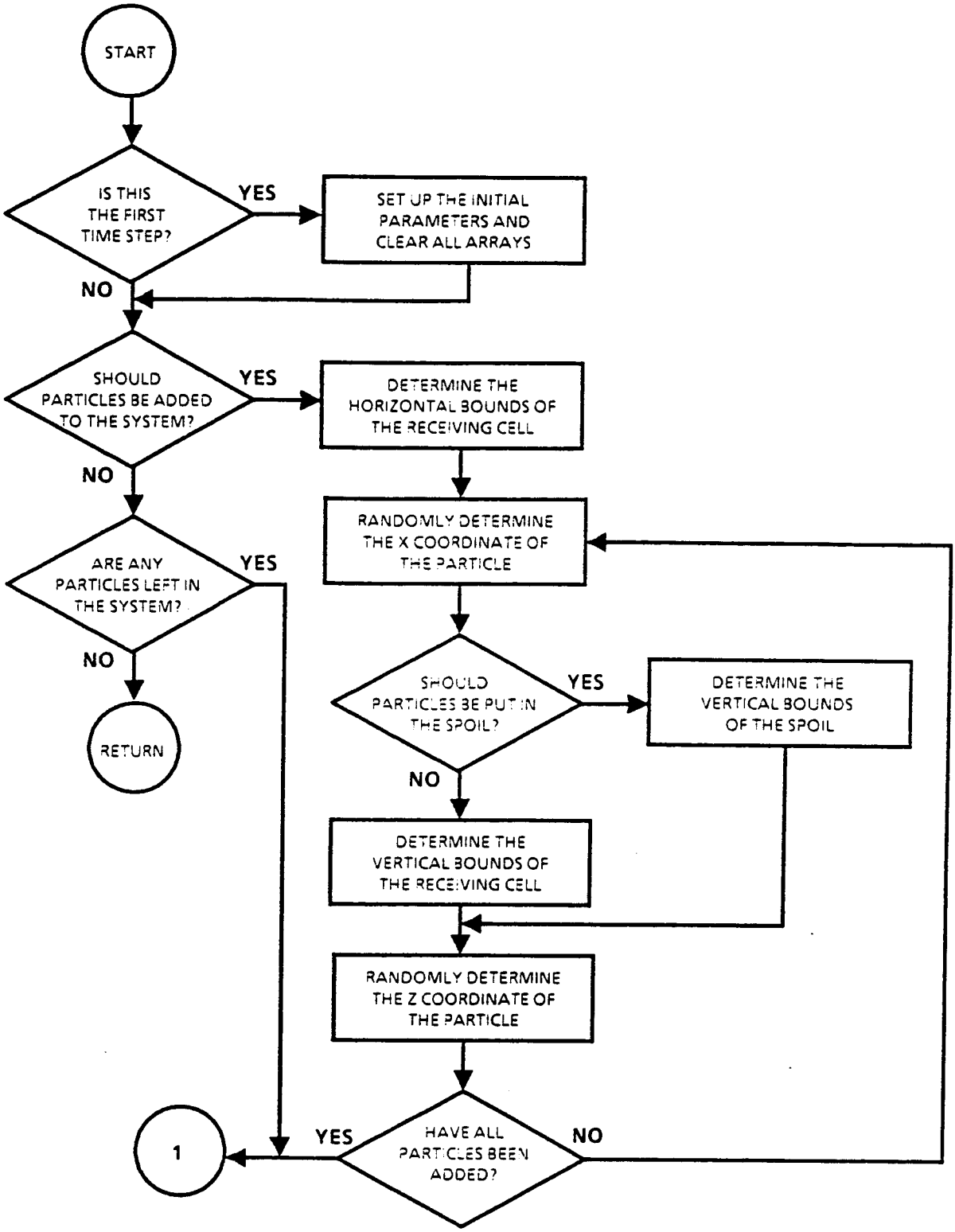

3
ALL NODES ALONG WATER TABLE CHECKED?
YES
NO
2
PRINT THE CONVERGENCE INFORMATION?
YES
CONVERGENCE ERROR, ACCEPTED TOLERENCE
NO
DID THE HEADS ALONG THE W.T. CONVERGE?
YES
CHECK TO SEE IF THE SYSTEM IS AT STEADY STATE
DESIGNATE THE HEADS AS PREVIOUSLY CALCULATED HEADS
RETURN
NO
MAXIMUM NO. OF ITERATIONS EXCEEDED?
YES
STOP
NO
SHOULD THE GRID BE REFORMED?
YES
CALL FEIN
FORM A NEW FINITE ELEMENT GRID
NO
5



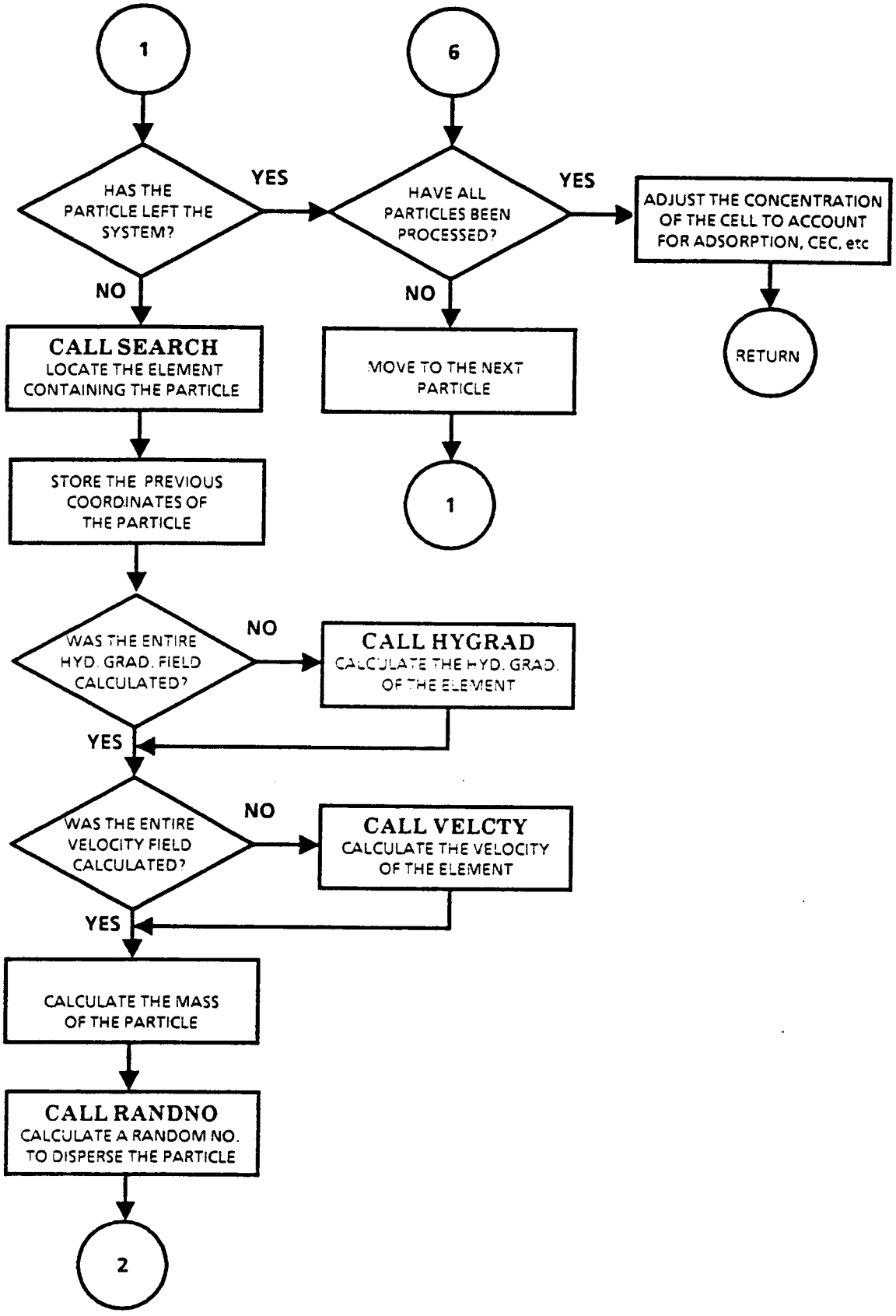
FLOW CHART FOR SUBROUTINE HYGRAD

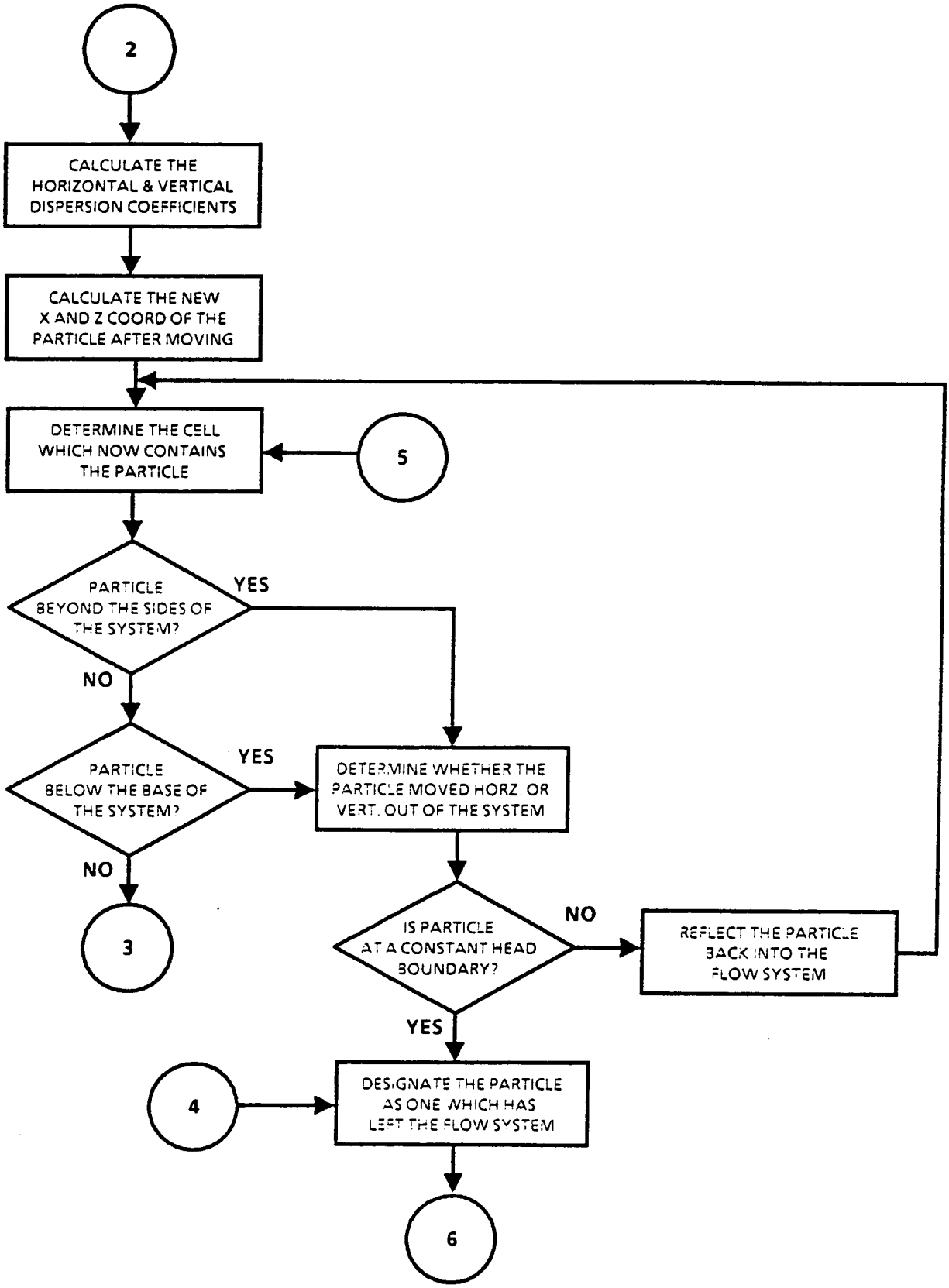


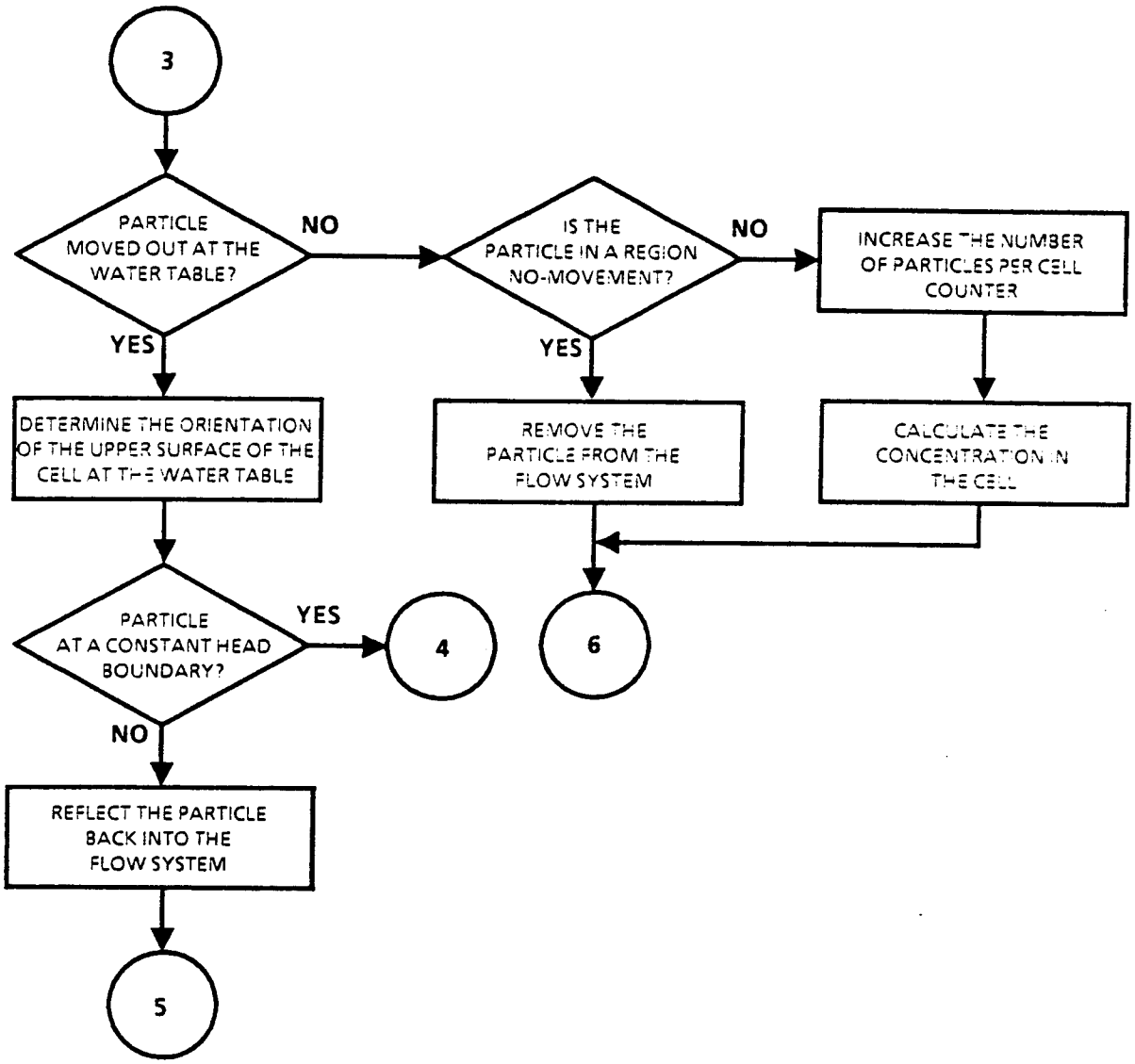
FLOW CHART FOR SUBROUTINE VELCTY

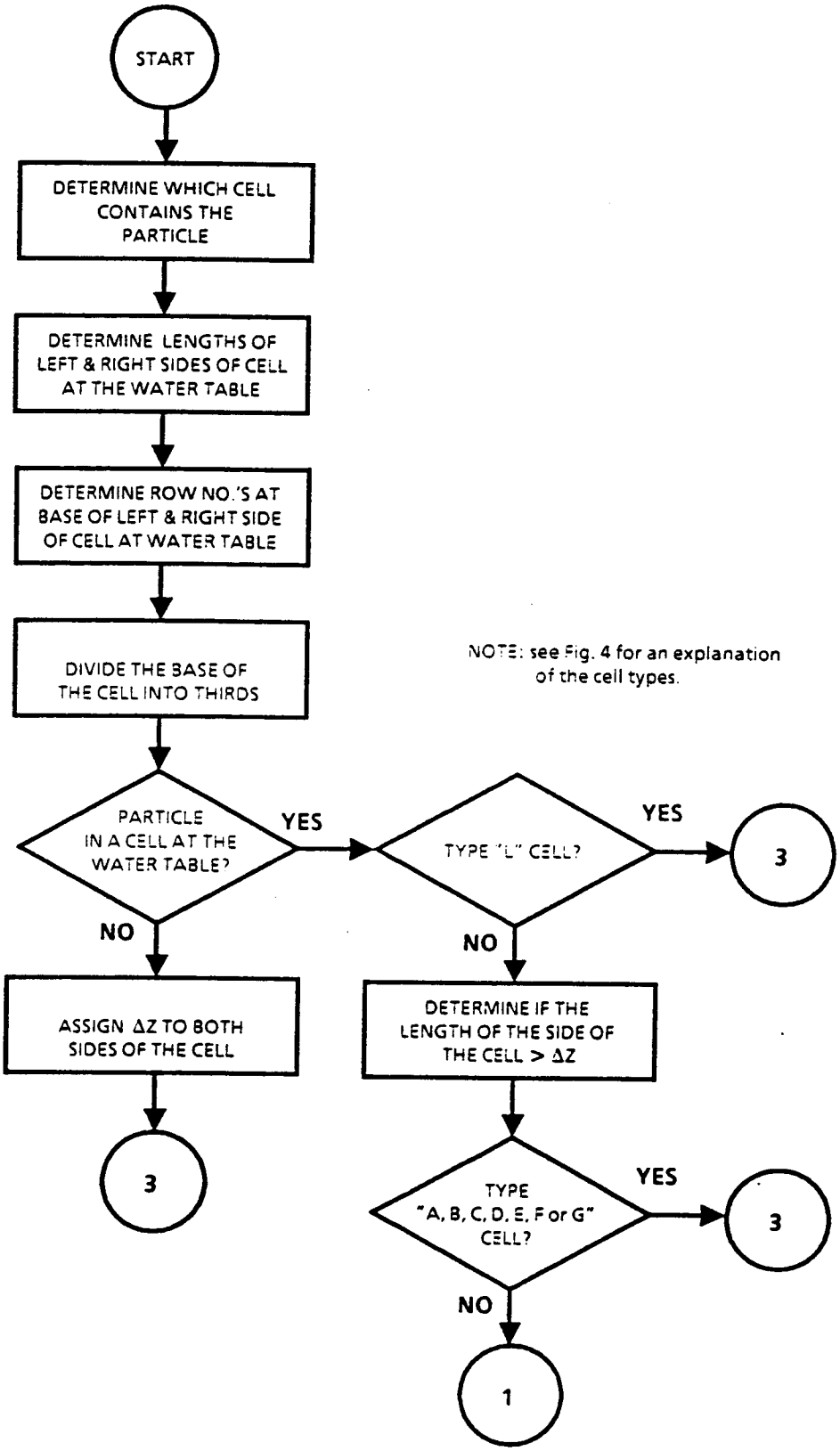


FLOW CHART FOR SUBROUTINE TRANS

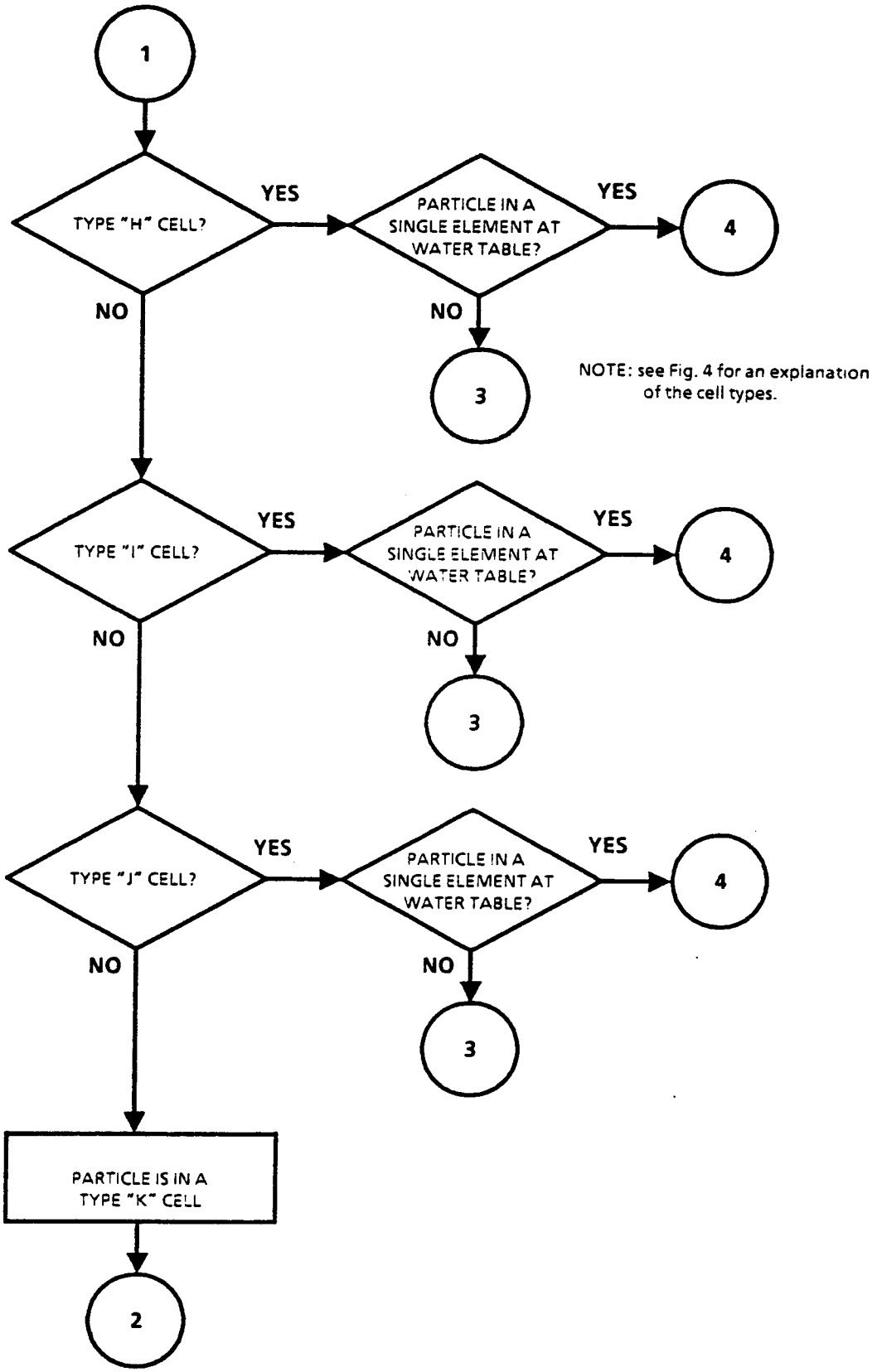

1
6
HAS THE PARTICLE LEFT THE SYSTEM?
YES
HAVE ALL PARTICLES BEEN PROCESSED?
YES
ADJUST THE CONCENTRATION OF THE CELL TO ACCOUNT FOR ADSORPTION, CEC, etc
RETURN
NO
NO
CALL SEARCH
LOCATE THE ELEMENT CONTAINING THE PARTICLE
MOVE TO THE NEXT PARTICLE
1
STORE THE PREVIOUS COORDINATES OF THE PARTICLE
WAS THE ENTIRE HYD. GRAD. FIELD CALCULATED?
NO
CALL HYGRAD
CALCULATE THE HYD. GRAD. OF THE ELEMENT
YES
WAS THE ENTIRE VELOCITY FIELD CALCULATED?
NO
CALL VELCTY
CALCULATE THE VELOCITY OF THE ELEMENT
YES
CALCULATE THE MASS OF THE PARTICLE
CALL RANDNO
CALCULATE A RANDOM NO. TO DISPERSE THE PARTICLE
2

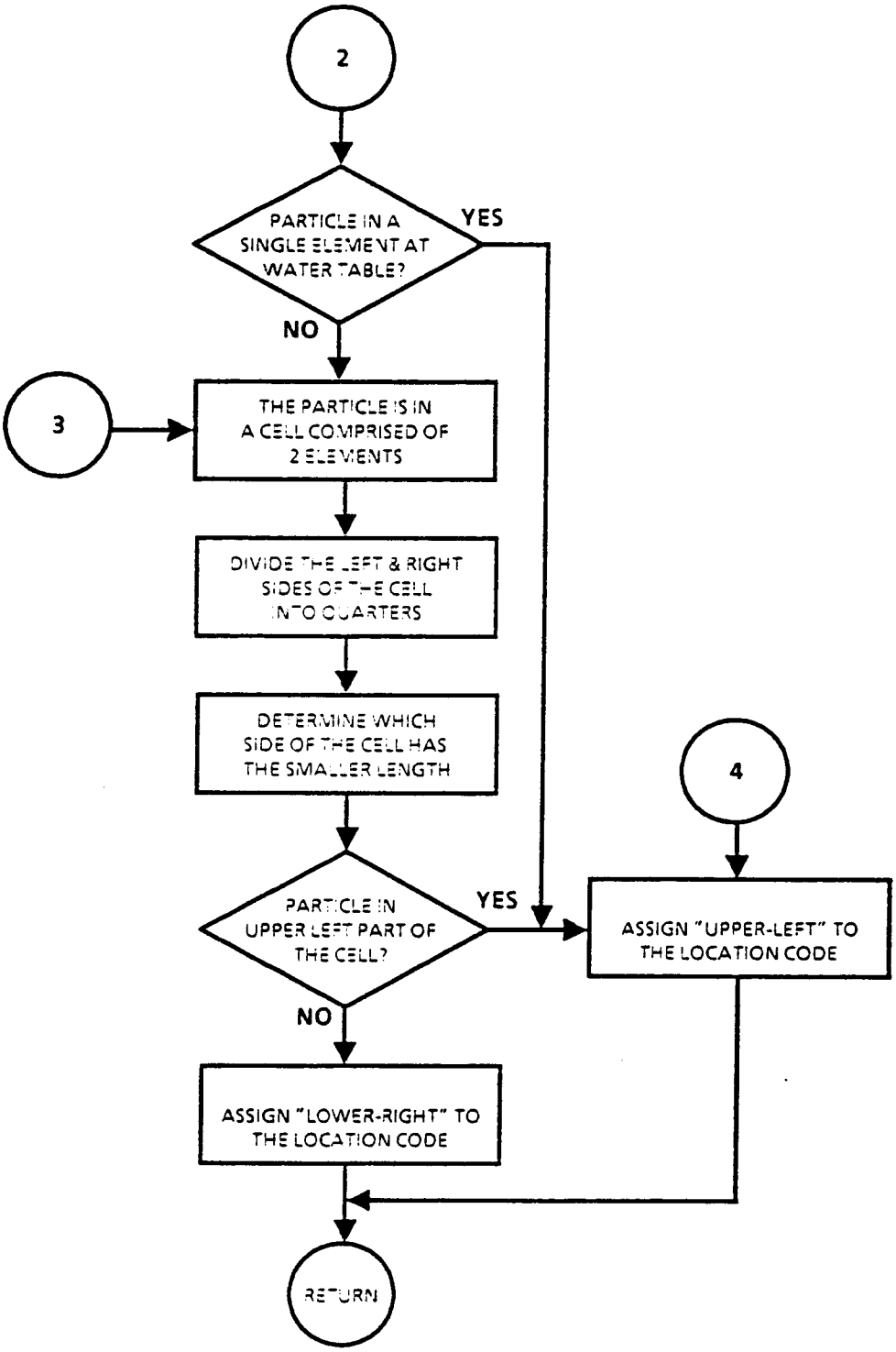

2
CALCULATE THE HORIZONTAL & VERTICAL DISPERSION COEFFICIENTS
CALCULATE THE NEW X AND Z COORD OF THE PARTICLE AFTER MOVING
DETERMINE THE CELL WHICH NOW CONTAINS THE PARTICLE
5
PARTICLE BEYOND THE SIDES OF THE SYSTEM?
YES
NO
PARTICLE BELOW THE BASE OF THE SYSTEM?
YES
NO
3
DETERMINE WHETHER THE PARTICLE MOVED HORZ. OR VERT. OUT OF THE SYSTEM
IS PARTICLE AT A CONSTANT HEAD BOUNDARY?
NO
REFLECT THE PARTICLE BACK INTO THE FLOW SYSTEM
YES
4
DESIGNATE THE PARTICLE AS ONE WHICH HAS LEFT THE FLOW SYSTEM
6

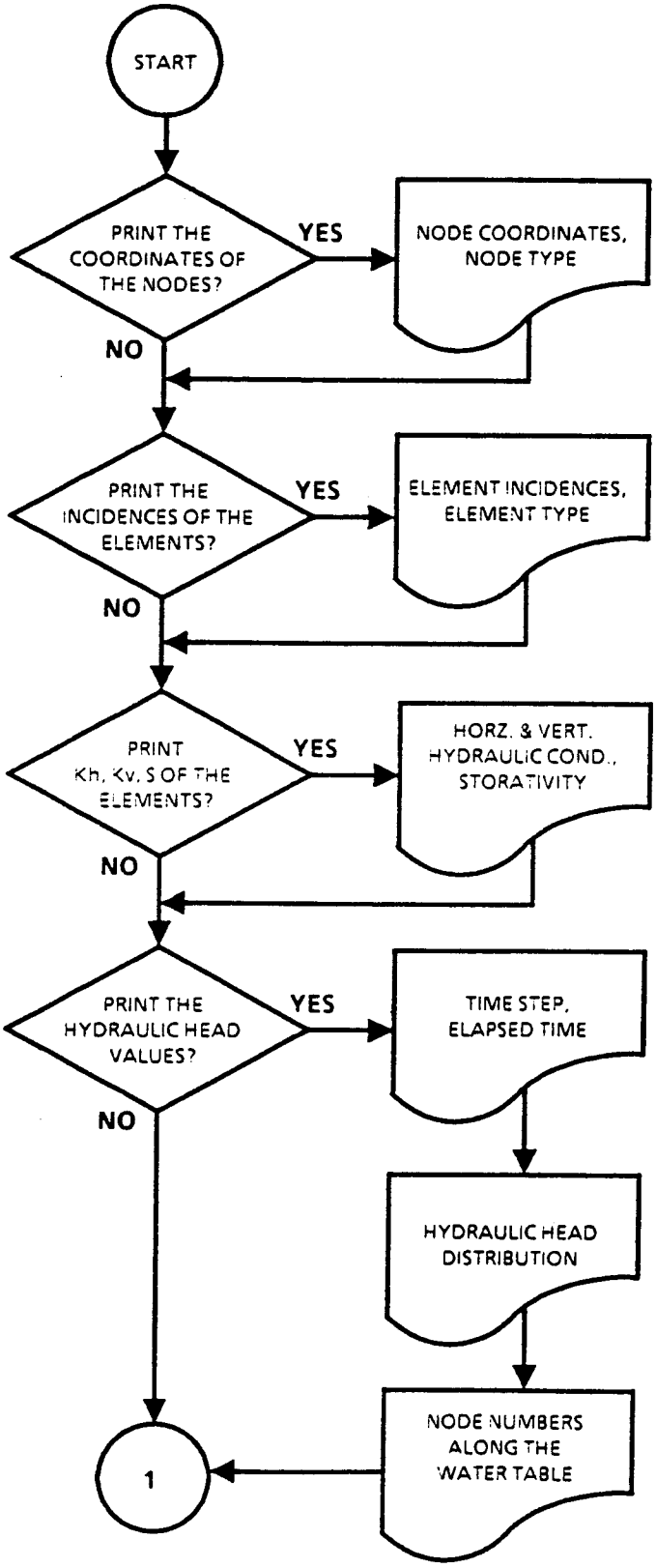

3
PARTICLE MOVED OUT AT THE WATER TABLE?
NO
IS THE PARTICLE IN A REGION NO-MOVEMENT?
NO
INCREASE THE NUMBER OF PARTICLES PER CELL COUNTER
YES
YES
DETERMINE THE ORIENTATION OF THE UPPER SURFACE OF THE CELL AT THE WATER TABLE
REMOVE THE PARTICLE FROM THE FLOW SYSTEM
CALCULATE THE CONCENTRATION IN THE CELL
PARTICLE AT A CONSTANT HEAD BOUNDARY?
YES
4
6
NO
REFLECT THE PARTICLE BACK INTO THE FLOW SYSTEM
5



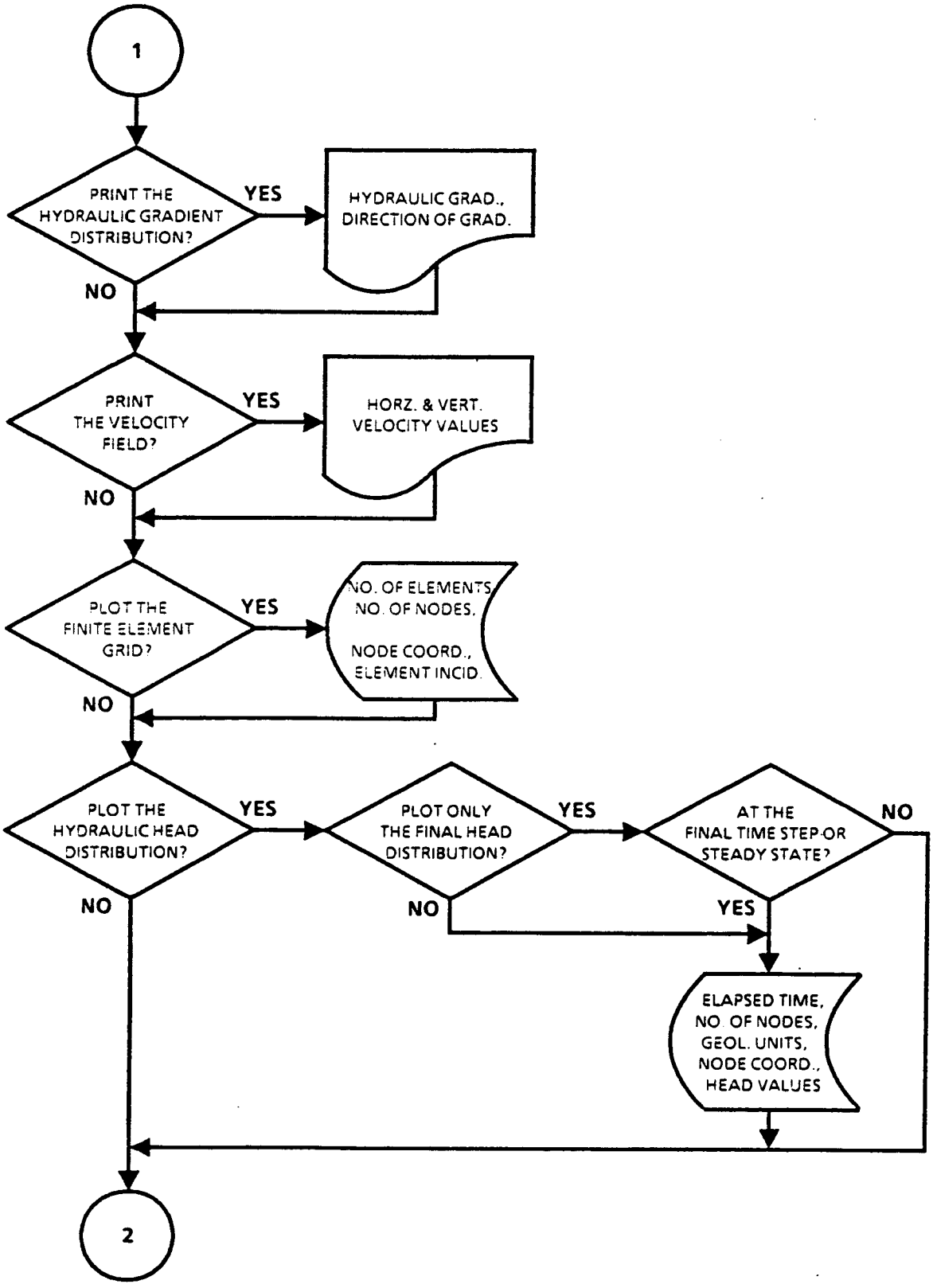
FLOW CHART FOR SUBROUTINE SEARCH

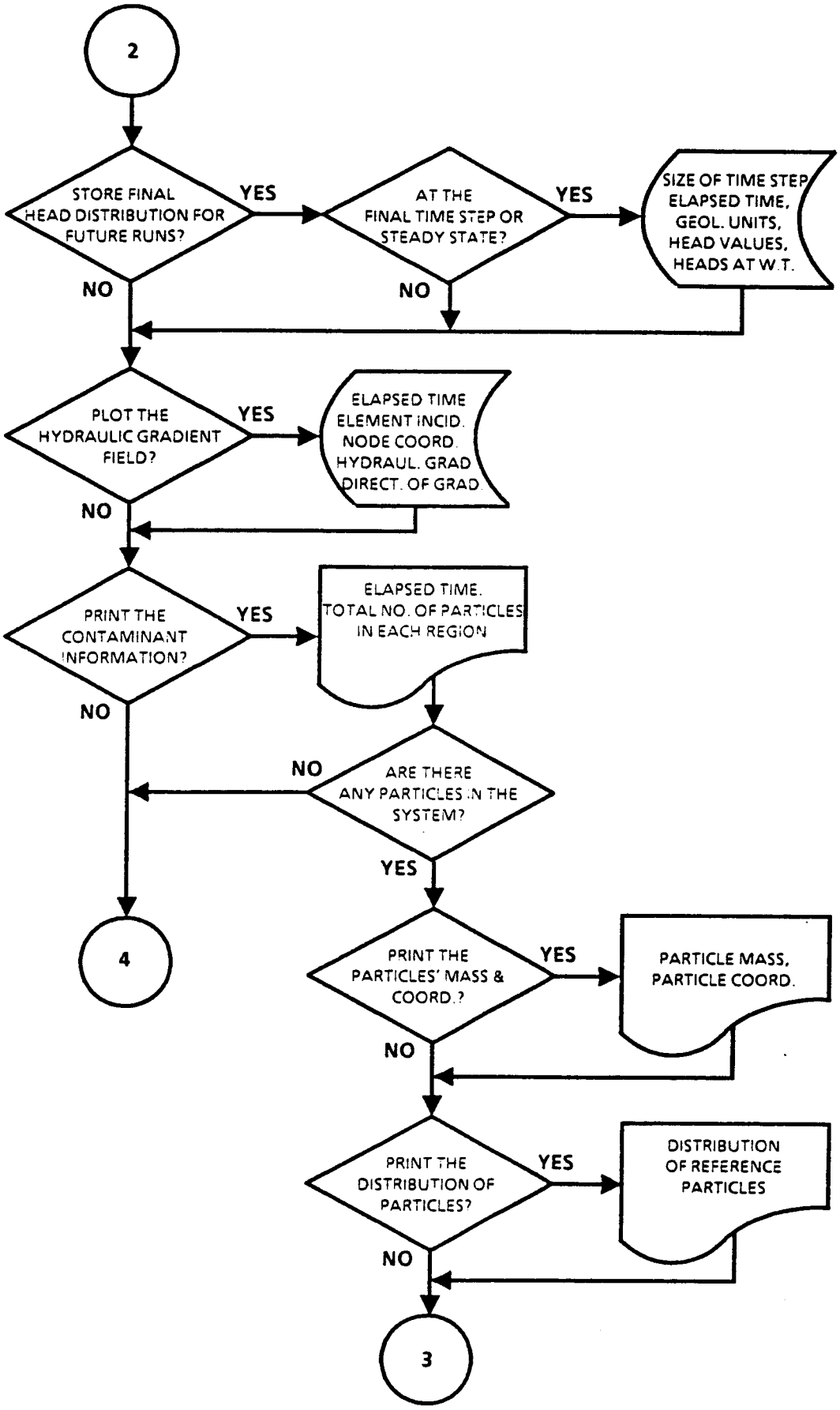

1
TYPE "H" CELL?
YES
PARTICLE IN A SINGLE ELEMENT AT WATER TABLE?
YES
4
NO
NO
3
NOTE: see Fig. 4 for an explanation of the cell types.
TYPE "I" CELL?
YES
PARTICLE IN A SINGLE ELEMENT AT WATER TABLE?
YES
4
NO
NO
3
TYPE "J" CELL?
YES
PARTICLE IN A SINGLE ELEMENT AT WATER TABLE?
YES
4
NO
NO
3
PARTICLE IS IN A TYPE "K" CELL
2

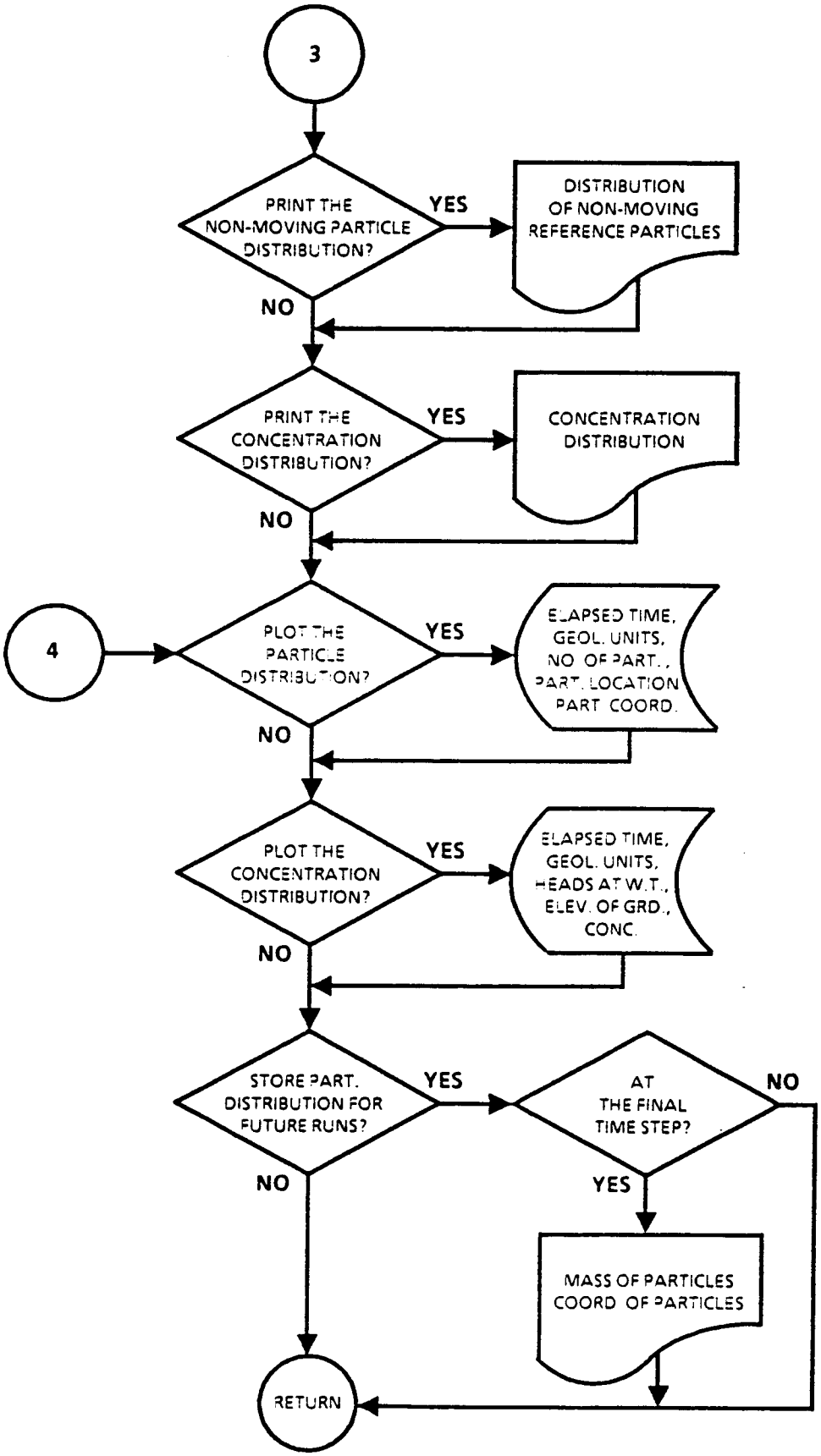

2
PARTICLE IN A SINGLE ELEMENT AT WATER TABLE?
YES
NO
3
THE PARTICLE IS IN A CELL COMPRISED OF 2 ELEMENTS
DIVIDE THE LEFT & RIGHT SIDES OF THE CELL INTO QUARTERS
DETERMINE WHICH SIDE OF THE CELL HAS THE SMALLER LENGTH
4
PARTICLE IN UPPER LEFT PART OF THE CELL?
YES
ASSIGN "UPPER-LEFT" TO THE LOCATION CODE
NO
ASSIGN "LOWER-RIGHT" TO THE LOCATION CODE
RETURN



FLOW CHART FOR SUBROUTINE OUTPUT


1
PRINT THE HYDRAULIC GRADIENT DISTRIBUTION?
YES
HYDRAULIC GRAD., DIRECTION OF GRAD.
NO
PRINT THE VELOCITY FIELD?
YES
HORZ. & VERT. VELOCITY VALUES
NO
PLOT THE FINITE ELEMENT GRID?
YES
NO. OF ELEMENTS, NO. OF NODES, NODE COORD., ELEMENT INCID.
NO
PLOT THE HYDRAULIC HEAD DISTRIBUTION?
YES
PLOT ONLY THE FINAL HEAD DISTRIBUTION?
YES
AT THE FINAL TIME STEP OR STEADY STATE?
NO
NO
NO
YES
ELAPSED TIME, NO. OF NODES, GEOL. UNITS, NODE COORD., HEAD VALUES
2


2
STORE FINAL HEAD DISTRIBUTION FOR FUTURE RUNS?
YES
AT THE FINAL TIME STEP OR STEADY STATE?
YES
SIZE OF TIME STEP, ELAPSED TIME, GEOL. UNITS, HEAD VALUES, HEADS AT W.T.
NO
NO
PLOT THE HYDRAULIC GRADIENT FIELD?
YES
ELAPSED TIME ELEMENT INCID. NODE COORD. HYDRAUL. GRAD DIRECT. OF GRAD.
NO
PRINT THE CONTAMINANT INFORMATION?
YES
ELAPSED TIME, TOTAL NO. OF PARTICLES IN EACH REGION
NO
NO
ARE THERE ANY PARTICLES IN THE SYSTEM?
YES
4
PRINT THE PARTICLES' MASS & COORD.?
YES
PARTICLE MASS, PARTICLE COORD.
NO
PRINT THE DISTRIBUTION OF PARTICLES?
YES
DISTRIBUTION OF REFERENCE PARTICLES
NO
3


3
PRINT THE NON-MOVING PARTICLE DISTRIBUTION?
YES
DISTRIBUTION OF NON-MOVING REFERENCE PARTICLES
NO
PRINT THE CONCENTRATION DISTRIBUTION?
YES
CONCENTRATION DISTRIBUTION
NO
4
PLOT THE PARTICLE DISTRIBUTION?
YES
ELAPSED TIME, GEOL. UNITS, NO. OF PART., PART. LOCATION PART. COORD.
NO
PLOT THE CONCENTRATION DISTRIBUTION?
YES
ELAPSED TIME, GEOL. UNITS, HEADS AT W.T., ELEV. OF GRD., CONC.
NO
STORE PART. DISTRIBUTION FOR FUTURE RUNS?
YES
AT THE FINAL TIME STEP?
NO
YES
NO
MASS OF PARTICLES COORD. OF PARTICLES
RETURN

6.5 EXAMPLE 1: SIMULATION OF GROUNDWATER FLOW

6.5.1 Simulation of Pre-mining Regional Steady State Flow

6.5.1.1 Input Data.

```
EXAMPLE DATA SET:   SIMULATION OF PRE-MINING REGIONAL STEADY STATE FLOW
FFFFTTFTFFTFFFFFFFFFFFFF
   23   61    30    10     3     1 1275 2800    22    18     3     0     8
   300.00        10.0         2.0        230.       0.000        .100         1.5
      250.        251.        252.        253.        254.        256.        259.        262.
      265.        268.        271.        274.        277.        279.        280.        281.
      282.       281.2       281.7        282.        283.        284.        286.        286.
      287.        288.       289.1       289.2       289.3       289.4       289.5       289.7
     289.8       290.0       290.1       290.2       290.3       290.4       290.5       290.6
     290.7       290.8       291.0       291.2       291.4       291.5       291.7       291.8
      292.        293.        295.        295.        295.        295.        295.        295.
      295.        295.        295.        295.        295.
FTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
     230.0       230.0       230.0       230.0       230.0       230.0       230.0       230.0
     230.0       230.0       230.0       230.0       230.0       230.0       230.0       230.0
     230.0       230.0       230.0       230.0       230.0       230 0       230.0       230.0
     230.0       230.0       230.0       230.0       230.0       230.0       230.0       230.0
     230.0       230.0       230.0       230.0       230.0       230.0       230.0       230.0
     230.0       230.0       230.0       230.0       230.0       230.0       230.0       230.0
     230.0       230.0       230.0       230.0       230.0       230.0       230.0       230.0
     230.0       230.0       230.0       230.0       230.0
      90.0        90.0        90.0        90.0        90 0        90.0        90.0        90.0
      90.0        90.0        90.0        90.0        90.0        90.0        90.0        90.0
      90.0        90.0        90.0        90.0        90.0        90.0        90.0        90.0
      90.0        90.0        90.0        90.0        90.0        90.0        90.0        90.0
      90.0        90.0        90.0        90.0        90.0        90.0        90.0        90.0
      90.0        90.0        90.0        90.0        90.0        90.0        90.0        90.0
      90.0        90.0        90.0        30.0        90.0        90.0        90.0        90.0
      90.0        90.0        90.0        90.0        90.0
    1   60
  2  .0400   3  .0400   4  .0400   5  .0400   6  .0400   7  .0400   8  .0400   9  .0400
 10  .0400  11  .0400  12  .0400  13  .0400  14  .0400  15  .0400  16  .0400  17  .0400
 18  .0400  19  .0400  20  .0400  21  .0400  22  .0400  23  .0400  24  .0400  25  .0400
 26  .0400  27  .0400  28  .0400  29  .0400  30  .0400  31  .0400  32  .0400  33  .0400
 34  .0400  35  .0400  36  .0400  37  .0400  38  .0400  39  .0400  40  .0800  41  .0800
 42  .0800  43  .0800  44  .0800  45  .0800  46  .0800  47  .0800  48  .0800  49  .0800
 50  .0800  51  .0800  52  .0800  53  .0800  54  .0800  55  .0800  56  .0800  57  .0800
 58  .0800  59  .0800  60  .0800  61  .1800
  1 15    230.   1 14    230    1 13    230.
    1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1
    2    3.16E+2    3.16E+2    0.50E-3    0.10E+0    0.00E+1    0.00E+1    0.00E+1
    3    94.8E+2    94.8E+2    0.50E-3    0.10E+0    0.00E+1    0.00E+1    0.00E+1
1111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111112222222222
1111111111111111111122222222222222222222222222222222222222222
1111111111122222222222222222222222222222222222222222222222222
1111111122222222222222222222222222222222222222222222222222222
1112222222222222222222222222222222222222222222222222222222222
3333333333333333333333333333333333333333333333333333333333333
3333333333333333333333333333333333333333333333333333333333333
2222222222222222222222222222222222222222222222222222222222222
2222222222222222222222222222222222222222222222222222222222222
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2222222222222222222222222222222222222222222222222222222222222
2222222222222222222222222222222222222222222222222222222222222
2222222222222222222222222222222222222222222222222222222222222
End of file
```

6.5.1.2 Printed Output.

****

EXAMPLE DATA SET: SIMULATION OF PRE-MINING REGIONAL STEADY STATE FLOW

****

OUTPUT LISTINGS AND PROBLEM CONTROL

```
OPTION( 1)= F :PRINT THE NODE CO-ORDINATES
OPTION( 2)= F :PRINT THE ELEMENT INCIDENCES
OPTION( 3)= F :PRINT THE ELEMENT HYDRAULIC CONDUCTIVITIES AND STORATIVITIES
OPTION( 4)= F :PLOT THE FINITE ELEMENT GRID
OPTION( 5)= T :CALCULATE THE HEAD DISTRIBUTIONS
OPTION( 6)= T :PRINT THE HEAD DISTRIBUTIONS
OPTION( 7)= F :PLOT ALL HEAD DISTRIBUTIONS
OPTION( 8)= T :PLOT ONLY THE LAST HEAD VALUES
OPTION( 9)= F :PRINT THE WATER TABLE CONVERGENCE INFORMATION AT EACH ITERATION
OPTION(10)= F :INPUT PREVIOUSLY CALCULATED HEADS TO CONTINUE AN EARLIER RUN
OPTION(11)= T :OUTPUT THE LAST HEAD DISTRIBUTION FOR USE AS INPUT IN A LATER RUN
OPTION(12)= F :SIMULATE MINING AND RECLAMATION
OPTION(13)= F :CALCULATE THE HYDRAULIC GRADIENT AND THE DIRECTION OF THE GRADIENT FIELD
OPTION(14)= F :PRINT THE HYDRAULIC GRADIENT AND ITS ITS DIRECTION FIELDS
OPTION(15)= F :PLOT THE HYDRAULIC GRADIENT AND ITS DIRECTION
OPTION(16)= F :CALCULATE THE VELOCITY FIELD
OPTION(17)= F :PRINT THE VELOCITY FIELD
OPTION(18)= F :RUN THE MASS TRANSPORT ROUTINE
OPTION(19)= F :PRINT THE CONCENTRATION AND PARTICLE DISTRIBUTIONS
OPTION(20)= F :PLOT THE PARTICLE CONCENTRATION
OPTION(21)= F :PLOT THE PARTICLE DISTRIBUTION
OPTION(22)= F :OUTPUT THE LAST PARTICLE DISTRIBUTION TO CONTINUE THE RUN
OPTION(23)= F :INPUT THE LAST PARTICLE DISTRIBUTION TO CONTINUE A PREVIOUS RUN
OPTION(24)= F :PRINT THE MASS, X AND Z COORDINATES OF THE REFERENCE PARTICLES
```

CROSS SECTION AND SIMULATION PARAMETERS

```
      23 :NUMBER OF ROWS
      61 :NUMBER OF COLUMNS
       3 :NUMBER OF GEOLOGICAL UNITS
       0 :NUMBER OF SPOIL UNITS
      18 :ESTIMATED NUMBER OF CONSTANT HEAD NODES
       3 :ACTUAL NUMBER OF CONSTANT HEAD NODES ENTERED
    1275 :ESTIMATED NUMBER OF NODES
    2600 :ESTIMATED NUMBER OF ELEMENTS
      22 :ESTIMATED BANDWIDTH
       1 :NUMBER OF PERIODS OF RECHARGE

 300.000 :HORIZONTAL NODE SPACING
  10.000 :VERTICAL NODE SPACING
   2.000 :TIME STEP
 230.000 :INITIAL HEAD VALUE
   0.0   :SPECIFIC YIELD
   0.100 :WATER TABLE AND STEADY STATE CONVERGENCE TOLERANCE
      30 :NUMBER OF TIME STEPS
   1.500 :TIME STEP INCREMENT
       8 :MAXIMUM NUMBER OF ITERATIONS PER TIME STEP
      10 :NUMBER OF TIME STEPS BETWEEN LISTINGS
```

GROUND SURFACE PARAMETERS

COL		ELEVATION	COL		ELEVATION	COL		ELEVATION	COL		ELEVATION	COL		ELEVATION	COL		ELEVATION	COL		ELEVATION	COL		ELEVATION
1	F	250.00	2	T	251.00	3	T	252.00	4	T	253.00	5	T	254.00	6	T	255.00	7	T	258.00	8	T	262.00
9	T	265.00	10	T	268.00	11	T	271.00	12	T	274.00	13	T	277.00	14	T	279.00	15	T	280.00	16	T	281.00
17	T	282.00	18	T	281.20	19	T	281.70	20	T	282.00	21	T	283.00	22	T	284.00	23	T	286.00	24	T	286.00
25	T	287.00	26	T	288.00	27	T	289.10	28	T	289.20	29	T	289.30	30	T	289.40	31	T	289.50	32	T	289.70
33	T	289.80	34	T	290.00	35	T	290.10	36	T	290.20	37	T	290.30	38	T	290.40	39	T	290.50	40	T	290.60
41	T	290.70	42	T	290.80	43	T	291.00	44	T	291.20	45	T	291.40	46	T	291.50	47	T	291.70	48	T	291.80
49	T	292.00	50	T	293.00	51	T	295.00	52	T	295.00	53	T	295.00	54	T	295.00	55	T	295.00	56	T	295.00
57	T	295.00	58	T	295.00	59	T	295.00	60	T	295.00	61	T	295.00									

WATER TABLE ELEVATION

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	230.00	2	230.00	3	230.00	4	230.00	5	230.00	6	230.00	7	230.00	8	230.00
9	230.00	10	230.00	11	230.00	12	230.00	13	230.00	14	230.00	15	230.00	16	230.00
17	230.00	18	230.00	19	230.00	20	230.00	21	230.00	22	230.00	23	230.00	24	230.00
25	230.00	26	230.00	27	230.00	28	230.00	29	230.00	30	230.00	31	230.00	32	230.00
33	230.00	34	230.00	35	230.00	36	230.00	37	230.00	38	230.00	39	230.00	40	230.00
41	230.00	42	230.00	43	230.00	44	230.00	45	230.00	46	230.00	47	230.00	48	230.00
49	230.00	50	230.00	51	230.00	52	230.00	53	230.00	54	230.00	55	230.00	56	230.00
57	230.00	58	230.00	59	230.00	60	230.00	61	230.00						

BOTTOM BOUNDARY ELEVATION

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	90.00	2	90.00	3	90.00	4	90.00	5	90.00	6	90.00	7	90.00	8	90.00
9	90.00	10	90.00	11	90.00	12	90.00	13	90.00	14	90.00	15	90.00	16	90.00
17	90.00	18	90.00	19	90.00	20	90.00	21	90.00	22	90.00	23	90.00	24	90.00
25	90.00	26	90.00	27	90.00	28	90.00	29	90.00	30	90.00	31	90.00	32	90.00
33	90.00	34	90.00	35	90.00	36	90.00	37	90.00	38	90.00	39	90.00	40	90.00
41	90.00	42	90.00	43	90.00	44	90.00	45	90.00	46	90.00	47	90.00	48	90.00
49	90.00	50	90.00	51	90.00	52	90.00	53	90.00	54	90.00	55	90.00	56	90.00
57	90.00	58	90.00	59	90.00	60	90.00	61	90.00						

RECHARGE VALUES (+VE=RECHARGE; -VE=EVAPORATION)

CHANGE AT TIME STEP: 1

COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE
2	0.04	3	0.04	4	0.04	5	0.04	6	0.04	7	0.04	8	0.04	9	0.04
10	0.04	11	0.04	12	0.04	13	0.04	14	0.04	15	0.04	16	0.04	17	0.04
18	0.04	19	0.04	20	0.04	21	0.04	22	0.04	23	0.04	24	0.04	25	0.04
26	0.04	27	0.04	28	0.04	29	0.04	30	0.04	31	0.04	32	0.04	33	0.04
34	0.04	35	0.04	36	0.04	37	0.04	38	0.04	39	0.04	40	0.08	41	0.08
42	0.08	43	0.08	44	0.08	45	0.08	46	0.08	47	0.08	48	0.08	49	0.08
50	0.08	51	0.08	52	0.08	53	0.08	54	0.08	55	0.08	56	0.08	57	0.08
58	0.08	59	0.08	60	0.08	61	0.16								

CONSTANT HEAD VALUES

COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD
1	15	230.00	1	14	230.00	1	13	230.00									

HYDROGEOLOGICAL PARAMETERS OF THE GEOLOGICAL UNITS

UNIT	Kh	Kv	STOR.	POROSITY	DISPER.		CEC	BULK DEN.
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2	0.3160E+03	0.3160E+03	0.5000E-03	0.1000E+00	0.0	0.0	0.0	
3	0.9480E+04	0.9480E+04	0.5000E-03	0.1000E+00	0.0	0.0	0.0	

MAP OF THE GEOLOGICAL UNITS

```
11111111111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111111111111111111111122222222222
11111111111111111111122222222222222222222222222222222222222222222
11111111111122222222222222222222222222222222222222222222222222222
11111111122222222222222222222222222222222222222222222222222222222
11122222222222222222222222222222222222222222222222222222222222222
33333333333333333333333333333333333333333333333333333333333333333
33333333333333333333333333333333333333333333333333333333333333333
22222222222222222222222222222222222222222222222222222222222222222
22222222222222222222222222222222222222222222222222222222222222222
22222222222222222222222222222222222222222222222222222222222222222
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22222222222222222222222222222222222222222222222222222222222222222
```

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 226.86 TIME STEP: 10

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.634	2	230.629	3	230.617	4	230.595	5	230.565	6	230.526	7	230.478	8	230.422
9	230.367	10	230.282	11	230.186	12	230.104	13	230.000	14	230.000	15	230.000	16	234.478
17	234.478	18	234.480	19	234.483	20	234.487	21	234.492	22	234.499	23	234.507	24	234.518
25	234.527	26	234.539	27	234.553	28	234.569	29	234.587	30	234.607	31	234.608	32	237.304
33	237.305	34	237.306	35	237.307	36	237.310	37	237.312	38	237.318	39	237.320	40	237.325
41	237.330	42	237.337	43	237.343	44	237.351	45	237.359	46	237.367	47	237.368	48	239.550
49	239.550	50	239.550	51	239.551	52	239.553	53	239.554	54	239.556	55	239.559	56	239.562
57	239.565	58	239.568	59	239.572	60	239.577	61	239.581	62	239.586	63	239.586	64	241.458
65	241.458	66	241.459	67	241.459	68	241.460	69	241.461	70	241.463	71	241.464	72	241.465
73	241.468	74	241.471	75	241.473	76	241.478	77	241.479	78	241.483	79	241.483	80	243.141
81	243.141	82	243.141	83	243.142	84	243.142	85	243.143	86	243.144	87	243.145	88	243.147
89	243.148	90	243.150	91	243.152	92	243.154	93	243.156	94	243.159	95	243.158	96	243.159
97	244.657	98	244.657	99	244.658	100	244.658	101	244.658	102	244.659	103	244.660	104	244.661
105	244.662	106	244.663	107	244.664	108	244.666	109	244.668	110	244.669	111	244.671	112	244.672
113	244.672	114	246.045	115	246.045	116	246.045	117	246.045	118	246.045	119	246.046	120	246.047
121	246.047	122	246.048	123	246.049	124	246.050	125	246.052	126	246.053	127	246.054	128	246.056
129	246.056	130	246.056	131	247.327	132	247.327	133	247.327	134	247.328	135	247.328	136	247.328
137	247.329	138	247.330	139	247.330	140	247.331	141	247.332	142	247.333	143	247.334	144	247.335
145	247.337	146	247.337	147	247.337	148	248.523	149	248.523	150	248.523	151	248.523	152	248.523
153	248.524	154	248.524	155	248.525	156	248.525	157	248.526	158	248.527	159	248.528	160	248.529
161	248.530	162	248.531	163	248.531	164	248.531	165	249.644	166	249.644	167	249.644	168	249.645
169	249.645	170	249.646	171	249.646	172	249.646	173	249.647	174	249.647	175	249.648	176	249.649
177	249.649	178	249.650	179	249.651	180	249.651	181	249.652	182	250.701	183	250.701	184	250.701
185	250.702	186	250.702	187	250.702	188	250.702	189	250.703	190	250.703	191	250.704	192	250.705
193	250.705	194	250.706	195	250.707	196	250.708	197	250.708	198	250.708	199	251.702	200	251.702
201	251.702	202	251.703	203	251.703	204	251.703	205	251.703	206	251.704	207	251.704	208	251.704
209	251.705	210	251.705	211	251.706	212	251.707	213	251.707	214	251.708	215	251.708	216	252.658
217	252.658	218	252.658	219	252.658	220	252.658	221	252.658	222	252.658	223	252.657	224	252.657
225	252.657	226	252.657	227	252.657	228	252.657	229	252.657	230	252.657	231	252.657	232	252.657
233	253.624	234	253.624	235	253.624	236	253.624	237	253.624	238	253.624	239	253.623	240	253.623
241	253.623	242	253.623	243	253.622	244	253.622	245	253.622	246	253.621	247	253.621	248	253.621
249	253.621	250	253.621	251	254.618	252	254.618	253	254.618	254	254.618	255	254.618	256	254.618
257	254.618	258	254.618	259	254.619	260	254.619	261	254.619	262	254.619	263	254.619	264	254.619
265	254.620	266	254.620	267	254.620	268	254.620	269	255.600	270	255.600	271	255.600	272	255.600
273	255.600	274	255.600	275	255.600	276	255.600	277	255.600	278	255.601	279	255.601	280	255.601
281	255.601	282	255.602	283	255.602	284	255.602	285	255.602	286	255.603	287	256.566	288	256.566
289	256.566	290	256.566	291	256.566	292	256.566	293	256.566	294	256.566	295	256.566	296	256.567
297	256.567	298	256.567	299	256.567	300	256.568	301	256.568	302	256.568	303	256.568	304	256.569
305	257.516	306	257.516	307	257.516	308	257.516	309	257.516	310	257.516	311	257.516	312	257.516
313	257.516	314	257.517	315	257.517	316	257.517	317	257.517	318	257.518	319	257.518	320	257.518
321	257.518	322	257.519	323	258.450	324	258.450	325	258.450	326	258.450	327	258.450	328	258.450
329	258.450	330	258.450	331	258.451	332	258.451	333	258.451	334	258.451	335	258.451	336	258.452
337	258.452	338	258.452	339	258.452	340	258.453	341	259.368	342	259.368	343	259.368	344	259.368
345	259.368	346	259.368	347	259.369	348	259.369	349	259.369	350	259.369	351	259.369	352	259.369
353	259.370	354	259.370	355	259.370	356	259.370	357	259.370	358	259.371	359	260.271	360	260.271
361	260.271	362	260.271	363	260.271	364	260.271	365	260.271	366	260.271	367	260.271	368	260.272
369	260.272	370	260.272	371	260.272	372	260.272	373	260.273	374	260.273	375	260.273	376	260.274
377	261.158	378	261.158	379	261.158	380	261.158	381	261.158	382	261.158	383	261.158	384	261.158
385	261.158	386	261.158	387	261.159	388	261.159	389	261.159	390	261.159	391	261.160	392	261.160
393	261.160	394	261.161	395	262.029	396	262.029	397	262.029	398	262.029	399	262.029	400	262.029
401	262.029	402	262.029	403	262.030	404	262.030	405	262.030	406	262.030	407	262.030	408	262.031
409	262.031	410	262.031	411	262.031	412	262.033	413	262.885	414	262.885	415	262.885	416	262.885
417	262.885	418	262.885	419	262.885	420	262.885	421	262.885	422	262.886	423	262.886	424	262.886
425	262.886	426	262.886	427	262.887	428	262.887	429	262.887	430	262.889	431	263.725	432	263.725

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
433	263.725	434	263.725	435	263.725	436	263.725	437	263.726	438	263.726	439	263.726	440	263.726
441	263.728	442	263.726	443	263.727	444	263.727	445	263.727	446	263.727	447	263.727	448	263.729
449	264.550	450	264.550	451	264.550	452	264.550	453	264.550	454	264.550	455	264.551	456	264.551
457	264.551	458	264.551	459	264.551	460	264.551	461	264.552	462	264.552	463	264.552	464	264.552
465	264.552	466	264.554	467	264.554	468	265.360	469	265.360	470	265.360	471	265.360	472	265.360
473	265.360	474	265.360	475	265.361	476	265.361	477	265.361	478	265.361	479	265.361	480	265.362
481	265.362	482	265.362	483	265.362	484	265.362	485	265.363	488	265.364	487	266.155	488	266.155
489	266.155	490	266.155	491	266.155	492	266.155	493	266.155	494	266.155	495	266.155	496	266.156
497	266.156	498	266.156	499	266.156	500	266.158	501	266.157	502	266.157	503	266.157	504	266.158
505	266.159	506	266.934	507	266.934	508	266.934	509	266.934	510	266.934	511	266.935	512	266.935
513	266.935	514	266.935	515	266.935	516	266.935	517	266.936	518	266.936	519	266.936	520	266.936
521	266.936	522	266.936	523	266.938	524	266.938	525	267.699	526	267.699	527	267.699	528	267.699
529	267.699	530	267.699	531	267.699	532	267.698	533	267.700	534	267.700	535	267.700	536	267.700
537	267.700	538	267.701	539	267.701	540	267.701	541	267.701	542	267.702	543	267.703	544	268.448
545	268.448	546	268.448	547	268.449	548	268.448	549	268.449	550	268.449	551	268.448	552	268.449
553	268.449	554	268.448	555	268.450	556	268.450	557	268.450	558	268.450	559	268.450	560	268.451
561	268.452	562	268.453	563	269.183	564	269.183	565	269.183	566	269.183	567	269.183	568	269.183
569	269.183	570	269.184	571	269.184	572	269.184	573	269.184	574	269.184	575	269.185	576	269.185
577	269.185	578	269.185	579	269.186	580	269.186	581	269.188	582	269.903	583	269.903	584	269.903
585	269.903	586	269.903	587	269.903	588	269.903	589	269.903	590	269.904	591	269.904	592	269.904
593	269.904	594	269.904	595	269.905	596	269.905	597	269.905	598	269.905	599	269.906	600	269.908
601	270.608	602	270.608	603	270.608	604	270.608	605	270.608	606	270.608	607	270.608	608	270.609
609	270.609	610	270.609	611	270.609	612	270.609	613	270.609	614	270.610	615	270.610	616	270.610
617	270.610	618	270.611	619	270.613	620	271.298	621	271.298	622	271.298	623	271.298	624	271.299
625	271.299	626	271.299	627	271.299	628	271.299	629	271.299	630	271.299	631	271.300	632	271.300
633	271.300	634	271.300	635	271.300	636	271.300	637	271.302	638	271.303	639	271.974	640	271.974
641	271.974	642	271.974	643	271.974	644	271.974	645	271.974	646	271.975	647	271.975	648	271.975
649	271.975	650	271.975	651	271.976	652	271.976	653	271.976	654	271.976	655	271.976	656	271.977
657	271.979	658	272.635	659	272.635	660	272.635	661	272.635	662	272.635	663	272.635	664	272.636
665	272.636	666	272.636	667	272.636	668	272.636	669	272.636	670	272.637	671	272.637	672	272.637
673	272.637	674	272.637	675	272.639	676	272.640	677	273.282	678	273.282	679	273.282	680	273.282
681	273.282	682	273.282	683	273.282	684	273.282	685	273.282	686	273.282	687	273.283	688	273.283
689	273.283	690	273.283	691	273.284	692	273.284	693	273.284	694	273.285	695	273.287	696	273.912
697	273.912	698	273.912	699	273.913	700	273.913	701	273.913	702	273.913	703	273.913	704	273.914
705	273.914	706	273.914	707	273.915	708	273.915	709	273.915	710	273.916	711	273.916	712	273.916
713	273.919	714	273.922	715	274.515	716	274.515	717	274.515	718	274.515	719	274.515	720	274.515
721	274.516	722	274.516	723	274.516	724	274.517	725	274.517	726	274.517	727	274.518	728	274.518
729	274.519	730	274.519	731	274.518	732	274.521	733	274.525	734	275.088	735	275.088	736	275.088
737	275.089	738	275.089	739	275.089	740	275.088	741	275.088	742	275.090	743	275.090	744	275.090
745	275.091	746	275.091	747	275.092	748	275.092	749	275.092	750	275.092	751	275.095	752	275.097
753	275.099	754	275.633	755	275.633	756	275.633	757	275.633	758	275.633	759	275.633	760	275.634
761	275.634	762	275.634	763	275.634	764	275.635	765	275.635	766	275.636	767	275.636	768	275.637
769	275.637	770	275.637	771	275.639	772	275.642	773	275.643	774	276.148	775	276.148	776	276.148
777	276.148	778	276.148	779	276.149	780	276.149	781	276.149	782	276.149	783	276.150	784	276.150
785	276.150	786	276.151	787	276.151	788	276.152	789	276.152	790	276.152	791	276.154	792	276.157
793	276.159	794	276.634	795	276.635	796	276.635	797	276.635	798	276.635	799	276.635	800	276.635
801	276.635	802	276.636	803	276.636	804	276.636	805	276.637	806	276.637	807	276.638	808	276.638
809	276.638	810	276.638	811	276.641	812	276.643	813	276.645	814	277.082	815	277.082	816	277.082
817	277.082	818	277.082	819	277.092	820	277.093	821	277.093	822	277.093	823	277.093	824	277.094
825	277.094	826	277.095	827	277.095	828	277.096	829	277.096	830	277.098	831	277.098	832	277.101
833	277.102	834	277.520	835	277.520	836	277.520	837	277.521	838	277.521	839	277.521	840	277.521
841	277.521	842	277.522	843	277.522	844	277.522	845	277.523	846	277.523	847	277.524	848	277.524
849	277.524	850	277.524	851	277.527	852	277.529	853	277.531	854	277.920	855	277.920	856	277.920
857	277.920	858	277.920	859	277.921	860	277.921	861	277.921	862	277.921	863	277.922	864	277.922
865	277.922	866	277.923	867	277.923	868	277.924	869	277.924	870	277.924	871	277.928	872	277.929
873	277.931	874	278.281	875	278.281	876	278.281	877	278.281	878	278.281	879	278.282	880	278.282
881	278.282	882	278.282	883	278.283	884	278.283	885	278.283	886	278.284	887	278.284	888	278.285
889	278.285	890	278.285	891	278.287	892	278.300	893	278.302	894	278.633	895	278.633	896	278.633
897	278.634	898	278.634	899	278.634	900	278.634	901	278.634	902	278.635	903	278.635	904	278.635
905	278.636	906	278.636	907	278.637	908	278.637	909	278.637	910	278.637	911	278.640	912	278.642

913	278.844	914	278.847	915	278.847	916	278.847	917	278.847	918	278.847	919	278.848	920	278.[illegible]
921	278.848	922	278.848	923	278.849	924	278.849	925	278.848	926	278.850	927	278.850	928	278.[illegible]
929	278.851	930	278.851	931	278.853	932	278.856	933	278.858	934	279.232	935	279.232	936	278.[illegible]
937	278.232	938	279.232	939	279.233	940	279.233	941	279.233	942	279.233	943	279.234	944	279.[illegible]
945	278.234	946	279.235	947	278.235	948	279.236	949	279.236	950	279.238	951	278.238	952	278.241
953	278.243	954	279.488	955	279.488	956	279.488	957	279.488	958	279.488	958	279.488	960	279.488
961	279.489	962	279.490	963	279.490	964	279.490	965	279.491	966	279.491	967	278.492	968	279.492
969	279.492	970	279.492	971	279.495	972	279.497	973	279.500	974	279.717	975	278.717	976	279.[illegible]
977	279.717	978	279.717	979	279.717	980	279.717	981	279.717	982	279.718	983	279.718	984	279.[illegible]
985	279.719	986	279.719	987	279.720	988	279.720	989	279.720	990	279.720	991	279.723	992	279.[illegible]
993	279.728	994	279.916	995	279.916	996	279.916	997	279.916	998	279.916	999	279.916	1000	279.[illegible]
1001	278.917	1002	278.917	1003	278.918	1004	278.918	1005	278.918	1006	278.919	1007	278.919	1008	278.920
1009	278.920	1010	278.920	1011	278.922	1012	278.925	1013	278.927	1014	280.087	1015	280.087	1016	280.087
1017	280.087	1018	280.087	1019	280.088	1020	280.088	1021	280.088	1022	280.088	1023	280.088	1024	280.088
1025	280.089	1026	280.090	1027	280.090	1028	280.091	1029	280.091	1030	280.091	1031	280.093	1032	280.[illegible]
1033	280.098	1034	280.230	1035	280.230	1036	280.230	1037	280.230	1038	280.230	1039	280.230	1040	280.[illegible]
1041	280.231	1042	280.231	1043	280.231	1044	280.231	1045	280.232	1046	280.232	1047	280.233	1048	280.[illegible]
1049	280.233	1050	280.233	1051	280.236	1052	280.238	1053	280.241	1054	280.344	1055	280.344	1056	280.[illegible]
1057	280.344	1058	280.344	1059	280.344	1060	280.344	1061	280.345	1062	280.345	1063	280.345	1064	280.346
1065	280.346	1066	280.346	1067	280.347	1068	280.347	1069	280.347	1070	280.348	1071	280.350	1072	280.352
1073	280.355	1074	280.430	1075	280.430	1076	280.430	1077	280.430	1078	280.430	1079	280.430	1080	280.430
1081	280.43C	1082	280.431	1083	280.431	1084	280.431	1085	280.432	1086	280.432	1087	280.433	1088	280.[illegible]
1089	280.433	1090	280.433	1091	280.436	1092	280.436	1093	280.441	1094	280.487	1095	280.487	1096	280.
1097	280.487	1098	280.487	1099	280.487	1100	280.487	1101	280.488	1102	280.488	1103	280.488	1104	280.
1105	280.489	1106	280.490	1107	280.490	1108	280.491	1109	280.491	1110	280.491	1111	280.493	1112	280.[illegible]
1113	280.498	1114	280.513	1115	280.513	1116	280.513	1117	280.514	1118	280.514	1119	280.514	1120	280.514
1121	280.515	1122	280.515	1123	280.516	1124	280.516	1125	280.517	1126	280.518	1127	280.519	1128	280.520
1129	280.520	1130	280.520	1131	280.525	1132	280.530	1133	280.535						

NODES ALONG THE WATER TABLE

15	31	47	63	79	96	113	130	147	164	181	198	215	232	250	268	286	304	322	340	358	376	394	412	430
448	467	486	505	524	543	562	581	600	619	638	657	676	695	714	733	753	773	793	813	833	853	873	893	913
933	953	973	993	1013	1033	1053	1073	1093	1113	1133														

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********** SYSTEM IS AT STEADY STATE **********

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HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 1747.58 TIME STEP: 15

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.651	2	230.647	3	230.634	4	230.612	5	230.581	6	230.541	7	230.492	8	230.434
9	230.367	10	230.290	11	230.203	12	230.107	13	230.000	14	230.000	15	230.000	16	234.801
17	234.802	18	234.804	19	234.807	20	234.811	21	234.816	22	234.823	23	234.831	24	234.841
25	234.852	26	234.865	27	234.880	28	234.896	29	234.715	30	234.735	31	234.756	32	237.494
33	237.495	34	237.496	35	237.497	36	237.500	37	237.503	38	237.506	39	237.511	40	237.516
41	237.521	42	237.527	43	237.534	44	237.542	45	237.550	46	237.559	47	237.559	48	239.789
49	239.790	50	239.790	51	239.791	52	239.792	53	239.794	54	239.796	55	239.799	56	239.802
57	239.805	58	239.808	59	239.812	60	239.817	61	239.822	62	238.827	63	238.827	64	241.739
65	241.740	66	241.740	67	241.741	68	241.741	69	241.743	70	241.744	71	241.746	72	241.748
73	241.750	74	241.752	75	241.755	76	241.758	77	241.761	78	241.764	79	241.765	80	243.458
81	243.458	82	243.459	83	243.459	84	243.460	85	243.461	86	243.462	87	243.463	88	243.464
89	243.466	90	243.468	91	243.470	92	243.472	93	243.474	94	243.477	95	243.477	96	243.477
97	245.008	98	245.008	99	245.008	100	245.008	101	245.009	102	245.008	103	245.010	104	245.011
105	245.012	106	245.014	107	245.015	108	245.016	109	245.018	110	245.020	111	245.022	112	245.022
113	245.022	114	246.425	115	246.425	116	246.425	117	246.426	118	246.426	119	246.426	120	246.427
121	246.428	122	246.429	123	246.430	124	246.431	125	246.432	126	246.434	127	246.435	128	246.437
129	246.437	130	246.437	131	247.736	132	247.736	133	247.736	134	247.738	135	247.736	136	247.737
137	247.737	138	247.738	139	247.739	140	247.740	141	247.741	142	247.742	143	247.743	144	247.744
145	247.745	146	247.745	147	247.746	148	248.858	149	248.858	150	248.858	151	248.858	152	248.858
153	248.859	154	248.859	155	248.860	156	248.860	157	248.861	158	248.862	159	248.863	160	248.864
161	248.865	162	248.866	163	248.868	164	248.866	165	250.104	166	250.104	167	250.104	168	250.104
169	250.104	170	250.105	171	250.105	172	250.106	173	250.108	174	250.107	175	250.108	176	250.108
177	250.109	178	250.110	179	250.111	180	250.111	181	250.111	182	251.185	183	251.185	184	251.185
185	251.185	186	251.185	187	251.186	188	251.186	189	251.186	190	251.187	191	251.187	192	251.188
193	251.189	194	251.189	195	251.190	196	251.191	197	251.191	198	251.191	199	252.213	200	252.213
201	252.213	202	252.213	203	252.213	204	252.213	205	252.213	206	252.213	207	252.213	208	252.213
209	252.213	210	252.213	211	252.213	212	252.213	213	252.213	214	252.213	215	252.213	216	253.244
217	253.244	218	253.244	219	253.244	220	253.244	221	253.244	222	253.244	223	253.244	224	253.243
225	253.243	226	253.243	227	253.243	228	253.242	229	253.242	230	253.242	231	253.242	232	253.242
233	253.242	234	254.298	235	254.298	236	254.298	237	254.298	238	254.298	239	254.298	240	254.298
241	254.298	242	254.298	243	254.298	244	254.298	245	254.298	246	254.299	247	254.299	248	254.299
249	254.299	250	254.299	251	254.300	252	255.337	253	255.337	254	255.337	255	255.338	256	255.338
257	255.338	258	255.338	259	255.338	260	255.338	261	255.338	262	255.338	263	255.339	264	255.339
265	255.339	266	255.339	267	255.339	268	255.339	269	255.340	270	256.361	271	256.361	272	256.361
273	256.361	274	256.361	275	256.361	276	256.361	277	256.361	278	256.361	279	256.362	280	256.362
281	256.362	282	256.362	283	256.362	284	256.363	285	256.363	286	256.363	287	256.364	288	257.388
289	257.368	290	257.368	291	257.388	292	257.368	293	257.368	294	257.388	295	257.388	296	257.368
297	257.368	298	257.368	299	257.389	300	257.389	301	257.369	302	257.388	303	257.388	304	257.389
305	257.370	306	258.358	307	258.358	308	258.358	309	258.358	310	258.358	311	258.358	312	258.358
313	258.358	314	258.358	315	258.358	316	258.359	317	258.359	318	258.359	319	258.359	320	258.360
321	258.360	322	258.360	323	258.361	324	259.331	325	258.331	326	259.331	327	259.331	328	259.332
329	259.332	330	259.332	331	259.332	332	259.332	333	259.332	334	259.332	335	259.333	336	259.333
337	259.333	338	259.333	339	259.333	340	259.333	341	259.335	342	260.289	343	260.289	344	260.289
345	260.289	346	260.289	347	260.289	348	260.289	349	260.289	350	260.289	351	260.289	352	260.290
353	260.290	354	260.290	355	260.290	356	260.290	357	260.290	358	260.290	359	260.292	360	261.229
361	261.229	362	261.229	363	261.230	364	261.230	365	261.230	366	261.230	367	261.230	368	261.230
369	261.230	370	261.230	371	261.231	372	261.231	373	261.231	374	261.231	375	261.231	376	261.231
377	261.233	378	262.154	379	262.154	380	262.154	381	262.154	382	262.154	383	262.154	384	262.154
385	262.154	386	262.155	387	262.155	388	262.155	389	262.155	390	262.155	391	262.155	392	262.156
393	262.156	394	262.156	395	262.157	396	263.062	397	263.062	398	263.062	399	263.062	400	263.062
401	263.062	402	263.063	403	263.063	404	263.063	405	263.063	406	263.063	407	263.063	408	263.063
409	263.064	410	263.064	411	263.064	412	263.064	413	263.065	414	263.066	415	263.954	416	263.954
417	263.954	418	263.954	419	263.954	420	263.954	421	263.955	422	263.955	423	263.955	424	263.955
425	263.955	426	263.955	427	263.956	428	263.956	429	263.956	430	263.956	431	263.956	432	263.957
433	263.958	434	264.830	435	264.830	436	264.830	437	264.830	438	264.830	439	264.830	440	264.830
441	264.831	442	264.831	443	264.831	444	264.831	445	264.831	446	264.831	447	264.832	448	264.832
449	264.832	450	264.832	451	264.833	452	264.834	453	265.690	454	265.690	455	265.690	456	265.690
457	265.690	458	265.690	459	265.690	460	265.690	461	265.690	462	265.691	463	265.691	464	265.691
465	265.691	466	265.691	467	265.692	468	265.692	469	265.692	470	265.693	471	265.694	472	266.534
473	266.534	474	266.534	475	266.534	476	266.534	477	266.534	478	266.534	479	266.534	480	266.534
481	266.534	482	266.535	483	266.535	484	266.535	485	266.535	486	266.535	487	266.535	488	266.535
489	266.537	490	266.538	491	267.361	492	267.361	493	267.361	494	267.362	495	267.362	496	267.362
497	267.362	498	267.362	499	267.362	500	267.362	501	267.362	502	267.363	503	267.363	504	267.363
505	267.363	506	267.363	507	267.363	508	267.385	509	267.386	510	268.173	511	268.173	512	268.173
513	268.173	514	268.173	515	268.174	516	268.174	517	268.174	518	268.174	519	268.174	520	268.174
521	268.174	522	268.175	523	268.175	524	268.175	525	268.175	526	268.175	527	268.178	528	268.177
529	268.969	530	268.969	531	268.969	532	268.969	533	268.969	534	268.969	535	268.970	536	268.970
537	268.970	538	268.970	539	268.970	540	268.970	541	268.971	542	268.971	543	268.971	544	268.971
545	268.971	546	268.972	547	268.974	548	269.749	549	269.749	550	269.749	551	269.749	552	269.750
553	269.750	554	269.750	555	269.750	556	269.750	557	269.750	558	269.750	559	269.750	560	269.751
561	269.751	562	269.751	563	269.751	564	269.751	565	269.752	566	269.754	567	270.514	568	270.514
569	270.514	570	270.514	571	270.514	572	270.514	573	270.514	574	270.514	575	270.514	576	270.514
577	270.515	578	270.515	579	270.515	580	270.515	581	270.515	582	270.518	583	270.518	584	270.517
585	270.518	586	271.262	587	271.262	588	271.262	589	271.262	590	271.263	591	271.263	592	271.263
593	271.263	594	271.263	595	271.263	596	271.263	597	271.263	598	271.264	599	271.264	600	271.264
601	271.264	602	271.264	603	271.285	604	271.287	605	271.995	606	271.995	607	271.995	608	271.995
609	271.995	610	271.996	611	271.996	612	271.998	613	271.998	614	271.998	615	271.998	616	271.996
617	271.997	618	271.997	619	271.997	620	271.997	621	271.997	622	271.998	623	272.000	624	272.713
625	272.713	626	272.713	627	272.713	628	272.713	629	272.713	630	272.713	631	272.713	632	272.713
633	272.713	634	272.714	635	272.714	636	272.714	637	272.714	638	272.714	639	272.714	640	272.714
641	272.716	642	272.717	643	272.717	644	273.414	645	273.414	646	273.414	647	273.414	648	273.415
649	273.415	650	273.415	651	273.415	652	273.415	653	273.415	654	273.415	655	273.415	656	273.418
657	273.416	658	273.416	659	273.416	660	273.416	661	273.417	662	273.418	663	273.418	664	274.101
665	274.101	666	274.101	667	274.101	668	274.101	669	274.101	670	274.101	671	274.101	672	274.101
673	274.101	674	274.101	675	274.102	676	274.102	677	274.102	678	274.102	679	274.102	680	274.102
681	274.104	682	274.105	683	274.105	684	274.771	685	274.771	686	274.771	687	274.771	688	274.771
689	274.771	690	274.771	691	274.772	692	274.772	693	274.772	694	274.772	695	274.772	696	274.772
697	274.773	698	274.773	699	274.773	700	274.773	701	274.774	702	274.775	703	274.776	704	275.425
705	275.425	706	275.425	707	275.425	708	275.425	709	275.425	710	275.426	711	275.426	712	275.426
713	275.426	714	275.427	715	275.427	716	275.427	717	275.428	718	275.428	719	275.428	720	275.428
721	275.431	722	275.433	723	275.435	724	276.050	725	276.050	726	276.050	727	276.050	728	276.050
729	276.050	730	276.050	731	276.051	732	276.051	733	276.051	734	276.051	735	276.052	736	276.052
737	276.053	738	276.053	739	276.053	740	276.053	741	276.058	742	276.058	743	276.080	744	276.644
745	276.644	746	276.644	747	276.644	748	276.645	749	276.645	750	276.645	751	276.645	752	276.645
753	276.646	754	276.646	755	276.646	756	276.647	757	276.647	758	276.648	759	276.648	760	276.648
761	276.650	762	276.653	763	276.654	764	277.209	765	277.209	766	277.208	767	277.209	768	277.209
769	277.209	770	277.209	771	277.210	772	277.210	773	277.210	774	277.210	775	277.211	776	277.211
777	277.212	778	277.212	779	277.212	780	277.212	781	277.215	782	277.217	783	277.218	784	277.743
785	277.743	786	277.743	787	277.743	788	277.743	789	277.744	790	277.744	791	277.744	792	277.744
793	277.745	794	277.745	795	277.745	796	277.746	797	277.746	798	277.746	799	277.747	800	277.747
801	277.749	802	277.752	803	277.754	804	278.248	805	278.248	806	278.248	807	278.248	808	278.248
809	278.248	810	278.248	811	278.248	812	278.248	813	278.248	814	278.249	815	278.250	816	278.250
817	278.250	818	278.251	819	278.251	820	278.251	821	278.253	822	278.256	823	278.258	824	278.722
825	278.722	826	278.722	827	278.722	828	278.722	829	278.722	830	278.723	831	278.723	832	278.723
833	278.723	834	278.724	835	278.724	836	278.724	837	278.725	838	278.725	839	278.725	840	278.725
841	278.728	842	278.730	843	278.733	844	279.166	845	279.166	846	279.168	847	279.167	848	279.167
849	279.167	850	279.167	851	279.167	852	279.167	853	279.168	854	279.188	855	279.168	856	279.169
857	279.169	858	279.170	859	279.170	860	279.170	861	279.172	862	279.175	863	279.177	864	279.581
865	279.581	866	279.581	867	279.581	868	279.581	869	279.581	870	279.582	871	279.582	872	279.582
873	279.582	874	279.583	875	279.583	876	279.583	877	279.584	878	279.584	879	279.584	880	279.584
881	279.587	882	279.589	883	279.592	884	279.966	885	279.988	886	279.988	887	279.988	888	279.966
889	279.966	890	279.966	891	279.967	892	279.967	893	279.967	894	279.967	895	279.968	896	279.968
897	279.969	898	279.969	899	279.969	900	279.969	901	279.972	902	279.974	903	279.977	904	280.321
905	280.321	906	280.321	907	280.321	908	280.321	909	280.321	910	280.321	911	280.322	912	280.322

913	280.322	914	280.323	915	280.323	916	280.323	917	280.324	918	280.324	919	280.324	920	280.3
921	280.327	922	280.329	923	280.332	924	280.646	925	280.646	926	280.646	927	280.646	928	280.6
929	280.647	930	280.647	931	280.647	932	280.647	933	280.647	934	280.648	935	280.648	936	280.6
937	280.649	938	280.649	939	280.649	940	280.649	941	280.652	942	280.654	943	280.657	944	280.6
945	280.942	946	280.942	947	280.942	948	280.942	949	280.942	950	280.942	951	280.943	952	280.943
953	280.943	954	280.943	955	280.944	956	280.944	957	280.945	958	280.945	959	280.945	960	280.945
961	280.948	962	280.950	963	280.953	964	281.208	965	281.208	966	281.208	967	281.208	968	281.208
969	281.208	970	281.208	971	281.209	972	281.208	973	281.208	974	281.209	975	281.210	976	281.2
977	281.210	978	281.211	979	281.211	980	281.211	981	281.213	982	281.215	983	281.218	984	281.4
985	281.444	986	281.444	987	281.444	988	281.444	989	281.444	990	281.445	991	281.445	992	281.4
993	281.445	994	281.446	995	281.446	996	281.446	997	281.447	998	281.447	999	281.447	1000	281.4
1001	281.450	1002	281.452	1003	281.455	1004	281.851	1005	281.851	1006	281.851	1007	281.851	1008	281.851
1009	281.851	1010	281.851	1011	281.852	1012	281.852	1013	281.852	1014	281.852	1015	281.853	1016	281.853
1017	281.854	1018	281.854	1019	281.854	1020	281.854	1021	281.857	1022	281.859	1023	281.862	1024	281.828
1025	281.828	1026	281.828	1027	281.828	1028	281.828	1029	281.828	1030	281.828	1031	281.829	1032	281.8
1033	281.829	1034	281.830	1035	281.830	1036	281.830	1037	281.831	1038	281.831	1039	281.831	1040	281.8
1041	281.834	1042	281.836	1043	281.838	1044	281.975	1045	281.975	1046	281.976	1047	281.976	1048	281.9
1049	281.976	1050	281.976	1051	281.976	1052	281.977	1053	281.977	1054	281.977	1055	281.977	1056	281.9
1057	281.978	1058	281.979	1059	281.979	1060	281.979	1061	281.981	1062	281.984	1063	281.987	1064	282.094
1065	282.094	1066	282.094	1067	282.094	1068	282.094	1069	282.094	1070	282.094	1071	282.094	1072	282.095
1073	282.095	1074	282.095	1075	282.096	1076	282.096	1077	282.096	1078	282.097	1079	282.097	1080	282.097
1081	282.099	1082	282.102	1083	282.105	1084	282.182	1085	282.182	1086	282.182	1087	282.182	1088	282.
1089	282.182	1090	282.183	1091	282.183	1092	282.183	1093	282.183	1094	282.184	1095	282.184	1096	282.
1097	282.185	1098	282.185	1099	282.185	1100	282.185	1101	282.188	1102	282.190	1103	282.193	1104	282.2
1105	282.241	1106	282.241	1107	282.241	1108	282.241	1109	282.241	1110	282.242	1111	282.242	1112	282.2
1113	282.242	1114	282.243	1115	282.243	1116	282.243	1117	282.244	1118	282.244	1119	282.244	1120	282.244
1121	282.247	1122	282.249	1123	282.252	1124	282.268	1125	282.268	1126	282.268	1127	282.268	1128	282.268
1129	282.269	1130	282.269	1131	282.269	1132	282.270	1133	282.270	1134	282.271	1135	282.272	1136	282.272
1137	282.273	1138	282.274	1139	282.274	1140	282.274	1141	282.278	1142	282.284	1143	282.290		

NODES ALONG THE WATER TABLE

15	31	47	63	78	86	113	130	147	164	181	198	215	233	251	269	287	305	323	341	359	377	395	414	433
452	471	490	509	528	547	566	585	604	623	643	663	683	703	723	743	763	783	803	823	843	863	883	903	923
943	963	983	1003	1023	1043	1063	1083	1103	1123	1143														

6.5.1.3 Heads Output to a Disk File for Continuing a Simulation.

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1143 0.175E+04 0.584E+03
222222222222222222222222222222222222222222222222222222222222
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333333333333333333333333333333333333333333333333333333333333
333333333333333333333333333333333333333333333333333333333333
111222222222222222222222222222222222222222222222222222222222
111111112222222222222222222222222222222222222222222222222222
111111111112222222222222222222222222222222222222222222222222
111111111111111111112222222222222222222222222222222222222222
111111111111111111111111111111111111111111111111122222222222
111111111111111111111111111111111111111111111111111111111111
    230.000000    234.738023    237.559280    239.826981    241.764771    243.477020    245.022186    246.438829
    247.745590    248.966034    250.111206    251.191040    252.212692    253.242111    254.299744    255.340027
    256.363525    257.370361    258.360596    259.334473    260.291748    261.232666    262.157227    263.065674
    263.957764    264.833740    265.693604    266.537598    267.365479    268.177246    268.973389    269.753662
    270.518066    271.266846    271.999756    272.717285    273.418945    274.105225    274.776123    275.434570
    276.059570    276.654297    277.218994    277.753418    278.257813    278.732422    279.177002    279.591553
    279.976563    280.331543    280.656982    280.952637    281.218750    281.455078    281.661865    281.838867
    281.986572    282.104736    282.193115    282.252197    282.290039
   1 0.2308512747080E+03    2 0.2306468859240E+03    3 0.2306337083359E+03    4 0.2306117087330E+03    5 0.2305808316388E+03
   6 0.2305409991232E+03    7 0.2304921105377E+03    8 0.2304340421744E+03    9 0.2303668468453E+03   10 0.2302897533824E+03
  11 0.2302031660558E+03   12 0.2301066639073E+03   13 0.2300000000000E+03   14 0.2300000000000E+03   15 0.2300000000000E+03
  16 0.2346014210929E+03   17 0.2346020085002E+03   18 0.2346037763801E+03   19 0.2346087421954E+03   20 0.2346109351352E+03
  21 0.2346183962422E+03   22 0.2346231785915E+03   23 0.2346313475221E+03   24 0.2346409809210E+03   25 0.2346521695629E+03
  26 0.2346650175048E+03   27 0.2346798425391E+03   28 0.2346961767052E+03   29 0.2347147689699E+03   30 0.2347354456513E+03
  31 0.2347380270668E+03   32 0.2374943305223E+03   33 0.2374946627263E+03   34 0.2374956590937E+03   35 0.2374973192355E+03
  36 0.2374996424813E+03   37 0.2375026278457E+03   38 0.2375062739814E+03   39 0.2375105791178E+03   40 0.2375155409856E+03
  41 0.2375211567267E+03   42 0.2375274227883E+03   43 0.2375343348007E+03   44 0.2375418874389E+03   45 0.2375500742659E+03
  46 0.2375588875575E+03   47 0.2375592937842E+03   48 0.2397893539777E+03   49 0.2397895456750E+03   50 0.2397901205849E+03
  51 0.2397910784501E+03   52 0.2397924188414E+03   53 0.2397941411578E+03   54 0.2397962448269E+03   55 0.2397987283044E+03
  56 0.2398015910747E+03   57 0.2398048316515E+03   58 0.2398084485785E+03   59 0.2398124402308E+03   60 0.2398168048161E+03
  61 0.2398215403790E+03   62 0.2398266448031E+03   63 0.2398269949972E+03   64 0.2417393947886E+03   65 0.2417395232222E+03
  66 0.2417399084140E+03   67 0.2417405502649E+03   68 0.2417414486134E+03   69 0.2417426032337E+03   70 0.2417440138361E+03
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706 0.2754250031433E+03	707 0.2754250840074E+03	708 0.2754251972604E+03	709 0.2754253429520E+03	710 0.2754255211458E+03
711 0.2754257319203E+03	712 0.2754259753688E+03	713 0.2754262515998E+03	714 0.2754265607366E+03	715 0.2754269029197E+03
716 0.2754272783051E+03	717 0.2754275870658E+03	718 0.2754281293922E+03	719 0.2754281515889E+03	720 0.2754282275734E+03
721 0.2754307314904E+03	722 0.2754332705894E+03	723 0.2754346853687E+03	724 0.2760497155551E+03	725 0.2760497324157E+03
726 0.2760497825704E+03	727 0.2760498864213E+03	728 0.2760499836715E+03	729 0.2760503188887E+03	730 0.2760503188887E+03
731 0.2760505364681E+03	732 0.2760507877712E+03	733 0.2760510726070E+03	734 0.2760513909849E+03	735 0.2760517429153E+03
736 0.2760521284093E+03	737 0.2760525474781E+03	738 0.2760530001337E+03	739 0.2760530235819E+03	740 0.2760530986297E+03
741 0.2760556008641E+03	742 0.2760581387021E+03	743 0.2760598892178E+03	744 0.2768443478593E+03	745 0.2768443646237E+03

746 0.2768444148909E+03	747 0.2768444498861E+03	748 0.2768446159343E+03	749 0.2768447687109E+03	750 0.2768449509913E+03
751 0.2768451687759E+03	752 0.2768454200652E+03	753 0.2768457048598E+03	754 0.2768460231602E+03	755 0.2768463749672E+03
756 0.2768467602814E+03	757 0.2768471791034E+03	758 0.2768478314341E+03	759 0.2768476638253E+03	760 0.2768477297267E+03
761 0.2768502281746E+03	762 0.2768527561314E+03	763 0.2768544577630E+03	764 0.2772088828247E+03	765 0.2772088435544E+03
766 0.2772088837189E+03	767 0.2772089773180E+03	768 0.2772090943518E+03	769 0.2772092448204E+03	770 0.2772094287236E+03
771 0.2772096460815E+03	772 0.2772098968342E+03	773 0.2772101810416E+03	774 0.2772104988837E+03	775 0.2772108497805E+03
776 0.2772111342721E+03	777 0.2772115522183E+03	778 0.2772121035993E+03	779 0.2772121359204E+03	780 0.2772122016770E+03
781 0.2772146926250E+03	782 0.2772172170073E+03	783 0.2772190596310E+03	784 0.2777432137933E+03	785 0.2777432304877E+03
786 0.2777432805474E+03	787 0.2777433639724E+03	788 0.2777434807627E+03	789 0.2777436309182E+03	790 0.2777438144391E+03
791 0.2777440313251E+03	792 0.2777442815764E+03	793 0.2777445651929E+03	794 0.2777448821745E+03	795 0.2777452325212E+03
796 0.2777456162330E+03	797 0.2777460333097E+03	798 0.2777464837515E+03	799 0.2777465180052E+03	800 0.2777465816246E+03
801 0.2777490673751E+03	802 0.2777515864902E+03	803 0.2777535621853E+03	804 0.2782475712112E+03	805 0.2782475878720E+03
806 0.2782478378324E+03	807 0.2782477210924E+03	808 0.2782478376519E+03	809 0.2782479675110E+03	810 0.2782481706898E+03
811 0.2782483871278E+03	812 0.2782488638851E+03	813 0.2782489199421E+03	814 0.2782492362984E+03	815 0.2782495859541E+03
816 0.2782499686091E+03	817 0.2782503851633E+03	818 0.2782508347167E+03	819 0.2782508889067E+03	820 0.2782509323987E+03
821 0.2782534132455E+03	822 0.2782559273929E+03	823 0.2782580281885E+03	824 0.2787219582494E+03	825 0.2787219748787E+03
826 0.2787220247461E+03	827 0.2787221078514E+03	828 0.2787222241945E+03	829 0.2787223737758E+03	830 0.2787225585850E+03
831 0.2787227726520E+03	832 0.2787230219488E+03	833 0.2787233044797E+03	834 0.2787236202502E+03	835 0.2787239892585E+03
836 0.2787243515045E+03	837 0.2787247669881E+03	838 0.2787252157094E+03	839 0.2787252478398E+03	840 0.2787253132087E+03
841 0.2787277896844E+03	842 0.2787302988652E+03	843 0.2787325170442E+03	844 0.2791864303481E+03	845 0.2791864469481E+03
846 0.2791864967284E+03	847 0.2791885796892E+03	848 0.2791886958304E+03	849 0.2791888451520E+03	850 0.2791870276540E+03
851 0.2791872433364E+03	852 0.2791874921991E+03	853 0.2791877742420E+03	854 0.2791880946453E+03	855 0.2791884376688E+03
856 0.2791888194524E+03	857 0.2791892342162E+03	858 0.2791898821600E+03	859 0.2791897142349E+03	860 0.2791897794908E+03
861 0.2791722514638E+03	862 0.2781747568163E+03	863 0.2791770842281E+03	864 0.2795810358294E+03	865 0.2795810558718E+03
866 0.2795811055711E+03	867 0.2795811883971E+03	868 0.2795813043498E+03	869 0.2795814534294E+03	870 0.2795816356357E+03
871 0.2795818509887E+03	872 0.2795820894285E+03	873 0.2795822810148E+03	874 0.2795826957278E+03	875 0.2795830435874E+03
876 0.2795834245335E+03	877 0.2795836386261E+03	878 0.2795842854451E+03	879 0.2795843117681E+03	880 0.2795843830183E+03
881 0.2795868509983E+03	882 0.2795893520953E+03	883 0.2795917817239E+03	884 0.2799658333841E+03	885 0.2799658499311E+03
886 0.2799658995551E+03	887 0.2799659822562E+03	888 0.2799659809303444E+03	889 0.2799862648896E+03	890 0.2799864268219E+03
891 0.2799866438313E+03	892 0.2799868919176E+03	893 0.2799871730809E+03	894 0.2799874873211E+03	895 0.2799878346382E+03
896 0.2799882150321E+03	897 0.2799886285028E+03	898 0.2799890750503E+03	899 0.2799891070252E+03	900 0.2799891720776E+03
901 0.2799716353493E+03	902 0.2799741336973E+03	903 0.2799766578507E+03	904 0.2803208573323E+03	905 0.2803208736557E+03
906 0.2803209234105E+03	907 0.2803210059867E+03	908 0.2803211216143E+03	909 0.2803212702634E+03	910 0.2803214519438E+03
911 0.2803216666555E+03	912 0.2803219143988E+03	913 0.2803222195730E+03	914 0.2803225089786E+03	915 0.2803228658154E+03
916 0.2803232356834E+03	917 0.2803236485625E+03	918 0.2803240845127E+03	919 0.2803241914060E+03	920 0.2803241914060E+03
921 0.2803286522747E+03	922 0.2803291461740E+03	923 0.2803317569674E+03	924 0.2806848152259E+03	925 0.2806848168761OE+03
926 0.2806462182524E+03	927 0.2806463007335E+03	928 0.2806464162042E+03	929 0.2806465646645E+03	930 0.2806467481144E+03
931 0.2806469605538E+03	932 0.2806472079827E+03	933 0.2806474864012E+03	934 0.2806478016091E+03	935 0.2806481482084E+03
936 0.2806485275931E+03	937 0.2806489398691E+03	938 0.2806493853344E+03	939 0.2806494172248E+03	940 0.2806494821051E+03
941 0.2806519398594E+03	942 0.2806544306025E+03	943 0.2806571207940E+03	944 0.2809417557833E+03	945 0.2809417722655E+03
946 0.2809418218994E+03	947 0.2809419040849E+03	948 0.2809420194222E+03	949 0.2809421677111E+03	950 0.2809423489518E+03
951 0.2809425631438E+03	952 0.2809428102876E+03	953 0.2809430903829E+03	954 0.2809434034298E+03	955 0.2809437494281E+03
956 0.2809441283778E+03	957 0.2809445402781E+03	958 0.2809449885131OE+03	959 0.2809450169852E+03	960 0.2809450817909E+03
961 0.2809475367182E+03	962 0.2809500245984E+03	963 0.2809527887886E+03	964 0.2812077020504E+03	965 0.2812077185148E+03
966 0.2812077678970E+03	967 0.2812078501966E+03	968 0.2812078854139E+03	969 0.2812081135487E+03	970 0.2812082845011E+03
971 0.2812085085710E+03	972 0.2812087554584E+03	973 0.2812090352833E+03	974 0.2812083478856E+03	975 0.2812088836253E+03
976 0.2812100721823E+03	977 0.2812104836567E+03	978 0.2812109280483E+03	979 0.2812108958889E+03	980 0.2812110246075E+03
981 0.2812134769941E+03	982 0.2812159822978E+03	983 0.2812187891775E+03	984 0.2814440217472E+03	985 0.2814440381859E+03
986 0.2814440875319E+03	987 0.2814441687553E+03	988 0.2814442848659E+03	989 0.2814444328639E+03	990 0.2814446137492E+03
991 0.2814448275217E+03	992 0.2814450741815E+03	993 0.2814453537284E+03	994 0.2814456661628E+03	995 0.2814460114839E+03
996 0.2814483888922E+03	997 0.2814488007876E+03	998 0.2814474477000E+03	999 0.2814472785614E+03	1000 0.2814473412404E+03
1001 0.2814487913717E+03	1002 0.2814522743895E+03	1003 0.2814555886202E+03	1004 0.2818507421130E+03	1005 0.2818507585478E+03
1006 0.2818508078435E+03	1007 0.2818508900001E+03	1008 0.2818510050175E+03	1009 0.2818511528859E+03	1010 0.2818513336350E+03
1011 0.2818515472350E+03	1012 0.2818517938958E+03	1013 0.2818520730174E+03	1014 0.2818523851997E+03	1015 0.2818527302427E+03
1016 0.2818531081463E+03	1017 0.2818535189105E+03	1018 0.2818539625353E+03	1019 0.2818538943011E+03	1020 0.2818540589281E+03
1021 0.2818585070884E+03	1022 0.2818589881089E+03	1023 0.2818619224492E+03	1024 0.2818278889461E+03	1025 0.2818279033680E+03
1026 0.2818279526301E+03	1027 0.2818280347298E+03	1028 0.2818281498674E+03	1029 0.2818282974435E+03	1030 0.2818284780579E+03
1031 0.2818286915106E+03	1032 0.2818289378014E+03	1033 0.2818292169304E+03	1034 0.2818295288976E+03	1035 0.2818298737029E+03
1036 0.2818302513462E+03	1037 0.2818306618275E+03	1038 0.2818311051467E+03	1039 0.2818311368906E+03	1040 0.2818312014732E+03
1041 0.2818338479482E+03	1042 0.2818361272608E+03	1043 0.2818381044392E+03	1044 0.2819754765570E+03	1045 0.2819754929701E+03

1046 0.2819755422035E+03 1047 0.2819758242571E+03 1048 0.2819757391309E+03 1049 0.2819758888249E+03 1050 0.2819760673389E+03
1051 0.2819762806729E+03 1052 0.2819765268268E+03 1053 0.2819768058004E+03 1054 0.2819771175938E+03 1055 0.2819774622087E+03
1056 0.2819776386389E+03 1057 0.2819782498905E+03 1058 0.2819786929612E+03 1059 0.2819787246870E+03 1060 0.2819787892328E+03
1061 0.2819812343061E+03 1062 0.2819837121981E+03 1063 0.2819867250905E+03 1064 0.2820935272187E+03 1065 0.2820935438272E+03
1066 0.2820935928539E+03 1067 0.2820936748965E+03 1068 0.2820937897547E+03 1069 0.2820939374279E+03 1070 0.2820941178152E+03
1071 0.2820943312157E+03 1072 0.2820945773284E+03 1073 0.2820948562522E+03 1074 0.2820951679858E+03 1075 0.2820955125278E+03
1076 0.2820958887857E+03 1077 0.2820963000312E+03 1078 0.2820967428897E+03 1079 0.2820967747033E+03 1080 0.2820968382201E+03
1081 0.2820992631741E+03 1082 0.2821017588300E+03 1083 0.2821048013659E+03 1084 0.2821820424781E+03 1085 0.2821820588655E+03
1086 0.2821821084231E+03 1087 0.2821821808472E+03 1088 0.2821823062319E+03 1089 0.2821824545887E+03 1090 0.2821826358472E+03
1091 0.2821828500545E+03 1092 0.2821830871760E+03 1093 0.2821833771880E+03 1094 0.2821836900831E+03 1095 0.2821840358508E+03
1096 0.2821844144489E+03 1097 0.2821848258595E+03 1098 0.2821852700880E+03 1099 0.2821853018050E+03 1100 0.2821853863148E+03
1101 0.2821878095555E+03 1102 0.2821902855494E+03 1103 0.2821933463604E+03 1104 0.2822406827505E+03 1105 0.2822409004081E+03
1106 0.2822409533665E+03 1107 0.2822410415883E+03 1108 0.2822411650107E+03 1109 0.2822413235455E+03 1110 0.2822415170787E+03
1111 0.2822417454688E+03 1112 0.2822420085513E+03 1113 0.2822423061278E+03 1114 0.2822426379754E+03 1115 0.2822430038403E+03
1116 0.2822434034378E+03 1117 0.2822438364515E+03 1118 0.2822443025307E+03 1119 0.2822443349517E+03 1120 0.2822444000217E+03
1121 0.2822448571088E+03 1122 0.2822453441261E+03 1123 0.2822524279035E+03 1124 0.2822679402414E+03 1125 0.2822679703048E+03
1126 0.2822680605217E+03 1127 0.2822682109748E+03 1128 0.2822684218023E+03 1129 0.2822688831988E+03 1130 0.2822690284145E+03
1131 0.2822694187579E+03 1132 0.2822698735957E+03 1133 0.2822703903537E+03 1134 0.2822708895191E+03 1135 0.2822716118415E+03
1136 0.2822723173347E+03 1137 0.2822730872790E+03 1138 0.2822738222229E+03 1139 0.2822739840621E+03 1140 0.2822741117881E+03
1141 0.2822758869722E+03 1142 0.2822836935091E+03 1143 0.2822900522888E+03

6.5.1.4 Heads Output to a Disk File for Plotting the Heads.

```
EXAMPLE DATA SET:   SIMULATION OF PRE-MINING REGIONAL STEADY STATE FLOW
  23    61     3     300.00      10.00
   1747.6
 1143
22222222222222222222222222222222222222222222222222222222222222222222
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33333333333333333333333333333333333333333333333333333333333333333333
33333333333333333333333333333333333333333333333333333333333333333333
11122222222222222222222222222222222222222222222222222222222222222222
11111111222222222222222222222222222222222222222222222222222222222222
11111111111222222222222222222222222222222222222222222222222222222222
11111111111111111222222222222222222222222222222222222222222222222222
11111111111111111111111111111111111111111111111111122222222222222222
11111111111111111111111111111111111111111111111111111111111111111111
```

	250.000		251.000		252.000		253.000		254.000		255.000		259.000		262.000				
	265.000		268.000		271.000		274.000		277.000		279.000		280.000		281.000				
	282.000		281.200		281.700		282.000		283.000		284.000		286.000		286.000				
	287.000		288.000		288.100		289.200		289.300		289.400		289.500		289.700				
	289.800		290.000		290.100		290.200		290.300		290.400		290.500		290.500				
	290.700		290.800		291.000		291.200		291.400		291.500		291.700		291.800				
	292.000		293.000		295.000		295.000		295.000		295.000		295.000		295.000				
	295.000		295.000		295.000		295.000		295.000										
1	0.0	90.000	2	0.0	100.000	3	0.0	110.000	4	0.0	120.000	5	0.0	130.000					
6	0.0	140.000	7	0.0	150.000	8	0.0	160.000	9	0.0	170.000	10	0.0	180.000					
11	0.0	190.000	12	0.0	200.000	13	0.0	210.000	14	0.0	220.000	15	0.0	230.000					
16	300.000	90.000	17	300.000	100.000	18	300.000	110.000	19	300.000	120.000	20	300.000	130.000					
21	300.000	140.000	22	300.000	150.000	23	300.000	160.000	24	300.000	170.000	25	300.000	180.000					
26	300.000	190.000	27	300.000	200.000	28	300.000	210.000	29	300.000	220.000	30	300.000	230.000					
31	300.000	234.735	32	600.000	90.000	33	600.000	100.000	34	600.000	110.000	35	600.000	120.000					
36	600.000	130.000	37	600.000	140.000	38	600.000	150.000	39	600.000	160.000	40	600.000	170.000					
41	600.000	180.000	42	600.000	190.000	43	600.000	200.000	44	600.000	210.000	45	600.000	220.000					
46	600.000	230.000	47	600.000	237.559	48	900.000	90.000	49	900.000	100.000	50	900.000	110.000					
51	900.000	120.000	52	900.000	130.000	53	900.000	140.000	54	900.000	150.000	55	900.000	160.000					
56	900.000	170.000	57	900.000	180.000	58	900.000	190.000	59	900.000	200.000	60	900.000	210.000					
61	900.000	220.000	62	900.000	230.000	63	900.000	238.827	64	1200.000	90.000	65	1200.000	100.000					
66	1200.000	110.000	67	1200.000	120.000	68	1200.000	130.000	69	1200.000	140.000	70	1200.000	150.000					
71	1200.000	160.000	72	1200.000	170.000	73	1200.000	180.000	74	1200.000	190.000	75	1200.000	200.000					
76	1200.000	210.000	77	1200.000	220.000	78	1200.000	230.000	79	1200.000	241.765	80	1500.000	90.000					
81	1500.000	100.000	82	1500.000	110.000	83	1500.000	120.000	84	1500.000	130.000	85	1500.000	140.000					
86	1500.000	150.000	87	1500.000	160.000	88	1500.000	170.000	89	1500.000	180.000	90	1500.000	190.000					
91	1500.000	200.000	92	1500.000	210.000	93	1500.000	220.000	94	1500.000	230.000	95	1500.000	240.000					
96	1500.000	243.477	97	1800.000	90.000	98	1800.000	100.000	99	1800.000	110.000	100	1800.000	120.000					
101	1800.000	130.000	102	1800.000	140.000	103	1800.000	150.000	104	1800.000	160.000	105	1800.000	170.000					
106	1800.000	180.000	107	1800.000	190.000	108	1800.000	200.000	109	1800.000	210.000	110	1800.000	220.000					
111	1800.000	230.000	112	1800.000	240.000	113	1800.000	245.022	114	2100.000	90.000	115	2100.000	100.000					
116	2100.000	110.000	117	2100.000	120.000	118	2100.000	130.000	119	2100.000	140.000	120	2100.000	150.000					
121	2100.000	160.000	122	2100.000	170.000	123	2100.000	180.000	124	2100.000	190.000	125	2100.000	200.000					
126	2100.000	210.000	127	2100.000	220.000	128	2100.000	230.000	129	2100.000	240.000	130	2100.000	248.437					
131	2400.000	90.000	132	2400.000	100.000	133	2400.000	110.000	134	2400.000	120.000	135	2400.000	130.000					
136	2400.000	140.000	137	2400.000	150.000	138	2400.000	160.000	139	2400.000	170.000	140	2400.000	180.000					
141	2400.000	190.000	142	2400.000	200.000	143	2400.000	210.000	144	2400.000	220.000	145	2400.000	230.000					
146	2400.000	240.000	147	2400.000	247.748	148	2700.000	90.000	149	2700.000	100.000	150	2700.000	110.000					
151	2700.000	120.000	152	2700.000	130.000	153	2700.000	140.000	154	2700.000	150.000	155	2700.000	160.000					
156	2700.000	170.000	157	2700.000	180.000	158	2700.000	190.000	159	2700.000	200.000	160	2700.000	210.000					
161	2700.000	220.000	162	2700.000	230.000	163	2700.000	240.000	164	2700.000	248.865	165	3000.000	90.000					
166	3000.000	100.000	167	3000.000	110.000	168	3000.000	120.000	169	3000.000	130.000	170	3000.000	140.000					
171	3000.000	150.000	172	3000.000	160.000	173	3000.000	170.000	174	3000.000	180.000	175	3000.000	190.000					
176	3000.000	200.000	177	3000.000	210.000	178	3000.000	220.000	179	3000.000	230.000	180	3000.000	240.000					
181	3000.000	250.111	182	3300.000	90.000	183	3300.000	100.000	184	3300.000	110.000	185	3300.000	120.000					
186	3300.000	130.000	187	3300.000	140.000	188	3300.000	150.000	189	3300.000	160.000	190	3300.000	170.000					
191	3300.000	180.000	192	3300.000	190.000	193	3300.000	200.000	194	3300.000	210.000	195	3300.000	220.000					
196	3300.000	230.000	197	3300.000	240.000	198	3300.000	251.191	199	3600.000	90.000	200	3600.000	100.000					
201	3600.000	110.000	202	3600.000	120.000	203	3600.000	130.000	204	3600.000	140.000	205	3600.000	150.000					
206	3600.000	160.000	207	3600.000	170.000	208	3600.000	180.000	209	3600.000	190.000	210	3600.000	200.000					
211	3600.000	210.000	212	3600.000	220.000	213	3600.000	230.000	214	3600.000	240.000	215	3600.000	252.213					
216	3900.000	90.000	217	3900.000	100.000	218	3900.000	110.000	219	3900.000	120.000	220	3900.000	130.000					
221	3900.000	140.000	222	3900.000	150.000	223	3900.000	160.000	224	3900.000	170.000	225	3900.000	180.000					
226	3900.000	190.000	227	3900.000	200.000	228	3900.000	210.000	229	3900.000	220.000	230	3900.000	230.000					
231	3900.000	240.000	232	3900.000	250.000	233	3900.000	253.242	234	4200.000	90.000	235	4200.000	100.000					
236	4200.000	110.000	237	4200.000	120.000	238	4200.000	130.000	239	4200.000	140.000	240	4200.000	150.000					
241	4200.000	160.000	242	4200.000	170.000	243	4200.000	180.000	244	4200.000	190.000	245	4200.000	200.000					
246	4200.000	210.000	247	4200.000	220.000	248	4200.000	230.000	249	4200.000	240.000	250	4200.000	250.000					
251	4200.000	254.300	252	4500.000	90.000	253	4500.000	100.000	254	4500.000	110.000	255	4500.000	120.000					
256	4500.000	130.000	257	4500.000	140.000	258	4500.000	150.000	259	4500.000	160.000	260	4500.000	170.000					
261	4500.000	180.000	262	4500.000	190.000	263	4500.000	200.000	264	4500.000	210.000	265	4500.000	220.000					
266	4500.000	230.000	267	4500.000	240.000	268	4500.000	250.000	269	4500.000	255.340	270	4800.000	90.000					
271	4800.000	100.000	272	4800.000	110.000	273	4800.000	120.000	274	4800.000	130.000	275	4800.000	140.000					
276	4800.000	150.000	277	4800.000	160.000	278	4800.000	170.000	279	4800.000	180.000	280	4800.000	190.000					
281	4800.000	200.000	282	4800.000	210.000	283	4800.000	220.000	284	4800.000	230.000	285	4800.000	240.000					
286	4800.000	250.000	287	4800.000	256.364	288	5100.000	90.000	289	5100.000	100.000	290	5100.000	110.000					
291	5100.000	120.000	292	5100.000	130.000	293	5100.000	140.000	294	5100.000	150.000	295	5100.000	160.000					
296	5100.000	170.000	297	5100.000	180.000	298	5100.000	190.000	299	5100.000	200.000	300	5100.000	210.000					
301	5100.000	220.000	302	5100.000	230.000	303	5100.000	240.000	304	5100.000	250.000	305	5100.000	257.370					
306	5400.000	90.000	307	5400.000	100.000	308	5400.000	110.000	309	5400.000	120.000	310	5400.000	130.000					
311	5400.000	140.000	312	5400.000	150.000	313	5400.000	160.000	314	5400.000	170.000	315	5400.000	180.000					
316	5400.000	190.000	317	5400.000	200.000	318	5400.000	210.000	319	5400.000	220.000	320	5400.000	230.000					
321	5400.000	240.000	322	5400.000	250.000	323	5400.000	258.361	324	5700.000	90.000	325	5700.000	100.000					
326	5700.000	110.000	327	5700.000	120.000	328	5700.000	130.000	329	5700.000	140.000	330	5700.000	150.000					
331	5700.000	160.000	332	5700.000	170.000	333	5700.000	180.000	334	5700.000	190.000	335	5700.000	200.000					
336	5700.000	210.000	337	5700.000	220.000	338	5700.000	230.000	339	5700.000	240.000	340	5700.000	250.000					
341	5700.000	259.334	342	6000.000	90.000	343	6000.000	100.000	344	6000.000	110.000	345	6000.000	120.000					
346	6000.000	130.000	347	6000.000	140.000	348	6000.000	150.000	349	6000.000	160.000	350	6000.000	170.000					
351	6000.000	180.000	352	6000.000	190.000	353	6000.000	200.000	354	6000.000	210.000	355	6000.000	220.000					
356	6000.000	230.000	357	6000.000	240.000	358	6000.000	250.000	359	6000.000	260.282	360	6300.000	90.000					
361	6300.000	100.000	362	6300.000	110.000	363	6300.000	120.000	364	6300.000	130.000	365	6300.000	140.000					
366	6300.000	150.000	367	6300.000	160.000	368	6300.000	170.000	369	6300.000	180.000	370	6300.000	190.000					
371	6300.000	200.000	372	6300.000	210.000	373	6300.000	220.000	374	6300.000	230.000	375	6300.000	240.000					
376	6300.000	250.000	377	6300.000	261.233	378	6600.000	90.000	379	6600.000	100.000	380	6600.000	110.000					
381	6600.000	120.000	382	6600.000	130.000	383	6600.000	140.000	384	6600.000	150.000	385	6600.000	160.000					
386	6600.000	170.000	387	6600.000	180.000	388	6600.000	190.000	389	6600.000	200.000	390	6600.000	210.000					
391	6600.000	220.000	392	6600.000	230.000	393	6600.000	240.000	394	6600.000	250.000	395	6600.000	262.157					
396	6900.000	90.000	397	6900.000	100.000	398	6900.000	110.000	399	6900.000	120.000	400	6900.000	130.000					
401	6900.000	140.000	402	6900.000	150.000	403	6900.000	160.000	404	6900.000	170.000	405	6900.000	180.000					
406	6900.000	190.000	407	6900.000	200.000	408	6900.000	210.000	409	6900.000	220.000	410	6900.000	230.000					
411	6900.000	240.000	412	6900.000	250.000	413	6900.000	260.000	414	6900.000	263.066	415	7200.000	90.000					
416	7200.000	100.000	417	7200.000	110.000	418	7200.000	120.000	419	7200.000	130.000	420	7200.000	140.000					
421	7200.000	150.000	422	7200.000	160.000	423	7200.000	170.000	424	7200.000	180.000	425	7200.000	190.000					
426	7200.000	200.000	427	7200.000	210.000	428	7200.000	220.000	429	7200.000	230.000	430	7200.000	240.000					

431	7200.000	250.000	432	7200.000	280.000	433	7200.000	283.958	434	7500.000	90.000	435	7500.000	100.000
436	7500.000	110.000	437	7500.000	120.000	438	7500.000	130.000	439	7500.000	140.000	440	7500.000	150.000
441	7500.000	160.000	442	7500.000	170.000	443	7500.000	180.000	444	7500.000	190.000	445	7500.000	200.000
446	7500.000	210.000	447	7500.000	220.000	448	7500.000	230.000	449	7500.000	240.000	450	7500.000	250.000
451	7500.000	260.000	452	7500.000	284.834	453	7800.000	90.000	454	7800.000	100.000	455	7800.000	110.000
456	7800.000	120.000	457	7800.000	130.000	458	7800.000	140.000	459	7800.000	150.000	460	7800.000	160.000
461	7800.000	170.000	462	7800.000	180.000	463	7800.000	190.000	464	7800.000	200.000	465	7800.000	210.000
466	7800.000	220.000	467	7800.000	230.000	468	7800.000	240.000	469	7800.000	250.000	470	7800.000	260.000
471	7800.000	285.884	472	8100.000	90.000	473	8100.000	100.000	474	8100.000	110.000	475	8100.000	120.000
476	8100.000	130.000	477	8100.000	140.000	478	8100.000	150.000	479	8100.000	160.000	480	8100.000	170.000
481	8100.000	180.000	482	8100.000	190.000	483	8100.000	200.000	484	8100.000	210.000	485	8100.000	220.000
486	8100.000	230.000	487	8100.000	240.000	488	8100.000	250.000	489	8100.000	260.000	490	8100.000	286.538
491	8400.000	90.000	492	8400.000	100.000	493	8400.000	110.000	494	8400.000	120.000	495	8400.000	130.000
496	8400.000	140.000	497	8400.000	150.000	498	8400.000	160.000	499	8400.000	170.000	500	8400.000	180.000
501	8400.000	190.000	502	8400.000	200.000	503	8400.000	210.000	504	8400.000	220.000	505	8400.000	230.000
506	8400.000	240.000	507	8400.000	250.000	508	8400.000	260.000	509	8400.000	287.385	510	8700.000	90.000
511	8700.000	100.000	512	8700.000	110.000	513	8700.000	120.000	514	8700.000	130.000	515	8700.000	140.000
516	8700.000	150.000	517	8700.000	160.000	518	8700.000	170.000	519	8700.000	180.000	520	8700.000	190.000
521	8700.000	200.000	522	8700.000	210.000	523	8700.000	220.000	524	8700.000	230.000	525	8700.000	240.000
526	8700.000	250.000	527	8700.000	260.000	528	8700.000	288.177	529	9000.000	90.000	530	9000.000	100.000
531	9000.000	110.000	532	9000.000	120.000	533	9000.000	130.000	534	9000.000	140.000	535	9000.000	150.000
536	9000.000	160.000	537	9000.000	170.000	538	9000.000	180.000	539	9000.000	190.000	540	9000.000	200.000
541	9000.000	210.000	542	9000.000	220.000	543	9000.000	230.000	544	9000.000	240.000	545	9000.000	250.000
546	9000.000	260.000	547	9000.000	288.973	548	9300.000	90.000	549	9300.000	100.000	550	9300.000	110.000
551	9300.000	120.000	552	9300.000	130.000	553	9300.000	140.000	554	9300.000	150.000	555	9300.000	160.000
556	9300.000	170.000	557	9300.000	180.000	558	9300.000	190.000	559	9300.000	200.000	560	9300.000	210.000
561	9300.000	220.000	562	9300.000	230.000	563	9300.000	240.000	564	9300.000	250.000	565	9300.000	260.000
566	9300.000	289.754	567	9800.000	90.000	568	9800.000	100.000	569	9800.000	110.000	570	9800.000	120.000
571	9800.000	130.000	572	9800.000	140.000	573	9800.000	150.000	574	9800.000	160.000	575	9800.000	170.000
576	9800.000	180.000	577	9800.000	190.000	578	9800.000	200.000	579	9800.000	210.000	580	9800.000	220.000
581	9800.000	230.000	582	9800.000	240.000	583	9600.000	250.000	584	9800.000	280.000	585	9800.000	270.518
586	9900.000	90.000	587	9900.000	100.000	588	9900.000	110.000	589	9900.000	120.000	590	9900.000	130.000
591	9900.000	140.000	592	9900.000	150.000	593	9900.000	160.000	594	9900.000	170.000	595	9900.000	180.000
596	9900.000	190.000	597	9900.000	200.000	598	9900.000	210.000	599	9900.000	220.000	600	9900.000	230.000
601	9900.000	240.000	602	9900.000	250.000	603	9800.000	260.000	604	9900.000	271.267	605	10200.000	90.000
606	10200.000	100.000	607	10200.000	110.000	608	10200.000	120.000	609	10200.000	130.000	610	10200.000	140.000
611	10200.000	150.000	612	10200.000	160.000	613	10200.000	170.000	614	10200.000	180.000	615	10200.000	190.000
616	10200.000	200.000	617	10200.000	210.000	618	10200.000	220.000	619	10200.000	230.000	620	10200.000	240.000
621	10200.000	250.000	622	10200.000	260.000	623	10200.000	272.000	624	10500.000	90.000	625	10500.000	100.000
626	10500.000	110.000	627	10500.000	120.000	628	10500.000	130.000	629	10500.000	140.000	630	10500.000	150.000
631	10500.000	160.000	632	10500.000	170.000	633	10500.000	180.000	634	10500.000	190.000	635	10500.000	200.000
636	10500.000	210.000	637	10500.000	220.000	638	10500.000	230.000	639	10500.000	240.000	640	10500.000	250.000
641	10500.000	260.000	642	10500.000	270.000	643	10500.000	272.717	644	10800.000	90.000	645	10800.000	100.000
646	10800.000	110.000	647	10800.000	120.000	648	10800.000	130.000	649	10800.000	140.000	650	10800.000	150.000
651	10800.000	160.000	652	10800.000	170.000	653	10800.000	180.000	654	10800.000	190.000	655	10800.000	200.000
656	10800.000	210.000	657	10800.000	220.000	658	10800.000	230.000	659	10800.000	240.000	660	10800.000	250.000
661	10800.000	260.000	662	10800.000	270.000	663	10800.000	273.418	664	11100.000	90.000	665	11100.000	100.000
666	11100.000	110.000	667	11100.000	120.000	668	11100.000	130.000	669	11100.000	140.000	670	11100.000	150.000
671	11100.000	160.000	672	11100.000	170.000	673	11100.000	180.000	674	11100.000	190.000	675	11100.000	200.000
676	11100.000	210.000	677	11100.000	220.000	678	11100.000	230.000	679	11100.000	240.000	680	11100.000	250.000
681	11100.000	260.000	682	11100.000	270.000	683	11100.000	274.105	684	11400.000	90.000	685	11400.000	100.000
686	11400.000	110.000	687	11400.000	120.000	688	11400.000	130.000	689	11400.000	140.000	690	11400.000	150.000
691	11400.000	160.000	692	11400.000	170.000	693	11400.000	180.000	694	11400.000	190.000	695	11400.000	200.000
696	11400.000	210.000	697	11400.000	220.000	698	11400.000	230.000	699	11400.000	240.000	700	11400.000	250.000
701	11400.000	260.000	702	11400.000	270.000	703	11400.000	274.778	704	11700.000	90.000	705	11700.000	100.000
706	11700.000	110.000	707	11700.000	120.000	708	11700.000	130.000	709	11700.000	140.000	710	11700.000	150.000
711	11700.000	160.000	712	11700.000	170.000	713	11700.000	180.000	714	11700.000	190.000	715	11700.000	200.000
716	11700.000	210.000	717	11700.000	220.000	718	11700.000	230.000	719	11700.000	240.000	720	11700.000	250.000
721	11700.000	260.000	722	11700.000	270.000	723	11700.000	275.435	724	12000.000	90.000	725	12000.000	100.000
726	12000.000	110.000	727	12000.000	120.000	728	12000.000	130.000	729	12000.000	140.000	730	12000.000	150.000

731	12000.000	160.000	732	12000.000	170.000	733	12000.000	180.000	734	12000.000	190.000	735	12000.000	200.000
736	12000.000	210.000	737	12000.000	220.000	738	12000.000	230.000	739	12000.000	240.000	740	12000.000	250.000
741	12000.000	260.000	742	12000.000	270.000	743	12000.000	276.060	744	12300.000	90.000	745	12300.000	100.000
746	12300.000	110.000	747	12300.000	120.000	748	12300.000	130.000	749	12300.000	140.000	750	12300.000	150.000
751	12300.000	160.000	752	12300.000	170.000	753	12300.000	180.000	754	12300.000	190.000	755	12300.000	200.000
756	12300.000	210.000	757	12300.000	220.000	758	12300.000	230.000	759	12300.000	240.000	760	12300.000	250.000
761	12300.000	260.000	762	12300.000	270.000	763	12300.000	276.654	764	12600.000	90.000	765	12600.000	100.000
766	12600.000	110.000	767	12600.000	120.000	768	12600.000	130.000	769	12600.000	140.000	770	12600.000	150.000
771	12600.000	160.000	772	12600.000	170.000	773	12600.000	180.000	774	12600.000	190.000	775	12600.000	200.000
776	12600.000	210.000	777	12600.000	220.000	778	12600.000	230.000	779	12600.000	240.000	780	12600.000	250.000
781	12800.000	260.000	782	12600.000	270.000	783	12800.000	277.218	784	12900.000	90.000	785	12900.000	100.000
786	12900.000	110.000	787	12900.000	120.000	788	12900.000	130.000	789	12900.000	140.000	790	12900.000	150.000
791	12900.000	160.000	792	12800.000	170.000	793	12900.000	180.000	794	12900.000	190.000	795	12900.000	200.000
796	12900.000	210.000	797	12900.000	220.000	798	12900.000	230.000	799	12900.000	240.000	800	12900.000	250.000
801	12900.000	260.000	802	12900.000	270.000	803	12900.000	277.753	804	13200.000	90.000	805	13200.000	100.000
806	13200.000	110.000	807	13200.000	120.000	808	13200.000	130.000	809	13200.000	140.000	810	13200.000	150.000
811	13200.000	160.000	812	13200.000	170.000	813	13200.000	180.000	814	13200.000	190.000	815	13200.000	200.000
816	13200.000	210.000	817	13200.000	220.000	818	13200.000	230.000	819	13200.000	240.000	820	13200.000	250.000
821	13200.000	260.000	822	13200.000	270.000	823	13200.000	278.258	824	13500.000	90.000	825	13500.000	100.000
826	13500.000	110.000	827	13500.000	120.000	828	13500.000	130.000	829	13500.000	140.000	830	13500.000	150.000
831	13500.000	160.000	832	13500.000	170.000	833	13500.000	180.000	834	13500.000	190.000	835	13500.000	200.000
836	13500.000	210.000	837	13500.000	220.000	838	13500.000	230.000	839	13500.000	240.000	840	13500.000	250.000
841	13500.000	260.000	842	13500.000	270.000	843	13500.000	278.732	844	13800.000	90.000	845	13800.000	100.000
846	13800.000	110.000	847	13800.000	120.000	848	13800.000	130.000	849	13800.000	140.000	850	13800.000	150.000
851	13800.000	160.000	852	13800.000	170.000	853	13800.000	180.000	854	13800.000	190.000	855	13800.000	200.000
856	13800.000	210.000	857	13800.000	220.000	858	13800.000	230.000	859	13800.000	240.000	860	13800.000	250.000
861	13800.000	260.000	862	13800.000	270.000	863	13800.000	279.177	864	14100.000	90.000	865	14100.000	100.000
866	14100.000	110.000	867	14100.000	120.000	868	14100.000	130.000	869	14100.000	140.000	870	14100.000	150.000
871	14100.000	160.000	872	14100.000	170.000	873	14100.000	180.000	874	14100.000	190.000	875	14100.000	200.000
876	14100.000	210.000	877	14100.000	220.000	878	14100.000	230.000	879	14100.000	240.000	880	14100.000	250.000
881	14100.000	260.000	882	14100.000	270.000	883	14100.000	279.592	884	14400.000	90.000	885	14400.000	100.000
886	14400.000	110.000	887	14400.000	120.000	888	14400.000	130.000	889	14400.000	140.000	890	14400.000	150.000
891	14400.000	160.000	892	14400.000	170.000	893	14400.000	180.000	894	14400.000	190.000	895	14400.000	200.000
896	14400.000	210.000	897	14400.000	220.000	898	14400.000	230.000	899	14400.000	240.000	900	14400.000	250.000
901	14400.000	260.000	902	14400.000	270.000	903	14400.000	278.977	904	14700.000	90.000	905	14700.000	100.000
906	14700.000	110.000	907	14700.000	120.000	908	14700.000	130.000	909	14700.000	140.000	910	14700.000	150.000
911	14700.000	160.000	912	14700.000	170.000	913	14700.000	180.000	914	14700.000	190.000	915	14700.000	200.000
916	14700.000	210.000	917	14700.000	220.000	918	14700.000	230.000	919	14700.000	240.000	920	14700.000	250.000
921	14700.000	260.000	922	14700.000	270.000	923	14700.000	280.332	924	15000.000	90.000	925	15000.000	100.000
926	15000.000	110.000	927	15000.000	120.000	928	15000.000	130.000	929	15000.000	140.000	930	15000.000	150.000
931	15000.000	160.000	932	15000.000	170.000	933	15000.000	180.000	934	15000.000	190.000	935	15000.000	200.000
936	15000.000	210.000	937	15000.000	220.000	938	15000.000	230.000	939	15000.000	240.000	940	15000.000	250.000
941	15000.000	260.000	942	15000.000	270.000	943	15000.000	280.857	944	15300.000	90.000	945	15300.000	100.000
946	15300.000	110.000	947	15300.000	120.000	948	15300.000	130.000	949	15300.000	140.000	950	15300.000	150.000
951	15300.000	160.000	952	15300.000	170.000	953	15300.000	180.000	954	15300.000	190.000	955	15300.000	200.000
956	15300.000	210.000	957	15300.000	220.000	958	15300.000	230.000	959	15300.000	240.000	960	15300.000	250.000
961	15300.000	260.000	962	15300.000	270.000	963	15300.000	280.953	964	15600.000	90.000	965	15600.000	100.000
966	15600.000	110.000	967	15600.000	120.000	968	15600.000	130.000	969	15600.000	140.000	970	15600.000	150.000
971	15600.000	160.000	972	15600.000	170.000	973	15600.000	180.000	974	15600.000	190.000	975	15600.000	200.000
976	15600.000	210.000	977	15600.000	220.000	978	15600.000	230.000	979	15800.000	240.000	980	15600.000	250.000
981	15600.000	260.000	982	15600.000	270.000	983	15600.000	281.218	984	15900.000	90.000	985	15900.000	100.000
986	15900.000	110.000	987	15900.000	120.000	988	15900.000	130.000	989	15900.000	140.000	990	15900.000	150.000
991	15900.000	160.000	992	15900.000	170.000	993	15900.000	180.000	994	15900.000	190.000	995	15900.000	200.000
996	15900.000	210.000	997	15900.000	220.000	998	15900.000	230.000	999	15900.000	240.000	1000	15900.000	250.000
1001	15900.000	260.000	1002	15900.000	270.000	1003	15900.000	281.455	1004	16200.000	90.000	1005	16200.000	100.000
1006	16200.000	110.000	1007	16200.000	120.000	1008	16200.000	130.000	1009	16200.000	140.000	1010	16200.000	150.000
1011	16200.000	160.000	1012	16200.000	170.000	1013	16200.000	180.000	1014	16200.000	190.000	1015	16200.000	200.000
1016	16200.000	210.000	1017	16200.000	220.000	1018	16200.000	230.000	1019	16200.000	240.000	1020	16200.000	250.000
1021	16200.000	260.000	1022	16200.000	270.000	1023	16200.000	281.682	1024	16500.000	90.000	1025	16500.000	100.000
1026	16500.000	110.000	1027	16500.000	120.000	1028	16500.000	130.000	1029	16500.000	140.000	1030	16500.000	150.000

1031	16500.000	180.000	1032	16500.000	170.000	1033	16500.000	180.000	1034	16500.000	190.000	1035	16500.000	200.000	
1036	16500.000	210.000	1037	16500.000	220.000	1038	16500.000	230.000	1039	16500.000	240.000	1040	16500.000	250.000	
1041	16500.000	260.000	1042	16500.000	270.000	1043	16500.000	281.838	1044	16800.000	90.000	1045	16800.000	100.000	
1046	16800.000	110.000	1047	16800.000	120.000	1048	16800.000	130.000	1049	16800.000	140.000	1050	16800.000	150.000	
1051	16800.000	160.000	1052	16800.000	170.000	1053	16800.000	180.000	1054	16800.000	190.000	1055	16800.000	200.000	
1056	16800.000	210.000	1057	16800.000	220.000	1058	16800.000	230.000	1059	16800.000	240.000	1060	16800.000	250.000	
1061	16800.000	260.000	1062	16800.000	270.000	1063	16800.000	281.987	1064	17100.000	90.000	1065	17100.000	100.000	
1066	17100.000	110.000	1067	17100.000	120.000	1068	17100.000	130.000	1069	17100.000	140.000	1070	17100.000	150.000	
1071	17100.000	160.000	1072	17100.000	170.000	1073	17100.000	180.000	1074	17100.000	190.000	1075	17100.000	200.000	
1076	17100.000	210.000	1077	17100.000	220.000	1078	17100.000	230.000	1079	17100.000	240.000	1080	17100.000	250.000	
1081	17100.000	260.000	1082	17100.000	270.000	1083	17100.000	282.105	1084	17400.000	90.000	1085	17400.000	100.000	
1086	17400.000	110.000	1087	17400.000	120.000	1088	17400.000	130.000	1089	17400.000	140.000	1090	17400.000	150.000	
1091	17400.000	160.000	1092	17400.000	170.000	1093	17400.000	180.000	1094	17400.000	190.000	1095	17400.000	200.000	
1096	17400.000	210.000	1097	17400.000	220.000	1098	17400.000	230.000	1099	17400.000	240.000	1100	17400.000	250.000	
1101	17400.000	260.000	1102	17400.000	270.000	1103	17400.000	282.193	1104	17700.000	90.000	1105	17700.000	100.000	
1106	17700.000	110.000	1107	17700.000	120.000	1108	17700.000	130.000	1109	17700.000	140.000	1110	17700.000	150.000	
1111	17700.000	160.000	1112	17700.000	170.000	1113	17700.000	180.000	1114	17700.000	190.000	1115	17700.000	200.000	
1116	17700.000	210.000	1117	17700.000	220.000	1118	17700.000	230.000	1119	17700.000	240.000	1120	17700.000	250.000	
1121	17700.000	260.000	1122	17700.000	270.000	1123	17700.000	282.252	1124	18000.000	90.000	1125	18000.000	100.000	
1126	18000.000	110.000	1127	18000.000	120.000	1128	18000.000	130.000	1129	18000.000	140.000	1130	18000.000	150.000	
1131	18000.000	160.000	1132	18000.000	170.000	1133	18000.000	180.000	1134	18000.000	190.000	1135	18000.000	200.000	
1136	18000.000	210.000	1137	18000.000	220.000	1138	18000.000	230.000	1139	18000.000	240.000	1140	18000.000	250.000	
1141	18000.000	260.000	1142	18000.000	270.000	1143	18000.000	282.290							

1	0.230651E+03	2	0.230647E+03	3	0.230634E+03	4	0.230512E+03	5	0.230581E+03	6	0.230541E+03	7	0.230482E+03		
8	0.230434E+03	9	0.230367E+03	10	0.230290E+03	11	0.230203E+03	12	0.230107E+03	13	0.230000E+03	14	0.230000E+03		
15	0.230000E+03	16	0.234601E+03	17	0.234602E+03	18	0.234604E+03	19	0.234607E+03	20	0.234611E+03	21	0.234618E+03		
22	0.234623E+03	23	0.234631E+03	24	0.234641E+03	25	0.234652E+03	26	0.234665E+03	27	0.234680E+03	28	0.234696E+03		
29	0.234715E+03	30	0.234735E+03	31	0.234736E+03	32	0.237494E+03	33	0.237495E+03	34	0.237498E+03	35	0.237497E+03		
36	0.237500E+03	37	0.237503E+03	38	0.237506E+03	39	0.237511E+03	40	0.237515E+03	41	0.237521E+03	42	0.237527E+03		
43	0.237534E+03	44	0.237542E+03	45	0.237550E+03	46	0.237559E+03	47	0.237558E+03	48	0.239789E+03	49	0.239780E+03		
50	0.239790E+03	51	0.239791E+03	52	0.239792E+03	53	0.238794E+03	54	0.239788E+03	55	0.239789E+03	56	0.239802E+03		
57	0.239805E+03	58	0.239808E+03	59	0.239812E+03	60	0.239817E+03	61	0.239822E+03	62	0.239827E+03	63	0.239827E+03		
64	0.241739E+03	65	0.241739E+03	66	0.241740E+03	67	0.241741E+03	68	0.241741E+03	69	0.241743E+03	70	0.241744E+03		
71	0.241746E+03	72	0.241748E+03	73	0.241750E+03	74	0.241752E+03	75	0.241755E+03	76	0.241758E+03	77	0.241761E+03		
78	0.241765E+03	79	0.241765E+03	80	0.243458E+03	81	0.243458E+03	82	0.243459E+03	83	0.243459E+03	84	0.243480E+03		
85	0.243461E+03	86	0.243462E+03	87	0.243463E+03	88	0.243464E+03	89	0.243465E+03	90	0.243468E+03	91	0.243470E+03		
92	0.243472E+03	93	0.243474E+03	94	0.243477E+03	95	0.243477E+03	96	0.243477E+03	97	0.245008E+03	98	0.245008E+03		
99	0.245008E+03	100	0.245008E+03	101	0.245009E+03	102	0.245009E+03	103	0.245010E+03	104	0.245011E+03	105	0.245012E+03		
106	0.245014E+03	107	0.245015E+03	108	0.245018E+03	109	0.245018E+03	110	0.245020E+03	111	0.245022E+03	112	0.245022E+03		
113	0.245022E+03	114	0.248425E+03	115	0.248425E+03	116	0.248425E+03	117	0.248425E+03	118	0.248428E+03	119	0.248427E+03		
120	0.248427E+03	121	0.248428E+03	122	0.248429E+03	123	0.248430E+03	124	0.248431E+03	125	0.248432E+03	126	0.248433E+03		
127	0.248435E+03	128	0.248437E+03	129	0.248437E+03	130	0.248437E+03	131	0.247736E+03	132	0.247738E+03	133	0.247736E+03		
134	0.247738E+03	135	0.247738E+03	136	0.247737E+03	137	0.247738E+03	138	0.247738E+03	139	0.247739E+03	140	0.247740E+03		
141	0.247741E+03	142	0.247742E+03	143	0.247743E+03	144	0.247744E+03	145	0.247745E+03	146	0.247745E+03	147	0.247746E+03		
148	0.248858E+03	149	0.248858E+03	150	0.248858E+03	151	0.248858E+03	152	0.248858E+03	153	0.248859E+03	154	0.248858E+03		
155	0.248860E+03	156	0.248861E+03	157	0.248862E+03	158	0.248863E+03	159	0.248863E+03	160	0.248864E+03	161	0.248865E+03		
162	0.248866E+03	163	0.248866E+03	164	0.248866E+03	165	0.250104E+03	166	0.250104E+03	167	0.250104E+03	168	0.250104E+03		
169	0.250105E+03	170	0.250105E+03	171	0.250105E+03	172	0.250106E+03	173	0.250108E+03	174	0.250107E+03	175	0.250108E+03		
176	0.250108E+03	177	0.250109E+03	178	0.250110E+03	179	0.250111E+03	180	0.250111E+03	181	0.250111E+03	182	0.251185E+03		
183	0.251185E+03	184	0.251185E+03	185	0.251185E+03	186	0.251186E+03	187	0.251186E+03	188	0.251186E+03	189	0.251188E+03		
190	0.251187E+03	191	0.251187E+03	192	0.251188E+03	193	0.251189E+03	194	0.251189E+03	195	0.251190E+03	196	0.251191E+03		
197	0.251191E+03	198	0.251191E+03	199	0.252213E+03	200	0.252213E+03	201	0.252213E+03	202	0.252213E+03	203	0.252213E+03		
204	0.252213E+03	205	0.252213E+03	206	0.252213E+03	207	0.252213E+03	208	0.252213E+03	209	0.252213E+03	210	0.252213E+03		
211	0.252213E+03	212	0.252213E+03	213	0.252213E+03	214	0.252213E+03	215	0.252213E+03	216	0.253244E+03	217	0.253244E+03		
218	0.253244E+03	219	0.253244E+03	220	0.253244E+03	221	0.253244E+03	222	0.253244E+03	223	0.253244E+03	224	0.253244E+03		
225	0.253243E+03	226	0.253243E+03	227	0.253243E+03	228	0.253242E+03	229	0.253242E+03	230	0.253242E+03	231	0.253242E+03		
232	0.253242E+03	233	0.253242E+03	234	0.254298E+03	235	0.254298E+03	236	0.254298E+03	237	0.254298E+03	238	0.254298E+03		
239	0.254298E+03	240	0.254298E+03	241	0.254298E+03	242	0.254298E+03	243	0.254298E+03	244	0.254298E+03	245	0.254299E+03		
246	0.254299E+03	247	0.254299E+03	248	0.254299E+03	249	0.254299E+03	250	0.254299E+03	251	0.254300E+03	252	0.255337E+03		
253	0.255337E+03	254	0.255337E+03	255	0.255337E+03	256	0.255338E+03	257	0.255338E+03	258	0.255338E+03	259	0.255338E+03		

260	0.255338E+03	261	0.255338E+03	262	0.255338E+03	263	0.255338E+03	264	0.255339E+03	265	0.255339E+03	266	0.255339E+03		
267	0.255339E+03	268	0.255339E+03	269	0.255340E+03	270	0.256361E+03	271	0.256361E+03	272	0.256361E+03	273	0.256361E+03		
274	0.256361E+03	275	0.256361E+03	276	0.256361E+03	277	0.256361E+03	278	0.256361E+03	279	0.256362E+03	280	0.256362E+03		
281	0.256362E+03	282	0.256362E+03	283	0.256362E+03	284	0.256363E+03	285	0.256363E+03	286	0.256383E+03	287	0.256384E+03		
288	0.257368E+03	289	0.257368E+03	290	0.257368E+03	291	0.257368E+03	292	0.257368E+03	293	0.257368E+03	294	0.257368E+03		
295	0.257368E+03	296	0.257368E+03	297	0.257368E+03	298	0.257368E+03	299	0.257369E+03	300	0.257369E+03	301	0.257368E+03		
302	0.257369E+03	303	0.257369E+03	304	0.257369E+03	305	0.257370E+03	306	0.258358E+03	307	0.258358E+03	308	0.258358E+03		
309	0.258358E+03	310	0.258358E+03	311	0.258358E+03	312	0.258358E+03	313	0.258358E+03	314	0.258358E+03	315	0.258358E+03		
316	0.258359E+03	317	0.258359E+03	318	0.258359E+03	319	0.258359E+03	320	0.258360E+03	321	0.258360E+03	322	0.258360E+03		
323	0.258361E+03	324	0.259331E+03	325	0.259331E+03	326	0.259331E+03	327	0.259332E+03	328	0.259332E+03	329	0.259332E+03		
330	0.259332E+03	331	0.259332E+03	332	0.259332E+03	333	0.259332E+03	334	0.259332E+03	335	0.259332E+03	336	0.259333E+03		
337	0.259333E+03	338	0.259333E+03	339	0.259333E+03	340	0.259333E+03	341	0.259334E+03	342	0.260289E+03	343	0.260289E+03		
344	0.260289E+03	345	0.260289E+03	346	0.260289E+03	347	0.260289E+03	348	0.260289E+03	349	0.260289E+03	350	0.260289E+03		
351	0.260289E+03	352	0.260289E+03	353	0.260290E+03	354	0.260290E+03	355	0.260290E+03	356	0.260280E+03	357	0.260290E+03		
358	0.260290E+03	359	0.260282E+03	360	0.261228E+03	361	0.261229E+03	362	0.261229E+03	363	0.261229E+03	364	0.261230E+03		
365	0.261230E+03	366	0.261230E+03	367	0.261230E+03	368	0.261230E+03	369	0.261230E+03	370	0.261230E+03	371	0.261231E+03		
372	0.261231E+03	373	0.261231E+03	374	0.261231E+03	375	0.261231E+03	376	0.261231E+03	377	0.261233E+03	378	0.262154E+03		
379	0.262154E+03	380	0.262154E+03	381	0.262154E+03	382	0.262154E+03	383	0.262154E+03	384	0.262154E+03	385	0.262154E+03		
386	0.262154E+03	387	0.262155E+03	388	0.262155E+03	389	0.262155E+03	390	0.262155E+03	391	0.262156E+03	392	0.262158E+03		
393	0.262158E+03	394	0.262156E+03	395	0.262157E+03	396	0.263062E+03	397	0.263062E+03	398	0.263062E+03	399	0.263062E+03		
400	0.263062E+03	401	0.263062E+03	402	0.263063E+03	403	0.263063E+03	404	0.263063E+03	405	0.263063E+03	406	0.263063E+03		
407	0.263063E+03	408	0.263063E+03	409	0.263064E+03	410	0.263064E+03	411	0.263064E+03	412	0.263064E+03	413	0.263065E+03		
414	0.263088E+03	415	0.263954E+03	416	0.263954E+03	417	0.263954E+03	418	0.263954E+03	419	0.263954E+03	420	0.263954E+03		
421	0.263954E+03	422	0.263955E+03	423	0.263955E+03	424	0.263955E+03	425	0.263955E+03	426	0.263955E+03	427	0.263958E+03		
428	0.263956E+03	429	0.263956E+03	430	0.263956E+03	431	0.263956E+03	432	0.263957E+03	433	0.263958E+03	434	0.264830E+03		
435	0.264830E+03	436	0.264830E+03	437	0.264830E+03	438	0.264830E+03	439	0.264830E+03	440	0.264830E+03	441	0.264830E+03		
442	0.264831E+03	443	0.264831E+03	444	0.264831E+03	445	0.264831E+03	446	0.264831E+03	447	0.264832E+03	448	0.264832E+03		
449	0.264832E+03	450	0.264832E+03	451	0.264833E+03	452	0.264834E+03	453	0.265690E+03	454	0.265690E+03	455	0.265690E+03		
456	0.265690E+03	457	0.265690E+03	458	0.265690E+03	459	0.265690E+03	460	0.265690E+03	461	0.265690E+03	462	0.265691E+03		
463	0.265691E+03	464	0.265691E+03	465	0.265691E+03	466	0.265691E+03	467	0.265692E+03	468	0.265692E+03	469	0.265692E+03		
470	0.265693E+03	471	0.265694E+03	472	0.265534E+03	473	0.265534E+03	474	0.265534E+03	475	0.265534E+03	476	0.265534E+03		
477	0.265534E+03	478	0.265534E+03	479	0.265534E+03	480	0.265534E+03	481	0.265534E+03	482	0.265535E+03	483	0.265535E+03		
484	0.265535E+03	485	0.265535E+03	486	0.265535E+03	487	0.265535E+03	488	0.265536E+03	489	0.265537E+03	490	0.265536E+03		
491	0.267361E+03	492	0.267361E+03	493	0.267361E+03	494	0.267361E+03	495	0.267362E+03	496	0.267362E+03	497	0.267362E+03		
498	0.267362E+03	499	0.267362E+03	500	0.267362E+03	501	0.267362E+03	502	0.267363E+03	503	0.267363E+03	504	0.267363E+03		
505	0.267363E+03	506	0.267363E+03	507	0.267363E+03	508	0.267365E+03	509	0.267365E+03	510	0.268173E+03	511	0.268173E+03		
512	0.268173E+03	513	0.268173E+03	514	0.268173E+03	515	0.268173E+03	516	0.268174E+03	517	0.268174E+03	518	0.268174E+03		
519	0.268174E+03	520	0.268174E+03	521	0.268174E+03	522	0.268175E+03	523	0.268175E+03	524	0.268175E+03	525	0.268175E+03		
526	0.268175E+03	527	0.268176E+03	528	0.268178E+03	529	0.268969E+03	530	0.268969E+03	531	0.268969E+03	532	0.268969E+03		
533	0.268969E+03	534	0.268969E+03	535	0.268970E+03	536	0.268970E+03	537	0.268970E+03	538	0.268970E+03	539	0.268970E+03		
540	0.268970E+03	541	0.268971E+03	542	0.268971E+03	543	0.268971E+03	544	0.268971E+03	545	0.268971E+03	546	0.268972E+03		
547	0.268974E+03	548	0.269749E+03	549	0.269749E+03	550	0.287750E+03	551	0.269750E+03	552	0.269750E+03	553	0.269750E+03		
554	0.269750E+03	555	0.269750E+03	556	0.269750E+03	557	0.287750E+03	558	0.269750E+03	559	0.269750E+03	560	0.269751E+03		
561	0.269751E+03	562	0.269751E+03	563	0.269751E+03	564	0.269751E+03	565	0.269752E+03	566	0.269754E+03	567	0.270514E+03		
568	0.270514E+03	569	0.270514E+03	570	0.270514E+03	571	0.270514E+03	572	0.270514E+03	573	0.270514E+03	574	0.270514E+03		
575	0.270514E+03	576	0.270514E+03	577	0.270515E+03	578	0.270515E+03	579	0.270515E+03	580	0.270515E+03	581	0.270515E+03		
582	0.270515E+03	583	0.270515E+03	584	0.270517E+03	585	0.270518E+03	586	0.271262E+03	587	0.271262E+03	588	0.271262E+03		
589	0.271262E+03	590	0.271263E+03	591	0.271263E+03	592	0.271263E+03	593	0.271263E+03	594	0.271263E+03	595	0.271263E+03		
596	0.271263E+03	597	0.271264E+03	598	0.271264E+03	599	0.271264E+03	600	0.271264E+03	601	0.271264E+03	602	0.271284E+03		
603	0.271285E+03	604	0.271267E+03	605	0.271995E+03	606	0.271995E+03	607	0.271995E+03	608	0.271995E+03	609	0.271995E+03		
610	0.271998E+03	611	0.271998E+03	612	0.271998E+03	613	0.271998E+03	614	0.271996E+03	615	0.271998E+03	616	0.271998E+03		
617	0.271997E+03	618	0.271997E+03	619	0.271997E+03	620	0.271997E+03	621	0.271997E+03	622	0.271998E+03	623	0.272000E+03		
624	0.272713E+03	625	0.272713E+03	626	0.272713E+03	627	0.272713E+03	628	0.272713E+03	629	0.272713E+03	630	0.272713E+03		
631	0.272713E+03	632	0.272713E+03	633	0.272713E+03	634	0.272714E+03	635	0.272714E+03	636	0.272714E+03	637	0.272714E+03		
638	0.272714E+03	639	0.272714E+03	640	0.272714E+03	641	0.272718E+03	642	0.272717E+03	643	0.272717E+03	644	0.273414E+03		
645	0.273414E+03	646	0.273414E+03	647	0.273414E+03	648	0.273414E+03	649	0.273415E+03	650	0.273415E+03	651	0.273415E+03		
652	0.273415E+03	653	0.273415E+03	654	0.273415E+03	655	0.273415E+03	656	0.273416E+03	657	0.273416E+03	658	0.273416E+03		
659	0.273416E+03	660	0.273416E+03	661	0.273417E+03	662	0.273419E+03	663	0.273419E+03	664	0.274101E+03	665	0.274101E+03		
666	0.274101E+03	667	0.274101E+03	668	0.274101E+03	669	0.274101E+03	670	0.274101E+03	671	0.274101E+03	672	0.274101E+03		
673	0.274101E+03	674	0.274101E+03	675	0.274102E+03	676	0.274102E+03	677	0.274102E+03	678	0.274102E+03	679	0.274102E+03		

680	0.274102E+03	681	0.274103E+03	682	0.274105E+03	683	0.274105E+03	684	0.274771E+03	685	0.274771E+03	686	0.274771E+03						
687	0.274771E+03	688	0.274771E+03	689	0.274771E+03	690	0.274771E+03	691	0.274772E+03	692	0.274772E+03	693	0.274772E+03						
694	0.274772E+03	695	0.274772E+03	696	0.274772E+03	697	0.274773E+03	698	0.274773E+03	699	0.274773E+03	700	0.274773E+03						
701	0.274774E+03	702	0.274776E+03	703	0.274776E+03	704	0.275425E+03	705	0.275425E+03	706	0.275425E+03	707	0.275425E+03						
708	0.275425E+03	709	0.275425E+03	710	0.275425E+03	711	0.275426E+03	712	0.275426E+03	713	0.275428E+03	714	0.275427E+03						
715	0.275427E+03	716	0.275427E+03	717	0.275428E+03	718	0.275428E+03	719	0.275428E+03	720	0.275428E+03	721	0.275431E+03						
722	0.275433E+03	723	0.275435E+03	724	0.276050E+03	725	0.276050E+03	726	0.276050E+03	727	0.276050E+03	728	0.276050E+03						
729	0.276050E+03	730	0.276050E+03	731	0.276050E+03	732	0.276051E+03	733	0.276051E+03	734	0.276051E+03	735	0.276052E+03						
736	0.276052E+03	737	0.276053E+03	738	0.276053E+03	739	0.276053E+03	740	0.276053E+03	741	0.276058E+03	742	0.276058E+03						
743	0.276080E+03	744	0.276644E+03	745	0.276644E+03	746	0.276644E+03	747	0.276644E+03	748	0.276645E+03	749	0.276645E+03						
750	0.276645E+03	751	0.276645E+03	752	0.276645E+03	753	0.276646E+03	754	0.276646E+03	755	0.276646E+03	756	0.276647E+03						
757	0.276647E+03	758	0.276648E+03	759	0.276648E+03	760	0.276648E+03	761	0.276650E+03	762	0.276653E+03	763	0.276654E+03						
764	0.277209E+03	765	0.277209E+03	766	0.277209E+03	767	0.277209E+03	768	0.277209E+03	769	0.277209E+03	770	0.277209E+03						
771	0.277210E+03	772	0.277210E+03	773	0.277210E+03	774	0.277211E+03	775	0.277211E+03	776	0.277211E+03	777	0.277212E+03						
778	0.277212E+03	779	0.277212E+03	780	0.277212E+03	781	0.277215E+03	782	0.277217E+03	783	0.277219E+03	784	0.277743E+03						
785	0.277743E+03	786	0.277743E+03	787	0.277743E+03	788	0.277743E+03	789	0.277744E+03	790	0.277744E+03	791	0.277744E+03						
792	0.277744E+03	793	0.277745E+03	794	0.277745E+03	795	0.277745E+03	796	0.277746E+03	797	0.277746E+03	798	0.277747E+03						
799	0.277747E+03	800	0.277747E+03	801	0.277749E+03	802	0.277752E+03	803	0.277754E+03	804	0.278248E+03	805	0.278248E+03						
806	0.278248E+03	807	0.278248E+03	808	0.278248E+03	809	0.278248E+03	810	0.278248E+03	811	0.278248E+03	812	0.278249E+03						
813	0.278249E+03	814	0.278249E+03	815	0.278250E+03	816	0.278250E+03	817	0.278250E+03	818	0.278251E+03	819	0.278251E+03						
820	0.278251E+03	821	0.278253E+03	822	0.278256E+03	823	0.278258E+03	824	0.278722E+03	825	0.278722E+03	826	0.278722E+03						
827	0.278722E+03	828	0.278722E+03	829	0.278722E+03	830	0.278723E+03	831	0.278723E+03	832	0.278723E+03	833	0.278723E+03						
834	0.278724E+03	835	0.278724E+03	836	0.278724E+03	837	0.278725E+03	838	0.278725E+03	839	0.278725E+03	840	0.278725E+03						
841	0.278728E+03	842	0.278730E+03	843	0.278733E+03	844	0.279166E+03	845	0.279166E+03	846	0.279166E+03	847	0.279167E+03						
848	0.279167E+03	849	0.279167E+03	850	0.279167E+03	851	0.279167E+03	852	0.279168E+03	853	0.279168E+03	854	0.279168E+03						
855	0.279168E+03	856	0.279169E+03	857	0.279169E+03	858	0.279170E+03	859	0.279170E+03	860	0.279170E+03	861	0.279172E+03						
862	0.279176E+03	863	0.279177E+03	864	0.278581E+03	865	0.279581E+03	866	0.279581E+03	867	0.279581E+03	868	0.279581E+03						
869	0.279582E+03	870	0.279582E+03	871	0.279582E+03	872	0.279582E+03	873	0.279582E+03	874	0.279583E+03	875	0.279583E+03						
876	0.279583E+03	877	0.279584E+03	878	0.279584E+03	879	0.279584E+03	880	0.279584E+03	881	0.279587E+03	882	0.279589E+03						
883	0.279592E+03	884	0.279866E+03	885	0.279866E+03	886	0.279866E+03	887	0.279866E+03	888	0.279866E+03	889	0.279866E+03						
890	0.279866E+03	891	0.279867E+03	892	0.279867E+03	893	0.279867E+03	894	0.279867E+03	895	0.279868E+03	896	0.279868E+03						
897	0.279869E+03	898	0.279869E+03	899	0.279869E+03	900	0.279859E+03	901	0.279872E+03	902	0.279874E+03	903	0.279877E+03						
904	0.280321E+03	905	0.280321E+03	906	0.280321E+03	907	0.280321E+03	908	0.280321E+03	909	0.280321E+03	910	0.280322E+03						
911	0.280322E+03	912	0.280322E+03	913	0.280322E+03	914	0.280322E+03	915	0.280323E+03	916	0.280323E+03	917	0.280324E+03						
918	0.280324E+03	919	0.280324E+03	920	0.280324E+03	921	0.280327E+03	922	0.280329E+03	923	0.280332E+03	924	0.280646E+03						
925	0.280646E+03	926	0.280646E+03	927	0.280646E+03	928	0.280646E+03	929	0.280647E+03	930	0.280647E+03	931	0.280647E+03						
932	0.280647E+03	933	0.280647E+03	934	0.280648E+03	935	0.280648E+03	936	0.280649E+03	937	0.280649E+03	938	0.280649E+03						
939	0.280649E+03	940	0.280649E+03	941	0.280652E+03	942	0.280654E+03	943	0.280657E+03	944	0.280942E+03	945	0.280942E+03						
946	0.280942E+03	947	0.280942E+03	948	0.280942E+03	949	0.280942E+03	950	0.280942E+03	951	0.280943E+03	952	0.280943E+03						
953	0.280943E+03	954	0.280943E+03	955	0.280944E+03	956	0.280944E+03	957	0.280945E+03	958	0.280945E+03	959	0.280945E+03						
960	0.280945E+03	961	0.280947E+03	962	0.280950E+03	963	0.280953E+03	964	0.281208E+03	965	0.281208E+03	966	0.281208E+03						
967	0.281208E+03	968	0.281208E+03	969	0.281208E+03	970	0.281208E+03	971	0.281209E+03	972	0.281209E+03	973	0.281209E+03						
974	0.281209E+03	975	0.281210E+03	976	0.281210E+03	977	0.281211E+03	978	0.281211E+03	979	0.281211E+03	980	0.281211E+03						
981	0.281214E+03	982	0.281216E+03	983	0.281219E+03	984	0.281444E+03	985	0.281444E+03	986	0.281444E+03	987	0.281444E+03						
988	0.281444E+03	989	0.281444E+03	990	0.281445E+03	991	0.281445E+03	992	0.281445E+03	993	0.281445E+03	994	0.281446E+03						
995	0.281446E+03	996	0.281446E+03	997	0.281447E+03	998	0.281447E+03	999	0.281447E+03	1000	0.281447E+03	1001	0.281450E+03						
1002	0.281452E+03	1003	0.281455E+03	1004	0.281551E+03	1005	0.281651E+03	1006	0.281651E+03	1007	0.281651E+03	1008	0.281651E+03						
1009	0.281651E+03	1010	0.281651E+03	1011	0.281651E+03	1012	0.281652E+03	1013	0.281652E+03	1014	0.281652E+03	1015	0.281653E+03						
1016	0.281653E+03	1017	0.281654E+03	1018	0.281654E+03	1019	0.281654E+03	1020	0.281654E+03	1021	0.281656E+03	1022	0.281659E+03						
1023	0.281662E+03	1024	0.281828E+03	1025	0.281828E+03	1026	0.281828E+03	1027	0.281828E+03	1028	0.281828E+03	1029	0.281828E+03						
1030	0.281829E+03	1031	0.281829E+03	1032	0.281829E+03	1033	0.281829E+03	1034	0.281829E+03	1035	0.281830E+03	1036	0.281830E+03						
1037	0.281831E+03	1038	0.281831E+03	1039	0.281831E+03	1040	0.281831E+03	1041	0.281834E+03	1042	0.281836E+03	1043	0.281839E+03						
1044	0.281976E+03	1045	0.281976E+03	1046	0.281976E+03	1047	0.281976E+03	1048	0.281976E+03	1049	0.281976E+03	1050	0.281976E+03						
1051	0.281976E+03	1052	0.281976E+03	1053	0.281977E+03	1054	0.281977E+03	1055	0.281978E+03	1056	0.281978E+03	1057	0.281978E+03						
1058	0.281979E+03	1059	0.281979E+03	1060	0.281979E+03	1061	0.281981E+03	1062	0.281984E+03	1063	0.281987E+03	1064	0.282094E+03						
1065	0.282094E+03	1066	0.282094E+03	1067	0.282094E+03	1068	0.282094E+03	1069	0.282094E+03	1070	0.282094E+03	1071	0.282094E+03						
1072	0.282095E+03	1073	0.282095E+03	1074	0.282095E+03	1075	0.282096E+03	1076	0.282096E+03	1077	0.282096E+03	1078	0.282097E+03						
1079	0.282097E+03	1080	0.282097E+03	1081	0.282099E+03	1082	0.282102E+03	1083	0.282105E+03	1084	0.282182E+03	1085	0.282182E+03						
1086	0.282182E+03	1087	0.282182E+03	1088	0.282182E+03	1089	0.282183E+03	1090	0.282183E+03	1091	0.282183E+03	1092	0.282183E+03						
1093	0.282183E+03	1094	0.282184E+03	1095	0.282184E+03	1096	0.282184E+03	1097	0.282185E+03	1098	0.282185E+03	1099	0.282185E+03						

1100	0.282185E+03	1101	0.282188E+03	1102	0.282190E+03	1103	0.282193E+03	1104	0.282241E+03	1105	0.282241E+03	1106	0.282241E+03						
1107	0.282241E+03	1108	0.282241E+03	1109	0.282241E+03	1110	0.282241E+03	1111	0.282242E+03	1112	0.282242E+03	1113	0.282242E+03						
1114	0.282243E+03	1115	0.282243E+03	1116	0.282243E+03	1117	0.282244E+03	1118	0.282244E+03	1119	0.282244E+03	1120	0.282244E+03						
1121	0.282247E+03	1122	0.282249E+03	1123	0.282252E+03	1124	0.282268E+03	1125	0.282268E+03	1126	0.282268E+03	1127	0.282268E+03						
1128	0.282268E+03	1129	0.282269E+03	1130	0.282269E+03	1131	0.282269E+03	1132	0.282270E+03	1133	0.282270E+03	1134	0.282271E+03						
1135	0.282272E+03	1136	0.282272E+03	1137	0.282273E+03	1138	0.282274E+03	1139	0.282274E+03	1140	0.282274E+03	1141	0.282278E+03						
1142	0.282284E+03	1143	0.282290E+03																

6.5.2 Simulation of Mining and Initial Reclamation Conditions

6.5.2.1 Input Data.

```
EXAMPLE DATA SET:  SIMULATION OF MINING AND RECLAMATION:   NO MASS TRANSPORT
FFFFTTTFTTTTFFFFFFFFFFFF
  23   61    6     1     3     1 1275 2600   22   16    3     1    14
    300.00       10.0        1.0        230.       0.000       .100       1.00
      250.       251.       252.       253.       254.       256.       259.       262.
      265.       268.       271.       274.       277.       279.       280.       281.
      282.      281.2      281.7       282.       283.       284.       286.       288.
      287.       288.      289.1      289.2      289.3      289.4      289.5      289.7
     289.8      290.0      290.1      290.2      290.3      290.4      290.5      290.6
     290.7      290.8      291.0      291.2      291.4      291.5      291.7      291.8
      292        293.       295.       295.       295.       295.       295.       295.
      295.       295.       295.       295.       295.
FTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
     230.0      230.0      230.0      230.0      230.0      230.0      230.0      230.0
     230.0      230.0      230.0      230.0      230.0      230.0      230.0      230.0
     230.0      230.0      230.0      230.0      230.0      230.0      230.0      230.0
     230.0      230.0      230.0      230.0      230.0      230.0      230.0      230.0
     230.0      230.0      230.0      230.0      230.0      230.0      230.0      230.0
     230.0      230.0      230.0      230.0      230.0      230.0      230.0      230.0
     230.0      230.0      230.0      230 0      230.0      230.0      230.0      230.0
     230.0      230.0      230.0      230.0      230.0
      90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
      90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
      90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
      90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
      90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
      90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
      90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
      90.0       90.0       90.0       90.0       90.0
    1   60
  2  .0400   3  .0400   4  .0400   5  .0400   6  .0400   7  .0400   8  .0400   9  .0400
 10  .0400  11  .0400  12  .0400  13  .0400  14  .0400  15  .0400  16  .0400  17  .0400
 18  .0400  19  .0400  20  .0400  21  .0400  22  .0400  23  .0400  24  .0400  25  .0400
 26  .0400  27  .0400  28  .0400  29  .0400  30  .0400  31  .0400  32  .0400  33  .0400
 34  .0400  35  .0400  36  .0400  37  .0400  38  .0400  39  .0400  40  .0800  41  .0800
 42  .0800  43  .0800  44  .0800  45  .0800  46  .0800  47  .0800  48  .0800  49  .0800
 50  .0800  51  .0800  52  .0800  53  .0800  54  .0800  55  .0800  56  .0800  57  .0800
 58  .0800  59  .0800  60  .0800  61  .1600
  1  15    230.   1  14    230.   1  13    230.
    1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1
    2    3.16E+2    3.16E+2    0.50E-3    0.10E+0    0.00E+1    0.00E+1    0.00E+1
    3    94.8E+2    94.8E+2    0.50E-3    0.10E+0    0.00E+1    0.00E+1    0.00E+1
1111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111222222222222
1111111111111111111112222222222222222222222222222222222222222
1111111111112222222222222222222222222222222222222222222222222
1111111222222222222222222222222222222222222222222222222222222
1122222222222222222222222222222222222222222222222222222222222
3333333333333333333333333333333333333333333333333333333333333
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    0    0   25   27   27   28   29   31   31   33   33   35   33   35
      250.       251        252.       253.       254        256.       259.       262.
      265.       268        271        274.       277.       279.       280.       281.
      282       281.2      281.7       282        283.       284.       286.       288.
      287        230        230        230        230        230.       230.       230.
      230.       230.      290 1      290.2      290.3      290.4      290.5      290.6
     290.7      290.8      291.0      291.2      291.4      291.5      291.7      291.8
      292.       293        295.       295.       295.       295.       295.       295.
      295        295.       295        295        295
    1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1
    2    3.16E+2    3.16E+2    0.50E-3    0.10E+0    0.00E+1    0.00E+1    0.00E+1
    3    94.8E+2    94.8E+2    0.50E-3    0.10E+0    0.00E+1    0.00E+1    0.00E+1
    4    3.16E+1    3.16E+1    0.50E-2    0.10E+0    0.00E+1    0.00E+1    0.00E+1
1111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111222222222222
1111111111111111111112222444444444422222222222222222222222222
1111111111112222222222222444444444422222222222222222222222222
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1122222222222222222222222444444444422222222222222222222222222
3333333333333333333333333444444444433333333333333333333333333
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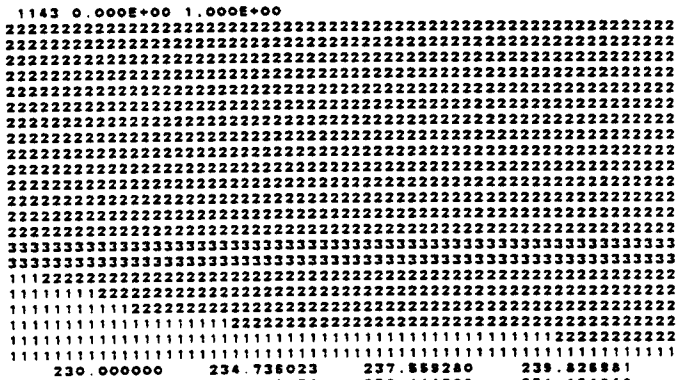
      250.       251        252        253        254.       256.       259.       262.
      265        268        271.       274.       277        279.       280.       281.
      282       281.2      281.7       282        283        284.       288        286.
      287.      290.6      291.2      289.2      291.6      291.8      289.5      290.9
     275.0      260.0      285.0      290.2      290.3      290.4      290.5      290.6
     290.7      290.8      291.0      291.2      291.4      291.5      291.7      291.8
      292        293.       295.       295.       295.       295.       295.       295.
      295        295.       295.       295        295.
End of file
```

6.5.2.2 Starting Pre-mining Head Distribution from a Disk File.



230.000000	234.736023	237.559280	239.826881	241.764771	243.477020	245.022185	246.436829
247.745590	248.958034	250.111206	251.191040	252.212882	253.242111	254.289744	255.340027
256.383525	257.370361	258.380886	259.334473	260.291748	261.232666	262.157227	263.085674
263.957764	264.833740	265.693604	266.537598	267.365479	268.177248	268.873389	269.753662
270.518066	271.266846	271.999756	272.717285	273.418945	274.105225	274.778123	275.434570
276.059570	276.654297	277.218994	277.753418	278.257813	278.732422	279.177002	279.591553
279.976563	280.331543	280.656982	280.952637	281.218750	281.455078	281.661865	281.838867
281.988572	282.104736	282.193115	282.252197	282.290039			

1	0.2306512747080E+03	2	0.2306468859240E+03	3	0.2306337083359E+03	4	0.2306117087330E+03	5	0.2305808316388E+03
6	0.2305409891232E+03	7	0.2304921105377E+03	8	0.2304340421744E+03	9	0.2303668648453E+03	10	0.2302897533824E+03
11	0.2302031660858E+03	12	0.2301088639073E+03	13	0.2300000000000E+03	14	0.2300000000000E+03	15	0.2300000000000E+03
16	0.2346014210928E+03	17	0.2346020085002E+03	18	0.2346037763801E+03	19	0.2346074218544E+03	20	0.2346109351352E+03
21	0.2346163862422E+03	22	0.2346231785915E+03	23	0.2346313475221E+03	24	0.2346409809210E+03	25	0.2346521855629E+03
26	0.2346650175048E+03	27	0.2346798425391E+03	28	0.2346961767052E+03	29	0.2347147669699E+03	30	0.2347354456513E+03
31	0.2347360270668E+03	32	0.2347494330522E+03	33	0.2347494627263E+03	34	0.2347495590937E+03	35	0.2347497192355E+03
36	0.2374989642813E+03	37	0.2375026278457E+03	38	0.2375062739814E+03	39	0.2375105791178E+03	40	0.2375155409856E+03
41	0.2375211567267E+03	42	0.2375274227883E+03	43	0.2375343348007E+03	44	0.2375418874389E+03	45	0.2375500742659E+03
46	0.2375588875575E+03	47	0.2375592937842E+03	48	0.2397893539777E+03	49	0.2397885456750E+03	50	0.2397901205849E+03
51	0.2397910784501E+03	52	0.2397924188414E+03	53	0.2397941411578E+03	54	0.2397962446269E+03	55	0.2397987283044E+03
56	0.2398015910747E+03	57	0.2398048316515E+03	58	0.2398084485785E+03	59	0.2398124402308E+03	60	0.2398168048161E+03
61	0.2398215403780E+03	62	0.2398268448031E+03	63	0.2398269949972E+03	64	0.2417383947866E+03	65	0.2417395232222E+03
66	0.2417399084140E+03	67	0.2417405502848E+03	68	0.2417414488134E+03	69	0.2417426032337E+03	70	0.2417440138361E+03
71	0.2417456800668E+03	72	0.2417476015093E+03	73	0.2417497776840E+03	74	0.2417522080483E+03	75	0.2417548920023E+03
76	0.2417578288793E+03	77	0.2417610179589E+03	78	0.2417644584528E+03	79	0.2417647717023E+03	80	0.2434583168852E+03
81	0.2434584109760E+03	82	0.2434588373301E+03	83	0.2434591649134E+03	84	0.2434598244529E+03	85	0.2434606722463E+03
86	0.2434617081623E+03	87	0.2434629320404E+03	88	0.2434643436915E+03	89	0.2434659428977E+03	90	0.2434677294127E+03
91	0.2434697029617E+03	92	0.2434718632419E+03	93	0.2434742099228E+03	94	0.2434767426460E+03	95	0.2434789229864E+03
96	0.2434770291777E+03	97	0.2450075927594E+03	98	0.2450076660597E+03	99	0.2450078858860E+03	100	0.2450082522149E+03
101	0.2450087850077E+03	102	0.2450094242103E+03	103	0.2450102297532E+03	104	0.2450111815513E+03	105	0.2450122795043E+03
106	0.2450135234988E+03	107	0.2450149133975E+03	108	0.2450184490608E+03	109	0.2450181303255E+03	110	0.2450199570155E+03
111	0.2450219289398E+03	112	0.2450220898048E+03	113	0.2450221949377E+03	114	0.2464249833121E+03	115	0.2464250426035E+03
116	0.2464252204114E+03	117	0.2464255167223E+03	118	0.2464259315134E+03	119	0.2464264847529E+03	120	0.2464271164001E+03
121	0.2464278884051E+03	122	0.2464287747088E+03	123	0.2464297812435E+03	124	0.2464309059323E+03	125	0.2464321486893E+03
126	0.2464335094198E+03	127	0.2464349880201E+03	128	0.2464365843778E+03	129	0.2464386983706E+03	130	0.2464368339580E+03
131	0.2477357006750E+03	132	0.2477357500464E+03	133	0.2477358981004E+03	134	0.2477381448287E+03	135	0.2477364902167E+03
136	0.2477369342445E+03	137	0.2477374768885E+03	138	0.2477381181111E+03	139	0.2477388578814E+03	140	0.2477396981543E+03
141	0.2477406328816E+03	142	0.2477416680089E+03	143	0.2477426014766E+03	144	0.2477440332192E+03	145	0.2477453631858E+03

146	0.2477454581980E+03	147	0.2477455992270E+03	148	0.2489575875827E+03	149	0.2489576386081E+03	150	0.2489577858291E+03
151	0.2489579756404E+03	152	0.2489582696334E+03	153	0.2489586475958E+03	154	0.2489591095118E+03	155	0.2489596553821E+03
156	0.2489602851239E+03	157	0.2489609987708E+03	158	0.2489618962726E+03	159	0.2489626775958E+03	160	0.2489636427030E+03
161	0.2489646915532E+03	162	0.2489658241016E+03	163	0.2489659050737E+03	164	0.2489660487808E+03	165	0.2501038939944E+03
166	0.2501039302439E+03	167	0.2501040389434E+03	168	0.2501042200963E+03	169	0.2501044737082E+03	170	0.2501047997868E+03
171	0.2501051983418E+03	172	0.2501056693839E+03	173	0.2501062129262E+03	174	0.2501068289822E+03	175	0.2501075175861E+03
176	0.2501082786923E+03	177	0.2501091123747E+03	178	0.2501100186263E+03	179	0.2501109974587E+03	180	0.2501110675925E+03
181	0.2501112122870E+03	182	0.2511848840179E+03	183	0.2511850134580E+03	184	0.2511851017577E+03	185	0.2511852489880E+03
186	0.2511854553142E+03	187	0.2511857208963E+03	188	0.2511860459897E+03	189	0.2511864308557E+03	190	0.2511868759728E+03
191	0.2511873818375E+03	192	0.2511879443857E+03	193	0.2511885766944E+03	194	0.2511892672228E+03	195	0.2511900206149E+03
196	0.2511908378011E+03	197	0.2511908961049E+03	198	0.2511910422215E+03	199	0.2522131227622E+03	200	0.2522131211116E+03
201	0.2522131180908E+03	202	0.2522131076315E+03	203	0.2522130956188E+03	204	0.2522130798560E+03	205	0.2522130602542E+03
206	0.2522130364419E+03	207	0.2522130081597E+03	208	0.2522129750605E+03	209	0.2522129367482E+03	210	0.2522128927812E+03
211	0.2522128428626E+03	212	0.2522127854483E+03	213	0.2522127217416E+03	214	0.2522127155010E+03	215	0.2522126970472E+03
216	0.2532442746350E+03	217	0.2532442623547E+03	218	0.2532442254332E+03	219	0.2532441837689E+03	220	0.2532440771927E+03
221	0.2532439854871E+03	222	0.2532438282859E+03	223	0.2532436652737E+03	224	0.2532434759848E+03	225	0.2532432599023E+03
226	0.2532430164373E+03	227	0.2532427449271E+03	228	0.2532424446343E+03	229	0.2532421114745OE+03	230	0.2532417543887E+03
231	0.2532417280883E+03	232	0.2532418662921E+03	233	0.2532421174286E+03	234	0.2542975744301E+03	235	0.2542975819192E+03
236	0.2542976043694E+03	237	0.2542978418109E+03	238	0.2542978943748E+03	239	0.2542977621925E+03	240	0.2542978454474E+03
241	0.2542979443648E+03	242	0.2542980592132E+03	243	0.2542981503051E+03	244	0.2542983379888E+03	245	0.2542985028884E+03
246	0.2542986848580E+03	247	0.2542988849806E+03	248	0.2542991036219E+03	249	0.2542991207934E+03	250	0.2542991571438E+03
251	0.2542997520573E+03	252	0.2553337438045OE+03	253	0.2553337445226SE+03	254	0.2553337472723SE+03	255	0.2553375185423E+03
256	0.2553375826917E+03	257	0.2553377851840E+03	258	0.2553377860348E+03	259	0.2553377885262E+03	260	0.2553380228891E+03
261	0.2553381788385E+03	262	0.2553383534373E+03	263	0.2553385464141E+03	264	0.2553387578991E+03	265	0.2553389879237E+03
266	0.2553392385200E+03	267	0.2553392544188E+03	268	0.2553392909226E+03	269	0.2553400272514E+03	270	0.2563608140822E+03
271	0.2563608233435E+03	272	0.2563608510817E+03	273	0.2563608972873E+03	274	0.2563609618907E+03	275	0.2563610451629E+03
276	0.2563611468148E+03	277	0.2563612689478E+03	278	0.2563614055632E+03	279	0.2563615826628E+03	280	0.2563617382482E+03
281	0.2563619323212E+03	282	0.2563621448839E+03	283	0.2563623759383E+03	284	0.2563626264864E+03	285	0.2563626433610E+03
286	0.2563626797318E+03	287	0.2563635541915E+03	288	0.2573675625862E+03	289	0.2573675718178E+03	290	0.2573675994874E+03
291	0.2573676455351E+03	292	0.2573677100209E+03	293	0.2573677929248E+03	294	0.2573678942489E+03	295	0.2573680139873E+03
296	0.2573681521461E+03	297	0.2573683047234E+03	298	0.2573684637182E+03	299	0.2573686771337E+03	300	0.2573688889670E+03
301	0.2573691192191E+03	302	0.2573693678903E+03	303	0.2573693569951E+03	304	0.2573694219214E+03	305	0.2573704313670E+03
306	0.2583577344585E+03	307	0.2583577436518E+03	308	0.2583577711931E+03	309	0.2583578170607E+03	310	0.2583578813144E+03
311	0.2583579638942E+03	312	0.2583580448201E+03	313	0.2583581640922E+03	314	0.2583583217104E+03	315	0.2583584776748E+03
316	0.2583586519852E+03	317	0.2583588446418E+03	318	0.2583590558445E+03	319	0.2583592849932E+03	320	0.2583595326880E+03
321	0.2583595504236E+03	322	0.2583595865055E+03	323	0.2583607278228E+03	324	0.2593313944059E+03	325	0.2593314035651E+03
326	0.2593314309991E+03	327	0.2593314767079E+03	328	0.2593315406914E+03	329	0.2593316229498E+03	330	0.2593317234829E+03
331	0.2593318422906E+03	332	0.2593319793734E+03	333	0.2593321347307E+03	334	0.2593323083628E+03	335	0.2593325002886E+03
336	0.2593327104511E+03	337	0.2593329389073E+03	338	0.2593331856381E+03	339	0.2593332039046E+03	340	0.2593332392461E+03
341	0.2593345093979E+03	342	0.2602888068647E+03	343	0.2602886157885E+03	344	0.2602886431173E+03	345	0.2602886886508E+03
346	0.2602887523883E+03	347	0.2602888343226E+03	348	0.2602889344807E+03	349	0.2602890528337E+03	350	0.2602891893915E+03
351	0.2602893441540E+03	352	0.2602895171214E+03	353	0.2602897082936E+03	354	0.2602899176705E+03	355	0.2602901452522E+03
356	0.2602903910385E+03	357	0.2602904086373E+03	358	0.2602904444413E+03	359	0.2602918404047E+03	360	0.2612294341784E+03
361	0.2612294432677E+03	362	0.2612294704938E+03	363	0.2612295158558E+03	364	0.2612295793548E+03	365	0.2612298809902E+03
366	0.2612297807620E+03	367	0.2612298786704E+03	368	0.2612300147153E+03	369	0.2612301888988E+03	370	0.2612303412144E+03
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386	0.2621545168586E+03	387	0.2621546706674E+03	388	0.2621548421475E+03	389	0.2621550318670E+03	390	0.2621552397158E+03
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956 0.2809441283778E+03 957 0.2809445402781E+03 958 0.2809449851318E+03 959 0.2809450169852E+03 960 0.2809450817908E+03
961 0.2809475367162E+03 962 0.2809500245984E+03 963 0.2809527887888E+03 964 0.2812077020504E+03 965 0.2812077185148E+03
966 0.2812077678970E+03 967 0.2812078501868E+03 968 0.2812078854139E+03 969 0.2812081135487E+03 970 0.2812082946011E+03
971 0.2812085085710E+03 972 0.2812087554584E+03 973 0.2812090352633E+03 974 0.2812093478858E+03 975 0.2812095838253E+03
976 0.2812100721823E+03 977 0.2812104836587E+03 978 0.2812109280483E+03 979 0.2812109598889E+03 980 0.2812110248075E+03
981 0.2812134769341E+03 982 0.2812159822978E+03 983 0.2812187891775E+03 984 0.2814440217472E+03 985 0.2814440381958E+03
986 0.2814440875319E+03 987 0.2814441697553E+03 988 0.2814442848659E+03 989 0.2814444328639E+03 990 0.2814446137492E+03
991 0.2814448275217E+03 992 0.2814450741815E+03 993 0.2814453537284E+03 994 0.2814456661628E+03 995 0.2814460114839E+03
998 0.2814463869222E+03 997 0.2814468007878E+03 998 0.2814472447700E+03 999 0.2814477215614E+03 1000 0.2814473412404E+03
1001 0.2814497913717E+03 1002 0.2814522743885E+03 1003 0.2814551586202E+03 1004 0.2816507421130E+03 1005 0.2816507885478E+03
1006 0.2816508078435E+03 1007 0.2816508900001E+03 1008 0.2816510050175E+03 1009 0.2816511528859E+03 1010 0.2816513338350E+03
1011 0.2816515472350E+03 1012 0.2816517936958E+03 1013 0.2816520730174E+03 1014 0.2816523851997E+03 1015 0.2816527302427E+03
1016 0.2816531081463E+03 1017 0.2816535189105E+03 1018 0.2816539625353E+03 1019 0.2816539943011E+03 1020 0.2816540589281E+03
1021 0.2816585070884E+03 1022 0.2816589881089E+03 1023 0.2816619224492E+03 1024 0.2818278869461E+03 1025 0.2818279033880E+03
1026 0.2818279526301E+03 1027 0.2818280347288E+03 1028 0.2818281496674E+03 1029 0.2818282974435E+03 1030 0.2818284780578E+03
1031 0.2818286915106E+03 1032 0.2818289378014E+03 1033 0.2818292189304E+03 1034 0.2818295328976E+03 1035 0.2818298737028E+03
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1041 0.2818336479482E+03 1042 0.2818361272608E+03 1043 0.2818391044392E+03 1044 0.2818754765570E+03 1045 0.2818754829701E+03

1046 0.2819755422035E+03 1047 0.2819756242571E+03 1048 0.2819757391309E+03 1049 0.2819758888249E+03 1050 0.2819780873389E+03
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1061 0.2819812343061E+03 1062 0.2819837121981E+03 1063 0.2819867250905E+03 1064 0.2820935272187E+03 1065 0.2820935436272E+03
1066 0.2820935928539E+03 1067 0.2820936748985E+03 1068 0.2820937887547E+03 1069 0.2820938374279E+03 1070 0.2820941178152E+03
1071 0.2820943312157E+03 1072 0.2820945773284E+03 1073 0.2820948562522E+03 1074 0.2820951678858E+03 1075 0.2820955125278E+03
1076 0.2820958898767E+03 1077 0.2820963000312E+03 1078 0.2820967429897E+03 1079 0.2820967747033E+03 1080 0.2820968392201E+03
1081 0.2820982831741E+03 1082 0.2821017593300E+03 1083 0.2821048013858E+03 1084 0.2821820424781E+03 1085 0.2821820588555E+03
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1091 0.2821828500545E+03 1092 0.2821830971750E+03 1093 0.2821833771950E+03 1094 0.2821836900931E+03 1095 0.2821840358508E+03
1096 0.2821844144469E+03 1097 0.2821848258595E+03 1098 0.2821852700660E+03 1099 0.2821853018050E+03 1100 0.2821853863148E+03
1101 0.2821878095555E+03 1102 0.2821902855494E+03 1103 0.2821933483604E+03 1104 0.2822408827505E+03 1105 0.2822409004081E+03
1106 0.2822409533688E+03 1107 0.2822410415883E+03 1108 0.2822411850107E+03 1109 0.2822413235455E+03 1110 0.2822415170787E+03
1111 0.2822417454898E+03 1112 0.2822420085513E+03 1113 0.2822423061278E+03 1114 0.2822426379754E+03 1115 0.2822430038403E+03
1116 0.2822434034379E+03 1117 0.2822438384515E+03 1118 0.2822443026307E+03 1119 0.2822443349517E+03 1120 0.2822444000217E+03
1121 0.2822448571088E+03 1122 0.2822493441281E+03 1123 0.2822524279035E+03 1124 0.2822578402414E+03 1125 0.2822578703048E+03
1126 0.2822680505217E+03 1127 0.2822682109748E+03 1128 0.2822884218023E+03 1129 0.2822888831988E+03 1130 0.2822890254145E+03
1131 0.2822694187579E+03 1132 0.2822698735857E+03 1133 0.2822703803537E+03 1134 0.2822709685181E+03 1135 0.2822716118415E+03
1136 0.2822723173347E+03 1137 0.2822730872790E+03 1138 0.2822739222229E+03 1139 0.2822739840621E+03 1140 0.2822741117881E+03
1141 0.2822789869722E+03 1142 0.2822838935091E+03 1143 0.2822900522898E+03

6.5.2.3 Printed Output.

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EXAMPLE DATA SET: SIMULATION OF MINING AND RECLAMATION; NO MASS TRANSPORT

****

OUTPUT LISTINGS AND PROBLEM CONTROL

```
OPTION( 1)= F :PRINT THE NODE CO-ORDINATES
OPTION( 2)= F :PRINT THE ELEMENT INCIDENCES
OPTION( 3)= F :PRINT THE ELEMENT HYDRAULIC CONDUCTIVITIES AND STORATIVITIES
OPTION( 4)= F :PLOT THE FINITE ELEMENT GRID
OPTION( 5)= T :CALCULATE THE HEAD DISTRIBUTIONS
OPTION( 6)= T :PRINT THE HEAD DISTRIBUTIONS
OPTION( 7)= T :PLOT ALL HEAD DISTRIBUTIONS
OPTION( 8)= F :PLOT ONLY THE LAST HEAD VALUES
OPTION( 9)= T :PRINT THE WATER TABLE CONVERGENCE INFORMATION AT EACH ITERATION
OPTION(10)= T :INPUT PREVIOUSLY CALCULATED HEADS TO CONTINUE AN EARLIER RUN
OPTION(11)= T :OUTPUT THE LAST HEAD DISTRIBUTION FOR USE AS INPUT IN A LATER RUN
OPTION(12)= T :SIMULATE MINING AND RECLAMATION
OPTION(13)= F :CALCULATE THE HYDRAULIC GRADIENT AND THE DIRECTION OF THE GRADIENT FIELD
OPTION(14)= F :PRINT THE HYDRAULIC GRADIENT AND ITS ITS DIRECTION FIELDS
OPTION(15)= F :PLOT THE HYDRAULIC GRADIENT AND ITS DIRECTION
OPTION(16)= F :CALCULATE THE VELOCITY FIELD
OPTION(17)= F :PRINT THE VELOCITY FIELD
OPTION(18)= F :RUN THE MASS TRANSPORT ROUTINE
OPTION(19)= F :PRINT THE CONCENTRATION AND PARTICLE DISTRIBUTIONS
OPTION(20)= F :PLOT THE PARTICLE CONCENTRATION
OPTION(21)= F :PLOT THE PARTICLE DISTRIBUTION
OPTION(22)= F :OUTPUT THE LAST PARTICLE DISTRIBUTION TO CONTINUE THE RUN
OPTION(23)= F :INPUT THE LAST PARTICLE DISTRIBUTION TO CONTINUE A PREVIOUS RUN
OPTION(24)= F :PRINT THE MASS, X AND Z COORDINATES OF THE REFERENCE PARTICLES
```

CROSS SECTION AND SIMULATION PARAMETERS

```
      23 :NUMBER OF ROWS
      61 :NUMBER OF COLUMNS
       3 :NUMBER OF GEOLOGICAL UNITS
       1 :NUMBER OF SPOIL UNITS
      18 :ESTIMATED NUMBER OF CONSTANT HEAD NODES
       3 :ACTUAL NUMBER OF CONSTANT HEAD NODES ENTERED
    1275 :ESTIMATED NUMBER OF NODES
    2600 :ESTIMATED NUMBER OF ELEMENTS
      22 :ESTIMATED BANDWIDTH
       1 :NUMBER OF PERIODS OF RECHARGE

 300.000 :HORIZONTAL NODE SPACING
  10.000 :VERTICAL NODE SPACING
   1.000 :TIME STEP
 230.000 :INITIAL HEAD VALUE
   0.0   :SPECIFIC YIELD
   0.100 :WATER TABLE AND STEADY STATE CONVERGENCE TOLERANCE
       6 :NUMBER OF TIME STEPS
   1.000 :TIME STEP INCREMENT
      14 :MAXIMUM NUMBER OF ITERATIONS PER TIME STEP
       1 :NUMBER OF TIME STEPS BETWEEN LISTINGS
```

GROUND SURFACE PARAMETERS

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1 F	250.00	2 T	251.00	3 T	252.00	4 T	253.00	5 T	254.00	6 T	256.00	7 T	259.00	8 T	262.00
9 T	265.00	10 T	268.00	11 T	271.00	12 T	274.00	13 T	277.00	14 T	279.00	15 T	280.00	16 T	281.00
17 T	282.00	18 T	281.20	19 T	281.70	20 T	282.00	21 T	283.00	22 T	284.00	23 T	285.00	24 T	286.00
25 T	287.00	26 T	288.00	27 T	289.10	28 T	289.20	29 T	289.30	30 T	289.40	31 T	289.50	32 T	289.70
33 T	289.80	34 T	290.00	35 T	290.10	36 T	290.20	37 T	290.30	38 T	290.40	39 T	290.50	40 T	290.60
41 T	290.70	42 T	290.80	43 T	291.00	44 T	291.20	45 T	291.40	46 T	291.50	47 T	291.70	48 T	291.80
49 T	292.00	50 T	293.00	51 T	295.00	52 T	295.00	53 T	295.00	54 T	295.00	55 T	295.00	56 T	295.00
57 T	295.00	58 T	295.00	59 T	295.00	60 T	295.00	61 T	295.00						

WATER TABLE ELEVATION

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	230.00	2	230.00	3	230.00	4	230.00	5	230.00	6	230.00	7	230.00	8	230.00
9	230.00	10	230.00	11	230.00	12	230.00	13	230.00	14	230.00	15	230.00	16	230.00
17	230.00	18	230.00	19	230.00	20	230.00	21	230.00	22	230.00	23	230.00	24	230.00
25	230.00	26	230.00	27	230.00	28	230.00	29	230.00	30	230.00	31	230.00	32	230.00
33	230.00	34	230.00	35	230.00	36	230.00	37	230.00	38	230.00	39	230.00	40	230.00
41	230.00	42	230.00	43	230.00	44	230.00	45	230.00	46	230.00	47	230.00	48	230.00
49	230.00	50	230.00	51	230.00	52	230.00	53	230.00	54	230.00	55	230.00	56	230.00
57	230.00	58	230.00	59	230.00	60	230.00	61	230.00						

BOTTOM BOUNDARY ELEVATION

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	90.00	2	90.00	3	90.00	4	90.00	5	90.00	6	90.00	7	90.00	8	90.00
9	90.00	10	90.00	11	90.00	12	90.00	13	90.00	14	90.00	15	90.00	16	90.00
17	90.00	18	90.00	19	90.00	20	90.00	21	90.00	22	90.00	23	90.00	24	90.00
25	90.00	26	90.00	27	90.00	28	90.00	29	90.00	30	90.00	31	90.00	32	90.00
33	90.00	34	90.00	35	90.00	36	90.00	37	90.00	38	90.00	39	90.00	40	90.00
41	90.00	42	90.00	43	90.00	44	90.00	45	90.00	46	90.00	47	90.00	48	90.00
49	90.00	50	90.00	51	90.00	52	90.00	53	90.00	54	90.00	55	90.00	56	90.00
57	90.00	58	90.00	59	90.00	60	90.00	61	90.00						

RECHARGE VALUES (+VE=RECHARGE; -VE=EVAPORATION)

CHANGE AT TIME STEP: 1

COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE
2	0.04	3	0.04	4	0.04	5	0.04	6	0.04	7	0.04	8	0.04	9	0.04
10	0.04	11	0.04	12	0.04	13	0.04	14	0.04	15	0.04	16	0.04	17	0.04
18	0.04	19	0.04	20	0.04	21	0.04	22	0.04	23	0.04	24	0.04	25	0.04
26	0.04	27	0.04	28	0.04	29	0.04	30	0.04	31	0.04	32	0.04	33	0.04
34	0.04	35	0.04	36	0.04	37	0.04	38	0.04	39	0.04	40	0.08	41	0.08
42	0.08	43	0.08	44	0.08	45	0.08	46	0.08	47	0.08	48	0.08	49	0.08
50	0.08	51	0.08	52	0.08	53	0.08	54	0.08	55	0.08	56	0.08	57	0.08
58	0.08	59	0.08	60	0.08	61	0.18								

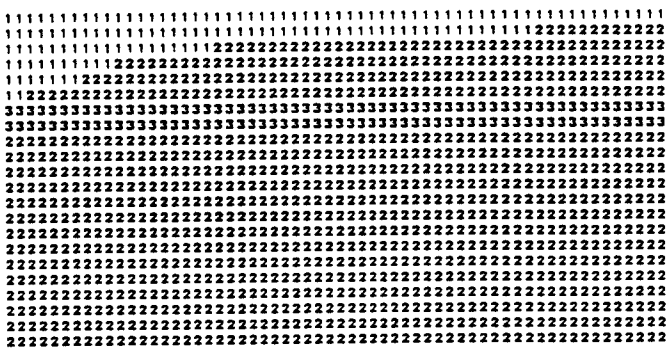
CONSTANT HEAD VALUES

COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD
1	15	230.00	1	14	230.00	1	13	230.00									

HYDROGEOLOGICAL PARAMETERS OF THE GEOLOGICAL UNITS

UNIT	Kh	Kv	STOR.	POROSITY	DISPER.		CEC	BULK DEN.
1	0.0	0.0	0.0	0.0	0.0	0.0		0.0
2	0.3150E+03	0.3150E+03	0.5000E-03	0.1000E+00	0.0	0.0		0.0
3	0.9480E+04	0.9480E+04	0.5000E-03	0.1000E+00	0.0	0.0		0.0

MAP OF THE GEOLOGICAL UNITS



SIDE BOUNDARIES OF THE MINE DURING MINING (COL.)

