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- (1) Program Number (to be filled in by SPLA)..... 360D-17.4.003
- (2) System Type (machine)..... S/360, S/370
- (3) Search Key.....  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- (4) Programming Systems/Languages..... FORTRAN
- (5) Author's Name and Address..... H. M. Selim and R. S. Mansell  
\_\_\_\_\_  
\_\_\_\_\_
- (6) Direct Technical Inquiries to Name & Address  
(if different than Author) R. S. Mansell  
G149 McCarty Hall  
Soil Science Department  
University of Florida  
Gainesville, FL 32611
- (7) Title of Program..... Transient One-Dimensional and Simultaneous Solute  
and Water Flow in Soils  
\_\_\_\_\_  
\_\_\_\_\_
- (8) Submitter's Installation Membership Code..... UF001
- (9) Submitter's Own Program Identification and Suffix(Optional)..  
\_\_\_\_\_
- (10) Primary Subject Code..... 17 4
- (11) Minimum System Requirements 128K
- (12) New or Revision Code (if revision, show prior Program Number in Item 1) N
- (13) Year Completed..... 1974
- (14) Date of Submittal..... 09/09/74
- (15) Documentation (number of original pages submitted)..... 48
- (16) Abstract (should contain sufficient information for a reader to determine the value of the program). Listed on the reverse side of this form are subjects which may serve as a guide for a descriptive abstract.

# SHARE PROGRAM LIBRARY SUBMITTAL FORM

Subject Guide:

- a. Purpose
- b. Programming Language used
- c. Version and modification level or release number
- d. Field of application
- e. Type of routine (main program, subroutine, etc.)
- f. Specific description of machine requirements

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## **ABSTRACT**

A computer program has been developed for the problem of solute and water movement in unsaturated soils or porous media under transient flow conditions. The two nonlinear partial differential equations governing the solute and water flow are solved simultaneously for the water content and solute concentration at any specified time and location as desired. The initial conditions used are uniform salt and water content distributions at time  $t=0$ . The boundary conditions at the soil surface are water flux and constant salt concentration conditions. The method of solution is a numerical one which utilizes the explicit-implicit finite difference technique.

The computer program is written in FORTRAN language and consists of a source program, eleven subprograms, and an input data section. An important feature of the program is that incremental distance and time steps are adjusted automatically to satisfy stability and convergence criteria for the water and solute finite difference criteria. A second feature is that the number of nodal points are automatically calculated from the length of the flow region. A third feature of the program is that output data of water content, water flux, solute concentration, and solute flux in the flow region are provided at specified times as desired.

(Please attach additional pages if necessary).....Total pages attached \_\_\_\_\_

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*H. M. Selim* 9/9/74  
*Sam H. Selim*

# TRANSIENT ONE-DIMENSIONAL AND SIMULTANEOUS SOLUTE AND WATER FLOW IN SOILS

by  
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Gainesville, Florida

## ABSTRACT

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# TRANSIENT ONE-DIMENSIONAL AND SIMULTANEOUS SOLUTE AND WATER FLOW IN SOILS<sup>1</sup>

H. M. Selim and R. S. Mansell<sup>2</sup>

A computer program has been developed for solving the problem of solute and water movement in unsaturated soils or porous media under transient flow conditions. The nonlinear partial differential equations of solute and water flow in one-dimension are given (see Kirkham and Powers, 1972; Warrick et al., 1971), respectively, by

$$\frac{\partial c}{\partial t} = D_s \frac{\partial^2 c}{\partial x^2} - \frac{1}{\theta} [K(\theta) - (D(\theta) + D_s) \frac{\partial \theta}{\partial x}] \frac{\partial c}{\partial x} \quad [1]$$

and

$$\frac{\partial \theta}{\partial t} = \frac{\partial}{\partial x} D(\theta) \frac{\partial \theta}{\partial x} - \frac{\partial K(\theta)}{\partial x} \quad [2]$$

where

- $c$  = solute concentration (me/ml)
- $D_s$  = hydrodynamic dispersion coefficient (cm<sup>2</sup>/min)
- $V_o$  = average pore velocity (cm/min)
- $x$  = distance (cm)
- $t$  = time (min)
- $\theta$  = soil water content (cm<sup>3</sup>/cm<sup>3</sup>)
- $D(\theta)$  = soil water diffusivity (cm<sup>2</sup>/min)
- $K(\theta)$  = soil hydraulic conductivity (cm/min)

The initial conditions used are uniform salt and water content distributions at time = 0,

$$c = c_i \quad 0 < x < \infty, \quad t = 0 \quad [3]$$

$$\theta = \theta_i \quad 0 < x < \infty, \quad t = 0 \quad [4]$$

where  $c_i$  and  $\theta_i$  are the initial salt concentration and water content, respectively.

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<sup>1</sup> Contribution from Soil Science Department, University of Florida. Research supported in part by the U.S. Department of the Interior as Florida Water Resources Research Center Project A026-FLA.

<sup>2</sup> Research Associate (Soil Physics) and Associate Professor (Soil Physics), respectively, Soil Science Department, University of Florida, Gainesville, Florida 32611.

The boundary conditions at the soil surface are water flux and constant salt concentration conditions,

$$q = -D(\theta) \frac{\partial \theta}{\partial x} + K(\theta) \quad t \geq 0, x = 0 \quad [5]$$

$$c = c_0 \quad 0 \leq t \leq t_1, x = 0 \quad [6]$$

$$-D_s \theta \frac{\partial c}{\partial x} + qc = 0 \quad t > t_1, x = 0 \quad [7]$$

These boundary conditions allow for application of a salt solution with concentration  $c_0$ , and a flux rate  $q$  until a time  $t = t_1$ , where application of salt is discontinued. The method of solution of the two equations [1] and [2] is a numerical one where  $\theta(x,t)$  and  $c(x,t)$  are obtained at incremental time steps,  $\Delta t$ , and incremental distances,  $\Delta x$ , in the soil. Incremental time steps and distance are denoted by  $(i,n)$  where:

$$x = i \Delta x, \quad t = n \Delta t \quad [8]$$

$$\text{where } i = 1, 2, 3, \dots; \quad n = 1, 2, 3, \dots \quad [9]$$

The values of  $\theta(x,t)$  and  $c(x,t)$  at any point  $(i,n)$  are denoted by  $\theta_i^n$  and  $c_i^n$  respectively,

$$\begin{aligned} \theta(x,t) &= \theta(i\Delta x, n \Delta t) = \theta_i^n \\ c(x,t) &= c(i\Delta x, n \Delta t) = c_i^n \end{aligned} \quad [10]$$

A first step in obtaining a numerical solution for equations [1] and [2] is to express the equations as finite difference approximations (Richmeyer and Morton, 1967; Varga, 1962). Three main types of finite difference approximation methods are commonly used, namely, fully implicit, fully explicit, and implicit-explicit methods. The implicit-explicit method (known as Crank-Nicholson) has a number of advantages over the fully explicit and fully implicit methods (Richmeyer and Morton, 1967).

The finite difference approximation for the solute flow equation [1] is

$$\begin{aligned} \frac{c_i^{n+1} - c_i^n}{\Delta t} = & \frac{D_s [c_{i+1}^{n+1} - 2c_i^{n+1} + c_{i-1}^{n+1}]}{2(\Delta x)^2} \\ & + \frac{D_s [