PREVIOUS BOUNDARIES:	0	0										
FUTURE BOUNDARIES:	25	27	27	29	29	31	31	33	33	35	33	35

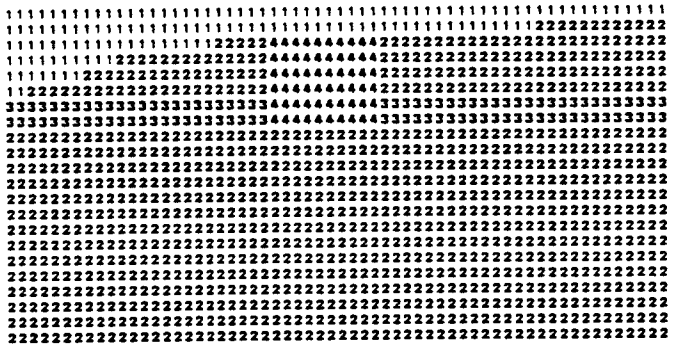
GROUND ELEVATION DURING MINING

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	250.00	2	251.00	3	252.00	4	253.00	5	254.00	6	255.00	7	259.00	8	262.00
9	265.00	10	268.00	11	271.00	12	274.00	13	277.00	14	279.00	15	280.00	16	281.00
17	282.00	18	281.20	19	281.70	20	282.00	21	283.00	22	284.00	23	286.00	24	286.00
25	287.00	26	230.00	27	230.00	28	230.00	29	230.00	30	230.00	31	230.00	32	230.00
33	230.00	34	230.00	35	290.10	36	290.20	37	290.30	38	290.40	39	290.50	40	290.60
41	290.70	42	290.80	43	291.00	44	291.20	45	291.40	46	291.50	47	291.70	48	291.80
49	292.00	50	293.00	51	295.00	52	295.00	53	295.00	54	295.00	55	295.00	56	295.00
57	295.00	58	295.00	59	295.00	60	295.00	61	295.00						

HYDROGEOLOGICAL PARAMETERS OF THE SPOIL

UNIT	Kh	Kv	STOR.	POROSITY	DISPER.		CEC	BULK DEN.
1	0.0	0.0	0.0	0.0	0.0	0.0		0.0
2	0.3160E+03	0.3160E+03	0.5000E-03	0.1000E+00	0.0	0.0		0.0
3	0.9480E+04	0.9480E+04	0.5000E-03	0.1000E+00	0.0	0.0		0.0
4	0.3160E+02	0.3160E+02	0.5000E-02	0.1000E+00	0.0	0.0		0.0

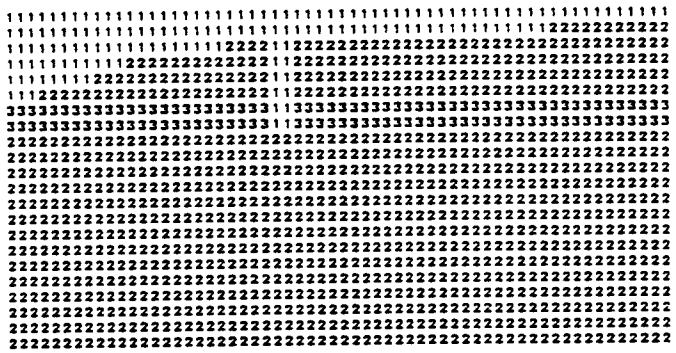
MAP OF THE SPOIL AND GEOLOGICAL UNITS



GROUND ELEVATION FOLLOWING RECLAMATION

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	250.00	2	251.00	3	252.00	4	253.00	5	254.00	6	255.00	7	259.00	8	262.00
9	265.00	10	268.00	11	271.00	12	274.00	13	277.00	14	279.00	15	280.00	16	281.00
17	282.00	18	281.20	19	281.70	20	282.00	21	283.00	22	284.00	23	286.00	24	286.00
25	287.00	26	290.80	27	291.20	28	289.20	29	291.80	30	291.80	31	289.50	32	290.90
33	275.00	34	290.00	35	285.00	36	290.20	37	290.30	38	290.40	39	290.50	40	290.60
41	290.70	42	290.80	43	291.00	44	291.20	45	291.40	46	291.50	47	291.70	48	291.80
49	282.00	50	293.00	51	295.00	52	295.00	53	295.00	54	295.00	55	295.00	56	295.00
57	295.00	58	295.00	59	295.00	60	295.00	61	295.00						

NEW HYDRAULIC CONDUCTIVITY DISTRIBUTION



FINITE ELEMENT GRID SUMMARY

```
  1275: ESTIMATED NUMBER OF NODES
  1139: ACTUAL NUMBER OF NODES
  2600: ESTIMATED NUMBER OF ELEMENTS
  2115: ACTUAL NUMBER OF ELEMENTS
    22: ESTIMATED BANDWITH
    18: ESTIMATED NUMBER OF CONSTANT HEAD NODES
    14: ACTUAL NUMBER OF CONSTANT HEAD NODES
  1125: NUMBER OF NODES WITH UNKNOWN HEADS
    22: FINAL BANDWIDTH
```

ITERATION: 1 TIME: 1.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	234.7360	234.4838	234.4838	234.4838	234.7360	251.0000
3	F	47	237.5593	237.1377	237.1377	237.1377	237.5593	252.0000
4	F	63	239.8270	239.2416	239.2416	239.2416	239.8270	253.0000
5	F	79	241.7648	241.0093	241.0093	241.0093	241.7648	254.0000
6	F	96	243.4770	242.5374	242.5374	242.5374	243.4770	256.0000
7	F	113	245.0222	243.8777	243.8777	243.8777	245.0222	259.0000
8	F	130	246.4368	245.0610	245.0610	245.0610	246.4388	262.0000
9	F	147	247.7458	246.1064	246.1064	246.1064	247.7458	265.0000
10	F	164	248.9860	247.0256	247.0256	247.0256	248.9860	268.0000
11	F	181	250.1112	247.8251	247.8251	247.8251	250.1112	271.0000
12	F	198	251.1910	248.5078	248.5078	248.5079	251.1910	274.0000
13	F	215	252.2127	249.0734	249.0734	249.0734	252.2127	277.0000
14	F	233	253.2421	249.5450	249.5450	249.5450	253.2421	279.0000
15	F	251	254.2997	249.9068	249.9068	249.9069	254.2997	280.0000
16	F	269	255.3400	250.1163	250.1163	250.1163	255.3400	281.0000
17	F	287	256.3635	250.1477	250.1477	250.1477	256.3635	282.0000
18	F	305	257.3704	249.9702	249.9702	249.9702	257.3704	281.2000
19	F	323	258.3606	249.5468	249.5468	249.5468	258.3606	281.7000
20	F	341	259.3345	248.8332	248.8332	248.8332	259.3345	282.0000
21	F	359	260.2917	247.7786	247.7786	247.7786	260.2917	283.0000
22	F	377	261.2327	246.3140	246.3140	246.3141	261.2327	284.0000
23	F	395	262.1572	244.3753	244.3753	244.3753	262.1572	286.0000
24	F	414	263.0657	241.9566	241.9566	241.9568	263.0657	288.0000
25	T	433	263.9578	232.3913	263.9578	232.3913	263.9578	287.0000
26	T	448	230.0000	230.0000	230.0000	230.0000	264.8337	230.0000
27	T	467	265.6936	232.8347	265.6936	232.8348	265.6938	289.1001
28	F	486	266.5376	244.1738	244.1738	244.1738	266.5376	289.2000
29	F	505	267.3655	248.6170	248.6170	248.6170	267.3655	289.3000
30	F	524	268.1772	252.5419	252.5419	252.5419	268.1772	289.3999
31	F	543	268.9734	255.9407	255.9407	255.9407	268.9734	289.5000
32	F	562	269.7537	258.8940	258.8940	258.8941	269.7537	289.7000
33	F	581	270.5181	261.4731	261.4731	261.4733	270.5181	289.8000
34	F	600	271.2668	263.7378	263.7378	263.7378	271.2668	290.0000
35	F	619	271.9998	265.7380	265.7380	265.7381	271.9998	290.1001
36	F	639	272.7173	267.5107	267.5107	267.5108	272.7173	290.2000
37	F	659	273.4189	269.0908	269.0908	269.0908	273.4188	290.3000
38	F	679	274.1052	270.5073	270.5073	270.5074	274.1052	290.3999
39	F	699	274.7761	271.7854	271.7854	271.7856	274.7761	290.5000
40	F	719	275.4346	272.9492	272.9492	272.9492	275.4346	290.8001
41	F	739	276.0596	273.9941	273.9941	273.9942	276.0596	290.7000
42	F	759	276.6543	274.8377	274.8377	274.8380	276.6543	290.8000
43	F	779	277.2190	275.7825	275.7925	275.7927	277.2190	291.0000
44	F	799	277.7534	276.5681	276.5681	276.5682	277.7534	291.2000
45	F	819	278.2578	277.2727	277.2727	277.2728	278.2578	291.3999
46	F	839	278.7324	277.9136	277.9136	277.9137	278.7324	291.5000
47	F	859	279.1770	278.4961	278.4961	278.4963	279.1770	291.7000
48	F	879	279.5916	279.0254	279.0254	279.0254	279.5916	291.8000
49	F	899	279.9766	279.5051	279.5051	279.5051	279.9766	292.0000
50	F	919	280.3315	279.9385	279.9385	279.9387	280.3315	293.0000
51	F	939	280.6570	280.3289	280.3289	280.3289	280.6570	295.0000
52	F	959	280.9528	280.6777	280.6777	280.6779	280.9528	295.0000
53	F	979	281.2188	280.9875	280.9875	280.9876	281.2188	295.0000
54	F	999	281.4551	281.2595	281.2595	281.2596	281.4551	295.0000
55	F	1019	281.6619	281.4951	281.4951	281.4951	281.6619	295.0000
56	F	1039	281.8388	281.6951	281.6951	281.6951	281.8388	295.0000
57	F	1059	281.9866	281.8604	281.8604	281.8605	281.9866	295.0000
58	F	1079	282.1047	281.9917	281.9917	281.9917	282.1047	295.0000
59	F	1099	282.1931	282.0894	282.0894	282.0894	282.1931	295.0000
60	F	1119	282.2522	282.1538	282.1538	282.1539	282.2522	295.0000
61	F	1139	282.2900	282.1934	282.1934	282.1934	282.2900	295.0000

******* REFORM THE GRID *******

ITERATION CONVERGENCE: ERROR:283.999 TOLERENCE:0.100

FINITE ELEMENT GRID SUMMARY

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  1275: ESTIMATED NUMBER OF NODES
  1107: ACTUAL NUMBER OF NODES
  2600: ESTIMATED NUMBER OF ELEMENTS
  2058: ACTUAL NUMBER OF ELEMENTS
    22: ESTIMATED BANDWITH
    18: ESTIMATED NUMBER OF CONSTANT HEAD NODES
     7: ACTUAL NUMBER OF CONSTANT HEAD NODES
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1100: NUMBER OF NODES WITH UNKNOWN HEADS

ITERATION: 2 TIME: 1.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	234.4838	234.4108	234.4108	234.4108	234.7380	251.0000
3	F	47	237.1377	237.0491	237.0491	237.0491	237.5593	252.0000
4	F	63	239.2416	239.1483	239.1483	239.1483	239.8270	253.0000
5	F	79	241.0093	240.9164	240.9164	240.9164	241.7648	254.0000
6	F	95	242.5374	242.4485	242.4485	242.4485	243.4770	256.0000
7	F	113	243.8777	243.7948	243.7948	243.7948	245.0222	259.0000
8	F	130	245.0810	244.9859	244.9859	244.9859	246.4368	262.0000
9	F	147	246.1064	246.0406	246.0406	246.0407	247.7456	265.0000
10	F	164	247.0256	246.9705	246.9705	246.9705	248.9880	268.0000
11	F	181	247.8251	247.7815	247.7815	247.7815	250.1112	271.0000
12	F	198	248.5078	248.4754	248.4754	248.4755	251.1910	274.0000
13	F	215	249.0734	249.0507	249.0507	249.0507	252.2127	277.0000
14	F	232	249.5450	249.5016	249.5016	249.5016	253.2421	279.0000
15	F	248	249.8068	249.8175	249.8175	249.8175	254.2997	280.0000
16	F	266	250.1163	249.9823	249.9823	249.9823	255.3400	281.0000
17	F	283	250.1477	249.9737	249.9737	249.9737	256.3835	282.0000
18	F	300	249.9702	249.7818	249.7818	249.7818	257.3704	281.2000
19	F	317	249.5468	249.3053	249.3053	249.3054	258.3806	281.7000
20	F	334	248.8332	248.5466	248.5466	248.5466	259.3345	282.0000
21	F	351	247.7766	247.4018	247.4018	247.4018	260.2817	283.0000
22	F	368	246.3140	245.7440	245.7440	245.7440	261.2327	284.0000
23	F	385	244.3763	243.3701	243.3701	243.3701	262.1572	286.0000
24	F	401	241.9586	239.9543	239.9543	239.9543	263.0657	288.0000
25	T	416	232.3813	231.9909	232.3813	231.9909	263.9578	287.0000
26	T	431	230.0000	230.0000	230.0000	230.0000	264.8337	230.0000
27	T	447	232.8347	232.4153	232.8347	232.4153	265.8836	289.1001
28	F	464	244.1738	242.0764	242.0764	242.0764	266.5378	289.2000
29	F	481	248.6170	247.4957	247.4957	247.4957	267.3855	289.3000
30	F	499	252.5419	251.6585	251.6585	251.6585	268.1772	289.3999
31	F	517	255.9407	255.1724	255.1724	255.1724	268.9734	289.5000
32	F	535	258.8940	258.2302	258.2302	258.2304	269.7537	288.7000
33	F	553	261.4731	260.9043	260.9043	260.9045	270.5181	288.8000
34	F	572	263.7378	263.2542	263.2542	263.2544	271.2668	290.0000
35	F	591	265.7380	265.3225	265.3225	265.3227	271.9898	290.1001
36	F	610	267.5107	267.1541	267.1541	267.1541	272.7173	290.2000
37	F	629	269.0908	268.7856	268.7856	268.7857	273.4189	290.3000
38	F	648	270.5073	270.2483	270.2483	270.2484	274.1052	290.3999
39	F	667	271.7854	271.5679	271.5679	271.5680	274.7781	290.5000
40	F	687	272.9492	272.7683	272.7683	272.7685	275.4346	290.6001
41	F	707	273.9941	273.8438	273.8438	273.8439	276.0596	290.7000
42	F	727	274.9377	274.8127	274.8127	274.8129	276.6543	290.8000
43	F	747	275.7925	275.6882	275.6882	275.6884	277.2190	291.0000
44	F	767	276.5681	276.4810	276.4810	276.4812	277.7534	291.2000
45	F	787	277.2727	277.2000	277.2000	277.2002	278.2578	291.3999
46	F	807	277.9136	277.8528	277.8528	277.8528	278.7324	291.5000
47	F	827	278.4961	278.4451	278.4451	278.4452	279.1770	291.7000
48	F	847	279.0254	278.9824	278.9824	278.9826	279.5916	291.8000
49	F	867	279.5051	279.4690	279.4690	279.4691	279.9786	292.0000
50	F	887	279.9385	279.9082	279.9082	279.9084	280.3315	293.0000
51	F	907	280.3289	280.3032	280.3032	280.3032	280.6570	295.0000
52	F	927	280.6777	280.6560	280.6560	280.6561	280.9525	295.0000
53	F	947	280.9875	280.9690	280.9690	280.9691	281.2188	295.0000
54	F	967	281.2595	281.2437	281.2437	281.2437	281.4551	295.0000
55	F	987	281.4951	281.4812	281.4812	281.4813	281.6619	295.0000
56	F	1007	281.6951	281.6829	281.6829	281.6830	281.8389	295.0000
57	F	1027	281.8604	281.8494	281.8494	281.8496	281.9866	295.0000
58	F	1047	281.9917	281.9817	281.9817	281.9818	282.1047	295.0000
59	F	1067	282.0894	282.0801	282.0801	282.0802	282.1931	295.0000
60	F	1087	282.1538	282.1450	282.1450	282.1451	282.2522	295.0000
61	F	1107	282.1934	282.1848	282.1848	282.1846	282.2900	295.0000

******* REFORM THE GRID *******

ITERATION CONVERGENCE: ERROR: 15.178 TOLERENCE:0.100

FINITE ELEMENT GRID SUMMARY

1275: ESTIMATED NUMBER OF NODES
1103: ACTUAL NUMBER OF NODES
2600: ESTIMATED NUMBER OF ELEMENTS
2051: ACTUAL NUMBER OF ELEMENTS
22: ESTIMATED BANDWITH
18: ESTIMATED NUMBER OF CONSTANT HEAD NODES
6: ACTUAL NUMBER OF CONSTANT HEAD NODES
1097: NUMBER OF NODES WITH UNKNOWN HEADS

ITERATION: 3 TIME: 1.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	234.4108	234.4044	234.4044	234.4044	234.7360	251.0000
3	F	47	237.0491	237.0437	237.0437	237.0437	237.5593	252.0000
4	F	63	239.1483	239.1416	239.1416	239.1416	239.8270	253.0000
5	F	79	240.9164	240.9065	240.9065	240.9065	241.7648	254.0000
6	F	95	242.4485	242.4338	242.4338	242.4338	243.4770	256.0000
7	F	112	243.7948	243.7755	243.7755	243.7755	245.0222	259.0000
8	F	129	244.9859	244.9805	244.9805	244.9805	246.4358	262.0000
9	F	146	246.0406	246.0077	246.0077	246.0077	247.7458	265.0000
10	F	163	246.9705	246.9283	246.9283	246.9283	248.9880	268.0000
11	F	180	247.7815	247.7283	247.7283	247.7283	250.1112	271.0000
12	F	197	248.4754	248.4094	248.4094	248.4094	251.1910	274.0000
13	F	214	249.0507	248.9895	248.9895	248.9895	252.2127	277.0000
14	F	231	249.5016	249.4032	249.4032	249.4032	253.2421	279.0000
15	F	248	249.8175	249.8895	249.8895	249.8895	254.2997	280.0000
16	F	265	249.9823	249.8412	249.8412	249.8412	255.3400	281.0000
17	F	282	249.9737	249.8048	249.8048	249.8048	256.3835	282.0000
18	F	299	249.7818	249.5584	249.5584	249.5584	257.3704	281.2000
19	F	316	249.3053	249.0584	249.0584	249.0584	258.3806	281.7000
20	F	333	248.5466	248.2434	248.2434	248.2434	259.3345	282.0000
21	F	350	247.4018	247.0227	247.0227	247.0227	260.2817	283.0000
22	F	367	245.7440	245.2530	245.2530	245.2530	261.2327	284.0000
23	F	384	243.3701	242.6826	242.6826	242.6826	262.1572	286.0000
24	F	400	239.9543	238.8052	238.8052	238.8052	263.0857	288.0000
25	T	415	231.9909	231.7810	230.0000	231.7810	263.9578	287.0000
26	T	430	230.0000	230.0000	230.0000	230.0000	264.8337	230.0000
27	T	445	232.4153	232.8375	232.4153	232.8375	265.8936	289.1001
28	F	461	242.0764	244.1874	244.1874	244.1874	266.5378	289.2000
29	F	478	247.4957	248.5554	248.5554	248.5554	267.3855	289.3000
30	F	495	251.6585	253.3348	253.3348	253.3348	268.1772	289.3999

31	F	513	255.1724	256.4841	256.4841	256.4841	288.9734	289.5000
32	F	531	258.2302	258.3284	259.3284	258.3285	289.7537	289.7000
33	F	549	260.9043	261.8184	261.8184	261.8186	270.5181	289.8000
34	F	568	263.2842	264.0184	264.0184	264.0185	271.2888	290.0000
35	F	587	265.3225	265.9578	265.9578	265.9578	271.8998	290.1001
36	F	606	267.1541	267.6831	267.6831	267.6832	272.7173	290.2000
37	F	625	268.7856	269.2261	269.2261	269.2262	273.4189	290.3000
38	F	644	270.2483	270.6147	270.6147	270.6149	274.1052	290.3999
39	F	663	271.5679	271.8726	271.8726	271.8727	274.7761	290.5000
40	F	683	272.7683	273.0220	273.0220	273.0220	275.4346	290.6001
41	F	703	273.8438	274.0544	274.0544	274.0545	276.0596	290.7000
42	F	723	274.8127	274.9880	274.9880	274.9881	276.6543	290.8000
43	F	743	275.6882	275.8340	275.8340	275.8340	277.2190	291.0000
44	F	763	276.4810	276.6021	276.6021	276.6023	277.7534	291.2000
45	F	783	277.2000	277.3008	277.3008	277.3008	278.2578	291.3999
46	F	803	277.8528	277.9365	277.9365	277.9366	278.7324	291.5000
47	F	823	278.4451	278.5149	278.5149	278.5150	279.1770	291.7000
48	F	843	278.9824	279.0405	279.0405	279.0407	279.5816	291.8000
49	F	863	279.4690	279.5173	279.5173	279.5175	279.9766	292.0000
50	F	883	279.9082	279.9487	279.9487	279.9488	280.3315	293.0000
51	F	903	280.3032	280.3369	280.3369	280.3370	280.6570	295.0000
52	F	923	280.6560	280.6843	280.6843	280.6845	280.9526	295.0000
53	F	943	280.9690	280.9929	280.9929	280.9930	281.2188	295.0000
54	F	963	281.2437	281.2639	281.2639	281.2640	281.4551	295.0000
55	F	983	281.4812	281.4985	281.4985	281.4986	281.6619	295.0000
56	F	1003	281.6828	281.6980	281.6980	281.6980	281.8388	295.0000
57	F	1023	281.8494	281.8628	281.8628	281.8629	281.9886	295.0000
58	F	1043	281.9817	281.9937	281.9937	281.9938	282.1047	295.0000
59	F	1063	282.0801	282.0911	282.0911	282.0912	282.1831	295.0000
60	F	1083	282.1450	282.1555	282.1555	282.1555	282.2522	295.0000
61	F	1103	282.1846	282.1948	282.1948	282.1949	282.2900	295.0000

ITERATION CONVERGENCE; ERROR: 20.054 TOLERENCE:0.100

ITERATION: 4 TIME: 1.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	234.4044	234.4227	234.4227	234.4227	234.7380	251.0000
3	F	47	237.0437	237.0746	237.0746	237.0746	237.5593	252.0000
4	F	63	239.1416	239.1841	239.1841	239.1841	239.8270	253.0000
5	F	79	240.9065	240.9612	240.9612	240.9612	241.7848	254.0000
6	F	95	242.4338	242.5021	242.5021	242.5021	243.4770	256.0000
7	F	112	243.7755	243.8591	243.8591	243.8592	245.0222	258.0000
8	F	129	244.9805	245.0619	245.0619	245.0619	246.4388	262.0000
9	F	146	246.0077	246.1297	246.1297	246.1297	247.7456	265.0000
10	F	163	246.9283	247.0744	247.0744	247.0744	248.9660	268.0000
11	F	180	247.7283	247.9025	247.9025	247.9025	250.1112	271.0000
12	F	197	248.4094	248.6185	248.6185	248.6185	251.1910	274.0000
13	F	214	248.9895	249.2152	249.2152	249.2152	252.2127	277.0000
14	F	231	249.4032	249.6941	249.6941	249.6941	253.2421	279.0000
15	F	248	249.6995	250.0435	250.0435	250.0435	254.2997	280.0000
16	F	265	249.8412	250.2477	250.2477	250.2477	255.3400	281.0000
17	F	282	249.8048	250.2848	250.2848	250.2848	256.3635	282.0000
18	F	299	249.5584	250.1253	250.1253	250.1253	257.3704	281.2000
19	F	316	249.0584	249.7282	249.7282	249.7282	258.3606	281.7000
20	F	333	248.2434	249.0354	249.0354	249.0354	259.3345	282.0000
21	F	350	247.0227	247.9801	247.9801	247.9801	260.2917	283.0000
22	F	367	245.2530	246.3625	246.3625	246.3625	261.2327	284.0000
23	F	384	242.6825	243.9888	243.9888	243.9888	262.1572	286.0000
24	F	400	238.8052	240.2765	240.2765	240.2765	263.0657	286.0000
25	T	415	231.7610	232.0553	231.7610	232.0553	263.9578	287.0000
26	T	430	230.0000	230.0000	230.0000	230.0000	264.8337	230.0000
27	T	445	232.8375	232.7823	232.8375	232.7823	265.6936	289.1001
28	F	461	244.1674	243.9114	243.9114	243.9114	266.5376	289.2000
29	F	478	249.5554	248.9642	248.9642	248.9642	267.3655	288.3000
30	F	495	253.3348	252.6250	252.6250	252.6250	268.1772	289.3998
31	F	513	256.4841	255.8023	255.8023	255.8023	268.9734	289.5000
32	F	531	259.3264	258.7571	258.7571	258.7572	269.7537	289.7000
33	F	549	261.8184	261.3428	261.3428	261.3429	270.5181	289.8000
34	F	568	264.0184	263.6191	263.6191	263.6193	271.2668	290.0000
35	F	587	265.9578	265.6262	265.6262	265.6262	271.8998	290.1001
36	F	606	267.6831	267.4063	267.4063	267.4065	272.7173	290.2000
37	F	625	269.2261	268.9954	268.9954	268.9954	273.4189	290.3000
38	F	644	270.6147	270.4226	270.4226	270.4228	274.1052	290.3998
39	F	663	271.8726	271.7124	271.7124	271.7126	274.7761	290.5000
40	F	683	273.0220	272.8887	272.8887	272.8887	275.4346	290.6001
41	F	703	274.0544	273.9436	273.9436	273.9437	276.0598	290.7000
42	F	723	274.9880	274.8955	274.8955	274.8957	276.6543	290.8000
43	F	743	275.8340	275.7571	275.7571	275.7572	277.2190	291.0000
44	F	763	276.6021	276.5361	276.5361	276.5363	277.7534	291.2000
45	F	783	277.3008	277.2478	277.2478	277.2478	278.2578	291.3999
46	F	803	277.9365	277.8921	277.8921	277.8922	278.7324	291.5000
47	F	823	278.5149	278.4778	278.4778	278.4780	279.1770	291.7000
48	F	843	279.0405	279.0098	279.0098	279.0099	279.5816	291.8000
49	F	863	279.5173	279.4917	279.4917	279.4918	279.9766	292.0000
50	F	883	279.9487	279.9272	279.9272	279.9273	280.3315	293.0000
51	F	903	280.3369	280.3188	280.3188	280.3190	280.6570	295.0000
52	F	923	280.6843	280.6692	280.6892	280.6694	280.9526	295.0000
53	F	943	280.9929	280.9800	280.9800	280.9802	281.2188	295.0000
54	F	963	281.2639	281.2529	281.2529	281.2531	281.4551	295.0000
55	F	983	281.4985	281.4883	281.4883	281.4884	281.6619	295.0000
56	F	1003	281.6980	281.6888	281.6889	281.6900	281.8385	295.0000
57	F	1023	281.8628	281.8557	281.8557	281.8557	281.9888	295.0000
58	F	1043	281.9937	281.9873	281.9873	281.9874	282.1047	295.0000
59	F	1063	282.0911	282.0852	282.0852	282.0853	282.1931	295.0000
60	F	1083	282.1555	282.1499	282.1499	282.1499	282.2522	295.0000
61	F	1103	282.1948	282.1892	282.1892	282.1894	282.2900	295.0000

ITERATION CONVERGENCE; ERROR: 15.353 TOLERENCE:0.100

ITERATION: 5 TIME: 1.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	234.4227	234.4195	234.4195	234.4195	234.7380	251.0000
3	F	47	237.0746	237.0667	237.0667	237.0667	237.5593	252.0000
4	F	63	239.1841	239.1709	239.1709	239.1709	239.8270	253.0000
5	F	79	240.9612	240.9424	240.9424	240.9424	241.7848	254.0000
6	F	95	242.5021	242.4788	242.4788	242.4788	243.4770	256.0000
7	F	112	243.8591	243.8284	243.8284	243.8284	245.0222	258.0000
8	F	129	245.0619	245.0208	245.0208	245.0208	246.4388	262.0000
9	F	146	246.1297	246.0784	246.0784	246.0784	247.7456	265.0000
10	F	163	247.0744	247.0115	247.0115	247.0115	248.9660	268.0000
11	F	180	247.9025	247.8261	247.8261	247.8261	250.1112	271.0000
12	F	197	248.6185	248.5243	248.5243	248.5243	251.1910	274.0000

13	F	214	249.2152	249.1049	249.1049	249.1049	252.2127	277.0000
14	F	231	249.8941	249.5630	249.5630	249.5630	253.2421	278.0000
15	F	248	250.0435	249.8887	249.8887	249.8887	254.2997	280.0000
16	F	265	250.2477	250.0860	250.0860	250.0860	255.3400	281.0000
17	F	282	250.2848	250.0734	250.0734	250.0734	256.3635	282.0000
18	F	299	250.1253	249.8816	249.8816	249.8816	257.3704	281.2000
19	F	316	249.7282	249.4510	249.4510	249.4510	258.3606	281.7000
20	F	333	249.0354	248.7260	248.7260	248.7280	259.3345	282.0000
21	F	350	247.9801	247.6251	247.6251	247.6251	260.2917	283.0000
22	F	367	246.3625	246.0206	246.0206	246.0208	261.2327	284.0000
23	F	384	243.9888	243.6874	243.6874	243.6874	262.1572	286.0000
24	F	400	240.2765	240.1463	240.1463	240.1463	263.0657	286.0000
25	T	415	232.0553	232.0293	232.0293	232.0293	263.9578	287.0000
26	T	430	230.0000	230.0000	230.0000	230.0000	264.8337	230.0000
27	T	445	232.7823	232.7825	232.7823	232.7825	265.6936	289.1001
28	F	461	243.9114	243.9127	243.9127	243.9127	266.5376	289.2000
29	F	478	248.9642	249.0272	249.0272	249.0272	267.3655	289.3000
30	F	495	252.6250	252.7494	252.7494	252.7494	268.1772	289.3999
31	F	513	255.8023	255.9429	255.9429	255.9429	268.9734	289.5000
32	F	531	258.7571	258.8748	258.8748	258.8748	269.7537	289.7000
33	F	549	261.3428	261.4414	261.4414	261.4414	270.5181	289.8000
34	F	568	263.6191	263.7017	263.7017	263.7018	271.2868	290.0000
35	F	587	265.6262	265.6951	265.6951	265.6953	271.9998	290.1001
36	F	606	267.4063	267.4841	267.4841	267.4843	272.7173	290.2000
37	F	625	268.9954	269.0437	269.0437	269.0437	273.4189	290.3000
38	F	644	270.4226	270.4629	270.4629	270.4629	274.1052	290.3999
39	F	663	271.7124	271.7461	271.7461	271.7463	274.7761	290.5000
40	F	683	272.8887	272.9167	272.9167	272.9168	275.4346	290.6001
41	F	703	273.9436	273.9670	273.9670	273.9671	276.0596	290.7000
42	F	723	274.8955	274.9150	274.9150	274.9152	276.6543	290.8000
43	F	743	275.7571	275.7732	275.7732	275.7734	277.2190	291.0000
44	F	763	276.5381	276.5518	276.5518	276.5519	277.7634	291.2000
45	F	783	277.2476	277.2588	277.2588	277.2589	278.2578	291.3999
46	F	803	277.8921	277.9016	277.9016	277.9017	278.7324	291.5000
47	F	823	278.4778	278.4858	278.4858	278.4858	279.1770	291.7000
48	F	843	279.0098	279.0164	279.0164	279.0164	279.5916	291.8000
49	F	863	279.4917	279.4971	279.4971	279.4973	279.9786	292.0000
50	F	883	279.9272	279.9316	279.9316	279.9319	280.3315	293.0000
51	F	903	280.3186	280.3228	280.3228	280.3229	280.6570	295.0000
52	F	923	280.6692	280.6726	280.6726	280.6726	280.9526	295.0000
53	F	943	280.9800	280.9829	280.9829	280.9829	281.2188	295.0000
54	F	963	281.2529	281.2554	281.2554	281.2554	281.4551	295.0000
55	F	983	281.4893	281.4912	281.4912	281.4913	281.6619	295.0000
56	F	1003	281.6899	281.6917	281.6917	281.6917	281.8385	295.0000
57	F	1023	281.8557	281.8572	281.8572	281.8573	281.9886	295.0000
58	F	1043	281.9873	281.9885	281.9885	281.9887	282.1047	295.0000
59	F	1063	282.0852	282.0864	282.0864	282.0866	282.1931	295.0000
60	F	1083	282.1499	282.1509	282.1509	282.1511	282.2522	295.0000
61	F	1103	282.1892	282.1904	282.1904	282.1906	282.2900	295.0000

ITERATION CONVERGENCE; ERROR: 4.202 TOLERENCE:0.100

ITERATION: 6 TIME: 1.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	234.4195	234.4187	234.4187	234.4187	234.7360	251.0000
3	F	47	237.0667	237.0661	237.0661	237.0661	237.5593	252.0000
4	F	63	239.1709	239.1711	239.1711	239.1711	239.8270	253.0000
5	F	79	240.9424	240.9435	240.9435	240.9435	241.7648	254.0000
6	F	95	242.4768	242.4793	242.4793	242.4793	243.4770	256.0000
7	F	112	243.8264	243.8306	243.8306	243.8306	245.0222	259.0000
8	F	129	245.0206	245.0267	245.0267	245.0267	246.4368	262.0000
9	F	146	246.0784	246.0869	246.0869	246.0869	247.7456	265.0000
10	F	163	247.0115	247.0226	247.0226	247.0226	248.9660	268.0000
11	F	180	247.8261	247.8403	247.8403	247.8403	250.1112	271.0000
12	F	197	248.5243	248.5422	248.5422	248.5422	251.1910	274.0000
13	F	214	249.1049	249.1269	249.1269	249.1269	252.2127	277.0000
14	F	231	249.5630	249.5895	249.5895	249.5895	253.2421	278.0000
15	F	248	249.8887	249.9200	249.9200	249.9200	254.2997	280.0000
16	F	265	250.0860	250.1025	250.1025	250.1026	255.3400	281.0000
17	F	282	250.0734	250.1151	250.1151	250.1151	256.3635	282.0000
18	F	299	249.8816	249.9280	249.9280	249.9280	257.3704	281.2000
19	F	316	249.4510	249.5008	249.5008	249.5008	258.3606	281.7000
20	F	333	248.7260	248.7787	248.7787	248.7787	259.3345	282.0000
21	F	350	247.6251	247.6724	247.6724	247.6724	260.2917	283.0000
22	F	367	246.0206	246.0574	246.0574	246.0574	261.2327	284.0000
23	F	384	243.6874	243.7034	243.7034	243.7034	262.1572	286.0000
24	F	400	240.1463	240.1380	240.1380	240.1380	263.0657	286.0000
25	T	415	232.0293	232.0276	232.0293	232.0276	263.9578	287.0000
26	T	430	230.0000	230.0000	230.0000	230.0000	264.8337	230.0000
27	T	445	232.7825	232.7839	232.7825	232.7839	265.6936	289.1001
28	F	461	243.9127	243.9194	243.9194	243.9194	266.5376	289.2000
29	F	478	249.0272	249.0300	249.0300	249.0300	267.3655	289.3000
30	F	495	252.7494	252.7415	252.7415	252.7416	268.1772	289.3999
31	F	513	255.9429	255.9300	255.9300	255.9300	268.9734	289.5000
32	F	531	258.8748	258.8638	258.8638	258.8640	269.7537	289.7000
33	F	549	261.4414	261.4321	261.4321	261.4323	270.5181	289.8000
34	F	568	263.7017	263.6941	263.6941	263.6941	271.2868	290.0000
35	F	587	265.6951	265.6887	265.6887	265.6888	271.9998	290.1001
36	F	606	267.4841	267.4587	267.4587	267.4588	272.7173	290.2000
37	F	625	269.0437	269.0391	269.0391	269.0392	273.4189	290.3000
38	F	644	270.4629	270.4590	270.4590	270.4591	274.1052	290.3999
39	F	663	271.7461	271.7429	271.7429	271.7430	274.7761	290.5000
40	F	683	272.9167	272.9141	272.9141	272.9141	275.4346	290.6001
41	F	703	273.9670	273.9648	273.9648	273.9648	276.0596	290.7000
42	F	723	274.9150	274.9133	274.9133	274.9134	276.6543	290.8000
43	F	743	275.7732	275.7717	275.7717	275.7718	277.2190	291.0000
44	F	763	276.5518	276.5505	276.5505	276.5506	277.7634	291.2000
45	F	783	277.2588	277.2578	277.2578	277.2578	278.2578	291.3999
46	F	803	277.9016	277.9006	277.9006	277.9007	278.7324	291.5000
47	F	823	278.4858	278.4849	278.4849	278.4851	279.1770	291.7000
48	F	843	279.0164	279.0158	279.0158	279.0158	279.5916	291.8000
49	F	863	279.4971	279.4968	279.4968	279.4968	279.9786	292.0000
50	F	883	279.9316	279.9314	279.9314	279.9314	280.3315	293.0000
51	F	903	280.3228	280.3223	280.3223	280.3225	280.6570	295.0000
52	F	923	280.6726	280.6721	280.6721	280.6723	280.9526	295.0000
53	F	943	280.9829	280.9827	280.9827	280.9827	281.2188	295.0000
54	F	963	281.2554	281.2551	281.2551	281.2552	281.4551	295.0000
55	F	983	281.4912	281.4910	281.4910	281.4911	281.6619	295.0000
56	F	1003	281.6917	281.6914	281.6914	281.6915	281.8385	295.0000
57	F	1023	281.8572	281.8569	281.8569	281.8571	281.9886	295.0000
58	F	1043	281.9885	281.9885	281.9885	281.9888	282.1047	295.0000
59	F	1063	282.0884	282.0884	282.0884	282.0884	282.1931	295.0000
60	F	1083	282.1509	282.1509	282.1509	282.1510	282.2522	295.0000
61	F	1103	282.1904	282.1904	282.1904	282.1905	282.2900	295.0000

ITERATION CONVERGENCE; ERROR: 0.576 TOLERENCE:0.100

ITERATION: 7 TIME: 1.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	234.4187	234.4190	234.4190	234.4190	234.7380	251.0000
3	F	47	237.0661	237.0686	237.0686	237.0686	237.5593	252.0000
4	F	63	239.1711	239.1717	239.1717	239.1717	239.8270	253.0000
5	F	79	240.9435	240.9442	240.9442	240.9442	241.7848	254.0000
6	F	95	242.4793	242.4798	242.4798	242.4795	243.4770	255.0000
7	F	112	243.8306	243.8310	243.8310	243.8310	245.0222	259.0000
8	F	129	245.0267	245.0270	245.0270	245.0270	246.4388	262.0000
9	F	148	246.0869	246.0868	246.0868	246.0868	247.7458	265.0000
10	F	163	247.0225	247.0223	247.0223	247.0223	248.9860	268.0000
11	F	180	247.8403	247.8396	247.8396	247.8396	250.1112	271.0000
12	F	197	248.5422	248.5410	248.5410	248.5411	251.1910	274.0000
13	F	214	249.1269	249.1252	249.1252	249.1252	252.2127	277.0000
14	F	231	249.5895	249.5873	249.5873	249.5873	253.2421	279.0000
15	F	248	249.9200	249.9174	249.9174	249.9174	254.2997	280.0000
16	F	265	250.1025	250.0995	250.0995	250.0995	255.3400	281.0000
17	F	282	250.1151	250.1117	250.1117	250.1117	256.3635	282.0000
18	F	299	249.9280	249.9245	249.9245	249.9246	257.3704	281.2000
19	F	316	249.5008	249.4977	249.4977	249.4977	258.3606	281.7000
20	F	333	248.7767	248.7744	248.7744	248.7744	259.3345	282.0000
21	F	350	247.8724	247.8717	247.8717	247.8717	260.2917	283.0000
22	F	367	246.0574	246.0589	246.0589	246.0589	261.2327	284.0000
23	F	384	243.7034	243.7072	243.7072	243.7073	262.1572	285.0000
24	F	400	240.1380	240.1416	240.1416	240.1417	263.0657	286.0000
25	T	415	232.0276	232.0283	232.0276	232.0283	263.9578	287.0000
26	T	430	230.0000	230.0000	230.0000	230.0000	264.8337	230.0000
27	T	445	232.7839	232.7836	232.7839	232.7836	265.6936	289.1001
28	F	461	243.9194	243.9180	243.9180	243.9180	266.5376	289.2000
29	F	478	249.0300	249.0278	249.0278	249.0278	267.3655	288.3000
30	F	495	252.7415	252.7388	252.7388	252.7389	268.1772	289.3888
31	F	513	255.8300	255.8290	255.8290	255.8290	268.9734	289.5000
32	F	531	258.8838	258.8830	258.8830	258.8831	269.7537	289.7000
33	F	549	261.4321	261.4314	261.4314	261.4316	270.5181	289.8000
34	F	568	263.8941	263.8934	263.8934	263.8935	271.2668	290.0000
35	F	587	265.8887	265.8882	265.8882	265.8884	271.9998	290.1001
36	F	606	267.4587	267.4583	267.4583	267.4584	272.7173	290.2000
37	F	625	268.0391	268.0388	268.0388	268.0388	273.4189	290.3000
38	F	644	270.4590	270.4587	270.4587	270.4588	274.1052	290.3888
39	F	663	271.7429	271.7427	271.7427	271.7428	274.7761	290.5000
40	F	683	272.9141	272.9138	272.9138	272.9139	275.4348	290.6001
41	F	703	273.9648	273.9646	273.9646	273.9647	276.0586	290.7000
42	F	723	274.9133	274.9131	274.9131	274.9132	276.6543	290.8000
43	F	743	275.7717	275.7717	275.7717	275.7718	277.2190	291.0000
44	F	763	276.5505	276.5503	276.5503	276.5505	277.7534	291.2000
45	F	783	277.2578	277.2576	277.2576	277.2576	278.2578	291.3999
46	F	803	277.9006	277.9006	277.9006	277.9007	278.7324	291.5000
47	F	823	278.4849	278.4849	278.4849	278.4851	279.1770	291.7000
48	F	843	279.0156	279.0156	279.0156	279.0157	279.5916	291.8000
49	F	863	279.4966	279.4966	279.4966	279.4967	279.9766	292.0000
50	F	883	279.9314	279.9314	279.9314	279.9314	280.3315	293.0000
51	F	903	280.3223	280.3223	280.3223	280.3225	280.6570	295.0000
52	F	923	280.6721	280.6721	280.6721	280.6723	280.9526	295.0000
53	F	943	280.9827	280.9824	280.9824	280.9827	281.2188	295.0000
54	F	963	281.2551	281.2551	281.2551	281.2552	281.4551	295.0000
55	F	983	281.4910	281.4910	281.4910	281.4911	281.6619	295.0000
56	F	1003	281.6914	281.6914	281.6914	281.6915	281.8389	295.0000
57	F	1023	281.8569	281.8569	281.8569	281.8571	281.9886	295.0000
58	F	1043	281.9885	281.9885	281.9885	281.9886	282.1047	295.0000
59	F	1063	282.0864	282.0864	282.0864	282.0864	282.1931	295.0000
60	F	1083	282.1509	282.1509	282.1509	282.1510	282.2522	295.0000
61	F	1103	282.1904	282.1904	282.1904	282.1905	282.2900	295.0000

ITERATION CONVERGENCE; ERROR: 0.048 TOLERENCE:0.100

STEADY STATE CONVERGENCE; ERROR:367.285 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 1.00 TIME STEP: 1

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.598	2	230.592	3	230.580	4	230.560	5	230.531	6	230.485	7	230.450	8	230.397
9	230.335	10	230.265	11	230.186	12	230.098	13	230.000	14	230.000	15	230.000	16	234.300
17	234.301	18	234.302	19	234.305	20	234.309	21	234.313	22	234.319	23	234.327	24	234.335
25	234.345	26	234.356	27	234.369	28	234.384	29	234.400	30	234.419	31	234.419	32	237.012
33	237.012	34	237.013	35	237.015	36	237.017	37	237.019	38	237.022	39	237.026	40	237.030
41	237.035	42	237.040	43	237.046	44	237.052	45	237.059	46	237.066	47	237.067	48	239.145
49	239.145	50	239.145	51	239.146	52	239.147	53	239.148	54	239.150	55	239.151	56	239.153
57	239.156	58	239.158	59	239.161	60	239.164	61	239.168	62	239.171	63	239.172	64	240.931
65	240.931	66	240.931	67	240.931	68	240.932	69	240.932	70	240.933	71	240.834	72	240.935
73	240.936	74	240.938	75	240.839	76	240.840	77	240.942	78	240.944	79	240.944	80	242.475
81	242.475	82	242.475	83	242.475	84	242.475	85	242.476	86	242.476	87	242.476	88	242.477
89	242.477	90	242.477	91	242.478	92	242.478	93	242.479	94	242.480	95	242.480	96	243.832
97	243.832	98	243.832	99	243.832	100	243.832	101	243.832	102	243.832	103	243.832	104	243.832
105	243.832	106	243.832	107	243.832	108	243.831	109	243.831	110	243.831	111	243.831	112	243.831
113	245.034	114	245.034	115	245.034	116	245.034	117	245.033	118	245.033	119	245.033	120	245.032
121	245.032	122	245.031	123	245.030	124	245.030	125	245.029	126	245.028	127	245.027	128	245.027
129	245.027	130	246.089	131	246.099	132	246.089	133	246.098	134	246.088	135	246.097	136	246.087
137	246.096	138	246.085	139	246.084	140	246.083	141	246.081	142	246.080	143	246.088	144	246.087
145	246.087	146	246.087	147	247.039	148	247.039	149	247.039	150	247.039	151	247.038	152	247.037
153	247.036	154	247.035	155	247.034	156	247.032	157	247.031	158	247.029	159	247.027	160	247.025
161	247.022	162	247.022	163	247.022	164	247.862	165	247.862	166	247.862	167	247.861	168	247.860
169	247.859	170	247.858	171	247.856	172	247.855	173	247.853	174	247.851	175	247.848	176	247.848
177	247.843	178	247.840	179	247.840	180	247.840	181	248.589	182	248.589	183	248.589	184	248.588
185	248.587	186	248.586	187	248.584	188	248.582	189	248.580	190	248.558	191	248.555	192	248.552
193	248.549	194	248.545	195	248.541	196	248.541	197	248.541	198	249.160	199	249.160	200	249.159
201	249.158	202	249.157	203	249.155	204	249.154	205	249.151	206	249.149	207	249.146	208	249.142
209	249.139	210	249.135	211	249.130	212	249.125	213	249.125	214	249.125	215	249.630	216	249.629
217	249.629	218	249.628	219	249.626	220	249.624	221	249.622	222	249.619	223	249.616	224	249.612
225	249.608	226	249.604	227	249.599	228	249.593	229	249.587	230	249.587	231	249.587	232	249.969
233	249.969	234	249.968	235	249.967	236	249.965	237	249.963	238	248.980	239	249.956	240	249.952
241	249.948	242	249.943	243	249.937	244	249.931	245	249.925	246	248.918	247	249.917	248	249.917
249	250.162	250	250.162	251	250.161	252	250.159	253	250.157	254	250.154	255	250.151	256	250.147
257	250.142	258	250.136	259	250.130	260	250.124	261	250.116	262	250.108	263	250.100	264	250.100
265	250.089	266	250.187	267	250.187	268	250.185	269	250.184	270	250.181	271	250.177	272	250.173
273	250.168	274	250.163	275	250.158	276	250.149	277	250.141	278	250.132	279	250.122	280	250.112
281	250.112	282	250.112	283	250.014	284	250.013	285	250.012	286	250.010	287	250.007	288	250.003
289	249.998	290	249.992	291	249.985	292	249.977	293	249.969	294	249.959	295	249.948	296	249.937
297	249.925	298	249.925	299	249.825	300	249.803	301	249.802	302	249.801	303	249.598	304	249.594
305	249.589	306	249.584	307	249.577	308	249.569	309	249.560	310	249.548	311	248.538	312	249.526
313	249.513	314	249.498	315	249.488	316	249.498	317	248.897	318	248.886	319	248.894	320	248.891
321	248.887	322	248.881	323	248.874	324	248.866	325	248.857	326	248.846	327	248.835	328	248.822
329	248.807	330	248.792	331	248.775	332	248.774	333	248.774	334	247.812	335	247.811	336	247.809
337	247.805	338	247.800	339	247.794	340	247.786	341	247.777	342	247.786	343	247.754	344	247.741
345	247.726	346	247.709	347	247.691	348	247.672	349	247.672	350	247.672	351	246.212	352	246.211
353	246.209	354	246.205	355	246.200	356	246.193	357	246.184	358	246.174	359	246.162	360	246.149
361	246.134	362	246.118	363	246.100	364	246.080	365	246.059	366	246.059	367	246.059	368	243.849
369	243.849	370	243.848	371	243.843	372	243.838	373	243.831	374	243.823	375	243.814	376	243.803
377	243.791	378	243.777	379	243.762	380	243.745	381	243.727	382	243.707	383	243.707	384	243.707
385	240.124	386	240.124	387	240.124	388	240.123	389	240.123	390	240.123	391	240.123	392	240.124
393	240.124	394	240.125	395	240.126	396	240.128	397	240.131	398	240.135	399	240.140	400	240.142
401	233.089	402	233.083	403	233.068	404	233.042	405	233.006	406	232.959	407	232.902	408	232.834
409	232.756	410	232.667	411	232.567	412	232.456	413	232.334	414	232.201	415	232.028	416	231.059
417	231.054	418	231.037	419	231.010	420	230.973	421	230.924	422	230.864	423	230.794	424	230.713
425	230.621	426	230.518	427	230.405	428	230.281	429	230.145	430	230.000	431	234.065	432	234.059

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
433	234.040	434	234.010	435	233.967	436	233.911	437	233.843	438	233.763	439	233.670	440	233.563
441	233.444	442	233.312	443	233.166	444	233.007	445	232.784	446	243.775	447	243.775	448	243.777
449	243.780	450	243.784	451	243.789	452	243.798	453	243.804	454	243.814	455	243.825	456	243.838
457	243.853	458	243.871	459	243.891	460	243.913	461	243.918	462	249.142	463	249.141	464	249.140
465	249.137	466	249.133	467	249.128	468	249.121	469	249.114	470	249.105	471	248.095	472	249.084
473	249.071	474	249.058	475	249.043	476	249.026	477	249.026	478	249.028	479	252.915	480	252.914
481	252.912	482	252.907	483	252.901	484	252.893	485	252.884	486	252.872	487	252.859	488	252.844
489	252.827	490	252.808	491	252.787	492	252.765	493	252.740	494	252.740	495	252.740	496	256.098
497	256.097	498	256.095	499	256.091	500	256.085	501	256.077	502	256.067	503	256.056	504	256.043
505	256.029	506	256.012	507	255.994	508	255.974	509	255.952	510	255.929	511	255.928	512	255.928
513	255.929	514	258.891	515	258.991	516	258.989	517	258.985	518	258.881	519	258.975	520	258.868
521	258.959	522	258.949	523	258.938	524	258.925	525	258.912	526	258.898	527	258.880	528	258.862
529	258.861	530	258.861	531	258.863	532	261.537	533	261.536	534	261.535	535	261.532	536	261.528
537	261.523	538	261.517	539	261.510	540	261.502	541	261.493	542	261.483	543	261.471	544	261.459
545	261.445	546	261.430	547	261.430	548	261.430	549	261.432	550	263.778	551	263.778	552	263.777
553	263.775	554	263.772	555	263.768	556	263.763	557	263.757	558	263.750	559	263.743	560	263.734
561	263.725	562	263.714	563	263.703	564	263.691	565	263.691	566	263.691	567	263.693	568	263.694
569	265.758	570	265.758	571	265.757	572	265.755	573	265.753	574	265.749	575	265.745	576	265.740
577	265.735	578	265.728	579	265.721	580	265.714	581	265.705	582	265.696	583	265.888	584	265.885
585	265.885	586	265.887	587	265.888	588	267.518	589	267.518	590	267.515	591	267.513	592	267.511
593	267.508	594	267.505	595	267.501	596	267.496	597	267.491	598	267.485	599	267.478	600	267.472
601	267.464	602	267.456	603	267.455	604	267.455	605	267.457	606	267.458	607	269.086	608	269.086
609	269.085	610	269.084	611	269.082	612	269.080	613	269.077	614	269.074	615	269.070	616	269.065
617	269.060	618	269.055	619	269.049	620	269.043	621	269.038	622	269.038	623	269.036	624	269.038
625	269.039	626	270.497	627	270.497	628	270.496	629	270.495	630	270.494	631	270.492	632	270.490
633	270.487	634	270.484	635	270.480	636	270.476	637	270.472	638	270.467	639	270.461	640	270.456
641	270.456	642	270.456	643	270.457	644	270.459	645	271.774	646	271.773	647	271.773	648	271.772
649	271.771	650	271.769	651	271.767	652	271.765	653	271.763	654	271.760	655	271.758	656	271.753
657	271.749	658	271.744	659	271.740	660	271.740	661	271.740	662	271.741	663	271.743	664	272.934
665	272.933	666	272.933	667	272.932	668	272.931	669	272.930	670	272.929	671	272.927	672	272.925
673	272.923	674	272.920	675	272.917	676	272.914	677	272.911	678	272.907	679	272.907	680	272.907
681	272.910	682	272.913	683	272.914	684	273.979	685	273.978	686	273.979	687	273.978	688	273.977
689	273.976	690	273.975	691	273.974	692	273.972	693	273.970	694	273.968	695	273.966	696	273.964
697	273.961	698	273.958	699	273.958	700	273.958	701	273.961	702	273.964	703	273.965	704	274.923
705	274.923	706	274.923	707	274.923	708	274.922	709	274.921	710	274.920	711	274.919	712	274.918
713	274.916	714	274.915	715	274.913	716	274.911	717	274.909	718	274.908	719	274.906	720	274.906
721	274.909	722	274.912	723	274.913	724	275.778	725	275.778	726	275.776	727	275.778	728	275.777
729	275.777	730	275.778	731	275.775	732	275.774	733	275.773	734	275.771	735	275.770	736	275.768
737	275.767	738	275.765	739	275.765	740	275.765	741	275.768	742	275.770	743	275.772	744	276.554
745	276.554	746	276.554	747	276.554	748	276.553	749	276.553	750	276.552	751	276.551	752	276.551
753	276.550	754	276.549	755	276.547	756	276.546	757	276.545	758	276.543	759	276.543	760	276.543
761	276.546	762	276.549	763	276.550	764	277.259	765	277.259	766	277.259	767	277.259	768	277.258
769	277.258	770	277.257	771	277.257	772	277.256	773	277.255	774	277.255	775	277.254	776	277.253
777	277.252	778	277.251	779	277.251	780	277.251	781	277.253	782	277.256	783	277.258	784	277.900
785	277.900	786	277.900	787	277.900	788	277.899	789	277.899	790	277.899	791	277.898	792	277.898
793	277.897	794	277.897	795	277.895	796	277.895	797	277.894	798	277.893	799	277.893	800	277.893
801	277.898	802	277.898	803	277.901	804	278.482	805	278.482	806	278.482	807	278.482	808	278.482
809	278.482	810	278.482	811	278.481	812	278.481	813	278.480	814	278.480	815	278.479	816	278.479
817	278.478	818	278.478	819	278.478	820	278.478	821	278.480	822	278.483	823	278.485	824	279.012
825	279.012	826	279.012	827	279.012	828	279.011	829	279.011	830	279.011	831	279.011	832	279.011
833	279.010	834	279.010	835	279.010	836	279.009	837	279.009	838	279.008	839	279.008	840	279.008
841	279.011	842	279.013	843	279.018	844	279.492	845	279.492	846	279.491	847	279.491	848	279.491
849	279.491	850	279.491	851	279.491	852	279.491	853	279.491	854	279.490	855	279.490	856	279.490
857	279.489	858	279.489	859	279.489	860	279.488	861	279.492	862	279.494	863	279.497	864	279.925
865	279.925	866	279.925	867	279.925	868	279.925	869	279.925	870	279.925	871	279.925	872	279.925
873	279.925	874	279.924	875	279.924	876	279.924	877	279.924	878	279.924	879	279.924	880	279.924
881	279.926	882	279.929	883	279.931	884	280.315	885	280.315	886	280.315	887	280.315	888	280.315
889	280.315	890	280.315	891	280.315	892	280.315	893	280.315	894	280.315	895	280.315	896	280.315
897	280.315	898	280.315	899	280.315	900	280.315	901	280.317	902	280.320	903	280.322	904	280.885
905	280.885	906	280.885	907	280.885	908	280.885	909	280.885	910	280.885	911	280.885	912	280.885

913	280.885	914	280.885	915	280.884	916	280.884	917	280.884	918	280.884	919	280.884	920	280.8
921	280.887	922	280.870	923	280.872	924	280.874	925	280.874	926	280.874	927	280.874	928	280.8
929	280.874	930	280.874	931	280.874	932	280.875	933	280.875	934	280.875	935	280.875	936	280.8
937	280.875	938	280.875	939	280.875	940	280.875	941	280.877	942	280.880	943	280.883	944	281.246
945	281.246	946	281.246	947	281.246	948	281.246	949	281.247	950	281.247	951	281.247	952	281.247
953	281.247	954	281.247	955	281.247	956	281.247	957	281.247	958	281.247	959	281.247	960	281.247
961	281.250	962	281.252	963	281.255	964	281.482	965	281.482	966	281.482	967	281.482	968	281.4
969	281.482	970	281.482	971	281.482	972	281.482	973	281.482	974	281.483	975	281.483	976	281.4
977	281.483	978	281.483	979	281.483	980	281.483	981	281.486	982	281.488	983	281.491	984	281.5
985	281.682	986	281.682	987	281.682	988	281.682	989	281.682	990	281.682	991	281.682	992	281.5
993	281.683	994	281.683	995	281.683	996	281.683	997	281.683	998	281.683	999	281.684	1000	281.684
1001	281.685	1002	281.688	1003	281.691	1004	281.847	1005	281.847	1006	281.847	1007	281.847	1008	281.848
1009	281.848	1010	281.848	1011	281.848	1012	281.848	1013	281.848	1014	281.848	1015	281.848	1016	281.849
1017	281.849	1018	281.849	1019	281.849	1020	281.849	1021	281.852	1022	281.854	1023	281.857	1024	281.9
1025	281.979	1026	281.979	1027	281.979	1028	281.979	1029	281.979	1030	281.979	1031	281.979	1032	281.9
1033	281.979	1034	281.980	1035	281.980	1036	281.980	1037	281.980	1038	281.981	1039	281.981	1040	281.9
1041	281.983	1042	281.986	1043	281.989	1044	282.076	1045	282.076	1046	282.078	1047	282.077	1048	282.0
1049	282.077	1050	282.077	1051	282.077	1052	282.077	1053	282.077	1054	282.077	1055	282.078	1056	282.078
1057	282.078	1058	282.078	1059	282.078	1060	282.078	1061	282.081	1062	282.083	1063	282.088	1064	282.141
1065	282.141	1066	282.141	1067	282.141	1068	282.141	1069	282.141	1070	282.141	1071	282.141	1072	282.141
1073	282.142	1074	282.142	1075	282.142	1076	282.142	1077	282.143	1078	282.143	1079	282.143	1080	282.1
1081	282.145	1082	282.148	1083	282.151	1084	282.170	1085	282.170	1086	282.170	1087	282.170	1088	282.1
1089	282.170	1090	282.170	1091	282.171	1092	282.171	1093	282.172	1094	282.172	1095	282.173	1096	282.1
1097	282.174	1098	282.174	1099	282.174	1100	282.175	1101	282.178	1102	282.184	1103	282.180		

NODES ALONG THE WATER TABLE

15	31	47	63	79	95	112	129	145	163	180	197	214	231	248	265	282	299	316	333	350	367	384	400	415
430	445	461	478	495	513	531	549	566	587	606	625	644	663	683	703	723	743	763	783	803	823	843	863	883
903	923	943	963	983	1003	1023	1043	1063	1083	1103														

NEW HYDRAULIC CONDUCTIVITY DISTRIBUTION

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FINITE ELEMENT GRID SUMMARY

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  1275: ESTIMATED NUMBER OF NODES
  1103: ACTUAL NUMBER OF NODES
  2600: ESTIMATED NUMBER OF ELEMENTS
  2048: ACTUAL NUMBER OF ELEMENTS
    22: ESTIMATED BANDWITH
    18: ESTIMATED NUMBER OF CONSTANT HEAD NODES
     8: ACTUAL NUMBER OF CONSTANT HEAD NODES
  1095: NUMBER OF NODES WITH UNKNOWN HEADS
    22: FINAL BANDWIDTH
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ITERATION: 1 TIME: 2.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	234.4190	233.9717	233.9717	233.9718	234.4190	251.0000
3	F	47	237.0868	236.3389	236.3389	236.3389	237.0868	252.0000
4	F	63	239.1717	238.1984	238.1984	238.1984	239.1717	253.0000
5	F	79	240.9442	239.7440	239.7440	239.7440	240.9442	254.0000
6	F	95	242.4799	241.0592	241.0592	241.0592	242.4799	255.0000
7	F	112	243.8310	242.1893	242.1893	242.1893	243.8310	256.0000
8	F	129	245.0270	243.1818	243.1818	243.1818	245.0270	257.0000
9	F	145	246.0868	243.9939	243.9939	243.9939	246.0868	258.0000
10	F	163	247.0223	244.6967	244.6967	244.6967	247.0223	259.0000
11	F	180	247.8398	245.2772	245.2772	245.2772	247.8398	271.0000
12	F	197	248.5410	245.7393	245.7393	245.7393	248.5410	274.0000
13	F	214	249.1252	246.0847	246.0847	246.0847	249.1252	277.0000
14	F	231	249.5873	246.3133	246.3133	246.3133	249.5873	279.0000
15	F	248	249.9174	246.4235	246.4235	246.4235	249.9174	280.0000
16	F	265	250.0995	246.4123	246.4123	246.4123	250.0995	281.0000

17	F	282	250.1117	246.2753	246.2753	246.2753	250.1117	282.0000
18	F	299	249.9245	246.0071	246.0071	246.0071	249.9245	281.2000
19	F	316	249.4977	245.5006	245.5006	245.5006	248.4977	281.7000
20	F	333	248.7744	245.0486	245.0486	245.0486	248.7744	282.0000
21	F	350	247.8717	244.3329	244.3329	244.3329	247.8717	283.0000
22	F	367	246.0589	243.4413	243.4413	243.4413	246.0589	284.0000
23	F	384	243.7072	242.3411	242.3411	242.3411	243.7072	286.0000
24	F	400	240.1416	240.9701	240.9701	240.9702	240.1416	288.0000
25	F	415	232.0283	238.6666	238.6666	238.6666	232.0283	287.0000
26	F	430	230.0000	234.3101	234.3101	234.3101	230.0000	290.6001
27	T	445	230.0000	230.0000	230.0000	230.0000	232.7838	230.0000
28	T	460	230.0000	230.0000	230.0000	230.0000	243.9180	230.0000
29	T	477	248.0278	232.5029	249.0278	232.5029	249.0278	289.3000
30	F	495	252.7388	242.5146	242.5146	242.5146	252.7388	289.3888
31	F	513	255.9290	246.3322	246.3322	246.3323	255.9290	289.5000
32	F	531	258.8630	249.8957	249.8957	249.8957	258.8630	289.7000
33	F	549	261.4314	253.1533	253.1533	253.1533	261.4314	289.8000
34	F	566	263.8934	256.1189	256.1189	256.1191	263.8934	290.0000
35	F	587	265.8882	258.8154	258.8154	258.8155	265.8882	290.1001
36	F	606	267.4583	261.2849	261.2849	261.2850	267.4583	290.2000
37	F	625	269.0388	263.4905	263.4905	263.4906	269.0388	290.3000
38	F	644	270.4587	265.5142	265.5142	265.5144	270.4587	290.3888
39	F	662	271.7427	267.3587	267.3587	267.3588	271.7427	290.5000
40	F	683	272.9138	269.0386	269.0386	269.0388	272.9138	290.6001
41	F	703	273.9846	270.5498	270.5498	270.5498	273.9846	290.7000
42	F	723	274.9131	271.9146	271.9146	271.9147	274.9131	290.8000
43	F	743	275.7717	273.1456	273.1456	273.1456	275.7717	291.0000
44	F	763	276.5503	274.2556	274.2556	274.2555	276.5503	291.2000
45	F	783	277.2576	275.2561	275.2561	275.2563	277.2576	291.3999
46	F	803	277.9006	276.1577	276.1577	276.1578	277.9006	291.5000
47	F	823	278.4849	276.9890	276.9890	276.9890	278.4849	291.7000
48	F	843	279.0156	277.6978	277.6978	277.6978	279.0156	291.8000
49	F	863	279.4986	278.3513	278.3513	278.3514	279.4986	292.0000
50	F	883	279.9314	278.9353	278.9353	278.9353	279.9314	293.0000
51	F	903	280.3223	279.4548	279.4548	279.4550	280.3223	295.0000
52	F	923	280.6721	279.9148	279.9148	279.9150	280.6721	295.0000
53	F	943	280.9824	280.3188	280.3188	280.3189	280.9824	295.0000
54	F	963	281.2551	280.6899	280.6899	280.6702	281.2551	295.0000
55	F	983	281.4910	280.9714	280.9714	280.9715	281.4910	295.0000
56	F	1003	281.6914	281.2249	281.2249	281.2251	281.6914	295.0000
57	F	1023	281.8569	281.4329	281.4329	281.4329	281.8569	295.0000
58	F	1043	281.9885	281.5962	281.5962	281.5964	281.9885	295.0000
59	F	1063	282.0864	281.7166	281.7166	281.7165	282.0864	295.0000
60	F	1083	282.1508	281.7944	281.7944	281.7945	282.1508	295.0000
61	F	1103	282.1904	281.8384	281.8384	281.8384	282.1904	295.0000

******* REFORM THE GRID *******

ITERATION CONVERGENCE; ERROR:168.303 TOLERENCE:0.100

FINITE ELEMENT GRID SUMMARY

1275: ESTIMATED NUMBER OF NODES
1093: ACTUAL NUMBER OF NODES
2500: ESTIMATED NUMBER OF ELEMENTS
2030: ACTUAL NUMBER OF ELEMENTS
22: ESTIMATED BANDWITH
18: ESTIMATED NUMBER OF CONSTANT HEAD NODES
7: ACTUAL NUMBER OF CONSTANT HEAD NODES

1086: NUMBER OF NODES WITH UNKNOWN HEADS

ITERATION: 2 TIME: 2.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	233.9717	233.9047	233.9047	233.9047	234.4190	251.0000
3	F	47	236.3369	236.2785	236.2785	236.2785	237.0868	252.0000
4	F	63	238.1984	238.1597	238.1597	238.1597	239.1717	253.0000
5	F	79	239.7440	239.7280	239.7280	239.7280	240.9442	254.0000
6	F	95	241.0592	241.0667	241.0667	241.0667	242.4789	256.0000
7	F	111	242.1893	242.2217	242.2217	242.2217	243.8310	259.0000
8	F	128	243.1618	243.2202	243.2202	243.2202	245.0270	262.0000
9	F	145	243.9838	244.0768	244.0768	244.0768	246.0868	265.0000
10	F	162	244.6867	244.8022	244.8022	244.8022	247.0223	268.0000
11	F	179	245.2772	245.4028	245.4028	245.4026	247.8386	271.0000
12	F	196	245.7393	245.8811	245.8811	245.8811	248.5410	274.0000
13	F	213	246.0847	246.2378	246.2378	246.2378	249.1252	277.0000
14	F	230	246.3133	246.4708	246.4708	246.4708	249.5873	279.0000
15	F	247	246.4235	246.5760	246.5760	246.5760	249.9174	280.0000
16	F	264	246.4123	246.5476	246.5476	246.5476	250.0995	281.0000
17	F	281	246.2753	246.3778	246.3778	246.3778	250.1117	282.0000
18	F	298	246.0071	246.0571	246.0571	246.0571	249.9245	281.2000
19	F	315	245.5006	245.5747	245.5747	245.5747	249.4977	281.7000
20	F	332	245.0486	244.9181	244.9181	244.9181	248.7744	282.0000
21	F	349	244.3329	244.0744	244.0744	244.0745	247.8717	283.0000
22	F	366	243.4413	243.0316	243.0316	243.0316	246.0589	284.0000
23	F	382	242.3411	241.7811	241.7811	241.7811	243.7072	286.0000
24	F	398	240.9701	240.3326	240.3326	240.3326	240.1416	286.0000
25	F	414	238.6666	238.7353	238.7353	238.7353	232.0283	287.0000
26	F	430	234.3101	234.1477	234.1477	234.1477	230.0000	290.6001
27	T	445	230.0000	230.0000	230.0000	230.0000	232.7838	230.0000
28	T	460	230.0000	230.0000	230.0000	230.0000	243.9180	230.0000
29	T	476	232.5029	232.0894	232.5029	232.0885	249.0278	289.3000
30	F	493	242.5146	240.4473	240.4473	240.4473	252.7388	289.3888
31	F	510	246.3322	245.5060	245.5060	245.5060	255.8290	289.5000
32	F	527	249.8957	248.4182	249.4182	249.4182	258.8630	289.7000
33	F	545	253.1533	252.7320	252.7320	252.7320	261.4314	289.8000
34	F	563	256.1189	255.7467	255.7467	255.7467	263.8934	290.0000
35	F	581	258.8154	258.4875	258.4875	258.4877	265.8882	290.1001
36	F	599	261.2849	260.9797	260.9797	260.8798	267.4583	290.2000
37	F	618	263.4905	263.2458	263.2458	263.2461	269.0388	290.3000
38	F	637	265.5142	265.3022	265.3022	265.3024	270.4587	290.3888
39	F	656	267.3587	267.1707	267.1707	267.1707	271.7427	290.5000
40	F	675	269.0386	268.8730	268.8730	268.8731	272.9138	290.6001
41	F	694	270.5498	270.4077	270.4077	270.4077	273.9846	290.7000
42	F	713	271.9146	271.7935	271.7935	271.7935	274.9131	290.8000
43	F	733	273.1455	273.0444	273.0444	273.0447	275.7717	291.0000
44	F	753	274.2556	274.1709	274.1709	274.1711	276.5503	291.2000
45	F	773	275.2561	275.1851	275.1851	275.1852	277.2576	291.3999
46	F	793	276.1577	276.0977	276.0977	276.0978	277.9006	291.5000
47	F	813	276.9890	276.9182	276.9182	276.9183	278.4849	291.7000
48	F	833	277.6978	277.6548	277.6548	277.6548	279.0156	291.8000
49	F	853	278.3513	278.3145	278.3145	278.3146	279.4986	292.0000
50	F	873	278.9353	278.9038	278.9038	278.9038	279.9314	293.0000
51	F	893	279.4548	279.4277	279.4277	279.4278	280.3223	295.0000
52	F	913	279.9148	279.8914	279.8914	279.8914	280.6721	295.0000
53	F	933	280.3188	280.2983	280.2983	280.2984	280.9824	295.0000

54	F	953	280.6699	280.6519	280.6519	280.6521	281.2551	295.0000
55	F	973	280.9714	280.9553	280.9553	280.9554	281.4910	295.0000
56	F	993	281.2249	281.2104	281.2104	281.2106	281.6914	295.0000
57	F	1013	281.4329	281.4194	281.4194	281.4196	281.8569	295.0000
58	F	1033	281.5962	281.5840	281.5840	281.5840	281.9885	295.0000
59	F	1053	281.7186	281.7048	281.7048	281.7048	282.0864	295.0000
60	F	1073	281.7944	281.7830	281.7830	281.7831	282.1509	295.0000
61	F	1093	281.8384	281.8269	281.8269	281.8270	282.1904	295.0000

******* REFORM THE GRID *******

ITERATION CONVERGENCE; ERROR: 10.241 TOLERENCE:0.100

FINITE ELEMENT GRID SUMMARY

1275: ESTIMATED NUMBER OF NODES
1091: ACTUAL NUMBER OF NODES
2500: ESTIMATED NUMBER OF ELEMENTS
2027: ACTUAL NUMBER OF ELEMENTS
22: ESTIMATED BANDWITH
18: ESTIMATED NUMBER OF CONSTANT HEAD NODES
6: ACTUAL NUMBER OF CONSTANT HEAD NODES
1085: NUMBER OF NODES WITH UNKNOWN HEADS

ITERATION: 3 TIME: 2.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	233.9047	233.9144	233.9144	233.9144	234.4190	251.0000
3	F	47	236.2785	236.2871	236.2871	236.2871	237.0886	252.0000
4	F	63	238.1597	238.1816	238.1816	238.1816	239.1717	253.0000
5	F	79	239.7280	239.7503	239.7503	239.7503	240.9442	254.0000
6	F	95	241.0867	241.0879	241.0879	241.0879	242.4789	256.0000
7	F	111	242.2217	242.2410	242.2410	242.2410	243.8310	259.0000
8	F	128	243.2202	243.2371	243.2371	243.2371	245.0270	262.0000
9	F	145	244.0768	244.0913	244.0913	244.0914	246.0888	265.0000
10	F	162	244.8022	244.8146	244.8146	244.8146	247.0223	268.0000
11	F	179	245.4026	245.4133	245.4133	245.4133	247.8386	271.0000
12	F	196	245.8811	245.8906	245.8906	245.8907	248.5410	274.0000
13	F	213	246.2378	246.2471	246.2471	246.2471	248.1252	277.0000
14	F	230	246.4708	246.4809	246.4809	246.4809	248.5873	278.0000
15	F	247	246.5760	246.5882	246.5882	246.5882	248.9174	280.0000
16	F	264	246.5476	246.5831	246.5631	246.5631	250.0995	281.0000
17	F	281	246.3778	246.3978	246.3978	246.3978	250.1117	282.0000
18	F	298	246.0571	246.0827	246.0827	246.0827	249.9245	281.2000
19	F	315	245.5747	245.6058	245.6058	245.6058	249.4977	281.7000
20	F	332	244.9181	244.9533	244.9533	244.9533	248.7744	282.0000
21	F	349	244.0744	244.1094	244.1094	244.1094	247.6717	283.0000
22	F	366	243.0316	243.0576	243.0576	243.0576	246.0589	284.0000
23	F	382	241.7811	241.7834	241.7834	241.7834	243.7072	285.0000
24	F	398	240.3326	240.2924	240.2924	240.2924	240.1416	286.0000
25	F	414	238.7353	238.6767	238.6767	238.6767	232.0283	287.0000
26	F	430	234.1477	234.1245	234.1245	234.1245	230.0000	290.6001
27	T	445	230.0000	230.0000	230.0000	230.0000	232.7836	230.0000
28	T	460	230.0000	230.0000	230.0000	230.0000	243.9180	230.0000
29	T	475	232.0894	232.4495	232.0894	232.4496	249.0278	289.3000
30	F	491	240.4473	242.2478	242.2478	242.2478	252.7399	289.3999
31	F	508	245.5060	247.2348	247.2349	247.2349	255.9290	289.5000
32	F	525	249.4152	250.9244	250.9244	250.9244	258.8630	289.7000
33	F	543	252.7320	254.0168	254.0168	254.0168	261.4314	288.8000
34	F	561	255.7467	256.8193	256.8193	256.8196	263.6934	290.0000
35	F	579	258.4875	259.3833	259.3833	259.3833	265.8882	290.1001
36	F	597	260.9797	261.7286	261.7286	261.7287	267.4583	290.2000
37	F	616	263.2458	263.8687	263.8687	263.8688	269.0388	290.3000
38	F	635	265.3022	265.8213	265.8213	265.8213	270.4587	290.3888
39	F	654	267.1707	267.6028	267.6028	267.6029	271.7427	290.5000
40	F	673	268.8730	269.2329	269.2329	269.2329	272.8138	290.6001
41	F	692	270.3077	270.7070	270.7070	270.7072	273.9646	290.7000
42	F	711	271.7935	272.0425	272.0425	272.0425	274.9131	290.8000
43	F	731	273.0444	273.2517	273.2517	273.2518	275.7717	291.0000
44	F	751	274.1709	274.3433	274.3433	274.3433	276.5503	291.2000
45	F	771	275.1851	275.3284	275.3284	275.3285	277.2576	291.3998
46	F	791	276.0977	276.2168	276.2168	276.2170	277.9006	291.5000
47	F	811	276.9182	277.0173	277.0173	277.0175	278.4849	291.7000
48	F	831	277.6548	277.7373	277.7373	277.7374	279.0186	291.8000
49	F	851	278.3145	278.3833	278.3833	278.3835	279.4966	292.0000
50	F	871	278.9038	278.9612	278.9612	278.9614	279.9314	293.0000
51	F	891	279.4277	279.4758	279.4758	279.4760	280.3223	295.0000
52	F	911	279.8914	279.9316	279.9316	279.9319	280.6721	295.0000
53	F	931	280.2983	280.3323	280.3323	280.3325	280.9824	295.0000
54	F	951	280.6519	280.6809	280.6809	280.6810	281.2551	295.0000
55	F	971	280.9553	280.9800	280.9800	280.9801	281.4910	295.0000
56	F	991	281.2104	281.2319	281.2319	281.2321	281.6914	295.0000
57	F	1011	281.4194	281.4385	281.4385	281.4385	281.8569	295.0000
58	F	1031	281.5840	281.6008	281.6008	281.6010	281.9885	295.0000
59	F	1051	281.7048	281.7205	281.7205	281.7205	282.0864	295.0000
60	F	1071	281.7830	281.7978	281.7979	281.7980	282.1509	295.0000
61	F	1091	281.8269	281.8416	281.8416	281.8417	282.1904	295.0000

ITERATION CONVERGENCE; ERROR: 13.274 TOLERENCE:0.100

ITERATION: 4 TIME: 2.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	233.9144	233.9153	233.9153	233.9153	234.4190	251.0000
3	F	47	236.2971	236.2969	236.2969	236.2969	237.0886	252.0000
4	F	63	238.1816	238.1802	238.1802	238.1802	239.1717	253.0000
5	F	79	239.7503	239.7480	239.7480	239.7480	240.9442	254.0000
6	F	95	241.0879	241.0851	241.0851	241.0851	242.4789	256.0000
7	F	111	242.2410	242.2380	242.2380	242.2380	243.8310	259.0000
8	F	128	243.2371	243.2341	243.2341	243.2341	245.0270	262.0000
9	F	145	244.0913	244.0884	244.0884	244.0884	246.0888	265.0000
10	F	162	244.8146	244.8118	244.8118	244.8118	247.0223	268.0000
11	F	179	245.4133	245.4108	245.4108	245.4108	247.8386	271.0000
12	F	196	245.8906	245.8883	245.8883	245.8883	248.5410	274.0000
13	F	213	246.2471	246.2450	246.2450	246.2450	249.1252	277.0000
14	F	230	246.4809	246.4789	246.4789	246.4789	249.5873	278.0000
15	F	247	246.5882	246.5864	246.5864	246.5864	248.9174	280.0000
16	F	264	246.5631	246.5614	246.5614	246.5614	250.0995	281.0000
17	F	281	246.3978	246.3964	246.3964	246.3964	250.1117	282.0000
18	F	298	246.0827	246.0816	246.0816	246.0817	249.9245	281.2000
19	F	315	245.6058	245.6054	245.6054	245.6054	249.4977	281.7000
20	F	332	244.9533	244.9540	244.9540	244.9540	248.7744	282.0000
21	F	349	244.1094	244.1116	244.1116	244.1118	247.6717	283.0000

22	F	386	243.0578	243.0618	243.0618	243.0618	246.0588	284.0000
23	F	382	241.7834	241.7888	241.7888	241.7888	243.7072	285.0000
24	F	398	240.2924	240.2984	240.2984	240.2984	240.1416	286.0000
25	F	414	238.6787	238.6755	238.6755	238.6755	232.0283	287.0000
26	F	430	234.1245	234.1250	234.1250	234.1250	230.0000	290.6001
27	T	445	230.0000	230.0000	230.0000	230.0000	232.7836	230.0000
28	T	460	230.0000	230.0000	230.0000	230.0000	243.9180	230.0000
29	T	475	232.4495	232.4130	232.4495	232.4130	249.0278	289.3000
30	F	491	242.2478	242.0852	242.0852	242.0852	252.7399	289.3999
31	F	508	247.2349	246.7795	246.7795	246.7795	255.9290	289.5000
32	F	525	250.9244	250.3517	250.3517	250.3517	258.8630	289.7000
33	F	543	254.0168	253.4598	253.4598	253.4598	261.4314	289.8000
34	F	561	256.8193	256.3538	256.3538	256.3538	263.8934	290.0000
35	F	579	259.3833	258.8834	258.8834	258.8934	265.8882	290.1001
36	F	597	261.7266	261.4006	261.4006	261.4007	267.4583	290.2000
37	F	616	263.8687	263.5962	263.5962	263.5964	269.0388	290.3000
38	F	635	265.8213	265.5938	265.5938	265.5938	270.4587	290.3999
39	F	654	267.6028	267.4128	267.4128	267.4130	271.7427	290.5000
40	F	673	269.2329	269.0745	269.0745	269.0745	272.9138	290.6001
41	F	692	270.7070	270.5750	270.5750	270.5751	273.9846	290.7000
42	F	711	272.0425	271.9324	271.9324	271.9325	274.9131	290.8000
43	F	731	273.2517	273.1602	273.1602	273.1602	275.7717	291.0000
44	F	751	274.3433	274.2668	274.2668	274.2670	276.5503	291.2000
45	F	771	275.3284	275.2649	275.2649	275.2649	277.2575	291.3888
46	F	791	276.2188	276.1641	276.1641	276.1641	277.9006	291.5000
47	F	811	277.0173	276.9731	276.9731	276.9734	278.4849	291.7000
48	F	831	277.7373	277.7004	277.7004	277.7006	279.0156	291.8000
49	F	851	278.3833	278.3525	278.3525	278.3528	279.4986	292.0000
50	F	871	278.9612	278.9355	278.9355	278.9357	279.9314	293.0000
51	F	891	279.4756	279.4543	279.4543	279.4545	280.3223	295.0000
52	F	911	279.9316	279.9136	279.9136	279.9138	280.6721	295.0000
53	F	931	280.3323	280.3171	280.3171	280.3172	280.9824	295.0000
54	F	951	280.6809	280.6680	280.6680	280.6680	281.2551	295.0000
55	F	971	280.9800	280.9690	280.9690	280.9690	281.4910	295.0000
56	F	991	281.2319	281.2222	281.2222	281.2224	281.6914	295.0000
57	F	1011	281.4385	281.4299	281.4299	281.4300	281.8569	295.0000
58	F	1031	281.6008	281.5933	281.5933	281.5934	281.9885	295.0000
59	F	1051	281.7205	281.7134	281.7134	281.7135	282.0864	295.0000
60	F	1071	281.7979	281.7910	281.7910	281.7913	282.1508	295.0000
61	F	1091	281.8416	281.8350	281.8350	281.8350	282.1904	295.0000

ITERATION CONVERGENCE; ERROR: 4.638 TOLERENCE:0.100

ITERATION: 5 TIME: 2.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	233.9153	233.9149	233.9149	233.9148	234.4190	251.0000
3	F	47	236.2989	236.2964	236.2964	236.2964	237.0868	252.0000
4	F	63	238.1802	238.1797	238.1797	238.1798	239.1717	253.0000
5	F	79	239.7480	239.7477	239.7477	239.7477	240.9442	254.0000
6	F	95	241.0851	241.0849	241.0848	241.0850	242.4788	256.0000
7	F	111	242.2380	242.2378	242.2378	242.2378	243.8310	259.0000
8	F	128	243.2341	243.2341	243.2341	243.2341	245.0270	262.0000
9	F	145	244.0884	244.0885	244.0885	244.0885	246.0868	265.0000
10	F	162	244.8118	244.8118	244.8118	244.8118	247.0223	268.0000
11	F	179	245.4108	245.4109	245.4108	245.4109	247.8398	271.0000
12	F	196	245.8883	245.8884	245.8884	245.8884	248.5410	274.0000
13	F	213	246.2450	246.2451	246.2451	246.2451	249.1252	277.0000
14	F	230	246.4789	246.4790	246.4790	246.4790	249.5873	278.0000
15	F	247	246.5864	246.5864	246.5864	246.5864	249.9174	280.0000
16	F	264	246.5814	246.5814	246.5814	246.5814	250.0995	281.0000
17	F	281	246.3964	246.3963	246.3963	246.3964	250.1117	282.0000
18	F	298	246.0816	246.0815	246.0815	246.0815	249.9245	281.2000
19	F	315	245.6054	245.6052	245.6052	245.6052	249.4977	281.7000
20	F	332	244.9540	244.9537	244.9537	244.9537	248.7744	282.0000
21	F	349	244.1116	244.1113	244.1113	244.1113	247.8717	283.0000
22	F	366	243.0816	243.0614	243.0614	243.0614	246.0589	284.0000
23	F	382	241.7888	241.7888	241.7888	241.7888	243.7072	285.0000
24	F	398	240.2964	240.2968	240.2968	240.2968	240.1416	286.0000
25	F	414	238.6755	238.6759	238.6759	238.6759	232.0283	287.0000
26	F	430	234.1250	234.1251	234.1251	234.1251	230.0000	290.6001
27	T	445	230.0000	230.0000	230.0000	230.0000	232.7836	230.0000
28	T	460	230.0000	230.0000	230.0000	230.0000	243.9180	230.0000
29	T	475	232.4130	232.4106	232.4130	232.4106	249.0278	289.3000
30	F	491	242.0852	242.0531	242.0531	242.0531	252.7398	289.3988
31	F	508	246.7795	246.8135	246.8135	246.8135	255.9290	289.5000
32	F	525	250.3517	250.4387	250.4387	250.4387	258.8630	289.7000
33	F	543	253.4598	253.5632	253.5632	253.5632	261.4314	289.8000
34	F	561	256.3538	256.4404	256.4404	256.4405	263.8934	290.0000
35	F	579	258.8934	259.0862	259.0862	259.0862	265.8882	290.1001
36	F	597	261.4006	261.4617	261.4617	261.4618	267.4583	290.2000
37	F	616	263.5962	263.8475	263.8475	263.8476	269.0388	290.3000
38	F	635	265.5938	265.8365	265.8365	265.8367	270.4587	290.3988
39	F	654	267.4128	267.4487	267.4487	267.4488	271.7427	290.5000
40	F	673	269.0745	269.1045	269.1045	269.1045	272.9138	290.6001
41	F	692	270.5750	270.6001	270.6001	270.6002	273.9846	290.7000
42	F	711	271.9324	271.9534	271.9534	271.9534	274.9131	290.8000
43	F	731	273.1602	273.1775	273.1775	273.1777	275.7717	291.0000
44	F	751	274.2668	274.2815	274.2815	274.2816	276.5503	291.2000
45	F	771	275.2649	275.2789	275.2769	275.2771	277.2576	291.3988
46	F	791	276.1641	276.1741	276.1741	276.1742	277.9006	291.5000
47	F	811	276.8731	276.9817	276.9817	276.9818	278.4849	291.7000
48	F	831	277.7004	277.7075	277.7075	277.7077	279.0156	291.8000
49	F	851	278.3525	278.3586	278.3586	278.3587	279.4986	292.0000
50	F	871	278.9355	278.9404	278.9404	278.9406	279.9314	293.0000
51	F	891	279.4543	279.4585	279.4585	279.4587	280.3223	295.0000
52	F	911	279.9136	279.9172	279.9172	279.9173	280.6721	295.0000
53	F	931	280.3171	280.3201	280.3201	280.3201	280.9824	295.0000
54	F	951	280.6680	280.6704	280.6704	280.6705	281.2551	295.0000
55	F	971	280.9690	280.9709	280.9709	280.9712	281.4910	295.0000
56	F	991	281.2222	281.2241	281.2241	281.2243	281.6914	295.0000
57	F	1011	281.4299	281.4316	281.4316	281.4317	281.8569	295.0000
58	F	1031	281.5933	281.5947	281.5947	281.5948	281.9885	295.0000
59	F	1051	281.7134	281.7148	281.7148	281.7149	282.0864	295.0000
60	F	1071	281.7910	281.7925	281.7925	281.7926	282.1508	295.0000
61	F	1091	281.8350	281.8362	281.8362	281.8363	282.1904	295.0000

ITERATION CONVERGENCE; ERROR: 0.777 TOLERENCE:0.100

ITERATION: 6 TIME: 2.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	233.9149	233.9149	233.9149	233.9150	234.4190	251.0000
3	F	47	236.2964	236.2965	236.2965	236.2965	237.0868	252.0000

4	F	63	238.1797	238.1798	238.1798	238.1799	239.1717	253.0000
5	F	79	239.7477	239.7478	239.7478	239.7478	240.9442	254.0000
6	F	95	241.0849	241.0850	241.0850	241.0850	242.4798	256.0000
7	F	111	242.2379	242.2380	242.2380	242.2380	243.8310	258.0000
8	F	128	243.2341	243.2342	243.2342	243.2342	245.0270	262.0000
9	F	145	244.0885	244.0885	244.0885	244.0886	246.0868	265.0000
10	F	162	244.8119	244.8120	244.8120	244.8120	247.0223	268.0000
11	F	179	245.4109	245.4109	245.4109	245.4109	247.8386	271.0000
12	F	196	245.8884	245.8885	245.8885	245.8885	248.5410	274.0000
13	F	213	246.2451	246.2451	246.2451	246.2451	249.1252	277.0000
14	F	230	246.4790	246.4790	246.4790	246.4790	249.5873	279.0000
15	F	247	246.5864	246.5864	246.5864	246.5864	249.9174	280.0000
16	F	264	246.5614	246.5614	246.5614	246.5614	250.0895	281.0000
17	F	281	246.3963	246.3964	246.3964	246.3964	250.1117	282.0000
18	F	298	246.0815	246.0815	246.0815	246.0815	249.9245	281.2000
19	F	315	245.6052	245.6052	245.6052	245.6052	249.4977	281.7000
20	F	332	244.9537	244.9537	244.9537	244.9537	248.7744	282.0000
21	F	349	244.1113	244.1113	244.1113	244.1113	247.6717	283.0000
22	F	366	243.0614	243.0614	243.0614	243.0614	246.0589	284.0000
23	F	382	241.7888	241.7888	241.7888	241.7888	243.7072	285.0000
24	F	398	240.2968	240.2968	240.2968	240.2968	240.1416	286.0000
25	F	414	238.5759	238.5759	238.5759	238.5759	232.0283	287.0000
26	F	430	234.1251	234.1251	234.1251	234.1251	230.0000	290.8001
27	T	448	230.0000	230.0000	230.0000	230.0000	232.7638	230.0000
28	T	480	230.0000	230.0000	230.0000	230.0000	243.9180	230.0000
29	T	475	232.4106	232.4120	232.4106	232.4120	248.0278	288.3000
30	F	491	242.0531	242.0598	242.0598	242.0598	252.7398	289.3888
31	F	508	246.8135	246.8194	246.8194	246.8194	255.9290	289.5000
32	F	525	250.4397	250.4376	250.4376	250.4376	258.8630	289.7000
33	F	543	253.5632	253.5568	253.5568	253.5568	261.4314	289.8000
34	F	561	256.4404	256.4351	256.4351	256.4351	263.6934	290.0000
35	F	579	259.0862	259.0615	259.0615	259.0616	265.6882	290.1001
36	F	597	261.4817	261.4578	261.4578	261.4579	267.4583	290.2000
37	F	616	263.6475	263.6440	263.6440	263.6443	269.0388	290.3000
38	F	635	265.6365	265.6338	265.6338	265.6339	270.4587	290.3888
39	F	654	267.4487	267.4463	267.4463	267.4465	271.7427	290.5000
40	F	673	269.1045	269.1025	269.1025	269.1025	272.9138	290.6001
41	F	692	270.6001	270.5984	270.5984	270.5986	273.9846	290.7000
42	F	711	271.9534	271.9519	271.9519	271.9520	274.9131	290.8000
43	F	731	273.1775	273.1763	273.1763	273.1765	275.7717	291.0000
44	F	751	274.2815	274.2805	274.2805	274.2806	276.5503	291.2000
45	F	771	275.2769	275.2761	275.2761	275.2763	277.2578	291.3888
46	F	791	276.1741	276.1733	276.1733	276.1735	277.9006	291.5000
47	F	811	276.9817	276.9812	276.9812	276.9812	278.4848	291.7000
48	F	831	277.7075	277.7070	277.7070	277.7072	279.0156	291.8000
49	F	851	278.3586	278.3582	278.3582	278.3583	279.4966	292.0000
50	F	871	278.9404	278.9402	278.9402	278.9403	279.8314	293.0000
51	F	891	279.4585	279.4583	279.4583	279.4584	280.3223	295.0000
52	F	911	279.9172	279.9170	279.9170	279.9170	280.6721	295.0000
53	F	931	280.3201	280.3198	280.3198	280.3199	280.9824	295.0000
54	F	951	280.6704	280.6702	280.6702	280.6704	281.2551	295.0000
55	F	971	280.9709	280.9709	280.9709	280.9710	281.4910	295.0000
56	F	991	281.2241	281.2241	281.2241	281.2241	281.6914	295.0000
57	F	1011	281.4316	281.4314	281.4314	281.4316	281.8563	295.0000
58	F	1031	281.5947	281.5947	281.5947	281.5947	281.9885	295.0000
59	F	1051	281.7148	281.7146	281.7146	281.7148	282.0884	295.0000
60	F	1071	281.7925	281.7922	281.7922	281.7925	282.1509	295.0000
61	F	1091	281.8362	281.8362	281.8362	281.8362	282.1904	295.0000

ITERATION CONVERGENCE; ERROR: 0.054 TOLERENCE:0.100

STEADY STATE CONVERGENCE; ERROR:198.288 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 2.00 TIME STEP: 2

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.529	2	230.525	3	230.515	4	230.497	5	230.472	6	230.439	7	230.400	8	230.352
9	230.298	10	230.235	11	230.165	12	230.087	13	230.000	14	230.000	15	230.000	16	233.816
17	233.817	18	233.818	19	233.820	20	233.823	21	233.827	22	233.832	23	233.838	24	233.845
25	233.853	26	233.863	27	233.873	28	233.885	29	233.899	30	233.915	31	233.915	32	236.252
33	236.252	34	236.253	35	236.254	36	236.256	37	236.258	38	236.260	39	236.263	40	236.267
41	236.270	42	236.275	43	236.279	44	236.285	45	236.280	46	236.288	47	236.296	48	238.160
49	238.160	50	238.160	51	238.161	52	238.162	53	238.163	54	238.164	55	238.165	56	238.167
57	238.168	58	238.170	59	238.172	60	238.175	61	238.177	62	238.180	63	238.180	64	239.741
65	239.741	66	239.741	67	238.741	68	239.742	69	239.742	70	239.742	71	239.743	72	239.743
73	239.744	74	239.744	75	239.745	76	239.746	77	239.747	78	239.748	79	239.748	80	241.086
81	241.086	82	241.086	83	241.086	84	241.086	85	241.086	86	241.086	87	241.086	88	241.086
89	241.086	90	241.086	91	241.086	92	241.085	93	241.085	94	241.085	95	241.085	96	242.246
97	242.246	98	242.245	99	242.245	100	242.245	101	242.245	102	242.244	103	242.244	104	242.243
105	242.242	106	242.242	107	242.241	108	242.240	109	242.239	110	242.238	111	242.238	112	243.247
113	243.247	114	243.246	115	243.246	116	243.246	117	243.245	118	243.244	119	243.244	120	243.243
121	243.241	122	243.240	123	243.239	124	243.237	125	243.236	126	243.234	127	243.234	128	243.234
129	244.105	130	244.105	131	244.105	132	244.105	133	244.104	134	244.103	135	244.102	136	244.101
137	244.100	138	244.098	139	244.097	140	244.095	141	244.093	142	244.091	143	244.089	144	244.089
145	244.089	146	244.833	147	244.833	148	244.832	149	244.832	150	244.831	151	244.830	152	244.828
153	244.828	154	244.825	155	244.824	156	244.822	157	244.820	158	244.818	159	244.815	160	244.812
161	244.812	162	244.812	163	245.436	164	245.435	165	245.435	166	245.434	167	245.434	168	245.432
169	245.431	170	245.429	171	245.428	172	245.425	173	245.423	174	245.420	175	245.417	176	245.414
177	245.411	178	245.411	179	245.411	180	245.917	181	245.917	182	245.918	183	245.915	184	245.914
185	245.913	186	245.912	187	245.910	188	245.908	189	245.905	190	245.902	191	245.899	192	245.898
193	245.892	194	245.889	195	245.888	196	245.888	197	246.277	198	246.277	199	246.276	200	246.275
201	246.274	202	246.273	203	246.271	204	246.269	205	246.266	206	246.264	207	246.261	208	246.257
209	246.254	210	246.250	211	246.245	212	246.245	213	246.245	214	246.514	215	246.514	216	246.513
217	246.512	218	246.511	219	246.509	220	246.508	221	246.505	222	246.503	223	246.500	224	246.498
225	246.492	226	246.488	227	246.484	228	246.479	229	246.479	230	246.478	231	246.624	232	246.624
233	246.623	234	246.623	235	246.621	236	246.619	237	246.617	238	246.615	239	246.612	240	246.609
241	246.605	242	246.601	243	246.597	244	246.592	245	246.587	246	246.586	247	246.586	248	246.802
249	246.602	250	246.601	251	246.600	252	246.598	253	246.597	254	246.594	255	246.592	256	246.589
257	246.585	258	246.581	259	246.577	260	246.572	261	246.567	262	246.562	263	246.561	264	246.56
265	246.438	266	246.438	267	246.438	268	246.437	269	246.435	270	246.433	271	246.431	272	246.428
273	246.425	274	246.421	275	246.417	276	246.413	277	246.408	278	246.402	279	246.398	280	246.395
281	246.396	282	246.125	283	246.124	284	246.124	285	246.123	286	246.121	287	246.119	288	246.117
289	246.114	290	246.111	291	246.107	292	246.103	293	246.098	294	246.093	295	246.088	296	246.082
297	246.082	298	246.082	299	245.848	300	245.848	301	245.847	302	245.846	303	245.644	304	245.842
305	245.840	306	245.837	307	245.834	308	245.830	309	245.826	310	245.822	311	245.817	312	245.81
313	245.805	314	245.805	315	245.805	316	244.994	317	244.993	318	244.993	319	244.992	320	244.990
321	244.988	322	244.986	323	244.984	324	244.981	325	244.977	326	244.973	327	244.969	328	244.964
329	244.959	330	244.954	331	244.954	332	244.954	333	244.148	334	244.145	335	244.145	336	244.144
337	244.143	338	244.141	339	244.138	340	244.137	341	244.134	342	244.131	343	244.128	344	244.124
345	244.120	346	244.116	347	244.111	348	244.111	349	244.111	350	243.085	351	243.085	352	243.085
353	243.084	354	243.083	355	243.082	356	243.081	357	243.079	358	243.077	359	243.075	360	243.073
361	243.070	362	243.068	363	243.065	364	243.061	365	243.061	366	243.061	367	241.795	368	241.795
369	241.795	370	241.794	371	241.794	372	241.794	373	241.794	374	241.793	375	241.793	376	241.792
377	241.792	378	241.791	379	241.790	380	241.789	381	241.789	382	241.789	383	240.258	384	240.258
385	240.259	386	240.260	387	240.261	388	240.263	389	240.266	390	240.268	391	240.271	392	240.275
393	240.279	394	240.283	395	240.287	396	240.292	397	240.297	398	240.297	399	238.336	400	238.337
401	238.342	402	238.351	403	238.362	404	238.377	405	238.396	406	238.418	407	238.443	408	238.472
409	238.505	410	238.541	411	238.582	412	238.626	413	238.674	414	238.676	415	234.127	416	234.127
417	234.127	418	234.127	419	234.126	420	234.126	421	234.125	422	234.125	423	234.124	424	234.124
425	234.123	426	234.123	427	234.122	428	234.122	429	234.122	430	234.125	431	230.456	432	230.454

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
433	230.447	434	230.435	435	230.419	436	230.398	437	230.373	438	230.343	439	230.308	440	230.269
441	230.225	442	230.176	443	230.122	444	230.063	445	230.000	446	230.497	447	230.495	448	230.487
449	230.474	450	230.458	451	230.433	452	230.405	453	230.372	454	230.334	455	230.291	456	230.242
457	230.189	458	230.131	459	230.068	460	230.000	461	233.318	462	233.314	463	233.301	464	233.279
465	233.249	466	233.209	467	233.161	468	233.104	469	233.038	470	232.963	471	232.878	472	232.784
473	232.680	474	232.566	475	232.412	476	241.829	477	241.830	478	241.833	479	241.838	480	241.848
481	241.855	482	241.867	483	241.881	484	241.898	485	241.917	486	241.938	487	241.964	488	241.991
489	242.022	490	242.056	491	242.080	492	246.824	493	246.824	494	246.824	495	246.824	496	246.824
497	246.823	498	246.823	499	246.823	500	246.822	501	246.822	502	246.821	503	246.821	504	246.820
505	246.819	506	246.818	507	246.818	508	246.819	509	250.511	510	250.510	511	250.509	512	250.507
513	250.505	514	250.501	515	250.497	516	250.493	517	250.487	518	250.481	519	250.473	520	250.466
521	250.457	522	250.447	523	250.437	524	250.437	525	250.438	526	253.650	527	253.649	528	253.648
529	253.646	530	253.642	531	253.638	532	253.633	533	253.627	534	253.620	535	253.611	536	253.602
537	253.592	538	253.581	539	253.569	540	253.556	541	253.558	542	253.556	543	253.557	544	256.519
545	256.518	546	256.518	547	256.516	548	256.513	549	256.509	550	256.504	551	256.498	552	256.492
553	256.484	554	256.476	555	256.467	556	256.457	557	256.446	558	256.434	559	256.434	560	256.434
561	256.435	562	259.138	563	259.136	564	259.135	565	259.134	566	259.132	567	259.128	568	259.124
569	259.119	570	259.113	571	259.106	572	259.098	573	259.090	574	259.081	575	259.071	576	259.060
577	259.080	578	259.080	579	259.062	580	261.526	581	261.526	582	261.525	583	261.523	584	261.521
585	261.517	586	261.513	587	261.509	588	261.503	589	261.497	590	261.491	591	261.483	592	261.475
593	261.466	594	261.456	595	261.455	596	261.456	597	261.458	598	263.704	599	263.704	600	263.703
601	263.701	602	263.699	603	263.695	604	263.693	605	263.688	606	263.684	607	263.678	608	263.672
609	263.666	610	263.658	611	263.650	612	263.642	613	263.642	614	263.642	615	263.644	616	263.644
617	265.687	618	265.686	618	265.686	620	265.684	621	265.682	622	265.680	623	265.677	624	265.673
625	265.669	626	265.664	627	265.658	628	265.652	629	265.646	630	265.639	631	265.631	632	265.631
633	265.631	634	265.633	635	265.634	636	267.493	637	267.492	638	267.492	639	267.490	640	267.489
641	267.487	642	267.484	643	267.481	644	267.477	645	267.472	646	267.466	647	267.462	648	267.457
649	267.450	650	267.444	651	267.443	652	267.443	653	267.445	654	267.446	655	269.138	656	269.133
657	269.138	658	269.137	659	269.136	660	269.134	661	269.131	662	269.129	663	269.125	664	269.122
665	269.118	666	269.113	667	269.108	668	269.103	669	269.097	670	269.097	671	269.097	672	269.100
673	269.103	674	270.629	675	270.629	676	270.629	677	270.628	678	270.626	679	270.625	680	270.623
681	270.620	682	270.618	683	270.614	684	270.611	685	270.607	686	270.603	687	270.598	688	270.593
689	270.593	690	270.593	691	270.595	692	270.599	693	271.978	694	271.978	695	271.977	696	271.976
697	271.975	698	271.974	699	271.972	700	271.970	701	271.967	702	271.965	703	271.962	704	271.958
705	271.954	706	271.950	707	271.946	708	271.946	709	271.948	710	271.949	711	271.952	712	273.197
713	273.197	714	273.196	715	273.195	716	273.195	717	273.193	718	273.192	719	273.190	720	273.188
721	273.186	722	273.183	723	273.180	724	273.177	725	273.173	726	273.170	727	273.170	728	273.170
729	273.173	730	273.176	731	273.178	732	274.297	733	274.297	734	274.297	735	274.296	736	274.295
737	274.294	738	274.293	739	274.291	740	274.289	741	274.287	742	274.285	743	274.283	744	274.280
745	274.277	746	274.274	747	274.274	748	274.274	749	274.277	750	274.279	751	274.281	752	275.283
753	275.285	754	275.288	755	275.288	756	275.288	757	275.287	758	275.288	759	275.284	760	275.283
761	275.281	762	275.278	763	275.277	764	275.275	765	275.272	766	275.269	767	276.269	768	275.269
769	276.272	770	275.275	771	275.276	772	276.183	773	276.183	774	276.183	775	276.183	776	276.182
777	276.181	778	276.180	779	276.179	780	276.178	781	276.178	782	276.175	783	276.173	784	276.171
785	276.169	786	276.166	787	276.166	788	276.166	789	276.169	790	276.172	791	276.174	792	276.988
793	276.988	794	276.988	795	276.988	796	276.987	797	276.987	798	276.986	799	276.985	800	276.984
801	276.982	802	276.981	803	276.979	804	276.978	805	276.976	806	276.974	807	276.974	808	276.974
809	276.977	810	276.979	811	276.981	812	277.712	813	277.712	814	277.712	815	277.711	816	277.711
817	277.710	818	277.710	819	277.709	820	277.708	821	277.707	822	277.706	823	277.704	824	277.703
825	277.701	826	277.700	827	277.700	828	277.700	829	277.703	830	277.705	831	277.707	832	278.381
833	278.381	834	278.381	835	278.380	836	278.380	837	278.380	838	278.358	839	278.358	840	278.358
841	278.357	842	278.356	843	278.355	844	278.353	845	278.352	846	278.351	847	278.351	848	278.351
849	278.354	850	278.356	851	278.358	852	278.941	853	278.941	854	278.941	855	278.941	856	278.940
857	278.940	858	278.940	859	278.939	860	278.938	861	278.938	862	278.937	863	278.936	864	278.935
865	278.934	866	278.933	867	278.933	868	278.933	869	278.935	870	278.938	871	278.940	872	278.458
873	278.458	874	278.457	875	278.457	876	278.457	877	278.457	878	278.456	879	278.456	880	278.455
881	278.455	882	278.454	883	278.453	884	278.453	885	278.452	886	278.451	887	278.451	888	278.451
889	278.453	890	278.456	891	278.458	892	278.915	893	278.915	894	278.915	895	278.916	896	278.914
897	278.914	898	278.914	899	278.914	900	278.913	901	278.913	902	278.912	903	278.911	904	278.911
905	278.910	906	278.909	907	278.909	908	278.909	909	278.912	910	278.915	911	278.917	912	280.317

913	280.317	914	280.317	915	280.316	916	280.316	917	280.316	918	280.316	919	280.316	920	280.3				
921	280.315	922	280.314	923	280.314	924	280.313	925	280.313	926	280.312	927	280.312	928	280.3				
929	280.315	930	280.317	931	280.320	932	280.686	933	280.686	934	280.686	935	280.686	936	280.6				
937	280.686	938	280.686	939	280.685	940	280.685	941	280.685	942	280.684	943	280.684	944	280.683				
945	280.683	946	280.682	947	280.683	948	280.683	949	280.685	950	280.688	951	280.870	952	280.986				
953	280.986	954	280.986	955	280.986	956	280.986	957	280.986	958	280.985	959	280.985	960	280.985				
961	280.985	962	280.985	963	280.984	964	280.984	965	280.984	966	280.983	967	280.983	968	280.9				
969	280.966	970	280.966	971	280.971	972	281.218	973	281.218	974	281.218	975	281.218	976	281.2				
977	281.218	978	281.218	979	281.218	980	281.218	981	281.218	982	281.217	983	281.217	984	281.2				
985	281.216	986	281.216	987	281.216	988	281.216	989	281.219	990	281.221	991	281.224	992	281.4				
993	281.425	994	281.425	995	281.425	996	281.425	997	281.425	998	281.425	999	281.425	1000	281.425				
1001	281.425	1002	281.424	1003	281.424	1004	281.424	1005	281.424	1006	281.424	1007	281.424	1008	281.424				
1009	281.426	1010	281.428	1011	281.432	1012	281.588	1013	281.588	1014	281.588	1015	281.588	1016	281.588				
1017	281.588	1018	281.588	1019	281.588	1020	281.588	1021	281.588	1022	281.587	1023	281.587	1024	281.5				
1025	281.587	1026	281.587	1027	281.587	1028	281.587	1029	281.589	1030	281.592	1031	281.595	1032	281.7				
1033	281.708	1034	281.708	1035	281.708	1036	281.708	1037	281.708	1038	281.708	1039	281.708	1040	281.7				
1041	281.707	1042	281.707	1043	281.707	1044	281.707	1045	281.707	1046	281.707	1047	281.707	1048	281.7				
1049	281.709	1050	281.712	1051	281.715	1052	281.785	1053	281.785	1054	281.785	1055	281.785	1056	281.785				
1057	281.785	1058	281.785	1059	281.785	1060	281.785	1061	281.785	1062	281.785	1063	281.785	1064	281.785				
1065	281.784	1066	281.784	1067	281.784	1068	281.784	1069	281.787	1070	281.790	1071	281.792	1072	281.818				
1073	281.818	1074	281.818	1075	281.819	1076	281.819	1077	281.818	1078	281.819	1079	281.819	1080	281.8				
1081	281.819	1082	281.819	1083	281.820	1084	281.820	1085	281.820	1086	281.820	1087	281.820	1088	281.8				
1089	281.825	1090	281.830	1091	281.836														

NODES ALONG THE WATER TABLE

15	31	47	63	79	95	111	128	145	162	179	196	213	230	247	264	281	298	315	332	349	366	382	398	414
430	445	460	475	491	508	525	543	561	578	597	616	635	654	673	692	711	731	751	771	791	811	831	851	871
891	911	931	951	971	991	1011	1031	1051	1071	1091														

NEW HYDRAULIC CONDUCTIVITY DISTRIBUTION

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FINITE ELEMENT GRID SUMMARY

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  1275: ESTIMATED NUMBER OF NODES
  1090: ACTUAL NUMBER OF NODES
  2600: ESTIMATED NUMBER OF ELEMENTS
  2023: ACTUAL NUMBER OF ELEMENTS
    22: ESTIMATED BANDWITH
    18: ESTIMATED NUMBER OF CONSTANT HEAD NODES
     8: ACTUAL NUMBER OF CONSTANT HEAD NODES
  1082: NUMBER OF NODES WITH UNKNOWN HEADS
    22: FINAL BANDWIDTH
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ITERATION: 1 TIME: 3.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	233.9148	233.4615	233.4615	233.4615	233.9148	251.0000
3	F	47	236.2985	235.5615	235.5615	235.5615	236.2985	252.0000
4	F	63	238.1798	237.2148	237.2148	237.2148	238.1798	253.0000
5	F	79	239.7478	238.5825	238.5825	238.5825	239.7478	254.0000
6	F	95	241.0850	239.7394	239.7394	239.7394	241.0850	256.0000
7	F	111	242.2380	240.7271	240.7271	240.7271	242.2380	258.0000
8	F	128	243.2342	241.5697	241.5697	241.5697	243.2342	262.0000
9	F	145	244.0885	242.2832	242.2832	242.2832	244.0885	265.0000
10	F	162	244.8120	242.8785	242.8785	242.8785	244.8120	268.0000
11	F	179	245.4109	243.3633	243.3633	243.3633	245.4109	271.0000
12	F	196	245.8885	243.7428	243.7428	243.7428	245.8885	274.0000
13	F	213	246.2451	244.0205	244.0205	244.0205	246.2451	277.0000
14	F	230	246.4790	244.1987	244.1987	244.1988	246.4790	279.0000
15	F	247	246.5884	244.2787	244.2787	244.2787	246.5884	280.0000
16	F	264	246.5614	244.2808	244.2808	244.2808	246.5614	281.0000

17	F	281	246.3984	244.1449	244.1449	244.1449	246.3964	282.0000
18	F	298	246.0815	243.9304	243.9304	243.9304	246.0815	281.2000
19	F	315	245.6052	243.6183	243.6183	243.6183	245.6052	281.7000
20	F	332	244.9537	243.2011	243.2011	243.2011	244.9537	282.0000
21	F	349	244.1113	242.6829	242.6829	242.6829	244.1113	283.0000
22	F	366	243.0614	242.0598	242.0598	242.0598	243.0614	284.0000
23	F	382	241.7888	241.3291	241.3291	241.3291	241.7888	286.0000
24	F	398	240.2988	240.4906	240.4906	240.4907	240.2988	285.0000
25	F	414	238.8759	239.5772	239.5772	239.5772	238.8759	287.0000
26	F	430	234.1251	236.5850	236.5850	236.5850	234.1251	290.6001
27	F	445	230.0000	234.0555	234.0555	234.0555	230.0000	291.2000
28	F	460	230.0000	232.0279	232.0279	232.0279	230.0000	289.2000
29	T	475	230.0000	230.0000	230.0000	230.0000	232.4120	291.6001
30	T	490	230.0000	230.0000	230.0000	230.0000	242.0598	230.0000
31	T	507	246.8194	232.3794	246.8194	232.3794	246.8194	288.5000
32	F	524	250.4376	241.8970	241.8970	241.8971	250.4376	289.7000
33	F	542	253.5568	245.4979	245.4979	245.4979	253.5568	289.8000
34	F	560	256.4351	248.9265	248.9265	248.9265	256.4351	290.0000
35	F	578	258.0815	252.0857	252.0857	252.0857	258.0815	290.1001
36	F	596	261.4578	255.0203	255.0203	255.0203	261.4578	290.2000
37	F	615	263.6440	257.7136	257.7136	257.7137	263.6440	290.3000
38	F	634	265.6338	260.1919	260.1919	260.1920	265.6338	290.3999
39	F	653	267.4463	262.4705	262.4705	262.4706	267.4463	290.5000
40	F	672	269.1025	264.5678	264.5678	264.5681	269.1025	290.6001
41	F	691	270.5984	266.4792	266.4792	266.4793	270.5984	290.7000
42	F	710	271.9519	268.2212	268.2212	268.2214	271.9519	290.8000
43	F	730	273.1783	269.8044	269.8044	269.8045	273.1783	291.0000
44	F	750	274.2805	271.2410	271.2410	271.2410	274.2805	291.2000
45	F	770	275.2761	272.5417	272.5417	272.5418	275.2761	291.3999
46	F	790	276.1733	273.7175	273.7175	273.7178	276.1733	291.5000
47	F	810	276.9812	274.7781	274.7781	274.7783	276.9812	291.7000
48	F	830	277.7070	275.7324	275.7324	275.7326	277.7070	291.8000
49	F	850	278.3582	276.5884	276.5884	276.5885	278.3582	292.0000
50	F	870	278.9402	277.3533	277.3533	277.3534	278.9402	293.0000
51	F	890	279.4583	278.0332	278.0332	278.0334	279.4583	295.0000
52	F	910	279.9170	278.6343	278.6343	278.6343	279.9170	295.0000
53	F	930	280.3198	279.1809	279.1809	279.1810	280.3198	295.0000
54	F	950	280.6702	279.6179	279.6179	279.6179	280.6702	295.0000
55	F	970	280.9709	280.0085	280.0085	280.0087	280.9709	295.0000
56	F	990	281.2241	280.3364	280.3364	280.3365	281.2241	295.0000
57	F	1010	281.4314	280.6040	280.6040	280.6040	281.4314	295.0000
58	F	1030	281.5947	280.8132	280.8132	280.8132	281.5947	295.0000
59	F	1050	281.7146	280.9658	280.9658	280.9658	281.7146	295.0000
60	F	1070	281.7922	281.0627	281.0627	281.0630	281.7922	295.0000
61	F	1090	281.8362	281.1133	281.1133	281.1134	281.8362	295.0000

******* REFORM THE GRID *******

ITERATION CONVERGENCE; ERROR:141.513 TOLERENCE:0.100

FINITE ELEMENT GRID SUMMARY

1275: ESTIMATED NUMBER OF NODES
1077: ACTUAL NUMBER OF NODES
2600: ESTIMATED NUMBER OF ELEMENTS
1989: ACTUAL NUMBER OF ELEMENTS
22: ESTIMATED BANDWITH
18: ESTIMATED NUMBER OF CONSTANT HEAD NODES
6: ACTUAL NUMBER OF CONSTANT HEAD NODES

1071: NUMBER OF NODES WITH UNKNOWN HEADS

ITERATION: 2 TIME: 3.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	233.4615	233.4057	233.4057	233.4057	233.9149	251.0000
3	F	47	235.5615	235.5202	235.5202	235.5202	236.2965	252.0000
4	F	63	237.2148	237.1869	237.1869	237.1869	238.1798	253.0000
5	F	79	238.5825	238.5868	238.5868	238.5868	239.7478	254.0000
6	F	95	239.7394	239.7884	239.7884	239.7885	241.0850	256.0000
7	F	111	240.7271	240.7767	240.7767	240.7767	242.2380	259.0000
8	F	127	241.5597	241.6388	241.6388	241.6388	243.2342	262.0000
9	F	143	242.2832	242.3711	242.3711	242.3711	244.0885	265.0000
10	F	160	242.8785	242.9842	242.9842	242.9842	244.8120	268.0000
11	F	177	243.3633	243.4828	243.4828	243.4828	245.4109	271.0000
12	F	194	243.7428	243.8721	243.8721	243.8721	245.8885	274.0000
13	F	211	244.0205	244.1551	244.1551	244.1551	246.2451	277.0000
14	F	228	244.1987	244.3337	244.3337	244.3337	246.4780	279.0000
15	F	245	244.2787	244.4085	244.4085	244.4085	246.5864	280.0000
16	F	262	244.2808	244.3798	244.3798	244.3798	246.5614	281.0000
17	F	279	244.1449	244.2484	244.2484	244.2484	246.3984	282.0000
18	F	296	243.9304	244.0081	244.0081	244.0081	246.0815	281.2000
19	F	313	243.6183	243.6840	243.6840	243.6840	245.6052	281.7000
20	F	330	243.2011	243.2138	243.2138	243.2138	244.9537	282.0000
21	F	347	242.6829	242.6582	242.6582	242.6583	244.1113	283.0000
22	F	363	242.0598	241.9996	241.9996	241.9996	243.0614	284.0000
23	F	379	241.3291	241.2456	241.2456	241.2456	241.7888	286.0000
24	F	395	240.4906	240.4068	240.4068	240.4068	240.2988	285.0000
25	F	411	239.5772	238.5327	239.5327	239.5327	238.8759	287.0000
26	F	427	236.5850	236.5483	236.5483	236.5483	234.1251	290.6001
27	F	443	234.0555	234.0074	234.0074	234.0075	230.0000	291.2000
28	F	458	232.0279	232.0107	232.0107	232.0107	230.0000	289.2000
29	T	473	230.0000	230.0000	230.0000	230.0000	232.4120	291.6001
30	T	488	230.0000	230.0000	230.0000	230.0000	242.0598	230.0000
31	T	503	232.3794	232.2884	232.3794	232.2884	246.8194	288.5000
32	F	519	241.8970	241.4420	241.4420	241.4421	250.4376	289.7000
33	F	536	245.4979	246.0980	246.0980	246.0980	253.5568	289.8000
34	F	553	248.9265	249.7818	248.7818	249.7818	256.4351	290.0000
35	F	570	252.0857	252.7321	252.7321	252.7321	258.0815	290.1001
36	F	588	255.0203	255.4387	255.4387	255.4387	261.4578	290.2000
37	F	606	257.7136	258.0478	258.0478	258.0477	263.6440	290.3000
38	F	624	260.1918	260.4568	260.4568	260.4569	265.6338	290.3999
39	F	642	262.4705	262.6816	262.6816	262.6816	267.4463	290.5000
40	F	661	264.5678	264.7378	264.7378	264.7380	269.1025	290.6001
41	F	680	266.4792	266.6145	266.6145	266.6145	270.5984	290.7000
42	F	699	268.2212	268.3262	268.3262	268.3264	271.9519	290.8000
43	F	718	269.8044	269.8860	269.8860	269.8862	273.1783	291.0000
44	F	737	271.2410	271.3054	271.3054	271.3054	274.2805	291.2000
45	F	757	272.5417	272.5947	272.5947	272.5948	275.2761	291.3999
46	F	777	273.7175	273.7605	273.7605	273.7607	276.1733	291.5000
47	F	797	274.7781	274.8127	274.8127	274.8128	276.9812	291.7000
48	F	817	275.7324	275.7600	275.7600	275.7602	277.7070	291.8000
49	F	837	276.5884	276.6101	276.6101	276.6103	278.3582	292.0000
50	F	857	277.3533	277.3701	277.3701	277.3702	278.9402	293.0000
51	F	877	278.0332	278.0461	278.0461	278.0462	279.4583	295.0000
52	F	897	278.6343	278.6436	278.6436	278.6437	279.9170	295.0000
53	F	917	279.1809	279.1877	279.1877	279.1877	280.3198	295.0000

54	F	937	279.6179	279.6223	279.6223	279.6224	280.6702	285.0000
55	F	957	280.0085	280.0112	280.0112	280.0114	280.9709	295.0000
56	F	977	280.3364	280.3376	280.3376	280.3378	281.2241	295.0000
57	F	997	280.6040	280.6040	280.6040	280.6042	281.4314	295.0000
58	F	1017	280.8132	280.8125	280.8125	280.8125	281.5947	295.0000
59	F	1037	280.9658	280.9644	280.9644	280.9645	281.7148	295.0000
60	F	1057	281.0627	281.0610	281.0610	281.0612	281.7922	295.0000
61	F	1077	281.1133	281.1111	281.1111	281.1112	281.8362	295.0000

ITERATION CONVERGENCE; ERROR: 5.422 TOLERENCE:0.100

ITERATION: 3 TIME: 3.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	233.4057	233.4139	233.4138	233.4139	233.9149	251.0000
3	F	47	235.5202	235.5354	235.5354	235.5354	236.2965	252.0000
4	F	63	237.1969	237.2137	237.2137	237.2137	238.1798	253.0000
5	F	79	238.5888	238.6046	238.6046	238.6046	239.7478	254.0000
6	F	95	239.7884	239.7820	239.7820	239.7820	241.0850	256.0000
7	F	111	240.7767	240.7876	240.7876	240.7876	242.2380	258.0000
8	F	127	241.5388	241.6468	241.6468	241.6468	243.2342	262.0000
9	F	143	242.3711	242.3784	242.3784	242.3784	244.0885	265.0000
10	F	160	242.9842	242.9869	242.9869	242.9869	244.8120	268.0000
11	F	177	243.4828	243.4834	243.4834	243.4834	245.4109	271.0000
12	F	194	243.8721	243.8710	243.8710	243.8710	245.8885	274.0000
13	F	211	244.1551	244.1528	244.1528	244.1528	246.2451	277.0000
14	F	228	244.3337	244.3309	244.3309	244.3309	246.4790	279.0000
15	F	245	244.4085	244.4058	244.4058	244.4058	246.5884	280.0000
16	F	262	244.3796	244.3776	244.3776	244.3776	246.5614	281.0000
17	F	279	244.2484	244.2456	244.2456	244.2456	246.3984	282.0000
18	F	296	244.0081	244.0088	244.0088	244.0088	246.0815	281.2000
19	F	313	243.6640	243.6663	243.6663	243.6663	245.8052	281.7000
20	F	330	243.2138	243.2174	243.2174	243.2174	244.9537	282.0000
21	F	347	242.6582	242.6623	242.6623	242.6623	244.1113	283.0000
22	F	363	241.9986	242.0028	242.0028	242.0028	243.0614	284.0000
23	F	379	241.2456	241.2465	241.2465	241.2465	241.7888	286.0000
24	F	395	240.4068	240.4041	240.4041	240.4041	240.2968	285.0000
25	F	411	239.5327	239.5272	239.5272	239.5272	238.6759	287.0000
26	F	427	236.5483	236.5456	236.5456	236.5456	234.1251	290.8001
27	F	443	234.0074	234.0063	234.0063	234.0063	230.0000	291.2000
28	F	458	232.0107	232.0101	232.0101	232.0101	230.0000	289.2000
29	T	473	230.0000	230.0000	230.0000	230.0000	232.4120	291.8001
30	T	488	230.0000	230.0000	230.0000	230.0000	242.0698	230.0000
31	T	503	232.2884	232.3164	232.2884	232.3164	246.8194	289.5000
32	F	519	241.4420	241.5821	241.5821	241.5821	250.4376	289.7000
33	F	536	246.0980	246.2320	246.2320	246.2320	253.5568	289.8000
34	F	553	249.7816	249.7918	249.7918	249.7918	256.4351	290.0000
35	F	570	252.7321	252.6908	252.6908	252.6908	259.0615	290.1001
36	F	588	255.4367	255.3763	255.3763	255.3763	261.4578	290.2000
37	F	606	258.0476	257.9954	257.9954	257.9954	263.8440	290.3000
38	F	624	260.4568	260.4128	260.4128	260.4129	265.8338	290.3888
39	F	642	262.6816	262.6448	262.6448	262.6449	267.4463	290.5000
40	F	661	264.7378	264.7068	264.7068	264.7070	269.1025	290.6001
41	F	680	266.6145	266.5884	266.5884	266.5885	270.5984	290.7000
42	F	699	268.3262	268.3044	268.3044	268.3046	271.9519	290.8000
43	F	718	269.8880	269.8679	269.8679	269.8680	273.1763	291.0000
44	F	737	271.3054	271.2900	271.2900	271.2902	274.2805	291.2000
45	F	757	272.5947	272.5820	272.5820	272.5821	275.2761	291.3999
46	F	777	273.7605	273.7500	273.7500	273.7501	276.1733	291.5000
47	F	797	274.8127	274.8040	274.8040	274.8041	276.9812	291.7000
48	F	817	275.7600	275.7527	275.7527	275.7528	277.7070	291.8000
49	F	837	276.6101	276.6040	276.6040	276.6041	278.3582	292.0000
50	F	857	277.3701	277.3650	277.3650	277.3650	278.9402	293.0000
51	F	877	278.0461	278.0417	278.0417	278.0418	279.4583	295.0000
52	F	897	278.6436	278.6399	278.6398	278.6401	279.9170	295.0000
53	F	917	279.1677	279.1648	279.1646	279.1648	280.3198	295.0000
54	F	937	279.6223	279.6186	279.6196	279.6188	280.6702	295.0000
55	F	957	280.0112	280.0090	280.0090	280.0091	280.9709	295.0000
56	F	977	280.3376	280.3357	280.3357	280.3358	281.2241	295.0000
57	F	997	280.6040	280.6023	280.6023	280.6024	281.4314	295.0000
58	F	1017	280.8125	280.8108	280.8108	280.8110	281.5947	295.0000
59	F	1037	280.9644	280.9629	280.9629	280.9631	281.7148	295.0000
60	F	1057	281.0610	281.0598	281.0598	281.0599	281.7922	295.0000
61	F	1077	281.1111	281.1099	281.1099	281.1099	281.8362	295.0000

ITERATION CONVERGENCE; ERROR: 0.862 TOLERENCE:0.100

ITERATION: 4 TIME: 3.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	233.4139	233.4144	233.4144	233.4144	233.9149	251.0000
3	F	47	235.5354	235.5348	235.5348	235.5348	236.2965	252.0000
4	F	63	237.2137	237.2121	237.2121	237.2121	238.1798	253.0000
5	F	79	238.6045	238.6024	238.6024	238.6024	239.7478	254.0000
6	F	95	239.7820	239.7796	239.7796	239.7796	241.0850	256.0000
7	F	111	240.7876	240.7851	240.7851	240.7851	242.2380	258.0000
8	F	127	241.6468	241.6445	241.6445	241.6445	243.2342	262.0000
9	F	143	242.3784	242.3743	242.3743	242.3743	244.0885	265.0000
10	F	160	242.9869	242.9851	242.9851	242.9851	244.8120	268.0000
11	F	177	243.4834	243.4819	243.4819	243.4819	245.4109	271.0000
12	F	194	243.8710	243.8697	243.8697	243.8697	245.8885	274.0000
13	F	211	244.1528	244.1518	244.1518	244.1518	246.2451	277.0000
14	F	228	244.3309	244.3300	244.3300	244.3300	246.4790	279.0000
15	F	245	244.4058	244.4051	244.4051	244.4051	246.5864	280.0000
16	F	262	244.3776	244.3770	244.3770	244.3770	246.5614	281.0000
17	F	279	244.2456	244.2450	244.2450	244.2450	246.3984	282.0000
18	F	296	244.0088	244.0083	244.0083	244.0084	246.0815	281.2000
19	F	313	243.6663	243.6659	243.6659	243.6659	245.8052	281.7000
20	F	330	243.2174	243.2171	243.2171	243.2171	244.9537	282.0000
21	F	347	242.6623	242.6621	242.6621	242.6621	244.1113	283.0000
22	F	363	242.0028	242.0029	242.0028	242.0028	243.0614	284.0000
23	F	379	241.2465	241.2466	241.2466	241.2466	241.7888	286.0000
24	F	395	240.4041	240.4042	240.4042	240.4042	240.2968	285.0000
25	F	411	239.5272	239.5271	239.5271	239.5271	238.6759	287.0000
26	F	427	236.5456	236.5455	236.5455	236.5456	234.1251	290.8001
27	F	443	234.0063	234.0064	234.0064	234.0064	230.0000	291.2000
28	F	458	232.0101	232.0101	232.0101	232.0102	230.0000	289.2000
29	T	473	230.0000	230.0000	230.0000	230.0000	232.4120	291.8001
30	T	488	230.0000	230.0000	230.0000	230.0000	242.0698	230.0000
31	T	503	232.3164	232.3134	232.3164	232.3134	246.8194	289.5000
32	F	519	241.5821	241.5668	241.5668	241.5669	250.4376	289.7000
33	F	536	246.2320	246.1938	246.1938	246.1938	253.5568	289.8000
34	F	553	249.7918	249.7491	249.7491	249.7491	256.4351	290.0000
35	F	570	252.6908	252.6551	252.6551	252.6551	259.0615	290.1001

36	F	588	255.3763	255.3481	255.3481	255.3481	261.4578	290.2000
37	F	606	257.8854	257.8717	257.8717	257.8719	263.6440	290.3000
38	F	624	260.4128	260.3933	260.3933	260.3933	265.6338	290.3999
39	F	642	262.8448	262.8284	262.8284	262.8285	267.4463	290.5000
40	F	661	264.7068	264.6934	264.6934	264.6934	269.1025	290.6001
41	F	680	266.5884	266.5771	266.5771	266.5772	270.5984	290.7000
42	F	699	268.3044	268.2952	268.2952	268.2953	271.9519	290.8000
43	F	718	289.8678	289.8601	289.8601	289.8602	273.1783	291.0000
44	F	737	271.2900	271.2837	271.2837	271.2838	274.2805	291.2000
45	F	757	272.5820	272.5767	272.5767	272.5767	275.2761	291.3999
46	F	777	273.7500	273.7456	273.7456	273.7456	276.1733	291.5000
47	F	797	274.8040	274.8003	274.8003	274.8004	276.9812	291.7000
48	F	817	275.7527	275.7495	275.7495	275.7497	277.7070	291.8000
49	F	837	276.6040	276.6013	276.6013	276.6015	278.3582	292.0000
50	F	857	277.3850	277.3828	277.3828	277.3829	278.9402	293.0000
51	F	877	278.0417	278.0400	278.0400	278.0400	279.4583	295.0000
52	F	897	278.6389	278.6384	278.6384	278.6386	279.9170	295.0000
53	F	917	279.1645	279.1633	279.1633	279.1634	280.3198	295.0000
54	F	937	279.6196	279.6187	279.6187	279.6187	280.6702	295.0000
55	F	957	280.0090	280.0081	280.0081	280.0082	280.9709	295.0000
56	F	977	280.3357	280.3350	280.3350	280.3350	281.2241	295.0000
57	F	997	280.6023	280.6016	280.6016	280.6017	281.4314	295.0000
58	F	1017	280.8108	280.8103	280.8103	280.8103	281.5947	295.0000
59	F	1037	280.9629	280.9624	280.9624	280.9625	281.7146	295.0000
60	F	1057	281.0598	281.0593	281.0593	281.0593	281.7822	295.0000
61	F	1077	281.1089	281.1091	281.1091	281.1093	281.8362	295.0000

ITERATION CONVERGENCE; ERROR: 0.321 TOLERENCE:0.100

ITERATION: 5 TIME: 3.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	233.4144	233.4141	233.4141	233.4141	233.9149	251.0000
3	F	47	235.5348	235.5345	235.5345	235.5345	236.2965	252.0000
4	F	63	237.2121	237.2119	237.2119	237.2119	238.1798	253.0000
5	F	79	238.6024	238.6023	238.6023	238.6023	239.7478	254.0000
6	F	95	239.7788	239.7786	239.7786	239.7788	241.0850	255.0000
7	F	111	240.7851	240.7852	240.7852	240.7852	242.2380	259.0000
8	F	127	241.6445	241.6446	241.6446	241.6446	243.2342	262.0000
9	F	143	242.3743	242.3744	242.3744	242.3744	244.0885	265.0000
10	F	160	242.9851	242.9853	242.9853	242.9853	244.8120	268.0000
11	F	177	243.4819	243.4821	243.4821	243.4821	245.4109	271.0000
12	F	194	243.8697	243.8699	243.8699	243.8699	245.8885	274.0000
13	F	211	244.1518	244.1519	244.1519	244.1520	246.2451	277.0000
14	F	228	244.3300	244.3302	244.3302	244.3302	246.4780	279.0000
15	F	245	244.4051	244.4052	244.4052	244.4052	246.5864	280.0000
16	F	262	244.3770	244.3771	244.3771	244.3771	246.5514	281.0000
17	F	279	244.2450	244.2451	244.2451	244.2451	246.3984	282.0000
18	F	296	244.0083	244.0084	244.0084	244.0084	246.0815	281.2000
19	F	313	243.6659	243.6660	243.6660	243.6660	245.6052	281.7000
20	F	330	243.2171	243.2171	243.2171	243.2172	244.9537	282.0000
21	F	347	242.6621	242.6622	242.6622	242.6622	244.1113	283.0000
22	F	363	242.0029	242.0029	242.0029	242.0029	243.0614	284.0000
23	F	379	241.2466	241.2466	241.2466	241.2467	241.7888	286.0000
24	F	395	240.4042	240.4043	240.4043	240.4043	240.2968	288.0000
25	F	411	239.5271	239.5271	239.5271	239.5271	238.6759	287.0000
26	F	427	238.5455	238.5456	238.5456	238.5456	234.1251	290.6001
27	F	443	234.0064	234.0064	234.0064	234.0064	230.0000	291.2000
28	F	458	232.0101	232.0101	232.0101	232.0102	230.0000	289.2000
29	T	473	230.0000	230.0000	230.0000	230.0000	232.4120	291.6001
30	T	488	230.0000	230.0000	230.0000	230.0000	242.0598	230.0000
31	T	503	232.3134	232.3130	232.3134	232.3131	245.8194	289.5000
32	F	519	241.5668	241.5653	241.5653	241.5653	250.4375	288.7000
33	F	536	248.1838	248.1958	248.1959	248.1959	253.5568	288.8000
34	F	553	249.7491	249.7552	249.7552	249.7552	256.4351	290.0000
35	F	570	252.6551	252.6638	252.6638	252.6638	259.0815	290.1001
36	F	588	255.3481	255.3568	255.3568	255.3568	261.4578	290.2000
37	F	606	257.9717	257.9790	257.9790	257.9792	263.6440	290.3000
38	F	624	260.3933	260.3994	260.3994	260.3994	265.6338	290.3999
39	F	642	262.8284	262.8335	262.8335	262.8337	267.4463	290.5000
40	F	661	264.8934	264.8975	264.8975	264.8977	269.1025	290.6001
41	F	680	266.5771	266.5806	266.5806	266.5808	270.5984	290.7000
42	F	699	268.2952	268.2981	268.2981	268.2982	271.9519	290.8000
43	F	718	289.8601	289.8625	289.8625	289.8627	273.1783	291.0000
44	F	737	271.2837	271.2858	271.2858	271.2858	274.2805	291.2000
45	F	757	272.5767	272.5784	272.5784	272.5785	275.2761	291.3999
46	F	777	273.7456	273.7471	273.7471	273.7471	276.1733	291.5000
47	F	797	274.8003	274.8015	274.8015	274.8015	276.9812	291.7000
48	F	817	275.7495	275.7507	275.7507	275.7507	277.7070	291.8000
49	F	837	276.6013	276.6023	276.6023	276.6024	278.3582	292.0000
50	F	857	277.3828	277.3835	277.3835	277.3836	278.9402	293.0000
51	F	877	278.0400	278.0405	278.0405	278.0406	279.4583	295.0000
52	F	897	278.6384	278.6388	278.6388	278.6391	279.9170	295.0000
53	F	917	279.1633	279.1636	279.1636	279.1638	280.3198	295.0000
54	F	937	279.6187	279.6189	279.6189	279.6191	280.6702	295.0000
55	F	957	280.0081	280.0083	280.0083	280.0085	280.9709	295.0000
56	F	977	280.3350	280.3352	280.3352	280.3353	281.2241	295.0000
57	F	997	280.6016	280.6018	280.6018	280.6020	281.4314	295.0000
58	F	1017	280.8103	280.8105	280.8105	280.8106	281.5947	295.0000
59	F	1037	280.9624	280.9626	280.9626	280.9627	281.7146	295.0000
60	F	1057	281.0593	281.0593	281.0593	281.0595	281.7822	295.0000
61	F	1077	281.1091	281.1094	281.1094	281.1095	281.8362	295.0000

ITERATION CONVERGENCE; ERROR: 0.076 TOLERENCE:0.100

STEADY STATE CONVERGENCE; ERROR:155.826 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 3.00 TIME STEP: 3

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.462	2	230.459	3	230.449	4	230.434	5	230.412	6	230.384	7	230.348	8	230.3
9	230.280	10	230.205	11	230.144	12	230.076	13	230.000	14	230.000	15	230.000	16	233.3
17	233.333	18	233.334	19	233.336	20	233.339	21	233.342	22	233.346	23	233.351	24	233.3
25	233.363	26	233.371	27	233.380	28	233.390	29	233.401	30	233.414	31	233.414	32	235.4
33	235.497	34	235.497	35	235.498	36	235.500	37	235.501	38	235.504	39	235.506	40	235.509
41	235.512	42	235.516	43	235.520	44	235.524	45	235.529	46	235.534	47	235.535	48	237.195
49	237.195	50	237.195	51	237.196	52	237.186	53	237.197	54	237.198	55	237.199	56	237.201
57	237.202	58	237.204	59	237.205	60	237.207	61	237.210	62	237.212	63	237.212	64	238.1
65	238.597	66	238.597	67	238.597	68	238.597	69	238.597	70	238.598	71	238.598	72	238.5
73	238.599	74	238.600	75	238.600	76	238.601	77	238.601	78	238.602	79	238.602	80	239.1
81	239.781	82	239.781	83	239.781	84	239.781	85	239.781	86	239.781	87	239.781	88	239.1
89	239.781	90	239.780	91	239.780	92	239.780	93	239.780	94	239.780	95	239.780	96	240.792
97	240.792	98	240.792	99	240.792	100	240.791	101	240.781	102	240.791	103	240.790	104	240.790
105	240.789	106	240.788	107	240.788	108	240.787	109	240.786	110	240.785	111	240.785	112	241.855
113	241.855	114	241.855	115	241.855	116	241.854	117	241.854	118	241.853	119	241.853	120	241.8
121	241.851	122	241.850	123	241.849	124	241.847	125	241.846	126	241.845	127	241.845	128	242.3
129	242.388	130	242.388	131	242.388	132	242.387	133	242.386	134	242.388	135	242.385	136	242.3
137	242.383	138	242.381	139	242.380	140	242.378	141	242.376	142	242.374	143	242.374	144	243.0
145	243.001	146	243.001	147	243.001	148	243.000	149	242.999	150	242.998	151	242.997	152	242.996
153	242.995	154	242.993	155	242.991	156	242.990	157	242.988	158	242.985	159	242.985	160	242.985
161	243.500	162	243.500	163	243.500	164	243.500	165	243.499	166	243.498	167	243.497	168	243.498
169	243.494	170	243.493	171	243.491	172	243.489	173	243.487	174	243.485	175	243.482	176	243.4
177	243.482	178	243.890	179	243.890	180	243.890	181	243.889	182	243.888	183	243.887	184	243.8
185	243.885	186	243.883	187	243.882	188	243.880	189	243.878	190	243.875	191	243.873	192	243.8
193	243.870	194	243.870	195	244.173	196	244.173	197	244.173	198	244.172	199	244.172	200	244.1
201	244.170	202	244.168	203	244.168	204	244.165	205	244.163	206	244.160	207	244.158	208	244.155
209	244.152	210	244.152	211	244.152	212	244.353	213	244.353	214	244.352	215	244.352	216	244.351
217	244.350	218	244.349	219	244.347	220	244.345	221	244.343	222	244.341	223	244.339	224	244.336
225	244.333	226	244.330	227	244.330	228	244.330	229	244.426	230	244.428	231	244.428	232	244.4
233	244.426	234	244.425	235	244.424	236	244.423	237	244.421	238	244.419	239	244.417	240	244.4
241	244.411	242	244.408	243	244.405	244	244.405	245	244.406	246	244.400	247	244.400	248	244.4
249	244.399	250	244.398	251	244.397	252	244.398	253	244.394	254	244.393	255	244.391	256	244.3
257	244.386	258	244.383	259	244.380	260	244.377	261	244.377	262	244.377	263	244.268	264	244.268
265	244.267	266	244.267	267	244.266	268	244.265	269	244.283	270	244.262	271	244.260	272	244.258
273	244.255	274	244.254	275	244.251	276	244.248	277	244.245	278	244.245	279	244.245	280	244.030
281	244.030	282	244.029	283	244.028	284	244.028	285	244.027	286	244.028	287	244.024	288	244.0
289	244.021	290	244.019	291	244.017	292	244.014	293	244.011	294	244.008	295	244.008	296	244.0
297	243.685	298	243.685	299	243.685	300	243.684	301	243.683	302	243.683	303	243.682	304	243.1
305	243.678	306	243.677	307	243.675	308	243.673	309	243.671	310	243.669	311	243.666	312	243.1
313	243.665	314	243.233	315	243.233	316	243.233	317	243.232	318	243.232	319	243.231	320	243.230
321	243.229	322	243.228	323	243.228	324	243.225	325	243.223	326	243.221	327	243.218	328	243.217
329	243.217	330	243.217	331	242.674	332	242.674	333	242.674	334	242.673	335	242.673	336	242.672
337	242.672	338	242.671	339	242.670	340	242.669	341	242.668	342	242.667	343	242.665	344	242.1
345	242.662	346	242.662	347	242.662	348	242.009	349	242.009	350	242.009	351	242.008	352	242.0
353	242.008	354	242.008	355	242.008	356	242.007	357	242.006	358	242.006	359	242.005	360	242.0
361	242.004	362	242.003	363	242.003	364	241.245	365	241.245	366	241.245	367	241.245	368	241.2
369	241.245	370	241.245	371	241.245	372	241.246	373	241.246	374	241.248	375	241.246	376	241.246
377	241.246	378	241.247	379	241.247	380	240.384	381	240.384	382	240.384	383	240.385	384	240.385
385	240.387	386	240.388	387	240.389	388	240.391	389	240.393	390	240.395	391	240.397	392	240.399
393	240.402	394	240.404	395	240.404	396	239.321	397	239.322	398	239.325	399	239.330	400	239.3
401	239.347	402	239.358	403	239.371	404	238.387	405	239.404	406	239.424	407	239.446	408	239.4
409	239.497	410	239.526	411	239.527	412	236.531	413	236.531	414	236.531	415	236.531	416	236.1
417	236.532	418	236.532	419	236.533	420	236.533	421	236.534	422	236.535	423	236.535	424	236.1
425	236.536	426	236.537	427	236.546	428	234.003	429	234.003	430	234.003	431	234.003	432	234.003

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
433	234.003	434	234.002	435	234.002	436	234.002	437	234.002	438	234.002	439	234.002	440	234.002
441	234.002	442	234.002	443	234.006	444	232.007	445	232.007	446	232.007	447	232.007	448	232.007
449	232.007	450	232.006	451	232.006	452	232.007	453	232.007	454	232.007	455	232.007	456	232.008
457	232.009	458	232.010	459	230.254	460	230.252	461	230.249	462	230.242	463	230.233	464	230.
465	230.207	466	230.190	467	230.171	468	230.149	469	230.124	470	230.097	471	230.067	472	230.
473	230.000	474	230.443	475	230.441	476	230.434	477	230.423	478	230.407	479	230.387	480	230.
481	230.332	482	230.298	483	230.260	484	230.217	485	230.168	486	230.117	487	230.061	488	230.
489	233.158	490	233.154	491	233.142	492	233.122	493	233.094	494	233.057	495	233.012	496	232.959
497	232.898	498	232.827	499	232.748	500	232.660	501	232.563	502	232.457	503	232.313	504	241.328
505	241.329	506	241.332	507	241.338	508	241.346	509	241.355	510	241.368	511	241.382	512	241.400
513	241.419	514	241.442	515	241.467	516	241.495	517	241.527	518	241.562	519	241.585	520	246.
521	246.180	522	246.180	523	246.181	524	246.181	525	246.182	526	246.183	527	246.184	528	246.
529	246.187	530	246.188	531	246.189	532	246.191	533	246.193	534	246.194	535	246.195	536	246.
537	249.788	538	249.788	539	249.787	540	249.786	541	249.785	542	249.784	543	249.782	544	249.
545	249.777	546	249.774	547	249.771	548	249.767	549	249.763	550	249.759	551	249.754	552	249.754
553	249.755	554	252.737	555	252.737	556	252.736	557	252.734	558	252.731	559	252.728	560	252.724
561	252.719	562	252.713	563	252.707	564	252.700	565	252.692	566	252.683	567	252.674	568	252.664
569	252.664	570	252.664	571	255.440	572	255.440	573	255.438	574	255.437	575	255.434	576	255.
577	255.425	578	255.420	579	255.413	580	255.408	581	255.398	582	255.389	583	255.379	584	255.
585	255.356	586	255.358	587	255.358	588	255.357	589	258.045	590	258.044	591	258.043	592	258.
593	258.038	594	258.036	595	258.033	596	258.028	597	258.023	598	258.017	599	258.011	600	258.
601	257.998	602	257.987	603	257.978	604	257.878	605	257.978	606	257.979	607	260.459	608	260.458
609	260.458	610	260.456	611	260.454	612	260.451	613	260.448	614	260.444	615	260.438	616	260.434
617	260.428	618	260.421	619	260.414	620	260.406	621	260.398	622	260.398	623	260.398	624	260.399
625	262.887	626	262.887	627	262.886	628	262.885	629	262.883	630	262.880	631	262.877	632	262.
633	262.889	634	262.885	635	262.859	636	262.853	637	262.847	638	262.838	639	262.832	640	262.
641	262.832	642	262.834	643	264.742	644	264.742	645	264.741	646	264.740	647	264.738	648	264.
649	264.733	650	264.730	651	264.726	652	264.722	653	264.717	654	264.712	655	264.706	656	264.
657	264.893	658	264.893	659	264.893	660	264.896	661	264.898	662	266.620	663	286.620	664	266.619
665	266.618	666	266.617	667	266.615	668	266.612	669	266.609	670	266.606	671	268.602	672	266.598
673	266.593	674	266.588	675	268.582	676	268.576	677	268.576	678	268.576	679	268.579	680	268.581
681	268.333	682	268.333	683	268.332	684	268.331	685	268.330	686	268.328	687	268.326	688	268.
689	268.320	690	268.315	691	268.313	692	268.308	693	268.304	694	268.298	695	268.293	696	268.
697	268.293	698	268.295	699	268.298	700	269.893	701	269.883	702	269.892	703	269.891	704	269.
705	269.888	706	269.886	707	269.884	708	269.881	709	269.878	710	269.876	711	269.871	712	269.
713	269.862	714	269.857	715	269.857	716	269.857	717	269.860	718	269.883	719	271.312	720	271.312
721	271.311	722	271.311	723	271.308	724	271.308	725	271.306	726	271.304	727	271.302	728	271.299
729	271.296	730	271.292	731	271.288	732	271.284	733	271.280	734	271.280	735	271.280	736	271.283
737	271.288	738	272.600	739	272.600	740	272.600	741	272.599	742	272.598	743	272.597	744	272.
745	272.593	746	272.591	747	272.589	748	272.586	749	272.583	750	272.579	751	272.578	752	272.
753	272.572	754	272.572	755	272.575	756	272.578	757	272.578	758	273.766	759	273.765	760	273.
761	273.764	762	273.763	763	273.762	764	273.761	765	273.758	766	273.757	767	273.755	768	273.
769	273.750	770	273.747	771	273.744	772	273.740	773	273.740	774	273.740	775	273.743	776	273.746
777	273.747	778	274.817	779	274.817	780	274.816	781	274.816	782	274.815	783	274.814	784	274.813
785	274.811	786	274.810	787	274.808	788	274.806	789	274.803	790	274.801	791	274.798	792	274.795
793	274.794	794	274.795	795	274.798	796	274.800	797	274.802	798	275.763	799	275.763	800	275.
801	275.762	802	275.762	803	275.761	804	275.760	805	275.758	806	275.757	807	275.755	808	275.
809	275.751	810	275.748	811	275.746	812	275.744	813	275.744	814	275.744	815	275.747	816	275.
817	275.751	818	276.812	819	276.812	820	276.812	821	276.812	822	276.811	823	276.810	824	276.
825	276.808	826	276.807	827	276.805	828	276.804	829	276.802	830	276.800	831	276.588	832	276.595
833	276.595	834	276.595	835	276.598	836	276.801	837	276.802	838	277.371	839	277.371	840	277.371
841	277.371	842	277.370	843	277.369	844	277.368	845	277.368	846	277.367	847	277.365	848	277.364
849	277.362	850	277.360	851	277.358	852	277.356	853	277.356	854	277.358	855	277.360	856	277.
857	277.364	858	278.047	859	278.047	860	278.046	861	278.046	862	278.045	863	278.045	864	278.
865	278.043	866	278.042	867	278.041	868	278.040	869	278.038	870	278.037	871	278.035	872	278.
873	278.033	874	278.033	875	278.036	876	278.038	877	278.041	878	278.843	879	278.843	880	278.
881	278.843	882	278.842	883	278.842	884	278.841	885	278.840	886	278.839	887	278.838	888	278.837
889	278.836	890	278.835	891	278.833	892	278.831	893	278.831	894	278.832	895	278.834	896	278.837
897	278.839	898	278.167	899	278.166	900	278.168	901	278.168	902	278.168	903	278.185	904	278.185
905	278.184	906	278.183	907	278.182	908	278.181	909	278.180	910	278.158	911	278.158	912	278.

813	279.156	814	279.156	815	279.159	816	279.161	817	279.164	818	279.620	819	279.620	820	279.620	821	279.620	822	279.620	823	279.619	824	279.618
825	279.618	826	279.618	827	279.617	828	279.616	829	279.615	830	279.614	831	279.613	832	279.611	833	279.611	834	279.611	835	279.614	836	279.617
837	279.619	838	280.009	839	280.009	840	280.008	841	280.008	842	280.008	843	280.008	844	280.007	845	280.007	846	280.006	847	280.006	848	280.005
849	280.004	850	280.003	851	280.002	852	280.001	853	280.001	854	280.001	855	280.003	856	280.005	857	280.009	858	280.335	859	280.335	860	280.335
861	280.334	862	280.334	863	280.334	864	280.333	865	280.333	866	280.332	867	280.332	868	280.331	869	280.330	870	280.329	871	280.328	872	280.327
873	280.327	874	280.328	875	280.330	876	280.333	877	280.335	878	280.601	879	280.601	880	280.601	881	280.600	882	280.600	883	280.600	884	280.599
885	280.599	886	280.598	887	280.598	888	280.597	889	280.597	890	280.598	891	280.595	892	280.594	893	280.594	894	280.594	895	280.597	896	280.599
897	280.602	898	280.609	899	280.609	900	280.609	1001	280.808	1002	280.808	1003	280.808	1004	280.808	1005	280.807	1006	280.807	1007	280.806	1008	280.806
1009	280.805	1010	280.804	1011	280.803	1012	280.803	1013	280.803	1014	280.803	1015	280.805	1016	280.808	1017	280.811	1018	280.860	1019	280.860	1020	280.860
1021	280.860	1022	280.860	1023	280.860	1024	280.859	1025	280.859	1026	280.859	1027	280.858	1028	280.858	1029	280.857	1030	280.858	1031	280.858	1032	280.855
1033	280.855	1034	280.855	1035	280.857	1036	280.860	1037	280.863	1038	281.057	1039	281.057	1040	281.057	1041	281.057	1042	281.056	1043	281.056	1044	281.056
1045	281.055	1046	281.055	1047	281.055	1048	281.054	1049	281.054	1050	281.053	1051	281.052	1052	281.052	1053	281.052	1054	281.052	1055	281.054	1056	281.057
1057	281.060	1058	281.096	1059	281.098	1060	281.098	1061	281.098	1062	281.098	1063	281.098	1064	281.096	1065	281.096	1066	281.095	1067	281.095	1068	281.095
1069	281.095	1070	281.094	1071	281.094	1072	281.094	1073	281.094	1074	281.094	1075	281.099	1076	281.104	1077	281.110						

NODES ALONG THE WATER TABLE

15	31	47	63	79	95	111	127	143	160	177	194	211	228	245	262	279	295	313	330	347	363	379	395	411
427	443	458	473	488	503	519	536	553	570	588	606	624	642	661	680	699	718	737	757	777	797	817	837	857
877	897	917	937	957	977	997	1017	1037	1057	1077													

NEW HYDRAULIC CONDUCTIVITY DISTRIBUTION

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FINITE ELEMENT GRID SUMMARY

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  1275: ESTIMATED NUMBER OF NODES
  1078: ACTUAL NUMBER OF NODES
  2600: ESTIMATED NUMBER OF ELEMENTS
  1998: ACTUAL NUMBER OF ELEMENTS
    22: ESTIMATED BANDWITH
    18: ESTIMATED NUMBER OF CONSTANT HEAD NODES
     8: ACTUAL NUMBER OF CONSTANT HEAD NODES
  1070: NUMBER OF NODES WITH UNKNOWN HEADS
    22: FINAL BANDWIDTH
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ITERATION: 1 TIME: 4.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	233.4141	233.0328	233.0328	233.0328	233.4141	251.0000
3	F	47	235.5345	234.9158	234.9158	234.9158	235.5345	252.0000
4	F	63	237.2119	236.4043	236.4043	236.4043	237.2119	253.0000
5	F	79	238.6023	237.6372	237.6372	237.6372	238.6023	254.0000
6	F	95	239.7795	238.6801	238.6801	238.6801	239.7795	255.0000
7	F	111	240.7852	239.5699	239.5699	239.5699	240.7852	259.0000
8	F	127	241.6446	240.3299	240.3299	240.3299	241.6446	262.0000
9	F	143	242.3744	240.9757	240.9757	240.9757	242.3744	265.0000
10	F	160	242.9853	241.5168	241.5168	241.5168	242.9853	268.0000
11	F	177	243.4821	241.9601	241.9601	241.9601	243.4821	271.0000
12	F	194	243.8699	242.3118	242.3118	242.3118	243.8699	274.0000
13	F	211	244.1519	242.5761	242.5761	242.5761	244.1518	277.0000
14	F	228	244.3302	242.7563	242.7563	242.7563	244.3302	279.0000
15	F	245	244.4052	242.8549	242.8549	242.8550	244.4052	280.0000
16	F	262	244.3771	242.8742	242.8742	242.8742	244.3771	281.0000

17	F	279	244.2451	242.8157	242.8157	242.8157	244.2451	282.0000
18	F	296	244.0084	242.5810	242.5810	242.5810	244.0084	281.2000
19	F	313	243.6660	242.4712	242.4712	242.4712	243.6660	281.7000
20	F	330	243.2171	242.1878	242.1878	242.1878	243.2171	282.0000
21	F	347	242.8622	241.8321	241.8321	241.8321	242.8622	283.0000
22	F	363	242.0029	241.4057	241.4057	241.4057	242.0029	284.0000
23	F	379	241.2486	240.9115	240.9115	240.9115	241.2486	285.0000
24	F	395	240.4043	240.3531	240.3531	240.3531	240.4043	285.0000
25	F	411	239.5271	239.7586	239.7586	239.7586	239.5271	287.0000
26	F	427	236.5456	237.6525	237.6525	237.6525	236.5456	290.6001
27	F	443	234.0064	235.7380	235.7380	235.7380	234.0064	291.2000
28	F	458	232.0101	234.0336	234.0336	234.0336	232.0101	289.2000
29	F	473	230.0000	232.5409	232.5409	232.5409	230.0000	291.6001
30	F	488	230.0000	231.2975	231.2975	231.2976	230.0000	291.8000
31	T	503	230.0000	230.0000	230.0000	230.0000	232.3130	289.5000
32	T	518	230.0000	230.0000	230.0000	230.0000	241.5853	230.0000
33	T	535	246.1959	232.3170	246.1959	232.3170	246.1959	289.8000
34	F	552	249.7552	241.5849	241.5849	241.5849	249.7552	290.0000
35	F	570	252.6636	245.1434	245.1434	245.1435	252.6636	290.1001
36	F	588	255.3568	248.4957	248.4957	248.4957	255.3568	290.2000
37	F	606	257.9790	251.6103	251.6103	251.6103	257.9790	290.3000
38	F	624	260.3994	254.4995	254.4995	254.4995	260.3994	290.3999
39	F	643	262.6335	257.1753	257.1753	257.1754	262.6335	290.5000
40	F	662	264.8975	259.6533	259.6533	259.6535	264.8975	290.6001
41	F	681	266.5806	261.9277	261.9277	261.9278	266.5806	290.7000
42	F	700	268.2881	264.0139	264.0139	264.0140	268.2881	290.8000
43	F	719	269.8625	265.9243	267.6716	265.9245	269.8625	291.0000
44	F	738	271.2856	267.6716	267.6716	267.6717	271.2856	291.2000
45	F	758	272.5784	269.2639	269.2639	269.2641	272.5784	291.3999
46	F	778	273.7471	270.7112	270.7112	270.7114	273.7471	291.5000
47	F	798	274.8015	272.0229	272.0229	272.0230	274.8015	291.7000
48	F	818	275.7507	273.2080	273.2080	273.2082	275.7507	291.8000
49	F	838	276.6023	274.2749	274.2749	274.2751	276.6023	292.0000
50	F	858	277.3635	275.2312	275.2312	275.2314	277.3635	293.0000
51	F	878	278.0405	276.0837	276.0837	276.0838	278.0405	295.0000
52	F	898	278.6388	276.8386	276.8386	276.8388	278.6388	295.0000
53	F	918	279.1636	277.5015	277.5015	277.5016	279.1636	295.0000
54	F	938	279.6189	278.0769	278.0769	278.0770	279.6189	295.0000
55	F	958	280.0083	278.5893	278.5893	278.5895	280.0083	295.0000
56	F	978	280.3352	278.9824	278.9824	278.9824	280.3352	295.0000
57	F	998	280.6018	279.3188	279.3188	279.3190	280.6018	295.0000
58	F	1018	280.8105	279.5815	278.5815	279.5816	280.8105	295.0000
59	F	1038	280.9626	279.7720	279.7720	279.7721	280.9626	295.0000
60	F	1058	281.0583	279.8918	279.8918	279.8919	281.0583	295.0000
61	F	1078	281.1084	279.9497	279.9497	279.9498	281.1084	295.0000

******* REFORM THE GRID *******

ITERATION CONVERGENCE; ERROR:128.002 TOLERENCE:0.100

FINITE ELEMENT GRID SUMMARY

1275: ESTIMATED NUMBER OF NODES
1062: ACTUAL NUMBER OF NODES
2600: ESTIMATED NUMBER OF ELEMENTS
1965: ACTUAL NUMBER OF ELEMENTS
22: ESTIMATED BANDWITH
18: ESTIMATED NUMBER OF CONSTANT HEAD NODES
7: ACTUAL NUMBER OF CONSTANT HEAD NODES

1055: NUMBER OF NODES WITH UNKNOWN HEADS

ITERATION: 2 TIME: 4.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	233.0328	232.9875	232.9875	232.9875	233.4141	251.0000
3	F	47	234.8156	234.8825	234.8825	234.8825	235.5345	252.0000
4	F	63	236.4043	236.3906	236.3906	236.3906	237.2119	253.0000
5	F	79	237.8372	237.8429	237.8429	237.8429	238.8023	254.0000
6	F	95	238.8801	238.7029	238.7029	238.7029	239.7796	255.0000
7	F	111	239.5699	239.6071	238.8071	239.8072	240.7852	259.0000
8	F	127	240.3289	240.3787	240.3787	240.3787	241.5446	262.0000
9	F	143	240.9757	241.0329	241.0329	241.0329	242.3744	265.0000
10	F	159	241.5186	241.5806	241.5806	241.5806	242.9853	268.0000
11	F	175	241.9601	242.0296	242.0296	242.0296	243.4821	271.0000
12	F	191	242.3118	242.3855	242.3855	242.3855	243.8698	274.0000
13	F	208	242.5781	242.8523	242.8523	242.8523	244.1519	277.0000
14	F	225	242.7563	242.8310	242.8310	242.8310	244.3302	279.0000
15	F	242	242.8549	242.9243	242.9243	242.9243	244.4052	280.0000
16	F	258	242.8742	242.9344	242.9344	242.9345	244.3771	281.0000
17	F	276	242.8157	242.8831	242.8831	242.8832	244.2451	282.0000
18	F	293	242.8810	242.7121	242.7121	242.7121	244.0084	281.2000
19	F	309	242.4712	242.4829	242.4829	242.4829	243.6660	281.7000
20	F	325	242.1878	242.1799	242.1799	242.1799	243.2171	282.0000
21	F	341	241.8321	241.8053	241.8053	241.8053	242.8622	283.0000
22	F	357	241.4057	241.3618	241.3618	241.3618	242.0029	284.0000
23	F	373	240.9115	240.8533	240.8533	240.8533	241.2486	285.0000
24	F	389	240.3531	240.2860	240.2860	240.2860	240.4043	286.0000
25	F	405	239.7586	239.6908	238.6908	239.6908	238.5271	287.0000
26	F	421	237.6525	237.5586	237.5586	237.5586	236.5456	290.6001
27	F	437	235.7380	235.5918	235.5918	235.5918	234.0064	291.2000
28	F	453	234.0336	233.8040	233.8040	233.8041	232.0101	289.2000
29	T	469	232.5409	232.0894	232.0894	232.0894	230.0000	291.6001
30	F	484	231.2975	231.0911	231.0911	231.0911	230.0000	291.8000
31	T	499	230.0000	230.0000	230.0000	230.0000	232.3130	289.5000
32	T	514	230.0000	230.0000	230.0000	230.0000	241.5853	230.0000
33	T	529	232.3170	232.2404	232.3170	232.2405	246.1959	289.8000
34	F	545	241.5849	241.2023	241.2023	241.2023	249.7552	290.0000
35	F	562	245.1434	245.7876	245.7876	245.7876	252.6636	290.1001
36	F	579	248.4957	249.4063	249.4063	249.4064	255.3568	290.2000
37	F	596	251.6103	252.3566	252.3566	252.3566	257.9790	290.3000
38	F	614	254.4995	255.0374	255.0374	255.0374	260.3994	290.3999
39	F	632	257.1753	257.6116	257.6116	257.6118	262.6335	290.5000
40	F	650	259.6533	260.0063	260.0063	260.0064	264.8975	290.6001
41	F	668	261.9277	262.2156	262.2156	262.2158	266.5806	290.7000
42	F	687	264.0139	264.2522	264.2522	264.2522	268.2881	290.8000
43	F	706	265.9243	266.1191	266.1191	266.1192	269.8625	291.0000
44	F	725	267.6716	267.8274	267.8274	267.8276	271.2856	291.2000
45	F	744	269.2639	269.3872	269.3872	269.3873	272.5784	291.3999
46	F	763	270.7112	270.8098	270.8098	270.8098	273.7471	291.5000
47	F	782	272.0229	272.1040	272.1040	272.1040	274.8015	291.7000
48	F	802	273.2080	273.2776	273.2776	273.2780	275.7507	291.8000
49	F	822	274.2749	274.3347	274.3347	274.3349	276.6023	292.0000
50	F	842	275.2312	275.2822	275.2822	275.2824	277.3635	293.0000
51	F	862	276.0837	276.1272	276.1272	276.1273	278.0405	295.0000
52	F	882	276.8386	276.8755	276.8755	276.8755	278.6388	295.0000
53	F	902	277.5015	277.5325	277.5325	277.5326	279.1636	295.0000

54	F	922	278.0788	278.1030	278.1030	278.1031	278.6188	295.0000
55	F	942	278.5693	278.5913	278.5813	278.5913	280.0083	295.0000
56	F	962	278.9824	279.0005	279.0005	279.0007	280.3352	295.0000
57	F	982	279.3188	279.3342	279.3342	279.3343	280.6018	295.0000
58	F	1002	279.5815	279.5942	279.5942	279.5945	280.8105	295.0000
59	F	1022	279.7720	279.7830	279.7830	279.7832	280.9826	295.0000
60	F	1042	279.8918	279.9016	279.9016	279.9018	281.0593	295.0000
61	F	1062	279.9487	279.9587	279.9587	279.9589	281.1084	295.0000

******* REFORM THE GRID *******

ITERATION CONVERGENCE; ERROR: 7.851 TOLERENCE:0.100

FINITE ELEMENT GRID SUMMARY

1275: ESTIMATED NUMBER OF NODES
1061: ACTUAL NUMBER OF NODES
2600: ESTIMATED NUMBER OF ELEMENTS
1967: ACTUAL NUMBER OF ELEMENTS
22: ESTIMATED BANDWITH
18: ESTIMATED NUMBER OF CONSTANT HEAD NODES
8: ACTUAL NUMBER OF CONSTANT HEAD NODES
1055: NUMBER OF NODES WITH UNKNOWN HEADS

ITERATION: 3 TIME: 4.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	232.9875	232.9935	232.9935	232.9935	233.4141	251.0000
3	F	47	234.8825	234.8940	234.8940	234.8940	235.5345	252.0000
4	F	63	236.3908	236.4034	236.4034	236.4034	237.2119	253.0000
5	F	79	237.6429	237.6550	237.6550	237.6550	238.6023	254.0000
6	F	95	238.7029	238.7134	238.7134	238.7134	239.7786	256.0000
7	F	111	238.6071	239.6158	239.6158	239.6158	240.7852	259.0000
8	F	127	240.3787	240.3856	240.3856	240.3856	241.6446	262.0000
9	F	143	241.0329	241.0383	241.0383	241.0383	242.3744	265.0000
10	F	159	241.5806	241.5849	241.5848	241.5849	242.9853	268.0000
11	F	175	242.0296	242.0330	242.0330	242.0330	243.4821	271.0000
12	F	191	242.3855	242.3885	242.3885	242.3885	243.8899	274.0000
13	F	208	242.6523	242.6552	242.6552	242.6552	244.1519	277.0000
14	F	225	242.8310	242.8344	242.8344	242.8344	244.3302	279.0000
15	F	242	242.9243	242.9287	242.9287	242.9287	244.4052	280.0000
16	F	259	242.9344	242.9403	242.9403	242.9403	244.3771	281.0000
17	F	276	242.8631	242.8709	242.8709	242.8709	244.2451	282.0000
18	F	293	242.7121	242.7222	242.7222	242.7222	244.0084	281.2000
19	F	309	242.4829	242.4958	242.4958	242.4958	243.6660	281.7000
20	F	325	242.1799	242.1959	242.1959	242.1959	243.2171	282.0000
21	F	341	241.8053	241.8246	241.8246	241.8246	242.6622	283.0000
22	F	357	241.3618	241.3848	241.3848	241.3849	242.0029	284.0000
23	F	373	240.8533	240.8806	240.8806	240.8806	241.2486	286.0000
24	F	389	240.2880	240.3183	240.3183	240.3183	240.4043	286.0000
25	F	405	239.6908	239.7290	239.7290	239.7290	239.5271	287.0000
26	F	421	237.5586	237.6338	237.6338	237.6338	236.5456	290.6001
27	F	437	235.5918	235.7175	235.7175	235.7175	234.0084	291.2000
28	F	453	233.8040	233.9870	233.9870	233.9870	232.0101	289.2000
29	F	468	232.0894	232.5198	232.5198	232.5198	230.0000	291.8001
30	F	483	231.0911	231.3024	231.3024	231.3025	230.0000	291.8000
31	T	498	230.0000	230.0000	230.0000	230.0000	232.3130	289.5000
32	T	513	230.0000	230.0000	230.0000	230.0000	241.5653	230.0000
33	T	528	232.2404	231.9238	230.0000	231.9238	248.1959	289.8000
34	F	544	241.2023	239.6188	239.6188	239.6188	249.7552	290.0000
35	F	561	245.7876	244.4299	244.4299	244.4299	252.8636	290.1001
36	F	578	249.4063	248.1151	248.1151	248.1151	255.3568	290.2000
37	F	595	252.3568	251.1225	251.1225	251.1225	257.9790	290.3000
38	F	613	255.0374	253.8984	253.8984	253.8984	260.3994	290.3999
39	F	631	257.6116	256.5984	256.5984	256.5985	262.6335	290.5000
40	F	649	260.0083	259.1018	259.1018	259.1019	264.6975	290.6001
41	F	667	262.2156	261.4072	261.4072	261.4075	266.5806	290.7000
42	F	686	264.2522	263.5281	263.5281	263.5283	268.2981	290.8000
43	F	705	266.1191	265.4714	265.4714	265.4716	269.8625	291.0000
44	F	724	267.8274	267.2480	267.2480	267.2481	271.2858	291.2000
45	F	743	269.3872	268.8689	268.8689	268.8689	272.5784	291.3888
46	F	762	270.8098	270.3445	270.3445	270.3445	273.7471	291.5000
47	F	781	272.1040	271.6855	271.6855	271.6857	274.8015	291.7000
48	F	801	273.2778	272.9009	272.9009	272.9009	275.7507	291.8000
49	F	821	274.3347	273.9949	273.9948	273.9950	276.6023	292.0000
50	F	841	275.2822	274.9753	274.9753	274.9755	277.3635	293.0000
51	F	861	276.1272	275.8484	275.8484	275.8484	278.0405	295.0000
52	F	881	276.8755	276.6230	276.8230	276.8232	278.6389	295.0000
53	F	901	277.5325	277.3025	277.3025	277.3028	279.1638	295.0000
54	F	921	278.1030	277.8923	277.8923	277.8926	279.6189	295.0000
55	F	941	278.5913	278.3972	278.3972	278.3974	280.0083	295.0000
56	F	961	279.0005	278.8208	278.8208	278.8209	280.3352	295.0000
57	F	981	279.3342	279.1658	279.1658	279.1660	280.6018	295.0000
58	F	1001	279.5942	279.4351	279.4351	279.4353	280.8105	295.0000
59	F	1021	279.7830	279.6306	279.6306	279.6306	280.9826	295.0000
60	F	1041	279.9016	279.7532	279.7532	279.7534	281.0593	295.0000
61	F	1061	279.9587	279.8118	279.8118	279.8118	281.1094	295.0000

ITERATION CONVERGENCE; ERROR: 19.390 TOLERENCE:0.100

ITERATION: 4 TIME: 4.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	232.9835	232.9938	232.9938	232.9939	233.4141	251.0000
3	F	47	234.8940	234.8937	234.8937	234.8937	235.5345	252.0000
4	F	63	236.4034	236.4024	236.4024	236.4024	237.2119	253.0000
5	F	79	237.6550	237.6535	237.6535	237.6535	238.6023	254.0000
6	F	95	238.7134	238.7117	238.7117	238.7117	239.7786	256.0000
7	F	111	238.6158	239.6141	239.6141	239.6141	240.7852	259.0000
8	F	127	240.3856	240.3839	240.3839	240.3839	241.6446	262.0000
9	F	143	241.0383	241.0368	241.0368	241.0368	242.3744	265.0000
10	F	159	241.5849	241.5834	241.5834	241.5834	242.9853	268.0000
11	F	175	242.0330	242.0317	242.0317	242.0317	243.4821	271.0000
12	F	191	242.3885	242.3873	242.3873	242.3873	243.8899	274.0000
13	F	208	242.6552	242.6541	242.6541	242.6541	244.1519	277.0000
14	F	225	242.8344	242.8333	242.8333	242.8333	244.3302	279.0000
15	F	242	242.9287	242.9278	242.9278	242.9278	244.4052	280.0000
16	F	259	242.9403	242.9391	242.9391	242.9391	244.3771	281.0000
17	F	276	242.8709	242.8697	242.8697	242.8697	244.2451	282.0000
18	F	293	242.7222	242.7209	242.7209	242.7209	244.0084	281.2000
19	F	309	242.4958	242.4945	242.4945	242.4945	243.6660	281.7000
20	F	325	242.1959	242.1948	242.1948	242.1948	243.2171	282.0000
21	F	341	241.8246	241.8234	241.8234	241.8234	242.6622	283.0000

22	F	357	241.3848	241.3838	241.3838	241.3838	242.0029	284.0000
23	F	373	240.8805	240.8800	240.8800	240.8800	241.2466	285.0000
24	F	388	240.3183	240.3183	240.3183	240.3183	240.4043	286.0000
25	F	405	239.7290	239.7300	239.7300	239.7300	238.5271	287.0000
26	F	421	237.6338	237.6332	237.6332	237.6332	236.5456	290.6001
27	F	437	235.7175	235.7157	235.7157	235.7157	234.0064	291.2000
28	F	453	233.9870	233.9946	233.9946	233.9946	232.0101	289.2000
29	F	468	232.5199	232.5202	232.5202	232.5202	230.0000	291.6001
30	F	483	231.3024	231.3070	231.3070	231.3070	230.0000	291.8000
31	T	498	230.0000	230.0000	230.0000	230.0000	232.3130	288.5000
32	T	513	230.0000	230.0000	230.0000	230.0000	241.5653	230.0000
33	T	528	231.9238	232.2488	231.9238	232.2489	246.1959	289.8000
34	F	544	239.6188	241.2442	241.2442	241.2443	249.7552	290.0000
35	F	561	244.4299	245.9599	245.9599	245.9599	252.6636	290.1001
36	F	578	248.1151	249.5152	249.5152	249.5152	255.3568	290.2000
37	F	595	251.1225	252.4097	252.4097	252.4097	257.9790	290.3000
38	F	613	253.8984	255.0343	255.0343	255.0343	260.3994	290.3999
39	F	631	256.5984	257.5474	257.5474	257.5474	262.6335	290.5000
40	F	649	259.1018	259.8945	259.8945	259.8947	264.8975	290.6001
41	F	667	261.4072	262.0891	262.0891	262.0893	266.5806	290.7000
42	F	686	263.5281	264.0803	264.0803	264.0805	268.2981	290.8000
43	F	705	265.4714	265.9321	265.9321	265.9324	269.8625	291.0000
44	F	724	267.2480	267.6323	267.6323	267.6324	271.2856	291.2000
45	F	743	268.8689	269.1892	269.1892	269.1894	272.5784	291.3999
46	F	762	270.3445	270.6116	270.6116	270.6117	273.7471	291.5000
47	F	781	271.8855	271.9082	271.9082	271.9084	274.8015	291.7000
48	F	801	272.9009	273.0864	273.0864	273.0868	275.7507	291.8000
49	F	821	273.8949	274.1499	274.1498	274.1501	276.6023	292.0000
50	F	841	274.8753	275.1050	275.1050	275.1051	277.3635	293.0000
51	F	861	275.8494	275.9580	275.9580	275.9580	278.0405	295.0000
52	F	881	276.8230	276.7144	276.7144	276.7145	278.6389	295.0000
53	F	901	277.3025	277.3796	277.3796	277.3797	279.1636	295.0000
54	F	921	277.8823	277.9580	277.9580	277.9581	279.6189	295.0000
55	F	941	278.3972	278.4536	278.4536	278.4536	280.0083	295.0000
56	F	961	278.8208	278.8696	278.8696	278.8697	280.3352	295.0000
57	F	981	279.1658	279.2090	279.2090	279.2090	280.5018	295.0000
58	F	1001	279.4351	279.4738	279.4738	279.4740	280.8105	295.0000
59	F	1021	279.6306	279.8663	279.8663	279.8664	280.9826	295.0000
60	F	1041	279.7532	279.7874	279.7874	279.7874	281.0593	295.0000
61	F	1061	279.8118	279.8452	279.8452	279.8452	281.1094	295.0000

ITERATION CONVERGENCE; ERROR: 12.733 TOLERENCE:0.100

ITERATION: 5 TIME: 4.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	232.9938	232.9938	232.9938	232.9938	233.4141	251.0000
3	F	47	234.8937	234.8935	234.8935	234.8935	235.5345	252.0000
4	F	63	236.4024	236.4022	236.4022	236.4022	237.2118	253.0000
5	F	79	237.6535	237.6534	237.6534	237.6534	238.6023	254.0000
6	F	95	238.7117	238.7117	238.7117	238.7117	239.7796	256.0000
7	F	111	239.8141	239.8141	239.8141	239.8141	240.7852	259.0000
8	F	127	240.3839	240.3840	240.3840	240.3840	241.6446	262.0000
9	F	143	241.0368	241.0368	241.0368	241.0369	242.3744	265.0000
10	F	159	241.5834	241.5835	241.5835	241.5835	242.9853	268.0000
11	F	175	242.0317	242.0318	242.0318	242.0318	243.4821	271.0000
12	F	191	242.3873	242.3874	242.3874	242.3874	243.8699	274.0000
13	F	208	242.6541	242.6542	242.6542	242.6542	244.1519	277.0000
14	F	225	242.8333	242.8334	242.8334	242.8334	244.3302	279.0000
15	F	242	242.9276	242.9277	242.9277	242.9277	244.4052	280.0000
16	F	259	242.9391	242.9392	242.9392	242.9392	244.3771	281.0000
17	F	276	242.8697	242.8698	242.8698	242.8698	244.2451	282.0000
18	F	293	242.7209	242.7210	242.7210	242.7210	244.0084	281.2000
19	F	309	242.4845	242.4846	242.4946	242.4845	243.6660	281.7000
20	F	325	242.1946	242.1947	242.1947	242.1947	243.2171	282.0000
21	F	341	241.8234	241.8234	241.8234	241.8234	242.8622	283.0000
22	F	357	241.3838	241.3839	241.3839	241.3839	242.0029	284.0000
23	F	373	240.8800	240.8800	240.8800	240.8800	241.2466	285.0000
24	F	388	240.3183	240.3183	240.3183	240.3183	240.4043	286.0000
25	F	405	239.7300	239.7301	239.7301	239.7301	238.5271	287.0000
26	F	421	237.6332	237.6334	237.6334	237.6334	236.5456	290.6001
27	F	437	235.7157	235.7160	235.7160	235.7160	234.0064	291.2000
28	F	453	233.9946	233.9949	233.9949	233.9949	232.0101	289.2000
29	F	468	232.5202	232.5208	232.5208	232.5208	230.0000	291.6001
30	F	483	231.3070	231.3078	231.3078	231.3078	230.0000	291.8000
31	T	498	230.0000	230.0000	230.0000	230.0000	232.3130	288.5000
32	T	513	230.0000	230.0000	230.0000	230.0000	241.5653	230.0000
33	T	528	232.2488	232.2258	232.2488	232.2258	246.1959	289.8000
34	F	544	241.2442	241.1288	241.1288	241.1288	249.7552	290.0000
35	F	561	245.9599	245.8149	245.8149	245.8149	252.6638	290.1001
36	F	578	249.5152	249.0728	249.0728	249.0729	255.3568	290.2000
37	F	595	252.4097	251.9201	251.9201	251.9201	257.9790	290.3000
38	F	613	255.0343	254.5676	254.5676	254.5676	260.3994	290.3999
39	F	631	257.5474	257.1570	257.1570	257.1570	262.6335	290.5000
40	F	649	259.8945	259.5679	259.5679	259.5680	264.8975	290.6001
41	F	667	262.0891	261.7959	261.7959	261.7960	266.5806	290.7000
42	F	686	264.0803	263.8521	263.8521	263.8522	268.2981	290.8000
43	F	705	265.9321	265.7415	265.7415	265.7416	269.8625	291.0000
44	F	724	267.6323	267.4729	267.4729	267.4731	271.2856	291.2000
45	F	743	269.1892	269.0562	269.0562	269.0563	272.5784	291.3999
46	F	762	270.6116	270.5005	270.5005	270.5007	273.7471	291.5000
47	F	781	271.9082	271.8157	271.8157	271.8158	274.8015	291.7000
48	F	801	273.0864	273.0083	273.0083	273.0083	275.7507	291.8000
49	F	821	274.1499	274.0854	274.0854	274.0855	276.8023	292.0000
50	F	841	275.1050	275.0510	275.0510	275.0511	277.3635	293.0000
51	F	861	275.9580	275.9126	275.9126	275.9128	278.0405	295.0000
52	F	881	276.7144	276.6763	276.6763	276.6765	278.6389	295.0000
53	F	901	277.3796	277.3474	277.3474	277.3476	279.1636	295.0000
54	F	921	277.9580	277.9307	277.9307	277.9308	279.6189	295.0000
55	F	941	278.4536	278.4302	278.4302	278.4302	280.0083	295.0000
56	F	961	278.8696	278.8491	278.8491	278.8493	280.3352	295.0000
57	F	981	279.2090	279.1909	279.1909	279.1911	280.6018	295.0000
58	F	1001	279.4739	279.4578	279.4578	279.4578	280.8105	295.0000
59	F	1021	279.8663	279.8514	279.8514	279.8515	280.9826	295.0000
60	F	1041	279.7874	279.7729	279.7729	279.7732	281.0593	295.0000
61	F	1061	279.8452	279.8311	279.8311	279.8313	281.1094	295.0000

ITERATION CONVERGENCE; ERROR: 4.226 TOLERENCE:0.100

ITERATION: 6 TIME: 4.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	232.9938	232.9938	232.9938	232.9938	233.4141	251.0000
3	F	47	234.8935	234.8935	234.8935	234.8936	235.5345	252.0000

4	F	63	236.4022	236.4023	236.4023	236.4023	237.2119	253.0000
5	F	79	237.6534	237.6534	237.6534	237.6534	238.6023	254.0000
6	F	95	238.7117	238.7117	238.7117	238.7117	239.7796	256.0000
7	F	111	239.6141	239.6141	239.6141	239.6141	240.7852	259.0000
8	F	127	240.3840	240.3840	240.3840	240.3840	241.6446	262.0000
9	F	143	241.0389	241.0389	241.0389	241.0389	242.3744	265.0000
10	F	159	241.5835	241.5836	241.5836	241.5836	242.9853	268.0000
11	F	175	242.0318	242.0318	242.0318	242.0318	243.4821	271.0000
12	F	191	242.3874	242.3874	242.3874	242.3874	243.8699	274.0000
13	F	208	242.6542	242.6542	242.6542	242.6542	244.1519	277.0000
14	F	225	242.8334	242.8334	242.8334	242.8334	244.3302	279.0000
15	F	242	242.9277	242.9277	242.9277	242.9277	244.4052	280.0000
16	F	259	242.9392	242.9392	242.9392	242.9392	244.3771	281.0000
17	F	276	242.8698	242.8698	242.8698	242.8698	244.2451	282.0000
18	F	293	242.7210	242.7210	242.7210	242.7210	244.0084	281.2000
19	F	309	242.4946	242.4946	242.4946	242.4946	243.6660	281.7000
20	F	325	242.1947	242.1946	242.1946	242.1947	243.2171	282.0000
21	F	341	241.8234	241.8234	241.8234	241.8234	242.6622	283.0000
22	F	357	241.3839	241.3839	241.3839	241.3839	242.0029	284.0000
23	F	373	240.8800	240.8800	240.8800	240.8800	241.2486	286.0000
24	F	389	240.3183	240.3183	240.3183	240.3183	240.4043	288.0000
25	F	405	239.7301	239.7301	238.7301	239.7301	239.5271	287.0000
26	F	421	237.6333	237.6333	237.6333	237.6334	236.5458	290.8001
27	F	437	235.7160	235.7159	235.7159	235.7159	234.0084	291.2000
28	F	453	233.9848	233.9848	233.9848	233.9848	232.0101	289.2000
29	F	468	232.5208	232.5207	232.5207	232.5207	230.0000	291.8001
30	F	483	231.3078	231.3078	231.3078	231.3078	230.0000	291.8000
31	T	498	230.0000	230.0000	230.0000	230.0000	232.3130	289.5000
32	T	513	230.0000	230.0000	230.0000	230.0000	241.5653	230.0000
33	T	528	232.2258	232.2209	232.2258	232.2208	246.1959	289.8000
34	F	544	241.1288	241.1046	241.1046	241.1046	249.7552	290.0000
35	F	561	245.6149	245.6186	245.6188	245.6187	252.6636	290.1001
36	F	578	249.0728	249.1149	249.1148	249.1149	255.3568	290.2000
37	F	595	251.9201	251.9857	251.9857	251.9857	257.9790	290.3000
38	F	613	254.5676	254.6521	254.6521	254.6522	260.3894	290.3998
39	F	631	257.1570	257.2278	257.2278	257.2279	262.6335	290.5000
40	F	649	259.5678	259.6274	259.6274	259.6275	264.6875	290.8001
41	F	667	261.7959	261.8457	261.8457	261.8458	266.5806	290.7000
42	F	686	263.8521	263.8938	263.8938	263.8940	268.2981	290.8000
43	F	705	265.7415	265.7784	265.7784	265.7786	269.8825	291.0000
44	F	724	267.4729	267.5022	267.5022	267.5024	271.2856	291.2000
45	F	743	269.0562	269.0808	269.0808	269.0809	272.5784	291.3998
46	F	762	270.5005	270.5212	270.5212	270.5213	273.7471	291.5000
47	F	781	271.8157	271.8328	271.8328	271.8330	274.8015	291.7000
48	F	801	273.0083	273.0237	273.0237	273.0237	275.7507	291.8000
49	F	821	274.0854	274.0974	274.0974	274.0975	276.6023	292.0000
50	F	841	275.0510	275.0610	275.0610	275.0611	277.3835	293.0000
51	F	861	275.9126	275.9211	275.9211	275.9212	278.0405	295.0000
52	F	881	276.6763	276.6833	276.6833	276.6836	278.6389	295.0000
53	F	901	277.3474	277.3535	277.3535	277.3536	279.1636	295.0000
54	F	921	277.9307	277.9358	277.9358	277.9359	279.6189	295.0000
55	F	941	278.4302	278.4343	278.4343	278.4346	280.0083	295.0000
56	F	961	278.8491	278.8530	278.8530	278.8531	280.3352	295.0000
57	F	981	279.1909	279.1943	279.1943	279.1944	280.6018	295.0000
58	F	1001	279.4578	279.4607	279.4607	279.4609	280.8105	295.0000
59	F	1021	279.6514	279.6541	279.6541	279.6543	280.9626	295.0000
60	F	1041	279.7729	279.7756	279.7756	279.7758	281.0583	295.0000
61	F	1061	279.8311	279.8337	279.8337	279.8339	281.1094	295.0000

ITERATION CONVERGENCE; ERROR: 0.658 TOLERENCE:0.100

ITERATION: 7 TIME: 4.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	232.8938	232.8938	232.8938	232.8938	233.4141	251.0000
3	F	47	234.8935	234.8936	234.8936	234.8936	235.5345	252.0000
4	F	63	236.4023	236.4023	236.4023	236.4023	237.2119	253.0000
5	F	79	237.6534	237.6534	237.6534	237.6534	238.6023	254.0000
6	F	95	238.7117	238.7117	238.7117	238.7117	239.7796	256.0000
7	F	111	239.6141	239.6141	239.6141	239.6141	240.7852	259.0000
8	F	127	240.3840	240.3840	240.3840	240.3840	241.6446	262.0000
9	F	143	241.0389	241.0389	241.0389	241.0389	242.3744	265.0000
10	F	159	241.5838	241.5835	241.5835	241.5836	242.9853	268.0000
11	F	175	242.0318	242.0318	242.0318	242.0318	243.4821	271.0000
12	F	191	242.3874	242.3874	242.3874	242.3874	243.8699	274.0000
13	F	208	242.6542	242.6542	242.6542	242.6542	244.1519	277.0000
14	F	225	242.8334	242.8334	242.8334	242.8334	244.3302	279.0000
15	F	242	242.9277	242.9277	242.9277	242.9277	244.4052	280.0000
16	F	259	242.9392	242.9392	242.9392	242.9392	244.3771	281.0000
17	F	276	242.8698	242.8698	242.8698	242.8698	244.2451	282.0000
18	F	293	242.7210	242.7210	242.7210	242.7210	244.0084	281.2000
19	F	309	242.4946	242.4946	242.4946	242.4946	243.6660	281.7000
20	F	325	242.1946	242.1946	242.1946	242.1947	243.2171	282.0000
21	F	341	241.8234	241.8234	241.8234	241.8234	242.6622	283.0000
22	F	357	241.3839	241.3839	241.3839	241.3839	242.0029	284.0000
23	F	373	240.8800	240.8800	240.8800	240.8800	241.2486	286.0000
24	F	389	240.3183	240.3183	240.3183	240.3183	240.4043	288.0000
25	F	405	239.7301	239.7301	239.7301	239.7301	239.5271	287.0000
26	F	421	237.6333	237.6333	237.6333	237.6334	236.5458	290.8001
27	F	437	235.7159	235.7159	235.7159	235.7159	234.0084	291.2000
28	F	453	233.9848	233.9848	233.9848	233.9848	232.0101	289.2000
29	F	468	232.5207	232.5207	232.5207	232.5207	230.0000	291.8001
30	F	483	231.3078	231.3077	231.3077	231.3078	230.0000	291.8000
31	T	498	230.0000	230.0000	230.0000	230.0000	232.3130	289.5000
32	T	513	230.0000	230.0000	230.0000	230.0000	241.5653	230.0000
33	T	528	232.2209	232.2223	232.2209	232.2223	246.1959	289.8000
34	F	544	241.1046	241.1114	241.1114	241.1114	249.7552	290.0000
35	F	561	245.6186	245.6284	245.6284	245.6284	252.6636	290.1001
36	F	578	249.1149	249.1216	249.1216	249.1216	255.3568	290.2000
37	F	595	251.9857	251.9863	251.9863	251.9863	257.9790	290.3000
38	F	613	254.6521	254.6494	254.6494	254.6494	260.3894	290.3998
39	F	631	257.2278	257.2253	257.2253	257.2258	262.6335	290.5000
40	F	649	259.6274	259.6252	259.6252	259.6255	264.6875	290.8001
41	F	667	261.8457	261.8440	261.8440	261.8442	266.5806	290.7000
42	F	686	263.8938	263.8923	263.8923	263.8925	268.2981	290.8000
43	F	705	265.7784	265.7751	265.7751	265.7753	269.8825	291.0000
44	F	724	267.5022	267.5012	267.5012	267.5013	271.2856	291.2000
45	F	743	269.0808	269.0798	269.0798	269.0800	272.5784	291.3998
46	F	762	270.5212	270.5203	270.5203	270.5205	273.7471	291.5000
47	F	781	271.8328	271.8323	271.8323	271.8323	274.8015	291.7000
48	F	801	273.0237	273.0229	273.0229	273.0231	275.7507	291.8000
49	F	821	274.0974	274.0969	274.0969	274.0970	276.6023	292.0000
50	F	841	275.0610	275.0605	275.0605	275.0607	277.3835	293.0000
51	F	861	275.9211	275.9207	275.9207	275.9208	278.0405	295.0000
52	F	881	276.6833	276.6831	276.6831	276.6833	278.6389	295.0000
53	F	901	277.3536	277.3533	277.3533	277.3533	279.1636	295.0000
54	F	921	277.9358	277.9355	277.9355	277.9357	279.6189	295.0000

55	F	941	278.4343	278.4343	278.4343	278.4344	280.0083	285.0000
56	F	961	278.8530	278.8528	278.8528	278.8530	280.3352	285.0000
57	F	981	279.1943	279.1941	279.1941	279.1943	280.6018	285.0000
58	F	1001	279.4607	279.4607	279.4607	279.4608	280.8105	285.0000
59	F	1021	279.6541	279.6541	279.6541	279.6541	280.9626	285.0000
60	F	1041	279.7756	279.7756	279.7756	279.7757	281.0593	295.0000
61	F	1061	279.8337	279.8337	279.8337	279.8338	281.1094	295.0000

ITERATION CONVERGENCE; ERROR: 0.040 TOLERENCE:0.100

STEADY STATE CONVERGENCE; ERROR:156.957 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 4.00 TIME STEP: 4

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEA
1	230.405	2	230.403	3	230.394	4	230.381	5	230.381	6	230.337	7	230.308	8	230.
9	230.228	10	230.180	11	230.126	12	230.086	13	230.000	14	230.000	15	230.000	16	232.
17	232.826	18	232.927	19	232.929	20	232.931	21	232.933	22	232.937	23	232.941	24	232.946
25	232.951	26	232.958	27	232.965	28	232.973	29	232.983	30	232.994	31	232.994	32	234.860
33	234.860	34	234.861	35	234.861	36	234.863	37	234.864	38	234.866	39	234.868	40	234.
41	234.874	42	234.877	43	234.881	44	234.885	45	234.889	46	234.893	47	234.894	48	236.
49	236.386	50	236.387	51	236.387	52	236.388	53	236.388	54	236.389	55	236.390	56	236.
57	236.393	58	236.395	59	236.396	60	236.398	61	236.400	62	236.402	63	236.402	64	237.
65	237.647	66	237.647	67	237.647	68	237.648	69	237.648	70	237.648	71	237.648	72	237.
73	237.650	74	237.650	75	237.651	76	237.652	77	237.652	78	237.653	79	237.653	80	238.711
81	238.711	82	238.711	83	238.711	84	238.711	85	238.711	86	238.711	87	238.711	88	238.711
89	238.711	90	238.712	91	238.712	92	238.712	93	238.712	94	238.712	95	238.712	96	239.
97	238.618	98	238.618	99	238.618	100	238.618	101	238.617	102	239.617	103	239.617	104	239.
105	238.618	106	238.618	107	238.618	108	238.615	109	238.615	110	238.614	111	238.614	112	240.
113	240.381	114	240.381	115	240.381	116	240.380	117	240.380	118	240.380	119	240.389	120	240.
121	240.388	122	240.387	123	240.387	124	240.388	125	240.385	126	240.384	127	240.384	128	241.
129	241.048	130	241.046	131	241.046	132	241.045	133	241.045	134	241.046	135	241.044	136	241.043
137	241.042	138	241.041	139	241.040	140	241.038	141	241.038	142	241.037	143	241.037	144	241.595
145	241.595	146	241.595	147	241.594	148	241.594	149	241.593	150	241.593	151	241.592	152	241.
153	241.590	154	241.589	155	241.588	156	241.587	157	241.586	158	241.584	159	241.584	160	242.
161	242.044	162	242.044	163	242.044	164	242.043	165	242.043	166	242.042	167	242.041	168	242.
169	242.039	170	242.038	171	242.037	172	242.035	173	242.034	174	242.032	175	242.032	176	242.
177	242.401	178	242.401	179	242.400	180	242.400	181	242.399	182	242.398	183	242.398	184	242.
185	242.395	186	242.394	187	242.393	188	242.391	189	242.389	190	242.387	191	242.387	192	242.858
193	242.858	194	242.858	195	242.858	196	242.857	197	242.856	198	242.856	199	242.865	200	242.864
201	242.862	202	242.861	203	242.860	204	242.858	205	242.856	206	242.854	207	242.854	208	242.
209	242.848	210	242.848	211	242.847	212	242.847	213	242.846	214	242.846	215	242.845	216	242.
217	242.843	218	242.842	219	242.840	220	242.839	221	242.837	222	242.835	223	242.833	224	242.
225	242.833	226	242.942	227	242.942	228	242.942	229	242.941	230	242.941	231	242.940	232	242.
233	242.938	234	242.937	235	242.936	236	242.935	237	242.933	238	242.931	239	242.930	240	242.
241	242.928	242	242.928	243	242.953	244	242.953	245	242.953	246	242.952	247	242.952	248	242.951
249	242.950	250	242.950	251	242.948	252	242.947	253	242.946	254	242.944	255	242.943	256	242.941
257	242.938	258	242.838	259	242.938	260	242.883	261	242.883	262	242.883	263	242.882	264	242.
265	242.881	266	242.880	267	242.880	268	242.878	269	242.877	270	242.876	271	242.875	272	242.
273	242.872	274	242.870	275	242.870	276	242.870	277	242.733	278	242.733	279	242.733	280	242.
281	242.732	282	242.731	283	242.731	284	242.730	285	242.729	286	242.728	287	242.727	288	242.
289	242.724	290	242.723	291	242.721	292	242.721	293	242.721	294	242.505	295	242.505	296	242.
297	242.505	298	242.504	299	242.504	300	242.503	301	242.502	302	242.502	303	242.501	304	242.500
305	242.499	306	242.497	307	242.496	308	242.495	309	242.495	310	242.203	311	242.203	312	242.203
313	242.203	314	242.202	315	242.202	316	242.201	317	242.201	318	242.200	319	242.200	320	242.
321	242.198	322	242.197	323	242.198	324	242.195	325	242.195	326	241.828	327	241.829	328	241.
329	241.829	330	241.829	331	241.828	332	241.828	333	241.828	334	241.827	335	241.827	336	241.
337	241.826	338	241.825	339	241.824	340	241.823	341	241.823	342	241.387	343	241.387	344	241.
345	241.387	346	241.386	347	241.386	348	241.386	349	241.386	350	241.386	351	241.385	352	241.
353	241.385	354	241.385	355	241.384	356	241.384	357	241.384	358	240.879	359	240.879	360	240.879
361	240.879	362	240.879	363	240.879	364	240.879	365	240.879	366	240.879	367	240.879	368	240.879
369	240.880	370	240.880	371	240.880	372	240.880	373	240.880	374	240.308	375	240.308	376	240.
377	240.307	378	240.307	379	240.308	380	240.309	381	240.310	382	240.311	383	240.312	384	240.
385	240.314	386	240.315	387	240.317	388	240.318	389	240.318	390	239.588	391	239.589	392	239.
393	239.594	394	239.599	395	239.605	396	239.613	397	239.622	398	239.633	399	239.645	400	239.
401	239.674	402	238.691	403	239.709	404	239.729	405	238.730	406	237.616	407	237.618	408	237.
409	237.617	410	237.617	411	237.617	412	237.618	413	237.619	414	237.619	415	237.620	416	237.621
417	237.622	418	237.622	419	237.623	420	237.624	421	237.633	422	235.704	423	235.704	424	235.704
425	235.704	426	235.704	427	235.704	428	235.705	429	235.705	430	235.705	431	235.706	432	235.

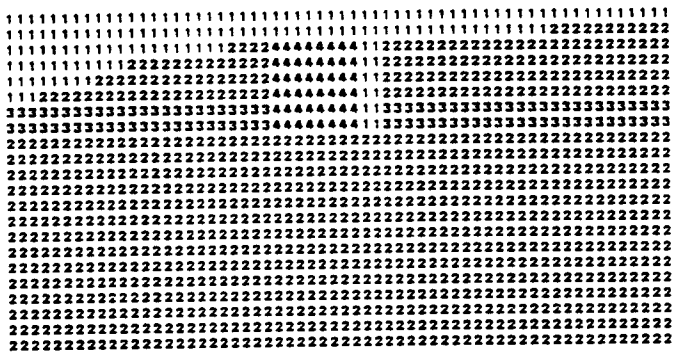
433	235.707	434	235.708	435	235.708	436	235.709	437	235.710	438	233.986	439	233.986	440	233.986
441	233.986	442	233.986	443	233.986	444	233.985	445	233.987	446	233.987	447	233.987	448	233.986
449	233.988	450	233.988	451	233.989	452	233.990	453	233.995	454	232.513	455	232.513	456	232.513
457	232.513	458	232.513	459	232.514	460	232.514	461	232.514	462	232.515	463	232.516	464	232.516
465	232.517	466	232.518	467	232.519	468	232.521	469	231.304	470	231.304	471	231.303	472	231.303
473	231.303	474	231.303	475	231.303	476	231.303	477	231.303	478	231.303	479	231.304	480	231.304
481	231.305	482	231.308	483	231.308	484	230.183	485	230.182	486	230.178	487	230.174	488	230.168
489	230.160	490	230.149	491	230.137	492	230.123	493	230.107	494	230.090	495	230.070	496	230.048
497	230.025	498	230.000	499	230.399	500	230.396	501	230.392	502	230.383	503	230.369	504	230.352
505	230.330	506	230.304	507	230.273	508	230.238	509	230.199	510	230.156	511	230.108	512	230.056
513	230.000	514	232.999	515	232.995	516	232.985	517	232.969	518	232.945	519	232.912	520	232.872
521	232.823	522	232.768	523	232.701	524	232.628	525	232.545	526	232.455	527	232.355	528	232.222
529	240.848	530	240.848	531	240.855	532	240.863	533	240.874	534	240.886	535	240.901	536	240.918
537	240.937	538	240.959	539	240.983	540	241.010	541	241.040	542	241.072	543	241.108	544	241.111
545	245.586	546	245.588	547	245.589	548	245.591	549	245.594	550	245.597	551	245.800	552	245.803
553	245.806	554	245.809	555	245.613	556	245.616	557	245.620	558	245.623	559	245.627	560	245.828
561	245.628	562	249.127	563	249.127	564	249.128	565	249.130	566	249.130	567	249.131	568	249.131
569	249.131	570	249.130	571	249.129	572	249.128	573	249.127	574	249.125	575	248.123	576	249.121
577	249.121	578	249.122	579	252.040	580	252.040	581	252.041	582	252.041	583	252.040	584	252.039
585	252.037	586	252.034	587	252.031	588	252.027	589	252.022	590	252.017	591	252.011	592	252.004
593	251.996	594	251.986	595	251.986	596	254.706	597	254.706	598	254.707	599	254.706	600	254.705
601	254.703	602	254.700	603	254.887	604	254.692	605	254.887	606	254.681	607	254.674	608	254.667
609	254.658	610	254.649	611	254.649	612	254.648	613	254.649	614	257.273	615	257.272	616	257.273
617	257.272	618	257.271	619	257.270	620	257.267	621	257.264	622	257.260	623	257.256	624	257.251
625	257.245	626	257.238	627	257.232	628	257.224	629	257.224	630	257.224	631	257.226	632	259.664
633	259.664	634	259.665	635	259.664	636	259.664	637	259.662	638	259.660	639	259.658	640	259.655
641	259.651	642	259.646	643	259.641	644	259.636	645	259.629	646	259.623	647	259.623	648	259.623
649	259.625	650	261.879	651	261.879	652	261.880	653	261.879	654	261.879	655	261.878	656	261.876
657	261.873	658	261.870	659	261.867	660	261.863	661	261.858	662	261.853	663	261.847	664	261.841
665	261.841	666	261.841	667	261.844	668	263.924	669	263.924	670	263.924	671	263.924	672	263.923
673	263.922	674	263.920	675	263.918	676	263.915	677	263.912	678	263.908	679	263.904	680	263.899
681	263.894	682	263.888	683	263.888	684	263.888	685	263.891	686	263.893	687	265.805	688	265.805
689	265.805	690	265.805	691	265.804	692	265.803	693	265.801	694	265.798	695	265.796	696	265.793
697	265.790	698	265.786	699	265.781	700	265.776	701	265.771	702	265.770	703	265.770	704	265.774
705	265.775	706	267.528	707	267.528	708	267.528	709	267.528	710	267.527	711	267.526	712	267.524
713	267.522	714	267.520	715	267.517	716	267.514	717	267.510	718	267.506	719	267.501	720	267.496
721	267.498	722	267.495	723	267.499	724	267.501	725	269.104	726	269.103	727	269.104	728	269.103
729	269.103	730	269.102	731	269.100	732	269.099	733	269.096	734	269.094	735	269.091	736	269.087
737	269.083	738	269.079	739	269.075	740	269.074	741	269.074	742	269.078	743	269.080	744	270.540
745	270.540	746	270.540	747	270.540	748	270.540	749	270.539	750	270.538	751	270.536	752	270.534
753	270.532	754	270.528	755	270.526	756	270.523	757	270.518	758	270.515	759	270.515	760	270.515
761	270.518	762	270.520	763	271.849	764	271.848	765	271.850	766	271.850	767	271.848	768	271.848
769	271.847	770	271.846	771	271.844	772	271.842	773	271.838	774	271.837	775	271.833	776	271.830
777	271.826	778	271.826	779	271.828	780	271.829	781	271.832	782	273.037	783	273.037	784	273.038
785	273.037	786	273.037	787	273.036	788	273.035	789	273.034	790	273.032	791	273.031	792	273.028
793	273.026	794	273.023	795	273.020	796	273.015	797	273.016	798	273.016	799	273.019	800	273.022
801	273.023	802	274.110	803	274.110	804	274.110	805	274.110	806	274.109	807	274.108	808	274.108
809	274.106	810	274.105	811	274.103	812	274.101	813	274.099	814	274.096	815	274.093	816	274.090
817	274.090	818	274.090	819	274.093	820	274.096	821	274.097	822	275.072	823	275.072	824	275.072
825	275.072	826	275.071	827	275.071	828	275.070	829	275.069	830	275.067	831	275.066	832	275.064
833	275.062	834	275.059	835	275.057	836	275.054	837	275.054	838	275.054	839	275.057	840	275.059
841	275.061	842	275.930	843	275.930	844	275.930	845	275.930	846	275.930	847	275.929	848	275.928
849	275.927	850	275.926	851	275.925	852	275.923	853	275.921	854	275.918	855	275.916	856	275.914
857	275.914	858	275.914	859	275.917	860	275.919	861	275.921	862	276.891	863	276.891	864	276.891
865	276.891	866	276.891	867	276.890	868	276.889	869	276.888	870	276.887	871	276.886	872	276.884
873	276.883	874	276.881	875	276.878	876	276.876	877	276.876	878	276.876	879	276.879	880	276.882
881	276.883	882	277.360	883	277.360	884	277.360	885	277.360	886	277.359	887	277.359	888	277.358
889	277.357	890	277.356	891	277.355	892	277.354	893	277.352	894	277.350	895	277.348	896	277.346
897	277.346	898	277.346	899	277.349	900	277.351	901	277.353	902	277.941	903	277.941	904	277.941
905	277.941	906	277.940	907	277.940	908	277.939	909	277.939	910	277.938	911	277.936	912	277.935

913	277.934	914	277.932	915	277.930	916	277.928	917	277.928	918	277.928	919	277.931	920	277.934
921	277.936	922	278.439	923	278.438	924	278.439	925	278.438	926	278.438	927	278.438	928	278.437
929	278.436	930	278.436	931	278.435	932	278.433	933	278.432	934	278.430	935	278.429	936	278.427
937	278.427	938	278.427	939	278.430	940	278.432	941	278.434	942	278.856	943	278.856	944	278.856
945	278.856	946	278.856	947	278.855	948	278.855	949	278.854	950	278.854	951	278.853	952	278.851
953	278.850	954	278.848	955	278.847	956	278.845	957	278.845	958	278.845	959	278.848	960	278.851
961	278.853	962	279.197	963	279.197	964	279.197	965	279.197	966	279.197	967	279.196	968	279.196
969	279.195	970	279.194	971	279.193	972	279.192	973	279.191	974	279.190	975	279.188	976	279.187
977	279.187	978	279.187	979	279.189	980	279.192	981	279.194	982	279.463	983	279.463	984	279.463
985	279.463	986	279.463	987	279.462	988	279.462	989	279.461	990	279.460	991	279.460	992	279.458
993	279.457	994	279.456	995	279.455	996	279.453	997	279.453	998	279.453	999	279.456	1000	279.458
1001	279.481	1002	279.656	1003	279.656	1004	279.656	1005	279.656	1006	279.656	1007	279.655	1008	279.655
1009	279.654	1010	279.654	1011	279.653	1012	279.652	1013	279.651	1014	279.649	1015	279.648	1016	279.646
1017	279.645	1018	279.646	1019	279.649	1020	279.652	1021	279.654	1022	279.777	1023	279.777	1024	279.777
1025	279.777	1026	279.777	1027	279.777	1028	279.776	1029	279.776	1030	279.775	1031	279.774	1032	279.773
1033	279.772	1034	279.771	1035	279.769	1036	279.768	1037	279.768	1038	279.768	1039	279.771	1040	279.773
1041	279.776	1042	279.825	1043	279.825	1044	279.825	1045	279.825	1046	279.825	1047	279.825	1048	279.824
1049	279.824	1050	279.823	1051	279.823	1052	279.822	1053	279.821	1054	279.821	1055	279.820	1056	279.818
1057	279.818	1058	279.819	1059	279.824	1060	279.829	1061	279.834						

NODES ALONG THE WATER TABLE

15	31	47	63	79	95	111	127	143	159	175	191	208	225	242	259	276	293	309	325	341	357	373	389	405
421	437	453	468	483	498	513	528	544	561	578	595	613	631	649	667	686	705	724	743	762	781	801	821	841
861	881	901	921	941	961	981	1001	1021	1041	1061														

NEW HYDRAULIC CONDUCTIVITY DISTRIBUTION



FINITE ELEMENT GRID SUMMARY

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  1275: ESTIMATED NUMBER OF NODES
  1061: ACTUAL NUMBER OF NODES
  2800: ESTIMATED NUMBER OF ELEMENTS
  1863: ACTUAL NUMBER OF ELEMENTS
    22: ESTIMATED BANDWITH
    18: ESTIMATED NUMBER OF CONSTANT HEAD NODES
     9: ACTUAL NUMBER OF CONSTANT HEAD NODES
  1052: NUMBER OF NODES WITH UNKNOWN HEADS
    22: FINAL BANDWIDTH
```

ITERATION: 1 TIME: 5.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	232.9938	232.6939	232.6939	232.6939	232.9938	251.0000
3	F	47	234.8936	234.4043	234.4043	234.4043	234.8936	252.0000
4	F	63	236.4023	235.7844	235.7844	235.7844	236.4023	253.0000
5	F	79	237.6534	236.8941	236.8941	236.8941	237.6534	254.0000
6	F	95	238.7117	237.8516	237.8516	237.8516	238.7117	255.0000
7	F	111	239.6141	238.6703	238.6703	238.6703	239.6141	259.0000
8	F	127	240.3840	239.3714	239.3714	239.3714	240.3840	262.0000
9	F	143	241.0369	239.9693	239.9693	239.9693	241.0369	265.0000
10	F	159	241.5835	240.4741	240.4741	240.4741	241.5835	268.0000
11	F	175	242.0318	240.8834	240.8834	240.8834	242.0318	271.0000
12	F	191	242.3874	241.2328	241.2328	241.2328	242.3874	274.0000
13	F	208	242.6542	241.4957	241.4957	241.4957	242.6542	277.0000
14	F	225	242.8334	241.6852	241.6852	241.6852	242.8334	279.0000
15	F	242	242.9277	241.8040	241.8040	241.8041	242.9277	280.0000
16	F	259	242.9392	241.8545	241.8545	241.8545	242.9392	281.0000
17	F	276	242.8698	241.8386	241.8386	241.8386	242.8698	282.0000
18	F	293	242.7210	241.7578	241.7578	241.7578	242.7210	281.2000
19	F	309	242.4946	241.6137	241.6137	241.6137	242.4946	281.7000
20	F	325	242.1946	241.4082	241.4082	241.4082	242.1946	282.0000
21	F	341	241.8234	241.1427	241.1427	241.1427	241.8234	283.0000
22	F	357	241.3839	240.8179	240.8179	240.8179	241.3839	284.0000
23	F	373	240.8800	240.4342	240.4342	240.4342	240.8800	286.0000
24	F	389	240.3183	239.9929	239.9929	239.9928	240.3183	286.0000
25	F	405	239.7301	239.5145	239.5145	239.5145	239.7301	287.0000
26	F	421	237.6333	237.7293	237.7293	237.7293	237.6333	290.8001
27	F	437	235.7159	235.9385	235.9385	235.9385	235.7159	291.2000
28	F	453	233.9949	234.1032	234.1032	234.1032	233.9949	289.2000
29	T	469	232.5207	232.0894	232.0894	232.0894	232.5207	291.8001
30	F	484	231.3077	231.6615	231.6615	231.6615	231.3077	291.8000
31	F	499	230.0000	231.1048	231.1046	231.1046	230.0000	289.5000
32	F	514	230.0000	230.8049	230.8049	230.8049	230.0000	290.8888
33	T	529	230.0000	230.0000	230.0000	230.0000	232.2223	275.0000
34	T	544	230.0000	230.0000	230.0000	230.0000	241.1114	230.0000
35	T	561	245.6284	232.2682	245.6284	232.2682	245.6284	290.1001
36	F	578	249.1216	241.3409	241.3409	241.3409	249.1216	290.2000
37	F	595	251.9863	244.7603	244.7603	244.7603	251.9863	290.3000
38	F	613	254.6494	247.9489	247.9489	247.9489	254.6494	290.3999
39	F	631	257.2253	251.0380	251.0380	251.0380	257.2253	290.5000
40	F	649	259.8252	253.9069	253.9069	253.9069	259.6252	290.8001
41	F	667	261.8440	256.5557	256.5557	256.5557	261.8440	290.7000
42	F	686	263.8923	258.9963	258.9963	258.9965	263.8923	290.8000
43	F	705	265.7751	261.2417	261.2417	261.2419	265.7751	291.0000
44	F	724	267.5012	263.3030	263.3030	263.3032	267.5012	291.2000
45	F	743	269.0798	265.1919	265.1919	265.1920	269.0788	291.3999
46	F	762	270.5203	266.9189	266.9189	266.9191	270.5203	291.5000
47	F	781	271.8323	268.4944	268.4944	268.4945	271.8323	291.7000
48	F	801	273.0229	269.9248	269.9248	269.9249	273.0229	291.8000
49	F	821	274.0989	271.2180	271.2180	271.2182	274.0989	292.0000
50	F	841	275.0605	272.3813	272.3813	272.3815	275.0605	293.0000
51	F	861	275.9207	273.4219	273.4219	273.4221	275.9207	295.0000
52	F	881	276.6831	274.3462	274.3462	274.3463	276.6831	295.0000
53	F	901	277.3533	275.1597	275.1587	275.1598	277.3533	295.0000
54	F	921	277.9355	275.8677	275.8677	275.8677	277.9355	295.0000
55	F	941	278.4343	276.4744	276.4744	276.4745	278.4343	295.0000
56	F	961	278.8528	276.9836	276.9836	276.9838	278.8528	295.0000
57	F	981	279.1941	277.3989	277.3989	277.3990	279.1941	295.0000
58	F	1001	279.4607	277.7224	277.7224	277.7226	279.4607	295.0000
59	F	1021	279.6541	277.9565	277.9565	277.9566	279.6541	295.0000
60	F	1041	279.7756	278.1023	278.1023	278.1025	279.7756	295.0000
61	F	1061	279.8337	278.1689	278.1689	278.1690	279.8337	295.0000

******* REFORM THE GRID *******

ITERATION CONVERGENCE: ERROR:115.318 TOLERENCE:0.100

FINITE ELEMENT GRID SUMMARY

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  1275: ESTIMATED NUMBER OF NODES
  1044: ACTUAL NUMBER OF NODES
  2800: ESTIMATED NUMBER OF ELEMENTS
  1933: ACTUAL NUMBER OF ELEMENTS
    22: ESTIMATED BANDWITH
    18: ESTIMATED NUMBER OF CONSTANT HEAD NODES
     8: ACTUAL NUMBER OF CONSTANT HEAD NODES
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1038: NUMBER OF NODES WITH UNKNOWN HEADS

ITERATION: 2 TIME: 5.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	232.6838	232.6588	232.6598	232.6598	232.9938	251.0000
3	F	47	234.4043	234.3804	234.3804	234.3804	234.8836	252.0000
4	F	63	235.7844	235.7565	235.7585	235.7565	236.4023	253.0000
5	F	79	236.8841	236.8023	236.8023	236.8023	237.8534	254.0000
6	F	95	237.8516	237.8741	237.8741	237.8741	238.7117	256.0000
7	F	111	238.8703	238.7050	238.7050	238.7050	239.8141	259.0000
8	F	127	239.3714	239.4161	239.4161	239.4161	240.3840	262.0000
9	F	143	239.9693	240.0218	240.0218	240.0218	241.0389	265.0000
10	F	159	240.4741	240.5324	240.5324	240.5324	241.5835	268.0000
11	F	175	240.8934	240.9556	240.9556	240.9556	242.0318	271.0000
12	F	191	241.2328	241.2972	241.2972	241.2972	242.3874	274.0000
13	F	207	241.4857	241.5616	241.5616	241.5616	242.6542	277.0000
14	F	223	241.6852	241.7526	241.7526	241.7526	242.8334	279.0000
15	F	239	241.8040	241.8731	241.8731	241.8731	242.9277	280.0000
16	F	255	241.8545	241.9257	241.9257	241.9257	242.9392	281.0000
17	F	271	241.8386	241.9128	241.9128	241.9129	242.8898	282.0000
18	F	287	241.7578	241.8367	241.8367	241.8367	242.7210	281.2000
19	F	303	241.8137	241.6994	241.6994	241.6994	242.4946	281.7000
20	F	319	241.4082	241.5031	241.5031	241.5032	242.1946	282.0000
21	F	335	241.1427	241.2502	241.2502	241.2502	241.8234	283.0000
22	F	351	240.8178	240.9428	240.9428	240.9428	241.3839	284.0000
23	F	367	240.4342	240.5835	240.5835	240.5835	240.8800	286.0000
24	F	383	239.9929	240.1760	240.1760	240.1760	240.3183	286.0000
25	F	399	239.5145	239.7415	239.7415	239.7415	239.7301	287.0000
26	F	415	237.7283	238.1774	238.1774	238.1774	237.8333	290.6001
27	F	431	235.9385	236.6817	236.6817	236.6817	235.7159	291.2000
28	F	447	234.1032	235.2694	235.2694	235.2694	233.9949	289.2000
29	F	462	232.0894	233.9863	233.9863	233.9884	232.5207	291.8001
30	F	477	231.6815	232.8445	232.8445	232.8445	231.3077	291.8000
31	F	492	231.1048	231.8274	231.8274	231.8274	230.0000	289.5000
32	F	507	230.8048	230.9585	230.9585	230.9585	230.0000	290.8999
33	T	522	230.0000	230.0000	230.0000	230.0000	232.2223	275.0000
34	T	537	230.0000	230.0000	230.0000	230.0000	241.1114	230.0000
35	T	552	232.2882	232.1906	232.2882	232.1906	245.6284	290.1001
36	F	568	241.3408	240.9531	240.9531	240.9531	249.1218	290.2000
37	F	585	244.7803	245.4675	245.4675	245.4675	251.9863	290.3000
38	F	602	247.9499	249.0533	249.0533	249.0533	254.6494	290.3999
39	F	619	251.0380	251.9875	251.9875	251.9875	257.2253	290.5000
40	F	637	253.8068	254.6326	254.6326	254.6326	259.6252	290.6001
41	F	655	256.5557	257.1414	257.1414	257.1415	261.8440	290.7000
42	F	673	258.8863	259.4868	259.4868	259.4868	263.8823	290.8000
43	F	691	261.2417	261.6182	261.6182	261.6182	265.7751	291.0000
44	F	710	263.3030	263.8052	263.8052	263.8053	267.5012	291.2000
45	F	729	265.1819	265.4316	265.4316	265.4317	269.0788	291.3999
46	F	748	266.9189	267.1062	267.1062	267.1062	270.5203	291.5000
47	F	767	268.4944	268.6370	268.6370	268.6371	271.8323	291.7000
48	F	786	269.9248	270.0317	270.0317	270.0319	273.0229	291.8000
49	F	805	271.2180	271.2976	271.2976	271.2976	274.0869	292.0000
50	F	824	272.3813	272.4408	272.4408	272.4410	275.0605	293.0000
51	F	844	273.4219	273.4678	273.4678	273.4678	275.9207	295.0000
52	F	864	274.3462	274.3806	274.3806	274.3807	276.6831	295.0000
53	F	884	275.1597	275.1848	275.1848	275.1849	277.3533	295.0000
54	F	904	275.8677	275.8853	275.8853	275.8855	277.9355	295.0000
55	F	924	276.4744	276.4863	276.4863	276.4863	278.4343	295.0000
56	F	944	276.9836	276.9910	276.9910	276.9911	278.8528	295.0000
57	F	964	277.3988	277.4028	277.4028	277.4028	279.1941	295.0000
58	F	984	277.7224	277.7239	277.7238	277.7240	279.4607	295.0000
59	F	1004	277.9565	277.9561	277.9561	277.9563	279.6541	295.0000
60	F	1024	278.1023	278.1011	278.1011	278.1012	279.7756	295.0000
61	F	1044	278.1689	278.1665	278.1665	278.1667	279.8337	295.0000

ITERATION CONVERGENCE; ERROR: 14.905 TOLERENCE:0.100

ITERATION: 3 TIME: 5.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	232.6598	232.6640	232.6640	232.6640	232.9938	251.0000
3	F	47	234.3804	234.3885	234.3885	234.3885	234.8936	252.0000
4	F	63	235.7565	235.7853	235.7853	235.7853	236.4023	253.0000
5	F	79	236.8023	236.9103	236.9103	236.9103	237.8534	254.0000
6	F	95	237.8741	237.8806	237.8806	237.8806	238.7117	256.0000
7	F	111	238.7050	238.7087	238.7087	238.7087	239.8141	259.0000
8	F	127	238.4161	238.4190	239.4190	239.4190	240.3840	262.0000
9	F	143	240.0218	240.0231	240.0231	240.0231	241.0389	265.0000
10	F	159	240.5324	240.5323	240.5323	240.5323	241.5835	268.0000
11	F	175	240.9556	240.9543	240.9543	240.9543	242.0318	271.0000
12	F	191	241.2972	241.2948	241.2948	241.2948	242.3874	274.0000
13	F	207	241.5616	241.5585	241.5585	241.5585	242.6542	277.0000
14	F	223	241.7526	241.7487	241.7487	241.7487	242.8334	279.0000
15	F	239	241.8731	241.8687	241.8687	241.8687	242.9277	280.0000
16	F	255	241.9257	241.9208	241.9208	241.9208	242.9392	281.0000
17	F	271	241.9128	241.9078	241.9078	241.9078	242.8898	282.0000
18	F	287	241.8367	241.8311	241.8311	241.8311	242.7210	281.2000
19	F	303	241.6994	241.6936	241.6936	241.6936	242.4945	281.7000
20	F	319	241.5031	241.4972	241.4972	241.4972	242.1948	282.0000
21	F	335	241.2502	241.2444	241.2444	241.2444	241.8234	283.0000
22	F	351	240.9428	240.9375	240.9375	240.9375	241.3839	284.0000
23	F	367	240.5835	240.5795	240.5795	240.5795	240.8800	286.0000
24	F	383	240.1760	240.1742	240.1742	240.1742	240.3183	286.0000
25	F	399	239.7415	239.7437	239.7437	239.7438	239.7301	287.0000
26	F	415	238.1774	238.1715	238.1715	238.1715	237.8333	290.6001
27	F	431	236.6817	236.6685	236.6685	236.6685	235.7159	291.2000
28	F	447	235.2894	235.2501	235.2501	235.2501	233.8948	289.2000
29	F	462	233.9863	233.9748	233.9748	233.9748	232.5207	291.8001
30	F	477	232.8445	232.8405	232.8405	232.8406	231.3077	291.8000
31	F	492	231.8274	231.8271	231.8271	231.8271	230.0000	289.5000
32	F	507	230.9585	230.9592	230.9592	230.9592	230.0000	290.8998
33	T	522	230.0000	230.0000	230.0000	230.0000	232.2223	275.0000
34	T	537	230.0000	230.0000	230.0000	230.0000	241.1114	230.0000
35	T	552	232.1908	232.2204	232.1906	232.2204	245.6284	290.1001
36	F	568	240.8531	241.1018	241.1018	241.1018	249.1218	290.2000
37	F	585	245.4675	245.8043	245.8043	245.8043	251.9863	290.3000
38	F	602	249.0533	249.0677	249.0677	249.0677	254.6494	290.3998
39	F	619	251.9875	251.9058	251.9058	251.9058	257.2253	290.5000
40	F	637	254.6326	254.5231	254.5231	254.5231	259.6252	290.8001
41	F	655	257.1414	257.0493	257.0493	257.0496	261.8440	290.7000
42	F	673	259.4868	259.3892	259.3892	259.3892	263.8823	290.8000
43	F	691	261.6182	261.5530	261.5530	261.5531	265.7751	291.0000
44	F	710	263.8052	263.5505	263.5505	263.5506	267.5012	291.2000

45	F	729	265.4316	265.3857	265.3857	265.3858	269.0798	291.3999
46	F	748	267.1062	267.0676	267.0676	267.0677	270.5203	291.5000
47	F	767	268.6370	268.6047	268.6047	268.6048	271.8323	291.7000
48	F	786	270.0317	270.0046	270.0046	270.0048	273.0229	291.8000
49	F	805	271.2976	271.2749	271.2749	271.2749	274.0969	292.0000
50	F	824	272.4409	272.4219	272.4219	272.4220	275.0605	293.0000
51	F	844	273.4678	273.4519	273.4519	273.4519	275.9207	295.0000
52	F	864	274.3806	274.3672	274.3672	274.3672	276.6831	295.0000
53	F	884	275.1846	275.1733	275.1733	275.1736	277.3533	295.0000
54	F	904	275.8853	275.8757	275.8757	275.8758	277.8355	295.0000
55	F	924	276.4863	276.4778	276.4778	276.4780	278.4343	295.0000
56	F	944	276.9910	276.9839	276.9839	276.9839	278.8528	295.0000
57	F	964	277.4028	277.3965	277.3965	277.3965	279.1941	295.0000
58	F	984	277.7239	277.7180	277.7180	277.7182	279.4607	295.0000
59	F	1004	277.9581	277.9509	277.9509	277.9510	279.6541	295.0000
60	F	1024	278.1011	278.0959	278.0959	278.0961	279.7756	295.0000
61	F	1044	278.1685	278.1616	278.1616	278.1617	279.8337	295.0000

ITERATION CONVERGENCE; ERROR: 1.220 TOLERENCE:0.100

ITERATION: 4 TIME: 5.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	232.6640	232.6642	232.8842	232.6643	232.9938	251.0000
3	F	47	234.3885	234.3882	234.3882	234.3882	234.8936	252.0000
4	F	63	235.7653	235.7646	235.7646	235.7646	236.4023	253.0000
5	F	79	236.9103	236.9092	236.9092	236.9092	237.6534	254.0000
6	F	95	237.8808	237.8794	237.8794	237.8794	238.7117	256.0000
7	F	111	238.7097	238.7086	238.7086	238.7085	239.6141	259.0000
8	F	127	239.4190	239.4180	239.4180	239.4180	240.3840	262.0000
9	F	143	240.0231	240.0222	240.0222	240.0222	241.0369	265.0000
10	F	159	240.5323	240.5315	240.5315	240.5315	241.5835	268.0000
11	F	175	240.9543	240.9537	240.9537	240.9537	242.0318	271.0000
12	F	191	241.2848	241.2844	241.2844	241.2944	242.3874	274.0000
13	F	207	241.5585	241.5581	241.5581	241.5581	242.6542	277.0000
14	F	223	241.7487	241.7485	241.7485	241.7485	242.8334	278.0000
15	F	239	241.8687	241.8685	241.8685	241.8685	242.9277	280.0000
16	F	255	241.9208	241.9208	241.9208	241.8208	242.9392	281.0000
17	F	271	241.9076	241.9076	241.9076	241.9076	242.8898	282.0000
18	F	287	241.8311	241.8311	241.8311	241.8311	242.7210	281.2000
19	F	303	241.6936	241.6936	241.6936	241.6936	242.4946	281.7000
20	F	319	241.4872	241.4872	241.4872	241.4972	242.1946	282.0000
21	F	335	241.2444	241.2444	241.2444	241.2444	241.8234	283.0000
22	F	351	240.9375	240.9375	240.9375	240.9375	241.3638	284.0000
23	F	367	240.5793	240.5793	240.5793	240.5793	240.8800	286.0000
24	F	383	240.1742	240.1740	240.1740	240.1741	240.3183	286.0000
25	F	399	239.7437	239.7436	239.7436	239.7436	239.7301	287.0000
26	F	415	238.1715	238.1715	238.1715	238.1715	237.8333	290.6001
27	F	431	236.6685	236.6687	236.6687	236.6687	235.7159	291.2000
28	F	447	235.2501	235.2503	235.2503	235.2503	233.9949	289.2000
29	F	462	233.9748	233.9749	233.9749	233.9750	232.5207	291.6001
30	F	477	232.8405	232.8405	232.8405	232.8405	231.3077	291.8000
31	F	492	231.8271	231.8271	231.8271	231.8271	230.0000	289.5000
32	F	507	230.9592	230.9593	230.9593	230.9593	230.0000	290.8999
33	T	522	230.0000	230.0000	230.0000	230.0000	232.2223	275.0000
34	T	537	230.0000	230.0000	230.0000	230.0000	241.1114	230.0000
35	T	552	232.2204	232.2170	232.2204	232.2170	245.6284	290.1001
36	F	568	241.1018	241.0849	241.0849	241.0849	249.1216	290.2000
37	F	585	245.5043	245.5630	245.5630	245.5630	251.9963	290.3000
38	F	602	249.0677	249.0226	249.0226	249.0226	254.6494	290.3999
39	F	619	251.8058	251.8705	251.8705	251.8705	257.2253	290.5000
40	F	637	254.5231	254.4969	254.4969	254.4970	259.6252	290.6001
41	F	655	257.0493	257.0276	257.0276	257.0278	261.8440	290.7000
42	F	673	259.3892	259.3711	259.3711	259.3711	263.8923	290.8000
43	F	691	261.5530	261.5378	261.5378	261.5381	265.7751	291.0000
44	F	710	263.5505	263.5381	263.5381	263.5381	267.5012	291.2000
45	F	729	265.3857	265.3752	265.3752	265.3754	269.0798	291.3999
46	F	748	267.0676	267.0588	267.0588	267.0591	270.5203	291.5000
47	F	767	268.6047	268.5974	268.5974	268.5976	271.8323	291.7000
48	F	786	270.0046	269.9988	269.9988	269.9988	273.0229	291.8000
49	F	805	271.2749	271.2698	271.2698	271.2700	274.0988	292.0000
50	F	824	272.4219	272.4177	272.4177	272.4178	275.0605	293.0000
51	F	844	273.4519	273.4482	273.4482	273.4485	275.9207	295.0000
52	F	864	274.3672	274.3643	274.3643	274.3643	276.6831	295.0000
53	F	884	275.1733	275.1709	275.1709	275.1711	277.3533	295.0000
54	F	904	275.8757	275.8735	275.8735	275.8737	277.9355	295.0000
55	F	924	276.4778	276.4761	276.4761	276.4762	278.4343	295.0000
56	F	944	276.9839	276.9822	276.9822	276.9824	278.8528	295.0000
57	F	964	277.3965	277.3950	277.3950	277.3951	279.1941	295.0000
58	F	984	277.7180	277.7168	277.7168	277.7170	279.4607	295.0000
59	F	1004	277.9509	277.9497	277.9497	277.9498	279.6541	295.0000
60	F	1024	278.0959	278.0950	278.0950	278.0951	279.7756	295.0000
61	F	1044	278.1616	278.1604	278.1604	278.1606	279.8337	295.0000

ITERATION CONVERGENCE; ERROR: 0.302 TOLERENCE:0.100

ITERATION: 5 TIME: 5.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	232.6642	232.6642	232.6642	232.6642	232.9938	251.0000
3	F	47	234.3882	234.3881	234.3881	234.3881	234.8936	252.0000
4	F	63	235.7646	235.7645	235.7645	235.7645	236.4023	253.0000
5	F	79	236.9092	236.9092	236.9092	236.9092	237.6534	254.0000
6	F	95	237.8794	237.8794	237.8794	237.8794	238.7117	256.0000
7	F	111	238.7086	238.7086	238.7086	238.7086	239.6141	259.0000
8	F	127	239.4180	239.4180	239.4180	239.4180	240.3840	262.0000
9	F	143	240.0222	240.0222	240.0222	240.0223	241.0369	265.0000
10	F	159	240.5316	240.5316	240.5316	240.5316	241.5835	268.0000
11	F	175	240.9537	240.9538	240.9538	240.9538	242.0318	271.0000
12	F	191	241.2944	241.2944	241.2944	241.2945	242.3874	274.0000
13	F	207	241.5581	241.5582	241.5582	241.5582	242.6542	277.0000
14	F	223	241.7485	241.7486	241.7486	241.7486	242.8334	279.0000
15	F	239	241.8685	241.8686	241.8686	241.8686	242.9277	280.0000
16	F	255	241.9208	241.9208	241.9208	241.9208	242.9392	281.0000
17	F	271	241.9076	241.9078	241.9078	241.9075	242.8898	282.0000
18	F	287	241.8311	241.8311	241.8311	241.8312	242.7210	281.2000
19	F	303	241.6936	241.6936	241.6936	241.6936	242.4946	281.7000
20	F	319	241.4972	241.4973	241.4973	241.4973	242.1946	282.0000
21	F	335	241.2444	241.2444	241.2444	241.2444	241.8234	283.0000
22	F	351	240.9376	240.9375	240.9375	240.9375	241.3638	284.0000
23	F	367	240.5793	240.5793	240.5793	240.5793	240.8800	286.0000
24	F	383	240.1740	240.1740	240.1740	240.1741	240.3183	286.0000
25	F	399	239.7436	239.7436	238.7436	239.7436	239.7301	287.0000
26	F	415	238.1715	238.1715	238.1715	238.1715	237.8333	290.6001

27	F	431	236.6687	236.6686	236.6685	236.6687	235.7159	291.2000
28	F	447	235.2503	235.2503	235.2503	235.2503	233.9849	289.2000
29	F	462	233.9748	233.9748	233.9748	233.9748	232.5207	291.6001
30	F	477	232.8405	232.8405	232.8405	232.8405	231.3077	291.8000
31	F	492	231.8271	231.8271	231.8271	231.8271	230.0000	289.5000
32	F	507	230.9593	230.9593	230.9593	230.9593	230.0000	290.8999
33	T	522	230.0000	230.0000	230.0000	230.0000	232.2223	275.0000
34	T	537	230.0000	230.0000	230.0000	230.0000	241.1114	230.0000
35	T	552	232.2170	232.2166	232.2170	232.2167	245.6284	290.1001
36	F	568	241.0849	241.0833	241.0833	241.0833	249.1216	290.2000
37	F	585	245.5830	245.5853	245.5853	245.5853	251.9963	290.3000
38	F	602	249.0228	249.0291	249.0291	249.0292	254.8484	290.3999
39	F	619	251.8705	251.8796	251.8796	251.8796	257.2253	290.5000
40	F	637	254.4989	254.5061	254.5061	254.5061	259.5252	290.6001
41	F	655	257.0276	257.0354	257.0354	257.0354	261.8440	290.7000
42	F	673	259.3711	259.3774	259.3774	259.3775	263.8923	290.8000
43	F	691	261.5378	261.5432	261.5432	261.5434	265.7751	291.0000
44	F	710	263.5381	263.5425	263.5425	263.5426	267.5012	291.2000
45	F	729	265.3752	265.3792	265.3792	265.3792	269.0788	291.3999
46	F	748	267.0588	267.0620	267.0620	267.0622	270.5203	291.5000
47	F	767	268.5974	268.6001	268.6001	268.6002	271.8323	291.7000
48	F	786	269.9988	270.0010	270.0010	270.0010	273.0228	291.8000
49	F	805	271.2698	271.2717	271.2717	271.2718	274.0888	292.0000
50	F	824	272.4177	272.4182	272.4192	272.4194	275.0605	293.0000
51	F	844	273.4482	273.4497	273.4497	273.4498	275.9207	295.0000
52	F	864	274.3643	274.3652	274.3652	274.3654	276.8831	295.0000
53	F	884	275.1709	275.1719	275.1719	275.1720	277.3533	295.0000
54	F	904	275.8735	275.8743	275.8743	275.8745	277.9355	295.0000
55	F	924	276.4781	276.4788	276.4788	276.4789	278.4343	295.0000
56	F	944	276.9822	276.9829	276.9829	276.9830	278.8528	295.0000
57	F	964	277.3950	277.3955	277.3955	277.3957	279.1941	295.0000
58	F	984	277.7168	277.7173	277.7173	277.7175	279.4607	295.0000
59	F	1004	277.9497	277.9502	277.9502	277.9503	279.6541	295.0000
60	F	1024	278.0950	278.0955	278.0955	278.0955	279.7756	295.0000
61	F	1044	278.1604	278.1609	278.1609	278.1610	279.8337	295.0000

ITERATION CONVERGENCE; ERROR: 0.080 TOLERENCE:0.100

STEADY STATE CONVERGENCE; ERROR:141.822 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 5.00 TIME STEP: 5

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.361	2	230.359	3	230.351	4	230.339	5	230.322	6	230.300	7	230.273	8	230.240
9	230.203	10	230.160	11	230.113	12	230.059	13	230.000	14	230.000	15	230.000	16	232.606
17	232.606	18	232.607	19	232.608	20	232.610	21	232.613	22	232.615	23	232.618	24	232.623
25	232.628	26	232.633	27	232.640	28	232.647	29	232.655	30	232.664	31	232.664	32	234.357
33	234.358	34	234.358	35	234.359	36	234.360	37	234.361	38	234.363	39	234.365	40	234.367
41	234.370	42	234.373	43	234.376	44	234.380	45	234.384	46	234.388	47	234.388	48	235.749
49	235.749	50	235.749	51	235.750	52	235.750	53	235.751	54	235.752	55	235.753	56	235.754
57	235.755	58	235.757	59	235.759	60	235.760	61	235.762	62	235.764	63	235.764	64	236.902
65	236.902	66	236.902	67	236.902	68	236.902	69	236.903	70	236.903	71	236.904	72	236.904
73	236.905	74	236.906	75	236.908	76	236.907	77	236.908	78	236.909	79	236.909	80	237.877
81	237.877	82	237.877	83	237.877	84	237.877	85	237.877	86	237.877	87	237.878	88	237.878
89	237.878	90	237.878	91	237.878	92	237.879	93	237.879	94	237.879	95	237.879	96	238.710
97	238.710	98	238.710	99	238.710	100	238.710	101	238.710	102	238.709	103	238.709	104	238.709
105	238.709	106	238.709	107	238.709	108	238.709	109	238.709	110	238.709	111	238.709	112	239.422
113	239.422	114	239.422	115	239.422	116	239.421	117	239.421	118	239.421	119	239.421	120	239.420
121	239.420	122	239.420	123	239.419	124	239.419	125	239.419	126	238.418	127	239.418	128	240.028
129	240.028	130	240.028	131	240.028	132	240.027	133	240.027	134	240.027	135	240.026	136	240.026
137	240.026	138	240.025	139	240.024	140	240.024	141	240.023	142	240.022	143	240.022	144	240.539
145	240.539	146	240.538	147	240.538	148	240.538	149	240.538	150	240.537	151	240.537	152	240.536
153	240.536	154	240.535	155	240.534	156	240.533	157	240.533	158	240.532	159	240.532	160	240.882
161	240.882	162	240.882	163	240.881	164	240.881	165	240.881	166	240.880	167	240.880	168	240.959
169	240.958	170	240.858	171	240.957	172	240.956	173	240.955	174	240.954	175	240.954	176	241.303
177	241.303	178	241.303	179	241.303	180	241.302	181	241.302	182	241.302	183	241.301	184	241.300
185	241.300	186	241.299	187	241.298	188	241.297	189	241.296	190	241.294	191	241.294	192	241.567
193	241.567	194	241.567	195	241.567	196	241.567	197	241.566	198	241.566	199	241.565	200	241.564
201	241.564	202	241.563	203	241.562	204	241.561	205	241.559	206	241.558	207	241.558	208	241.758
209	241.758	210	241.758	211	241.758	212	241.757	213	241.757	214	241.756	215	241.758	216	241.755
217	241.754	218	241.753	219	241.752	220	241.751	221	241.750	222	241.749	223	241.748	224	241.878
225	241.878	226	241.878	227	241.877	228	241.877	229	241.877	230	241.876	231	241.878	232	241.875
233	241.874	234	241.873	235	241.872	236	241.871	237	241.870	238	241.869	239	241.869	240	241.930
241	241.930	242	241.930	243	241.929	244	241.929	245	241.928	246	241.928	247	241.927	248	241.927
249	241.926	250	241.925	251	241.924	252	241.923	253	241.922	254	241.921	255	241.921	256	241.916
257	241.916	258	241.916	259	241.915	260	241.915	261	241.915	262	241.914	263	241.914	264	241.913
265	241.912	266	241.912	267	241.911	268	241.910	269	241.909	270	241.908	271	241.908	272	241.839
273	241.838	274	241.838	275	241.838	276	241.838	277	241.838	278	241.837	279	241.837	280	241.836
281	241.835	282	241.835	283	241.834	284	241.833	285	241.832	286	241.831	287	241.831	288	241.700
289	241.700	290	241.700	291	241.700	292	241.898	293	241.699	294	241.699	295	241.898	296	241.898
297	241.897	298	241.697	299	241.696	300	241.695	301	241.694	302	241.694	303	241.894	304	241.502
305	241.502	306	241.502	307	241.502	308	241.502	309	241.501	310	241.501	311	241.501	312	241.501
313	241.500	314	241.500	315	241.498	316	241.498	317	241.498	318	241.497	319	241.497	320	241.248
321	241.248	322	241.248	323	241.248	324	241.247	325	241.247	326	241.247	327	241.247	328	241.247
329	241.246	330	241.246	331	241.246	332	241.245	333	241.245	334	241.244	335	241.244	336	240.938
337	240.939	338	240.939	339	240.938	340	240.939	341	240.939	342	240.939	343	240.938	344	240.938
345	240.938	346	240.938	347	240.938	348	240.938	349	240.938	350	240.937	351	240.937	352	240.579
353	240.578	354	240.579	355	240.579	356	240.579	357	240.579	358	240.579	359	240.579	360	240.579
361	240.578	362	240.579	363	240.579	364	240.579	365	240.579	366	240.578	367	240.578	368	240.166
369	240.166	370	240.166	371	240.166	372	240.166	373	240.167	374	240.167	375	240.168	376	240.169
377	240.168	378	240.170	379	240.171	380	240.172	381	240.173	382	240.174	383	240.174	384	239.638
385	239.638	386	239.640	387	239.642	388	239.646	389	239.651	390	239.657	391	239.663	392	239.671
393	239.680	394	239.691	395	239.702	396	239.714	397	239.728	398	239.743	399	239.744	400	238.154
401	238.154	402	238.155	403	238.155	404	238.155	405	238.155	406	238.156	407	238.157	408	238.157
409	238.158	410	238.159	411	238.160	412	238.161	413	238.161	414	238.162	415	238.172	416	238.656
417	238.656	418	238.656	419	238.656	420	238.656	421	238.656	422	238.657	423	238.657	424	238.656
425	238.656	426	238.658	427	238.659	428	238.660	429	238.661	430	238.661	431	238.668	432	235.241

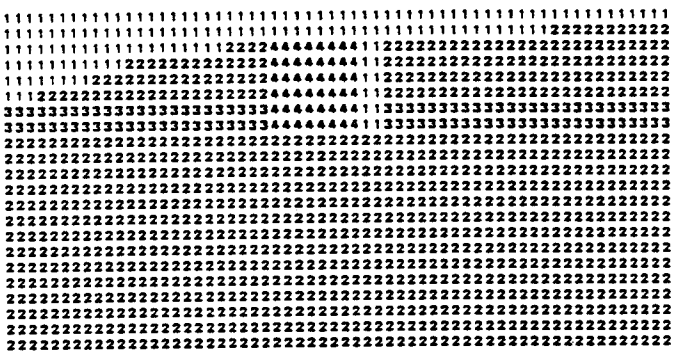
433	235.241	434	235.241	435	235.241	436	235.241	437	235.241	438	235.241	439	235.242	440	235.2
441	235.242	442	235.243	443	235.243	444	235.244	445	235.244	446	235.245	447	235.250	448	233.9
449	233.967	450	233.967	451	233.967	452	233.967	453	233.968	454	233.968	455	233.969	456	233.9
457	233.970	458	233.971	459	233.972	460	233.972	461	233.973	462	233.975	463	232.831	464	232.8
465	232.831	466	232.831	467	232.831	468	232.832	469	232.832	470	232.833	471	232.833	472	232.834
473	232.835	474	232.836	475	232.837	476	232.839	477	232.841	478	231.818	479	231.818	480	231.818
481	231.818	482	231.819	483	231.819	484	231.819	485	231.820	486	231.821	487	231.821	488	231.822
489	231.823	490	231.824	491	231.826	492	231.827	493	230.953	494	230.953	495	230.953	496	230.9
497	230.953	498	230.954	499	230.954	500	230.954	501	230.954	502	230.955	503	230.955	504	230.9
505	230.957	506	230.958	507	230.959	508	230.150	509	230.149	510	230.147	511	230.143	512	230.1
513	230.131	514	230.123	515	230.113	516	230.101	517	230.088	518	230.073	519	230.057	520	230.0
521	230.020	522	230.000	523	230.400	524	230.398	525	230.393	526	230.383	527	230.369	528	230.351
529	230.329	530	230.303	531	230.272	532	230.237	533	230.198	534	230.155	535	230.107	536	230.056
537	230.000	538	233.001	539	232.999	540	232.988	541	232.870	542	232.845	543	232.811	544	232.8
545	232.821	546	232.763	547	232.898	548	232.824	549	232.542	550	232.451	551	232.351	552	232.2
553	240.847	554	240.849	555	240.852	556	240.858	557	240.866	558	240.876	559	240.888	560	240.9
561	240.920	562	240.939	563	240.982	564	240.987	565	241.015	566	241.046	567	241.080	568	241.1
569	245.538	570	245.538	571	245.539	572	245.540	573	245.541	574	245.542	575	245.544	576	245.5
577	245.548	578	245.550	579	245.552	580	245.555	581	245.558	582	245.561	583	245.564	584	245.584
585	245.565	586	249.046	587	249.046	588	249.048	589	249.046	590	249.048	591	249.045	592	249.044
593	249.043	594	249.041	595	249.040	596	249.038	597	249.036	598	249.033	599	249.031	600	249.0
601	249.028	602	249.029	603	251.933	604	251.933	605	251.932	606	251.931	607	251.929	608	251.9
609	251.924	610	251.921	611	251.916	612	251.912	613	251.907	614	251.901	615	251.894	616	251.9
617	251.880	618	251.880	619	251.880	620	254.569	621	254.569	622	254.568	623	254.566	624	254.5
625	254.561	626	254.558	627	254.554	628	254.548	629	254.543	630	254.537	631	254.530	632	254.5
633	254.514	634	254.505	635	254.505	636	254.505	637	254.508	638	257.086	639	257.088	640	257.085
641	257.084	642	257.082	643	257.080	644	257.077	645	257.073	646	257.069	647	257.065	648	257.060
649	257.054	650	257.048	651	257.041	652	257.033	653	257.033	654	257.033	655	257.035	656	259.0
657	259.423	658	259.423	659	259.422	660	259.420	661	259.418	662	259.415	663	259.412	664	259.4
665	259.404	666	259.399	667	259.394	668	259.388	669	259.382	670	259.375	671	259.375	672	259.3
673	259.378	674	261.585	675	261.585	676	261.585	677	261.584	678	261.582	679	261.580	680	261.5
681	261.575	682	261.571	683	261.567	684	261.563	685	261.558	686	261.553	687	261.547	688	261.5
689	261.540	690	261.540	691	261.543	692	263.580	693	263.580	694	263.580	695	263.579	696	263.577
697	263.575	698	263.573	699	263.570	700	263.567	701	263.564	702	263.559	703	263.555	704	263.550
705	263.544	706	263.538	707	263.538	708	263.538	709	263.542	710	263.543	711	265.413	712	265.4
713	265.413	714	265.412	715	265.411	716	265.409	717	265.407	718	265.404	719	265.401	720	265.3
721	265.394	722	265.390	723	265.385	724	265.380	725	265.375	726	265.374	727	265.374	728	265.3
729	265.379	730	267.093	731	267.093	732	267.093	733	267.092	734	267.091	735	267.089	736	267.0
737	267.085	738	267.082	739	267.079	740	267.075	741	267.071	742	267.067	743	267.062	744	267.0
745	267.057	746	267.057	747	267.050	748	267.062	749	268.829	750	268.829	751	268.828	752	268.827
753	268.826	754	268.825	755	268.823	756	268.821	757	268.818	758	268.815	759	268.812	760	268.808
761	268.804	762	268.800	763	268.595	764	268.595	765	268.595	766	268.594	767	268.800	768	270.0
769	270.027	770	270.028	771	270.026	772	270.025	773	270.023	774	270.021	775	270.018	776	270.0
777	270.014	778	270.011	779	270.008	780	270.004	781	270.000	782	269.995	783	269.995	784	269.9
785	269.998	786	270.001	787	271.295	788	271.295	789	271.295	790	271.294	791	271.293	792	271.2
793	271.290	794	271.288	795	271.286	796	271.283	797	271.281	798	271.277	799	271.274	800	271.2
801	271.266	802	271.266	803	271.266	804	271.269	805	271.272	806	272.440	807	272.440	808	272.440
809	272.439	810	272.438	811	272.437	812	272.436	813	272.434	814	272.432	815	272.429	816	272.427
817	272.424	818	272.421	819	272.417	820	272.413	821	272.413	822	272.413	823	272.416	824	272.4
825	273.468	826	273.468	827	273.468	828	273.467	829	273.466	830	273.465	831	273.464	832	273.4
833	273.460	834	273.458	835	273.456	836	273.453	837	273.450	838	273.447	839	273.443	840	273.4
841	273.443	842	273.446	843	273.449	844	273.450	845	274.382	846	274.382	847	274.381	848	274.3
849	274.380	850	274.379	851	274.378	852	274.376	853	274.374	854	274.372	855	274.370	856	274.3
857	274.365	858	274.362	859	274.359	860	274.358	861	274.358	862	274.362	863	274.364	864	274.365
865	275.187	866	275.187	867	275.186	868	275.186	869	275.185	870	275.184	871	275.183	872	275.182
873	275.180	874	275.178	875	275.178	876	275.174	877	275.171	878	275.168	879	275.165	880	275.1
881	275.165	882	275.168	883	275.171	884	275.172	885	275.888	886	275.888	887	275.888	888	275.8
889	275.886	890	275.885	891	275.884	892	275.883	893	275.881	894	275.880	895	275.878	896	275.8
897	275.873	898	275.870	899	275.867	900	275.867	901	275.867	902	275.870	903	275.873	904	275.8
905	276.489	906	276.489	907	276.489	908	276.488	909	276.488	910	276.487	911	276.486	912	276.4

913	276.483	914	276.481	915	276.479	916	276.477	917	276.475	918	276.472	919	276.470	920	276.4
921	276.470	922	276.473	923	276.475	924	276.477	925	276.994	926	276.994	927	276.994	928	276.993
929	276.993	930	276.992	931	276.991	932	276.990	933	276.988	934	276.987	935	276.985	936	276.983
937	276.981	938	276.978	939	276.976	940	276.976	941	276.978	942	276.979	943	276.981	944	276.983
945	277.406	946	277.406	947	277.406	948	277.405	949	277.405	950	277.404	951	277.403	952	277.4
953	277.400	954	277.399	955	277.397	956	277.395	957	277.393	958	277.391	959	277.388	960	277.4
961	277.388	962	277.391	963	277.394	964	277.396	965	277.727	966	277.727	967	277.727	968	277.7
969	277.726	970	277.725	971	277.724	972	277.723	973	277.722	974	277.720	975	277.718	976	277.7
977	277.715	978	277.712	979	277.710	980	277.710	981	277.710	982	277.713	983	277.716	984	277.717
985	277.960	986	277.960	987	277.958	988	277.959	989	277.958	990	277.958	991	277.957	992	277.955
993	277.954	994	277.953	995	277.951	996	277.949	997	277.947	998	277.945	999	277.943	1000	277.943
1001	277.943	1002	277.946	1003	277.948	1004	277.950	1005	278.104	1006	278.104	1007	278.104	1008	278.1
1009	278.103	1010	278.102	1011	278.101	1012	278.100	1013	278.099	1014	278.098	1015	278.096	1016	278.0
1017	278.092	1018	278.090	1019	278.088	1020	278.088	1021	278.088	1022	278.091	1023	278.093	1024	278.0
1025	278.160	1026	278.160	1027	278.160	1028	278.159	1029	278.159	1030	278.158	1031	278.157	1032	278.1
1033	278.156	1034	278.154	1035	278.153	1036	278.152	1037	278.150	1038	278.148	1039	278.148	1040	278.146
1041	278.147	1042	278.152	1043	278.157	1044	278.161								

NODES ALONG THE WATER TABLE

15	31	47	63	78	95	111	127	143	158	175	191	207	223	239	255	271	287	303	319	335	351	367	383	399
415	431	447	462	477	492	507	522	537	552	568	585	602	619	637	655	673	691	710	729	748	767	786	805	824
844	864	884	904	924	944	964	984	1004	1024	1044														

NEW HYDRAULIC CONDUCTIVITY DISTRIBUTION



FINITE ELEMENT GRID SUMMARY

1275: ESTIMATED NUMBER OF NODES
1046: ACTUAL NUMBER OF NODES
2600: ESTIMATED NUMBER OF ELEMENTS
1835: ACTUAL NUMBER OF ELEMENTS
22: ESTIMATED BANDWITH
18: ESTIMATED NUMBER OF CONSTANT HEAD NODES
7: ACTUAL NUMBER OF CONSTANT HEAD NODES
1039: NUMBER OF NODES WITH UNKNOWN HEADS
22: FINAL BANDWIDTH

ITERATION: 1 TIME: 6.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	31	232.8642	232.4346	232.4346	232.4346	232.8642	251.0000
3	F	47	234.3881	234.0113	234.0113	234.0113	234.3881	252.0000
4	F	63	235.7845	235.2725	235.2725	235.2725	235.7845	253.0000
5	F	79	236.9092	236.3240	236.3240	236.3240	236.9092	254.0000
6	F	95	237.8794	237.2178	237.2178	237.2178	237.8794	255.0000
7	F	111	238.7086	237.9847	237.9847	237.9848	238.7086	259.0000
8	F	127	239.4180	238.6441	238.6441	238.6441	239.4180	282.0000
9	F	143	240.0222	239.2093	239.2093	239.2093	240.0222	265.0000
10	F	159	240.5316	239.6889	239.6889	239.6889	240.5316	268.0000
11	F	175	240.9538	240.0931	240.0931	240.0931	240.9538	271.0000
12	F	191	241.2944	240.4244	240.4244	240.4244	241.2944	274.0000
13	F	207	241.5582	240.6879	240.6879	240.6879	241.5582	277.0000
14	F	223	241.7486	240.8871	240.8871	240.8871	241.7486	279.0000
15	F	239	241.8686	241.0247	241.0247	241.0247	241.8686	280.0000
16	F	255	241.9208	241.1029	241.1029	241.1029	241.9208	281.0000
17	F	271	241.9076	241.1235	241.1235	241.1235	241.9076	282.0000
18	F	287	241.8311	241.0880	241.0880	241.0880	241.8311	281.2000
19	F	303	241.6936	240.9973	240.9973	240.9973	241.6936	281.7000
20	F	319	241.4973	240.8523	240.8523	240.8523	241.4973	282.0000
21	F	335	241.2444	240.6534	240.6534	240.6534	241.2444	283.0000
22	F	351	240.9375	240.4006	240.4008	240.4006	240.9375	284.0000
23	F	367	240.5793	240.0934	240.0934	240.0935	240.5793	286.0000
24	F	383	240.1740	239.7316	239.7316	239.7316	240.1740	286.0000
25	F	399	239.7436	239.3312	239.3312	239.3312	239.7436	287.0000
26	F	415	238.1715	237.7915	237.7915	237.7915	238.1715	290.6001
27	F	431	236.6686	236.1440	236.1440	236.1440	236.6686	291.2000
28	F	447	235.2503	234.3181	234.3181	234.3181	235.2503	289.2000
29	T	463	233.9749	232.0894	232.0894	232.0894	233.9749	291.6001
30	F	479	232.8405	231.9514	231.9514	231.9514	232.8405	291.6000
31	F	494	231.8271	231.4449	231.4449	231.4449	231.8271	289.5000
32	F	509	230.9593	230.8053	230.8053	230.8053	230.9593	290.8999
33	T	524	230.0000	230.1610	230.0000	230.1611	230.0000	275.0000
34	T	539	230.0000	230.0000	230.0000	230.0000	230.0000	230.0000
35	T	554	230.0000	231.8022	230.0000	231.8022	232.2166	290.1000
36	F	570	241.0833	238.0108	238.0108	238.0108	241.0833	290.2000
37	F	587	245.5853	242.1871	242.1871	242.1871	245.5653	290.3000
38	F	604	249.0291	245.4971	245.4871	245.4972	249.0291	290.3999
39	F	621	251.8798	248.2707	248.2707	248.2707	251.8798	290.5000
40	F	639	254.5061	250.8864	250.8864	250.8864	254.5061	290.8001
41	F	657	257.0354	253.4075	253.4075	253.4075	257.0354	290.7000
42	F	675	259.3774	255.7946	255.7946	255.7946	259.3774	290.8000
43	F	693	261.5432	258.0310	258.0310	258.0312	261.5432	291.0000
44	F	712	263.5425	260.1182	260.1182	260.1182	263.5425	291.2000
45	F	731	265.3792	262.0581	262.0583	262.0583	265.3792	291.3998
46	F	750	267.0620	263.8547	263.8547	263.8548	267.0620	291.5000
47	F	769	268.6001	265.5117	265.5117	265.5118	268.6001	291.7000
48	F	788	270.0010	267.0337	267.0337	267.0338	270.0010	291.8000
49	F	807	271.2717	268.4253	268.4253	268.4254	271.2717	292.0000
50	F	826	272.4192	269.6907	269.6907	269.6907	272.4192	293.0000
51	F	846	273.4497	270.8320	270.8320	270.8321	273.4497	295.0000
52	F	866	274.3652	271.8530	271.8530	271.8532	274.3652	295.0000
53	F	886	275.1719	272.7573	272.7573	272.7574	275.1719	295.0000
54	F	906	275.8743	273.5481	273.5481	273.5483	275.8743	295.0000
55	F	926	276.4768	274.2290	274.2290	274.2290	276.4768	295.0000
56	F	946	276.9828	274.8022	274.8022	274.8025	276.9829	295.0000
57	F	966	277.3955	275.2710	275.2710	275.2711	277.3955	295.0000
58	F	986	277.7173	275.6367	275.6367	275.6368	277.7173	295.0000
59	F	1006	277.9502	275.9011	275.9011	275.9012	277.9502	295.0000
60	F	1026	278.0955	276.0654	276.0654	276.0655	278.0955	295.0000
61	F	1046	278.1809	276.1377	276.1377	276.1378	278.1809	295.0000

******* REFORM THE GRID *******

ITERATION CONVERGENCE; ERROR: 95.248 TOLERENCE:0.100

FINITE ELEMENT GRID SUMMARY

1275: ESTIMATED NUMBER OF NODES
1037: ACTUAL NUMBER OF NODES
2600: ESTIMATED NUMBER OF ELEMENTS
1919: ACTUAL NUMBER OF ELEMENTS
22: ESTIMATED BANDWITH
18: ESTIMATED NUMBER OF CONSTANT HEAD NODES
6: ACTUAL NUMBER OF CONSTANT HEAD NODES

1031: NUMBER OF NODES WITH UNKNOWN HEADS

ITERATION: 2 TIME: 6.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	30	232.4346	232.7482	232.7482	232.7482	232.6642	251.0000
3	F	46	234.0113	234.4223	234.4223	234.4224	234.3881	252.0000
4	F	62	235.2725	235.5813	235.5813	235.5813	235.7845	253.0000
5	F	78	236.3240	236.5707	236.5707	236.5707	236.9092	254.0000
6	F	94	237.2178	237.4223	237.4223	237.4223	237.8794	256.0000
7	F	110	237.9847	238.1595	238.1595	238.1595	238.7086	259.0000
8	F	126	238.6441	238.7975	238.7975	238.7975	239.4180	262.0000
9	F	142	239.2093	239.3472	239.3472	239.3472	240.0222	265.0000
10	F	158	239.8899	239.8165	239.8165	239.8165	240.5316	268.0000
11	F	174	240.0831	240.2115	240.2115	240.2116	240.9538	271.0000
12	F	190	240.4244	240.5370	240.5370	240.5371	241.2944	274.0000
13	F	206	240.6879	240.7868	240.7868	240.7869	241.5582	277.0000
14	F	222	240.8871	240.9941	240.9941	240.9941	241.7486	279.0000
15	F	238	241.0247	241.1318	241.1318	241.1318	241.8686	280.0000
16	F	254	241.1029	241.2116	241.2116	241.2116	241.9208	281.0000
17	F	270	241.1235	241.2362	241.2362	241.2362	241.9076	282.0000
18	F	286	241.0880	241.2073	241.2073	241.2073	241.8311	281.2000
19	F	302	240.9973	241.1286	241.1286	241.1287	241.8936	281.7000
20	F	318	240.8523	240.9959	240.9959	240.9958	241.4973	282.0000
21	F	334	240.6534	240.8166	240.8166	240.8168	241.2444	283.0000
22	F	350	240.4006	240.5901	240.5901	240.5902	240.9375	284.0000
23	F	366	240.0934	240.3179	240.3179	240.3180	240.5793	286.0000
24	F	382	239.7316	240.0019	240.0019	240.0019	240.1740	286.0000
25	F	398	239.3312	239.6578	239.6578	239.6578	239.7436	287.0000
26	F	414	237.7915	238.4053	238.4053	238.4053	238.1715	290.6001
27	F	430	236.1440	237.1568	237.1568	237.1568	236.8686	291.2000
28	F	446	234.3181	235.9167	235.9167	235.9167	235.2503	289.2000
29	F	461	232.0894	234.7175	234.7175	234.7175	233.9749	291.6001
30	F	476	231.9514	233.5806	233.5806	233.5806	232.8405	291.8000
31	F	491	231.4449	232.4236	232.4236	232.4236	231.8271	289.5000
32	F	506	230.8053	231.2772	231.2772	231.2772	230.9593	290.8999
33	T	521	230.1510	230.2554	230.0000	230.2554	230.0000	275.0000
34	T	536	230.0000	230.0000	230.0000	230.0000	230.0000	230.0000
35	T	551	231.6022	231.6823	230.0000	231.6823	232.2166	290.1000
36	F	567	238.0108	238.4116	238.4116	238.4116	241.0833	290.2000
37	F	583	242.1871	242.9479	242.9479	242.9479	245.5853	290.3000
38	F	600	245.4971	246.4705	246.4705	246.4705	249.0291	290.3999
39	F	617	248.2707	248.3971	248.3971	248.3971	251.8795	290.5000
40	F	634	250.8864	251.9088	251.9088	251.9088	254.5061	290.8001
41	F	652	253.4075	254.2262	254.2262	254.2262	257.0354	290.7000
42	F	670	255.7946	256.4617	256.4617	256.4618	259.3774	290.8000
43	F	688	258.0310	258.5706	258.5706	258.5707	261.5432	291.0000
44	F	706	260.1182	260.5522	260.5522	260.5524	263.5425	291.2000
45	F	724	262.0581	262.4067	262.4067	262.4069	265.3792	291.3999
46	F	743	263.8547	264.1353	264.1353	264.1353	267.0620	291.5000
47	F	762	265.5117	265.7356	265.7356	265.7356	268.8001	291.7000
48	F	781	267.0337	267.2102	267.2102	267.2103	270.0010	291.8000
49	F	800	268.4253	268.5823	268.5823	268.5823	271.2717	292.0000
50	F	819	269.8907	269.7944	269.7944	269.7946	272.4192	293.0000
51	F	838	270.8320	270.9089	270.9089	270.9101	273.4497	295.0000
52	F	857	271.8530	271.9119	271.9119	271.9121	274.3652	295.0000
53	F	877	272.7573	272.8032	272.8032	272.8033	275.1719	295.0000
54	F	897	273.5481	273.5833	273.5833	273.5835	275.8743	295.0000
55	F	917	274.2290	274.2556	274.2556	274.2557	276.4758	295.0000
56	F	937	274.8022	274.8223	274.8223	274.8225	276.9829	295.0000
57	F	957	275.2710	275.2859	275.2859	275.2860	277.3955	295.0000
58	F	977	275.6367	275.6479	275.6479	275.6480	277.7173	295.0000
59	F	997	275.9011	275.9097	275.9097	275.9098	277.9502	295.0000
60	F	1017	276.0654	276.0725	276.0725	276.0727	278.0955	295.0000
61	F	1037	276.1377	276.1436	276.1436	276.1437	278.1609	295.0000

ITERATION CONVERGENCE; ERROR: 23.443 TOLERENCE:0.100

ITERATION: 3 TIME: 6.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	30	232.7482	232.7863	232.7863	232.7863	232.6642	251.0000
3	F	46	234.4223	234.4321	234.4321	234.4321	234.3881	252.0000
4	F	62	235.5813	235.5663	235.5663	235.5663	235.7845	253.0000
5	F	78	236.5707	236.5466	236.5466	236.5468	236.8092	254.0000
6	F	94	237.4223	237.3956	237.3956	237.3957	237.8794	256.0000
7	F	110	238.1595	238.1331	238.1331	238.1331	238.7086	259.0000
8	F	126	238.7975	238.7726	238.7726	238.7726	239.4180	262.0000
9	F	142	239.3472	239.3244	239.3244	239.3244	240.0222	265.0000
10	F	158	239.8165	239.7959	239.7959	239.7959	240.5316	268.0000
11	F	174	240.2115	240.1930	240.1930	240.1930	240.9538	271.0000
12	F	190	240.5370	240.5204	240.5204	240.5204	241.2944	274.0000
13	F	206	240.7868	240.7818	240.7818	240.7818	241.5582	277.0000
14	F	222	240.9941	240.9805	240.9805	240.9805	241.7486	279.0000
15	F	238	241.1318	241.1192	241.1192	241.1192	241.8686	280.0000
16	F	254	241.2116	241.2003	241.2003	241.2003	241.9208	281.0000
17	F	270	241.2362	241.2258	241.2258	241.2258	241.9076	282.0000
18	F	286	241.2073	241.1977	241.1977	241.1978	241.8311	281.2000
19	F	302	241.1286	241.1180	241.1180	241.1180	241.8936	281.7000
20	F	318	240.9958	240.9882	240.9882	240.9882	241.4973	282.0000
21	F	334	240.8166	240.8102	240.8102	240.8102	241.2444	283.0000
22	F	350	240.5901	240.5855	240.5855	240.5855	240.9375	284.0000
23	F	366	240.3179	240.3160	240.3160	240.3160	240.5793	286.0000
24	F	382	240.0019	240.0041	240.0041	240.0041	240.1740	286.0000
25	F	398	239.6578	239.6664	239.6664	239.6664	239.7436	287.0000
26	F	414	238.4053	238.4113	238.4113	238.4113	238.1715	290.6001
27	F	430	237.1568	237.1628	237.1628	237.1628	236.8686	291.2000
28	F	446	235.9167	235.9268	235.9268	235.9268	235.2503	289.2000
29	F	461	234.7175	234.7524	234.7524	234.7524	233.9749	291.6001
30	F	476	233.5806	233.6334	233.6334	233.6334	232.8405	291.8000
31	F	491	232.4236	232.5374	232.5374	232.5374	231.8271	289.5000
32	F	506	231.2772	231.4440	231.4440	231.4441	230.9593	290.8999
33	T	521	230.2554	230.2888	230.2554	230.2888	230.0000	275.0000
34	T	536	230.0000	230.0000	230.0000	230.0000	230.0000	230.0000
35	T	551	231.6823	231.8015	231.6823	231.8015	232.2166	290.1000
36	F	567	238.4116	239.5078	239.5078	238.5078	241.0833	290.2000
37	F	583	242.9479	243.7355	243.7355	243.7355	245.5853	290.3000
38	F	600	246.4705	247.0214	247.0214	247.0214	249.0291	290.3999
39	F	617	249.3971	249.7616	249.7616	249.7818	251.8795	290.5000
40	F	634	251.9088	252.1310	252.1310	252.1310	254.5061	290.8001
41	F	652	254.2262	254.3738	254.3738	254.3739	257.0354	290.7000
42	F	670	256.4617	256.5845	256.5845	256.5847	259.3774	290.8000
43	F	688	258.5706	258.6726	258.6726	258.6726	261.5432	291.0000
44	F	706	260.5522	260.6370	260.6370	260.6371	263.5425	291.2000

45	F	724	262.4087	262.4771	262.4771	262.4772	265.3782	291.3999
46	F	743	264.1353	264.1936	264.1936	264.1937	267.0620	291.5000
47	F	762	265.7356	265.7839	265.7839	265.7841	268.6001	291.7000
48	F	781	267.2102	267.2505	267.2505	267.2507	270.0010	291.8000
49	F	800	268.5623	268.5957	268.5957	268.5959	271.2717	292.0000
50	F	819	269.7944	269.8225	269.8225	269.8226	272.4192	293.0000
51	F	838	270.9099	270.9336	270.9336	270.9336	273.4497	295.0000
52	F	857	271.9119	271.9316	271.9316	271.9318	274.3652	295.0000
53	F	877	272.8032	272.8198	272.8198	272.8198	275.1719	295.0000
54	F	897	273.5833	273.5974	273.5974	273.5976	275.8743	295.0000
55	F	917	274.2556	274.2676	274.2676	274.2678	276.4768	295.0000
56	F	937	274.8223	274.8328	274.8328	274.8330	276.9829	295.0000
57	F	957	275.2859	275.2952	275.2952	275.2952	277.3955	295.0000
58	F	977	275.6479	275.6563	275.6563	275.6563	277.7173	295.0000
59	F	997	275.9097	275.9175	275.9175	275.9176	277.9502	295.0000
60	F	1017	276.0725	276.0788	276.0788	276.0800	278.0955	295.0000
61	F	1037	276.1436	276.1509	276.1509	276.1509	278.1509	295.0000

ITERATION CONVERGENCE; ERROR: 4.663 TOLERENCE:0.100

ITERATION: 4 TIME: 6.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	30	232.7863	232.7854	232.7854	232.7854	232.8842	251.0000
3	F	46	234.4321	234.4292	234.4292	234.4292	234.3881	252.0000
4	F	62	235.5663	235.5632	235.5632	235.5632	235.7645	253.0000
5	F	78	236.5466	236.5447	236.5447	236.5447	236.9092	254.0000
6	F	94	237.3956	237.3949	237.3949	237.3949	237.8794	256.0000
7	F	110	238.1331	238.1332	238.1332	238.1332	238.7086	259.0000
8	F	126	238.7726	238.7733	238.7733	238.7733	239.4180	262.0000
9	F	142	239.3244	239.3255	239.3255	239.3255	240.0222	265.0000
10	F	158	239.7959	239.7971	239.7971	239.7971	240.5316	268.0000
11	F	174	240.1930	240.1943	240.1943	240.1943	240.9538	271.0000
12	F	190	240.5204	240.5217	240.5217	240.5217	241.2844	274.0000
13	F	206	240.7818	240.7831	240.7831	240.7831	241.5582	277.0000
14	F	222	240.9805	240.9817	240.9817	240.9817	241.7486	279.0000
15	F	238	241.1192	241.1203	241.1203	241.1203	241.8686	280.0000
16	F	254	241.2003	241.2012	241.2012	241.2012	241.9208	281.0000
17	F	270	241.2258	241.2267	241.2267	241.2267	241.9076	282.0000
18	F	286	241.1977	241.1985	241.1985	241.1986	241.8311	281.2000
19	F	302	241.1180	241.1187	241.1187	241.1187	241.8936	281.7000
20	F	318	240.9882	240.9888	240.9888	240.9888	241.4973	282.0000
21	F	334	240.8102	240.8107	240.8107	240.8107	241.2444	283.0000
22	F	350	240.5855	240.5861	240.5861	240.5861	240.9375	284.0000
23	F	366	240.3160	240.3166	240.3166	240.3166	240.5793	286.0000
24	F	382	240.0041	240.0048	240.0048	240.0048	240.1740	286.0000
25	F	398	239.6664	239.6673	239.6673	239.6673	239.7436	287.0000
26	F	414	238.4113	238.4128	238.4128	238.4128	238.1715	290.8001
27	F	430	237.1628	237.1651	237.1651	237.1651	236.8686	291.2000
28	F	446	235.9268	235.9305	235.9305	235.9305	235.2503	289.2000
29	F	461	234.7524	234.7582	234.7582	234.7582	233.9749	291.8001
30	F	476	233.6334	233.6425	233.6425	233.6425	232.8405	291.8000
31	F	491	232.5374	232.5513	232.5513	232.5513	231.8271	289.5000
32	F	506	231.4440	231.4653	231.4653	231.4653	230.9593	280.8999
33	T	521	230.2888	230.2930	230.2888	230.2931	230.0000	275.0000
34	T	536	230.0000	230.0000	230.0000	230.0000	230.0000	230.0000
35	T	551	231.9015	231.8860	231.9015	231.8860	232.2165	290.1000
36	F	567	239.5076	239.4302	238.4302	239.4302	241.0833	290.2000
37	F	583	243.7355	243.5148	243.5148	243.5148	245.5653	290.3000
38	F	600	247.0214	246.7675	246.7675	246.7675	249.0291	290.3999
39	F	617	249.7616	249.5117	249.5117	249.5117	251.8798	290.5000
40	F	634	252.1310	251.8993	251.8993	251.8993	254.5061	290.6001
41	F	652	254.3739	254.1708	254.1708	254.1708	257.0354	290.7000
42	F	670	256.5845	256.4148	256.4148	256.4147	259.3774	290.8000
43	F	688	258.6728	258.5305	258.5305	258.5306	261.5432	291.0000
44	F	708	260.6370	260.5181	260.5181	260.5182	263.5425	291.2000
45	F	724	262.4771	262.3777	262.3777	262.3779	265.3782	291.3999
46	F	743	264.1936	264.1106	264.1106	264.1107	267.0620	291.5000
47	F	762	265.7839	265.7146	265.7146	265.7148	268.6001	291.7000
48	F	781	267.2505	267.1926	267.1926	267.1927	270.0010	291.8000
49	F	800	268.5957	268.5474	268.5474	268.5474	271.2717	292.0000
50	F	819	269.8225	269.7820	269.7820	269.7820	272.4192	293.0000
51	F	838	270.9336	270.8994	270.8994	270.8995	273.4497	295.0000
52	F	857	271.9316	271.9031	271.9031	271.9031	274.3652	295.0000
53	F	877	272.8198	272.7957	272.7957	272.7957	275.1719	295.0000
54	F	897	273.5974	273.5769	273.5769	273.5770	275.8743	295.0000
55	F	917	274.2676	274.2500	274.2500	274.2501	276.4768	295.0000
56	F	937	274.8328	274.8174	274.8174	274.8176	276.9829	295.0000
57	F	957	275.2952	275.2815	275.2815	275.2817	277.3955	295.0000
58	F	977	275.6563	275.6440	275.6440	275.6441	277.7173	295.0000
59	F	997	275.9175	275.9063	275.9063	275.9063	277.9502	295.0000
60	F	1017	276.0788	276.0691	276.0691	276.0693	278.0955	295.0000
61	F	1037	276.1509	276.1401	276.1401	276.1404	278.1509	295.0000

ITERATION CONVERGENCE; ERROR: 2.347 TOLERENCE:0.100

ITERATION: 5 TIME: 6.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	30	232.7854	232.7851	232.7851	232.7852	232.8842	251.0000
3	F	46	234.4292	234.4291	234.4291	234.4291	234.3881	252.0000
4	F	62	235.5632	235.5634	235.5634	235.5634	235.7645	253.0000
5	F	78	236.5447	236.5450	236.5450	236.5450	236.9092	254.0000
6	F	94	237.3949	237.3952	237.3952	237.3952	237.8794	256.0000
7	F	110	238.1332	238.1335	238.1335	238.1335	238.7086	259.0000
8	F	126	238.7733	238.7736	238.7736	238.7736	239.4180	262.0000
9	F	142	239.3255	239.3256	239.3256	239.3256	240.0222	265.0000
10	F	158	239.7971	239.7973	239.7973	239.7973	240.5316	268.0000
11	F	174	240.1943	240.1944	240.1944	240.1944	240.9538	271.0000
12	F	190	240.5217	240.5217	240.5217	240.5217	241.2844	274.0000
13	F	206	240.7831	240.7831	240.7831	240.7831	241.5582	277.0000
14	F	222	240.9817	240.9817	240.9817	240.9817	241.7486	279.0000
15	F	238	241.1203	241.1203	241.1203	241.1203	241.8686	280.0000
16	F	254	241.2012	241.2012	241.2012	241.2012	241.9208	281.0000
17	F	270	241.2267	241.2267	241.2267	241.2267	241.9076	282.0000
18	F	286	241.1985	241.1985	241.1985	241.1986	241.8311	281.2000
19	F	302	241.1187	241.1187	241.1187	241.1187	241.8936	281.7000
20	F	318	240.9888	240.9889	240.9889	240.9889	241.4973	282.0000
21	F	334	240.8107	240.8108	240.8108	240.8108	241.2444	283.0000
22	F	350	240.5861	240.5861	240.5861	240.5861	240.9375	284.0000
23	F	366	240.3166	240.3167	240.3167	240.3167	240.5793	286.0000
24	F	382	240.0048	240.0049	240.0049	240.0049	240.1740	286.0000
25	F	398	239.6673	239.6674	239.6674	239.6674	239.7436	287.0000
26	F	414	238.4128	238.4130	238.4130	238.4130	238.1715	290.8001

27	F	430	237.1651	237.1654	237.1654	237.1654	236.8686	291.2000
28	F	446	235.9305	235.9309	235.9309	235.9309	235.2503	289.2000
29	F	461	234.7582	234.7589	234.7589	234.7589	233.9749	291.6001
30	F	476	233.6425	233.6436	233.6436	233.6436	232.8405	291.8000
31	F	491	232.5513	232.5529	232.5529	232.5530	231.8271	289.5000
32	F	506	231.4653	231.4679	231.4679	231.4679	230.9593	290.8999
33	T	521	230.2830	230.2936	230.2930	230.2936	230.0000	275.0000
34	T	536	230.0000	230.0000	230.0000	230.0000	230.0000	230.0000
35	T	551	231.8860	231.8823	231.8860	231.8823	232.2166	290.1000
36	F	567	239.4302	239.4115	239.4115	239.4115	241.0833	290.2000
37	F	583	243.5148	243.5137	243.5137	243.5137	245.5853	290.3000
38	F	600	246.7875	246.7890	246.7890	246.7890	249.0291	290.3999
39	F	617	249.5117	249.5498	249.5498	249.5498	251.8798	290.5000
40	F	634	251.8993	251.9489	251.9489	251.9489	254.5061	290.6001
41	F	652	254.1706	254.2209	254.2209	254.2210	257.0354	290.7000
42	F	670	256.4146	256.4568	256.4568	256.4569	259.3774	290.8000
43	F	688	258.5305	258.5659	258.5659	258.5680	261.5432	291.0000
44	F	706	260.5181	260.5479	260.5479	260.5479	263.5425	291.2000
45	F	724	262.3777	262.4026	262.4026	262.4028	265.3792	291.3999
46	F	743	264.1106	264.1316	264.1316	264.1316	267.0620	291.5000
47	F	762	265.7146	265.7322	265.7322	265.7323	268.6001	291.7000
48	F	781	267.1926	267.2073	267.2073	267.2074	270.0010	291.8000
49	F	800	268.5474	268.5596	268.5596	268.5597	271.2717	292.0000
50	F	819	269.7820	269.7922	269.7922	269.7923	272.4192	293.0000
51	F	838	270.8984	270.9080	270.9080	270.9082	273.4497	295.0000
52	F	857	271.9031	271.9104	271.9104	271.9104	274.3852	295.0000
53	F	877	272.7957	272.8018	272.8018	272.8019	275.1719	295.0000
54	F	897	273.5769	273.5820	273.5820	273.5822	275.8743	295.0000
55	F	917	274.2500	274.2544	274.2544	274.2546	276.4768	295.0000
56	F	937	274.8174	274.8215	274.8215	274.8215	276.9829	295.0000
57	F	957	275.2815	275.2852	275.2852	275.2852	277.3955	295.0000
58	F	977	275.6440	275.6472	275.6472	275.6472	277.7173	295.0000
59	F	997	275.9063	275.9092	275.9092	275.9092	277.9502	295.0000
60	F	1017	276.0691	276.0718	276.0718	276.0720	278.0955	295.0000
61	F	1037	276.1401	276.1431	276.1431	276.1431	278.1609	295.0000

ITERATION CONVERGENCE; ERROR: 0.450 TOLERENCE:0.100

ITERATION: 6 TIME: 6.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	30	232.7851	232.7852	232.7852	232.7852	232.6842	251.0000
3	F	46	234.4291	234.4292	234.4292	234.4292	234.3881	252.0000
4	F	62	235.5634	235.5634	235.5634	235.5634	235.7645	253.0000
5	F	78	236.5450	236.5450	236.5450	236.5451	236.9092	254.0000
6	F	94	237.3952	237.3952	237.3952	237.3952	237.8794	256.0000
7	F	110	238.1335	238.1335	238.1335	238.1335	238.7086	259.0000
8	F	126	238.7736	238.7735	238.7735	238.7736	239.4180	262.0000
9	F	142	239.3256	239.3256	239.3256	239.3256	240.0222	265.0000
10	F	158	239.7973	239.7972	238.7972	239.7973	240.5316	268.0000
11	F	174	240.1944	240.1944	240.1944	240.1944	240.9538	271.0000
12	F	190	240.5217	240.5217	240.5217	240.5217	241.2944	274.0000
13	F	206	240.7831	240.7831	240.7831	240.7831	241.5582	277.0000
14	F	222	240.9817	240.9817	240.9817	240.9817	241.7486	279.0000
15	F	238	241.1203	241.1203	241.1203	241.1203	241.8686	280.0000
16	F	254	241.2012	241.2012	241.2012	241.2012	241.9208	281.0000
17	F	270	241.2267	241.2267	241.2267	241.2267	241.9076	282.0000
18	F	286	241.1985	241.1985	241.1985	241.1986	241.8311	281.2000
19	F	302	241.1187	241.1187	241.1187	241.1187	241.6936	281.7000
20	F	318	240.9889	240.9889	240.9889	240.9889	241.4973	282.0000
21	F	334	240.8108	240.8108	240.8108	240.8108	241.2444	283.0000
22	F	350	240.5861	240.5861	240.5861	240.5861	240.9375	284.0000
23	F	366	240.3167	240.3167	240.3167	240.3167	240.5793	286.0000
24	F	382	240.0049	240.0049	240.0049	240.0049	240.1740	286.0000
25	F	398	239.6674	239.6674	239.6674	239.6675	239.7436	287.0000
26	F	414	238.4130	238.4130	238.4130	238.4130	238.1715	290.8001
27	F	430	237.1654	237.1655	237.1655	237.1655	236.8686	291.2000
28	F	446	235.9309	235.9310	235.9310	235.9310	235.2503	289.2000
29	F	461	234.7589	234.7590	234.7590	234.7590	233.9749	291.6001
30	F	476	233.6436	233.6437	233.6437	233.6437	232.8405	291.8000
31	F	491	232.5529	232.5531	232.5531	232.5532	231.8271	289.5000
32	F	506	231.4679	231.4682	231.4682	231.4682	230.9593	290.8999
33	T	521	230.2936	230.2936	230.2938	230.2938	230.0000	275.0000
34	T	536	230.0000	230.0000	230.0000	230.0000	230.0000	230.0000
35	T	551	231.8823	231.8832	231.8823	231.8832	232.2166	290.1000
36	F	567	239.4115	239.4180	239.4180	239.4180	241.0833	290.2000
37	F	583	243.5137	243.5210	243.5210	243.5210	245.5853	290.3000
38	F	600	246.7890	246.7950	246.7950	246.7950	249.0291	290.3999
39	F	617	249.5498	249.5527	249.5527	249.5527	251.8796	290.5000
40	F	634	251.9489	251.9481	251.9481	251.9481	254.5061	290.6001
41	F	652	254.2209	254.2185	254.2185	254.2185	257.0354	290.7000
42	F	670	256.4568	256.4546	256.4546	256.4548	259.3774	290.8000
43	F	688	258.5659	258.5640	258.5640	258.5642	261.5432	291.0000
44	F	706	260.5479	260.5464	260.5464	260.5464	263.5425	291.2000
45	F	724	262.4026	262.4014	262.4014	262.4015	265.3792	291.3999
46	F	743	264.1316	264.1304	264.1304	264.1305	267.0620	291.5000
47	F	762	265.7322	265.7312	265.7312	265.7313	268.6001	291.7000
48	F	781	267.2073	267.2065	267.2065	267.2066	270.0010	291.8000
49	F	800	268.5596	268.5588	268.5588	268.5590	271.2717	292.0000
50	F	819	269.7922	269.7915	269.7915	269.7917	272.4192	293.0000
51	F	838	270.9080	270.9075	270.9075	270.9077	273.4497	295.0000
52	F	857	271.9104	271.9099	271.9099	271.9100	274.3852	295.0000
53	F	877	272.8018	272.8015	272.8015	272.8015	275.1719	295.0000
54	F	897	273.5820	273.5818	273.5818	273.5819	275.8743	295.0000
55	F	917	274.2544	274.2542	274.2542	274.2544	276.4768	295.0000
56	F	937	274.8215	274.8213	274.8213	274.8213	276.9829	295.0000
57	F	957	275.2852	275.2849	275.2849	275.2850	277.3955	295.0000
58	F	977	275.6472	275.6470	275.6470	275.6471	277.7173	295.0000
59	F	997	275.9092	275.9089	275.9089	275.9090	277.9502	295.0000
60	F	1017	276.0718	276.0718	276.0718	276.0719	278.0955	295.0000
61	F	1037	276.1431	276.1428	276.1428	276.1429	278.1609	295.0000

ITERATION CONVERGENCE; ERROR: 0.037 TOLERENCE:0.100

STEADY STATE CONVERGENCE; ERROR: 80.730 TOLERENCE:0.100

45	F	724	282.4067	282.4771	282.4771	282.4772	285.3792	291.3999
46	F	743	284.1353	284.1936	284.1936	284.1937	287.0620	291.5000
47	F	762	285.7356	285.7838	285.7838	285.7841	288.6001	291.7000
48	F	781	287.2102	287.2505	287.2505	287.2507	270.0010	291.8000
49	F	800	288.5623	288.5957	288.5957	288.5959	271.2717	292.0000
50	F	819	289.7944	289.8225	289.8225	289.8226	272.4192	293.0000
51	F	838	270.9099	270.9336	270.9336	270.9336	273.4497	295.0000
52	F	857	271.9119	271.9316	271.9316	271.9318	274.3652	295.0000
53	F	877	272.8032	272.8198	272.8198	272.8189	275.1718	295.0000
54	F	897	273.5833	273.5974	273.5974	273.5976	275.8743	295.0000
55	F	917	274.2556	274.2676	274.2676	274.2678	276.4788	295.0000
56	F	937	274.8223	274.8328	274.8328	274.8330	276.9829	295.0000
57	F	957	275.2859	275.2952	275.2952	275.2952	277.3955	295.0000
58	F	977	275.6478	275.6563	275.6563	275.6563	277.7173	295.0000
59	F	997	275.9097	275.9175	275.9175	275.9176	277.9502	295.0000
60	F	1017	276.0725	276.0798	276.0798	276.0800	278.0955	295.0000
61	F	1037	276.1436	276.1509	276.1508	276.1508	278.1609	295.0000

ITERATION CONVERGENCE; ERROR: 4.663 TOLERENCE:0.100

ITERATION: 4 TIME: 6.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	30	232.7863	232.7854	232.7854	232.7854	232.8842	251.0000
3	F	48	234.4321	234.4282	234.4282	234.4292	234.3881	252.0000
4	F	62	235.5863	235.5832	235.5832	235.5832	235.7845	253.0000
5	F	78	236.5466	236.5447	236.5447	236.5447	236.8092	254.0000
6	F	94	237.3956	237.3949	237.3949	237.3949	237.8784	256.0000
7	F	110	238.1331	238.1332	238.1332	238.1332	238.7086	259.0000
8	F	126	238.7726	238.7733	238.7733	238.7733	239.4180	262.0000
9	F	142	239.3244	239.3255	239.3255	239.3255	240.0222	265.0000
10	F	158	239.7959	239.7971	239.7971	239.7971	240.5316	268.0000
11	F	174	240.1930	240.1943	240.1943	240.1943	240.9538	271.0000
12	F	190	240.5204	240.5217	240.5217	240.5217	241.2944	274.0000
13	F	206	240.7818	240.7831	240.7831	240.7831	241.5582	277.0000
14	F	222	240.9805	240.9817	240.9817	240.9817	241.7486	278.0000
15	F	238	241.1182	241.1203	241.1203	241.1203	241.8888	280.0000
16	F	254	241.2003	241.2012	241.2012	241.2012	241.9208	281.0000
17	F	270	241.2258	241.2267	241.2267	241.2267	241.9076	282.0000
18	F	286	241.1977	241.1985	241.1985	241.1986	241.8311	281.2000
19	F	302	241.1180	241.1187	241.1187	241.1187	241.6938	281.7000
20	F	318	240.9882	240.9888	240.9888	240.9888	241.4973	282.0000
21	F	334	240.8102	240.8107	240.8107	240.8107	241.2444	283.0000
22	F	350	240.5855	240.5861	240.5861	240.5861	240.9375	284.0000
23	F	366	240.3180	240.3188	240.3188	240.3186	240.5793	286.0000
24	F	382	240.0041	240.0048	240.0048	240.0048	240.1740	286.0000
25	F	398	239.6864	239.6873	239.6873	239.6873	239.7436	287.0000
26	F	414	238.4113	238.4128	238.4128	238.4128	238.1715	290.8001
27	F	430	237.1628	237.1651	237.1651	237.1651	236.6686	291.2000
28	F	446	235.9268	235.9305	235.9305	235.8305	235.2503	289.2000
29	F	461	234.7524	234.7582	234.7582	234.7582	233.9749	291.8001
30	F	476	233.6334	233.6425	233.6425	233.6425	232.8405	291.8000
31	F	491	232.5374	232.5513	232.5513	232.5513	231.8271	289.5000
32	F	506	231.4440	231.4653	231.4653	231.4653	230.9593	290.8999
33	T	521	230.2888	230.2930	230.2888	230.2931	230.0000	275.0000
34	T	536	230.0000	230.0000	230.0000	230.0000	230.0000	230.0000
35	T	551	231.9015	231.8880	231.9015	231.8880	232.2188	280.1000

36	F	567	239.5076	239.4302	239.4302	239.4302	241.0833	290.2000
37	F	583	243.7365	243.5148	243.5148	243.5148	245.5653	290.3000
38	F	600	247.0214	246.7875	246.7875	248.7875	249.0291	290.3999
39	F	617	248.7818	249.5117	249.5117	248.5117	251.8786	290.5000
40	F	634	252.1310	251.8893	251.8893	251.8893	254.5061	290.8001
41	F	652	254.3739	254.1708	254.1708	254.1708	257.0354	290.7000
42	F	670	256.5845	256.4148	256.4148	256.4147	259.3774	290.8000
43	F	688	258.6726	258.5305	258.5305	258.5306	261.5432	291.0000
44	F	706	260.6370	260.5181	260.5181	260.5182	263.5425	291.2000
45	F	724	262.4771	262.3777	262.3777	262.3779	265.3792	291.3999
46	F	743	264.1938	264.1106	264.1106	264.1107	267.0620	291.5000
47	F	762	265.7838	265.7146	265.7146	265.7148	268.6001	291.7000
48	F	781	267.2505	267.1926	267.1926	267.1927	270.0010	291.8000
49	F	800	268.5957	268.5474	268.5474	268.5474	271.2717	292.0000
50	F	819	269.8225	269.7820	269.7820	269.7820	272.4192	293.0000
51	F	838	270.9336	270.8994	270.8994	270.8995	273.4497	295.0000
52	F	857	271.9316	271.9031	271.9031	271.9031	274.3852	295.0000
53	F	877	272.8198	272.7957	272.7957	272.7957	275.1719	295.0000
54	F	897	273.5974	273.5769	273.5769	273.5770	275.8743	295.0000
55	F	917	274.2676	274.2500	274.2500	274.2501	276.4788	295.0000
56	F	937	274.8328	274.8174	274.8174	274.8176	276.9829	295.0000
57	F	957	275.2952	275.2815	275.2815	275.2817	277.3955	295.0000
58	F	977	275.6563	275.6440	275.6440	275.6441	277.7173	295.0000
59	F	997	275.9175	275.9063	275.9063	275.9063	277.9502	295.0000
60	F	1017	276.0798	276.0691	276.0691	276.0693	278.0955	295.0000
61	F	1037	276.1508	276.1401	276.1401	276.1404	278.1609	295.0000

ITERATION CONVERGENCE; ERROR: 2.347 TOLERENCE:0.100

ITERATION: 5 TIME: 6.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	30	232.7854	232.7851	232.7851	232.7852	232.8842	251.0000
3	F	46	234.4292	234.4291	234.4291	234.4291	234.3881	252.0000
4	F	62	235.5632	235.5634	235.5634	235.5634	235.7845	253.0000
5	F	78	236.5447	236.5450	236.5450	236.5450	236.8092	254.0000
6	F	94	237.3949	237.3952	237.3952	237.3952	237.8794	256.0000
7	F	110	238.1332	238.1335	238.1335	238.1335	238.7088	259.0000
8	F	126	238.7733	238.7736	238.7738	238.7736	239.4180	262.0000
9	F	142	239.3255	239.3256	239.3256	239.3256	240.0222	265.0000
10	F	158	239.7971	239.7973	239.7973	239.7973	240.5316	268.0000
11	F	174	240.1943	240.1944	240.1944	240.1944	240.9538	271.0000
12	F	190	240.5217	240.5217	240.5217	240.5217	241.2944	274.0000
13	F	206	240.7831	240.7831	240.7831	240.7831	241.5582	277.0000
14	F	222	240.9817	240.9817	240.9817	240.9817	241.7486	278.0000
15	F	238	241.1203	241.1203	241.1203	241.1203	241.8888	280.0000
16	F	254	241.2012	241.2012	241.2012	241.2012	241.9208	281.0000
17	F	270	241.2267	241.2267	241.2267	241.2267	241.9076	282.0000
18	F	286	241.1985	241.1985	241.1985	241.1988	241.8311	281.2000
19	F	302	241.1187	241.1187	241.1187	241.1187	241.6938	281.7000
20	F	318	240.9888	240.9889	240.9889	240.9889	241.4973	282.0000
21	F	334	240.8107	240.8108	240.8108	240.8108	241.2444	283.0000
22	F	350	240.5861	240.5861	240.5861	240.5861	240.9375	284.0000
23	F	366	240.3165	240.3187	240.3187	240.3187	240.5793	286.0000
24	F	382	240.0048	240.0049	240.0049	240.0049	240.1740	286.0000
25	F	398	239.6873	239.6874	239.6874	239.6874	239.7436	287.0000
26	F	414	238.4128	238.4130	238.4130	238.4130	238.1715	290.8001

27	F	430	237.1651	237.1654	237.1654	237.1654	236.6686	291.2000
28	F	446	235.9305	235.9309	235.9309	235.9308	235.2503	289.2000
29	F	461	234.7582	234.7589	234.7589	234.7589	233.9749	291.8001
30	F	476	233.6425	233.6436	233.6436	233.6436	232.8405	291.8000
31	F	491	232.5513	232.5529	232.5529	232.5530	231.8271	288.5000
32	F	506	231.4853	231.4879	231.4879	231.4879	230.9583	290.8999
33	T	521	230.2830	230.2836	230.2836	230.2836	230.0000	275.0000
34	T	536	230.0000	230.0000	230.0000	230.0000	230.0000	230.0000
35	T	551	231.8860	231.8823	231.8860	231.8823	232.2186	290.1000
36	F	567	238.4302	239.4115	239.4115	239.4115	241.0833	290.2000
37	F	583	243.5148	243.5137	243.5137	243.5137	245.5653	290.3000
38	F	600	246.7675	246.7890	246.7890	246.7890	249.0291	290.3999
39	F	617	249.5117	249.5498	249.5498	249.5498	251.8796	290.5000
40	F	634	251.8993	251.9489	251.9489	251.9489	254.5061	290.6001
41	F	652	254.1706	254.2209	254.2209	254.2210	257.0354	290.7000
42	F	670	256.4146	256.4568	256.4568	256.4569	259.3774	290.8000
43	F	688	258.5305	258.5659	258.5659	258.5660	261.5432	291.0000
44	F	706	260.5181	260.5479	260.5479	260.5479	263.5425	291.2000
45	F	724	262.3777	262.4028	262.4028	262.4028	265.3792	291.3999
46	F	743	264.1108	264.1316	264.1316	264.1316	267.0820	291.5000
47	F	762	265.7146	265.7322	265.7322	265.7323	268.6001	291.7000
48	F	781	267.1826	267.2073	267.2073	267.2074	270.0010	291.8000
49	F	800	268.5474	268.5596	268.5596	268.5597	271.2717	292.0000
50	F	819	269.7820	269.7922	269.7922	269.7923	272.4192	293.0000
51	F	838	270.8894	270.9080	270.9080	270.9082	273.4497	295.0000
52	F	857	271.8031	271.9104	271.9104	271.9104	274.3652	295.0000
53	F	877	272.7957	272.8018	272.8018	272.8018	275.1719	295.0000
54	F	897	273.5789	273.5820	273.5820	273.5822	275.8743	295.0000
55	F	917	274.2500	274.2544	274.2544	274.2546	276.4758	295.0000
56	F	937	274.8174	274.8215	274.8215	274.8215	276.9829	295.0000
57	F	957	275.2815	275.2852	275.2852	275.2852	277.3955	295.0000
58	F	977	275.6440	275.6472	275.6472	275.6472	277.7173	295.0000
59	F	997	275.9063	275.9092	275.9092	275.9092	277.9502	295.0000
60	F	1017	276.0891	276.0718	276.0718	276.0720	278.0955	295.0000
61	F	1037	276.1401	276.1431	276.1431	276.1431	278.1609	295.0000

ITERATION CONVERGENCE; ERROR: 0.450 TOLERENCE:0.100

ITERATION: 6 TIME: 8.00

COL		NODEWT	Z(OLD)	Z(NEW)	HEADWT(OLD)	HEADWT(NEW)	PREV.HEADWT	ELVGRD
1	T	15	230.0000	230.0000	230.0000	230.0000	230.0000	250.0000
2	F	30	232.7851	232.7852	232.7852	232.7852	232.6842	251.0000
3	F	46	234.4281	234.4282	234.4282	234.4282	234.3881	252.0000
4	F	62	235.5834	235.5834	235.5834	235.5834	235.7845	253.0000
5	F	78	236.5450	236.5450	236.5450	236.5451	236.9092	254.0000
6	F	94	237.3952	237.3952	237.3952	237.3952	237.8794	256.0000
7	F	110	238.1335	238.1335	238.1335	238.1335	238.7086	259.0000
8	F	126	238.7736	238.7735	238.7735	238.7735	239.4180	262.0000
9	F	142	239.3256	239.3256	239.3256	239.3256	240.0222	265.0000
10	F	158	239.7973	239.7972	239.7972	239.7973	240.5316	268.0000
11	F	174	240.1944	240.1944	240.1944	240.1944	240.9538	271.0000
12	F	190	240.5217	240.5217	240.5217	240.5217	241.2844	274.0000
13	F	206	240.7831	240.7831	240.7831	240.7831	241.5582	277.0000
14	F	222	240.9817	240.9817	240.9817	240.9817	241.7486	279.0000
15	F	238	241.1203	241.1203	241.1203	241.1203	241.8686	280.0000
16	F	254	241.2012	241.2012	241.2012	241.2012	241.9208	281.0000
17	F	270	241.2267	241.2267	241.2267	241.2267	241.9076	282.0000
18	F	286	241.1985	241.1985	241.1985	241.1986	241.8311	281.2000
19	F	302	241.1187	241.1187	241.1187	241.1187	241.8936	281.7000
20	F	318	240.9889	240.9889	240.9889	240.9889	241.4973	282.0000
21	F	334	240.8108	240.8108	240.8108	240.8108	241.2444	283.0000
22	F	350	240.5861	240.5861	240.5861	240.5881	240.9375	284.0000
23	F	366	240.3167	240.3167	240.3167	240.3167	240.5793	288.0000
24	F	382	240.0049	240.0049	240.0049	240.0049	240.1740	286.0000
25	F	398	239.6574	239.6574	239.6574	239.6575	239.7436	287.0000
26	F	414	238.4130	238.4130	238.4130	238.4130	238.1715	290.6001
27	F	430	237.1654	237.1655	237.1655	237.1655	236.6686	291.2000
28	F	446	235.9309	235.9310	235.9310	235.9310	235.2503	289.2000
29	F	461	234.7589	234.7590	234.7590	234.7590	233.8749	291.8001
30	F	476	233.6436	233.6437	233.6437	233.6437	232.8405	291.8000
31	F	491	232.5529	232.5531	232.5531	232.5532	231.8271	289.5000
32	F	506	231.4879	231.4882	231.4882	231.4882	230.9593	290.8999
33	T	521	230.2836	230.2836	230.2836	230.2836	230.0000	275.0000
34	T	536	230.0000	230.0000	230.0000	230.0000	230.0000	230.0000
35	T	551	231.8823	231.8832	231.8823	231.8832	232.2166	290.1000
36	F	567	239.4115	239.4160	239.4160	239.4160	241.0833	290.2000
37	F	583	243.5137	243.5210	243.5210	243.5210	245.5853	290.3000
38	F	600	246.7890	246.7950	246.7950	246.7950	249.0291	290.3998
39	F	617	249.5498	249.5527	249.5527	249.5527	251.8796	290.5000
40	F	634	251.9489	251.9481	251.9481	251.9481	254.5061	290.6001
41	F	652	254.2209	254.2185	254.2185	254.2185	257.0354	290.7000
42	F	670	256.4568	256.4548	256.4548	256.4548	259.3774	290.8000
43	F	688	258.5659	258.5640	258.5640	258.5642	261.5432	291.0000
44	F	706	260.5479	260.5464	260.5464	260.5464	263.5425	291.2000
45	F	724	262.4028	262.4014	262.4014	262.4015	265.3792	291.3998
46	F	743	264.1316	264.1304	264.1304	264.1305	267.0820	291.5000
47	F	762	265.7322	265.7312	265.7312	265.7313	268.6001	291.7000
48	F	781	267.2073	267.2065	267.2065	267.2068	270.0010	291.8000
49	F	800	268.5596	268.5588	268.5588	268.5590	271.2717	292.0000
50	F	819	269.7922	269.7915	269.7915	269.7917	272.4192	293.0000
51	F	838	270.9080	270.9075	270.9075	270.9077	273.4497	295.0000
52	F	857	271.9104	271.9099	271.9099	271.9100	274.3652	295.0000
53	F	877	272.8018	272.8015	272.8015	272.8015	275.1719	295.0000
54	F	897	273.5820	273.5818	273.5818	273.5819	275.8743	295.0000
55	F	917	274.2544	274.2542	274.2542	274.2544	276.4758	295.0000
56	F	937	274.8215	274.8213	274.8213	274.8213	276.9829	295.0000
57	F	957	275.2852	275.2849	275.2849	275.2850	277.3955	295.0000
58	F	977	275.6472	275.6470	275.6470	275.6471	277.7173	295.0000
59	F	997	275.9092	275.9089	275.9089	275.9090	277.9502	295.0000
60	F	1017	276.0718	276.0718	276.0718	276.0719	278.0955	295.0000
61	F	1037	276.1431	276.1428	276.1428	276.1429	278.1609	295.0000

ITERATION CONVERGENCE; ERROR: 0.037 TOLERENCE:0.100

STEADY STATE CONVERGENCE; ERROR: 80.730 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 6.00 TIME STEP: 6

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.374	2	230.371	3	230.364	4	230.351	5	230.333	6	230.311	7	230.282	8	230.249
9	230.210	10	230.166	11	230.117	12	230.061	13	230.000	14	230.000	15	230.000	16	232.700
17	232.700	18	232.701	19	232.703	20	232.706	21	232.709	22	232.713	23	232.718	24	232.724
25	232.731	26	232.739	27	232.748	28	232.758	29	232.769	30	232.785	31	234.375	32	234.375
33	234.376	34	234.377	35	234.378	36	234.382	37	234.385	38	234.388	39	234.393	40	234.397
41	234.402	42	234.408	43	234.415	44	234.422	45	234.429	46	234.429	47	235.547	48	235.547
49	235.548	50	235.548	51	235.549	52	235.549	53	235.550	54	235.551	55	235.553	56	235.554
57	235.556	58	235.557	59	235.559	60	235.561	61	235.563	62	235.563	63	236.536	64	236.536
65	236.536	66	236.537	67	236.537	68	236.537	69	236.538	70	236.538	71	236.539	72	236.540
73	236.541	74	236.542	75	236.543	76	236.544	77	236.545	78	236.545	79	237.391	80	237.391
81	237.391	82	237.391	83	237.391	84	237.391	85	237.391	86	237.392	87	237.392	88	237.393
89	237.393	90	237.393	91	237.394	92	237.395	93	237.395	94	237.395	95	238.132	96	238.132
97	238.132	98	238.132	99	238.132	100	238.132	101	238.132	102	238.132	103	238.132	104	238.132
105	238.133	106	238.133	107	238.133	108	238.133	109	238.133	110	238.133	111	238.774	112	238.774
113	238.774	114	238.774	115	238.774	116	238.774	117	238.774	118	238.774	119	238.774	120	238.774
121	238.774	122	238.774	123	238.774	124	238.774	125	238.774	126	238.774	127	239.328	128	239.328
129	239.328	130	239.328	131	239.328	132	239.328	133	239.327	134	239.327	135	239.327	136	239.327
137	239.327	138	239.326	139	239.326	140	239.326	141	239.326	142	239.326	143	239.801	144	239.801
145	239.801	146	239.800	147	239.800	148	239.800	149	239.800	150	239.800	151	239.800	152	239.799
153	239.799	154	239.799	155	239.798	156	239.798	157	239.797	158	239.797	159	240.198	160	240.199
161	240.198	162	240.198	163	240.198	164	240.198	165	240.198	166	240.198	167	240.197	168	240.197
169	240.196	170	240.196	171	240.196	172	240.195	173	240.194	174	240.194	175	240.527	176	240.527
177	240.527	178	240.526	179	240.526	180	240.526	181	240.526	182	240.525	183	240.525	184	240.525
185	240.524	186	240.524	187	240.523	188	240.522	189	240.522	190	240.522	191	240.788	192	240.788
193	240.788	194	240.788	195	240.788	196	240.788	197	240.787	198	240.787	199	240.787	200	240.788
201	240.786	202	240.785	203	240.784	204	240.784	205	240.783	206	240.783	207	240.987	208	240.987
209	240.987	210	240.987	211	240.987	212	240.987	213	240.986	214	240.986	215	240.985	216	240.985
217	240.984	218	240.984	219	240.983	220	240.982	221	240.982	222	240.982	223	241.125	224	241.125
225	241.126	226	241.126	227	241.125	228	241.125	229	241.125	230	241.124	231	241.124	232	241.124
233	241.123	234	241.122	235	241.122	236	241.121	237	241.120	238	241.120	239	241.207	240	241.208
241	241.208	242	241.208	243	241.208	244	241.208	245	241.208	246	241.205	247	241.205	248	241.206
249	241.204	250	241.203	251	241.203	252	241.202	253	241.201	254	241.201	255	241.232	256	241.232
257	241.231	258	241.231	259	241.231	260	241.231	261	241.231	262	241.230	263	241.230	264	241.230
265	241.229	266	241.229	267	241.228	268	241.227	269	241.227	270	241.227	271	241.203	272	241.203
273	241.203	274	241.203	275	241.203	276	241.202	277	241.202	278	241.202	279	241.201	280	241.201
281	241.201	282	241.200	283	241.200	284	241.199	285	241.199	286	241.199	287	241.122	288	241.122
289	241.122	290	241.122	291	241.122	292	241.122	293	241.122	294	241.121	295	241.121	296	241.121
297	241.120	298	241.120	299	241.120	300	241.119	301	241.119	302	241.119	303	240.992	304	240.992
305	240.992	306	240.992	307	240.991	308	240.991	309	240.991	310	240.991	311	240.991	312	240.990
313	240.990	314	240.990	315	240.990	316	240.989	317	240.988	318	240.989	319	240.813	320	240.813
321	240.813	322	240.812	323	240.812	324	240.812	325	240.812	326	240.812	327	240.812	328	240.812
329	240.812	330	240.811	331	240.811	332	240.811	333	240.811	334	240.811	335	240.587	336	240.587
337	240.587	338	240.587	339	240.587	340	240.587	341	240.587	342	240.587	343	240.587	344	240.587
345	240.586	346	240.586	347	240.586	348	240.586	349	240.586	350	240.586	351	240.316	352	240.316
353	240.316	354	240.316	355	240.316	356	240.316	357	240.316	358	240.316	359	240.316	360	240.316
361	240.316	362	240.316	363	240.316	364	240.317	365	240.317	366	240.317	367	239.998	368	239.998
369	239.999	370	239.999	371	239.999	372	239.999	373	240.000	374	240.000	375	240.001	376	240.001
377	240.002	378	240.003	379	240.003	380	240.004	381	240.005	382	240.005	383	239.583	384	239.584
385	239.585	386	239.587	387	239.590	388	239.594	389	239.598	390	239.604	391	239.610	392	239.617
393	239.625	394	239.634	395	239.644	396	239.655	397	239.667	398	239.667	399	238.396	400	238.396
401	238.396	402	238.398	403	238.398	404	238.397	405	238.397	406	238.398	407	238.399	408	238.399
409	238.400	410	238.401	411	238.402	412	238.403	413	238.404	414	238.413	415	237.152	416	237.152
417	237.152	418	237.152	419	237.152	420	237.153	421	237.153	422	237.153	423	237.154	424	237.154
425	237.155	426	237.158	427	237.156	428	237.157	429	237.158	430	237.165	431	235.921	432	235.921

433	235.921	434	235.922	435	235.922	436	235.922	437	235.922	438	235.922	439	235.923	440	235.923
441	235.923	442	235.924	443	235.924	444	235.925	445	235.925	446	235.931	447	234.752	448	234.752
449	234.752	450	234.752	451	234.753	452	234.753	453	234.753	454	234.754	455	234.754	456	234.755
457	234.755	458	234.756	459	234.757	460	234.758	461	234.759	462	233.633	463	233.633	464	233.633
465	233.634	466	233.634	467	233.635	468	233.635	469	233.636	470	233.637	471	233.637	472	233.638
473	233.639	474	233.641	475	233.642	476	233.644	477	232.544	478	232.544	479	232.544	480	232.544
481	232.544	482	232.544	483	232.545	484	232.546	485	232.546	486	232.547	487	232.548	488	232.549
489	232.550	490	232.551	491	232.553	492	231.461	493	231.461	494	231.461	495	231.461	496	231.461
497	231.461	498	231.461	499	231.462	500	231.462	501	231.463	502	231.464	503	231.465	504	231.466
505	231.467	506	231.468	507	230.389	508	230.388	509	230.387	510	230.384	511	230.381	512	230.376
513	230.371	514	230.365	515	230.357	516	230.349	517	230.340	518	230.330	518	230.319	520	230.307
521	230.294	522	230.245	523	230.244	524	230.240	525	230.234	526	230.225	527	230.213	528	230.200
529	230.183	530	230.165	531	230.143	532	230.118	533	230.093	534	230.085	535	230.034	536	230.000
537	232.406	538	232.404	539	232.397	540	232.384	541	232.367	542	232.344	543	232.316	544	232.283
545	232.245	546	232.201	547	232.151	548	232.096	549	232.038	550	231.989	551	231.883	552	239.150
553	239.152	554	239.157	555	239.164	556	239.173	557	239.185	558	239.199	559	239.218	560	239.236
561	239.258	562	239.283	563	239.311	564	239.342	565	239.376	566	239.414	567	239.416	568	243.445
569	243.446	570	243.448	571	243.450	572	243.453	573	243.456	574	243.461	575	243.466	576	243.471
577	243.478	578	243.485	579	243.493	580	243.501	581	243.510	582	243.520	583	243.521	584	246.768
585	246.768	586	246.769	587	246.770	588	246.771	589	246.772	590	246.774	591	246.775	592	246.777
593	246.780	594	246.782	595	246.785	596	246.788	597	246.791	598	246.794	599	246.794	600	246.795
601	249.547	602	249.547	603	249.548	604	249.548	605	249.548	606	249.549	607	249.549	608	249.549
609	249.550	610	249.550	611	249.550	612	249.551	613	249.551	614	249.551	615	249.552	616	249.552
617	249.553	618	251.970	619	251.970	620	251.970	621	251.970	622	251.969	623	251.958	624	251.957
625	251.955	626	251.954	627	251.952	628	251.950	629	251.957	630	251.954	631	251.951	632	251.948
633	251.948	634	251.948	635	254.253	636	254.253	637	254.252	638	254.252	639	254.251	640	254.249
641	254.247	642	254.245	643	254.242	644	254.239	645	254.236	646	254.232	647	254.227	648	254.223
649	254.217	650	254.217	651	254.217	652	254.218	653	256.483	654	256.483	655	256.482	656	256.482
657	256.481	658	256.479	659	256.478	660	256.476	661	256.474	662	256.471	663	256.468	664	256.465
665	256.461	666	256.457	667	256.453	668	256.453	669	256.453	670	256.455	671	258.592	672	258.592
673	258.592	674	258.591	675	258.590	676	258.589	677	258.587	678	258.585	679	258.583	680	258.580
681	258.577	682	258.574	683	258.570	684	258.568	685	258.562	686	258.562	687	258.562	688	258.564
689	260.574	690	260.574	691	260.574	692	260.573	693	260.572	694	260.571	695	260.568	696	260.567
697	260.565	698	260.562	699	260.559	700	260.556	701	260.552	702	260.548	703	260.543	704	260.543
705	260.543	706	260.546	707	282.428	708	282.428	709	282.428	710	282.427	711	282.426	712	282.425
713	282.423	714	282.421	715	282.419	716	282.416	717	282.413	718	282.410	719	282.406	720	282.402
721	282.398	722	282.398	723	282.398	724	282.401	725	264.156	726	264.156	727	264.156	728	264.155
729	264.154	730	264.153	731	264.151	732	264.149	733	264.147	734	264.144	735	264.141	736	264.138
737	264.135	738	264.131	739	264.126	740	264.126	741	264.126	742	264.128	743	264.131	744	265.756
745	265.758	746	265.756	747	265.755	748	265.754	749	265.753	750	265.751	751	265.748	752	265.747
753	265.744	754	265.741	755	265.738	756	265.735	757	265.731	758	265.727	759	265.727	760	265.727
761	265.730	762	265.731	763	267.230	764	267.230	765	267.230	766	267.228	767	267.228	768	267.227
769	267.225	770	267.224	771	267.221	772	267.219	773	267.216	774	267.213	775	267.209	776	267.206
777	267.202	778	267.202	779	267.202	780	267.205	781	267.207	782	268.582	783	268.582	784	268.581
785	268.581	786	268.580	787	268.578	788	268.577	789	268.575	790	268.573	791	268.571	792	268.568
793	268.565	794	268.561	795	268.558	796	268.554	797	268.554	798	268.554	799	268.557	800	268.559
801	269.813	802	269.813	803	269.813	804	268.812	805	269.811	806	269.810	807	269.809	808	269.807
809	269.805	810	269.802	811	269.800	812	269.797	813	269.794	814	269.790	815	269.786	816	269.786
817	269.786	818	269.789	819	269.792	820	270.928	821	270.928	822	270.928	823	270.927	824	270.926
825	270.925	826	270.924	827	270.922	828	270.920	829	270.918	830	270.915	831	270.912	832	270.909
833	270.906	834	270.902	835	270.902	836	270.902	837	270.905	838	270.908	839	271.929	840	271.929
841	271.929	842	271.928	843	271.927	844	271.928	845	271.925	846	271.923	847	271.921	848	271.919
849	271.917	850	271.914	851	271.911	852	271.908	853	271.904	854	271.904	855	271.904	856	271.907
857	271.910	858	272.818	859	272.819	860	272.819	861	272.818	862	272.817	863	272.816	864	272.815
865	272.813	866	272.811	867	272.809	868	272.807	869	272.804	870	272.802	871	272.798	872	272.795
873	272.795	874	272.795	875	272.798	876	272.801	877	272.802	878	273.598	879	273.598	880	273.598
881	273.598	882	273.597	883	273.595	884	273.594	885	273.593	886	273.591	887	273.589	888	273.587
889	273.584	890	273.582	891	273.579	892	273.575	893	273.575	894	273.575	895	273.578	896	273.581
897	273.582	898	274.270	899	274.270	900	274.270	901	274.269	902	274.268	903	274.267	904	274.266
905	274.265	906	274.263	907	274.261	908	274.259	909	274.258	910	274.254	911	274.251	912	274.248

913	274.248	914	274.248	915	274.251	916	274.253	917	274.254	918	274.836	919	274.836	920	274.[illegible]
921	274.835	922	274.835	923	274.834	924	274.832	925	274.831	926	274.829	927	274.827	928	274.[illegible]
929	274.823	930	274.820	931	274.818	932	274.815	933	274.814	934	274.814	935	274.817	936	274.[illegible]
937	274.821	938	275.298	939	275.299	940	275.299	941	275.298	942	275.298	943	275.297	944	275.[illegible]
945	275.294	946	275.293	947	275.291	948	275.289	949	275.286	950	275.284	951	275.281	952	275.[illegible]
953	275.278	954	275.278	955	275.281	958	275.284	957	275.285	958	275.661	959	275.661	960	275.661
961	275.660	962	275.659	963	275.659	964	275.657	965	275.656	966	275.654	967	275.653	968	275.650
969	275.648	970	275.646	971	275.643	972	275.640	973	275.640	974	275.640	975	275.643	976	275.[illegible]
977	275.647	978	275.823	979	275.923	980	275.922	981	275.922	982	275.921	983	275.920	984	275.[illegible]
985	275.918	986	275.916	987	275.914	988	275.912	989	275.910	990	275.908	991	275.905	992	275.[illegible]
993	275.902	994	275.902	995	275.905	996	275.908	997	275.909	998	276.085	999	276.085	1000	276.[illegible]
1001	276.084	1002	276.084	1003	276.083	1004	276.082	1005	276.080	1006	276.079	1007	276.077	1008	276.[illegible]
1009	276.073	1010	276.070	1011	276.068	1012	276.065	1013	276.065	1014	276.065	1015	276.068	1018	276.070
1017	276.072	1018	276.146	1019	276.146	1020	276.146	1021	276.146	1022	276.145	1023	276.144	1024	276.143
1025	276.142	1026	276.141	1027	276.140	1028	276.138	1029	276.136	1030	276.134	1031	276.132	1032	276.[illegible]
1033	276.129	1034	276.129	1035	276.135	1036	276.140	1037	276.143						

NODES ALONG THE WATER TABLE

15	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254	270	288	302	318	334	350	366	382	398
414	430	446	461	476	491	506	521	536	551	567	583	600	617	634	652	670	688	706	724	743	762	781	800	818
838	857	877	897	917	937	957	977	997	1017	1037														

6.5.3 Simulation of the Post-mining Flow System Recovery

6.5.3.1 Input Data.

```
EXAMPLE DATA SET: SIMULATION OF THE POST-MINING FLOW SYSTEM;   NO MASS TRANSPORT
FFFFTTTFFTFTFFFFFFFFFFFF
   23   61   35    5    2    1 1275 2800   22   18    3    1   10
   300.00       10.0        1.0       230.       0.000       .100       1.50
     250.       251.       252.       253.       254.       256.       259.       262.
     265.       268.       271.       274.       277.       279.       280.       281.
     282.      281.2      281.7       282.       283.       284.       286.       288.
     287.       288.      289.1      289.2      289.3      289.4      289.5      289.7
    289.8      290.0      290.1      290.2      290.3      290.4      290.5      290.6
    290.7      290.8      291.0      291.2      291.4      291.5      291.7      291.8
     292.       293.       295.       295        295.       295.       295.       295.
     295.       295        295.       295.       295.
FTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
    230.0      230.0      230.0      230.0      230.0      230.0      230.0      230.0
    230.0      230.0      230.0      230.0      230.0      230.0      230.0      230.0
    230.0      230.0      230.0      230.0      230.0      230.0      230.0      230.0
    230.0      230 0      230 0      230.0      230.0      230.0      230.0      230.0
    230.0      230.0      230 0      230.0      230.0      230.0      230.0      230.0
    230.0      230.0      230 0      230.0      230.0      230.0      230.0      230.0
    230.0      230.0      230.0      230.0      230.0      230.0      230.0      230.0
    230.0      230 c      230.0      230.0      230.0
     90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
     90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
     90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
     90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
     90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
     90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
     90.0       90 0       90.0       90.0       90.0       90.0       90.0       90.0
     90.0       90.0       90 0       90.0       90 0
    1   60
  2   .0400   3   .0400   4   .0400   5   .0400   6    0400   7   .0400   8   .0400   9   .0400
 10   .0400  11   .0400  12   .0400  13   .0400  14   .0400  15   .0400  16   .0400  17   .0400
 18   .0400  19   .0400  20   .0400  21   .0400  22    0400  23   .0400  24   .0400  25   .0400
 26   .0400  27   .0400  28   .0400  29   .0400  30    0400  31   .0400  32   .0400  33   .0400
 34   .0400  35   .0400  36   .0400  37   .0400  38   .0400  39   .0400  40   .0800  41   .0800
 42   .0800  43   .0800  44   .0800  45   .0800  46   .0800  47   .0800  48   .0800  49   .0800
 50   .0800  51   .0800  52   .0800  53   .0800  54   .0800  55   .0800  56   .0800  57   .0800
 58   .0800  59   .0800  60   .0800  61   .1600
  1  16    230.   1  14    230.   1  13    230.
     1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1
     2    3.16E+2    3.16E+2    0.50E-3    0.10E+0    0.00E+1    0.00E+1    0.00E+1
     3    94.8E+2    94.8E+2    0.50E-3    0.10E+0    0.00E+1    0.00E+1    0.00E+1
1111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111122222222222
1111111111111111111222222222222222222222222222222222222222222
1111111112222222222222222222222222222222222222222222222222222
1111111222222222222222222222222222222222222222222222222222222
1122222222222222222222222222222222222222222222222222222222222
3333333333333333333333333333333333333333333333333333333333333
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   33   35    0    0    0    0    0    0    0    0    0    0    0    0    0    0
    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
    0    0    0    0    0    0    0    0
     250.       251.       252.       253.       254.       256.       259.       262.
     265.       268.       271.       274.       277.       279.       280.       281.
     282.      281.2      281.7       282.       283.       284.       286.       288.
     287.       230.       230.       230.       230        230.       230.       230.
     230.       230.      290 1      290.2      290.3      290.4      290.5      290.6
    290.7      290.8      291.0      291.2      291.4      291.5      291.7      291.8
     292.       293        295.       295        295        295.       295.       295.
     295        295.       295.       295        295.
     1    0 00E+1    0.00E+1    0.00E+1    0 00E+1    0.00E+1    0.00E+1    0.00E+1
     2    3.16E+2    3 16E+2    0.50E-3    0.10E+0    0.00E+1    0.00E+1    0.00E+1
     3    94.8E+2    94.8E+2    0.50E-3    0.10E+0    0.00E+1    0.00E+1    0.00E+1
     4    3.16E+1    3.16E+1    0 50E-2    0.10E+0    0 00E+1    0.00E+1    0.00E+1
1111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111122222222222
1111111111111111111222244444444444222222222222222222222222222
1111111112222222222222244444444444222222222222222222222222222
1111111222222222222222244444444444222222222222222222222222222
1122222222222222222222244444444444222222222222222222222222222
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     250.       251        252.       253        254.       256.       259.       262.
     265        268.       271.       274.       277        279.       280.       281.
     282.      281.2      281.7      282.        283        284.       286.       288.
     287.      290.6      291.2      291.2      291.6      291.8      289.5      290.9
    275.0      280.0      290.1      290 2      290.3      290.4      290.5      290.6
    290.7      290.8      291.0      291 2      291.4      291.5      291.7      291.8
     292.       293.       295.       295.       295        295.       295.       295.
     295.       295        295.       295        295.
End of file
```

6.5.3.2 Printed Output.

****

EXAMPLE DATA SET: SIMULATION OF THE POST-MINING FLOW SYSTEM; NO MASS TRANSPORT

****

OUTPUT LISTINGS AND PROBLEM CONTROL

```
OPTION( 1)= F :PRINT THE NODE CO-ORDINATES
OPTION( 2)= F :PRINT THE ELEMENT INCIDENCES
OPTION( 3)= F :PRINT THE ELEMENT HYDRAULIC CONDUCTIVITIES AND STORATIVITIES
OPTION( 4)= F :PLOT THE FINITE ELEMENT GRID
OPTION( 5)= T :CALCULATE THE HEAD DISTRIBUTIONS
OPTION( 6)= T :PRINT THE HEAD DISTRIBUTIONS
OPTION( 7)= T :PLOT ALL HEAD DISTRIBUTIONS
OPTION( 8)= F :PLOT ONLY THE LAST HEAD VALUES
OPTION( 9)= F :PRINT THE WATER TABLE CONVERGENCE INFORMATION AT EACH ITERATION
OPTION(10)= T :INPUT PREVIOUSLY CALCULATED HEADS TO CONTINUE AN EARLIER RUN
OPTION(11)= F :OUTPUT THE LAST HEAD DISTRIBUTION FOR USE AS INPUT IN A LATER RUN
OPTION(12)= T :SIMULATE MINING AND RECLAMATION
OPTION(13)= F :CALCULATE THE HYDRAULIC GRADIENT AND THE DIRECTION OF THE GRADIENT FIELD
OPTION(14)= F :PRINT THE HYDRAULIC GRADIENT AND ITS ITS DIRECTION FIELDS
OPTION(15)= F :PLOT THE HYDRAULIC GRADIENT AND ITS DIRECTION
OPTION(16)= F :CALCULATE THE VELOCITY FIELD
OPTION(17)= F :PRINT THE VELOCITY FIELD
OPTION(18)= F :RUN THE MASS TRANSPORT ROUTINE
OPTION(19)= F :PRINT THE CONCENTRATION AND PARTICLE DISTRIBUTIONS
OPTION(20)= F :PLOT THE PARTICLE CONCENTRATION
OPTION(21)= F :PLOT THE PARTICLE DISTRIBUTION
OPTION(22)= F :OUTPUT THE LAST PARTICLE DISTRIBUTION TO CONTINUE THE RUN
OPTION(23)= F :INPUT THE LAST PARTICLE DISTRIBUTION TO CONTINUE A PREVIOUS RUN
OPTION(24)= F :PRINT THE MASS, X AND Z COORDINATES OF THE REFERENCE PARTICLES
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CROSS SECTION AND SIMULATION PARAMETERS

```
      23 :NUMBER OF ROWS
      61 :NUMBER OF COLUMNS
       3 :NUMBER OF GEOLOGICAL UNITS
       1 :NUMBER OF SPOIL UNITS
      18 :ESTIMATED NUMBER OF CONSTANT HEAD NODES
       3 :ACTUAL NUMBER OF CONSTANT HEAD NODES ENTERED
    1275 :ESTIMATED NUMBER OF NODES
    2600 :ESTIMATED NUMBER OF ELEMENTS
      22 :ESTIMATED BANDWIDTH
       1 :NUMBER OF PERIODS OF RECHARGE

 300.000 :HORIZONTAL NODE SPACING
  10.000 :VERTICAL NODE SPACING
   1.000 :TIME STEP
 230.000 :INITIAL HEAD VALUE
   0.0   :SPECIFIC YIELD
   0.100 :WATER TABLE AND STEADY STATE CONVERGENCE TOLERANCE
      35 :NUMBER OF TIME STEPS
   1.500 :TIME STEP INCREMENT
      10 :MAXIMUM NUMBER OF ITERATIONS PER TIME STEP
       5 :NUMBER OF TIME STEPS BETWEEN LISTINGS
```

GROUND SURFACE PARAMETERS

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1 F	250.00	2 T	251.00	3 T	252.00	4 T	253.00	5 T	254.00	6 T	256.00	7 T	259.00	8 T	262.00
9 T	265.00	10 T	268.00	11 T	271.00	12 T	274.00	13 T	277.00	14 T	279.00	15 T	280.00	16 T	281.00
17 T	282.00	18 T	281.20	19 T	281.70	20 T	282.00	21 T	283.00	22 T	284.00	23 T	286.00	24 T	286.00
25 T	287.00	26 T	288.00	27 T	289.10	28 T	289.20	29 T	288.30	30 T	289.40	31 T	289.50	32 T	289.70
33 T	289.80	34 T	290.00	35 T	290.10	36 T	290.20	37 T	290.30	38 T	290.40	39 T	290.50	40 T	290.80
41 T	290.70	42 T	290.80	43 T	291.00	44 T	291.20	45 T	291.40	46 T	291.50	47 T	291.70	48 T	291.80
49 T	292.00	50 T	293.00	51 T	295.00	52 T	295.00	53 T	295.00	54 T	295.00	55 T	295.00	56 T	295.00
57 T	295.00	58 T	295.00	59 T	295.00	60 T	295.00	61 T	295.00						

WATER TABLE ELEVATION

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	230.00	2	230.00	3	230.00	4	230.00	5	230.00	6	230.00	7	230.00	8	230.00
9	230.00	10	230.00	11	230.00	12	230.00	13	230.00	14	230.00	15	230.00	16	230.00
17	230.00	18	230.00	19	230.00	20	230.00	21	230.00	22	230.00	23	230.00	24	230.00
25	230.00	26	230.00	27	230.00	28	230.00	29	230.00	30	230.00	31	230.00	32	230.00
33	230.00	34	230.00	35	230.00	36	230.00	37	230.00	38	230.00	39	230.00	40	230.00
41	230.00	42	230.00	43	230.00	44	230.00	45	230.00	46	230.00	47	230.00	48	230.00
49	230.00	50	230.00	51	230.00	52	230.00	53	230.00	54	230.00	55	230.00	56	230.00
57	230.00	58	230.00	59	230.00	60	230.00	61	230.00						

BOTTOM BOUNDARY ELEVATION

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	90.00	2	90.00	3	90.00	4	90.00	5	90.00	6	90.00	7	90.00	8	90.00
9	90.00	10	90.00	11	90.00	12	90.00	13	90.00	14	90.00	15	90.00	16	90.00
17	90.00	18	90.00	19	90.00	20	90.00	21	90.00	22	90.00	23	90.00	24	90.00
25	90.00	26	90.00	27	90.00	28	90.00	29	90.00	30	90.00	31	90.00	32	90.00
33	90.00	34	90.00	35	90.00	36	90.00	37	90.00	38	90.00	39	90.00	40	90.00
41	90.00	42	90.00	43	90.00	44	90.00	45	90.00	46	90.00	47	90.00	48	90.00
49	90.00	50	90.00	51	90.00	52	90.00	53	90.00	54	90.00	55	90.00	56	90.00
57	90.00	58	90.00	59	90.00	60	90.00	61	90.00						

RECHARGE VALUES (+VE=RECHARGE; -VE=EVAPORATION)

CHANGE AT TIME STEP: 1

COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE
2	0.04	3	0.04	4	0.04	5	0.04	6	0.04	7	0.04	8	0.04	9	0.04
10	0.04	11	0.04	12	0.04	13	0.04	14	0.04	15	0.04	16	0.04	17	0.04
18	0.04	19	0.04	20	0.04	21	0.04	22	0.04	23	0.04	24	0.04	25	0.04
26	0.04	27	0.04	28	0.04	29	0.04	30	0.04	31	0.04	32	0.04	33	0.04
34	0.04	35	0.04	36	0.04	37	0.04	38	0.04	39	0.04	40	0.08	41	0.08
42	0.08	43	0.08	44	0.08	45	0.08	46	0.08	47	0.08	48	0.08	49	0.08
50	0.08	51	0.08	52	0.08	53	0.08	54	0.08	55	0.08	56	0.08	57	0.08
58	0.08	59	0.08	60	0.08	61	0.16								

CONSTANT HEAD VALUES

COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD
1	15	230.00	1	14	230.00	1	13	230.00									

HYDROGEOLOGICAL PARAMETERS OF THE GEOLOGICAL UNITS

UNIT	Kh	Kv	STOR.	POROSITY	DISPER.	CEC	BULK DEN.
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.3160E+03	0.3160E+03	0.5000E-03	0.1000E+00	0.0	0.0	0.0
3	0.9480E+04	0.9480E+04	0.5000E-03	0.1000E+00	0.0	0.0	0.0

MAP OF THE GEOLOGICAL UNITS

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11111111111111111111111111111111111111111111111111111111111111111111111
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SIDE BOUNDARIES OF THE MINE DURING MINING (COL.)

PREVIOUS BOUNDARIES: 33 35
FUTURE BOUNDARIES:

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GROUND ELEVATION DURING MINING

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	250.00	2	251.00	3	252.00	4	253.00	5	254.00	6	255.00	7	259.00	8	262.00
9	265.00	10	268.00	11	271.00	12	274.00	13	277.00	14	279.00	15	280.00	16	281.00
17	282.00	18	281.20	19	281.70	20	282.00	21	283.00	22	284.00	23	286.00	24	285.00
25	287.00	26	230.00	27	230.00	28	230.00	29	230.00	30	230.00	31	230.00	32	230.00
33	230.00	34	230.00	35	290.10	36	290.20	37	290.30	38	290.40	39	290.50	40	290.60
41	290.70	42	290.80	43	291.00	44	291.20	45	291.40	46	291.50	47	291.70	48	291.80
49	292.00	50	293.00	51	295.00	52	295.00	53	295.00	54	295.00	55	295.00	56	295.00
57	295.00	58	295.00	59	295.00	60	295.00	61	295.00						

HYDROGEOLOGICAL PARAMETERS OF THE SPOIL

UNIT	Kh	Kv	STOR.	POROSITY	DISPER.	CEC	BULK DEN.
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.3160E+03	0.3160E+03	0.5000E-03	0.1000E+00	0.0	0.0	0.0
3	0.9480E+04	0.9480E+04	0.5000E-03	0.1000E+00	0.0	0.0	0.0
4	0.3160E+02	0.3160E+02	0.5000E-02	0.1000E+00	0.0	0.0	0.0

MAP OF THE SPOIL AND GEOLOGICAL UNITS

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11111111111111111111222224444444444422222222222222222222222222222
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GROUND ELEVATION FOLLOWING RECLAMATION

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	250.00	2	251.00	3	252.00	4	253.00	5	254.00	6	255.00	7	259.00	8	262.00
9	265.00	10	268.00	11	271.00	12	274.00	13	277.00	14	279.00	15	280.00	16	281.00
17	282.00	18	281.20	19	281.70	20	282.00	21	283.00	22	284.00	23	286.00	24	285.00
25	287.00	26	290.80	27	291.20	28	289.20	29	291.80	30	291.80	31	289.50	32	290.90
33	275.00	34	280.00	35	290.10	36	290.20	37	290.30	38	290.40	39	290.50	40	290.60
41	290.70	42	290.80	43	291.00	44	291.20	45	291.40	46	291.50	47	291.70	48	291.80
49	292.00	50	293.00	51	295.00	52	295.00	53	295.00	54	295.00	55	295.00	56	295.00
57	295.00	58	295.00	59	295.00	60	295.00	61	295.00						

STEADY STATE CONVERGENCE; ERROR:182.072 TOLERENCE:0.100

STEADY STATE CONVERGENCE; ERROR:105.344 TOLERENCE:0.100

STEADY STATE CONVERGENCE; ERROR: 89.567 TOLERENCE:0.100

STEADY STATE CONVERGENCE; ERROR:104.012 TOLERENCE:0.100

STEADY STATE CONVERGENCE; ERROR:146.839 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 25.78 TIME STEP: 5

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.392	2	230.389	3	230.381	4	230.368	5	230.349	6	230.325	7	230.296	8	230.261
9	230.220	10	230.174	11	230.122	12	230.064	13	230.000	14	230.000	15	230.000	16	232.774
17	232.774	18	232.778	19	232.777	20	232.780	21	232.784	22	232.788	23	232.793	24	232.799
25	232.807	26	232.815	27	232.824	28	232.835	29	232.846	30	232.863	31	234.481	32	234.482
33	234.482	34	234.484	35	234.486	36	234.488	37	234.492	38	234.495	39	234.500	40	234.505
41	234.510	42	234.516	43	234.523	44	234.530	45	234.538	46	234.538	47	235.680	48	235.680
49	235.680	50	235.680	51	235.681	52	235.682	53	235.683	54	235.684	55	235.686	56	235.688
57	235.690	58	235.692	59	235.694	60	235.696	61	235.699	62	235.699	63	236.709	64	236.709
65	236.710	66	236.710	67	236.710	68	236.711	69	236.712	70	236.713	71	236.714	72	236.715
73	236.716	74	236.716	75	236.718	76	236.721	77	236.723	78	236.723	79	237.627	80	237.627
81	237.627	82	237.627	83	237.628	84	237.628	85	237.629	86	237.630	87	237.631	88	237.632
89	237.633	90	237.634	91	237.635	92	237.637	93	237.638	94	237.638	95	238.458	96	238.458
97	238.458	98	238.458	99	238.458	100	238.459	101	238.460	102	238.460	103	238.461	104	238.462
105	238.463	106	238.464	107	238.465	108	238.466	109	238.467	110	238.468	111	238.218	112	238.218
113	238.218	114	238.218	115	238.219	116	238.219	117	238.220	118	238.220	119	238.221	120	238.222
121	238.222	122	238.223	123	238.224	124	238.225	125	238.227	126	238.227	127	238.919	128	238.919
129	238.920	130	238.920	131	238.920	132	238.920	133	238.921	134	238.921	135	238.922	136	238.923
137	238.923	138	238.924	139	238.925	140	238.926	141	238.927	142	238.927	143	240.571	144	240.571
145	240.571	146	240.571	147	240.571	148	240.572	149	240.572	150	240.572	151	240.573	152	240.574
153	240.574	154	240.575	155	240.576	156	240.577	157	240.578	158	240.578	159	241.178	160	241.178
161	241.178	162	241.179	163	241.179	164	241.179	165	241.180	166	241.180	167	241.181	168	241.181
169	241.182	170	241.183	171	241.183	172	241.184	173	241.185	174	241.185	175	241.748	176	241.748
177	241.748	178	241.748	179	241.749	180	241.749	181	241.749	182	241.750	183	241.750	184	241.751
185	241.751	186	241.752	187	241.753	188	241.754	189	241.755	190	241.755	191	242.284	192	242.284
193	242.284	194	242.284	195	242.284	196	242.285	197	242.285	198	242.285	199	242.286	200	242.286
201	242.287	202	242.288	203	242.288	204	242.289	205	242.290	206	242.290	207	242.789	208	242.789
209	242.789	210	242.790	211	242.790	212	242.790	213	242.791	214	242.791	215	242.791	216	242.792
217	242.793	218	242.793	219	242.794	220	242.795	221	242.796	222	242.796	223	243.268	224	243.268
225	243.268	226	243.268	227	243.268	228	243.268	229	243.269	230	243.269	231	243.270	232	243.270
233	243.271	234	243.271	235	243.272	236	243.273	237	243.274	238	243.274	239	243.721	240	243.721
241	243.721	242	243.722	243	243.722	244	243.722	245	243.722	246	243.723	247	243.723	248	243.724
249	243.724	250	243.725	251	243.726	252	243.726	253	243.727	254	243.727	255	244.152	256	244.152
257	244.152	258	244.153	259	244.153	260	244.153	261	244.153	262	244.154	263	244.154	264	244.155
265	244.155	266	244.156	267	244.157	268	244.157	269	244.158	270	244.158	271	244.563	272	244.563
273	244.563	274	244.563	275	244.563	276	244.564	277	244.564	278	244.564	279	244.565	280	244.565
281	244.566	282	244.567	283	244.567	284	244.568	285	244.569	286	244.569	287	244.569	288	244.955
289	244.955	290	244.955	291	244.955	292	244.955	293	244.955	294	244.956	295	244.956	296	244.957
297	244.957	298	244.958	299	244.958	300	244.959	301	244.960	302	244.961	303	244.961	304	244.961
305	245.330	306	245.330	307	245.330	308	245.330	309	245.330	310	245.330	311	245.331	312	245.331
313	245.331	314	245.332	315	245.333	316	245.333	317	245.334	318	245.335	319	245.335	320	245.335
321	245.336	322	245.688	323	245.688	324	245.688	325	245.689	326	245.689	327	245.689	328	245.689
329	245.690	330	245.690	331	245.691	332	245.691	333	245.692	334	245.693	335	245.693	336	245.694
337	245.694	338	245.694	339	246.032	340	246.032	341	246.032	342	246.033	343	246.033	344	246.033
345	246.033	346	246.034	347	246.034	348	246.035	349	246.035	350	246.036	351	246.037	352	246.037
353	246.038	354	246.038	355	246.038	356	246.363	357	246.363	358	246.363	359	246.363	360	246.363
361	246.364	362	246.364	363	246.364	364	246.365	365	246.365	366	246.366	367	246.366	368	246.367
369	246.368	370	246.368	371	246.369	372	246.369	373	246.688	374	246.688	375	246.685	376	246.686
377	246.686	378	246.686	379	246.686	380	246.686	381	246.686	382	246.686	383	246.685	384	246.685
385	246.685	386	246.685	387	246.685	388	246.685	389	246.685	390	247.079	391	247.079	392	247.077
393	247.075	394	247.071	395	247.067	396	247.061	397	247.054	398	247.047	399	247.038	400	247.028
401	247.017	402	247.005	403	248.991	404	248.977	405	248.976	406	248.976	407	248.430	408	248.430
409	248.430	410	248.430	411	248.430	412	248.430	413	248.430	414	248.430	415	248.430	416	248.430
417	248.430	418	248.430	419	248.430	420	248.431	421	248.431	422	248.438	423	248.449	424	249.838
425	249.838	426	249.838	427	249.838	428	249.838	429	249.838	430	249.838	431	249.838	432	249.838

433	249.839	434	249.839	435	249.839	436	249.839	437	249.840	438	249.840	439	249.847	440	249.8
441	251.286	442	251.286	443	251.286	444	251.286	445	251.286	446	251.286	447	251.286	448	251.2
449	251.286	450	251.287	451	251.287	452	251.287	453	251.287	454	251.287	455	251.287	456	251.2
457	251.305	458	252.789	459	252.789	460	252.789	461	252.789	462	252.789	463	252.789	464	252.788
465	252.789	466	252.789	467	252.789	468	252.789	469	252.789	470	252.789	471	252.789	472	252.788
473	252.793	474	252.808	475	254.359	476	254.359	477	254.359	478	254.359	479	254.359	480	254.358
481	254.359	482	254.359	483	254.359	484	254.359	485	254.359	486	254.359	487	254.359	488	254.3
489	254.358	490	254.362	491	254.378	492	256.010	493	256.010	494	256.010	495	256.010	496	256.0
497	256.010	498	256.010	499	256.009	500	256.009	501	256.008	502	256.008	503	256.008	504	256.0
505	256.007	506	256.007	507	256.005	508	256.019	509	257.772	510	257.772	511	257.772	512	257.7
513	257.772	514	257.772	515	257.771	516	257.771	517	257.771	518	257.771	519	257.770	520	257.770
521	257.769	522	257.769	523	257.768	524	257.767	525	257.774	526	257.784	527	259.848	528	259.848
529	259.848	530	259.848	531	259.848	532	259.848	533	259.847	534	259.847	535	259.847	536	259.846
537	259.846	538	259.845	539	259.845	540	259.844	541	259.843	542	259.840	543	259.845	544	259.8
545	261.849	546	261.849	547	261.849	548	261.848	549	261.849	550	261.849	551	261.849	552	261.8
553	261.849	554	261.849	555	261.848	556	261.848	557	261.848	558	261.847	559	261.847	560	261.8
561	261.848	562	261.862	563	263.714	564	263.715	565	263.718	566	263.722	567	263.728	568	263.7
569	263.746	570	263.758	571	263.771	572	263.786	573	263.803	574	263.822	575	263.844	576	263.867
577	263.892	578	263.893	579	263.894	580	263.897	581	264.267	582	264.267	583	264.267	584	264.268
585	264.269	586	264.270	587	264.271	588	264.272	589	264.274	590	264.275	591	264.277	592	264.278
593	264.281	594	264.284	595	264.286	596	264.288	597	264.286	598	264.288	599	264.889	600	264.8
601	264.890	602	264.890	603	264.890	604	264.890	605	264.891	606	264.891	607	264.892	608	264.8
609	264.894	610	264.894	611	264.895	612	264.898	613	264.898	614	264.898	615	264.898	616	264.8
617	265.102	618	265.102	619	265.103	620	265.103	621	265.103	622	265.103	623	265.104	624	265.1
625	265.105	626	265.105	627	265.108	628	265.107	629	265.108	630	265.108	631	265.110	632	265.110
633	265.110	634	265.112	635	265.514	636	265.514	637	265.514	638	265.515	639	265.515	640	265.515
641	265.516	642	265.518	643	265.517	644	265.517	645	265.518	646	265.518	647	265.520	648	265.52
649	265.522	650	265.522	651	265.522	652	265.524	653	265.924	654	265.924	655	265.924	656	265.8
657	265.925	658	265.925	659	265.926	660	265.926	661	265.927	662	265.928	663	265.929	664	265.9
665	265.931	666	265.932	667	265.933	668	265.933	669	265.933	670	265.935	671	265.937	672	266.3
673	266.320	674	266.320	675	266.320	676	266.320	677	266.321	678	266.321	679	266.322	680	266.3
681	266.323	682	266.324	683	266.325	684	266.326	685	266.327	686	266.328	687	266.328	688	266.328
689	266.331	690	266.332	691	266.699	692	266.698	693	266.699	694	266.699	695	266.700	696	266.700
697	266.701	698	266.701	699	266.702	700	266.702	701	266.703	702	266.704	703	266.705	704	266.705
705	266.707	706	266.707	707	266.708	708	266.710	709	266.712	710	267.062	711	267.062	712	267.0
713	267.062	714	267.063	715	267.063	716	267.064	717	267.064	718	267.065	719	267.065	720	267.0
721	267.067	722	267.068	723	267.069	724	267.070	725	267.070	726	267.070	727	267.073	728	267.0
729	267.408	730	267.408	731	267.409	732	267.409	733	267.409	734	267.409	735	267.410	736	267.4
737	267.411	738	267.412	739	267.413	740	267.413	741	267.414	742	267.415	743	267.417	744	267.417
745	267.417	746	267.419	747	267.421	748	267.738	749	267.738	750	267.738	751	267.738	752	267.739
753	267.739	754	267.739	755	267.740	756	267.741	757	267.741	758	267.742	759	267.743	760	267.744
761	267.745	762	267.746	763	267.746	764	267.746	765	267.748	766	267.750	767	268.050	768	268.0
769	268.050	770	268.051	771	268.051	772	268.051	773	268.052	774	268.052	775	268.053	776	268.0
777	268.054	778	268.055	779	268.056	780	268.057	781	268.058	782	268.058	783	268.058	784	268.0
785	268.063	786	268.345	787	268.345	788	268.345	789	268.345	790	268.346	791	268.346	792	268.3
793	268.347	794	268.348	795	268.348	796	268.348	797	268.350	798	268.351	799	268.352	800	268.353
801	268.353	802	268.353	803	268.355	804	268.357	805	268.622	806	268.622	807	268.622	808	268.622
809	268.623	810	268.623	811	268.623	812	268.624	813	268.624	814	268.625	815	268.825	816	268.827
817	268.828	818	268.829	819	268.830	820	268.830	821	268.830	822	268.832	823	268.834	824	268.8
825	268.881	826	268.881	827	268.881	828	268.881	829	268.882	830	268.882	831	268.883	832	268.8
833	268.884	834	268.885	835	268.886	836	268.886	837	268.887	838	268.888	839	268.888	840	268.8
841	268.891	842	268.893	843	269.121	844	269.121	845	269.122	846	269.122	847	269.122	848	269.1
849	269.123	850	269.123	851	269.124	852	269.124	853	269.125	854	269.125	855	269.127	856	269.128
857	269.129	858	269.129	859	269.129	860	269.131	861	269.134	862	269.343	863	269.343	864	269.343
865	269.344	866	269.344	867	269.344	868	269.345	869	269.345	870	269.346	871	269.346	872	269.347
873	269.348	874	269.349	875	269.350	876	269.351	877	269.351	878	269.351	879	269.353	880	269.3
881	269.546	882	269.546	883	269.546	884	269.547	885	269.547	886	269.547	887	269.548	888	269.5
889	269.549	890	269.549	891	269.550	892	269.551	893	269.552	894	269.553	895	269.554	896	269.5
897	269.554	898	269.556	899	269.559	900	269.730	901	269.730	902	269.730	903	269.731	904	269.7
905	269.731	906	269.732	907	269.732	908	269.733	909	269.733	910	269.734	911	269.735	912	269.735

913	269.736	914	269.737	915	269.737	916	269.737	917	269.740	918	269.742	919	269.895	920	269.895
921	269.895	922	269.895	923	269.895	924	269.896	925	269.896	926	269.897	927	269.897	928	269.898
929	269.898	930	269.899	931	269.900	932	269.901	933	269.902	934	269.902	935	269.902	936	269.904
937	269.907	938	270.040	939	270.040	940	270.040	941	270.040	942	270.040	943	270.041	944	270.0
945	270.042	946	270.042	947	270.043	948	270.043	949	270.044	950	270.045	951	270.046	952	270.0
953	270.047	954	270.047	955	270.048	956	270.052	957	270.165	958	270.165	959	270.165	960	270.1
961	270.166	962	270.166	963	270.166	964	270.167	965	270.167	966	270.168	967	270.168	968	270.1
969	270.170	970	270.171	971	270.172	972	270.172	973	270.172	974	270.175	975	270.177	976	270.27
977	270.271	978	270.271	979	270.271	980	270.271	981	270.271	982	270.272	983	270.272	984	270.273
985	270.273	986	270.274	987	270.275	988	270.276	989	270.277	990	270.277	991	270.278	992	270.278
993	270.280	994	270.283	995	270.356	996	270.356	997	270.356	998	270.356	999	270.357	1000	270.3
1001	270.357	1002	270.358	1003	270.358	1004	270.359	1005	270.360	1006	270.360	1007	270.361	1008	270.3
1009	270.363	1010	270.363	1011	270.363	1012	270.365	1013	270.368	1014	270.421	1015	270.421	1016	270.4
1017	270.422	1018	270.422	1019	270.422	1020	270.423	1021	270.423	1022	270.424	1023	270.424	1024	270.4
1025	270.426	1026	270.426	1027	270.427	1028	270.428	1029	270.428	1030	270.428	1031	270.431	1032	270.433
1033	270.467	1034	270.467	1035	270.467	1036	270.467	1037	270.467	1038	270.467	1039	270.468	1040	270.468
1041	270.469	1042	270.469	1043	270.470	1044	270.471	1045	270.472	1046	270.473	1047	270.474	1048	270.474
1049	270.474	1050	270.476	1051	270.479	1052	270.488	1053	270.488	1054	270.489	1055	270.490	1056	270.4
1057	270.490	1058	270.491	1059	270.492	1060	270.492	1061	270.493	1062	270.494	1063	270.495	1064	270.4
1065	270.497	1066	270.498	1067	270.499	1068	270.499	1069	270.504	1070	270.508				

NODES ALONG THE WATER TABLE

15	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254	270	287	304	321	338	355	372	389	406
423	440	457	474	491	508	526	544	562	580	598	616	634	652	671	690	708	728	747	766	785	804	823	842	861
880	899	918	937	956	975	994	1013	1032	1051	1070														

STEADY STATE CONVERGENCE; ERROR: 85.927 TOLERENCE:0.100

STEADY STATE CONVERGENCE; ERROR: 57.487 TOLERENCE:0.100

STEADY STATE CONVERGENCE; ERROR: 30.703 TOLERENCE:0.100

STEADY STATE CONVERGENCE; ERROR: 12.847 TOLERENCE:0.100

STEADY STATE CONVERGENCE; ERROR: 3.857 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 176.00 TIME STEP: 10

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.404	2	230.401	3	230.393	4	230.380	5	230.380	6	230.336	7	230.305	8	230.288
9	230.227	10	230.180	11	230.126	12	230.066	13	230.000	14	230.000	15	230.000	16	232.858
17	232.858	18	232.859	19	232.860	20	232.863	21	232.865	22	232.888	23	232.873	24	232.878
25	232.884	26	232.890	27	232.898	28	232.906	29	232.916	30	232.927	31	232.927	32	234.780
33	234.780	34	234.780	35	234.781	36	234.783	37	234.785	38	234.787	39	234.789	40	234.793
41	234.795	42	234.800	43	234.804	44	234.809	45	234.814	46	234.819	47	234.819	48	236.338
49	236.338	50	236.338	51	236.339	52	236.340	53	236.341	54	236.342	55	236.344	56	236.346
57	236.348	58	236.350	59	236.353	60	236.356	61	236.359	62	236.362	63	236.363	64	237.669
65	237.669	66	237.669	67	237.670	68	237.670	69	237.671	70	237.672	71	237.673	72	237.674
73	237.676	74	237.678	75	237.680	76	237.682	77	237.684	78	237.686	79	237.686	80	238.841
81	238.841	82	238.841	83	238.841	84	238.842	85	238.842	86	238.843	87	238.844	88	238.845
89	238.846	90	238.847	91	238.848	92	238.850	93	238.852	94	238.854	95	238.854	96	239.892
97	239.892	98	239.892	99	239.893	100	239.893	101	239.893	102	239.894	103	239.895	104	239.896
105	239.896	106	239.897	107	239.899	108	239.900	109	239.901	110	239.903	111	239.903	112	240.848
113	240.848	114	240.848	115	240.848	116	240.849	117	240.849	118	240.849	119	240.850	120	240.851
121	240.851	122	240.852	123	240.853	124	240.854	125	240.855	126	240.856	127	240.857	128	241.725
129	241.725	130	241.725	131	241.725	132	241.725	133	241.726	134	241.726	135	241.727	136	241.727
137	241.728	138	241.728	139	241.728	140	241.730	141	241.731	142	241.732	143	241.732	144	242.535
145	242.535	146	242.535	147	242.535	148	242.536	149	242.536	150	242.536	151	242.537	152	242.537
153	242.538	154	242.538	155	242.539	156	242.540	157	242.540	158	242.541	159	242.541	160	242.541
161	243.288	162	243.288	163	243.288	164	243.288	165	243.288	166	243.288	167	243.289	168	243.289
169	243.289	170	243.290	171	243.290	172	243.291	173	243.292	174	243.292	175	243.293	176	243.293
177	243.293	178	243.989	179	243.989	180	243.989	181	243.990	182	243.990	183	243.990	184	243.990
185	243.991	186	243.991	187	243.991	188	243.992	189	243.992	190	243.993	191	243.994	192	243.994
193	243.994	194	243.994	195	244.646	196	244.646	197	244.646	198	244.646	199	244.646	200	244.647
201	244.647	202	244.647	203	244.647	204	244.648	205	244.648	206	244.648	207	244.648	208	244.650
209	244.650	210	244.651	211	244.651	212	245.262	213	245.262	214	245.262	215	245.262	216	245.262
217	245.263	218	245.263	219	245.263	220	245.263	221	245.264	222	245.264	223	245.265	224	245.265
225	245.266	226	245.266	227	245.266	228	245.266	229	245.841	230	245.841	231	245.841	232	245.841
233	245.841	234	245.842	235	245.842	236	245.842	237	245.842	238	245.843	239	245.843	240	245.843
241	245.844	242	245.844	243	245.845	244	245.845	245	245.845	246	246.386	247	246.386	248	246.386
249	246.386	250	246.386	251	246.387	252	246.387	253	246.387	254	246.387	255	246.388	256	246.388
257	246.388	258	246.389	259	246.389	260	246.390	261	246.390	262	246.390	263	246.900	264	246.900
265	246.900	266	246.900	267	246.900	268	246.900	269	246.900	270	246.901	271	246.901	272	246.901
273	246.902	274	246.902	275	246.902	276	246.903	277	246.903	278	246.903	279	246.903	280	247.384
281	247.384	282	247.385	283	247.385	284	247.385	285	247.385	286	247.385	287	247.385	288	247.385
289	247.386	290	247.386	291	247.386	292	247.387	293	247.387	294	247.387	295	247.387	296	247.388
297	247.842	298	247.842	299	247.842	300	247.842	301	247.842	302	247.842	303	247.842	304	247.842
305	247.843	306	247.843	307	247.843	308	247.843	309	247.844	310	247.844	311	247.845	312	247.845
313	247.845	314	248.273	315	248.273	316	248.273	317	248.274	318	248.274	319	248.274	320	248.274
321	248.274	322	248.274	323	248.274	324	248.275	325	248.275	326	248.275	327	248.276	328	248.276
329	248.276	330	248.276	331	248.681	332	248.681	333	248.681	334	248.681	335	248.681	336	248.681
337	248.681	338	248.681	339	248.682	340	248.682	341	248.682	342	248.682	343	248.683	344	248.683
345	248.683	346	248.683	347	248.683	348	249.065	349	249.065	350	249.065	351	249.065	352	249.065
353	249.066	354	249.066	355	249.066	356	249.066	357	249.066	358	249.066	359	249.067	360	249.067
361	249.067	362	249.068	363	249.068	364	249.068	365	249.428	366	249.428	367	249.428	368	249.428
369	249.428	370	249.429	371	249.429	372	249.429	373	249.429	374	249.429	375	249.429	376	249.429
377	249.430	378	249.430	379	249.430	380	249.430	381	249.430	382	249.777	383	249.777	384	249.777
385	249.777	386	249.776	387	249.776	388	249.776	389	249.775	390	249.775	391	249.774	392	249.773
393	249.773	394	249.772	395	249.771	396	249.771	397	249.771	398	249.771	399	250.204	400	250.203
401	250.201	402	250.198	403	250.194	404	250.188	405	250.181	406	250.173	407	250.164	408	250.153
409	250.141	410	250.127	411	250.112	412	250.095	413	250.078	414	250.077	415	250.076	416	251.750
417	251.750	418	251.750	419	251.750	420	251.750	421	251.751	422	251.751	423	251.751	424	251.752
425	251.752	426	251.753	427	251.753	428	251.754	429	251.755	430	251.756	431	251.768	432	251.784

433	253.268	434	253.258	435	253.259	436	253.259	437	253.259	438	253.260	439	253.260	440	253.261
441	253.261	442	253.262	443	253.263	444	253.264	445	253.265	446	253.266	447	253.267	448	253.280
449	253.293	450	253.297	451	254.687	452	254.687	453	254.687	454	254.687	455	254.687	456	254.688
457	254.688	458	254.689	459	254.689	460	254.690	461	254.691	462	254.692	463	254.693	464	254.694
465	254.695	466	254.708	467	254.721	468	254.727	469	256.034	470	256.034	471	256.034	472	256.034
473	256.034	474	256.035	475	256.035	476	256.036	477	256.037	478	256.037	479	256.038	480	256.039
481	256.040	482	256.041	483	256.043	484	256.055	485	256.068	486	256.078	487	257.300	488	257.300
489	257.300	490	257.300	491	257.301	492	257.301	493	257.302	494	257.302	495	257.303	496	257.304
497	257.304	498	257.305	499	257.306	500	257.307	501	257.309	502	257.321	503	257.334	504	257.343
505	258.485	506	258.485	507	258.486	508	258.486	509	258.488	510	258.487	511	258.487	512	258.488
513	258.488	514	258.489	515	258.490	516	258.491	517	258.492	518	258.493	519	258.494	520	258.507
521	258.518	522	258.530	523	259.591	524	259.591	525	259.591	526	259.591	527	259.591	528	259.592
529	259.592	530	259.593	531	259.593	532	259.594	533	259.595	534	259.596	535	259.597	536	259.598
537	259.599	538	259.612	539	259.624	540	259.637	541	260.618	542	260.618	543	260.618	544	260.618
545	260.618	546	260.618	547	260.618	548	260.618	549	260.618	550	260.618	551	260.618	552	260.618
553	260.618	554	260.618	555	260.620	556	260.629	557	260.640	558	260.652	559	261.580	560	261.679
561	261.674	562	261.867	563	261.867	564	261.844	565	261.627	566	261.808	567	261.586	568	261.560
569	261.531	570	261.498	571	261.463	572	281.423	573	261.380	574	260.925	575	260.485	576	260.000
577	265.358	578	265.358	579	265.364	580	265.371	581	265.382	582	265.395	583	265.412	584	265.432
585	265.455	586	265.482	587	265.512	588	265.545	589	265.582	590	265.623	591	265.867	592	265.870
593	265.671	594	265.674	595	265.676	596	265.332	597	266.332	598	266.333	599	266.333	600	266.334
601	266.335	602	266.337	603	266.338	604	265.340	605	266.343	606	266.345	607	266.347	608	266.350
609	266.352	610	266.355	611	266.355	612	266.355	613	266.356	614	266.357	615	267.055	616	267.056
617	267.056	618	267.056	619	267.056	620	267.056	621	267.056	622	267.056	623	267.057	624	267.057
625	267.057	626	267.057	627	267.058	628	267.058	629	267.059	630	267.058	631	267.058	632	267.060
633	267.061	634	267.747	635	267.747	636	267.747	637	267.747	638	267.747	639	267.747	640	267.747
641	267.747	642	267.748	643	267.748	644	267.748	645	267.748	646	267.748	647	267.749	648	267.749
649	267.749	650	267.749	651	267.750	652	267.751	653	268.422	654	268.422	655	268.422	656	268.422
657	268.422	658	268.422	659	268.422	660	268.422	661	268.422	662	268.423	663	268.423	664	268.423
665	268.423	666	268.423	667	268.424	668	268.424	669	268.424	670	268.425	671	268.426	672	269.080
673	269.080	674	269.080	675	269.080	676	269.080	677	269.080	678	269.080	679	269.081	680	269.081
681	269.081	682	269.081	683	269.082	684	269.082	685	269.083	686	269.083	687	269.083	688	269.083
689	269.086	690	269.088	691	269.708	692	269.708	693	269.708	694	269.709	695	269.709	696	269.709
697	269.709	698	269.709	699	269.709	700	269.710	701	269.710	702	269.710	703	269.711	704	269.711
705	269.712	706	269.712	707	269.712	708	269.714	709	269.717	710	270.307	711	270.307	712	270.307
713	270.307	714	270.307	715	270.307	716	270.307	717	270.307	718	270.308	719	270.308	720	270.308
721	270.308	722	270.309	723	270.310	724	270.310	725	270.310	726	270.310	727	270.313	728	270.315
729	270.875	730	270.875	731	270.875	732	270.875	733	270.875	734	270.875	735	270.875	736	270.875
737	270.876	738	270.876	739	270.876	740	270.877	741	270.877	742	270.877	743	270.878	744	270.878
745	270.878	746	270.880	747	270.883	748	271.412	749	271.412	750	271.412	751	271.412	752	271.412
753	271.413	754	271.413	755	271.413	756	271.413	757	271.413	758	271.414	759	271.414	760	271.415
761	271.415	762	271.415	763	271.415	764	271.416	765	271.418	766	271.421	767	271.918	768	271.920
769	271.920	770	271.920	771	271.920	772	271.920	773	271.920	774	271.920	775	271.921	776	271.921
777	271.921	778	271.922	779	271.922	780	271.922	781	271.923	782	271.923	783	271.923	784	271.925
785	271.928	786	272.397	787	272.397	788	272.397	789	272.397	790	272.397	791	272.397	792	272.397
793	272.398	794	272.398	795	272.398	796	272.398	797	272.398	798	272.399	799	272.400	800	272.400
801	272.400	802	272.400	803	272.403	804	272.408	805	272.844	806	272.844	807	272.844	808	272.844
809	272.844	810	272.844	811	272.844	812	272.845	813	272.845	814	272.845	815	272.845	816	272.846
817	272.846	818	272.847	819	272.847	820	272.847	821	272.847	822	272.850	823	272.852	824	272.853
825	273.261	826	273.261	827	273.261	828	273.261	829	273.261	830	273.261	831	273.261	832	273.262
833	273.262	834	273.262	835	273.263	836	273.263	837	273.263	838	273.264	839	273.264	840	273.264
841	273.264	842	273.267	843	273.269	844	273.270	845	273.648	846	273.648	847	273.648	848	273.648
849	273.648	850	273.648	851	273.648	852	273.649	853	273.649	854	273.649	855	273.650	856	273.650
857	273.650	858	273.651	859	273.651	860	273.651	861	273.851	862	273.854	863	273.856	864	273.857
865	274.005	866	274.005	867	274.005	868	274.005	869	274.005	870	274.005	871	274.006	872	274.006
873	274.006	874	274.006	875	274.007	876	274.007	877	274.007	878	274.008	879	274.008	880	274.008
881	274.008	882	274.011	883	274.013	884	274.014	885	274.332	886	274.332	887	274.332	888	274.332
889	274.332	890	274.333	891	274.333	892	274.333	893	274.333	894	274.334	895	274.334	896	274.334
897	274.335	898	274.335	899	274.335	900	274.335	901	274.336	902	274.338	903	274.341	904	274.342
905	274.629	906	274.630	907	274.630	908	274.630	909	274.630	910	274.630	911	274.630	912	274.630

913	274.631	914	274.631	915	274.631	916	274.632	917	274.632	918	274.632	919	274.633	920	274.6				
921	274.633	922	274.635	923	274.638	924	274.639	925	274.897	926	274.897	927	274.897	928	274.8				
929	274.897	930	274.897	931	274.898	932	274.898	933	274.898	934	274.898	935	274.899	936	274.8				
937	274.899	938	274.900	939	274.900	940	274.900	941	274.900	942	274.903	943	274.905	944	274.907				
945	275.135	946	275.135	947	275.135	948	275.135	949	275.135	950	275.135	951	275.135	952	275.135				
953	275.136	954	275.136	955	275.136	956	275.137	957	275.137	958	275.137	959	275.138	960	275.138				
961	275.138	962	275.141	963	275.143	964	275.144	965	275.343	966	275.343	967	275.343	968	275.3				
969	275.343	970	275.343	971	275.343	972	275.343	973	275.344	974	275.344	975	275.344	976	275.3				
977	275.345	978	275.345	979	275.346	980	275.346	981	275.346	982	275.346	983	275.351	984	275.3				
985	275.521	986	275.521	987	275.521	988	275.521	989	275.521	990	275.521	991	275.521	992	275.5				
993	275.522	994	275.522	995	275.522	996	275.523	997	275.523	998	275.524	999	275.524	1000	275.524				
1001	275.524	1002	275.527	1003	275.529	1004	275.530	1005	275.669	1006	275.669	1007	275.669	1008	275.669				
1009	275.669	1010	275.670	1011	275.670	1012	275.670	1013	275.670	1014	275.671	1015	275.671	1016	275.671				
1017	275.672	1018	275.672	1019	275.672	1020	275.673	1021	275.673	1022	275.675	1023	275.678	1024	275.6				
1025	275.788	1026	275.788	1027	275.788	1028	275.788	1029	275.788	1030	275.788	1031	275.789	1032	275.7				
1033	275.789	1034	275.789	1035	275.790	1036	275.790	1037	275.790	1038	275.791	1039	275.791	1040	275.7				
1041	275.791	1042	275.794	1043	275.798	1044	275.798	1045	275.877	1046	275.877	1047	275.877	1048	275.8				
1049	275.877	1050	275.877	1051	275.878	1052	275.878	1053	275.878	1054	275.878	1055	275.878	1056	275.878				
1057	275.879	1058	275.880	1059	275.880	1060	275.880	1061	275.880	1062	275.883	1063	275.885	1064	275.887				
1065	275.936	1066	275.936	1067	275.936	1068	275.936	1069	275.937	1070	275.937	1071	275.937	1072	275.937				
1073	275.937	1074	275.938	1075	275.938	1076	275.938	1077	275.939	1078	275.939	1079	275.940	1080	275.9				
1081	275.940	1082	275.942	1083	275.945	1084	275.946	1085	275.954	1086	275.954	1087	275.954	1088	275.9				
1089	275.954	1090	275.954	1091	275.955	1092	275.965	1093	275.955	1094	275.955	1095	275.957	1096	275.9				
1097	275.958	1098	275.959	1099	275.970	1100	275.970	1101	275.970	1102	275.975	1103	275.980	1104	275.9				

NODES ALONG THE WATER TABLE

15	31	47	63	79	95	111	127	143	160	177	194	211	228	245	262	279	296	313	330	347	364	381	398	415
432	450	468	486	504	522	540	558	576	595	614	633	652	671	690	709	728	747	766	785	804	824	844	864	884
904	924	944	964	984	1004	1024	1044	1064	1084	1104													

STEADY STATE CONVERGENCE; ERROR: 0.817 TOLERENCE:0.100

STEADY STATE CONVERGENCE; ERROR: 0.106 TOLERENCE:0.100

STEADY STATE CONVERGENCE; ERROR: 0.029 TOLERENCE:0.100

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********** SYSTEM IS AT STEADY STATE **********

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HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 588.86 TIME STEP: 13

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.404	2	230.402	3	230.384	4	230.380	5	230.361	6	230.336	7	230.306	8	230.289
9	230.228	10	230.180	11	230.126	12	230.085	13	230.000	14	230.000	15	230.000	16	232.859
17	232.860	18	232.861	19	232.862	20	232.864	21	232.867	22	232.870	23	232.875	24	232.880
25	232.885	26	232.892	27	232.899	28	232.908	29	232.918	30	232.929	31	232.928	32	234.782
33	234.783	34	234.783	35	234.784	36	234.786	37	234.787	38	234.790	39	234.792	40	234.795
41	234.799	42	234.802	43	234.807	44	234.811	45	234.816	46	234.822	47	234.822	48	236.341
49	236.342	50	236.342	51	236.343	52	236.343	53	236.345	54	236.346	55	236.348	56	236.349
57	236.352	58	236.354	59	236.357	60	236.360	61	236.363	62	236.366	63	236.366	64	237.673
65	237.673	66	237.673	67	237.674	68	237.674	69	237.675	70	237.676	71	237.677	72	237.679
73	237.680	74	237.682	75	237.684	76	237.686	77	237.688	78	237.690	79	237.690	80	238.845
81	238.845	82	238.846	83	238.848	84	238.847	85	238.847	86	238.848	87	238.849	88	238.850
89	238.851	90	238.852	91	238.854	92	238.855	93	238.857	94	238.859	95	238.859	96	239.897
97	239.898	98	239.898	99	239.898	100	239.898	101	239.899	102	239.898	103	239.900	104	239.901
105	239.902	106	239.903	107	239.904	108	239.905	109	239.906	110	239.908	111	239.908	112	240.854
113	240.854	114	240.854	115	240.854	116	240.854	117	240.855	118	240.855	119	240.856	120	240.857
121	240.857	122	240.858	123	240.859	124	240.860	125	240.861	126	240.862	127	240.862	128	241.731
129	241.731	130	241.731	131	241.731	132	241.732	133	241.732	134	241.732	135	241.733	136	241.733
137	241.734	138	241.735	139	241.736	140	241.736	141	241.737	142	241.738	143	241.738	144	242.542
145	242.542	146	242.542	147	242.542	148	242.542	149	242.542	150	242.543	151	242.543	152	242.544
153	242.544	154	242.545	155	242.546	156	242.546	157	242.547	158	242.548	159	242.548	160	242.548
161	243.295	162	243.295	163	243.295	164	243.295	165	243.295	166	243.295	167	243.298	168	243.298
169	243.298	170	243.297	171	243.297	172	243.298	173	243.299	174	243.298	175	243.300	176	243.300
177	243.300	178	243.997	179	243.997	180	243.997	181	243.997	182	243.997	183	243.997	184	243.998
185	243.998	186	243.998	187	243.999	188	243.999	189	244.000	190	244.000	191	244.001	192	244.002
193	244.002	194	244.002	195	244.654	196	244.654	197	244.654	198	244.654	199	244.654	200	244.654
201	244.654	202	244.655	203	244.655	204	244.655	205	244.656	206	244.656	207	244.657	208	244.657
209	244.658	210	244.658	211	244.658	212	245.270	213	245.270	214	245.270	215	245.270	216	245.270
217	245.270	218	245.271	219	245.271	220	245.271	221	245.272	222	245.272	223	245.272	224	245.273
225	245.273	226	245.274	227	245.274	228	245.274	229	245.849	230	245.849	231	245.849	232	245.849
233	245.850	234	245.850	235	245.850	236	245.850	237	245.850	238	245.851	239	245.851	240	245.852
241	245.852	242	245.852	243	245.853	244	245.853	245	245.853	246	246.395	247	246.395	248	246.395
249	246.395	250	246.395	251	246.395	252	246.395	253	246.395	254	246.396	255	246.398	256	246.396
257	246.397	258	246.397	259	246.398	260	246.398	261	246.398	262	246.398	263	246.908	264	246.909
265	246.909	266	246.909	267	246.909	268	246.909	269	246.909	270	246.908	271	246.910	272	246.910
273	246.910	274	246.910	275	246.911	276	246.911	277	246.912	278	246.912	279	246.912	280	247.393
281	247.393	282	247.393	283	247.393	284	247.394	285	247.394	286	247.394	287	247.394	288	247.394
289	247.394	290	247.395	291	247.395	292	247.395	293	247.395	294	247.395	295	247.395	296	247.396
297	247.851	298	247.851	299	247.851	300	247.851	301	247.851	302	247.851	303	247.851	304	247.851
305	247.852	306	247.852	307	247.852	308	247.852	309	247.853	310	247.853	311	247.854	312	247.854
313	247.854	314	248.283	315	248.283	316	248.283	317	248.283	318	248.283	319	248.283	320	248.283
321	248.283	322	248.283	323	248.284	324	248.284	325	248.284	326	248.284	327	248.285	328	248.285
329	248.285	330	248.285	331	248.890	332	248.890	333	248.890	334	248.890	335	248.890	336	248.890
337	248.891	338	248.891	339	248.891	340	248.891	341	248.891	342	248.892	343	248.892	344	248.892
345	248.893	346	248.893	347	248.893	348	249.075	349	249.075	350	249.075	351	249.075	352	249.075
353	249.075	354	249.075	355	249.075	356	249.075	357	249.076	358	249.076	359	249.076	360	249.076
361	249.077	362	249.077	363	249.077	364	249.077	365	249.438	366	249.438	367	249.438	368	249.438
369	249.438	370	249.438	371	249.438	372	249.438	373	249.438	374	249.439	375	249.439	376	249.439
377	249.439	378	249.439	379	249.440	380	249.440	381	249.440	382	249.787	383	249.787	384	249.787
385	249.786	386	249.786	387	249.786	388	249.785	389	249.785	390	249.784	391	249.784	392	249.783
393	249.782	394	249.782	395	249.781	396	249.780	397	249.780	398	249.780	399	250.214	400	250.213
401	250.211	402	250.208	403	250.204	404	250.198	405	250.191	406	250.183	407	250.173	408	250.163
409	250.150	410	250.137	411	250.122	412	250.105	413	250.087	414	250.068	415	250.086	416	251.750
417	251.760	418	251.760	419	251.760	420	251.760	421	251.761	422	251.761	423	251.761	424	251.762
425	251.762	426	251.763	427	251.763	428	251.764	429	251.765	430	251.766	431	251.779	432	251.794

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
433	253.268	434	253.268	435	253.269	436	253.269	437	253.269	438	253.270	439	253.270	440	253.271
441	253.271	442	253.272	443	253.273	444	253.274	445	253.275	446	253.276	447	253.277	448	253.290
449	253.303	450	253.307	451	254.696	452	254.696	453	254.697	454	254.697	455	254.697	456	254.697
457	254.698	458	254.699	459	254.699	460	254.700	461	254.701	462	254.702	463	254.703	464	254.704
465	254.705	466	254.718	467	254.731	468	254.737	469	255.043	470	255.043	471	255.043	472	256.043
473	256.044	474	256.044	475	256.045	476	256.045	477	256.046	478	256.047	479	256.047	480	256.048
481	256.049	482	256.051	483	256.052	484	256.064	485	256.077	486	256.085	487	257.308	488	257.309
489	257.309	490	257.309	491	257.309	492	257.310	493	257.310	494	257.311	495	257.311	496	257.312
497	257.313	498	257.314	499	257.315	500	257.316	501	257.317	502	257.330	503	257.343	504	257.352
505	258.493	506	258.493	507	258.493	508	258.493	509	258.494	510	258.494	511	258.495	512	258.495
513	258.496	514	258.497	515	258.498	516	258.499	517	258.500	518	258.501	519	258.502	520	258.514
521	258.527	522	258.538	523	259.597	524	259.597	525	259.597	526	259.597	527	259.598	528	259.598
529	259.599	530	259.599	531	259.800	532	259.801	533	259.801	534	259.802	535	259.803	536	259.604
537	259.606	538	259.618	539	259.831	540	259.843	541	260.624	542	260.624	543	260.624	544	260.624
545	260.624	546	260.623	547	260.623	548	260.623	549	260.623	550	260.623	551	260.623	552	260.623
553	260.624	554	260.624	555	260.625	556	260.635	557	260.646	558	260.658	559	261.685	560	261.683
561	261.679	562	261.672	563	261.662	564	261.648	565	261.632	566	261.613	567	261.590	568	261.564
569	261.535	570	261.503	571	261.467	572	261.427	573	281.384	574	280.928	575	260.467	576	260.000
577	265.367	578	265.388	579	265.373	580	265.381	581	265.391	582	265.405	583	265.422	584	265.442
585	265.485	586	265.491	587	265.521	588	265.555	589	265.582	590	265.633	591	265.677	592	265.680
593	265.680	594	265.684	595	265.685	596	266.343	597	266.344	598	266.344	599	266.345	600	266.346
601	266.347	602	266.348	603	266.350	604	266.352	605	266.354	606	266.356	607	266.358	608	266.361
609	266.364	610	266.366	611	266.366	612	266.366	613	266.368	614	266.368	615	267.068	616	267.068
617	267.069	618	267.069	619	267.069	620	267.069	621	267.069	622	267.068	623	267.070	624	267.070
625	267.070	626	267.070	627	267.071	628	267.071	629	267.072	630	267.072	631	267.072	632	267.073
633	267.074	634	267.762	635	267.762	636	267.762	637	267.762	638	267.762	639	267.762	640	267.762
641	267.762	642	267.762	643	267.762	644	267.762	645	267.763	646	267.763	647	267.763	648	267.763
649	267.763	650	267.763	651	267.765	652	267.786	653	268.438	654	268.438	655	268.438	656	268.438
657	268.438	658	268.438	659	268.438	660	268.438	661	268.438	662	268.439	663	268.439	664	268.439
665	268.439	666	268.439	667	268.440	668	268.440	669	268.440	670	268.441	671	268.442	672	269.097
673	269.087	674	269.097	675	269.087	676	269.087	677	269.088	678	289.098	679	289.098	680	289.098
681	269.098	682	269.099	683	269.099	684	269.099	685	269.100	686	289.100	687	269.100	688	289.100
689	269.103	690	269.105	691	269.727	692	269.727	693	269.727	694	269.727	695	269.727	696	289.728
697	269.728	698	269.728	699	269.728	700	269.728	701	269.728	702	269.728	703	269.730	704	269.730
705	269.730	706	269.730	707	269.731	708	269.733	709	269.736	710	270.327	711	270.327	712	270.327
713	270.327	714	270.327	715	270.327	716	270.327	717	270.328	718	270.328	719	270.328	720	270.328
721	270.329	722	270.329	723	270.330	724	270.330	725	270.330	726	270.330	727	270.333	728	270.335
729	270.898	730	270.896	731	270.896	732	270.896	733	270.896	734	270.896	735	270.896	736	270.897
737	270.897	738	270.897	739	270.898	740	270.898	741	270.898	742	270.899	743	270.899	744	270.899
745	270.899	746	270.902	747	270.905	748	271.435	749	271.435	750	271.435	751	271.435	752	271.435
753	271.435	754	271.435	755	271.436	756	271.436	757	271.436	758	271.436	759	271.437	760	271.437
761	271.438	762	271.438	763	271.438	764	271.438	765	271.441	766	271.444	767	271.943	768	271.943
769	271.943	770	271.943	771	271.944	772	271.944	773	271.944	774	271.944	775	271.944	776	271.945
777	271.945	778	271.945	779	271.946	780	271.946	781	271.947	782	271.947	783	271.947	784	271.949
785	271.952	786	272.422	787	272.422	788	272.422	789	272.422	790	272.422	791	272.422	792	272.422
793	272.422	794	272.423	795	272.423	796	272.423	797	272.424	798	272.424	799	272.424	800	272.425
801	272.425	802	272.425	803	272.427	804	272.431	805	272.870	806	272.870	807	272.870	808	272.870
809	272.870	810	272.870	811	272.870	812	272.871	813	272.871	814	272.871	815	272.871	816	272.872
817	272.872	818	272.873	819	272.873	820	272.873	821	272.873	822	272.878	823	272.878	824	272.879
825	273.288	826	273.288	827	273.288	828	273.288	829	273.288	830	273.288	831	273.288	832	273.289
833	273.289	834	273.289	835	273.289	836	273.290	837	273.290	838	273.291	839	273.291	840	273.291
841	273.291	842	273.294	843	273.298	844	273.297	845	273.676	846	273.676	847	273.676	848	273.676
849	273.676	850	273.676	851	273.676	852	273.677	853	273.677	854	273.677	855	273.677	856	273.676
857	273.678	858	273.679	859	273.679	860	273.679	861	273.679	862	273.682	863	273.684	864	273.685
865	274.034	866	274.034	867	274.034	868	274.034	869	274.034	870	274.034	871	274.034	872	274.035
873	274.035	874	274.035	875	274.035	876	274.036	877	274.036	878	274.037	879	274.037	880	274.037
881	274.037	882	274.040	883	274.042	884	274.043	885	274.362	886	274.362	887	274.362	888	274.362
889	274.362	890	274.362	891	274.362	892	274.363	893	274.363	894	274.363	895	274.363	896	274.364
897	274.364	898	274.365	899	274.365	900	274.365	901	274.365	902	274.368	903	274.370	904	274.371
905	274.860	906	274.860	907	274.860	908	274.860	909	274.880	910	274.880	911	274.880	912	274.861

913	274.861	914	274.861	915	274.861	916	274.862	917	274.862	918	274.863	919	274.863	920	274.8
921	274.863	922	274.866	923	274.868	924	274.869	925	274.928	926	274.928	927	274.928	928	274.9
929	274.928	930	274.928	931	274.928	932	274.929	933	274.929	934	274.929	935	274.930	936	274.9
937	274.930	938	274.931	939	274.931	940	274.931	941	274.931	942	274.934	943	274.936	944	274.937
945	275.166	946	275.166	947	275.166	948	275.166	949	275.166	950	275.167	951	275.167	952	275.167
953	275.167	954	275.167	955	275.168	956	275.168	957	275.169	958	275.169	959	275.168	960	275.169
961	275.169	962	275.172	963	275.174	964	275.176	965	275.375	966	275.375	967	275.375	968	275.3
969	275.375	970	275.375	971	275.375	972	275.375	973	275.376	974	275.376	975	275.376	976	275.3
977	275.377	978	275.377	979	275.378	980	275.378	981	275.378	982	275.380	983	275.383	984	275.3
985	275.553	986	275.553	987	275.553	988	275.553	989	275.553	990	275.554	991	275.554	992	275.5
993	275.554	994	275.555	995	275.555	996	275.555	997	275.556	998	275.556	999	275.556	1000	275.556
1001	275.557	1002	275.559	1003	275.561	1004	275.563	1005	275.702	1006	275.702	1007	275.702	1008	275.702
1009	275.702	1010	275.702	1011	275.703	1012	275.703	1013	275.703	1014	275.703	1015	275.704	1016	275.704
1017	275.704	1018	275.705	1019	275.705	1020	275.705	1021	275.705	1022	275.708	1023	275.710	1024	275.7
1025	275.821	1026	275.821	1027	275.821	1028	275.821	1029	275.821	1030	275.821	1031	275.822	1032	275.8
1033	275.822	1034	275.822	1035	275.823	1036	275.823	1037	275.823	1038	275.824	1039	275.824	1040	275.8
1041	275.824	1042	275.827	1043	275.829	1044	275.831	1045	275.910	1046	275.910	1047	275.910	1048	275.9
1049	275.910	1050	275.911	1051	275.911	1052	275.911	1053	275.911	1054	275.912	1055	275.912	1056	275.912
1057	275.913	1058	275.913	1059	275.913	1060	275.914	1061	275.914	1062	275.918	1063	275.919	1064	275.920
1065	275.970	1066	275.970	1067	275.970	1068	275.970	1069	275.970	1070	275.970	1071	275.970	1072	275.970
1073	275.971	1074	275.971	1075	275.971	1076	275.972	1077	275.972	1078	275.973	1079	275.973	1080	275.9
1081	275.973	1082	275.976	1083	275.978	1084	275.980	1085	275.997	1086	275.997	1087	275.997	1088	275.9
1089	275.997	1090	275.998	1091	275.998	1092	275.998	1093	275.999	1094	275.999	1095	276.000	1096	276.0
1097	276.001	1098	276.002	1099	276.003	1100	276.003	1101	276.003	1102	276.008	1103	276.013	1104	276.0

NODES ALONG THE WATER TABLE

15	31	47	63	79	95	111	127	143	160	177	194	211	228	245	262	279	296	313	330	347	364	381	398	415
432	450	468	486	504	522	540	558	576	595	614	633	652	671	690	709	728	747	766	785	804	824	844	864	884
904	924	944	964	984	1004	1024	1044	1064	1084	1104													

6.5.4 Examples of Additional Calculations and Output

6.5.4.1 Input Data.

```
EXAMPLE DATA SET: SIMULATION OF THE POST-MINING FLOW SYSTEM;   NO MASS TRANSPORT
TTTTTTFTFTFTTTTTTTFFFFFFF
   23   61    1    1    3    1 1275 2800   22   18    3    1   10
    300.00      10.0       1.0       230.      0.000      .100      1.50
      250.      251.      252.      253.      254.      256.      258.      262.
      265.      268.      271.      274.      277.      279.      280.      281.
      282.     281.2     281.7      282.      283.      284.      285.      286.
      287.      288.     289.1     289.2     289.3     289.4     289.5     289.7
     289.8     290.0     290 1     290.2     290.3     290.4     290.5     290.6
     290.7     290.8     291.0     291.2     291.4     291.5     291.7     291.8
      292.      293.      295.      295       295.      295.      295.      295.
      295.      295. .    295.      295       295.
FTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
     230.0     230.0     230.0     230.0     230.0     230.0     230.0     230.0
     230.0     230.0     230.0     230.0     230.0     230.0     230.0     230.0
     230.0     230.0     230.0     230.0     230.0     230.0     230.0     230.0
     230 0     230.0     230.0     230.0     230.0     230.0     230.0     230.0
     230.0     230.0     230.0     230.0     230.0     230.0     230.0     230.0
     230.0     230.0     230.0     230.0     230.0     230.0     230.0     230.0
     230.0     230.0     230.0     230.0     230.0     230.0     230.0     230.0
     230.0     230.0     230.0     230.0     230.0
      90.0      90.0      90.0      90.0      90.0      90.0      90.0      90.0
      90.0      90.0      90.0      90.0      90.0      90.0      90.0      90.0
      90.0      90.0      90.0      90.0      90.0      90.0      90.0      90.0
      90.0      90.0      90.0      90.0      90.0      90.0      90.0      90.0
      90.0      90.0      90.0      90.0      90.0      90.0      90.0      90.0
      90.0      90.0      30.0      90.0      90.0      90.0      90.0      90.0
      90.0      90.0      90 0      90.0      90.0      90.0      90.0      90.0
      90.0      90.0      90.0      90.0      90.0
    1   60
  2  .0400   3  .0400   4  .0400   5  .0400   6  .0400   7  .0400   8  .0400   9  .0400
 10  .0400  11  .0400  12  .0400  13  .0400  14  .0400  15  .0400  16  .0400  17  .0400
 18  .0400  19  .0400  20  .0400  21  .0400  22  .0400  23  .0400  24  .0400  25  .0400
 26   0400  27  .0400  28  .0400  29  .0400  30  .0400  31  .0400  32  .0400  33  .0400
 34  .0400  35  .0400  36  .0400  37  .0400  38  .0400  39  .0400  40  .0800  41  .0800
 42  .0800  43  .0800  44  .0800  45  .0800  46  .0800  47  .0800  48  .0800  49  .0800
 50  .0800  51  .0800  52  .0800  53  .0800  54  .0800  55  .0800  56  .0800  57  .0800
 58  .0800  59  .0800  60  .0800  61  .1800
  1  15    230.   1  14    230.   1  13    230
     1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1
     2    3.18E+2    3.18E+2    0.50E-3    0.10E+0    0.00E+1    0.00E+1    0.00E+1
     3    94.8E+2    94.8E+2    0.50E-3    0 10E+0    0.00E+1    0.00E+1    0.00E+1
1111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111222222222222
1111111111111111111222222222222222222222222222222222222222222
1111111111222222222222222222222222222222222222222222222222222
1111111222222222222222222222222222222222222222222222222222222
1122222222222222222222222222222222222222222222222222222222222
3333333333333333333333333333333333333333333333333333333333333
3333333333333333333333333333333333333333333333333333333333333
2222222222222222222222222222222222222222222222222222222222222
2222222222222222222222222222222222222222222222222222222222222
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2222222222222222222222222222222222222222222222222222222222222
   33   35    0    0
      250       251.      252.      253.      254.      256.      258.      262.
      265.      268       271       274.      277.      279.      280.      281.
      282.     281.2     281.7      282.      283.      284.      285.      286.
      287       230.      230.      230.      230.      230.      230.      230.
      230.      230.     290.1     290.2     290.3     290.4     290.5     290.6
     290.7     290.8     291.0     291.2     291.4     291.5     291.7     291.8
      292       293       295       295.      295.      295.      295.      295.
      295.      295       295.      295.      295.
     1    0.00E+1    0 00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1
     2    3.16E+2    3.18E+2    0.50E-3    0.10E+0    0.00E+1    0.00E+1    0.00E+1
     3    94.8E+2    94.8E+2    0.50E-3    0.10E+0    0.00E+1    0.00E+1    0.00E+1
     4    3.18E+1    3.18E+1    0.50E-2    0.10E+0    0.00E+1    0.00E+1    0.00E+1
1111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111222222222222
1111111111111111111222224444444444222222222222222222222222222
1111111111222222222222224444444444222222222222222222222222222
1111111222222222222222224444444444222222222222222222222222222
1122222222222222222222224444444444222222222222222222222222222
3333333333333333333333334444444444333333333333333333333333333
3333333333333333333333334444444444333333333333333333333333333
2222222222222222222222222222222222222222222222222222222222222
2222222222222222222222222222222222222222222222222222222222222
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2222222222222222222222222222222222222222222222222222222222222
2222222222222222222222222222222222222222222222222222222222222
2222222222222222222222222222222222222222222222222222222222222
      250       251       252       253.      254       256.      258.      262.
      265       268       271       274       277.      279.      280.      281.
      282.     281 2     281.7      282       283.      284.      285.      286.
      287.     290.6     291.2     289.2     291.6     291.8     289.5     290.9
     275.0     260.0     290 1     290.2     290.3     290.4     290.5     290.6
     290.7     290.8     291 0     291.2     291 4     291.5     291.7     291.8
      292.      293.      295       295       295.      295.      295.      295.
      295.      295.      295       295.      295.
End of file
```

6.5.4.2 Printed Output.

****

EXAMPLE DATA SET: SIMULATION OF THE POST-MINING FLOW SYSTEM; NO MASS TRANSPORT

****

OUTPUT LISTINGS AND PROBLEM CONTROL

```
OPTION( 1)= T :PRINT THE NODE CO-ORDINATES
OPTION( 2)= T :PRINT THE ELEMENT INCIDENCES
OPTION( 3)= T :PRINT THE ELEMENT HYDRAULIC CONDUCTIVITIES AND STORATIVITIES
OPTION( 4)= T :PLOT THE FINITE ELEMENT GRID
OPTION( 5)= T :CALCULATE THE HEAD DISTRIBUTIONS
OPTION( 6)= T :PRINT THE HEAD DISTRIBUTIONS
OPTION( 7)= F :PLOT ALL HEAD DISTRIBUTIONS
OPTION( 8)= T :PLOT ONLY THE LAST HEAD VALUES
OPTION( 9)= F :PRINT THE WATER TABLE CONVERGENCE INFORMATION AT EACH ITERATION
OPTION(10)= T :INPUT PREVIOUSLY CALCULATED HEADS TO CONTINUE AN EARLIER RUN
OPTION(11)= F :OUTPUT THE LAST HEAD DISTRIBUTION FOR USE AS INPUT IN A LATER RUN
OPTION(12)= T :SIMULATE MINING AND RECLAMATION
OPTION(13)= T :CALCULATE THE HYDRAULIC GRADIENT AND THE DIRECTION OF THE GRADIENT FIELD
OPTION(14)= T :PRINT THE HYDRAULIC GRADIENT AND ITS ITS DIRECTION FIELDS
OPTION(15)= T :PLOT THE HYDRAULIC GRADIENT AND ITS DIRECTION
OPTION(16)= T :CALCULATE THE VELOCITY FIELD
OPTION(17)= T :PRINT THE VELOCITY FIELD
OPTION(18)= F :RUN THE MASS TRANSPORT ROUTINE
OPTION(19)= F :PRINT THE CONCENTRATION AND PARTICLE DISTRIBUTIONS
OPTION(20)= F :PLOT THE PARTICLE CONCENTRATION
OPTION(21)= F :PLOT THE PARTICLE DISTRIBUTION
OPTION(22)= F :OUTPUT THE LAST PARTICLE DISTRIBUTION TO CONTINUE THE RUN
OPTION(23)= F :INPUT THE LAST PARTICLE DISTRIBUTION TO CONTINUE A PREVIOUS RUN
OPTION(24)= F :PRINT THE MASS, X AND Z COORDINATES OF THE REFERENCE PARTICLES
```

CROSS SECTION AND SIMULATION PARAMETERS

```
      23 :NUMBER OF ROWS
      61 :NUMBER OF COLUMNS
       3 :NUMBER OF GEOLOGICAL UNITS
       1 :NUMBER OF SPOIL UNITS
      18 :ESTIMATED NUMBER OF CONSTANT HEAD NODES
       3 :ACTUAL NUMBER OF CONSTANT HEAD NODES ENTERED
    1275 :ESTIMATED NUMBER OF NODES
    2500 :ESTIMATED NUMBER OF ELEMENTS
      22 :ESTIMATED BANDWIDTH
       1 :NUMBER OF PERIODS OF RECHARGE

 300.000 :HORIZONTAL NODE SPACING
  10.000 :VERTICAL NODE SPACING
   1.000 :TIME STEP
 230.000 :INITIAL HEAD VALUE
     0.0 :SPECIFIC YIELD
   0.100 :WATER TABLE AND STEADY STATE CONVERGENCE TOLERANCE
       1 :NUMBER OF TIME STEPS
   1.500 :TIME STEP INCREMENT
      10 :MAXIMUM NUMBER OF ITERATIONS PER TIME STEP
       1 :NUMBER OF TIME STEPS BETWEEN LISTINGS
```

GROUND SURFACE PARAMETERS

COL		ELEVATION	COL		ELEVATION	COL		ELEVATION	COL		ELEVATION	COL		ELEVATION	COL		ELEVATION	COL		ELEVATION
1	F	250.00	2	T	251.00	3	T	252.00	4	T	253.00	5	T	254.00	6	T	256.00	7	T	259.00	8	T	262.00
9	T	265.00	10	T	268.00	11	T	271.00	12	T	274.00	13	T	277.00	14	T	279.00	15	T	280.00	16	T	281.00
17	T	282.00	18	T	281.20	19	T	281.70	20	T	282.00	21	T	283.00	22	T	284.00	23	T	285.00	24	T	286.00
25	T	287.00	26	T	288.00	27	T	289.10	28	T	289.20	29	T	289.30	30	T	289.40	31	T	289.50	32	T	289.70
33	T	289.80	34	T	290.00	35	T	290.10	36	T	290.20	37	T	290.30	38	T	290.40	39	T	290.50	40	T	290.60
41	T	290.70	42	T	290.80	43	T	291.00	44	T	291.20	45	T	291.40	46	T	291.50	47	T	291.70	48	T	291.80
49	T	292.00	50	T	293.00	51	T	295.00	52	T	295.00	53	T	295.00	54	T	295.00	55	T	295.00	56	T	295.00
57	T	295.00	58	T	295.00	59	T	295.00	60	T	295.00	61	T	295.00									

WATER TABLE ELEVATION

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	230.00	2	230.00	3	230.00	4	230.00	5	230.00	6	230.00	7	230.00	8	230.00
9	230.00	10	230.00	11	230.00	12	230.00	13	230.00	14	230.00	15	230.00	16	230.00
17	230.00	18	230.00	19	230.00	20	230.00	21	230.00	22	230.00	23	230.00	24	230.00
25	230.00	26	230.00	27	230.00	28	230.00	29	230.00	30	230.00	31	230.00	32	230.00
33	230.00	34	230.00	35	230.00	36	230.00	37	230.00	38	230.00	39	230.00	40	230.00
41	230.00	42	230.00	43	230.00	44	230.00	45	230.00	46	230.00	47	230.00	48	230.00
49	230.00	50	230.00	51	230.00	52	230.00	53	230.00	54	230.00	55	230.00	56	230.00
57	230.00	58	230.00	59	230.00	60	230.00	61	230.00						

BOTTOM BOUNDARY ELEVATION

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	90.00	2	90.00	3	90.00	4	90.00	5	90.00	6	90.00	7	90.00	8	90.00
9	90.00	10	90.00	11	90.00	12	90.00	13	90.00	14	90.00	15	90.00	16	90.00
17	90.00	18	90.00	19	90.00	20	90.00	21	90.00	22	90.00	23	90.00	24	90.00
25	90.00	26	90.00	27	90.00	28	90.00	29	90.00	30	90.00	31	90.00	32	90.00
33	90.00	34	90.00	35	90.00	36	90.00	37	90.00	38	90.00	39	90.00	40	90.00
41	90.00	42	90.00	43	90.00	44	90.00	45	90.00	46	90.00	47	90.00	48	90.00
49	90.00	50	90.00	51	90.00	52	90.00	53	90.00	54	90.00	55	90.00	56	90.00
57	90.00	58	90.00	59	90.00	60	90.00	61	90.00						

RECHARGE VALUES (+VE=RECHARGE; -VE=EVAPORATION)

CHANGE AT TIME STEP: 1

COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE
2	0.04	3	0.04	4	0.04	5	0.04	6	0.04	7	0.04	8	0.04	9	0.04
10	0.04	11	0.04	12	0.04	13	0.04	14	0.04	15	0.04	16	0.04	17	0.04
18	0.04	19	0.04	20	0.04	21	0.04	22	0.04	23	0.04	24	0.04	25	0.04
26	0.04	27	0.04	28	0.04	29	0.04	30	0.04	31	0.04	32	0.04	33	0.04
34	0.04	35	0.04	36	0.04	37	0.04	38	0.04	39	0.04	40	0.08	41	0.08
42	0.08	43	0.08	44	0.08	45	0.08	46	0.08	47	0.08	48	0.08	49	0.08
50	0.08	51	0.08	52	0.08	53	0.08	54	0.08	55	0.08	56	0.08	57	0.08
58	0.08	59	0.08	60	0.08	61	0.16								

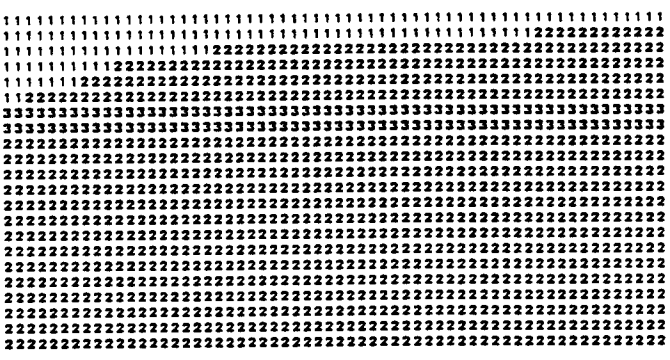
CONSTANT HEAD VALUES

COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD
1	15	230.00	1	14	230.00	1	13	230.00									

HYDROGEOLOGICAL PARAMETERS OF THE GEOLOGICAL UNITS

UNIT	Kh	Kv	STOR.	POROSITY	DISPER.		CEC	BULK DEN.
1	0.0	0.0	0.0	0.0	0.0	0.0		0.0
2	0.3150E+03	0.3150E+03	0.5000E-03	0.1000E+00	0.0	0.0		0.0
3	0.9480E+04	0.9480E+04	0.5000E-03	0.1000E+00	0.0	0.0		0.0

MAP OF THE GEOLOGICAL UNITS



SIDE BOUNDARIES OF THE MINE DURING MINING (COL.)

PREVIOUS BOUNDARIES: 33 35
FUTURE BOUNDARIES:
0 0

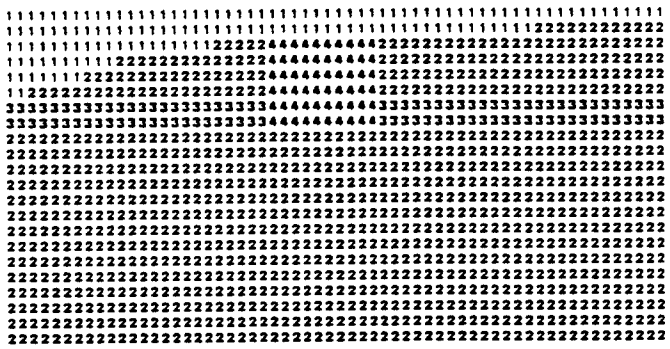
GROUND ELEVATION DURING MINING

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	250.00	2	251.00	3	252.00	4	253.00	5	254.00	6	256.00	7	259.00	8	262.00
9	265.00	10	268.00	11	271.00	12	274.00	13	277.00	14	279.00	15	280.00	16	281.00
17	282.00	18	281.20	19	281.70	20	282.00	21	283.00	22	284.00	23	285.00	24	286.00
25	287.00	26	230.00	27	230.00	28	230.00	29	230.00	30	230.00	31	230.00	32	230.00
33	230.00	34	230.00	35	290.10	36	290.20	37	290.30	38	290.40	39	290.50	40	290.60
41	290.70	42	290.80	43	291.00	44	291.20	45	291.40	46	291.50	47	291.70	48	291.80
49	292.00	50	293.00	51	295.00	52	295.00	53	295.00	54	295.00	55	295.00	56	295.00
57	295.00	58	295.00	59	295.00	60	295.00	61	295.00						

HYDROGEOLOGICAL PARAMETERS OF THE SPOIL

UNIT	Kh	Kv	STOR.	POROSITY	DISPER.		CEC	BULK DEN.
1	0.0	0.0	0.0	0.0	0.0	0.0		0.0
2	0.3150E+03	0.3150E+03	0.5000E-03	0.1000E+00	0.0	0.0		0.0
3	0.9450E+04	0.9450E+04	0.5000E-03	0.1000E+00	0.0	0.0		0.0
4	0.3150E+02	0.3150E+02	0.5000E-02	0.1000E+00	0.0	0.0		0.0

MAP OF THE SPOIL AND GEOLOGICAL UNITS



GROUND ELEVATION FOLLOWING RECLAMATION

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	250.00	2	251.00	3	252.00	4	253.00	5	254.00	6	256.00	7	259.00	8	262.00
9	265.00	10	268.00	11	271.00	12	274.00	13	277.00	14	279.00	15	280.00	16	281.00
17	282.00	18	281.20	19	281.70	20	282.00	21	283.00	22	284.00	23	285.00	24	286.00
25	287.00	26	290.60	27	281.20	28	288.20	29	291.80	30	291.80	31	288.50	32	290.90
33	275.00	34	280.00	35	290.10	36	290.20	37	290.30	38	290.40	39	290.50	40	290.60
41	290.70	42	290.80	43	291.00	44	291.20	45	291.40	46	291.50	47	291.70	48	291.80
49	292.00	50	293.00	51	295.00	52	295.00	53	295.00	54	295.00	55	295.00	56	295.00
57	295.00	58	295.00	59	295.00	60	295.00	61	295.00						

STEADY STATE CONVERGENCE; ERROR:182.072 TOLERENCE:0.100

FINITE ELEMENT GRID NODE CO-ORDINATES

NODE	TYPE	X	Z	NODE	TYPE	X	Z	NODE	TYPE	X	Z	NODE	TYPE	X	Z
1	F	0.0	90.000	2	F	0.0	100.000	3	F	0.0	110.000	4	F	0.0	120.000
5	F	0.0	130.000	6	F	0.0	140.000	7	F	0.0	150.000	8	F	0.0	160.000
9	F	0.0	170.000	10	F	0.0	180.000	11	F	0.0	190.000	12	F	0.0	200.000
13	T	0.0	210.000	14	T	0.0	220.000	15	T	0.0	230.000	16	F	300.000	90.000
17	F	300.000	100.000	18	F	300.000	110.000	19	F	300.000	120.000	20	F	300.000	130.000
21	F	300.000	140.000	22	F	300.000	150.000	23	F	300.000	160.000	24	F	300.000	170.000
25	F	300.000	180.000	26	F	300.000	190.000	27	F	300.000	200.000	28	F	300.000	210.000
29	F	300.000	220.000	30	F	300.000	232.574	31	F	600.000	90.000	32	F	600.000	100.000
33	F	600.000	110.000	34	F	600.000	120.000	35	F	600.000	130.000	36	F	600.000	140.000
37	F	600.000	150.000	38	F	600.000	160.000	39	F	600.000	170.000	40	F	600.000	180.000
41	F	600.000	190.000	42	F	600.000	200.000	43	F	600.000	210.000	44	F	600.000	220.000
45	F	600.000	230.000	46	F	600.000	234.105	47	F	900.000	90.000	48	F	900.000	100.000
49	F	900.000	110.000	50	F	900.000	120.000	51	F	900.000	130.000	52	F	900.000	140.000
53	F	900.000	150.000	54	F	900.000	160.000	55	F	900.000	170.000	56	F	900.000	180.000
57	F	900.000	190.000	58	F	900.000	200.000	59	F	900.000	210.000	60	F	900.000	220.000
61	F	900.000	230.000	62	F	900.000	235.160	63	F	1200.000	90.000	64	F	1200.000	100.000
65	F	1200.000	110.000	66	F	1200.000	120.000	67	F	1200.000	130.000	68	F	1200.000	140.000
69	F	1200.000	150.000	70	F	1200.000	160.000	71	F	1200.000	170.000	72	F	1200.000	180.000
73	F	1200.000	190.000	74	F	1200.000	200.000	75	F	1200.000	210.000	76	F	1200.000	220.000
77	F	1200.000	230.000	78	F	1200.000	236.085	79	F	1500.000	90.000	80	F	1500.000	100.000
81	F	1500.000	110.000	82	F	1500.000	120.000	83	F	1500.000	130.000	84	F	1500.000	140.000
85	F	1500.000	150.000	86	F	1500.000	160.000	87	F	1500.000	170.000	88	F	1500.000	180.000
89	F	1500.000	190.000	90	F	1500.000	200.000	91	F	1500.000	210.000	92	F	1500.000	220.000
93	F	1500.000	230.000	94	F	1500.000	236.849	95	F	1800.000	90.000	96	F	1800.000	100.000
97	F	1800.000	110.000	98	F	1800.000	120.000	99	F	1800.000	130.000	100	F	1800.000	140.000
101	F	1800.000	150.000	102	F	1800.000	160.000	103	F	1800.000	170.000	104	F	1800.000	180.000
105	F	1800.000	190.000	106	F	1800.000	200.000	107	F	1800.000	210.000	108	F	1800.000	220.000
109	F	1800.000	230.000	110	F	1800.000	237.531	111	F	2100.000	90.000	112	F	2100.000	100.000
113	F	2100.000	110.000	114	F	2100.000	120.000	115	F	2100.000	130.000	116	F	2100.000	140.000
117	F	2100.000	150.000	118	F	2100.000	160.000	119	F	2100.000	170.000	120	F	2100.000	180.000
121	F	2100.000	190.000	122	F	2100.000	200.000	123	F	2100.000	210.000	124	F	2100.000	220.000
125	F	2100.000	230.000	126	F	2100.000	238.125	127	F	2400.000	90.000	128	F	2400.000	100.000
129	F	2400.000	110.000	130	F	2400.000	120.000	131	F	2400.000	130.000	132	F	2400.000	140.000
133	F	2400.000	150.000	134	F	2400.000	160.000	135	F	2400.000	170.000	136	F	2400.000	180.000
137	F	2400.000	190.000	138	F	2400.000	200.000	139	F	2400.000	210.000	140	F	2400.000	220.000
141	F	2400.000	230.000	142	F	2400.000	238.843	143	F	2700.000	90.000	144	F	2700.000	100.000
145	F	2700.000	110.000	146	F	2700.000	120.000	147	F	2700.000	130.000	148	F	2700.000	140.000
149	F	2700.000	150.000	150	F	2700.000	160.000	151	F	2700.000	170.000	152	F	2700.000	180.000
153	F	2700.000	190.000	154	F	2700.000	200.000	155	F	2700.000	210.000	156	F	2700.000	220.000
157	F	2700.000	230.000	158	F	2700.000	239.080	159	F	3000.000	90.000	160	F	3000.000	100.000
161	F	3000.000	110.000	162	F	3000.000	120.000	163	F	3000.000	130.000	164	F	3000.000	140.000
165	F	3000.000	150.000	166	F	3000.000	160.000	167	F	3000.000	170.000	168	F	3000.000	180.000
169	F	3000.000	190.000	170	F	3000.000	200.000	171	F	3000.000	210.000	172	F	3000.000	220.000
173	F	3000.000	230.000	174	F	3000.000	239.474	175	F	3300.000	90.000	176	F	3300.000	100.000
177	F	3300.000	110.000	178	F	3300.000	120.000	179	F	3300.000	130.000	180	F	3300.000	140.000
181	F	3300.000	150.000	182	F	3300.000	160.000	183	F	3300.000	170.000	184	F	3300.000	180.000
185	F	3300.000	190.000	186	F	3300.000	200.000	187	F	3300.000	210.000	188	F	3300.000	220.000
189	F	3300.000	230.000	190	F	3300.000	239.799	191	F	3600.000	90.000	192	F	3600.000	100.000
193	F	3600.000	110.000	194	F	3600.000	120.000	195	F	3600.000	130.000	196	F	3600.000	140.000
197	F	3600.000	150.000	198	F	3600.000	160.000	199	F	3600.000	170.000	200	F	3600.000	180.000
201	F	3600.000	190.000	202	F	3600.000	200.000	203	F	3600.000	210.000	204	F	3600.000	220.000
205	F	3600.000	230.000	206	F	3600.000	240.068	207	F	3900.000	90.000	208	F	3900.000	100.000
209	F	3900.000	110.000	210	F	3900.000	120.000	211	F	3900.000	130.000	212	F	3900.000	140.000
213	F	3900.000	150.000	214	F	3900.000	160.000	215	F	3900.000	170.000	216	F	3900.000	180.000

217	F	3900.000	190.000	218	F	3900.000	200.000	219	F	3900.000	210.000	220	F	3800.000	220.000
221	F	3900.000	230.000	222	F	3900.000	240.285	223	F	4200.000	90.000	224	F	4200.000	100.000
225	F	4200.000	110.000	226	F	4200.000	120.000	227	F	4200.000	130.000	228	F	4200.000	140.000
229	F	4200.000	150.000	230	F	4200.000	160.000	231	F	4200.000	170.000	232	F	4200.000	180.000
233	F	4200.000	190.000	234	F	4200.000	200.000	235	F	4200.000	210.000	236	F	4200.000	220.000
237	F	4200.000	230.000	238	F	4200.000	240.453	239	F	4500.000	90.000	240	F	4500.000	100.000
241	F	4500.000	110.000	242	F	4500.000	120.000	243	F	4500.000	130.000	244	F	4500.000	140.000
245	F	4500.000	150.000	246	F	4500.000	160.000	247	F	4500.000	170.000	248	F	4500.000	180.000
249	F	4500.000	190.000	250	F	4500.000	200.000	251	F	4500.000	210.000	252	F	4500.000	220.000
253	F	4500.000	230.000	254	F	4500.000	240.574	255	F	4800.000	90.000	256	F	4800.000	100.000
257	F	4800.000	110.000	258	F	4800.000	120.000	259	F	4800.000	130.000	260	F	4800.000	140.000
261	F	4800.000	150.000	262	F	4800.000	160.000	263	F	4800.000	170.000	264	F	4800.000	180.000
265	F	4800.000	190.000	266	F	4800.000	200.000	267	F	4800.000	210.000	268	F	4800.000	220.000
269	F	4800.000	230.000	270	F	4800.000	240.851	271	F	5100.000	90.000	272	F	5100.000	100.000
273	F	5100.000	110.000	274	F	5100.000	120.000	275	F	5100.000	130.000	278	F	5100.000	140.000
277	F	5100.000	150.000	278	F	5100.000	160.000	279	F	5100.000	170.000	280	F	5100.000	180.000
281	F	5100.000	190.000	282	F	5100.000	200.000	283	F	5100.000	210.000	284	F	5100.000	220.000
285	F	5100.000	230.000	286	F	5100.000	240.685	287	F	5400.000	90.000	288	F	5400.000	100.000
289	F	5400.000	110.000	290	F	5400.000	120.000	291	F	5400.000	130.000	292	F	5400.000	140.000
293	F	5400.000	150.000	294	F	5400.000	160.000	295	F	5400.000	170.000	296	F	5400.000	180.000
297	F	5400.000	190.000	298	F	5400.000	200.000	299	F	5400.000	210.000	300	F	5400.000	220.000
301	F	5400.000	230.000	302	F	5400.000	240.878	303	F	5700.000	90.000	304	F	5700.000	100.000
305	F	5700.000	110.000	306	F	5700.000	120.000	307	F	5700.000	130.000	308	F	5700.000	140.000
309	F	5700.000	150.000	310	F	5700.000	160.000	311	F	5700.000	170.000	312	F	5700.000	180.000
313	F	5700.000	190.000	314	F	5700.000	200.000	315	F	5700.000	210.000	316	F	5700.000	220.000
317	F	5700.000	230.000	318	F	5700.000	240.635	319	F	6000.000	90.000	320	F	6000.000	100.000
321	F	6000.000	110.000	322	F	6000.000	120.000	323	F	6000.000	130.000	324	F	6000.000	140.000
325	F	6000.000	150.000	326	F	6000.000	160.000	327	F	6000.000	170.000	328	F	6000.000	180.000
329	F	6000.000	190.000	330	F	6000.000	200.000	331	F	6000.000	210.000	332	F	6000.000	220.000
333	F	6000.000	230.000	334	F	6000.000	240.558	335	F	6300.000	90.000	336	F	6300.000	100.000
337	F	6300.000	110.000	338	F	6300.000	120.000	339	F	6300.000	130.000	340	F	6300.000	140.000
341	F	6300.000	150.000	342	F	6300.000	160.000	343	F	6300.000	170.000	344	F	6300.000	180.000
345	F	6300.000	190.000	346	F	6300.000	200.000	347	F	6300.000	210.000	348	F	6300.000	220.000
349	F	6300.000	230.000	350	F	6300.000	240.442	351	F	6600.000	90.000	352	F	6600.000	100.000
353	F	6600.000	110.000	354	F	6600.000	120.000	355	F	6600.000	130.000	356	F	6600.000	140.000
357	F	6600.000	150.000	358	F	6600.000	160.000	359	F	6600.000	170.000	360	F	6600.000	180.000
361	F	6600.000	190.000	362	F	6600.000	200.000	363	F	6600.000	210.000	364	F	6600.000	220.000
365	F	6600.000	230.000	366	F	6600.000	240.289	367	F	6900.000	90.000	368	F	6900.000	100.000
369	F	6900.000	110.000	370	F	6900.000	120.000	371	F	6900.000	130.000	372	F	6800.000	140.000
373	F	6900.000	150.000	374	F	6900.000	160.000	375	F	6900.000	170.000	376	F	6900.000	180.000
377	F	6900.000	190.000	378	F	6900.000	200.000	379	F	6900.000	210.000	380	F	6900.000	220.000
381	F	6900.000	230.000	382	F	6900.000	240.127	383	F	7200.000	90.000	384	F	7200.000	100.000
385	F	7200.000	110.000	386	F	7200.000	120.000	387	F	7200.000	130.000	388	F	7200.000	140.000
389	F	7200.000	150.000	390	F	7200.000	160.000	391	F	7200.000	170.000	392	F	7200.000	180.000
393	F	7200.000	190.000	394	F	7200.000	200.000	395	F	7200.000	210.000	396	F	7200.000	220.000
397	F	7200.000	230.000	398	F	7200.000	239.841	399	F	7500.000	90.000	400	F	7500.000	100.000
401	F	7500.000	110.000	402	F	7500.000	120.000	403	F	7500.000	130.000	404	F	7500.000	140.000
405	F	7500.000	150.000	406	F	7500.000	160.000	407	F	7500.000	170.000	408	F	7500.000	180.000
409	F	7500.000	190.000	410	F	7500.000	200.000	411	F	7500.000	210.000	412	F	7500.000	220.000
413	F	7500.000	230.000	414	F	7500.000	239.248	415	F	7800.000	90.000	416	F	7800.000	100.000
417	F	7800.000	110.000	418	F	7800.000	120.000	419	F	7800.000	130.000	420	F	7800.000	140.000
421	F	7800.000	150.000	422	F	7800.000	160.000	423	F	7800.000	170.000	424	F	7800.000	180.000
425	F	7800.000	190.000	426	F	7800.000	200.000	427	F	7800.000	210.000	428	F	7800.000	220.000
429	F	7800.000	230.000	430	F	7800.000	238.585	431	F	8100.000	90.000	432	F	8100.000	100.000
433	F	8100.000	110.000	434	F	8100.000	120.000	435	F	8100.000	130.000	436	F	8100.000	140.000
437	F	8100.000	150.000	438	F	8100.000	160.000	439	F	8100.000	170.000	440	F	8100.000	180.000
441	F	8100.000	190.000	442	F	8100.000	200.000	443	F	8100.000	210.000	444	F	8100.000	220.000
445	F	8100.000	230.000	446	F	8100.000	238.005	447	F	8400.000	90.000	448	F	8400.000	100.000
449	F	8400.000	110.000	450	F	8400.000	120.000	451	F	8400.000	130.000	452	F	8400.000	140.000
453	F	8400.000	150.000	454	F	8400.000	160.000	455	F	8400.000	170.000	456	F	8400.000	180.000

457	F 8400.000	180.000
461	F 8400.000	230.000
465	F 8700.000	110.000
469	F 8700.000	150.000
473	F 8700.000	190.000
477	F 8700.000	230.000
481	F 9000.000	110.000
485	F 9000.000	150.000
489	F 9000.000	190.000
493	F 9000.000	230.000
497	F 9300.000	110.000
501	F 9300.000	150.000
505	F 9300.000	190.000
509	F 9300.000	230.000
513	F 9600.000	110.000
517	F 9600.000	150.000
521	F 9600.000	190.000
525	F 9600.000	230.000
529	F 9900.000	110.000
533	F 9900.000	150.000
537	F 9900.000	190.000
541	F 9900.000	230.000
545	F 10200.000	100.000
549	F 10200.000	140.000
553	F 10200.000	180.000
557	F 10200.000	220.000
561	F 10500.000	90.000
565	F 10500.000	130.000
569	F 10500.000	170.000
573	F 10500.000	210.000
577	F 10500.000	248.508
581	F 10800.000	120.000
585	F 10800.000	160.000
589	F 10800.000	200.000
593	F 10800.000	240.000
597	F 11100.000	110.000
601	F 11100.000	150.000
605	F 11100.000	190.000
609	F 11100.000	230.000
613	F 11400.000	100.000
617	F 11400.000	140.000
621	F 11400.000	180.000
625	F 11400.000	220.000
629	F 11400.000	252.858
633	F 11700.000	120.000
637	F 11700.000	160.000
641	F 11700.000	200.000
645	F 11700.000	240.000
649	F 12000.000	100.000
653	F 12000.000	140.000
657	F 12000.000	180.000
661	F 12000.000	220.000
665	F 12000.000	255.843
669	F 12300.000	120.000
673	F 12300.000	160.000
677	F 12300.000	200.000
681	F 12300.000	240.000
685	F 12600.000	100.000
689	F 12600.000	140.000
693	F 12600.000	180.000

458	F 8400.000	200.000
462	F 8400.000	237.576
466	F 8700.000	120.000
470	F 8700.000	160.000
474	F 8700.000	200.000
478	F 8700.000	237.408
482	F 9000.000	120.000
486	F 9000.000	160.000
490	F 9000.000	200.000
494	F 9000.000	237.614
498	F 9300.000	120.000
502	F 9300.000	160.000
506	F 9300.000	200.000
510	F 9300.000	238.353
514	F 9600.000	120.000
518	F 9600.000	160.000
522	F 9600.000	200.000
526	F 9600.000	239.915
530	F 9900.000	120.000
534	F 9900.000	160.000
538	F 9900.000	200.000
542	F 9900.000	240.000
546	F 10200.000	110.000
550	F 10200.000	150.000
554	F 10200.000	190.000
558	F 10200.000	230.000
562	F 10500.000	100.000
566	F 10500.000	140.000
570	F 10500.000	180.000
574	F 10500.000	220.000
578	F 10800.000	90.000
582	F 10800.000	130.000
586	F 10800.000	170.000
590	F 10800.000	210.000
594	F 10800.000	249.861
598	F 11100.000	120.000
602	F 11100.000	160.000
606	F 11100.000	200.000
610	F 11100.000	240.000
614	F 11400.000	110.000
618	F 11400.000	150.000
622	F 11400.000	190.000
626	F 11400.000	230.000
630	F 11700.000	80.000
634	F 11700.000	130.000
638	F 11700.000	170.000
642	F 11700.000	210.000
646	F 11700.000	250.000
650	F 12000.000	110.000
654	F 12000.000	150.000
658	F 12000.000	190.000
662	F 12000.000	230.000
666	F 12300.000	90.000
670	F 12300.000	130.000
674	F 12300.000	170.000
678	F 12300.000	210.000
682	F 12300.000	250.000
686	F 12600.000	110.000
690	F 12600.000	150.000
694	F 12600.000	190.000

459	F 8400.000	210.000
463	F 8700.000	90.000
467	F 8700.000	130.000
471	F 8700.000	170.000
475	F 8700.000	210.000
479	F 9000.000	90.000
483	F 9000.000	130.000
487	F 9000.000	170.000
491	F 9000.000	210.000
495	F 9300.000	90.000
499	F 9300.000	130.000
503	F 9300.000	170.000
507	F 9300.000	210.000
511	F 9600.000	90.000
515	F 9600.000	130.000
519	F 9600.000	170.000
523	F 9600.000	210.000
527	F 9900.000	80.000
531	F 9900.000	130.000
535	F 9900.000	170.000
539	F 9900.000	210.000
543	F 9900.000	242.858
547	F 10200.000	120.000
551	F 10200.000	160.000
555	F 10200.000	200.000
559	F 10200.000	240.000
563	F 10500.000	110.000
567	F 10500.000	150.000
571	F 10500.000	190.000
575	F 10500.000	230.000
579	F 10800.000	100.000
583	F 10800.000	140.000
587	F 10800.000	180.000
591	F 10800.000	220.000
595	F 11100.000	90.000
599	F 11100.000	130.000
603	F 11100.000	170.000
607	F 11100.000	210.000
611	F 11100.000	251.233
615	F 11400.000	120.000
619	F 11400.000	160.000
623	F 11400.000	200.000
627	F 11400.000	240.000
631	F 11700.000	100.000
635	F 11700.000	140.000
639	F 11700.000	180.000
643	F 11700.000	220.000
647	F 11700.000	254.151
651	F 12000.000	120.000
655	F 12000.000	160.000
659	F 12000.000	200.000
663	F 12000.000	240.000
667	F 12300.000	100.000
671	F 12300.000	140.000
675	F 12300.000	180.000
679	F 12300.000	220.000
683	F 12300.000	257.118
687	F 12600.000	120.000
691	F 12600.000	160.000
695	F 12600.000	200.000

460	F 8400.000	220 0
464	F 8700.000	100 0
468	F 8700.000	140 0
472	F 8700.000	180.000
476	F 8700.000	220.000
480	F 9000.000	100.000
484	F 9000.000	140 0
488	F 9000.000	180 0
492	F 9000.000	220 0
496	F 9300.000	100 0
500	F 9300.000	140.000
504	F 9300.000	180.000
508	F 9300.000	220.000
512	F 9600.000	100 0
516	F 9600.000	140 0
520	F 9600.000	180 0
524	F 9600.000	220 0
528	F 9900.000	100.000
532	F 9900.000	140.000
536	F 9900.000	180 000
540	F 9900.000	220 0
544	F 10200.000	80 0
548	F 10200.000	130 0
552	F 10200.000	170 0
556	F 10200.000	210.000
560	F 10200.000	247.282
564	F 10500.000	120 000
568	F 10500.000	160 0
572	F 10500.000	200 0
576	F 10500.000	240 0
580	F 10800.000	110 0
584	F 10800.000	150.000
588	F 10800.000	190.000
592	F 10800.000	230 000
596	F 11100.000	100 0
600	F 11100.000	140 0
604	F 11100.000	180 0
608	F 11100.000	220 0
612	F 11400.000	90.000
616	F 11400.000	130.000
620	F 11400.000	170 000
624	F 11400.000	210 0
628	F 11400.000	250 0
632	F 11700.000	110 0
636	F 11700.000	150 0
640	F 11700.000	190.000
644	F 11700.000	230.000
648	F 12000.000	90 000
652	F 12000.000	130 0
656	F 12000.000	170 0
660	F 12000.000	210 0
664	F 12000.000	250 0
668	F 12300.000	110.000
672	F 12300.000	150.000
676	F 12300.000	190 000
680	F 12300.000	230 0
684	F 12600.000	90 0
688	F 12600.000	130 0
692	F 12600.000	170 0
696	F 12600.000	210.000

697	F 12600.000	220.000
701	F 12800.000	258.585
705	F 12800.000	120.000
709	F 12800.000	160.000
713	F 12800.000	200.000
717	F 12800.000	240.000
721	F 13200.000	100.000
725	F 13200.000	140.000
729	F 13200.000	180.000
733	F 13200.000	220.000
737	F 13200.000	261.317
741	F 13500.000	120.000
745	F 13500.000	160.000
749	F 13500.000	200.000
753	F 13500.000	240.000
757	F 13800.000	90.000
761	F 13800.000	130.000
765	F 13800.000	170.000
769	F 13800.000	210.000
773	F 13800.000	250.000
777	F 14100.000	100.000
781	F 14100.000	140.000
785	F 14100.000	180.000
789	F 14100.000	220.000
793	F 14100.000	260.000
797	F 14400.000	110.000
801	F 14400.000	150.000
805	F 14400.000	190.000
809	F 14400.000	230.000
813	F 14400.000	285.988
817	F 14700.000	120.000
821	F 14700.000	160.000
825	F 14700.000	200.000
829	F 14700.000	240.000
833	F 15000.000	80.000
837	F 15000.000	130.000
841	F 15000.000	170.000
845	F 15000.000	210.000
849	F 15000.000	250.000
853	F 15300.000	100.000
857	F 15300.000	140.000
861	F 15300.000	180.000
865	F 15300.000	220.000
869	F 15300.000	260.000
873	F 15600.000	110.000
877	F 15600.000	150.000
881	F 15600.000	190.000
885	F 15600.000	230.000
889	F 15600.000	269.175
893	F 15900.000	120.000
897	F 15900.000	160.000
901	F 15900.000	200.000
905	F 15900.000	240.000
909	F 16200.000	80.000
913	F 16200.000	130.000
917	F 16200.000	170.000
921	F 16200.000	210.000
925	F 16200.000	250.000
929	F 16500.000	100.000
933	F 16500.000	140.000

698	F 12600.000	230.000
702	F 12900.000	90.000
706	F 12900.000	130.000
710	F 12900.000	170.000
714	F 12900.000	210.000
718	F 12900.000	250.000
722	F 13200.000	110.000
726	F 13200.000	150.000
730	F 13200.000	190.000
734	F 13200.000	230.000
738	F 13500.000	90.000
742	F 13500.000	130.000
746	F 13500.000	170.000
750	F 13500.000	210.000
754	F 13500.000	250.000
758	F 13800.000	100.000
762	F 13800.000	140.000
766	F 13800.000	180.000
770	F 13800.000	220.000
774	F 13800.000	260.000
778	F 14100.000	110.000
782	F 14100.000	150.000
786	F 14100.000	190.000
790	F 14100.000	230.000
794	F 14100.000	264.843
798	F 14400.000	120.000
802	F 14400.000	160.000
806	F 14400.000	200.000
810	F 14400.000	240.000
814	F 14700.000	90.000
818	F 14700.000	130.000
822	F 14700.000	170.000
826	F 14700.000	210.000
830	F 14700.000	250.000
834	F 15000.000	100.000
838	F 15000.000	140.000
842	F 15000.000	180.000
846	F 15000.000	220.000
850	F 15000.000	260.000
854	F 15300.000	110.000
858	F 15300.000	150.000
862	F 15300.000	190.000
866	F 15300.000	230.000
870	F 15300.000	268.536
874	F 15600.000	120.000
878	F 15600.000	160.000
882	F 15600.000	200.000
886	F 15600.000	240.000
890	F 15900.000	90.000
894	F 15900.000	130.000
898	F 15900.000	170.000
902	F 15900.000	210.000
906	F 15900.000	250.000
910	F 16200.000	100.000
914	F 16200.000	140.000
918	F 16200.000	180.000
922	F 16200.000	220.000
926	F 16200.000	260.000
930	F 16500.000	110.000
934	F 16500.000	150.000

699	F 12600.000	240.000
703	F 12900.000	100.000
707	F 12900.000	140.000
711	F 12900.000	180.000
715	F 12900.000	220.000
719	F 12900.000	259.988
723	F 13200.000	120.000
727	F 13200.000	160.000
731	F 13200.000	200.000
735	F 13200.000	240.000
739	F 13500.000	100.000
743	F 13500.000	140.000
747	F 13500.000	180.000
751	F 13500.000	220.000
755	F 13500.000	260.000
759	F 13800.000	110.000
763	F 13800.000	150.000
767	F 13800.000	190.000
771	F 13800.000	230.000
775	F 13800.000	263.813
779	F 14100.000	120.000
783	F 14100.000	160.000
787	F 14100.000	200.000
791	F 14100.000	240.000
795	F 14400.000	80.000
799	F 14400.000	130.000
803	F 14400.000	170.000
807	F 14400.000	210.000
811	F 14400.000	250.000
815	F 14700.000	100.000
819	F 14700.000	140.000
823	F 14700.000	180.000
827	F 14700.000	220.000
831	F 14700.000	260.000
835	F 15000.000	110.000
839	F 15000.000	150.000
843	F 15000.000	190.000
847	F 15000.000	230.000
851	F 15000.000	267.788
855	F 15300.000	120.000
859	F 15300.000	160.000
863	F 15300.000	200.000
867	F 15300.000	240.000
871	F 15600.000	80.000
875	F 15600.000	130.000
879	F 15600.000	170.000
883	F 15600.000	210.000
887	F 15600.000	250.000
891	F 15900.000	100.000
895	F 15900.000	140.000
899	F 15900.000	180.000
903	F 15900.000	220.000
907	F 15900.000	260.000
911	F 16200.000	110.000
915	F 16200.000	150.000
919	F 16200.000	190.000
923	F 16200.000	230.000
927	F 16200.000	270.113
931	F 16500.000	120.000
935	F 16500.000	160.000

700	F 12800.000	250.000
704	F 12900.000	110.000
708	F 12900.000	150.000
712	F 12900.000	190)0
716	F 12900.000	230)0
720	F 13200.000	90)0
724	F 13200.000	130)0
728	F 13200.000	170.000
732	F 13200.000	210.000
736	F 13200.000	250.000
740	F 13500.000	110)0
744	F 13500.000	150)0
748	F 13500.000	190)0
752	F 13500.000	230)0
756	F 13500.000	262.601
760	F 13800.000	120.000
764	F 13800.000	160.000
768	F 13800.000	200)0
772	F 13800.000	240)0
776	F 14100.000	80)0
780	F 14100.000	130)0
784	F 14100.000	170.000
788	F 14100.000	210.000
792	F 14100.000	250.000
796	F 14400.000	100)0
800	F 14400.000	140)0
804	F 14400.000	180)0
808	F 14400.000	220)0
812	F 14400.000	260.000
816	F 14700.000	110.000
820	F 14700.000	150.000
824	F 14700.000	190)0
828	F 14700.000	230)0
832	F 14700.000	281)5
836	F 15000.000	120)0
840	F 15000.000	160.000
844	F 15000.000	200.000
848	F 15000.000	240.000
852	F 15300.000	80)0
856	F 15300.000	130)0
860	F 15300.000	170)0
864	F 15300.000	210)0
868	F 15300.000	250.000
872	F 15600.000	100.000
876	F 15600.000	140.000
880	F 15600.000	180)0
884	F 15600.000	220)0
888	F 15600.000	260)0
892	F 15900.000	110)0
896	F 15900.000	150.000
900	F 15900.000	190.000
904	F 15900.000	230.000
908	F 15900.000	281)3
912	F 16200.000	120)0
916	F 16200.000	160)0
920	F 16200.000	200)0
924	F 16200.000	240.000
928	F 16500.000	80.000
932	F 16500.000	130.000
936	F 16500.000	170)0

937	F	18500.000	180.000	938	F	18500.000	190.000	939	F	18500.000	200.000	940	F	18500.000	210.000
941	F	18500.000	220.000	942	F	18500.000	230.000	943	F	18500.000	240.000	944	F	18500.000	250.000
945	F	18500.000	260.000	946	F	18500.000	270.402	947	F	18600.000	90.000	948	F	18800.000	100.000
949	F	18800.000	110.000	950	F	18800.000	120.000	951	F	18800.000	130.000	952	F	18800.000	140.000
953	F	18800.000	150.000	954	F	18800.000	160.000	955	F	18800.000	170.000	956	F	18800.000	180.000
957	F	18800.000	190.000	958	F	18800.000	200.000	959	F	18800.000	210.000	960	F	18800.000	220.000
961	F	18800.000	230.000	962	F	18800.000	240.000	963	F	18800.000	250.000	964	F	18800.000	260.000
965	F	18800.000	270.552	966	F	17100.000	90.000	967	F	17100.000	100.000	968	F	17100.000	110.000
969	F	17100.000	120.000	970	F	17100.000	130.000	971	F	17100.000	140.000	972	F	17100.000	150.000
973	F	17100.000	160.000	974	F	17100.000	170.000	975	F	17100.000	180.000	976	F	17100.000	190.000
977	F	17100.000	200.000	978	F	17100.000	210.000	979	F	17100.000	220.000	980	F	17100.000	230.000
981	F	17100.000	240.000	982	F	17100.000	250.000	983	F	17100.000	260.000	984	F	17100.000	270.588
985	F	17400.000	90.000	986	F	17400.000	100.000	987	F	17400.000	110.000	988	F	17400.000	120.000
989	F	17400.000	130.000	990	F	17400.000	140.000	991	F	17400.000	150.000	992	F	17400.000	160.000
993	F	17400.000	170.000	994	F	17400.000	180.000	995	F	17400.000	190.000	996	F	17400.000	200.000
997	F	17400.000	210.000	998	F	17400.000	220.000	999	F	17400.000	230.000	1000	F	17400.000	240.000
1001	F	17400.000	250.000	1002	F	17400.000	260.000	1003	F	17400.000	270.475	1004	F	17700.000	90.000
1005	F	17700.000	100.000	1006	F	17700.000	110.000	1007	F	17700.000	120.000	1008	F	17700.000	130.000
1009	F	17700.000	140.000	1010	F	17700.000	150.000	1011	F	17700.000	160.000	1012	F	17700.000	170.000
1013	F	17700.000	180.000	1014	F	17700.000	190.000	1015	F	17700.000	200.000	1016	F	17700.000	210.000
1017	F	17700.000	220.000	1018	F	17700.000	230.000	1019	F	17700.000	240.000	1020	F	17700.000	250.000
1021	F	17700.000	260.000	1022	F	17700.000	270.211	1023	F	18000.000	90.000	1024	F	18000.000	100.000
1025	F	18000.000	110.000	1026	F	18000.000	120.000	1027	F	18000.000	130.000	1028	F	18000.000	140.000
1029	F	18000.000	150.000	1030	F	18000.000	160.000	1031	F	18000.000	170.000	1032	F	18000.000	180.000
1033	F	18000.000	190.000	1034	F	18000.000	200.000	1035	F	18000.000	210.000	1036	F	18000.000	220.000
1037	F	18000.000	230.000	1038	F	18000.000	240.000	1039	F	18000.000	250.000	1040	F	18000.000	260.000
1041	F	18000.000	269.759												

ELEMENT INCIDENCES AND TYPE

ELEMENT	INCIDENCES			TYPE	ELEMENT	INCIDENCES			TYPE	ELEMENT	INCIDENCES			TYPE	ELEMENT	INCIDENCES			TYPE
1:	1	16	17	F	2:	1	17	2	F	3:	2	17	18	F	4:	2	18	3	F
5:	3	18	19	F	6:	3	19	4	F	7:	4	19	20	F	8:	4	20	5	F
9:	5	20	21	F	10:	5	21	6	F	11:	6	21	22	F	12:	6	22	7	F
13:	7	22	23	F	14:	7	23	8	F	15:	8	23	24	F	16:	8	24	9	F
17:	9	24	25	F	18:	9	25	10	F	19:	10	25	26	F	20:	10	26	11	F
21:	11	26	27	F	22:	11	27	12	F	23:	12	27	28	F	24:	12	28	13	F
25:	13	28	29	F	26:	13	29	14	F	27:	14	29	30	F	28:	14	30	15	F
29:	15	31	32	F	30:	15	32	17	F	31:	17	32	33	F	32:	17	33	18	F
33:	18	33	34	F	34:	18	34	19	F	35:	19	34	35	F	36:	19	35	20	F
37:	20	35	36	F	38:	20	36	21	F	39:	21	36	37	F	40:	21	37	22	F
41:	22	37	38	F	42:	22	38	23	F	43:	23	38	39	F	44:	23	39	24	F
45:	24	39	40	F	46:	24	40	25	F	47:	25	40	41	F	48:	25	41	26	F
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861:	458	475	459	F
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869:	463	480	464	F
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877:	467	484	468	F
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885:	471	488	472	F
889:	473	490	474	F
893:	475	492	476	F
897:	477	494	478	T
901:	480	497	481	F
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921:	490	507	491	F
925:	492	509	493	F
929:	495	512	496	F

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718:	383	398	400	F
722:	385	401	402	F
726:	387	403	404	F
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742:	395	411	412	F
746:	397	413	414	F
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754:	402	418	419	F
758:	404	420	421	F
762:	406	422	423	F
766:	408	424	425	F
770:	410	426	427	F
774:	412	428	429	F
778:	415	431	432	F
782:	417	433	434	F
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790:	421	437	438	F
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798:	425	441	442	F
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922:	491	507	508	F
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747:	397	414	398	T
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755:	402	419	403	F
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775:	412	429	413	F
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863:	459	476	460	F
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915:	487	504	488	F
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923:	491	508	492	F
927:	493	510	494	T
931:	496	513	497	F

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752:	401	417	418	F
756:	403	419	420	F
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768:	409	425	426	F
772:	411	427	428	F
776:	413	429	430	F
780:	416	432	433	F
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792:	422	438	439	F
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800:	426	442	443	F
804:	428	444	445	F
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856:	456	472	473	F
860:	458	474	475	F
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876:	467	483	484	F
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912:	486	502	503	F
916:	488	504	505	F
920:	490	506	507	F
924:	492	508	509	F
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932:	497	513	514	F

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1165:	619	636	620	F
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942:	502	518	519	F
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1162:	618	636	637	F
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1170:	622	640	641	F

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1163:	618	637	619	F
1167:	620	639	621	F
1171:	622	641	623	F

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980:	522	538	539	F
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988:	526	542	543	F
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1012:	538	556	539	F
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1160:	617	635	636	F
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1213:	844	863	845	F
1217:	846	865	847	T
1221:	848	868	850	F
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1285:	882	701	883	T
1289:	885	704	886	F
1293:	887	708	888	F
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1313:	897	716	898	F
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1369:	727	746	728	F
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1393:	740	759	760	F
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1405:	746	765	766	F
1409:	748	767	768	F

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1394:	740	760	741	F
1398:	742	762	743	F
1402:	744	764	745	F
1406:	746	766	747	F
1410:	748	768	749	F

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1183:	828	847	829	T
1187:	831	850	832	F
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1207:	841	860	842	F
1211:	843	862	844	F
1215:	845	864	846	F
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1231:	854	873	855	F
1235:	856	875	857	F
1239:	858	877	859	F
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1247:	862	881	863	F
1251:	864	883	865	T
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1267:	873	892	874	F
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1355:	720	739	721	F
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1367:	726	745	727	F
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1379:	732	751	733	F
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1387:	736	755	737	F
1391:	739	758	759	F
1395:	741	760	761	F
1399:	743	762	763	F
1403:	745	764	765	F
1407:	747	766	767	F
1411:	749	768	769	F

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1180:	827	845	848	F
1184:	830	848	849	F
1188:	832	850	851	F
1192:	834	852	853	F
1196:	836	854	855	F
1200:	838	856	857	F
1204:	840	858	859	F
1208:	842	860	861	F
1212:	844	862	863	F
1216:	846	864	865	F
1220:	849	867	868	F
1224:	851	869	870	F
1228:	853	871	872	F
1232:	855	873	874	F
1236:	857	875	876	F
1240:	859	877	878	F
1244:	861	879	880	F
1248:	863	881	882	F
1252:	866	884	885	F
1256:	868	886	887	F
1260:	870	888	889	F
1264:	872	890	891	F
1268:	874	892	893	F
1272:	876	894	895	F
1276:	878	896	897	F
1280:	880	898	899	F
1284:	882	700	701	F
1288:	885	703	704	F
1292:	887	705	706	F
1296:	889	707	708	F
1300:	891	709	710	F
1304:	893	711	712	F
1308:	895	713	714	F
1312:	897	715	716	F
1316:	899	717	718	F
1320:	702	720	721	F
1324:	704	722	723	F
1328:	706	724	725	F
1332:	708	726	727	F
1336:	710	728	729	F
1340:	712	730	731	F
1344:	714	732	733	F
1348:	716	734	735	F
1352:	718	736	737	F
1356:	721	738	740	F
1360:	723	741	742	F
1364:	725	743	744	F
1368:	727	745	748	F
1372:	729	747	748	F
1376:	731	749	750	F
1380:	733	751	752	F
1384:	735	753	754	F
1388:	737	755	756	T
1392:	739	759	740	F
1396:	741	761	742	F
1400:	743	763	744	F
1404:	745	765	746	F
1408:	747	767	748	F
1412:	749	769	750	F

1413:	750	769	770	F
1417:	752	771	772	F
1421:	754	773	774	F
1425:	757	776	777	F
1429:	759	778	779	F
1433:	761	780	781	F
1437:	763	782	783	F
1441:	765	784	785	F
1445:	767	786	787	F
1449:	769	788	789	F
1453:	771	790	791	F
1457:	773	792	793	F
1461:	776	795	796	F
1465:	778	797	798	F
1469:	780	799	800	F
1473:	782	801	802	F
1477:	784	803	804	F
1481:	786	805	808	F
1485:	788	807	808	F
1489:	790	809	810	F
1493:	792	811	812	F
1497:	795	814	815	F
1501:	797	816	817	F
1505:	799	818	819	F
1509:	801	820	821	F
1513:	803	822	823	F
1517:	805	824	825	F
1521:	807	826	827	F
1525:	809	828	829	F
1529:	811	830	831	F
1533:	814	833	834	F
1537:	816	835	838	F
1541:	818	837	838	F
1545:	820	838	840	F
1549:	822	841	842	F
1553:	824	843	844	F
1557:	826	845	848	F
1561:	828	847	848	F
1565:	830	849	850	F
1569:	833	852	853	F
1573:	835	854	856	F
1577:	837	856	857	F
1581:	839	858	859	F
1585:	841	860	861	F
1589:	843	862	863	F
1593:	845	864	865	F
1597:	847	866	867	F
1601:	849	868	869	F
1605:	852	871	872	F
1609:	854	873	874	F
1613:	856	875	876	F
1617:	858	877	878	F
1621:	860	879	880	F
1625:	862	881	882	F
1629:	864	883	884	F
1633:	866	885	886	F
1637:	868	887	888	F
1641:	871	890	891	F
1645:	873	892	893	F
1649:	875	894	895	F

1414:	750	770	751	F
1418:	752	772	753	F
1422:	754	774	755	F
1426:	757	777	758	F
1430:	759	779	760	F
1434:	761	781	762	F
1438:	763	783	764	F
1442:	765	785	766	F
1446:	767	787	768	F
1450:	769	789	770	F
1454:	771	791	772	F
1458:	773	793	774	F
1462:	776	796	777	F
1466:	778	798	779	F
1470:	780	800	781	F
1474:	782	802	783	F
1478:	784	804	785	F
1482:	788	806	787	F
1486:	788	808	789	F
1490:	790	810	791	F
1494:	792	812	793	F
1498:	795	815	796	F
1502:	797	817	798	F
1506:	799	818	800	F
1510:	801	821	802	F
1514:	803	823	804	F
1518:	805	825	806	F
1522:	807	827	808	F
1526:	809	829	810	F
1530:	811	831	812	F
1534:	814	834	815	F
1538:	816	836	817	F
1542:	818	836	819	F
1546:	820	840	821	F
1550:	822	842	823	F
1554:	824	844	825	F
1558:	826	846	827	F
1562:	828	848	829	F
1566:	830	850	831	F
1570:	833	853	834	F
1574:	835	855	838	F
1578:	837	857	838	F
1582:	839	859	840	F
1586:	841	861	842	F
1590:	843	863	844	F
1594:	845	865	846	F
1598:	847	867	848	F
1602:	849	869	850	F
1606:	852	872	853	F
1610:	854	874	855	F
1614:	856	876	857	F
1618:	858	878	859	F
1622:	860	880	861	F
1626:	862	882	883	F
1630:	864	884	885	F
1634:	866	886	867	F
1638:	868	888	869	F
1642:	871	891	872	F
1646:	873	893	874	F
1650:	875	895	876	F

1415:	751	770	771	F
1419:	753	772	773	F
1423:	755	774	775	F
1427:	758	777	778	F
1431:	760	779	780	F
1435:	762	781	782	F
1439:	764	783	784	F
1443:	766	785	786	F
1447:	768	787	788	F
1451:	770	789	790	F
1455:	772	791	792	F
1459:	774	793	794	F
1463:	777	796	797	F
1467:	779	798	799	F
1471:	781	800	801	F
1475:	783	802	803	F
1479:	785	804	805	F
1483:	787	806	807	F
1487:	788	808	809	F
1491:	791	810	811	F
1495:	793	812	813	F
1499:	796	815	816	F
1503:	798	817	818	F
1507:	800	819	820	F
1511:	802	821	822	F
1515:	804	823	824	F
1519:	806	825	828	F
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1587:	842	861	862	F
1591:	844	863	864	F
1595:	846	865	866	F
1599:	848	867	868	F
1603:	850	869	870	F
1607:	853	872	873	F
1611:	855	874	875	F
1615:	857	876	877	F
1619:	859	878	879	F
1623:	861	880	881	F
1627:	863	882	883	F
1631:	865	884	885	F
1635:	867	886	887	F
1639:	869	888	889	F
1643:	872	891	892	F
1647:	874	893	894	F
1651:	876	895	896	F

1416:	751	771	752	F
1420:	753	773	754	F
1424:	755	775	756	T
1428:	758	778	759	F
1432:	760	780	761	F
1436:	762	782	763	F
1440:	764	784	765	F
1444:	766	786	767	F
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1452:	770	790	771	F
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1464:	777	797	778	F
1468:	779	799	780	F
1472:	781	801	782	F
1476:	783	803	784	F
1480:	785	805	788	F
1484:	787	807	788	F
1488:	789	809	790	F
1492:	791	811	792	F
1496:	793	813	794	T
1500:	796	816	797	F
1504:	798	818	799	F
1508:	800	820	801	F
1512:	802	822	803	F
1516:	804	824	805	F
1520:	806	826	807	F
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1528:	810	830	811	F
1532:	812	832	813	T
1536:	815	835	816	F
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1544:	819	839	820	F
1548:	821	841	822	F
1552:	823	843	824	F
1556:	825	845	826	F
1560:	827	847	828	F
1564:	828	849	830	F
1568:	831	851	832	T
1572:	834	854	835	F
1576:	836	856	837	F
1580:	838	858	839	F
1584:	840	860	841	F
1588:	842	862	843	F
1592:	844	864	845	F
1596:	846	866	847	F
1600:	848	868	849	F
1604:	850	870	851	T
1608:	853	873	854	F
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1616:	857	877	858	F
1620:	859	879	880	F
1624:	861	881	882	F
1628:	863	883	884	F
1632:	866	885	886	F
1636:	867	887	888	F
1640:	889	889	870	T
1644:	872	892	873	F
1648:	874	894	875	F
1652:	876	896	877	F

1653:	877	896	897	F	1654:	877	897	878	F	1655:	878	897	898	F	1656:	878	898	879	F
1657:	878	898	899	F	1658:	879	899	880	F	1659:	880	899	900	F	1660:	880	900	881	F
1661:	881	900	901	F	1662:	881	901	882	F	1663:	882	901	902	F	1664:	882	902	883	F
1665:	883	902	903	F	1666:	883	903	884	F	1667:	884	903	904	F	1668:	884	904	885	F
1669:	885	904	905	F	1670:	885	905	886	F	1671:	886	905	906	F	1672:	886	906	887	F
1673:	887	906	907	F	1674:	887	907	888	F	1675:	888	907	908	F	1676:	888	908	889	T
1677:	890	909	910	F	1678:	890	910	891	F	1679:	891	910	911	F	1680:	891	911	892	F
1681:	892	911	912	F	1682:	892	912	893	F	1683:	893	912	913	F	1684:	893	913	894	F
1685:	894	913	914	F	1686:	894	914	895	F	1687:	895	914	915	F	1688:	895	915	896	F
1689:	896	915	916	F	1690:	896	916	897	F	1691:	897	916	917	F	1692:	897	917	898	F
1693:	898	917	918	F	1694:	898	918	899	F	1695:	899	918	919	F	1696:	899	919	900	F
1697:	900	919	920	F	1698:	900	920	901	F	1699:	901	920	921	F	1700:	901	921	902	F
1701:	902	921	922	F	1702:	902	922	903	F	1703:	903	922	923	F	1704:	903	923	904	F
1705:	904	923	924	F	1706:	904	924	905	F	1707:	905	924	925	F	1708:	905	925	906	F
1709:	906	925	926	F	1710:	906	926	907	F	1711:	907	926	927	F	1712:	907	927	908	T
1713:	909	928	929	F	1714:	909	929	910	F	1715:	910	929	930	F	1716:	910	930	911	F
1717:	911	930	931	F	1718:	911	931	912	F	1719:	912	931	932	F	1720:	912	932	913	F
1721:	913	932	933	F	1722:	913	933	914	F	1723:	914	933	934	F	1724:	914	934	915	F
1725:	915	934	935	F	1726:	915	935	916	F	1727:	916	935	936	F	1728:	916	936	917	F
1729:	917	936	937	F	1730:	917	937	918	F	1731:	918	937	938	F	1732:	918	938	919	F
1733:	919	938	939	F	1734:	919	939	920	F	1735:	920	939	940	F	1736:	920	940	921	F
1737:	921	940	941	F	1738:	921	941	922	F	1739:	922	941	942	F	1740:	922	942	922	F
1741:	923	942	943	F	1742:	923	943	924	F	1743:	924	943	944	F	1744:	924	944	925	F
1745:	925	944	945	F	1746:	925	945	926	F	1747:	926	945	946	F	1748:	926	946	927	T
1749:	928	947	948	F	1750:	928	948	929	F	1751:	929	948	949	F	1752:	929	949	930	F
1753:	930	949	950	F	1754:	930	950	931	F	1755:	931	950	951	F	1756:	931	951	932	F
1757:	932	951	952	F	1758:	932	952	933	F	1759:	933	952	953	F	1760:	933	953	934	F
1761:	934	953	954	F	1762:	934	954	935	F	1763:	935	954	955	F	1764:	935	955	936	F
1765:	936	955	956	F	1766:	936	956	937	F	1767:	937	956	957	F	1768:	937	957	938	F
1769:	938	957	958	F	1770:	938	958	939	F	1771:	939	958	959	F	1772:	938	959	940	F
1773:	940	959	960	F	1774:	940	960	941	F	1775:	941	960	961	F	1776:	941	961	942	F
1777:	942	961	962	F	1778:	942	962	943	F	1779:	943	962	963	F	1780:	943	963	944	F
1781:	944	963	964	F	1782:	944	964	945	F	1783:	945	964	965	F	1784:	945	965	946	T
1785:	947	966	967	F	1786:	947	967	948	F	1787:	948	967	968	F	1788:	948	968	949	F
1789:	949	968	969	F	1790:	949	969	950	F	1791:	950	969	970	F	1792:	950	970	951	F
1793:	951	970	971	F	1794:	951	971	952	F	1795:	952	971	972	F	1796:	952	972	953	F
1797:	953	972	973	F	1798:	953	973	954	F	1799:	954	973	974	F	1800:	954	974	955	F
1801:	955	974	975	F	1802:	955	975	956	F	1803:	956	975	976	F	1804:	956	976	957	F
1805:	957	976	977	F	1806:	957	977	958	F	1807:	958	977	978	F	1808:	958	978	959	F
1809:	959	978	979	F	1810:	959	979	960	F	1811:	960	979	980	F	1812:	960	980	961	F
1813:	961	980	981	F	1814:	961	981	982	F	1815:	982	981	982	F	1816:	962	982	983	F
1817:	963	982	983	F	1818:	963	983	984	F	1819:	964	983	984	F	1820:	964	984	885	T
1821:	986	985	986	F	1822:	986	986	987	F	1823:	987	986	987	F	1824:	967	987	988	F
1825:	968	987	988	F	1826:	968	988	989	F	1827:	989	988	989	F	1828:	988	989	970	F
1829:	970	989	990	F	1830:	970	990	971	F	1831:	971	990	991	F	1832:	971	991	972	F
1833:	972	991	992	F	1834:	972	992	973	F	1835:	973	992	993	F	1836:	973	993	974	F
1837:	974	993	994	F	1838:	974	994	975	F	1839:	975	994	995	F	1840:	975	995	976	F
1841:	976	995	996	F	1842:	976	996	977	F	1843:	977	996	997	F	1844:	977	997	978	F
1845:	978	997	998	F	1846:	978	998	979	F	1847:	979	998	999	F	1848:	979	999	980	F
1849:	980	999	1000	F	1850:	980	1000	981	F	1851:	981	1000	1001	F	1852:	981	1001	982	F
1853:	982	1001	1002	F	1854:	982	1002	983	F	1855:	983	1002	1003	F	1856:	983	1003	984	T
1857:	985	1004	1005	F	1858:	985	1005	986	F	1859:	986	1005	1006	F	1860:	986	1006	987	F
1861:	987	1006	1007	F	1862:	987	1007	988	F	1863:	988	1007	1008	F	1864:	988	1008	989	F
1865:	989	1008	1009	F	1866:	989	1009	990	F	1867:	990	1009	1010	F	1868:	990	1010	991	F
1869:	991	1010	1011	F	1870:	991	1011	992	F	1871:	992	1011	1012	F	1872:	992	1012	993	F
1873:	993	1012	1013	F	1874:	993	1013	994	F	1875:	994	1013	1014	F	1876:	994	1014	995	F
1877:	995	1014	1015	F	1878:	995	1015	996	F	1879:	996	1015	1016	F	1880:	996	1016	997	F
1881:	997	1016	1017	F	1882:	997	1017	998	F	1883:	998	1017	1018	F	1884:	998	1018	999	F
1885:	999	1018	1019	F	1886:	999	1019	1000	F	1887:	1000	1019	1020	F	1888:	1000	1020	1001	F
1889:	1001	1020	1021	F	1890:	1001	1021	1002	F	1891:	1002	1021	1022	F	1892:	1002	1022	1003	T

1893:	1004	1023	1024	F	1894:	1004	1024	1005	F	1895:	1005	1024	1025	F	1896:	1005	1025	1006	F
1897:	1006	1025	1026	F	1898:	1006	1026	1007	F	1899:	1007	1026	1027	F	1900:	1007	1027	1008	F
1901:	1008	1027	1028	F	1902:	1008	1028	1009	F	1903:	1008	1028	1028	F	1904:	1009	1029	1010	F
1905:	1010	1029	1030	F	1906:	1010	1030	1011	F	1907:	1011	1030	1031	F	1908:	1011	1031	1012	F
1909:	1012	1031	1032	F	1910:	1012	1032	1013	F	1911:	1013	1032	1033	F	1912:	1013	1033	1014	F
1913:	1014	1033	1034	F	1914:	1014	1034	1015	F	1915:	1015	1034	1035	F	1916:	1015	1035	1016	F
1917:	1016	1035	1036	F	1918:	1016	1036	1017	F	1919:	1017	1036	1037	F	1920:	1017	1037	1018	F
1921:	1018	1037	1038	F	1922:	1018	1038	1019	F	1923:	1019	1038	1039	F	1924:	1019	1039	1020	F
1925:	1020	1039	1040	F	1926:	1020	1040	1021	F	1927:	1021	1040	1041	F	1928:	1021	1041	1022	T

ELEMENT HYDRAULIC CONDUCTIVITIES AND STORATIVITIES

ELEM.	Kh	Kv	STOR.
1:	.3160E+03	.3160E+03	.5000E-03
2:	.3160E+03	.3160E+03	.5000E-03
3:	.3160E+03	.3160E+03	.5000E-03
4:	.3160E+03	.3160E+03	.5000E-03
5:	.3160E+03	.3160E+03	.5000E-03
6:	.3160E+03	.3160E+03	.5000E-03
7:	.3160E+03	.3160E+03	.5000E-03
8:	.3160E+03	.3160E+03	.5000E-03
9:	.3160E+03	.3160E+03	.5000E-03
10:	.3160E+03	.3160E+03	.5000E-03
11:	.3160E+03	.3160E+03	.5000E-03
12:	.3160E+03	.3160E+03	.5000E-03
13:	.3160E+03	.3160E+03	.5000E-03
14:	.3160E+03	.3160E+03	.5000E-03
15:	.3160E+03	.3160E+03	.5000E-03
16:	.3160E+03	.3160E+03	.5000E-03
17:	.3160E+03	.3160E+03	.5000E-03
18:	.3160E+03	.3160E+03	.5000E-03
19:	.3160E+03	.3160E+03	.5000E-03
20:	.3160E+03	.3160E+03	.5000E-03
21:	.3160E+03	.3160E+03	.5000E-03
22:	.3160E+03	.3160E+03	.5000E-03
23:	.3160E+03	.3160E+03	.5000E-03
24:	.3160E+03	.3160E+03	.5000E-03
25:	.3160E+03	.3160E+03	.5000E-03
26:	.3160E+03	.3160E+03	.5000E-03
27:	.3160E+03	.3160E+03	.5000E-03
28:	.3160E+03	.3160E+03	.5000E-03
29:	.3160E+03	.3160E+03	.5000E-03
30:	.3160E+03	.3160E+03	.5000E-03
31:	.3160E+03	.3160E+03	.5000E-03
32:	.3160E+03	.3160E+03	.5000E-03
33:	.3160E+03	.3160E+03	.5000E-03
34:	.3160E+03	.3160E+03	.5000E-03
35:	.3160E+03	.3160E+03	.5000E-03
36:	.3160E+03	.3160E+03	.5000E-03
37:	.3160E+03	.3160E+03	.5000E-03
38:	.3160E+03	.3160E+03	.5000E-03
39:	.3160E+03	.3160E+03	.5000E-03
40:	.3160E+03	.3160E+03	.5000E-03
41:	.3160E+03	.3160E+03	.5000E-03
42:	.3160E+03	.3160E+03	.5000E-03
43:	.3160E+03	.3160E+03	.5000E-03
44:	.3160E+03	.3160E+03	.5000E-03
45:	.3160E+03	.3160E+03	.5000E-03
46:	.3160E+03	.3160E+03	.5000E-03
47:	.3160E+03	.3160E+03	.5000E-03
48:	.3160E+03	.3160E+03	.5000E-03
49:	.3160E+03	.3160E+03	.5000E-03
50:	.3160E+03	.3160E+03	.5000E-03
51:	.3160E+03	.3160E+03	.5000E-03
52:	.3160E+03	.3160E+03	.5000E-03
53:	.3160E+03	.3160E+03	.5000E-03
54:	.3160E+03	.3160E+03	.5000E-03
55:	.3160E+03	.3160E+03	.5000E-03
56:	.3160E+03	.3160E+03	.5000E-03
57:	.9480E+04	.9480E+04	.5000E-03
58:	.3160E+03	.3160E+03	.5000E-03
59:	.3160E+03	.3160E+03	.5000E-03
60:	.3160E+03	.3160E+03	.5000E-03
61:	.3160E+03	.3160E+03	.5000E-03
62:	.3160E+03	.3160E+03	.5000E-03
63:	.3160E+03	.3160E+03	.5000E-03
64:	.3160E+03	.3160E+03	.5000E-03
65:	.3160E+03	.3160E+03	.5000E-03
66:	.3160E+03	.3160E+03	.5000E-03
67:	.3160E+03	.3160E+03	.5000E-03
68:	.3160E+03	.3160E+03	.5000E-03
69:	.3160E+03	.3160E+03	.5000E-03
70:	.3160E+03	.3160E+03	.5000E-03
71:	.3160E+03	.3160E+03	.5000E-03
72:	.3160E+03	.3160E+03	.5000E-03
73:	.3160E+03	.3160E+03	.5000E-03
74:	.3160E+03	.3160E+03	.5000E-03
75:	.3160E+03	.3160E+03	.5000E-03
76:	.3160E+03	.3160E+03	.5000E-03
77:	.3160E+03	.3160E+03	.5000E-03
78:	.3160E+03	.3160E+03	.5000E-03
79:	.3160E+03	.3160E+03	.5000E-03
80:	.3160E+03	.3160E+03	.5000E-03
81:	.3160E+03	.3160E+03	.5000E-03
82:	.3160E+03	.3160E+03	.5000E-03
83:	.3160E+03	.3160E+03	.5000E-03
84:	.3160E+03	.3160E+03	.5000E-03
85:	.3160E+03	.3160E+03	.5000E-03
86:	.9480E+04	.9480E+04	.5000E-03
87:	.9480E+04	.9480E+04	.5000E-03
88:	.3160E+03	.3160E+03	.5000E-03
89:	.3160E+03	.3160E+03	.5000E-03
90:	.3160E+03	.3160E+03	.5000E-03
91:	.3160E+03	.3160E+03	.5000E-03
92:	.3160E+03	.3160E+03	.5000E-03
93:	.3160E+03	.3160E+03	.5000E-03
94:	.3160E+03	.3160E+03	.5000E-03
95:	.3160E+03	.3160E+03	.5000E-03
96:	.3160E+03	.3160E+03	.5000E-03
97:	.3160E+03	.3160E+03	.5000E-03
98:	.3160E+03	.3160E+03	.5000E-03
99:	.3160E+03	.3160E+03	.5000E-03
100:	.3160E+03	.3160E+03	.5000E-03
101:	.3160E+03	.3160E+03	.5000E-03
102:	.3160E+03	.3160E+03	.5000E-03
103:	.3160E+03	.3160E+03	.5000E-03
104:	.3160E+03	.3160E+03	.5000E-03
105:	.3160E+03	.3160E+03	.5000E-03
106:	.3160E+03	.3160E+03	.5000E-03
107:	.3160E+03	.3160E+03	.5000E-03
108:	.3160E+03	.3160E+03	.5000E-03
109:	.3160E+03	.3160E+03	.5000E-03
110:	.3160E+03	.3160E+03	.5000E-03
111:	.3160E+03	.3160E+03	.5000E-03
112:	.3160E+03	.3160E+03	.5000E-03
113:	.3160E+03	.3160E+03	.5000E-03
114:	.3160E+03	.3160E+03	.5000E-03
115:	.3160E+03	.3160E+03	.5000E-03
116:	.9480E+04	.9480E+04	.5000E-03
117:	.9480E+04	.9480E+04	.5000E-03
118:	.3160E+03	.3160E+03	.5000E-03
119:	.3160E+03	.3160E+03	.5000E-03
120:	.3160E+03	.3160E+03	.5000E-03
121:	.3160E+03	.3160E+03	.5000E-03
122:	.3160E+03	.3160E+03	.5000E-03
123:	.3160E+03	.3160E+03	.5000E-03
124:	.3160E+03	.3160E+03	.5000E-03
125:	.3160E+03	.3160E+03	.5000E-03
126:	.3160E+03	.3160E+03	.5000E-03
127:	.3160E+03	.3160E+03	.5000E-03
128:	.3160E+03	.3160E+03	.5000E-03
129:	.3160E+03	.3160E+03	.5000E-03
130:	.3160E+03	.3160E+03	.5000E-03
131:	.3160E+03	.3160E+03	.5000E-03
132:	.3160E+03	.3160E+03	.5000E-03
133:	.3160E+03	.3160E+03	.5000E-03
134:	.3160E+03	.3160E+03	.5000E-03
135:	.3160E+03	.3160E+03	.5000E-03
136:	.3160E+03	.3160E+03	.5000E-03
137:	.3160E+03	.3160E+03	.5000E-03
138:	.3160E+03	.3160E+03	.5000E-03
139:	.3160E+03	.3160E+03	.5000E-03
140:	.3160E+03	.3160E+03	.5000E-03
141:	.3160E+03	.3160E+03	.5000E-03
142:	.3160E+03	.3160E+03	.5000E-03
143:	.3160E+03	.3160E+03	.5000E-03
144:	.3160E+03	.3160E+03	.5000E-03
145:	.3160E+03	.3160E+03	.5000E-03
146:	.9480E+04	.9480E+04	.5000E-03
147:	.9480E+04	.9480E+04	.5000E-03
148:	.3160E+03	.3160E+03	.5000E-03
149:	.3160E+03	.3160E+03	.5000E-03
150:	.3160E+03	.3160E+03	.5000E-03
151:	.3160E+03	.3160E+03	.5000E-03
152:	.3160E+03	.3160E+03	.5000E-03
153:	.3160E+03	.3160E+03	.5000E-03
154:	.3160E+03	.3160E+03	.5000E-03
155:	.3160E+03	.3160E+03	.5000E-03
156:	.3160E+03	.3160E+03	.5000E-03
157:	.3160E+03	.3160E+03	.5000E-03
158:	.3160E+03	.3160E+03	.5000E-03
159:	.3160E+01	.3160E+01	.5000E-03
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161:	.3160E+03	.3160E+03	.5000E-03
162:	.3160E+03	.3160E+03	.5000E-03
163:	.3160E+03	.3160E+03	.5000E-03
164:	.3160E+03	.3160E+03	.5000E-03
165:	.3160E+03	.3160E+03	.5000E-03
166:	.3160E+03	.3160E+03	.5000E-03
167:	.3160E+03	.3160E+03	.5000E-03
168:	.3160E+03	.3160E+03	.5000E-03
169:	.3160E+03	.3160E+03	.5000E-03
170:	.3160E+03	.3160E+03	.5000E-03
171:	.3160E+03	.3160E+03	.5000E-03
172:	.3160E+03	.3160E+03	.5000E-03
173:	.3160E+03	.3160E+03	.5000E-03
174:	.3160E+03	.3160E+03	.5000E-03
175:	.3160E+03	.3160E+03	.5000E-03
176:	.9480E+04	.9480E+04	.5000E-03
177:	.9480E+04	.9480E+04	.5000E-03
178:	.3160E+03	.3160E+03	.5000E-03
179:	.3160E+03	.3160E+03	.5000E-03
180:	.3160E+03	.3160E+03	.5000E-03
181:	.3160E+03	.3160E+03	.5000E-03
182:	.3160E+03	.3160E+03	.5000E-03
183:	.3160E+03	.3160E+03	.5000E-03
184:	.3160E+03	.3160E+03	.5000E-03
185:	.3160E+03	.3160E+03	.5000E-03
186:	.3160E+03	.3160E+03	.5000E-03
187:	.3160E+03	.3160E+03	.5000E-03
188:	.3160E+03	.3160E+03	.5000E-03
189:	.3160E+03	.3160E+03	.5000E-03
190:	.3160E+03	.3160E+03	.5000E-03
191:	.3160E+03	.3160E+03	.5000E-03
192:	.3160E+03	.3160E+03	.5000E-03
193:	.3160E+03	.3160E+03	.5000E-03
194:	.3160E+03	.3160E+03	.5000E-03
195:	.3160E+03	.3160E+03	.5000E-03
196:	.3160E+03	.3160E+03	.5000E-03
197:	.3160E+03	.3160E+03	.5000E-03
198:	.3160E+03	.3160E+03	.5000E-03
199:	.3160E+03	.3160E+03	.5000E-03
200:	.3160E+03	.3160E+03	.5000E-03
201:	.3160E+03	.3160E+03	.5000E-03
202:	.3160E+03	.3160E+03	.5000E-03
203:	.3160E+03	.3160E+03	.5000E-03
204:	.3160E+03	.3160E+03	.5000E-03
205:	.3160E+03	.3160E+03	.5000E-03
206:	.9480E+04	.9480E+04	.5000E-03
207:	.9480E+04	.9480E+04	.5000E-03
208:	.3160E+03	.3160E+03	.5000E-03
209:	.3160E+03	.3160E+03	.5000E-03
210:	.3160E+03	.3160E+03	.5000E-03
211:	.3160E+03	.3160E+03	.5000E-03
212:	.3160E+03	.3160E+03	.5000E-03
213:	.3160E+03	.3160E+03	.5000E-03
214:	.3160E+03	.3160E+03	.5000E-03
215:	.3160E+03	.3160E+03	.5000E-03
216:	.3160E+03	.3160E+03	.5000E-03
217:	.3160E+03	.3160E+03	.5000E-03
218:	.3160E+03	.3160E+03	.5000E-03
219:	.3160E+03	.3160E+03	.5000E-03
220:	.3160E+03	.3160E+03	.5000E-03
221:	.3160E+03	.3160E+03	.5000E-03
222:	.3160E+03	.3160E+03	.5000E-03
223:	.3160E+03	.3160E+03	.5000E-03
224:	.3160E+03	.3160E+03	.5000E-03
225:	.3160E+03	.3160E+03	.5000E-03
226:	.3160E+03	.3160E+03	.5000E-03
227:	.3160E+03	.3160E+03	.5000E-03
228:	.3160E+03	.3160E+03	.5000E-03
229:	.3160E+03	.3160E+03	.5000E-03
230:	.3160E+03	.3160E+03	.5000E-03
231:	.3160E+03	.3160E+03	.5000E-03
232:	.3160E+03	.3160E+03	.5000E-03
233:	.3160E+03	.3160E+03	.5000E-03
234:	.3160E+03	.3160E+03	.5000E-03
235:	.3160E+03	.3160E+03	.5000E-03
236:	.9480E+04	.9480E+04	.5000E-03
237:	.9480E+04	.9480E+04	.5000E-03
238:	.3160E+03	.3160E+03	.5000E-03
239:	.3160E+03	.3160E+03	.5000E-03
240:	.3160E+03	.3160E+03	.5000E-03
241:	.3160E+03	.3160E+03	.5000E-03
242:	.3160E+03	.3160E+03	.5000E-03
243:	.3160E+03	.3160E+03	.5000E-03
244:	.3160E+03	.3160E+03	.5000E-03
245:	.3160E+03	.3160E+03	.5000E-03
246:	.3160E+03	.3160E+03	.5000E-03
247:	.3160E+03	.3160E+03	.5000E-03
248:	.3160E+03	.3160E+03	.5000E-03
249:	.3160E+03	.3160E+03	.5000E-03
250:	.3160E+03	.3160E+03	.5000E-03
251:	.3160E+03	.3160E+03	.5000E-03
252:	.3160E+03	.3160E+03	.5000E-03
253:	.3160E+03	.3160E+03	.5000E-03
254:	.3160E+03	.3160E+03	.5000E-03
255:	.3160E+03	.3160E+03	.5000E-03
256:	.3160E+03	.3160E+03	.5000E-03
257:	.3160E+03	.3160E+03	.5000E-03
258:	.3160E+03	.3160E+03	.5000E-03
259:	.3160E+03	.3160E+03	.5000E-03
260:	.3160E+03	.3160E+03	.5000E-03
261:	.3160E+03	.3160E+03	.5000E-03
262:	.3160E+03	.3160E+03	.5000E-03
263:	.3160E+03	.3160E+03	.5000E-03
264:	.3160E+03	.3160E+03	.5000E-03
265:	.3160E+03	.3160E+03	.5000E-03
266:	.9480E+04	.9480E+04	.5000E-03
267:	.9480E+04	.9480E+04	.5000E-03
268:	.3160E+03	.3160E+03	.5000E-03
269:	.3160E+03	.3160E+03	.5000E-03
270:	.3160E+03	.3160E+03	.5000E-03
271:	.3160E+03	.3160E+03	.5000E-03
272:	.3160E+03	.3160E+03	.5000E-03
273:	.3160E+03	.3160E+03	.5000E-03
274:	.3160E+03	.3160E+03	.5000E-03
275:	.3160E+03	.3160E+03	.5000E-03
276:	.3160E+03	.3160E+03	.5000E-03
277:	.3160E+03	.3160E+03	.5000E-03
278:	.3160E+03	.3160E+03	.5000E-03
279:	.3160E+03	.3160E+03	.5000E-03
280:	.3160E+03	.3160E+03	.5000E-03
281:	.3160E+03	.3160E+03	.5000E-03
282:	.3160E+03	.3160E+03	.5000E-03
283:	.3160E+03	.3160E+03	.5000E-03
284:	.3160E+03	.3160E+03	.5000E-03
285:	.3160E+03	.3160E+03	.5000E-03
286:	.3160E+03	.3160E+03	.5000E-03
287:	.3160E+03	.3160E+03	.5000E-03
288:	.3160E+03	.3160E+03	.5000E-03
289:	.3160E+03	.3160E+03	.5000E-03
290:	.3160E+03	.3160E+03	.5000E-03
291:	.3160E+03	.3160E+03	.5000E-03
292:	.3160E+03	.3160E+03	.5000E-03
293:	.3160E+03	.3160E+03	.5000E-03
294:	.3160E+03	.3160E+03	.5000E-03
295:	.3160E+03	.3160E+03	.5000E-03
296:	.9480E+04	.9480E+04	.5000E-03
297:	.9480E+04	.9480E+04	.5000E-03
298:	.3160E+03	.3160E+03	.5000E-03
299:	.3160E+03	.3160E+03	.5000E-03
300:	.3160E+03	.3160E+03	.5000E-03
301:	.3160E+03	.3160E+03	.5000E-03
302:	.3160E+03	.3160E+03	.5000E-03
303:	.3160E+03	.3160E+03	.5000E-03
304:	.3160E+03	.3160E+03	.5000E-03
305:	.3160E+03	.3160E+03	.5000E-03
306:	.3160E+03	.3160E+03	.5000E-03
307:	.3160E+03	.3160E+03	.5000E-03
308:	.3160E+03	.3160E+03	.5000E-03
309:	.3160E+03	.3160E+03	.5000E-03
310:	.3160E+03	.3160E+03	.5000E-03
311:	.3160E+03	.3160E+03	.5000E-03
312:	.3160E+03	.3160E+03	.5000E-03
313:	.3160E+03	.3160E+03	.5000E-03
314:	.3160E+03	.3160E+03	.5000E-03
315:	.3160E+03	.3160E+03	.5000E-03
316:	.3160E+03	.3160E+03	.5000E-03
317:	.3160E+03	.3160E+03	.5000E-03
318:	.3160E+03	.3160E+03	.5000E-03
319:	.3160E+03	.3160E+03	.5000E-03
320:	.3160E+03	.3160E+03	.5000E-03
321:	.3160E+03	.3160E+03	.5000E-03
322:	.3160E+03	.3160E+03	.5000E-03
323:	.3160E+03	.3160E+03	.5000E-03
324:	.3160E+03	.3160E+03	.5000E-03
325:	.3160E+03	.3160E+03	.5000E-03
326:	.9480E+04	.9480E+04	.5000E-03
327:	.9480E+04	.9480E+04	.5000E-03
328:	.3160E+03	.3160E+03	.5000E-03
329:	.3160E+03	.3160E+03	.5000E-03
330:	.3160E+03	.3160E+03	.5000E-03
331:	.3160E+03	.3160E+03	.5000E-03
332:	.3160E+03	.3160E+03	.5000E-03
333:	.3160E+03	.3160E+03	.5000E-03
334:	.3160E+03	.3160E+03	.5000E-03
335:	.3160E+03	.3160E+03	.5000E-03
336:	.3160E+03	.3160E+03	.5000E-03
337:	.3160E+03	.3160E+03	.5000E-03
338:	.3160E+03	.3160E+03	.5000E-03
339:	.3160E+03	.3160E+03	.5000E-03
340:	.3160E+03	.3160E+03	.5000E-03
341:	.3160E+03	.3160E+03	.5000E-03
342:	.3160E+03	.3160E+03	.5000E-03
343:	.3160E+03	.3160E+03	.5000E-03
344:	.3160E+03	.3160E+03	.5000E-03
345:	.3160E+03	.3160E+03	.5000E-03

346:	.3160E+03	.3160E+03	.5000E-03
349:	.3160E+03	.3160E+03	.5000E-03
352:	.3160E+03	.3160E+03	.5000E-03
355:	.3160E+03	.3160E+03	.5000E-03
358:	.3160E+03	.3160E+03	.5000E-03
361:	.3160E+03	.3160E+03	.5000E-03
364:	.3160E+03	.3160E+03	.5000E-03
367:	.3160E+03	.3160E+03	.5000E-03
370:	.3160E+03	.3160E+03	.5000E-03
373:	.3160E+03	.3160E+03	.5000E-03
376:	.3160E+03	.3160E+03	.5000E-03
379:	.3160E+03	.3160E+03	.5000E-03
382:	.3160E+03	.3160E+03	.5000E-03
385:	.3160E+03	.3160E+03	.5000E-03
388:	.3160E+03	.3160E+03	.5000E-03
391:	.3160E+03	.3160E+03	.5000E-03
394:	.3160E+03	.3160E+03	.5000E-03
397:	.3160E+03	.3160E+03	.5000E-03
400:	.3160E+03	.3160E+03	.5000E-03
403:	.3160E+03	.3160E+03	.5000E-03
406:	.3160E+03	.3160E+03	.5000E-03
409:	.3160E+03	.3160E+03	.5000E-03
412:	.3160E+03	.3160E+03	.5000E-03
415:	.3160E+03	.3160E+03	.5000E-03
418:	.3160E+03	.3160E+03	.5000E-03
421:	.3160E+03	.3160E+03	.5000E-03
424:	.3160E+03	.3160E+03	.5000E-03
427:	.3160E+03	.3160E+03	.5000E-03
430:	.3160E+03	.3160E+03	.5000E-03
433:	.3160E+03	.3160E+03	.5000E-03
436:	.3160E+03	.3160E+03	.5000E-03
439:	.3160E+03	.3160E+03	.5000E-03
442:	.3160E+03	.3160E+03	.5000E-03
445:	.3160E+03	.3160E+03	.5000E-03
448:	.3160E+03	.3160E+03	.5000E-03
451:	.3160E+03	.3160E+03	.5000E-03
454:	.3160E+03	.3160E+03	.5000E-03
457:	.3160E+03	.3160E+03	.5000E-03
460:	.3160E+03	.3160E+03	.5000E-03
463:	.3160E+03	.3160E+03	.5000E-03
466:	.3160E+03	.3160E+03	.5000E-03
469:	.3160E+03	.3160E+03	.5000E-03
472:	.3160E+03	.3160E+03	.5000E-03
475:	.3160E+03	.3160E+03	.5000E-03
478:	.3160E+03	.3160E+03	.5000E-03
481:	.3160E+03	.3160E+03	.5000E-03
484:	.3160E+03	.3160E+03	.5000E-03
487:	.3160E+03	.3160E+03	.5000E-03
490:	.3160E+03	.3160E+03	.5000E-03
493:	.3160E+03	.3160E+03	.5000E-03
496:	.3160E+03	.3160E+03	.5000E-03
499:	.3160E+03	.3160E+03	.5000E-03
502:	.3160E+03	.3160E+03	.5000E-03
505:	.3160E+03	.3160E+03	.5000E-03
508:	.3160E+03	.3160E+03	.5000E-03
511:	.3160E+03	.3160E+03	.5000E-03
514:	.3160E+03	.3160E+03	.5000E-03
517:	.3160E+03	.3160E+03	.5000E-03
520:	.3160E+03	.3160E+03	.5000E-03
523:	.3160E+03	.3160E+03	.5000E-03

347:	.3160E+03	.3160E+03	.5000E-03
350:	.3160E+03	.3160E+03	.5000E-03
353:	.3160E+03	.3160E+03	.5000E-03
356:	.9480E+04	.9480E+04	.5000E-03
359:	.3160E+03	.3160E+03	.5000E-03
362:	.3160E+03	.3160E+03	.5000E-03
365:	.3160E+03	.3160E+03	.5000E-03
368:	.3160E+03	.3160E+03	.5000E-03
371:	.3160E+03	.3160E+03	.5000E-03
374:	.3160E+03	.3160E+03	.5000E-03
377:	.3160E+03	.3160E+03	.5000E-03
380:	.3160E+03	.3160E+03	.5000E-03
383:	.3160E+03	.3160E+03	.5000E-03
386:	.9480E+04	.9480E+04	.5000E-03
389:	.3160E+03	.3160E+03	.5000E-03
392:	.3160E+03	.3160E+03	.5000E-03
395:	.3160E+03	.3160E+03	.5000E-03
398:	.3160E+03	.3160E+03	.5000E-03
401:	.3160E+03	.3160E+03	.5000E-03
404:	.3160E+03	.3160E+03	.5000E-03
407:	.3160E+03	.3160E+03	.5000E-03
410:	.3160E+03	.3160E+03	.5000E-03
413:	.3160E+03	.3160E+03	.5000E-03
416:	.9480E+04	.9480E+04	.5000E-03
419:	.3160E+03	.3160E+03	.5000E-03
422:	.3160E+03	.3160E+03	.5000E-03
425:	.3160E+03	.3160E+03	.5000E-03
428:	.3160E+03	.3160E+03	.5000E-03
431:	.3160E+03	.3160E+03	.5000E-03
434:	.3160E+03	.3160E+03	.5000E-03
437:	.3160E+03	.3160E+03	.5000E-03
440:	.3160E+03	.3160E+03	.5000E-03
443:	.3160E+03	.3160E+03	.5000E-03
446:	.9480E+04	.9480E+04	.5000E-03
449:	.3160E+03	.3160E+03	.5000E-03
452:	.3160E+03	.3160E+03	.5000E-03
455:	.3160E+03	.3160E+03	.5000E-03
458:	.3160E+03	.3160E+03	.5000E-03
461:	.3160E+03	.3160E+03	.5000E-03
464:	.3160E+03	.3160E+03	.5000E-03
467:	.3160E+03	.3160E+03	.5000E-03
470:	.3160E+03	.3160E+03	.5000E-03
473:	.3160E+03	.3160E+03	.5000E-03
476:	.9480E+04	.9480E+04	.5000E-03
479:	.3160E+03	.3160E+03	.5000E-03
482:	.3160E+03	.3160E+03	.5000E-03
485:	.3160E+03	.3160E+03	.5000E-03
488:	.3160E+03	.3160E+03	.5000E-03
491:	.3160E+03	.3160E+03	.5000E-03
494:	.3160E+03	.3160E+03	.5000E-03
497:	.3160E+03	.3160E+03	.5000E-03
500:	.3160E+03	.3160E+03	.5000E-03
503:	.3160E+03	.3160E+03	.5000E-03
506:	.9480E+04	.9480E+04	.5000E-03
509:	.3160E+03	.3160E+03	.5000E-03
512:	.3160E+03	.3160E+03	.5000E-03
515:	.3160E+03	.3160E+03	.5000E-03
518:	.3160E+03	.3160E+03	.5000E-03
521:	.3160E+03	.3160E+03	.5000E-03
524:	.3160E+03	.3160E+03	.5000E-03

348:	.3160E+03	.3160E+03	.5000E-03
351:	.3160E+03	.3160E+03	.5000E-03
354:	.3160E+03	.3160E+03	.5000E-03
357:	.9480E+04	.9480E+04	.5000E-03
360:	.3160E+03	.3160E+03	.5000E-03
363:	.3160E+03	.3160E+03	.5000E-03
366:	.3160E+03	.3160E+03	.5000E-03
369:	.3160E+03	.3160E+03	.5000E-03
372:	.3160E+03	.3160E+03	.5000E-03
375:	.3160E+03	.3160E+03	.5000E-03
378:	.3160E+03	.3160E+03	.5000E-03
381:	.3160E+03	.3160E+03	.5000E-03
384:	.3160E+03	.3160E+03	.5000E-03
387:	.9480E+04	.9480E+04	.5000E-03
390:	.3160E+03	.3160E+03	.5000E-03
393:	.3160E+03	.3160E+03	.5000E-03
396:	.3160E+03	.3160E+03	.5000E-03
399:	.3160E+03	.3160E+03	.5000E-03
402:	.3160E+03	.3160E+03	.5000E-03
405:	.3160E+03	.3160E+03	.5000E-03
408:	.3160E+03	.3160E+03	.5000E-03
411:	.3160E+03	.3160E+03	.5000E-03
414:	.3160E+03	.3160E+03	.5000E-03
417:	.9480E+04	.9480E+04	.5000E-03
420:	.3160E+03	.3160E+03	.5000E-03
423:	.3160E+03	.3160E+03	.5000E-03
426:	.3160E+03	.3160E+03	.5000E-03
429:	.3160E+03	.3160E+03	.5000E-03
432:	.3160E+03	.3160E+03	.5000E-03
435:	.3160E+03	.3160E+03	.5000E-03
438:	.3160E+03	.3160E+03	.5000E-03
441:	.3160E+03	.3160E+03	.5000E-03
444:	.3160E+03	.3160E+03	.5000E-03
447:	.9480E+04	.9480E+04	.5000E-03
450:	.3160E+03	.3160E+03	.5000E-03
453:	.3160E+03	.3160E+03	.5000E-03
456:	.3160E+03	.3160E+03	.5000E-03
459:	.3160E+03	.3160E+03	.5000E-03
462:	.3160E+03	.3160E+03	.5000E-03
465:	.3160E+03	.3160E+03	.5000E-03
468:	.3160E+03	.3160E+03	.5000E-03
471:	.3160E+03	.3160E+03	.5000E-03
474:	.3160E+03	.3160E+03	.5000E-03
477:	.9480E+04	.9480E+04	.5000E-03
480:	.3160E+03	.3160E+03	.5000E-03
483:	.3160E+03	.3160E+03	.5000E-03
486:	.3160E+03	.3160E+03	.5000E-03
489:	.3160E+03	.3160E+03	.5000E-03
492:	.3160E+03	.3160E+03	.5000E-03
495:	.3160E+03	.3160E+03	.5000E-03
498:	.3160E+03	.3160E+03	.5000E-03
501:	.3160E+03	.3160E+03	.5000E-03
504:	.3160E+03	.3160E+03	.5000E-03
507:	.9480E+04	.9480E+04	.5000E-03
510:	.3160E+03	.3160E+03	.5000E-03
513:	.3160E+03	.3160E+03	.5000E-03
516:	.3160E+03	.3160E+03	.5000E-03
519:	.3160E+03	.3160E+03	.5000E-03
522:	.3160E+03	.3160E+03	.5000E-03
525:	.3160E+03	.3160E+03	.5000E-03

526:	.3160E+03	.3160E+03	.5000E-03
529:	.3160E+03	.3160E+03	.5000E-03
532:	.3160E+03	.3160E+03	.5000E-03
535:	.3160E+03	.3160E+03	.5000E-03
538:	.3160E+03	.3160E+03	.5000E-03
541:	.3160E+03	.3160E+03	.5000E-03
544:	.3160E+03	.3160E+03	.5000E-03
547:	.3160E+03	.3160E+03	.5000E-03
550:	.3160E+03	.3160E+03	.5000E-03
553:	.3160E+03	.3160E+03	.5000E-03
556:	.3160E+03	.3160E+03	.5000E-03
559:	.3160E+03	.3160E+03	.5000E-03
562:	.3160E+03	.3160E+03	.5000E-03
565:	.3160E+03	.3160E+03	.5000E-03
568:	.3160E+03	.3160E+03	.5000E-03
571:	.3160E+03	.3160E+03	.5000E-03
574:	.3160E+03	.3160E+03	.5000E-03
577:	.3160E+03	.3160E+03	.5000E-03
580:	.3160E+03	.3160E+03	.5000E-03
583:	.3160E+03	.3160E+03	.5000E-03
586:	.3160E+03	.3160E+03	.5000E-03
589:	.3160E+03	.3160E+03	.5000E-03
592:	.3160E+03	.3160E+03	.5000E-03
595:	.3160E+03	.3160E+03	.5000E-03
598:	.3160E+03	.3160E+03	.5000E-03
601:	.3160E+03	.3160E+03	.5000E-03
604:	.3160E+03	.3160E+03	.5000E-03
607:	.3160E+03	.3160E+03	.5000E-03
610:	.3160E+03	.3160E+03	.5000E-03
613:	.3160E+03	.3160E+03	.5000E-03
616:	.3160E+03	.3160E+03	.5000E-03
619:	.3160E+03	.3160E+03	.5000E-03
622:	.3160E+03	.3160E+03	.5000E-03
625:	.3160E+03	.3160E+03	.5000E-03
628:	.3160E+03	.3160E+03	.5000E-03
631:	.3160E+03	.3160E+03	.5000E-03
634:	.3160E+03	.3160E+03	.5000E-03
637:	.3160E+03	.3160E+03	.5000E-03
640:	.3160E+03	.3160E+03	.5000E-03
643:	.3160E+03	.3160E+03	.5000E-03
646:	.3160E+03	.3160E+03	.5000E-03
649:	.3160E+03	.3160E+03	.5000E-03
652:	.3160E+03	.3160E+03	.5000E-03
655:	.3160E+03	.3160E+03	.5000E-03
658:	.3160E+03	.3160E+03	.5000E-03
661:	.3160E+03	.3160E+03	.5000E-03
664:	.3160E+03	.3160E+03	.5000E-03
667:	.3160E+03	.3160E+03	.5000E-03
670:	.3160E+03	.3160E+03	.5000E-03
673:	.3160E+03	.3160E+03	.5000E-03
676:	.3160E+03	.3160E+03	.5000E-03
679:	.3160E+03	.3160E+03	.5000E-03
682:	.3160E+03	.3160E+03	.5000E-03
685:	.3160E+03	.3160E+03	.5000E-03
688:	.3160E+03	.3160E+03	.5000E-03
691:	.3160E+03	.3160E+03	.5000E-03
694:	.3160E+03	.3160E+03	.5000E-03
697:	.3160E+03	.3160E+03	.5000E-03
700:	.3160E+03	.3160E+03	.5000E-03
703:	.3160E+03	.3160E+03	.5000E-03

527:	.3160E+03	.3160E+03	.5000E-03
530:	.3160E+03	.3160E+03	.5000E-03
533:	.3160E+03	.3160E+03	.5000E-03
536:	.9480E+04	.9480E+04	.5000E-03
539:	.3160E+03	.3160E+03	.5000E-03
542:	.3160E+03	.3160E+03	.5000E-03
545:	.3160E+03	.3160E+03	.5000E-03
548:	.3160E+03	.3160E+03	.5000E-03
551:	.3160E+03	.3160E+03	.5000E-03
554:	.3160E+03	.3160E+03	.5000E-03
557:	.3160E+03	.3160E+03	.5000E-03
560:	.3160E+03	.3160E+03	.5000E-03
563:	.3160E+03	.3160E+03	.5000E-03
566:	.9480E+04	.9480E+04	.5000E-03
569:	.3160E+03	.3160E+03	.5000E-03
572:	.3160E+03	.3160E+03	.5000E-03
575:	.3160E+03	.3160E+03	.5000E-03
578:	.3160E+03	.3160E+03	.5000E-03
581:	.3160E+03	.3160E+03	.5000E-03
584:	.3160E+03	.3160E+03	.5000E-03
587:	.3160E+03	.3160E+03	.5000E-03
590:	.3160E+03	.3160E+03	.5000E-03
593:	.3160E+03	.3160E+03	.5000E-03
596:	.9480E+04	.9480E+04	.5000E-03
599:	.3160E+03	.3160E+03	.5000E-03
602:	.3160E+03	.3160E+03	.5000E-03
605:	.3160E+03	.3160E+03	.5000E-03
608:	.3160E+03	.3160E+03	.5000E-03
611:	.3160E+03	.3160E+03	.5000E-03
614:	.3160E+03	.3160E+03	.5000E-03
617:	.3160E+03	.3160E+03	.5000E-03
620:	.3160E+03	.3160E+03	.5000E-03
623:	.3160E+03	.3160E+03	.5000E-03
626:	.9480E+04	.9480E+04	.5000E-03
629:	.3160E+03	.3160E+03	.5000E-03
632:	.3160E+03	.3160E+03	.5000E-03
635:	.3160E+03	.3160E+03	.5000E-03
638:	.3160E+03	.3160E+03	.5000E-03
641:	.3160E+03	.3160E+03	.5000E-03
644:	.3160E+03	.3160E+03	.5000E-03
647:	.3160E+03	.3160E+03	.5000E-03
650:	.3160E+03	.3160E+03	.5000E-03
653:	.3160E+03	.3160E+03	.5000E-03
656:	.9480E+04	.9480E+04	.5000E-03
659:	.3160E+03	.3160E+03	.5000E-03
662:	.3160E+03	.3160E+03	.5000E-03
665:	.3160E+03	.3160E+03	.5000E-03
668:	.3160E+03	.3160E+03	.5000E-03
671:	.3160E+03	.3160E+03	.5000E-03
674:	.3160E+03	.3160E+03	.5000E-03
677:	.3160E+03	.3160E+03	.5000E-03
680:	.3160E+03	.3160E+03	.5000E-03
683:	.3160E+03	.3160E+03	.5000E-03
686:	.9480E+04	.9480E+04	.5000E-03
689:	.3160E+03	.3160E+03	.5000E-03
692:	.3160E+03	.3160E+03	.5000E-03
695:	.3160E+03	.3160E+03	.5000E-03
698:	.3160E+03	.3160E+03	.5000E-03
701:	.3160E+03	.3160E+03	.5000E-03
704:	.3160E+03	.3160E+03	.5000E-03

528:	.3160E+03	.3160E+03	.5000E-03
531:	.3160E+03	.3160E+03	.5000E-03
534:	.3160E+03	.3160E+03	.5000E-03
537:	.9480E+04	.9480E+04	.5000E-03
540:	.3160E+03	.3160E+03	.5000E-03
543:	.3160E+03	.3160E+03	.5000E-03
546:	.3160E+03	.3160E+03	.5000E-03
549:	.3160E+03	.3160E+03	.5000E-03
552:	.3160E+03	.3160E+03	.5000E-03
555:	.3160E+03	.3160E+03	.5000E-03
558:	.3160E+03	.3160E+03	.5000E-03
561:	.3160E+03	.3160E+03	.5000E-03
564:	.3160E+03	.3160E+03	.5000E-03
567:	.9480E+04	.9480E+04	.5000E-03
570:	.3160E+03	.3160E+03	.5000E-03
573:	.3160E+03	.3160E+03	.5000E-03
576:	.3160E+03	.3160E+03	.5000E-03
579:	.3160E+03	.3160E+03	.5000E-03
582:	.3160E+03	.3160E+03	.5000E-03
585:	.3160E+03	.3160E+03	.5000E-03
588:	.3160E+03	.3160E+03	.5000E-03
591:	.3160E+03	.3160E+03	.5000E-03
594:	.3160E+03	.3160E+03	.5000E-03
597:	.9480E+04	.9480E+04	.5000E-03
600:	.3160E+03	.3160E+03	.5000E-03
603:	.3160E+03	.3160E+03	.5000E-03
606:	.3160E+03	.3160E+03	.5000E-03
609:	.3160E+03	.3160E+03	.5000E-03
612:	.3160E+03	.3160E+03	.5000E-03
615:	.3160E+03	.3160E+03	.5000E-03
618:	.3160E+03	.3160E+03	.5000E-03
621:	.3160E+03	.3160E+03	.5000E-03
624:	.3160E+03	.3160E+03	.5000E-03
627:	.9480E+04	.9480E+04	.5000E-03
630:	.3160E+03	.3160E+03	.5000E-03
633:	.3160E+03	.3160E+03	.5000E-03
636:	.3160E+03	.3160E+03	.5000E-03
639:	.3160E+03	.3160E+03	.5000E-03
642:	.3160E+03	.3160E+03	.5000E-03
645:	.3160E+03	.3160E+03	.5000E-03
648:	.3160E+03	.3160E+03	.5000E-03
651:	.3160E+03	.3160E+03	.5000E-03
654:	.3160E+03	.3160E+03	.5000E-03
657:	.9480E+04	.9480E+04	.5000E-03
660:	.3160E+03	.3160E+03	.5000E-03
663:	.3160E+03	.3160E+03	.5000E-03
666:	.3160E+03	.3160E+03	.5000E-03
669:	.3160E+03	.3160E+03	.5000E-03
672:	.3160E+03	.3160E+03	.5000E-03
675:	.3160E+03	.3160E+03	.5000E-03
678:	.3160E+03	.3160E+03	.5000E-03
681:	.3160E+03	.3160E+03	.5000E-03
684:	.3160E+03	.3160E+03	.5000E-03
687:	.9480E+04	.9480E+04	.5000E-03
690:	.3160E+03	.3160E+03	.5000E-03
693:	.3160E+03	.3160E+03	.5000E-03
696:	.3160E+03	.3160E+03	.5000E-03
699:	.3160E+03	.3160E+03	.5000E-03
702:	.3160E+03	.3160E+03	.5000E-03
705:	.3160E+03	.3160E+03	.5000E-03

706:	.3160E+03	.3160E+03	.5000E-03
709:	.3160E+03	.3160E+03	.5000E-03
712:	.3160E+03	.3160E+03	.5000E-03
715:	.3160E+03	.3160E+03	.5000E-03
718:	.3160E+03	.3160E+03	.5000E-03
721:	.3160E+03	.3160E+03	.5000E-03
724:	.3160E+03	.3160E+03	.5000E-03
727:	.3160E+03	.3160E+03	.5000E-03
730:	.3160E+03	.3160E+03	.5000E-03
733:	.3160E+03	.3160E+03	.5000E-03
736:	.3160E+03	.3160E+03	.5000E-03
739:	.3160E+03	.3160E+03	.5000E-03
742:	.3160E+03	.3160E+03	.5000E-03
745:	.3160E+03	.3160E+03	.5000E-03
748:	.3160E+03	.3160E+03	.5000E-03
751:	.3160E+03	.3160E+03	.5000E-03
754:	.3160E+03	.3160E+03	.5000E-03
757:	.3160E+03	.3160E+03	.5000E-03
760:	.3160E+03	.3160E+03	.5000E-03
763:	.3160E+03	.3160E+03	.5000E-03
766:	.3160E+03	.3160E+03	.5000E-03
769:	.3160E+03	.3160E+03	.5000E-03
772:	.3160E+03	.3160E+03	.5000E-03
775:	.3160E+03	.3160E+03	.5000E-03
778:	.3160E+03	.3160E+03	.5000E-03
781:	.3160E+03	.3160E+03	.5000E-03
784:	.3160E+03	.3160E+03	.5000E-03
787:	.3160E+03	.3160E+03	.5000E-03
790:	.3160E+03	.3160E+03	.5000E-03
793:	.3160E+03	.3160E+03	.5000E-03
796:	.3160E+03	.3160E+03	.5000E-03
799:	.3160E+03	.3160E+03	.5000E-03
802:	.3160E+03	.3160E+03	.5000E-03
805:	.3160E+03	.3160E+03	.5000E-03
808:	.3160E+03	.3160E+03	.5000E-03
811:	.3160E+03	.3160E+03	.5000E-03
814:	.3160E+03	.3160E+03	.5000E-03
817:	.3160E+03	.3160E+03	.5000E-03
820:	.3160E+03	.3160E+03	.5000E-03
823:	.3160E+03	.3160E+03	.5000E-03
826:	.3160E+03	.3160E+03	.5000E-03
829:	.3160E+03	.3160E+03	.5000E-03
832:	.3160E+03	.3160E+03	.5000E-03
835:	.3160E+03	.3160E+03	.5000E-03
838:	.3160E+03	.3160E+03	.5000E-03
841:	.3160E+03	.3160E+03	.5000E-03
844:	.3160E+03	.3160E+03	.5000E-03
847:	.3160E+03	.3160E+03	.5000E-03
850:	.3160E+03	.3160E+03	.5000E-03
853:	.3160E+03	.3160E+03	.5000E-03
856:	.3160E+03	.3160E+03	.5000E-03
859:	.3160E+03	.3160E+03	.5000E-03
862:	.3160E+03	.3160E+03	.5000E-03
865:	.3160E+03	.3160E+03	.5000E-03
868:	.3160E+03	.3160E+03	.5000E-03
871:	.3160E+03	.3160E+03	.5000E-03
874:	.3160E+03	.3160E+03	.5000E-03
877:	.3160E+03	.3160E+03	.5000E-03
880:	.3160E+03	.3160E+03	.5000E-03
883:	.3160E+03	.3160E+03	.5000E-03

707:	.3160E+03	.3160E+03	.5000E-03
710:	.3160E+03	.3160E+03	.5000E-03
713:	.3160E+03	.3160E+03	.5000E-03
716:	.9480E+04	.9480E+04	.5000E-03
719:	.3160E+03	.3160E+03	.5000E-03
722:	.3160E+03	.3160E+03	.5000E-03
725:	.3160E+03	.3160E+03	.5000E-03
728:	.3160E+03	.3160E+03	.5000E-03
731:	.3160E+03	.3160E+03	.5000E-03
734:	.3160E+03	.3160E+03	.5000E-03
737:	.3160E+03	.3160E+03	.5000E-03
740:	.3160E+03	.3160E+03	.5000E-03
743:	.3160E+03	.3160E+03	.5000E-03
746:	.3160E+02	.3160E+02	.5000E-02
749:	.3160E+03	.3160E+03	.5000E-03
752:	.3160E+03	.3160E+03	.5000E-03
755:	.3160E+03	.3160E+03	.5000E-03
758:	.3160E+03	.3160E+03	.5000E-03
761:	.3160E+03	.3160E+03	.5000E-03
764:	.3160E+03	.3160E+03	.5000E-03
767:	.3160E+03	.3160E+03	.5000E-03
770:	.3160E+03	.3160E+03	.5000E-03
773:	.3160E+03	.3160E+03	.5000E-03
776:	.3160E+02	.3160E+02	.5000E-02
779:	.3160E+03	.3160E+03	.5000E-03
782:	.3160E+03	.3160E+03	.5000E-03
785:	.3160E+03	.3160E+03	.5000E-03
788:	.3160E+03	.3160E+03	.5000E-03
791:	.3160E+03	.3160E+03	.5000E-03
794:	.3160E+03	.3160E+03	.5000E-03
797:	.3160E+03	.3160E+03	.5000E-03
800:	.3160E+03	.3160E+03	.5000E-03
803:	.3160E+03	.3160E+03	.5000E-03
806:	.3160E+02	.3160E+02	.5000E-02
809:	.3160E+03	.3160E+03	.5000E-03
812:	.3160E+03	.3160E+03	.5000E-03
815:	.3160E+03	.3160E+03	.5000E-03
818:	.3160E+03	.3160E+03	.5000E-03
821:	.3160E+03	.3160E+03	.5000E-03
824:	.3160E+03	.3160E+03	.5000E-03
827:	.3160E+03	.3160E+03	.5000E-03
830:	.3160E+03	.3160E+03	.5000E-03
833:	.3160E+03	.3160E+03	.5000E-03
836:	.3160E+02	.3160E+02	.5000E-02
839:	.3160E+03	.3160E+03	.5000E-03
842:	.3160E+03	.3160E+03	.5000E-03
845:	.3160E+03	.3160E+03	.5000E-03
848:	.3160E+03	.3160E+03	.5000E-03
851:	.3160E+03	.3160E+03	.5000E-03
854:	.3160E+03	.3160E+03	.5000E-03
857:	.3160E+03	.3160E+03	.5000E-03
860:	.3160E+03	.3160E+03	.5000E-03
863:	.3160E+03	.3160E+03	.5000E-03
866:	.3160E+02	.3160E+02	.5000E-02
869:	.3160E+03	.3160E+03	.5000E-03
872:	.3160E+03	.3160E+03	.5000E-03
875:	.3160E+03	.3160E+03	.5000E-03
878:	.3160E+03	.3160E+03	.5000E-03
881:	.3160E+03	.3160E+03	.5000E-03
884:	.3160E+03	.3160E+03	.5000E-03

708:	.3160E+03	.3160E+03	.5000E-03
711:	.3160E+03	.3160E+03	.5000E-03
714:	.3160E+03	.3160E+03	.5000E-03
717:	.9480E+04	.9480E+04	.5000E-03
720:	.3160E+03	.3160E+03	.5000E-03
723:	.3160E+03	.3160E+03	.5000E-03
726:	.3160E+03	.3160E+03	.5000E-03
729:	.3160E+03	.3160E+03	.5000E-03
732:	.3160E+03	.3160E+03	.5000E-03
735:	.3160E+03	.3160E+03	.5000E-03
738:	.3160E+03	.3160E+03	.5000E-03
741:	.3160E+03	.3160E+03	.5000E-03
744:	.3160E+03	.3160E+03	.5000E-03
747:	.3160E+02	.3160E+02	.5000E-02
750:	.3160E+03	.3160E+03	.5000E-03
753:	.3160E+03	.3160E+03	.5000E-03
756:	.3160E+03	.3160E+03	.5000E-03
759:	.3160E+03	.3160E+03	.5000E-03
762:	.3160E+03	.3160E+03	.5000E-03
765:	.3160E+03	.3160E+03	.5000E-03
768:	.3160E+03	.3160E+03	.5000E-03
771:	.3160E+03	.3160E+03	.5000E-03
774:	.3160E+03	.3160E+03	.5000E-03
777:	.3160E+02	.3160E+02	.5000E-02
780:	.3160E+03	.3160E+03	.5000E-03
783:	.3160E+03	.3160E+03	.5000E-03
786:	.3160E+03	.3160E+03	.5000E-03
789:	.3160E+03	.3160E+03	.5000E-03
792:	.3160E+03	.3160E+03	.5000E-03
795:	.3160E+03	.3160E+03	.5000E-03
798:	.3160E+03	.3160E+03	.5000E-03
801:	.3160E+03	.3160E+03	.5000E-03
804:	.3160E+03	.3160E+03	.5000E-03
807:	.3160E+02	.3160E+02	.5000E-02
810:	.3160E+03	.3160E+03	.5000E-03
813:	.3160E+03	.3160E+03	.5000E-03
816:	.3160E+03	.3160E+03	.5000E-03
819:	.3160E+03	.3160E+03	.5000E-03
822:	.3160E+03	.3160E+03	.5000E-03
825:	.3160E+03	.3160E+03	.5000E-03
828:	.3160E+03	.3160E+03	.5000E-03
831:	.3160E+03	.3160E+03	.5000E-03
834:	.3160E+03	.3160E+03	.5000E-03
837:	.3160E+02	.3160E+02	.5000E-02
840:	.3160E+03	.3160E+03	.5000E-03
843:	.3160E+03	.3160E+03	.5000E-03
846:	.3160E+03	.3160E+03	.5000E-03
849:	.3160E+03	.3160E+03	.5000E-03
852:	.3160E+03	.3160E+03	.5000E-03
855:	.3160E+03	.3160E+03	.5000E-03
858:	.3160E+03	.3160E+03	.5000E-03
861:	.3160E+03	.3160E+03	.5000E-03
864:	.3160E+03	.3160E+03	.5000E-03
867:	.3160E+02	.3160E+02	.5000E-02
870:	.3160E+03	.3160E+03	.5000E-03
873:	.3160E+03	.3160E+03	.5000E-03
876:	.3160E+03	.3160E+03	.5000E-03
879:	.3160E+03	.3160E+03	.5000E-03
882:	.3160E+03	.3160E+03	.5000E-03
885:	.3160E+03	.3160E+03	.5000E-03

886:	.3160E+03	.3160E+03	.5000E-03
889:	.3160E+03	.3160E+03	.5000E-03
892:	.3160E+03	.3160E+03	.5000E-03
895:	.3160E+03	.3160E+03	.5000E-03
898:	.3160E+03	.3160E+03	.5000E-03
901:	.3160E+03	.3160E+03	.5000E-03
904:	.3160E+03	.3160E+03	.5000E-03
907:	.3160E+03	.3160E+03	.5000E-03
910:	.3160E+03	.3160E+03	.5000E-03
913:	.3160E+03	.3160E+03	.5000E-03
916:	.3160E+03	.3160E+03	.5000E-03
919:	.3160E+03	.3160E+03	.5000E-03
922:	.3160E+03	.3160E+03	.5000E-03
925:	.3160E+03	.3160E+03	.5000E-03
928:	.3160E+03	.3160E+03	.5000E-03
931:	.3160E+03	.3160E+03	.5000E-03
934:	.3160E+03	.3160E+03	.5000E-03
937:	.3160E+03	.3160E+03	.5000E-03
940:	.3160E+03	.3160E+03	.5000E-03
943:	.3160E+03	.3160E+03	.5000E-03
946:	.3160E+03	.3160E+03	.5000E-03
949:	.3160E+03	.3160E+03	.5000E-03
952:	.3160E+03	.3160E+03	.5000E-03
955:	.3160E+03	.3160E+03	.5000E-03
958:	.3160E+03	.3160E+03	.5000E-03
961:	.3160E+03	.3160E+03	.5000E-03
964:	.3160E+03	.3160E+03	.5000E-03
967:	.3160E+03	.3160E+03	.5000E-03
970:	.3160E+03	.3160E+03	.5000E-03
973:	.3160E+03	.3160E+03	.5000E-03
976:	.3160E+03	.3160E+03	.5000E-03
979:	.3160E+03	.3160E+03	.5000E-03
982:	.3160E+03	.3160E+03	.5000E-03
985:	.3160E+03	.3160E+03	.5000E-03
988:	.3160E+02	.3160E+02	.5000E-02
991:	.3160E+03	.3160E+03	.5000E-03
994:	.3160E+03	.3160E+03	.5000E-03
997:	.3160E+03	.3160E+03	.5000E-03
1000:	.3160E+03	.3160E+03	.5000E-03
1003:	.3160E+03	.3160E+03	.5000E-03
1006:	.3160E+03	.3160E+03	.5000E-03
1009:	.3160E+03	.3160E+03	.5000E-03
1012:	.3160E+03	.3160E+03	.5000E-03
1015:	.3160E+03	.3160E+03	.5000E-03
1018:	.3160E+02	.3160E+02	.5000E-02
1021:	.3160E+03	.3160E+03	.5000E-03
1024:	.3160E+03	.3160E+03	.5000E-03
1027:	.3160E+03	.3160E+03	.5000E-03
1030:	.3160E+03	.3160E+03	.5000E-03
1033:	.3160E+03	.3160E+03	.5000E-03
1036:	.3160E+03	.3160E+03	.5000E-03
1039:	.3160E+03	.3160E+03	.5000E-03
1042:	.3160E+03	.3160E+03	.5000E-03
1045:	.3160E+03	.3160E+03	.5000E-03
1048:	.3160E+03	.3160E+03	.5000E-03
1051:	.9480E+04	.9480E+04	.5000E-03
1054:	.3160E+03	.3160E+03	.5000E-03
1057:	.3160E+03	.3160E+03	.5000E-03
1060:	.3160E+03	.3160E+03	.5000E-03
1063:	.3160E+03	.3160E+03	.5000E-03

887:	.3160E+03	.3160E+03	.5000E-03
890:	.3160E+03	.3160E+03	.5000E-03
893:	.3160E+03	.3160E+03	.5000E-03
896:	.3160E+02	.3160E+02	.5000E-02
899:	.3160E+03	.3160E+03	.5000E-03
902:	.3160E+03	.3160E+03	.5000E-03
905:	.3160E+03	.3160E+03	.5000E-03
908:	.3160E+03	.3160E+03	.5000E-03
911:	.3160E+03	.3160E+03	.5000E-03
914:	.3160E+03	.3160E+03	.5000E-03
917:	.3160E+03	.3160E+03	.5000E-03
920:	.3160E+03	.3160E+03	.5000E-03
923:	.3160E+03	.3160E+03	.5000E-03
926:	.3160E+02	.3160E+02	.5000E-02
929:	.3160E+03	.3160E+03	.5000E-03
932:	.3160E+03	.3160E+03	.5000E-03
935:	.3160E+03	.3160E+03	.5000E-03
938:	.3160E+03	.3160E+03	.5000E-03
941:	.3160E+03	.3160E+03	.5000E-03
944:	.3160E+03	.3160E+03	.5000E-03
947:	.3160E+03	.3160E+03	.5000E-03
950:	.3160E+03	.3160E+03	.5000E-03
953:	.3160E+03	.3160E+03	.5000E-03
956:	.3160E+02	.3160E+02	.5000E-02
959:	.3160E+03	.3160E+03	.5000E-03
962:	.3160E+03	.3160E+03	.5000E-03
965:	.3160E+03	.3160E+03	.5000E-03
968:	.3160E+03	.3160E+03	.5000E-03
971:	.3160E+03	.3160E+03	.5000E-03
974:	.3160E+03	.3160E+03	.5000E-03
977:	.3160E+03	.3160E+03	.5000E-03
980:	.3160E+03	.3160E+03	.5000E-03
983:	.3160E+03	.3160E+03	.5000E-03
986:	.3160E+02	.3160E+02	.5000E-02
989:	.3160E+03	.3160E+03	.5000E-03
992:	.3160E+03	.3160E+03	.5000E-03
995:	.3160E+03	.3160E+03	.5000E-03
998:	.3160E+03	.3160E+03	.5000E-03
1001:	.3160E+03	.3160E+03	.5000E-03
1004:	.3160E+03	.3160E+03	.5000E-03
1007:	.3160E+03	.3160E+03	.5000E-03
1010:	.3160E+03	.3160E+03	.5000E-03
1013:	.3160E+03	.3160E+03	.5000E-03
1016:	.3160E+03	.3160E+03	.5000E-03
1019:	.3160E+02	.3160E+02	.5000E-02
1022:	.3160E+03	.3160E+03	.5000E-03
1025:	.3160E+03	.3160E+03	.5000E-03
1028:	.3160E+03	.3160E+03	.5000E-03
1031:	.3160E+03	.3160E+03	.5000E-03
1034:	.3160E+03	.3160E+03	.5000E-03
1037:	.3160E+03	.3160E+03	.5000E-03
1040:	.3160E+03	.3160E+03	.5000E-03
1043:	.3160E+03	.3160E+03	.5000E-03
1046:	.3160E+03	.3160E+03	.5000E-03
1049:	.9480E+04	.9480E+04	.5000E-03
1052:	.9480E+04	.9480E+04	.5000E-03
1055:	.3160E+03	.3160E+03	.5000E-03
1058:	.3160E+03	.3160E+03	.5000E-03
1061:	.3160E+03	.3160E+03	.5000E-03
1064:	.3160E+03	.3160E+03	.5000E-03

888:	.3160E+03	.3160E+03	.5000E-03
891:	.3160E+03	.3160E+03	.5000E-03
894:	.3160E+03	.3160E+03	.5000E-03
897:	.3160E+02	.3160E+02	.5000E-02
900:	.3160E+03	.3160E+03	.5000E-03
903:	.3160E+03	.3160E+03	.5000E-03
906:	.3160E+03	.3160E+03	.5000E-03
909:	.3160E+03	.3160E+03	.5000E-03
912:	.3160E+03	.3160E+03	.5000E-03
915:	.3160E+03	.3160E+03	.5000E-03
918:	.3160E+03	.3160E+03	.5000E-03
921:	.3160E+03	.3160E+03	.5000E-03
924:	.3160E+03	.3160E+03	.5000E-03
927:	.3160E+02	.3160E+02	.5000E-02
930:	.3160E+03	.3160E+03	.5000E-03
933:	.3160E+03	.3160E+03	.5000E-03
936:	.3160E+03	.3160E+03	.5000E-03
939:	.3160E+03	.3160E+03	.5000E-03
942:	.3160E+03	.3160E+03	.5000E-03
945:	.3160E+03	.3160E+03	.5000E-03
948:	.3160E+03	.3160E+03	.5000E-03
951:	.3160E+03	.3160E+03	.5000E-03
954:	.3160E+03	.3160E+03	.5000E-03
957:	.3160E+02	.3160E+02	.5000E-02
960:	.3160E+03	.3160E+03	.5000E-03
963:	.3160E+03	.3160E+03	.5000E-03
966:	.3160E+03	.3160E+03	.5000E-03
969:	.3160E+03	.3160E+03	.5000E-03
972:	.3160E+03	.3160E+03	.5000E-03
975:	.3160E+03	.3160E+03	.5000E-03
978:	.3160E+03	.3160E+03	.5000E-03
981:	.3160E+03	.3160E+03	.5000E-03
984:	.3160E+03	.3160E+03	.5000E-03
987:	.3160E+02	.3160E+02	.5000E-02
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993:	.3160E+03	.3160E+03	.5000E-03
996:	.3160E+03	.3160E+03	.5000E-03
999:	.3160E+03	.3160E+03	.5000E-03
1002:	.3160E+03	.3160E+03	.5000E-03
1005:	.3160E+03	.3160E+03	.5000E-03
1008:	.3160E+03	.3160E+03	.5000E-03
1011:	.3160E+03	.3160E+03	.5000E-03
1014:	.3160E+03	.3160E+03	.5000E-03
1017:	.3160E+02	.3160E+02	.5000E-02
1020:	.3160E+02	.3160E+02	.5000E-02
1023:	.3160E+03	.3160E+03	.5000E-03
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1035:	.3160E+03	.3160E+03	.5000E-03
1038:	.3160E+03	.3160E+03	.5000E-03
1041:	.3160E+03	.3160E+03	.5000E-03
1044:	.3160E+03	.3160E+03	.5000E-03
1047:	.3160E+03	.3160E+03	.5000E-03
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1053:	.3160E+03	.3160E+03	.5000E-03
1056:	.3160E+03	.3160E+03	.5000E-03
1059:	.3160E+03	.3160E+03	.5000E-03
1062:	.3160E+03	.3160E+03	.5000E-03
1065:	.3160E+03	.3160E+03	.5000E-03

1066:	.3160E+03	.3160E+03	.5000E-03
1069:	.3160E+03	.3160E+03	.5000E-03
1072:	.3160E+03	.3160E+03	.5000E-03
1075:	.3160E+03	.3160E+03	.5000E-03
1078:	.3160E+03	.3160E+03	.5000E-03
1081:	.9480E+04	.9480E+04	.5000E-03
1084:	.9480E+04	.9480E+04	.5000E-03
1087:	.3160E+03	.3160E+03	.5000E-03
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1099:	.3160E+03	.3160E+03	.5000E-03
1102:	.3160E+03	.3160E+03	.5000E-03
1105:	.3160E+03	.3160E+03	.5000E-03
1108:	.3160E+03	.3160E+03	.5000E-03
1111:	.3160E+03	.3160E+03	.5000E-03
1114:	.9480E+04	.9480E+04	.5000E-03
1117:	.3160E+03	.3160E+03	.5000E-03
1120:	.3160E+03	.3160E+03	.5000E-03
1123:	.3160E+03	.3160E+03	.5000E-03
1126:	.3160E+03	.3160E+03	.5000E-03
1129:	.3160E+03	.3160E+03	.5000E-03
1132:	.3160E+03	.3160E+03	.5000E-03
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1144:	.3160E+03	.3160E+03	.5000E-03
1147:	.9480E+04	.9480E+04	.5000E-03
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1153:	.3160E+03	.3160E+03	.5000E-03
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1177:	.3160E+03	.3160E+03	.5000E-03
1180:	.9480E+04	.9480E+04	.5000E-03
1183:	.3160E+03	.3160E+03	.5000E-03
1186:	.3160E+03	.3160E+03	.5000E-03
1189:	.3160E+03	.3160E+03	.5000E-03
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1210:	.3160E+03	.3160E+03	.5000E-03
1213:	.9480E+04	.9480E+04	.5000E-03
1216:	.3160E+03	.3160E+03	.5000E-03
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1231:	.3160E+03	.3160E+03	.5000E-03
1234:	.3160E+03	.3160E+03	.5000E-03
1237:	.3160E+03	.3160E+03	.5000E-03
1240:	.3160E+03	.3160E+03	.5000E-03
1243:	.3160E+03	.3160E+03	.5000E-03

1067:	.3160E+03	.3160E+03	.5000E-03
1070:	.3160E+03	.3160E+03	.5000E-03
1073:	.3160E+03	.3160E+03	.5000E-03
1076:	.3160E+03	.3160E+03	.5000E-03
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1100:	.3160E+03	.3160E+03	.5000E-03
1103:	.3160E+03	.3160E+03	.5000E-03
1106:	.3160E+03	.3160E+03	.5000E-03
1109:	.3160E+03	.3160E+03	.5000E-03
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1127:	.3160E+03	.3160E+03	.5000E-03
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1142:	.3160E+03	.3160E+03	.5000E-03
1145:	.9480E+04	.9480E+04	.5000E-03
1148:	.9480E+04	.9480E+04	.5000E-03
1151:	.3160E+03	.3160E+03	.5000E-03
1154:	.3160E+03	.3160E+03	.5000E-03
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1175:	.3160E+03	.3160E+03	.5000E-03
1178:	.9480E+04	.9480E+04	.5000E-03
1181:	.9480E+04	.9480E+04	.5000E-03
1184:	.3160E+03	.3160E+03	.5000E-03
1187:	.3160E+03	.3160E+03	.5000E-03
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1241:	.3160E+03	.3160E+03	.5000E-03
1244:	.3160E+03	.3160E+03	.5000E-03

1068:	.3160E+03	.3160E+03	.5000E-03
1071:	.3160E+03	.3160E+03	.5000E-03
1074:	.3160E+03	.3160E+03	.5000E-03
1077:	.3160E+03	.3160E+03	.5000E-03
1080:	.3160E+03	.3160E+03	.5000E-03
1083:	.9480E+04	.9480E+04	.5000E-03
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1089:	.3160E+03	.3160E+03	.5000E-03
1092:	.3160E+03	.3160E+03	.5000E-03
1095:	.3160E+03	.3160E+03	.5000E-03
1098:	.3160E+03	.3160E+03	.5000E-03
1101:	.3160E+03	.3160E+03	.5000E-03
1104:	.3160E+03	.3160E+03	.5000E-03
1107:	.3160E+03	.3160E+03	.5000E-03
1110:	.3160E+03	.3160E+03	.5000E-03
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1116:	.9480E+04	.9480E+04	.5000E-03
1119:	.3160E+03	.3160E+03	.5000E-03
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1128:	.3160E+03	.3160E+03	.5000E-03
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1146:	.9480E+04	.9480E+04	.5000E-03
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1155:	.3160E+03	.3160E+03	.5000E-03
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1173:	.3160E+03	.3160E+03	.5000E-03
1176:	.3160E+03	.3160E+03	.5000E-03
1179:	.9480E+04	.9480E+04	.5000E-03
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1197:	.3160E+03	.3160E+03	.5000E-03
1200:	.3160E+03	.3160E+03	.5000E-03
1203:	.3160E+03	.3160E+03	.5000E-03
1206:	.3160E+03	.3160E+03	.5000E-03
1209:	.3160E+03	.3160E+03	.5000E-03
1212:	.9480E+04	.9480E+04	.5000E-03
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1221:	.3160E+03	.3160E+03	.5000E-03
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1236:	.3160E+03	.3160E+03	.5000E-03
1239:	.3160E+03	.3160E+03	.5000E-03
1242:	.3160E+03	.3160E+03	.5000E-03
1245:	.3160E+03	.3160E+03	.5000E-03

1246:	.9480E+04	.9480E+04	.5000E-03
1249:	.9480E+04	.9480E+04	.5000E-03
1252:	.3160E+03	.3160E+03	.5000E-03
1255:	.3160E+03	.3160E+03	.5000E-03
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1264:	.3160E+03	.3160E+03	.5000E-03
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1270:	.3160E+03	.3160E+03	.5000E-03
1273:	.3160E+03	.3160E+03	.5000E-03
1276:	.3160E+03	.3160E+03	.5000E-03
1279:	.3160E+03	.3160E+03	.5000E-03
1282:	.9480E+04	.9480E+04	.5000E-03
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1294:	.3160E+03	.3160E+03	.5000E-03
1297:	.3160E+03	.3160E+03	.5000E-03
1300:	.3160E+03	.3160E+03	.5000E-03
1303:	.3160E+03	.3160E+03	.5000E-03
1306:	.3160E+03	.3160E+03	.5000E-03
1309:	.3160E+03	.3160E+03	.5000E-03
1312:	.3160E+03	.3160E+03	.5000E-03
1315:	.9480E+04	.9480E+04	.5000E-03
1318:	.3160E+03	.3160E+03	.5000E-03
1321:	.3160E+03	.3160E+03	.5000E-03
1324:	.3160E+03	.3160E+03	.5000E-03
1327:	.3160E+03	.3160E+03	.5000E-03
1330:	.3160E+03	.3160E+03	.5000E-03
1333:	.3160E+03	.3160E+03	.5000E-03
1336:	.3160E+03	.3160E+03	.5000E-03
1339:	.3160E+03	.3160E+03	.5000E-03
1342:	.3160E+03	.3160E+03	.5000E-03
1345:	.3160E+03	.3160E+03	.5000E-03
1348:	.9480E+04	.9480E+04	.5000E-03
1351:	.9480E+04	.9480E+04	.5000E-03
1354:	.3160E+03	.3160E+03	.5000E-03
1357:	.3160E+03	.3160E+03	.5000E-03
1360:	.3160E+03	.3160E+03	.5000E-03
1363:	.3160E+03	.3160E+03	.5000E-03
1366:	.3160E+03	.3160E+03	.5000E-03
1369:	.3160E+03	.3160E+03	.5000E-03
1372:	.3160E+03	.3160E+03	.5000E-03
1375:	.3160E+03	.3160E+03	.5000E-03
1378:	.3160E+03	.3160E+03	.5000E-03
1381:	.3160E+03	.3160E+03	.5000E-03
1384:	.9480E+04	.9480E+04	.5000E-03
1387:	.3160E+03	.3160E+03	.5000E-03
1390:	.3160E+03	.3160E+03	.5000E-03
1393:	.3160E+03	.3160E+03	.5000E-03
1396:	.3160E+03	.3160E+03	.5000E-03
1399:	.3160E+03	.3160E+03	.5000E-03
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1405:	.3160E+03	.3160E+03	.5000E-03
1408:	.3160E+03	.3160E+03	.5000E-03
1411:	.3160E+03	.3160E+03	.5000E-03
1414:	.3160E+03	.3160E+03	.5000E-03
1417:	.9480E+04	.9480E+04	.5000E-03
1420:	.9480E+04	.9480E+04	.5000E-03
1423:	.3160E+03	.3160E+03	.5000E-03

1247:	.9480E+04	.9480E+04	.5000E-03
1250:	.3160E+03	.3160E+03	.5000E-03
1253:	.3160E+03	.3160E+03	.5000E-03
1256:	.3160E+03	.3160E+03	.5000E-03
1259:	.3160E+03	.3160E+03	.5000E-03
1262:	.3160E+03	.3160E+03	.5000E-03
1265:	.3160E+03	.3160E+03	.5000E-03
1268:	.3160E+03	.3160E+03	.5000E-03
1271:	.3160E+03	.3160E+03	.5000E-03
1274:	.3160E+03	.3160E+03	.5000E-03
1277:	.3160E+03	.3160E+03	.5000E-03
1280:	.9480E+04	.9480E+04	.5000E-03
1283:	.9480E+04	.9480E+04	.5000E-03
1286:	.3160E+03	.3160E+03	.5000E-03
1289:	.3160E+03	.3160E+03	.5000E-03
1292:	.3160E+03	.3160E+03	.5000E-03
1295:	.3160E+03	.3160E+03	.5000E-03
1298:	.3160E+03	.3160E+03	.5000E-03
1301:	.3160E+03	.3160E+03	.5000E-03
1304:	.3160E+03	.3160E+03	.5000E-03
1307:	.3160E+03	.3160E+03	.5000E-03
1310:	.3160E+03	.3160E+03	.5000E-03
1313:	.3160E+03	.3160E+03	.5000E-03
1316:	.9480E+04	.9480E+04	.5000E-03
1319:	.3160E+03	.3160E+03	.5000E-03
1322:	.3160E+03	.3160E+03	.5000E-03
1325:	.3160E+03	.3160E+03	.5000E-03
1328:	.3160E+03	.3160E+03	.5000E-03
1331:	.3160E+03	.3160E+03	.5000E-03
1334:	.3160E+03	.3160E+03	.5000E-03
1337:	.3160E+03	.3160E+03	.5000E-03
1340:	.3160E+03	.3160E+03	.5000E-03
1343:	.3160E+03	.3160E+03	.5000E-03
1346:	.3160E+03	.3160E+03	.5000E-03
1349:	.9480E+04	.9480E+04	.5000E-03
1352:	.3160E+03	.3160E+03	.5000E-03
1355:	.3160E+03	.3160E+03	.5000E-03
1358:	.3160E+03	.3160E+03	.5000E-03
1361:	.3160E+03	.3160E+03	.5000E-03
1364:	.3160E+03	.3160E+03	.5000E-03
1367:	.3160E+03	.3160E+03	.5000E-03
1370:	.3160E+03	.3160E+03	.5000E-03
1373:	.3160E+03	.3160E+03	.5000E-03
1376:	.3160E+03	.3160E+03	.5000E-03
1379:	.3160E+03	.3160E+03	.5000E-03
1382:	.9480E+04	.9480E+04	.5000E-03
1385:	.9480E+04	.9480E+04	.5000E-03
1388:	.3160E+03	.3160E+03	.5000E-03
1391:	.3160E+03	.3160E+03	.5000E-03
1394:	.3160E+03	.3160E+03	.5000E-03
1397:	.3160E+03	.3160E+03	.5000E-03
1400:	.3160E+03	.3160E+03	.5000E-03
1403:	.3160E+03	.3160E+03	.5000E-03
1406:	.3160E+03	.3160E+03	.5000E-03
1409:	.3160E+03	.3160E+03	.5000E-03
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1415:	.3160E+03	.3160E+03	.5000E-03
1418:	.9480E+04	.9480E+04	.5000E-03
1421:	.3160E+03	.3160E+03	.5000E-03
1424:	.3160E+03	.3160E+03	.5000E-03

1248:	.9480E+04	.9480E+04	.5000E-03
1251:	.3160E+03	.3160E+03	.5000E-03
1254:	.3160E+03	.3160E+03	.5000E-03
1257:	.3160E+03	.3160E+03	.5000E-03
1260:	.3160E+03	.3160E+03	.5000E-03
1263:	.3160E+03	.3160E+03	.5000E-03
1266:	.3160E+03	.3160E+03	.5000E-03
1269:	.3160E+03	.3160E+03	.5000E-03
1272:	.3160E+03	.3160E+03	.5000E-03
1275:	.3160E+03	.3160E+03	.5000E-03
1278:	.3160E+03	.3160E+03	.5000E-03
1281:	.9480E+04	.9480E+04	.5000E-03
1284:	.3160E+03	.3160E+03	.5000E-03
1287:	.3160E+03	.3160E+03	.5000E-03
1290:	.3160E+03	.3160E+03	.5000E-03
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1296:	.3160E+03	.3160E+03	.5000E-03
1299:	.3160E+03	.3160E+03	.5000E-03
1302:	.3160E+03	.3160E+03	.5000E-03
1305:	.3160E+03	.3160E+03	.5000E-03
1308:	.3160E+03	.3160E+03	.5000E-03
1311:	.3160E+03	.3160E+03	.5000E-03
1314:	.9480E+04	.9480E+04	.5000E-03
1317:	.9480E+04	.9480E+04	.5000E-03
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1323:	.3160E+03	.3160E+03	.5000E-03
1326:	.3160E+03	.3160E+03	.5000E-03
1329:	.3160E+03	.3160E+03	.5000E-03
1332:	.3160E+03	.3160E+03	.5000E-03
1335:	.3160E+03	.3160E+03	.5000E-03
1338:	.3160E+03	.3160E+03	.5000E-03
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1347:	.3160E+03	.3160E+03	.5000E-03
1350:	.9480E+04	.9480E+04	.5000E-03
1353:	.3160E+03	.3160E+03	.5000E-03
1356:	.3160E+03	.3160E+03	.5000E-03
1359:	.3160E+03	.3160E+03	.5000E-03
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1365:	.3160E+03	.3160E+03	.5000E-03
1368:	.3160E+03	.3160E+03	.5000E-03
1371:	.3160E+03	.3160E+03	.5000E-03
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1383:	.9480E+04	.9480E+04	.5000E-03
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1392:	.3160E+03	.3160E+03	.5000E-03
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1419:	.9480E+04	.9480E+04	.5000E-03
1422:	.3160E+03	.3160E+03	.5000E-03
1425:	.3160E+03	.3160E+03	.5000E-03

1426:	.3160E+03	.3160E+03	.5000E-03
1427:	.3160E+03	.3160E+03	.5000E-03
1428:	.3160E+03	.3160E+03	.5000E-03
1429:	.3160E+03	.3160E+03	.5000E-03
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1431:	.3160E+03	.3160E+03	.5000E-03
1432:	.3160E+03	.3160E+03	.5000E-03
1433:	.3160E+03	.3160E+03	.5000E-03
1434:	.3160E+03	.3160E+03	.5000E-03
1435:	.3160E+03	.3160E+03	.5000E-03
1436:	.3160E+03	.3160E+03	.5000E-03
1437:	.3160E+03	.3160E+03	.5000E-03
1438:	.3160E+03	.3160E+03	.5000E-03
1439:	.3160E+03	.3160E+03	.5000E-03
1440:	.3160E+03	.3160E+03	.5000E-03
1441:	.3160E+03	.3160E+03	.5000E-03
1442:	.3160E+03	.3160E+03	.5000E-03
1443:	.3160E+03	.3160E+03	.5000E-03
1444:	.3160E+03	.3160E+03	.5000E-03
1445:	.3160E+03	.3160E+03	.5000E-03
1446:	.3160E+03	.3160E+03	.5000E-03
1447:	.3160E+03	.3160E+03	.5000E-03
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1452:	.3160E+03	.3160E+03	.5000E-03
1453:	.9480E+04	.9480E+04	.5000E-03
1454:	.9480E+04	.9480E+04	.5000E-03
1455:	.9480E+04	.9480E+04	.5000E-03
1456:	.9480E+04	.9480E+04	.5000E-03
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1458:	.3160E+03	.3160E+03	.5000E-03
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1463:	.3160E+03	.3160E+03	.5000E-03
1464:	.3160E+03	.3160E+03	.5000E-03
1465:	.3160E+03	.3160E+03	.5000E-03
1466:	.3160E+03	.3160E+03	.5000E-03
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1553:	.3160E+03	.3160E+03	.5000E-03
1554:	.3160E+03	.3160E+03	.5000E-03
1555:	.3160E+03	.3160E+03	.5000E-03
1556:	.3160E+03	.3160E+03	.5000E-03
1557:	.3160E+03	.3160E+03	.5000E-03
1558:	.3160E+03	.3160E+03	.5000E-03
1559:	.3160E+03	.3160E+03	.5000E-03
1560:	.3160E+03	.3160E+03	.5000E-03
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1564:	.9480E+04	.9480E+04	.5000E-03
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1566:	.3160E+03	.3160E+03	.5000E-03
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1573:	.3160E+03	.3160E+03	.5000E-03
1574:	.3160E+03	.3160E+03	.5000E-03
1575:	.3160E+03	.3160E+03	.5000E-03
1576:	.3160E+03	.3160E+03	.5000E-03
1577:	.3160E+03	.3160E+03	.5000E-03
1578:	.3160E+03	.3160E+03	.5000E-03
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1582:	.3160E+03	.3160E+03	.5000E-03
1583:	.3160E+03	.3160E+03	.5000E-03
1584:	.3160E+03	.3160E+03	.5000E-03
1585:	.3160E+03	.3160E+03	.5000E-03
1586:	.3160E+03	.3160E+03	.5000E-03
1587:	.3160E+03	.3160E+03	.5000E-03
1588:	.3160E+03	.3160E+03	.5000E-03
1589:	.3160E+03	.3160E+03	.5000E-03
1590:	.3160E+03	.3160E+03	.5000E-03
1591:	.3160E+03	.3160E+03	.5000E-03
1592:	.3160E+03	.3160E+03	.5000E-03
1593:	.3160E+03	.3160E+03	.5000E-03
1594:	.3160E+03	.3160E+03	.5000E-03
1595:	.3160E+03	.3160E+03	.5000E-03
1596:	.3160E+03	.3160E+03	.5000E-03
1597:	.9480E+04	.9480E+04	.5000E-03
1598:	.9480E+04	.9480E+04	.5000E-03
1599:	.9480E+04	.9480E+04	.5000E-03
1600:	.9480E+04	.9480E+04	.5000E-03
1601:	.3160E+03	.3160E+03	.5000E-03
1602:	.3160E+03	.3160E+03	.5000E-03
1603:	.3160E+03	.3160E+03	.5000E-03
1604:	.3160E+03	.3160E+03	.5000E-03
1605:	.3160E+03	.3160E+03	.5000E-03

1606:	.3160E+03	.3160E+03	.5000E-03
1607:	.3160E+03	.3160E+03	.5000E-03
1608:	.3160E+03	.3160E+03	.5000E-03
1609:	.3160E+03	.3160E+03	.5000E-03
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1612:	.3160E+03	.3160E+03	.5000E-03
1613:	.3160E+03	.3160E+03	.5000E-03
1614:	.3160E+03	.3160E+03	.5000E-03
1615:	.3160E+03	.3160E+03	.5000E-03
1616:	.3160E+03	.3160E+03	.5000E-03
1617:	.3160E+03	.3160E+03	.5000E-03
1618:	.3160E+03	.3160E+03	.5000E-03
1619:	.3160E+03	.3160E+03	.5000E-03
1620:	.3160E+03	.3160E+03	.5000E-03
1621:	.3160E+03	.3160E+03	.5000E-03
1622:	.3160E+03	.3160E+03	.5000E-03
1623:	.3160E+03	.3160E+03	.5000E-03
1624:	.3160E+03	.3160E+03	.5000E-03
1625:	.3160E+03	.3160E+03	.5000E-03
1626:	.3160E+03	.3160E+03	.5000E-03
1627:	.3160E+03	.3160E+03	.5000E-03
1628:	.3160E+03	.3160E+03	.5000E-03
1629:	.3160E+03	.3160E+03	.5000E-03
1630:	.3160E+03	.3160E+03	.5000E-03
1631:	.3160E+03	.3160E+03	.5000E-03
1632:	.3160E+03	.3160E+03	.5000E-03
1633:	.9480E+04	.9480E+04	.5000E-03
1634:	.9480E+04	.9480E+04	.5000E-03
1635:	.9480E+04	.9480E+04	.5000E-03
1636:	.9480E+04	.9480E+04	.5000E-03
1637:	.3160E+03	.3160E+03	.5000E-03
1638:	.3160E+03	.3160E+03	.5000E-03
1639:	.3160E+03	.3160E+03	.5000E-03
1640:	.3160E+03	.3160E+03	.5000E-03
1641:	.3160E+03	.3160E+03	.5000E-03
1642:	.3160E+03	.3160E+03	.5000E-03
1643:	.3160E+03	.3160E+03	.5000E-03
1644:	.3160E+03	.3160E+03	.5000E-03
1645:	.3160E+03	.3160E+03	.5000E-03
1646:	.3160E+03	.3160E+03	.5000E-03
1647:	.3160E+03	.3160E+03	.5000E-03
1648:	.3160E+03	.3160E+03	.5000E-03
1649:	.3160E+03	.3160E+03	.5000E-03
1650:	.3160E+03	.3160E+03	.5000E-03
1651:	.3160E+03	.3160E+03	.5000E-03
1652:	.3160E+03	.3160E+03	.5000E-03
1653:	.3160E+03	.3160E+03	.5000E-03
1654:	.3160E+03	.3160E+03	.5000E-03
1655:	.3160E+03	.3160E+03	.5000E-03
1656:	.3160E+03	.3160E+03	.5000E-03
1657:	.3160E+03	.3160E+03	.5000E-03
1658:	.3160E+03	.3160E+03	.5000E-03
1659:	.3160E+03	.3160E+03	.5000E-03
1660:	.3160E+03	.3160E+03	.5000E-03
1661:	.3160E+03	.3160E+03	.5000E-03
1662:	.3160E+03	.3160E+03	.5000E-03
1663:	.3160E+03	.3160E+03	.5000E-03
1664:	.3160E+03	.3160E+03	.5000E-03
1665:	.3160E+03	.3160E+03	.5000E-03
1666:	.3160E+03	.3160E+03	.5000E-03
1667:	.3160E+03	.3160E+03	.5000E-03
1668:	.3160E+03	.3160E+03	.5000E-03
1669:	.9480E+04	.9480E+04	.5000E-03
1670:	.9480E+04	.9480E+04	.5000E-03
1671:	.9480E+04	.9480E+04	.5000E-03
1672:	.9480E+04	.9480E+04	.5000E-03
1673:	.3160E+03	.3160E+03	.5000E-03
1674:	.3160E+03	.3160E+03	.5000E-03
1675:	.3160E+03	.3160E+03	.5000E-03
1676:	.3160E+03	.3160E+03	.5000E-03
1677:	.3160E+03	.3160E+03	.5000E-03
1678:	.3160E+03	.3160E+03	.5000E-03
1679:	.3160E+03	.3160E+03	.5000E-03
1680:	.3160E+03	.3160E+03	.5000E-03
1681:	.3160E+03	.3160E+03	.5000E-03
1682:	.3160E+03	.3160E+03	.5000E-03
1683:	.3160E+03	.3160E+03	.5000E-03
1684:	.3160E+03	.3160E+03	.5000E-03
1685:	.3160E+03	.3160E+03	.5000E-03
1686:	.3160E+03	.3160E+03	.5000E-03
1687:	.3160E+03	.3160E+03	.5000E-03
1688:	.3160E+03	.3160E+03	.5000E-03
1689:	.3160E+03	.3160E+03	.5000E-03
1690:	.3160E+03	.3160E+03	.5000E-03
1691:	.3160E+03	.3160E+03	.5000E-03
1692:	.3160E+03	.3160E+03	.5000E-03
1693:	.3160E+03	.3160E+03	.5000E-03
1694:	.3160E+03	.3160E+03	.5000E-03
1695:	.3160E+03	.3160E+03	.5000E-03
1696:	.3160E+03	.3160E+03	.5000E-03
1697:	.3160E+03	.3160E+03	.5000E-03
1698:	.3160E+03	.3160E+03	.5000E-03
1699:	.3160E+03	.3160E+03	.5000E-03
1700:	.3160E+03	.3160E+03	.5000E-03
1701:	.3160E+03	.3160E+03	.5000E-03
1702:	.3160E+03	.3160E+03	.5000E-03
1703:	.3160E+03	.3160E+03	.5000E-03
1704:	.3160E+03	.3160E+03	.5000E-03
1705:	.9480E+04	.9480E+04	.5000E-03
1706:	.9480E+04	.9480E+04	.5000E-03
1707:	.9480E+04	.9480E+04	.5000E-03
1708:	.9480E+04	.9480E+04	.5000E-03
1709:	.3160E+03	.3160E+03	.5000E-03
1710:	.3160E+03	.3160E+03	.5000E-03
1711:	.3160E+03	.3160E+03	.5000E-03
1712:	.3160E+03	.3160E+03	.5000E-03
1713:	.3160E+03	.3160E+03	.5000E-03
1714:	.3160E+03	.3160E+03	.5000E-03
1715:	.3160E+03	.3160E+03	.5000E-03
1716:	.3160E+03	.3160E+03	.5000E-03
1717:	.3160E+03	.3160E+03	.5000E-03
1718:	.3160E+03	.3160E+03	.5000E-03
1719:	.3160E+03	.3160E+03	.5000E-03
1720:	.3160E+03	.3160E+03	.5000E-03
1721:	.3160E+03	.3160E+03	.5000E-03
1722:	.3160E+03	.3160E+03	.5000E-03
1723:	.3160E+03	.3160E+03	.5000E-03
1724:	.3160E+03	.3160E+03	.5000E-03
1725:	.3160E+03	.3160E+03	.5000E-03
1726:	.3160E+03	.3160E+03	.5000E-03
1727:	.3160E+03	.3160E+03	.5000E-03
1728:	.3160E+03	.3160E+03	.5000E-03
1729:	.3160E+03	.3160E+03	.5000E-03
1730:	.3160E+03	.3160E+03	.5000E-03
1731:	.3160E+03	.3160E+03	.5000E-03
1732:	.3160E+03	.3160E+03	.5000E-03
1733:	.3160E+03	.3160E+03	.5000E-03
1734:	.3160E+03	.3160E+03	.5000E-03
1735:	.3160E+03	.3160E+03	.5000E-03
1736:	.3160E+03	.3160E+03	.5000E-03
1737:	.3160E+03	.3160E+03	.5000E-03
1738:	.3160E+03	.3160E+03	.5000E-03
1739:	.3160E+03	.3160E+03	.5000E-03
1740:	.3160E+03	.3160E+03	.5000E-03
1741:	.9480E+04	.9480E+04	.5000E-03
1742:	.9480E+04	.9480E+04	.5000E-03
1743:	.9480E+04	.9480E+04	.5000E-03
1744:	.9480E+04	.9480E+04	.5000E-03
1745:	.3160E+03	.3160E+03	.5000E-03
1746:	.3160E+03	.3160E+03	.5000E-03
1747:	.3160E+03	.3160E+03	.5000E-03
1748:	.3160E+03	.3160E+03	.5000E-03
1749:	.3160E+03	.3160E+03	.5000E-03
1750:	.3160E+03	.3160E+03	.5000E-03
1751:	.3160E+03	.3160E+03	.5000E-03
1752:	.3160E+03	.3160E+03	.5000E-03
1753:	.3160E+03	.3160E+03	.5000E-03
1754:	.3160E+03	.3160E+03	.5000E-03
1755:	.3160E+03	.3160E+03	.5000E-03
1756:	.3160E+03	.3160E+03	.5000E-03
1757:	.3160E+03	.3160E+03	.5000E-03
1758:	.3160E+03	.3160E+03	.5000E-03
1759:	.3160E+03	.3160E+03	.5000E-03
1760:	.3160E+03	.3160E+03	.5000E-03
1761:	.3160E+03	.3160E+03	.5000E-03
1762:	.3160E+03	.3160E+03	.5000E-03
1763:	.3160E+03	.3160E+03	.5000E-03
1764:	.3160E+03	.3160E+03	.5000E-03
1765:	.3160E+03	.3160E+03	.5000E-03
1766:	.3160E+03	.3160E+03	.5000E-03
1767:	.3160E+03	.3160E+03	.5000E-03
1768:	.3160E+03	.3160E+03	.5000E-03
1769:	.3160E+03	.3160E+03	.5000E-03
1770:	.3160E+03	.3160E+03	.5000E-03
1771:	.3160E+03	.3160E+03	.5000E-03
1772:	.3160E+03	.3160E+03	.5000E-03
1773:	.3160E+03	.3160E+03	.5000E-03
1774:	.3160E+03	.3160E+03	.5000E-03
1775:	.3160E+03	.3160E+03	.5000E-03
1776:	.3160E+03	.3160E+03	.5000E-03
1777:	.9480E+04	.9480E+04	.5000E-03
1778:	.9480E+04	.9480E+04	.5000E-03
1779:	.9480E+04	.9480E+04	.5000E-03
1780:	.9480E+04	.9480E+04	.5000E-03
1781:	.3160E+03	.3160E+03	.5000E-03
1782:	.3160E+03	.3160E+03	.5000E-03
1783:	.3160E+03	.3160E+03	.5000E-03
1784:	.3160E+03	.3160E+03	.5000E-03
1785:	.3160E+03	.3160E+03	.5000E-03

1785:	.3160E+03	.3160E+03	.5000E-03	1787:	.3160E+03	.3160E+03	.5000E-03	1788:	.3160E+03	.3160E+03	.5000E-03						
1789:	.3160E+03	.3160E+03	.5000E-03	1790:	.3160E+03	.3160E+03	.5000E-03	1791:	.3160E+03	.3160E+03	.5000E-02						
1792:	.3160E+03	.3160E+03	.5000E-03	1793:	.3160E+03	.3160E+03	.5000E-03	1794:	.3160E+03	.3160E+03	.5000E-03						
1795:	.3160E+03	.3160E+03	.5000E-03	1796:	.3160E+03	.3160E+03	.5000E-03	1797:	.3160E+03	.3160E+03	.5000E-03						
1798:	.3160E+03	.3160E+03	.5000E-03	1799:	.3160E+03	.3160E+03	.5000E-03	1800:	.3160E+03	.3160E+03	.5000E-03						
1801:	.3160E+03	.3160E+03	.5000E-03	1802:	.3160E+03	.3160E+03	.5000E-03	1803:	.3160E+03	.3160E+03	.5000E-03						
1804:	.3160E+03	.3160E+03	.5000E-03	1805:	.3160E+03	.3160E+03	.5000E-03	1806:	.3160E+03	.3160E+03	.5000E-03						
1807:	.3160E+03	.3160E+03	.5000E-03	1808:	.3160E+03	.3160E+03	.5000E-03	1809:	.3160E+03	.3160E+03	.5000E-03						
1810:	.3160E+03	.3160E+03	.5000E-03	1811:	.3160E+03	.3160E+03	.5000E-03	1812:	.3160E+03	.3160E+03	.5000E-03						
1813:	.9480E+04	.9480E+04	.5000E-03	1814:	.9480E+04	.9480E+04	.5000E-03	1815:	.9480E+04	.9480E+04	.5000E-03						
1816:	.9480E+04	.9480E+04	.5000E-03	1817:	.3160E+03	.3160E+03	.5000E-03	1818:	.3160E+03	.3160E+03	.5000E-03						
1819:	.3160E+03	.3160E+03	.5000E-03	1820:	.3160E+03	.3160E+03	.5000E-03	1821:	.3160E+03	.3160E+03	.5000E-03						
1822:	.3160E+03	.3160E+03	.5000E-03	1823:	.3160E+03	.3160E+03	.5000E-03	1824:	.3160E+03	.3160E+03	.5000E-03						
1825:	.3160E+03	.3160E+03	.5000E-03	1826:	.3160E+03	.3160E+03	.5000E-03	1827:	.3160E+03	.3160E+03	.5000E-03						
1828:	.3160E+03	.3160E+03	.5000E-03	1829:	.3160E+03	.3160E+03	.5000E-03	1830:	.3160E+03	.3160E+03	.5000E-03						
1831:	.3160E+03	.3160E+03	.5000E-03	1832:	.3160E+03	.3160E+03	.5000E-03	1833:	.3160E+03	.3160E+03	.5000E-03						
1834:	.3160E+03	.3160E+03	.5000E-03	1835:	.3160E+03	.3160E+03	.5000E-03	1836:	.3160E+03	.3160E+03	.5000E-03						
1837:	.3160E+03	.3160E+03	.5000E-03	1838:	.3160E+03	.3160E+03	.5000E-03	1839:	.3160E+03	.3160E+03	.5000E-03						
1840:	.3160E+03	.3160E+03	.5000E-03	1841:	.3160E+03	.3160E+03	.5000E-03	1842:	.3160E+03	.3160E+03	.5000E-03						
1843:	.3160E+03	.3160E+03	.5000E-03	1844:	.3160E+03	.3160E+03	.5000E-03	1845:	.3160E+03	.3160E+03	.5000E-03						
1846:	.3160E+03	.3160E+03	.5000E-03	1847:	.3160E+03	.3160E+03	.5000E-03	1848:	.3160E+03	.3160E+03	.5000E-03						
1849:	.9480E+04	.9480E+04	.5000E-03	1850:	.9480E+04	.9480E+04	.5000E-03	1851:	.9480E+04	.9480E+04	.5000E-03						
1852:	.9480E+04	.9480E+04	.5000E-03	1853:	.3160E+03	.3160E+03	.5000E-03	1854:	.3160E+03	.3160E+03	.5000E-03						
1855:	.3160E+03	.3160E+03	.5000E-03	1856:	.3160E+03	.3160E+03	.5000E-03	1857:	.3160E+03	.3160E+03	.5000E-03						
1858:	.3160E+03	.3160E+03	.5000E-03	1859:	.3160E+03	.3160E+03	.5000E-03	1860:	.3160E+03	.3160E+03	.5000E-03						
1861:	.3160E+03	.3160E+03	.5000E-03	1862:	.3160E+03	.3160E+03	.5000E-03	1863:	.3160E+03	.3160E+03	.5000E-03						
1864:	.3160E+03	.3160E+03	.5000E-03	1865:	.3160E+03	.3160E+03	.5000E-03	1866:	.3160E+03	.3160E+02	.5000E-03						
1867:	.3160E+03	.3160E+03	.5000E-03	1868:	.3160E+03	.3160E+03	.5000E-03	1869:	.3160E+03	.3160E+03	.5000E-03						
1870:	.3160E+03	.3160E+03	.5000E-03	1871:	.3160E+03	.3160E+03	.5000E-03	1872:	.3160E+03	.3160E+03	.5000E-03						
1873:	.3160E+03	.3160E+03	.5000E-03	1874:	.3160E+03	.3160E+03	.5000E-03	1875:	.3160E+03	.3160E+03	.5000E-03						
1876:	.3160E+03	.3160E+03	.5000E-03	1877:	.3160E+03	.3160E+03	.5000E-03	1878:	.3160E+03	.3160E+03	.5000E-03						
1879:	.3160E+03	.3160E+03	.5000E-03	1880:	.3160E+03	.3160E+03	.5000E-03	1881:	.3160E+03	.3160E+03	.5000E-03						
1882:	.3160E+03	.3160E+03	.5000E-03	1883:	.3160E+03	.3160E+03	.5000E-03	1884:	.3160E+03	.3160E+03	.5000E-03						
1885:	.9480E+04	.9480E+04	.5000E-03	1886:	.9480E+04	.9480E+04	.5000E-03	1887:	.9480E+04	.9480E+04	.5000E-03						
1888:	.9480E+04	.9480E+04	.5000E-03	1889:	.3160E+03	.3160E+03	.5000E-03	1890:	.3160E+03	.3160E+03	.5000E-03						
1891:	.3160E+03	.3160E+03	.5000E-03	1892:	.3160E+03	.3160E+03	.5000E-03	1893:	.3160E+03	.3160E+03	.5000E-03						
1894:	.3160E+03	.3160E+03	.5000E-03	1895:	.3160E+03	.3160E+03	.5000E-03	1896:	.3160E+03	.3160E+03	.5000E-03						
1897:	.3160E+03	.3160E+03	.5000E-03	1898:	.3160E+03	.3160E+03	.5000E-03	1899:	.3160E+03	.3160E+03	.5000E-03						
1900:	.3160E+03	.3160E+03	.5000E-03	1901:	.3160E+03	.3160E+03	.5000E-03	1902:	.3160E+03	.3160E+03	.5000E-03						
1903:	.3160E+03	.3160E+03	.5000E-03	1904:	.3160E+03	.3160E+03	.5000E-03	1905:	.3160E+03	.3160E+03	.5000E-03						
1906:	.3160E+03	.3160E+03	.5000E-03	1907:	.3160E+03	.3160E+03	.5000E-03	1908:	.3160E+03	.3160E+03	.5000E-03						
1909:	.3160E+03	.3160E+03	.5000E-03	1910:	.3160E+03	.3160E+03	.5000E-03	1911:	.3160E+03	.3160E+03	.5000E-03						
1912:	.3160E+03	.3160E+03	.5000E-03	1913:	.3160E+03	.3160E+03	.5000E-03	1914:	.3160E+03	.3160E+03	.5000E-03						
1915:	.3160E+03	.3160E+03	.5000E-03	1916:	.3160E+03	.3160E+03	.5000E-03	1917:	.3160E+03	.3160E+03	.5000E-03						
1918:	.3160E+03	.3160E+03	.5000E-03	1919:	.3160E+03	.3160E+03	.5000E-03	1920:	.3160E+03	.3160E+03	.5000E-03						
1921:	.9480E+04	.9480E+04	.5000E-03	1922:	.9480E+04	.9480E+04	.5000E-03	1923:	.9480E+04	.9480E+04	.5000E-03						
1924:	.9480E+04	.9480E+04	.5000E-03	1925:	.3160E+03	.3160E+03	.5000E-03	1926:	.3160E+03	.3160E+03	.5000E-03						
1927:	.3160E+03	.3160E+03	.5000E-03	1928:	.3160E+03	.3160E+03	.5000E-03										

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 7.50 TIME STEP: 1

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.349	2	230.346	3	230.339	4	230.328	5	230.311	6	230.290	7	230.264	8	230.232
9	230.196	10	230.155	11	230.109	12	230.057	13	230.000	14	230.000	15	230.000	16	232.499
17	232.500	18	232.501	19	232.502	20	232.505	21	232.508	22	232.511	23	232.518	24	232.521
25	232.527	26	232.533	27	232.541	28	232.550	29	232.560	30	232.574	31	234.059	32	234.058
33	234.060	34	234.061	35	234.063	36	234.065	37	234.067	38	234.071	39	234.074	40	234.078
41	234.083	42	234.088	43	234.094	44	234.100	45	234.106	46	234.106	47	235.145	48	235.145
49	235.146	50	235.146	51	235.146	52	235.147	53	235.148	54	235.148	55	235.150	56	235.151
57	235.153	58	235.154	59	235.156	60	235.158	61	235.160	62	235.160	63	236.057	64	236.057
65	236.057	66	236.057	67	236.057	68	236.058	69	236.058	70	236.059	71	236.059	72	236.060
73	236.061	74	236.062	75	236.063	76	236.064	77	236.065	78	236.065	79	236.843	80	236.843
81	236.843	82	236.843	83	236.844	84	236.844	85	236.844	86	236.845	87	236.845	88	236.845
89	236.846	90	236.847	91	236.847	92	236.848	93	236.849	94	236.849	95	237.527	96	237.527
97	237.527	98	237.527	99	237.528	100	237.528	101	237.528	102	237.528	103	237.528	104	237.528
105	237.529	106	237.529	107	237.530	108	237.530	109	237.530	110	237.531	111	238.123	112	238.123
113	238.123	114	238.124	115	238.124	116	238.124	117	238.124	118	238.124	119	238.124	120	238.124
121	238.124	122	238.124	123	238.125	124	238.125	125	238.125	126	238.125	127	238.842	128	238.842
129	238.842	130	238.842	131	238.842	132	238.842	133	238.842	134	238.842	135	238.842	136	238.842
137	238.842	138	238.842	139	238.842	140	238.842	141	238.843	142	238.843	143	239.091	144	239.091
145	239.091	146	239.091	147	239.091	148	239.091	149	239.091	150	239.091	151	239.091	152	239.091
153	239.090	154	239.090	155	239.090	156	239.090	157	239.090	158	239.090	159	239.475	160	239.475
161	239.475	162	239.475	163	239.475	164	239.475	165	239.475	166	238.475	167	239.475	168	239.475
169	239.475	170	238.475	171	239.474	172	239.474	173	239.474	174	239.474	175	239.800	176	239.800
177	239.800	178	239.800	179	239.800	180	239.800	181	239.800	182	239.800	183	239.800	184	239.800
185	239.800	186	239.799	187	239.799	188	239.799	189	239.799	190	239.799	191	240.070	192	240.070
193	240.070	194	240.070	195	240.070	196	240.070	197	240.070	198	240.070	199	240.069	200	240.069
201	240.069	202	240.069	203	240.069	204	240.068	205	240.068	206	240.068	207	240.287	208	240.287
209	240.287	210	240.287	211	240.287	212	240.287	213	240.287	214	240.287	215	240.287	216	240.287
217	240.286	218	240.286	219	240.286	220	240.286	221	240.285	222	240.285	223	240.455	224	240.455
225	240.455	226	240.455	227	240.455	228	240.455	229	240.455	230	240.455	231	240.455	232	240.454
233	240.454	234	240.454	235	240.454	236	240.454	237	240.453	238	240.453	239	240.576	240	240.576
241	240.576	242	240.576	243	240.576	244	240.576	245	240.576	246	240.576	247	240.576	248	240.575
249	240.575	250	240.575	251	240.575	252	240.575	253	240.574	254	240.574	255	240.852	256	240.852
257	240.852	258	240.852	259	240.852	260	240.852	261	240.852	262	240.852	263	240.852	264	240.852
265	240.852	266	240.852	267	240.851	268	240.851	269	240.851	270	240.851	271	240.886	272	240.886
273	240.886	274	240.886	275	240.886	276	240.886	277	240.886	278	240.886	279	240.886	280	240.886
281	240.886	282	240.886	283	240.886	284	240.885	285	240.885	286	240.885	287	240.880	288	240.880
289	240.880	290	240.880	291	240.880	292	240.880	293	240.880	294	240.880	295	240.880	296	240.880
297	240.880	298	240.879	299	240.879	300	240.879	301	240.879	302	240.879	303	240.835	304	240.835
305	240.835	306	240.835	307	240.835	308	240.835	309	240.835	310	240.835	311	240.835	312	240.835
313	240.835	314	240.835	315	240.835	316	240.835	317	240.835	318	240.835	319	240.555	320	240.555
321	240.555	322	240.555	323	240.555	324	240.555	325	240.555	326	240.555	327	240.555	328	240.555
329	240.555	330	240.555	331	240.555	332	240.555	333	240.556	334	240.556	335	240.441	336	240.441
337	240.441	338	240.441	339	240.441	340	240.441	341	240.441	342	240.441	343	240.441	344	240.441
345	240.441	346	240.442	347	240.442	348	240.442	349	240.442	350	240.442	351	240.286	352	240.286
353	240.286	354	240.296	355	240.296	356	240.296	357	240.296	358	240.296	359	240.287	360	240.297
361	240.297	362	240.297	363	240.286	364	240.288	365	240.288	366	240.289	367	240.121	368	240.121
369	240.121	370	240.121	371	240.121	372	240.122	373	240.122	374	240.123	375	240.123	376	240.124
377	240.124	378	240.125	379	240.126	380	240.127	381	240.127	382	240.127	383	238.890	384	238.890
385	238.891	386	238.892	387	238.894	388	238.895	389	238.898	390	238.902	391	238.906	392	238.910
393	238.915	394	238.921	395	238.927	396	238.933	397	238.940	398	238.941	399	238.229	400	238.229
401	238.229	402	238.228	403	238.230	404	238.230	405	238.230	406	238.231	407	238.232	408	238.232
409	238.233	410	238.234	411	238.235	412	238.236	413	238.237	414	238.248	415	238.569	416	238.569
417	238.569	418	238.569	419	238.570	420	238.570	421	238.570	422	238.571	423	238.571	424	238.572
425	238.572	426	238.573	427	238.574	428	238.574	429	238.575	430	238.586	431	237.990	432	237.990

433	237.990	434	237.990	435	237.990	436	237.990	437	237.991	438	237.991	439	237.991	440	237.9
441	237.992	442	237.993	443	237.993	444	237.994	445	237.995	446	238.005	447	237.585	448	237.5
449	237.585	450	237.585	451	237.585	452	237.585	453	237.585	454	237.585	455	237.585	456	237.5
457	237.586	458	237.586	459	237.586	460	237.586	461	237.588	462	237.578	463	237.389	464	237.3
465	237.389	466	237.389	467	237.389	468	237.389	469	237.388	470	237.388	471	237.388	472	237.388
473	237.389	474	237.388	475	237.388	476	237.388	477	237.388	478	237.408	479	237.609	480	237.609
481	237.609	482	237.609	483	237.609	484	237.609	485	237.808	486	237.808	487	237.607	488	237.607
489	237.607	490	237.605	491	237.605	492	237.605	493	237.604	494	237.614	495	238.358	496	238.3
497	238.358	498	238.357	499	238.357	500	238.358	501	238.355	502	238.354	503	238.353	504	238.3
505	238.350	506	238.348	507	238.346	508	238.344	509	238.342	510	238.353	511	239.928	512	239.9
513	239.928	514	239.927	515	239.926	516	239.925	517	239.923	518	239.922	519	239.920	520	239.9
521	239.915	522	238.912	523	239.908	524	239.905	525	239.901	526	239.915	527	242.677	528	242.677
529	242.676	530	242.676	531	242.675	532	242.674	533	242.673	534	242.671	535	242.669	536	242.667
537	242.664	538	242.661	539	242.658	540	242.652	541	242.646	542	242.654	543	242.658	544	248.838
545	246.840	546	246.847	547	246.858	548	246.873	549	246.893	550	246.917	551	246.946	552	248.9
553	247.018	554	247.061	555	247.109	555	247.161	557	247.218	558	247.278	559	247.281	560	247.2
561	248.401	562	248.401	563	248.403	564	248.408	565	248.410	566	248.415	567	248.422	568	248.4
569	248.437	570	248.447	571	248.457	572	248.469	573	248.481	574	248.494	575	248.507	576	248.5
577	248.508	578	249.798	579	249.796	580	249.797	581	249.799	582	249.801	583	249.804	584	249.808
585	249.812	585	249.817	587	249.823	588	249.829	589	249.836	590	249.844	591	249.852	592	249.860
593	249.860	594	249.861	595	251.193	596	251.193	597	251.194	598	251.195	599	251.196	600	251.198
601	251.200	602	251.203	603	251.208	604	251.210	605	251.214	606	251.218	607	251.223	608	251.2
609	251.233	610	251.233	611	251.233	612	252.633	613	252.633	614	252.633	615	252.634	616	252.6
617	252.636	618	252.638	619	252.639	620	252.641	621	252.644	622	252.648	623	252.649	624	252.6
625	252.655	626	252.658	627	252.658	628	252.658	629	252.659	630	254.128	631	254.128	632	254.1
633	254.129	634	254.130	635	254.131	636	254.132	637	254.134	638	254.135	639	254.137	640	254.140
641	254.142	642	254.145	643	254.147	644	254.150	645	254.150	646	254.150	647	254.151	648	255.625
649	255.625	650	255.625	651	255.626	652	255.626	653	255.627	654	255.628	655	255.629	656	255.630
657	255.632	658	255.633	659	255.635	660	255.637	661	255.639	662	255.641	663	255.641	664	255.6
665	255.643	666	257.107	667	257.107	668	257.107	669	257.108	670	257.108	671	257.108	672	257.1
673	257.110	674	257.110	675	257.111	676	257.112	677	257.113	678	257.115	679	257.116	680	257.1
681	257.117	682	257.117	683	257.119	684	258.558	685	258.558	686	258.559	687	258.559	688	258.5
689	258.559	690	258.559	691	258.560	692	258.560	693	258.560	694	258.561	695	258.561	696	258.562
697	258.562	698	258.563	699	258.563	700	258.563	701	258.565	702	259.986	703	258.986	704	259.986
705	259.986	706	259.986	707	259.986	708	259.986	709	259.986	710	259.986	711	259.986	712	259.988
713	259.988	714	259.986	715	259.986	716	259.985	717	259.985	718	259.968	719	259.968	720	261.3
721	261.318	722	261.318	723	261.318	724	261.318	725	261.318	726	261.317	727	261.317	728	261.3
729	261.318	730	261.318	731	261.316	732	261.315	733	261.315	734	261.314	735	261.314	736	261.3
737	261.317	738	262.808	739	262.806	740	262.805	741	262.805	742	262.808	743	262.805	744	262.8
745	262.804	746	262.803	747	262.802	748	262.802	749	262.801	750	262.800	751	262.598	752	262.598
753	262.598	754	262.598	755	262.801	756	262.801	757	263.820	758	263.820	759	263.820	760	263.819
761	263.818	762	263.818	763	263.818	764	263.817	765	263.815	766	263.815	767	263.814	768	263.813
769	263.812	770	263.810	771	263.808	772	263.809	773	263.808	774	263.812	775	263.813	776	264.8
777	264.953	778	264.953	779	264.952	780	264.952	781	264.951	782	264.950	783	264.948	784	264.9
785	264.947	786	264.946	787	264.944	788	264.943	789	264.941	790	264.939	791	264.938	792	264.9
793	264.942	794	264.943	795	265.998	796	265.998	797	265.998	798	265.998	799	265.997	800	265.9
801	265.996	802	265.994	803	265.993	804	265.992	805	265.990	806	265.988	807	265.986	808	265.984
809	265.982	810	265.982	811	265.982	812	265.985	813	265.986	814	266.951	815	266.951	816	266.950
817	266.950	818	266.949	819	266.948	820	266.947	821	266.946	822	266.945	823	266.943	824	266.941
825	266.939	826	266.937	827	266.934	828	266.932	829	266.932	830	266.932	831	266.935	832	266.9
833	267.804	834	267.804	835	267.804	836	267.803	837	267.802	838	267.801	839	267.800	840	267.7
841	267.797	842	267.795	843	267.793	844	267.791	845	267.789	846	267.786	847	267.783	848	267.7
849	267.783	850	267.786	851	267.788	852	268.554	853	268.554	854	268.554	855	268.553	856	268.5
857	268.551	858	268.550	859	268.548	860	268.546	861	268.544	862	268.542	863	268.540	864	268.537
865	268.534	866	268.531	867	268.531	868	268.531	869	268.534	870	268.538	871	269.196	872	269.195
873	269.195	874	269.194	875	269.194	876	269.192	877	269.191	878	269.189	879	269.187	880	269.185
881	269.183	882	269.180	883	269.177	884	269.174	885	269.170	886	269.170	887	269.170	888	269.
889	269.175	890	269.725	891	269.725	892	269.725	893	269.724	894	269.723	895	269.722	896	269.
897	269.718	898	269.716	899	269.714	900	269.711	901	269.708	902	269.705	903	269.701	904	269.
905	269.698	906	269.698	907	269.700	908	269.703	909	270.138	910	270.138	911	270.137	912	270.

913	270.135	914	270.134	915	270.132	916	270.130	917	270.128	918	270.125	919	270.123	920	270.
921	270.116	922	270.112	923	270.108	924	270.108	925	270.108	926	270.111	927	270.113	928	270.428
929	270.428	930	270.428	931	270.427	932	270.426	933	270.424	934	270.422	935	270.420	936	270.418
937	270.415	938	270.412	939	270.409	940	270.405	941	270.401	942	270.396	943	270.398	944	270.398
945	270.399	946	270.402	947	270.591	948	270.591	949	270.591	950	270.590	951	270.588	952	270.
953	270.585	954	270.583	955	270.580	956	270.577	957	270.574	958	270.570	959	270.586	960	270.
961	270.557	962	270.557	963	270.557	964	270.560	965	270.562	966	270.621	967	270.620	968	270.
969	270.619	970	270.618	971	270.618	972	270.614	973	270.611	974	270.608	975	270.605	976	270.
977	270.598	978	270.593	979	270.589	980	270.584	981	270.584	982	270.584	983	270.588	984	270.589
985	270.510	986	270.510	987	270.509	988	270.508	989	270.507	990	270.505	991	270.503	992	270.500
993	270.497	994	270.493	995	270.489	996	270.485	997	270.480	998	270.475	999	270.470	1000	270.469
1001	270.469	1002	270.472	1003	270.475	1004	270.258	1005	270.255	1006	270.255	1007	270.254	1008	270.
1009	270.250	1010	270.247	1011	270.243	1012	270.239	1013	270.235	1014	270.230	1015	270.225	1016	270.
1017	270.213	1018	270.208	1019	270.208	1020	270.208	1021	270.208	1022	270.211	1023	269.918	1024	269.
1025	269.913	1026	269.910	1027	269.905	1028	269.899	1029	269.891	1030	269.882	1031	269.872	1032	269.
1033	269.846	1034	269.831	1035	269.815	1036	269.797	1037	269.777	1038	269.776	1039	269.775	1040	269.753
1041	269.755														

NODES ALONG THE WATER TABLE

15	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254	270	286	302	318	334	350	366	382	398
414	430	446	462	478	494	510	526	543	560	577	594	611	629	647	665	683	701	719	737	756	775	794	813	832
851	870	889	908	927	948	965	984	1003	1022	1041														

HYDRAULIC GRADIENT AND THE DIRECTION OF THE GRADIENT

(IN DEGREES FROM THE POSITIVE X-AXIS)

ELEM	GRADIENT	DIRECT	ELEM	GRADIENT	DIRECT	ELEM	GRADIENT	DIRECT	ELEM	GRADIENT	DIRECT	ELEM	GRADIENT	DIRECT
1	.717E-02	180.26	2	.718E-02	178.14	3	.718E-02	180.76	4	.724E-02	174.41	5	.721E-02	181.27
6	.734E-02	170.77	7	.725E-02	181.78	8	.750E-02	167.26	9	.732E-02	182.28	10	.769E-02	163.80
11	.740E-02	182.81	12	.794E-02	180.73	13	.750E-02	183.33	14	.822E-02	157.77	15	.763E-02	183.86
16	.855E-02	155.02	17	.777E-02	184.40	18	.891E-02	152.48	19	.783E-02	184.94	20	.932E-02	150.15
21	.812E-02	185.49	22	.876E-02	148.03	23	.833E-02	186.05	24	.102E-01	146.10	25	.856E-02	186.63
26	.853E-02	180.00	27	.861E-02	187.45	28	.858E-02	180.00	29	.520E-02	180.28	30	.520E-02	180.36
31	.520E-02	180.81	32	.520E-02	181.06	33	.520E-02	181.35	34	.520E-02	181.78	35	.520E-02	181.88
36	.520E-02	182.48	37	.520E-02	182.41	38	.520E-02	183.22	39	.520E-02	182.95	40	.520E-02	184.00
41	.520E-02	183.49	42	.520E-02	184.81	43	.520E-02	184.03	44	.520E-02	185.66	45	.520E-02	184.57
46	.521E-02	186.57	47	.519E-02	185.11	48	.521E-02	187.53	49	.519E-02	185.66	50	.521E-02	188.57
51	.519E-02	186.21	52	.522E-02	189.67	53	.518E-02	186.76	54	.523E-02	190.69	55	.518E-02	187.32
56	.524E-02	182.30	57	.511E-02	180.14	58	.362E-02	180.13	59	.362E-02	180.40	60	.362E-02	180.37
61	.362E-02	181.17	62	.362E-02	180.60	63	.362E-02	181.93	64	.362E-02	180.84	65	.362E-02	182.70
66	.361E-02	181.07	67	.361E-02	183.47	68	.361E-02	181.30	69	.361E-02	184.25	70	.360E-02	181.53
71	.361E-02	185.03	72	.360E-02	181.76	73	.360E-02	185.81	74	.359E-02	181.99	75	.360E-02	186.80
76	.358E-02	182.21	77	.380E-02	187.39	78	.357E-02	182.43	79	.359E-02	188.19	80	.356E-02	182.85
81	.358E-02	189.00	82	.354E-02	182.87	83	.358E-02	189.82	84	.353E-02	183.08	85	.357E-02	190.64
86	.351E-02	180.17	87	.351E-02	180.20	88	.304E-02	180.10	89	.304E-02	180.15	90	.304E-02	180.28
91	.304E-02	180.44	92	.304E-02	180.42	93	.304E-02	180.72	94	.304E-02	180.58	95	.304E-02	181.00
96	.304E-02	180.74	97	.304E-02	181.27	98	.304E-02	180.90	99	.304E-02	181.55	100	.303E-02	181.07
101	.303E-02	181.82	102	.303E-02	181.23	103	.303E-02	182.09	104	.303E-02	181.39	105	.303E-02	182.35
106	.303E-02	181.55	107	.303E-02	182.81	108	.303E-02	181.71	109	.303E-02	182.87	110	.303E-02	181.87
111	.303E-02	183.12	112	.303E-02	182.03	113	.303E-02	183.36	114	.302E-02	182.19	115	.303E-02	183.59
116	.302E-02	180.15	117	.302E-02	180.20	118	.262E-02	180.07	119	.262E-02	180.11	120	.262E-02	180.19
121	.262E-02	180.30	122	.262E-02	180.31	123	.262E-02	180.49	124	.262E-02	180.43	125	.262E-02	180.67
126	.262E-02	180.55	127	.262E-02	180.88	128	.262E-02	180.67	129	.262E-02	181.05	130	.262E-02	180.78
131	.262E-02	181.23	132	.262E-02	180.90	133	.262E-02	181.42	134	.262E-02	181.02	135	.262E-02	181.61
136	.262E-02	181.14	137	.262E-02	181.79	138	.262E-02	181.26	139	.262E-02	181.98	140	.262E-02	181.37
141	.262E-02	182.16	142	.261E-02	181.49	143	.261E-02	182.35	144	.261E-02	181.61	145	.261E-02	182.53
146	.261E-02	180.14	147	.261E-02	180.18	148	.228E-02	180.05	149	.228E-02	180.08	150	.228E-02	180.14
151	.228E-02	180.22	152	.228E-02	180.22	153	.228E-02	180.36	154	.228E-02	180.30	155	.228E-02	180.48
156	.228E-02	180.38	157	.228E-02	180.63	158	.228E-02	180.46	159	.228E-02	180.77	160	.228E-02	180.54
161	.228E-02	180.80	162	.228E-02	180.62	163	.228E-02	181.04	164	.228E-02	180.70	165	.228E-02	181.17
166	.228E-02	180.79	167	.228E-02	181.31	168	.228E-02	180.87	169	.228E-02	181.44	170	.228E-02	180.95
171	.228E-02	181.58	172	.228E-02	181.03	173	.228E-02	181.72	174	.227E-02	181.11	175	.227E-02	181.85
176	.227E-02	180.13	177	.227E-02	180.15	178	.199E-02	180.04	179	.199E-02	180.06	180	.199E-02	180.08
181	.199E-02	180.15	182	.199E-02	180.13	183	.199E-02	180.25	184	.199E-02	180.18	185	.199E-02	180.34
186	.199E-02	180.22	187	.199E-02	180.44	188	.199E-02	180.27	189	.199E-02	180.53	190	.199E-02	180.32
191	.199E-02	180.62	192	.199E-02	180.36	193	.199E-02	180.71	194	.199E-02	180.41	195	.199E-02	180.81
196	.198E-02	180.46	197	.198E-02	180.80	198	.198E-02	180.51	199	.198E-02	180.99	200	.198E-02	180.65
201	.198E-02	181.09	202	.198E-02	180.60	203	.198E-02	181.18	204	.198E-02	180.64	205	.198E-02	181.27
206	.198E-02	180.12	207	.198E-02	180.15	208	.173E-02	180.02	209	.173E-02	180.04	210	.173E-02	180.03
211	.173E-02	180.10	212	.173E-02	180.05	213	.173E-02	180.15	214	.173E-02	180.08	215	.173E-02	180.20
216	.173E-02	180.08	217	.173E-02	180.26	218	.173E-02	180.09	219	.173E-02	180.31	220	.173E-02	180.10
221	.173E-02	180.37	222	.173E-02	180.12	223	.173E-02	180.42	224	.173E-02	180.13	225	.173E-02	180.47
226	.173E-02	180.15	227	.173E-02	180.53	228	.173E-02	180.18	229	.173E-02	180.58	230	.173E-02	180.17
231	.173E-02	180.63	232	.173E-02	180.19	233	.173E-02	180.69	234	.173E-02	180.20	235	.173E-02	180.74
236	.173E-02	180.12	237	.173E-02	180.14	238	.150E-02	180.00	239	.150E-02	180.02	240	.150E-02	179.99
241	.150E-02	180.04	242	.150E-02	179.97	243	.150E-02	180.06	244	.150E-02	179.95	245	.150E-02	180.07
246	.150E-02	179.93	247	.150E-02	180.08	248	.150E-02	179.91	249	.150E-02	180.10	250	.150E-02	179.89
251	.149E-02	180.12	252	.149E-02	179.88	253	.149E-02	180.14	254	.149E-02	179.88	255	.149E-02	180.15
256	.149E-02	179.84	257	.149E-02	180.17	258	.149E-02	179.82	259	.149E-02	180.18	260	.149E-02	179.80
261	.149E-02	180.20	262	.149E-02	179.78	263	.149E-02	180.22	264	.149E-02	179.77	265	.149E-02	180.23
266	.149E-02	180.11	267	.149E-02	180.13	268	.128E-02	179.99	269	.128E-02	180.01	270	.128E-02	179.94
271	.128E-02	179.98	272	.128E-02	179.89	273	.128E-02	179.96	274	.128E-02	179.84	275	.128E-02	179.94
276	.128E-02	179.79	277	.128E-02	179.92	278	.128E-02	179.73	279	.128E-02	179.80	280	.128E-02	179.68
281	.128E-02	179.88	282	.128E-02	179.83	283	.128E-02	179.86	284	.128E-02	179.58	285	.128E-02	179.83
286	.128E-02	179.53	287	.128E-02	179.81	288	.128E-02	179.48	289	.128E-02	179.78	290	.128E-02	179.43
291	.128E-02	179.77	292	.128E-02	179.38	293	.128E-02	179.75	294	.128E-02	179.33	295	.128E-02	179.73
296	.128E-02	180.11	297	.128E-02	180.13	298	.108E-02	179.97	299	.108E-02	179.99	300	.108E-02	179.89
301	.108E-02	179.93	302	.108E-02	179.80	303	.108E-02	179.87	304	.108E-02	179.72	305	.108E-02	179.81
306	.108E-02	179.64	307	.108E-02	179.75	308	.108E-02	179.55	309	.108E-02	179.89	310	.108E-02	179.47
311	.108E-02	179.63	312	.108E-02	179.39	313	.108E-02	179.57	314	.108E-02	179.30	315	.108E-02	179.51
316	.108E-02	179.22	317	.108E-02	179.45	318	.108E-02	179.14	319	.108E-02	179.38	320	.108E-02	179.05
321	.108E-02	179.33	322	.108E-02	178.97	323	.108E-02	179.27	324	.108E-02	178.89	325	.108E-02	179.21
326	.108E-02	180.12	327	.108E-02	180.13	328	.899E-03	179.95	329	.899E-03	179.97	330	.899E-03	179.84
331	.899E-03	179.86	332	.899E-03	179.72	333	.899E-03	179.76	334	.898E-03	179.60	335	.899E-03	179.86
336	.899E-03	179.48	337	.899E-03	179.56	338	.899E-03	179.36	339	.898E-03	179.46	340	.899E-03	179.24
341	.898E-03	179.36	342	.898E-03	179.13	343	.898E-03	179.26	344	.898E-03	179.01	345	.898E-03	179.18
346	.898E-03	178.89	347	.898E-03	179.08	348	.898E-03	178.77	349	.898E-03	178.86	350	.898E-03	178.88
351	.898E-03	178.85	352	.898E-03	178.54	353	.898E-03	178.78	354	.898E-03	178.42	355	.898E-03	178.86
356	.898E-03	180.13	357	.898E-03	180.14	358	.725E-03	179.94	359	.725E-03	179.94	360	.725E-03	179.78
361	.725E-03	179.80	362	.725E-03	179.62	363	.725E-03	179.85	364	.725E-03	179.47	365	.725E-03	179.80
366	.725E-03	179.31	367	.725E-03	179.36	368	.725E-03	179.16	369	.725E-03	179.21	370	.725E-03	179.00
371	.725E-03	179.06	372	.725E-03	178.85	373	.725E-03	178.92	374	.725E-03	178.69	375	.725E-03	178.77
376	.725E-03	178.54	377	.725E-03	178.62	378	.725E-03	178.38	379	.725E-03	178.48	380	.725E-03	178.23
381	.725E-03	178.33	382	.725E-03	178.07	383	.725E-03	178.19	384	.725E-03	177.92	385	.725E-03	178.04
386	.724E-03	180.14	387	.724E-03	180.16	388	.580E-03	179.91	389	.580E-03	179.82	390	.580E-03	179.72
391	.580E-03	178.71	392	.580E-03	178.52	393	.580E-03	178.81	394	.580E-03	179.32	395	.580E-03	179.31
396	.580E-03	179.12	397	.580E-03	179.11	398	.580E-03	178.82	399	.580E-03	178.81	400	.580E-03	178.73
401	.580E-03	178.71	402	.580E-03	178.53	403	.560E-03	178.51	404	.560E-03	178.33	405	.560E-03	178.31
406	.560E-03	178.13	407	.560E-03	178.11	408	.560E-03	177.94	409	.560E-03	177.91	410	.560E-03	177.74
411	.560E-03	177.71	412	.561E-03	177.55	413	.561E-03	177.51	414	.561E-03	177.35	415	.561E-03	177.31
416	.560E-03	180.18	417	.560E-03	180.19	418	.403E-03	179.88	419	.403E-03	179.88	420	.403E-03	179.84
421	.403E-03	179.50	422	.403E-03	179.38	423	.403E-03	179.33	424	.403E-03	179.13	425	.403E-03	179.05
426	.403E-03	178.88	427	.403E-03	178.78	428	.403E-03	178.83	429	.403E-03	178.51	430	.403E-03	178.38
431	.403E-03	178.23	432	.403E-03	178.13	433	.403E-03	177.96	434	.403E-03	177.89	435	.403E-03	177.88
436	.403E-03	177.64	437	.404E-03	177.41	438	.404E-03	177.38	439	.404E-03	177.14	440	.404E-03	177.14
441	.404E-03	178.87	442	.404E-03	178.90	443	.404E-03	178.80	444	.404E-03	178.65	445	.404E-03	178.33
446	.403E-03	180.24	447	.403E-03	180.25	448	.255E-03	179.85	449	.255E-03	179.82	450	.255E-03	179.52
451	.255E-03	179.42	452	.255E-03	179.19	453	.255E-03	179.02	454	.255E-03	178.88	455	.255E-03	178.83
456	.255E-03	178.53	457	.255E-03	178.23	458	.255E-03	178.20	459	.255E-03	177.84	460	.255E-03	177.87
461	.255E-03	177.44	462	.255E-03	177.54	463	.255E-03	177.05	464	.255E-03	177.22	465	.256E-03	176.85
466	.256E-03	176.88	467	.256E-03	176.26	468	.256E-03	176.57	469	.256E-03	175.87	470	.256E-03	176.26
471	.256E-03	175.48	472	.256E-03	175.83	473	.257E-03	175.10	474	.256E-03	175.81	475	.257E-03	174.71
476	.256E-03	180.39	477	.256E-03	180.39	478	.113E-03	179.74	479	.113E-03	179.65	480	.113E-03	179.21
481	.113E-03	178.91	482	.113E-03	178.88	483	.113E-03	178.16	484	.113E-03	178.16	485	.113E-03	177.42
486	.113E-03	177.63	487	.113E-03	178.88	488	.113E-03	177.11	489	.113E-03	175.85	490	.113E-03	176.59
491	.113E-03	175.22	492	.113E-03	176.07	493	.113E-03	174.48	494	.113E-03	175.55	495	.114E-03	173.77
496	.113E-03	175.04	497	.114E-03	173.05	498	.114E-03	174.53	499	.114E-03	172.34	500	.114E-03	174.03
501	.115E-03	171.64	502	.114E-03	173.53	503	.115E-03	170.94	504	.115E-03	173.04	505	.116E-03	170.25
506	.114E-03	180.92	507	.114E-03	180.88	508	.219E-04	0.72	509	.219E-04	1.35	510	.219E-04	2.03
511	.219E-04	4.11	512	.219E-04	3.35	513	.219E-04	5.85	514	.219E-04	4.68	515	.219E-04	5.59
516	.219E-04	5.98	517	.219E-04	12.30	518	.219E-04	7.30	519	.219E-04	14.89	520	.219E-04	8.63
521	.219E-04	17.64	522	.219E-04	9.98	523	.229E-04	20.28	524	.219E-04	11.30	525	.229E-04	22.84
526	.219E-04	12.65	527	.229E-04	26.37	528	.219E-04	14.02	529	.238E-04	27.85	530	.219E-04	15.39
531	.238E-04	30.29	532	.210E-04	16.78	533	.238E-04	32.88	534	.210E-04	18.18	535	.248E-04	35.01
536	.200E-04	354.33	537	.200E-04	354.71	538	.149E-03	359.98	539	.149E-03	0.10	540	.149E-03	359.83
541	.149E-03	0.30	542	.149E-03	359.86	543	.149E-03	0.48	544	.149E-03	359.80	545	.149E-03	0.68
546	.149E-03	359.73	547	.149E-03	0.87	548	.149E-03	359.87	549	.149E-03	1.06	550	.149E-03	359.80
551	.149E-03	1.25	552	.149E-03	359.53	553	.148E-03	1.44	554	.148E-03	359.47	555	.148E-03	1.83
556	.148E-03	359.40	557	.148E-03	1.82	558	.148E-03	359.33	559	.148E-03	2.01	560	.148E-03	359.26
561	.148E-03	2.20	562	.148E-03	359.18	563	.147E-03	2.38	564	.147E-03	359.11	565	.147E-03	2.58

566	.147E-03	359.16	567	.147E-03	359.23	568	.269E-03	358.92	569	.269E-03	358.99	570	.269E-03	359.72
571	.269E-03	359.96	572	.269E-03	359.52	573	.269E-03	359.92	574	.269E-03	359.31	575	.268E-03	359.89
576	.268E-03	359.11	577	.268E-03	358.85	578	.268E-03	358.91	579	.268E-03	359.82	580	.268E-03	358.71
581	.268E-03	359.78	582	.268E-03	358.50	583	.268E-03	359.74	584	.268E-03	358.30	585	.268E-03	359.70
586	.268E-03	358.08	587	.267E-03	359.67	588	.267E-03	357.89	589	.267E-03	358.83	590	.267E-03	357.68
591	.267E-03	359.58	592	.267E-03	357.47	593	.266E-03	359.55	594	.267E-03	357.27	595	.266E-03	358.51
596	.266E-03	359.49	597	.266E-03	359.64	598	.381E-03	358.88	599	.381E-03	358.94	600	.381E-03	359.80
601	.381E-03	359.80	602	.381E-03	359.32	603	.381E-03	359.68	604	.381E-03	359.04	605	.380E-03	359.52
606	.381E-03	358.77	607	.380E-03	359.37	608	.380E-03	358.49	609	.380E-03	359.23	610	.380E-03	358.21
611	.380E-03	359.09	612	.380E-03	357.93	613	.380E-03	358.84	614	.380E-03	357.85	615	.380E-03	358.80
616	.380E-03	357.37	617	.379E-03	358.85	618	.380E-03	357.09	619	.379E-03	358.51	620	.379E-03	358.81
621	.379E-03	358.36	622	.379E-03	356.53	623	.378E-03	358.22	624	.379E-03	358.25	625	.378E-03	358.07
626	.378E-03	359.80	627	.378E-03	359.64	628	.484E-03	359.84	629	.484E-03	359.90	630	.484E-03	359.48
631	.484E-03	359.89	632	.484E-03	359.11	633	.484E-03	358.47	634	.484E-03	358.76	635	.484E-03	359.25
636	.484E-03	358.40	637	.483E-03	359.03	638	.484E-03	358.04	639	.483E-03	358.81	640	.484E-03	357.68
641	.483E-03	358.58	642	.483E-03	357.33	643	.483E-03	358.37	644	.483E-03	356.98	645	.483E-03	358.15
646	.483E-03	356.63	647	.482E-03	357.83	648	.483E-03	356.28	649	.482E-03	357.71	650	.483E-03	355.94
651	.482E-03	357.48	652	.483E-03	355.50	653	.481E-03	357.27	654	.482E-03	355.26	655	.481E-03	357.04
656	.480E-03	359.85	657	.480E-03	359.89	658	.583E-03	359.65	659	.583E-03	359.86	660	.583E-03	358.92
661	.583E-03	359.56	662	.582E-03	358.20	663	.582E-03	359.26	664	.583E-03	357.49	665	.582E-03	358.97
666	.583E-03	356.79	667	.581E-03	358.87	668	.683E-03	356.11	669	.581E-03	358.37	670	.582E-03	355.45
671	.580E-03	358.07	672	.582E-03	354.81	673	.579E-03	357.77	674	.582E-03	354.21	675	.578E-03	357.48
676	.581E-03	353.84	677	.577E-03	357.18	678	.580E-03	353.11	679	.578E-03	356.89	680	.580E-03	352.83
681	.574E-03	356.59	682	.579E-03	352.19	683	.573E-03	356.30	684	.578E-03	351.81	685	.572E-03	356.01
686	.570E-03	359.83	687	.570E-03	358.71	688	.771E-03	358.16	689	.770E-03	359.74	690	.772E-03	354.43
691	.768E-03	359.18	692	.777E-03	350.71	693	.784E-03	358.83	694	.784E-03	347.02	695	.789E-03	358.07
696	.792E-03	343.34	697	.752E-03	357.51	698	.802E-03	339.89	699	.745E-03	356.86	700	.814E-03	338.08
701	.736E-03	356.40	702	.829E-03	332.50	703	.726E-03	355.84	704	.845E-03	328.98	705	.713E-03	355.28
706	.863E-03	325.48	707	.700E-03	354.73	708	.884E-03	322.02	709	.685E-03	354.17	710	.908E-03	318.63
711	.868E-03	353.51	712	.934E-03	315.30	713	.849E-03	353.04	714	.862E-03	312.04	715	.828E-03	352.48
716	.824E-03	357.33	717	.623E-03	359.86	718	.220E-02	359.90	719	.220E-02	359.36	720	.220E-02	359.88
721	.221E-02	358.05	722	.221E-02	359.45	723	.221E-02	356.75	724	.221E-02	359.24	725	.222E-02	355.45
726	.221E-02	359.02	727	.223E-02	354.15	728	.222E-02	358.62	729	.225E-02	352.88	730	.223E-02	358.62
731	.226E-02	351.61	732	.224E-02	358.43	733	.228E-02	350.34	734	.225E-02	358.25	735	.230E-02	349.09
736	.226E-02	358.09	737	.233E-02	347.86	738	.228E-02	357.94	739	.235E-02	346.63	740	.229E-02	357.80
741	.238E-02	345.42	742	.231E-02	357.88	743	.242E-02	344.23	744	.233E-02	357.58	745	.245E-02	343.06
746	.266E-02	332.08	747	.231E-02	359.28	748	.220E-02	359.93	749	.220E-02	359.90	750	.220E-02	359.77
751	.220E-02	359.68	752	.220E-02	359.61	753	.220E-02	359.45	754	.220E-02	359.46	755	.220E-02	359.23
756	.220E-02	359.29	757	.220E-02	358.02	758	.220E-02	359.13	759	.220E-02	358.80	760	.220E-02	358.97
761	.220E-02	358.80	762	.220E-02	358.82	763	.220E-02	358.40	764	.220E-02	358.86	765	.220E-02	358.21
766	.220E-02	358.50	767	.220E-02	358.04	768	.220E-02	358.34	769	.220E-02	357.87	770	.220E-02	358.18
771	.221E-02	357.72	772	.221E-02	358.03	773	.221E-02	357.58	774	.221E-02	357.87	775	.221E-02	357.45
776	.253E-02	330.48	777	.253E-02	330.59	778	.193E-02	359.84	779	.193E-02	359.92	780	.193E-02	359.79
781	.193E-02	359.74	782	.193E-02	359.85	783	.193E-02	359.56	784	.193E-02	359.50	785	.193E-02	359.38
786	.193E-02	359.35	787	.193E-02	359.20	788	.193E-02	359.21	789	.193E-02	359.01	790	.193E-02	359.06
791	.193E-02	358.83	792	.193E-02	358.91	793	.193E-02	358.65	794	.193E-02	358.76	795	.193E-02	358.47
796	.193E-02	358.61	797	.193E-02	358.29	798	.193E-02	358.46	799	.194E-02	358.11	800	.194E-02	358.31
801	.194E-02	357.93	802	.194E-02	358.16	803	.194E-02	357.75	804	.194E-02	358.01	805	.194E-02	357.57
806	.231E-02	327.05	807	.230E-02	327.17	808	.142E-02	359.98	809	.142E-02	359.92	810	.142E-02	359.93
811	.142E-02	359.72	812	.142E-02	359.88	813	.142E-02	359.52	814	.142E-02	359.83	815	.142E-02	359.32
816	.142E-02	359.77	817	.142E-02	359.12	818	.142E-02	359.72	819	.142E-02	358.92	820	.142E-02	359.67
821	.142E-02	358.72	822	.142E-02	359.62	823	.142E-02	358.52	824	.142E-02	359.57	825	.142E-02	358.32
826	.142E-02	359.52	827	.142E-02	358.12	828	.142E-02	359.47	829	.142E-02	357.91	830	.142E-02	359.43
831	.143E-02	357.71	832	.143E-02	359.38	833	.143E-02	357.51	834	.143E-02	359.33	835	.143E-02	357.30
836	.191E-02	316.53	837	.190E-02	318.72	838	.552E-03	0.07	839	.552E-03	359.96	840	.552E-03	0.21
841	.552E-03	359.82	842	.552E-03	0.34	843	.552E-03	359.89	844	.552E-03	0.48	845	.553E-03	359.55
846	.553E-03	0.62	847	.553E-03	359.42	848	.553E-03	0.75	849	.553E-03	359.29	850	.554E-03	0.90
851	.554E-03	359.16	852	.554E-03	1.03	853	.555E-03	359.03	854	.555E-03	1.17	855	.556E-03	358.90
856	.556E-03	1.30	857	.556E-03	358.78	858	.557E-03	1.44	859	.557E-03	358.65	860	.557E-03	1.57
861	.558E-03	358.53	862	.559E-03	1.71	863	.560E-03	358.42	864	.559E-03	0.85	865	.560E-03	358.30

866	.139E-02	293.72	867	.138E-02	293.91	868	.700E-03	179.81	869	.700E-03	179.85	870	.700E-03	179.38
871	.699E-03	179.84	872	.700E-03	178.91	873	.699E-03	179.73	874	.699E-03	178.46	875	.699E-03	179.62
876	.699E-03	178.01	877	.698E-03	179.51	878	.699E-03	177.56	879	.697E-03	179.40	880	.698E-03	177.12
881	.696E-03	179.29	882	.697E-03	178.67	883	.695E-03	179.18	884	.697E-03	176.23	885	.694E-03	179.07
886	.696E-03	175.79	887	.693E-03	178.95	888	.695E-03	175.36	889	.691E-03	178.84	890	.694E-03	174.92
891	.690E-03	178.73	892	.692E-03	175.45	893	.689E-03	178.62	894	.690E-03	175.98	895	.688E-03	178.47
896	.147E-02	242.06	897	.145E-02	241.84	898	.250E-02	179.83	899	.250E-02	179.95	900	.250E-02	179.43
901	.250E-02	179.82	902	.250E-02	179.04	903	.249E-02	179.89	904	.249E-02	178.85	905	.249E-02	179.57
906	.249E-02	178.26	907	.248E-02	178.44	908	.249E-02	177.85	909	.249E-02	178.32	910	.249E-02	177.45
911	.249E-02	179.19	912	.248E-02	177.07	913	.248E-02	179.07	914	.249E-02	178.57	915	.248E-02	178.94
916	.249E-02	176.26	917	.248E-02	178.82	918	.248E-02	175.86	919	.247E-02	178.70	920	.248E-02	175.72
921	.247E-02	178.56	922	.248E-02	175.57	923	.247E-02	178.72	924	.247E-02	175.43	925	.248E-02	178.87
926	.277E-02	207.49	927	.274E-02	207.78	928	.523E-02	179.67	929	.523E-02	179.92	930	.523E-02	179.56
931	.523E-02	179.73	932	.523E-02	179.25	933	.523E-02	179.54	934	.523E-02	178.95	935	.523E-02	179.36
936	.523E-02	178.64	937	.523E-02	179.17	938	.523E-02	178.33	939	.523E-02	178.98	940	.523E-02	178.02
941	.523E-02	178.79	942	.523E-02	177.72	943	.523E-02	178.60	944	.523E-02	177.41	945	.522E-02	178.41
946	.523E-02	177.10	947	.522E-02	178.22	948	.523E-02	178.78	949	.522E-02	178.03	950	.522E-02	178.48
951	.521E-02	177.96	952	.522E-02	178.18	953	.521E-02	177.90	954	.522E-02	175.87	955	.520E-02	177.83
956	.537E-02	194.59	957	.538E-02	183.82	958	.916E-02	179.95	959	.918E-02	178.82	960	.916E-02	179.80
961	.916E-02	178.75	962	.916E-02	178.65	963	.916E-02	178.57	964	.918E-02	178.50	965	.916E-02	178.40
966	.916E-02	178.33	967	.916E-02	178.22	968	.917E-02	178.15	969	.917E-02	178.05	970	.917E-02	178.98
971	.917E-02	178.87	972	.917E-02	178.74	973	.917E-02	178.70	974	.917E-02	178.51	975	.917E-02	178.52
976	.917E-02	178.25	977	.917E-02	178.35	978	.917E-02	177.86	979	.917E-02	178.17	980	.917E-02	177.47
981	.917E-02	178.00	982	.917E-02	178.95	983	.916E-02	177.82	984	.917E-02	176.38	985	.916E-02	177.65
986	.919E-02	185.40	987	.923E-02	188.42	988	.924E-02	188.87	989	.138E-01	180.81	990	.139E-01	179.85
991	.139E-01	182.72	992	.139E-01	179.87	993	.139E-01	184.51	994	.139E-01	179.77	995	.140E-01	186.30
996	.140E-01	179.67	997	.141E-01	184.07	998	.141E-01	179.56	999	.143E-01	189.82	1000	.142E-01	179.45
1001	.144E-01	191.54	1002	.143E-01	179.33	1003	.146E-01	193.24	1004	.144E-01	179.20	1005	.149E-01	194.89
1006	.145E-01	179.06	1007	.151E-01	196.51	1008	.147E-01	178.90	1009	.154E-01	198.09	1010	.148E-01	178.74
1011	.157E-01	199.36	1012	.150E-01	178.46	1013	.150E-01	200.60	1014	.152E-01	178.18	1015	.184E-01	201.80
1016	.155E-01	177.85	1017	.154E-01	181.14	1018	.154E-01	183.21	1019	.154E-01	180.46	1020	.155E-01	185.29
1021	.521E-02	180.85	1022	.521E-02	182.43	1023	.521E-02	181.92	1024	.523E-02	187.23	1025	.520E-02	183.19
1026	.528E-02	192.01	1027	.518E-02	184.47	1028	.535E-02	186.72	1029	.515E-02	185.75	1030	.545E-02	201.38
1031	.511E-02	187.05	1032	.557E-02	205.90	1033	.507E-02	188.35	1034	.572E-02	210.32	1035	.501E-02	189.68
1036	.590E-02	214.61	1037	.485E-02	191.04	1038	.511E-02	216.78	1039	.488E-02	192.42	1040	.634E-02	222.74
1041	.479E-02	193.85	1042	.659E-02	226.57	1043	.470E-02	195.32	1044	.882E-02	228.82	1045	.459E-02	196.34
1046	.707E-02	232.98	1047	.448E-02	197.41	1048	.734E-02	236.06	1049	.410E-02	180.55	1050	.410E-02	184.31
1051	.409E-02	180.40	1052	.409E-02	181.75	1053	.485E-02	180.43	1054	.465E-02	180.73	1055	.465E-02	181.25
1056	.485E-02	182.15	1057	.485E-02	182.07	1058	.485E-02	183.57	1059	.465E-02	182.88	1060	.485E-02	184.87
1061	.485E-02	183.71	1062	.466E-02	186.36	1063	.485E-02	184.53	1064	.466E-02	187.73	1065	.484E-02	185.35
1066	.467E-02	189.07	1067	.464E-02	186.18	1068	.488E-02	190.38	1069	.463E-02	187.00	1070	.488E-02	191.87
1071	.463E-02	187.82	1072	.469E-02	192.92	1073	.463E-02	188.84	1074	.470E-02	194.12	1075	.462E-02	189.47
1076	.471E-02	195.28	1077	.481E-02	189.88	1078	.471E-02	195.91	1079	.460E-02	190.28	1080	.470E-02	196.49
1081	.451E-02	180.35	1082	.451E-02	180.50	1083	.451E-02	180.33	1084	.451E-02	180.37	1085	.465E-02	180.27
1086	.466E-02	180.43	1087	.466E-02	180.79	1088	.466E-02	181.25	1089	.466E-02	181.30	1090	.488E-02	182.07
1091	.485E-02	181.82	1092	.485E-02	182.89	1093	.485E-02	182.33	1094	.466E-02	183.70	1095	.465E-02	182.85
1096	.486E-02	184.52	1097	.465E-02	183.37	1098	.488E-02	185.34	1099	.485E-02	183.88	1100	.468E-02	186.15
1101	.464E-02	184.40	1102	.468E-02	188.96	1103	.484E-02	184.91	1104	.485E-02	187.77	1105	.484E-02	185.43
1106	.466E-02	188.58	1107	.463E-02	185.85	1108	.488E-02	189.38	1109	.462E-02	186.11	1110	.485E-02	189.76
1111	.461E-02	186.26	1112	.465E-02	190.18	1113	.458E-02	180.18	1114	.458E-02	180.34	1115	.458E-02	180.11
1116	.458E-02	180.33	1117	.480E-02	180.17	1118	.460E-02	180.26	1119	.480E-02	180.48	1120	.480E-02	180.77
1121	.480E-02	180.81	1122	.480E-02	181.26	1123	.460E-02	181.12	1124	.480E-02	181.78	1125	.480E-02	181.44
1126	.480E-02	182.26	1127	.480E-02	181.76	1128	.480E-02	182.76	1129	.479E-02	182.07	1130	.480E-02	183.26
1131	.479E-02	182.38	1132	.479E-02	183.78	1133	.479E-02	182.70	1134	.479E-02	184.28	1135	.479E-02	183.01
1136	.479E-02	184.78	1137	.478E-02	183.33	1138	.479E-02	185.26	1139	.478E-02	183.84	1140	.479E-02	185.76
1141	.477E-02	183.85	1142	.478E-02	185.91	1143	.477E-02	183.85	1144	.478E-02	186.06	1145	.475E-02	180.08
1146	.475E-02	180.17	1147	.475E-02	179.98	1148	.475E-02	180.11	1149	.475E-02	181.82	1150	.498E-02	180.14
1151	.498E-02	180.17	1152	.498E-02	180.40	1153	.498E-02	180.47	1154	.498E-02	180.86	1155	.498E-02	180.78
1156	.498E-02	180.93	1157	.498E-02	181.08	1158	.498E-02	181.19	1159	.498E-02	181.38	1160	.498E-02	181.45
1161	.498E-02	181.69	1162	.498E-02	181.71	1163	.498E-02	181.89	1164	.498E-02	181.87	1165	.498E-02	182.29

1166	.498E-02	182.24	1167	.498E-02	182.59	1168	.498E-02	182.50	1169	.498E-02	182.89	1170	.498E-02	182.77
1171	.498E-02	183.19	1172	.498E-02	183.03	1173	.498E-02	183.49	1174	.498E-02	183.02	1175	.498E-02	183.49
1176	.498E-02	183.01	1177	.498E-02	183.49	1178	.497E-02	180.10	1179	.497E-02	180.08	1180	.497E-02	180.10
1181	.497E-02	179.99	1182	.498E-02	183.20	1183	.498E-02	181.74	1184	.499E-02	180.11	1185	.499E-02	180.14
1186	.499E-02	180.29	1187	.499E-02	180.40	1188	.499E-02	180.48	1189	.499E-02	180.66	1190	.499E-02	180.67
1191	.499E-02	180.82	1192	.499E-02	180.85	1193	.499E-02	181.19	1194	.499E-02	181.04	1195	.499E-02	181.45
1196	.499E-02	181.23	1197	.499E-02	181.71	1198	.499E-02	181.42	1199	.498E-02	181.97	1200	.498E-02	181.61
1201	.499E-02	182.24	1202	.498E-02	181.80	1203	.498E-02	182.50	1204	.498E-02	181.89	1205	.498E-02	182.77
1206	.498E-02	182.18	1207	.498E-02	183.03	1208	.498E-02	182.37	1209	.498E-02	183.02	1210	.498E-02	182.28
1211	.498E-02	183.01	1212	.497E-02	180.08	1213	.497E-02	180.10	1214	.497E-02	180.10	1215	.497E-02	180.10
1216	.498E-02	183.19	1217	.498E-02	183.20	1218	.494E-02	180.07	1219	.494E-02	180.11	1220	.494E-02	180.19
1221	.494E-02	180.30	1222	.494E-02	180.31	1223	.494E-02	180.48	1224	.494E-02	180.42	1225	.494E-02	180.87
1226	.494E-02	180.54	1227	.494E-02	180.88	1228	.494E-02	180.66	1229	.494E-02	181.05	1230	.494E-02	180.77
1231	.494E-02	181.24	1232	.494E-02	180.89	1233	.494E-02	181.43	1234	.493E-02	181.01	1235	.493E-02	181.82
1236	.493E-02	181.13	1237	.493E-02	181.82	1238	.493E-02	181.25	1239	.493E-02	182.01	1240	.493E-02	181.37
1241	.493E-02	182.20	1242	.493E-02	181.49	1243	.493E-02	182.40	1244	.492E-02	181.35	1245	.492E-02	182.32
1246	.492E-02	180.05	1247	.492E-02	180.08	1248	.492E-02	180.09	1249	.492E-02	180.10	1250	.493E-02	183.21
1251	.493E-02	183.23	1252	.484E-02	180.04	1253	.484E-02	180.07	1254	.484E-02	180.09	1255	.484E-02	180.19
1256	.484E-02	180.15	1257	.484E-02	180.31	1258	.484E-02	180.20	1259	.484E-02	180.43	1260	.484E-02	180.28
1261	.484E-02	180.55	1262	.484E-02	180.31	1263	.483E-02	180.67	1264	.483E-02	180.35	1265	.483E-02	180.79
1266	.483E-02	180.42	1267	.483E-02	180.91	1268	.483E-02	180.48	1269	.483E-02	181.03	1270	.483E-02	180.53
1271	.483E-02	181.16	1272	.483E-02	180.59	1273	.483E-02	181.28	1274	.483E-02	180.65	1275	.483E-02	181.40
1276	.482E-02	180.70	1277	.482E-02	181.52	1278	.482E-02	180.51	1279	.482E-02	181.38	1280	.482E-02	180.04
1281	.482E-02	180.08	1282	.482E-02	180.09	1283	.482E-02	180.09	1284	.483E-02	183.26	1285	.483E-02	183.28
1286	.489E-02	180.01	1287	.489E-02	180.04	1288	.489E-02	180.01	1289	.489E-02	180.10	1290	.489E-02	180.00
1291	.489E-02	180.15	1292	.489E-02	180.00	1293	.489E-02	180.21	1294	.489E-02	180.00	1295	.489E-02	180.28
1296	.489E-02	179.99	1297	.489E-02	180.32	1298	.489E-02	179.99	1299	.489E-02	180.38	1300	.489E-02	179.98
1301	.489E-02	180.43	1302	.489E-02	179.99	1303	.489E-02	180.49	1304	.489E-02	179.99	1305	.488E-02	180.55
1306	.488E-02	179.98	1307	.488E-02	180.61	1308	.488E-02	179.98	1308	.488E-02	180.67	1310	.488E-02	179.98
1311	.488E-02	180.72	1312	.488E-02	179.74	1313	.488E-02	180.52	1314	.488E-02	180.02	1315	.488E-02	180.04
1316	.488E-02	180.08	1317	.488E-02	180.09	1318	.488E-02	183.33	1319	.488E-02	183.36	1320	.451E-02	179.99
1321	.451E-02	180.01	1322	.451E-02	179.83	1323	.451E-02	180.01	1324	.451E-02	179.87	1325	.451E-02	180.00
1326	.451E-02	178.81	1327	.451E-02	180.00	1328	.451E-02	179.75	1329	.451E-02	180.00	1330	.451E-02	179.70
1331	.451E-02	179.99	1332	.451E-02	179.84	1333	.451E-02	179.99	1334	.451E-02	179.59	1335	.450E-02	179.99
1336	.450E-02	179.53	1337	.450E-02	179.99	1338	.450E-02	179.48	1339	.450E-02	179.98	1340	.450E-02	179.42
1341	.450E-02	179.98	1342	.450E-02	179.37	1343	.450E-02	179.98	1344	.450E-02	179.31	1345	.450E-02	179.88
1346	.450E-02	179.02	1347	.449E-02	179.72	1348	.449E-02	180.00	1348	.449E-02	180.02	1350	.449E-02	180.08
1351	.449E-02	180.09	1352	.450E-02	183.42	1353	.450E-02	183.46	1354	.429E-02	179.86	1355	.429E-02	179.89
1356	.429E-02	179.85	1357	.429E-02	179.92	1358	.429E-02	179.74	1359	.429E-02	179.88	1360	.429E-02	179.83
1361	.429E-02	179.80	1362	.429E-02	179.52	1363	.429E-02	179.74	1364	.429E-02	179.41	1365	.429E-02	179.68
1366	.429E-02	179.30	1367	.428E-02	179.62	1368	.429E-02	179.19	1369	.428E-02	179.57	1370	.428E-02	179.08
1371	.428E-02	178.51	1372	.429E-02	178.97	1373	.429E-02	179.45	1374	.428E-02	178.86	1375	.428E-02	178.39
1376	.428E-02	178.78	1377	.428E-02	179.33	1378	.428E-02	178.85	1378	.428E-02	179.27	1380	.428E-02	178.54
1381	.428E-02	178.97	1382	.428E-02	179.89	1383	.428E-02	180.00	1384	.428E-02	180.09	1385	.428E-02	180.08
1386	.429E-02	183.81	1387	.429E-02	183.59	1388	.429E-02	183.80	1388	.405E-02	178.93	1390	.405E-02	178.88
1391	.405E-02	179.77	1392	.405E-02	179.84	1393	.405E-02	179.81	1394	.405E-02	178.72	1395	.405E-02	178.44
1396	.405E-02	179.51	1397	.405E-02	179.28	1398	.405E-02	179.49	1398	.405E-02	178.12	1400	.405E-02	178.37
1401	.405E-02	178.98	1402	.405E-02	179.26	1403	.405E-02	178.80	1404	.404E-02	179.14	1405	.405E-02	178.84
1406	.404E-02	179.03	1407	.404E-02	178.48	1408	.404E-02	178.91	1408	.404E-02	178.31	1410	.404E-02	178.80
1411	.404E-02	178.15	1412	.404E-02	178.68	1413	.404E-02	177.99	1414	.404E-02	178.58	1415	.404E-02	177.83
1416	.404E-02	178.45	1417	.404E-02	179.98	1418	.404E-02	179.99	1419	.404E-02	180.09	1420	.404E-02	180.08
1421	.405E-02	184.04	1422	.405E-02	184.03	1423	.405E-02	183.78	1424	.405E-02	183.82	1425	.378E-02	179.91
1426	.378E-02	179.93	1427	.378E-02	179.89	1428	.378E-02	179.75	1429	.378E-02	179.47	1430	.378E-02	179.58
1431	.378E-02	179.25	1432	.378E-02	179.40	1433	.378E-02	179.03	1434	.378E-02	179.23	1435	.378E-02	178.82
1436	.378E-02	179.06	1437	.378E-02	178.60	1438	.378E-02	178.88	1439	.378E-02	178.38	1440	.378E-02	178.71
1441	.378E-02	178.17	1442	.377E-02	178.54	1443	.378E-02	177.95	1444	.377E-02	178.37	1445	.378E-02	177.73
1446	.377E-02	178.19	1447	.377E-02	177.52	1448	.377E-02	178.02	1449	.377E-02	177.30	1450	.377E-02	177.85
1451	.377E-02	177.08	1452	.377E-02	177.67	1453	.377E-02	179.96	1454	.377E-02	179.97	1455	.377E-02	180.09
1456	.377E-02	180.09	1457	.378E-02	184.31	1458	.378E-02	184.32	1459	.378E-02	184.01	1460	.378E-02	184.05
1461	.349E-02	179.87	1462	.349E-02	179.90	1463	.349E-02	179.80	1464	.349E-02	179.66	1465	.349E-02	179.32

1466	.348E-02	179.42	1467	.349E-02	179.04	1468	.348E-02	179.19	1469	.349E-02	178.76	1470	.348E-02	178.95
1471	.349E-02	178.48	1472	.348E-02	178.72	1473	.349E-02	178.20	1474	.348E-02	178.48	1475	.349E-02	177.93
1476	.348E-02	178.25	1477	.349E-02	177.65	1478	.348E-02	178.01	1479	.349E-02	177.37	1480	.348E-02	177.78
1481	.349E-02	177.10	1482	.348E-02	177.54	1483	.349E-02	176.82	1484	.348E-02	177.31	1485	.349E-02	176.54
1486	.348E-02	177.07	1487	.349E-02	176.26	1488	.348E-02	176.84	1489	.348E-02	179.94	1490	.348E-02	179.96
1491	.348E-02	180.09	1492	.348E-02	180.09	1493	.349E-02	184.85	1494	.349E-02	184.57	1495	.349E-02	184.30
1496	.349E-02	184.34	1497	.317E-02	179.84	1498	.317E-02	179.85	1499	.317E-02	179.49	1500	.317E-02	179.56
1501	.317E-02	178.14	1502	.317E-02	179.25	1503	.317E-02	178.78	1504	.317E-02	178.94	1505	.317E-02	178.44
1506	.317E-02	178.84	1507	.317E-02	178.10	1508	.317E-02	178.33	1509	.317E-02	177.75	1510	.317E-02	178.03
1511	.318E-02	177.40	1512	.317E-02	177.72	1513	.316E-02	177.05	1514	.317E-02	177.42	1515	.318E-02	176.71
1516	.317E-02	177.11	1517	.318E-02	176.36	1518	.317E-02	178.81	1519	.318E-02	178.01	1520	.317E-02	176.50
1521	.318E-02	175.68	1522	.317E-02	176.20	1523	.318E-02	175.31	1524	.317E-02	175.89	1525	.317E-02	179.92
1526	.317E-02	179.94	1527	.317E-02	180.09	1528	.317E-02	180.10	1529	.318E-02	185.08	1530	.318E-02	185.10
1531	.318E-02	184.67	1532	.318E-02	184.72	1533	.284E-02	179.80	1534	.284E-02	179.82	1535	.284E-02	179.36
1536	.284E-02	179.43	1537	.285E-02	178.93	1538	.284E-02	179.04	1539	.285E-02	178.49	1540	.284E-02	178.85
1541	.285E-02	178.08	1542	.285E-02	178.28	1543	.285E-02	177.63	1544	.285E-02	177.88	1545	.285E-02	177.19
1546	.285E-02	177.48	1547	.285E-02	178.78	1548	.285E-02	177.10	1549	.285E-02	176.33	1550	.285E-02	176.71
1551	.285E-02	175.90	1552	.285E-02	176.33	1553	.285E-02	175.47	1554	.285E-02	175.94	1555	.285E-02	175.04
1556	.285E-02	175.55	1557	.285E-02	174.60	1558	.285E-02	175.18	1559	.285E-02	174.17	1560	.285E-02	174.77
1561	.284E-02	179.90	1562	.284E-02	178.91	1563	.284E-02	180.10	1564	.284E-02	180.10	1565	.285E-02	185.64
1566	.285E-02	185.66	1567	.285E-02	185.18	1568	.285E-02	185.21	1569	.250E-02	179.74	1570	.250E-02	179.77
1571	.250E-02	179.20	1572	.250E-02	179.27	1573	.250E-02	178.85	1574	.250E-02	178.78	1575	.250E-02	178.11
1576	.250E-02	178.29	1577	.250E-02	177.57	1578	.250E-02	177.79	1579	.250E-02	177.03	1580	.250E-02	177.30
1581	.250E-02	176.49	1582	.250E-02	176.81	1583	.250E-02	175.95	1584	.250E-02	178.32	1585	.251E-02	175.41
1586	.250E-02	175.82	1587	.251E-02	174.87	1588	.250E-02	175.33	1589	.251E-02	174.33	1590	.251E-02	174.84
1591	.251E-02	173.79	1592	.251E-02	174.35	1593	.251E-02	173.25	1594	.251E-02	173.86	1595	.251E-02	172.71
1596	.251E-02	173.37	1597	.249E-02	179.86	1598	.249E-02	179.88	1599	.249E-02	180.11	1600	.249E-02	180.11
1601	.251E-02	185.39	1602	.251E-02	185.41	1603	.251E-02	185.81	1604	.251E-02	185.87	1605	.214E-02	179.87
1606	.214E-02	179.70	1607	.214E-02	178.97	1608	.214E-02	179.08	1609	.214E-02	178.28	1610	.214E-02	178.43
1611	.214E-02	177.59	1612	.214E-02	177.79	1613	.214E-02	176.89	1614	.214E-02	177.16	1615	.214E-02	176.20
1616	.214E-02	176.53	1617	.214E-02	175.51	1618	.214E-02	175.89	1619	.215E-02	174.82	1620	.214E-02	175.28
1621	.215E-02	174.13	1622	.214E-02	174.83	1623	.215E-02	173.45	1624	.215E-02	174.00	1625	.215E-02	172.75
1626	.215E-02	173.38	1627	.216E-02	172.08	1628	.215E-02	172.75	1629	.216E-02	171.39	1630	.215E-02	172.12
1631	.216E-02	170.71	1632	.216E-02	171.49	1633	.213E-02	179.83	1634	.213E-02	179.84	1635	.213E-02	180.12
1636	.213E-02	180.12	1637	.215E-02	187.43	1638	.215E-02	187.48	1639	.215E-02	186.73	1640	.215E-02	186.79
1641	.177E-02	179.56	1642	.177E-02	179.80	1643	.177E-02	178.85	1644	.177E-02	178.75	1645	.177E-02	177.74
1646	.177E-02	177.91	1647	.177E-02	176.83	1648	.177E-02	177.07	1649	.177E-02	175.93	1650	.177E-02	176.24
1651	.177E-02	175.02	1652	.177E-02	175.40	1653	.177E-02	174.12	1654	.177E-02	174.56	1655	.178E-02	173.22
1656	.177E-02	173.73	1657	.178E-02	172.32	1658	.178E-02	172.90	1659	.178E-02	171.43	1660	.178E-02	172.07
1661	.179E-02	170.54	1662	.178E-02	171.25	1663	.179E-02	189.85	1664	.179E-02	170.42	1665	.179E-02	188.77
1666	.179E-02	189.80	1667	.180E-02	187.88	1668	.179E-02	188.77	1668	.176E-02	179.76	1670	.176E-02	179.79
1671	.178E-02	180.13	1672	.176E-02	180.14	1673	.178E-02	188.96	1674	.178E-02	188.99	1675	.178E-02	188.08
1676	.178E-02	188.14	1677	.138E-02	179.38	1678	.138E-02	179.43	1679	.138E-02	178.13	1680	.138E-02	178.27
1681	.138E-02	176.87	1682	.138E-02	177.10	1683	.138E-02	175.82	1684	.138E-02	175.84	1685	.138E-02	174.37
1686	.138E-02	174.78	1687	.138E-02	173.12	1688	.138E-02	173.82	1689	.139E-02	171.89	1690	.139E-02	172.47
1691	.139E-02	170.85	1692	.139E-02	171.32	1693	.140E-02	189.43	1694	.139E-02	170.18	1695	.140E-02	188.21
1696	.140E-02	189.04	1697	.141E-02	187.01	1698	.140E-02	187.92	1699	.141E-02	185.81	1700	.141E-02	186.79
1701	.142E-02	184.82	1702	.141E-02	185.68	1703	.143E-02	183.43	1704	.142E-02	184.57	1705	.137E-02	179.86
1706	.137E-02	179.70	1707	.137E-02	180.16	1708	.137E-02	180.17	1708	.140E-02	191.43	1710	.140E-02	191.45
1711	.139E-02	190.27	1712	.139E-02	190.34	1713	.889E-03	179.05	1714	.888E-03	179.12	1715	.870E-03	177.13
1716	.870E-03	177.34	1717	.872E-03	175.21	1718	.871E-03	175.56	1719	.876E-03	173.31	1720	.874E-03	173.79
1721	.879E-03	171.42	1722	.876E-03	172.02	1723	.884E-03	169.54	1724	.881E-03	170.28	1725	.890E-03	167.69
1726	.886E-03	168.54	1727	.887E-03	165.86	1728	.892E-03	166.83	1729	.101E-02	164.06	1730	.888E-03	165.14
1731	.101E-02	162.28	1732	.101E-02	163.47	1733	.102E-02	160.54	1734	.101E-02	161.82	1735	.103E-02	158.82
1736	.102E-02	160.20	1737	.105E-02	157.14	1738	.103E-02	158.80	1739	.106E-02	155.48	1740	.104E-02	157.03
1741	.861E-03	179.47	1742	.861E-03	179.52	1743	.861E-03	180.22	1744	.861E-03	180.23	1745	.100E-02	196.04
1746	.100E-02	196.08	1747	.882E-03	194.39	1748	.883E-03	194.47	1749	.844E-03	178.18	1750	.844E-03	178.31
1751	.846E-03	174.48	1752	.848E-03	174.88	1753	.850E-03	170.85	1754	.849E-03	171.51	1755	.857E-03	167.29
1756	.855E-03	168.18	1757	.866E-03	163.82	1758	.862E-03	164.83	1759	.876E-03	160.48	1760	.870E-03	161.78
1761	.887E-03	157.23	1762	.881E-03	158.70	1763	.802E-03	154.14	1764	.893E-03	155.76	1765	.817E-03	151.19

1766	.607E-03	152.83	1767	.634E-03	148.39	1768	.622E-03	150.23	1769	.652E-03	145.73	1770	.637E-03	147.86
1771	.672E-03	143.22	1772	.654E-03	145.21	1773	.693E-03	140.85	1774	.672E-03	142.87	1775	.715E-03	138.81
1776	.682E-03	140.86	1777	.635E-03	178.96	1778	.638E-03	178.05	1779	.635E-03	180.38	1780	.635E-03	180.39
1781	.603E-03	207.31	1782	.603E-03	207.30	1783	.589E-03	204.85	1784	.588E-03	204.73	1785	.100E-03	159.07
1786	.100E-03	159.82	1787	.113E-03	149.95	1788	.112E-03	151.83	1789	.136E-03	136.01	1790	.132E-03	138.17
1791	.165E-03	126.44	1792	.156E-03	128.49	1793	.196E-03	119.79	1794	.185E-03	121.62	1795	.230E-03	115.00
1796	.218E-03	116.62	1797	.264E-03	111.43	1798	.247E-03	112.85	1799	.299E-03	108.88	1800	.279E-03	109.93
1801	.335E-03	108.50	1802	.312E-03	107.60	1803	.371E-03	104.72	1804	.345E-03	105.71	1805	.408E-03	103.25
1806	.378E-03	104.13	1807	.444E-03	102.01	1808	.413E-03	102.80	1809	.482E-03	100.95	1810	.447E-03	101.85
1811	.519E-03	100.03	1812	.481E-03	100.86	1813	.898E-04	173.13	1814	.898E-04	173.75	1815	.887E-04	181.95
1816	.887E-04	182.14	1817	.291E-03	252.20	1818	.291E-03	252.16	1819	.280E-03	250.04	1820	.261E-03	250.09
1821	..370E-03	3.24	1822	.370E-03	2.94	1823	.374E-03	9.58	1824	.374E-03	8.74	1825	.383E-03	15.88
1826	.381E-03	14.36	1827	.387E-03	21.42	1828	.393E-03	18.69	1829	.414E-03	28.73	1830	.408E-03	24.67
1831	.435E-03	31.56	1832	.425E-03	29.27	1833	.459E-03	35.92	1834	.445E-03	33.46	1835	.484E-03	38.82
1836	.468E-03	37.25	1837	.512E-03	43.28	1838	.493E-03	40.68	1839	.542E-03	46.38	1840	.519E-03	43.77
1841	.573E-03	49.14	1842	.548E-03	46.54	1843	.606E-03	51.59	1844	.578E-03	49.03	1845	.639E-03	53.79
1846	.606E-03	51.28	1847	.573E-03	55.76	1848	.637E-03	53.31	1849	.381E-03	1.79	1850	.381E-03	1.61
1851	.381E-03	359.59	1852	.381E-03	359.54	1853	.471E-03	323.83	1854	.470E-03	323.93	1855	.452E-03	327.22
1856	.453E-03	327.21	1857	.847E-03	1.78	1858	.847E-03	1.41	1859	.851E-03	5.28	1860	.850E-03	4.20
1861	.857E-03	8.74	1862	.854E-03	6.96	1863	.888E-03	12.11	1864	.862E-03	9.68	1865	.881E-03	15.38
1866	.872E-03	12.35	1867	.897E-03	18.48	1868	.883E-03	14.94	1869	.918E-03	21.44	1870	.898E-03	17.45
1871	.938E-03	24.24	1872	.912E-03	19.87	1873	.961E-03	26.88	1874	.930E-03	22.20	1875	.887E-03	28.31
1876	.949E-03	24.43	1877	.101E-02	31.59	1878	.989E-03	26.56	1879	.104E-02	33.70	1880	.991E-03	28.59
1881	.107E-02	35.65	1882	.101E-02	30.53	1883	.110E-02	37.44	1884	.104E-02	32.38	1885	.877E-03	0.97
1886	.877E-03	0.78	1887	.877E-03	359.90	1888	.877E-03	359.82	1889	.919E-03	342.83	1890	.821E-03	342.42
1891	.911E-03	344.48	1892	.912E-03	344.41	1893	.113E-02	3.00	1894	.113E-02	1.33	1895	.115E-02	9.87
1896	.114E-02	3.94	1897	.119E-02	16.62	1898	.115E-02	6.49	1899	.124E-02	22.77	1900	.117E-02	8.95
1901	.131E-02	28.31	1902	.118E-02	11.29	1903	.140E-02	33.21	1904	.122E-02	13.50	1905	.149E-02	37.48
1906	.125E-02	15.65	1907	.160E-02	41.19	1908	.128E-02	17.44	1909	.172E-02	44.38	1910	.132E-02	19.15
1911	.184E-02	47.13	1912	..137E-02	20.68	1913	.197E-02	48.49	1914	.142E-02	22.03	1915	.211E-02	51.52
1916	.147E-02	23.21	1917	.228E-02	53.26	1918	.152E-02	24.22	1919	.240E-02	54.76	1920	.158E-02	25.08
1921	.144E-02	4.67	1922	.143E-02	0.59	1923	.144E-02	4.69	1924	.144E-02	359.94	1925	.260E-02	56.43
1926	.154E-02	349.76	1927	.182E-02	339.86	1928	.153E-02	350.82						

VELOCITY FIELD

ELEM.	HORZ.VEL.	VERT.VEL.	ELEM.	HORZ.VEL.	VERT.VEL.	ELEM.	HORZ.VEL.	VERT.VEL.	ELEM.	HORZ.VEL.	VERT.VEL.
1	-0.2265E+02	-0.1040E+00	2	-0.2268E+02	0.7378E+00	3	-0.2268E+02	-0.3027E+00	4	-0.2277E+02	0.2227E+01
5	-0.2277E+02	-0.5042E+00	6	-0.2281E+02	0.3721E+01	7	-0.2291E+02	-0.7106E+00	8	-0.2311E+02	0.5228E+01
9	-0.2311E+02	-0.9235E+00	10	-0.2336E+02	0.8742E+01	11	-0.2336E+02	-0.1145E+01	12	-0.2368E+02	0.8275E+01
13	-0.2367E+02	-0.1377E+01	14	-0.2405E+02	0.8830E+01	15	-0.2405E+02	-0.1622E+01	16	-0.2448E+02	0.1141E+02
17	-0.2448E+02	-0.1882E+01	18	-0.2498E+02	0.1301E+02	19	-0.2498E+02	-0.2159E+01	20	-0.2554E+02	0.1465E+02
21	-0.2554E+02	-0.2454E+01	22	-0.2617E+02	0.1633E+02	23	-0.2617E+02	-0.2771E+01	24	-0.2688E+02	0.1805E+02
25	-0.2686E+02	-0.3120E+01	26	-0.2698E+02	0.1893E-04	27	-0.2697E+02	-0.3528E+01	28	-0.2711E+02	0.1702E-04
29	-0.1842E+02	-0.8005E-01	30	-0.1842E+02	-0.1040E+00	31	-0.1842E+02	-0.2328E+00	32	-0.1842E+02	-0.3027E+00
33	-0.1842E+02	-0.3856E+00	34	-0.1842E+02	-0.5043E+00	35	-0.1842E+02	-0.5386E+00	36	-0.1841E+02	-0.7106E+00
37	-0.1841E+02	-0.8917E+00	38	-0.1840E+02	-0.8236E+00	39	-0.1840E+02	-0.8452E+00	40	-0.1839E+02	-0.1145E+01
41	-0.1839E+02	-0.9889E+00	42	-0.1838E+02	-0.1378E+01	43	-0.1838E+02	-0.1153E+01	44	-0.1837E+02	-0.1822E+01
45	-0.1837E+02	-0.1307E+01	46	-0.1835E+02	-0.1882E+01	47	-0.1835E+02	-0.1462E+01	48	-0.1832E+02	-0.2158E+01
49	-0.1832E+02	-0.1817E+01	50	-0.1829E+02	-0.2454E+01	51	-0.1830E+02	-0.1772E+01	52	-0.1826E+02	-0.2772E+01
53	-0.1826E+02	-0.1928E+01	54	-0.1822E+02	-0.3120E+01	55	-0.1822E+02	-0.2083E+01	56	-0.1817E+02	-0.3528E+01
57	-0.4843E+03	-0.1186E+01	58	-0.1145E+02	-0.2634E-01	59	-0.1145E+02	-0.8008E-01	60	-0.1145E+02	-0.7344E-01
61	-0.1144E+02	-0.2329E+00	62	-0.1144E+02	-0.1204E+00	63	-0.1143E+02	-0.3857E+00	64	-0.1143E+02	-0.1671E+00
65	-0.1142E+02	-0.5387E+00	66	-0.1142E+02	-0.2134E+00	67	-0.1140E+02	-0.6917E+00	68	-0.1140E+02	-0.2593E+00
69	-0.1138E+02	-0.8451E+00	70	-0.1138E+02	-0.3047E+00	71	-0.1138E+02	-0.9990E+00	72	-0.1136E+02	-0.3495E+00
73	-0.1133E+02	-0.1153E+01	74	-0.1133E+02	-0.3936E+00	75	-0.1130E+02	-0.1307E+01	76	-0.1130E+02	-0.4387E+00
77	-0.1127E+02	-0.1462E+01	78	-0.1127E+02	-0.4788E+00	79	-0.1123E+02	-0.1817E+01	80	-0.1123E+02	-0.5201E+00
81	-0.1119E+02	-0.1772E+01	82	-0.1118E+02	-0.5602E+00	83	-0.1114E+02	-0.1927E+01	84	-0.1114E+02	-0.5991E+00
85	-0.1109E+02	-0.2083E+01	86	-0.3328E+03	-0.1015E+01	87	-0.3328E+03	-0.1186E+01	88	-0.9601E+01	-0.1594E-01
89	-0.9601E+01	-0.2635E-01	90	-0.9601E+01	-0.4311E-01	91	-0.9598E+01	-0.7342E-01	92	-0.9598E+01	-0.7024E-01
93	-0.9598E+01	-0.1204E+00	94	-0.9598E+01	-0.9736E-01	95	-0.9594E+01	-0.1670E+00	96	-0.9595E+01	-0.1244E+00
97	-0.9593E+01	-0.2134E+00	98	-0.9591E+01	-0.1514E+00	99	-0.9589E+01	-0.2594E+00	100	-0.9588E+01	-0.1784E+00
101	-0.9584E+01	-0.3047E+00	102	-0.9584E+01	-0.2053E+00	103	-0.9580E+01	-0.3495E+00	104	-0.9580E+01	-0.2321E+00
105	-0.9575E+01	-0.3936E+00	106	-0.9574E+01	-0.2588E+00	107	-0.9567E+01	-0.4367E+00	108	-0.9567E+01	-0.2854E+00
109	-0.9562E+01	-0.4790E+00	110	-0.9563E+01	-0.3120E+00	111	-0.9554E+01	-0.5201E+00	112	-0.9556E+01	-0.3384E+00
113	-0.9549E+01	-0.5603E+00	114	-0.9546E+01	-0.3646E+00	115	-0.9540E+01	-0.5991E+00	116	-0.2862E+03	-0.7635E+00
117	-0.2861E+03	-0.1015E+01	118	-0.8284E+01	-0.1061E-01	119	-0.8284E+01	-0.1594E-01	120	-0.8284E+01	-0.2775E-01
121	-0.8284E+01	-0.4310E-01	122	-0.8284E+01	-0.4489E-01	123	-0.8284E+01	-0.7025E-01	124	-0.8284E+01	-0.6202E-01
125	-0.8281E+01	-0.9734E-01	126	-0.8281E+01	-0.7911E-01	127	-0.8280E+01	-0.1244E+00	128	-0.8281E+01	-0.9623E-01
129	-0.8280E+01	-0.1515E+00	130	-0.8278E+01	-0.1133E+00	131	-0.8276E+01	-0.1784E+00	132	-0.8277E+01	-0.1304E+00
133	-0.8273E+01	-0.2053E+00	134	-0.8274E+01	-0.1474E+00	135	-0.8272E+01	-0.2321E+00	136	-0.8271E+01	-0.1644E+00
137	-0.8268E+01	-0.2588E+00	138	-0.8267E+01	-0.1813E+00	139	-0.8264E+01	-0.2854E+00	140	-0.8264E+01	-0.1983E+00
141	-0.8260E+01	-0.3120E+00	142	-0.8261E+01	-0.2152E+00	143	-0.8258E+01	-0.3384E+00	144	-0.8257E+01	-0.2321E+00
145	-0.8252E+01	-0.3647E+00	146	-0.2475E+03	-0.6009E+00	147	-0.2475E+03	-0.7635E+00	148	-0.7206E+01	-0.8888E-02
149	-0.7206E+01	-0.1061E-01	150	-0.7206E+01	-0.1711E-01	151	-0.7206E+01	-0.2775E-01	152	-0.7206E+01	-0.2732E-01
153	-0.7206E+01	-0.4489E-01	154	-0.7205E+01	-0.3753E-01	155	-0.7205E+01	-0.8203E-01	156	-0.7205E+01	-0.4774E-01
157	-0.7202E+01	-0.7812E-01	158	-0.7202E+01	-0.5792E-01	159	-0.7202E+01	-0.9823E-01	160	-0.7202E+01	-0.6813E-01
161	-0.7202E+01	-0.1133E+00	162	-0.7199E+01	-0.7829E-01	163	-0.7198E+01	-0.1304E+00	164	-0.7199E+01	-0.8847E-01
165	-0.7198E+01	-0.1474E+00	166	-0.7196E+01	-0.9861E-01	167	-0.7195E+01	-0.1644E+00	168	-0.7198E+01	-0.1088E+00
169	-0.7191E+01	-0.1813E+00	170	-0.7193E+01	-0.1189E+00	171	-0.7191E+01	-0.1983E+00	172	-0.7189E+01	-0.1290E+00
173	-0.7187E+01	-0.2152E+00	174	-0.7188E+01	-0.1391E+00	175	-0.7184E+01	-0.2321E+00	176	-0.2155E+03	-0.4841E+00
177	-0.2155E+03	-0.6011E+00	178	-0.6280E+01	-0.4111E-02	179	-0.6280E+01	-0.6884E-02	180	-0.6280E+01	-0.9238E-02
181	-0.6280E+01	-0.1711E-01	182	-0.6280E+01	-0.1437E-01	183	-0.6280E+01	-0.2732E-01	184	-0.6280E+01	-0.1950E-01
185	-0.6280E+01	-0.3764E-01	186	-0.6280E+01	-0.2462E-01	187	-0.6277E+01	-0.4773E-01	188	-0.6277E+01	-0.2974E-01
189	-0.6277E+01	-0.5793E-01	190	-0.6277E+01	-0.3488E-01	191	-0.6277E+01	-0.6813E-01	192	-0.6277E+01	-0.3998E-01
193	-0.6274E+01	-0.7828E-01	194	-0.6274E+01	-0.4504E-01	195	-0.6274E+01	-0.8847E-01	196	-0.6274E+01	-0.5019E-01
197	-0.6271E+01	-0.9860E-01	198	-0.6271E+01	-0.5528E-01	199	-0.6270E+01	-0.1088E+00	200	-0.6271E+01	-0.6038E-01
201	-0.6267E+01	-0.1189E+00	202	-0.6268E+01	-0.6545E-01	203	-0.6267E+01	-0.1290E+00	204	-0.6268E+01	-0.7052E-01
205	-0.6264E+01	-0.1391E+00	206	-0.1880E+03	-0.3984E+00	207	-0.1879E+03	-0.4840E+00	208	-0.5484E+01	-0.2003E-02
209	-0.5484E+01	-0.4113E-02	210	-0.5484E+01	-0.3321E-02	211	-0.5484E+01	-0.9240E-02	212	-0.5484E+01	-0.4844E-02
213	-0.5484E+01	-0.1437E-01	214	-0.5484E+01	-0.5988E-02	215	-0.5481E+01	-0.1949E-01	216	-0.5481E+01	-0.7262E-02
217	-0.5481E+01	-0.2482E-01	218	-0.5481E+01	-0.8605E-02	219	-0.5481E+01	-0.2974E-01	220	-0.5481E+01	-0.9928E-02

221	-0.5461E+01	-0.3488E-01	
225	-0.5457E+01	-0.4508E-01	
229	-0.5454E+01	-0.5528E-01	
233	-0.5451E+01	-0.6545E-01	
237	-0.1635E+03	-0.3884E+00	
241	-0.4725E+01	-0.3323E-02	
245	-0.4725E+01	-0.5984E-02	
249	-0.4725E+01	-0.8609E-02	
253	-0.4722E+01	-0.1125E-01	
257	-0.4722E+01	-0.1389E-01	
261	-0.4719E+01	-0.1652E-01	
265	-0.4718E+01	-0.1915E-01	
269	-0.4050E+01	-0.3953E-03	
273	-0.4050E+01	0.2652E-02	
277	-0.4050E+01	0.5688E-02	
281	-0.4050E+01	0.8721E-02	
285	-0.4047E+01	0.1174E-01	
289	-0.4047E+01	0.1476E-01	
293	-0.4044E+01	0.1774E-01	
297	-0.1213E+03	-0.2775E+00	
301	-0.3428E+01	0.4407E-02	
305	-0.3426E+01	0.1159E-01	
309	-0.3423E+01	0.1875E-01	
313	-0.3423E+01	0.2590E-01	
317	-0.3423E+01	0.3305E-01	
321	-0.3423E+01	0.4017E-01	
325	-0.3420E+01	0.4724E-01	
329	-0.2842E+01	0.1685E-02	
333	-0.2842E+01	0.1172E-01	
337	-0.2842E+01	0.2174E-01	
341	-0.2839E+01	0.3172E-01	
345	-0.2839E+01	0.4170E-01	
349	-0.2838E+01	0.5165E-01	
353	-0.2838E+01	0.6159E-01	
357	-0.8516E+02	-0.2082E+00	
361	-0.2290E+01	0.8142E-02	
365	-0.2290E+01	0.1989E-01	
369	-0.2290E+01	0.3162E-01	
373	-0.2290E+01	0.4332E-01	
377	-0.2290E+01	0.5500E-01	
381	-0.2288E+01	0.6665E-01	
385	-0.2289E+01	0.7825E-01	
389	-0.1769E+01	0.2582E-02	
393	-0.1769E+01	0.1504E-01	
397	-0.1769E+01	0.2749E-01	
401	-0.1769E+01	0.3990E-01	
405	-0.1768E+01	0.5229E-01	
409	-0.1768E+01	0.6463E-01	
413	-0.1770E+01	0.7706E-01	
417	-0.5307E+02	-0.1726E+00	
421	-0.1275E+01	0.8790E-02	
425	-0.1275E+01	0.2103E-01	
429	-0.1274E+01	0.3324E-01	
433	-0.1274E+01	0.4541E-01	
437	-0.1276E+01	0.5757E-01	
441	-0.1276E+01	0.6976E-01	
445	-0.1275E+01	0.8177E-01	
449	-0.8048E+00	0.2522E-02	
453	-0.8045E+00	0.1369E-01	
457	-0.8042E+00	0.2484E-01	

222	-0.5461E+01	-0.1125E-01	
226	-0.5458E+01	-0.1389E-01	
230	-0.5455E+01	-0.1652E-01	
234	-0.5452E+01	-0.1916E-01	
238	-0.4725E+01	-0.3838E-03	
242	-0.4725E+01	0.2648E-02	
246	-0.4725E+01	0.5690E-02	
250	-0.4725E+01	0.8723E-02	
254	-0.4722E+01	0.1174E-01	
258	-0.4722E+01	0.1476E-01	
262	-0.4719E+01	0.1775E-01	
266	-0.1415E+03	-0.2775E+00	
270	-0.4050E+01	0.4405E-02	
274	-0.4050E+01	0.1158E-01	
278	-0.4050E+01	0.1875E-01	
282	-0.4050E+01	0.2591E-01	
286	-0.4047E+01	0.3303E-01	
290	-0.4047E+01	0.4016E-01	
294	-0.4044E+01	0.4723E-01	
298	-0.3426E+01	0.1685E-02	
302	-0.3426E+01	0.1172E-01	
306	-0.3426E+01	0.2174E-01	
310	-0.3423E+01	0.3172E-01	
314	-0.3423E+01	0.4170E-01	
318	-0.3423E+01	0.5166E-01	
322	-0.3423E+01	0.6160E-01	
326	-0.1028E+03	-0.2081E+00	
330	-0.2842E+01	0.8143E-02	
334	-0.2842E+01	0.1989E-01	
338	-0.2842E+01	0.3162E-01	
342	-0.2838E+01	0.4329E-01	
346	-0.2838E+01	0.5498E-01	
350	-0.2838E+01	0.6661E-01	
354	-0.2838E+01	0.7823E-01	
358	-0.2290E+01	0.2583E-02	
362	-0.2290E+01	0.1504E-01	
366	-0.2290E+01	0.2749E-01	
370	-0.2290E+01	0.3991E-01	
374	-0.2290E+01	0.5231E-01	
378	-0.2289E+01	0.6467E-01	
382	-0.2288E+01	0.7700E-01	
386	-0.6862E+02	-0.1725E+00	
390	-0.1769E+01	0.8787E-02	
394	-0.1769E+01	0.2102E-01	
398	-0.1769E+01	0.3324E-01	
402	-0.1768E+01	0.4542E-01	
406	-0.1768E+01	0.5757E-01	
410	-0.1768E+01	0.6967E-01	
414	-0.1770E+01	0.8186E-01	
418	-0.1275E+01	0.2521E-02	
422	-0.1275E+01	0.1389E-01	
426	-0.1275E+01	0.2484E-01	
430	-0.1274E+01	0.3595E-01	
434	-0.1274E+01	0.4703E-01	
438	-0.1276E+01	0.5819E-01	
442	-0.1276E+01	0.6918E-01	
446	-0.3824E+02	-0.1528E+00	
450	-0.8048E+00	0.6805E-02	
454	-0.8045E+00	0.1807E-01	
458	-0.8042E+00	0.2530E-01	

223	-0.5458E+01	-0.3898E-01	
227	-0.5457E+01	-0.5020E-01	
231	-0.5454E+01	-0.6038E-01	
235	-0.5451E+01	-0.7054E-01	
239	-0.4725E+01	-0.2002E-02	
243	-0.4725E+01	-0.4843E-02	
247	-0.4725E+01	-0.7684E-02	
251	-0.4722E+01	-0.9823E-02	
255	-0.4722E+01	-0.1257E-01	
259	-0.4719E+01	-0.1520E-01	
263	-0.4719E+01	-0.1785E-01	
267	-0.1415E+03	-0.3292E+00	
271	-0.4050E+01	0.1130E-02	
275	-0.4050E+01	0.4170E-02	
279	-0.4050E+01	0.7206E-02	
283	-0.4050E+01	0.1023E-01	
287	-0.4047E+01	0.1325E-01	
291	-0.4047E+01	0.1626E-01	
295	-0.4044E+01	0.1924E-01	
299	-0.3428E+01	0.8128E-03	
303	-0.3426E+01	0.7998E-02	
307	-0.3426E+01	0.1518E-01	
311	-0.3423E+01	0.2233E-01	
315	-0.3423E+01	0.2948E-01	
319	-0.3423E+01	0.3661E-01	
323	-0.3420E+01	0.4368E-01	
327	-0.1028E+03	-0.2376E+00	
331	-0.2842E+01	0.6701E-02	
335	-0.2842E+01	0.1673E-01	
339	-0.2839E+01	0.2672E-01	
343	-0.2839E+01	0.3671E-01	
347	-0.2838E+01	0.4668E-01	
351	-0.2838E+01	0.5663E-01	
355	-0.2838E+01	0.6654E-01	
359	-0.2290E+01	0.2264E-02	
363	-0.2290E+01	0.1402E-01	
367	-0.2290E+01	0.2575E-01	
371	-0.2290E+01	0.3747E-01	
375	-0.2290E+01	0.4918E-01	
379	-0.2290E+01	0.6083E-01	
383	-0.2289E+01	0.7248E-01	
387	-0.6862E+02	-0.1868E+00	
391	-0.1769E+01	0.8814E-02	
395	-0.1769E+01	0.2127E-01	
399	-0.1769E+01	0.3370E-01	
403	-0.1768E+01	0.4610E-01	
407	-0.1768E+01	0.5847E-01	
411	-0.1768E+01	0.7079E-01	
415	-0.1770E+01	0.8320E-01	
419	-0.1275E+01	0.2863E-02	
423	-0.1275E+01	0.1481E-01	
427	-0.1274E+01	0.2714E-01	
431	-0.1274E+01	0.3933E-01	
435	-0.1274E+01	0.5148E-01	
439	-0.1276E+01	0.6372E-01	
443	-0.1276E+01	0.7578E-01	
447	-0.3824E+02	-0.1647E+00	
451	-0.8048E+00	0.8111E-02	
455	-0.8044E+00	0.1827E-01	
459	-0.8041E+00	0.3039E-01	

224	-0.5458E+01	-0.1257E-01	
228	-0.5458E+01	-0.1521E-01	
232	-0.5455E+01	-0.1784E-01	
236	-0.1635E+03	-0.3283E+00	
240	-0.4725E+01	0.1130E-02	
244	-0.4725E+01	0.4171E-02	
248	-0.4728E+01	0.7204E-02	
252	-0.4722E+01	0.1023E-01	
256	-0.4722E+01	0.1325E-01	
260	-0.4719E+01	0.1626E-01	
264	-0.4719E+01	0.1926E-01	
268	-0.4050E+01	0.8137E-03	
272	-0.4050E+01	0.7994E-02	
276	-0.4050E+01	0.1517E-01	
280	-0.4050E+01	0.2234E-01	
284	-0.4050E+01	0.2949E-01	
288	-0.4047E+01	0.3660E-01	
292	-0.4047E+01	0.4372E-01	
296	-0.1213E+03	-0.2378E+00	
300	-0.3428E+01	0.6701E-02	
304	-0.3426E+01	0.1673E-01	
308	-0.3426E+01	0.2674E-01	
312	-0.3423E+01	0.3671E-01	
316	-0.3423E+01	0.4669E-01	
320	-0.3423E+01	0.5664E-01	
324	-0.3423E+01	0.6658E-01	
328	-0.2842E+01	0.2265E-02	
332	-0.2842E+01	0.1402E-01	
336	-0.2842E+01	0.2576E-01	
340	-0.2842E+01	0.3748E-01	
344	-0.2838E+01	0.4913E-01	
348	-0.2838E+01	0.6079E-01	
352	-0.2838E+01	0.7243E-01	
356	-0.8516E+02	-0.1888E+00	
360	-0.2290E+01	0.8815E-02	
364	-0.2290E+01	0.2127E-01	
368	-0.2290E+01	0.3371E-01	
372	-0.2290E+01	0.4612E-01	
376	-0.2290E+01	0.5850E-01	
380	-0.2289E+01	0.7084E-01	
384	-0.2289E+01	0.8315E-01	
388	-0.1769E+01	0.2663E-02	
392	-0.1769E+01	0.1481E-01	
396	-0.1769E+01	0.2713E-01	
400	-0.1769E+01	0.3934E-01	
404	-0.1768E+01	0.5150E-01	
408	-0.1768E+01	0.6363E-01	
412	-0.1770E+01	0.7583E-01	
416	-0.5307E+02	-0.1649E+00	
420	-0.1275E+01	0.8107E-02	
424	-0.1275E+01	0.1927E-01	
428	-0.1274E+01	0.3040E-01	
432	-0.1274E+01	0.4150E-01	
436	-0.1274E+01	0.5255E-01	
440	-0.1276E+01	0.6370E-01	
444	-0.1276E+01	0.7485E-01	
448	-0.8046E+00	0.2188E-02	
452	-0.8046E+00	0.1144E-01	
456	-0.8044E+00	0.2069E-01	
460	-0.8041E+00	0.2990E-01	

461	-0.8038E+00	0.3593E-01	
465	-0.8063E+00	0.4714E-01	
469	-0.8056E+00	0.5813E-01	
473	-0.8077E+00	0.6927E-01	
477	-0.2423E+02	-0.1631E+00	
481	-0.3555E+00	0.5780E-02	
485	-0.3583E+00	0.1612E-01	
489	-0.3577E+00	0.2533E-01	
493	-0.3570E+00	0.3443E-01	
497	-0.3590E+00	0.4375E-01	
501	-0.3608E+00	0.5303E-01	
505	-0.3624E+00	0.6224E-01	
509	0.8929E-01	0.1631E-02	
513	0.8882E-01	0.8272E-02	
517	0.8772E-01	0.1477E-01	
521	0.8605E-01	0.2101E-01	
525	0.8668E-01	0.2807E-01	
529	0.8661E-01	0.3520E-01	
533	0.8342E-01	0.4068E-01	
537	0.1890E+01	-0.1751E+00	
541	0.4701E+00	0.2424E-02	
545	0.4701E+00	0.5558E-02	
549	0.4700E+00	0.8687E-02	
553	0.4670E+00	0.1174E-01	
557	0.4688E+00	0.1483E-01	
561	0.4668E+00	0.1793E-01	
565	0.4638E+00	0.2088E-01	
569	0.8498E+00	-0.9103E-04	
573	0.8498E+00	-0.1141E-02	
577	0.8468E+00	-0.2194E-02	
581	0.8468E+00	-0.3269E-02	
585	0.8468E+00	-0.4370E-02	
589	0.8438E+00	-0.5480E-02	
593	0.8408E+00	-0.6617E-02	
597	0.2522E+02	-0.2039E+00	
601	0.1202E+01	-0.4207E-02	
605	0.1198E+01	-0.1015E-01	
609	0.1199E+01	-0.1613E-01	
613	0.1198E+01	-0.2213E-01	
617	0.1196E+01	-0.2811E-01	
621	0.1196E+01	-0.3419E-01	
625	0.1193E+01	-0.4022E-01	
629	0.1528E+01	-0.2559E-02	
633	0.1528E+01	-0.1422E-01	
637	0.1525E+01	-0.2584E-01	
641	0.1524E+01	-0.3751E-01	
645	0.1524E+01	-0.4921E-01	
649	0.1521E+01	-0.6083E-01	
653	0.1517E+01	-0.7245E-01	
657	0.4547E+02	-0.2486E+00	
661	0.1841E+01	-0.1400E-01	
665	0.1838E+01	-0.3318E-01	
669	0.1835E+01	-0.5226E-01	
673	0.1828E+01	-0.7108E-01	
677	0.1821E+01	-0.8988E-01	
681	0.1811E+01	-0.1078E+00	
685	0.1804E+01	-0.1258E+00	
689	0.2432E+01	-0.1119E-01	
693	0.2413E+01	-0.5784E-01	
697	0.2378E+01	-0.1031E+00	

462	-0.8039E+00	0.3449E-01	
466	-0.8065E+00	0.4378E-01	
470	-0.8059E+00	0.5267E-01	
474	-0.8053E+00	0.6188E-01	
478	-0.3556E+00	0.1605E-02	
482	-0.3555E+00	0.8185E-02	
486	-0.3563E+00	0.1482E-01	
490	-0.3580E+00	0.2135E-01	
494	-0.3575E+00	0.2780E-01	
498	-0.3600E+00	0.3445E-01	
502	-0.3593E+00	0.4074E-01	
506	-0.1085E+02	-0.1748E+00	
510	0.8927E-01	0.2458E-02	
514	0.8908E-01	0.5633E-02	
518	0.8875E-01	0.8809E-02	
522	0.8827E-01	0.1198E-01	
526	0.8783E-01	0.1519E-01	
530	0.8883E-01	0.1840E-01	
534	0.8299E-01	0.2089E-01	
538	0.4701E+00	-0.8802E-04	
542	0.4701E+00	-0.1136E-02	
546	0.4701E+00	-0.2196E-02	
550	0.4701E+00	-0.3275E-02	
554	0.4671E+00	-0.4351E-02	
558	0.4671E+00	-0.5482E-02	
562	0.4671E+00	-0.6650E-02	
566	0.1392E+02	-0.2041E+00	
570	0.8498E+00	-0.4204E-02	
574	0.8498E+00	-0.1018E-01	
578	0.8467E+00	-0.1612E-01	
582	0.8485E+00	-0.2212E-01	
586	0.8464E+00	-0.2816E-01	
590	0.8431E+00	-0.3413E-01	
594	0.8428E+00	-0.4026E-01	
598	0.1202E+01	-0.2556E-02	
602	0.1202E+01	-0.1422E-01	
606	0.1202E+01	-0.2589E-01	
610	0.1198E+01	-0.3749E-01	
614	0.1198E+01	-0.4915E-01	
618	0.1198E+01	-0.6087E-01	
622	0.1194E+01	-0.7243E-01	
626	0.3580E+02	-0.2488E+00	
630	0.1528E+01	-0.1400E-01	
634	0.1528E+01	-0.3319E-01	
638	0.1527E+01	-0.5226E-01	
642	0.1523E+01	-0.7100E-01	
646	0.1522E+01	-0.8960E-01	
650	0.1521E+01	-0.1079E+00	
654	0.1517E+01	-0.1257E+00	
658	0.1841E+01	-0.1119E-01	
662	0.1840E+01	-0.5782E-01	
666	0.1836E+01	-0.1032E+00	
670	0.1832E+01	-0.1498E+00	
674	0.1829E+01	-0.1855E+00	
678	0.1818E+01	-0.2188E+00	
682	0.1812E+01	-0.2485E+00	
686	0.5408E+02	-0.3504E+00	
690	0.2429E+01	-0.2369E+00	
694	0.2414E+01	-0.5556E+00	
698	0.2377E+01	-0.8798E+00	

463	-0.8038E+00	0.4148E-01	
467	-0.8059E+00	0.5264E-01	
471	-0.8051E+00	0.6358E-01	
475	-0.8072E+00	0.7470E-01	
479	-0.3556E+00	0.2160E-02	
483	-0.3584E+00	0.1149E-01	
487	-0.3580E+00	0.2074E-01	
491	-0.3574E+00	0.2990E-01	
495	-0.3595E+00	0.3928E-01	
499	-0.3584E+00	0.4819E-01	
503	-0.3601E+00	0.5741E-01	
507	-0.1085E+02	-0.1687E+00	
511	0.8914E-01	0.4962E-02	
515	0.8834E-01	0.1164E-01	
519	0.8686E-01	0.1792E-01	
523	0.8785E-01	0.2504E-01	
527	0.8535E-01	0.3099E-01	
531	0.8505E-01	0.3800E-01	
535	0.8418E-01	0.4495E-01	
539	0.4701E+00	0.8859E-03	
543	0.4701E+00	0.3992E-02	
547	0.4701E+00	0.7123E-02	
551	0.4700E+00	0.1025E-01	
555	0.4668E+00	0.1329E-01	
559	0.4658E+00	0.1638E-01	
563	0.4637E+00	0.1935E-01	
567	0.1392E+02	-0.1873E+00	
571	0.8498E+00	-0.8122E-03	
575	0.8468E+00	-0.1664E-02	
579	0.8468E+00	-0.2728E-02	
583	0.8468E+00	-0.3818E-02	
587	0.8438E+00	-0.4911E-02	
591	0.8438E+00	-0.6055E-02	
595	0.8408E+00	-0.7212E-02	
599	0.1202E+01	-0.1225E-02	
603	0.1202E+01	-0.7188E-02	
607	0.1198E+01	-0.1313E-01	
611	0.1198E+01	-0.1913E-01	
615	0.1198E+01	-0.2515E-01	
619	0.1198E+01	-0.3114E-01	
623	0.1193E+01	-0.3715E-01	
627	0.3580E+02	-0.2247E+00	
631	0.1528E+01	-0.8386E-02	
635	0.1528E+01	-0.2005E-01	
639	0.1525E+01	-0.3167E-01	
643	0.1524E+01	-0.4335E-01	
647	0.1521E+01	-0.5497E-01	
651	0.1520E+01	-0.6670E-01	
655	0.1517E+01	-0.7834E-01	
659	0.1841E+01	-0.4371E-02	
663	0.1838E+01	-0.2358E-01	
667	0.1835E+01	-0.4269E-01	
671	0.1831E+01	-0.6189E-01	
675	0.1824E+01	-0.8040E-01	
679	0.1818E+01	-0.9886E-01	
683	0.1807E+01	-0.1168E+00	
687	0.5408E+02	-0.2781E+00	
691	0.2428E+01	-0.3463E-01	
695	0.2397E+01	-0.8073E-01	
699	0.2350E+01	-0.1249E+00	

464	-0.8037E+00	0.3908E-01	
468	-0.8062E+00	0.4834E-01	
472	-0.8055E+00	0.5739E-01	
476	-0.2423E+02	-0.1884E+00	
480	-0.3555E+00	0.4888E-02	
484	-0.3584E+00	0.1153E-01	
488	-0.3582E+00	0.1809E-01	
492	-0.3578E+00	0.2458E-01	
496	-0.3573E+00	0.3099E-01	
500	-0.3587E+00	0.3761E-01	
504	-0.3820E+00	0.4420E-01	
508	0.8931E-01	0.8680E-03	
512	0.8919E-01	0.4046E-02	
516	0.8894E-01	0.7221E-02	
520	0.8853E-01	0.1040E-01	
524	0.8797E-01	0.1359E-01	
528	0.8725E-01	0.1679E-01	
532	0.8348E-01	0.1914E-01	
536	0.1889E+01	-0.1878E+00	
540	0.4701E+00	-0.6112E-03	
544	0.4701E+00	-0.1665E-02	
548	0.4701E+00	-0.2732E-02	
552	0.4701E+00	-0.3824E-02	
556	0.4671E+00	-0.4912E-02	
560	0.4671E+00	-0.6061E-02	
564	0.4640E+00	-0.7204E-02	
568	0.8498E+00	-0.1224E-02	
572	0.8498E+00	-0.7191E-02	
576	0.8467E+00	-0.1313E-01	
580	0.8488E+00	-0.1912E-01	
584	0.8465E+00	-0.2514E-01	
588	0.8432E+00	-0.3109E-01	
592	0.8430E+00	-0.3719E-01	
596	0.2522E+02	-0.2245E+00	
600	0.1202E+01	-0.8387E-02	
604	0.1202E+01	-0.2006E-01	
608	0.1198E+01	-0.3165E-01	
612	0.1198E+01	-0.4332E-01	
616	0.1198E+01	-0.5501E-01	
620	0.1195E+01	-0.6658E-01	
624	0.1194E+01	-0.7830E-01	
628	0.1528E+01	-0.4375E-02	
632	0.1528E+01	-0.2361E-01	
636	0.1527E+01	-0.4275E-01	
640	0.1527E+01	-0.6173E-01	
644	0.1523E+01	-0.8033E-01	
648	0.1522E+01	-0.9881E-01	
652	0.1520E+01	-0.1170E+00	
656	0.4547E+02	-0.2783E+00	
660	0.1841E+01	-0.3481E-01	
664	0.1840E+01	-0.8072E-01	
668	0.1837E+01	-0.1250E+00	
672	0.1831E+01	-0.1662E+00	
676	0.1824E+01	-0.2033E+00	
680	0.1817E+01	-0.2351E+00	
684	0.1808E+01	-0.2800E+00	
688	0.2434E+01	-0.7818E-01	
692	0.2424E+01	-0.3963E+00	
696	0.2398E+01	-0.7171E+00	
700	0.2363E+01	-0.1044E+01	

701	0.2322E+01	-0.1460E+00
705	0.2247E+01	-0.1853E+00
709	0.2153E+01	-0.2199E+00
713	0.2037E+01	-0.2485E+00
717	0.5904E+02	-0.3509E+00
721	0.6969E+01	-0.2370E+00
725	0.6997E+01	-0.5563E+00
729	0.7042E+01	-0.8795E+00
733	0.7103E+01	-0.1209E+01
737	0.7188E+01	-0.1546E+01
741	0.7289E+01	-0.1895E+01
745	0.7412E+01	-0.2257E+01
749	0.6949E+01	-0.1188E-01
753	0.6952E+01	-0.8633E-01
757	0.6954E+01	-0.1194E+00
761	0.6956E+01	-0.1700E+00
765	0.6961E+01	-0.2170E+00
769	0.6963E+01	-0.2588E+00
773	0.6967E+01	-0.2949E+00
777	0.6967E+00	-0.3828E+00
781	0.6103E+01	-0.2746E-01
785	0.6105E+01	-0.6634E-01
789	0.6105E+01	-0.1051E+00
793	0.6107E+01	-0.1438E+00
797	0.6109E+01	-0.1824E+00
801	0.6111E+01	-0.2209E+00
805	0.6115E+01	-0.2593E+00
809	0.4478E+01	-0.6412E-02
813	0.4478E+01	-0.3761E-01
817	0.4481E+01	-0.6889E-01
821	0.4486E+01	-0.1003E+00
825	0.4491E+01	-0.1320E+00
829	0.4498E+01	-0.1639E+00
833	0.4510E+01	-0.1963E+00
837	0.4513E+00	-0.3963E+00
841	0.1745E+01	-0.5369E-02
845	0.1748E+01	-0.1359E-01
849	0.1748E+01	-0.2189E-01
853	0.1754E+01	-0.2971E-01
857	0.1757E+01	-0.3750E-01
861	0.1762E+01	-0.4508E-01
865	0.1768E+01	-0.5239E-01
869	-0.2212E+01	0.2039E-02
873	-0.2209E+01	0.1046E-01
877	-0.2206E+01	0.1889E-01
881	-0.2200E+01	0.2732E-01
885	-0.2194E+01	0.3578E-01
889	-0.2184E+01	0.4417E-01
893	-0.2175E+01	0.5256E-01
897	-0.2173E+00	-0.4026E+00
901	-0.7887E+01	0.2476E-01
905	-0.7877E+01	0.5944E-01
909	-0.7865E+01	0.9388E-01
913	-0.7849E+01	0.1278E+00
917	-0.7828E+01	0.1614E+00
921	-0.7800E+01	0.1940E+00
925	-0.7771E+01	0.1529E+00
929	-0.1654E+02	0.2378E-01
933	-0.1654E+02	0.1319E+00
937	-0.1653E+02	0.2400E+00

702	0.2323E+01	-0.1209E+01
706	0.2247E+01	-0.1546E+01
710	0.2153E+01	-0.1886E+01
714	0.2036E+01	-0.2258E+01
718	0.6961E+01	-0.1180E-01
722	0.6970E+01	-0.6632E-01
726	0.6997E+01	-0.1194E+00
730	0.7041E+01	-0.1700E+00
734	0.7103E+01	-0.2189E+00
738	0.7188E+01	-0.2590E+00
742	0.7290E+01	-0.2948E+00
746	0.7413E+00	-0.3928E+00
750	0.6949E+01	-0.2748E-01
754	0.6952E+01	-0.6633E-01
758	0.6955E+01	-0.1051E+00
762	0.6957E+01	-0.1439E+00
766	0.6959E+01	-0.1824E+00
770	0.6964E+01	-0.2209E+00
774	0.6966E+01	-0.2593E+00
778	0.6103E+01	-0.6421E-02
782	0.6102E+01	-0.3763E-01
786	0.6105E+01	-0.6892E-01
790	0.6105E+01	-0.1003E+00
794	0.6107E+01	-0.1320E+00
798	0.6109E+01	-0.1640E+00
802	0.6111E+01	-0.1963E+00
806	0.6115E+00	-0.3963E+00
810	0.4478E+01	-0.5383E-02
814	0.4478E+01	-0.1359E-01
818	0.4481E+01	-0.2171E-01
822	0.4487E+01	-0.2971E-01
826	0.4493E+01	-0.3753E-01
830	0.4499E+01	-0.4511E-01
834	0.4508E+01	-0.5241E-01
838	0.1745E+01	0.2039E-02
842	0.1745E+01	0.1046E-01
846	0.1748E+01	0.1891E-01
850	0.1751E+01	0.2736E-01
854	0.1754E+01	0.3578E-01
858	0.1759E+01	0.4422E-01
862	0.1765E+01	0.5263E-01
866	0.1770E+00	-0.4028E+00
870	-0.2212E+01	0.2477E-01
874	-0.2208E+01	0.5944E-01
878	-0.2207E+01	0.9387E-01
882	-0.2199E+01	0.1279E+00
886	-0.2194E+01	0.1614E+00
890	-0.2185E+01	0.1941E+00
894	-0.2178E+01	0.1529E+00
898	-0.7887E+01	0.2378E-01
902	-0.7886E+01	0.1318E+00
906	-0.7880E+01	0.2401E+00
910	-0.7867E+01	0.3485E+00
914	-0.7849E+01	0.4572E+00
918	-0.7827E+01	0.5664E+00
922	-0.7800E+01	0.5039E+00
926	-0.7771E+00	-0.4044E+00
930	-0.1654E+02	0.1272E+00
934	-0.1654E+02	0.3044E+00
938	-0.1653E+02	0.4816E+00

703	0.2287E+01	-0.1662E+00
707	0.2203E+01	-0.2033E+00
711	0.2096E+01	-0.2348E+00
715	0.1889E+01	-0.2589E+00
719	0.6984E+01	-0.7817E-01
723	0.6980E+01	-0.3863E+00
727	0.7015E+01	-0.7171E+00
731	0.7072E+01	-0.1043E+01
735	0.7143E+01	-0.1376E+01
739	0.7236E+01	-0.1720E+01
743	0.7349E+01	-0.2075E+01
747	0.7295E+00	-0.9199E-02
751	0.6949E+01	-0.3921E-01
755	0.6952E+01	-0.8311E-01
759	0.6954E+01	-0.1451E+00
763	0.6959E+01	-0.1840E+00
767	0.6960E+01	-0.2388E+00
771	0.6965E+01	-0.2778E+00
775	0.6970E+01	-0.3101E+00
779	0.6103E+01	-0.8010E-02
783	0.6102E+01	-0.4691E-01
787	0.6108E+01	-0.8574E-01
791	0.6107E+01	-0.1245E+00
795	0.6109E+01	-0.1632E+00
799	0.6111E+01	-0.2017E+00
803	0.6113E+01	-0.2401E+00
807	0.6113E+00	-0.3944E+00
811	0.4478E+01	-0.2202E-01
815	0.4481E+01	-0.5325E-01
819	0.4483E+01	-0.8450E-01
823	0.4488E+01	-0.1161E+00
827	0.4487E+01	-0.1480E+00
831	0.4505E+01	-0.1801E+00
835	0.4515E+01	-0.2127E+00
839	0.1745E+01	-0.1249E-02
843	0.1745E+01	-0.9481E-02
847	0.1748E+01	-0.1766E-01
851	0.1751E+01	-0.2572E-01
855	0.1757E+01	-0.3367E-01
859	0.1759E+01	-0.4132E-01
863	0.1768E+01	-0.4885E-01
867	0.1768E+00	-0.3989E+00
871	-0.2209E+01	0.6241E-02
875	-0.2209E+01	0.1468E-01
879	-0.2203E+01	0.2311E-01
883	-0.2197E+01	0.3154E-01
887	-0.2191E+01	0.3999E-01
891	-0.2181E+01	0.4840E-01
895	-0.2173E+01	0.2012E-01
899	-0.7887E+01	0.7368E-02
903	-0.7884E+01	0.4213E-01
907	-0.7874E+01	0.7873E-01
911	-0.7859E+01	0.1110E+00
915	-0.7840E+01	0.1448E+00
919	-0.7815E+01	0.1778E+00
923	-0.7788E+01	0.1737E+00
927	-0.7769E+00	-0.4084E+00
931	-0.1654E+02	0.7780E-01
935	-0.1653E+02	0.1859E+00
939	-0.1652E+02	0.2942E+00

704	0.2288E+01	-0.1377E+01
708	0.2202E+01	-0.1718E+01
712	0.2097E+01	-0.2075E+01
716	0.5906E+02	-0.2758E+01
720	0.6984E+01	-0.3920E-01
724	0.6982E+01	-0.9313E-01
728	0.7017E+01	-0.1451E+00
732	0.7070E+01	-0.1940E+00
736	0.7141E+01	-0.2386E+00
740	0.7236E+01	-0.2778E+00
744	0.7350E+01	-0.3102E+00
748	0.6949E+01	-0.8028E-02
752	0.6949E+01	-0.4890E-01
756	0.6952E+01	-0.8573E-01
760	0.6954E+01	-0.1245E+00
764	0.6957E+01	-0.1631E+00
768	0.6962E+01	-0.2017E+00
772	0.6968E+01	-0.2402E+00
776	0.6968E+00	-0.3944E+00
780	0.6103E+01	-0.2200E-01
784	0.6102E+01	-0.5323E-01
788	0.6105E+01	-0.8460E-01
792	0.6107E+01	-0.1162E+00
796	0.6107E+01	-0.1478E+00
800	0.6112E+01	-0.1801E+00
804	0.6114E+01	-0.2127E+00
808	0.4475E+01	-0.1260E-02
812	0.4478E+01	-0.9482E-02
816	0.4478E+01	-0.1765E-01
820	0.4484E+01	-0.2574E-01
824	0.4490E+01	-0.3368E-01
828	0.4498E+01	-0.4138E-01
832	0.4505E+01	-0.4882E-01
836	0.4514E+00	-0.3889E+00
840	0.1745E+01	0.8246E-02
844	0.1745E+01	0.1467E-01
848	0.1748E+01	0.2311E-01
852	0.1751E+01	0.3155E-01
856	0.1756E+01	0.4000E-01
860	0.1759E+01	0.4835E-01
864	0.1768E+01	0.2009E-01
868	-0.2212E+01	0.7370E-02
872	-0.2212E+01	0.4218E-01
876	-0.2208E+01	0.7873E-01
880	-0.2203E+01	0.1110E+00
884	-0.2198E+01	0.1448E+00
888	-0.2190E+01	0.1778E+00
892	-0.2181E+01	0.1737E+00
896	-0.2172E+00	-0.4095E+00
900	-0.7888E+01	0.7779E-01
904	-0.7881E+01	0.1859E+00
908	-0.7872E+01	0.2942E+00
912	-0.7858E+01	0.4028E+00
916	-0.7840E+01	0.5116E+00
920	-0.7814E+01	0.5851E+00
924	-0.7788E+01	0.6227E+00
928	-0.1654E+02	0.3844E-01
932	-0.1654E+02	0.2154E+00
936	-0.1653E+02	0.3930E+00
940	-0.1652E+02	0.5701E+00

941	-0.1651E+02	0.3484E+00
945	-0.1650E+02	0.4572E+00
949	-0.1647E+02	0.5654E+00
953	-0.1644E+02	0.6040E+00
957	-0.1643E+01	-0.4043E+00
961	-0.2895E+02	0.1272E+00
965	-0.2895E+02	0.3044E+00
969	-0.2896E+02	0.4815E+00
973	-0.2898E+02	0.6586E+00
977	-0.2896E+02	0.8358E+00
981	-0.2895E+02	0.1012E+01
985	-0.2891E+02	0.1187E+01
989	-0.4383E+02	-0.8981E+00
993	-0.4393E+02	-0.3468E+01
997	-0.4422E+02	-0.6272E+01
1001	-0.4471E+02	-0.9133E+01
1005	-0.4541E+02	-0.1208E+02
1009	-0.4632E+02	-0.1513E+02
1013	-0.4745E+02	-0.1783E+02
1017	-0.4880E+01	-0.9734E-01
1021	-0.1645E+02	-0.1889E+00
1025	-0.1639E+02	-0.9143E+00
1029	-0.1619E+02	-0.1630E+01
1033	-0.1584E+02	-0.2327E+01
1037	-0.1535E+02	-0.2995E+01
1041	-0.1471E+02	-0.3625E+01
1045	-0.1390E+02	-0.4076E+01
1049	-0.3884E+03	-0.3713E+01
1053	-0.1470E+02	-0.1093E+00
1057	-0.1468E+02	-0.5305E+00
1061	-0.1465E+02	-0.8505E+00
1065	-0.1461E+02	-0.1389E+01
1069	-0.1454E+02	-0.1784E+01
1073	-0.1445E+02	-0.2187E+01
1077	-0.1435E+02	-0.2500E+01
1081	-0.4274E+03	-0.2588E+01
1085	-0.1471E+02	-0.7015E-01
1089	-0.1471E+02	-0.3348E+00
1093	-0.1469E+02	-0.5989E+00
1097	-0.1467E+02	-0.8625E+00
1101	-0.1463E+02	-0.1125E+01
1105	-0.1458E+02	-0.1387E+01
1109	-0.1453E+02	-0.1556E+01
1113	-0.4339E+03	-0.1387E+01
1117	-0.1517E+02	-0.4593E-01
1121	-0.1517E+02	-0.2133E+00
1125	-0.1516E+02	-0.3803E+00
1129	-0.1514E+02	-0.5467E+00
1133	-0.1512E+02	-0.7122E+00
1137	-0.1509E+02	-0.8768E+00
1141	-0.1505E+02	-0.9580E+00
1145	-0.4503E+03	-0.8190E+00
1149	-0.1501E+02	-0.4778E+00
1153	-0.1575E+02	-0.1298E+00
1157	-0.1575E+02	-0.2968E+00
1161	-0.1574E+02	-0.4635E+00
1165	-0.1574E+02	-0.6295E+00
1169	-0.1573E+02	-0.7946E+00
1173	-0.1572E+02	-0.9583E+00
1177	-0.1571E+02	-0.9592E+00

942	-0.1651E+02	0.6587E+00
946	-0.1650E+02	0.8359E+00
950	-0.1647E+02	0.1012E+01
954	-0.1644E+02	0.1187E+01
958	-0.2895E+02	0.2896E-01
962	-0.2895E+02	0.1758E+00
966	-0.2898E+02	0.3385E+00
970	-0.2898E+02	0.5270E+00
974	-0.2896E+02	0.7543E+00
978	-0.2896E+02	0.1034E+01
982	-0.2895E+02	0.1544E+01
986	-0.2891E+01	-0.2731E+00
990	-0.4386E+02	0.2696E-01
994	-0.4405E+02	0.1759E+00
998	-0.4444E+02	0.3385E+00
1002	-0.4504E+02	0.5270E+00
1006	-0.4584E+02	0.7543E+00
1010	-0.4686E+02	0.1034E+01
1014	-0.4809E+02	0.1544E+01
1018	-0.4874E+01	-0.2731E+00
1022	-0.1645E+02	-0.6982E+00
1026	-0.1631E+02	-0.3489E+01
1030	-0.1603E+02	-0.6272E+01
1034	-0.1582E+02	-0.9133E+01
1038	-0.1505E+02	-0.1208E+02
1042	-0.1432E+02	-0.1513E+02
1046	-0.1345E+02	-0.1783E+02
1050	-0.3876E+03	-0.2920E+02
1054	-0.1469E+02	-0.1889E+00
1058	-0.1467E+02	-0.9142E+00
1062	-0.1463E+02	-0.1830E+01
1066	-0.1457E+02	-0.2327E+01
1070	-0.1450E+02	-0.2995E+01
1074	-0.1441E+02	-0.3625E+01
1078	-0.1430E+02	-0.4077E+01
1082	-0.4274E+03	-0.3713E+01
1086	-0.1471E+02	-0.1093E+00
1090	-0.1470E+02	-0.5307E+00
1094	-0.1468E+02	-0.9507E+00
1098	-0.1465E+02	-0.1369E+01
1102	-0.1461E+02	-0.1784E+01
1106	-0.1456E+02	-0.2197E+01
1110	-0.1450E+02	-0.2500E+01
1114	-0.4339E+03	-0.2589E+01
1118	-0.1517E+02	-0.7015E-01
1122	-0.1516E+02	-0.3348E+00
1126	-0.1515E+02	-0.5990E+00
1130	-0.1513E+02	-0.8624E+00
1134	-0.1510E+02	-0.1125E+01
1138	-0.1507E+02	-0.1387E+01
1142	-0.1503E+02	-0.1556E+01
1146	-0.4503E+03	-0.1387E+01
1150	-0.1575E+02	-0.3984E-01
1154	-0.1575E+02	-0.1827E+00
1158	-0.1575E+02	-0.3280E+00
1162	-0.1574E+02	-0.4700E+00
1166	-0.1574E+02	-0.6147E+00
1170	-0.1573E+02	-0.7603E+00
1174	-0.1572E+02	-0.8298E+00
1178	-0.4714E+03	-0.8260E+00

943	-0.1651E+02	0.4028E+00
947	-0.1649E+02	0.5117E+00
951	-0.1648E+02	0.5852E+00
955	-0.1642E+02	0.6227E+00
959	-0.2895E+02	0.3843E-01
963	-0.2895E+02	0.2158E+00
967	-0.2896E+02	0.3928E+00
971	-0.2896E+02	0.5701E+00
975	-0.2896E+02	0.7473E+00
979	-0.2896E+02	0.9244E+00
983	-0.2893E+02	0.1098E+01
987	-0.2888E+01	-0.4274E+00
991	-0.4386E+02	-0.2081E+01
995	-0.4405E+02	-0.4864E+01
999	-0.4444E+02	-0.7883E+01
1003	-0.4503E+02	-0.1059E+02
1007	-0.4584E+02	-0.1359E+02
1011	-0.4686E+02	-0.1868E+02
1015	-0.4809E+02	-0.1924E+02
1019	-0.4874E+01	-0.3852E-01
1023	-0.1645E+02	-0.5515E+00
1027	-0.1631E+02	-0.1274E+01
1031	-0.1603E+02	-0.1882E+01
1035	-0.1582E+02	-0.2665E+01
1039	-0.1505E+02	-0.3315E+01
1043	-0.1432E+02	-0.3924E+01
1047	-0.1345E+02	-0.4217E+01
1051	-0.3878E+03	-0.2727E+01
1055	-0.1469E+02	-0.3201E+00
1059	-0.1467E+02	-0.7408E+00
1063	-0.1463E+02	-0.1150E+01
1067	-0.1457E+02	-0.1577E+01
1071	-0.1450E+02	-0.1991E+01
1075	-0.1441E+02	-0.2403E+01
1079	-0.1430E+02	-0.2586E+01
1083	-0.4274E+03	-0.2482E+01
1087	-0.1471E+02	-0.2025E+00
1091	-0.1470E+02	-0.4670E+00
1095	-0.1468E+02	-0.7308E+00
1099	-0.1465E+02	-0.9939E+00
1103	-0.1461E+02	-0.1258E+01
1107	-0.1456E+02	-0.1517E+01
1111	-0.1450E+02	-0.1594E+01
1115	-0.4338E+03	-0.8428E+00
1119	-0.1517E+02	-0.1296E+00
1123	-0.1516E+02	-0.2988E+00
1127	-0.1515E+02	-0.4638E+00
1131	-0.1513E+02	-0.6288E+00
1135	-0.1510E+02	-0.7948E+00
1139	-0.1507E+02	-0.9583E+00
1143	-0.1503E+02	-0.9592E+00
1147	-0.4503E+03	0.8170E-01
1151	-0.1575E+02	-0.4594E-01
1155	-0.1575E+02	-0.2133E+00
1159	-0.1574E+02	-0.3803E+00
1163	-0.1574E+02	-0.5468E+00
1167	-0.1573E+02	-0.7121E+00
1171	-0.1573E+02	-0.8786E+00
1175	-0.1572E+02	-0.9590E+00
1179	-0.4714E+03	-0.8192E+00

944	-0.1651E+02	0.7473E+00
948	-0.1649E+02	0.9244E+00
952	-0.1646E+02	0.1099E+01
956	-0.1642E+01	-0.4273E+00
960	-0.2895E+02	0.1005E+00
964	-0.2895E+02	0.2547E+00
968	-0.2898E+02	0.4287E+00
972	-0.2898E+02	0.6350E+00
976	-0.2898E+02	0.8867E+00
980	-0.2895E+02	0.1279E+01
984	-0.2893E+02	0.1831E+01
988	-0.2886E+01	-0.4503E+00
992	-0.4393E+02	0.1005E+00
996	-0.4422E+02	0.2547E+00
1000	-0.4471E+02	0.4287E+00
1004	-0.4541E+02	0.6350E+00
1008	-0.4632E+02	0.8867E+00
1012	-0.4745E+02	0.1279E+01
1016	-0.4880E+02	0.1831E+01
1020	-0.4864E+01	-0.4502E+00
1024	-0.1639E+02	-0.2081E+01
1028	-0.1619E+02	-0.4864E+01
1032	-0.1584E+02	-0.7693E+01
1036	-0.1535E+02	-0.1059E+02
1040	-0.1471E+02	-0.1359E+02
1044	-0.1391E+02	-0.1868E+02
1048	-0.1295E+02	-0.1924E+02
1052	-0.3873E+03	-0.1186E+02
1056	-0.1469E+02	-0.5516E+00
1060	-0.1465E+02	-0.1274E+01
1064	-0.1461E+02	-0.1982E+01
1068	-0.1454E+02	-0.2685E+01
1072	-0.1445E+02	-0.3315E+01
1076	-0.1435E+02	-0.3924E+01
1080	-0.1425E+02	-0.4217E+01
1084	-0.4274E+03	-0.2727E+01
1088	-0.1471E+02	-0.3201E+00
1092	-0.1469E+02	-0.7407E+00
1096	-0.1467E+02	-0.1150E+01
1100	-0.1463E+02	-0.1577E+01
1104	-0.1458E+02	-0.1991E+01
1108	-0.1453E+02	-0.2403E+01
1112	-0.1446E+02	-0.2598E+01
1116	-0.4338E+03	-0.2482E+01
1120	-0.1517E+02	-0.2025E+00
1124	-0.1515E+02	-0.4669E+00
1128	-0.1514E+02	-0.7309E+00
1132	-0.1512E+02	-0.9939E+00
1136	-0.1509E+02	-0.1258E+01
1140	-0.1505E+02	-0.1517E+01
1144	-0.1501E+02	-0.1594E+01
1148	-0.4502E+03	-0.8428E+00
1152	-0.1575E+02	-0.1113E+00
1156	-0.1575E+02	-0.2543E+00
1160	-0.1574E+02	-0.3979E+00
1164	-0.1574E+02	-0.5422E+00
1168	-0.1573E+02	-0.6874E+00
1172	-0.1573E+02	-0.8334E+00
1176	-0.1572E+02	-0.8285E+00
1180	-0.4714E+03	-0.8287E+00

1181 -0.4715E+03 0.6190E-01	1182 -0.1572E+02 -0.8788E+00	1183 -0.1572E+02 -0.4779E+00	1184 -0.1577E+02 -0.2986E-01
1185 -0.1577E+02 -0.3985E-01	1186 -0.1577E+02 -0.8081E-01	1187 -0.1577E+02 -0.1112E+00	1188 -0.1577E+02 -0.1320E+00
1189 -0.1577E+02 -0.1828E+00	1190 -0.1577E+02 -0.1833E+00	1191 -0.1577E+02 -0.2544E+00	1192 -0.1576E+02 -0.2348E+00
1193 -0.1576E+02 -0.3261E+00	1194 -0.1576E+02 -0.2864E+00	1195 -0.1576E+02 -0.3979E+00	1196 -0.1576E+02 -0.3381E+00
1197 -0.1575E+02 -0.4700E+00	1198 -0.1575E+02 -0.3900E+00	1199 -0.1575E+02 -0.5423E+00	1200 -0.1575E+02 -0.4421E+00
1201 -0.1574E+02 -0.6147E+00	1202 -0.1574E+02 -0.4944E+00	1203 -0.1573E+02 -0.6874E+00	1204 -0.1574E+02 -0.5468E+00
1205 -0.1573E+02 -0.7603E+00	1206 -0.1573E+02 -0.5992E+00	1207 -0.1572E+02 -0.8334E+00	1208 -0.1572E+02 -0.6518E+00
1209 -0.1572E+02 -0.8299E+00	1210 -0.1572E+02 -0.6288E+00	1211 -0.1571E+02 -0.8285E+00	1212 -0.4712E+03 -0.8837E+00
1213 -0.4712E+03 -0.8257E+00	1214 -0.4712E+03 -0.8167E+00	1215 -0.4712E+03 -0.8288E+00	1216 -0.1571E+02 -0.8787E+00
1217 -0.1571E+02 -0.8787E+00	1218 -0.1561E+02 -0.1985E-01	1219 -0.1561E+02 -0.2866E-01	1220 -0.1561E+02 -0.5148E-01
1221 -0.1561E+02 -0.8080E-01	1222 -0.1561E+02 -0.8318E-01	1223 -0.1561E+02 -0.1320E+00	1224 -0.1561E+02 -0.1149E+00
1225 -0.1561E+02 -0.1833E+00	1226 -0.1561E+02 -0.1488E+00	1227 -0.1560E+02 -0.2348E+00	1228 -0.1560E+02 -0.1788E+00
1229 -0.1560E+02 -0.2864E+00	1230 -0.1560E+02 -0.2108E+00	1231 -0.1559E+02 -0.3381E+00	1232 -0.1559E+02 -0.2430E+00
1233 -0.1559E+02 -0.3900E+00	1234 -0.1559E+02 -0.2754E+00	1235 -0.1558E+02 -0.4421E+00	1236 -0.1558E+02 -0.3078E+00
1237 -0.1558E+02 -0.4944E+00	1238 -0.1558E+02 -0.3405E+00	1239 -0.1557E+02 -0.5468E+00	1240 -0.1557E+02 -0.3728E+00
1241 -0.1556E+02 -0.5992E+00	1242 -0.1556E+02 -0.4054E+00	1243 -0.1555E+02 -0.6518E+00	1244 -0.1556E+02 -0.3688E+00
1245 -0.1555E+02 -0.6287E+00	1246 -0.4684E+03 -0.4810E+00	1247 -0.4684E+03 -0.6838E+00	1248 -0.4684E+03 -0.7492E+00
1249 -0.4684E+03 -0.8168E+00	1250 -0.1555E+02 -0.5725E+00	1251 -0.1555E+02 -0.8768E+00	1252 -0.1529E+02 -0.1103E-01
1253 -0.1529E+02 -0.1988E-01	1254 -0.1529E+02 -0.2521E-01	1255 -0.1529E+02 -0.5148E-01	1256 -0.1529E+02 -0.3945E-01
1257 -0.1528E+02 -0.8318E-01	1258 -0.1529E+02 -0.5378E-01	1259 -0.1528E+02 -0.1150E+00	1260 -0.1528E+02 -0.8817E-01
1261 -0.1528E+02 -0.1468E+00	1262 -0.1528E+02 -0.8267E-01	1263 -0.1528E+02 -0.1788E+00	1264 -0.1528E+02 -0.9728E-01
1265 -0.1527E+02 -0.2108E+00	1266 -0.1527E+02 -0.1120E+00	1267 -0.1527E+02 -0.2431E+00	1268 -0.1527E+02 -0.1268E+00
1269 -0.1526E+02 -0.2754E+00	1270 -0.1526E+02 -0.1418E+00	1271 -0.1526E+02 -0.3079E+00	1272 -0.1526E+02 -0.1568E+00
1273 -0.1525E+02 -0.3404E+00	1274 -0.1525E+02 -0.1718E+00	1275 -0.1524E+02 -0.3729E+00	1276 -0.1524E+02 -0.1887E+00
1277 -0.1524E+02 -0.4054E+00	1278 -0.1524E+02 -0.1345E+00	1279 -0.1523E+02 -0.3867E+00	1280 -0.4588E+03 -0.3017E+00
1281 -0.4588E+03 -0.4811E+00	1282 -0.4588E+03 -0.6885E+00	1283 -0.4588E+03 -0.7495E+00	1284 -0.1523E+02 -0.8853E+00
1285 -0.1523E+02 -0.8725E+00	1286 -0.1482E+02 -0.3242E-02	1287 -0.1482E+02 -0.1103E-01	1288 -0.1482E+02 -0.2125E-02
1289 -0.1482E+02 -0.2521E-01	1290 -0.1482E+02 -0.1079E-02	1291 -0.1482E+02 -0.3845E-01	1292 -0.1482E+02 -0.1038E-03
1293 -0.1482E+02 -0.5377E-01	1294 -0.1482E+02 0.8006E-03	1295 -0.1482E+02 -0.6816E-01	1296 -0.1482E+02 0.1606E-02
1297 -0.1481E+02 -0.8287E-01	1298 -0.1481E+02 0.2312E-02	1299 -0.1481E+02 -0.9727E-01	1300 -0.1481E+02 0.2905E-02
1301 -0.1481E+02 -0.1120E+00	1302 -0.1481E+02 0.3385E-02	1303 -0.1481E+02 -0.1268E+00	1304 -0.1481E+02 0.3737E-02
1305 -0.1480E+02 -0.1418E+00	1306 -0.1480E+02 0.4117E-02	1307 -0.1479E+02 -0.1568E+00	1308 -0.1479E+02 0.4510E-02
1309 -0.1479E+02 -0.1718E+00	1310 -0.1479E+02 0.5044E-02	1311 -0.1478E+02 -0.1868E+00	1312 -0.1478E+02 0.5834E-01
1313 -0.1478E+02 -0.1345E+00	1314 -0.4433E+03 -0.1447E+00	1315 -0.4433E+03 -0.3020E+00	1316 -0.4433E+03 -0.8347E+00
1317 -0.4433E+03 -0.6888E+00	1318 -0.1477E+02 -0.8587E+00	1319 -0.1477E+02 -0.8863E+00	1320 -0.1425E+02 0.3555E-02
1321 -0.1425E+02 -0.3238E-02	1322 -0.1425E+02 0.1793E-01	1323 -0.1425E+02 -0.2138E-02	1324 -0.1425E+02 0.3225E-01
1325 -0.1425E+02 -0.1078E-02	1326 -0.1425E+02 0.4650E-01	1327 -0.1424E+02 -0.9872E-04	1328 -0.1424E+02 0.6068E-01
1329 -0.1424E+02 0.7966E-03	1330 -0.1424E+02 0.7474E-01	1331 -0.1424E+02 0.1598E-02	1332 -0.1424E+02 0.8872E-01
1333 -0.1424E+02 0.2303E-02	1334 -0.1424E+02 0.1026E+00	1335 -0.1423E+02 0.2914E-02	1336 -0.1423E+02 0.1184E+00
1337 -0.1423E+02 0.3387E-02	1338 -0.1423E+02 0.1300E+00	1339 -0.1422E+02 0.3739E-02	1340 -0.1422E+02 0.1437E+00
1341 -0.1422E+02 0.4117E-02	1342 -0.1422E+02 0.1574E+00	1343 -0.1422E+02 0.4523E-02	1344 -0.1421E+02 0.1713E+00
1345 -0.1421E+02 0.5050E-02	1346 -0.1421E+02 0.2437E+00	1347 -0.1420E+02 0.6834E-01	1348 -0.4261E+03 -0.1152E-01
1349 -0.4261E+03 -0.1448E+00	1350 -0.4261E+03 -0.5950E+00	1351 -0.4281E+03 -0.6349E+00	1352 -0.1420E+02 -0.8478E+00
1353 -0.1420E+02 -0.8587E+00	1354 -0.1356E+02 0.9857E-02	1355 -0.1356E+02 0.3552E-02	1356 -0.1356E+02 0.3588E-01
1357 -0.1356E+02 0.1793E-01	1358 -0.1356E+02 0.8201E-01	1359 -0.1356E+02 0.3224E-01	1360 -0.1356E+02 0.8810E-01
1361 -0.1356E+02 0.4849E-01	1362 -0.1356E+02 0.1141E+00	1363 -0.1356E+02 0.6085E-01	1364 -0.1356E+02 0.1400E+00
1365 -0.1356E+02 0.7474E-01	1366 -0.1355E+02 0.1659E+00	1367 -0.1355E+02 0.8872E-01	1368 -0.1355E+02 0.1916E+00
1369 -0.1355E+02 0.1026E+00	1370 -0.1355E+02 0.2173E+00	1371 -0.1355E+02 0.1164E+00	1372 -0.1354E+02 0.2428E+00
1373 -0.1354E+02 0.1300E+00	1374 -0.1354E+02 0.2684E+00	1375 -0.1354E+02 0.1437E+00	1376 -0.1354E+02 0.2941E+00
1377 -0.1353E+02 0.1574E+00	1378 -0.1353E+02 0.3199E+00	1379 -0.1353E+02 0.1713E+00	1380 -0.1353E+02 0.3457E+00
1381 -0.1353E+02 0.2437E+00	1382 -0.4058E+03 0.5482E-01	1383 -0.4058E+03 -0.1174E-01	1384 -0.4058E+03 -0.6080E+00
1385 -0.4058E+03 -0.5949E+00	1386 -0.1353E+02 -0.8987E+00	1387 -0.1353E+02 -0.8478E+00	1388 -0.1352E+02 -0.8513E+00
1389 -0.1279E+02 0.1487E-01	1390 -0.1279E+02 0.9658E-02	1391 -0.1278E+02 0.5137E-01	1392 -0.1278E+02 0.3587E-01
1393 -0.1279E+02 0.6771E-01	1394 -0.1279E+02 0.6200E-01	1395 -0.1278E+02 0.1240E+00	1396 -0.1278E+02 0.8809E-01
1397 -0.1279E+02 0.1802E+00	1398 -0.1279E+02 0.1141E+00	1399 -0.1279E+02 0.1963E+00	1400 -0.1278E+02 0.1400E+00
1401 -0.1278E+02 0.2324E+00	1402 -0.1278E+02 0.1659E+00	1403 -0.1278E+02 0.2683E+00	1404 -0.1278E+02 0.1916E+00
1405 -0.1278E+02 0.3043E+00	1406 -0.1278E+02 0.2173E+00	1407 -0.1278E+02 0.3400E+00	1408 -0.1277E+02 0.2428E+00
1409 -0.1277E+02 0.3758E+00	1410 -0.1277E+02 0.2684E+00	1411 -0.1277E+02 0.4117E+00	1412 -0.1277E+02 0.2941E+00
1413 -0.1276E+02 0.4477E+00	1414 -0.1276E+02 0.3199E+00	1415 -0.1276E+02 0.4839E+00	1416 -0.1275E+02 0.3457E+00
1417 -0.3827E+03 0.1597E+00	1418 -0.3827E+03 0.5482E-01	1419 -0.3827E+03 -0.5753E+00	1420 -0.3827E+03 -0.6082E+00

1421 -0.1276E+02 -0.9000E+00	1422 -0.1276E+02 -0.8998E+00	1423 -0.1276E+02 -0.8434E+00	1424 -0.1276E+02 -0.8513E+00
1425 -0.1194E+02 0.1975E-01	1426 -0.1194E+02 0.1497E-01	1427 -0.1194E+02 0.8524E-01	1428 -0.1194E+02 0.5137E-01
1429 -0.1194E+02 0.1107E+00	1430 -0.1194E+02 0.8772E-01	1431 -0.1194E+02 0.1561E+00	1432 -0.1193E+02 0.1240E+00
1433 -0.1194E+02 0.2014E+00	1434 -0.1193E+02 0.1602E+00	1435 -0.1193E+02 0.2268E+00	1436 -0.1193E+02 0.1963E+00
1437 -0.1193E+02 0.2918E+00	1438 -0.1193E+02 0.2324E+00	1439 -0.1193E+02 0.3369E+00	1440 -0.1193E+02 0.2684E+00
1441 -0.1193E+02 0.3819E+00	1442 -0.1192E+02 0.3042E+00	1443 -0.1192E+02 0.4268E+00	1444 -0.1192E+02 0.3400E+00
1445 -0.1192E+02 0.4718E+00	1446 -0.1192E+02 0.3759E+00	1447 -0.1192E+02 0.5168E+00	1448 -0.1191E+02 0.4117E+00
1449 -0.1191E+02 0.5620E+00	1450 -0.1191E+02 0.4478E+00	1451 -0.1191E+02 0.6073E+00	1452 -0.1191E+02 0.4839E+00
1453 -0.3572E+03 0.2544E+00	1454 -0.3572E+03 0.1597E+00	1455 -0.3572E+03 -0.5435E+00	1456 -0.3572E+03 -0.5755E+00
1457 -0.1191E+02 -0.8968E+00	1458 -0.1191E+02 -0.9000E+00	1459 -0.1191E+02 -0.8348E+00	1460 -0.1191E+02 -0.8435E+00
1461 -0.1101E+02 0.2409E-01	1462 -0.1101E+02 0.1976E-01	1463 -0.1101E+02 0.7776E-01	1464 -0.1101E+02 0.6525E-01
1465 -0.1101E+02 0.1314E+00	1466 -0.1101E+02 0.1107E+00	1467 -0.1101E+02 0.1850E+00	1468 -0.1101E+02 0.1560E+00
1469 -0.1101E+02 0.2385E+00	1470 -0.1101E+02 0.2013E+00	1471 -0.1101E+02 0.2919E+00	1472 -0.1101E+02 0.2466E+00
1473 -0.1101E+02 0.3453E+00	1474 -0.1101E+02 0.2918E+00	1475 -0.1101E+02 0.3986E+00	1476 -0.1101E+02 0.3369E+00
1477 -0.1101E+02 0.4518E+00	1478 -0.1100E+02 0.3819E+00	1479 -0.1100E+02 0.5050E+00	1480 -0.1100E+02 0.4268E+00
1481 -0.1100E+02 0.5582E+00	1482 -0.1100E+02 0.4718E+00	1483 -0.1100E+02 0.6115E+00	1484 -0.1099E+02 0.5168E+00
1485 -0.1099E+02 0.8650E+00	1486 -0.1099E+02 0.5621E+00	1487 -0.1099E+02 0.7186E+00	1488 -0.1099E+02 0.6073E+00
1489 -0.3298E+03 0.3397E+00	1490 -0.3298E+03 0.2542E+00	1491 -0.3298E+03 -0.5141E+00	1492 -0.3298E+03 -0.5438E+00
1493 -0.1099E+02 -0.8932E+00	1494 -0.1099E+02 -0.8969E+00	1495 -0.1099E+02 -0.8260E+00	1496 -0.1099E+02 -0.8347E+00
1497 -0.1003E+02 0.2810E-01	1498 -0.1003E+02 0.2409E-01	1499 -0.1003E+02 0.8926E-01	1500 -0.1003E+02 0.7776E-01
1501 -0.1003E+02 0.1504E+00	1502 -0.1003E+02 0.1314E+00	1503 -0.1003E+02 0.2115E+00	1504 -0.1003E+02 0.1849E+00
1505 -0.1003E+02 0.2725E+00	1506 -0.1003E+02 0.2384E+00	1507 -0.1003E+02 0.3334E+00	1508 -0.1003E+02 0.2919E+00
1509 -0.1002E+02 0.3943E+00	1510 -0.1002E+02 0.3453E+00	1511 -0.1003E+02 0.4552E+00	1512 -0.1002E+02 0.3988E+00
1513 -0.1002E+02 0.5158E+00	1514 -0.1002E+02 0.4518E+00	1515 -0.1002E+02 0.5766E+00	1516 -0.1002E+02 0.5048E+00
1517 -0.1002E+02 0.6374E+00	1518 -0.1001E+02 0.5581E+00	1519 -0.1001E+02 0.6982E+00	1520 -0.1001E+02 0.6114E+00
1521 -0.1001E+02 0.7593E+00	1522 -0.1001E+02 0.6848E+00	1523 -0.1001E+02 0.8203E+00	1524 -0.1001E+02 0.7188E+00
1525 -0.3002E+03 0.4178E+00	1526 -0.3002E+03 0.3397E+00	1527 -0.3002E+03 -0.4864E+00	1528 -0.3002E+03 -0.5139E+00
1529 -0.1000E+02 -0.8892E+00	1530 -0.1000E+02 -0.8931E+00	1531 -0.1001E+02 -0.8175E+00	1532 -0.1000E+02 -0.8258E+00
1533 -0.8990E+01 0.3189E-01	1534 -0.8980E+01 0.2810E-01	1535 -0.8989E+01 0.1001E+00	1536 -0.8988E+01 0.8926E-01
1537 -0.8991E+01 0.1882E+00	1538 -0.8988E+01 0.1504E+00	1539 -0.8990E+01 0.2363E+00	1540 -0.8987E+01 0.2114E+00
1541 -0.8987E+01 0.3043E+00	1542 -0.8989E+01 0.2725E+00	1543 -0.8988E+01 0.3724E+00	1544 -0.8988E+01 0.3334E+00
1545 -0.8985E+01 0.4402E+00	1546 -0.8984E+01 0.3943E+00	1547 -0.8984E+01 0.5082E+00	1548 -0.8984E+01 0.4552E+00
1549 -0.8983E+01 0.5760E+00	1550 -0.8981E+01 0.5158E+00	1551 -0.8982E+01 0.6438E+00	1552 -0.8977E+01 0.5765E+00
1553 -0.8980E+01 0.7117E+00	1554 -0.8976E+01 0.6374E+00	1555 -0.8977E+01 0.7796E+00	1556 -0.8975E+01 0.6983E+00
1557 -0.8974E+01 0.8477E+00	1558 -0.8970E+01 0.7592E+00	1559 -0.8970E+01 0.9159E+00	1560 -0.8967E+01 0.8204E+00
1561 -0.2691E+03 0.4913E+00	1562 -0.2691E+03 0.4178E+00	1563 -0.2691E+03 -0.4804E+00	1564 -0.2691E+03 -0.4868E+00
1565 -0.8967E+01 -0.8852E+00	1566 -0.8967E+01 -0.8882E+00	1567 -0.8968E+01 -0.8094E+00	1568 -0.8966E+01 -0.8175E+00
1569 -0.7899E+01 0.3557E-01	1570 -0.7899E+01 0.3189E-01	1571 -0.7898E+01 0.1105E+00	1572 -0.7898E+01 0.1001E+00
1573 -0.7900E+01 0.1855E+00	1574 -0.7897E+01 0.1682E+00	1575 -0.7897E+01 0.2603E+00	1576 -0.7898E+01 0.2383E+00
1577 -0.7898E+01 0.3352E+00	1578 -0.7896E+01 0.3044E+00	1579 -0.7897E+01 0.4100E+00	1580 -0.7898E+01 0.3724E+00
1581 -0.7896E+01 0.4847E+00	1582 -0.7892E+01 0.4402E+00	1583 -0.7894E+01 0.5594E+00	1584 -0.7891E+01 0.5062E+00
1585 -0.7891E+01 0.6340E+00	1586 -0.7890E+01 0.5760E+00	1587 -0.7891E+01 0.7087E+00	1588 -0.7888E+01 0.6438E+00
1589 -0.7887E+01 0.7832E+00	1590 -0.7885E+01 0.7116E+00	1591 -0.7885E+01 0.8580E+00	1592 -0.7881E+01 0.7794E+00
1593 -0.7883E+01 0.9328E+00	1594 -0.7880E+01 0.8477E+00	1595 -0.7880E+01 0.1008E+01	1596 -0.7876E+01 0.9158E+00
1597 -0.2363E+03 0.5822E+00	1598 -0.2363E+03 0.4915E+00	1599 -0.2363E+03 -0.4355E+00	1600 -0.2363E+03 -0.4805E+00
1601 -0.7877E+01 -0.8815E+00	1602 -0.7878E+01 -0.8852E+00	1603 -0.7878E+01 -0.8016E+00	1604 -0.7875E+01 -0.8092E+00
1605 -0.8759E+01 0.3936E-01	1606 -0.8759E+01 0.3558E-01	1607 -0.8758E+01 0.1213E+00	1608 -0.8759E+01 0.1105E+00
1609 -0.8759E+01 0.2032E+00	1610 -0.8757E+01 0.1854E+00	1611 -0.8757E+01 0.2849E+00	1612 -0.8758E+01 0.2604E+00
1613 -0.8756E+01 0.3687E+00	1614 -0.8757E+01 0.3352E+00	1615 -0.8757E+01 0.4486E+00	1616 -0.8753E+01 0.4099E+00
1617 -0.8754E+01 0.5302E+00	1618 -0.8754E+01 0.4848E+00	1619 -0.8753E+01 0.6119E+00	1620 -0.8751E+01 0.5594E+00
1621 -0.8751E+01 0.6938E+00	1622 -0.8748E+01 0.6338E+00	1623 -0.8748E+01 0.7751E+00	1624 -0.8747E+01 0.7088E+00
1625 -0.8748E+01 0.8589E+00	1626 -0.8744E+01 0.7832E+00	1627 -0.8748E+01 0.9388E+00	1628 -0.8741E+01 0.8579E+00
1629 -0.8743E+01 0.1021E+01	1630 -0.8737E+01 0.9327E+00	1631 -0.8739E+01 0.1103E+01	1632 -0.8736E+01 0.1003E+01
1633 -0.2021E+03 0.6148E+00	1634 -0.2021E+03 0.5620E+00	1635 -0.2021E+03 -0.4171E+00	1636 -0.2021E+03 -0.4354E+00
1637 -0.8736E+01 -0.8788E+00	1638 -0.8735E+01 -0.8814E+00	1639 -0.8737E+01 -0.7850E+00	1640 -0.8736E+01 -0.8017E+00
1641 -0.5578E+01 0.4301E-01	1642 -0.5578E+01 0.3835E-01	1643 -0.5577E+01 0.1318E+00	1644 -0.5577E+01 0.1213E+00
1645 -0.5577E+01 0.2201E+00	1646 -0.5578E+01 0.2032E+00	1647 -0.5578E+01 0.3088E+00	1648 -0.5577E+01 0.2850E+00
1649 -0.5576E+01 0.3972E+00	1650 -0.5575E+01 0.3868E+00	1651 -0.5575E+01 0.4856E+00	1652 -0.5572E+01 0.4484E+00
1653 -0.5573E+01 0.5739E+00	1654 -0.5571E+01 0.5301E+00	1655 -0.5572E+01 0.6624E+00	1656 -0.5572E+01 0.6121E+00
1657 -0.5570E+01 0.7507E+00	1658 -0.5568E+01 0.6935E+00	1659 -0.5570E+01 0.8392E+00	1660 -0.5567E+01 0.7752E+00

1661	-0.5588E+01	0.9277E+00	1662	-0.5564E+01	0.8568E+00	1663	-0.5585E+01	0.1016E+01	1664	-0.5563E+01	0.9389E+00
1665	-0.5563E+01	0.1105E+01	1666	-0.5558E+01	0.1020E+01	1667	-0.5560E+01	0.1194E+01	1668	-0.5557E+01	0.1103E+01
1669	-0.1887E+03	0.6873E+00	1670	-0.1887E+03	0.6151E+00	1671	-0.1887E+03	-0.3923E+00	1672	-0.1887E+03	-0.4171E+00
1673	-0.5555E+01	-0.8757E+00	1674	-0.5554E+01	-0.8785E+00	1675	-0.5558E+01	-0.7887E+00	1676	-0.5555E+01	-0.7948E+00
1677	-0.4345E+01	0.4677E-01	1678	-0.4345E+01	0.4300E-01	1679	-0.4346E+01	0.1423E+00	1680	-0.4347E+01	0.1316E+00
1681	-0.4345E+01	0.2376E+00	1682	-0.4345E+01	0.2202E+00	1683	-0.4345E+01	0.3331E+00	1684	-0.4344E+01	0.3088E+00
1685	-0.4346E+01	0.4286E+00	1686	-0.4343E+01	0.3971E+00	1687	-0.4344E+01	0.5239E+00	1688	-0.4343E+01	0.4857E+00
1689	-0.4341E+01	0.6188E+00	1690	-0.4341E+01	0.5741E+00	1691	-0.4341E+01	0.7145E+00	1692	-0.4338E+01	0.6622E+00
1693	-0.4340E+01	0.8099E+00	1694	-0.4335E+01	0.7505E+00	1695	-0.4337E+01	0.9048E+00	1696	-0.4334E+01	0.8390E+00
1697	-0.4334E+01	0.1000E+01	1698	-0.4332E+01	0.9274E+00	1699	-0.4333E+01	0.1096E+01	1700	-0.4330E+01	0.1016E+01
1701	-0.4329E+01	0.1191E+01	1702	-0.4327E+01	0.1105E+01	1703	-0.4327E+01	0.1287E+01	1704	-0.4323E+01	0.1193E+01
1705	-0.1297E+03	0.7614E+00	1706	-0.1297E+03	0.8873E+00	1707	-0.1297E+03	-0.3674E+00	1708	-0.1297E+03	-0.3823E+00
1709	-0.4324E+01	-0.8741E+00	1710	-0.4324E+01	-0.8760E+00	1711	-0.4323E+01	-0.7834E+00	1712	-0.4323E+01	-0.7885E+00
1713	-0.3061E+01	0.5078E-01	1714	-0.3061E+01	0.4679E-01	1715	-0.3061E+01	0.1535E+00	1716	-0.3062E+01	0.1423E+00
1717	-0.3060E+01	0.2582E+00	1718	-0.3059E+01	0.2378E+00	1719	-0.3059E+01	0.3589E+00	1720	-0.3059E+01	0.3331E+00
1721	-0.3050E+01	0.4619E+00	1722	-0.3058E+01	0.4288E+00	1723	-0.3058E+01	0.5644E+00	1724	-0.3056E+01	0.5238E+00
1725	-0.3058E+01	0.6689E+00	1726	-0.3054E+01	0.6189E+00	1727	-0.3054E+01	0.7693E+00	1728	-0.3052E+01	0.7141E+00
1729	-0.3054E+01	0.8724E+00	1730	-0.3050E+01	0.8093E+00	1731	-0.3052E+01	0.9748E+00	1732	-0.3048E+01	0.9047E+00
1733	-0.3049E+01	0.1077E+01	1734	-0.3046E+01	0.1000E+01	1735	-0.3046E+01	0.1180E+01	1736	-0.3042E+01	0.1095E+01
1737	-0.3043E+01	0.1283E+01	1738	-0.3042E+01	0.1192E+01	1739	-0.3041E+01	0.1387E+01	1740	-0.3038E+01	0.1288E+01
1741	-0.9113E+02	0.8398E+00	1742	-0.9113E+02	0.7615E+00	1743	-0.9113E+02	-0.3420E+00	1744	-0.9113E+02	-0.3675E+00
1745	-0.3038E+01	-0.8734E+00	1746	-0.3038E+01	-0.8743E+00	1747	-0.3036E+01	-0.7789E+00	1748	-0.3038E+01	-0.7837E+00
1749	-0.1717E+01	0.5507E-01	1750	-0.1717E+01	0.5078E-01	1751	-0.1719E+01	0.1658E+00	1752	-0.1717E+01	0.1535E+00
1753	-0.1717E+01	0.2764E+00	1754	-0.1717E+01	0.2564E+00	1755	-0.1717E+01	0.3872E+00	1756	-0.1717E+01	0.3593E+00
1757	-0.1716E+01	0.4978E+00	1758	-0.1714E+01	0.4618E+00	1759	-0.1715E+01	0.6087E+00	1760	-0.1712E+01	0.5640E+00
1761	-0.1712E+01	0.7184E+00	1762	-0.1710E+01	0.6666E+00	1763	-0.1711E+01	0.8294E+00	1764	-0.1709E+01	0.7698E+00
1765	-0.1708E+01	0.9398E+00	1766	-0.1707E+01	0.8721E+00	1767	-0.1707E+01	0.1050E+01	1768	-0.1708E+01	0.9755E+00
1769	-0.1704E+01	0.1161E+01	1770	-0.1701E+01	0.1077E+01	1771	-0.1702E+01	0.1272E+01	1772	-0.1698E+01	0.1180E+01
1773	-0.1699E+01	0.1383E+01	1774	-0.1694E+01	0.1282E+01	1775	-0.1698E+01	0.1494E+01	1776	-0.1692E+01	0.1387E+01
1777	-0.5071E+02	0.9231E+00	1778	-0.5071E+02	0.8389E+00	1779	-0.5072E+02	-0.3158E+00	1780	-0.5072E+02	-0.3418E+00
1781	-0.1692E+01	-0.8739E+00	1782	-0.1692E+01	-0.8738E+00	1783	-0.1693E+01	-0.7766E+00	1784	-0.1692E+01	-0.7783E+00
1785	-0.3107E+00	0.5998E-01	1786	-0.3115E+00	0.5536E-01	1787	-0.3104E+00	0.1796E+00	1788	-0.3108E+00	0.1664E+00
1789	-0.3100E+00	0.2983E+00	1790	-0.3099E+00	0.2774E+00	1791	-0.3097E+00	0.4194E+00	1792	-0.3078E+00	0.3868E+00
1793	-0.3084E+00	0.5388E+00	1794	-0.3068E+00	0.4978E+00	1795	-0.3070E+00	0.6582E+00	1796	-0.3052E+00	0.6089E+00
1797	-0.3050E+00	0.7770E+00	1798	-0.3031E+00	0.7193E+00	1799	-0.3031E+00	0.8864E+00	1800	-0.3010E+00	0.8301E+00
1801	-0.3004E+00	0.1014E+01	1802	-0.2980E+00	0.9393E+00	1803	-0.2980E+00	0.1134E+01	1804	-0.2953E+00	0.1050E+01
1805	-0.2957E+00	0.1255E+01	1806	-0.2921E+00	0.1160E+01	1807	-0.2923E+00	0.1374E+01	1808	-0.2890E+00	0.1272E+01
1809	-0.2890E+00	0.1494E+01	1810	-0.2855E+00	0.1384E+01	1811	-0.2854E+00	0.1614E+01	1812	-0.2810E+00	0.1493E+01
1813	-0.8437E+01	0.1017E+01	1814	-0.8448E+01	0.9252E+00	1815	-0.8403E+01	-0.2868E+00	1816	-0.8402E+01	-0.3148E+00
1817	-0.2810E+00	-0.8751E+00	1818	-0.2818E+00	-0.8749E+00	1819	-0.2808E+00	-0.7733E+00	1820	-0.2812E+00	-0.7784E+00
1821	0.1167E+01	0.8602E-01	1822	0.1168E+01	0.5997E-01	1823	0.1165E+01	0.1965E+00	1824	0.1168E+01	0.1796E+00
1825	0.1168E+01	0.3274E+00	1826	0.1168E+01	0.2989E+00	1827	0.1167E+01	0.4579E+00	1828	0.1169E+01	0.4183E+00
1829	0.1168E+01	0.5883E+00	1830	0.1172E+01	0.5384E+00	1831	0.1171E+01	0.7183E+00	1832	0.1173E+01	0.6570E+00
1833	0.1174E+01	0.8504E+00	1834	0.1174E+01	0.7759E+00	1835	0.1176E+01	0.9803E+00	1836	0.1178E+01	0.8958E+00
1837	0.1178E+01	0.1110E+01	1838	0.1182E+01	0.1016E+01	1839	0.1181E+01	0.1239E+01	1840	0.1184E+01	0.1134E+01
1841	0.1185E+01	0.1370E+01	1842	0.1188E+01	0.1253E+01	1843	0.1188E+01	0.1500E+01	1844	0.1193E+01	0.1374E+01
1845	0.1193E+01	0.1629E+01	1846	0.1197E+01	0.1483E+01	1847	0.1197E+01	0.1759E+01	1848	0.1203E+01	0.1614E+01
1849	0.3606E+02	0.1129E+01	1850	0.3606E+02	0.1018E+01	1851	0.3607E+02	-0.2550E+00	1852	0.3607E+02	-0.2881E+00
1853	0.1202E+01	-0.8785E+00	1854	0.1201E+01	-0.8747E+00	1855	0.1201E+01	-0.7733E+00	1856	0.1203E+01	-0.7752E+00
1857	0.2675E+01	0.8307E-01	1858	0.2675E+01	0.6590E-01	1859	0.2677E+01	0.2478E+00	1860	0.2678E+01	0.1987E+00
1861	0.2678E+01	0.4115E+00	1862	0.2680E+01	0.3274E+00	1863	0.2681E+01	0.5751E+00	1864	0.2685E+01	0.4583E+00
1865	0.2685E+01	0.7375E+00	1866	0.2691E+01	0.5889E+00	1867	0.2690E+01	0.8986E+00	1868	0.2696E+01	0.7193E+00
1869	0.2696E+01	0.1068E+01	1870	0.2702E+01	0.8494E+00	1871	0.2704E+01	0.1217E+01	1872	0.2709E+01	0.9793E+00
1873	0.2710E+01	0.1373E+01	1874	0.2720E+01	0.1110E+01	1875	0.2720E+01	0.1527E+01	1876	0.2730E+01	0.1240E+01
1877	0.2729E+01	0.1678E+01	1878	0.2738E+01	0.1369E+01	1879	0.2740E+01	0.1828E+01	1880	0.2749E+01	0.1498E+01
1881	0.2750E+01	0.1972E+01	1882	0.2762E+01	0.1629E+01	1883	0.2761E+01	0.2114E+01	1884	0.2774E+01	0.1759E+01
1885	0.8316E+02	0.1407E+01	1886	0.8317E+02	0.1128E+01	1887	0.8318E+02	-0.1517E+00	1888	0.8318E+02	-0.2548E+00
1889	0.2773E+01	-0.8572E+00	1890	0.2775E+01	-0.8792E+00	1891	0.2773E+01	-0.7703E+00	1892	0.2775E+01	-0.7742E+00
1893	0.3581E+01	0.1876E+00	1894	0.3585E+01	0.8310E-01	1895	0.3585E+01	0.6306E+00	1896	0.3589E+01	0.2478E+00
1897	0.3598E+01	0.1074E+01	1898	0.3620E+01	0.4116E+00	1899	0.3621E+01	0.1520E+01	1900	0.3653E+01	0.5752E+00

1901	0.3851E+01	0.1967E+01	1902	0.3891E+01	0.7372E+00	1903	0.3891E+01	0.2416E+01	1904	0.3742E+01	0.8986E+00
1905	0.3742E+01	0.2870E+01	1906	0.3803E+01	0.1059E+01	1907	0.3803E+01	0.3328E+01	1908	0.3873E+01	0.1217E+01
1909	0.3874E+01	0.3792E+01	1910	0.3954E+01	0.1373E+01	1911	0.3955E+01	0.4261E+01	1912	0.4048E+01	0.1527E+01
1913	0.4044E+01	0.4734E+01	1914	0.4148E+01	0.1679E+01	1915	0.4146E+01	0.5216E+01	1916	0.4250E+01	0.1827E+01
1917	0.4250E+01	0.5707E+01	1918	0.4384E+01	0.1972E+01	1919	0.4384E+01	0.6205E+01	1920	0.4521E+01	0.2114E+01
1921	0.1358E+03	0.1108E+02	1922	0.1360E+03	0.1408E+01	1923	0.1360E+03	0.1115E+02	1924	0.1363E+03	-0.1522E+00
1925	0.4544E+01	0.8848E+01	1926	0.4801E+01	-0.8675E+00	1927	0.4801E+01	-0.1761E+01	1928	0.4789E+01	-0.7705E+00

6.5.4.3 Finite Element Grid Output to a Disk File for Plotting.

EXAMPLE DATA SET: SIMULATION OF THE POST-MINING FLOW SYSTEM; NO MASS TRANSPORT

1041 1928

1	0.0	90.000	F	2	0.0	100.000	F	3	0.0	110.000	F	4	0.0	120.000	F
5	0.0	130.000	F	6	0.0	140.000	F	7	0.0	150.000	F	8	0.0	160.000	F
9	0.0	170.000	F	10	0.0	180.000	F	11	0.0	190.000	F	12	0.0	200.000	F
13	0.0	210.000	T	14	0.0	220.000	T	15	0.0	230.000	T	16	300.000	90.000	F
17	300.000	100.000	F	18	300.000	110.000	F	19	300.000	120.000	F	20	300.000	130.000	F
21	300.000	140.000	F	22	300.000	150.000	F	23	300.000	160.000	F	24	300.000	170.000	F
25	300.000	180.000	F	26	300.000	190.000	F	27	300.000	200.000	F	28	300.000	210.000	F
29	300.000	220.000	F	30	300.000	232.574	F	31	600.000	90.000	F	32	600.000	100.000	F
33	600.000	110.000	F	34	600.000	120.000	F	35	600.000	130.000	F	36	600.000	140.000	F
37	600.000	150.000	F	38	600.000	160.000	F	39	600.000	170.000	F	40	600.000	180.000	F
41	600.000	190.000	F	42	600.000	200.000	F	43	600.000	210.000	F	44	600.000	220.000	F
45	600.000	230.000	F	46	600.000	234.106	F	47	900.000	90.000	F	48	900.000	100.000	F
49	900.000	110.000	F	50	900.000	120.000	F	51	900.000	130.000	F	52	900.000	140.000	F
53	900.000	150.000	F	54	900.000	160.000	F	55	900.000	170.000	F	56	900.000	180.000	F
57	900.000	190.000	F	58	900.000	200.000	F	59	900.000	210.000	F	60	900.000	220.000	F
61	900.000	230.000	F	62	900.000	235.160	F	63	1200.000	90.000	F	64	1200.000	100.000	F
65	1200.000	110.000	F	66	1200.000	120.000	F	67	1200.000	130.000	F	68	1200.000	140.000	F
69	1200.000	150.000	F	70	1200.000	160.000	F	71	1200.000	170.000	F	72	1200.000	180.000	F
73	1200.000	190.000	F	74	1200.000	200.000	F	75	1200.000	210.000	F	76	1200.000	220.000	F
77	1200.000	230.000	F	78	1200.000	236.065	F	79	1500.000	90.000	F	80	1500.000	100.000	F
81	1500.000	110.000	F	82	1500.000	120.000	F	83	1500.000	130.000	F	84	1500.000	140.000	F
85	1500.000	150.000	F	86	1500.000	160.000	F	87	1500.000	170.000	F	88	1500.000	180.000	F
89	1500.000	190.000	F	90	1500.000	200.000	F	91	1500.000	210.000	F	92	1500.000	220.000	F
93	1500.000	230.000	F	94	1500.000	236.849	F	95	1800.000	90.000	F	96	1800.000	100.000	F
97	1800.000	110.000	F	98	1800.000	120.000	F	99	1800.000	130.000	F	100	1800.000	140.000	F
101	1800.000	150.000	F	102	1800.000	160.000	F	103	1800.000	170.000	F	104	1800.000	180.000	F
105	1800.000	190.000	F	106	1800.000	200.000	F	107	1800.000	210.000	F	108	1800.000	220.000	F
109	1800.000	230.000	F	110	1800.000	237.531	F	111	2100.000	90.000	F	112	2100.000	100.000	F
113	2100.000	110.000	F	114	2100.000	120.000	F	115	2100.000	130.000	F	116	2100.000	140.000	F
117	2100.000	150.000	F	118	2100.000	160.000	F	119	2100.000	170.000	F	120	2100.000	180.000	F
121	2100.000	190.000	F	122	2100.000	200.000	F	123	2100.000	210.000	F	124	2100.000	220.000	F
125	2100.000	230.000	F	126	2100.000	238.125	F	127	2400.000	90.000	F	128	2400.000	100.000	F
129	2400.000	110.000	F	130	2400.000	120.000	F	131	2400.000	130.000	F	132	2400.000	140.000	F
133	2400.000	150.000	F	134	2400.000	160.000	F	135	2400.000	170.000	F	136	2400.000	180.000	F
137	2400.000	190.000	F	138	2400.000	200.000	F	139	2400.000	210.000	F	140	2400.000	220.000	F
141	2400.000	230.000	F	142	2400.000	238.843	F	143	2700.000	90.000	F	144	2700.000	100.000	F
145	2700.000	110.000	F	146	2700.000	120.000	F	147	2700.000	130.000	F	148	2700.000	140.000	F
149	2700.000	150.000	F	150	2700.000	160.000	F	151	2700.000	170.000	F	152	2700.000	180.000	F
153	2700.000	190.000	F	154	2700.000	200.000	F	155	2700.000	210.000	F	156	2700.000	220.000	F
157	2700.000	230.000	F	158	2700.000	239.090	F	159	3000.000	90.000	F	160	3000.000	100.000	F
161	3000.000	110.000	F	162	3000.000	120.000	F	163	3000.000	130.000	F	164	3000.000	140.000	F
165	3000.000	150.000	F	166	3000.000	160.000	F	167	3000.000	170.000	F	168	3000.000	180.000	F
169	3000.000	190.000	F	170	3000.000	200.000	F	171	3000.000	210.000	F	172	3000.000	220.000	F
173	3000.000	230.000	F	174	3000.000	239.474	F	175	3300.000	90.000	F	176	3300.000	100.000	F
177	3300.000	110.000	F	178	3300.000	120.000	F	179	3300.000	130.000	F	180	3300.000	140.000	F
181	3300.000	150.000	F	182	3300.000	160.000	F	183	3300.000	170.000	F	184	3300.000	180.000	F
185	3300.000	190.000	F	186	3300.000	200.000	F	187	3300.000	210.000	F	188	3300.000	220.000	F
189	3300.000	230.000	F	190	3300.000	239.788	F	191	3600.000	90.000	F	192	3600.000	100.000	F
193	3600.000	110.000	F	194	3600.000	120.000	F	195	3600.000	130.000	F	196	3600.000	140.000	F
197	3600.000	150.000	F	198	3600.000	160.000	F	199	3600.000	170.000	F	200	3600.000	180.000	F
201	3600.000	190.000	F	202	3600.000	200.000	F	203	3600.000	210.000	F	204	3600.000	220.000	F
205	3600.000	230.000	F	206	3600.000	240.088	F	207	3900.000	90.000	F	208	3900.000	100.000	F
209	3900.000	110.000	F	210	3900.000	120.000	F	211	3900.000	130.000	F	212	3900.000	140.000	F
213	3900.000	150.000	F	214	3900.000	160.000	F	215	3900.000	170.000	F	216	3900.000	180.000	F
217	3900.000	190.000	F	218	3900.000	200.000	F	219	3900.000	210.000	F	220	3900.000	220.000	F
221	3900.000	230.000	F	222	3900.000	240.285	F	223	4200.000	90.000	F	224	4200.000	100.000	F
225	4200.000	110.000	F	226	4200.000	120.000	F	227	4200.000	130.000	F	228	4200.000	140.000	F
229	4200.000	150.000	F	230	4200.000	160.000	F	231	4200.000	170.000	F	232	4200.000	180.000	F

233	4200.000	190.000	F	234	4200.000	200.000	F	235	4200.000	210.000	F	236	4200.000	220.000	F
237	4200.000	230.000	F	238	4200.000	240.453	F	239	4500.000	90.000	F	240	4500.000	100.000	F
241	4500.000	110.000	F	242	4500.000	120.000	F	243	4500.000	130.000	F	244	4500.000	140.000	F
245	4500.000	150.000	F	246	4500.000	160.000	F	247	4500.000	170.000	F	248	4500.000	180.000	F
249	4500.000	190.000	F	250	4500.000	200.000	F	251	4500.000	210.000	F	252	4500.000	220.000	F
253	4500.000	230.000	F	254	4500.000	240.574	F	255	4800.000	90.000	F	256	4800.000	100.000	F
257	4800.000	110.000	F	258	4800.000	120.000	F	259	4800.000	130.000	F	260	4800.000	140.000	F
261	4800.000	150.000	F	262	4800.000	160.000	F	263	4800.000	170.000	F	264	4800.000	180.000	F
265	4800.000	190.000	F	266	4800.000	200.000	F	267	4800.000	210.000	F	268	4800.000	220.000	F
269	4800.000	230.000	F	270	4800.000	240.851	F	271	5100.000	90.000	F	272	5100.000	100.000	F
273	5100.000	110.000	F	274	5100.000	120.000	F	275	5100.000	130.000	F	276	5100.000	140.000	F
277	5100.000	150.000	F	278	5100.000	160.000	F	279	5100.000	170.000	F	280	5100.000	180.000	F
281	5100.000	190.000	F	282	5100.000	200.000	F	283	5100.000	210.000	F	284	5100.000	220.000	F
285	5100.000	230.000	F	286	5100.000	240.885	F	287	5400.000	90.000	F	288	5400.000	100.000	F
289	5400.000	110.000	F	290	5400.000	120.000	F	291	5400.000	130.000	F	292	5400.000	140.000	F
293	5400.000	150.000	F	294	5400.000	160.000	F	295	5400.000	170.000	F	296	5400.000	180.000	F
297	5400.000	190.000	F	298	5400.000	200.000	F	299	5400.000	210.000	F	300	5400.000	220.000	F
301	5400.000	230.000	F	302	5400.000	240.879	F	303	5700.000	90.000	F	304	5700.000	100.000	F
305	5700.000	110.000	F	306	5700.000	120.000	F	307	5700.000	130.000	F	308	5700.000	140.000	F
309	5700.000	150.000	F	310	5700.000	160.000	F	311	5700.000	170.000	F	312	5700.000	180.000	F
313	5700.000	190.000	F	314	5700.000	200.000	F	315	5700.000	210.000	F	316	5700.000	220.000	F
317	5700.000	230.000	F	318	5700.000	240.635	F	319	6000.000	90.000	F	320	6000.000	100.000	F
321	6000.000	110.000	F	322	6000.000	120.000	F	323	6000.000	130.000	F	324	6000.000	140.000	F
325	6000.000	150.000	F	326	6000.000	160.000	F	327	6000.000	170.000	F	328	6000.000	180.000	F
329	6000.000	190.000	F	330	6000.000	200.000	F	331	6000.000	210.000	F	332	6000.000	220.000	F
333	6000.000	230.000	F	334	6000.000	240.556	F	335	6300.000	90.000	F	336	6300.000	100.000	F
337	6300.000	110.000	F	338	6300.000	120.000	F	339	6300.000	130.000	F	340	6300.000	140.000	F
341	6300.000	150.000	F	342	6300.000	160.000	F	343	6300.000	170.000	F	344	6300.000	180.000	F
345	6300.000	190.000	F	346	6300.000	200.000	F	347	6300.000	210.000	F	348	6300.000	220.000	F
349	6300.000	230.000	F	350	6300.000	240.442	F	351	6600.000	90.000	F	352	6600.000	100.000	F
353	6600.000	110.000	F	354	6600.000	120.000	F	355	6600.000	130.000	F	356	6600.000	140.000	F
357	6600.000	150.000	F	358	6600.000	160.000	F	359	6600.000	170.000	F	360	6600.000	180.000	F
361	6600.000	190.000	F	362	6600.000	200.000	F	363	6600.000	210.000	F	364	6600.000	220.000	F
365	6600.000	230.000	F	366	6600.000	240.288	F	367	6900.000	90.000	F	368	6900.000	100.000	F
369	6900.000	110.000	F	370	6900.000	120.000	F	371	6900.000	130.000	F	372	6900.000	140.000	F
373	6900.000	150.000	F	374	6900.000	160.000	F	375	6900.000	170.000	F	376	6900.000	180.000	F
377	6900.000	190.000	F	378	6900.000	200.000	F	379	6900.000	210.000	F	380	6900.000	220.000	F
381	6900.000	230.000	F	382	6900.000	240.127	F	383	7200.000	90.000	F	384	7200.000	100.000	F
385	7200.000	110.000	F	386	7200.000	120.000	F	387	7200.000	130.000	F	388	7200.000	140.000	F
389	7200.000	150.000	F	390	7200.000	160.000	F	391	7200.000	170.000	F	392	7200.000	180.000	F
393	7200.000	190.000	F	394	7200.000	200.000	F	395	7200.000	210.000	F	396	7200.000	220.000	F
397	7200.000	230.000	F	398	7200.000	239.841	F	399	7500.000	90.000	F	400	7500.000	100.000	F
401	7500.000	110.000	F	402	7500.000	120.000	F	403	7500.000	130.000	F	404	7500.000	140.000	F
405	7500.000	150.000	F	406	7500.000	160.000	F	407	7500.000	170.000	F	408	7500.000	180.000	F
409	7500.000	190.000	F	410	7500.000	200.000	F	411	7500.000	210.000	F	412	7500.000	220.000	F
413	7500.000	230.000	F	414	7500.000	239.246	F	415	7800.000	90.000	F	416	7800.000	100.000	F
417	7800.000	110.000	F	418	7800.000	120.000	F	419	7800.000	130.000	F	420	7800.000	140.000	F
421	7800.000	150.000	F	422	7800.000	160.000	F	423	7800.000	170.000	F	424	7800.000	180.000	F
425	7800.000	190.000	F	426	7800.000	200.000	F	427	7800.000	210.000	F	428	7800.000	220.000	F
429	7800.000	230.000	F	430	7800.000	238.588	F	431	8100.000	90.000	F	432	8100.000	100.000	F
433	8100.000	110.000	F	434	8100.000	120.000	F	435	8100.000	130.000	F	436	8100.000	140.000	F
437	8100.000	150.000	F	438	8100.000	160.000	F	439	8100.000	170.000	F	440	8100.000	180.000	F
441	8100.000	190.000	F	442	8100.000	200.000	F	443	8100.000	210.000	F	444	8100.000	220.000	F
445	8100.000	230.000	F	446	8100.000	238.005	F	447	8400.000	90.000	F	448	8400.000	100.000	F
449	8400.000	110.000	F	450	8400.000	120.000	F	451	8400.000	130.000	F	452	8400.000	140.000	F
453	8400.000	150.000	F	454	8400.000	160.000	F	455	8400.000	170.000	F	456	8400.000	180.000	F
457	8400.000	190.000	F	458	8400.000	200.000	F	459	8400.000	210.000	F	460	8400.000	220.000	F
461	8400.000	230.000	F	462	8400.000	237.578	F	463	8700.000	90.000	F	464	8700.000	100.000	F
465	8700.000	110.000	F	466	8700.000	120.000	F	467	8700.000	130.000	F	468	8700.000	140.000	F
469	8700.000	150.000	F	470	8700.000	160.000	F	471	8700.000	170.000	F	472	8700.000	180.000	F

473	8700.000	190.000	F	474	8700.000	200.000	F	475	8700.000	210.000	F	476	8700.000	220.000	F
477	8700.000	230.000	F	478	8700.000	237.408	F	479	8000.000	90.000	F	480	8000.000	100.000	F
481	8000.000	110.000	F	482	8000.000	120.000	F	483	8000.000	130.000	F	484	8000.000	140.000	F
485	8000.000	150.000	F	486	8000.000	160.000	F	487	8000.000	170.000	F	488	8000.000	180.000	F
489	8000.000	190.000	F	490	8000.000	200.000	F	491	8000.000	210.000	F	492	8000.000	220.000	F
493	8000.000	230.000	F	494	8000.000	237.814	F	495	8300.000	90.000	F	496	8300.000	100.000	F
497	8300.000	110.000	F	498	8300.000	120.000	F	499	8300.000	130.000	F	500	8300.000	140.000	F
501	8300.000	150.000	F	502	8300.000	160.000	F	503	8300.000	170.000	F	504	8300.000	180.000	F
505	8300.000	190.000	F	506	8300.000	200.000	F	507	8300.000	210.000	F	508	8300.000	220.000	F
509	8300.000	230.000	F	510	8300.000	238.353	F	511	8600.000	90.000	F	512	8600.000	100.000	F
513	8600.000	110.000	F	514	8600.000	120.000	F	515	8600.000	130.000	F	516	8600.000	140.000	F
517	8600.000	150.000	F	518	8600.000	160.000	F	519	8600.000	170.000	F	520	8600.000	180.000	F
521	8600.000	190.000	F	522	8600.000	200.000	F	523	8600.000	210.000	F	524	8600.000	220.000	F
525	8600.000	230.000	F	526	8600.000	239.015	F	527	8900.000	90.000	F	528	8900.000	100.000	F
529	8900.000	110.000	F	530	8900.000	120.000	F	531	8900.000	130.000	F	532	8900.000	140.000	F
533	8900.000	150.000	F	534	8900.000	160.000	F	535	8900.000	170.000	F	536	8900.000	180.000	F
537	8900.000	190.000	F	538	8900.000	200.000	F	539	8900.000	210.000	F	540	8900.000	220.000	F
541	8900.000	230.000	F	542	8800.000	240.000	F	543	8800.000	242.858	F	544	10200.000	90.000	F
545	10200.000	100.000	F	546	10200.000	110.000	F	547	10200.000	120.000	F	548	10200.000	130.000	F
549	10200.000	140.000	F	550	10200.000	150.000	F	551	10200.000	160.000	F	552	10200.000	170.000	F
553	10200.000	180.000	F	554	10200.000	190.000	F	555	10200.000	200.000	F	556	10200.000	210.000	F
557	10200.000	220.000	F	558	10200.000	230.000	F	559	10200.000	240.000	F	560	10200.000	247.282	F
561	10500.000	90.000	F	562	10500.000	100.000	F	563	10500.000	110.000	F	564	10500.000	120.000	F
565	10500.000	130.000	F	566	10500.000	140.000	F	567	10500.000	150.000	F	568	10500.000	160.000	F
569	10500.000	170.000	F	570	10500.000	180.000	F	571	10500.000	190.000	F	572	10500.000	200.000	F
573	10500.000	210.000	F	574	10500.000	220.000	F	575	10500.000	230.000	F	576	10500.000	240.000	F
577	10500.000	248.508	F	578	10800.000	90.000	F	579	10800.000	100.000	F	580	10800.000	110.000	F
581	10800.000	120.000	F	582	10800.000	130.000	F	583	10800.000	140.000	F	584	10800.000	150.000	F
585	10800.000	160.000	F	586	10800.000	170.000	F	587	10800.000	180.000	F	588	10800.000	190.000	F
589	10800.000	200.000	F	590	10800.000	210.000	F	591	10800.000	220.000	F	592	10800.000	230.000	F
593	10800.000	240.000	F	594	10800.000	249.881	F	595	11100.000	90.000	F	596	11100.000	100.000	F
597	11100.000	110.000	F	598	11100.000	120.000	F	599	11100.000	130.000	F	600	11100.000	140.000	F
601	11100.000	150.000	F	602	11100.000	160.000	F	603	11100.000	170.000	F	604	11100.000	180.000	F
605	11100.000	190.000	F	606	11100.000	200.000	F	607	11100.000	210.000	F	608	11100.000	220.000	F
609	11100.000	230.000	F	610	11100.000	240.000	F	611	11100.000	251.233	F	612	11400.000	90.000	F
613	11400.000	100.000	F	614	11400.000	110.000	F	615	11400.000	120.000	F	616	11400.000	130.000	F
617	11400.000	140.000	F	618	11400.000	150.000	F	619	11400.000	160.000	F	620	11400.000	170.000	F
621	11400.000	180.000	F	622	11400.000	180.000	F	623	11400.000	200.000	F	624	11400.000	210.000	F
625	11400.000	220.000	F	626	11400.000	230.000	F	627	11400.000	240.000	F	628	11400.000	250.000	F
629	11400.000	252.858	F	630	11700.000	90.000	F	631	11700.000	100.000	F	632	11700.000	110.000	F
633	11700.000	120.000	F	634	11700.000	130.000	F	635	11700.000	140.000	F	636	11700.000	150.000	F
637	11700.000	160.000	F	638	11700.000	170.000	F	639	11700.000	180.000	F	640	11700.000	190.000	F
641	11700.000	200.000	F	642	11700.000	210.000	F	643	11700.000	220.000	F	644	11700.000	230.000	F
645	11700.000	240.000	F	646	11700.000	250.000	F	647	11700.000	254.151	F	648	12000.000	90.000	F
649	12000.000	100.000	F	650	12000.000	110.000	F	651	12000.000	120.000	F	652	12000.000	130.000	F
653	12000.000	140.000	F	654	12000.000	150.000	F	655	12000.000	160.000	F	656	12000.000	170.000	F
657	12000.000	180.000	F	658	12000.000	180.000	F	659	12000.000	200.000	F	660	12000.000	210.000	F
661	12000.000	220.000	F	662	12000.000	230.000	F	663	12000.000	240.000	F	664	12000.000	250.000	F
665	12000.000	255.643	F	666	12300.000	90.000	F	667	12300.000	100.000	F	668	12300.000	110.000	F
669	12300.000	120.000	F	670	12300.000	130.000	F	671	12300.000	140.000	F	672	12300.000	150.000	F
673	12300.000	160.000	F	674	12300.000	170.000	F	675	12300.000	180.000	F	676	12300.000	190.000	F
677	12300.000	200.000	F	678	12300.000	210.000	F	679	12300.000	220.000	F	680	12300.000	230.000	F
681	12300.000	240.000	F	682	12300.000	250.000	F	683	12300.000	257.119	F	684	12600.000	90.000	F
685	12600.000	100.000	F	686	12600.000	110.000	F	687	12600.000	120.000	F	688	12600.000	130.000	F
689	12600.000	140.000	F	690	12600.000	150.000	F	691	12600.000	160.000	F	692	12600.000	170.000	F
693	12600.000	180.000	F	694	12600.000	190.000	F	695	12600.000	200.000	F	696	12600.000	210.000	F
697	12600.000	220.000	F	698	12600.000	230.000	F	699	12600.000	240.000	F	700	12600.000	250.000	F
701	12600.000	258.565	F	702	12900.000	90.000	F	703	12900.000	100.000	F	704	12900.000	110.000	F
705	12900.000	120.000	F	706	12900.000	130.000	F	707	12900.000	140.000	F	708	12900.000	150.000	F
709	12900.000	160.000	F	710	12900.000	170.000	F	711	12900.000	180.000	F	712	12900.000	190.000	F

713	12900.000	200.000	F	714	12900.000	210.000	F	715	12900.000	220.000	F	716	12900.000	230.000	F
717	12900.000	240.000	F	718	12900.000	250.000	F	719	12900.000	259.888	F	720	13200.000	90.000	F
721	13200.000	100.000	F	722	13200.000	110.000	F	723	13200.000	120.000	F	724	13200.000	130.000	F
725	13200.000	140.000	F	726	13200.000	150.000	F	727	13200.000	160.000	F	728	13200.000	170.000	F
729	13200.000	180.000	F	730	13200.000	190.000	F	731	13200.000	200.000	F	732	13200.000	210.000	F
733	13200.000	220.000	F	734	13200.000	230.000	F	735	13200.000	240.000	F	736	13200.000	250.000	F
737	13200.000	261.317	F	738	13500.000	90.000	F	739	13500.000	100.000	F	740	13500.000	110.000	F
741	13500.000	120.000	F	742	13500.000	130.000	F	743	13500.000	140.000	F	744	13500.000	150.000	F
745	13500.000	160.000	F	746	13500.000	170.000	F	747	13500.000	180.000	F	748	13500.000	190.000	F
749	13500.000	200.000	F	750	13500.000	210.000	F	751	13500.000	220.000	F	752	13500.000	230.000	F
753	13500.000	240.000	F	754	13500.000	250.000	F	755	13500.000	260.000	F	756	13500.000	262.801	F
757	13800.000	90.000	F	758	13800.000	100.000	F	759	13800.000	110.000	F	760	13800.000	120.000	F
761	13800.000	130.000	F	762	13800.000	140.000	F	763	13800.000	150.000	F	764	13800.000	160.000	F
765	13800.000	170.000	F	766	13800.000	180.000	F	767	13800.000	190.000	F	768	13800.000	200.000	F
769	13800.000	210.000	F	770	13800.000	220.000	F	771	13800.000	230.000	F	772	13800.000	240.000	F
773	13800.000	250.000	F	774	13800.000	260.000	F	775	13800.000	263.813	F	776	14100.000	90.000	F
777	14100.000	100.000	F	778	14100.000	110.000	F	779	14100.000	120.000	F	780	14100.000	130.000	F
781	14100.000	140.000	F	782	14100.000	150.000	F	783	14100.000	160.000	F	784	14100.000	170.000	F
785	14100.000	180.000	F	786	14100.000	190.000	F	787	14100.000	200.000	F	788	14100.000	210.000	F
789	14100.000	220.000	F	790	14100.000	230.000	F	791	14100.000	240.000	F	792	14100.000	250.000	F
793	14100.000	260.000	F	794	14100.000	264.943	F	795	14400.000	90.000	F	796	14400.000	100.000	F
797	14400.000	110.000	F	798	14400.000	120.000	F	799	14400.000	130.000	F	800	14400.000	140.000	F
801	14400.000	150.000	F	802	14400.000	160.000	F	803	14400.000	170.000	F	804	14400.000	180.000	F
805	14400.000	190.000	F	806	14400.000	200.000	F	807	14400.000	210.000	F	808	14400.000	220.000	F
809	14400.000	230.000	F	810	14400.000	240.000	F	811	14400.000	250.000	F	812	14400.000	260.000	F
813	14400.000	265.986	F	814	14700.000	90.000	F	815	14700.000	100.000	F	816	14700.000	110.000	F
817	14700.000	120.000	F	818	14700.000	130.000	F	819	14700.000	140.000	F	820	14700.000	150.000	F
821	14700.000	160.000	F	822	14700.000	170.000	F	823	14700.000	180.000	F	824	14700.000	190.000	F
825	14700.000	200.000	F	826	14700.000	210.000	F	827	14700.000	220.000	F	828	14700.000	230.000	F
829	14700.000	240.000	F	830	14700.000	250.000	F	831	14700.000	260.000	F	832	14700.000	266.935	F
833	15000.000	90.000	F	834	15000.000	100.000	F	835	15000.000	110.000	F	836	15000.000	120.000	F
837	15000.000	130.000	F	838	15000.000	140.000	F	839	15000.000	150.000	F	840	15000.000	160.000	F
841	15000.000	170.000	F	842	15000.000	180.000	F	843	15000.000	190.000	F	844	15000.000	200.000	F
845	15000.000	210.000	F	846	15000.000	220.000	F	847	15000.000	230.000	F	848	15000.000	240.000	F
849	15000.000	250.000	F	850	15000.000	260.000	F	851	15000.000	267.788	F	852	15300.000	90.000	F
853	15300.000	100.000	F	854	15300.000	110.000	F	855	15300.000	120.000	F	856	15300.000	130.000	F
857	15300.000	140.000	F	858	15300.000	150.000	F	859	15300.000	160.000	F	860	15300.000	170.000	F
861	15300.000	180.000	F	862	15300.000	190.000	F	863	15300.000	200.000	F	864	15300.000	210.000	F
865	15300.000	220.000	F	866	15300.000	230.000	F	867	15300.000	240.000	F	868	15300.000	250.000	F
869	15300.000	260.000	F	870	15300.000	268.536	F	871	15600.000	90.000	F	872	15600.000	100.000	F
873	15600.000	110.000	F	874	15600.000	120.000	F	875	15600.000	130.000	F	876	15600.000	140.000	F
877	15600.000	150.000	F	878	15600.000	160.000	F	879	15600.000	170.000	F	880	15600.000	180.000	F
881	15600.000	190.000	F	882	15600.000	200.000	F	883	15600.000	210.000	F	884	15600.000	220.000	F
885	15600.000	230.000	F	886	15600.000	240.000	F	887	15600.000	250.000	F	888	15600.000	260.000	F
889	15600.000	269.175	F	890	15900.000	90.000	F	891	15900.000	100.000	F	892	15900.000	110.000	F
893	15900.000	120.000	F	894	15900.000	130.000	F	895	15900.000	140.000	F	896	15900.000	150.000	F
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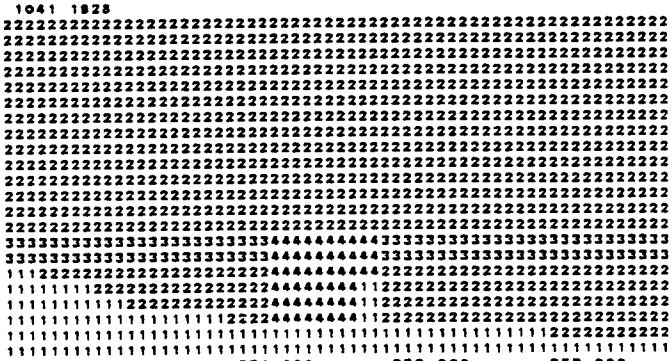
6.5.4.4 Hydraulic Gradient Field Output to a Disk File for Plotting.

7.5

1041 1928



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295.000	295.000	295.000	295.000	295.000										
1	0.0	90.000	2	0.0	100.000	3	0.0	110.000	4	0.0	120.000	5	0.0	130.000
6	0.0	140.000	7	0.0	150.000	8	0.0	160.000	9	0.0	170.000	10	0.0	180.000
11	0.0	190.000	12	0.0	200.000	13	0.0	210.000	14	0.0	220.000	15	0.0	230.000
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21	300.000	140.000	22	300.000	150.000	23	300.000	160.000	24	300.000	170.000	25	300.000	180.000
26	300.000	190.000	27	300.000	200.000	28	300.000	210.000	29	300.000	220.000	30	300.000	232.574
31	600.000	90.000	32	600.000	100.000	33	600.000	110.000	34	600.000	120.000	35	600.000	130.000
36	600.000	140.000	37	600.000	150.000	38	600.000	160.000	39	600.000	170.000	40	600.000	180.000
41	600.000	190.000	42	600.000	200.000	43	600.000	210.000	44	600.000	220.000	45	600.000	230.000
46	600.000	234.108	47	900.000	90.000	48	900.000	100.000	49	900.000	110.000	50	900.000	120.000
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56	900.000	180.000	57	900.000	190.000	58	900.000	200.000	59	900.000	210.000	60	900.000	220.000
61	900.000	230.000	62	900.000	235.180	63	1200.000	90.000	64	1200.000	100.000	65	1200.000	110.000
66	1200.000	120.000	67	1200.000	130.000	68	1200.000	140.000	69	1200.000	150.000	70	1200.000	160.000
71	1200.000	170.000	72	1200.000	180.000	73	1200.000	190.000	74	1200.000	200.000	75	1200.000	210.000
76	1200.000	220.000	77	1200.000	230.000	78	1200.000	235.065	79	1500.000	90.000	80	1500.000	100.000
81	1500.000	110.000	82	1500.000	120.000	83	1500.000	130.000	84	1500.000	140.000	85	1500.000	150.000
86	1500.000	160.000	87	1500.000	170.000	88	1500.000	180.000	89	1500.000	190.000	90	1500.000	200.000
91	1500.000	210.000	92	1500.000	220.000	93	1500.000	230.000	94	1500.000	235.849	95	1800.000	90.000
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106	1800.000	200.000	107	1800.000	210.000	108	1800.000	220.000	109	1800.000	230.000	110	1800.000	237.531
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116	2100.000	140.000	117	2100.000	150.000	118	2100.000	160.000	119	2100.000	170.000	120	2100.000	180.000
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136	2400.000	180.000	137	2400.000	190.000	138	2400.000	200.000	139	2400.000	210.000	140	2400.000	220.000
141	2400.000	230.000	142	2400.000	238.643	143	2700.000	90.000	144	2700.000	100.000	145	2700.000	110.000
146	2700.000	120.000	147	2700.000	130.000	148	2700.000	140.000	149	2700.000	150.000	150	2700.000	160.000
151	2700.000	170.000	152	2700.000	180.000	153	2700.000	190.000	154	2700.000	200.000	155	2700.000	210.000
156	2700.000	220.000	157	2700.000	230.000	158	2700.000	239.080	159	3000.000	90.000	160	3000.000	100.000
161	3000.000	110.000	162	3000.000	120.000	163	3000.000	130.000	164	3000.000	140.000	165	3000.000	150.000
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186	3300.000	200.000	187	3300.000	210.000	188	3300.000	220.000	189	3300.000	230.000	190	3300.000	238.788
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216	3900.000	180.000	217	3900.000	190.000	218	3900.000	200.000	219	3900.000	210.000	220	3900.000	220.000
221	3900.000	230.000	222	3900.000	240.285	223	4200.000	90.000	224	4200.000	100.000	225	4200.000	110.000
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231	4200.000	170.000	232	4200.000	180.000	233	4200.000	190.000	234	4200.000	200.000	235	4200.000	210.000
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246	4500.000	160.000	247	4500.000	170.000	248	4500.000	180.000	249	4500.000	190.000	250	4500.000	200.000
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261	4800.000	150.000	262	4800.000	160.000	263	4800.000	170.000	264	4800.000	180.000	265	4800.000	190.000
266	4800.000	200.000	267	4800.000	210.000	268	4800.000	220.000	269	4800.000	230.000	270	4800.000	240.851
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276	5100.000	140.000	277	5100.000	150.000	278	5100.000	160.000	279	5100.000	170.000	280	5100.000	180.000
281	5100.000	190.000	282	5100.000	200.000	283	5100.000	210.000	284	5100.000	220.000	285	5100.000	230.000
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291	5400.000	130.000	292	5400.000	140.000	293	5400.000	150.000	294	5400.000	160.000	295	5400.000	170.000
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311	5700.000	170.000	312	5700.000	180.000	313	5700.000	190.000	314	5700.000	200.000	315	5700.000	210.000
316	5700.000	220.000	317	5700.000	230.000	318	5700.000	240.835	319	6000.000	90.000	320	6000.000	100.000
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326	6000.000	160.000	327	6000.000	170.000	328	6000.000	180.000	329	6000.000	190.000	330	6000.000	200.000
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341	6300.000	150.000	342	6300.000	160.000	343	6300.000	170.000	344	6300.000	180.000	345	6300.000	190.000
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356	6600.000	140.000	357	6600.000	150.000	358	6600.000	160.000	359	6600.000	170.000	360	6600.000	180.000
361	6600.000	190.000	362	6600.000	200.000	363	6600.000	210.000	364	6600.000	220.000	365	6600.000	230.000
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371	6900.000	130.000	372	6900.000	140.000	373	6900.000	150.000	374	6900.000	160.000	375	6900.000	170.000
376	6900.000	180.000	377	6900.000	190.000	378	6900.000	200.000	379	6900.000	210.000	380	6900.000	220.000
381	6900.000	230.000	382	6900.000	240.127	383	7200.000	90.000	384	7200.000	100.000	385	7200.000	110.000
386	7200.000	120.000	387	7200.000	130.000	388	7200.000	140.000	389	7200.000	150.000	390	7200.000	160.000
391	7200.000	170.000	392	7200.000	180.000	393	7200.000	190.000	394	7200.000	200.000	395	7200.000	210.000
396	7200.000	220.000	397	7200.000	230.000	398	7200.000	239.841	399	7500.000	90.000	400	7500.000	100.000
401	7500.000	110.000	402	7500.000	120.000	403	7500.000	130.000	404	7500.000	140.000	405	7500.000	150.000
406	7500.000	160.000	407	7500.000	170.000	408	7500.000	180.000	409	7500.000	190.000	410	7500.000	200.000
411	7500.000	210.000	412	7500.000	220.000	413	7500.000	230.000	414	7500.000	238.248	415	7800.000	90.000
416	7800.000	100.000	417	7800.000	110.000	418	7800.000	120.000	419	7800.000	130.000	420	7800.000	140.000
421	7800.000	150.000	422	7800.000	160.000	423	7800.000	170.000	424	7800.000	180.000	425	7800.000	190.000
426	7800.000	200.000	427	7800.000	210.000	428	7800.000	220.000	429	7800.000	230.000	430	7800.000	238.588
431	8100.000	90.000	432	8100.000	100.000	433	8100.000	110.000	434	8100.000	120.000	435	8100.000	130.000
436	8100.000	140.000	437	8100.000	150.000	438	8100.000	160.000	439	8100.000	170.000	440	8100.000	180.000

441	8100.000	190.000	442	8100.000	200.000	443	8100.000	210.000	444	8100.000	220.000	445	8100.000	230.000
446	8100.000	238.005	447	8400.000	90.000	448	8400.000	100.000	449	8400.000	110.000	450	8400.000	120.000
451	8400.000	130.000	452	8400.000	140.000	453	8400.000	150.000	454	8400.000	160.000	455	8400.000	170.000
456	8400.000	180.000	457	8400.000	190.000	458	8400.000	200.000	459	8400.000	210.000	460	8400.000	220.000
461	8400.000	230.000	462	8400.000	237.576	463	8700.000	90.000	464	8700.000	100.000	465	8700.000	110.000
466	8700.000	120.000	467	8700.000	130.000	468	8700.000	140.000	469	8700.000	150.000	470	8700.000	160.000
471	8700.000	170.000	472	8700.000	180.000	473	8700.000	190.000	474	8700.000	200.000	475	8700.000	210.000
476	8700.000	220.000	477	8700.000	230.000	478	8700.000	237.408	479	9000.000	90.000	480	9000.000	100.000
481	9000.000	110.000	482	9000.000	120.000	483	9000.000	130.000	484	9000.000	140.000	485	9000.000	150.000
486	9000.000	160.000	487	9000.000	170.000	488	9000.000	180.000	489	9000.000	190.000	490	9000.000	200.000
491	9000.000	210.000	492	9000.000	220.000	493	9000.000	230.000	494	9000.000	237.514	495	9300.000	90.000
496	9300.000	100.000	497	9300.000	110.000	498	9300.000	120.000	499	9300.000	130.000	500	9300.000	140.000
501	9300.000	150.000	502	9300.000	160.000	503	9300.000	170.000	504	9300.000	180.000	505	9300.000	190.000
506	9300.000	200.000	507	9300.000	210.000	508	9300.000	220.000	509	9300.000	230.000	510	9300.000	238.353
511	9600.000	90.000	512	9600.000	100.000	513	9600.000	110.000	514	9600.000	120.000	515	9600.000	130.000
516	9600.000	140.000	517	9600.000	150.000	518	9600.000	160.000	519	9600.000	170.000	520	9600.000	180.000
521	9600.000	190.000	522	9800.000	200.000	523	9800.000	210.000	524	9800.000	220.000	525	9800.000	230.000
526	9800.000	239.815	527	9900.000	90.000	528	9900.000	100.000	529	9900.000	110.000	530	9900.000	120.000
531	9900.000	130.000	532	9900.000	140.000	533	9900.000	150.000	534	9900.000	160.000	535	9900.000	170.000
536	9900.000	180.000	537	9900.000	190.000	538	9900.000	200.000	539	9900.000	210.000	540	9900.000	220.000
541	9900.000	230.000	542	9900.000	240.000	543	9900.000	242.858	544	10200.000	90.000	545	10200.000	100.000
546	10200.000	110.000	547	10200.000	120.000	548	10200.000	130.000	549	10200.000	140.000	550	10200.000	150.000
551	10200.000	160.000	552	10200.000	170.000	553	10200.000	180.000	554	10200.000	190.000	555	10200.000	200.000
556	10200.000	210.000	557	10200.000	220.000	558	10200.000	230.000	559	10200.000	240.000	560	10200.000	247.282
561	10500.000	90.000	562	10500.000	100.000	563	10500.000	110.000	564	10500.000	120.000	565	10500.000	130.000
566	10500.000	140.000	567	10500.000	150.000	568	10500.000	160.000	569	10500.000	170.000	570	10500.000	180.000
571	10500.000	190.000	572	10500.000	200.000	573	10500.000	210.000	574	10500.000	220.000	575	10500.000	230.000
576	10500.000	240.000	577	10500.000	248.508	578	10800.000	90.000	579	10800.000	100.000	580	10800.000	110.000
581	10800.000	120.000	582	10800.000	130.000	583	10800.000	140.000	584	10800.000	150.000	585	10800.000	160.000
586	10800.000	170.000	587	10800.000	180.000	588	10800.000	190.000	589	10800.000	200.000	590	10800.000	210.000
591	10800.000	220.000	592	10800.000	230.000	593	10800.000	240.000	594	10800.000	248.851	595	11100.000	90.000
596	11100.000	100.000	597	11100.000	110.000	598	11100.000	120.000	599	11100.000	130.000	600	11100.000	140.000
601	11100.000	150.000	602	11100.000	160.000	603	11100.000	170.000	604	11100.000	180.000	605	11100.000	190.000
606	11100.000	200.000	607	11100.000	210.000	608	11100.000	220.000	609	11100.000	230.000	610	11100.000	240.000
611	11100.000	251.233	612	11400.000	90.000	613	11400.000	100.000	614	11400.000	110.000	615	11400.000	120.000
616	11400.000	130.000	617	11400.000	140.000	618	11400.000	150.000	619	11400.000	160.000	620	11400.000	170.000
621	11400.000	180.000	622	11400.000	190.000	623	11400.000	200.000	624	11400.000	210.000	625	11400.000	220.000
626	11400.000	230.000	627	11400.000	240.000	628	11400.000	250.000	629	11400.000	252.858	630	11700.000	90.000
631	11700.000	100.000	632	11700.000	110.000	633	11700.000	120.000	634	11700.000	130.000	635	11700.000	140.000
636	11700.000	150.000	637	11700.000	160.000	638	11700.000	170.000	639	11700.000	180.000	640	11700.000	190.000
641	11700.000	200.000	642	11700.000	210.000	643	11700.000	220.000	644	11700.000	230.000	645	11700.000	240.000
646	11700.000	250.000	647	11700.000	254.151	648	12000.000	90.000	649	12000.000	100.000	650	12000.000	110.000
651	12000.000	120.000	652	12000.000	130.000	653	12000.000	140.000	654	12000.000	150.000	655	12000.000	160.000
656	12000.000	170.000	657	12000.000	180.000	658	12000.000	190.000	659	12000.000	200.000	660	12000.000	210.000
661	12000.000	220.000	662	12000.000	230.000	663	12000.000	240.000	664	12000.000	250.000	665	12000.000	255.643
666	12300.000	90.000	667	12300.000	100.000	668	12300.000	110.000	669	12300.000	120.000	670	12300.000	130.000
671	12300.000	140.000	672	12300.000	150.000	673	12300.000	160.000	674	12300.000	170.000	675	12300.000	180.000
676	12300.000	190.000	677	12300.000	200.000	678	12300.000	210.000	679	12300.000	220.000	680	12300.000	230.000
681	12300.000	240.000	682	12300.000	250.000	683	12300.000	257.119	684	12800.000	90.000	685	12800.000	100.000
686	12800.000	110.000	687	12800.000	120.000	688	12800.000	130.000	689	12800.000	140.000	690	12800.000	150.000
691	12800.000	160.000	692	12800.000	170.000	693	12800.000	180.000	694	12800.000	190.000	695	12800.000	200.000
696	12800.000	210.000	697	12800.000	220.000	698	12800.000	230.000	699	12800.000	240.000	700	12800.000	250.000
701	12800.000	258.555	702	12800.000	90.000	703	12900.000	100.000	704	12900.000	110.000	705	12900.000	120.000
706	12900.000	130.000	707	12900.000	140.000	708	12900.000	150.000	709	12900.000	160.000	710	12900.000	170.000
711	12900.000	180.000	712	12900.000	190.000	713	12900.000	200.000	714	12900.000	210.000	715	12900.000	220.000
716	12900.000	230.000	717	12900.000	240.000	718	12900.000	250.000	719	12900.000	259.958	720	13200.000	90.000
721	13200.000	100.000	722	13200.000	110.000	723	13200.000	120.000	724	13200.000	130.000	725	13200.000	140.000
726	13200.000	150.000	727	13200.000	160.000	728	13200.000	170.000	729	13200.000	180.000	730	13200.000	190.000
731	13200.000	200.000	732	13200.000	210.000	733	13200.000	220.000	734	13200.000	230.000	735	13200.000	240.000
736	13200.000	250.000	737	13200.000	261.317	738	13500.000	90.000	739	13500.000	100.000	740	13500.000	110.000

741	13500.000	120.000	742	13500.000	130.000	743	13500.000	140.000	744	13500.000	150.000	745	13500.000	160.000
746	13500.000	170.000	747	13500.000	180.000	748	13500.000	190.000	749	13500.000	200.000	750	13500.000	210.000
751	13500.000	220.000	752	13500.000	230.000	753	13500.000	240.000	754	13500.000	250.000	755	13500.000	260.000
756	13500.000	262.801	757	13800.000	90.000	758	13800.000	100.000	759	13800.000	110.000	760	13800.000	120.000
761	13800.000	130.000	762	13800.000	140.000	763	13800.000	150.000	764	13800.000	160.000	765	13800.000	170.000
766	13800.000	180.000	767	13800.000	190.000	768	13800.000	200.000	769	13800.000	210.000	770	13800.000	220.000
771	13800.000	230.000	772	13800.000	240.000	773	13800.000	250.000	774	13800.000	260.000	775	13800.000	263.813
776	14100.000	90.000	777	14100.000	100.000	778	14100.000	110.000	779	14100.000	120.000	780	14100.000	130.000
781	14100.000	140.000	782	14100.000	150.000	783	14100.000	160.000	784	14100.000	170.000	785	14100.000	180.000
786	14100.000	190.000	787	14100.000	200.000	788	14100.000	210.000	789	14100.000	220.000	790	14100.000	230.000
791	14100.000	240.000	792	14100.000	250.000	793	14100.000	260.000	794	14100.000	264.843	795	14400.000	90.000
796	14400.000	100.000	797	14400.000	110.000	798	14400.000	120.000	799	14400.000	130.000	800	14400.000	140.000
801	14400.000	150.000	802	14400.000	160.000	803	14400.000	170.000	804	14400.000	180.000	805	14400.000	190.000
806	14400.000	200.000	807	14400.000	210.000	808	14400.000	220.000	809	14400.000	230.000	810	14400.000	240.000
811	14400.000	250.000	812	14400.000	260.000	813	14400.000	265.988	814	14700.000	90.000	815	14700.000	100.000
816	14700.000	110.000	817	14700.000	120.000	818	14700.000	130.000	819	14700.000	140.000	820	14700.000	150.000
821	14700.000	160.000	822	14700.000	170.000	823	14700.000	180.000	824	14700.000	190.000	825	14700.000	200.000
826	14700.000	210.000	827	14700.000	220.000	828	14700.000	230.000	829	14700.000	240.000	830	14700.000	250.000
831	14700.000	260.000	832	14700.000	268.938	833	15000.000	90.000	834	15000.000	100.000	835	15000.000	110.000
836	15000.000	120.000	837	15000.000	130.000	838	15000.000	140.000	839	15000.000	150.000	840	15000.000	160.000
841	15000.000	170.000	842	15000.000	180.000	843	15000.000	190.000	844	15000.000	200.000	845	15000.000	210.000
846	15000.000	220.000	847	15000.000	230.000	848	15000.000	240.000	849	15000.000	250.000	850	15000.000	260.000
851	15000.000	267.788	852	15300.000	90.000	853	15300.000	100.000	854	15300.000	110.000	855	15300.000	120.000
856	15300.000	130.000	857	15300.000	140.000	858	15300.000	150.000	859	15300.000	160.000	860	15300.000	170.000
861	15300.000	180.000	862	15300.000	190.000	863	15300.000	200.000	864	15300.000	210.000	865	15300.000	220.000
866	15300.000	230.000	867	15300.000	240.000	868	15300.000	250.000	869	15300.000	260.000	870	15300.000	268.538
871	15600.000	90.000	872	15600.000	100.000	873	15600.000	110.000	874	15600.000	120.000	875	15600.000	130.000
876	15600.000	140.000	877	15600.000	150.000	878	15600.000	160.000	879	15600.000	170.000	880	15600.000	180.000
881	15600.000	190.000	882	15600.000	200.000	883	15600.000	210.000	884	15600.000	220.000	885	15600.000	230.000
886	15600.000	240.000	887	15600.000	250.000	888	15600.000	260.000	889	15600.000	268.175	890	15900.000	90.000
891	15900.000	100.000	892	15900.000	110.000	893	15900.000	120.000	894	15900.000	130.000	895	15900.000	140.000
896	15900.000	150.000	897	15900.000	160.000	898	15900.000	170.000	899	15900.000	180.000	900	15800.000	190.000
901	15800.000	200.000	902	15900.000	210.000	903	15900.000	220.000	904	15900.000	230.000	905	15900.000	240.000
906	15800.000	250.000	907	15900.000	260.000	908	15900.000	269.703	909	16200.000	90.000	910	16200.000	100.000
911	16200.000	110.000	912	16200.000	120.000	913	16200.000	130.000	914	16200.000	140.000	915	16200.000	150.000
916	16200.000	160.000	917	16200.000	170.000	918	16200.000	180.000	919	16200.000	190.000	920	16200.000	200.000
921	16200.000	210.000	922	16200.000	220.000	923	16200.000	230.000	924	16200.000	240.000	925	16200.000	250.000
926	16200.000	260.000	927	16200.000	270.113	928	16500.000	90.000	929	16500.000	100.000	930	16500.000	110.000
931	16500.000	120.000	932	16500.000	130.000	933	16500.000	140.000	934	16500.000	150.000	935	16500.000	160.000
936	16500.000	170.000	937	16500.000	180.000	938	16500.000	190.000	939	16500.000	200.000	940	16500.000	210.000
941	16500.000	220.000	942	16500.000	230.000	943	16500.000	240.000	944	16500.000	250.000	945	16500.000	260.000
946	16500.000	270.402	947	16800.000	90.000	948	16800.000	100.000	949	16800.000	110.000	950	16800.000	120.000
951	16800.000	130.000	952	16800.000	140.000	953	16800.000	150.000	954	16800.000	160.000	955	16800.000	170.000
956	16800.000	180.000	957	16800.000	190.000	958	16800.000	200.000	959	16800.000	210.000	960	16800.000	220.000
961	16800.000	230.000	962	16800.000	240.000	963	16800.000	250.000	964	16800.000	260.000	965	16800.000	270.582
966	17100.000	90.000	967	17100.000	100.000	968	17100.000	110.000	969	17100.000	120.000	970	17100.000	130.000
971	17100.000	140.000	972	17100.000	150.000	973	17100.000	160.000	974	17100.000	170.000	975	17100.000	180.000
976	17100.000	190.000	977	17100.000	200.000	978	17100.000	210.000	979	17100.000	220.000	980	17100.000	230.000
981	17100.000	240.000	982	17100.000	250.000	983	17100.000	260.000	984	17100.000	270.588	985	17400.000	90.000
986	17400.000	100.000	987	17400.000	110.000	988	17400.000	120.000	989	17400.000	130.000	990	17400.000	140.000
991	17400.000	150.000	992	17400.000	160.000	993	17400.000	170.000	994	17400.000	180.000	995	17400.000	190.000
996	17400.000	200.000	997	17400.000	210.000	998	17400.000	220.000	999	17400.000	230.000	1000	17400.000	240.000
1001	17400.000	250.000	1002	17400.000	260.000	1003	17400.000	270.475	1004	17700.000	90.000	1005	17700.000	100.000
1006	17700.000	110.000	1007	17700.000	120.000	1008	17700.000	130.000	1009	17700.000	140.000	1010	17700.000	150.000
1011	17700.000	160.000	1012	17700.000	170.000	1013	17700.000	180.000	1014	17700.000	190.000	1015	17700.000	200.000
1016	17700.000	210.000	1017	17700.000	220.000	1018	17700.000	230.000	1019	17700.000	240.000	1020	17700.000	250.000
1021	17700.000	260.000	1022	17700.000	270.211	1023	18000.000	90.000	1024	18000.000	100.000	1025	18000.000	110.000
1026	18000.000	120.000	1027	18000.000	130.000	1028	18000.000	140.000	1029	18000.000	150.000	1030	18000.000	160.000
1031	18000.000	170.000	1032	18000.000	180.000	1033	18000.000	190.000	1034	18000.000	200.000	1035	18000.000	210.000
1036	18000.000	220.000	1037	18000.000	230.000	1038	18000.000	240.000	1039	18000.000	250.000	1040	18000.000	260.000

1041	18000.000		289.759																				
1	1	16	17	2	1	17	2	3	2	17	18	4	2	18	3	5	3	18	19	6	3	19	4
7	4	19	20	8	4	20	5	8	5	20	21	10	5	21	8	11	8	21	22	12	8	22	7
13	7	22	23	14	7	23	8	15	8	23	24	16	8	24	9	17	9	24	25	18	9	25	10
19	10	25	26	20	10	26	11	21	11	26	27	22	11	27	12	23	12	27	28	24	12	28	13
25	13	28	29	26	13	29	14	27	14	29	30	28	14	30	15	29	16	31	32	30	16	32	17
31	17	32	33	32	17	33	18	33	16	33	34	34	18	34	19	35	19	34	35	36	19	35	20
37	20	35	36	38	20	36	21	39	21	36	37	40	21	37	22	41	22	37	38	42	22	38	23
43	23	38	39	44	23	39	24	45	24	39	40	46	24	40	25	47	25	40	41	48	25	41	26
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1837	974	993	994	1838	974	994	975	1839	975	994	995	1840	975	995	976	1841	976	995	996	1842	976	996	977
1843	977	996	997	1844	977	997	978	1845	978	997	998	1846	978	998	979	1847	979	998	999	1848	979	999	980
1849	980	999	1000	1850	980	1000	981	1851	981	1000	1001	1852	981	1001	982	1853	982	1001	1002	1854	982	1002	983
1855	983	1002	1003	1856	983	1003	984	1857	985	1004	1005	1858	985	1005	986	1859	986	1005	1006	1860	986	1006	987
1861	987	1006	1007	1882	987	1007	988	1863	988	1007	1008	1864	988	1008	989	1865	989	1008	1009	1866	989	1009	990
1867	990	1009	1010	1868	990	1010	991	1869	991	1010	1011	1870	991	1011	992	1871	992	1011	1012	1872	992	1012	993
1873	993	1012	1013	1874	993	1013	994	1875	994	1013	1014	1876	994	1014	995	1877	995	1014	1015	1878	995	1015	996
1879	996	1015	1016	1880	996	1016	997	1881	997	1016	1017	1882	997	1017	998	1883	998	1017	1018	1884	998	1018	999
1885	999	1018	1019	1886	999	1019	1000	1887	1000	1018	1020	1888	1000	1020	1001	1888	1001	1020	1021	1890	1001	1021	1002
1891	1002	1021	1022	1892	1002	1022	1003	1893	1004	1023	1024	1894	1004	1024	1005	1895	1005	1024	1025	1896	1005	1025	1006
1897	1006	1025	1026	1898	1006	1026	1007	1899	1007	1026	1027	1900	1007	1027	1008	1901	1008	1027	1028	1902	1008	1028	1009
1903	1009	1028	1029	1904	1009	1029	1010	1905	1010	1029	1030	1906	1010	1030	1011	1907	1011	1030	1031	1908	1011	1031	1012
1909	1012	1031	1032	1910	1012	1032	1013	1911	1013	1032	1033	1912	1013	1033	1014	1913	1014	1033	1034	1914	1014	1034	1015
1915	1015	1034	1035	1916	1015	1035	1016	1917	1015	1035	1036	1918	1016	1036	1017	1919	1017	1036	1037	1920	1017	1037	1018
1921	1018	1037	1038	1922	1018	1038	1019	1923	1019	1038	1039	1924	1019	1039	1020	1925	1020	1039	1040	1926	1020	1040	1021
1927	1021	1040	1041	1928	1021	1041	1022																

1	0.7189E-02	0.1803E+03	2	0.7182E-02	0.1781E+03	3	0.7178E-02	0.1808E+03	4	0.7239E-02	0.1744E+03
5	0.7208E-02	0.1813E+03	6	0.7344E-02	0.1708E+03	7	0.7253E-02	0.1818E+03	8	0.7497E-02	0.1673E+03
9	0.7318E-02	0.1823E+03	10	0.7694E-02	0.1639E+03	11	0.7402E-02	0.1828E+03	12	0.7937E-02	0.1807E+03
13	0.7505E-02	0.1833E+03	14	0.8222E-02	0.1578E+03	15	0.7628E-02	0.1838E+03	16	0.8548E-02	0.1550E+03
17	0.7771E-02	0.1844E+03	18	0.8913E-02	0.1525E+03	19	0.7935E-02	0.1848E+03	20	0.9319E-02	0.1502E+03
21	0.8120E-02	0.1855E+03	22	0.9781E-02	0.1480E+03	23	0.8327E-02	0.1860E+03	24	0.1024E-01	0.1461E+03
25	0.8558E-02	0.1868E+03	26	0.8533E-02	0.1800E+03	27	0.8606E-02	0.1875E+03	28	0.8578E-02	0.1800E+03
29	0.5188E-02	0.1803E+03	30	0.5198E-02	0.1804E+03	31	0.5198E-02	0.1808E+03	32	0.5198E-02	0.1811E+03
33	0.5198E-02	0.1813E+03	34	0.5198E-02	0.1818E+03	35	0.5198E-02	0.1819E+03	36	0.5199E-02	0.1825E+03
37	0.5188E-02	0.1824E+03	38	0.5189E-02	0.1832E+03	39	0.5198E-02	0.1829E+03	40	0.5200E-02	0.1840E+03
41	0.5198E-02	0.1835E+03	42	0.5202E-02	0.1848E+03	43	0.5197E-02	0.1840E+03	44	0.5204E-02	0.1857E+03
45	0.5196E-02	0.1845E+03	46	0.5207E-02	0.1866E+03	47	0.5194E-02	0.1851E+03	48	0.5210E-02	0.1875E+03
49	0.5191E-02	0.1857E+03	50	0.5215E-02	0.1886E+03	51	0.5187E-02	0.1862E+03	52	0.5220E-02	0.1897E+03
53	0.5182E-02	0.1868E+03	54	0.5227E-02	0.1909E+03	55	0.5176E-02	0.1873E+03	56	0.5239E-02	0.1923E+03
57	0.5109E-02	0.1801E+03	58	0.3622E-02	0.1801E+03	59	0.3622E-02	0.1804E+03	60	0.3822E-02	0.1804E+03
61	0.3821E-02	0.1812E+03	62	0.3620E-02	0.1806E+03	63	0.3619E-02	0.1819E+03	64	0.3617E-02	0.1808E+03
65	0.3617E-02	0.1827E+03	66	0.3613E-02	0.1811E+03	67	0.3614E-02	0.1835E+03	68	0.3609E-02	0.1813E+03
69	0.3612E-02	0.1842E+03	70	0.3603E-02	0.1815E+03	71	0.3609E-02	0.1850E+03	72	0.3598E-02	0.1818E+03
73	0.3605E-02	0.1858E+03	74	0.3589E-02	0.1820E+03	75	0.3600E-02	0.1866E+03	76	0.3579E-02	0.1822E+03
77	0.3595E-02	0.1874E+03	78	0.3568E-02	0.1824E+03	79	0.3591E-02	0.1882E+03	80	0.3557E-02	0.1827E+03
81	0.3585E-02	0.1890E+03	82	0.3545E-02	0.1829E+03	83	0.3578E-02	0.1898E+03	84	0.3531E-02	0.1831E+03
85	0.3572E-02	0.1906E+03	86	0.3510E-02	0.1802E+03	87	0.3510E-02	0.1802E+03	88	0.3038E-02	0.1801E+03
89	0.3038E-02	0.1802E+03	90	0.3038E-02	0.1803E+03	91	0.3037E-02	0.1804E+03	92	0.3037E-02	0.1804E+03
93	0.3037E-02	0.1807E+03	94	0.3037E-02	0.1808E+03	95	0.3037E-02	0.1810E+03	96	0.3037E-02	0.1807E+03
97	0.3037E-02	0.1813E+03	98	0.3036E-02	0.1809E+03	99	0.3036E-02	0.1815E+03	100	0.3035E-02	0.1811E+03
101	0.3035E-02	0.1818E+03	102	0.3034E-02	0.1812E+03	103	0.3034E-02	0.1821E+03	104	0.3033E-02	0.1814E+03
105	0.3033E-02	0.1824E+03	106	0.3031E-02	0.1815E+03	107	0.3031E-02	0.1826E+03	108	0.3029E-02	0.1817E+03
109	0.3030E-02	0.1829E+03	110	0.3028E-02	0.1819E+03	111	0.3028E-02	0.1831E+03	112	0.3028E-02	0.1820E+03
113	0.3027E-02	0.1834E+03	114	0.3023E-02	0.1822E+03	115	0.3025E-02	0.1836E+03	116	0.3019E-02	0.1802E+03
117	0.3018E-02	0.1802E+03	118	0.2822E-02	0.1801E+03	119	0.2822E-02	0.1801E+03	120	0.2822E-02	0.1802E+03
121	0.2822E-02	0.1803E+03	122	0.2822E-02	0.1803E+03	123	0.2822E-02	0.1805E+03	124	0.2822E-02	0.1804E+03
125	0.2821E-02	0.1807E+03	126	0.2821E-02	0.1806E+03	127	0.2821E-02	0.1808E+03	128	0.2821E-02	0.1807E+03
129	0.2821E-02	0.1810E+03	130	0.2820E-02	0.1808E+03	131	0.2820E-02	0.1812E+03	132	0.2820E-02	0.1809E+03
133	0.2818E-02	0.1814E+03	134	0.2619E-02	0.1810E+03	135	0.2619E-02	0.1816E+03	136	0.2818E-02	0.1811E+03
137	0.2818E-02	0.1818E+03	138	0.2617E-02	0.1813E+03	139	0.2617E-02	0.1820E+03	140	0.2818E-02	0.1814E+03
141	0.2818E-02	0.1822E+03	142	0.2615E-02	0.1815E+03	143	0.2615E-02	0.1823E+03	144	0.2614E-02	0.1818E+03
145	0.2614E-02	0.1825E+03	146	0.2811E-02	0.1801E+03	147	0.2811E-02	0.1802E+03	148	0.2280E-02	0.1801E+03

149	0.2280E-02	0.1801E+03	150	0.2280E-02	0.1801E+03	151	0.2280E-02	0.1802E+03	152	0.2280E-02	0.1802E+03
153	0.2280E-02	0.1804E+03	154	0.2280E-02	0.1803E+03	155	0.2280E-02	0.1805E+03	156	0.2280E-02	0.1804E+03
157	0.2279E-02	0.1806E+03	158	0.2279E-02	0.1805E+03	159	0.2279E-02	0.1808E+03	160	0.2279E-02	0.1806E+03
161	0.2279E-02	0.1809E+03	162	0.2278E-02	0.1808E+03	163	0.2278E-02	0.1810E+03	164	0.2278E-02	0.1807E+03
165	0.2278E-02	0.1812E+03	166	0.2277E-02	0.1808E+03	167	0.2277E-02	0.1813E+03	168	0.2277E-02	0.1808E+03
169	0.2278E-02	0.1814E+03	170	0.2276E-02	0.1809E+03	171	0.2276E-02	0.1815E+03	172	0.2275E-02	0.1810E+03
173	0.2275E-02	0.1817E+03	174	0.2275E-02	0.1811E+03	175	0.2275E-02	0.1819E+03	176	0.2274E-02	0.1801E+03
177	0.2274E-02	0.1802E+03	178	0.1987E-02	0.1800E+03	179	0.1987E-02	0.1801E+03	180	0.1987E-02	0.1801E+03
181	0.1987E-02	0.1802E+03	182	0.1987E-02	0.1801E+03	183	0.1987E-02	0.1802E+03	184	0.1987E-02	0.1802E+03
185	0.1987E-02	0.1803E+03	186	0.1987E-02	0.1802E+03	187	0.1987E-02	0.1804E+03	188	0.1987E-02	0.1803E+03
189	0.1987E-02	0.1805E+03	190	0.1987E-02	0.1803E+03	191	0.1987E-02	0.1805E+03	192	0.1987E-02	0.1804E+03
193	0.1986E-02	0.1807E+03	194	0.1986E-02	0.1804E+03	195	0.1986E-02	0.1808E+03	196	0.1986E-02	0.1805E+03
197	0.1985E-02	0.1809E+03	198	0.1985E-02	0.1805E+03	199	0.1985E-02	0.1810E+03	200	0.1985E-02	0.1806E+03
201	0.1984E-02	0.1811E+03	202	0.1984E-02	0.1806E+03	203	0.1984E-02	0.1812E+03	204	0.1983E-02	0.1806E+03
205	0.1983E-02	0.1813E+03	206	0.1983E-02	0.1801E+03	207	0.1982E-02	0.1801E+03	208	0.1729E-02	0.1800E+03
209	0.1729E-02	0.1800E+03	210	0.1729E-02	0.1800E+03	211	0.1729E-02	0.1801E+03	212	0.1729E-02	0.1800E+03
213	0.1729E-02	0.1802E+03	214	0.1729E-02	0.1801E+03	215	0.1728E-02	0.1802E+03	216	0.1728E-02	0.1801E+03
217	0.1728E-02	0.1803E+03	218	0.1728E-02	0.1801E+03	219	0.1728E-02	0.1803E+03	220	0.1728E-02	0.1801E+03
221	0.1728E-02	0.1804E+03	222	0.1728E-02	0.1801E+03	223	0.1727E-02	0.1804E+03	224	0.1727E-02	0.1801E+03
225	0.1727E-02	0.1805E+03	226	0.1727E-02	0.1801E+03	227	0.1727E-02	0.1805E+03	228	0.1727E-02	0.1802E+03
229	0.1726E-02	0.1806E+03	230	0.1726E-02	0.1802E+03	231	0.1726E-02	0.1806E+03	232	0.1726E-02	0.1802E+03
233	0.1725E-02	0.1807E+03	234	0.1725E-02	0.1802E+03	235	0.1725E-02	0.1807E+03	236	0.1725E-02	0.1801E+03
237	0.1725E-02	0.1801E+03	238	0.1495E-02	0.1800E+03	239	0.1495E-02	0.1800E+03	240	0.1495E-02	0.1800E+03
241	0.1495E-02	0.1800E+03	242	0.1495E-02	0.1800E+03	243	0.1495E-02	0.1801E+03	244	0.1495E-02	0.1798E+03
245	0.1495E-02	0.1801E+03	246	0.1495E-02	0.1798E+03	247	0.1495E-02	0.1801E+03	248	0.1495E-02	0.1798E+03
249	0.1495E-02	0.1801E+03	250	0.1495E-02	0.1799E+03	251	0.1494E-02	0.1801E+03	252	0.1494E-02	0.1798E+03
253	0.1494E-02	0.1801E+03	254	0.1494E-02	0.1798E+03	255	0.1494E-02	0.1802E+03	256	0.1494E-02	0.1798E+03
257	0.1494E-02	0.1802E+03	258	0.1494E-02	0.1798E+03	259	0.1493E-02	0.1802E+03	260	0.1493E-02	0.1798E+03
261	0.1493E-02	0.1802E+03	262	0.1493E-02	0.1798E+03	263	0.1493E-02	0.1802E+03	264	0.1493E-02	0.1798E+03
265	0.1493E-02	0.1802E+03	266	0.1493E-02	0.1801E+03	267	0.1483E-02	0.1801E+03	268	0.1282E-02	0.1800E+03
269	0.1282E-02	0.1800E+03	270	0.1282E-02	0.1799E+03	271	0.1282E-02	0.1800E+03	272	0.1282E-02	0.1798E+03
273	0.1282E-02	0.1800E+03	274	0.1282E-02	0.1798E+03	275	0.1282E-02	0.1799E+03	276	0.1282E-02	0.1798E+03
277	0.1282E-02	0.1799E+03	278	0.1282E-02	0.1797E+03	279	0.1282E-02	0.1799E+03	280	0.1282E-02	0.1797E+03
281	0.1282E-02	0.1799E+03	282	0.1282E-02	0.1796E+03	283	0.1282E-02	0.1799E+03	284	0.1282E-02	0.1796E+03
285	0.1281E-02	0.1796E+03	286	0.1281E-02	0.1795E+03	287	0.1281E-02	0.1798E+03	288	0.1281E-02	0.1795E+03
289	0.1281E-02	0.1798E+03	290	0.1281E-02	0.1794E+03	291	0.1281E-02	0.1798E+03	292	0.1281E-02	0.1794E+03
293	0.1280E-02	0.1797E+03	294	0.1280E-02	0.1793E+03	295	0.1280E-02	0.1797E+03	296	0.1280E-02	0.1801E+03
297	0.1280E-02	0.1801E+03	298	0.1084E-02	0.1800E+03	299	0.1084E-02	0.1800E+03	300	0.1084E-02	0.1799E+03
301	0.1084E-02	0.1798E+03	302	0.1084E-02	0.1798E+03	303	0.1084E-02	0.1799E+03	304	0.1084E-02	0.1797E+03
305	0.1084E-02	0.1798E+03	306	0.1084E-02	0.1796E+03	307	0.1084E-02	0.1797E+03	308	0.1084E-02	0.1798E+03
309	0.1083E-02	0.1797E+03	310	0.1083E-02	0.1795E+03	311	0.1083E-02	0.1798E+03	312	0.1083E-02	0.1794E+03
313	0.1083E-02	0.1796E+03	314	0.1083E-02	0.1793E+03	315	0.1083E-02	0.1795E+03	316	0.1083E-02	0.1792E+03
317	0.1083E-02	0.1794E+03	318	0.1083E-02	0.1791E+03	319	0.1083E-02	0.1794E+03	320	0.1083E-02	0.1791E+03
321	0.1083E-02	0.1793E+03	322	0.1083E-02	0.1790E+03	323	0.1082E-02	0.1793E+03	324	0.1083E-02	0.1789E+03
325	0.1082E-02	0.1792E+03	326	0.1082E-02	0.1801E+03	327	0.1082E-02	0.1801E+03	328	0.8993E-03	0.1800E+03
329	0.8993E-03	0.1800E+03	330	0.8993E-03	0.1798E+03	331	0.8993E-03	0.1798E+03	332	0.8993E-03	0.1797E+03
333	0.8993E-03	0.1798E+03	334	0.8993E-03	0.1796E+03	335	0.8993E-03	0.1797E+03	336	0.8993E-03	0.1795E+03
337	0.8993E-03	0.1795E+03	338	0.8993E-03	0.1794E+03	339	0.8984E-03	0.1795E+03	340	0.8993E-03	0.1792E+03
341	0.8984E-03	0.1794E+03	342	0.8984E-03	0.1791E+03	343	0.8984E-03	0.1793E+03	344	0.8984E-03	0.1790E+03
345	0.8984E-03	0.1792E+03	346	0.8984E-03	0.1789E+03	347	0.8984E-03	0.1791E+03	348	0.8984E-03	0.1788E+03
349	0.8984E-03	0.1790E+03	350	0.8984E-03	0.1787E+03	351	0.8984E-03	0.1789E+03	352	0.8984E-03	0.1785E+03
353	0.8984E-03	0.1788E+03	354	0.8984E-03	0.1784E+03	355	0.8984E-03	0.1787E+03	356	0.8984E-03	0.1801E+03
357	0.8984E-03	0.1801E+03	358	0.7248E-03	0.1799E+03	359	0.7248E-03	0.1798E+03	360	0.7248E-03	0.1798E+03
361	0.7248E-03	0.1798E+03	362	0.7248E-03	0.1796E+03	363	0.7248E-03	0.1796E+03	364	0.7248E-03	0.1795E+03
365	0.7248E-03	0.1795E+03	366	0.7248E-03	0.1793E+03	367	0.7248E-03	0.1794E+03	368	0.7248E-03	0.1792E+03
369	0.7248E-03	0.1792E+03	370	0.7248E-03	0.1790E+03	371	0.7248E-03	0.1791E+03	372	0.7248E-03	0.1788E+03
373	0.7248E-03	0.1789E+03	374	0.7248E-03	0.1787E+03	375	0.7248E-03	0.1788E+03	376	0.7248E-03	0.1785E+03
377	0.7248E-03	0.1786E+03	378	0.7248E-03	0.1784E+03	379	0.7248E-03	0.1785E+03	380	0.7248E-03	0.1782E+03
381	0.7248E-03	0.1783E+03	382	0.7248E-03	0.1781E+03	383	0.7248E-03	0.1782E+03	384	0.7248E-03	0.1779E+03
385	0.7248E-03	0.1780E+03	386	0.7238E-03	0.1801E+03	387	0.7238E-03	0.1802E+03	388	0.5598E-03	0.1799E+03

389	0.5598E-03	0.1799E+03	390	0.5598E-03	0.1797E+03	391	0.5598E-03	0.1797E+03	392	0.5598E-03	0.1795E+03
393	0.5598E-03	0.1795E+03	394	0.5598E-03	0.1793E+03	395	0.5598E-03	0.1793E+03	396	0.5598E-03	0.1791E+03
397	0.5598E-03	0.1791E+03	398	0.5598E-03	0.1789E+03	399	0.5598E-03	0.1789E+03	400	0.5598E-03	0.1787E+03
401	0.5598E-03	0.1787E+03	402	0.5598E-03	0.1785E+03	403	0.5598E-03	0.1785E+03	404	0.5598E-03	0.1783E+03
405	0.5598E-03	0.1783E+03	406	0.5598E-03	0.1781E+03	407	0.5598E-03	0.1781E+03	408	0.5598E-03	0.1779E+03
409	0.5598E-03	0.1779E+03	410	0.5598E-03	0.1777E+03	411	0.5598E-03	0.1777E+03	412	0.5808E-03	0.1775E+03
413	0.5808E-03	0.1775E+03	414	0.5808E-03	0.1774E+03	415	0.5808E-03	0.1773E+03	416	0.5598E-03	0.1802E+03
417	0.5598E-03	0.1802E+03	418	0.4034E-03	0.1799E+03	419	0.4034E-03	0.1799E+03	420	0.4034E-03	0.1798E+03
421	0.4034E-03	0.1796E+03	422	0.4034E-03	0.1794E+03	423	0.4034E-03	0.1793E+03	424	0.4034E-03	0.1791E+03
425	0.4034E-03	0.1791E+03	426	0.4034E-03	0.1789E+03	427	0.4034E-03	0.1788E+03	428	0.4034E-03	0.1788E+03
429	0.4034E-03	0.1785E+03	430	0.4034E-03	0.1784E+03	431	0.4034E-03	0.1782E+03	432	0.4034E-03	0.1781E+03
433	0.4034E-03	0.1780E+03	434	0.4034E-03	0.1779E+03	435	0.4034E-03	0.1777E+03	436	0.4034E-03	0.1778E+03
437	0.4044E-03	0.1774E+03	438	0.4044E-03	0.1774E+03	439	0.4044E-03	0.1771E+03	440	0.4044E-03	0.1771E+03
441	0.4044E-03	0.1789E+03	442	0.4044E-03	0.1789E+03	443	0.4044E-03	0.1786E+03	444	0.4044E-03	0.1767E+03
445	0.4044E-03	0.1783E+03	446	0.4034E-03	0.1802E+03	447	0.4034E-03	0.1802E+03	448	0.2548E-03	0.1798E+03
449	0.2548E-03	0.1798E+03	450	0.2548E-03	0.1795E+03	451	0.2548E-03	0.1794E+03	452	0.2548E-03	0.1792E+03
453	0.2548E-03	0.1790E+03	454	0.2548E-03	0.1789E+03	455	0.2548E-03	0.1788E+03	456	0.2548E-03	0.1785E+03
457	0.2548E-03	0.1782E+03	458	0.2548E-03	0.1782E+03	459	0.2548E-03	0.1778E+03	460	0.2548E-03	0.1779E+03
461	0.2548E-03	0.1774E+03	462	0.2548E-03	0.1775E+03	463	0.2548E-03	0.1770E+03	464	0.2548E-03	0.1772E+03
465	0.2558E-03	0.1767E+03	466	0.2556E-03	0.1769E+03	467	0.2556E-03	0.1783E+03	468	0.2556E-03	0.1766E+03
469	0.2556E-03	0.1759E+03	470	0.2556E-03	0.1762E+03	471	0.2556E-03	0.1755E+03	472	0.2556E-03	0.1759E+03
473	0.2585E-03	0.1751E+03	474	0.2556E-03	0.1758E+03	475	0.2565E-03	0.1747E+03	476	0.2556E-03	0.1804E+03
477	0.2556E-03	0.1804E+03	478	0.1125E-03	0.1797E+03	479	0.1125E-03	0.1797E+03	480	0.1125E-03	0.1792E+03
481	0.1125E-03	0.1788E+03	482	0.1125E-03	0.1787E+03	483	0.1135E-03	0.1782E+03	484	0.1135E-03	0.1782E+03
485	0.1135E-03	0.1774E+03	486	0.1135E-03	0.1776E+03	487	0.1135E-03	0.1787E+03	488	0.1135E-03	0.1771E+03
489	0.1135E-03	0.1759E+03	490	0.1135E-03	0.1768E+03	491	0.1135E-03	0.1752E+03	492	0.1135E-03	0.1761E+03
493	0.1135E-03	0.1745E+03	494	0.1135E-03	0.1758E+03	495	0.1144E-03	0.1738E+03	496	0.1135E-03	0.1750E+03
497	0.1144E-03	0.1731E+03	498	0.1144E-03	0.1745E+03	499	0.1144E-03	0.1723E+03	500	0.1144E-03	0.1740E+03
501	0.1154E-03	0.1718E+03	502	0.1144E-03	0.1735E+03	503	0.1154E-03	0.1709E+03	504	0.1154E-03	0.1730E+03
505	0.1163E-03	0.1703E+03	506	0.1144E-03	0.1809E+03	507	0.1144E-03	0.1809E+03	508	0.2193E-04	0.7175E+00
509	0.2193E-04	0.1348E+01	510	0.2193E-04	0.2032E+01	511	0.2193E-04	0.4106E+01	512	0.2193E-04	0.3348E+01
513	0.2193E-04	0.8854E+01	514	0.2193E-04	0.4662E+01	515	0.2193E-04	0.9588E+01	516	0.2193E-04	0.5980E+01
517	0.2193E-04	0.1230E+02	518	0.2193E-04	0.7302E+01	519	0.2193E-04	0.1499E+02	520	0.2193E-04	0.8628E+01
521	0.2193E-04	0.1764E+02	522	0.2193E-04	0.9862E+01	523	0.2289E-04	0.2026E+02	524	0.2193E-04	0.1130E+02
525	0.2289E-04	0.2284E+02	526	0.2193E-04	0.1265E+02	527	0.2289E-04	0.2637E+02	528	0.2193E-04	0.1402E+02
529	0.2384E-04	0.2788E+02	530	0.2193E-04	0.1539E+02	531	0.2384E-04	0.3029E+02	532	0.2088E-04	0.1678E+02
533	0.2384E-04	0.3268E+02	534	0.2098E-04	0.1818E+02	535	0.2480E-04	0.3501E+02	536	0.2003E-04	0.3543E+01
537	0.2003E-04	0.3547E+00	538	0.1488E-03	0.3600E+03	539	0.1488E-03	0.1043E+00	540	0.1488E-03	0.3599E+03
541	0.1488E-03	0.2955E+00	542	0.1488E-03	0.3599E+03	543	0.1488E-03	0.4869E+00	544	0.1488E-03	0.3598E+03
545	0.1488E-03	0.6774E+00	546	0.1488E-03	0.3597E+03	547	0.1488E-03	0.8681E+00	548	0.1488E-03	0.3597E+03
549	0.1488E-03	0.1059E+01	550	0.1488E-03	0.3596E+03	551	0.1488E-03	0.1249E+01	552	0.1488E-03	0.3595E+03
553	0.1478E-03	0.1440E+01	554	0.1478E-03	0.3595E+03	555	0.1478E-03	0.1630E+01	556	0.1478E-03	0.3594E+03
557	0.1478E-03	0.1820E+01	558	0.1478E-03	0.3593E+03	559	0.1478E-03	0.2010E+01	560	0.1478E-03	0.3593E+03
561	0.1478E-03	0.2200E+01	562	0.1478E-03	0.3592E+03	563	0.1469E-03	0.2389E+01	564	0.1469E-03	0.3591E+03
565	0.1469E-03	0.2579E+01	566	0.1469E-03	0.3592E+03	567	0.1469E-03	0.3592E+03	568	0.2689E-03	0.3599E+03
569	0.2689E-03	0.3600E+03	570	0.2689E-03	0.3597E+03	571	0.2688E-03	0.3600E+03	572	0.2689E-03	0.3595E+03
573	0.2689E-03	0.3599E+03	574	0.2688E-03	0.3593E+03	575	0.2680E-03	0.3599E+03	576	0.2680E-03	0.3591E+03
577	0.2680E-03	0.3599E+03	578	0.2680E-03	0.3589E+03	579	0.2680E-03	0.3598E+03	580	0.2680E-03	0.3587E+03
581	0.2680E-03	0.3598E+03	582	0.2680E-03	0.3585E+03	583	0.2680E-03	0.3597E+03	584	0.2680E-03	0.3583E+03
585	0.2680E-03	0.3597E+03	586	0.2680E-03	0.3581E+03	587	0.2670E-03	0.3597E+03	588	0.2670E-03	0.3579E+03
589	0.2670E-03	0.3596E+03	590	0.2670E-03	0.3577E+03	591	0.2870E-03	0.3596E+03	592	0.2670E-03	0.3575E+03
593	0.2861E-03	0.3595E+03	594	0.2870E-03	0.3573E+03	595	0.2861E-03	0.3595E+03	596	0.2861E-03	0.3595E+03
597	0.2861E-03	0.3595E+03	598	0.3805E-03	0.3598E+03	599	0.3805E-03	0.3599E+03	600	0.3805E-03	0.3596E+03
601	0.3805E-03	0.3596E+03	602	0.3805E-03	0.3593E+03	603	0.3805E-03	0.3587E+03	604	0.3805E-03	0.3590E+03
605	0.3798E-03	0.3595E+03	606	0.3805E-03	0.3588E+03	607	0.3798E-03	0.3584E+03	608	0.3798E-03	0.3586E+03
609	0.3798E-03	0.3592E+03	610	0.3798E-03	0.3582E+03	611	0.3798E-03	0.3591E+03	612	0.3798E-03	0.3579E+03
613	0.3798E-03	0.3588E+03	614	0.3798E-03	0.3577E+03	615	0.3798E-03	0.3588E+03	616	0.3798E-03	0.3574E+03
617	0.3788E-03	0.3587E+03	618	0.3798E-03	0.3571E+03	619	0.3788E-03	0.3585E+03	620	0.3788E-03	0.3568E+03
621	0.3788E-03	0.3584E+03	622	0.3788E-03	0.3565E+03	623	0.3777E-03	0.3582E+03	624	0.3788E-03	0.3562E+03
625	0.3777E-03	0.3581E+03	626	0.3777E-03	0.3598E+03	627	0.3777E-03	0.3596E+03	628	0.4835E-03	0.3598E+03

629	0.4835E-03	0.3598E+03	630	0.4835E-03	0.3598E+03	631	0.4835E-03	0.3597E+03	632	0.4835E-03	0.3591E+03
633	0.4835E-03	0.3595E+03	634	0.4835E-03	0.3588E+03	635	0.4835E-03	0.3592E+03	636	0.4835E-03	0.3584E+03
637	0.4826E-03	0.3590E+03	638	0.4835E-03	0.3580E+03	639	0.4828E-03	0.3588E+03	640	0.4835E-03	0.3577E+03
641	0.4826E-03	0.3586E+03	642	0.4828E-03	0.3573E+03	643	0.4826E-03	0.3584E+03	644	0.4826E-03	0.3570E+03
645	0.4826E-03	0.3582E+03	646	0.4826E-03	0.3566E+03	647	0.4818E-03	0.3579E+03	648	0.4828E-03	0.3563E+03
649	0.4816E-03	0.3577E+03	650	0.4826E-03	0.3559E+03	651	0.4818E-03	0.3575E+03	652	0.4828E-03	0.3556E+03
653	0.4807E-03	0.3573E+03	654	0.4818E-03	0.3553E+03	655	0.4807E-03	0.3570E+03	656	0.4797E-03	0.3598E+03
657	0.4797E-03	0.3597E+03	658	0.5827E-03	0.3597E+03	659	0.5827E-03	0.3598E+03	660	0.5827E-03	0.3588E+03
661	0.5827E-03	0.3596E+03	662	0.5827E-03	0.3582E+03	663	0.5817E-03	0.3593E+03	664	0.5827E-03	0.3575E+03
665	0.5817E-03	0.3590E+03	666	0.5827E-03	0.3568E+03	667	0.5808E-03	0.3587E+03	668	0.5827E-03	0.3561E+03
669	0.5808E-03	0.3584E+03	670	0.5817E-03	0.3554E+03	671	0.5798E-03	0.3581E+03	672	0.5817E-03	0.3548E+03
673	0.5789E-03	0.3578E+03	674	0.5817E-03	0.3542E+03	675	0.5779E-03	0.3575E+03	676	0.5808E-03	0.3538E+03
677	0.5770E-03	0.3572E+03	678	0.5798E-03	0.3531E+03	679	0.5760E-03	0.3569E+03	680	0.5798E-03	0.3528E+03
681	0.5741E-03	0.3566E+03	682	0.5789E-03	0.3522E+03	683	0.5732E-03	0.3563E+03	684	0.5779E-03	0.3518E+03
685	0.5722E-03	0.3560E+03	686	0.5703E-03	0.3598E+03	687	0.5703E-03	0.3597E+03	688	0.7706E-03	0.3582E+03
689	0.7686E-03	0.3597E+03	690	0.7725E-03	0.3544E+03	691	0.7677E-03	0.3592E+03	692	0.7772E-03	0.3507E+03
693	0.7639E-03	0.3586E+03	694	0.7839E-03	0.3470E+03	695	0.7591E-03	0.3581E+03	696	0.7915E-03	0.3433E+03
697	0.7524E-03	0.3575E+03	698	0.8020E-03	0.3397E+03	699	0.7448E-03	0.3570E+03	700	0.8144E-03	0.3361E+03
701	0.7362E-03	0.3564E+03	702	0.8287E-03	0.3325E+03	703	0.7257E-03	0.3558E+03	704	0.8450E-03	0.3290E+03
705	0.7133E-03	0.3553E+03	706	0.8631E-03	0.3255E+03	707	0.7000E-03	0.3547E+03	708	0.8841E-03	0.3220E+03
709	0.6847E-03	0.3542E+03	710	0.8078E-03	0.3186E+03	711	0.6876E-03	0.3536E+03	712	0.9336E-03	0.3153E+03
713	0.6485E-03	0.3530E+03	714	0.9623E-03	0.3120E+03	715	0.6285E-03	0.3525E+03	718	0.8237E-03	0.3573E+03
717	0.6227E-03	0.3597E+03	718	0.2203E-02	0.3598E+03	719	0.2204E-02	0.3594E+03	720	0.2204E-02	0.3597E+03
721	0.2207E-02	0.3581E+03	722	0.2206E-02	0.3595E+03	723	0.2213E-02	0.3588E+03	724	0.2210E-02	0.3592E+03
725	0.2221E-02	0.3555E+03	726	0.2214E-02	0.3590E+03	727	0.2232E-02	0.3542E+03	728	0.2221E-02	0.3588E+03
729	0.2246E-02	0.3529E+03	730	0.2229E-02	0.3586E+03	731	0.2262E-02	0.3516E+03	732	0.2238E-02	0.3584E+03
733	0.2280E-02	0.3503E+03	734	0.2249E-02	0.3583E+03	735	0.2302E-02	0.3491E+03	736	0.2261E-02	0.3581E+03
737	0.2326E-02	0.3479E+03	738	0.2275E-02	0.3579E+03	739	0.2354E-02	0.3466E+03	740	0.2292E-02	0.3578E+03
741	0.2383E-02	0.3454E+03	742	0.2309E-02	0.3577E+03	743	0.2417E-02	0.3442E+03	744	0.2328E-02	0.3576E+03
745	0.2452E-02	0.3431E+03	746	0.2655E-02	0.3321E+03	747	0.2309E-02	0.3593E+03	748	0.2199E-02	0.3599E+03
749	0.2199E-02	0.3599E+03	750	0.2198E-02	0.3598E+03	751	0.2199E-02	0.3597E+03	752	0.2199E-02	0.3598E+03
753	0.2200E-02	0.3595E+03	754	0.2200E-02	0.3595E+03	755	0.2200E-02	0.3592E+03	756	0.2200E-02	0.3593E+03
757	0.2201E-02	0.3590E+03	758	0.2201E-02	0.3591E+03	759	0.2201E-02	0.3588E+03	760	0.2201E-02	0.3590E+03
761	0.2202E-02	0.3586E+03	762	0.2202E-02	0.3588E+03	763	0.2203E-02	0.3584E+03	764	0.2202E-02	0.3587E+03
765	0.2204E-02	0.3582E+03	766	0.2203E-02	0.3585E+03	767	0.2204E-02	0.3580E+03	768	0.2204E-02	0.3583E+03
769	0.2205E-02	0.3579E+03	770	0.2205E-02	0.3582E+03	771	0.2206E-02	0.3577E+03	772	0.2206E-02	0.3580E+03
773	0.2207E-02	0.3576E+03	774	0.2206E-02	0.3579E+03	775	0.2208E-02	0.3575E+03	776	0.2634E-02	0.3305E+03
777	0.2531E-02	0.3308E+03	778	0.1931E-02	0.3599E+03	779	0.1931E-02	0.3599E+03	780	0.1831E-02	0.3598E+03
781	0.1931E-02	0.3597E+03	782	0.1831E-02	0.3596E+03	783	0.1931E-02	0.3596E+03	784	0.1831E-02	0.3595E+03
785	0.1932E-02	0.3594E+03	786	0.1832E-02	0.3594E+03	787	0.1832E-02	0.3592E+03	788	0.1832E-02	0.3592E+03
789	0.1932E-02	0.3590E+03	790	0.1832E-02	0.3591E+03	791	0.1933E-02	0.3588E+03	792	0.1833E-02	0.3589E+03
793	0.1933E-02	0.3587E+03	794	0.1933E-02	0.3588E+03	795	0.1934E-02	0.3586E+03	796	0.1833E-02	0.3586E+03
797	0.1934E-02	0.3583E+03	798	0.1934E-02	0.3585E+03	799	0.1935E-02	0.3581E+03	800	0.1835E-02	0.3583E+03
801	0.1935E-02	0.3579E+03	802	0.1935E-02	0.3582E+03	803	0.1936E-02	0.3578E+03	804	0.1836E-02	0.3580E+03
805	0.1937E-02	0.3578E+03	806	0.2306E-02	0.3271E+03	807	0.2302E-02	0.3272E+03	808	0.1418E-02	0.3600E+03
809	0.1417E-02	0.3599E+03	810	0.1417E-02	0.3599E+03	811	0.1417E-02	0.3597E+03	812	0.1417E-02	0.3599E+03
813	0.1417E-02	0.3595E+03	814	0.1417E-02	0.3598E+03	815	0.1418E-02	0.3593E+03	816	0.1417E-02	0.3598E+03
817	0.1418E-02	0.3591E+03	818	0.1418E-02	0.3597E+03	819	0.1419E-02	0.3589E+03	820	0.1419E-02	0.3597E+03
821	0.1420E-02	0.3587E+03	822	0.1420E-02	0.3596E+03	823	0.1421E-02	0.3585E+03	824	0.1421E-02	0.3596E+03
825	0.1422E-02	0.3583E+03	826	0.1422E-02	0.3595E+03	827	0.1424E-02	0.3581E+03	828	0.1423E-02	0.3595E+03
829	0.1425E-02	0.3579E+03	830	0.1424E-02	0.3594E+03	831	0.1427E-02	0.3577E+03	832	0.1426E-02	0.3594E+03
833	0.1429E-02	0.3575E+03	834	0.1427E-02	0.3593E+03	835	0.1431E-02	0.3573E+03	836	0.1906E-02	0.3185E+03
837	0.1901E-02	0.3187E+03	838	0.5522E-03	0.6694E-01	839	0.5522E-03	0.3600E+03	840	0.5522E-03	0.2051E+00
841	0.5522E-03	0.3598E+03	842	0.5522E-03	0.3434E+00	843	0.5522E-03	0.3597E+03	844	0.5522E-03	0.4818E+00
845	0.5531E-03	0.3596E+03	846	0.5531E-03	0.8198E+00	847	0.5531E-03	0.3594E+03	848	0.5531E-03	0.7577E+00
849	0.5531E-03	0.3583E+03	850	0.5541E-03	0.8952E+00	851	0.5541E-03	0.3592E+03	852	0.5541E-03	0.1032E+01
853	0.5550E-03	0.3590E+03	854	0.5550E-03	0.1169E+01	855	0.5560E-03	0.3589E+03	856	0.5560E-03	0.1305E+01
857	0.5560E-03	0.3588E+03	858	0.5589E-03	0.1440E+01	859	0.5569E-03	0.3587E+03	860	0.5569E-03	0.1574E+01
861	0.5578E-03	0.3585E+03	862	0.5589E-03	0.1708E+01	863	0.5598E-03	0.3584E+03	864	0.5589E-03	0.8519E+00
865	0.5598E-03	0.3583E+03	866	0.1392E-02	0.2937E+03	867	0.1381E-02	0.2939E+03	868	0.7000E-03	0.1798E+03

869	0.7000E-03	0.1799E+03	870	0.7000E-03	0.1794E+03	871	0.6990E-03	0.1798E+03	872	0.7000E-03	0.1789E+03
873	0.6990E-03	0.1797E+03	874	0.6990E-03	0.1785E+03	875	0.6990E-03	0.1796E+03	876	0.6990E-03	0.1780E+03
877	0.6981E-03	0.1795E+03	878	0.6990E-03	0.1776E+03	879	0.6971E-03	0.1794E+03	880	0.6981E-03	0.1771E+03
881	0.6952E-03	0.1793E+03	882	0.6971E-03	0.1767E+03	883	0.6952E-03	0.1792E+03	884	0.6971E-03	0.1762E+03
885	0.6943E-03	0.1791E+03	886	0.6962E-03	0.1758E+03	887	0.6933E-03	0.1790E+03	888	0.6952E-03	0.1754E+03
889	0.6914E-03	0.1788E+03	890	0.6943E-03	0.1749E+03	891	0.6905E-03	0.1787E+03	892	0.6924E-03	0.1754E+03
893	0.6885E-03	0.1786E+03	894	0.6905E-03	0.1780E+03	895	0.6876E-03	0.1785E+03	896	0.1467E-02	0.2421E+03
897	0.1448E-02	0.2416E+03	898	0.2498E-02	0.1798E+03	899	0.2498E-02	0.1799E+03	900	0.2498E-02	0.1794E+03
901	0.2498E-02	0.1798E+03	902	0.2498E-02	0.1790E+03	903	0.2495E-02	0.1787E+03	904	0.2495E-02	0.1786E+03
905	0.2493E-02	0.1798E+03	906	0.2495E-02	0.1783E+03	907	0.2492E-02	0.1784E+03	908	0.2493E-02	0.1778E+03
909	0.2489E-02	0.1783E+03	910	0.2492E-02	0.1775E+03	911	0.2487E-02	0.1782E+03	912	0.2490E-02	0.1771E+03
913	0.2484E-02	0.1791E+03	914	0.2488E-02	0.1767E+03	915	0.2481E-02	0.1789E+03	916	0.2486E-02	0.1763E+03
917	0.2478E-02	0.1788E+03	918	0.2483E-02	0.1758E+03	919	0.2474E-02	0.1787E+03	920	0.2480E-02	0.1757E+03
921	0.2469E-02	0.1786E+03	922	0.2476E-02	0.1756E+03	923	0.2465E-02	0.1787E+03	924	0.2472E-02	0.1754E+03
925	0.2460E-02	0.1789E+03	926	0.2772E-02	0.2075E+03	927	0.2779E-02	0.2076E+03	928	0.5235E-02	0.1799E+03
929	0.5235E-02	0.1799E+03	930	0.5235E-02	0.1798E+03	931	0.5234E-02	0.1797E+03	932	0.5235E-02	0.1793E+03
933	0.5234E-02	0.1795E+03	934	0.5234E-02	0.1788E+03	935	0.5232E-02	0.1794E+03	936	0.5234E-02	0.1786E+03
937	0.5231E-02	0.1792E+03	938	0.5233E-02	0.1783E+03	939	0.5229E-02	0.1790E+03	940	0.5232E-02	0.1780E+03
941	0.5227E-02	0.1788E+03	942	0.5230E-02	0.1777E+03	943	0.5225E-02	0.1788E+03	944	0.5228E-02	0.1774E+03
945	0.5222E-02	0.1784E+03	946	0.5227E-02	0.1771E+03	947	0.5220E-02	0.1782E+03	948	0.5225E-02	0.1768E+03
949	0.5217E-02	0.1780E+03	950	0.5223E-02	0.1765E+03	951	0.5212E-02	0.1780E+03	952	0.5220E-02	0.1762E+03
953	0.5207E-02	0.1779E+03	954	0.5217E-02	0.1759E+03	955	0.5201E-02	0.1778E+03	956	0.5370E-02	0.1946E+03
957	0.5355E-02	0.1938E+03	958	0.9161E-02	0.1799E+03	959	0.9162E-02	0.1799E+03	960	0.9162E-02	0.1798E+03
961	0.9162E-02	0.1797E+03	962	0.9162E-02	0.1797E+03	963	0.9163E-02	0.1796E+03	964	0.9163E-02	0.1795E+03
965	0.9163E-02	0.1794E+03	966	0.9164E-02	0.1793E+03	967	0.9164E-02	0.1792E+03	968	0.9165E-02	0.1792E+03
969	0.9165E-02	0.1790E+03	970	0.9168E-02	0.1790E+03	971	0.9165E-02	0.1789E+03	972	0.9167E-02	0.1787E+03
973	0.9167E-02	0.1787E+03	974	0.9168E-02	0.1785E+03	975	0.9168E-02	0.1785E+03	976	0.9169E-02	0.1782E+03
977	0.9168E-02	0.1783E+03	978	0.9170E-02	0.1780E+03	979	0.9168E-02	0.1782E+03	980	0.9172E-02	0.1775E+03
981	0.9166E-02	0.1780E+03	982	0.9174E-02	0.1769E+03	983	0.9162E-02	0.1778E+03	984	0.9174E-02	0.1764E+03
985	0.9156E-02	0.1776E+03	986	0.9190E-02	0.1854E+03	987	0.9232E-02	0.1884E+03	988	0.9243E-02	0.1889E+03
989	0.1387E-01	0.1809E+03	990	0.1388E-01	0.1800E+03	991	0.1389E-01	0.1827E+03	992	0.1390E-01	0.1799E+03
993	0.1394E-01	0.1845E+03	994	0.1394E-01	0.1798E+03	995	0.1402E-01	0.1863E+03	996	0.1399E-01	0.1797E+03
997	0.1413E-01	0.1881E+03	998	0.1406E-01	0.1796E+03	999	0.1427E-01	0.1898E+03	1000	0.1415E-01	0.1795E+03
1001	0.1444E-01	0.1915E+03	1002	0.1425E-01	0.1793E+03	1003	0.1464E-01	0.1932E+03	1004	0.1437E-01	0.1792E+03
1005	0.1487E-01	0.1948E+03	1006	0.1451E-01	0.1791E+03	1007	0.1513E-01	0.1965E+03	1008	0.1458E-01	0.1789E+03
1009	0.1542E-01	0.1981E+03	1010	0.1483E-01	0.1787E+03	1011	0.1572E-01	0.1994E+03	1012	0.1502E-01	0.1785E+03
1013	0.1604E-01	0.2006E+03	1014	0.1523E-01	0.1782E+03	1015	0.1638E-01	0.2018E+03	1016	0.1545E-01	0.1779E+03
1017	0.1545E-01	0.1811E+03	1018	0.1545E-01	0.1832E+03	1019	0.1542E-01	0.1805E+03	1020	0.1545E-01	0.1853E+03
1021	0.5210E-02	0.1807E+03	1022	0.5209E-02	0.1824E+03	1023	0.5207E-02	0.1819E+03	1024	0.5225E-02	0.1872E+03
1025	0.5196E-02	0.1832E+03	1026	0.5277E-02	0.1920E+03	1027	0.5177E-02	0.1845E+03	1028	0.5349E-02	0.1967E+03
1029	0.5149E-02	0.1858E+03	1030	0.5448E-02	0.2014E+03	1031	0.5113E-02	0.1870E+03	1032	0.5573E-02	0.2059E+03
1033	0.5068E-02	0.1884E+03	1034	0.5725E-02	0.2103E+03	1035	0.5014E-02	0.1897E+03	1036	0.5802E-02	0.2148E+03
1037	0.4950E-02	0.1910E+03	1038	0.6106E-02	0.2187E+03	1039	0.4877E-02	0.1924E+03	1040	0.6336E-02	0.2227E+03
1041	0.4783E-02	0.1938E+03	1042	0.6594E-02	0.2266E+03	1043	0.4700E-02	0.1953E+03	1044	0.6820E-02	0.2298E+03
1045	0.4585E-02	0.1963E+03	1046	0.7088E-02	0.2330E+03	1047	0.4459E-02	0.1974E+03	1048	0.7338E-02	0.2361E+03
1049	0.4097E-02	0.1805E+03	1050	0.4100E-02	0.1843E+03	1051	0.4088E-02	0.1804E+03	1052	0.4087E-02	0.1818E+03
1053	0.4851E-02	0.1804E+03	1054	0.4850E-02	0.1807E+03	1055	0.4851E-02	0.1812E+03	1056	0.4851E-02	0.1822E+03
1057	0.4850E-02	0.1821E+03	1058	0.4852E-02	0.1838E+03	1059	0.4849E-02	0.1829E+03	1060	0.4855E-02	0.1850E+03
1061	0.4847E-02	0.1837E+03	1062	0.4860E-02	0.1864E+03	1063	0.4845E-02	0.1845E+03	1064	0.4864E-02	0.1877E+03
1065	0.4843E-02	0.1854E+03	1066	0.4670E-02	0.1881E+03	1067	0.4639E-02	0.1862E+03	1068	0.4677E-02	0.1904E+03
1069	0.4635E-02	0.1870E+03	1070	0.4684E-02	0.1917E+03	1071	0.4631E-02	0.1878E+03	1072	0.4692E-02	0.1929E+03
1073	0.4626E-02	0.1886E+03	1074	0.4701E-02	0.1941E+03	1075	0.4622E-02	0.1895E+03	1076	0.4709E-02	0.1953E+03
1077	0.4611E-02	0.1898E+03	1078	0.4706E-02	0.1959E+03	1079	0.4600E-02	0.1903E+03	1080	0.4703E-02	0.1965E+03
1081	0.4509E-02	0.1803E+03	1082	0.4509E-02	0.1805E+03	1083	0.4509E-02	0.1803E+03	1084	0.4508E-02	0.1804E+03
1085	0.4656E-02	0.1803E+03	1086	0.4656E-02	0.1804E+03	1087	0.4656E-02	0.1808E+03	1088	0.4658E-02	0.1812E+03
1089	0.4656E-02	0.1813E+03	1090	0.4656E-02	0.1821E+03	1091	0.4655E-02	0.1818E+03	1092	0.4655E-02	0.1829E+03
1093	0.4653E-02	0.1823E+03	1094	0.4656E-02	0.1837E+03	1095	0.4651E-02	0.1828E+03	1096	0.4658E-02	0.1845E+03
1097	0.4649E-02	0.1834E+03	1098	0.4656E-02	0.1853E+03	1099	0.4646E-02	0.1839E+03	1100	0.4657E-02	0.1862E+03
1101	0.4643E-02	0.1844E+03	1102	0.4657E-02	0.1870E+03	1103	0.4640E-02	0.1849E+03	1104	0.4658E-02	0.1878E+03
1105	0.4636E-02	0.1854E+03	1106	0.4659E-02	0.1886E+03	1107	0.4631E-02	0.1860E+03	1108	0.4660E-02	0.1894E+03

1109	0.4823E-02	0.1861E+03	1110	0.4855E-02	0.1898E+03	1111	0.4815E-02	0.1863E+03	1112	0.4850E-02	0.1902E+03
1113	0.4577E-02	0.1802E+03	1114	0.4577E-02	0.1803E+03	1115	0.4576E-02	0.1801E+03	1116	0.4576E-02	0.1803E+03
1117	0.4800E-02	0.1802E+03	1118	0.4800E-02	0.1803E+03	1119	0.4800E-02	0.1805E+03	1120	0.4800E-02	0.1808E+03
1121	0.4800E-02	0.1808E+03	1122	0.4789E-02	0.1813E+03	1123	0.4793E-02	0.1811E+03	1124	0.4796E-02	0.1818E+03
1125	0.4798E-02	0.1814E+03	1126	0.4798E-02	0.1823E+03	1127	0.4796E-02	0.1818E+03	1128	0.4797E-02	0.1828E+03
1129	0.4794E-02	0.1821E+03	1130	0.4795E-02	0.1833E+03	1131	0.4792E-02	0.1824E+03	1132	0.4794E-02	0.1838E+03
1133	0.4789E-02	0.1827E+03	1134	0.4792E-02	0.1843E+03	1135	0.4787E-02	0.1830E+03	1136	0.4791E-02	0.1848E+03
1137	0.4783E-02	0.1833E+03	1138	0.4788E-02	0.1853E+03	1139	0.4779E-02	0.1838E+03	1140	0.4787E-02	0.1858E+03
1141	0.4773E-02	0.1838E+03	1142	0.4783E-02	0.1859E+03	1143	0.4766E-02	0.1837E+03	1144	0.4777E-02	0.1861E+03
1145	0.4750E-02	0.1801E+03	1146	0.4750E-02	0.1802E+03	1147	0.4750E-02	0.1800E+03	1148	0.4749E-02	0.1801E+03
1149	0.4753E-02	0.1818E+03	1150	0.4984E-02	0.1801E+03	1151	0.4984E-02	0.1802E+03	1152	0.4984E-02	0.1804E+03
1153	0.4984E-02	0.1805E+03	1154	0.4984E-02	0.1807E+03	1155	0.4984E-02	0.1808E+03	1156	0.4984E-02	0.1809E+03
1157	0.4984E-02	0.1811E+03	1158	0.4984E-02	0.1812E+03	1159	0.4984E-02	0.1814E+03	1160	0.4984E-02	0.1814E+03
1161	0.4984E-02	0.1817E+03	1162	0.4984E-02	0.1817E+03	1163	0.4984E-02	0.1820E+03	1164	0.4984E-02	0.1820E+03
1165	0.4984E-02	0.1823E+03	1166	0.4984E-02	0.1822E+03	1167	0.4984E-02	0.1826E+03	1168	0.4984E-02	0.1825E+03
1169	0.4985E-02	0.1829E+03	1170	0.4984E-02	0.1828E+03	1171	0.4985E-02	0.1832E+03	1172	0.4984E-02	0.1830E+03
1173	0.4985E-02	0.1835E+03	1174	0.4982E-02	0.1830E+03	1175	0.4984E-02	0.1835E+03	1176	0.4981E-02	0.1830E+03
1177	0.4982E-02	0.1835E+03	1178	0.4972E-02	0.1801E+03	1179	0.4972E-02	0.1801E+03	1180	0.4972E-02	0.1801E+03
1181	0.4973E-02	0.1800E+03	1182	0.4981E-02	0.1832E+03	1183	0.4977E-02	0.1817E+03	1184	0.4991E-02	0.1801E+03
1185	0.4991E-02	0.1801E+03	1186	0.4991E-02	0.1803E+03	1187	0.4990E-02	0.1804E+03	1188	0.4990E-02	0.1805E+03
1189	0.4990E-02	0.1807E+03	1190	0.4990E-02	0.1807E+03	1191	0.4990E-02	0.1809E+03	1192	0.4989E-02	0.1809E+03
1193	0.4989E-02	0.1812E+03	1194	0.4988E-02	0.1810E+03	1195	0.4988E-02	0.1814E+03	1196	0.4988E-02	0.1812E+03
1197	0.4988E-02	0.1817E+03	1198	0.4987E-02	0.1814E+03	1199	0.4987E-02	0.1820E+03	1200	0.4988E-02	0.1816E+03
1201	0.4986E-02	0.1822E+03	1202	0.4984E-02	0.1818E+03	1203	0.4984E-02	0.1825E+03	1204	0.4983E-02	0.1820E+03
1205	0.4983E-02	0.1828E+03	1206	0.4981E-02	0.1822E+03	1207	0.4982E-02	0.1830E+03	1208	0.4979E-02	0.1824E+03
1209	0.4980E-02	0.1830E+03	1210	0.4977E-02	0.1823E+03	1211	0.4978E-02	0.1830E+03	1212	0.4971E-02	0.1801E+03
1213	0.4971E-02	0.1801E+03	1214	0.4971E-02	0.1801E+03	1215	0.4971E-02	0.1801E+03	1216	0.4978E-02	0.1832E+03
1217	0.4978E-02	0.1832E+03	1218	0.4940E-02	0.1801E+03	1219	0.4940E-02	0.1801E+03	1220	0.4940E-02	0.1802E+03
1221	0.4940E-02	0.1803E+03	1222	0.4940E-02	0.1803E+03	1223	0.4939E-02	0.1805E+03	1224	0.4939E-02	0.1804E+03
1225	0.4939E-02	0.1807E+03	1226	0.4939E-02	0.1805E+03	1227	0.4938E-02	0.1809E+03	1228	0.4938E-02	0.1807E+03
1229	0.4937E-02	0.1811E+03	1230	0.4937E-02	0.1808E+03	1231	0.4936E-02	0.1812E+03	1232	0.4935E-02	0.1808E+03
1233	0.4935E-02	0.1814E+03	1234	0.4934E-02	0.1810E+03	1235	0.4933E-02	0.1816E+03	1236	0.4932E-02	0.1811E+03
1237	0.4932E-02	0.1818E+03	1238	0.4931E-02	0.1813E+03	1239	0.4931E-02	0.1820E+03	1240	0.4929E-02	0.1814E+03
1241	0.4929E-02	0.1822E+03	1242	0.4927E-02	0.1815E+03	1243	0.4927E-02	0.1824E+03	1244	0.4924E-02	0.1814E+03
1245	0.4924E-02	0.1823E+03	1246	0.4920E-02	0.1801E+03	1247	0.4920E-02	0.1801E+03	1248	0.4920E-02	0.1801E+03
1249	0.4920E-02	0.1801E+03	1250	0.4928E-02	0.1832E+03	1251	0.4928E-02	0.1832E+03	1252	0.4837E-02	0.1800E+03
1253	0.4837E-02	0.1801E+03	1254	0.4837E-02	0.1801E+03	1255	0.4837E-02	0.1802E+03	1256	0.4837E-02	0.1801E+03
1257	0.4837E-02	0.1803E+03	1258	0.4837E-02	0.1802E+03	1259	0.4836E-02	0.1804E+03	1260	0.4836E-02	0.1803E+03
1261	0.4835E-02	0.1808E+03	1262	0.4835E-02	0.1803E+03	1263	0.4834E-02	0.1807E+03	1264	0.4834E-02	0.1804E+03
1265	0.4833E-02	0.1808E+03	1266	0.4833E-02	0.1804E+03	1267	0.4832E-02	0.1809E+03	1268	0.4831E-02	0.1805E+03
1269	0.4830E-02	0.1810E+03	1270	0.4830E-02	0.1805E+03	1271	0.4829E-02	0.1812E+03	1272	0.4828E-02	0.1808E+03
1273	0.4828E-02	0.1813E+03	1274	0.4827E-02	0.1808E+03	1275	0.4828E-02	0.1814E+03	1276	0.4825E-02	0.1807E+03
1277	0.4824E-02	0.1815E+03	1278	0.4822E-02	0.1805E+03	1279	0.4821E-02	0.1814E+03	1280	0.4820E-02	0.1800E+03
1281	0.4819E-02	0.1801E+03	1282	0.4819E-02	0.1801E+03	1283	0.4819E-02	0.1801E+03	1284	0.4828E-02	0.1833E+03
1285	0.4828E-02	0.1833E+03	1286	0.4691E-02	0.1800E+03	1287	0.4691E-02	0.1800E+03	1288	0.4691E-02	0.1800E+03
1289	0.4691E-02	0.1801E+03	1290	0.4691E-02	0.1800E+03	1291	0.4691E-02	0.1802E+03	1292	0.4691E-02	0.1800E+03
1293	0.4690E-02	0.1802E+03	1294	0.4690E-02	0.1800E+03	1295	0.4688E-02	0.1803E+03	1296	0.4688E-02	0.1800E+03
1297	0.4688E-02	0.1803E+03	1298	0.4688E-02	0.1800E+03	1299	0.4687E-02	0.1804E+03	1300	0.4687E-02	0.1800E+03
1301	0.4686E-02	0.1804E+03	1302	0.4686E-02	0.1800E+03	1303	0.4685E-02	0.1805E+03	1304	0.4685E-02	0.1800E+03
1305	0.4684E-02	0.1805E+03	1306	0.4684E-02	0.1800E+03	1307	0.4682E-02	0.1806E+03	1308	0.4682E-02	0.1800E+03
1309	0.4681E-02	0.1807E+03	1310	0.4680E-02	0.1800E+03	1311	0.4678E-02	0.1807E+03	1312	0.4678E-02	0.1797E+03
1313	0.4678E-02	0.1805E+03	1314	0.4678E-02	0.1800E+03	1315	0.4676E-02	0.1800E+03	1316	0.4678E-02	0.1801E+03
1317	0.4676E-02	0.1801E+03	1318	0.4684E-02	0.1833E+03	1319	0.4684E-02	0.1834E+03	1320	0.4508E-02	0.1800E+03
1321	0.4508E-02	0.1800E+03	1322	0.4508E-02	0.1799E+03	1323	0.4508E-02	0.1800E+03	1324	0.4508E-02	0.1799E+03
1325	0.4508E-02	0.1800E+03	1326	0.4508E-02	0.1798E+03	1327	0.4507E-02	0.1800E+03	1328	0.4507E-02	0.1798E+03
1329	0.4506E-02	0.1800E+03	1330	0.4507E-02	0.1797E+03	1331	0.4506E-02	0.1800E+03	1332	0.4506E-02	0.1798E+03
1333	0.4505E-02	0.1800E+03	1334	0.4505E-02	0.1796E+03	1335	0.4504E-02	0.1800E+03	1336	0.4504E-02	0.1795E+03
1337	0.4502E-02	0.1800E+03	1338	0.4503E-02	0.1795E+03	1339	0.4501E-02	0.1800E+03	1340	0.4501E-02	0.1794E+03
1341	0.4499E-02	0.1800E+03	1342	0.4500E-02	0.1794E+03	1343	0.4499E-02	0.1800E+03	1344	0.4499E-02	0.1793E+03
1345	0.4497E-02	0.1800E+03	1346	0.4498E-02	0.1790E+03	1347	0.4495E-02	0.1797E+03	1348	0.4495E-02	0.1800E+03

1349	0.4495E-02	0.1800E+03	1350	0.4495E-02	0.1801E+03	1351	0.4495E-02	0.1801E+03	1352	0.4502E-02	0.1834E+03
1353	0.4502E-02	0.1835E+03	1354	0.4292E-02	0.1800E+03	1355	0.4292E-02	0.1800E+03	1356	0.4292E-02	0.1798E+03
1357	0.4292E-02	0.1798E+03	1358	0.4292E-02	0.1797E+03	1359	0.4291E-02	0.1799E+03	1360	0.4292E-02	0.1796E+03
1361	0.4291E-02	0.1798E+03	1362	0.4291E-02	0.1795E+03	1363	0.4290E-02	0.1797E+03	1364	0.4291E-02	0.1794E+03
1365	0.4290E-02	0.1797E+03	1366	0.4290E-02	0.1793E+03	1367	0.4289E-02	0.1796E+03	1368	0.4289E-02	0.1792E+03
1369	0.4288E-02	0.1795E+03	1370	0.4288E-02	0.1791E+03	1371	0.4287E-02	0.1795E+03	1372	0.4287E-02	0.1790E+03
1373	0.4286E-02	0.1794E+03	1374	0.4286E-02	0.1789E+03	1375	0.4284E-02	0.1794E+03	1376	0.4285E-02	0.1788E+03
1377	0.4283E-02	0.1793E+03	1378	0.4284E-02	0.1786E+03	1379	0.4281E-02	0.1793E+03	1380	0.4282E-02	0.1785E+03
1381	0.4281E-02	0.1790E+03	1382	0.4280E-02	0.1800E+03	1383	0.4280E-02	0.1800E+03	1384	0.4280E-02	0.1801E+03
1385	0.4280E-02	0.1801E+03	1386	0.4290E-02	0.1838E+03	1387	0.4289E-02	0.1838E+03	1388	0.4289E-02	0.1836E+03
1389	0.4047E-02	0.1799E+03	1390	0.4047E-02	0.1800E+03	1391	0.4047E-02	0.1798E+03	1392	0.4047E-02	0.1798E+03
1393	0.4047E-02	0.1798E+03	1394	0.4046E-02	0.1797E+03	1395	0.4047E-02	0.1794E+03	1396	0.4046E-02	0.1796E+03
1397	0.4046E-02	0.1793E+03	1398	0.4046E-02	0.1795E+03	1399	0.4046E-02	0.1791E+03	1400	0.4046E-02	0.1794E+03
1401	0.4046E-02	0.1790E+03	1402	0.4046E-02	0.1793E+03	1403	0.4046E-02	0.1788E+03	1404	0.4045E-02	0.1791E+03
1405	0.4046E-02	0.1786E+03	1406	0.4044E-02	0.1790E+03	1407	0.4045E-02	0.1785E+03	1408	0.4043E-02	0.1789E+03
1409	0.4044E-02	0.1783E+03	1410	0.4042E-02	0.1788E+03	1411	0.4043E-02	0.1782E+03	1412	0.4041E-02	0.1787E+03
1413	0.4042E-02	0.1780E+03	1414	0.4040E-02	0.1786E+03	1415	0.4041E-02	0.1778E+03	1416	0.4038E-02	0.1784E+03
1417	0.4037E-02	0.1800E+03	1418	0.4037E-02	0.1800E+03	1419	0.4037E-02	0.1801E+03	1420	0.4037E-02	0.1801E+03
1421	0.4046E-02	0.1840E+03	1422	0.4046E-02	0.1840E+03	1423	0.4046E-02	0.1838E+03	1424	0.4046E-02	0.1838E+03
1425	0.3778E-02	0.1799E+03	1426	0.3778E-02	0.1799E+03	1427	0.3778E-02	0.1797E+03	1428	0.3778E-02	0.1798E+03
1429	0.3778E-02	0.1795E+03	1430	0.3778E-02	0.1798E+03	1431	0.3778E-02	0.1793E+03	1432	0.3777E-02	0.1794E+03
1433	0.3778E-02	0.1790E+03	1434	0.3777E-02	0.1792E+03	1435	0.3777E-02	0.1788E+03	1436	0.3777E-02	0.1791E+03
1437	0.3777E-02	0.1786E+03	1438	0.3776E-02	0.1789E+03	1439	0.3777E-02	0.1784E+03	1440	0.3776E-02	0.1787E+03
1441	0.3777E-02	0.1782E+03	1442	0.3775E-02	0.1785E+03	1443	0.3778E-02	0.1780E+03	1444	0.3774E-02	0.1784E+03
1445	0.3778E-02	0.1777E+03	1446	0.3774E-02	0.1782E+03	1447	0.3775E-02	0.1775E+03	1448	0.3773E-02	0.1780E+03
1449	0.3775E-02	0.1773E+03	1450	0.3772E-02	0.1778E+03	1451	0.3774E-02	0.1771E+03	1452	0.3771E-02	0.1777E+03
1453	0.3768E-02	0.1800E+03	1454	0.3768E-02	0.1800E+03	1455	0.3768E-02	0.1801E+03	1456	0.3788E-02	0.1801E+03
1457	0.3778E-02	0.1843E+03	1458	0.3778E-02	0.1843E+03	1459	0.3778E-02	0.1840E+03	1460	0.3778E-02	0.1841E+03
1461	0.3486E-02	0.1799E+03	1462	0.3486E-02	0.1799E+03	1463	0.3485E-02	0.1795E+03	1464	0.3486E-02	0.1797E+03
1465	0.3486E-02	0.1793E+03	1466	0.3485E-02	0.1794E+03	1467	0.3486E-02	0.1790E+03	1468	0.3485E-02	0.1792E+03
1469	0.3486E-02	0.1788E+03	1470	0.3485E-02	0.1790E+03	1471	0.3486E-02	0.1785E+03	1472	0.3485E-02	0.1787E+03
1473	0.3486E-02	0.1782E+03	1474	0.3485E-02	0.1785E+03	1475	0.3486E-02	0.1779E+03	1476	0.3485E-02	0.1782E+03
1477	0.3486E-02	0.1776E+03	1478	0.3484E-02	0.1780E+03	1479	0.3486E-02	0.1774E+03	1480	0.3484E-02	0.1778E+03
1481	0.3486E-02	0.1771E+03	1482	0.3484E-02	0.1775E+03	1483	0.3486E-02	0.1768E+03	1484	0.3483E-02	0.1773E+03
1485	0.3486E-02	0.1765E+03	1486	0.3483E-02	0.1771E+03	1487	0.3486E-02	0.1763E+03	1488	0.3482E-02	0.1768E+03
1489	0.3477E-02	0.1799E+03	1490	0.3477E-02	0.1800E+03	1491	0.3477E-02	0.1801E+03	1492	0.3477E-02	0.1801E+03
1493	0.3489E-02	0.1846E+03	1494	0.3489E-02	0.1847E+03	1495	0.3487E-02	0.1843E+03	1496	0.3487E-02	0.1843E+03
1497	0.3174E-02	0.1798E+03	1498	0.3174E-02	0.1799E+03	1499	0.3174E-02	0.1795E+03	1500	0.3174E-02	0.1796E+03
1501	0.3174E-02	0.1791E+03	1502	0.3174E-02	0.1792E+03	1503	0.3175E-02	0.1788E+03	1504	0.3174E-02	0.1789E+03
1505	0.3175E-02	0.1784E+03	1506	0.3174E-02	0.1786E+03	1507	0.3175E-02	0.1781E+03	1508	0.3174E-02	0.1783E+03
1509	0.3175E-02	0.1777E+03	1510	0.3174E-02	0.1780E+03	1511	0.3176E-02	0.1774E+03	1512	0.3174E-02	0.1777E+03
1513	0.3176E-02	0.1771E+03	1514	0.3174E-02	0.1774E+03	1515	0.3176E-02	0.1767E+03	1516	0.3174E-02	0.1771E+03
1517	0.3177E-02	0.1764E+03	1518	0.3174E-02	0.1768E+03	1519	0.3177E-02	0.1760E+03	1520	0.3174E-02	0.1765E+03
1521	0.3178E-02	0.1757E+03	1522	0.3174E-02	0.1762E+03	1523	0.3178E-02	0.1753E+03	1524	0.3175E-02	0.1759E+03
1525	0.3166E-02	0.1799E+03	1526	0.3166E-02	0.1799E+03	1527	0.3188E-02	0.1801E+03	1528	0.3166E-02	0.1801E+03
1529	0.3179E-02	0.1851E+03	1530	0.3179E-02	0.1851E+03	1531	0.3177E-02	0.1847E+03	1532	0.3177E-02	0.1847E+03
1533	0.2845E-02	0.1798E+03	1534	0.2845E-02	0.1798E+03	1535	0.2845E-02	0.1794E+03	1536	0.2845E-02	0.1794E+03
1537	0.2848E-02	0.1789E+03	1538	0.2845E-02	0.1790E+03	1539	0.2846E-02	0.1785E+03	1540	0.2845E-02	0.1787E+03
1541	0.2848E-02	0.1781E+03	1542	0.2846E-02	0.1783E+03	1543	0.2847E-02	0.1776E+03	1544	0.2846E-02	0.1779E+03
1545	0.2847E-02	0.1772E+03	1546	0.2848E-02	0.1775E+03	1547	0.2848E-02	0.1768E+03	1548	0.2847E-02	0.1771E+03
1549	0.2849E-02	0.1763E+03	1550	0.2847E-02	0.1767E+03	1551	0.2850E-02	0.1759E+03	1552	0.2847E-02	0.1763E+03
1553	0.2851E-02	0.1755E+03	1554	0.2848E-02	0.1758E+03	1555	0.2851E-02	0.1750E+03	1556	0.2849E-02	0.1756E+03
1557	0.2852E-02	0.1748E+03	1558	0.2849E-02	0.1752E+03	1559	0.2853E-02	0.1742E+03	1560	0.2850E-02	0.1748E+03
1561	0.2838E-02	0.1799E+03	1562	0.2838E-02	0.1799E+03	1563	0.2838E-02	0.1801E+03	1564	0.2838E-02	0.1801E+03
1565	0.2851E-02	0.1856E+03	1566	0.2851E-02	0.1857E+03	1567	0.2850E-02	0.1852E+03	1568	0.2850E-02	0.1852E+03
1569	0.2500E-02	0.1787E+03	1570	0.2500E-02	0.1798E+03	1571	0.2500E-02	0.1782E+03	1572	0.2500E-02	0.1793E+03
1573	0.2501E-02	0.1787E+03	1574	0.2500E-02	0.1788E+03	1575	0.2501E-02	0.1781E+03	1576	0.2501E-02	0.1783E+03
1577	0.2501E-02	0.1776E+03	1578	0.2501E-02	0.1778E+03	1579	0.2502E-02	0.1770E+03	1580	0.2501E-02	0.1773E+03
1581	0.2503E-02	0.1765E+03	1582	0.2501E-02	0.1768E+03	1583	0.2504E-02	0.1759E+03	1584	0.2502E-02	0.1763E+03
1585	0.2505E-02	0.1754E+03	1586	0.2503E-02	0.1758E+03	1587	0.2507E-02	0.1749E+03	1588	0.2504E-02	0.1753E+03

1589	0.2508E-02	0.1743E+03	1590	0.2505E-02	0.1748E+03	1591	0.2510E-02	0.1738E+03	1592	0.2508E-02	0.1744E+03
1593	0.2512E-02	0.1733E+03	1594	0.2508E-02	0.1739E+03	1595	0.2514E-02	0.1727E+03	1596	0.2509E-02	0.1734E+03
1597	0.2493E-02	0.1799E+03	1598	0.2483E-02	0.1799E+03	1599	0.2493E-02	0.1801E+03	1600	0.2493E-02	0.1801E+03
1601	0.2508E-02	0.1864E+03	1602	0.2508E-02	0.1864E+03	1603	0.2505E-02	0.1858E+03	1604	0.2505E-02	0.1859E+03
1605	0.2139E-02	0.1797E+03	1606	0.2139E-02	0.1797E+03	1607	0.2139E-02	0.1790E+03	1608	0.2139E-02	0.1791E+03
1609	0.2140E-02	0.1783E+03	1610	0.2139E-02	0.1784E+03	1611	0.2140E-02	0.1778E+03	1612	0.2140E-02	0.1778E+03
1613	0.2141E-02	0.1769E+03	1614	0.2141E-02	0.1772E+03	1615	0.2143E-02	0.1762E+03	1616	0.2141E-02	0.1765E+03
1617	0.2144E-02	0.1755E+03	1618	0.2143E-02	0.1759E+03	1619	0.2146E-02	0.1748E+03	1620	0.2144E-02	0.1753E+03
1621	0.2148E-02	0.1741E+03	1622	0.2145E-02	0.1746E+03	1623	0.2150E-02	0.1734E+03	1624	0.2147E-02	0.1740E+03
1625	0.2152E-02	0.1728E+03	1626	0.2149E-02	0.1734E+03	1627	0.2155E-02	0.1721E+03	1628	0.2151E-02	0.1727E+03
1629	0.2158E-02	0.1714E+03	1630	0.2152E-02	0.1721E+03	1631	0.2161E-02	0.1707E+03	1632	0.2155E-02	0.1715E+03
1633	0.2131E-02	0.1788E+03	1634	0.2131E-02	0.1788E+03	1635	0.2131E-02	0.1801E+03	1636	0.2131E-02	0.1801E+03
1637	0.2150E-02	0.1674E+03	1638	0.2150E-02	0.1675E+03	1639	0.2147E-02	0.1667E+03	1640	0.2147E-02	0.1668E+03
1641	0.1765E-02	0.1786E+03	1642	0.1765E-02	0.1786E+03	1643	0.1765E-02	0.1788E+03	1644	0.1765E-02	0.1788E+03
1645	0.1786E-02	0.1777E+03	1646	0.1788E-02	0.1779E+03	1647	0.1767E-02	0.1768E+03	1648	0.1767E-02	0.1771E+03
1649	0.1769E-02	0.1759E+03	1650	0.1768E-02	0.1762E+03	1651	0.1771E-02	0.1750E+03	1652	0.1769E-02	0.1754E+03
1653	0.1773E-02	0.1741E+03	1654	0.1771E-02	0.1746E+03	1655	0.1778E-02	0.1732E+03	1656	0.1774E-02	0.1737E+03
1657	0.1779E-02	0.1723E+03	1658	0.1776E-02	0.1729E+03	1659	0.1782E-02	0.1714E+03	1660	0.1778E-02	0.1721E+03
1661	0.1786E-02	0.1705E+03	1662	0.1781E-02	0.1712E+03	1663	0.1790E-02	0.1697E+03	1664	0.1785E-02	0.1704E+03
1665	0.1795E-02	0.1688E+03	1666	0.1788E-02	0.1696E+03	1667	0.1800E-02	0.1678E+03	1668	0.1793E-02	0.1688E+03
1669	0.1759E-02	0.1798E+03	1670	0.1759E-02	0.1798E+03	1671	0.1759E-02	0.1801E+03	1672	0.1759E-02	0.1801E+03
1673	0.1780E-02	0.1890E+03	1674	0.1780E-02	0.1890E+03	1675	0.1778E-02	0.1881E+03	1676	0.1776E-02	0.1881E+03
1677	0.1375E-02	0.1794E+03	1678	0.1375E-02	0.1794E+03	1679	0.1376E-02	0.1781E+03	1680	0.1376E-02	0.1783E+03
1681	0.1377E-02	0.1769E+03	1682	0.1377E-02	0.1771E+03	1683	0.1379E-02	0.1758E+03	1684	0.1378E-02	0.1759E+03
1685	0.1382E-02	0.1744E+03	1686	0.1380E-02	0.1748E+03	1687	0.1385E-02	0.1731E+03	1688	0.1383E-02	0.1736E+03
1689	0.1388E-02	0.1719E+03	1690	0.1386E-02	0.1725E+03	1691	0.1392E-02	0.1707E+03	1692	0.1389E-02	0.1713E+03
1693	0.1397E-02	0.1894E+03	1694	0.1392E-02	0.1702E+03	1695	0.1402E-02	0.1682E+03	1696	0.1397E-02	0.1890E+03
1697	0.1408E-02	0.1670E+03	1698	0.1402E-02	0.1678E+03	1699	0.1414E-02	0.1658E+03	1700	0.1408E-02	0.1888E+03
1701	0.1421E-02	0.1646E+03	1702	0.1413E-02	0.1657E+03	1703	0.1429E-02	0.1634E+03	1704	0.1419E-02	0.1646E+03
1705	0.1389E-02	0.1797E+03	1706	0.1389E-02	0.1797E+03	1707	0.1389E-02	0.1802E+03	1708	0.1389E-02	0.1802E+03
1709	0.1398E-02	0.1914E+03	1710	0.1398E-02	0.1915E+03	1711	0.1390E-02	0.1903E+03	1712	0.1390E-02	0.1903E+03
1713	0.9689E-03	0.1790E+03	1714	0.9689E-03	0.1791E+03	1715	0.9699E-03	0.1771E+03	1716	0.9699E-03	0.1773E+03
1717	0.9718E-03	0.1752E+03	1718	0.9708E-03	0.1758E+03	1719	0.9747E-03	0.1733E+03	1720	0.9737E-03	0.1738E+03
1721	0.9784E-03	0.1714E+03	1722	0.9775E-03	0.1720E+03	1723	0.9842E-03	0.1695E+03	1724	0.9813E-03	0.1703E+03
1725	0.9889E-03	0.1877E+03	1726	0.9861E-03	0.1885E+03	1727	0.9965E-03	0.1859E+03	1728	0.9918E-03	0.1888E+03
1729	0.1005E-02	0.1841E+03	1730	0.9885E-03	0.1851E+03	1731	0.1014E-02	0.1823E+03	1732	0.1006E-02	0.1835E+03
1733	0.1023E-02	0.1805E+03	1734	0.1015E-02	0.1818E+03	1735	0.1034E-02	0.1788E+03	1736	0.1023E-02	0.1802E+03
1737	0.1045E-02	0.1571E+03	1738	0.1034E-02	0.1586E+03	1739	0.1056E-02	0.1555E+03	1740	0.1044E-02	0.1570E+03
1741	0.9613E-03	0.1795E+03	1742	0.9613E-03	0.1795E+03	1743	0.9613E-03	0.1802E+03	1744	0.9813E-03	0.1802E+03
1745	0.1000E-02	0.1960E+03	1746	0.1000E-02	0.1961E+03	1747	0.9918E-03	0.1944E+03	1748	0.9928E-03	0.1945E+03
1749	0.5436E-03	0.1782E+03	1750	0.5436E-03	0.1783E+03	1751	0.5485E-03	0.1745E+03	1752	0.5455E-03	0.1749E+03
1753	0.5503E-03	0.1709E+03	1754	0.5493E-03	0.1715E+03	1755	0.5588E-03	0.1673E+03	1756	0.5550E-03	0.1682E+03
1757	0.5555E-03	0.1638E+03	1758	0.5617E-03	0.1649E+03	1759	0.5780E-03	0.1605E+03	1760	0.5703E-03	0.1618E+03
1761	0.5875E-03	0.1572E+03	1762	0.5808E-03	0.1587E+03	1763	0.6018E-03	0.1541E+03	1764	0.5932E-03	0.1558E+03
1765	0.6170E-03	0.1512E+03	1766	0.6065E-03	0.1529E+03	1767	0.6342E-02	0.1484E+03	1768	0.6218E-03	0.1502E+03
1769	0.6523E-03	0.1457E+03	1770	0.6371E-03	0.1477E+03	1771	0.6723E-03	0.1432E+03	1772	0.6542E-03	0.1452E+03
1773	0.6933E-03	0.1408E+03	1774	0.6723E-03	0.1429E+03	1775	0.7153E-03	0.1386E+03	1776	0.6924E-03	0.1407E+03
1777	0.5350E-03	0.1790E+03	1778	0.5350E-03	0.1791E+03	1779	0.5350E-03	0.1804E+03	1780	0.5350E-03	0.1804E+03
1781	0.6027E-03	0.2073E+03	1782	0.6027E-03	0.2073E+03	1783	0.5894E-03	0.2046E+03	1784	0.5894E-03	0.2047E+03
1785	0.1001E-03	0.1691E+03	1786	0.1001E-03	0.1899E+03	1787	0.1135E-03	0.1499E+03	1788	0.1116E-03	0.1518E+03
1789	0.1364E-03	0.1360E+03	1790	0.1316E-03	0.1382E+03	1791	0.1650E-03	0.1264E+03	1792	0.1564E-03	0.1285E+03
1793	0.1965E-03	0.1198E+03	1794	0.1850E-03	0.1218E+03	1795	0.2288E-03	0.1150E+03	1796	0.2155E-03	0.1168E+03
1797	0.2642E-03	0.1114E+03	1798	0.2470E-03	0.1129E+03	1799	0.2995E-03	0.1087E+03	1800	0.2794E-03	0.1099E+03
1801	0.3347E-03	0.1065E+03	1802	0.3119E-03	0.1078E+03	1803	0.3710E-03	0.1047E+03	1804	0.3452E-03	0.1057E+03
1805	0.4082E-03	0.1033E+03	1806	0.3786E-03	0.1041E+03	1807	0.4444E-03	0.1020E+03	1808	0.4129E-03	0.1028E+03
1809	0.4816E-03	0.1009E+03	1810	0.4473E-03	0.1017E+03	1811	0.5188E-03	0.1000E+03	1812	0.4807E-03	0.1007E+03
1813	0.8955E-04	0.1731E+03	1814	0.8865E-04	0.1737E+03	1815	0.8869E-04	0.1820E+03	1816	0.8869E-04	0.1821E+03
1817	0.2909E-03	0.2522E+03	1818	0.2909E-03	0.2522E+03	1819	0.2604E-03	0.2500E+03	1820	0.2613E-03	0.2501E+03
1821	0.3700E-03	0.3237E+01	1822	0.3700E-03	0.2940E+01	1823	0.3738E-03	0.9576E+01	1824	0.3738E-03	0.8742E+01
1825	0.3834E-03	0.1568E+02	1826	0.3815E-03	0.1436E+02	1827	0.3967E-03	0.2142E+02	1828	0.3929E-03	0.1969E+02

1829	0.4139E-03	0.2673E+02	1830	0.4082E-03	0.2467E+02	1831	0.4349E-03	0.3156E+02	1832	0.4253E-03	0.2927E+02
1833	0.4587E-03	0.3592E+02	1834	0.4454E-03	0.3346E+02	1835	0.4845E-03	0.3982E+02	1836	0.4683E-03	0.3726E+02
1837	0.5121E-03	0.4329E+02	1838	0.4930E-03	0.4068E+02	1839	0.5417E-03	0.4638E+02	1840	0.5188E-03	0.4377E+02
1841	0.5732E-03	0.4914E+02	1842	0.5465E-03	0.4654E+02	1843	0.6055E-03	0.5159E+02	1844	0.5780E-03	0.4903E+02
1845	0.6390E-03	0.5379E+02	1846	0.6056E-03	0.5128E+02	1847	0.6733E-03	0.5576E+02	1848	0.6371E-03	0.5331E+02
1849	0.3805E-03	0.1793E+01	1850	0.3805E-03	0.1815E+01	1851	0.3805E-03	0.3596E+03	1852	0.3805E-03	0.3595E+03
1853	0.4711E-03	0.3238E+03	1854	0.4702E-03	0.3239E+03	1855	0.4520E-03	0.3272E+03	1856	0.4530E-03	0.3272E+03
1857	0.8469E-03	0.1779E+01	1858	0.8469E-03	0.1411E+01	1859	0.8507E-03	0.5284E+01	1860	0.8497E-03	0.4201E+01
1861	0.8574E-03	0.8737E+01	1862	0.8545E-03	0.6964E+01	1863	0.8678E-03	0.1211E+02	1864	0.8621E-03	0.9684E+01
1865	0.8812E-03	0.1536E+02	1866	0.8717E-03	0.1235E+02	1867	0.8974E-03	0.1848E+02	1868	0.8831E-03	0.1494E+02
1869	0.9165E-03	0.2144E+02	1870	0.8965E-03	0.1745E+02	1871	0.9384E-03	0.2424E+02	1872	0.9117E-03	0.1987E+02
1873	0.9613E-03	0.2686E+02	1874	0.9288E-03	0.2220E+02	1875	0.9871E-03	0.2831E+02	1876	0.9488E-03	0.2443E+02
1877	0.1014E-02	0.3159E+02	1878	0.9889E-03	0.2658E+02	1879	0.1042E-02	0.3370E+02	1880	0.9908E-03	0.2859E+02
1881	0.1071E-02	0.3565E+02	1882	0.1015E-02	0.3053E+02	1883	0.1101E-02	0.3744E+02	1884	0.1040E-02	0.3238E+02
1885	0.8774E-03	0.8693E+00	1886	0.8774E-03	0.7772E+00	1887	0.8774E-03	0.3599E+03	1888	0.8774E-03	0.3598E+03
1889	0.9193E-03	0.3426E+03	1890	0.9212E-03	0.3424E+03	1891	0.9108E-03	0.3445E+03	1892	0.9117E-03	0.3444E+03
1893	0.1135E-02	0.2999E+01	1894	0.1135E-02	0.1328E+01	1895	0.1152E-02	0.9975E+01	1896	0.1142E-02	0.3936E+01
1897	0.1188E-02	0.1882E+02	1898	0.1153E-02	0.8486E+01	1899	0.1243E-02	0.2277E+02	1900	0.1170E-02	0.8949E+01
1901	0.1312E-02	0.2831E+02	1902	0.1191E-02	0.1129E+02	1903	0.1398E-02	0.3321E+02	1904	0.1218E-02	0.1350E+02
1905	0.1493E-02	0.3748E+02	1906	0.1249E-02	0.1555E+02	1907	0.1593E-02	0.4119E+02	1908	0.1285E-02	0.1744E+02
1909	0.1716E-02	0.4439E+02	1910	0.1325E-02	0.1915E+02	1911	0.1840E-02	0.4713E+02	1912	0.1369E-02	0.2068E+02
1913	0.1970E-02	0.4949E+02	1914	0.1416E-02	0.2203E+02	1915	0.2109E-02	0.5152E+02	1916	0.1487E-02	0.2321E+02
1917	0.2254E-02	0.5326E+02	1918	0.1521E-02	0.2422E+02	1919	0.2404E-02	0.5478E+02	1920	0.1578E-02	0.2508E+02
1921	0.1435E-02	0.4872E+01	1922	0.1434E-02	0.5932E+00	1923	0.1439E-02	0.4689E+01	1924	0.1438E-02	0.3599E+03
1925	0.2601E-02	0.5843E+02	1926	0.1544E-02	0.3498E+03	1927	0.1618E-02	0.3389E+03	1928	0.1529E-02	0.3508E+03

6.5.4.5 Last Head Distribution Output to a Disk File for Plotting.

```
EXAMPLE DATA SET: SIMULATION OF THE POST-MINING FLOW SYSTEM;   NO MASS TRANSPORT
  23    61     4     300.00      10.00
       7.5
1041
22222222222222222222222222222222222222222222222222222222222222222222
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33333333333333333333333334444444444433333333333333333333333333333333
11122222222222222222224444444444422222222222222222222222222222222222
11111111222222222222222244444444411222222222222222222222222222222222
11111111111222222222222444444444411222222222222222222222222222222222
11111111111111111111222244444444411222222222222222222222222222222222
11111111111111111111111111111111111111111111111111122222222222222222
11111111111111111111111111111111111111111111111111111111111111111111
      250.000      251.000      252.000      253.000      254.000      255.000      258.000      262.000
      265.000      268.000      271.000      274.000      277.000      278.000      280.000      281.000
      282.000      281.200      281.700      282.000      283.000      284.000      286.000      285.000
      287.000      288.000      289.100      289.200      288.300      289.400      289.500      288.700
      275.000      260.000      290.100      290.200      290.300      290.400      290.500      290.600
      290.700      290.800      291.000      291.200      291.400      291.500      291.700      291.800
      292.000      293.000      295.000      295.000      295.000      295.000      295.000      295.000
      295.000      295.000      295.000      295.000      285.000
    1      0.0   90.000    2      0.0  100.000    3      0.0  110.000    4      0.0  120.000    5      0.0  130.000
    6      0.0  140.000    7      0.0  150.000    8      0.0  160.000    9      0.0  170.000   10      0.0  180.000
   11      0.0  190.000   12      0.0  200.000   13      0.0  210.000   14      0.0  220.000   15      0.0  230.000
   16  300.000   90.000   17  300.000  100.000   18  300.000  110.000   19  300.000  120.000   20  300.000  130.000
   21  300.000  140.000   22  300.000  150.000   23  300.000  160.000   24  300.000  170.000   25  300.000  180.000
   26  300.000  190.000   27  300.000  200.000   28  300.000  210.000   29  300.000  220.000   30  300.000  232.574
   31  600.000   90.000   32  600.000  100.000   33  600.000  110.000   34  600.000  120.000   35  600.000  130.000
   36  600.000  140.000   37  600.000  150.000   38  600.000  160.000   39  600.000  170.000   40  600.000  180.000
   41  600.000  190.000   42  600.000  200.000   43  600.000  210.000   44  600.000  220.000   45  600.000  230.000
   46  600.000  234.106   47  900.000   90.000   48  900.000  100.000   49  900.000  110.000   50  900.000  120.000
   51  900.000  130.000   52  900.000  140.000   53  900.000  150.000   54  900.000  160.000   55  900.000  170.000
   56  900.000  180.000   57  900.000  190.000   58  900.000  200.000   59  900.000  210.000   60  900.000  220.000
   61  900.000  230.000   62  900.000  235.180   63 1200.000   90.000   64 1200.000  100.000   65 1200.000  110.000
   66 1200.000  120.000   67 1200.000  130.000   68 1200.000  140.000   69 1200.000  150.000   70 1200.000  160.000
   71 1200.000  170.000   72 1200.000  180.000   73 1200.000  190.000   74 1200.000  200.000   75 1200.000  210.000
   76 1200.000  220.000   77 1200.000  230.000   78 1200.000  235.065   79 1500.000   90.000   80 1500.000  100.000
   81 1500.000  110.000   82 1500.000  120.000   83 1500.000  130.000   84 1500.000  140.000   85 1500.000  150.000
   86 1500.000  160.000   87 1500.000  170.000   88 1500.000  180.000   89 1500.000  190.000   90 1500.000  200.000
   91 1500.000  210.000   92 1500.000  220.000   93 1500.000  230.000   94 1500.000  238.845   95 1800.000   90.000
   96 1800.000  100.000   97 1800.000  110.000   98 1800.000  120.000   99 1800.000  130.000  100 1800.000  140.000
  101 1800.000  150.000  102 1800.000  160.000  103 1800.000  170.000  104 1800.000  180.000  105 1800.000  190.000
  106 1800.000  200.000  107 1800.000  210.000  108 1800.000  220.000  109 1800.000  230.000  110 1800.000  237.531
  111 2100.000   90.000  112 2100.000  100.000  113 2100.000  110.000  114 2100.000  120.000  115 2100.000  130.000
  116 2100.000  140.000  117 2100.000  150.000  118 2100.000  160.000  119 2100.000  170.000  120 2100.000  180.000
  121 2100.000  190.000  122 2100.000  200.000  123 2100.000  210.000  124 2100.000  220.000  125 2100.000  230.000
  126 2100.000  238.125  127 2400.000   90.000  128 2400.000  100.000  129 2400.000  110.000  130 2400.000  120.000

  131 2400.000  130.000  132 2400.000  140.000  133 2400.000  150.000  134 2400.000  160.000  135 2400.000  170.000
  136 2400.000  180.000  137 2400.000  190.000  138 2400.000  200.000  139 2400.000  210.000  140 2400.000  220.000
  141 2400.000  230.000  142 2400.000  238.643  143 2700.000   90.000  144 2700.000  100.000  145 2700.000  110.000
  146 2700.000  120.000  147 2700.000  130.000  148 2700.000  140.000  149 2700.000  150.000  150 2700.000  160.000
  151 2700.000  170.000  152 2700.000  180.000  153 2700.000  190.000  154 2700.000  200.000  155 2700.000  210.000
  156 2700.000  220.000  157 2700.000  230.000  158 2700.000  235.080  159 3000.000   90.000  160 3000.000  100.000
  161 3000.000  110.000  162 3000.000  120.000  163 3000.000  130.000  164 3000.000  140.000  165 3000.000  150.000
  166 3000.000  160.000  167 3000.000  170.000  168 3000.000  180.000  169 3000.000  190.000  170 3000.000  200.000
  171 3000.000  210.000  172 3000.000  220.000  173 3000.000  230.000  174 3000.000  239.474  175 3300.000   90.000
  176 3300.000  100.000  177 3300.000  110.000  178 3300.000  120.000  179 3300.000  130.000  180 3300.000  140.000
  181 3300.000  150.000  182 3300.000  160.000  183 3300.000  170.000  184 3300.000  180.000  185 3300.000  190.000
  186 3300.000  200.000  187 3300.000  210.000  188 3300.000  220.000  189 3300.000  230.000  190 3300.000  238.789
  191 3600.000   90.000  192 3800.000  100.000  193 3800.000  110.000  194 3600.000  120.000  195 3600.000  130.000
  196 3600.000  140.000  197 3800.000  150.000  198 3800.000  160.000  199 3600.000  170.000  200 3600.000  180.000
  201 3600.000  190.000  202 3800.000  200.000  203 3800.000  210.000  204 3800.000  220.000  205 3800.000  230.000
  206 3600.000  240.088  207 3900.000   90.000  208 3900.000  100.000  209 3900.000  110.000  210 3900.000  120.000
  211 3900.000  130.000  212 3900.000  140.000  213 3900.000  150.000  214 3900.000  160.000  215 3900.000  170.000
  216 3900.000  180.000  217 3900.000  190.000  218 3900.000  200.000  219 3900.000  210.000  220 3900.000  220.000
  221 3900.000  230.000  222 3900.000  240.285  223 4200.000   90.000  224 4200.000  100.000  225 4200.000  110.000
  226 4200.000  120.000  227 4200.000  130.000  228 4200.000  140.000  229 4200.000  150.000  230 4200.000  160.000
  231 4200.000  170.000  232 4200.000  180.000  233 4200.000  190.000  234 4200.000  200.000  235 4200.000  210.000
  236 4200.000  220.000  237 4200.000  230.000  238 4200.000  240.453  239 4500.000   90.000  240 4500.000  100.000
  241 4500.000  110.000  242 4500.000  120.000  243 4500.000  130.000  244 4500.000  140.000  245 4500.000  150.000
  246 4500.000  160.000  247 4500.000  170.000  248 4500.000  180.000  249 4500.000  190.000  250 4500.000  200.000
  251 4500.000  210.000  252 4500.000  220.000  253 4500.000  230.000  254 4500.000  240.574  255 4800.000   90.000
  256 4800.000  100.000  257 4800.000  110.000  258 4800.000  120.000  259 4800.000  130.000  260 4800.000  140.000
  261 4800.000  150.000  262 4800.000  160.000  263 4800.000  170.000  264 4800.000  180.000  265 4800.000  190.000
  266 4800.000  200.000  267 4800.000  210.000  268 4800.000  220.000  269 4800.000  230.000  270 4800.000  240.651
  271 5100.000   90.000  272 5100.000  100.000  273 5100.000  110.000  274 5100.000  120.000  275 5100.000  130.000
  276 5100.000  140.000  277 5100.000  150.000  278 5100.000  160.000  279 5100.000  170.000  280 5100.000  180.000
  281 5100.000  190.000  282 5100.000  200.000  283 5100.000  210.000  284 5100.000  220.000  285 5100.000  230.000
  286 5100.000  240.885  287 5400.000   90.000  288 5400.000  100.000  289 5400.000  110.000  290 5400.000  120.000
  291 5400.000  130.000  292 5400.000  140.000  293 5400.000  150.000  294 5400.000  160.000  295 5400.000  170.000
  296 5400.000  180.000  297 5400.000  190.000  298 5400.000  200.000  299 5400.000  210.000  300 5400.000  220.000
  301 5400.000  230.000  302 5400.000  240.879  303 5700.000   90.000  304 5700.000  100.000  305 5700.000  110.000
  306 5700.000  120.000  307 5700.000  130.000  308 5700.000  140.000  309 5700.000  150.000  310 5700.000  160.000
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  316 5700.000  220.000  317 5700.000  230.000  318 5700.000  240.635  319 6000.000   90.000  320 6000.000  100.000
  321 6000.000  110.000  322 6000.000  120.000  323 6000.000  130.000  324 6000.000  140.000  325 6000.000  150.000
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  331 6000.000  210.000  332 6000.000  220.000  333 6000.000  230.000  334 6000.000  240.556  335 6300.000   90.000
  336 6300.000  100.000  337 6300.000  110.000  338 6300.000  120.000  339 6300.000  130.000  340 6300.000  140.000
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  346 6300.000  200.000  347 6300.000  210.000  348 6300.000  220.000  349 6300.000  230.000  350 6300.000  240.442
  351 6600.000   90.000  352 6600.000  100.000  353 6600.000  110.000  354 6600.000  120.000  355 6600.000  130.000
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  361 6600.000  190.000  362 6600.000  200.000  363 6600.000  210.000  364 6600.000  220.000  365 6600.000  230.000
  366 6600.000  240.299  367 6900.000   90.000  368 6900.000  100.000  369 6900.000  110.000  370 6900.000  120.000
  371 6900.000  130.000  372 6900.000  140.000  373 6900.000  150.000  374 6900.000  160.000  375 6900.000  170.000
  376 6900.000  180.000  377 6900.000  190.000  378 6900.000  200.000  379 6900.000  210.000  380 6900.000  220.000
  381 6900.000  230.000  382 6900.000  240.127  383 7200.000   90.000  384 7200.000  100.000  385 7200.000  110.000
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  396 7200.000  220.000  397 7200.000  230.000  398 7200.000  238.841  399 7500.000   90.000  400 7500.000  100.000
  401 7500.000  110.000  402 7500.000  120.000  403 7500.000  130.000  404 7500.000  140.000  405 7500.000  150.000
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  411 7500.000  210.000  412 7500.000  220.000  413 7500.000  230.000  414 7500.000  238.248  415 7800.000   90.000
  416 7800.000  100.000  417 7800.000  110.000  418 7800.000  120.000  419 7800.000  130.000  420 7800.000  140.000
  421 7800.000  150.000  422 7800.000  160.000  423 7800.000  170.000  424 7800.000  180.000  425 7800.000  190.000
  426 7800.000  200.000  427 7800.000  210.000  428 7800.000  220.000  429 7800.000  230.000  430 7800.000  238.585
```

431	8100.000	90.000	432	8100.000	100.000	433	8100.000	110.000	434	8100.000	120.000	435	8100.000	130.000
436	8100.000	140.000	437	8100.000	150.000	438	8100.000	160.000	439	8100.000	170.000	440	8100.000	180.000
441	8100.000	190.000	442	8100.000	200.000	443	8100.000	210.000	444	8100.000	220.000	445	8100.000	230.000
446	8100.000	238.005	447	8400.000	90.000	448	8400.000	100.000	449	8400.000	110.000	450	8400.000	120.000
451	8400.000	130.000	452	8400.000	140.000	453	8400.000	150.000	454	8400.000	160.000	455	8400.000	170.000
456	8400.000	180.000	457	8400.000	190.000	458	8400.000	200.000	459	8400.000	210.000	460	8400.000	220.000
461	8400.000	230.000	462	8400.000	237.578	463	8700.000	90.000	464	8700.000	100.000	465	8700.000	110.000
466	8700.000	120.000	467	8700.000	130.000	468	8700.000	140.000	469	8700.000	150.000	470	8700.000	160.000
471	8700.000	170.000	472	8700.000	180.000	473	8700.000	190.000	474	8700.000	200.000	475	8700.000	210.000
476	8700.000	220.000	477	8700.000	230.000	478	8700.000	237.408	479	9000.000	90.000	480	9000.000	100.000
481	9000.000	110.000	482	9000.000	120.000	483	9000.000	130.000	484	9000.000	140.000	485	9000.000	150.000
486	9000.000	160.000	487	9000.000	170.000	488	9000.000	180.000	489	9000.000	190.000	490	9000.000	200.000
491	9000.000	210.000	492	9000.000	220.000	493	9000.000	230.000	494	9000.000	237.614	495	9300.000	90.000
496	9300.000	100.000	497	9300.000	110.000	498	9300.000	120.000	499	9300.000	130.000	500	9300.000	140.000
501	9300.000	150.000	502	9300.000	160.000	503	9300.000	170.000	504	9300.000	180.000	505	9300.000	190.000
506	9300.000	200.000	507	9300.000	210.000	508	9300.000	220.000	509	9300.000	230.000	510	9300.000	238.353
511	9800.000	90.000	512	9800.000	100.000	513	9800.000	110.000	514	9800.000	120.000	515	9800.000	130.000
516	9800.000	140.000	517	9800.000	150.000	518	9800.000	160.000	519	9800.000	170.000	520	9800.000	180.000
521	9800.000	190.000	522	9800.000	200.000	523	9800.000	210.000	524	9800.000	220.000	525	9800.000	230.000
526	9800.000	238.915	527	9900.000	90.000	528	9900.000	100.000	529	9900.000	110.000	530	9900.000	120.000
531	9900.000	130.000	532	9900.000	140.000	533	9900.000	150.000	534	9900.000	160.000	535	9900.000	170.000
536	9900.000	180.000	537	9900.000	190.000	538	9900.000	200.000	539	9900.000	210.000	540	9900.000	220.000
541	9900.000	230.000	542	9900.000	240.000	543	9900.000	242.858	544	10200.000	90.000	545	10200.000	100.000
546	10200.000	110.000	547	10200.000	120.000	548	10200.000	130.000	549	10200.000	140.000	550	10200.000	150.000
551	10200.000	160.000	552	10200.000	170.000	553	10200.000	180.000	554	10200.000	190.000	555	10200.000	200.000
556	10200.000	210.000	557	10200.000	220.000	558	10200.000	230.000	559	10200.000	240.000	560	10200.000	247.282
561	10500.000	90.000	562	10500.000	100.000	563	10500.000	110.000	564	10500.000	120.000	565	10500.000	130.000
566	10500.000	140.000	567	10500.000	150.000	568	10500.000	160.000	569	10500.000	170.000	570	10500.000	180.000
571	10500.000	190.000	572	10500.000	200.000	573	10500.000	210.000	574	10500.000	220.000	575	10500.000	230.000
576	10500.000	240.000	577	10500.000	248.508	578	10800.000	90.000	579	10800.000	100.000	580	10800.000	110.000
581	10800.000	120.000	582	10800.000	130.000	583	10800.000	140.000	584	10800.000	150.000	585	10800.000	160.000
586	10800.000	170.000	587	10800.000	180.000	588	10800.000	190.000	589	10800.000	200.000	590	10800.000	210.000
591	10800.000	220.000	592	10800.000	230.000	593	10800.000	240.000	594	10800.000	248.861	595	11100.000	90.000
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601	11100.000	150.000	602	11100.000	160.000	603	11100.000	170.000	604	11100.000	180.000	605	11100.000	190.000
606	11100.000	200.000	607	11100.000	210.000	608	11100.000	220.000	609	11100.000	230.000	610	11100.000	240.000
611	11100.000	251.233	612	11400.000	90.000	613	11400.000	100.000	614	11400.000	110.000	615	11400.000	120.000
616	11400.000	130.000	617	11400.000	140.000	618	11400.000	150.000	619	11400.000	160.000	620	11400.000	170.000
621	11400.000	180.000	622	11400.000	190.000	623	11400.000	200.000	624	11400.000	210.000	625	11400.000	220.000
626	11400.000	230.000	627	11400.000	240.000	628	11400.000	250.000	629	11400.000	252.858	630	11700.000	90.000
631	11700.000	100.000	632	11700.000	110.000	633	11700.000	120.000	634	11700.000	130.000	635	11700.000	140.000
636	11700.000	150.000	637	11700.000	160.000	638	11700.000	170.000	639	11700.000	180.000	640	11700.000	190.000
641	11700.000	200.000	642	11700.000	210.000	643	11700.000	220.000	644	11700.000	230.000	645	11700.000	240.000
646	11700.000	250.000	647	11700.000	254.151	648	12000.000	90.000	649	12000.000	100.000	650	12000.000	110.000
651	12000.000	120.000	652	12000.000	130.000	653	12000.000	140.000	654	12000.000	150.000	655	12000.000	160.000
656	12000.000	170.000	657	12000.000	180.000	658	12000.000	190.000	659	12000.000	200.000	660	12000.000	210.000
661	12000.000	220.000	662	12000.000	230.000	663	12000.000	240.000	664	12000.000	250.000	665	12000.000	255.643
666	12300.000	90.000	667	12300.000	100.000	668	12300.000	110.000	669	12300.000	120.000	670	12300.000	130.000
671	12300.000	140.000	672	12300.000	150.000	673	12300.000	160.000	674	12300.000	170.000	675	12300.000	180.000
676	12300.000	190.000	677	12300.000	200.000	678	12300.000	210.000	679	12300.000	220.000	680	12300.000	230.000
681	12300.000	240.000	682	12300.000	250.000	683	12300.000	257.119	684	12600.000	90.000	685	12600.000	100.000
686	12600.000	110.000	687	12600.000	120.000	688	12600.000	130.000	689	12600.000	140.000	690	12600.000	150.000
691	12600.000	160.000	692	12600.000	170.000	693	12600.000	180.000	694	12800.000	190.000	695	12800.000	200.000
696	12800.000	210.000	697	12800.000	220.000	698	12800.000	230.000	699	12600.000	240.000	700	12800.000	250.000
701	12800.000	258.585	702	12900.000	90.000	703	12900.000	100.000	704	12900.000	110.000	705	12900.000	120.000
706	12900.000	130.000	707	12900.000	140.000	708	12900.000	150.000	709	12900.000	160.000	710	12900.000	170.000
711	12900.000	180.000	712	12900.000	190.000	713	12900.000	200.000	714	12900.000	210.000	715	12900.000	220.000
716	12900.000	230.000	717	12900.000	240.000	718	12900.000	250.000	719	12900.000	258.988	720	13200.000	90.000
721	13200.000	100.000	722	13200.000	110.000	723	13200.000	120.000	724	13200.000	130.000	725	13200.000	140.000
726	13200.000	150.000	727	13200.000	160.000	728	13200.000	170.000	729	13200.000	180.000	730	13200.000	190.000

731	13200.000	200.000	732	13200.000	210.000	733	13200.000	220.000	734	13200.000	230.000	735	13200.000	240.000
736	13200.000	250.000	737	13200.000	261.317	738	13500.000	90.000	739	13500.000	100.000	740	13500.000	110.000
741	13500.000	120.000	742	13500.000	130.000	743	13500.000	140.000	744	13500.000	150.000	745	13500.000	160.000
746	13500.000	170.000	747	13500.000	180.000	748	13500.000	190.000	749	13500.000	200.000	750	13500.000	210.000
751	13500.000	220.000	752	13500.000	230.000	753	13500.000	240.000	754	13500.000	250.000	755	13500.000	260.000
756	13500.000	262.801	757	13800.000	90.000	758	13800.000	100.000	759	13800.000	110.000	760	13800.000	120.000
761	13800.000	130.000	762	13800.000	140.000	763	13800.000	150.000	764	13800.000	160.000	765	13800.000	170.000
766	13800.000	180.000	767	13800.000	190.000	768	13800.000	200.000	769	13800.000	210.000	770	13800.000	220.000
771	13800.000	230.000	772	13800.000	240.000	773	13800.000	250.000	774	13800.000	260.000	775	13800.000	283.813
776	14100.000	90.000	777	14100.000	100.000	778	14100.000	110.000	779	14100.000	120.000	780	14100.000	130.000
781	14100.000	140.000	782	14100.000	150.000	783	14100.000	160.000	784	14100.000	170.000	785	14100.000	180.000
786	14100.000	190.000	787	14100.000	200.000	788	14100.000	210.000	789	14100.000	220.000	790	14100.000	230.000
791	14100.000	240.000	792	14100.000	250.000	793	14100.000	260.000	794	14100.000	264.943	795	14400.000	90.000
796	14400.000	100.000	797	14400.000	110.000	798	14400.000	120.000	799	14400.000	130.000	800	14400.000	140.000
801	14400.000	150.000	802	14400.000	160.000	803	14400.000	170.000	804	14400.000	180.000	805	14400.000	190.000
806	14400.000	200.000	807	14400.000	210.000	808	14400.000	220.000	809	14400.000	230.000	810	14400.000	240.000
811	14400.000	250.000	812	14400.000	260.000	813	14400.000	265.988	814	14700.000	90.000	815	14700.000	100.000
816	14700.000	110.000	817	14700.000	120.000	818	14700.000	130.000	819	14700.000	140.000	820	14700.000	150.000
821	14700.000	160.000	822	14700.000	170.000	823	14700.000	180.000	824	14700.000	190.000	825	14700.000	200.000
826	14700.000	210.000	827	14700.000	220.000	828	14700.000	230.000	829	14700.000	240.000	830	14700.000	250.000
831	14700.000	260.000	832	14700.000	268.936	833	15000.000	90.000	834	15000.000	100.000	835	15000.000	110.000
836	15000.000	120.000	837	15000.000	130.000	838	15000.000	140.000	839	15000.000	150.000	840	15000.000	160.000
841	15000.000	170.000	842	15000.000	180.000	843	15000.000	190.000	844	15000.000	200.000	845	15000.000	210.000
846	15000.000	220.000	847	15000.000	230.000	848	15000.000	240.000	849	15000.000	250.000	850	15000.000	260.000
851	15000.000	267.788	852	15300.000	90.000	853	15300.000	100.000	854	15300.000	110.000	855	15300.000	120.000
856	15300.000	130.000	857	15300.000	140.000	858	15300.000	150.000	859	15300.000	160.000	860	15300.000	170.000
861	15300.000	180.000	862	15300.000	190.000	863	15300.000	200.000	864	15300.000	210.000	865	15300.000	220.000
866	15300.000	230.000	867	15300.000	240.000	868	15300.000	250.000	869	15300.000	260.000	870	15300.000	268.538
871	15600.000	90.000	872	15600.000	100.000	873	15600.000	110.000	874	15600.000	120.000	875	15600.000	130.000
876	15600.000	140.000	877	15600.000	150.000	878	15600.000	160.000	879	15600.000	170.000	880	15600.000	180.000
881	15600.000	190.000	882	15600.000	200.000	883	15600.000	210.000	884	15600.000	220.000	885	15600.000	230.000
886	15600.000	240.000	887	15600.000	250.000	888	15600.000	260.000	889	15600.000	269.175	890	15900.000	90.000
891	15900.000	100.000	892	15900.000	110.000	893	15900.000	120.000	894	15900.000	130.000	895	15900.000	140.000
896	15900.000	150.000	897	15900.000	160.000	898	15900.000	170.000	899	15900.000	180.000	900	15900.000	190.000
901	15900.000	200.000	902	15900.000	210.000	903	15900.000	220.000	904	15900.000	230.000	905	15900.000	240.000
906	15900.000	250.000	907	15900.000	260.000	908	15900.000	269.703	909	16200.000	90.000	910	16200.000	100.000
911	16200.000	110.000	912	16200.000	120.000	913	16200.000	130.000	914	16200.000	140.000	915	16200.000	150.000
916	16200.000	160.000	917	16200.000	170.000	918	16200.000	180.000	919	16200.000	190.000	920	16200.000	200.000
921	16200.000	210.000	922	16200.000	220.000	923	16200.000	230.000	924	16200.000	240.000	925	16200.000	250.000
926	16200.000	260.000	927	16200.000	270.113	928	16500.000	90.000	929	16500.000	100.000	930	16500.000	110.000
931	16500.000	120.000	932	16500.000	130.000	933	16500.000	140.000	934	16500.000	150.000	935	16500.000	160.000
936	16500.000	170.000	937	16500.000	180.000	938	16500.000	190.000	939	16500.000	200.000	940	16500.000	210.000
941	16500.000	220.000	942	16500.000	230.000	943	16500.000	240.000	944	16500.000	250.000	945	16500.000	260.000
946	16500.000	270.402	947	16800.000	90.000	948	16800.000	100.000	949	16800.000	110.000	950	16800.000	120.000
951	16800.000	130.000	952	16800.000	140.000	953	16800.000	150.000	954	16800.000	160.000	955	16800.000	170.000
956	16800.000	180.000	957	16800.000	190.000	958	16800.000	200.000	959	16800.000	210.000	960	16800.000	220.000
961	16800.000	230.000	962	16800.000	240.000	963	16800.000	250.000	964	16800.000	260.000	965	16800.000	270.582
966	17100.000	90.000	967	17100.000	100.000	968	17100.000	110.000	969	17100.000	120.000	970	17100.000	130.000
971	17100.000	140.000	972	17100.000	150.000	973	17100.000	160.000	974	17100.000	170.000	975	17100.000	180.000
976	17100.000	190.000	977	17100.000	200.000	978	17100.000	210.000	979	17100.000	220.000	980	17100.000	230.000
981	17100.000	240.000	982	17100.000	250.000	983	17100.000	260.000	984	17100.000	270.589	985	17400.000	90.000
986	17400.000	100.000	987	17400.000	110.000	988	17400.000	120.000	989	17400.000	130.000	990	17400.000	140.000
991	17400.000	150.000	992	17400.000	160.000	993	17400.000	170.000	994	17400.000	180.000	995	17400.000	190.000
996	17400.000	200.000	997	17400.000	210.000	998	17400.000	220.000	999	17400.000	230.000	1000	17400.000	240.000
1001	17400.000	250.000	1002	17400.000	260.000	1003	17400.000	270.475	1004	17700.000	90.000	1005	17700.000	100.000
1006	17700.000	110.000	1007	17700.000	120.000	1008	17700.000	130.000	1009	17700.000	140.000	1010	17700.000	150.000
1011	17700.000	160.000	1012	17700.000	170.000	1013	17700.000	180.000	1014	17700.000	190.000	1015	17700.000	200.000
1016	17700.000	210.000	1017	17700.000	220.000	1018	17700.000	230.000	1019	17700.000	240.000	1020	17700.000	250.000
1021	17700.000	260.000	1022	17700.000	270.211	1023	18000.000	90.000	1024	18000.000	100.000	1025	18000.000	110.000
1026	18000.000	120.000	1027	18000.000	130.000	1028	18000.000	140.000	1029	18000.000	150.000	1030	18000.000	160.000

1031	18000.000	170.000	1032	18000.000	180.000	1033	18000.000	190.000	1034	18000.000	200.000	1035	18000.000	210.000	
1036	18000.000	220.000	1037	18000.000	230.000	1038	18000.000	240.000	1039	18000.000	250.000	1040	18000.000	260.000	
1041	18000.000	269.758													
1	0.230349E+03	2	0.230348E+03	3	0.230339E+03	4	0.230328E+03	5	0.230311E+03	6	0.230290E+03	7	0.230284E+03		
8	0.230232E+03	9	0.230196E+03	10	0.230155E+03	11	0.230109E+03	12	0.230057E+03	13	0.230000E+03	14	0.230000E+03		
15	0.230000E+03	16	0.232499E+03	17	0.232500E+03	18	0.232501E+03	19	0.232502E+03	20	0.232505E+03	21	0.232508E+03		
22	0.232511E+03	23	0.232516E+03	24	0.232521E+03	25	0.232527E+03	26	0.232533E+03	27	0.232541E+03	28	0.232550E+03		
29	0.232560E+03	30	0.232574E+03	31	0.234059E+03	32	0.234059E+03	33	0.234060E+03	34	0.234061E+03	35	0.234063E+03		
36	0.234065E+03	37	0.234067E+03	38	0.234071E+03	39	0.234074E+03	40	0.234078E+03	41	0.234083E+03	42	0.234088E+03		
43	0.234094E+03	44	0.234100E+03	45	0.234106E+03	46	0.234106E+03	47	0.235145E+03	48	0.235145E+03	49	0.235146E+03		
50	0.235148E+03	51	0.235146E+03	52	0.235147E+03	53	0.235148E+03	54	0.235149E+03	55	0.235150E+03	56	0.235151E+03		
57	0.235153E+03	58	0.235154E+03	59	0.235158E+03	60	0.235158E+03	61	0.235160E+03	62	0.235160E+03	63	0.236057E+03		
64	0.236057E+03	65	0.236057E+03	66	0.236057E+03	67	0.236057E+03	68	0.236058E+03	69	0.236058E+03	70	0.236059E+03		
71	0.236059E+03	72	0.236080E+03	73	0.236081E+03	74	0.236062E+03	75	0.236063E+03	76	0.236064E+03	77	0.236065E+03		
78	0.236065E+03	79	0.236843E+03	80	0.236843E+03	81	0.236843E+03	82	0.236843E+03	83	0.236844E+03	84	0.236844E+03		
85	0.236844E+03	86	0.236845E+03	87	0.236845E+03	88	0.236845E+03	89	0.236846E+03	90	0.236847E+03	91	0.236847E+03		
92	0.236848E+03	93	0.236849E+03	94	0.236849E+03	95	0.237527E+03	96	0.237527E+03	97	0.237527E+03	98	0.237527E+03		
99	0.237528E+03	100	0.237528E+03	101	0.237528E+03	102	0.237528E+03	103	0.237528E+03	104	0.237529E+03	105	0.237529E+03		
106	0.237529E+03	107	0.237530E+03	108	0.237530E+03	109	0.237530E+03	110	0.237531E+03	111	0.238123E+03	112	0.238123E+03		
113	0.238123E+03	114	0.238124E+03	115	0.238124E+03	116	0.238124E+03	117	0.238124E+03	118	0.238124E+03	119	0.238124E+03		
120	0.238124E+03	121	0.238124E+03	122	0.238124E+03	123	0.238125E+03	124	0.238125E+03	125	0.238125E+03	126	0.238125E+03		
127	0.238642E+03	128	0.238642E+03	129	0.238642E+03	130	0.238642E+03	131	0.238642E+03	132	0.238642E+03	133	0.238642E+03		
134	0.238642E+03	135	0.238642E+03	136	0.238642E+03	137	0.238642E+03	138	0.238642E+03	139	0.238642E+03	140	0.238642E+03		
141	0.238643E+03	142	0.238643E+03	143	0.239091E+03	144	0.239091E+03	145	0.239091E+03	146	0.239091E+03	147	0.239091E+03		
148	0.239091E+03	149	0.239091E+03	150	0.239091E+03	151	0.239091E+03	152	0.239091E+03	153	0.239090E+03	154	0.239090E+03		
155	0.239090E+03	156	0.239090E+03	157	0.239090E+03	158	0.239090E+03	159	0.239475E+03	160	0.239475E+03	161	0.239475E+03		
162	0.239475E+03	163	0.239475E+03	164	0.239475E+03	165	0.239475E+03	166	0.239475E+03	167	0.239475E+03	168	0.239475E+03		
169	0.239475E+03	170	0.239475E+03	171	0.239474E+03	172	0.239474E+03	173	0.239474E+03	174	0.239474E+03	175	0.239800E+03		
176	0.239800E+03	177	0.239800E+03	178	0.239800E+03	179	0.239800E+03	180	0.239800E+03	181	0.239800E+03	182	0.239800E+03		
183	0.239800E+03	184	0.239800E+03	185	0.239800E+03	186	0.239799E+03	187	0.239799E+03	188	0.239799E+03	189	0.239789E+03		
190	0.239799E+03	191	0.240070E+03	192	0.240070E+03	193	0.240070E+03	194	0.240070E+03	195	0.240070E+03	196	0.240070E+03		
197	0.240070E+03	198	0.240070E+03	199	0.240069E+03	200	0.240069E+03	201	0.240069E+03	202	0.240069E+03	203	0.240068E+03		
204	0.240068E+03	205	0.240068E+03	206	0.240068E+03	207	0.240287E+03	208	0.240287E+03	209	0.240287E+03	210	0.240287E+03		
211	0.240287E+03	212	0.240287E+03	213	0.240287E+03	214	0.240287E+03	215	0.240287E+03	216	0.240287E+03	217	0.240286E+03		
218	0.240286E+03	219	0.240286E+03	220	0.240286E+03	221	0.240285E+03	222	0.240285E+03	223	0.240455E+03	224	0.240455E+03		
225	0.240455E+03	226	0.240455E+03	227	0.240455E+03	228	0.240455E+03	229	0.240455E+03	230	0.240455E+03	231	0.240455E+03		
232	0.240454E+03	233	0.240454E+03	234	0.240454E+03	235	0.240454E+03	236	0.240454E+03	237	0.240453E+03	238	0.240453E+03		
239	0.240578E+03	240	0.240578E+03	241	0.240578E+03	242	0.240578E+03	243	0.240578E+03	244	0.240578E+03	245	0.240578E+03		
246	0.240578E+03	247	0.240576E+03	248	0.240575E+03	249	0.240575E+03	250	0.240575E+03	251	0.240575E+03	252	0.240575E+03		
253	0.240574E+03	254	0.240574E+03	255	0.240852E+03	256	0.240852E+03	257	0.240852E+03	258	0.240852E+03	259	0.240852E+03		
260	0.240852E+03	261	0.240852E+03	262	0.240852E+03	263	0.240852E+03	264	0.240852E+03	265	0.240852E+03	266	0.240852E+03		
267	0.240851E+03	268	0.240851E+03	269	0.240851E+03	270	0.240851E+03	271	0.240886E+03	272	0.240886E+03	273	0.240886E+03		
274	0.240886E+03	275	0.240886E+03	276	0.240886E+03	277	0.240885E+03	278	0.240886E+03	279	0.240886E+03	280	0.240886E+03		
281	0.240886E+03	282	0.240886E+03	283	0.240886E+03	284	0.240885E+03	285	0.240885E+03	286	0.240885E+03	287	0.240880E+03		
288	0.240880E+03	289	0.240880E+03	290	0.240880E+03	291	0.240880E+03	292	0.240880E+03	293	0.240880E+03	294	0.240880E+03		
295	0.240880E+03	296	0.240880E+03	297	0.240880E+03	298	0.240879E+03	299	0.240879E+03	300	0.240879E+03	301	0.240879E+03		
302	0.240879E+03	303	0.240835E+03	304	0.240835E+03	305	0.240835E+03	306	0.240835E+03	307	0.240835E+03	308	0.240835E+03		
309	0.240835E+03	310	0.240835E+03	311	0.240835E+03	312	0.240835E+03	313	0.240835E+03	314	0.240835E+03	315	0.240835E+03		
316	0.240835E+03	317	0.240835E+03	318	0.240835E+03	319	0.240555E+03	320	0.240555E+03	321	0.240555E+03	322	0.240555E+03		
323	0.240555E+03	324	0.240555E+03	325	0.240555E+03	326	0.240555E+03	327	0.240555E+03	328	0.240555E+03	329	0.240555E+03		
330	0.240555E+03	331	0.240555E+03	332	0.240555E+03	333	0.240556E+03	334	0.240556E+03	335	0.240441E+03	336	0.240441E+03		
337	0.240441E+03	338	0.240441E+03	339	0.240441E+03	340	0.240441E+03	341	0.240441E+03	342	0.240441E+03	343	0.240441E+03		
344	0.240441E+03	345	0.240441E+03	346	0.240442E+03	347	0.240442E+03	348	0.240442E+03	349	0.240442E+03	350	0.240442E+03		
351	0.240296E+03	352	0.240288E+03	353	0.240296E+03	354	0.240296E+03	355	0.240298E+03	356	0.240298E+03	357	0.240296E+03		
358	0.240296E+03	359	0.240297E+03	360	0.240297E+03	361	0.240297E+03	362	0.240297E+03	363	0.240298E+03	364	0.240298E+03		
365	0.240299E+03	366	0.240299E+03	367	0.240121E+03	368	0.240121E+03	369	0.240121E+03	370	0.240121E+03	371	0.240121E+03		
372	0.240122E+03	373	0.240122E+03	374	0.240123E+03	375	0.240123E+03	376	0.240124E+03	377	0.240124E+03	378	0.240125E+03		
379	0.240126E+03	380	0.240127E+03	381	0.240127E+03	382	0.240127E+03	383	0.239890E+03	384	0.239890E+03	385	0.239891E+03		
386	0.239892E+03	387	0.239894E+03	388	0.239896E+03	389	0.239899E+03	390	0.239902E+03	391	0.239906E+03	392	0.239910E+03		
393	0.239915E+03	394	0.239921E+03	395	0.239927E+03	396	0.239933E+03	397	0.239940E+03	398	0.239941E+03	399	0.239229E+03		

400	0.239229E+03	401	0.239229E+03	402	0.239229E+03	403	0.239230E+03	404	0.239230E+03	405	0.239230E+03	406	0.239231E+03		
407	0.239232E+03	408	0.239232E+03	409	0.239233E+03	410	0.239234E+03	411	0.239235E+03	412	0.239236E+03	413	0.239237E+03		
414	0.239248E+03	415	0.238569E+03	416	0.238569E+03	417	0.238569E+03	418	0.238569E+03	419	0.238570E+03	420	0.238570E+03		
421	0.238570E+03	422	0.238571E+03	423	0.238571E+03	424	0.238572E+03	425	0.238572E+03	426	0.238573E+03	427	0.238574E+03		
428	0.238574E+03	429	0.238575E+03	430	0.238588E+03	431	0.237990E+03	432	0.237990E+03	433	0.237990E+03	434	0.237990E+03		
435	0.237990E+03	436	0.237990E+03	437	0.237991E+03	438	0.237991E+03	439	0.237991E+03	440	0.237992E+03	441	0.237992E+03		
442	0.237993E+03	443	0.237993E+03	444	0.237994E+03	445	0.237885E+03	446	0.238005E+03	447	0.237585E+03	448	0.237585E+03		
449	0.237565E+03	450	0.237585E+03	451	0.237565E+03	452	0.237585E+03	453	0.237585E+03	454	0.237585E+03	455	0.237585E+03		
456	0.237565E+03	457	0.237566E+03	458	0.237566E+03	459	0.237566E+03	460	0.237566E+03	461	0.237566E+03	462	0.237576E+03		
463	0.237399E+03	464	0.237399E+03	465	0.237399E+03	466	0.237399E+03	467	0.237399E+03	468	0.237399E+03	469	0.237399E+03		
470	0.237399E+03	471	0.237389E+03	472	0.237399E+03	473	0.237389E+03	474	0.237399E+03	475	0.237398E+03	476	0.237398E+03		
477	0.237398E+03	478	0.237408E+03	479	0.237609E+03	480	0.237609E+03	481	0.237609E+03	482	0.237609E+03	483	0.237609E+03		
484	0.237608E+03	485	0.237608E+03	486	0.237608E+03	487	0.237607E+03	488	0.237607E+03	489	0.237607E+03	490	0.237606E+03		
491	0.237605E+03	492	0.237605E+03	493	0.237604E+03	494	0.237814E+03	495	0.238358E+03	496	0.238358E+03	497	0.238358E+03		
498	0.238357E+03	499	0.238357E+03	500	0.238358E+03	501	0.238355E+03	502	0.238354E+03	503	0.238353E+03	504	0.238351E+03		
505	0.238350E+03	506	0.238348E+03	507	0.238348E+03	508	0.238344E+03	509	0.238342E+03	510	0.238353E+03	511	0.239928E+03		
512	0.239928E+03	513	0.239926E+03	514	0.239927E+03	515	0.239926E+03	516	0.239925E+03	517	0.239923E+03	518	0.239922E+03		
519	0.239920E+03	520	0.239917E+03	521	0.239915E+03	522	0.239912E+03	523	0.239908E+03	524	0.239905E+03	525	0.238901E+03		
526	0.239915E+03	527	0.242677E+03	528	0.242677E+03	529	0.242878E+03	530	0.242678E+03	531	0.242675E+03	532	0.242874E+03		
533	0.242673E+03	534	0.242671E+03	535	0.242669E+03	536	0.242867E+03	537	0.242664E+03	538	0.242861E+03	539	0.242856E+03		
540	0.242652E+03	541	0.242648E+03	542	0.242654E+03	543	0.242658E+03	544	0.246838E+03	545	0.246840E+03	546	0.246847E+03		
547	0.246858E+03	548	0.246873E+03	549	0.246893E+03	550	0.246917E+03	551	0.246946E+03	552	0.246980E+03	553	0.247018E+03		
554	0.247081E+03	555	0.247109E+03	556	0.247161E+03	557	0.247218E+03	558	0.247278E+03	559	0.247281E+03	560	0.247282E+03		
561	0.248401E+03	562	0.248401E+03	563	0.248403E+03	564	0.248406E+03	565	0.248410E+03	566	0.248415E+03	567	0.248422E+03		
568	0.248429E+03	569	0.248437E+03	570	0.248447E+03	571	0.248457E+03	572	0.248469E+03	573	0.248481E+03	574	0.248494E+03		
575	0.248507E+03	576	0.248508E+03	577	0.248508E+03	578	0.248796E+03	579	0.249798E+03	580	0.249797E+03	581	0.249798E+03		
582	0.249801E+03	583	0.249804E+03	584	0.249808E+03	585	0.249812E+03	586	0.249817E+03	587	0.249823E+03	588	0.249829E+03		
589	0.249836E+03	590	0.249844E+03	591	0.249852E+03	592	0.249860E+03	593	0.249880E+03	594	0.249861E+03	595	0.251193E+03		
596	0.251193E+03	597	0.251194E+03	598	0.251195E+03	599	0.251196E+03	600	0.251198E+03	601	0.251200E+03	602	0.251203E+03		
603	0.251206E+03	604	0.251210E+03	605	0.251214E+03	606	0.251218E+03	607	0.251223E+03	608	0.251228E+03	609	0.251233E+03		
610	0.251233E+03	611	0.251233E+03	612	0.252633E+03	613	0.252633E+03	614	0.252633E+03	615	0.252634E+03	616	0.252635E+03		
617	0.252636E+03	618	0.252638E+03	619	0.252639E+03	620	0.252641E+03	621	0.252644E+03	622	0.252646E+03	623	0.252649E+03		
624	0.252652E+03	625	0.252655E+03	626	0.252658E+03	627	0.252658E+03	628	0.252658E+03	629	0.252659E+03	630	0.254128E+03		
631	0.254128E+03	632	0.254129E+03	633	0.254129E+03	634	0.254130E+03	635	0.254131E+03	636	0.254132E+03	637	0.254134E+03		
638	0.254135E+03	639	0.254137E+03	640	0.254140E+03	641	0.254142E+03	642	0.254145E+03	643	0.254147E+03	644	0.254150E+03		
645	0.254150E+03	646	0.254150E+03	647	0.254151E+03	648	0.255625E+03	649	0.255625E+03	650	0.255625E+03	651	0.255626E+03		
652	0.255626E+03	653	0.255627E+03	654	0.255628E+03	655	0.255629E+03	656	0.255630E+03	657	0.255632E+03	658	0.255633E+03		
659	0.255635E+03	660	0.255637E+03	661	0.255639E+03	662	0.255641E+03	663	0.255641E+03	664	0.255641E+03	665	0.255643E+03		
666	0.257107E+03	667	0.257107E+03	668	0.257107E+03	669	0.257108E+03	670	0.257108E+03	671	0.257108E+03	672	0.257108E+03		
673	0.257110E+03	674	0.257110E+03	675	0.257111E+03	676	0.257112E+03	677	0.257113E+03	678	0.257115E+03	679	0.257116E+03		
680	0.257117E+03	681	0.257117E+03	682	0.257117E+03	683	0.257119E+03	684	0.258558E+03	685	0.258558E+03	686	0.258558E+03		
687	0.258559E+03	688	0.258559E+03	689	0.258559E+03	690	0.258559E+03	691	0.258560E+03	692	0.258560E+03	693	0.258560E+03		
694	0.258561E+03	695	0.258561E+03	696	0.258562E+03	697	0.258562E+03	698	0.258563E+03	699	0.258563E+03	700	0.258563E+03		
701	0.258565E+03	702	0.259966E+03	703	0.259966E+03	704	0.259966E+03	705	0.259966E+03	706	0.259966E+03	707	0.259966E+03		
708	0.259966E+03	709	0.259966E+03	710	0.259966E+03	711	0.259966E+03	712	0.259966E+03	713	0.259966E+03	714	0.259966E+03		
715	0.259966E+03	716	0.259965E+03	717	0.259965E+03	718	0.259966E+03	719	0.259968E+03	720	0.261318E+03	721	0.261318E+03		
722	0.261318E+03	723	0.261318E+03	724	0.261318E+03	725	0.261318E+03	726	0.261317E+03	727	0.261317E+03	728	0.261317E+03		
729	0.261318E+03	730	0.261316E+03	731	0.261316E+03	732	0.261315E+03	733	0.261315E+03	734	0.261314E+03	735	0.261314E+03		
736	0.261314E+03	737	0.261317E+03	738	0.262606E+03	739	0.262606E+03	740	0.262605E+03	741	0.262605E+03	742	0.262605E+03		
743	0.262605E+03	744	0.262604E+03	745	0.262804E+03	746	0.262803E+03	747	0.262802E+03	748	0.262802E+03	749	0.262601E+03		
750	0.262600E+03	751	0.262598E+03	752	0.262598E+03	753	0.262598E+03	754	0.262598E+03	755	0.262601E+03	756	0.262601E+03		
757	0.263820E+03	758	0.263820E+03	759	0.263820E+03	760	0.263819E+03	761	0.263819E+03	762	0.263818E+03	763	0.263818E+03		
764	0.263817E+03	765	0.263816E+03	766	0.263815E+03	767	0.263814E+03	768	0.263813E+03	769	0.263812E+03	770	0.263810E+03		
771	0.263809E+03	772	0.263809E+03	773	0.263808E+03	774	0.263812E+03	775	0.263813E+03	776	0.264953E+03	777	0.264953E+03		
778	0.264953E+03	779	0.264952E+03	780	0.264952E+03	781	0.264951E+03	782	0.264950E+03	783	0.264949E+03	784	0.264948E+03		
785	0.264947E+03	786	0.264946E+03	787	0.264944E+03	788	0.264943E+03	789	0.264941E+03	790	0.264939E+03	791	0.264939E+03		
792	0.264939E+03	793	0.264942E+03	794	0.264943E+03	795	0.265998E+03	796	0.265998E+03	797	0.265998E+03	798	0.265998E+03		
799	0.265997E+03	800	0.265996E+03	801	0.265996E+03	802	0.265994E+03	803	0.265993E+03	804	0.265992E+03	805	0.265990E+03		
806	0.265988E+03	807	0.265986E+03	808	0.265984E+03	809	0.265982E+03	810	0.265982E+03	811	0.265982E+03	812	0.265986E+03		
813	0.265986E+03	814	0.268951E+03	815	0.268951E+03	816	0.268950E+03	817	0.268950E+03	818	0.268949E+03	819	0.268948E+03		

820	0.288947E+03	821	0.288948E+03	822	0.288945E+03	823	0.288943E+03	824	0.288941E+03	825	0.288939E+03	826	0.288937E+03		
827	0.288934E+03	828	0.288932E+03	829	0.288932E+03	830	0.288932E+03	831	0.288935E+03	832	0.288936E+03	833	0.287804E+03		
834	0.287804E+03	835	0.287804E+03	836	0.287803E+03	837	0.287802E+03	838	0.287801E+03	839	0.287800E+03	840	0.287799E+03		
841	0.287787E+03	842	0.287795E+03	843	0.287793E+03	844	0.287791E+03	845	0.287789E+03	846	0.287788E+03	847	0.287783E+03		
848	0.287783E+03	849	0.287783E+03	850	0.287786E+03	851	0.287788E+03	852	0.288554E+03	853	0.288554E+03	854	0.288554E+03		
855	0.288553E+03	856	0.288552E+03	857	0.288551E+03	858	0.288550E+03	859	0.288548E+03	860	0.288546E+03	861	0.288544E+03		
862	0.288542E+03	863	0.288540E+03	864	0.288537E+03	865	0.288534E+03	866	0.288531E+03	867	0.288531E+03	868	0.288531E+03		
869	0.288534E+03	870	0.288536E+03	871	0.289188E+03	872	0.289195E+03	873	0.289195E+03	874	0.289194E+03	875	0.289194E+03		
876	0.289192E+03	877	0.289191E+03	878	0.289188E+03	879	0.289187E+03	880	0.289185E+03	881	0.289183E+03	882	0.289180E+03		
883	0.289177E+03	884	0.289174E+03	885	0.289170E+03	886	0.289170E+03	887	0.289170E+03	888	0.289173E+03	889	0.289175E+03		
890	0.289725E+03	891	0.289725E+03	892	0.289725E+03	893	0.289724E+03	894	0.289723E+03	895	0.289722E+03	896	0.289720E+03		
897	0.289718E+03	898	0.289718E+03	899	0.289714E+03	900	0.289711E+03	901	0.289708E+03	902	0.289705E+03	903	0.289701E+03		
904	0.289698E+03	905	0.289698E+03	906	0.289698E+03	907	0.289700E+03	908	0.289703E+03	909	0.270138E+03	910	0.270138E+03		
911	0.270137E+03	912	0.270136E+03	913	0.270135E+03	914	0.270134E+03	915	0.270132E+03	916	0.270130E+03	917	0.270128E+03		
918	0.270125E+03	919	0.270123E+03	920	0.270119E+03	921	0.270116E+03	922	0.270112E+03	923	0.270108E+03	924	0.270108E+03		
925	0.270108E+03	926	0.270111E+03	927	0.270113E+03	928	0.270428E+03	929	0.270428E+03	930	0.270428E+03	931	0.270427E+03		
932	0.270426E+03	933	0.270424E+03	934	0.270422E+03	935	0.270420E+03	936	0.270418E+03	937	0.270415E+03	938	0.270412E+03		
939	0.270409E+03	940	0.270405E+03	941	0.270401E+03	942	0.270398E+03	943	0.270395E+03	944	0.270395E+03	945	0.270395E+03		
946	0.270402E+03	947	0.270591E+03	948	0.270591E+03	949	0.270591E+03	950	0.270590E+03	951	0.270588E+03	952	0.270587E+03		
953	0.270585E+03	954	0.270583E+03	955	0.270580E+03	956	0.270577E+03	957	0.270574E+03	958	0.270570E+03	959	0.270568E+03		
960	0.270562E+03	961	0.270557E+03	962	0.270557E+03	963	0.270557E+03	964	0.270560E+03	965	0.270562E+03	966	0.270821E+03		
967	0.270820E+03	968	0.270820E+03	969	0.270819E+03	970	0.270818E+03	971	0.270816E+03	972	0.270814E+03	973	0.270811E+03		
974	0.270809E+03	975	0.270805E+03	976	0.270802E+03	977	0.270598E+03	978	0.270593E+03	979	0.270589E+03	980	0.270584E+03		
981	0.270584E+03	982	0.270584E+03	983	0.270586E+03	984	0.270588E+03	985	0.270510E+03	986	0.270510E+03	987	0.270509E+03		
988	0.270508E+03	989	0.270507E+03	990	0.270505E+03	991	0.270503E+03	992	0.270500E+03	993	0.270487E+03	994	0.270483E+03		
995	0.270488E+03	996	0.270485E+03	997	0.270480E+03	998	0.270475E+03	999	0.270470E+03	1000	0.270469E+03	1001	0.270489E+03		
1002	0.270472E+03	1003	0.270475E+03	1004	0.270258E+03	1005	0.270258E+03	1006	0.270255E+03	1007	0.270254E+03	1008	0.270252E+03		
1009	0.270250E+03	1010	0.270247E+03	1011	0.270243E+03	1012	0.270239E+03	1013	0.270235E+03	1014	0.270230E+03	1015	0.270225E+03		
1016	0.270219E+03	1017	0.270213E+03	1018	0.270208E+03	1019	0.270208E+03	1020	0.270208E+03	1021	0.270209E+03	1022	0.270211E+03		
1023	0.269916E+03	1024	0.269915E+03	1025	0.269913E+03	1026	0.288910E+03	1027	0.288905E+03	1028	0.288899E+03	1029	0.288891E+03		
1030	0.288882E+03	1031	0.288872E+03	1032	0.288860E+03	1033	0.288848E+03	1034	0.288831E+03	1035	0.269815E+03	1036	0.269797E+03		
1037	0.269777E+03	1038	0.269776E+03	1039	0.269775E+03	1040	0.269753E+03	1041	0.269759E+03						

6.6 EXAMPLE 2: SIMULATION OF CONTAMINANT TRANSPORT FROM THE SPOIL

6.6.1 Simulation of Mining and Initial Reclamation Conditions

6.6.1.1 Input Data.

```
EXAMPLE DATA SET   SIMULATION OF MINING AND RECLAMATION; WITH MASS TRANSPORT
FFFFTTFFFFTTTTFFFFFFTTFTTFF
   23   61    6    1    3    1 1275 2200   22   18    3    1   14
    300.00        10.0         1.0        230.        0.000        .100        1.00
       250.        251.        252.        253.        254.        256.        259.        262.
       265.        268.        271.        274.        277.        279.        280.        281.
       282.       281.2       281.7        282.        283.        284.        286.        286.
       287.        288.       289.1       289.2       289.3       289.4       289.5       289.7
      289.8       290.0       290.1       290.2       290.3       290.4       290.5       290.6
      290.7       290.8       291.0       291.2       291.4       291.5       291.7       291.8
       292.        293.        295.         295         295        295.        295.        295.
       295.        295.        295.        295.        295.
FTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
      230.0       230.0       230.0       230.0       230.0       230.0       230.0       230.0
      230.0       230.0       230.0       230.0       230.0       230.0       230.0       230.0
      230.0       230.0       230.0       230.0       230.0       230.0       230.0       230.0
      230.0       230.0       230.0       230.0       230.0       230.0       230.0       230.0
      230.0       230.0       230.0       230.0       230.0       230.0       230.0       230.0
      230.0       230.0       230.0       230.0       230.0       230.0       230.0       230.0
      230.0       230.0       230.0       230.0       230.0       230.0       230.0       230.0
      230.0       230.0       230.0       230.0       230.0
       90.0        90.0        90.0        90.0        90.0        90.0        90.0        90.0
       90.0        90.0        90.0        90.0        90.0        90.0        90.0        90.0
       90.0        90.0        90.0        90.0        90.0        90.0        90.0        90.0
       90.0        90.0        90.0        90.0        90.0        90.0        90.0        90.0
       90.0        90.0        90.0        90.0        90.0        90.0        90.0        90.0
       90.0        90.0        90.0        90.0        90.0        90.0        90.0        90.0
       90.0        90.0        90.0        90.0        90.0        90.0        90.0        90.0
       90.0        90.0        90.0        90.0        90.0
    1   60
  2  .0400  3  .0400  4  .0400  5  .0400  6  .0400  7  .0400  8  .0400  9  .0400
 10  .0400 11  .0400 12  .0400 13  .0400 14  .0400 15  .0400 16  .0400 17  .0400
 18  .0400 19  .0400 20  .0400 21  .0400 22  .0400 23  .0400 24  .0400 25  .0400
 26  .0400 27  .0400 28  .0400 29  .0400 30  .0400 31  .0400 32  .0400 33  .0400
 34  .0400 35  .0400 36  .0400 37  .0400 38  .0400 39  .0400 40  .0800 41  .0800
 42  .0800 43  .0800 44  .0800 45  .0800 46  .0800 47  .0800 48  .0800 49  .0800
 50  .0800 51  .0800 52  .0800 53  .0800 54  .0800 55  .0800 56  .0800 57  .0800
 58  .0800 59  .0800 60  .0800 61  .1600
  1 15    230    1 14    230.   1 13    230.
    1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1
    2    3.16E+2    3.16E+2    0.50E-3    0.10E+0    5.00E+0    1.00E-1 •  1.00E+0
    3    94.8E+2    94.8E+2    0.50E-3    0.10E+0    5.00E+0    1.00E-1    1.00E+0
1111111111111111111111111111111111111111111111111111111111111
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1111111222222222222222222222222222222222222222222222222222222
1122222222222222222222222222222222222222222222222222222222222
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      0.10          0.00       1000 0
         0    1    1    1    1             5   25   27   15   -1             5   25   29   15   -1
         5   25   31   15   -1             5   25   33   15   -1             5   25   33   15   -1
FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
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    0    0   25   27   27   29   29   31   31   33   33   35   33   35
       250.        251.         252         253        254.        256.        259.        262.
        265        268.         271         274        277.        279.        280.        281.
        282       281.2       281.7        282.         283        284.        286.        286.
       287.        230.         230         230        230.        230.        230.        230.
       230.         230       290.1       290.2       290.3       290.4       290.5       290.6
      290.7       290.8       291.0       291.2       291.4       291.5       291.7       291.8
       292.        293.         295         295         295        295.        295.        295.
       295.        295.         295        295.         295
    1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1    0.00E+1
    2    3.16E+2    3.16E+2    0.50E-3    0.10E+0    5.00E+0    1.00E-1    1.00E+0
    3    94.8E+2    94.8E+2    0.50E-3    0.10E+0    5.00E+0    1.00E-1    1.00E+0
    4    3.16E+1    3.16E+1    0.50E-2    0.10E+0    5.00E+0    1.00E-1    1.00E+0
1111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111122222222222
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1111111222222222222222244444444444222222222222222222222222222
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   124      2222222222222222222222222222222222222222222222222222222222222222
   125      2222222222222222222222222222222222222222222222222222222222222222
   126      2222222222222222222222222222222222222222222222222222222222222222
   127      2222222222222222222222222222222222222222222222222222222222222222
   128            250.      251.      252.      253.      254.      256.      258.      262.
   129            265.      268.      271.      274.      277.      279.      280.      281.
   130            282.     281.2     281.7      282.      283.      284.      285.      285.
   131            287.     290.8     291.2     288.2     291.6     291.8     289.5     290.8
   132           275.0     280.0     285.0     290.2     290.3     290.4     290.5     290.6
   133           290.7     290.8     291.0     291.2     291.4     291.5     291.7     291.8
   134            292.      293.      295.      295.      295.      295.      295.      295.
   135            295.      295.      295.      295.      295.
End of file
```

6.6.1.2 Printed Output.

****

EXAMPLE DATA SET: SIMULATION OF MINING AND RECLAMATION; WITH MASS TRANSPORT

****

OUTPUT LISTINGS AND PROBLEM CONTROL

```
OPTION( 1)= F :PRINT THE NODE CO-ORDINATES
OPTION( 2)= F :PRINT THE ELEMENT INCIDENCES
OPTION( 3)= F :PRINT THE ELEMENT HYDRAULIC CONDUCTIVITIES AND STORATIVITIES
OPTION( 4)= F :PLOT THE FINITE ELEMENT GRID
OPTION( 5)= T :CALCULATE THE HEAD DISTRIBUTIONS
OPTION( 6)= T :PRINT THE HEAD DISTRIBUTIONS
OPTION( 7)= F :PLOT ALL HEAD DISTRIBUTIONS
OPTION( 8)= F :PLOT ONLY THE LAST HEAD VALUES
OPTION( 9)= F :PRINT THE WATER TABLE CONVERGENCE INFORMATION AT EACH ITERATION
OPTION(10)= T :INPUT PREVIOUSLY CALCULATED HEADS TO CONTINUE AN EARLIER RUN
OPTION(11)= T :OUTPUT THE LAST HEAD DISTRIBUTION FOR USE AS INPUT IN A LATER RUN
OPTION(12)= T :SIMULATE MINING AND RECLAMATION
OPTION(13)= F :CALCULATE THE HYDRAULIC GRADIENT AND THE DIRECTION OF THE GRADIENT FIELD
OPTION(14)= F :PRINT THE HYDRAULIC GRADIENT AND ITS ITS DIRECTION FIELDS
OPTION(15)= F :PLOT THE HYDRAULIC GRADIENT AND ITS DIRECTION
OPTION(16)= F :CALCULATE THE VELOCITY FIELD
OPTION(17)= F :PRINT THE VELOCITY FIELD
OPTION(18)= T :RUN THE MASS TRANSPORT ROUTINE
OPTION(19)= T :PRINT THE CONCENTRATION AND PARTICLE DISTRIBUTIONS
OPTION(20)= F :PLOT THE PARTICLE CONCENTRATION
OPTION(21)= T :PLOT THE PARTICLE DISTRIBUTION
OPTION(22)= T :OUTPUT THE LAST PARTICLE DISTRIBUTION TO CONTINUE THE RUN
OPTION(23)= F :INPUT THE LAST PARTICLE DISTRIBUTION TO CONTINUE A PREVIOUS RUN
OPTION(24)= F :PRINT THE MASS, X AND Z COORDINATES OF THE REFERENCE PARTICLES
```

CROSS SECTION AND SIMULATION PARAMETERS

```
23 :NUMBER OF ROWS
61 :NUMBER OF COLUMNS
 3 :NUMBER OF GEOLOGICAL UNITS
 1 :NUMBER OF SPOIL UNITS
18 :ESTIMATED NUMBER OF CONSTANT HEAD NODES
 3 :ACTUAL NUMBER OF CONSTANT HEAD NODES ENTERED
1275 :ESTIMATED NUMBER OF NODES
2200 :ESTIMATED NUMBER OF ELEMENTS
22 :ESTIMATED BANDWIDTH
 1 :NUMBER OF PERIODS OF RECHARGE

300.000 :HORIZONTAL NODE SPACING
 10.000 :VERTICAL NODE SPACING
  1.000 :TIME STEP
230.000 :INITIAL HEAD VALUE
  0.0   :SPECIFIC YIELD
  0.100 :WATER TABLE AND STEADY STATE CONVERGENCE TOLERANCE
      6 :NUMBER OF TIME STEPS
  1.000 :TIME STEP INCREMENT
 14 :MAXIMUM NUMBER OF ITERATIONS PER TIME STEP
  1 :NUMBER OF TIME STEPS BETWEEN LISTINGS
```

GROUND SURFACE PARAMETERS

COL		ELEVATION	COL		ELEVATION	COL		ELEVATION	COL		ELEVATION	COL		ELEVATION	COL		ELEVATION	COL		ELEVATION
1	F	250.00	2	T	251.00	3	T	252.00	4	T	253.00	5	T	254.00	6	T	256.00	7	T	259.00	8	T	262.00
9	T	265.00	10	T	268.00	11	T	271.00	12	T	274.00	13	T	277.00	14	T	278.00	15	T	280.00	16	T	281.00
17	T	282.00	18	T	281.20	19	T	281.70	20	T	282.00	21	T	283.00	22	T	284.00	23	T	285.00	24	T	286.00
25	T	287.00	26	T	288.00	27	T	289.10	28	T	289.20	29	T	289.30	30	T	289.40	31	T	289.50	32	T	289.70
33	T	289.80	34	T	290.00	35	T	290.10	36	T	290.20	37	T	290.30	38	T	290.40	39	T	290.50	40	T	290.60
41	T	290.70	42	T	290.80	43	T	291.00	44	T	291.20	45	T	291.40	46	T	291.50	47	T	291.70	48	T	291.80
49	T	292.00	50	T	293.00	51	T	295.00	52	T	295.00	53	T	295.00	54	T	295.00	55	T	295.00	56	T	295.00
57	T	295.00	58	T	295.00	59	T	295.00	60	T	295.00	61	T	295.00									

WATER TABLE ELEVATION

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	230.00	2	230.00	3	230.00	4	230.00	5	230.00	6	230.00	7	230.00	8	230.00
9	230.00	10	230.00	11	230.00	12	230.00	13	230.00	14	230.00	15	230.00	16	230.00
17	230.00	18	230.00	19	230.00	20	230.00	21	230.00	22	230.00	23	230.00	24	230.00
25	230.00	26	230.00	27	230.00	28	230.00	29	230.00	30	230.00	31	230.00	32	230.00
33	230.00	34	230.00	35	230.00	36	230.00	37	230.00	38	230.00	39	230.00	40	230.00
41	230.00	42	230.00	43	230.00	44	230.00	45	230.00	46	230.00	47	230.00	48	230.00
49	230.00	50	230.00	51	230.00	52	230.00	53	230.00	54	230.00	55	230.00	56	230.00
57	230.00	58	230.00	59	230.00	60	230.00	61	230.00						

BOTTOM BOUNDARY ELEVATION

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	90.00	2	90.00	3	90.00	4	90.00	5	90.00	6	90.00	7	90.00	8	90.00
9	90.00	10	90.00	11	90.00	12	90.00	13	90.00	14	90.00	15	90.00	16	90.00
17	90.00	18	90.00	19	90.00	20	90.00	21	90.00	22	90.00	23	90.00	24	90.00
25	90.00	26	90.00	27	90.00	28	90.00	29	90.00	30	90.00	31	90.00	32	90.00
33	90.00	34	90.00	35	90.00	36	90.00	37	90.00	38	90.00	39	90.00	40	90.00
41	90.00	42	90.00	43	90.00	44	90.00	45	90.00	46	90.00	47	90.00	48	90.00
49	90.00	50	90.00	51	90.00	52	90.00	53	90.00	54	90.00	55	90.00	56	90.00
57	90.00	58	90.00	59	90.00	60	90.00	61	90.00						

RECHARGE VALUES (+VE=RECHARGE; -VE=EVAPORATION)

CHANGE AT TIME STEP: 1

COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE
2	0.04	3	0.04	4	0.04	5	0.04	6	0.04	7	0.04	8	0.04	9	0.04
10	0.04	11	0.04	12	0.04	13	0.04	14	0.04	15	0.04	16	0.04	17	0.04
18	0.04	19	0.04	20	0.04	21	0.04	22	0.04	23	0.04	24	0.04	25	0.04
26	0.04	27	0.04	28	0.04	29	0.04	30	0.04	31	0.04	32	0.04	33	0.04
34	0.04	35	0.04	36	0.04	37	0.04	38	0.04	39	0.04	40	0.08	41	0.08
42	0.08	43	0.08	44	0.08	45	0.08	46	0.08	47	0.08	48	0.08	49	0.08
50	0.08	51	0.08	52	0.08	53	0.08	54	0.08	55	0.08	56	0.08	57	0.08
58	0.08	59	0.08	60	0.08	61	0.16								

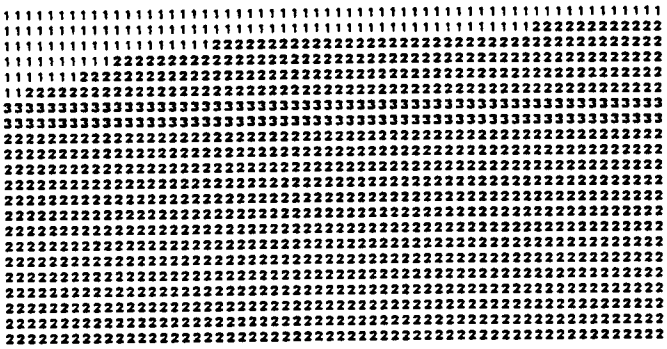
CONSTANT HEAD VALUES

COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD
1	15	230.00	1	14	230.00	1	13	230.00									

HYDROGEOLOGICAL PARAMETERS OF THE GEOLOGICAL UNITS

UNIT	Kh	Kv	STOR.	POROSITY	DISPER.	CEC	BULK DEN.
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.3180E+03	0.3180E+03	0.5000E-03	0.1000E+00	0.5000E+01	0.1000E+00	0.1000E+01
3	0.9480E+04	0.9480E+04	0.5000E-03	0.1000E+00	0.5000E+01	0.1000E+00	0.1000E+01

MAP OF THE GEOLOGICAL UNITS



CONTAMINANT TRANSPORT PARAMETERS

0.100 :TOTAL CONCENTRATION IN SOLUTION
1000.000 :INITIAL MASS ADDED PER PARTICLE

0.0 :SELECTIVITY COEFFICIENT FOR EXCHANGE

PARTICLES ADDED TO THE SYSTEM DURING A TIME STEP
(IF T.ROW OR B.ROW ARE NEGATIVE, THEN THE ELEVATIONS OF THE WATER TABLE OR BASE OF THE MINE, RESPECTIVELY, ARE ASSUMED)

L.COL	R.COL	B.ROW	T.ROW	PARTICLES	L.COL	R.COL	B.ROW	T.ROW	PARTICLES	L.COL	R.COL	B.ROW	T.ROW	PARTICLES
1	1	1	1	0	25	27	15	-1	5	25	29	-1	-1	5
25	31	-1	-1	5	25	33	-1	-1	5	25	33	-1	-1	5

PARTICLE TRANSPORT CODE
(F=NO MOVEMENT ALLOWED IN THE CELL; T=MOVEMENT ALLOWED IN THE CELL)

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FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
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SIDE BOUNDARIES OF THE MINE DURING MINING (COL.)

PREVIOUS BOUNDARIES: 0 0
FUTURE BOUNDARIES:
25 27 27 29 29 31 31 33 33 35 33 35

GROUND ELEVATION DURING MINING

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	250.00	2	251.00	3	252.00	4	253.00	5	254.00	6	256.00	7	258.00	8	262.00
9	265.00	10	268.00	11	271.00	12	274.00	13	277.00	14	279.00	15	280.00	16	281.00
17	282.00	18	281.20	19	281.70	20	282.00	21	283.00	22	284.00	23	285.00	24	285.00
25	287.00	26	230.00	27	230.00	28	230.00	29	230.00	30	230.00	31	230.00	32	230.00
33	230.00	34	230.00	35	290.10	36	290.20	37	290.30	38	290.40	39	290.50	40	290.60
41	290.70	42	290.80	43	291.00	44	291.20	45	291.40	46	291.50	47	291.70	48	291.80
49	292.00	50	293.00	51	295.00	52	295.00	53	295.00	54	295.00	55	295.00	56	295.00
57	295.00	58	295.00	59	295.00	60	295.00	61	295.00						

HYDROGEOLOGICAL PARAMETERS OF THE SPOIL

UNIT	Kh	Kv	STOR.	POROSITY	DISPER.	CEC	BULK DEN.
1	0.1000E+02	0.0	0.0	0.0	0.0	0.0	0.0
2	0.3180E+03	0.3180E+03	0.5000E-03	0.1000E+00	0.5000E+01	0.1000E+00	0.1000E+01
3	0.9480E+04	0.9480E+04	0.5000E-03	0.1000E+00	0.5000E+01	0.1000E+00	0.1000E+01
4	0.3180E+02	0.3180E+02	0.5000E-02	0.1000E+00	0.5000E+01	0.1000E+00	0.1000E+01

MAP OF THE SPOIL AND GEOLOGICAL UNITS

```
11111111111111111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111111111111111111111111112222222222222
11111111111111111112222244444444444222222222222222222222222222222
11111111112222222222222244444444444222222222222222222222222222222
11111112222222222222222444444444444222222222222222222222222222222
11222222222222222222222244444444444222222222222222222222222222222
33333333333333333333333444444444443333333333333333333333333333333
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GROUND ELEVATION FOLLOWING RECLAMATION

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	250.00	2	251.00	3	252.00	4	253.00	5	254.00	6	256.00	7	258.00	8	262.00
9	265.00	10	268.00	11	271.00	12	274.00	13	277.00	14	279.00	15	280.00	16	281.00
17	282.00	18	281.20	19	281.70	20	282.00	21	283.00	22	284.00	23	285.00	24	285.00
25	287.00	26	290.80	27	291.20	28	289.20	29	291.60	30	291.80	31	289.50	32	290.80
33	275.00	34	280.00	35	285.00	36	290.20	37	290.30	38	290.40	39	290.50	40	290.60
41	290.70	42	290.80	43	291.00	44	291.20	45	291.40	46	291.50	47	291.70	48	291.80
49	292.00	50	293.00	51	295.00	52	295.00	53	295.00	54	295.00	55	295.00	56	295.00
57	295.00	58	295.00	59	295.00	60	295.00	61	295.00						

STEADY STATE CONVERGENCE; ERROR:367.265 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 1.00 TIME STEP: 1

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.586	2	230.592	3	230.580	4	230.550	5	230.531	6	230.495	7	230.450	8	230.397
9	230.335	10	230.265	11	230.186	12	230.098	13	230.000	14	230.000	15	230.000	16	234.300
17	234.301	18	234.302	19	234.305	20	234.309	21	234.313	22	234.319	23	234.327	24	234.3
25	234.345	26	234.356	27	234.369	28	234.384	29	234.400	30	234.418	31	234.418	32	237.(
33	237.012	34	237.013	35	237.015	36	237.017	37	237.019	38	237.022	39	237.026	40	237.030
41	237.035	42	237.040	43	237.046	44	237.052	45	237.059	46	237.066	47	237.087	48	239.145
49	239.145	50	239.145	51	239.146	52	239.147	53	239.148	54	239.150	55	239.151	56	239.1
57	239.156	58	239.158	59	239.161	60	239.164	61	239.168	62	239.171	63	239.172	64	240.(
65	240.931	66	240.931	67	240.931	68	240.832	69	240.932	70	240.933	71	240.934	72	240.(
73	240.936	74	240.838	75	240.939	76	240.940	77	240.942	78	240.944	79	240.944	80	242.(
81	242.475	82	242.475	83	242.475	84	242.475	85	242.476	86	242.476	87	242.476	88	242.(
89	242.477	90	242.477	91	242.478	92	242.478	93	242.479	94	242.480	95	242.480	96	243.832
97	243.832	98	243.832	99	243.832	100	243.832	101	243.832	102	243.832	103	243.832	104	243.832
105	243.832	106	243.832	107	243.832	108	243.831	109	243.831	110	243.831	111	243.831	112	243.8
113	245.034	114	245.034	115	245.034	116	245.034	117	245.033	118	245.033	119	245.033	120	245.(
121	245.032	122	245.031	123	245.030	124	245.030	125	245.029	126	245.028	127	245.027	128	245.(
129	245.027	130	246.099	131	246.099	132	246.099	133	246.098	134	246.098	135	246.097	136	246.(
137	246.096	138	246.095	139	246.094	140	246.093	141	246.091	142	246.090	143	246.088	144	246.(
145	246.087	146	246.087	147	247.039	148	247.039	149	247.039	150	247.039	151	247.038	152	247.037
153	247.036	154	247.035	155	247.034	156	247.032	157	247.031	158	247.029	159	247.027	160	247.025
161	247.022	162	247.022	163	247.022	164	247.882	165	247.862	166	247.862	167	247.861	168	247.8
169	247.859	170	247.858	171	247.856	172	247.855	173	247.853	174	247.851	175	247.848	176	247.(
177	247.843	178	247.840	179	247.840	180	247.840	181	248.569	182	248.569	183	248.569	184	248.(
185	248.567	186	248.568	187	248.564	188	248.562	189	248.560	190	248.558	191	248.555	192	248.(
193	248.549	194	248.545	195	248.541	196	248.541	197	248.541	198	249.180	199	249.180	200	248....
201	249.158	202	249.157	203	248.155	204	249.154	205	249.151	206	249.149	207	249.146	208	249.142
209	249.139	210	249.135	211	249.130	212	249.125	213	249.125	214	249.125	215	249.630	216	249.629
217	249.629	218	249.628	219	249.628	220	249.624	221	249.622	222	249.619	223	249.616	224	249.6
225	249.608	226	249.604	227	249.599	228	249.593	229	249.587	230	249.587	231	249.587	232	249.(
233	249.969	234	249.968	235	249.967	236	249.965	237	249.963	238	249.880	239	249.958	240	249.(
241	249.948	242	249.943	243	249.937	244	249.931	245	249.925	246	249.918	247	249.917	248	249.(
249	250.162	250	250.162	251	250.161	252	250.159	253	250.157	254	250.154	255	250.151	256	250....
257	250.142	258	250.136	259	250.130	260	250.124	261	250.118	262	250.108	263	250.100	264	250.100
265	250.089	266	250.187	267	250.187	268	250.185	269	250.184	270	250.181	271	250.177	272	250.173
273	250.168	274	250.163	275	250.156	276	250.149	277	250.141	278	250.132	279	250.122	280	250.1
281	250.112	282	250.112	283	250.014	284	250.013	285	250.012	286	250.010	287	250.007	288	250.(
289	249.998	290	249.992	291	249.985	292	249.977	293	249.969	294	249.959	295	249.949	296	249.(
297	249.925	298	249.925	299	249.925	300	249.603	301	249.602	302	249.601	303	249.598	304	249.(
305	249.589	306	249.584	307	249.577	308	249.569	309	249.560	310	249.549	311	249.538	312	248....
313	249.513	314	249.498	315	249.498	316	249.498	317	248.897	318	248.896	319	248.894	320	248.891
321	248.887	322	248.881	323	248.874	324	248.866	325	248.857	326	248.846	327	248.835	328	248.822
329	248.807	330	248.792	331	248.775	332	248.774	333	248.774	334	247.812	335	247.811	336	247.8
337	247.805	338	247.800	339	247.794	340	247.788	341	247.777	342	247.768	343	247.754	344	247.
345	247.726	346	247.709	347	247.691	348	247.672	349	247.672	350	247.672	351	246.212	352	246.
353	246.209	354	246.205	355	246.200	356	246.193	357	246.184	358	246.174	359	246.162	360	246.
361	246.134	362	246.118	363	246.100	364	246.080	365	246.059	366	246.059	367	246.059	368	243.
369	243.849	370	243.846	371	243.843	372	243.838	373	243.831	374	243.823	375	243.814	376	243.803
377	243.791	378	243.777	379	243.762	380	243.745	381	243.727	382	243.707	383	243.707	384	243.707
385	240.124	386	240.124	387	240.124	388	240.123	389	240.123	390	240.123	391	240.123	392	240.1
393	240.124	394	240.125	395	240.126	396	240.128	397	240.131	398	240.135	399	240.140	400	240.
401	233.089	402	233.083	403	233.068	404	233.042	405	233.006	406	232.959	407	232.902	408	232.
409	232.756	410	232.667	411	232.567	412	232.456	413	232.334	414	232.201	415	232.028	416	231.
417	231.054	418	231.037	419	231.010	420	230.973	421	230.924	422	230.864	423	230.794	424	230.
425	230.621	426	230.518	427	230.405	428	230.281	429	230.145	430	230.000	431	234.065	432	234.059
433	234.040	434	234.010	435	233.967	436	233.911	437	233.843	438	233.763	439	233.670	440	233.563
441	233.444	442	233.312	443	233.168	444	233.007	445	232.784	446	243.775	447	243.775	448	243.777
449	243.780	450	243.784	451	243.789	452	243.796	453	243.804	454	243.814	455	243.825	456	243.838
457	243.853	458	243.871	459	243.891	460	243.913	461	243.918	462	249.142	463	249.141	464	249.
465	249.137	466	249.133	467	249.128	468	249.121	469	249.114	470	249.105	471	249.095	472	249.
473	249.071	474	249.058	475	249.043	476	249.028	477	249.028	478	249.028	479	252.915	480	252.
481	252.912	482	252.907	483	252.901	484	252.893	485	252.884	486	252.872	487	252.859	488	252.
489	252.827	490	252.808	491	252.787	492	252.765	493	252.740	494	252.740	495	252.740	496	256.098
497	256.097	498	256.095	499	256.091	500	256.085	501	256.077	502	256.067	503	256.056	504	256.043
505	256.029	506	256.012	507	255.994	508	255.974	509	255.952	510	255.929	511	255.928	512	255.928
513	255.929	514	258.891	515	258.991	516	258.989	517	258.985	518	258.981	519	258.975	520	258.
521	258.959	522	258.948	523	258.938	524	258.925	525	258.912	526	258.898	527	258.880	528	258.
529	258.861	530	258.861	531	258.883	532	261.537	533	261.536	534	261.535	535	261.532	536	261.
537	261.523	538	261.517	539	261.510	540	261.502	541	261.493	542	261.483	543	261.471	544	261.
545	261.445	546	261.430	547	261.430	548	261.430	549	261.432	550	263.778	551	263.778	552	263.777
553	263.775	554	263.772	555	263.768	556	263.763	557	263.757	558	263.750	559	263.743	560	263.734
561	263.725	562	263.714	563	263.703	564	263.691	565	263.691	566	263.681	567	263.893	568	263.894
569	265.758	570	265.758	571	265.757	572	265.755	573	265.753	574	265.748	575	265.745	576	265.
577	265.735	578	265.728	579	265.721	580	265.714	581	265.705	582	265.696	583	265.686	584	265.
585	265.685	586	265.687	587	265.688	588	267.516	589	267.516	590	267.515	591	267.513	592	267.
593	267.508	594	267.505	595	267.501	596	267.496	597	267.491	598	267.485	599	267.478	600	267.
601	267.464	602	267.456	603	267.455	604	267.455	605	267.457	606	267.458	607	269.086	608	269.086
609	269.085	610	269.084	611	269.082	612	269.080	613	269.077	614	269.074	615	269.070	616	269.065
617	269.060	618	269.055	619	269.049	620	269.043	621	269.036	622	269.038	623	269.038	624	269.038
625	269.039	626	270.487	627	270.487	628	270.486	629	270.485	630	270.484	631	270.482	632	270.
633	270.467	634	270.484	635	270.480	636	270.478	637	270.472	638	270.467	639	270.461	640	270.
641	270.456	642	270.456	643	270.457	644	270.459	645	271.774	646	271.773	647	271.773	648	271.
649	271.771	650	271.769	651	271.767	652	271.765	653	271.763	654	271.760	655	271.758	656	271.
657	271.749	658	271.744	659	271.740	660	271.740	661	271.740	662	271.741	663	271.743	664	272.934
665	272.933	666	272.933	667	272.932	668	272.931	669	272.930	670	272.928	671	272.927	672	272.925
673	272.923	674	272.920	675	272.917	676	272.914	677	272.911	678	272.907	679	272.907	680	272.907
681	272.910	682	272.913	683	272.914	684	273.979	685	273.979	686	273.979	687	273.978	688	273.
689	273.978	690	273.975	691	273.974	692	273.972	693	273.970	694	273.968	695	273.966	696	273.
697	273.961	698	273.958	699	273.958	700	273.958	701	273.961	702	273.964	703	273.985	704	274.
705	274.923	706	274.923	707	274.923	708	274.922	709	274.921	710	274.920	711	274.919	712	274.
713	274.916	714	274.915	715	274.913	716	274.911	717	274.909	718	274.908	719	274.906	720	274.906
721	274.909	722	274.912	723	274.913	724	275.778	725	275.778	726	275.778	727	275.778	728	275.777
729	275.777	730	275.778	731	275.775	732	275.774	733	275.773	734	275.771	735	275.770	736	275.768
737	275.767	738	275.765	739	275.765	740	275.765	741	275.768	742	275.770	743	275.772	744	276.
745	276.554	746	276.554	747	276.554	748	276.553	749	276.553	750	276.552	751	276.551	752	276.
753	276.550	754	276.548	755	276.547	756	276.546	757	276.545	758	276.543	759	276.543	760	276.
761	276.548	762	276.549	763	276.550	764	277.259	765	277.259	766	277.259	767	277.259	768	277.
769	277.258	770	277.257	771	277.257	772	277.256	773	277.255	774	277.255	775	277.254	776	277.253
777	277.252	778	277.251	779	277.251	780	277.251	781	277.253	782	277.256	783	277.258	784	277.900
785	277.900	786	277.900	787	277.900	788	277.899	789	277.899	790	277.899	791	277.898	792	277.898
793	277.897	794	277.897	795	277.896	796	277.895	797	277.894	798	277.893	799	277.893	800	277.
801	277.895	802	277.898	803	277.901	804	278.482	805	278.482	806	278.482	807	278.482	808	278.
809	278.482	810	278.482	811	278.481	812	278.481	813	278.480	814	278.480	815	278.479	816	278.
817	278.478	818	278.478	819	278.478	820	278.478	821	278.480	822	278.483	823	278.486	824	279.
825	279.012	826	279.012	827	279.012	828	279.011	829	279.011	830	279.011	831	279.011	832	279.011
833	279.010	834	279.010	835	279.010	836	279.009	837	279.009	838	279.008	839	279.008	840	279.008
841	279.011	842	279.013	843	279.016	844	279.492	845	279.492	846	279.491	847	279.491	848	279.491
849	279.491	850	279.491	851	279.491	852	279.491	853	279.491	854	279.490	855	279.490	856	279.
857	279.489	858	279.489	859	279.488	860	279.488	861	279.492	862	279.494	863	279.497	864	279.
865	279.925	866	279.925	867	279.925	868	279.925	869	279.925	870	279.925	871	279.926	872	279.
873	279.925	874	279.924	875	279.924	876	279.924	877	279.924	878	279.924	879	279.924	880	279.
881	279.926	882	279.929	883	279.931	884	280.315	885	280.315	886	280.315	887	280.315	888	280.315
889	280.315	890	280.315	891	280.315	892	280.315	893	280.315	894	280.315	895	280.315	896	280.315
897	280.315	898	280.315	899	280.315	900	280.315	901	280.317	902	280.320	903	280.322	904	280.885
905	280.885	906	280.885	907	280.885	908	280.885	909	280.885	910	280.885	911	280.885	912	280.

913	280.865	914	280.865	915	280.864	916	280.864	917	280.864	918	280.864	919	280.864	920	280.865
921	280.867	922	280.870	923	280.872	924	280.874	925	280.874	926	280.874	927	280.874	928	280.874
929	280.874	930	280.874	931	280.874	932	280.875	933	280.875	934	280.875	935	280.875	936	280.875
937	280.875	938	280.875	939	280.875	940	280.875	941	280.877	942	280.880	943	280.883	944	281.246
945	281.248	946	281.246	947	281.246	948	281.246	949	281.247	950	281.247	951	281.247	952	281.247
953	281.247	954	281.247	955	281.247	956	281.247	957	281.247	958	281.247	959	281.247	960	281.247
961	281.250	962	281.252	963	281.256	964	281.482	965	281.482	966	281.482	967	281.482	968	281.482
969	281.482	970	281.482	971	281.482	972	281.482	973	281.482	974	281.483	975	281.483	976	281.483
977	281.483	978	281.483	979	281.483	980	281.483	981	281.486	982	281.488	983	281.491	984	281.882
985	281.882	986	281.882	987	281.882	988	281.882	989	281.882	990	281.882	991	281.882	992	281.883
993	281.883	994	281.883	995	281.883	996	281.883	997	281.883	998	281.883	999	281.884	1000	281.884
1001	281.886	1002	281.889	1003	281.891	1004	281.847	1005	281.847	1006	281.847	1007	281.847	1008	281.848
1009	281.848	1010	281.848	1011	281.848	1012	281.848	1013	281.848	1014	281.848	1015	281.848	1016	281.849
1017	281.849	1018	281.849	1019	281.849	1020	281.848	1021	281.852	1022	281.854	1023	281.857	1024	281.879
1025	281.979	1026	281.979	1027	281.979	1028	281.979	1029	281.979	1030	281.979	1031	281.979	1032	281.979
1033	281.979	1034	281.980	1035	281.980	1036	281.980	1037	281.980	1038	281.981	1039	281.981	1040	281.981
1041	281.983	1042	281.986	1043	281.989	1044	282.076	1045	282.076	1046	282.076	1047	282.077	1048	282.077
1049	282.077	1050	282.077	1051	282.077	1052	282.077	1053	282.077	1054	282.077	1055	282.078	1056	282.078
1057	282.078	1058	282.078	1059	282.078	1060	282.078	1061	282.081	1062	282.083	1063	282.086	1064	282.141
1065	282.141	1066	282.141	1067	282.141	1068	282.141	1069	282.141	1070	282.141	1071	282.141	1072	282.141
1073	282.142	1074	282.142	1075	282.142	1076	282.142	1077	282.143	1078	282.143	1079	282.143	1080	282.143
1081	282.145	1082	282.148	1083	282.151	1084	282.170	1085	282.170	1086	282.170	1087	282.170	1088	282.170
1089	282.170	1090	282.170	1091	282.171	1092	282.171	1093	282.172	1094	282.172	1095	282.173	1096	282.173
1097	282.174	1098	282.174	1099	282.174	1100	282.175	1101	282.179	1102	282.184	1103	282.190		

NODES ALONG THE WATER TABLE

15	31	47	63	79	95	112	129	146	163	180	197	214	231	248	265	282	299	316	333	350	367	384	400	415
430	445	461	478	495	513	531	549	568	587	605	625	644	663	683	703	723	743	763	783	803	823	843	863	883
903	923	943	963	983	1003	1023	1043	1063	1083	1103														

RESULTS OF THE MASS TRANSPORT SIMULATION

TIME: 1.00

- 0 PARTICLES HAVE BEEN ADDED TO THE SYSTEM
- 0 PARTICLES ADDED DURING THIS TIME STEP
- 0 PARTICLES HAVE LEFT THE REGION OF MOVEMENT
- 0 PARTICLES HAVE LEFT THE FLOW SYSTEM

STEADY STATE CONVERGENCE; ERROR:198.288 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 2.00 TIME STEP: 2

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.529	2	230.525	3	230.515	4	230.497	5	230.472	6	230.439	7	230.400	8	230.352
9	230.298	10	230.235	11	230.165	12	230.087	13	230.000	14	230.000	15	230.000	16	233.816
17	233.817	18	233.818	19	233.820	20	233.823	21	233.827	22	233.832	23	233.838	24	233.8
25	233.853	26	233.863	27	233.873	28	233.885	29	233.899	30	233.915	31	233.915	32	236.2
33	236.252	34	236.253	35	236.254	36	236.255	37	236.258	38	236.260	39	236.263	40	236.267
41	236.270	42	236.275	43	236.279	44	236.285	45	236.280	46	236.286	47	236.298	48	238.160
49	238.160	50	238.160	51	238.161	52	238.162	53	238.163	54	238.164	55	238.165	56	238.1
57	238.168	58	238.170	59	238.172	60	238.175	61	238.177	62	238.180	63	238.180	64	239.1
65	239.741	66	239.741	67	239.741	68	239.742	69	239.742	70	239.742	71	239.743	72	239.1
73	239.744	74	239.744	75	239.745	76	239.746	77	239.747	78	239.748	79	239.748	80	241.0
81	241.086	82	241.086	83	241.086	84	241.086	85	241.086	86	241.086	87	241.086	88	241.0
89	241.086	90	241.086	91	241.086	92	241.085	93	241.085	94	241.085	95	241.085	96	242.246
97	242.246	98	242.245	99	242.245	100	242.245	101	242.245	102	242.244	103	242.244	104	242.243
105	242.242	106	242.242	107	242.241	108	242.240	109	242.239	110	242.238	111	242.238	112	243.247
113	243.247	114	243.246	115	243.246	116	243.245	117	243.245	118	243.244	119	243.244	120	243.2
121	243.241	122	243.240	123	243.239	124	243.237	125	243.236	126	243.234	127	243.234	128	243.2
129	244.105	130	244.105	131	244.105	132	244.105	133	244.104	134	244.103	135	244.102	136	244.1
137	244.100	138	244.098	139	244.097	140	244.095	141	244.093	142	244.091	143	244.088	144	244.0
145	244.089	146	244.833	147	244.833	148	244.832	149	244.832	150	244.831	151	244.830	152	244.829
153	244.828	154	244.826	155	244.824	156	244.822	157	244.820	158	244.818	159	244.815	160	244.812
161	244.812	162	244.812	163	245.436	164	245.435	165	245.435	166	245.434	167	245.434	168	245.4
169	245.431	170	245.429	171	245.428	172	245.425	173	245.423	174	245.420	175	245.417	176	245.4
177	245.411	178	245.411	179	245.411	180	245.917	181	245.917	182	245.916	183	245.915	184	245.9
185	245.913	186	245.912	187	245.910	188	245.908	189	245.905	190	245.902	191	245.899	192	245.8
193	245.892	194	245.889	195	245.888	196	245.888	197	246.277	198	246.277	199	246.276	200	246.2
201	246.274	202	246.273	203	246.271	204	246.269	205	246.266	206	246.264	207	246.261	208	246.257
209	246.254	210	246.250	211	246.245	212	246.245	213	246.245	214	246.514	215	246.514	216	246.513
217	246.512	218	246.511	219	246.508	220	246.508	221	246.505	222	246.503	223	246.500	224	246.4
225	246.492	226	246.488	227	246.484	228	246.479	229	246.479	230	246.479	231	246.624	232	246.6
233	246.623	234	246.623	235	246.621	236	246.619	237	246.617	238	246.615	239	246.612	240	246.6
241	246.805	242	246.801	243	246.597	244	246.592	245	246.587	246	246.585	247	246.588	248	246.5
249	246.602	250	246.601	251	246.600	252	246.598	253	246.597	254	246.594	255	246.592	256	246.5
257	246.585	258	246.581	259	246.577	260	246.572	261	246.567	262	246.562	263	246.561	264	246.561
265	246.439	266	246.438	267	246.438	268	246.437	269	246.435	270	246.433	271	246.431	272	246.428
273	246.425	274	246.421	275	246.417	276	246.413	277	246.408	278	246.402	279	246.396	280	246.3
281	246.386	282	246.125	283	246.124	284	246.124	285	246.123	286	246.121	287	246.119	288	246.1
289	246.114	290	246.111	291	246.107	292	246.103	293	246.098	294	246.093	295	246.088	296	246.0
297	246.082	298	246.082	299	245.648	300	245.648	301	245.647	302	245.646	303	245.644	304	245.1
305	245.640	306	245.637	307	245.634	308	245.630	309	245.626	310	245.622	311	245.617	312	245.1
313	245.605	314	245.605	315	245.605	316	244.994	317	244.993	318	244.993	319	244.992	320	244.990
321	244.989	322	244.986	323	244.984	324	244.981	325	244.977	326	244.973	327	244.968	328	244.964
329	244.959	330	244.954	331	244.954	332	244.954	333	244.148	334	244.145	335	244.145	336	244.144
337	244.143	338	244.141	339	244.139	340	244.137	341	244.134	342	244.131	343	244.128	344	244.
345	244.120	346	244.116	347	244.111	348	244.111	349	244.111	350	243.085	351	243.085	352	243.0
353	243.084	354	243.083	355	243.082	356	243.081	357	243.079	358	243.077	359	243.075	360	243.0
361	243.070	362	243.068	363	243.065	364	243.061	365	243.061	366	243.061	367	241.785	368	241.1
369	241.795	370	241.794	371	241.794	372	241.794	373	241.794	374	241.793	375	241.793	376	241.792
377	241.792	378	241.781	379	241.780	380	241.789	381	241.788	382	241.789	383	240.258	384	240.258
385	240.259	386	240.260	387	240.261	388	240.263	389	240.268	390	240.268	391	240.271	392	240.275
393	240.279	394	240.283	395	240.287	396	240.292	397	240.297	398	240.297	399	238.336	400	238.3
401	238.342	402	238.351	403	238.362	404	238.377	405	238.396	406	238.418	407	238.443	408	238.4
409	238.505	410	238.541	411	238.582	412	238.626	413	238.674	414	238.676	415	234.127	416	234.
417	234.127	418	234.127	419	234.126	420	234.126	421	234.125	422	234.125	423	234.124	424	234.
425	234.123	426	234.123	427	234.122	428	234.122	429	234.122	430	234.125	431	230.456	432	230.454

433	230.447	434	230.435	435	230.419	436	230.398	437	230.373	438	230.343	439	230.308	440	230.269
441	230.225	442	230.178	443	230.122	444	230.063	445	230.000	446	230.497	447	230.495	448	230.487
449	230.474	450	230.456	451	230.433	452	230.405	453	230.372	454	230.334	455	230.291	456	230.242
457	230.188	458	230.131	459	230.068	460	230.000	461	233.318	462	233.314	463	233.301	464	233.
465	233.249	466	233.208	467	233.161	468	233.104	469	233.038	470	232.963	471	232.878	472	232.
473	232.680	474	232.586	475	232.412	476	241.829	477	241.830	478	241.833	479	241.838	480	241.
481	241.855	482	241.867	483	241.881	484	241.898	485	241.917	486	241.938	487	241.964	488	241.
489	242.022	490	242.056	491	242.060	492	246.824	493	246.824	494	246.824	495	246.824	496	246.824
497	246.823	498	246.823	499	246.823	500	246.822	501	246.822	502	246.821	503	246.821	504	246.820
505	246.819	506	246.818	507	246.818	508	246.819	509	250.511	510	250.510	511	250.509	512	250.507
513	250.505	514	250.501	515	250.497	516	250.493	517	250.487	518	250.481	519	250.473	520	250.
521	250.457	522	250.447	523	250.437	524	250.437	525	250.438	526	253.650	527	253.649	528	253.
529	253.645	530	253.642	531	253.638	532	253.633	533	253.627	534	253.620	535	253.611	536	253.
537	253.592	538	253.581	539	253.569	540	253.556	541	253.556	542	253.556	543	253.557	544	256.
545	256.519	546	256.518	547	256.515	548	256.513	549	256.508	550	256.504	551	256.498	552	256.492
553	256.484	554	256.476	555	256.467	556	256.457	557	258.448	558	258.434	559	258.434	560	258.434
561	256.435	562	259.138	563	259.138	564	259.138	565	259.134	566	259.132	567	259.128	568	259.124
569	259.119	570	259.113	571	259.106	572	259.098	573	259.090	574	259.081	575	259.071	576	259.
577	259.060	578	259.050	579	259.052	580	261.528	581	261.526	582	261.525	583	261.523	584	261.
585	261.517	586	261.513	587	261.509	588	261.503	589	261.497	590	261.491	591	261.483	592	261.
593	261.488	594	261.458	595	261.456	596	261.456	597	261.458	598	263.704	599	263.704	600	263.
601	263.701	602	263.699	603	263.696	604	263.693	605	263.689	606	263.684	607	263.678	608	263.672
609	263.666	610	263.658	611	263.650	612	263.642	613	263.642	614	263.642	615	263.644	616	263.644
617	265.687	618	265.686	619	265.686	620	265.684	621	265.682	622	265.680	623	265.677	624	265.673
625	265.669	626	265.664	627	265.658	628	265.652	629	265.648	630	265.639	631	265.631	632	265.
633	265.631	634	265.633	635	265.634	636	267.493	637	267.492	638	267.482	639	267.490	640	267.
641	267.487	642	267.484	643	267.481	644	267.477	645	267.472	646	267.488	647	267.452	648	267.
649	267.450	650	267.444	651	267.443	652	267.443	653	267.445	654	267.446	655	269.138	656	269.
657	269.138	658	269.137	659	269.136	660	269.134	661	269.131	662	269.129	663	269.125	664	269.122
665	269.118	666	269.113	667	268.108	668	269.103	669	269.097	670	269.097	671	269.097	672	269.100
673	269.103	674	270.629	675	270.629	676	270.629	677	270.628	678	270.626	679	270.625	680	270.623
681	270.620	682	270.618	683	270.614	684	270.611	685	270.607	686	270.603	687	270.598	688	270.
689	270.593	690	270.593	691	270.596	692	270.599	693	271.976	694	271.978	695	271.977	696	271.
697	271.975	698	271.974	699	271.972	700	271.970	701	271.967	702	271.965	703	271.962	704	271.
705	271.954	706	271.950	707	271.946	708	271.948	709	271.948	710	271.949	711	271.952	712	273.
713	273.197	714	273.196	715	273.196	716	273.195	717	273.193	718	273.192	719	273.190	720	273.188
721	273.186	722	273.183	723	273.180	724	273.177	725	273.173	726	273.170	727	273.170	728	273.170
729	273.173	730	273.176	731	273.178	732	274.297	733	274.297	734	274.297	735	274.295	736	274.295
737	274.294	738	274.293	739	274.291	740	274.289	741	274.287	742	274.285	743	274.283	744	274.
745	274.277	746	274.274	747	274.274	748	274.274	749	274.277	750	274.278	751	274.281	752	275.
753	275.289	754	275.289	755	275.288	756	275.288	757	275.287	758	275.288	759	275.284	760	275.
761	275.281	762	275.278	763	275.277	764	275.275	765	275.272	766	275.269	767	275.259	768	275.
769	275.272	770	275.275	771	275.278	772	276.183	773	276.183	774	276.183	775	276.183	776	276.182
777	276.181	778	276.180	779	276.179	780	276.178	781	276.176	782	276.175	783	276.173	784	276.171
785	276.169	786	276.186	787	276.188	788	276.188	789	276.189	790	276.172	791	276.174	792	276.888
793	276.888	794	276.888	795	276.888	796	276.887	797	276.887	798	276.886	799	276.885	800	276.
801	276.882	802	276.881	803	276.879	804	276.878	805	276.876	806	276.876	807	276.874	808	276.
809	276.877	810	276.878	811	276.881	812	277.712	813	277.712	814	277.712	815	277.711	816	277.
817	277.710	818	277.710	819	277.709	820	277.708	821	277.707	822	277.706	823	277.704	824	277.
825	277.701	826	277.700	827	277.700	828	277.700	829	277.703	830	277.705	831	277.707	832	278.381
833	278.381	834	278.381	835	278.380	836	278.380	837	278.380	838	278.369	839	278.358	840	278.358
841	278.357	842	278.356	843	278.355	844	278.353	845	278.352	846	278.351	847	278.351	848	278.351
849	278.354	850	278.356	851	278.358	852	278.941	853	278.941	854	278.941	855	278.941	856	278.
857	278.940	858	278.940	859	278.939	860	278.938	861	278.938	862	278.937	863	278.936	864	278.
865	278.934	866	278.933	867	278.933	868	278.933	869	278.936	870	278.938	871	278.940	872	279.
873	279.458	874	279.457	875	279.457	876	279.457	877	279.457	878	279.456	879	279.456	880	279.
881	279.455	882	279.454	883	279.453	884	279.453	885	279.452	886	279.451	887	279.451	888	279.451
889	279.453	890	279.456	891	279.458	892	279.915	893	279.915	894	279.915	895	279.915	896	279.914
897	279.914	898	279.914	899	279.914	900	279.913	901	279.913	902	279.912	903	279.911	904	279.911
905	279.910	906	279.909	907	279.909	908	279.909	909	279.912	910	279.915	911	279.917	912	280.

913	280.317	914	280.317	915	280.316	916	280.316	917	280.316	918	280.316	919	280.316	920	280.315
921	280.315	922	280.314	923	280.314	924	280.313	925	280.313	926	280.312	927	280.312	928	280.312
929	280.315	930	280.317	931	280.320	932	280.666	933	280.666	934	280.666	935	280.666	936	280.666
937	280.666	938	280.666	939	280.665	940	280.665	941	280.665	942	280.664	943	280.664	944	280.663
945	280.663	946	280.662	947	280.663	948	280.663	949	280.665	950	280.668	951	280.670	952	280.986
953	280.966	954	280.966	955	280.986	956	280.986	957	280.966	958	280.965	959	280.985	960	280.985
961	280.985	962	280.965	963	280.964	964	280.964	965	280.964	966	280.963	967	280.963	968	280.963
969	280.986	970	280.968	971	280.971	972	281.218	973	281.218	974	281.218	975	281.218	976	281.218
977	281.218	978	281.218	979	281.218	980	281.218	981	281.218	982	281.217	983	281.217	984	281.217
985	281.216	986	281.216	987	281.218	988	281.218	989	281.219	990	281.221	991	281.224	992	281.425
993	281.425	994	281.425	995	281.425	996	281.425	997	281.425	998	281.425	999	281.425	1000	281.425
1001	281.425	1002	281.424	1003	281.424	1004	281.424	1005	281.424	1006	281.424	1007	281.424	1008	281.424
1009	281.426	1010	281.428	1011	281.432	1012	281.588	1013	281.588	1014	281.588	1015	281.588	1016	281.588
1017	281.588	1018	281.588	1019	281.588	1020	281.588	1021	281.588	1022	281.587	1023	281.587	1024	281.587
1025	281.587	1026	281.587	1027	281.587	1028	281.587	1029	281.589	1030	281.582	1031	281.595	1032	281.708
1033	281.708	1034	281.708	1035	281.708	1036	281.708	1037	281.708	1038	281.708	1039	281.708	1040	281.708
1041	281.707	1042	281.707	1043	281.707	1044	281.707	1045	281.707	1046	281.707	1047	281.707	1048	281.707
1049	281.709	1050	281.712	1051	281.715	1052	281.785	1053	281.785	1054	281.785	1055	281.785	1056	281.785
1057	281.785	1058	281.785	1059	281.785	1060	281.785	1061	281.785	1062	281.785	1063	281.785	1064	281.785
1065	281.784	1066	281.784	1067	281.784	1068	281.784	1069	281.787	1070	281.790	1071	281.792	1072	281.818
1073	281.818	1074	281.818	1075	281.818	1076	281.818	1077	281.818	1078	281.818	1079	281.818	1080	281.819
1081	281.818	1082	281.818	1083	281.820	1084	281.820	1085	281.820	1086	281.820	1087	281.820	1088	281.820
1089	281.825	1090	281.830	1091	281.838										

NODES ALONG THE WATER TABLE

15	31	47	63	79	95	111	128	145	162	179	196	213	230	247	264	281	298	315	332	349	366	382	398	414
430	445	460	475	491	508	525	543	561	579	597	616	635	654	673	692	711	731	751	771	791	811	831	851	871
891	911	931	951	971	991	1011	1031	1051	1071	1091														

RESULTS OF THE MASS TRANSPORT SIMULATION

TIME: 2.00

5 PARTICLES HAVE BEEN ADDED TO THE SYSTEM
5 PARTICLES ADDED DURING THIS TIME STEP
0 PARTICLES HAVE LEFT THE REGION OF MOVEMENT
0 PARTICLES HAVE LEFT THE FLOW SYSTEM

DISTRIBUTION OF REFERENCE PARTICLES

VERTICAL CELLS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
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
2:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
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
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
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
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
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
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
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
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
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
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
25:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0
26:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	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
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
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
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
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
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
33:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34:	0	0	0	0	0	0	0	0	0	0	0	0	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	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	0	0	0	0	0	0	0	0
37:	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	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	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	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	0	0	0	0	0	0	0	0	0	0
42:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	0	0	0	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	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	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	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	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	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	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	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	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	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	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	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	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	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
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
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

DISTRIBUTION OF NON-MOVING REFERENCE PARTICLES

VERTICAL CELLS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
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
2:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
33:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34:	0	0	0	0	0	0	0	0	0	0	0	0	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	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	0	0	0	0	0	0	0	0
37:	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	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	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	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	0	0	0	0	0	0	0	0	0	0
42:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	0	0	0	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	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	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	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	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	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	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	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	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	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	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	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	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	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
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
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

CONCENTRATION DISTRIBUTION

	VERTICAL CELLS																						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
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
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
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
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
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
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
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
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
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
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
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
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	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	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	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	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	0.0	0.0	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	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	0.0	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	0.0	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	0.0	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	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	0.00	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	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	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	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STEADY STATE CONVERGENCE; ERROR:185.828 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 3.00 TIME STEP: 3

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.462	2	230.459	3	230.449	4	230.434	5	230.412	6	230.384	7	230.348	8	230.308
9	230.260	10	230.205	11	230.144	12	230.076	13	230.000	14	230.000	15	230.000	16	233.333
17	233.333	18	233.334	19	233.336	20	233.338	21	233.342	22	233.346	23	233.351	24	233.356
25	233.363	26	233.371	27	233.380	28	233.390	29	233.401	30	233.414	31	233.414	32	235.497
33	235.497	34	235.497	35	235.498	36	235.500	37	235.501	38	235.504	39	235.506	40	235.509
41	235.512	42	235.516	43	235.520	44	235.524	45	235.529	46	235.534	47	235.538	48	237.195
49	237.195	50	237.195	51	237.196	52	237.196	53	237.197	54	237.198	55	237.199	56	237.201
57	237.202	58	237.204	59	237.205	60	237.207	61	237.210	62	237.212	63	237.212	64	238.597
65	238.597	66	238.597	67	238.597	68	238.597	69	238.597	70	238.598	71	238.598	72	238.599
73	238.599	74	238.600	75	238.600	76	238.601	77	238.601	78	238.602	79	238.602	80	239.781
81	239.781	82	239.781	83	239.781	84	239.781	85	239.781	86	239.781	87	239.781	88	239.781
89	239.781	90	239.780	91	239.780	92	239.780	93	239.780	94	239.780	95	239.780	96	240.792
97	240.792	98	240.792	99	240.792	100	240.791	101	240.791	102	240.791	103	240.790	104	240.790
105	240.789	106	240.788	107	240.788	108	240.787	109	240.786	110	240.785	111	240.785	112	241.855
113	241.855	114	241.855	115	241.855	116	241.854	117	241.854	118	241.853	119	241.853	120	241.852
121	241.851	122	241.850	123	241.849	124	241.847	125	241.846	126	241.845	127	241.845	128	242.388
129	242.388	130	242.388	131	242.388	132	242.387	133	242.386	134	242.386	135	242.385	136	242.384
137	242.383	138	242.381	139	242.380	140	242.378	141	242.376	142	242.374	143	242.374	144	243.001
145	243.001	146	243.001	147	243.001	148	243.000	149	242.999	150	242.998	151	242.997	152	242.996
153	242.995	154	242.993	155	242.991	156	242.990	157	242.988	158	242.985	159	242.985	160	242.985
161	243.500	162	243.500	163	243.500	164	243.500	165	243.499	166	243.498	167	243.497	168	243.496
169	243.494	170	243.493	171	243.491	172	243.488	173	243.487	174	243.485	175	243.482	176	243.482
177	243.482	178	243.880	179	243.880	180	243.880	181	243.889	182	243.888	183	243.887	184	243.886
185	243.885	186	243.883	187	243.882	188	243.880	189	243.878	190	243.875	191	243.873	192	243.870
193	243.870	194	243.870	195	244.173	196	244.173	197	244.173	198	244.172	199	244.172	200	244.171
201	244.170	202	244.168	203	244.166	204	244.165	205	244.163	206	244.160	207	244.158	208	244.155
209	244.152	210	244.152	211	244.152	212	244.353	213	244.353	214	244.352	215	244.352	216	244.351
217	244.350	218	244.349	219	244.347	220	244.345	221	244.343	222	244.341	223	244.339	224	244.336
225	244.333	226	244.330	227	244.330	228	244.330	229	244.428	230	244.428	231	244.428	232	244.427
233	244.426	234	244.425	235	244.424	236	244.423	237	244.421	238	244.419	239	244.417	240	244.414
241	244.411	242	244.408	243	244.405	244	244.405	245	244.405	246	244.400	247	244.400	248	244.400
249	244.399	250	244.398	251	244.397	252	244.396	253	244.394	254	244.393	255	244.391	256	244.388
257	244.386	258	244.383	259	244.380	260	244.377	261	244.377	262	244.377	263	244.268	264	244.268
265	244.267	266	244.267	267	244.266	268	244.265	269	244.263	270	244.262	271	244.260	272	244.258
273	244.256	274	244.254	275	244.251	276	244.248	277	244.245	278	244.245	279	244.245	280	244.030
281	244.030	282	244.029	283	244.028	284	244.028	285	244.027	286	244.028	287	244.024	288	244.023
289	244.021	290	244.019	291	244.017	292	244.014	293	244.011	294	244.008	295	244.008	296	244.008
297	243.685	298	243.685	299	243.685	300	243.684	301	243.683	302	243.683	303	243.682	304	243.680
305	243.679	306	243.677	307	243.675	308	243.673	309	243.671	310	243.669	311	243.666	312	243.666
313	243.666	314	243.233	315	243.233	316	243.233	317	243.232	318	243.232	319	243.231	320	243.230
321	243.229	322	243.228	323	243.226	324	243.225	325	243.223	326	243.221	327	243.218	328	243.217
329	243.217	330	243.217	331	242.674	332	242.674	333	242.674	334	242.673	335	242.673	336	242.672
337	242.672	338	242.671	339	242.670	340	242.669	341	242.668	342	242.667	343	242.885	344	242.664
345	242.662	346	242.662	347	242.662	348	242.009	349	242.009	350	242.009	351	242.009	352	242.009
353	242.008	354	242.008	355	242.008	356	242.007	357	242.006	358	242.008	359	242.005	360	242.004
361	242.004	362	242.003	363	242.003	364	241.245	365	241.245	366	241.245	367	241.245	368	241.245
369	241.245	370	241.245	371	241.245	372	241.246	373	241.246	374	241.246	375	241.246	376	241.246
377	241.246	378	241.247	379	241.247	380	240.384	381	240.384	382	240.384	383	240.385	384	240.386
385	240.387	386	240.388	387	240.389	388	240.391	389	240.393	390	240.395	391	240.397	392	240.399
393	240.402	394	240.404	395	240.404	396	239.321	397	239.322	398	239.325	399	239.330	400	239.337
401	239.347	402	239.358	403	239.371	404	239.387	405	239.404	406	239.424	407	239.446	408	239.470
409	239.497	410	239.526	411	239.527	412	236.531	413	236.531	414	236.531	415	236.531	416	236.532
417	236.532	418	236.532	419	236.533	420	236.533	421	236.534	422	236.535	423	236.535	424	236.536
425	236.536	426	236.537	427	236.548	428	234.003	429	234.003	430	234.003	431	234.003	432	234.003
433	234.003	434	234.002	435	234.002	436	234.002	437	234.002	438	234.002	439	234.002	440	234.002
441	234.002	442	234.002	443	234.008	444	232.007	445	232.007	446	232.007	447	232.007	448	232.007
449	232.007	450	232.008	451	232.008	452	232.007	453	232.007	454	232.007	455	232.007	456	232.008
457	232.008	458	232.010	459	230.254	460	230.252	461	230.248	462	230.242	463	230.233	464	230.221
465	230.207	466	230.190	467	230.171	468	230.149	469	230.124	470	230.097	471	230.067	472	230.035
473	230.000	474	230.443	475	230.441	476	230.434	477	230.423	478	230.407	479	230.387	480	230.362
481	230.332	482	230.298	483	230.260	484	230.217	485	230.169	486	230.117	487	230.061	488	230.000
489	233.158	490	233.154	491	233.142	492	233.122	493	233.094	494	233.057	495	233.012	496	232.959
497	232.898	498	232.827	499	232.748	500	232.660	501	232.563	502	232.457	503	232.313	504	241.328
505	241.329	506	241.332	507	241.338	508	241.346	509	241.355	510	241.368	511	241.382	512	241.400
513	241.419	514	241.442	515	241.467	516	241.495	517	241.527	518	241.562	519	241.565	520	246.180
521	246.180	522	246.180	523	246.181	524	246.181	525	246.182	526	246.183	527	246.184	528	246.185
529	246.187	530	246.188	531	246.189	532	246.191	533	246.193	534	246.194	535	246.195	536	246.196
537	248.788	538	248.788	539	248.787	540	248.786	541	248.785	542	248.784	543	248.782	544	248.780
545	248.777	546	248.774	547	248.771	548	248.767	549	248.763	550	248.759	551	248.754	552	248.754
553	248.755	554	252.737	555	252.737	556	252.736	557	252.734	558	252.731	559	252.728	560	252.724
561	252.718	562	252.713	563	252.707	564	252.700	565	252.692	566	252.683	567	252.674	568	252.664
569	252.664	570	252.664	571	255.440	572	255.440	573	255.438	574	255.437	575	255.434	576	255.430
577	255.425	578	255.420	579	255.413	580	255.406	581	255.398	582	255.388	583	255.379	584	255.368
585	255.356	586	255.356	587	255.358	588	255.357	589	258.045	590	258.044	591	258.043	592	258.042
593	258.039	594	258.036	595	258.033	596	258.028	597	258.023	598	258.017	599	258.011	600	258.004
601	257.998	602	257.987	603	257.978	604	257.878	605	257.978	606	257.979	607	260.459	608	260.458
609	260.458	610	260.456	611	260.454	612	260.451	613	260.448	614	260.444	615	260.439	616	260.434
617	260.428	618	260.421	619	260.414	620	260.406	621	260.398	622	260.388	623	260.398	624	260.389
625	262.687	626	262.687	627	262.686	628	262.685	629	262.683	630	262.680	631	262.677	632	262.674
633	262.669	634	262.665	635	262.659	636	262.653	637	262.647	638	262.639	639	262.632	640	262.632
641	262.632	642	262.634	643	264.742	644	264.742	645	264.741	646	264.740	647	264.738	648	264.736
649	264.733	650	264.730	651	264.726	652	264.722	653	264.717	654	264.712	655	264.706	656	264.700
657	264.693	658	264.693	659	264.693	660	264.696	661	264.698	662	266.620	663	266.620	664	266.619
665	266.618	666	266.617	667	266.615	668	266.612	669	266.609	670	266.606	671	266.602	672	266.598
673	266.593	674	266.588	675	266.582	676	266.576	677	266.570	678	266.576	679	266.579	680	266.581
681	268.333	682	268.333	683	258.332	684	268.331	685	268.330	686	268.328	687	268.326	688	268.323
689	268.320	690	268.316	691	268.313	692	268.308	693	268.304	694	268.298	695	268.293	696	268.283
697	268.283	698	268.295	699	268.288	700	269.883	701	269.883	702	269.892	703	269.891	704	269.890
705	269.888	706	269.888	707	269.884	708	269.881	709	269.878	710	269.875	711	269.871	712	269.867
713	269.862	714	268.857	715	269.857	716	269.857	717	269.860	718	269.863	719	271.312	720	271.312
721	271.311	722	271.311	723	271.308	724	271.308	725	271.308	726	271.304	727	271.302	728	271.299
729	271.295	730	271.292	731	271.288	732	271.284	733	271.280	734	271.280	735	271.280	736	271.283
737	271.288	738	272.600	739	272.600	740	272.600	741	272.599	742	272.598	743	272.597	744	272.595
745	272.593	746	272.591	747	272.589	748	272.586	749	272.583	750	272.578	751	272.576	752	272.572
753	272.572	754	272.572	755	272.575	756	272.578	757	272.578	758	273.765	759	273.765	760	273.765
761	273.764	762	273.763	763	273.762	764	273.761	765	273.759	766	273.757	767	273.755	768	273.753
769	273.750	770	273.747	771	273.744	772	273.740	773	273.740	774	273.740	775	273.743	776	273.746
777	273.747	778	274.817	779	274.817	780	274.816	781	274.815	782	274.815	783	274.814	784	274.813
785	274.811	786	274.810	787	274.808	788	274.806	789	274.803	790	274.801	791	274.798	792	274.795
793	274.794	794	274.795	795	274.798	798	274.800	797	274.802	798	275.783	799	275.783	800	275.763
801	275.762	802	275.762	803	275.761	804	275.760	805	275.758	806	275.757	807	275.755	808	275.753
809	275.751	810	275.749	811	275.746	812	275.744	813	275.744	814	275.744	815	275.747	816	275.748
817	275.751	818	276.812	819	276.812	820	276.812	821	276.812	822	276.811	823	276.810	824	276.809
825	276.808	826	276.807	827	276.805	828	276.804	829	276.802	830	276.800	831	276.598	832	276.595
833	276.595	834	276.595	835	276.598	838	276.601	837	276.602	838	277.371	839	277.371	840	277.371
841	277.371	842	277.370	843	277.370	844	277.369	845	277.368	846	277.387	847	277.385	848	277.384
849	277.382	850	277.380	851	277.358	852	277.358	853	277.356	854	277.358	855	277.359	856	277.382
857	277.384	858	278.047	859	278.047	860	278.048	861	278.048	862	278.048	863	278.045	864	278.044
865	278.043	866	278.042	867	278.041	868	278.040	869	278.038	870	278.037	871	278.035	872	278.033
873	278.033	874	278.033	875	278.038	876	278.039	877	278.041	878	278.843	879	278.843	880	278.843
881	278.843	882	278.842	883	278.842	884	278.841	885	278.840	886	278.639	887	278.638	888	278.637
889	278.636	890	278.635	891	278.633	892	278.631	893	278.631	894	278.632	895	278.634	896	278.637
897	278.638	898	279.187	899	279.186	900	279.186	901	279.186	902	279.188	903	279.186	904	279.185
905	279.184	906	279.183	907	279.182	908	279.181	909	279.180	910	279.159	911	279.158	912	279.158

913	279.156	914	279.155	915	279.158	916	279.161	917	279.164	918	279.620	919	279.620	920	279.6
921	279.620	922	279.620	923	279.618	924	279.618	925	279.618	926	279.618	927	279.617	928	279.6
929	279.615	930	279.614	931	279.613	932	279.611	933	279.611	934	279.611	935	279.614	936	279.6
937	279.619	938	280.009	939	280.009	940	280.009	941	280.009	942	280.008	943	280.008	944	280.007
945	280.007	946	280.006	947	280.006	948	280.005	949	280.004	950	280.003	951	280.002	952	280.00
953	280.001	954	280.001	955	280.003	956	280.006	957	280.009	958	280.335	959	280.335	960	280.335
961	280.334	962	280.334	963	280.334	964	280.333	965	280.333	966	280.332	967	280.332	968	280.3
969	280.330	970	280.329	971	280.328	972	280.327	973	280.327	974	280.328	975	280.330	976	280.3
977	280.335	978	280.601	979	280.601	980	280.601	981	280.600	982	280.600	983	280.600	984	280.5
985	280.598	986	280.598	987	280.598	988	280.597	989	280.597	990	280.598	991	280.595	992	280.5
993	280.594	994	280.594	995	280.597	998	280.599	997	280.602	998	280.809	999	280.809	1000	280.809
1001	280.808	1002	280.808	1003	280.808	1004	280.808	1005	280.807	1006	280.807	1007	280.805	1008	280.805
1009	280.805	1010	280.804	1011	280.803	1012	280.803	1013	280.803	1014	280.803	1015	280.805	1016	280.808
1017	280.811	1018	280.960	1019	280.960	1020	280.980	1021	280.980	1022	280.980	1023	280.980	1024	280.1
1025	280.959	1026	280.959	1027	280.958	1028	280.958	1029	280.957	1030	280.956	1031	280.956	1032	280.1
1033	280.955	1034	280.955	1035	280.957	1036	280.980	1037	280.983	1038	281.057	1039	281.057	1040	281.1
1041	281.057	1042	281.056	1043	281.056	1044	281.056	1045	281.055	1046	281.055	1047	281.055	1048	281.1
1049	281.054	1050	281.053	1051	281.052	1052	281.052	1053	281.052	1054	281.052	1055	281.054	1056	281.057
1057	281.060	1058	281.096	1059	281.098	1060	281.096	1061	281.096	1062	281.096	1063	281.098	1064	281.096
1065	281.096	1066	281.095	1067	281.095	1068	281.095	1069	281.095	1070	281.094	1071	281.094	1072	281.094
1073	281.094	1074	281.094	1075	281.099	1076	281.104	1077	281.110						

NODES ALONG THE WATER TABLE

15	31	47	63	79	95	111	127	143	160	177	194	211	228	245	262	279	296	313	330	347	363	379	395	411
427	443	458	473	488	503	519	536	553	570	588	606	624	642	661	680	698	718	737	757	777	797	817	837	857
877	897	917	937	957	977	997	1017	1037	1057	1077														

RESULTS OF THE MASS TRANSPORT SIMULATION

TIME: 3.00

10 PARTICLES HAVE BEEN ADDED TO THE SYSTEM
5 PARTICLES ADDED DURING THIS TIME STEP
0 PARTICLES HAVE LEFT THE REGION OF MOVEMENT
0 PARTICLES HAVE LEFT THE FLOW SYSTEM

DISTRIBUTION OF REFERENCE PARTICLES

	VERTICAL CELLS																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
14:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
17:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:	0	0	0	0	0	0	0	0	0	0	0	0	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
22:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:	0	0	0	0	0	0	0	0	0	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
25:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	0	0	0	0	0	0
26:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	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
28:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	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
30:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31:	0	0	0	0	0	0	0	0	0	0	0	0	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
33:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0
36:	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	0	0	0	0	0	0	0	0	0
38:	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	0	0	0	0	0	0	0	0	0
40:	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	0	0	0	0	0	0	0	0	0
42:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46:	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	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53:	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	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	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	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	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
59:	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

DISTRIBUTION OF NON-MOVING REFERENCE PARTICLES

VERTICAL CELLS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
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
2:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
33:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34:	0	0	0	0	0	0	0	0	0	0	0	0	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	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	0	0	0	0	0	0	0	0
37:	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	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	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	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	0	0	0	0	0	0	0	0	0	0
42:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	0	0	0	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	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	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	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	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	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	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	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	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	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	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	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	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	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
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
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

CONCENTRATION DISTRIBUTION

VERTICAL CELLS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
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
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
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
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
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
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
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
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
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
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
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
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	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	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	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	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	0.0	0.0	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	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	0.0	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	0.0	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	0.0	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.01	0.00	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	0.00	0.01	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	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	0.00	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	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STEADY STATE CONVERGENCE; ERROR:156.957 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 4.00 TIME STEP: 4

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.405	2	230.403	3	230.394	4	230.381	5	230.381	6	230.337	7	230.306	8	230.270
9	230.228	10	230.180	11	230.126	12	230.066	13	230.000	14	230.000	15	230.000	16	232.926
17	232.926	18	232.927	19	232.928	20	232.931	21	232.933	22	232.937	23	232.941	24	232.[illegible]
25	232.951	26	232.958	27	232.965	28	232.973	29	232.983	30	232.994	31	232.894	32	234.[illegible]
33	234.880	34	234.861	35	234.861	36	234.863	37	234.864	38	234.868	39	234.868	40	234.871
41	234.874	42	234.877	43	234.881	44	234.885	45	234.889	46	234.893	47	234.894	48	236.386
49	236.386	50	236.387	51	236.387	52	236.388	53	236.388	54	236.389	55	236.390	56	236.[illegible]
57	236.393	58	236.395	59	236.396	60	236.398	61	236.400	62	236.402	63	236.402	64	237.[illegible]
65	237.647	66	237.647	67	237.647	68	237.648	69	237.648	70	237.648	71	237.648	72	237.[illegible]
73	237.650	74	237.650	75	237.651	76	237.652	77	237.652	78	237.653	79	237.653	80	238.[illegible]
81	238.711	82	238.711	83	238.711	84	238.711	85	238.711	86	238.711	87	238.711	88	238.[illegible]
89	238.711	90	238.712	91	238.712	92	238.712	93	238.712	94	238.712	95	238.712	96	239.618
97	239.618	98	239.618	99	239.618	100	239.618	101	239.617	102	239.617	103	239.617	104	239.617
105	239.616	106	239.616	107	239.616	108	239.615	109	239.615	110	239.614	111	239.614	112	240.[illegible]
113	240.391	114	240.391	115	240.391	116	240.390	117	240.390	118	240.390	119	240.389	120	240.[illegible]
121	240.388	122	240.387	123	240.387	124	240.388	125	240.385	126	240.384	127	240.384	128	241.[illegible]
129	241.046	130	241.046	131	241.046	132	241.045	133	241.045	134	241.045	135	241.044	136	241.[illegible]
137	241.042	138	241.041	139	241.040	140	241.039	141	241.038	142	241.037	143	241.037	144	241.[illegible]
145	241.595	146	241.595	147	241.594	148	241.594	149	241.593	150	241.593	151	241.592	152	241.591
153	241.590	154	241.589	155	241.588	156	241.587	157	241.585	158	241.584	159	241.584	160	242.044
161	242.044	162	242.044	163	242.044	164	242.043	165	242.043	166	242.042	167	242.041	168	242.[illegible]
169	242.039	170	242.038	171	242.037	172	242.035	173	242.034	174	242.032	175	242.032	176	242.[illegible]
177	242.401	178	242.401	179	242.400	180	242.400	181	242.399	182	242.398	183	242.398	184	242.[illegible]
185	242.395	186	242.394	187	242.393	188	242.391	189	242.389	190	242.387	191	242.387	192	242.[illegible]
193	242.868	194	242.868	195	242.868	196	242.867	197	242.866	198	242.866	199	242.865	200	242.[illegible]
201	242.862	202	242.861	203	242.860	204	242.858	205	242.856	206	242.854	207	242.854	208	242.854
209	242.848	210	242.848	211	242.847	212	242.847	213	242.846	214	242.846	215	242.845	216	242.844
217	242.843	218	242.842	219	242.840	220	242.839	221	242.837	222	242.835	223	242.833	224	242.[illegible]
225	242.833	226	242.942	227	242.942	228	242.942	229	242.941	230	242.941	231	242.940	232	242.[illegible]
233	242.938	234	242.937	235	242.936	236	242.935	237	242.933	238	242.931	239	242.930	240	242.
241	242.928	242	242.928	243	242.953	244	242.953	245	242.953	246	242.952	247	242.952	248	242.
249	242.950	250	242.950	251	242.948	252	242.947	253	242.946	254	242.944	255	242.943	256	242.
257	242.939	258	242.939	259	242.938	260	242.883	261	242.883	262	242.883	263	242.882	264	242.882
265	242.881	266	242.880	267	242.880	268	242.879	269	242.877	270	242.876	271	242.875	272	242.873
273	242.872	274	242.870	275	242.870	276	242.870	277	242.733	278	242.733	279	242.733	280	242.[illegible]
281	242.732	282	242.731	283	242.731	284	242.730	285	242.729	286	242.728	287	242.727	288	242.[illegible]
289	242.724	290	242.723	291	242.721	292	242.721	293	242.721	294	242.505	295	242.505	296	242.[illegible]
297	242.505	298	242.504	299	242.504	300	242.503	301	242.502	302	242.502	303	242.501	304	242.[illegible]
305	242.499	306	242.497	307	242.496	308	242.495	309	242.485	310	242.203	311	242.203	312	242.[illegible]
313	242.203	314	242.202	315	242.202	316	242.201	317	242.201	318	242.200	319	242.200	320	242.199
321	242.198	322	242.197	323	242.196	324	242.195	325	242.195	326	241.829	327	241.829	328	241.829
329	241.829	330	241.829	331	241.828	332	241.828	333	241.828	334	241.827	335	241.827	336	241.826
337	241.826	338	241.825	339	241.824	340	241.823	341	241.823	342	241.387	343	241.387	344	241.[illegible]
345	241.387	346	241.386	347	241.386	348	241.386	349	241.385	350	241.386	351	241.385	352	241.[illegible]
353	241.385	354	241.385	355	241.384	356	241.384	357	241.384	358	240.879	359	240.879	360	240.
361	240.879	362	240.879	363	240.879	364	240.879	365	240.879	366	240.879	367	240.879	368	240.
369	240.880	370	240.880	371	240.880	372	240.880	373	240.880	374	240.306	375	240.308	376	240.306
377	240.307	378	240.307	379	240.308	380	240.309	381	240.310	382	240.311	383	240.312	384	240.313
385	240.314	386	240.315	387	240.317	388	240.318	389	240.318	390	239.588	391	239.589	392	239.591
393	239.594	394	239.599	395	239.605	396	239.613	397	239.622	398	239.633	399	239.645	400	239.
401	239.674	402	239.691	403	239.709	404	239.729	405	239.730	406	237.615	407	237.615	408	237.
409	237.617	410	237.617	411	237.617	412	237.618	413	237.619	414	237.619	415	237.620	416	237.
417	237.622	418	237.622	419	237.623	420	237.624	421	237.633	422	235.704	423	235.704	424	235.
425	235.704	426	235.704	427	235.704	428	235.705	429	235.705	430	235.705	431	235.706	432	235.706
433	235.707	434	235.708	435	235.708	436	235.709	437	235.716	438	233.986	439	233.986	440	233.986
441	233.986	442	233.988	443	233.985	444	233.986	445	233.987	446	233.987	447	233.987	448	233.988
449	233.988	450	233.989	451	233.989	452	233.990	453	233.995	454	232.513	455	232.513	456	232.513
457	232.513	458	232.513	459	232.514	460	232.514	461	232.514	462	232.515	463	232.516	464	232.
465	232.517	466	232.518	467	232.519	468	232.521	469	231.304	470	231.304	471	231.303	472	231.
473	231.303	474	231.303	475	231.303	476	231.303	477	231.303	478	231.303	479	231.304	480	231.
481	231.305	482	231.306	483	231.308	484	230.183	485	230.182	486	230.178	487	230.174	488	230.
489	230.180	490	230.148	491	230.137	492	230.123	493	230.107	494	230.090	495	230.070	496	230.048
497	230.025	498	230.000	499	230.399	500	230.386	501	230.392	502	230.383	503	230.388	504	230.352
505	230.330	506	230.304	507	230.273	508	230.238	509	230.199	510	230.156	511	230.108	512	230.056
513	230.000	514	232.999	515	232.995	516	232.986	517	232.969	518	232.945	519	232.912	520	232.
521	232.823	522	232.768	523	232.701	524	232.628	525	232.545	526	232.455	527	232.355	528	232.
529	240.848	530	240.848	531	240.855	532	240.863	533	240.874	534	240.886	535	240.901	536	240.
537	240.937	538	240.959	539	240.983	540	241.010	541	241.040	542	241.072	543	241.108	544	241.
545	245.586	546	245.586	547	245.589	548	245.591	549	245.594	550	245.597	551	245.600	552	245.603
553	245.606	554	245.609	555	245.613	556	245.616	557	245.620	558	245.623	559	245.627	560	245.628
561	245.628	562	249.127	563	249.127	564	249.128	565	249.130	566	249.130	567	249.131	568	249.131
569	249.131	570	248.130	571	249.129	572	249.128	573	249.127	574	249.125	575	249.123	576	249.
577	249.121	578	248.122	579	252.040	580	252.040	581	252.041	582	252.041	583	252.040	584	252.
585	252.037	586	252.034	587	252.031	588	252.027	589	252.022	590	252.017	591	252.011	592	252.
593	251.998	594	251.998	595	251.998	596	254.708	597	254.708	598	254.707	599	254.708	600	254.
601	254.703	602	254.700	603	254.697	604	254.692	605	254.687	606	254.681	607	254.674	608	254.667
609	254.658	610	254.649	611	254.649	612	254.648	613	254.648	614	257.273	615	257.272	616	257.273
617	257.272	618	257.271	619	257.270	620	257.267	621	257.264	622	257.260	623	257.256	624	257.251
625	257.245	626	257.239	627	257.232	628	257.224	629	257.224	630	257.224	631	257.228	632	259.
633	259.664	634	259.665	635	259.664	636	259.664	637	259.662	638	259.660	639	259.658	640	259.
641	259.651	642	259.646	643	259.641	644	259.636	645	259.629	646	259.623	647	259.623	648	259.
649	259.625	650	261.879	651	261.879	652	261.880	653	261.878	654	261.879	655	261.878	656	261.
657	261.873	658	261.870	659	261.867	660	261.863	661	261.858	662	261.853	663	261.847	664	261.841
665	261.841	666	261.841	667	261.844	668	263.924	669	263.924	670	263.924	671	263.924	672	263.923
673	263.922	674	263.920	675	263.918	676	263.915	677	263.912	678	263.908	679	263.904	680	263.899
681	263.894	682	263.888	683	263.888	684	263.888	685	263.891	686	263.893	687	265.805	688	265.
689	265.805	690	265.805	691	265.804	692	265.803	693	265.801	694	265.798	695	265.795	696	265.
697	265.790	698	265.785	699	265.781	700	265.776	701	265.771	702	265.770	703	265.770	704	265.
705	265.775	706	267.528	707	267.528	708	267.528	709	267.528	710	267.527	711	267.528	712	267.
713	267.522	714	267.520	715	267.517	716	267.514	717	267.510	718	267.506	719	267.501	720	267.496
721	267.496	722	267.496	723	267.499	724	267.501	725	269.104	726	269.103	727	269.104	728	269.103
729	269.103	730	269.102	731	269.100	732	269.098	733	269.098	734	269.094	735	269.091	736	269.087
737	269.083	738	269.079	739	269.075	740	269.074	741	269.074	742	269.078	743	269.080	744	270.
745	270.540	746	270.540	747	270.540	748	270.540	749	270.539	750	270.538	751	270.536	752	270.
753	270.532	754	270.529	755	270.526	756	270.523	757	270.519	758	270.515	759	270.515	760	270.
761	270.518	762	270.520	763	271.849	764	271.849	765	271.850	766	271.850	767	271.848	768	271.
769	271.847	770	271.846	771	271.844	772	271.842	773	271.839	774	271.837	775	271.833	776	271.830
777	271.826	778	271.826	779	271.826	780	271.829	781	271.832	782	273.037	783	273.037	784	273.038
785	273.037	786	273.037	787	273.036	788	273.035	789	273.034	790	273.032	791	273.031	792	273.028
793	273.026	794	273.023	795	273.020	796	273.018	797	273.016	798	273.018	799	273.018	800	273.
801	273.023	802	274.110	803	274.110	804	274.110	805	274.110	806	274.109	807	274.108	808	274.
809	274.106	810	274.105	811	274.103	812	274.101	813	274.099	814	274.096	815	274.093	816	274.
817	274.090	818	274.090	819	274.093	820	274.096	821	274.097	822	275.072	823	275.072	824	275.
825	275.072	826	275.071	827	275.071	828	275.070	829	275.068	830	275.067	831	275.066	832	275.064
833	275.062	834	275.059	835	275.057	836	275.054	837	275.054	838	275.054	839	275.057	840	275.059
841	275.061	842	275.930	843	275.930	844	275.930	845	275.930	846	275.930	847	275.929	848	275.928
849	275.927	850	275.926	851	275.925	852	275.923	853	275.921	854	275.918	855	276.916	856	275.
857	275.914	858	275.914	859	275.917	860	275.919	861	275.921	862	276.891	863	276.891	864	276.
865	276.891	866	276.891	867	276.890	868	276.888	869	276.886	870	276.887	871	276.886	872	276.
873	276.883	874	276.881	875	276.878	876	276.876	877	276.876	878	276.876	879	276.878	880	276.
881	276.883	882	277.360	883	277.360	884	277.360	885	277.360	886	277.359	887	277.359	888	277.358
889	277.357	890	277.356	891	277.355	892	277.354	893	277.352	894	277.350	895	277.348	896	277.346
897	277.346	898	277.346	899	277.349	900	277.351	901	277.353	902	277.941	903	277.941	904	277.941
905	277.941	906	277.940	907	277.940	908	277.939	909	277.939	910	277.938	911	277.936	912	277.

913	277.934	914	277.932	915	277.930	916	277.928	917	277.928	918	277.928	919	277.931	920	277.934
921	277.936	922	278.438	923	278.438	924	278.438	925	278.438	926	278.438	927	278.438	928	278.437
929	278.438	930	278.436	931	278.435	932	278.433	933	278.432	934	278.430	935	278.428	936	278.427
937	278.427	938	278.427	939	278.430	940	278.432	941	278.434	942	278.856	943	278.856	944	278.856
945	278.856	946	278.856	947	278.858	948	278.855	949	278.854	950	278.854	951	278.853	952	278.851
953	278.850	954	278.848	955	278.847	956	278.845	957	278.845	958	278.845	959	278.848	960	278.851
961	278.853	962	279.197	963	279.197	964	279.197	965	279.197	966	279.197	967	279.196	968	279.195
969	279.195	970	279.194	971	279.193	972	279.192	973	279.191	974	279.190	975	279.188	976	279.187
977	279.187	978	279.187	979	279.189	980	279.192	981	279.194	982	279.463	983	279.463	984	279.463
985	279.463	986	279.463	987	279.462	988	279.462	989	279.461	990	279.460	991	279.460	992	279.458
993	279.457	994	279.456	995	279.455	996	279.453	997	279.453	998	279.453	999	279.456	1000	279.458
1001	279.461	1002	279.856	1003	279.856	1004	279.856	1005	279.856	1006	279.856	1007	279.855	1008	279.855
1009	279.854	1010	279.854	1011	279.853	1012	279.852	1013	279.851	1014	279.848	1015	279.848	1018	279.646
1017	279.646	1018	279.646	1019	279.648	1020	279.852	1021	279.854	1022	279.777	1023	279.777	1024	279.777
1025	279.777	1026	279.777	1027	279.777	1028	279.776	1029	279.776	1030	279.775	1031	279.774	1032	279.773
1033	279.772	1034	279.771	1035	279.768	1036	279.768	1037	279.768	1038	279.768	1039	279.771	1040	279.773
1041	279.776	1042	279.825	1043	279.825	1044	279.825	1045	279.825	1046	279.825	1047	279.825	1048	279.824
1049	279.824	1050	279.823	1051	279.823	1052	279.822	1053	279.821	1054	279.821	1055	279.820	1058	279.818
1057	279.818	1058	279.819	1059	279.824	1060	279.828	1061	279.834						

NODES ALONG THE WATER TABLE

15	31	47	63	79	95	111	127	143	159	175	191	208	225	242	259	275	293	309	325	341	357	373	389	405
421	437	453	469	483	499	513	529	544	561	578	595	613	631	649	667	688	705	724	743	762	781	801	821	841
861	881	901	921	941	961	981	1001	1021	1041	1061														

RESULTS OF THE MASS TRANSPORT SIMULATION

TIME: 4.00

15 PARTICLES HAVE BEEN ADDED TO THE SYSTEM
5 PARTICLES ADDED DURING THIS TIME STEP
0 PARTICLES HAVE LEFT THE REGION OF MOVEMENT
0 PARTICLES HAVE LEFT THE FLOW SYSTEM

DISTRIBUTION OF REFERENCE PARTICLES

	VERTICAL CELLS																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
14:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
17:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
20:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:	0	0	0	0	0	0	0	0	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
23:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25:	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	2	0	0	0	0	0
26:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	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
28:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	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
30:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	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
32:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0
35:	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	0	0	0	0	0	0
37:	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	0	0	0	0	0	0	0	0
39:	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	0	0	0	0	0	0	0	0
41:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53:	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	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	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	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	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
59:	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

DISTRIBUTION OF NON-MOVING REFERENCE PARTICLES

	VERTICAL CELLS																					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
14:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
17:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
20:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:	0	0	0	0	0	0	0	0	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
23:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24:	0	0	0	0	0	0	0	0	0	0	0	0	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
26:	0	0	0	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
28:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	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
31:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0
34:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0
37:	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	0	0	0	0	0	0	0	0
39:	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	0	0	0	0	0	0	0	0
41:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53:	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	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	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	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	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
59:	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

CONCENTRATION DISTRIBUTION

	VERTICAL CELLS																						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
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
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
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
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
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
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
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
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
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
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
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
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	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	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	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	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	0.0	0.0	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	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	0.0	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	0.0	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	0.0	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.01	0.01	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	0.00	0.01	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	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	0.01	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	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	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	0.00	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STEADY STATE CONVERGENCE; ERROR:141.822 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 5.00 TIME STEP: 5

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.361	2	230.359	3	230.351	4	230.339	5	230.322	6	230.300	7	230.273	8	230.240
9	230.203	10	230.160	11	230.113	12	230.059	13	230.000	14	230.000	15	230.000	16	232.606
17	232.606	18	232.607	19	232.608	20	232.610	21	232.613	22	232.615	23	232.619	24	232.623
25	232.628	26	232.633	27	232.640	28	232.647	29	232.655	30	232.664	31	232.664	32	234.357
33	234.358	34	234.358	35	234.359	36	234.360	37	234.361	38	234.363	39	234.365	40	234.367
41	234.370	42	234.373	43	234.376	44	234.380	45	234.384	46	234.388	47	234.388	48	235.749
49	235.749	50	235.749	51	235.750	52	235.750	53	235.751	54	235.752	55	235.753	56	235.754
57	235.755	58	235.757	59	235.759	60	235.760	61	235.782	62	235.784	63	235.784	64	236.902
65	236.902	66	236.902	67	236.902	68	236.902	69	236.903	70	236.903	71	236.904	72	236.904
73	236.905	74	236.906	75	236.906	76	236.907	77	236.908	78	236.909	79	236.908	80	237.877
81	237.877	82	237.877	83	237.877	84	237.877	85	237.877	86	237.877	87	237.878	88	237.878
89	237.878	90	237.878	91	237.878	92	237.878	93	237.878	94	237.878	95	237.878	96	238.710
97	238.710	98	238.710	99	238.710	100	238.710	101	238.710	102	238.709	103	238.709	104	238.709
105	238.709	106	238.709	107	238.709	108	238.709	109	238.709	110	238.709	111	238.709	112	239.422
113	239.422	114	238.422	115	239.422	116	239.421	117	239.421	118	239.421	119	239.421	120	239.420
121	239.420	122	238.420	123	238.419	124	239.419	125	239.419	126	239.418	127	239.418	128	240.028
129	240.028	130	240.028	131	240.028	132	240.027	133	240.027	134	240.027	135	240.026	136	240.026
137	240.026	138	240.025	139	240.024	140	240.024	141	240.023	142	240.022	143	240.022	144	240.539
145	240.539	146	240.538	147	240.538	148	240.538	149	240.538	150	240.537	151	240.537	152	240.536
153	240.536	154	240.535	155	240.534	156	240.533	157	240.533	158	240.532	159	240.532	160	240.962
161	240.962	162	240.962	163	240.961	164	240.961	165	240.961	166	240.960	167	240.960	168	240.959
169	240.958	170	240.958	171	240.957	172	240.956	173	240.955	174	240.954	175	240.954	176	241.303
177	241.303	178	241.303	179	241.303	180	241.302	181	241.302	182	241.302	183	241.301	184	241.300
185	241.300	186	241.299	187	241.298	188	241.297	189	241.296	190	241.294	191	241.294	192	241.567
193	241.567	194	241.567	195	241.567	196	241.567	197	241.566	198	241.566	199	241.565	200	241.564
201	241.564	202	241.563	203	241.562	204	241.561	205	241.559	206	241.558	207	241.558	208	241.758
209	241.758	210	241.758	211	241.758	212	241.757	213	241.757	214	241.756	215	241.756	216	241.755
217	241.754	218	241.753	219	241.752	220	241.751	221	241.750	222	241.749	223	241.748	224	241.878
225	241.878	226	241.878	227	241.877	228	241.877	229	241.877	230	241.876	231	241.876	232	241.875
233	241.874	234	241.873	235	241.872	236	241.871	237	241.870	238	241.869	239	241.868	240	241.930
241	241.930	242	241.930	243	241.929	244	241.929	245	241.929	246	241.928	247	241.927	248	241.927
249	241.926	250	241.925	251	241.924	252	241.923	253	241.922	254	241.921	255	241.921	256	241.916
257	241.916	258	241.916	259	241.915	260	241.915	261	241.916	262	241.914	263	241.914	264	241.913
265	241.912	266	241.912	267	241.911	268	241.910	269	241.909	270	241.908	271	241.908	272	241.839
273	241.838	274	241.838	275	241.838	276	241.838	277	241.838	278	241.837	279	241.837	280	241.836
281	241.835	282	241.835	283	241.834	284	241.833	285	241.832	286	241.831	287	241.831	288	241.700
289	241.700	290	241.700	291	241.700	292	241.699	293	241.699	294	241.698	295	241.698	296	241.698
297	241.697	298	241.697	299	241.696	300	241.695	301	241.694	302	241.694	303	241.694	304	241.502
305	241.502	306	241.502	307	241.502	308	241.502	309	241.501	310	241.501	311	241.501	312	241.501
313	241.500	314	241.500	315	241.499	316	241.499	317	241.498	318	241.497	319	241.497	320	241.248
321	241.248	322	241.248	323	241.248	324	241.247	325	241.247	326	241.247	327	241.247	328	241.247
329	241.246	330	241.246	331	241.246	332	241.245	333	241.245	334	241.244	335	241.244	336	240.939
337	240.938	338	240.939	339	240.939	340	240.939	341	240.939	342	240.939	343	240.938	344	240.938
345	240.938	346	240.938	347	240.938	348	240.938	349	240.938	350	240.937	351	240.937	352	240.579
353	240.579	354	240.579	355	240.579	356	240.579	357	240.579	358	240.579	359	240.578	360	240.579
361	240.579	362	240.579	363	240.579	364	240.579	365	240.579	366	240.579	367	240.578	368	240.166
369	240.166	370	240.166	371	240.166	372	240.166	373	240.167	374	240.167	375	240.168	376	240.169
377	240.169	378	240.170	379	240.171	380	240.172	381	240.173	382	240.174	383	240.174	384	239.638
385	239.638	386	239.640	387	239.642	388	239.646	389	239.651	390	239.657	391	239.663	392	239.671
393	239.680	394	239.691	395	239.702	396	239.714	397	239.728	398	239.743	399	239.744	400	238.154
401	238.154	402	238.155	403	238.155	404	238.155	405	238.155	406	238.156	407	238.157	408	238.157
409	238.158	410	238.159	411	238.160	412	238.161	413	238.161	414	238.162	415	238.172	416	236.656
417	236.656	418	236.656	419	236.658	420	236.656	421	236.656	422	236.657	423	236.657	424	236.658
425	236.658	426	236.659	427	236.659	428	236.660	429	236.661	430	236.661	431	236.668	432	235.241
433	235.241	434	235.241	435	235.241	436	235.241	437	235.241	438	235.241	439	235.242	440	235.242
441	235.242	442	235.243	443	235.243	444	235.244	445	235.244	446	235.245	447	235.250	448	233.967
449	233.967	450	233.967	451	233.967	452	233.967	453	233.968	454	233.968	455	233.969	458	233.969
457	233.970	458	233.971	459	233.972	460	233.972	461	233.973	462	233.975	463	232.831	464	232.831
465	232.831	466	232.831	467	232.831	468	232.832	469	232.832	470	232.833	471	232.833	472	232.834
473	232.835	474	232.836	475	232.837	476	232.839	477	232.841	478	231.818	479	231.818	480	231.818
481	231.818	482	231.819	483	231.819	484	231.819	485	231.820	486	231.821	487	231.821	488	231.822
489	231.823	490	231.824	491	231.826	492	231.827	493	230.953	494	230.953	495	230.953	496	230.953
497	230.953	498	230.954	499	230.954	500	230.954	501	230.954	502	230.955	503	230.955	504	230.956
505	230.957	506	230.958	507	230.958	508	230.150	509	230.148	510	230.147	511	230.143	512	230.138
513	230.131	514	230.123	515	230.113	516	230.101	517	230.088	518	230.073	519	230.057	520	230.039
521	230.020	522	230.000	523	230.400	524	230.398	525	230.393	526	230.383	527	230.388	528	230.351
529	230.329	530	230.303	531	230.272	532	230.237	533	230.198	534	230.155	535	230.107	536	230.058
537	230.000	538	233.001	539	232.998	540	232.988	541	232.970	542	232.945	543	232.911	544	232.870
545	232.821	546	232.763	547	232.698	548	232.624	549	232.542	550	232.451	551	232.351	552	232.217
553	240.847	554	240.849	555	240.852	556	240.858	557	240.868	558	240.878	559	240.888	560	240.903
561	240.920	562	240.939	563	240.962	564	240.987	565	241.015	566	241.045	567	241.080	568	241.083
569	245.538	570	245.538	571	245.539	572	245.540	573	245.541	574	245.542	575	245.544	576	245.546
577	245.548	578	245.550	579	245.552	580	245.555	581	245.558	582	245.561	583	245.564	584	245.564
585	245.585	586	249.046	587	249.046	588	249.046	589	249.046	590	249.046	591	249.045	592	249.044
593	249.043	594	249.041	595	249.040	596	249.038	597	249.036	598	249.033	599	249.031	600	249.028
601	249.028	602	249.029	603	251.933	604	251.933	605	251.932	606	251.931	607	251.929	608	251.927
609	251.924	610	251.921	611	251.916	612	251.912	613	251.907	614	251.901	615	251.894	616	251.887
617	251.880	618	251.880	619	251.880	620	254.589	621	254.568	622	254.568	623	254.586	624	254.564
625	254.581	626	254.558	627	254.554	628	254.549	629	254.543	630	254.537	631	254.530	632	254.522
633	254.514	634	254.505	635	254.505	636	254.505	637	254.506	638	257.086	639	257.088	640	257.085
641	257.084	642	257.082	643	257.080	644	257.077	645	257.073	646	257.069	647	257.065	648	257.060
649	257.054	650	257.048	651	257.041	652	257.033	653	257.033	654	257.033	655	257.035	656	259.423
657	259.423	658	259.423	659	259.422	660	259.420	661	259.418	662	259.415	663	259.412	664	259.408
665	259.404	666	259.399	667	259.394	668	259.388	669	259.382	670	259.375	671	259.375	672	259.375
673	259.378	674	261.585	675	261.585	676	261.585	677	261.584	678	261.582	679	261.580	680	261.578
681	261.575	682	261.571	683	261.567	684	261.563	685	261.558	686	261.553	687	261.547	688	261.540
689	261.540	690	261.540	691	261.543	692	263.580	693	263.580	694	263.580	695	263.578	696	263.577
697	263.575	698	263.573	699	263.570	700	263.567	701	263.564	702	263.559	703	263.555	704	263.550
705	263.544	706	263.538	707	263.538	708	263.538	709	263.542	710	263.543	711	265.413	712	265.413
713	265.413	714	265.412	715	265.411	716	265.409	717	265.407	718	265.404	719	265.401	720	265.398
721	265.394	722	265.390	723	265.385	724	265.380	725	265.375	726	265.374	727	265.374	728	265.378
729	265.379	730	267.093	731	267.093	732	267.093	733	267.092	734	267.091	735	267.088	736	267.087
737	267.085	738	267.082	739	267.079	740	267.075	741	267.071	742	267.067	743	267.062	744	267.057
745	267.057	746	267.057	747	267.060	748	267.062	749	268.628	750	268.629	751	268.626	752	268.627
753	268.628	754	268.625	755	268.623	756	268.621	757	268.618	758	268.615	759	268.612	760	268.608
761	268.604	762	268.600	763	268.595	764	268.595	765	268.595	766	268.598	767	268.600	768	270.027
769	270.027	770	270.026	771	270.026	772	270.025	773	270.023	774	270.021	775	270.019	776	270.017
777	270.014	778	270.011	779	270.008	780	270.004	781	270.000	782	269.995	783	269.995	784	269.995
785	269.998	786	270.001	787	271.295	788	271.295	789	271.295	790	271.294	791	271.293	792	271.292
793	271.290	794	271.288	795	271.285	796	271.283	797	271.281	798	271.277	799	271.274	800	271.270
801	271.268	802	271.266	803	271.266	804	271.269	805	271.272	808	272.440	807	272.440	808	272.440
809	272.438	810	272.438	811	272.437	812	272.438	813	272.434	814	272.432	815	272.428	816	272.427
817	272.424	818	272.421	819	272.417	820	272.413	821	272.413	822	272.413	823	272.416	824	272.419
825	273.468	826	273.466	827	273.466	828	273.467	829	273.466	830	273.465	831	273.464	832	273.462
833	273.460	834	273.458	835	273.456	836	273.453	837	273.450	838	273.447	839	273.443	840	273.443
841	273.443	842	273.446	843	273.449	844	273.450	845	274.382	846	274.382	847	274.381	848	274.381
849	274.380	850	274.378	851	274.378	852	274.376	853	274.374	854	274.372	855	274.370	856	274.368
857	274.365	858	274.362	859	274.359	860	274.358	861	274.359	862	274.362	863	274.364	864	274.365
865	275.187	866	275.187	867	275.186	868	275.186	869	275.185	870	275.184	871	275.183	872	275.182
873	275.180	874	275.178	875	275.176	876	275.174	877	275.171	878	275.168	879	275.185	880	275.185
881	275.185	882	275.188	883	275.171	884	275.172	885	275.888	886	275.888	887	275.888	888	275.887
889	275.886	890	275.885	891	275.884	892	275.883	893	275.881	894	275.880	895	275.878	896	275.875
897	275.873	898	275.870	899	275.867	900	275.867	901	275.867	902	275.870	903	275.873	904	275.874
905	276.489	906	276.489	907	276.489	908	276.488	909	276.488	910	276.487	911	276.488	912	276.484

913	276.483	914	276.481	915	276.479	916	276.477	917	276.475	918	276.472	919	276.470	920	276.4				
921	276.470	922	276.473	923	276.475	924	276.477	925	276.994	926	276.994	927	276.994	928	276.8				
929	276.983	930	276.982	931	276.981	932	276.980	933	276.988	934	276.987	935	276.985	936	276.9				
937	276.981	938	276.978	939	276.976	940	276.976	941	276.976	942	276.978	943	276.981	944	276.983				
945	277.406	946	277.406	947	277.406	948	277.405	949	277.405	950	277.404	951	277.403	952	277.402				
953	277.400	954	277.399	955	277.397	956	277.395	957	277.393	958	277.391	959	277.388	960	277.388				
961	277.388	962	277.391	963	277.394	964	277.398	965	277.727	966	277.727	967	277.727	968	277.1				
969	277.726	970	277.725	971	277.724	972	277.723	973	277.722	974	277.720	975	277.719	976	277.1				
977	277.715	978	277.712	979	277.710	980	277.710	981	277.710	982	277.713	983	277.716	984	277.1				
985	277.960	986	277.960	987	277.959	988	277.958	989	277.958	990	277.958	991	277.957	992	277.9				
993	277.954	994	277.953	995	277.951	996	277.949	997	277.947	998	277.945	999	277.943	1000	277.943				
1001	277.943	1002	277.945	1003	277.948	1004	277.950	1005	278.104	1006	278.104	1007	278.104	1008	278.104				
1009	278.103	1010	278.102	1011	278.101	1012	278.100	1013	278.099	1014	278.098	1015	278.096	1016	278.094				
1017	278.092	1018	278.090	1019	278.088	1020	278.088	1021	278.088	1022	278.091	1023	278.093	1024	278.0				
1025	278.160	1026	278.160	1027	278.160	1028	278.159	1029	278.159	1030	278.158	1031	278.157	1032	278.1				
1033	278.156	1034	278.154	1035	278.153	1036	278.152	1037	278.150	1038	278.148	1039	278.146	1040	278.1				
1041	278.147	1042	278.152	1043	278.157	1044	278.161												

NODES ALONG THE WATER TABLE

15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255	271	287	303	319	335	351	367	383	399
415	431	447	462	477	492	507	522	537	552	568	585	602	619	637	655	673	691	710	729	748	767	786	805	824
844	864	884	904	924	944	964	984	1004	1024	1044														

RESULTS OF THE MASS TRANSPORT SIMULATION

TIME: 5.00

20 PARTICLES HAVE BEEN ADDED TO THE SYSTEM
5 PARTICLES ADDED DURING THIS TIME STEP
0 PARTICLES HAVE LEFT THE REGION OF MOVEMENT
0 PARTICLES HAVE LEFT THE FLOW SYSTEM

DISTRIBUTION OF REFERENCE PARTICLES

	VERTICAL CELLS																					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
14:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
17:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
20:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:	0	0	0	0	0	0	0	0	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
23:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25:	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	3	0	0	0	0	0	0
26:	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0
27:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
28:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0
30:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	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
32:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0
35:	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	0	0	0	0	0	0
37:	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	0	0	0	0	0	0	0	0
39:	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	0	0	0	0	0	0	0	0
41:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53:	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	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	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	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	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
59:	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

DISTRIBUTION OF NON-MOVING REFERENCE PARTICLES

	VERTICAL CELLS																					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
14:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
17:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
20:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:	0	0	0	0	0	0	0	0	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
23:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24:	0	0	0	0	0	0	0	0	0	0	0	0	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
26:	0	0	0	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
28:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	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
31:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0
34:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0
37:	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	0	0	0	0	0	0	0	0
39:	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	0	0	0	0	0	0	0	0
41:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53:	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	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	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	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	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
59:	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

CONCENTRATION DISTRIBUTION

VERTICAL CELLS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
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
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
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
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
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
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
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
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
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
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
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
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	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	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	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	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	0.0	0.0	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	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	0.0	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	0.0	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	0.0	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.01	0.00	0.01	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	0.00	0.01	0.01	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	0.00	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	0.00	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	0.01	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	0.00	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STEADY STATE CONVERGENCE; ERROR: 80.730 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 5.00 TIME STEP: 6

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.374	2	230.371	3	230.364	4	230.351	5	230.333	6	230.311	7	230.282	8	230.249
9	230.210	10	230.186	11	230.117	12	230.061	13	230.000	14	230.000	15	230.000	16	232.700
17	232.700	18	232.701	19	232.703	20	232.706	21	232.708	22	232.713	23	232.718	24	232.
25	232.731	26	232.739	27	232.748	28	232.758	29	232.768	30	232.785	31	234.375	32	234.
33	234.376	34	234.377	35	234.378	36	234.382	37	234.385	38	234.388	39	234.393	40	234.397
41	234.402	42	234.408	43	234.415	44	234.422	45	234.428	46	234.429	47	235.547	48	235.547
49	235.548	50	235.548	51	235.549	52	235.549	53	235.550	54	235.551	55	235.553	56	235.
57	235.556	58	235.557	59	235.559	60	235.561	61	235.563	62	235.563	63	236.536	64	236.
65	236.536	66	236.537	67	236.537	68	236.537	69	236.538	70	236.538	71	236.539	72	236.
73	236.541	74	236.542	75	236.543	76	236.544	77	236.545	78	236.545	79	237.391	80	237.
81	237.391	82	237.391	83	237.391	84	237.391	85	237.391	86	237.392	87	237.392	88	237.
89	237.393	90	237.393	91	237.394	92	237.395	93	237.395	94	237.395	95	238.132	96	238.132
97	238.132	98	238.132	99	238.132	100	238.132	101	238.132	102	238.132	103	238.132	104	238.132
105	238.133	106	238.133	107	238.133	108	238.133	109	238.133	110	238.133	111	238.774	112	238.
113	238.774	114	238.774	115	238.774	116	238.774	117	238.774	118	238.774	119	238.774	120	238.
121	238.774	122	238.774	123	238.774	124	238.774	125	238.774	126	238.774	127	238.328	128	239.
129	239.328	130	239.328	131	239.328	132	239.328	133	239.327	134	239.327	135	239.327	136	239.
137	239.327	138	239.326	139	239.326	140	239.326	141	239.326	142	239.326	143	238.801	144	238.
145	239.801	146	239.800	147	239.800	148	239.800	149	239.800	150	239.800	151	239.800	152	239.799
153	239.799	154	239.799	155	239.798	156	239.798	157	239.797	158	239.797	159	240.199	160	240.199
161	240.198	162	240.198	163	240.198	164	240.198	165	240.198	166	240.198	167	240.197	168	240.
169	240.196	170	240.196	171	240.196	172	240.195	173	240.194	174	240.194	175	240.527	176	240.
177	240.527	178	240.526	179	240.526	180	240.526	181	240.525	182	240.525	183	240.525	184	240.
185	240.524	186	240.524	187	240.523	188	240.522	189	240.522	190	240.522	191	240.788	192	240.
193	240.788	194	240.788	195	240.788	196	240.788	197	240.787	198	240.787	199	240.787	200	240.
201	240.786	202	240.785	203	240.784	204	240.784	205	240.783	206	240.783	207	240.987	208	240.987
209	240.987	210	240.987	211	240.987	212	240.987	213	240.986	214	240.986	215	240.985	216	240.985
217	240.984	218	240.984	219	240.983	220	240.982	221	240.982	222	240.982	223	241.126	224	241.
225	241.126	226	241.126	227	241.125	228	241.125	229	241.125	230	241.124	231	241.124	232	241.
233	241.123	234	241.122	235	241.122	236	241.121	237	241.120	238	241.120	239	241.207	240	241.
241	241.206	242	241.206	243	241.208	244	241.206	245	241.206	246	241.205	247	241.206	248	241.
249	241.204	250	241.203	251	241.203	252	241.202	253	241.201	254	241.201	255	241.232	256	241.
257	241.231	258	241.231	259	241.231	260	241.231	261	241.231	262	241.230	263	241.230	264	241.230
265	241.229	266	241.229	267	241.228	268	241.227	269	241.227	270	241.227	271	241.203	272	241.203
273	241.203	274	241.203	275	241.203	276	241.202	277	241.202	278	241.202	279	241.201	280	241.
281	241.201	282	241.200	283	241.200	284	241.199	285	241.199	286	241.199	287	241.122	288	241.
289	241.122	290	241.122	291	241.122	292	241.122	293	241.122	294	241.121	295	241.121	296	241.
297	241.120	298	241.120	299	241.120	300	241.119	301	241.118	302	241.119	303	240.992	304	240.
305	240.992	306	240.992	307	240.991	308	240.991	309	240.991	310	240.991	311	240.991	312	240.
313	240.990	314	240.990	315	240.990	316	240.988	317	240.988	318	240.989	319	240.813	320	240.813
321	240.813	322	240.812	323	240.812	324	240.812	325	240.812	326	240.812	327	240.812	328	240.812
329	240.812	330	240.811	331	240.811	332	240.811	333	240.811	334	240.811	335	240.587	336	240.
337	240.587	338	240.587	339	240.587	340	240.587	341	240.587	342	240.587	343	240.587	344	240.
345	240.586	346	240.586	347	240.586	348	240.586	349	240.586	350	240.586	351	240.316	352	240.
353	240.316	354	240.316	355	240.316	356	240.316	357	240.316	358	240.316	359	240.316	360	240.
361	240.316	362	240.316	363	240.316	364	240.317	365	240.317	366	240.317	367	239.998	368	239.
369	239.998	370	239.999	371	239.998	372	239.999	373	240.000	374	240.000	375	240.001	376	240.001
377	240.002	378	240.003	379	240.003	380	240.004	381	240.005	382	240.005	383	239.583	384	239.584
385	239.585	386	239.587	387	239.590	388	239.594	389	239.598	390	239.604	391	239.610	392	239.
393	239.625	394	239.634	395	239.644	396	239.655	397	239.667	398	239.667	399	238.398	400	238.
401	238.396	402	238.396	403	238.396	404	238.397	405	238.397	406	238.398	407	238.399	408	238.
409	238.400	410	238.401	411	238.402	412	238.403	413	238.404	414	238.413	415	237.152	416	237.
417	237.152	418	237.152	419	237.152	420	237.153	421	237.153	422	237.153	423	237.154	424	237.
425	237.155	426	237.156	427	237.156	428	237.157	429	237.158	430	237.165	431	235.921	432	235.921
433	235.921	434	235.922	435	235.922	436	235.922	437	235.922	438	235.922	439	235.923	440	235.923
441	235.823	442	235.924	443	235.924	444	235.925	445	235.925	446	235.931	447	234.752	448	234.752
449	234.752	450	234.752	451	234.753	452	234.753	453	234.753	454	234.754	455	234.754	456	234.
457	234.755	458	234.756	459	234.757	460	234.758	461	234.759	462	233.833	463	233.833	464	233.
465	233.834	466	233.834	467	233.835	468	233.835	469	233.836	470	233.837	471	233.837	472	233.
473	233.839	474	233.841	475	233.842	476	233.844	477	232.544	478	232.544	479	232.544	480	232.
481	232.544	482	232.544	483	232.545	484	232.546	485	232.546	486	232.547	487	232.548	488	232.
489	232.550	490	232.551	491	232.553	492	231.461	493	231.461	494	231.461	495	231.461	496	231.461
497	231.461	498	231.461	499	231.462	500	231.462	501	231.463	502	231.464	503	231.465	504	231.466
505	231.467	506	231.468	507	230.388	508	230.388	509	230.387	510	230.384	511	230.381	512	230.
513	230.371	514	230.365	515	230.357	516	230.349	517	230.340	518	230.330	519	230.319	520	230.
521	230.284	522	230.245	523	230.244	524	230.240	525	230.234	526	230.225	527	230.213	528	230.
529	230.183	530	230.185	531	230.143	532	230.119	533	230.093	534	230.065	535	230.034	536	230.
537	232.406	538	232.404	539	232.397	540	232.384	541	232.367	542	232.344	543	232.318	544	232.
545	232.245	546	232.201	547	232.151	548	232.096	549	232.036	550	231.889	551	231.883	552	239.150
553	239.152	554	239.157	555	239.164	556	239.173	557	238.185	558	239.199	559	239.216	560	239.236
561	239.258	562	239.283	563	238.311	564	239.342	565	239.376	566	239.414	567	239.416	568	243.
569	243.446	570	243.446	571	243.450	572	243.453	573	243.456	574	243.461	575	243.466	576	243.
577	243.478	578	243.485	579	243.493	580	243.501	581	243.510	582	243.520	583	243.521	584	246.
585	246.768	586	246.769	587	246.770	588	246.771	589	246.772	590	246.774	591	246.775	592	248.
593	246.780	594	246.782	595	246.785	596	246.788	597	246.791	598	246.794	599	246.794	600	246.
601	249.547	602	249.547	603	249.548	604	249.548	605	249.548	606	249.549	607	249.549	608	249.549
609	249.550	610	249.550	611	249.550	612	249.551	613	249.551	614	249.551	615	249.552	616	249.552
617	249.553	618	251.970	619	251.970	620	251.970	621	251.970	622	251.969	623	251.968	624	251.
625	251.966	626	251.964	627	251.962	628	251.960	629	251.957	630	251.954	631	251.951	632	251.
633	251.948	634	251.948	635	254.253	636	254.253	637	254.252	638	254.252	639	254.251	640	254.
641	254.247	642	254.245	643	254.242	644	254.239	645	254.236	646	254.232	647	254.227	648	254.
649	254.217	650	254.217	651	254.217	652	254.218	653	256.483	654	256.483	655	256.482	656	256.
657	256.481	658	256.479	659	256.478	660	256.476	661	256.474	662	256.471	663	256.468	664	256.465
665	256.461	666	256.457	667	256.453	668	256.453	669	256.453	670	256.455	671	258.592	672	258.592
673	258.592	674	258.591	675	258.590	676	258.589	677	258.587	678	258.585	679	258.583	680	258.
681	258.577	682	258.574	683	256.570	684	258.566	685	258.562	686	258.562	687	258.562	688	258.
689	280.574	690	280.574	691	280.574	692	280.573	693	280.572	694	280.571	695	260.569	696	260.
697	260.565	698	260.562	699	260.559	700	260.555	701	260.552	702	260.548	703	260.543	704	260.
705	260.543	706	260.546	707	262.428	708	262.428	709	262.428	710	262.427	711	262.426	712	262.
713	262.423	714	262.421	715	262.419	716	262.416	717	262.413	718	262.410	719	262.406	720	262.402
721	262.398	722	262.398	723	262.398	724	262.401	725	264.156	726	264.156	727	264.156	728	264.155
729	264.154	730	264.153	731	264.151	732	264.149	733	264.147	734	264.144	735	264.141	736	264.
737	264.135	738	264.131	739	264.126	740	264.128	741	264.128	742	264.129	743	264.131	744	265.
745	265.758	746	265.756	747	265.755	748	265.754	749	265.753	750	265.751	751	265.749	752	265.
753	265.744	754	265.741	755	265.738	756	265.735	757	265.731	758	265.727	759	265.727	760	265.
761	265.730	762	265.731	763	267.230	764	267.230	765	267.230	766	267.229	767	267.228	768	267.
769	267.225	770	267.224	771	267.221	772	267.219	773	267.218	774	267.213	775	267.209	776	267.206
777	267.202	778	267.202	779	267.202	780	267.205	781	267.207	782	268.582	783	268.582	784	268.581
785	268.581	786	268.580	787	268.578	788	268.577	789	268.575	790	268.573	791	268.571	792	268.
793	268.566	794	268.561	795	268.558	796	268.554	797	268.554	798	268.554	799	268.557	800	268.
801	269.813	802	269.813	803	269.813	804	269.812	805	269.811	806	269.810	807	269.809	808	269.
809	269.805	810	269.802	811	269.800	812	269.797	813	269.794	814	269.790	815	269.788	816	269.
817	269.788	818	269.789	819	269.792	820	270.928	821	270.928	822	270.928	823	270.927	824	270.
825	270.925	826	270.924	827	270.922	828	270.920	829	270.918	830	270.915	831	270.912	832	270.909
833	270.908	834	270.902	835	270.902	836	270.902	837	270.905	838	270.908	839	271.928	840	271.928
841	271.928	842	271.928	843	271.927	844	271.926	845	271.925	846	271.923	847	271.921	848	271.
849	271.917	850	271.914	851	271.911	852	271.908	853	271.904	854	271.904	855	271.904	856	271.
857	271.910	858	272.819	859	272.819	860	272.819	861	272.818	862	272.817	863	272.815	864	272.
865	272.813	866	272.811	867	272.809	868	272.807	869	272.804	870	272.802	871	272.798	872	272.
873	272.795	874	272.795	875	272.798	876	272.801	877	272.802	878	273.598	879	273.598	880	273.
881	273.598	882	273.597	883	273.596	884	273.594	885	273.593	886	273.591	887	273.589	888	273.587
889	273.584	890	273.582	891	273.579	892	273.575	893	273.576	894	273.575	895	273.576	896	273.581
897	273.582	898	274.270	899	274.270	900	274.270	901	274.269	902	274.268	903	274.267	904	274.
905	274.265	906	274.263	907	274.261	908	274.258	909	274.258	910	274.254	911	274.251	912	274.

913	274.248	914	274.248	915	274.251	916	274.253	917	274.254	918	274.836	919	274.836	920	274.836
921	274.835	922	274.835	923	274.834	924	274.832	925	274.831	926	274.829	927	274.827	928	274.825
929	274.823	930	274.820	931	274.818	932	274.815	933	274.814	934	274.814	935	274.817	936	274.820
937	274.821	938	275.289	939	275.289	940	275.288	941	275.288	942	275.288	943	275.287	944	275.286
945	275.294	946	275.293	947	275.291	948	275.289	949	275.286	950	275.284	951	275.281	952	275.278
953	275.276	954	275.276	955	275.281	956	275.284	957	275.285	958	275.661	959	275.661	960	275.661
961	275.660	962	275.659	963	275.659	964	275.657	965	275.656	966	275.654	967	275.653	968	275.650
969	275.648	970	275.645	971	275.643	972	275.640	973	275.640	974	275.640	975	275.643	976	275.646
977	275.647	978	275.923	979	275.923	980	275.922	981	275.922	982	275.921	983	275.920	984	275.918
985	275.918	986	275.915	987	275.914	988	275.912	989	275.910	990	275.908	991	275.905	992	275.902
993	275.902	994	276.902	995	275.905	996	275.908	997	275.908	998	276.085	999	276.086	1000	276.085
1001	276.084	1002	276.084	1003	276.083	1004	276.082	1005	276.080	1006	276.079	1007	276.077	1008	276.075
1009	276.073	1010	276.070	1011	276.068	1012	276.065	1013	276.065	1014	276.065	1015	276.068	1016	276.070
1017	276.072	1018	276.145	1019	276.145	1020	276.145	1021	276.145	1022	276.145	1023	276.144	1024	276.143
1025	276.142	1026	276.141	1027	276.140	1028	276.138	1029	276.136	1030	276.134	1031	276.132	1032	276.129
1033	276.128	1034	276.129	1035	276.135	1036	276.140	1037	276.143						

NODES ALONG THE WATER TABLE

15	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254	270	286	302	318	334	350	366	382	398
414	430	446	461	476	491	506	521	536	551	567	583	600	617	634	652	670	688	706	724	743	762	781	800	818
836	857	877	897	917	937	957	977	997	1017	1037														

RESULTS OF THE MASS TRANSPORT SIMULATION

TIME: 6.00

25 PARTICLES HAVE BEEN ADDED TO THE SYSTEM
5 PARTICLES ADDED DURING THIS TIME STEP
0 PARTICLES HAVE LEFT THE REGION OF MOVEMENT
0 PARTICLES HAVE LEFT THE FLOW SYSTEM

DISTRIBUTION OF REFERENCE PARTICLES

	VERTICAL CELLS																					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
14:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
17:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
20:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:	0	0	0	0	0	0	0	0	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
23:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25:	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	4	0	0	0	0	0	0
26:	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0
27:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
28:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0
30:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	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
32:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0
35:	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	0	0	0	0	0	0
37:	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	0	0	0	0	0	0	0	0
39:	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	0	0	0	0	0	0	0	0
41:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53:	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	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	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	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	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
59:	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

DISTRIBUTION OF NON-MOVING REFERENCE PARTICLES

	VERTICAL CELLS																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
14:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
17:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
20:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:	0	0	0	0	0	0	0	0	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
23:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24:	0	0	0	0	0	0	0	0	0	0	0	0	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
26:	0	0	0	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
28:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	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
31:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0
34:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0
37:	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	0	0	0	0	0	0	0	0
39:	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	0	0	0	0	0	0	0	0
41:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53:	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	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	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	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	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
59:	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

CONCENTRATION DISTRIBUTION

VERTICAL CELLS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
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
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
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
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
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
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
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
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
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
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
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
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	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	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	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	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	0.0	0.0	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	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	0.0	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	0.0	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	0.0	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.00	0.00	0.01	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	0.00	0.01	0.01	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	0.01	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	0.01	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	0.01	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	0.01	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0

6.6.1.3 Particle Distribution Output to a Disk File for Plotting.

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EXAMPLE DATA SET:  SIMULATION OF MINING AND RECLAMATION; WITH MASS TRANSPORT
   23    61     3        300.        10.
      1.00         0
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       250.000        251.000        252.000        253.000        254.000        256.000        259.000        262.000
       265.000        268.000        271.000        274.000        277.000        279.000        280.000        281.000
       282.000        281.200        281.700        282.000        283.000        284.000        286.000        288.000
       287.000        290.000        289.100        288.200        289.300        289.400        289.500        289.700
       289.800        290.000        290.100        290.200        290.300        290.400        290.500        290.600
       290.700        290.800        291.000        291.200        291.400        291.500        291.700        291.800
       292.000        293.000        295.000        295.000        295.000        295.000        295.000        295.000
       295.000        295.000        295.000        295.000        295.000
    230.000000     234.419006     237.066589     239.171707     240.944163     242.479889     243.831038     245.028962
    246.086836     247.022278     247.839615     248.541048     249.125229     249.587328     249.917404     250.089487
    250.111710     249.924545     249.497850     248.774414     247.671738     248.058929     243.707245     240.141647
    232.028320     230.000000     232.783600     243.918030     249.027771     252.739868     255.929001     258.883037
    261.431396     263.693359     265.648232     267.458252     269.038818     270.458740     271.742878     272.913818
    273.984600     274.913086     275.771729     276.550293     277.257568     277.900635     278.484863     279.015625
    279.496582     279.931396     280.322266     280.672119     280.982422     281.255127     281.490967     281.691406
    281.856934     281.988525     282.086426     282.160878     282.190430
      2.00         5
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       250.000        251.000        252.000        253.000        254.000        256.000        259.000        262.000
       265.000        268.000        271.000        274.000        277.000        279.000        280.000        281.000
       282.000        281.200        281.700        282.000        283.000        284.000        286.000        288.000
       287.000        290.600        230.000        230.000        288.300        289.400        289.500        289.700
       289.800        290.000        290.100        290.200        290.300        290.400        290.500        290.600
       290.700        290.800        291.000        291.200        291.400        291.500        291.700        291.800
       292.000        293.000        295.000        295.000        295.000        295.000        295.000        295.000
       295.000        295.000        295.000        295.000        295.000
    230.000000     233.914948     236.298463     238.179840     239.747833     241.085037     242.237991     243.234192
    244.088547     244.811966     245.410904     245.888458     246.245102     246.478034     246.586411     246.581432
    246.386352     246.081512     245.805184     244.953674     244.111313     243.061356     241.788788     240.286753
    238.675934     234.125076     230.000000     230.000000     232.411957     242.058789     246.819382     250.437607
    253.556778     256.435059     259.061523     261.457764     263.644043     265.633788     267.448289     269.102539
    270.598389     271.951904     273.176270     274.280518     275.276123     276.173340     276.981201     277.707031
    278.358154     278.940186     279.458252     279.916992     280.319824     280.670166     280.970947     281.224121
    281.431396     281.594727     281.714800     281.792236     281.836182
    1 0.72605E+04 0.22851E+03 0.10000E+04     2 0.74609E+04 0.23517E+03 0.10000E+04     3 0.74148E+04 0.22872E+03 0.10000E+04
    4 0.77140E+04 0.22959E+03 0.10000E+04     5 0.73335E+04 0.23027E+03 0.10000E+04
      3.00        10
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       250.000        251.000        252.000        253.000        254.000        258.000        259.000        282.000
       285.000        288.000        271.000        274.000        277.000        278.000        280.000        281.000
       282.000        281.200        281.700        282.000        283.000        284.000        286.000        288.000
       287.000        290.600        291.200        289.200        291.600        230.000        289.500        289.700
       289.800        290.000        290.100        290.200        290.300        290.400        290.500        290.800
       290.700        290.800        291.000        291.200        291.400        291.500        291.700        291.800
       292.000        293.000        295.000        295.000        295.000        295.000        295.000        295.000
       295.000        295.000        295.000        295.000        295.000
    230.000000     233.414124     235.534515     237.211899     238.602295     239.778587     240.785202     241.644623
    242.374435     242.985291     243.482056     243.889856     244.151947     244.330154     244.405212     244.377075
    244.245117     244.006408     243.665970     243.217148     242.682155     242.002869     241.248843     240.404251
    239.527069     236.545563     234.008362     232.010147     230.000000     230.000000     232.313049     241.885262
    246.195923     249.755188     252.663635     255.356781     257.979004     260.399414     262.633545     264.697510
    266.580566     268.298096     269.862549     271.285645     272.576389     273.747070     274.801514     275.750732
    276.602295     277.363525     278.040527     278.638916     279.163574     279.618896     280.006301     280.335205
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   280.801807    280.810547    280.962646    281.059326    281.109375
    1 0.72730E+04 0.22884E+03 0.10000E+04    2 0.74803E+04 0.23365E+03 0.10000E+04    3 0.74697E+04 0.21067E+03 0.10000E+04
    4 0.77674E+04 0.22394E+03 0.10000E+04    5 0.73348E+04 0.22898E+03 0.10000E+04    6 0.75231E+04 0.23481E+03 0.10000E+04
    7 0.72584E+04 0.22423E+03 0.10000E+04    8 0.75808E+04 0.23373E+03 0.10000E+04    9 0.78704E+04 0.23150E+03 0.10000E+04
   10 0.83739E+04 0.23068E+03 0.10000E+04
      4.00         15
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      250.000       251.000       252.000       253.000       254.000       256.000       259.000       262.000
      265.000       268.000       271.000       274.000       277.000       279.000       280.000       281.000
      282.000       281.200       281.700       282.000       283.000       284.000       286.000       288.000
      287.000       290.600       291.200       289.200       291.800       291.800       289.500       290.900
      289.800       290.000       290.100       290.200       290.300       290.400       290.500       290.600
      290.700       290.800       291.000       291.200       291.400       291.500       291.700       291.800
      292.000       293.000       295.000       295.000       295.000       295.000       295.000       295.000
      295.000       295.000       295.000       295.000       295.000
   230.000000    232.993774    234.893555    236.402252    237.653427    238.711700    239.614120    240.384003
   241.036865    241.583542    242.031799    242.387421    242.654205    242.833374    242.927856    242.939194
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   279.194092    279.480693    279.654053    279.775635    279.833740
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    4 0.77645E+04 0.22461E+03 0.10000E+04    5 0.73371E+04 0.22898E+03 0.10000E+04    6 0.75240E+04 0.23450E+03 0.10000E+04
    7 0.73009E+04 0.20904E+03 0.10000E+04    8 0.75580E+04 0.23567E+03 0.10000E+04    9 0.78773E+04 0.23063E+03 0.10000E+04
   10 0.83894E+04 0.22749E+03 0.10000E+04   11 0.73655E+04 0.23511E+03 0.10000E+04   12 0.77272E+04 0.23013E+03 0.10000E+04
   13 0.81710E+04 0.23024E+03 0.10000E+04   14 0.88044E+04 0.22889E+03 0.10000E+04   15 0.73904E+04 0.22156E+03 0.10000E+04
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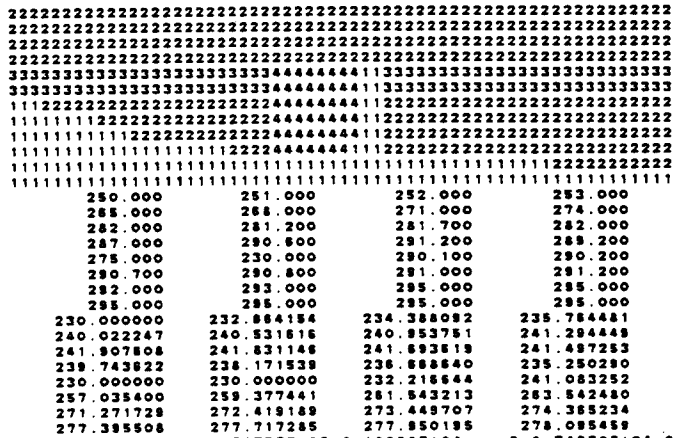

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    4 0.77799E+04 0.22729E+03 0.10000E+04    5 0.73581E+04 0.21928E+03 0.10000E+04    6 0.75192E+04 0.23583E+03 0.10000E+04
    7 0.73078E+04 0.20474E+03 0.10000E+04    8 0.75601E+04 0.23508E+03 0.10000E+04    9 0.78733E+04 0.23217E+03 0.10000E+04
   10 0.84073E+04 0.22983E+03 0.10000E+04   11 0.73682E+04 0.23588E+03 0.10000E+04   12 0.77298E+04 0.22908E+03 0.10000E+04
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239.667450	238.413025	237.165451	235.930989	234.759018	233.643692	232.553146	231.458170
230.293625	230.000000	231.883179	239.415955	243.520850	246.784952	249.552689	251.948135
254.218475	256.454590	258.563965	260.546387	262.401367	264.130371	265.731201	267.206543
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4	0.77903E+04	0.22773E+03	0.10000E+04	5	0.73768E+04	0.21407E+03	0.10000E+04	6	0.75146E+04	0.23658E+03	0.10000E+04
7	0.73282E+04	0.20553E+03	0.10000E+04	8	0.75618E+04	0.23354E+03	0.10000E+04	9	0.76759E+04	0.23168E+03	0.10000E+04
10	0.84350E+04	0.22854E+03	0.10000E+04	11	0.73888E+04	0.23644E+03	0.10000E+04	12	0.77501E+04	0.22524E+03	0.10000E+04
13	0.81994E+04	0.22781E+03	0.10000E+04	14	0.88502E+04	0.22583E+03	0.10000E+04	15	0.74241E+04	0.22420E+03	0.10000E+04
16	0.80704E+04	0.23095E+03	0.10000E+04	17	0.73825E+04	0.23500E+03	0.10000E+04	18	0.86383E+04	0.22980E+03	0.10000E+04
19	0.85215E+04	0.22788E+03	0.10000E+04	20	0.86737E+04	0.23208E+03	0.10000E+04	21	0.82813E+04	0.23168E+03	0.10000E+04
22	0.88690E+04	0.23148E+03	0.10000E+04	23	0.78587E+04	0.23575E+03	0.10000E+04	24	0.78823E+04	0.23869E+03	0.10000E+04
25	0.72862E+04	0.23272E+03	0.10000E+04								

6.6.1.4 Heads and Particle Distribution to Continue a Simulation.

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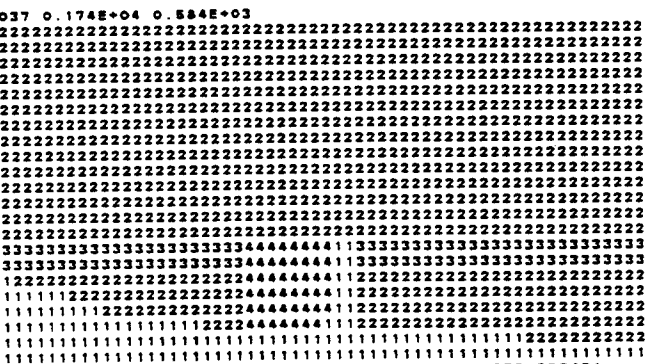

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6 0.230310513381 8E+03	7 0.230282455254 0E+03	8 0.230249125279 2E+03	9 0.230210440122 3E+03	10 0.230188302885 7E+03
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296 0.241120817334 3E+03	297 0.241120464675 4E+03	298 0.241120075133 1E+03	299 0.241119648734 6E+03	300 0.241119185510 1E+03
301 0.241118685491 9E+03	302 0.241118699384 2E+03	303 0.240991646857 5E+03	304 0.240991630697 4E+03	305 0.240991586232 6E+03
306 0.240981513495 8E+03	307 0.240991412488 5E+03	308 0.240991283217 5E+03	309 0.240991125697 7E+03	310 0.240990939921 7E+03
311 0.240990725920 1E+03	312 0.240990483701 4E+03	313 0.240990213281 8E+03	314 0.240989917467 9E+03	315 0.240989587915 1E+03
316 0.240989233009 8E+03	317 0.240988849880 6E+03	318 0.240988856785 0E+03	319 0.240812573580 5E+03	320 0.240812561811 9E+03
321 0.240812531845 1E+03	322 0.240812483681 8E+03	323 0.240812417324 7E+03	324 0.240812332777 1E+03	325 0.240812230043 6E+03
326 0.240812109129 4E+03	327 0.240811970040 8E+03	328 0.240811812785 1E+03	329 0.240811637370 3E+03	330 0.240811443805 7E+03
331 0.240811232101 5E+03	332 0.240811002268 9E+03	333 0.240810754320 2E+03	334 0.240810774435 0E+03	335 0.240568612324 8E+03
336 0.240568605681 8E+03	337 0.240586792300 8E+03	338 0.240586772177 1E+03	339 0.240586745303 2E+03	340 0.240586711867 9E+03
341 0.240586671257 5E+03	342 0.240586624055 5E+03	343 0.240586570042 8E+03	344 0.240586508198 3E+03	345 0.240586444149 5E+03
346 0.240586366922 1E+03	347 0.240586285441 4E+03	348 0.240586197032 0E+03	349 0.240586101763 7E+03	350 0.240586125437 3E+03
351 0.240315895087 2E+03	352 0.240315895713 2E+03	353 0.240315906322 0E+03	354 0.240315923826 7E+03	355 0.240315951082 7E+03
356 0.240315986888 5E+03	357 0.240316030988 5E+03	358 0.240316080804 0E+03	359 0.240316142808 0E+03	360 0.240318209777 7E+03
361 0.240318243557 8E+03	362 0.240318363584 4E+03	363 0.240318449677 5E+03	364 0.240318541030 4E+03	365 0.240318637237 9E+03
366 0.240318665211 6E+03	367 0.239998357412 1E+03	368 0.239998392239 2E+03	369 0.239998506020 7E+03	370 0.239998687869 6E+03
371 0.239998985311 6E+03	372 0.239998306376 7E+03	373 0.239999717488 8E+03	374 0.240000194499 1E+03	375 0.240000732461 1E+03
376 0.240001325806 3E+03	377 0.240001987320 7E+03	378 0.240002650115 8E+03	379 0.240003655596 3E+03	380 0.240004104423 5E+03
381 0.240004856275 4E+03	382 0.240004895635 2E+03	383 0.239583321689 7E+03	384 0.239583728839 2E+03	385 0.239584980208 1E+03
386 0.239587027151 1E+03	387 0.239589930516 9E+03	388 0.239593676140 4E+03	389 0.239598270870 3E+03	390 0.239803723590 0E+03
391 0.239610044744 8E+03	392 0.239617246475 5E+03	393 0.239625342558 8E+03	394 0.239634348941 5E+03	395 0.239644282809 5E+03
396 0.239655153624 3E+03	397 0.239667012894 4E+03	398 0.239667450898 8E+03	399 0.238395729526 3E+03	400 0.238395763041 8E+03
401 0.238395885259 1E+03	402 0.238396125029 8E+03	403 0.238396450442 8E+03	404 0.238398868817 7E+03	405 0.238397376892 1E+03
406 0.238387988807 3E+03	407 0.238398643088 1E+03	408 0.238399390628 4E+03	409 0.238400205544 7E+03	410 0.238401080477 5E+03
411 0.238402006532 2E+03	412 0.238402874253 8E+03	413 0.238403073021 7E+03	414 0.238413039097 7E+03	415 0.237151998873 0E+03
416 0.237152015599 6E+03	417 0.237152095789 0E+03	418 0.237152240152 3E+03	419 0.237152446729 8E+03	420 0.237152721494 0E+03
421 0.237153058401 7E+03	422 0.237153459406 8E+03	423 0.237153924474 7E+03	424 0.237154453568 1E+03	425 0.237155048874 2E+03
426 0.237155703802 4E+03	427 0.237156429949 8E+03	428 0.237157210337 5E+03	429 0.237158058970 3E+03	430 0.237158545853 8E+03
431 0.235921402347 2E+03	432 0.235921407185 4E+03	433 0.235921453318 1E+03	434 0.235921540861 4E+03	435 0.235921888075 1E+03
436 0.235921838362 9E+03	437 0.235922046271 6E+03	438 0.235922288491 1E+03	439 0.235922586853 8E+03	440 0.235922918332 9E+03
441 0.235923287043 8E+03	442 0.235923689424 0E+03	443 0.235924138317 3E+03	444 0.235924621804 0E+03	445 0.235925141748 9E+03

446 0.2359309773942E+03	447 0.2347520293900E+03	448 0.2347520490471E+03	449 0.2347521381282E+03	450 0.2347522965717E+03
451 0.2347525243163E+03	452 0.2347528213005E+03	453 0.2347531874624E+03	454 0.2347536227397E+03	455 0.2347541270692E+03
456 0.2347547003869E+03	457 0.2347553426278E+03	458 0.2347560537258E+03	459 0.2347568336141E+03	460 0.2347576822245E+03
461 0.2347590194812E+03	462 0.2336331385082E+03	463 0.2336332301588E+03	464 0.2336334171897E+03	465 0.2336336998619E+03
466 0.2336340784411E+03	467 0.2336345532101E+03	468 0.2336351244889E+03	469 0.2336357925254E+03	470 0.2336365577161E+03
471 0.2336374203865E+03	472 0.2336383809023E+03	473 0.2336394396473E+03	474 0.2336405970248E+03	475 0.2336418534579E+03
476 0.2336436938684E+03	477 0.2325436002464E+03	478 0.2325435588250E+03	479 0.2325436248491E+03	480 0.2325437982408E+03
481 0.2325440789754E+03	482 0.2325444670808E+03	483 0.2325449626292E+03	484 0.2325455657352E+03	485 0.2325462765459E+03
486 0.2325470952345E+03	487 0.2325480219905E+03	488 0.2325490570090E+03	489 0.2325502004792E+03	490 0.2325514525705E+03
491 0.2325531541028E+03	492 0.2314607113363E+03	493 0.2314606621080E+03	494 0.2314606816434E+03	495 0.2314607715477E+03
496 0.2314609345188E+03	497 0.2314611743513E+03	498 0.2314614959419E+03	499 0.2314619052961E+03	500 0.2314624095360E+03
501 0.2314630169105E+03	502 0.2314637368062E+03	503 0.2314645797600E+03	504 0.2314655574739E+03	505 0.2314668828308E+03
506 0.2314681822354E+03	507 0.2303889327547E+03	508 0.2303883764816E+03	509 0.2303868519208E+03	510 0.2303843598894E+03
511 0.2303809017847E+03	512 0.2303764797814E+03	513 0.2303710966258E+03	514 0.2303647557301E+03	515 0.2303574811434E+03
516 0.2303492175421E+03	517 0.2303400302179E+03	518 0.2303299050640E+03	519 0.2303188485583E+03	520 0.2303068677450E+03
521 0.2302939364298E+03	522 0.2302447728772E+03	523 0.2302435550878E+03	524 0.2302398122593E+03	525 0.2302335480644E+03
526 0.2302247595347E+03	527 0.2302134570950E+03	528 0.2301996448114E+03	529 0.2301833294541E+03	530 0.2301645205744E+03
531 0.2301432285971E+03	532 0.2301194859273E+03	533 0.2300932468748E+03	534 0.2300645877932E+03	535 0.2300335072380E+03
536 0.2300000000000E+03	537 0.2324060642590E+03	538 0.2324038278683E+03	539 0.2323965206313E+03	540 0.2323841263803E+03
541 0.2323666184488E+03	542 0.2323439595843E+03	543 0.2323161018255E+03	544 0.2322829863447E+03	545 0.2322445432552E+03
546 0.2322006913810E+03	547 0.2321513379914E+03	548 0.2320963784950E+03	549 0.2320356960971E+03	550 0.2319691614144E+03
551 0.2318831933411E+03	552 0.2391499341030E+03	553 0.2391520588030E+03	554 0.2391565773281E+03	555 0.2391635060255E+03
556 0.2391728712503E+03	557 0.2391847094551E+03	558 0.2391990673132E+03	559 0.2392160018769E+03	560 0.2392355807708E+03
561 0.2392578824212E+03	562 0.2392829963228E+03	563 0.2393110233420E+03	564 0.2393420760603E+03	565 0.2393762791571E+03
566 0.2394137698341E+03	567 0.2394159672668E+03	568 0.2434453001282E+03	569 0.2434460650112E+03	570 0.2434475533336E+03
571 0.2434497628094E+03	572 0.2434526898321E+03	573 0.2434563299371E+03	574 0.2434606787527E+03	575 0.2434657229373E+03
576 0.2434714598031E+03	577 0.2434778763244E+03	578 0.2434849610326E+03	579 0.2434926998947E+03	580 0.2435010771761E+03
581 0.2435100750874E+03	582 0.2435196736134E+03	583 0.2435209532686E+03	584 0.2467675728675E+03	585 0.2467680025864E+03
586 0.2467688603306E+03	587 0.2467695457176E+03	588 0.2467708581374E+03	589 0.2467719967547E+03	590 0.2467735605114E+03
591 0.2467753481301E+03	592 0.2467773581190E+03	593 0.2467795887764E+03	594 0.2467820381973E+03	595 0.2467847042810E+03
596 0.2467875847391E+03	597 0.2467906771062E+03	598 0.2467939787512E+03	599 0.2467943729944E+03	600 0.2467949610041E+03
601 0.2495471036695E+03	602 0.2495473722822E+03	603 0.2495476500936E+03	604 0.2495479372846E+03	605 0.2495482341828E+03
606 0.2495485412642E+03	607 0.2495488591554E+03	608 0.2495491886377E+03	609 0.2495495306499E+03	610 0.2495498862941E+03
611 0.2495502568402E+03	612 0.2495506437329E+03	613 0.2495510485979E+03	614 0.2495514732502E+03	615 0.2495519197018E+03
616 0.2495521296682E+03	617 0.2495526947662E+03	618 0.2519701804985E+03	619 0.2519702948897E+03	620 0.2519701503757E+03
621 0.2519697468807E+03	622 0.2519690841676E+03	623 0.2519681619374E+03	624 0.2519669798091E+03	625 0.2519655373192E+03
626 0.2519638339206E+03	627 0.2519618689826E+03	628 0.2519596417893E+03	629 0.2519571515391E+03	630 0.2519543973432E+03
631 0.2519513782247E+03	632 0.2519480931165E+03	633 0.2519480427980E+03	634 0.2519481499163E+03	635 0.2542527977492E+03
636 0.2542528361524E+03	637 0.2542524836141E+03	638 0.2542517398788E+03	639 0.2542506045123E+03	640 0.2542490789034E+03
641 0.2542471582598E+03	642 0.2542448418073E+03	643 0.2542421317875E+03	644 0.2542390254546E+03	645 0.2542355210726E+03
646 0.2542316169109E+03	647 0.2542273110406E+03	648 0.2542226013294E+03	649 0.2542174854364E+03	650 0.2542173195253E+03
651 0.2542171762500E+03	652 0.2542184796174E+03	653 0.2564825142049E+03	654 0.2564825644055E+03	655 0.2564822800042E+03
656 0.2564816611430E+03	657 0.2564807080560E+03	658 0.2564794210712E+03	659 0.2564778006112E+03	660 0.2564758471953E+03
661 0.2564735814417E+03	662 0.2564709440696E+03	663 0.2564679959026E+03	664 0.2564647178721E+03	665 0.2564611110207E+03
666 0.2564571765088E+03	667 0.2564529156093E+03	668 0.2564528307485E+03	669 0.2564528711433E+03	670 0.2564548141223E+03
671 0.2585917898109E+03	672 0.2585918035951E+03	673 0.2585915016450E+03	674 0.2585908639999E+03	675 0.2585898907238E+03
676 0.2585885819044E+03	677 0.2585869378538E+03	678 0.2585849581077E+03	679 0.2585826434251E+03	680 0.2585799937883E+03
681 0.2585770094022E+03	682 0.2585736904936E+03	683 0.2585700373111E+03	684 0.2585660501240E+03	685 0.2585617292218E+03
686 0.2585616423450E+03	687 0.2585616808807E+03	688 0.2585641961131E+03	689 0.2605738659189E+03	690 0.2605738836733E+03
691 0.2605735640332E+03	692 0.2605729070212E+03	693 0.2605719128728E+03	694 0.2605705810365E+03	695 0.2605689121709E+03
696 0.2605669061529E+03	697 0.2605645630681E+03	698 0.2605618830161E+03	699 0.2605588661096E+03	700 0.2605555124736E+03
701 0.2605518222465E+03	702 0.2605477955789E+03	703 0.2605434326348E+03	704 0.2605433442295E+03	705 0.2605433810707E+03
706 0.2605464065922E+03	707 0.2624284692718E+03	708 0.2624284736193E+03	709 0.2624281433859E+03	710 0.2624274785850E+03
711 0.2624264792371E+03	712 0.2624251453697E+03	713 0.2624234770174E+03	714 0.2624214742219E+03	715 0.2624191370317E+03
716 0.2624164655024E+03	717 0.2624134596985E+03	718 0.2624101196834E+03	719 0.2624064455391E+03	720 0.2624024373464E+03
721 0.2623980951947E+03	722 0.2623980072105E+03	723 0.2623980438517E+03	724 0.2624014925049E+03	725 0.2641561035108E+03
726 0.2641560979906E+03	727 0.2641557863049E+03	728 0.2641551084720E+03	729 0.2641541245206E+03	730 0.2641528144899E+03
731 0.2641511784295E+03	732 0.2641492163997E+03	733 0.2641469284713E+03	734 0.2641443147261E+03	735 0.2641413752565E+03
736 0.2641381101658E+03	737 0.2641345195687E+03	738 0.2641308035908E+03	739 0.2641263823692E+03	740 0.2641262788118E+03
741 0.2641263217166E+03	742 0.2641293435478E+03	743 0.2641305047612E+03	744 0.2657559604950E+03	745 0.2657559455778E+03

746 0.2657556124071E+03	747 0.2657549609940E+03	748 0.2657539913551E+03	749 0.2657527035128E+03	750 0.2657510974949E+03
751 0.2657491733350E+03	752 0.2657469310725E+03	753 0.2657443707522E+03	754 0.2657414924246E+03	755 0.2657382961481E+03
756 0.2657347819785E+03	757 0.2657309499895E+03	758 0.2657268002523E+03	759 0.2657267187527E+03	760 0.2657267614844E+03
761 0.2657297481531E+03	762 0.2657313288449E+03	763 0.2672301775418E+03	764 0.2672301544079E+03	765 0.2672298220018E+03
766 0.2672291803310E+03	767 0.2672282294058E+03	768 0.2672269692401E+03	769 0.2672253998509E+03	770 0.2672235212585E+03
771 0.2672213334884E+03	772 0.2672188365616E+03	773 0.2672160305141E+03	774 0.2672129153776E+03	775 0.2672094911689E+03
776 0.2672057579882E+03	777 0.2672017158191E+03	778 0.2672016368978E+03	779 0.2672016791017E+03	780 0.2672046197120E+03
781 0.2672065719369E+03	782 0.2685815672275E+03	783 0.2685815369402E+03	784 0.2685812072415E+03	785 0.2685805781360E+03
786 0.2685796498295E+03	787 0.2685784217298E+03	788 0.2685768944457E+03	789 0.2685750677878E+03	790 0.2685729417682E+03
791 0.2685705164004E+03	792 0.2685677916995E+03	793 0.2685647676825E+03	794 0.2685614443674E+03	795 0.2685578217744E+03
796 0.2685538999251E+03	797 0.2685538235377E+03	798 0.2685538657993E+03	799 0.2685567638420E+03	800 0.2685590452332E+03
801 0.2698131500840E+03	802 0.2698131134677E+03	803 0.2698127877857E+03	804 0.2698121729801E+03	805 0.2698112891125E+03
806 0.2698100761644E+03	807 0.2698085941370E+03	808 0.2698068230314E+03	809 0.2698047628483E+03	810 0.2698024135884E+03
811 0.2697997752523E+03	812 0.2697968478403E+03	813 0.2697938313528E+03	814 0.2697901257900E+03	815 0.2697863311521E+03
816 0.2697862577040E+03	817 0.2697862999645E+03	818 0.2697891589443E+03	819 0.2697917314505E+03	820 0.2709280065518E+03
821 0.2709279542052E+03	822 0.2709276433100E+03	823 0.2709270438642E+03	824 0.2709261658636E+03	825 0.2709250093011E+03
826 0.2709235741671E+03	827 0.2709218604490E+03	828 0.2709198681320E+03	829 0.2709175971983E+03	830 0.2709150478276E+03
831 0.2709122193968E+03	832 0.2709091124802E+03	833 0.2709057268495E+03	834 0.2709020624737E+03	835 0.2709019920721E+03
836 0.2709020344444E+03	837 0.2709048578834E+03	838 0.2709078870219E+03	839 0.2719291439989E+03	840 0.2719290965368E+03
841 0.2719287817322E+03	842 0.2719281995802E+03	843 0.2719273500718E+03	844 0.2719262331931E+03	845 0.2719248489262E+03
846 0.2719231972483E+03	847 0.2719212781323E+03	848 0.2719190915463E+03	849 0.2719166374641E+03	850 0.2719139158147E+03
851 0.2719109265825E+03	852 0.2719076697069E+03	853 0.2719041451327E+03	854 0.2719040784292E+03	855 0.2719041222075E+03
856 0.2719069589089E+03	857 0.2719100027910E+03	858 0.2728189734612E+03	859 0.2728189220008E+03	860 0.2728186158115E+03
861 0.2728180542940E+03	862 0.2728172380481E+03	863 0.2728161668732E+03	864 0.2728148407676E+03	865 0.2728132597293E+03
866 0.2728114237555E+03	867 0.2728093328430E+03	868 0.2728069869879E+03	869 0.2728043861861E+03	870 0.2728015304331E+03
871 0.2727984197242E+03	872 0.2727950540545E+03	873 0.2727949927981E+03	874 0.2727950418946E+03	875 0.2727980428897E+03
876 0.2728007891403E+03	877 0.2728015154429E+03	878 0.2735984233381E+03	879 0.2735983689018E+03	880 0.2735980651708E+03
881 0.2735975181417E+03	882 0.2735967258082E+03	883 0.2735956881602E+03	884 0.2735944051849E+03	885 0.2735928768859E+03
886 0.2735911031837E+03	887 0.2735890841155E+03	888 0.2735868198352E+03	889 0.2735843097136E+03	890 0.2735815543181E+03
891 0.2735785534127E+03	892 0.2735753069583E+03	893 0.2735752485233E+03	894 0.2735752978296E+03	895 0.2735782704226E+03
896 0.2735809974307E+03	897 0.2735819182360E+03	898 0.2742700491591E+03	899 0.2742699875384E+03	900 0.2742696890705E+03
901 0.2742691537508E+03	902 0.2742683815707E+03	903 0.2742673725177E+03	904 0.2742661265752E+03	905 0.2742646437228E+03
906 0.2742629239361E+03	907 0.2742609671867E+03	908 0.2742587734422E+03	909 0.2742563426664E+03	910 0.2742536748191E+03
911 0.2742507698562E+03	912 0.2742476277295E+03	913 0.2742475717167E+03	914 0.2742476210553E+03	915 0.2742505629530E+03
916 0.2742532676349E+03	917 0.2742543530589E+03	918 0.2748363303080E+03	919 0.2748362632732E+03	920 0.2748359687437E+03
921 0.2748354407121E+03	922 0.2748346851687E+03	923 0.2748337000991E+03	924 0.2748324854850E+03	925 0.2748310413034E+03
926 0.2748293675270E+03	927 0.2748274641243E+03	928 0.2748253310591E+03	929 0.2748229682914E+03	930 0.2748203757763E+03
931 0.2748175534649E+03	932 0.2748145013040E+03	933 0.2748144473816E+03	934 0.2748144967504E+03	935 0.2748174123047E+03
936 0.2748200979525E+03	937 0.2748213203754E+03	938 0.2752994215389E+03	939 0.2752993487835E+03	940 0.2752990526960E+03
941 0.2752985332683E+03	942 0.2752977904886E+03	943 0.2752968243444E+03	944 0.2752956348127E+03	945 0.2752942218698E+03
946 0.2752925854857E+03	947 0.2752907258267E+03	948 0.2752886422540E+03	949 0.2752863353240E+03	950 0.2752838047888E+03
951 0.2752810505956E+03	952 0.2752780726870E+03	953 0.2752780204890E+03	954 0.2752780698766E+03	955 0.2752809634764E+03
956 0.2752836333002E+03	957 0.2752849664742E+03	958 0.2756611089397E+03	959 0.2756610300792E+03	960 0.2756607327873E+03
961 0.2756602170571E+03	962 0.2756594828769E+03	963 0.2756585302294E+03	964 0.2756573590928E+03	965 0.2756559694400E+03
966 0.2756543612388E+03	967 0.2756525344521E+03	968 0.2756504890380E+03	969 0.2756482249493E+03	970 0.2756457421341E+03
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976 0.2756456517777E+03	977 0.2756470706572E+03	978 0.2759227777645E+03	979 0.2759226923903E+03	980 0.2759223923260E+03
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1011 0.2760676538281E+03	1012 0.2760648199008E+03	1013 0.2760647711638E+03	1014 0.2760648209584E+03	1015 0.2760676849521E+03
1016 0.2760703327891E+03	1017 0.2760718525612E+03	1018 0.2761464913344E+03	1019 0.2761464557809E+03	1020 0.2761462348610E+03
1021 0.2761458281449E+03	1022 0.2761452364482E+03	1023 0.2761444598378E+03	1024 0.2761434986218E+03	1025 0.2761423531828E+03
1026 0.2761410238710E+03	1027 0.2761395112102E+03	1028 0.2761378156964E+03	1029 0.2761359379011E+03	1030 0.2761338784531E+03
1031 0.2761316380403E+03	1032 0.2761292174124E+03	1033 0.2761291999136E+03	1034 0.2761293148372E+03	1035 0.2761348614808E+03
1036 0.2761398341794E+03	1037 0.2761429154217E+03			

1	0.73479E+04	0.20588E+03	0.10000E+04	2	0.74702E+04	0.23250E+03	0.10000E+04	3	0.75300E+04	0.21278E+03	0.10000E+04
4	0.77903E+04	0.22773E+03	0.10000E+04	5	0.73788E+04	0.21407E+03	0.10000E+04	6	0.75148E+04	0.23658E+03	0.10000E+04
7	0.73292E+04	0.20553E+03	0.10000E+04	8	0.75518E+04	0.23354E+03	0.10000E+04	9	0.78759E+04	0.23168E+03	0.10000E+04
10	0.84350E+04	0.22864E+03	0.10000E+04	11	0.73655E+04	0.23844E+03	0.10000E+04	12	0.77801E+04	0.22524E+03	0.10000E+04
13	0.81994E+04	0.22781E+03	0.10000E+04	14	0.88602E+04	0.22583E+03	0.10000E+04	15	0.74241E+04	0.22420E+03	0.10000E+04
16	0.80704E+04	0.23095E+03	0.10000E+04	17	0.73825E+04	0.23600E+03	0.10000E+04	18	0.88383E+04	0.22880E+03	0.10000E+04
19	0.85215E+04	0.22786E+03	0.10000E+04	20	0.85737E+04	0.23209E+03	0.10000E+04	21	0.82913E+04	0.23168E+03	0.10000E+04
22	0.88690E+04	0.23148E+03	0.10000E+04	23	0.78587E+04	0.23575E+03	0.10000E+04	24	0.78923E+04	0.23669E+03	0.10000E+04
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      6  0.2303105133818E+03      7  0.2302824552540E+03      8  0.2302491252792E+03      9  0.2302104401223E+03     10  0.2301663028857E+03
     11  0.2301158027888E+03     12  0.2300612147897E+03     13  0.2300000000000E+03     14  0.2300000000000E+03     15  0.2300000000000E+03
     16  0.2326997235239E+03     17  0.2327001103517E+03     18  0.2327012213562E+03     19  0.2327030863463E+03     20  0.2327056618849E+03
     21  0.2327090302582E+03     22  0.2327132017728E+03     23  0.2327182128812E+03     24  0.2327241064363E+03     25  0.2327309336549E+03
     26  0.2327387523321E+03     27  0.2327476280863E+03     28  0.2327576344364E+03     29  0.2327688880102E+03     30  0.2327815842895E+03
     31  0.2343748023313E+03     32  0.2343750950688E+03     33  0.2343759358488E+03     34  0.2343773250578E+03     35  0.2343782633237E+03
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     41  0.2344024847597E+03     42  0.2344083002809E+03     43  0.2344148756658E+03     44  0.2344218123711E+03     45  0.2344291115228E+03
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     56  0.2355541287153E+03     57  0.2355555825360E+03     58  0.2355573888412E+03     59  0.2355592420153E+03     60  0.2355612380598E+03
     61  0.2355633725822E+03     62  0.2355634393520E+03     63  0.2355362409838E+03     64  0.2355362972336E+03     65  0.2355364416574E+03
     66  0.2355365741958E+03     67  0.2355388947558E+03     68  0.2355374032028E+03     69  0.2355378883706E+03     70  0.2355384830578E+03
     71  0.2355391540308E+03     72  0.2355399120258E+03     73  0.2355407567505E+03     74  0.2355416878870E+03     75  0.2355427050949E+03
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    356  0.2403159868886E+03    357  0.2403160309898E+03    358  0.2403160830804E+03    359  0.2403161428080E+03    360  0.2403162097777E+03
    361  0.2403162835579E+03    362  0.2403163638864E+03    363  0.2403164496775E+03    364  0.2403165410304E+03    365  0.2403166372378E+03
    366  0.2403186652116E+03    367  0.2399983574121E+03    368  0.2399983922382E+03    369  0.2399985060207E+03    370  0.2399988976586E+03
    371  0.2399988653116E+03    372  0.2399993083767E+03    373  0.2399997174886E+03    374  0.2400001944891E+03    375  0.2400007324611E+03
    376  0.2400013258063E+03    377  0.2400019673207E+03    378  0.2400028501158E+03    379  0.2400033655963E+03    380  0.2400041044235E+03
    381  0.2400048852754E+03    382  0.2400048853523E+03    383  0.2395833218897E+03    384  0.2395837258392E+03    385  0.2395848802061E+03
    386  0.2395870271511E+03    387  0.2395899306189E+03    388  0.2395936761404E+03    389  0.2395982708703E+03    390  0.2396037235900E+03
    391  0.2396100447448E+03    392  0.2396172464755E+03    393  0.2396253428569E+03    394  0.2396343489415E+03    395  0.2396442828085E+03
    396  0.2396551636243E+03    397  0.2396670128844E+03    398  0.2396674509908E+03    399  0.2383957285263E+03    400  0.2383957630418E+03
    401  0.2383954952591E+03    402  0.2383961250298E+03    403  0.2383964504428E+03    404  0.2383968881177E+03    405  0.2383973786921E+03
    406  0.2383979898073E+03    407  0.2383986430891E+03    408  0.2383993906284E+03    409  0.2384002058447E+03    410  0.2384010804775E+03
    411  0.2384020065322E+03    412  0.2384029742536E+03    413  0.2384039730877E+03    414  0.2384130309077E+03    415  0.2371518898730E+03
    416  0.2371520156996E+03    417  0.2371520957890E+03    418  0.2371522401523E+03    419  0.2371524487298E+03    420  0.2371527214940E+03
    421  0.2371530584017E+03    422  0.2371534594088E+03    423  0.2371539244747E+03    424  0.2371544535881E+03    425  0.2371550486742E+03
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    431  0.2359214023472E+03    432  0.2359214071854E+03    433  0.2359214533181E+03    434  0.2359215406814E+03    435  0.2359216690751E+03
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    441  0.2359232870438E+03    442  0.2359236942408E+03    443  0.2359241393173E+03    444  0.2359246218040E+03    445  0.2359251417489E+03
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451	0.2347525243163E+03	452	0.2347528213005E+03	453	0.2347531874624E+03	454	0.2347536227397E+03	455	0.2347541270692E+03
456	0.2347547003869E+03	457	0.2347553426278E+03	458	0.2347560537258E+03	459	0.2347568336141E+03	460	0.2347576822245E+03
461	0.2347590194812E+03	462	0.2336331385082E+03	463	0.2336332301566E+03	464	0.2336334171897E+03	465	0.2336336998619E+03
466	0.2336340784411E+03	467	0.2336345532101E+03	468	0.2336351244869E+03	469	0.2336357925254E+03	470	0.2336365577181E+03
471	0.2336374203865E+03	472	0.2336383809023E+03	473	0.2336394396473E+03	474	0.2336405970248E+03	475	0.2336418534579E+03
476	0.2336436938684E+03	477	0.2325436002464E+03	478	0.2325435588250E+03	479	0.2325436248491E+03	480	0.2325437982408E+03
481	0.2325440789754E+03	482	0.2325444670806E+03	483	0.2325449626292E+03	484	0.2325455657352E+03	485	0.2325462765459E+03
486	0.2325470952345E+03	487	0.2325480219905E+03	488	0.2325490570090E+03	489	0.2325502004792E+03	490	0.2325514525705E+03
491	0.2325531541028E+03	492	0.2314607113363E+03	493	0.2314606621080E+03	494	0.2314606816434E+03	495	0.2314607716477E+03
496	0.2314609345188E+03	497	0.2314611743513E+03	498	0.2314614959419E+03	499	0.2314619052861E+03	500	0.2314624095360E+03
501	0.2314630169105E+03	502	0.2314637368062E+03	503	0.2314645797600E+03	504	0.2314655574739E+03	505	0.2314668828308E+03
506	0.2314681822354E+03	507	0.2303883327547E+03	508	0.2303883764816E+03	509	0.2303868519208E+03	510	0.2303843598694E+03
511	0.2303809017847E+03	512	0.2303764797814E+03	513	0.2303710966258E+03	514	0.2303647557301E+03	515	0.2303574611434E+03
516	0.2303492175421E+03	517	0.2303400302179E+03	518	0.2303299050640E+03	519	0.2303188485583E+03	520	0.2303068677450E+03
521	0.2302936364296E+03	522	0.2302447728772E+03	523	0.2302435550878E+03	524	0.2302398122593E+03	525	0.2302335460844E+03
526	0.2302247595347E+03	527	0.2302134570950E+03	528	0.2301996446114E+03	529	0.2301833294541E+03	530	0.2301645205744E+03
531	0.2301432285971E+03	532	0.2301194659273E+03	533	0.2300932468748E+03	534	0.2300645877932E+03	535	0.2300335072380E+03
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541	0.2323666184488E+03	542	0.2323439595843E+03	543	0.2323161018255E+03	544	0.2322829863447E+03	545	0.2322445432552E+03
546	0.2322006913810E+03	547	0.2321513379914E+03	548	0.2320963784950E+03	549	0.2320356960971E+03	550	0.2319691814144E+03
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556	0.2391728712503E+03	557	0.2391847094551E+03	558	0.2391990673132E+03	559	0.2392160018789E+03	560	0.2392355807708E+03
561	0.2392578824212E+03	562	0.2392829963228E+03	563	0.2393110233420E+03	564	0.2393420760603E+03	565	0.2393762791571E+03
566	0.2394137698341E+03	567	0.2394159872688E+03	568	0.2434453001262E+03	569	0.2434460850112E+03	570	0.2434475533336E+03
571	0.2434497628094E+03	572	0.2434528899321E+03	573	0.2434563298371E+03	574	0.2434606767527E+03	575	0.2434657229373E+03
576	0.2434714598031E+03	577	0.2434778763244E+03	578	0.2434849610326E+03	579	0.2434926998947E+03	580	0.2435010771761E+03
581	0.2435100750874E+03	582	0.2435196736134E+03	583	0.2435209532686E+03	584	0.2467675728675E+03	585	0.2467680025884E+03
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616	0.2495521296682E+03	617	0.2495526947862E+03	618	0.2519701804985E+03	619	0.2519702948697E+03	620	0.2519701503757E+03
621	0.2519697468807E+03	622	0.2519690841675E+03	623	0.2519681619374E+03	624	0.2519669798091E+03	625	0.2519655373192E+03
626	0.2519638339206E+03	627	0.2519618689828E+03	628	0.2519598417893E+03	629	0.2519571515391E+03	630	0.2519543973432E+03
631	0.2519513782247E+03	632	0.2519480931165E+03	633	0.2519480427980E+03	634	0.2519481499163E+03	635	0.2542527977492E+03
636	0.2542528361524E+03	637	0.2542524836141E+03	638	0.2542517398786E+03	639	0.2542506045123E+03	640	0.2542490769034E+03
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646	0.2542316189109E+03	647	0.2542273110406E+03	648	0.2542226013294E+03	649	0.2542174854364E+03	650	0.2542173195253E+03
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656	0.2564816611430E+03	657	0.2564807080560E+03	658	0.2564794210712E+03	659	0.2564778006112E+03	660	0.2564758471953E+03
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671	0.2585917698109E+03	672	0.2585918035951E+03	673	0.2585915016450E+03	674	0.2585908839999E+03	675	0.2585898907238E+03
676	0.2585885819044E+03	677	0.2585869376538E+03	678	0.2585849581077E+03	679	0.2585826434251E+03	680	0.2585799837883E+03
681	0.2585770094022E+03	682	0.2585736904936E+03	683	0.2585700373111E+03	684	0.2585660501240E+03	685	0.2585617292218E+03
686	0.2585616423450E+03	687	0.2585616808807E+03	688	0.2585641961131E+03	689	0.2605738659189E+03	690	0.2605738838733E+03
691	0.2605735640332E+03	692	0.2605729070212E+03	693	0.2605719128726E+03	694	0.2605705810355E+03	695	0.2605689121709E+03
696	0.2605669061529E+03	697	0.2605645630681E+03	698	0.2605618830161E+03	699	0.2605588661096E+03	700	0.2605555124736E+03
701	0.2605518222465E+03	702	0.2605477955789E+03	703	0.2605434326346E+03	704	0.2605433442295E+03	705	0.2605433810707E+03
706	0.2605464065922E+03	707	0.2624284692718E+03	708	0.2624284736193E+03	709	0.2624281433859E+03	710	0.2624274785850E+03
711	0.2624264792371E+03	712	0.2624251453697E+03	713	0.2624234770174E+03	714	0.2624214742219E+03	715	0.2624191370317E+03
716	0.2624164655024E+03	717	0.2624134598965E+03	718	0.2624101196834E+03	719	0.2624064455391E+03	720	0.2624024373464E+03
721	0.2623980951947E+03	722	0.2623980072105E+03	723	0.2623980438517E+03	724	0.2624014925049E+03	725	0.2641561035108E+03
726	0.2641560979906E+03	727	0.2641557663049E+03	728	0.2641551084720E+03	729	0.2641541245206E+03	730	0.2641528144899E+03
731	0.2641511784295E+03	732	0.2641492163997E+03	733	0.2641469284713E+03	734	0.2641443147261E+03	735	0.2641413752565E+03
736	0.2641381101658E+03	737	0.2641345195687E+03	738	0.2641306035908E+03	739	0.2641263623692E+03	740	0.2641262788116E+03
741	0.2641263217186E+03	742	0.2641293435478E+03	743	0.2641305047612E+03	744	0.2657559604950E+03	745	0.2657559455778E+03

746	0.2657556124071E+03	747	0.2657549609940E+03	748	0.2657539913551E+03	749	0.2657527035128E+03	750	0.2657510974949E+03
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756	0.2657347819785E+03	757	0.2657309499895E+03	758	0.2657268002523E+03	759	0.2657267187527E+03	760	0.2657267614844E+03
761	0.2657297481531E+03	762	0.2657313288449E+03	763	0.2672301775418E+03	764	0.2672301544079E+03	765	0.2672298220018E+03
766	0.2672291803310E+03	767	0.2672282294058E+03	768	0.2672269692401E+03	769	0.2672253998509E+03	770	0.2672235212585E+03
771	0.2672213334864E+03	772	0.2672188365616E+03	773	0.2672160305141E+03	774	0.2672129153776E+03	775	0.2672094911889E+03
776	0.2672057579882E+03	777	0.2672017158191E+03	778	0.2672016366978E+03	779	0.2672016791017E+03	780	0.2672046197120E+03
781	0.2672065719369E+03	782	0.2685815672275E+03	783	0.2685815369402E+03	784	0.2685812072415E+03	785	0.2685805781360E+03
786	0.2685796495295E+03	787	0.2685784217298E+03	788	0.2685768944457E+03	789	0.2685750677878E+03	790	0.2685729417682E+03
791	0.2685705164004E+03	792	0.2685677916995E+03	793	0.2685647876826E+03	794	0.2685614443674E+03	795	0.2685578217744E+03
796	0.2685538999251E+03	797	0.2685538235377E+03	798	0.2685538657993E+03	799	0.2685567638420E+03	800	0.2685590452332E+03
801	0.2698131500840E+03	802	0.2698131134677E+03	803	0.2698127877857E+03	804	0.2698121729801E+03	805	0.2698112891125E+03
806	0.2698100761644E+03	807	0.2698085941370E+03	808	0.2698068230314E+03	809	0.2698047628483E+03	810	0.2698024135884E+03
811	0.2697997752623E+03	812	0.2697968478403E+03	813	0.2697936313528E+03	814	0.2697901257900E+03	815	0.2697863311521E+03
816	0.2697862577040E+03	817	0.2697862999645E+03	818	0.2697891589443E+03	819	0.2697917314506E+03	820	0.2709280065516E+03
821	0.2709279642052E+03	822	0.2709276433100E+03	823	0.2709270438642E+03	824	0.2709261658636E+03	825	0.2709250093011E+03
826	0.2709235741671E+03	827	0.2709218604490E+03	828	0.2709198681320E+03	829	0.2709175971983E+03	830	0.2709150476278E+03
831	0.2709122193988E+03	832	0.2709091124802E+03	833	0.2709057268495E+03	834	0.2709020624737E+03	835	0.2709019920721E+03
836	0.2709020344444E+03	837	0.2709048578834E+03	838	0.2709078870219E+03	839	0.2719291439989E+03	840	0.2719290865388E+03
841	0.2719287817322E+03	842	0.2719281995802E+03	843	0.2719273500718E+03	844	0.2719262331931E+03	845	0.2719248489262E+03
846	0.2719231972483E+03	847	0.2719212781323E+03	848	0.2719190915463E+03	849	0.2719166374541E+03	850	0.2719139158147E+03
851	0.2719109265825E+03	852	0.2719076697069E+03	853	0.2719041451327E+03	854	0.2719040784292E+03	855	0.2719041222075E+03
856	0.2719069589089E+03	857	0.2719100027910E+03	858	0.2728189734612E+03	859	0.2728189220008E+03	860	0.2728186156115E+03
861	0.2728180542940E+03	862	0.2728172380481E+03	863	0.2728161668732E+03	864	0.2728148407676E+03	865	0.2728132597293E+03
866	0.2728114237555E+03	867	0.2728093328430E+03	868	0.2728069869879E+03	869	0.2728043861861E+03	870	0.2728015304331E+03
871	0.2727984197242E+03	872	0.2727950540545E+03	873	0.2727949927961E+03	874	0.2727950418946E+03	875	0.2727980428897E+03
876	0.2728007891403E+03	877	0.2728015154429E+03	878	0.2735984233381E+03	879	0.2735983669018E+03	880	0.2735980651708E+03
881	0.2735975181417E+03	882	0.2735967258082E+03	883	0.2735956881602E+03	884	0.2735944051849E+03	885	0.2735928768659E+03
886	0.2735911031837E+03	887	0.2735890841155E+03	888	0.2735868196352E+03	889	0.2735843097136E+03	890	0.2735815543181E+03
891	0.2735785534127E+03	892	0.2735753069583E+03	893	0.2735752485233E+03	894	0.2735752978296E+03	895	0.2735782704226E+03
896	0.2735809974307E+03	897	0.2735819182380E+03	898	0.2742700491591E+03	899	0.2742699875384E+03	900	0.2742696890705E+03
901	0.2742691537508E+03	902	0.2742683815707E+03	903	0.2742673725177E+03	904	0.2742661265752E+03	905	0.2742646437228E+03
906	0.2742629239361E+03	907	0.2742609671867E+03	908	0.2742587734422E+03	909	0.2742563426664E+03	910	0.2742536748191E+03
911	0.2742507698562E+03	912	0.2742476277295E+03	913	0.2742475717167E+03	914	0.2742476210553E+03	915	0.2742505829530E+03
916	0.2742532676349E+03	917	0.2742543630569E+03	918	0.2748363303060E+03	919	0.2748362632732E+03	920	0.2748359667437E+03
921	0.2748354407121E+03	922	0.2748346851687E+03	923	0.2748337000991E+03	924	0.2748324854850E+03	925	0.2748310413034E+03
926	0.2748293675270E+03	927	0.2748274641243E+03	928	0.2748253310591E+03	929	0.2748229682914E+03	930	0.2748203757763E+03
931	0.2748175534649E+03	932	0.2748145013040E+03	933	0.2748144473816E+03	934	0.2748144967504E+03	935	0.2748174123047E+03
936	0.2748200979525E+03	937	0.2748213203754E+03	938	0.2752984215369E+03	939	0.2752983487835E+03	940	0.2752990526980E+03
941	0.2752985332683E+03	942	0.2752977904896E+03	943	0.2752968243444E+03	944	0.2752956348127E+03	945	0.2752942218898E+03
946	0.2752925854857E+03	947	0.2752907258267E+03	948	0.2752886422640E+03	949	0.2752863353240E+03	950	0.2752838047888E+03
951	0.2752810505956E+03	952	0.2752780726870E+03	953	0.2752780204890E+03	954	0.2752780698788E+03	955	0.2752809834784E+03
956	0.2752836333002E+03	957	0.2752849654742E+03	958	0.2756811089397E+03	959	0.2756810300792E+03	960	0.2756807327673E+03
961	0.2756802170571E+03	962	0.2756794828769E+03	963	0.2756785302294E+03	964	0.2756773590928E+03	965	0.2756759694400E+03
966	0.2756743612388E+03	967	0.2756725344521E+03	968	0.2756704890380E+03	969	0.2756682249493E+03	970	0.2756657421341E+03
971	0.2756630405356E+03	972	0.2756601200922E+03	973	0.2756600692250E+03	974	0.2756601186119E+03	975	0.2756629948498E+03
976	0.2756656517777E+03	977	0.2756670706572E+03	978	0.2759227777645E+03	979	0.2759226923903E+03	980	0.2759223923260E+03
981	0.2759218775605E+03	982	0.2759211480750E+03	983	0.2759202038428E+03	984	0.2759190448301E+03	985	0.2759176709954E+03
986	0.2759160822901E+03	987	0.2759142786588E+03	988	0.2759122600391E+03	989	0.2759100263623E+03	990	0.2759075775633E+03
991	0.2759049135311E+03	992	0.2759020342091E+03	993	0.2759019842903E+03	994	0.2759020336630E+03	995	0.2759048965643E+03
996	0.2759075441048E+03	997	0.2759090245321E+03	998	0.2760852479881E+03	999	0.2760851567984E+03	1000	0.2760848558798E+03
1001	0.2760843461135E+03	1002	0.2760836243750E+03	1003	0.2760826935118E+03	1004	0.2760815523412E+03	1005	0.2760802008524E+03
1006	0.2760786382033E+03	1007	0.2760766647205E+03	1008	0.2760748798984E+03	1009	0.2760726833977E+03	1010	0.2760702748444E+03
1011	0.2760676538281E+03	1012	0.2760648199008E+03	1013	0.2760647711638E+03	1014	0.2760648208564E+03	1015	0.2760676849521E+03
1016	0.2760703327891E+03	1017	0.2760718525612E+03	1018	0.2761464913344E+03	1019	0.2761464557809E+03	1020	0.2761462346610E+03
1021	0.2761458281449E+03	1022	0.2761452364492E+03	1023	0.2761444598378E+03	1024	0.2761434988218E+03	1025	0.2761423531625E+03
1026	0.2761410238710E+03	1027	0.2761395112102E+03	1028	0.2761378158864E+03	1029	0.2761359379011E+03	1030	0.2761338784531E+03
1031	0.2761316380403E+03	1032	0.2761292174124E+03	1033	0.2761281999136E+03	1034	0.2761293148372E+03	1035	0.2761348614808E+03
1036	0.2761398341794E+03	1037	0.2761429154217E+03						

1	0.73478E+04	0.20588E+03	0.10000E+04	2	0.74702E+04	0.23250E+03	0.10000E+04	3	0.75300E+04	0.21278E+03	0.10000E+04
4	0.77803E+04	0.22773E+03	0.10000E+04	5	0.73788E+04	0.21407E+03	0.10000E+04	6	0.75146E+04	0.23858E+03	0.10000E+04
7	0.73292E+04	0.20553E+03	0.10000E+04	8	0.75618E+04	0.23354E+03	0.10000E+04	9	0.76759E+04	0.23168E+03	0.10000E+04
10	0.84350E+04	0.22864E+03	0.10000E+04	11	0.73888E+04	0.23644E+03	0.10000E+04	12	0.77601E+04	0.22524E+03	0.10000E+04
13	0.81394E+04	0.22781E+03	0.10000E+04	14	0.88602E+04	0.22583E+03	0.10000E+04	15	0.74241E+04	0.22420E+03	0.10000E+04
16	0.80704E+04	0.23085E+03	0.10000E+04	17	0.73825E+04	0.23600E+03	0.10000E+04	18	0.86383E+04	0.22880E+03	0.10000E+04
19	0.85215E+04	0.22786E+03	0.10000E+04	20	0.88737E+04	0.23209E+03	0.10000E+04	21	0.82913E+04	0.23188E+03	0.10000E+04
22	0.88690E+04	0.23148E+03	0.10000E+04	23	0.78587E+04	0.23575E+03	0.10000E+04	24	0.78923E+04	0.23688E+03	0.10000E+04
25	0.72882E+04	0.23272E+03	0.10000E+04								

6.6.2 Simulation of the Post-mining Flow System Recovery

6.6.2.1 Input Data.

```
EXAMPLE DATA SET   SIMULATION OF POST-MINING RECOVERY; WITH MASS TRANSPORT
FFFFTTTFFTFTFFFFFTTFTFTF
   23   61    6    1    3    1 1275 2400   22   18    3    1   14
    300.00       10.0        1.0       230.      0.000       .100       2.00
      250.       251.       252.       253.       254.       256.       259.       262.
      265.       268.       271.       274.       277.       279.       280.       281.
      282.       281.2      281.7      282.       283.       284.       285.       286.
      287.       288.       289.1      289.2      289.3      289.4      289.5      289.7
     289.8       290.0      290.1      290.2      290.3      290.4      290.5      290.6
     290.7       290.8      291.0      291.2      291.4      291.5      291.7      291.8
      292.       293.       295.       295.       295.       295.       295.       295.
      295.       295.       295.       295.       295.
FTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
     230.0      230.0      230.0      230.0      230.0      230.0      230.0      230.0
     230.0      230.0      230.0      230.0      230.0      230.0      230.0      230.0
     230.0      230.0      230.0      230.0      230.0      230.0      230.0      230.0
     230.0      230.0      230.0      230.0      230.0      230.0      230.0      230.0
     230.0      230.0      230.0      230.0      230.0      230.0      230.0      230.0
     230.0      230.0      230.0      230.0      230.0      230.0      230.0      230.0
     230.0      230.0      230.0      230.0      230.0      230.0      230.0      230.0
     230.0      230.0      230.0      230.0      230.0
      90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
      90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
      90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
      90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
      90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
      90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
      90.0       90.0       90.0       90.0       90.0       90.0       90.0       90.0
      90.0       90.0       90.0       90.0       90.0
    1   60
  2  .0400  3  .0400  4  .0400  5  .0400  6  .0400  7  .0400  8  .0400  9  .0400
 10  .0400 11  .0400 12  .0400 13  .0400 14  .0400 15  .0400 16  .0400 17  .0400
 18  .0400 19  .0400 20  .0400 21  .0400 22  .0400 23  .0400 24  .0400 25  .0400
 26  .0400 27  .0400 28  .0400 29  .0400 30  .0400 31  .0400 32  .0400 33  .0400
 34  .0400 35  .0400 36  .0400 37  .0400 38  .0400 39  .0400 40  .0800 41  .0800
 42  .0800 43  .0800 44  .0800 45  .0800 46  .0800 47  .0800 48  .0800 49  .0800
 50  .0800 51  .0800 52  .0800 53  .0800 54  .0800 55  .0800 56  .0800 57  .0800
 58  .0800 59  .0800 60  .0800 61  .1600
  1 15   230.  1 14   230.  1 13   230.
     1   0.00E+1   0.00E+1   0.00E+1   0.00E+1   0.00E+1   0.00E+1   0.00E+1
     2   3.16E+2   3.16E+2   0.50E-3   0.10E+0   5.00E+0   1.00E-1   1.00E+0
     3   94.8E+2   94.8E+2   0.50E-3   0.10E+0   5.00E+0   1.00E-1   1.00E+0
1111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111112222222222222
1111111111111111111222222222222222222222222222222222222222222
1111111111222222222222222222222222222222222222222222222222222
1111111222222222222222222222222222222222222222222222222222222
1122222222222222222222222222222222222222222222222222222222222
3333333333333333333333333333333333333333333333333333333333333
3333333333333333333333333333333333333333333333333333333333333
2222222222222222222222222222222222222222222222222222222222222
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       0.10        0.00      1000.0
          5   25   35   15   -1            5   25   35   15   -1            5   25   35   15   -1
          5   25   35   15   -1            5   25   35   15   -1            0    1    1    1    1
FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
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   33   35    0    0    0    0    0    0    0    0    0    0    0    0
      250        25 .       252.       253        254.       256.       259.       262.
      265.       268.       271.       274.       277.       279.       280.       281.
      282.       281.2      281.7      282.       283.       284.       285.       286.
      287.       230.       230        230.       230.       230.       230.       230.
      230.       230.       290.1      290.2      290.3      290.4      290.5      290.6
     290.7       290.8      291.0      291.2      291.4      291.5      291.7      291.8
      292.       293.       295        295.       295        295.       295.       295.
      295.       295.       295.       295.       295.
    1   1.00E+1   0.00E+1   0.00E+1   0.00E+1   0.00E+1   0.00E+1   0.00E+1
    2   3.16E+2   3.16E+2   0.50E-3   0.10E+0   5.00E+0   1.00E-1   1.00E+0
    3   94.8E+2   94.8E+2   0.50E-3   0.10E+0   5.00E+0   1.00E-1   1.00E+0
    4   3.16E+1   3.16E+1   0.50E-2   0.10E+0   5.00E+0   1.00E-1   1.00E+0
1111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111112222222222222
1111111111111111111222224444444444222222222222222222222222222
1111111111222222222222224444444444222222222222222222222222222
1111111222222222222222224444444444222222222222222222222222222
1122222222222222222222224444444444222222222222222222222222222
3333333333333333333333334444444444333333333333333333333333333
3333333333333333333333334444444444333333333333333333333333333
2222222222222222222222222222222222222222222222222222222222222
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121     22222222222222222222222222222222222222222222222222222222222222
122     22222222222222222222222222222222222222222222222222222222222222
123     22222222222222222222222222222222222222222222222222222222222222
124     22222222222222222222222222222222222222222222222222222222222222
125          250.      251.      252.      253.      254.      256.      259.      262.
126          265.      268.      271.      274.      277.      279.      280.      281.
127          282.     281.2     281.7      282.      283.      284.      285.      286.
128          287.     290.5     291.2     289.2     291.6     291.8     289.5     285.0
129         260.0     260.0     285.0     290.2     290.3     290.4     290.5     290.6
130         290.7     290.8     291.0     291.2     291.4     291.5     291.7     291.8
131          292.      293.      295.      295.      295.      295.      295.      295.
132          295.      295.      295.      295.      295.
End of file
```

6.6.2.2 Printed Output.

****

EXAMPLE DATA SET: SIMULATION OF POST-MINING RECOVERY; WITH MASS TRANSPORT

****

OUTPUT LISTINGS AND PROBLEM CONTROL

```
OPTION( 1)= F :PRINT THE NODE CO-ORDINATES
OPTION( 2)= F :PRINT THE ELEMENT INCIDENCES
OPTION( 3)= F :PRINT THE ELEMENT HYDRAULIC CONDUCTIVITIES AND STORATIVITIES
OPTION( 4)= F :PLOT THE FINITE ELEMENT GRID
OPTION( 5)= T :CALCULATE THE HEAD DISTRIBUTIONS
OPTION( 6)= T :PRINT THE HEAD DISTRIBUTIONS
OPTION( 7)= T :PLOT ALL HEAD DISTRIBUTIONS
OPTION( 8)= F :PLOT ONLY THE LAST HEAD VALUES
OPTION( 9)= F :PRINT THE WATER TABLE CONVERGENCE INFORMATION AT EACH ITERATION
OPTION(10)= T :INPUT PREVIOUSLY CALCULATED HEADS TO CONTINUE AN EARLIER RUN
OPTION(11)= F :OUTPUT THE LAST HEAD DISTRIBUTION FOR USE AS INPUT IN A LATER RUN
OPTION(12)= T :SIMULATE MINING AND RECLAMATION
OPTION(13)= F :CALCULATE THE HYDRAULIC GRADIENT AND THE DIRECTION OF THE GRADIENT FIELD
OPTION(14)= F :PRINT THE HYDRAULIC GRADIENT AND ITS ITS DIRECTION FIELDS
OPTION(15)= F :PLOT THE HYDRAULIC GRADIENT AND ITS DIRECTION
OPTION(16)= F :CALCULATE THE VELOCITY FIELD
OPTION(17)= F :PRINT THE VELOCITY FIELD
OPTION(18)= T :RUN THE MASS TRANSPORT ROUTINE
OPTION(19)= T :PRINT THE CONCENTRATION AND PARTICLE DISTRIBUTIONS
OPTION(20)= F :PLOT THE PARTICLE CONCENTRATION
OPTION(21)= T :PLOT THE PARTICLE DISTRIBUTION
OPTION(22)= F :OUTPUT THE LAST PARTICLE DISTRIBUTION TO CONTINUE THE RUN
OPTION(23)= T :INPUT THE LAST PARTICLE DISTRIBUTION TO CONTINUE A PREVIOUS RUN
OPTION(24)= F :PRINT THE MASS, X AND Z COORDINATES OF THE REFERENCE PARTICLES
```

CROSS SECTION AND SIMULATION PARAMETERS

```
      23 :NUMBER OF ROWS
      61 :NUMBER OF COLUMNS
       3 :NUMBER OF GEOLOGICAL UNITS
       1 :NUMBER OF SPOIL UNITS
      18 :ESTIMATED NUMBER OF CONSTANT HEAD NODES
       3 :ACTUAL NUMBER OF CONSTANT HEAD NODES ENTERED
    1275 :ESTIMATED NUMBER OF NODES
    2400 :ESTIMATED NUMBER OF ELEMENTS
      22 :ESTIMATED BANDWIDTH
       1 :NUMBER OF PERIODS OF RECHARGE

 300.000 :HORIZONTAL NODE SPACING
  10.000 :VERTICAL NODE SPACING
   1.000 :TIME STEP
 230.000 :INITIAL HEAD VALUE
   0.0   :SPECIFIC YIELD
   0.100 :WATER TABLE AND STEADY STATE CONVERGENCE TOLERANCE
       6 :NUMBER OF TIME STEPS
   2.000 :TIME STEP INCREMENT
      14 :MAXIMUM NUMBER OF ITERATIONS PER TIME STEP
       1 :NUMBER OF TIME STEPS BETWEEN LISTINGS
```

GROUND SURFACE PARAMETERS

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1 F	250.00	2 T	251.00	3 T	252.00	4 T	253.00	5 T	254.00	6 T	256.00	7 T	259.00	8 T	262.00
9 T	265.00	10 T	268.00	11 T	271.00	12 T	274.00	13 T	277.00	14 T	278.00	15 T	280.00	16 T	281.00
17 T	282.00	18 T	281.20	19 T	281.70	20 T	282.00	21 T	283.00	22 T	284.00	23 T	286.00	24 T	286.00
25 T	287.00	26 T	288.00	27 T	288.10	28 T	288.20	29 T	288.30	30 T	288.40	31 T	289.50	32 T	289.70
33 T	289.80	34 T	290.00	35 T	290.10	36 T	290.20	37 T	290.30	38 T	290.40	39 T	290.50	40 T	290.60
41 T	290.70	42 T	290.80	43 T	291.00	44 T	291.20	45 T	291.40	46 T	291.50	47 T	291.70	48 T	291.80
49 T	292.00	50 T	293.00	51 T	295.00	52 T	295.00	53 T	295.00	54 T	295.00	55 T	295.00	56 T	295.00
57 T	295.00	58 T	295.00	59 T	295.00	60 T	295.00	61 T	295.00						

WATER TABLE ELEVATION

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	230.00	2	230.00	3	230.00	4	230.00	5	230.00	6	230.00	7	230.00	8	230.00
9	230.00	10	230.00	11	230.00	12	230.00	13	230.00	14	230.00	15	230.00	16	230.00
17	230.00	18	230.00	19	230.00	20	230.00	21	230.00	22	230.00	23	230.00	24	230.00
25	230.00	26	230.00	27	230.00	28	230.00	29	230.00	30	230.00	31	230.00	32	230.00
33	230.00	34	230.00	35	230.00	36	230.00	37	230.00	38	230.00	39	230.00	40	230.00
41	230.00	42	230.00	43	230.00	44	230.00	45	230.00	46	230.00	47	230.00	48	230.00
49	230.00	50	230.00	51	230.00	52	230.00	53	230.00	54	230.00	55	230.00	56	230.00
57	230.00	58	230.00	59	230.00	60	230.00	61	230.00						

BOTTOM BOUNDARY ELEVATION

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	90.00	2	90.00	3	90.00	4	90.00	5	90.00	6	90.00	7	90.00	8	90.00
9	90.00	10	90.00	11	90.00	12	90.00	13	90.00	14	90.00	15	90.00	16	90.00
17	90.00	18	90.00	19	90.00	20	90.00	21	90.00	22	90.00	23	90.00	24	90.00
25	90.00	26	90.00	27	90.00	28	90.00	29	90.00	30	90.00	31	90.00	32	90.00
33	90.00	34	90.00	35	90.00	36	90.00	37	90.00	38	90.00	39	90.00	40	90.00
41	90.00	42	90.00	43	90.00	44	90.00	45	90.00	46	90.00	47	90.00	48	90.00
49	90.00	50	90.00	51	90.00	52	90.00	53	90.00	54	90.00	55	90.00	56	90.00
57	90.00	58	90.00	59	90.00	60	90.00	61	90.00						

RECHARGE VALUES (+VE=RECHARGE; -VE=EVAPORATION)

CHANGE AT TIME STEP: 1

COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE	COL	RECHARGE
2	0.04	3	0.04	4	0.04	5	0.04	6	0.04	7	0.04	8	0.04	9	0.04
10	0.04	11	0.04	12	0.04	13	0.04	14	0.04	15	0.04	16	0.04	17	0.04
18	0.04	19	0.04	20	0.04	21	0.04	22	0.04	23	0.04	24	0.04	25	0.04
26	0.04	27	0.04	28	0.04	29	0.04	30	0.04	31	0.04	32	0.04	33	0.04
34	0.04	35	0.04	36	0.04	37	0.04	38	0.04	39	0.04	40	0.08	41	0.08
42	0.08	43	0.08	44	0.08	45	0.08	46	0.08	47	0.08	48	0.08	49	0.08
50	0.08	51	0.08	52	0.08	53	0.08	54	0.08	55	0.08	56	0.08	57	0.08
58	0.08	59	0.08	60	0.08	61	0.16								

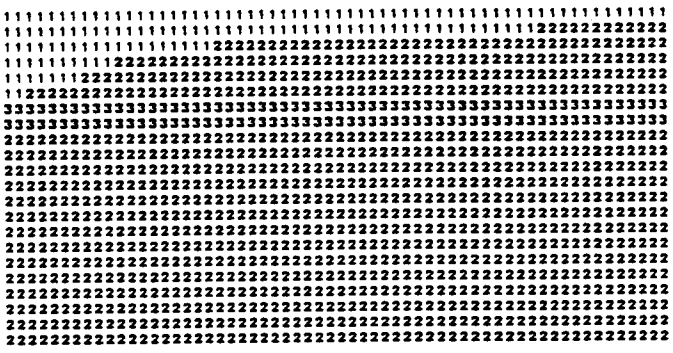
CONSTANT HEAD VALUES

COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD	COL	ROW	HEAD
1	15	230.00	1	14	230.00	1	13	230.00									

HYDROGEOLOGICAL PARAMETERS OF THE GEOLOGICAL UNITS

UNIT	Kh	Kv	STOR.	POROSITY	DISPER.	CEC	BULK DEN.
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.3160E+03	0.3160E+03	0.5000E-03	0.1000E+00	0.5000E+01	0.1000E+00	0.1000E+01
3	0.9480E+04	0.9480E+04	0.5000E-03	0.1000E+00	0.5000E+01	0.1000E+00	0.1000E+01

MAP OF THE GEOLOGICAL UNITS



CONTAMINANT TRANSPORT PARAMETERS

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   0.100 :TOTAL CONCENTRATION IN SOLUTION
   0.0   :SELECTIVITY COEFFICIENT FOR EXCHANGE
1000.000 :INITIAL MASS ADDED PER PARTICLE
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PARTICLES ADDED TO THE SYSTEM DURING A TIME STEP
(IF T.ROW OR B.ROW ARE NEGATIVE, THEN THE ELEVATIONS OF THE WATER TABLE OR BASE OF THE MINE, RESPECTIVELY, ARE ASSUMED)

L.COL	R.COL	B.ROW	T.ROW	PARTICLES	L.COL	R.COL	B.ROW	T.ROW	PARTICLES	L.COL	R.COL	B.ROW	T.ROW	PARTICLES
25	35	15	-1	5	25	35	15	-1	5	25	35	15	-1	5
25	35	15	-1	5	25	35	15	-1	5	1	1	1	1	0

PARTICLE TRANSPORT CODE
(F=NO MOVEMENT ALLOWED IN THE CELL; T=MOVEMENT ALLOWED IN THE CELL)

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SIDE BOUNDARIES OF THE MINE DURING MINING (COL.)

PREVIOUS BOUNDARIES: 33 35
FUTURE BOUNDARIES:
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GROUND ELEVATION DURING MINING

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	250.00	2	251.00	3	252.00	4	253.00	5	254.00	6	256.00	7	259.00	8	262.00
9	265.00	10	268.00	11	271.00	12	274.00	13	277.00	14	279.00	15	280.00	16	281.00
17	282.00	18	281.20	19	281.70	20	282.00	21	283.00	22	284.00	23	286.00	24	286.00
25	287.00	26	230.00	27	230.00	28	230.00	29	230.00	30	230.00	31	230.00	32	230.00
33	230.00	34	230.00	35	290.10	36	290.20	37	290.30	38	290.40	39	290.50	40	290.60
41	290.70	42	290.80	43	291.00	44	291.20	45	291.40	46	291.50	47	291.70	48	291.80
49	292.00	50	293.00	51	295.00	52	295.00	53	295.00	54	295.00	55	295.00	56	295.00
57	295.00	58	295.00	59	295.00	60	295.00	61	295.00						

HYDROGEOLOGICAL PARAMETERS OF THE SPOIL

UNIT	Kh	Kv	STOR.	POROSITY	DISPER.	CEC	BULK DEN.
1	0.1000E+02	0.0	0.0	0.0	0.0	0.0	0.0
2	0.3160E+03	0.3160E+03	0.5000E-03	0.1000E+00	0.5000E+01	0.1000E+00	0.1000E+01
3	0.9480E+04	0.9480E+04	0.5000E-03	0.1000E+00	0.5000E+01	0.1000E+00	0.1000E+01
4	0.3160E+02	0.3160E+02	0.5000E-02	0.1000E+00	0.5000E+01	0.1000E+00	0.1000E+01

MAP OF THE SPOIL AND GEOLOGICAL UNITS

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GROUND ELEVATION FOLLOWING RECLAMATION

COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION	COL	ELEVATION
1	250.00	2	251.00	3	252.00	4	253.00	5	254.00	6	256.00	7	259.00	8	262.00
9	265.00	10	268.00	11	271.00	12	274.00	13	277.00	14	279.00	15	280.00	16	281.00
17	282.00	18	281.20	19	281.70	20	282.00	21	283.00	22	284.00	23	286.00	24	286.00
25	287.00	26	290.60	27	291.20	28	289.20	29	291.80	30	291.80	31	289.50	32	285.00
33	280.00	34	280.00	35	285.00	36	290.20	37	290.30	38	290.40	39	290.50	40	290.60
41	290.70	42	290.80	43	291.00	44	291.20	45	291.40	46	291.50	47	291.70	48	291.80
49	292.00	50	293.00	51	295.00	52	295.00	53	295.00	54	295.00	55	295.00	56	295.00
57	295.00	58	295.00	59	295.00	60	295.00	61	295.00						

STEADY STATE CONVERGENCE; ERROR:183.889 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 8.00 TIME STEP: 1

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.343	2	230.340	3	230.333	4	230.322	5	230.306	6	230.285	7	230.259	8	23 128
9	230.193	10	230.162	11	230.107	12	230.056	13	230.000	14	230.000	15	230.000	16	23 47
17	232.447	18	232.448	19	232.449	20	232.451	21	232.454	22	232.458	23	232.462	24	23 67
25	232.473	26	232.479	27	232.487	28	232.495	29	232.505	30	232.519	31	233.980	32	23 .80
33	233.981	34	233.982	35	233.984	36	233.986	37	233.989	38	233.992	39	233.995	40	234.000
41	234.004	42	234.009	43	234.015	44	234.021	45	234.027	46	234.027	47	235.053	48	235.053
49	235.054	50	235.054	51	235.055	52	235.055	53	235.056	54	235.057	55	235.058	56	235.059
57	235.061	58	235.062	59	235.064	60	235.066	61	235.068	62	235.068	63	235.954	64	23 54
65	235.954	66	235.955	67	235.955	68	235.955	69	235.956	70	235.957	71	235.957	72	23 58
73	235.959	74	235.960	75	235.961	76	235.962	77	235.963	78	235.963	79	236.733	80	23 33
81	236.733	82	236.733	83	236.733	84	236.733	85	236.734	86	236.734	87	236.734	88	23 35
89	236.736	90	236.736	91	236.737	92	236.738	93	236.738	94	236.738	95	237.411	96	237.411
97	237.411	98	237.411	99	237.411	100	237.411	101	237.411	102	237.411	103	237.412	104	237.412
105	237.412	106	237.413	107	237.413	108	237.414	109	237.414	110	237.414	111	238.003	112	238.003
113	238.003	114	238.003	115	238.003	116	238.003	117	238.003	118	238.003	119	238.003	120	23 04
121	238.004	122	238.004	123	238.004	124	238.005	125	238.005	126	238.005	127	238.518	128	23 15
129	238.519	130	238.519	131	238.519	132	238.519	133	238.520	134	238.520	135	238.520	136	23 20
137	238.520	138	238.520	139	238.520	140	238.520	141	238.520	142	238.520	143	238.968	144	23 68
145	238.968	146	238.968	147	238.968	148	238.968	149	238.968	150	238.968	151	238.968	152	238.968
153	238.968	154	238.968	155	238.968	156	238.968	157	238.968	158	238.969	159	239.355	160	239.355
161	239.355	162	239.355	163	239.355	164	239.355	165	239.355	166	239.355	167	239.355	168	239.355
169	239.355	170	239.355	171	239.355	172	239.355	173	239.355	174	239.355	175	239.685	176	23 85
177	239.685	178	239.685	179	239.685	180	239.685	181	239.685	182	239.685	183	239.685	184	23 85
185	239.685	186	239.685	187	239.685	188	239.685	189	239.685	190	239.685	191	239.962	192	23 62
193	239.962	194	239.962	195	239.962	196	239.962	197	239.962	198	239.962	199	239.962	200	23 62
201	239.962	202	239.962	203	239.961	204	239.961	205	239.961	206	239.961	207	240.189	208	240.189
209	240.189	210	240.189	211	240.189	212	240.188	213	240.189	214	240.189	215	240.188	216	240.189
217	240.189	218	240.189	219	240.188	220	240.188	221	240.188	222	240.188	223	240.389	224	240.389
225	240.389	226	240.389	227	240.389	228	240.389	229	240.389	230	240.389	231	240.389	232	24 89
233	240.389	234	240.389	235	240.389	236	240.388	237	240.388	238	240.388	239	240.505	240	24 05
241	240.505	242	240.505	243	240.505	244	240.505	245	240.505	246	240.505	247	240.505	248	24 05
249	240.505	250	240.505	251	240.504	252	240.504	253	240.504	254	240.504	255	240.599	256	24 99
257	240.599	258	240.599	259	240.599	260	240.599	261	240.599	262	240.599	263	240.599	264	240.599
265	240.599	266	240.599	267	240.598	268	240.598	269	240.598	270	240.598	271	240.653	272	240.653
273	240.653	274	240.653	275	240.653	276	240.653	277	240.653	278	240.653	279	240.653	280	240.653
281	240.653	282	240.653	283	240.653	284	240.653	285	240.653	286	240.653	287	240.670	288	24 70
289	240.670	290	240.670	291	240.670	292	240.670	293	240.670	294	240.670	295	240.670	296	24 70
297	240.670	298	240.670	299	240.671	300	240.671	301	240.671	302	240.671	303	240.852	304	24 52
305	240.852	306	240.852	307	240.852	308	240.852	309	240.852	310	240.853	311	240.853	312	24 53
313	240.853	314	240.853	315	240.853	316	240.853	317	240.853	318	240.853	319	240.802	320	240.802
321	240.802	322	240.802	323	240.802	324	240.802	325	240.802	326	240.802	327	240.802	328	240.802
329	240.603	330	240.603	331	240.603	332	240.603	333	240.603	334	240.603	335	240.521	336	240.521
337	240.521	338	240.521	339	240.521	340	240.521	341	240.522	342	240.522	343	240.522	344	24 22
345	240.522	346	240.523	347	240.523	348	240.523	349	240.523	350	240.524	351	240.413	352	24 13
353	240.413	354	240.413	355	240.413	356	240.414	357	240.414	358	240.414	359	240.414	360	24 15
361	240.415	362	240.415	363	240.416	364	240.416	365	240.417	366	240.417	367	240.280	368	24 80
369	240.280	370	240.280	371	240.280	372	240.280	373	240.281	374	240.281	375	240.282	376	240.282
377	240.283	378	240.284	379	240.284	380	240.285	381	240.285	382	240.286	383	240.100	384	240.10
385	240.101	386	240.102	387	240.104	388	240.106	389	240.108	390	240.111	391	240.114	392	240.11
393	240.121	394	240.126	395	240.131	396	240.136	397	240.142	398	240.142	399	239.584	400	23 58
401	239.584	402	239.584	403	239.585	404	239.585	405	239.585	406	239.586	407	239.587	408	23 58
409	239.588	410	239.589	411	239.590	412	239.590	413	239.591	414	239.803	415	239.078	416	23 07
417	239.079	418	239.080	419	239.080	420	239.080	421	239.080	422	239.081	423	239.081	424	23 08
425	239.082	426	239.083	427	239.083	428	239.084	429	239.085	430	239.096	431	238.860	432	238.66

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
433	238.860	434	238.860	435	238.860	436	238.861	437	238.861	438	238.861	439	238.862	440	238.66
441	238.862	442	238.863	443	238.863	444	238.864	445	238.865	446	238.875	447	238.397	448	238.39
449	238.397	450	238.397	451	238.397	452	238.397	453	238.397	454	238.397	455	238.397	456	238.39
457	238.397	458	238.397	459	238.398	460	238.398	461	238.398	462	238.408	463	238.385	464	23 38
465	238.385	466	238.385	467	238.385	468	238.385	469	238.385	470	238.385	471	238.384	472	23 38
473	238.384	474	238.384	475	238.384	476	238.384	477	238.384	478	238.394	479	238.728	480	23 72
481	238.727	482	238.727	483	238.727	484	238.727	485	238.727	486	238.726	487	238.726	488	23 72
489	238.725	490	238.724	491	238.724	492	238.723	493	238.723	494	238.734	495	239.564	496	239.56
497	239.563	498	239.563	499	239.562	500	239.562	501	239.561	502	239.560	503	239.558	504	239.55
505	239.555	506	239.554	507	239.552	508	239.550	509	239.548	510	239.560	511	241.135	512	241.13
513	241.135	514	241.134	515	241.133	516	241.132	517	241.131	518	241.129	519	241.127	520	24 12
521	241.122	522	241.119	523	241.118	524	241.113	525	241.110	526	241.122	527	243.730	528	24 73
529	243.729	530	243.727	531	243.725	532	243.722	533	243.718	534	243.713	535	243.708	536	24 70
537	243.695	538	243.687	539	243.677	540	243.667	541	243.655	542	243.585	543	243.590	544	24 80
545	247.911	546	247.917	547	247.828	548	247.943	549	247.862	550	247.988	551	248.014	552	248.04
553	248.083	554	248.125	555	248.171	556	248.222	557	248.277	558	248.336	559	248.339	560	248.34
561	249.358	562	249.359	563	249.361	564	249.363	565	249.367	566	249.371	567	249.377	568	249.38
569	249.390	570	249.398	571	249.408	572	249.418	573	249.428	574	249.440	575	249.452	576	24 15
577	249.452	578	250.617	579	250.617	580	250.618	581	250.620	582	250.622	583	250.624	584	24 52
585	250.631	586	250.635	587	250.640	588	250.645	589	250.651	590	250.658	591	250.664	592	24 67
593	250.672	594	250.672	595	251.877	596	251.877	597	251.878	598	251.878	599	251.880	600	24 88
601	251.883	602	251.885	603	251.888	604	251.891	605	251.894	606	251.898	607	251.902	608	251.90
609	251.910	610	251.910	611	251.910	612	253.191	613	253.191	614	253.192	615	253.192	616	253.19
617	253.194	618	253.195	619	253.196	620	253.198	621	253.200	622	253.202	623	253.204	624	253.20
625	253.209	626	253.212	627	253.212	628	253.212	629	253.212	630	254.573	631	254.573	632	24 57
633	254.574	634	254.575	635	254.575	636	254.577	637	254.578	638	254.578	639	254.581	640	24 58
641	254.585	642	254.588	643	254.590	644	254.593	645	254.593	646	254.593	647	254.594	648	24 95
649	255.957	650	255.957	651	255.958	652	255.958	653	255.959	654	255.960	655	255.961	656	24 96
657	255.963	658	255.965	659	255.968	660	255.968	661	255.970	662	255.972	663	255.972	664	255.97
665	255.974	666	257.327	667	257.327	668	257.327	669	257.328	670	257.328	671	257.328	672	257.32
673	257.330	674	257.330	675	257.331	676	257.332	677	257.333	678	257.334	679	257.336	680	257.33
681	257.337	682	257.337	683	257.339	684	258.670	685	258.670	686	258.670	687	258.670	688	24 87
689	258.670	690	258.671	691	258.671	692	258.671	693	258.672	694	258.672	695	258.673	696	2 87
697	258.674	698	258.675	699	258.675	700	258.675	701	258.677	702	258.873	703	259.873	704	2 97
705	259.873	706	259.873	707	259.873	708	259.873	709	259.874	710	259.874	711	259.874	712	2 97
713	259.874	714	259.874	715	259.874	716	259.874	717	259.874	718	259.874	719	259.877	720	261.22
721	261.228	722	261.228	723	261.228	724	261.228	725	261.228	726	261.227	727	261.227	728	261.22
729	261.227	730	261.226	731	261.226	732	261.228	733	261.225	734	261.225	735	261.225	736	261.22
737	261.228	738	262.425	739	262.425	740	262.425	741	262.425	742	262.424	743	262.424	744	2 42
745	262.423	746	262.423	747	262.422	748	262.422	749	262.421	750	262.420	751	262.418	752	2 41
753	262.418	754	262.418	755	262.422	756	263.557	757	263.557	758	263.557	759	263.557	760	2 55
761	263.556	762	263.556	763	263.555	764	263.554	765	263.554	766	263.553	767	263.552	768	2 55
769	263.550	770	263.548	771	263.548	772	263.548	773	263.551	774	263.552	775	264.818	776	264.81
777	264.817	778	264.817	779	264.817	780	264.816	781	264.815	782	264.816	783	264.814	784	264.81
785	264.812	786	264.810	787	264.809	788	264.808	789	264.806	790	264.808	791	264.806	792	264.80
793	264.810	794	265.598	795	265.599	796	265.598	797	265.598	798	265.598	799	265.587	800	2 59
801	265.595	802	265.594	803	265.593	804	265.592	805	265.590	806	265.589	807	265.587	808	2 58
809	265.585	810	265.585	811	265.588	812	265.588	813	266.498	814	266.496	815	266.495	816	2 49
817	266.494	818	266.494	819	266.493	820	266.492	821	266.490	822	266.488	823	266.488	824	2 48
825	266.484	826	266.482	827	266.480	828	266.480	829	266.480	830	266.482	831	266.484	832	267.30
833	267.304	834	267.303	835	267.303	836	267.302	837	267.301	838	267.300	839	267.298	840	267.29
841	267.296	842	267.294	843	267.293	844	267.290	845	267.288	846	267.288	847	267.286	848	267.28
849	267.288	850	267.290	851	268.018	852	268.018	853	268.018	854	268.017	855	268.016	856	2 01
857	268.014	858	268.013	859	268.012	860	268.010	861	268.008	862	268.006	863	268.004	864	2 00
865	267.998	866	267.998	867	267.998	868	268.001	869	268.003	870	268.635	871	268.635	872	2 63
873	268.634	874	268.633	875	268.632	876	268.631	877	268.630	878	268.628	879	268.628	880	2 62
881	268.622	882	268.619	883	268.616	884	268.613	885	268.613	886	268.613	887	268.616	888	268.61
889	269.151	890	269.151	891	269.151	892	269.150	893	269.149	894	269.148	895	269.147	896	269.14
897	269.144	898	269.142	899	269.138	900	269.137	901	269.134	902	269.131	903	269.128	904	269.12
905	269.128	906	269.131	907	269.133	908	269.583	909	268.583	910	269.582	911	269.582	912	2 56

913	269.560	914	269.558	915	269.557	916	269.555	917	269.553	918	269.550	919	269.547	920	269.545
921	269.541	922	269.538	923	269.538	924	269.538	925	269.541	926	269.543	927	269.888	928	269.86E
929	269.885	930	269.885	931	269.884	932	269.883	933	269.881	934	269.859	935	269.857	936	269.85E
937	269.853	938	269.850	939	269.847	940	269.843	941	269.840	942	269.840	943	269.840	944	269.842
945	269.845	946	270.057	947	270.057	948	270.058	949	270.058	950	270.055	951	270.053	952	270.052
953	270.050	954	270.048	955	270.045	956	270.043	957	270.040	958	270.036	959	270.033	960	270.029
961	270.029	962	270.029	963	270.032	964	270.034	965	270.132	966	270.131	967	270.131	968	270.130
969	270.129	970	270.128	971	270.126	972	270.124	973	270.122	974	270.119	975	270.118	976	270.113
977	270.110	978	270.108	979	270.102	980	270.102	981	270.102	982	270.104	983	270.107	984	270.088
985	270.085	986	270.085	987	270.084	988	270.083	989	270.082	990	270.080	991	270.078	992	270.075
993	270.072	994	270.069	995	270.066	996	270.062	997	270.058	998	270.054	999	270.053	1000	270.054
1001	270.056	1002	270.059	1003	269.918	1004	269.918	1005	269.917	1006	269.916	1007	269.915	1008	269.913
1009	269.911	1010	269.908	1011	269.905	1012	269.902	1013	269.888	1014	269.894	1015	269.889	1016	269.885
1017	269.879	1018	269.879	1019	269.879	1020	269.882	1021	269.884	1022	269.672	1023	269.672	1024	269.670
1025	269.868	1026	269.864	1027	269.859	1028	269.854	1028	269.647	1030	269.638	1031	269.630	1032	269.620
1033	269.609	1034	269.596	1035	269.583	1036	269.568	1037	269.567	1038	269.566	1039	269.551	1040	269.557

NODES ALONG THE WATER TABLE

15	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254	270	286	302	318	334	350	366	382	398	
414	430	446	462	478	494	510	526	543	560	577	594	611	629	647	665	683	701	719	737	755	774	793	812	831	
850	869	888	907	926	945	964	983	1002	1021	1040															

RESULTS OF THE MASS TRANSPORT SIMULATION

TIME: 8.00
TIME STEP: 1

30 PARTICLES HAVE BEEN ADDED TO THE SYSTEM
5 PARTICLES ADDED DURING THIS TIME STEP
30 PARTICLES PRESENT IN THE FLOW SYSTEM
0 PARTICLES HAVE LEFT THE REGION OF MOVEMENT
0 PARTICLES HAVE LEFT THE FLOW SYSTEM

DISTRIBUTION OF REFERENCE PARTICLES

	VERTICAL CELLS																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
14:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
17:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
20:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:	0	0	0	0	0	0	0	0	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
23:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25:	0	0	0	0	0	0	0	0	0	0	0	2	1	1	4	0	0	0	0	0	0	0
26:	0	0	0	0	0	0	0	0	0	0	0	0	1	5	1	0	0	0	0	0	0	0
27:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0
28:	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	0	0	0	0
30:	0	0	0	0	0	0	0	0	0	0	0	0	0	2	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
32:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
34:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0
37:	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	0	0	0	0	0	0	0	0
39:	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	0	0	0	0	0	0	0	0
41:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53:	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	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	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	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	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
59:	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

DISTRIBUTION OF NON-MOVING REFERENCE PARTICLES

	VERTICAL CELLS																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
14:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
17:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
20:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:	0	0	0	0	0	0	0	0	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
23:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24:	0	0	0	0	0	0	0	0	0	0	0	0	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
26:	0	0	0	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
28:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	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
31:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0
34:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0
37:	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	0	0	0	0	0	0	0	0
39:	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	0	0	0	0	0	0	0	0
41:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53:	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	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	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	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	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
59:	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

CONCENTRATION DISTRIBUTION

	VERTICAL CELLS 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
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
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
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
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
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
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
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
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
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
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
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
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
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
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	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	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	0.0	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	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	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	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.00	0.00	0.01	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	0.00	0.02	0.00	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	0.01	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	0.01	0.00	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	0.01	0.01	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	0.01	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	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	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	0.0	0.0	0.0	0.0	0.0	0.00	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	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	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0

STEADY STATE CONVERGENCE; ERROR:132.737 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 12.00 TIME STEP: 2

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.315	2	230.313	3	230.307	4	230.298	5	230.281	6	230.252	7	230.238	8	230.21
9	230.178	10	230.140	11	230.088	12	230.052	13	230.000	14	230.000	15	230.000	16	232.24
17	232.241	18	232.242	19	232.243	20	232.245	21	232.248	22	232.251	23	232.254	24	232.25
25	232.264	26	232.270	27	232.276	28	232.284	29	232.292	30	232.304	31	233.677	32	233.67
33	233.678	34	233.679	35	233.681	36	233.683	37	233.685	38	233.688	39	233.691	40	233.69
41	233.699	42	233.704	43	233.708	44	233.715	45	233.721	46	233.721	47	234.701	48	234.70
49	234.701	50	234.701	51	234.702	52	234.703	53	234.703	54	234.704	55	234.706	56	234.70
57	234.708	58	234.710	59	234.712	60	234.714	61	234.716	62	234.716	63	235.569	64	235.56
65	235.569	66	235.569	67	235.569	68	235.570	69	235.570	70	235.571	71	235.572	72	235.57
73	235.574	74	235.575	75	235.576	76	235.577	77	235.578	78	235.579	79	236.327	80	236.32
81	236.327	82	236.327	83	236.328	84	236.328	85	236.328	86	236.329	87	236.329	88	236.33
89	236.331	90	236.332	91	236.333	92	236.334	93	236.335	94	236.335	95	236.997	96	236.99
97	236.998	98	236.998	99	236.998	100	236.998	101	236.999	102	236.999	103	236.999	104	237.00
105	237.001	106	237.001	107	237.002	108	237.003	109	237.004	110	237.004	111	237.594	112	237.59
113	237.595	114	237.595	115	237.595	116	237.595	117	237.595	118	237.596	119	237.596	120	237.59
121	237.597	122	237.598	123	237.598	124	237.599	125	237.600	126	237.600	127	238.129	128	238.12
129	238.128	130	238.129	131	238.129	132	238.129	133	238.129	134	238.130	135	238.130	136	238.13
137	238.131	138	238.131	139	238.132	140	238.132	141	238.133	142	238.133	143	238.807	144	238.80
145	238.807	146	238.808	147	238.808	148	238.808	149	238.808	150	238.808	151	238.809	152	238.80
153	238.809	154	238.810	155	238.810	156	238.811	157	238.811	158	238.811	159	239.037	160	239.03
161	239.037	162	239.037	163	239.038	164	239.038	165	239.038	166	239.038	167	239.038	168	239.03
169	239.039	170	239.039	171	238.040	172	239.040	173	239.041	174	239.041	175	239.423	176	239.42
177	238.423	178	239.423	179	239.423	180	238.424	181	239.424	182	239.424	183	239.424	184	238.42
185	239.425	186	239.425	187	239.426	188	239.426	189	239.426	190	239.428	191	239.769	192	239.76
193	239.769	194	239.769	195	239.769	196	239.770	197	239.770	198	239.770	199	239.770	200	239.77
201	238.771	202	239.771	203	239.772	204	239.772	205	238.772	206	239.772	207	240.078	208	240.07
209	240.078	210	240.078	211	240.078	212	240.080	213	240.080	214	240.080	215	240.080	216	240.08
217	240.081	218	240.081	219	240.081	220	240.082	221	240.082	222	240.082	223	240.356	224	240.35
225	240.356	226	240.356	227	240.356	228	240.356	229	240.357	230	240.357	231	240.357	232	240.35
233	240.358	234	240.358	235	240.358	236	240.359	237	240.358	238	240.359	239	240.603	240	240.60
241	240.603	242	240.603	243	240.603	244	240.603	245	240.603	246	240.604	247	240.604	248	240.60
249	240.605	250	240.605	251	240.605	252	240.606	253	240.606	254	240.606	255	240.822	256	240.82
257	240.822	258	240.822	259	240.822	260	240.823	261	240.823	262	240.823	263	240.823	264	240.82
265	240.824	266	240.824	267	240.825	268	240.825	269	240.826	270	240.826	271	241.017	272	241.01
273	241.017	274	241.017	275	241.017	276	241.017	277	241.017	278	241.018	279	241.018	280	241.01
281	241.019	282	241.019	283	241.019	284	241.020	285	241.021	286	241.021	287	241.189	288	241.18
289	241.189	290	241.188	291	241.189	292	241.189	293	241.189	294	241.190	295	241.190	296	241.19
297	241.191	298	241.191	299	241.192	300	241.192	301	241.193	302	241.193	303	241.340	304	241.34
305	241.341	306	241.341	307	241.341	308	241.341	309	241.341	310	241.342	311	241.342	312	241.34
313	241.343	314	241.343	315	241.344	316	241.344	317	241.345	318	241.345	319	241.475	320	241.47
321	241.475	322	241.475	323	241.475	324	241.475	325	241.476	326	241.476	327	241.476	328	241.47
329	241.477	330	241.478	331	241.478	332	241.479	333	241.480	334	241.480	335	241.583	336	241.59
337	241.594	338	241.594	339	241.594	340	241.594	341	241.594	342	241.595	343	241.595	344	241.59
345	241.598	346	241.597	347	241.598	348	241.598	349	241.599	350	241.599	351	241.699	352	241.69
353	241.700	354	241.700	355	241.700	356	241.700	357	241.700	358	241.701	359	241.701	360	241.70
361	241.702	362	241.703	363	241.704	364	241.705	365	241.705	366	241.705	367	241.795	368	241.79
369	241.795	370	241.795	371	241.795	372	241.797	373	241.797	374	241.797	375	241.798	376	241.79
377	241.799	378	241.799	379	241.800	380	241.800	381	241.801	382	241.801	383	241.900	384	241.90
385	241.900	386	241.900	387	241.899	388	241.888	389	241.898	390	241.897	391	241.896	392	241.89
393	241.883	394	241.891	395	241.890	396	241.888	397	241.886	398	241.886	399	242.197	400	242.19
401	242.197	402	242.197	403	242.197	404	242.197	405	242.198	406	242.198	407	242.198	408	242.19
409	242.199	410	242.200	411	242.200	412	242.201	413	242.202	414	242.217	415	242.540	416	242.54
417	242.540	418	242.541	419	242.541	420	242.541	421	242.541	422	242.541	423	242.541	424	242.54
425	242.542	426	242.542	427	242.543	428	242.543	429	242.543	430	242.559	431	242.982	432	242.98

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
433	242.982	434	242.982	435	242.982	436	242.981	437	242.981	438	242.981	439	242.981	440	242.98
441	242.980	442	242.979	443	242.979	444	242.978	445	242.978	446	242.980	447	242.984	448	243.61
449	243.615	450	243.615	451	243.615	452	243.615	453	243.614	454	243.614	455	243.614	456	243.61
457	243.612	458	243.612	459	243.611	460	243.610	461	243.609	462	243.608	463	243.608	464	243.61
465	244.504	466	244.504	467	244.504	468	244.503	469	244.503	470	244.503	471	244.502	472	244.50
473	244.500	474	244.499	475	244.498	476	244.497	477	244.496	478	244.495	479	244.493	480	244.49
481	244.496	482	245.710	483	245.710	484	245.710	485	245.710	486	245.709	487	245.709	488	245.70
489	245.707	490	245.706	491	245.704	492	245.703	493	245.702	494	245.700	495	245.698	496	245.69
497	245.690	498	245.697	499	247.299	500	247.299	501	247.298	502	247.298	503	247.297	504	247.29
505	247.296	506	247.294	507	247.293	508	247.291	509	247.290	510	247.288	511	247.286	512	247.28
513	247.281	514	247.271	515	247.281	516	249.331	517	249.330	518	249.330	519	249.330	520	249.32
521	249.326	522	249.327	523	249.325	524	249.324	525	249.322	526	249.320	527	249.318	528	249.31
529	249.312	530	249.309	531	249.298	532	249.309	533	251.850	534	251.850	535	251.850	536	251.84
537	251.849	538	251.848	539	251.847	540	251.846	541	251.844	542	251.843	543	251.841	544	251.83
545	251.836	546	251.832	547	251.829	548	251.808	549	251.824	550	254.811	551	254.812	552	254.81
553	254.822	554	254.832	555	254.843	556	254.858	557	254.875	558	254.895	559	254.918	560	254.94
561	254.972	562	255.003	563	255.038	564	255.075	565	255.077	566	255.078	567	255.079	568	255.65
569	255.654	570	255.655	571	255.656	572	255.657	573	255.659	574	255.661	575	255.664	576	255.66
577	255.670	578	255.674	579	255.678	580	255.682	581	255.686	582	255.691	583	255.691	584	255.69
585	255.692	586	256.345	587	256.346	588	256.345	589	256.348	590	256.346	591	256.347	592	256.34
593	256.350	594	256.351	595	256.353	596	256.355	597	256.357	598	256.360	599	256.362	600	256.36
601	256.365	602	256.365	603	256.368	604	257.051	605	257.051	606	257.052	607	257.052	608	257.05
609	257.053	610	257.054	611	257.056	612	257.057	613	257.059	614	257.060	615	257.062	616	257.06
617	257.066	618	257.069	619	257.069	620	257.068	621	257.070	622	257.761	623	257.761	624	257.76
625	257.782	626	257.782	627	257.783	628	257.784	629	257.785	630	257.786	631	257.788	632	257.78
633	257.781	634	257.793	635	257.795	636	257.797	637	257.797	638	257.797	639	257.798	640	258.51
641	258.528	642	258.530	643	258.530	644	258.531	645	258.531	646	258.532	647	258.533	648	258.53
649	258.536	650	258.537	651	258.539	652	258.541	653	258.543	654	258.545	655	258.545	656	258.54
657	258.547	658	259.278	659	259.278	660	259.279	661	259.279	662	259.279	663	259.280	664	259.28
665	259.282	666	259.283	667	259.284	668	259.285	669	259.287	670	259.288	671	259.290	672	259.29
673	259.292	674	259.292	675	259.294	676	260.022	677	260.022	678	260.022	679	260.022	680	260.02
681	260.023	682	260.024	683	260.025	684	260.026	685	260.027	686	260.028	687	260.028	688	260.03
689	260.032	690	260.034	691	260.034	692	260.034	693	260.036	694	260.755	695	260.755	696	260.75
697	260.758	698	260.758	699	260.757	700	260.757	701	260.758	702	260.759	703	260.759	704	260.76
705	260.761	706	260.763	707	260.764	708	260.765	708	260.765	710	260.765	711	260.768	712	261.47
713	261.474	714	261.474	715	261.474	716	261.476	717	261.475	718	261.475	719	261.476	720	261.47
721	261.477	722	261.478	723	261.479	724	261.480	725	261.481	726	261.482	727	261.482	728	261.48
729	261.485	730	262.173	731	262.173	732	262.173	733	262.173	734	262.173	735	262.174	736	262.17
737	262.175	738	262.175	739	262.176	740	262.176	741	262.177	742	262.178	743	262.178	744	262.17
745	262.179	746	262.179	747	262.182	748	262.848	749	262.848	750	262.849	751	262.849	752	262.84
753	262.849	754	262.849	755	262.850	756	262.850	757	262.850	758	262.851	759	262.851	760	262.85
761	262.853	762	262.853	763	262.853	764	262.853	765	262.856	766	262.857	767	263.497	768	263.49
769	263.497	770	263.497	771	263.497	772	263.497	773	263.497	774	263.497	775	263.498	776	263.49
777	263.498	778	263.498	779	263.499	780	263.499	781	263.500	782	263.500	783	263.500	784	263.50
785	263.503	786	264.113	787	264.113	788	264.113	789	264.113	790	264.113	791	264.113	792	264.11
793	264.114	794	264.114	795	264.114	796	264.114	797	264.114	798	264.115	799	264.115	800	264.11
801	264.115	802	264.115	803	264.118	804	264.119	805	264.695	806	264.695	807	264.695	808	264.69
809	264.695	810	264.695	811	264.695	812	264.695	813	264.695	814	264.695	815	264.695	816	264.69
817	264.695	818	264.696	819	264.696	820	264.698	821	264.696	822	264.698	823	264.699	824	265.23
825	265.239	826	265.239	827	265.239	828	265.239	829	265.239	830	265.239	831	265.239	832	265.23
833	265.238	834	265.238	835	265.238	836	265.238	837	265.238	838	265.238	839	265.238	840	265.23
841	265.241	842	265.242	843	265.742	844	265.742	845	265.742	846	265.742	847	265.741	848	265.74
849	265.741	850	265.741	851	265.741	852	265.741	853	265.741	854	265.741	855	265.741	856	265.74
857	265.740	858	265.740	859	265.740	860	265.743	861	265.744	862	266.201	863	266.201	864	266.20
865	266.201	866	266.201	867	266.201	868	266.201	869	266.201	870	266.201	871	266.200	872	266.20
873	266.200	874	266.200	875	266.199	876	266.199	877	266.199	878	266.199	879	266.202	880	266.20
881	266.616	882	266.616	883	266.616	884	266.616	885	266.615	886	266.615	887	266.615	888	266.61
889	266.615	890	266.614	891	266.614	892	266.614	893	266.614	894	266.613	895	266.613	896	266.6
897	266.613	898	266.616	899	266.617	900	266.983	901	266.983	902	266.983	903	266.983	904	266.98
905	266.983	906	266.983	907	266.982	908	266.982	909	266.982	910	266.982	911	266.981	912	266.98

913	286.880	914	286.880	915	286.880	916	286.880	917	286.883	918	286.884	919	287.303	920	2	30
921	287.303	922	287.303	923	287.303	924	287.302	925	287.302	926	287.302	927	287.302	928	2	30
929	287.301	930	287.301	931	287.300	932	287.300	933	287.298	934	287.298	935	287.298	936	2	30
937	287.304	938	287.574	939	287.574	940	287.574	941	287.574	942	287.574	943	287.573	944	287.57
945	287.573	946	287.573	947	287.572	948	287.572	949	287.572	950	287.571	951	287.571	952	287.57
953	287.570	954	287.570	955	287.573	956	287.575	957	287.796	958	287.796	959	287.796	960	287.79
961	287.786	962	287.795	963	287.795	964	287.795	965	287.795	966	287.794	967	287.794	968	2	79
969	287.783	970	287.783	971	287.782	972	287.782	973	287.782	974	287.795	975	287.787	976	2	95
977	287.969	978	287.969	979	287.969	980	287.969	981	287.969	982	287.969	983	287.968	984	2	95
985	287.958	986	287.958	987	287.957	988	287.957	989	287.957	990	287.956	991	287.956	992	2	95
993	287.969	994	287.971	995	288.095	996	288.095	997	288.095	998	288.095	999	288.095	1000	288.09
1001	288.094	1002	288.094	1003	288.094	1004	288.094	1005	288.094	1006	288.093	1007	288.093	1008	288.09
1009	288.092	1010	288.092	1011	288.092	1012	288.095	1013	288.097	1014	288.174	1015	288.174	1016	288 17
1017	288.174	1018	288.174	1019	288.174	1020	288.174	1021	288.174	1022	288.174	1023	288.173	1024	2	17
1025	288.173	1026	288.173	1027	288.173	1028	288.172	1029	288.172	1030	288.172	1031	288.175	1032	2	17
1033	288.207	1034	288.207	1035	288.207	1036	288.207	1037	288.207	1038	288.207	1039	288.207	1040	2	20
1041	288.207	1042	288.208	1043	288.208	1044	288.208	1045	288.208	1046	288.208	1047	288.209	1048	2	20
1049	288.209	1050	288.214	1051	288.218											

NODES ALONG THE WATER TABLE

15	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254	270	286	302	318	334	350	366	382	398
414	430	447	464	481	498	515	532	549	567	585	603	621	639	657	675	693	711	729	747	766	785	804	823	842
861	880	899	918	937	956	975	994	1013	1032	1051														

RESULTS OF THE MASS TRANSPORT SIMULATION

TIME: 12.00
TIME STEP: 2

35 PARTICLES HAVE BEEN ADDED TO THE SYSTEM
5 PARTICLES ADDED DURING THIS TIME STEP
35 PARTICLES PRESENT IN THE FLOW SYSTEM
0 PARTICLES HAVE LEFT THE REGION OF MOVEMENT
0 PARTICLES HAVE LEFT THE FLOW SYSTEM

DISTRIBUTION OF REFERENCE PARTICLES

	VERTICAL CELLS																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
14:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
17:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
20:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:	0	0	0	0	0	0	0	0	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
23:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25:	0	0	0	0	0	0	0	0	0	0	0	2	1	2	3	0	0	0	0	0	0	0
26:	0	0	0	0	0	0	0	0	0	0	0	1	0	8	1	0	0	0	0	0	0	0
27:	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0
28:	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0
30:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	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
32:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
34:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0
37:	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	0	0	0	0	0	0	0	0
39:	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	0	0	0	0	0	0	0	0
41:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53:	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	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	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	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	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
59:	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

DISTRIBUTION OF NON-MOVING REFERENCE PARTICLES

	VERTICAL CELLS																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
14:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
17:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
20:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:	0	0	0	0	0	0	0	0	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
23:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24:	0	0	0	0	0	0	0	0	0	0	0	0	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
26:	0	0	0	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
28:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	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
31:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0
34:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0
37:	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	0	0	0	0	0	0	0	0
39:	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	0	0	0	0	0	0	0	0
41:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53:	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	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	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	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	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
59:	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

CONCENTRATION DISTRIBUTION

	VERTICAL CELLS																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
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
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
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
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
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
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
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
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
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
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
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
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
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
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	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	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	0.0	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	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	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	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.00	0.01	0.01	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	0.00	0.0	0.02	0.00	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	0.01	0.01	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	0.00	0.01	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	0.01	0.01	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	0.01	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	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	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	0.0	0.0	0.0	0.0	0.00	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	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	0.0	0.0	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	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	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	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0

STEADY STATE CONVERGENCE; ERROR:161.414 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 20.00 TIME STEP: 3

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.348	2	230.346	3	230.339	4	230.327	5	230.310	6	230.289	7	230.263	8	23[illegible] 132
9	230.195	10	230.155	11	230.109	12	230.057	13	230.000	14	230.000	15	230.000	16	23[illegible] 165
17	232.466	18	232.467	19	232.468	20	232.470	21	232.473	22	232.477	23	232.481	24	23[illegible] 186
25	232.492	26	232.499	27	232.507	28	232.516	29	232.526	30	232.540	31	234.022	32	23[illegible] 022
33	234.023	34	234.024	35	234.026	36	234.028	37	234.031	38	234.034	39	234.038	40	234.042
41	234.047	42	234.052	43	234.058	44	234.065	45	234.072	46	234.072	47	235.128	48	235.128
49	235.128	50	235.129	51	235.129	52	235.130	53	235.131	54	235.132	55	235.134	56	235.135
57	235.137	58	235.139	59	235.141	60	235.143	61	235.145	62	235.148	63	236.076	64	23[illegible] 076
65	236.077	66	236.077	67	236.077	68	236.078	69	236.079	70	236.079	71	236.080	72	23[illegible] 081
73	236.083	74	236.084	75	236.086	76	236.087	77	236.088	78	236.089	79	236.917	80	23[illegible] 117
81	236.918	82	236.918	83	236.918	84	236.919	85	236.919	86	238.920	87	236.921	88	23[illegible] 122
89	236.923	90	236.924	91	236.925	92	236.926	93	236.928	94	236.928	95	237.874	96	237.674
97	237.675	98	237.675	99	237.675	100	237.675	101	237.676	102	237.677	103	237.677	104	237.678
105	237.679	106	237.680	107	237.681	108	237.682	109	237.683	110	237.883	111	238.363	112	238.363
113	238.363	114	238.363	115	238.363	116	238.364	117	238.364	118	238.365	119	238.365	120	23[illegible] 368
121	238.367	122	238.367	123	238.368	124	238.369	125	238.370	126	238.370	127	238.893	128	23[illegible] 892
129	238.893	130	238.894	131	238.894	132	238.894	133	238.895	134	238.895	135	238.896	136	23[illegible] 896
137	238.897	138	238.898	139	238.898	140	238.899	141	239.000	142	239.000	143	239.575	144	23[illegible] 575
145	239.575	146	239.575	147	239.575	148	239.575	149	239.576	150	239.576	151	239.577	152	239.577
153	239.578	154	239.579	155	239.578	156	239.580	157	239.581	158	239.581	159	240.113	160	240.113
161	240.113	162	240.113	163	240.113	164	240.114	165	240.114	166	240.114	167	240.115	168	240.115
169	240.116	170	240.117	171	240.117	172	240.118	173	240.118	174	240.119	175	240.613	176	23[illegible] 613
177	240.613	178	240.614	179	240.614	180	240.614	181	240.614	182	240.815	183	240.615	184	23[illegible] 616
185	240.616	186	240.617	187	240.618	188	240.618	189	240.619	190	240.619	191	241.080	192	23[illegible] 080
193	241.080	194	241.081	195	241.081	196	241.081	197	241.081	198	241.082	199	241.082	200	23[illegible] 083
201	241.083	202	241.084	203	241.085	204	241.085	205	241.086	206	241.086	207	241.517	208	241.517
209	241.517	210	241.517	211	241.518	212	241.518	213	241.518	214	241.519	215	241.519	216	241.520
217	241.520	218	241.521	219	241.521	220	241.522	221	241.523	222	241.523	223	241.927	224	241.927
225	241.927	226	241.928	227	241.928	228	241.928	229	241.928	230	241.929	231	241.929	232	23[illegible] 130
233	241.930	234	241.931	235	241.931	236	241.932	237	241.933	238	241.933	239	242.313	240	23[illegible] 313
241	242.313	242	242.313	243	242.314	244	242.314	245	242.314	246	242.315	247	242.315	248	23[illegible] 315
249	242.316	250	242.317	251	242.317	252	242.318	253	242.319	254	242.319	255	242.677	256	23[illegible] 677
257	242.677	258	242.677	259	242.677	260	242.678	261	242.678	262	242.678	263	242.679	264	242.679
265	242.680	266	242.680	267	242.681	268	242.682	269	242.683	270	242.683	271	243.021	272	243.021
273	243.021	274	243.021	275	243.021	276	243.022	277	243.022	278	243.022	279	243.023	280	243.023
281	243.024	282	243.024	283	243.025	284	243.026	285	243.027	286	243.027	287	243.347	288	23[illegible] 347
289	243.347	290	243.347	291	243.347	292	243.348	293	243.348	294	243.348	295	243.348	296	23[illegible] 349
297	243.350	298	243.351	299	243.351	300	243.352	301	243.353	302	243.353	303	243.656	304	23[illegible] 657
305	243.657	306	243.657	307	243.657	308	243.657	309	243.658	310	243.658	311	243.658	312	23[illegible] 659
313	243.660	314	243.660	315	243.661	316	243.662	317	243.663	318	243.663	319	243.951	320	243.951
321	243.952	322	243.952	323	243.952	324	243.952	325	243.953	326	243.953	327	243.953	328	243.954
329	243.955	330	243.955	331	243.956	332	243.957	333	243.958	334	243.958	335	244.233	336	244.233
337	244.233	338	244.233	339	244.234	340	244.234	341	244.234	342	244.235	343	244.235	344	23[illegible] 238
345	244.236	346	244.237	347	244.238	348	244.239	349	244.239	350	244.240	351	244.503	352	23[illegible] 503
353	244.503	354	244.503	355	244.504	356	244.504	357	244.504	358	244.505	359	244.505	360	23[illegible] 506
361	244.506	362	244.507	363	244.508	364	244.508	365	244.509	366	244.509	367	244.766	368	23[illegible] 766
369	244.766	370	244.766	371	244.766	372	244.766	373	244.766	374	244.766	375	244.766	376	244.767
377	244.767	378	244.767	379	244.767	380	244.767	381	244.768	382	244.768	383	245.077	384	245.077
385	245.076	386	245.074	387	245.072	388	245.069	389	245.065	390	245.060	391	245.055	392	245.049
393	245.042	394	245.034	395	245.025	396	245.016	397	245.006	398	245.006	399	245.060	400	23[illegible] 060
401	246.060	402	246.060	403	246.060	404	246.060	405	246.060	406	246.060	407	246.060	408	23[illegible] 060
409	246.060	410	246.060	411	246.060	412	246.060	413	246.061	414	246.064	415	247.155	416	23[illegible] 155
417	247.155	418	247.155	419	247.155	420	247.155	421	247.155	422	247.155	423	247.155	424	23[illegible] 155
425	247.155	426	247.155	427	247.155	428	247.156	429	247.156	430	247.162	431	247.171	432	248.301

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
433	248.303	434	248.303	435	248.303	436	248.303	437	248.303	438	248.303	439	248.303	440	248.303
441	248.303	442	248.302	443	248.302	444	248.302	445	248.302	446	248.302	447	248.305	448	248.314
449	249.560	450	249.560	451	249.560	452	249.560	453	249.560	454	249.560	455	249.560	456	249.559
457	249.559	458	249.559	459	249.559	460	249.558	461	249.558	462	249.558	463	249.557	464	2[illegible] 551
465	249.569	466	250.953	467	250.953	468	250.953	469	250.953	470	250.953	471	250.953	472	2[illegible] 852
473	250.852	474	250.952	475	250.951	476	250.951	477	250.950	478	250.950	479	250.949	480	2[illegible] 949
481	250.948	482	250.980	483	252.506	484	252.506	485	252.506	486	252.506	487	252.506	488	2[illegible] 506
489	252.505	490	252.505	491	252.504	492	252.504	493	252.503	494	252.503	495	252.502	496	2b2.501
497	252.500	498	252.498	499	252.511	500	254.239	501	254.239	502	254.239	503	254.238	504	254.238
505	254.238	506	254.237	507	254.237	508	254.236	509	254.236	510	254.235	511	254.234	512	254.233
513	254.232	514	254.231	515	254.228	516	254.242	517	256.163	518	256.163	519	256.183	520	2[illegible] 160
521	256.183	522	256.182	523	256.162	524	256.181	525	256.161	526	256.180	527	256.159	528	2 155
529	256.158	530	256.157	531	256.155	532	256.181	533	256.167	534	258.284	535	258.284	536	2 284
537	258.284	538	258.283	539	258.283	540	258.283	541	258.282	542	258.282	543	258.281	544	2 28[illegible]
545	258.280	546	258.278	547	258.277	548	258.276	549	258.266	550	258.278	551	260.560	552	2b0.560
553	260.563	554	260.568	555	260.575	556	260.584	557	260.595	558	260.608	559	260.623	560	260.640
561	260.659	562	260.680	563	260.704	564	260.729	565	260.757	566	260.789	567	260.759	568	260.761
569	261.178	570	261.178	571	261.178	572	261.179	573	261.180	574	261.181	575	261.182	576	2[illegible] 184
577	261.186	578	261.188	579	261.190	580	261.192	581	261.195	582	261.198	583	261.200	584	2[illegible] 206
585	261.200	586	261.202	587	261.659	588	261.659	589	261.659	590	261.659	591	261.659	592	2[illegible] 660
593	261.661	594	261.661	595	261.662	596	261.663	597	261.664	598	261.665	599	261.666	600	2[illegible] 663
601	261.669	602	261.669	603	261.669	604	261.671	605	262.135	606	262.135	607	262.135	608	2b2.136
609	262.136	610	262.136	611	262.137	612	262.138	613	262.138	614	262.139	615	262.140	616	262.141
617	262.142	618	262.143	619	262.145	620	262.145	621	262.145	622	262.146	623	262.818	624	262.817
625	262.816	626	262.816	627	262.816	628	262.817	629	262.817	630	262.818	631	262.819	632	2[illegible] 613
633	262.820	634	262.821	635	262.822	636	262.823	637	262.825	638	262.825	639	262.825	640	2 62[illegible]
641	263.098	642	263.098	643	263.099	644	263.099	645	263.099	646	263.100	647	263.100	648	2 10[illegible]
649	263.102	650	263.103	651	263.104	652	263.105	653	263.106	654	263.107	655	263.109	656	2 10[illegible]
657	263.108	658	263.112	659	263.570	660	263.570	661	263.570	662	263.570	663	263.571	664	2b3.57[illegible]
665	263.572	666	263.572	667	263.573	668	263.574	669	263.575	670	263.576	671	263.577	672	263.57[illegible]
673	263.580	674	263.580	675	263.580	676	263.583	677	284.028	678	284.028	679	284.028	680	284.02[illegible]
681	284.028	682	284.029	683	284.029	684	284.030	685	284.031	686	284.032	687	284.033	688	2[illegible] 03[illegible]
689	284.035	690	284.035	691	284.037	692	284.037	693	284.037	694	284.041	695	284.471	696	2 47[illegible]
697	284.471	698	284.471	699	284.472	700	284.472	701	284.473	702	284.473	703	284.474	704	2 47[illegible]
705	284.475	706	284.478	707	284.477	708	284.478	709	284.480	710	284.480	711	284.480	712	2 48[illegible]
713	284.898	714	284.898	715	284.899	716	284.898	717	284.898	718	284.898	719	284.900	720	2b4.90[illegible]
721	284.901	722	284.902	723	284.903	724	284.904	725	284.905	726	284.906	727	284.907	728	284.90[illegible]
729	284.907	730	284.911	731	285.308	732	285.309	733	285.309	734	285.309	735	285.310	736	285.31[illegible]
737	285.310	738	285.311	739	285.312	740	285.312	741	285.313	742	285.314	743	285.315	744	2[illegible] 31[illegible]
745	285.317	746	285.317	747	285.317	748	285.321	749	285.702	750	285.702	751	285.702	752	2 70[illegible]
753	285.702	754	285.703	755	285.703	756	285.704	757	285.704	758	285.705	759	285.706	760	2 70[illegible]
761	285.707	762	285.708	763	285.709	764	285.709	765	285.709	766	285.712	767	285.713	768	2 07[illegible]
769	286.076	770	286.076	771	286.078	772	286.078	773	286.077	774	286.077	775	286.078	776	2b6.07[illegible]
777	286.079	778	286.079	779	286.080	780	286.081	781	286.082	782	286.083	783	286.083	784	286.08[illegible]
785	286.086	786	286.087	787	286.430	788	286.430	789	286.430	790	286.430	791	286.431	792	286.43[illegible]
793	286.431	794	286.432	795	286.432	796	286.433	797	286.433	798	286.434	799	286.435	800	2[illegible] 43[illegible]
801	286.437	802	286.437	803	286.437	804	286.439	805	286.441	806	286.763	807	286.763	808	2 76[illegible]
809	286.764	810	286.764	811	286.764	812	286.764	813	286.765	814	286.765	815	286.768	816	2 76[illegible]
817	286.767	818	286.768	819	286.769	820	286.770	821	286.770	822	286.770	823	286.772	824	2 77[illegible]
825	267.075	826	267.075	827	267.075	828	267.075	829	267.075	830	267.078	831	267.078	832	2b7.07[illegible]
833	267.077	834	267.077	835	267.078	836	267.078	837	267.078	838	267.080	839	267.081	840	267.08[illegible]
841	267.081	842	267.083	843	267.085	844	267.364	845	267.364	846	267.364	847	267.364	848	267.36[illegible]
849	267.364	850	267.365	851	267.365	852	267.365	853	267.366	854	267.366	855	267.367	856	2[illegible] 35[illegible]
857	267.368	858	267.369	859	267.369	860	267.369	861	267.372	862	267.374	863	267.629	864	2 62[illegible]
865	267.629	866	267.629	867	267.628	868	267.628	869	267.630	870	267.630	871	267.631	872	2 63[illegible]
873	267.632	874	267.632	875	267.633	876	267.633	877	267.634	878	267.634	879	267.634	880	2 63[illegible]
881	267.638	882	267.870	883	267.870	884	267.870	885	267.870	886	267.870	887	267.870	888	2b7.87[illegible]
889	267.871	890	267.871	891	267.872	892	267.872	893	267.873	894	267.873	895	267.874	896	267.87[illegible]
897	267.875	898	267.875	899	267.877	900	267.879	901	268.085	902	268.085	903	268.085	904	268.08[illegible]
905	268.086	906	268.086	907	268.086	908	268.087	909	268.087	910	268.087	911	268.088	912	2 08[illegible]

913	268.089	914	268.090	915	268.090	916	268.090	917	268.090	918	268.083	919	268.085	920	268.27
921	268.276	922	268.276	923	268.276	924	268.276	925	268.276	926	268.276	927	268.277	928	268.27
929	268.277	930	268.278	931	268.278	932	268.278	933	268.280	934	268.280	935	268.280	936	268.28
937	268.283	938	268.285	939	268.439	940	268.440	941	268.440	942	268.440	943	268.440	944	268.44
945	268.440	946	268.441	947	268.441	948	268.441	949	268.442	950	268.442	951	268.443	952	268.44
953	268.444	954	268.444	955	268.444	956	268.447	957	268.449	958	268.577	959	268.577	960	268.57
961	268.577	962	268.577	963	268.577	964	268.578	965	268.578	966	268.578	967	268.579	968	268.57
969	268.580	970	268.580	971	268.581	972	268.581	973	268.581	974	268.581	975	268.584	976	268.58
977	268.587	978	268.587	979	268.588	980	268.588	981	268.588	982	268.588	983	268.588	984	268.58
985	268.589	986	268.589	987	268.590	988	268.590	989	268.591	990	268.591	991	268.592	992	268.69
993	268.592	994	268.594	995	268.697	996	268.771	997	268.771	998	268.771	999	268.771	1000	268.77
1001	268.771	1002	268.772	1003	268.772	1004	268.772	1005	268.773	1006	268.773	1007	268.774	1008	268.77
1009	268.775	1010	268.775	1011	268.775	1012	268.775	1013	268.778	1014	268.780	1015	268.827	1016	268.82
1017	268.827	1018	268.827	1019	268.827	1020	268.827	1021	268.828	1022	268.828	1023	268.828	1024	268.82
1025	268.828	1026	268.830	1027	268.830	1028	268.831	1029	268.831	1030	268.831	1031	268.831	1032	268.83
1033	268.838	1034	268.853	1035	268.853	1036	268.853	1037	268.853	1038	268.854	1039	268.854	1040	268.85
1041	268.855	1042	268.855	1043	268.858	1044	268.857	1045	268.857	1046	268.858	1047	268.859	1048	268.86
1049	268.860	1050	268.860	1051	268.885	1052	268.870								

NODES ALONG THE WATER TABLE

15	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254	270	286	302	318	334	350	366	382	398
414	431	448	465	482	499	516	533	550	568	586	604	622	640	658	676	694	712	730	748	767	786	805	824	843
862	881	900	919	938	957	976	995	1014	1033	1052													

RESULTS OF THE MASS TRANSPORT SIMULATION

TIME: 20.00
TIME STEP: 3

40 PARTICLES HAVE BEEN ADDED TO THE SYSTEM
5 PARTICLES ADDED DURING THIS TIME STEP
40 PARTICLES PRESENT IN THE FLOW SYSTEM
0 PARTICLES HAVE LEFT THE REGION OF MOVEMENT
0 PARTICLES HAVE LEFT THE FLOW SYSTEM

DISTRIBUTION OF REFERENCE PARTICLES

	VERTICAL CELLS																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
14:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
17:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
20:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:	0	0	0	0	0	0	0	0	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
23:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25:	0	0	0	0	0	0	0	0	0	0	1	1	1	4	5	0	0	0	0	0	0	0
26:	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0
27:	0	0	0	0	0	0	0	0	0	0	0	0	2	2	5	0	0	0	0	0	0	0
28:	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
30:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	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
32:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
34:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
35:	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	0	0	0	0	0	0
37:	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	0	0	0	0	0	0	0	0
39:	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	0	0	0	0	0	0	0	0
41:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53:	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	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	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	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	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
59:	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

DISTRIBUTION OF NON-MOVING REFERENCE PARTICLES

	VERTICAL CELLS																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
14:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
17:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
20:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:	0	0	0	0	0	0	0	0	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
23:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24:	0	0	0	0	0	0	0	0	0	0	0	0	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
26:	0	0	0	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
28:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	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
31:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0
34:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0
37:	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	0	0	0	0	0	0	0	0
39:	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	0	0	0	0	0	0	0	0
41:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53:	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	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	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	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	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
59:	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

CONCENTRATION DISTRIBUTION

	VERTICAL CELLS 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
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
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
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
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
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
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
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
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
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
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
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
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
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
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	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	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	0.0	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	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	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	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.01	0.02	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	0.01	0.01	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	0.01	0.01	0.02	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	0.01	0.01	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	0.01	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	0.01	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	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	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	0.0	0.0	0.0	0.0	0.00	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0
35:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	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	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0

STEADY STATE CONVERGENCE; ERROR:264.978 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 36.00 TIME STEP: 4

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.382	2	230.380	3	230.353	4	230.340	5	230.323	6	230.301	7	230.274	8	230.24
9	230.204	10	230.161	11	230.113	12	230.059	13	230.000	14	230.000	15	230.000	16	232.56
17	232.586	18	232.567	19	232.568	20	232.570	21	232.572	22	232.575	23	232.578	24	232.58
25	232.588	26	232.593	27	232.600	28	232.607	29	232.615	30	232.625	31	232.625	32	234.31
33	234.318	34	234.316	35	234.317	36	234.319	37	234.320	38	234.322	39	234.325	40	234.32
41	234.330	42	234.334	43	234.338	44	234.342	45	234.348	46	234.351	47	234.351	48	235.74
49	235.742	50	235.743	51	235.743	52	235.744	53	235.745	54	235.746	55	235.748	56	235.75
57	235.752	58	235.754	59	235.756	60	235.759	61	235.762	62	235.765	63	235.785	64	236.98
65	236.963	66	236.964	67	236.964	68	236.965	69	236.965	70	236.965	71	236.968	72	236.96
73	236.970	74	236.972	75	236.974	76	236.978	77	236.978	78	236.980	79	236.980	80	238.04
81	238.040	82	238.041	83	238.041	84	238.041	85	238.042	86	238.043	87	238.044	88	238.04
89	238.046	90	238.047	91	238.048	92	238.050	93	238.052	94	238.053	95	238.053	96	239.00
97	239.008	98	239.008	99	239.009	100	239.009	101	239.010	102	239.010	103	239.011	104	239.01
105	239.013	106	239.014	107	239.015	108	239.016	109	239.018	110	239.019	111	239.019	112	239.89
113	239.890	114	239.890	115	239.890	116	239.890	117	239.891	118	239.891	119	239.892	120	239.89
121	239.893	122	239.894	123	239.895	124	239.898	125	239.898	126	239.899	127	239.899	128	240.70
129	240.700	130	240.700	131	240.700	132	240.701	133	240.701	134	240.702	135	240.702	136	240.70
137	240.703	138	240.704	139	240.705	140	240.706	141	240.707	142	240.708	143	240.708	144	241.45
145	241.451	146	241.451	147	241.451	148	241.451	149	241.452	150	241.452	151	241.453	152	241.45
153	241.454	154	241.454	155	241.455	156	241.456	157	241.457	158	241.458	159	241.458	160	242.15
161	242.150	162	242.150	163	242.150	164	242.151	165	242.151	166	242.151	167	242.152	168	242.15
169	242.153	170	242.154	171	242.154	172	242.155	173	242.156	174	242.157	175	242.157	176	242.80
177	242.805	178	242.805	179	242.805	180	242.805	181	242.806	182	242.806	183	242.808	184	242.80
185	242.807	186	242.808	187	242.809	188	242.809	189	242.810	190	242.811	191	242.811	192	243.42
193	243.420	194	243.420	195	243.420	196	243.420	197	243.421	198	243.421	199	243.421	200	243.42
201	243.422	202	243.423	203	243.424	204	243.424	205	243.425	206	243.426	207	243.428	208	244.00
209	244.000	210	244.000	211	244.000	212	244.000	213	244.001	214	244.001	215	244.001	216	244.00
217	244.002	218	244.003	219	244.004	220	244.004	221	244.005	222	244.006	223	244.006	224	244.54
225	244.548	226	244.549	227	244.549	228	244.549	229	244.548	230	244.549	231	244.550	232	244.55
233	244.551	234	244.551	235	244.552	236	244.553	237	244.553	238	244.554	239	244.554	240	245.06
241	245.068	242	245.068	243	245.068	244	245.069	245	245.068	246	245.069	247	245.070	248	245.07
249	245.070	250	245.071	251	245.072	252	245.072	253	245.073	254	245.074	255	245.074	256	245.56
257	245.562	258	245.562	259	245.562	260	245.562	261	245.563	262	245.563	263	245.563	264	245.56
265	245.564	266	245.565	267	245.565	268	245.566	269	245.567	270	245.567	271	245.567	272	245.56
273	246.032	274	246.032	275	246.032	276	246.032	277	246.032	278	246.033	279	246.033	280	246.03
281	246.034	282	246.034	283	246.035	284	246.035	285	246.036	286	246.036	287	246.037	288	246.03
289	246.037	290	246.480	291	246.480	292	246.480	293	246.480	294	246.480	295	246.481	296	246.48
297	246.481	298	246.482	299	246.482	300	246.483	301	246.483	302	246.484	303	246.484	304	246.48
305	246.485	306	246.485	307	246.906	308	246.908	309	246.908	310	246.908	311	246.908	312	246.90
313	246.909	314	246.909	315	246.909	316	246.910	317	246.910	318	246.911	319	246.911	320	246.91
321	246.913	322	246.913	323	246.913	324	247.316	325	247.316	326	247.316	327	247.317	328	247.31
329	247.317	330	247.317	331	247.318	332	247.318	333	247.318	334	247.319	335	247.320	336	247.32
337	247.321	338	247.322	339	247.322	340	247.322	341	247.708	342	247.708	343	247.708	344	247.70
345	247.708	346	247.708	347	247.709	348	247.709	349	247.709	350	247.710	351	247.710	352	247.71
353	247.711	354	247.712	355	247.713	356	247.713	357	247.713	358	248.083	359	248.083	360	248.08
361	248.083	362	248.083	363	248.083	364	248.084	365	248.084	366	248.084	367	248.085	368	248.08
369	248.086	370	248.086	371	248.087	372	248.087	373	248.087	374	248.088	375	248.450	376	248.45
377	248.449	378	248.449	379	248.449	380	248.449	381	248.449	382	248.448	383	248.448	384	248.44
385	248.447	386	248.447	387	248.446	388	248.446	389	248.446	390	248.446	391	248.446	392	248.90
393	248.902	394	248.900	395	248.897	396	248.893	397	248.887	398	248.880	399	248.872	400	248.86
401	248.851	402	248.839	403	248.825	404	248.809	405	248.793	406	248.774	407	248.774	408	248.77
409	250.532	410	250.532	411	250.532	412	250.532	413	250.532	414	250.532	415	250.532	416	250.53
417	250.532	418	250.532	419	250.532	420	250.532	421	250.532	422	250.533	423	250.533	424	250.54
425	250.555	426	252.204	427	252.204	428	252.204	429	252.204	430	252.204	431	252.204	432	252.20

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
433	252.204	434	252.205	435	252.205	436	252.205	437	252.206	438	252.206	439	252.206	440	252.20
441	252.214	442	252.229	443	253.891	444	253.891	445	253.891	446	253.891	447	253.891	448	253.89
449	253.891	450	253.892	451	253.892	452	253.892	453	253.892	454	253.892	455	253.893	456	253.89
457	253.893	458	253.900	459	253.918	460	255.606	461	255.606	462	255.606	463	255.608	464	255.60
465	255.606	466	255.606	467	255.608	468	255.606	469	255.606	470	255.606	471	255.607	472	255.60
473	255.607	474	255.607	475	255.612	476	255.631	477	257.361	478	257.361	479	257.381	480	257.38
481	257.380	482	257.380	483	257.380	484	257.380	485	257.380	486	257.380	487	257.380	488	257.36
489	257.380	490	257.380	491	257.359	492	257.361	493	257.377	494	259.183	495	259.183	496	259.18
497	259.183	498	259.183	499	259.183	500	259.182	501	259.182	502	259.182	503	259.182	504	259.18
505	259.182	506	259.182	507	259.181	508	259.181	509	259.183	510	259.181	511	259.203	512	261.07
513	261.078	514	261.078	515	261.078	516	261.078	517	261.078	518	261.078	519	261.077	520	261.07
521	261.077	522	261.077	523	261.076	524	261.076	525	261.076	526	261.075	527	261.074	528	261.06
529	261.094	530	263.061	531	263.061	532	263.061	533	263.061	534	263.061	535	263.061	536	263.06
537	263.060	538	263.060	539	263.060	540	263.058	541	263.059	542	263.059	543	263.058	544	263.05
545	263.058	546	263.062	547	263.077	548	265.136	549	265.138	550	265.136	551	265.136	552	265.13
553	265.136	554	265.136	555	265.136	556	265.136	557	265.137	558	265.136	559	265.136	560	265.13
561	265.136	562	265.136	563	265.134	564	265.139	565	265.157	566	267.247	567	267.248	568	267.25
569	267.255	570	267.261	571	267.289	572	267.278	573	267.291	574	267.305	575	267.320	576	267.33
577	267.357	578	267.378	579	267.402	580	267.428	581	267.428	582	267.428	583	267.434	584	267.80
585	267.810	586	267.810	587	267.810	588	267.811	589	267.812	590	267.813	591	267.815	592	267.81
593	267.818	594	267.820	595	267.822	596	267.824	597	267.826	598	267.828	599	267.828	600	267.82
601	267.830	602	268.237	603	268.237	604	268.237	605	268.237	606	268.237	607	268.238	608	268.23
609	268.239	610	268.239	611	268.240	612	268.241	613	268.241	614	268.242	615	268.243	616	268.24
617	268.244	618	268.244	619	268.247	620	268.653	621	268.653	622	268.653	623	268.653	624	268.65
625	268.654	626	268.654	627	268.655	628	268.655	629	268.656	630	268.656	631	268.657	632	268.65
633	268.659	634	268.659	635	268.859	636	268.860	637	268.862	638	269.068	639	269.068	640	269.06
641	269.067	642	269.067	643	269.067	644	269.067	645	269.068	646	269.068	647	269.069	648	269.07
649	269.070	650	269.071	651	269.072	652	269.073	653	269.073	654	269.073	655	269.074	656	269.07
657	269.476	658	269.476	659	269.476	660	269.477	661	269.477	662	269.477	663	269.478	664	269.47
665	269.479	666	269.480	667	269.480	668	269.481	669	269.482	670	269.483	671	269.484	672	269.48
673	269.484	674	269.487	675	269.488	676	269.870	677	269.870	678	269.870	679	269.871	680	269.87
681	269.871	682	269.872	683	269.872	684	269.873	685	269.874	686	269.874	687	269.875	688	269.87
689	269.877	690	269.878	691	269.878	692	269.878	693	269.881	694	269.883	695	270.247	696	270.24
697	270.247	698	270.248	699	270.248	700	270.248	701	270.248	702	270.248	703	270.250	704	270.25
705	270.251	706	270.252	707	270.253	708	270.254	709	270.255	710	270.255	711	270.255	712	270.25
713	270.260	714	270.607	715	270.607	716	270.607	717	270.607	718	270.607	719	270.608	720	270.60
721	270.608	722	270.608	723	270.610	724	270.611	725	270.811	726	270.812	727	270.813	728	270.81
729	270.815	730	270.815	731	270.817	732	270.820	733	270.849	734	270.849	735	270.849	736	270.94
737	270.949	738	270.950	739	270.950	740	270.951	741	270.951	742	270.952	743	270.953	744	270.95
745	270.954	746	270.955	747	270.956	748	270.956	749	270.956	750	270.959	751	270.982	752	271.27
753	271.273	754	271.273	755	271.273	756	271.273	757	271.274	758	271.274	759	271.275	760	271.27
761	271.276	762	271.277	763	271.278	764	271.278	765	271.278	766	271.281	767	271.281	768	271.28
769	271.283	770	271.286	771	271.578	772	271.579	773	271.579	774	271.580	775	271.580	776	271.58
777	271.581	778	271.581	779	271.582	780	271.582	781	271.583	782	271.584	783	271.585	784	271.58
785	271.587	786	271.587	787	271.587	788	271.590	789	271.592	790	271.868	791	271.868	792	271.86
793	271.868	794	271.868	795	271.869	796	271.869	797	271.870	798	271.870	799	271.871	800	271.87
801	271.872	802	271.873	803	271.874	804	271.875	805	271.875	806	271.875	807	271.878	808	271.88
809	272.136	810	272.136	811	272.138	812	272.138	813	272.139	814	272.138	815	272.140	816	272.14
817	272.141	818	272.141	819	272.142	820	272.143	821	272.144	822	272.145	823	272.146	824	272.14
825	272.146	826	272.148	827	272.151	828	272.390	829	272.390	830	272.390	831	272.391	832	272.39
833	272.391	834	272.392	835	272.392	836	272.393	837	272.393	838	272.394	839	272.395	840	272.39
841	272.397	842	272.398	843	272.398	844	272.398	845	272.400	846	272.403	847	272.624	848	272.62
849	272.624	850	272.624	851	272.625	852	272.625	853	272.625	854	272.626	855	272.626	856	272.62
857	272.628	858	272.628	859	272.628	860	272.630	861	272.631	862	272.631	863	272.632	864	272.63
865	272.637	866	272.639	867	272.839	868	272.838	869	272.840	870	272.840	871	272.840	872	272.84
873	272.841	874	272.842	875	272.842	876	272.843	877	272.844	878	272.845	879	272.846	880	272.84
881	272.847	882	272.847	883	272.849	884	272.852	885	273.036	886	273.038	887	273.038	888	273.03
889	273.038	890	273.037	891	273.037	892	273.038	893	273.038	894	273.038	895	273.039	896	273.04
897	273.041	898	273.042	899	273.043	900	273.043	901	273.043	902	273.046	903	273.048	904	273.2
905	273.214	906	273.214	907	273.214	908	273.214	909	273.214	910	273.215	911	273.215	912	273.2

913	273.217	914	273.217	915	273.218	916	273.219	917	273.220	918	273.221	919	273.221	920	[illegible]
921	273.223	922	273.227	923	273.372	924	273.372	925	273.373	926	273.373	927	273.373	928	[illegible]
929	273.374	930	273.374	931	273.375	932	273.375	933	273.376	934	273.377	935	273.378	936	[illegible]
937	273.380	938	273.380	939	273.380	940	273.382	941	273.385	942	273.512	943	273.512	944	[illegible]
945	273.513	946	273.513	947	273.513	948	273.514	949	273.514	950	273.515	951	273.515	952	273.51[illegible]
953	273.517	954	273.518	955	273.518	956	273.519	957	273.519	958	273.520	959	273.522	960	273.525
961	273.633	962	273.633	963	273.633	964	273.633	965	273.634	966	273.634	967	273.634	968	273.635
969	273.635	970	273.636	971	273.637	972	273.637	973	273.638	974	273.639	975	273.640	976	[illegible]
977	273.640	978	273.643	979	273.646	980	273.735	981	273.735	982	273.735	983	273.735	984	[illegible]
985	273.736	986	273.736	987	273.736	988	273.737	989	273.738	990	273.738	991	273.739	992	[illegible]
993	273.741	994	273.742	995	273.742	996	273.742	997	273.744	998	273.748	999	273.817	1000	[illegible]
1001	273.817	1002	273.817	1003	273.818	1004	273.818	1005	273.818	1006	273.819	1007	273.819	1008	273.82[illegible]
1009	273.821	1010	273.821	1011	273.822	1012	273.823	1013	273.824	1014	273.824	1015	273.824	1016	273.82[illegible]
1017	273.830	1018	273.880	1019	273.880	1020	273.880	1021	273.881	1022	273.881	1023	273.881	1024	273.88[illegible]
1025	273.882	1026	273.883	1027	273.883	1028	273.884	1029	273.885	1030	273.885	1031	273.886	1032	[illegible]
1033	273.887	1034	273.887	1035	273.890	1036	273.893	1037	273.924	1038	273.924	1039	273.924	1040	[illegible]
1041	273.925	1042	273.925	1043	273.925	1044	273.926	1045	273.926	1046	273.927	1047	273.928	1048	[illegible]
1049	273.929	1050	273.930	1051	273.931	1052	273.931	1053	273.931	1054	273.934	1055	273.937	1056	[illegible]
1057	273.946	1058	273.946	1059	273.947	1060	273.947	1061	273.947	1062	273.948	1063	273.949	1064	273.94[illegible]
1065	273.950	1066	273.951	1067	273.952	1068	273.953	1069	273.955	1070	273.956	1071	273.956	1072	273.95[illegible]
1073	273.961	1074	273.968												

NODES ALONG THE WATER TABLE

15 31 47 63 79 95 111 127 143 159 175 191 207 223 239 255 272 289 306 323 340 357 374 391 408
425 442 459 476 493 511 529 547 565 583 601 619 637 656 675 694 713 732 751 770 789 808 827 846 865
884 903 922 941 960 979 998 1017 1036 1055 1074

RESULTS OF THE MASS TRANSPORT SIMULATION

TIME: 36.00
TIME STEP: 4

45 PARTICLES HAVE BEEN ADDED TO THE SYSTEM
5 PARTICLES ADDED DURING THIS TIME STEP
45 PARTICLES PRESENT IN THE FLOW SYSTEM
0 PARTICLES HAVE LEFT THE REGION OF MOVEMENT
0 PARTICLES HAVE LEFT THE FLOW SYSTEM

DISTRIBUTION OF REFERENCE PARTICLES

	VERTICAL CELLS																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
14:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
17:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
20:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:	0	0	0	0	0	0	0	0	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
23:	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24:	0	0	0	0	0	0	0	0	2	0	1	1	1	0	1	0	0	0	0	0	0	0
25:	0	0	0	0	0	0	0	0	0	0	0	1	0	7	5	0	0	0	0	0	0	0
26:	0	0	0	0	0	0	0	0	0	0	0	1	0	2	2	1	0	0	0	0	0	0
27:	0	0	0	0	0	0	0	0	0	0	0	0	1	4	2	0	0	0	0	0	0	0
28:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0
30:	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	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
32:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
34:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0
35:	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	0	0	0	0	0	0
37:	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	0	0	0	0	0	0	0	0
39:	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	0	0	0	0	0	0	0	0
41:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53:	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	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	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	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	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
59:	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

DISTRIBUTION OF NON-MOVING REFERENCE PARTICLES

	VERTICAL CELLS																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
14:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
17:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
20:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:	0	0	0	0	0	0	0	0	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
23:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24:	0	0	0	0	0	0	0	0	0	0	0	0	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
26:	0	0	0	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
28:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	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
31:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0
34:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0
37:	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	0	0	0	0	0	0	0	0
39:	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	0	0	0	0	0	0	0	0
41:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53:	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	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	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	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	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
59:	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

CONCENTRATION DISTRIBUTION

	VERTICAL CELLS																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
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
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
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
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
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
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
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
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
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
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
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
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
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
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	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	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	0.0	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	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	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	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.0	0.00	0.00	0.00	0.0	0.00	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	0.02	0.02	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	0.00	0.0	0.01	0.01	0.00	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	0.00	0.01	0.01	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	0.01	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	0.00	0.01	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	0.01	0.00	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	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	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	0.0	0.0	0.0	0.0	0.00	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	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.00	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	0.0	0.0	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	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	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	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0

STEADY STATE CONVERGENCE; ERROR: 60.474 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 88.00 TIME STEP: 5

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.394	2	230.391	3	230.383	4	230.370	5	230.351	6	230.327	7	230.297	8	2[illegible] 262
9	230.222	10	230.175	11	230.123	12	230.084	13	230.000	14	230.000	15	230.000	16	2[illegible] 785
17	232.785	18	232.786	19	232.787	20	232.789	21	232.792	22	232.795	23	232.799	24	2[illegible] 804
25	232.809	26	232.816	27	232.823	28	232.831	29	232.841	30	232.851	31	232.851	32	2[illegible] 864
33	234.864	34	234.865	35	234.866	36	234.867	37	234.868	38	234.871	39	234.874	40	2[illegible].877
41	234.880	42	234.884	43	234.888	44	234.892	45	234.897	46	234.703	47	234.703	48	235.190
49	236.190	50	236.191	51	236.191	52	236.192	53	236.193	54	236.195	55	236.198	56	236.198
57	236.200	58	236.203	59	236.205	60	236.208	61	236.211	62	236.214	63	236.215	64	2[illegible] 495
65	237.495	66	237.495	67	237.496	68	237.496	69	237.497	70	237.498	71	237.498	72	2[illegible] 500
73	237.502	74	237.504	75	237.505	76	237.507	77	237.510	78	237.512	79	237.512	80	2[illegible] 544
81	238.644	82	238.644	83	238.645	84	238.645	85	238.646	86	238.646	87	238.647	88	2[illegible] 648
89	238.649	90	238.651	91	238.652	92	238.654	93	238.655	94	238.657	95	238.657	96	2[illegible].675
97	239.675	98	239.676	99	239.676	100	239.676	101	239.677	102	239.677	103	239.678	104	239.679
105	239.680	106	239.681	107	239.682	108	239.683	109	239.684	110	239.686	111	239.686	112	240.612
113	240.613	114	240.614	115	240.614	116	240.614	117	240.615	118	240.615	119	240.616	120	2[illegible] 616
121	240.617	122	240.618	123	240.619	124	240.620	125	240.621	126	240.622	127	240.622	128	2[illegible] 474
129	241.474	130	241.474	131	241.475	132	241.475	133	241.475	134	241.476	135	241.476	136	2[illegible] 477
137	241.477	138	241.478	139	241.478	140	241.480	141	241.481	142	241.482	143	241.482	144	2[illegible] 276
145	242.270	146	242.270	147	242.270	148	242.271	149	242.271	150	242.271	151	242.272	152	242.272
153	242.273	154	242.273	155	242.274	156	242.275	157	242.276	158	242.277	159	242.277	160	243.009
161	243.009	162	243.010	163	243.010	164	243.010	165	243.010	166	243.010	167	243.011	168	243.011
169	243.012	170	243.012	171	243.013	172	243.014	173	243.014	174	243.015	175	243.015	176	2[illegible] 895
177	243.699	178	243.700	179	243.700	180	243.700	181	243.700	182	243.700	183	243.701	184	2[illegible] 70
185	243.702	186	243.702	187	243.703	188	243.703	189	243.704	190	243.705	191	243.705	192	2[illegible] 705
193	244.346	194	244.346	195	244.346	196	244.346	197	244.346	198	244.348	199	244.348	200	2[illegible] 347
201	244.347	202	244.348	203	244.348	204	244.348	205	244.349	206	244.350	207	244.350	208	244.350
209	244.350	210	244.952	211	244.952	212	244.952	213	244.952	214	244.952	215	244.953	216	244.953
217	244.953	218	244.953	219	244.954	220	244.954	221	244.955	222	244.955	223	244.956	224	244.956
225	244.956	226	244.957	227	245.523	228	245.523	229	245.523	230	245.523	231	245.523	232	2[illegible] 521
233	245.523	234	245.524	235	245.524	236	245.524	237	245.525	238	245.525	239	245.526	240	2[illegible] 52
241	245.527	242	245.527	243	245.527	244	246.060	245	246.060	246	246.060	247	246.060	248	2[illegible] 06
249	246.061	250	246.061	251	246.061	252	246.061	253	246.062	254	246.062	255	246.063	256	2[illegible] 062
257	246.063	258	246.064	259	246.064	260	246.064	261	246.567	262	246.567	263	246.567	264	246.568
265	246.568	266	246.568	267	246.568	268	246.568	269	246.569	270	246.569	271	246.569	272	246.570
273	246.570	274	246.570	275	246.571	276	246.571	277	246.571	278	247.048	279	247.048	280	247.048
281	247.048	282	247.047	283	247.047	284	247.047	285	247.047	286	247.047	287	247.048	288	2[illegible] 048
289	247.048	290	247.048	291	247.048	292	247.050	293	247.050	294	247.050	295	247.499	296	2[illegible] 49[illegible]
297	247.499	298	247.499	299	247.499	300	247.499	301	247.499	302	247.499	303	247.500	304	2[illegible] 50[illegible]
305	247.500	306	247.501	307	247.501	308	247.501	309	247.502	310	247.502	311	247.502	312	2[illegible] 92[illegible]
313	247.828	314	247.828	315	247.926	316	247.927	317	247.927	318	247.927	319	247.927	320	247.927
321	247.928	322	247.928	323	247.928	324	247.929	325	247.929	326	247.929	327	247.929	328	247.929
329	248.330	330	248.330	331	248.331	332	248.331	333	248.331	334	248.331	335	248.331	336	248.33[illegible]
337	248.331	338	248.332	339	248.332	340	248.332	341	248.333	342	248.333	343	248.333	344	2[illegible] 33[illegible]
345	248.333	346	248.712	347	248.712	348	248.712	349	248.713	350	248.713	351	248.713	352	2[illegible] 71[illegible]
353	248.713	354	248.713	355	248.714	356	248.714	357	248.714	358	248.714	359	248.715	360	2[illegible] 71[illegible]
361	248.715	362	248.715	363	249.074	364	249.074	365	249.074	366	249.074	367	249.074	368	2[illegible] 07[illegible]
369	249.074	370	249.074	371	249.074	372	249.074	373	249.075	374	249.075	375	249.075	376	249.07[illegible]
377	249.076	378	249.076	379	249.076	380	249.421	381	249.421	382	249.421	383	249.421	384	249.42[illegible]
385	249.420	386	249.420	387	249.419	388	249.418	389	249.418	390	249.418	391	249.417	392	249.41[illegible]
393	249.416	394	249.415	395	249.415	396	249.415	397	249.846	398	249.845	399	249.843	400	2[illegible] 84[illegible]
401	249.836	402	249.830	403	249.824	404	248.815	405	249.806	406	249.795	407	249.783	408	2[illegible] 77[illegible]
409	249.755	410	249.739	411	249.722	412	249.721	413	249.721	414	251.374	415	251.374	416	2[illegible] 37[illegible]
417	251.374	418	251.374	419	251.374	420	251.374	421	251.375	422	251.375	423	251.376	424	2[illegible] 37[illegible]
425	251.377	426	251.378	427	251.379	428	251.380	429	251.382	430	251.407	431	252.871	432	2[illegible].87

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
433	252.871	434	252.871	435	252.871	436	252.872	437	252.872	438	252.873	439	252.873	440	2[illegible].87
441	252.875	442	252.876	443	252.877	444	252.878	445	252.878	446	252.881	447	252.908	448	254.29
449	254.295	450	254.295	451	254.295	452	254.295	453	254.296	454	254.296	455	254.297	456	254.29[illegible]
457	254.298	458	254.299	459	254.300	460	254.301	461	254.302	462	254.303	463	254.318	464	2[illegible] 32[illegible]
465	254.334	466	255.642	467	255.642	468	255.642	469	255.642	470	255.642	471	255.643	472	2[illegible] 64[illegible]
473	255.644	474	255.644	475	255.645	476	255.646	477	255.647	478	255.648	479	255.649	480	2[illegible] 65[illegible]
481	255.883	482	255.676	483	255.883	484	256.908	485	256.908	486	256.908	487	256.908	488	2[illegible] 90[illegible]
489	256.909	490	256.910	491	256.910	492	256.911	493	256.912	494	256.913	495	256.913	496	2[illegible].91[illegible]
497	256.916	498	256.917	499	256.930	500	256.943	501	256.952	502	258.088	503	258.088	504	258.08[illegible]
505	258.088	506	258.089	507	258.089	508	258.090	509	258.090	510	258.091	511	258.092	512	258.09[illegible]
513	258.094	514	258.095	515	258.096	516	258.098	517	258.111	518	258.124	519	258.135	520	2[illegible] 17[illegible]
521	259.175	522	259.175	523	259.175	524	259.175	525	259.176	526	259.176	527	259.177	528	2[illegible] 17[illegible]
529	259.178	530	259.179	531	259.180	532	259.181	533	259.183	534	259.184	535	259.198	536	2[illegible] 21[illegible]
537	259.224	538	260.174	539	260.174	540	260.173	541	260.172	542	260.171	543	260.169	544	2[illegible] 16[illegible]
545	260.165	546	260.162	547	260.159	548	260.155	549	260.152	550	260.148	551	260.144	552	2[illegible].13[illegible]
553	260.094	554	260.047	555	260.000	556	261.507	557	261.506	558	261.502	559	261.496	560	261.48[illegible]
561	261.475	562	261.460	563	261.443	564	261.423	565	261.400	566	261.374	567	261.345	568	261.31[illegible]
569	261.278	570	261.239	571	260.833	572	260.420	573	260.000	574	265.161	575	265.182	576	2[illegible] 16[illegible]
577	265.174	578	265.185	579	265.198	580	265.215	581	265.235	582	265.258	583	265.284	584	2[illegible] 31[illegible]
585	265.347	586	265.383	587	265.423	588	265.468	589	265.470	590	265.471	591	265.474	592	2[illegible] 47[illegible]
593	266.123	594	266.123	595	266.123	596	266.124	597	266.125	598	266.126	599	266.127	600	2[illegible] 12[illegible]
601	266.131	602	266.133	603	266.135	604	266.137	605	266.140	606	266.142	607	266.146	608	2[illegible].14[illegible]
609	266.146	610	266.146	611	266.147	612	266.834	613	266.834	614	266.834	615	266.834	616	266.83[illegible]
617	266.834	618	266.834	619	266.834	620	266.835	621	266.835	622	266.835	623	266.835	624	266.83[illegible]
625	266.836	626	266.836	627	266.836	628	266.836	629	266.836	630	266.836	631	267.511	632	2[illegible] 51[illegible]
633	267.511	634	267.511	635	267.511	636	267.511	637	267.512	638	267.512	639	267.512	640	2[illegible] 51[illegible]
641	267.512	642	267.512	643	267.512	644	267.512	645	267.513	646	267.513	647	267.513	648	2[illegible] 51[illegible]
649	267.515	650	268.171	651	268.171	652	268.171	653	268.171	654	268.171	655	268.171	656	2[illegible] 17[illegible]
657	268.171	658	268.171	659	268.172	660	268.172	661	268.172	662	268.172	663	268.172	664	2[illegible].17[illegible]
665	268.173	666	268.173	667	268.174	668	268.175	669	268.813	670	268.813	671	268.813	672	268.81[illegible]
673	268.813	674	268.813	675	268.814	676	268.814	677	268.814	678	268.814	679	268.814	680	268.81[illegible]
681	268.815	682	268.816	683	268.816	684	268.816	685	268.818	686	268.818	687	268.821	688	2[illegible] 42[illegible]
689	269.425	690	269.425	691	269.425	692	269.425	693	269.426	694	269.425	695	269.426	696	2[illegible] 42[illegible]
697	269.426	698	269.426	699	269.427	700	269.427	701	269.428	702	269.428	703	269.428	704	2[illegible] 42[illegible]
705	269.431	706	269.433	707	270.006	708	270.006	709	270.006	710	270.006	711	270.006	712	2[illegible] 00[illegible]
713	270.007	714	270.007	715	270.007	716	270.007	717	270.008	718	270.008	719	270.008	720	2[illegible].00[illegible]
721	270.009	722	270.009	723	270.008	724	270.012	725	270.014	726	270.556	727	270.556	728	270.55[illegible]
729	270.557	730	270.557	731	270.557	732	270.557	733	270.557	734	270.557	735	270.558	736	270.55[illegible]
737	270.558	738	270.559	739	270.559	740	270.560	741	270.560	742	270.560	743	270.562	744	2[illegible] 56[illegible]
745	271.078	746	271.078	747	271.078	748	271.077	749	271.077	750	271.077	751	271.077	752	2[illegible] 07[illegible]
753	271.078	754	271.078	755	271.078	756	271.078	757	271.078	758	271.078	759	271.080	760	2[illegible] 08[illegible]
761	271.080	762	271.082	763	271.085	764	271.566	765	271.566	766	271.566	767	271.566	768	2[illegible] 56[illegible]
769	271.567	770	271.567	771	271.567	772	271.567	773	271.568	774	271.568	775	271.568	776	2[illegible].56[illegible]
777	271.569	778	271.570	779	271.570	780	271.570	781	271.572	782	271.575	783	272.028	784	272.02[illegible]
785	272.028	786	272.028	787	272.027	788	272.027	789	272.027	790	272.027	791	272.027	792	272.02[illegible]
793	272.028	794	272.028	795	272.029	796	272.029	797	272.030	798	272.030	799	272.030	800	2[illegible] 02[illegible]
801	272.035	802	272.457	803	272.457	804	272.457	805	272.457	806	272.457	807	272.457	808	2[illegible] 45[illegible]
809	272.457	810	272.458	811	272.458	812	272.458	813	272.458	814	272.459	815	272.460	816	2[illegible] 46[illegible]
817	272.460	818	272.460	819	272.463	820	272.466	821	272.857	822	272.857	823	272.857	824	2[illegible] 85[illegible]
825	272.858	826	272.858	827	272.858	828	272.858	829	272.858	830	272.858	831	272.859	832	2[illegible].86[illegible]
833	272.880	834	272.880	835	272.881	836	272.881	837	272.881	838	272.883	839	272.887	840	273.22[illegible]
841	273.228	842	273.228	843	273.228	844	273.228	845	273.229	846	273.229	847	273.230	848	273.23[illegible]
849	273.230	850	273.231	851	273.231	852	273.231	853	273.232	854	273.232	855	273.232	856	2[illegible] 23[illegible]
857	273.235	858	273.238	859	273.571	860	273.571	861	273.571	862	273.571	863	273.571	864	2[illegible] 57[illegible]
865	273.572	866	273.572	867	273.572	868	273.573	869	273.573	870	273.573	871	273.574	872	2[illegible] 57[illegible]
873	273.575	874	273.575	875	273.575	876	273.577	877	273.580	878	273.581	879	273.884	880	2[illegible] 88[illegible]
881	273.884	882	273.885	883	273.885	884	273.885	885	273.885	886	273.885	887	273.886	888	2[illegible].88[illegible]
889	273.886	890	273.887	891	273.887	892	273.888	893	273.888	894	273.888	895	273.888	896	273.89[illegible]
897	273.893	898	273.894	899	274.169	900	274.169	901	274.169	902	274.169	903	274.169	904	274.16[illegible]
905	274.170	906	274.170	907	274.170	908	274.170	909	274.171	910	274.171	911	274.172	912	2[illegible] 17[illegible]

913	274.173	914	274.173	915	274.173	916	274.175	917	274.178	918	274.178	919	274.425	920	274.425
921	274.425	922	274.425	923	274.425	924	274.425	925	274.425	926	274.426	927	274.426	928	274.426
928	274.427	930	274.427	931	274.427	932	274.428	933	274.428	934	274.428	935	274.428	936	274.431
937	274.433	938	274.435	939	274.852	940	274.852	941	274.852	942	274.852	943	274.852	944	274.852
945	274.852	948	274.853	947	274.853	948	274.853	949	274.854	950	274.854	951	274.855	952	274.855
953	274.856	954	274.858	955	274.858	956	274.858	957	274.861	958	274.862	959	274.850	980	274.850
961	274.851	962	274.851	963	274.851	964	274.851	965	274.851	966	274.851	967	274.852	968	274.852
969	274.852	970	274.853	971	274.853	972	274.854	973	274.854	974	274.854	975	274.854	976	274.857
977	274.859	978	274.860	979	275.021	980	275.021	981	275.021	982	275.021	983	275.021	984	275.021
985	275.021	986	275.022	987	275.022	988	275.022	989	275.023	990	275.023	991	275.023	992	275.024
993	275.024	994	275.024	995	275.025	996	275.027	997	275.028	998	275.031	999	275.163	1000	275.162
1001	275.163	1002	275.163	1003	275.163	1004	275.163	1005	275.163	1006	275.164	1007	275.164	1008	275.164
1009	275.164	1010	275.165	1011	275.165	1012	275.166	1013	275.166	1014	275.166	1015	275.166	1016	275.169
1017	275.171	1018	275.173	1019	275.276	1020	275.276	1021	275.276	1022	275.276	1023	275.276	1024	275.277
1025	275.277	1026	275.277	1027	275.277	1028	275.278	1029	275.278	1030	275.279	1031	275.279	1032	275.279
1033	275.280	1034	275.280	1035	275.280	1036	275.283	1037	275.285	1038	275.286	1039	275.362	1040	275.362
1041	275.362	1042	275.362	1043	275.362	1044	275.362	1045	275.362	1046	275.362	1047	275.363	1048	275.363
1049	275.363	1050	275.364	1051	275.364	1052	275.365	1053	275.365	1054	275.365	1055	275.365	1056	275.368
1057	275.370	1058	275.372	1059	275.419	1060	275.419	1061	275.419	1062	275.419	1063	275.419	1064	275.419
1065	275.419	1066	275.420	1067	275.420	1068	275.420	1069	275.421	1070	275.421	1071	275.421	1072	275.422
1073	275.423	1074	275.423	1075	275.423	1076	275.425	1077	275.428	1078	275.429	1079	275.445	1080	275.445
1081	275.445	1082	275.445	1083	275.448	1084	275.448	1085	275.448	1086	275.447	1087	275.447	1088	275.448
1089	275.448	1090	275.448	1091	275.450	1092	275.451	1093	275.452	1094	275.452	1095	275.452	1096	275.457
1097	275.462	1098	275.464												

NODES ALONG THE WATER TABLE

15	31	47	63	79	95	111	127	143	159	175	192	209	226	243	260	277	294	311	328	345	362	379	396	413
430	447	465	483	501	519	537	555	573	592	611	630	649	668	687	706	725	744	763	782	801	820	839	858	878
898	918	938	958	978	998	1018	1038	1058	1078	1098														

RESULTS OF THE MASS TRANSPORT SIMULATION

TIME: 68.00
TIME STEP: 5

50 PARTICLES HAVE BEEN ADDED TO THE SYSTEM
5 PARTICLES ADDED DURING THIS TIME STEP
46 PARTICLES PRESENT IN THE FLOW SYSTEM
0 PARTICLES HAVE LEFT THE REGION OF MOVEMENT
4 PARTICLES HAVE LEFT THE FLOW SYSTEM

DISTRIBUTION OF REFERENCE PARTICLES

	VERTICAL CELLS																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
14:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
17:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
20:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:	0	0	0	0	0	0	0	0	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
23:	0	0	0	2	0	0	0	1	1	0	2	1	0	0	0	0	0	0	0	0	0	0
24:	0	1	0	1	1	1	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0
25:	0	0	0	0	0	0	0	0	0	0	3	2	2	4	2	1	0	0	0	0	0	0
26:	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
27:	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
28:	0	0	0	0	0	0	0	0	0	1	1	0	2	1	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
30:	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
31:	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
32:	0	0	0	0	0	0	0	0	0	0	1	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	0	0
34:	0	0	0	0	0	0	0	0	0	0	0	0	0	1	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	0	0	0	0	0	0
36:	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	0	0	0	0	0	0	0	0
38:	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	0	0	0	0	0	0	0	0
40:	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	0	0	0	0	0	0	0	0
42:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46:	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	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53:	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	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	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	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	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
59:	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

DISTRIBUTION OF NON-MOVING REFERENCE PARTICLES

	VERTICAL CELLS																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
14:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
17:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
20:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:	0	0	0	0	0	0	0	0	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
23:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24:	0	0	0	0	0	0	0	0	0	0	0	0	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
26:	0	0	0	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
28:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	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
31:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0
34:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0
37:	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	0	0	0	0	0	0	0	0
39:	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	0	0	0	0	0	0	0	0
41:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53:	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	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	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	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	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
59:	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

CONCENTRATION DISTRIBUTION

	VERTICAL CELLS																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
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
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
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
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
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
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
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
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
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
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
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
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
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
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	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	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	0.0	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	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	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	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23:	0.0	0.0	0.0	0.01	0.0	0.0	0.0	0.00	0.00	0.0	0.01	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24:	0.0	0.00	0.0	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.01	0.00	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	0.01	0.01	0.01	0.01	0.01	0.00	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	0.00	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	0.01	0.01	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	0.00	0.00	0.0	0.01	0.00	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	0.00	0.00	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	0.00	0.00	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	0.00	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	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	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	0.0	0.0	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	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	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	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0

STEADY STATE CONVERGENCE; ERROR: 9.551 TOLERENCE:0.100

HYDRAULIC HEAD DISTRIBUTION

TIME IN YEARS: 132.00 TIME STEP: 6

NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD	NODE	HEAD
1	230.400	2	230.387	3	230.388	4	230.376	5	230.357	6	230.332	7	230.302	8	230.267
9	230.225	10	230.178	11	230.125	12	230.066	13	230.000	14	230.000	15	230.000	16	232.830
17	232.830	18	232.831	19	232.832	20	232.835	21	232.837	22	232.841	23	232.845	24	232.850
25	232.855	26	232.862	27	232.869	28	232.878	29	232.887	30	232.898	31	232.898	32	234.736
33	234.736	34	234.736	35	234.737	36	234.739	37	234.741	38	234.743	39	234.745	40	234.748
41	234.752	42	234.755	43	234.760	44	234.764	45	234.769	46	234.775	47	234.775	48	236.281
49	236.282	50	236.282	51	236.283	52	236.283	53	236.285	54	236.286	55	236.288	56	236.289
57	236.292	58	236.294	59	236.297	60	236.299	61	236.303	62	236.306	63	236.306	64	237.602
65	237.602	66	237.602	67	237.603	68	237.604	69	237.604	70	237.605	71	237.606	72	237.606
73	237.609	74	237.611	75	237.613	76	237.615	77	237.617	78	237.619	79	237.619	80	238.765
81	238.765	82	238.765	83	238.765	84	238.765	85	238.766	86	238.767	87	238.768	88	238.769
89	238.770	90	238.771	91	238.773	92	238.774	93	238.776	94	238.778	95	238.778	96	239.808
97	239.808	98	239.808	99	239.808	100	239.809	101	239.809	102	239.810	103	239.811	104	239.811
105	239.812	106	239.813	107	239.814	108	239.815	109	239.817	110	239.818	111	239.818	112	240.758
113	240.758	114	240.758	115	240.756	116	240.757	117	240.757	118	240.758	119	240.758	120	240.759
121	240.760	122	240.760	123	240.761	124	240.762	125	240.763	126	240.765	127	240.765	128	241.826
129	241.826	130	241.826	131	241.826	132	241.826	133	241.827	134	241.827	135	241.828	136	241.828
137	241.829	138	241.829	139	241.830	140	241.831	141	241.832	142	241.833	143	241.833	144	242.429
145	242.429	146	242.429	147	242.429	148	242.430	149	242.430	150	242.430	151	242.431	152	242.431
153	242.432	154	242.432	155	242.433	156	242.434	157	242.435	158	242.435	159	242.435	160	243.175
161	243.175	162	243.175	163	243.175	164	243.176	165	243.176	166	243.176	167	243.176	168	243.177
169	243.177	170	243.178	171	243.179	172	243.179	173	243.180	174	243.181	175	243.181	176	243.181
177	243.871	178	243.871	179	243.871	180	243.871	181	243.871	182	243.871	183	243.872	184	243.872
185	243.872	186	243.873	187	243.873	188	243.874	189	243.874	190	243.875	191	243.876	192	243.876
193	243.876	194	244.521	195	244.521	196	244.521	197	244.522	198	244.522	199	244.522	200	244.522
201	244.522	202	244.523	203	244.523	204	244.524	205	244.524	206	244.525	207	244.525	208	244.528
209	244.526	210	244.526	211	245.132	212	245.132	213	245.132	214	245.132	215	245.132	216	245.132
217	245.132	218	245.133	219	245.133	220	245.133	221	245.134	222	245.134	223	245.135	224	245.135
225	245.136	226	245.136	227	245.136	228	245.705	229	245.705	230	245.705	231	245.705	232	245.705
233	245.705	234	245.705	235	245.706	236	245.706	237	245.706	238	245.707	239	245.707	240	245.706
241	245.708	242	245.709	243	245.709	244	245.709	245	246.244	246	246.244	247	246.245	248	246.245
249	246.245	250	246.245	251	246.245	252	246.245	253	246.246	254	246.246	255	246.246	256	246.247
257	246.247	258	246.247	259	246.248	260	246.248	261	246.248	262	246.753	263	246.753	264	246.753
265	246.753	266	246.753	267	246.753	268	246.753	269	246.754	270	246.754	271	246.754	272	246.754
273	246.755	274	246.755	275	246.756	276	246.756	277	246.756	278	246.756	279	247.232	280	247.232
281	247.232	282	247.232	283	247.232	284	247.232	285	247.233	286	247.233	287	247.233	288	247.233
289	247.234	290	247.234	291	247.234	292	247.235	293	247.235	294	247.235	295	247.235	296	247.684
297	247.684	298	247.684	299	247.684	300	247.684	301	247.685	302	247.685	303	247.685	304	247.685
305	247.685	306	247.686	307	247.686	308	247.686	309	247.687	310	247.687	311	247.687	312	247.687
313	248.111	314	248.111	315	248.111	316	248.111	317	248.111	318	248.111	319	248.111	320	248.111
321	248.112	322	248.112	323	248.112	324	248.112	325	248.113	326	248.113	327	248.113	328	248.113
329	248.114	330	248.513	331	248.513	332	248.513	333	248.513	334	248.513	335	248.514	336	248.514
337	248.514	338	248.514	339	248.514	340	248.514	341	248.515	342	248.515	343	248.515	344	248.516
345	248.516	346	248.516	347	248.893	348	248.893	349	248.893	350	248.893	351	248.893	352	248.893
353	248.893	354	248.893	355	248.894	356	248.894	357	248.894	358	248.894	359	248.894	360	248.895
361	248.895	362	248.895	363	248.895	364	249.251	365	249.251	366	249.251	367	249.251	368	249.251
369	249.251	370	249.251	371	249.251	372	249.251	373	249.252	374	249.252	375	249.252	376	249.252
377	249.252	378	249.253	379	249.253	380	249.253	381	249.595	382	249.595	383	249.595	384	249.595
385	249.594	386	249.594	387	249.593	388	249.593	389	249.592	390	249.592	391	249.591	392	249.590
393	249.590	394	249.589	395	249.588	396	249.588	397	249.588	398	250.014	399	250.013	400	250.011
401	250.009	402	250.004	403	249.999	404	249.992	405	249.984	406	249.975	407	249.984	408	249.954
409	249.939	410	249.924	411	249.908	412	249.891	413	249.890	414	249.890	415	251.525	416	251.525
417	251.525	418	251.525	419	251.525	420	251.525	421	251.526	422	251.526	423	251.526	424	251.527
425	251.527	426	251.528	427	251.529	428	251.530	429	251.531	430	251.544	431	251.559	432	252.997

433	252.887	434	252.898	435	252.898	436	252.898	437	252.889	438	252.898	439	253.000	440	253.000
441	253.001	442	253.002	443	253.003	444	253.004	445	253.005	446	253.006	447	253.018	448	253.032
449	253.035	450	254.390	451	254.390	452	254.390	453	254.391	454	254.391	455	254.391	456	254.392
457	254.393	458	254.393	459	254.394	460	254.395	461	254.396	462	254.397	463	254.398	464	254.399
465	254.412	466	254.425	467	254.430	468	255.702	469	255.702	470	255.703	471	255.703	472	255.705
473	255.704	474	255.704	475	255.705	476	255.705	477	255.706	478	255.707	479	255.708	480	255.709
481	255.710	482	255.711	483	255.724	484	255.737	485	255.744	486	256.934	487	256.934	488	256.934
489	256.934	490	256.935	491	256.935	492	256.935	493	256.936	494	256.937	495	256.937	496	256.937
497	256.938	498	256.940	499	256.941	500	256.943	501	256.955	502	256.968	503	256.977	504	258.084
505	258.085	506	258.085	507	258.085	508	258.085	509	258.086	510	258.088	511	258.087	512	258.087
513	258.088	514	258.089	515	258.090	516	258.091	517	258.082	518	258.093	519	258.108	520	258.119
521	258.129	522	259.155	523	259.155	524	259.155	525	259.155	526	259.155	527	259.158	528	259.159
529	259.157	530	259.157	531	259.158	532	259.159	533	259.159	534	259.160	535	259.161	536	259.161
537	259.175	538	259.187	539	259.199	540	260.160	541	260.160	542	260.160	543	260.159	544	260.157
545	260.156	546	260.154	547	260.151	548	260.148	549	260.146	550	260.143	551	260.139	552	260.132
553	260.131	554	260.127	555	260.084	556	260.042	557	260.000	558	261.502	559	261.501	560	261.499
561	261.490	562	261.481	563	261.469	564	261.455	565	261.437	566	261.417	567	261.394	568	261.368
569	261.339	570	261.307	571	261.272	572	261.233	573	260.827	574	260.416	575	260.000	576	265.184
577	265.183	578	265.188	579	265.195	580	265.208	581	265.220	582	265.236	583	265.256	584	265.281
585	265.308	586	265.336	587	265.369	588	265.408	589	265.447	590	265.492	591	265.494	592	265.496
593	265.498	594	265.500	595	266.155	596	266.155	597	266.156	598	266.157	599	266.158	600	266.159
601	266.160	602	266.162	603	266.164	604	266.166	605	266.168	606	266.171	607	266.173	608	266.176
609	266.178	610	266.176	611	266.178	612	266.180	613	266.180	614	266.878	615	266.878	616	266.878
617	266.878	618	266.878	619	266.878	620	266.878	621	266.878	622	266.879	623	266.878	624	266.879
625	266.880	626	266.880	627	266.881	628	266.881	629	266.881	630	266.881	631	266.882	632	266.882
633	267.568	634	267.568	635	267.568	636	267.568	637	267.568	638	267.569	639	267.569	640	267.568
641	267.569	642	267.569	643	267.568	644	267.569	645	267.570	646	267.570	647	267.570	648	267.570
649	267.570	650	267.572	651	267.573	652	268.242	653	268.242	654	268.242	655	268.242	656	268.242
657	268.242	658	268.242	659	268.243	660	268.243	661	268.243	662	268.243	663	268.243	664	268.244
665	268.244	666	268.244	667	268.244	668	268.244	669	268.245	670	268.246	671	268.899	672	268.899
673	268.899	674	268.899	675	268.899	676	268.899	677	268.900	678	268.900	679	268.900	680	268.900
681	268.901	682	268.901	683	268.901	684	268.902	685	268.902	686	268.902	687	268.902	688	268.902
689	268.907	690	269.527	691	269.527	692	269.527	693	269.527	694	269.527	695	269.527	696	269.527
697	269.528	698	269.528	699	269.528	700	269.528	701	269.528	702	269.528	703	268.530	704	269.530
705	269.530	706	269.530	707	269.533	708	268.535	709	270.124	710	270.124	711	270.124	712	270.124
713	270.124	714	270.124	715	270.125	716	270.125	717	270.125	718	270.125	719	270.126	720	270.126
721	270.126	722	270.127	723	270.127	724	270.127	725	270.127	726	270.130	727	270.132	728	270.699
729	270.691	730	270.691	731	270.691	732	270.691	733	270.691	734	270.691	735	270.692	736	270.693
737	270.692	738	270.693	739	270.693	740	270.693	741	270.884	742	270.894	743	270.894	744	270.894
745	270.897	746	270.899	747	271.227	748	271.227	749	271.227	750	271.228	751	271.228	752	271.228
753	271.228	754	271.228	755	271.229	756	271.229	757	271.229	758	271.229	759	271.230	760	271.231
761	271.231	762	271.231	763	271.231	764	271.233	765	271.236	766	271.734	767	271.734	768	271.734
769	271.734	770	271.734	771	271.734	772	271.734	773	271.735	774	271.735	775	271.735	776	271.736
777	271.736	778	271.736	779	271.737	780	271.737	781	271.737	782	271.737	783	271.740	784	271.740
785	272.210	786	272.210	787	272.210	788	272.210	789	272.210	790	272.210	791	272.211	792	272.211
793	272.211	794	272.211	795	272.212	796	272.212	797	272.212	798	272.213	799	272.213	800	272.213
801	272.213	802	272.218	803	272.218	804	272.656	805	272.656	806	272.656	807	272.656	808	272.656
809	272.657	810	272.657	811	272.657	812	272.657	813	272.658	814	272.658	815	272.658	816	272.658
817	272.659	818	272.660	819	272.660	820	272.660	821	272.662	822	272.665	823	273.072	824	273.072
825	273.072	826	273.073	827	273.073	828	273.073	829	273.073	830	273.073	831	273.073	832	273.073
833	273.074	834	273.074	835	273.075	836	273.075	837	273.076	838	273.076	839	273.076	840	273.076
841	273.081	842	273.082	843	273.459	844	273.459	845	273.459	846	273.459	847	273.459	848	273.459
849	273.459	850	273.459	851	273.460	852	273.460	853	273.460	854	273.461	855	273.461	856	273.461
857	273.462	858	273.462	859	273.462	860	273.464	861	273.467	862	273.468	863	273.815	864	273.815
865	273.816	866	273.815	867	273.815	868	273.815	869	273.815	870	273.816	871	273.816	872	273.816
873	273.817	874	273.817	875	273.817	876	273.818	877	273.818	878	273.818	879	273.818	880	273.820
881	273.823	882	273.824	883	274.141	884	274.141	885	274.141	886	274.141	887	274.142	888	274.142
889	274.142	890	274.142	891	274.142	892	274.143	893	274.143	894	274.143	895	274.144	896	274.144
897	274.145	898	274.145	899	274.145	900	274.147	901	274.150	902	274.151	903	274.438	904	274.438
905	274.438	906	274.438	907	274.438	908	274.438	909	274.438	910	274.439	911	274.439	912	274.439

913	274.440	914	274.440	915	274.440	916	274.441	917	274.441	918	274.441	919	274.441	920	2	144
921	274.446	922	274.447	923	274.705	924	274.705	925	274.705	926	274.705	927	274.705	928	2	105
929	274.705	930	274.706	931	274.706	932	274.706	933	274.706	934	274.707	935	274.707	936	2	108
937	274.708	938	274.708	939	274.708	940	274.711	941	274.713	942	274.714	943	274.942	944	2	142
945	274.942	946	274.942	947	274.942	948	274.942	949	274.942	950	274.943	951	274.943	952	274.943
953	274.943	954	274.944	955	274.944	956	274.945	957	274.945	958	274.945	959	274.945	960	274.948
961	274.950	962	274.951	963	275.149	964	275.149	965	275.149	966	275.149	967	275.149	968	275.150
969	275.150	970	275.150	971	275.150	972	275.151	973	275.151	974	275.151	975	275.152	976	2	152
977	275.153	978	275.153	979	275.153	980	275.155	981	275.158	982	275.159	983	275.327	984	2	127
985	275.327	986	275.327	987	275.327	988	275.327	989	275.328	990	275.328	991	275.328	992	2	126
993	275.329	994	275.329	995	275.329	996	275.330	997	275.330	998	275.330	999	275.330	1000	2	133
1001	275.335	1002	275.337	1003	275.475	1004	275.475	1005	275.475	1006	275.475	1007	275.475	1008	275.475
1009	275.476	1010	275.476	1011	275.476	1012	275.476	1013	275.477	1014	275.477	1015	275.477	1016	275.478
1017	275.478	1018	275.478	1019	275.478	1020	275.481	1021	275.483	1022	275.485	1023	275.594	1024	275.594
1025	275.594	1026	275.594	1027	275.594	1028	275.594	1029	275.594	1030	275.594	1031	275.595	1032	2	195
1033	275.595	1034	275.596	1035	275.596	1036	275.596	1037	275.597	1038	275.597	1039	275.597	1040	2	195
1041	275.602	1042	275.603	1043	275.682	1044	275.682	1045	275.682	1046	275.683	1047	275.683	1048	2	187
1049	275.683	1050	275.683	1051	275.683	1052	275.684	1053	275.684	1054	275.684	1055	275.685	1056	2	185
1057	275.685	1058	275.686	1059	275.686	1060	275.688	1061	275.691	1062	275.692	1063	275.741	1064	275.741
1065	275.742	1066	275.742	1067	275.742	1068	275.742	1069	275.742	1070	275.742	1071	275.743	1072	275.743
1073	275.743	1074	275.744	1075	275.744	1076	275.744	1077	275.745	1078	275.745	1079	275.745	1080	275.746
1081	275.750	1082	275.751	1083	275.769	1084	275.769	1085	275.769	1086	275.769	1087	275.769	1088	2	761
1089	275.770	1090	275.770	1091	275.771	1092	275.771	1093	275.772	1094	275.772	1095	275.773	1096	2	774
1097	275.775	1098	275.775	1099	275.775	1100	275.780	1101	275.785	1102	275.788

NODES ALONG THE WATER TABLE

15	31	47	63	79	95	111	127	143	159	175	193	210	227	244	261	278	295	312	329	346	363	380	397	414
431	449	467	485	503	521	539	557	575	594	613	632	651	670	689	708	727	746	765	784	803	822	842	862	882
902	922	942	962	982	1002	1022	1042	1062	1082	1102

RESULTS OF THE MASS TRANSPORT SIMULATION

TIME: 132.00
TIME STEP: 6

50 PARTICLES HAVE BEEN ADDED TO THE SYSTEM
0 PARTICLES ADDED DURING THIS TIME STEP
45 PARTICLES PRESENT IN THE FLOW SYSTEM
0 PARTICLES HAVE LEFT THE REGION OF MOVEMENT
5 PARTICLES HAVE LEFT THE FLOW SYSTEM

DISTRIBUTION OF REFERENCE PARTICLES

	VERTICAL CELLS																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
14:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
17:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
20:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
22:	0	0	1	1	0	0	2	1	1	1	2	0	0	0	1	0	0	0	0	0	0	0
23:	0	0	0	1	1	0	1	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0
24:	0	1	1	0	1	0	0	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0
25:	0	1	0	0	1	1	0	1	1	2	2	3	1	1	0	0	0	0	0	0	0	0
26:	0	0	0	0	0	0	0	0	0	0	0	0	0	1	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
28:	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
30:	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	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
32:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34:	0	0	0	0	0	0	0	0	0	0	0	1	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	0	0	0	0	0	0
36:	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	0	0	0	0	0	0	0	0
38:	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	0	0	0	0	0	0	0	0
40:	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	0	0	0	0	0	0	0	0
42:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46:	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	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53:	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	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	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	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	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
59:	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

DISTRIBUTION OF NON-MOVING REFERENCE PARTICLES

	VERTICAL CELLS 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
3:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
5:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
8:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
11:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
14:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
17:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
20:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:	0	0	0	0	0	0	0	0	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
23:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24:	0	0	0	0	0	0	0	0	0	0	0	0	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
26:	0	0	0	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
28:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29:	0	0	0	0	0	0	0	0	0	0	0	0	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
31:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0
34:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35:	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0
37:	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	0	0	0	0	0	0	0	0
39:	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	0	0	0	0	0	0	0	0
41:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51:	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53:	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	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	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	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	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
59:	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

CONCENTRATION DISTRIBUTION

	VERTICAL CELLS																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
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
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
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
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
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
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
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
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
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
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
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
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
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
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	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	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	0.0	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	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	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	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	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	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22:	0.0	0.0	0.00	0.00	0.0	0.0	0.01	0.00	0.00	0.00	0.01	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23:	0.0	0.0	0.0	0.00	0.00	0.0	0.00	0.0	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24:	0.0	0.00	0.00	0.0	0.00	0.0	0.0	0.0	0.00	0.0	0.00	0.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25:	0.0	0.00	0.0	0.0	0.00	0.00	0.0	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	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	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	0.00	0.0	0.0	0.0	0.0	0.00	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	0.00	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	0.00	0.0	0.0	0.0	0.0	0.00	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	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	0.0	0.0	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	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	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	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0

RECLAMATION RESEARCH REPORTS

1. **RRTAC 79-2: Proceedings: Workshop on Native Shrubs in Reclamation. P.F. Ziemkiewicz, C.A. Dermott and H.P. Sims (Editors). 104 pp. No longer available.**

The Workshop was organized as the first step in developing a Native Shrub reclamation research program. The Workshop provided a forum for the exchange of information and experiences on three topics: propagation; outplanting; and, species selection. Seven papers and the results of three discussion groups are presented.

2. **RRTAC 80-1: Test Plot Establishment: Native Grasses for Reclamation. R.S. Sadasivaiah and J. Weijer. 19 pp. No longer available.**

The report details the species used at three test plots in Alberta's Eastern Slopes (one at Caw Creek Ridge and two at Cadomin). Site preparation, experimental design, and planting method are also described.

3. **RRTAC 80-3: The Role of Organic Compounds in Salinization of Plains Coal Mining Sites. N.S.C. Cameron et al. 46 pp. $10.00**

This is a literature review of the chemistry of sodic mine spoil and the changes expected to occur in groundwater.

4. **RRTAC 80-4: Proceedings: Workshop on Reconstruction of Forest Soils in Reclamation. P.F. Ziemkiewicz, S.K. Takyi and H.F. Regier (Editors). 160 pp. $10.00**

Experts in the field of forestry and forest soils report on research relevant to forest soil reconstruction and discuss the most effective means of restoring forestry capability of mined lands.

5. **RRTAC 80-5: Manual of Plant Species Suitability for Reclamation in Alberta. L.E. Watson, R.W. Parker and D.F. Polster. 2 vols, 541 pp. No longer available; replaced by RRTAC 89-4.**

Forty-three grass, fourteen forb, and thirty-four shrub and tree species are assessed in terms of their suitability for use in reclamation. Range maps, growth habit, propagation, tolerance, and availability information are provided.

6. **RRTAC 81-2: 1980 Survey of Reclamation Activities in Alberta. D.G. Walker and R.L. Rothwell. 76 pp. $10.00**

This survey is an update of a report prepared in 1976 on reclamation activities in Alberta, and includes research and operational reclamation, locations, personnel, etc.

7. **RRTAC 81-3: Proceedings: Workshop on Coal Ash and Reclamation. P.F. Ziemkiewicz, R. Stein, R. Leitch and G. Lutwick (Editors). 253 pp. $10.00**

Presents nine technical papers on the chemical, physical, and engineering properties of Alberta fly and bottom ashes, revegetation of ash disposal sites, and use of ash as a soil amendment. Workshop discussions and summaries are also included.

8. **RRTAC 82-1: Land Surface Reclamation: An International Bibliography. H.P. Sims and C.B. Powter. 2 vols, 292 pp. $10.00**

Literature to 1980 pertinent to reclamation in Alberta is listed in Vol. 1 and is also on the University of Alberta computing system (in a SPIRES database called RECLAIM). Vol. 2 comprises the keyword index and computer access manual.

9. **RRTAC 82-2: A Bibliography of Baseline Studies in Alberta: Soils, Geology, Hydrology and Groundwater. C.B. Powter and H.P. Sims. 97 pp. $5.00**

This bibliography provides baseline information for persons involved in reclamation research or in the preparation of environmental impact assessments. Materials, up to date as of December 1981, are available in the Alberta Environment Library.

10. **RRTAC 83-1: Soil Reconstruction Design for Reclamation of Oil Sand Tailings. Monenco Consultants Ltd. 185 pp. No longer available**

Volumes of peat and clay required to amend oil sand tailings were estimated based on existing literature. Separate soil prescriptions were made for spruce, jack pine, and herbaceous cover types. The estimates form the basis of field trials.

11. **RRTAC 83-3: Evaluation of Pipeline Reclamation Practices on Agricultural Lands in Alberta. Hardy Associates (1978) Ltd. 205 pp. No longer available.**

Available information on pipeline reclamation practices was reviewed. A field survey was then conducted to determine the effects of pipe size, age, soil type, construction method, etc. on resulting crop production.

12. **RRTAC 83-4: Proceedings: Effects of Coal Mining on Eastern Slopes Hydrology. P.F. Ziemkiewicz (Editor). 123 pp. $10.00**

Technical papers are presented dealing with the impacts of mining on mountain watersheds, their flow characteristics, and resulting water quality. Mitigative measures and priorities were also discussed.

13. **RRTAC 83-5: Woody Plant Establishment and Management for Oil Sands Mine Reclamation. Techman Engineering Ltd. 124 pp. No longer available.**

This is a review and analysis of information on planting stock quality, rearing techniques, site preparation, planting, and procedures necessary to ensure survival of trees and shrubs in oil sand reclamation.

14. **RRTAC 84-1: Land Surface Reclamation: A Review of the International Literature. H.P. Sims, C.B. Powter and J.A. Campbell. 2 vols, 1549 pp. $20.00**

Nearly all topics of interest to reclamationists including mining methods, soil amendments, revegetation, propagation and toxic materials are reviewed in light of the international literature.

15. **RRTAC 84-2: Propagation Study: Use of Trees and Shrubs for Oil Sand Reclamation. Techman Engineering Ltd. 58 pp. $10.00**

This report evaluates and summarizes all available published and unpublished information on large-scale propagation methods for shrubs and trees to be used in oil sand reclamation.

16. **RRTAC 84-3: Reclamation Research Annual Report - 1983. P.F. Ziemkiewicz. 42 pp. $5.00**

This report details the Reclamation Research Program indicating priorities, descriptions of each research project, researchers, results, and expenditures.

17. **RRTAC 84-4: Soil Microbiology in Land Reclamation. D. Parkinson, R.M. Danielson, C. Griffiths, S. Visser and J.C. Zak. 2 vols, 676 pp. $10.00**

This is a collection of five reports dealing with re-establishment of fungal decomposers and mycorrhizal symbionts in various amended spoil types.

18. **RRTAC 85-1: Proceedings: Revegetation Methods for Alberta's Mountains and Foothills. P.F. Ziemkiewicz (Editor). 416 pp. No longer available.**

Results of long-term experiments and field experience on species selection, fertilization, reforestation, topsoiling, shrub propagation and establishment are presented.

19. **RRTAC 85-2: Reclamation Research Annual Report - 1984. P.F. Ziemkiewicz. 29 pp. $5.00**

This report details the Reclamation Research Program indicating priorities, descriptions of each research project, researchers, results, and expenditures.

20. **RRTAC 86-1: A Critical Analysis of Settling Pond Design and Alternative Technologies. A. Somani. 372 pp. $10.00**

The report examines the critical issue of settling pond design, and sizing and alternative technologies. The study was co-funded with The Coal Association of Canada.

21. **RRTAC 86-2: Characterization and Variability of Soil Reconstructed after Surface Mining in Central Alberta. T.M. Macyk. 146 pp. No longer available.**

Reconstructed soils representing different materials handling and replacement techniques were characterized, and variability in chemical and physical properties was assessed. The data obtained indicate that reconstructed soil properties are determined largely by parent material characteristics and further tempered by materials handling procedures. Mining tends to create a relatively homogeneous soil landscape in contrast to the mixture of diverse soils found before mining.

22. **RRTAC 86-3: Generalized Procedures for Assessing Post-Mining Groundwater Supply Potential in the Plains of Alberta - Plains Hydrology and Reclamation Project. M.R. Trudell and S.R. Moran. 30 pp. $5.00**

In the Plains region of Alberta, the surface mining of coal generally occurs in rural, agricultural areas in which domestic water supply requirements are met almost entirely by groundwater. Consequently, an important aspect of the capability of reclaimed lands to satisfy the needs of a residential component is the post-mining availability of groundwater. This report proposes a sequence of steps or procedures to identify and characterize potential post-mining aquifers.

23. **RRTAC 86-4: Geology of the Battle River Site: Plains Hydrology and Reclamation Project. A. Maslowski-Schutze, R. Li, M. Fenton and S.R. Moran. 86 pp. $10.00**

This report summarizes the geological setting of the Battle River study site. It is designed to provide a general understanding of geological conditions adequate to establish a framework for hydrogeological and general reclamation studies. The report is not intended to be a detailed synthesis such as would be required for mine planning purposes.

24. **RRTAC 86-5: Chemical and Mineralogical Properties of Overburden: Plains Hydrology and Reclamation Project. A. Maslowski-Schutze. 71 pp. $10.00**

This report describes the physical and mineralogical properties of overburden materials in an effort to identify individual beds within the bedrock overburden that might be significantly different in terms of reclamation potential.

25. **RRTAC 86-6: Post-Mining Groundwater Supply at the Battle River Site: Plains Hydrology and Reclamation Project. M.R. Trudell, G.J. Sterenberg and S.R. Moran. 49 pp. $5.00**

The report deals with the availability of water supply in or beneath cast overburden to support post-mining land use, including both quantity and quality considerations. The study area is in the Battle River Mining area in east-central Alberta.

26. **RRTAC 86-7: Post-Mining Groundwater Supply at the Highvale Site: Plains Hydrology and Reclamation Project. M.R. Trudell. 25 pp. $5.00**

This report evaluates the availability of water supply in or beneath cast overburden to support post-mining land use, including both quantity and quality considerations. The study area is the Highvale mining area in west-central Alberta.

27. **RRTAC 86-8: Reclamation Research Annual Report - 1985. P.F. Ziemkiewicz. 54 pp. $5.00**

This report details the Reclamation Research Program indicating priorities, descriptions of each research project, researchers, results, and expenditures.

28. **RRTAC 86-9: Wildlife Habitat Requirements and Reclamation Techniques for the Mountains and Foothills of Alberta. J.E. Green, R.E. Salter and D.G. Walker. 285 pp. No longer available.**

This report presents a review of relevant North American literature on wildlife habitats in mountain and foothills biomes, reclamation techniques, potential problems in wildlife habitat reclamation, and potential habitat assessment methodologies. Four biomes (Alpine, Subalpine, Montane, and Boreal Uplands) and 10 key wildlife species (snowshoe hare, beaver, muskrat, elk, moose, caribou, mountain goat, bighorn sheep, spruce grouse, and white-tailed ptarmigan) are discussed. The study was co-funded with The Coal Association of Canada.

29. **RRTAC 87-1: Disposal of Drilling Wastes. L.A. Leskiw, E. Reinl-Dwyer, T.L. Dabrowski, B.J. Rutherford and H. Hamilton. 210 pp. No longer available.**

Current drilling waste disposal practices are reviewed and criteria in Alberta guidelines are assessed. The report also identifies research needs and indicates mitigation measures. A manual provides a decision-making flowchart to assist in selecting methods of environmentally safe waste disposal.

30. **RRTAC 87-2: Minesoil and Landscape Reclamation of the Coal Mines in Alberta's Mountains and Foothills. A.W. Fedkenheuer, L.J. Knapik and D.G. Walker. 174 pp. No longer available.**

This report reviews current reclamation practices with regard to site and soil reconstruction and re-establishment of biological productivity. It also identifies research needs in the Mountain-Foothills area. The study was co-funded with The Coal Association of Canada.

31. **RRTAC 87-3: Gel and Saline Drilling Wastes in Alberta: Workshop Proceedings. D.A. Lloyd (Compiler). 218 pp. No longer available.**

Technical papers were presented which describe: mud systems used and their purpose; industrial constraints; government regulations, procedures and concerns; environmental considerations in waste disposal; and toxic constituents of drilling wastes. Answers to a questionnaire distributed to participants are included in an appendix.

32. **RRTAC 87-4: Reclamation Research Annual Report - 1986. 50 pp. No longer available.**

This report details the Reclamation Research Program indicating priorities, descriptions of each research project, researchers, results, and expenditures.

33. **RRTAC 87-5: Review of the Scientific Basis of Water Quality Criteria for the East Slope Foothills of Alberta. Beak Associates Consulting Ltd. 46 pp. $10.00**

The report reviews existing Alberta guidelines to assess the quality of water drained from coal mine sites in the East Slope Foothills of Alberta. World literature was reviewed within the context of the East Slopes environment and current mining operations. The ability of coal mine operators to meet the various guidelines is discussed. The study was co-funded with The Coal Association of Canada.

34. **RRTAC 87-6: Assessing Design Flows and Sediment Discharge on the Eastern Slopes. Hydrocon Engineering (Continental) Ltd. and Monenco Consultants Ltd. 97 pp. $10.00**

The report provides an evaluation of current methodologies used to determine sediment yields due to rainfall events in well-defined areas. Models are available in Alberta to evaluate water and sediment discharge in a post-mining situation. SEDIMOT II (Sedimentology Disturbed Modelling Techniques) is a single storm model that was developed specifically for the design of sediment control structures in watersheds disturbed by surface mining and is well suited to Alberta conditions. The study was co-funded with The Coal Association of Canada.

35. **RRTAC 87-7: The Use of Bottom Ash as an Amendment to Sodic Spoil. S. Fullerton. 83 pp. No longer available.**

The report details the use of bottom ash as an amendment to sodic coal mine spoil. Several rates and methods of application of bottom ash to sodic spoil were tested to determine which was the best at reducing the effects of excess sodium and promoting crop growth. Field trials were set up near the Vesta mine in East Central Alberta using ash readily available from a nearby coal-fired thermal generating station. The research indicated that bottom ash incorporated to a depth of 30 cm using a subsoiler provided the best results.

36. **RRTAC 87-8: Waste Dump Design for Erosion Control. R.G. Chopiuk and S.E. Thornton. 45 pp. $5.00**

This report describes a study to evaluate the potential influence of erosion from reclaimed waste dumps on downslope environments such as streams and rivers. Sites were selected from coal mines in Alberta's mountains and foothills, and included resloped dumps of different configurations and ages, and having different vegetation covers. The study concluded that the average annual amount of surface erosion is minimal. As expected, erosion was greatest on slopes which were newly regraded. Slopes with dense grass cover showed no signs of erosion. Generally, the amount of erosion decreased with time, as a result of initial loss of fine particles, the formation of a weathered surface, and increased vegetative cover.

37. **RRTAC 87-9: Hydrogeology and Groundwater Chemistry of the Battle River Mining Area. M.R. Trudell, R.L. Faught and S.R. Moran. 97 pp. No longer available.**

This report describes the premining geologic conditions in the Battle River coal mining area including the geology as well as the groundwater flow patterns, and the groundwater quality of a sequence of several water-bearing formations extending from the surface to a depth of about 100 metres.

38. **RRTAC 87-10: Soil Survey of the Plains Hydrology and Reclamation Project - Battle River Project Area. T.M. Macyk and A.H. MacLean. 62 pp. plus 8 maps. $10.00**

The report evaluates the capability of post-mining landscapes and assesses the changes in capability as a result of mining, in the Battle River mining area. Detailed soils information is provided in the report for lands adjacent to areas already mined as well as for lands that are destined to be mined. Characterization of the reconstructed soils in the reclaimed areas is also provided. Data were collected from 1979 to 1985. Eight maps supplement the report.

39. **RRTAC 87-11: Geology of the Highvale Study Site: Plains Hydrology and Reclamation Project. A. Maslowski-Schutze. 78 pp. $10.00**

The report is one of a series that describes the geology, soils and groundwater conditions at the Highvale Coal Mine study site. The purpose of the study was to establish a summary of site geology to a level of detail necessary to provide a framework for studies of hydrogeology and reclamation.

40. **RRTAC 87-12: Premining Groundwater Conditions at the Highvale Site. M.R. Trudell and R. Faught. 83 pp. $10.00**

This report presents a detailed discussion of the premining flow patterns, hydraulic properties, and isotopic and hydrochemical characteristics of five layers within the Paskapoo Geological Formation, the underlying sandstone beds of the Upper Horseshoe Canyon Formation, and the surficial glacial drift.

41. **RRTAC 87-13: An Agricultural Capability Rating System for Reconstructed Soils. T.M. Macyk. 27 pp. $5.00**

This report provides the rationale and a system for assessing the agricultural capability of reconstructed soils. Data on the properties of the soils used in this report are provided in RRTAC 86-2.

42. **RRTAC 88-1: A Proposed Evaluation System for Wildlife Habitat Reclamation in the Mountains and Foothills Biomes of Alberta: Proposed Methodology and Assessment Handbook. T.R. Eccles, R.E. Salter and J.E. Green. 101 pp. plus appendix. $10.00**

The report focuses on the development of guidelines and procedures for the assessment of reclaimed wildlife habitat in the Mountains and Foothills regions of Alberta. The technical section provides background documentation including a discussion of reclamation planning, a listing of reclamation habitats and associated key wildlife species, conditions required for development, recommended revegetation species, suitable reclamation techniques, a description of the recommended assessment techniques and a glossary of basic terminology. The assessment handbook section contains basic information necessary for evaluating wildlife habitat reclamation, including assessment scoresheets for 15 different reclamation habitats, standard methodologies for measuring habitat variables used as assessment criteria, and minimum requirements for certification. This handbook is intended as a field manual that could potentially be used by site operators and reclamation officers. The study was co-funded with The Coal Association of Canada.

43. **RRTAC 88-2: Plains Hydrology and Reclamation Project: Spoil Groundwater Chemistry and its Impacts on Surface Water. M.R. Trudell (Compiler). 135 pp. $10.00**

Two reports comprise this volume. The first "Chemistry of Groundwater in Mine Spoil, Central Alberta," describes the chemical make-up of spoil groundwater at four mines in the Plains of Alberta. It explains the nature and magnitude of changes in groundwater chemistry following mining and reclamation. The second report, "Impacts of Surface Mining on Chemical Quality of Streams in the Battle River Mining Area," describes the chemical quality of water in streams in the Battle River mining area, and the potential impact of groundwater discharge from surface mines on these streams.

44. **RRTAC 88-3: Revegetation of Oil Sands Tailings: Growth Improvement of Silver-berry and Buffalo-berry by Inoculation with Mycorrhizal Fungi and N_2-Fixing Bacteria. S. Visser and R.M. Danielson. 98 pp. $10.00**

The report provides results of a study: (1) To determine the mycorrhizal affinities of various actinorrhizal shrubs in the Fort McMurray, Alberta region; (2) To establish a basis for justifying symbiont inoculation of buffalo-berry and silver-berry; (3) To develop a growing regime for the greenhouse production of mycorrhizal, nodulated silver-berry and buffalo-berry; and, (4) To conduct a field trial on reconstructed soil on the Syncrude Canada Limited oil sands site to critically evaluate the growth performance of inoculated silver-berry and buffalo-berry as compared with their un-inoculated counterparts.

45. **RRTAC 88-4: Plains Hydrology and Reclamation Project: Investigation of the Settlement Behaviour of Mine Backfill. D.R. Pauls (compiler). 135 pp. $10.00**

This three part volume covers the laboratory assessment of the potential for subsidence in reclaimed landscapes. The first report in this volume, "Simulation of Mine Spoil Subsidence by Consolidation Tests," covers laboratory simulations of the subsidence process particularly as it is influenced by resaturation of mine spoil. The second report, "Water Sensitivity of Smectitic Overburden: Plains Region of Alberta," describes a series of laboratory tests to determine the behaviour of overburden materials when brought into contact with water. The report entitled "Classification System for Transitional Materials: Plains Region of Alberta," describes a lithological classification system developed to address the characteristics of the smectite rich, clayey transition materials that make up the overburden in the Plains of Alberta.

46. **RRTAC 88-5: Ectomycorrhizae of Jack Pine and Green Alder: Assessment of the Need for Inoculation, Development of Inoculation Techniques and Outplanting Trials on Oil Sand Tailings. R.M. Danielson and S. Visser. 177 pp. $10.00**

The overall objective of this research was to characterize the mycorrhizal status of Jack Pine and Green Alder which are prime candidates as reclamation species for oil sand tailings and to determine the potential benefits of mycorrhizae on plant performance. This entailed determining the symbiont status of container-grown nursery stock and the quantity and quality of inoculum in reconstructed soils, developing inoculation techniques and finally, performance testing in an actual reclamation setting.

47. **RRTAC 88-6: Reclamation Research Annual Report - 1987. Reclamation Research Technical Advisory Committee. 67 pp. No longer available.**

This annual report describes the expenditure of $500,000.00 of Alberta Heritage Savings Trust Fund monies on research under the Land Reclamation Program. The report outlines the objectives and research strategies of the four program areas, and describes the projects funded under each program.

48. **RRTAC 88-7: Baseline Growth Performance Levels and Assessment Procedure for Commercial Tree Species in Alberta's Mountains and Foothills. W.R. Dempster and Associates Ltd. 66 pp. $5.00**

Data on juvenile height development of lodgepole pine and white spruce from cut-over or burned sites in the Eastern Slopes of Alberta were used to define reasonable expectations of early growth performance as a basis for evaluating the success of reforestation following coal mining. Equations were developed predicting total seedling height and current annual height increment as a function of age and elevation. Procedures are described for applying the equations, with further adjustments for drainage class and aspect, to develop local growth performance against these expectations. The study was co-funded with The Coal Association of Canada.

49. **RRTAC 88-8: Alberta Forest Service Watershed Management Field and Laboratory Methods. A.M.K. Nip and R.A. Hursey. 4 Sections, various pagings. $10.00**

Disturbances such as coal mines in the Eastern Slopes of Alberta have the potential for affecting watershed quality during and following mining. The collection of hydrometric, water quality and hydrometeorologic information is a complex task. A variety of instruments and measurement methods are required to produce a record of hydrologic inputs and outputs for a watershed basin. There is a growing awareness and recognition that standardization of data acquisition methods is required to ensure data comparability, and to allow comparison of data analyses. The purpose of this manual is to assist those involved in the field of data acquisition by outlining methods, practices and instruments which are reliable and recognized by the International Organization for Standardization.

50. **RRTAC 88-9: Computer Analysis of the Factors Influencing Groundwater Flow and Mass Transport in a System Disturbed by Strip Mining. F.W. Schwartz and A.S. Crowe. 78 pp. $10.00**

Work presented in this report demonstrates how a groundwater flow model can be used to study a variety of mining-related problems such as declining water levels in areas around the mine as a result of dewatering, and the development of high water tables in spoil once resaturation is complete. This report investigates the role of various hydrogeological parameters that influence the magnitude, timing, and extent of water level changes during and following mining at the regional scale. The modelling approach described here represents a major advance on existing work.

51. **RRTAC 88-10: Review of Literature Related to Clay Liners for Sump Disposal of Drilling Wastes. D.R. Pauls, S.R. Moran and T. Macyk. 61 pp. No longer available.**

The report reviews and analyses the effectiveness of geological containment of drilling waste in sumps. Of particular importance was the determination of changes in properties of clay materials as a result of contact with highly saline brines containing various organic chemicals.

52. **RRTAC 88-11: Highvale Soil Reconstruction Project: Five Year Summary. D.N. Graveland, T.A. Oddie, A.E. Osborne and L.A. Panek. 104 pp. $10.00**

This report provides details of a five year study to determine a suitable thickness of subsoil to replace over minespoil in the Highvale plains coal mine area to ensure return of agricultural capability. The study also examined the effect of slope and aspect on agricultural capability. This study was funded and managed with industry assistance.

53. **RRTAC 88-12: A Review of the International Literature on Mine Spoil Subsidence. J.D. Scott, G. Zinter, D.R. Pauls and M.B. Dusseault. 36 pp. $10.00**

The report reviews available engineering literature relative to subsidence of reclaimed mine spoil. The report covers methods for site investigation, field monitoring programs and lab programs, mechanisms of settlement, and remedial measures.

54. **RRTAC 89-1: Reclamation Research Annual Report - 1988. 74 pp. $5.00**

This annual report describes the expenditure of $280,000.00 of Alberta Heritage Savings Trust Fund monies on research under the Land Reclamation Program. The report outlines the objectives and research strategies of the four program areas, and describes the projects funded under each program.

55. **RRTAC 89-2: Proceedings of the Conference: Reclamation, A Global Perspective. D.G. Walker, C.B. Powter and M.W. Pole (Compilers). 2 Vols., 854 pp. No longer available.**

Over 250 delegates from all over the world attended this conference held in Calgary in August, 1989. The proceedings contains over 85 peer-reviewed papers under the following headings: A Global Perspective; Northern and High Altitude Reclamation; Fish & Wildlife and Rangeland Reclamation; Water; Herbaceous Revegetation; Woody Plant Revegetation and Succession; Industrial and Urban Sites; Problems and Solutions; Sodic and Saline Materials; Soils and Overburden; Acid Generating Materials; and, Mine Tailings.

56. **RRTAC 89-3: Efficiency of Activated Charcoal for Inactivation of Bromacil and Tebuthiuron Residues in Soil. M.P. Sharma. 38 pp. $5.00**

Bromacil and Tebuthiuron were commonly used soil sterilants on well sites, battery sites and other industrial sites in Alberta where total vegetation control was desired. Activated charcoal was found to be effective in binding the sterilants in greenhouse trials. The influence of factors such as herbicide:charcoal concentration ratio, soil texture, organic matter content, soil moisture, and the time interval between charcoal incorporation and plant establishment were evaluated in the greenhouse.

57. **RRTAC 89-4: Manual of Plant Species Suitability for Reclamation in Alberta - 2nd Edition. Hardy BBT Limited. 436 pp. No longer available.**

This is an updated version of RRTAC Report 80-5 which describes the characteristics of 43 grass, 14 forb and 34 shrub and tree species which make them suitable for reclamation in Alberta. The report has been updated in several important ways: a line drawing of each species has been added; the range maps for each species have been redrawn based on an ecosystem classification of the province; new information (to 1990) has been added, particularly in the sections on reclamation use; and the material has been reorganized to facilitate information retrieval. Of greatest interest is the performance chart that precedes each species and the combined performance charts for the grass, forb, and shrub/tree groups. These allow the reader to pick out at a glance species that may suit their particular needs. The report was produced with the assistance of a grant from the Recreation, Parks and Wildlife Foundation.

58. **RRTAC 89-5: Battle River Soil Reconstruction Project Five Year Summary. L.A. Leskiw. 188 pp. $10.00**

This report summarizes the results of a five year study to investigate methods required to return capability to land surface mined for coal in the Battle River area of central Alberta. Studies were conducted on: the amounts of subsoil required, the potential of gypsum and bottom ash to amend adverse soil properties, and the effects of slope angle and aspect. Forage and cereal crop growth was evaluated, as were changes in soil chemistry, density and moisture holding characteristics.

59. **RRTAC 89-6: Detailed Sampling, Characterization and Greenhouse Pot Trials Relative to Drilling Wastes in Alberta. T.M. Macyk, F.I. Nikiforuk, S.A. Abboud and Z.W. Widtman. 228 pp. $10.00**

This report summarizes a three-year study of the chemistry of freshwater gel, KCl, NaCl, DAP, and invert drilling wastes, both solids and liquids, from three regions in Alberta: Cold Lake, Eastern Slopes, and Peace River/Grande Prairie. A greenhouse study also examined the effects of adding various amounts of waste to soil on grass growth and soil chemistry. Methods for sampling drilling wastes are recommended.

60. **RRTAC 89-7: A User's Guide for the Prediction of Post-Mining Groundwater Chemistry from Overburden Characteristics. M.R. Trudell and D.C. Cheel. 55 pp. $5.00**

This report provides the detailed procedure and methodology that is required to produce a prediction of post-mining groundwater chemistry for plains coal mines, based on the soluble salt characteristics of overburden materials. The fundamental component of the prediction procedure is the geochemical model PHREEQE, developed by the U.S. Geological Survey, which is in the public domain and has been adapted for use on personal computers.

61. **RRTAC 90-1: Reclamation Research Annual Report - 1989. 62 pp. No longer available.**

This annual report describes the expenditure of $480,000.00 of Alberta Heritage Savings Trust Fund monies on research under the Land Reclamation Program. The report outlines the objectives and research strategies of the four program areas, and describes the projects funded under each program.

62. **RRTAC 90-2: Initial Selection for Salt Tolerance in Rocky Mountain Accessions of Slender Wheatgrass and Alpine Bluegrass. R. Hermesh, J. Woosaree, B.A. Darroch, S.N. Acharya and A. Smreciu. 40 pp. $5.00**

Selected lines of slender wheatgrass and alpine bluegrass collected from alpine and subalpine regions of Alberta as part of another native grass project were evaluated for their ability to emerge in a saline medium. Eleven slender wheatgrass and 72 alpine bluegrass lines had a higher percentage emergence than the Orbit Tall Wheatgrass control (a commonly available commercial grass). This means that as well as an ability to grow in high elevation areas, these lines may also be suitable for use in areas where saline soil conditions are present. Thus, their usefulness for reclamation has expanded.

63. **RRTAC 90-3: Natural Plant Invasion into Reclaimed Oil Sands Mine Sites. Hardy BBT Limited. 65 pp. $5.00**

Vegetation data from reclaimed sites on the Syncrude and Suncor oil sands mines have been summarized and related to site and factors and reclamation methods. Natural invasion into sites seeded to agronomic grasses and legumes was minimal even after 15 years. Invasion was slightly greater in sites seeded to native species, but was greatest on sites that were not seeded. Invasion was mostly from agronomic species and native forbs; native shrub and tree invasion was minimal.

64. **RRTAC 90-4: Physical and Hydrological Characteristics of Ponds in Reclaimed Upland Landscape Settings and their Impact on Agricultural Capability. S.R. Moran, T.M. Macyk, M.R. Trudell and M.E. Pigot, Alberta Research Council. 76 pp. $5.00**

The report details the results and conclusions from studying a pond in a reclaimed upland site in Vesta Mine. The pond formed as a result of two factors: (1) a berm which channelled meltwater into a series of subsidence depressions, forming a closed basin; and (2) low hydraulic conductivity in the lower subsoil and upper spoil as a result of compaction during placement and grading which did not allow for rapid drainage of ponded water. Ponds such as this in the reclaimed landscape can affect agricultural capability by: (1) reducing the amount of farmable land (however, the area covered by these ponds in this region is less than half of that found in unmined areas); and, (2) creating the conditions necessary for the progressive development of saline and potentially sodic soils in the area adjacent to the pond.

65. **RRTAC 90-5: Review of the Effects of Storage on Topsoil Quality. Thurber Consultants Ltd., Land Resources Network Ltd., and Norwest Soil Research Ltd. 116 pp. $10.00**

The international literature was reviewed to determine the potential effects of storage on topsoil quality. Conclusions from the review indicated that storage does not appear to have any severe and longterm effects on topsoil quality. Chemical changes may be rectified with the use of fertilizers or manure. Physical changes appear to be potentially less serious than changes in soil quality associated with the stripping and respreading operations. Soil biotic populations appear to revert to pre-disturbance levels of activity within acceptable timeframes. Broad, shallow storage piles that are seeded to acceptable grass and legume species are recommended; agrochemical use should be carefully controlled to ensure soil biota are not destroyed.

66. **RRTAC 90-6: Proceedings of the Industry/Government Three-Lift Soils Handling Workshop. Deloitte & Touche. 168 pp. $10.00**

This report documents the results of a two-day workshop on the issue of three-lift soils handling for pipelines. The workshop was organized and funded by RRTAC, the Canadian Petroleum Association and the Independent Petroleum Association of Canada. Day one focused on presentation of government and industry views on the criteria for three-lift, the rationale and field data in support of three- and two-lift procedures, and an examination of the various soil handling methods in use. During day two, five working groups discussed four issues: alternatives to three-lift; interim criteria and suggested revisions; research needs; definitions of terms. The results of the workshop are being used by a government/industry committee to revise soils handling criteria for pipelines.

67. **RRTAC 90-7: Reclamation of Disturbed Alpine Lands: A Literature Review. Hardy BBT Limited. 209 pp. $10.00**

This review covers current information from North American sources on measures needed to reclaim alpine disturbances. The review provides information on pertinent Acts and regulations with respect to development and environmental protection of alpine areas. It also discusses: alpine environmental conditions; current disturbances to alpine areas; reclamation planning; site and surface preparation; revegetation; and, fertilization. The report also provides a list of research and information needs for alpine reclamation in Alberta.

68. **RRTAC 90-8: Plains Hydrology and Reclamation Project: Summary Report. S.R. Moran, M.R. Trudell, T.M. Macyk and D.B. Cheel. 105 pp. $10.00**

This report summarizes a 10-year study on the interactions of groundwater, soils and geology as they affect successful reclamation of surface coal mines in the plains of Alberta. The report covers: Characterization of the Battle River and Wabamun study areas; Properties of reclaimed materials and landscapes; Impacts of mining and reclamation on post-mining land use; and, Implications for reclamation practice and regulation. This project has led to the publication of 18 RRTAC reports and 22 papers in conference proceedings and referred journals.

69. **RRTAC 90-9: Literature Review on the Disposal of Drilling Waste Solids. Monenco Consultants Limited. 83 pp. $5.00**

This report reviews the literature on, and government and industry experience with, burial of drilling waste solids in an Alberta context. The review covers current regulations in Alberta, other provinces, various states in the US and other countries. Definitions of various types of burial are provided, as well as brief summaries of other possible disposal methods. Environmental concerns with the various options are presented as well as limited information on costs and monitoring of burial sites. The main conclusion of the work is that burial is still a viable option for some waste types but that each site and waste type must be evaluated on its own merits.

70. **RRTAC 90-10: Potential Contamination of Shallow Aquifers by Surface Mining of Coal. M.R. Trudell, S.R. Moran and T.M. Macyk. 75 pp. $5.00**

This report presents the results of a field investigation of the movement of salinized groundwater from a mined and reclaimed coal mine near Forestburg into an adjacent unmined area. The movement is considered to be an unusual occurrence resulting from a combination of a hydraulic head that is higher in the mined area than in the adjacent coal aquifer, and the presence of a thin surficial sand aquifer adjacent to the mine. The high hydraulic head results from deep ponds in the reclaimed landscape that recharge the base of the spoil.

71. **RRTAC 91-1: Reclamation Research Annual Report - 1990. Reclamation Research Technical Advisory Committee. 69 pp. $5.00**

This annual report describes the expenditure of $499 612 of Alberta Heritage Savings Trust Fund monies on research under the Land Reclamation Program. The report outlines the objectives and research strategies of the four program areas, and describes the projects funded under each program. The report lists the 70 research reports published under the program.

72. RRTAC 91-2: Winter Soil Evaluation and Mapping for Regulated Pipelines. A.G. Twardy. 43 pp. $5.00.

Where possible, summer soil evaluations are preferred for pipelines. However, when winter soil evaluations must be done, this report lays out the constraints and requirements for obtaining the best possible information. Specific recommendations include: restricting evaluations to the time of day with the best light conditions; use of core- or auger-equipped drill-trucks; increased frequency of site inspections and soil analyses; and, hiring a well-qualified pedologist. The province's soils are divided into four classes, based on their difficulty of evaluation in winter: slight (most soils); moderate; high; and, severe (salt-affected soils in the Brown and Dark Brown Soil Zones).

73. RRTAC 91-3: A User Guide to Pit and Quarry Reclamation in Alberta. J.E. Green, T.D. Van Egmond, C. Wylie, I. Jones, L. Knapik and L.R. Paterson. 151 pp. $10.00.

Sand and gravel pits or quarries are usually reclaimed to the original land use, especially if that was better quality agricultural or forested land. However, there are times when alternative land uses are possible. This report outlines some of the alternate land uses for reclaimed sand and gravel pits or quarries, including: agriculture, forestry, wildlife habitat, fish habitat, recreation, and residential and industrial use. The report provides a general introduction to the industry and to the reclamation process, and then outlines some of the factors to consider in selecting a land use and the methods for reclamation. The report is not a detailed guide to reclamation, it is intended to help an operator determine if a land use would be suitable and to guide him or her to other sources of information.

74. RRTAC 91-4: Soil Physical Properties in Reclamation. M. A. Naeth, D.J. White, D.S. Chanasyk, T.M. Macyk, C.B. Powter and D.J. Thacker. 204 pp. ISBN 0-7732-0880-1. $10.00.

This report provides information from the literature and Alberta sources on a variety of soil physical properties that can be measured on reclaimed sites. Each property is explained, measurement methods, problems, level of accuracy and common soil values are presented, and methods of dealing with the property (prevention, alleviation) are discussed. The report also contains the results of a workshop held to discuss soil physical properties and the state-of-the-art in Alberta.

75. RRTAC 92-1: Reclamation of Sterilant Affected Sites: A Review of the Issue in Alberta. M. Cotton and M.P. Sharma. 64 pp. ISBN 0-7732-0884-4. $5.00.

This report assesses the extent of sterilant use on oil and gas leases in Alberta, identifies some of the concerns related to reclamation of sterilant affected sites and the common methods for reclaiming these sites, and outlines the methods for sampling and analyzing soils form sterilant affected sites. The report also provides an outline of a research program to address issues raised by government and industry staff.

76. RRTAC 92-2: Reclamation Research Annual Report - 1991. Reclamation Research Technical Advisory Committee. 55 pp. ISBN 0-7732-0888-7. $5.00.

This report describes the expenditure of $485,065 of Alberta Heritage Savings Trust Fund monies on research under the Land Reclamation Program. The report outlines the objectives and research strategies of the five program areas, and describes the projects funded under each program. It also lists the 75 research reports that have been published to date.

77. RRTAC 92-3: Proceedings of the Industry/Government Pipeline Reclamation Success Measurement Workshop. R.J. Mahnic and J.A. Toogood. 62 pp. ISBN 0-7732-0886-0. $5.00.

This report presents the results of a workshop to identify the soil and vegetation parameters that should be used to assess reclamation success on pipelines in Alberta. Six soil parameters (topsoil admixing; topsoil replacement thickness; compaction; soil loss by erosion; texture; and salinity) and six vegetation parameters (plant density; species composition ; ground cover; vigour; weeds/undesirable species; and rooting characteristics) were selected as most important. Working groups discussed these parameters and presented suggested methods for assessing them in the field.

78. RRTAC 92-4: Oil Sands Soil Reconstruction Project Five Year Summary. HBT AGRA Limited. 109 pp. ISBN 0-7732-0875-5. $10.00.

This report documents a five year study of the effects of clay and peat amendments to oil sand tailings sand on survival and growth of trees and shrubs. Ten species (jack pine, white spruce, serviceberry, silverberry, buffaloberry, pin cherry, prickly/woods rose, Northwest poplar, green alder, and Bebb willow) were planted into tailings sand amended with three levels of peat and three levels of clay. The treatments were incorporated to a depth of 20 cm or 40 cm. Data are provided on plant survival and growth, root size and distribution, disease and small mammal damage, herbaceous cover, soil moisture, soil chemistry, and bulk density.

ISBN 0-7732-0877-1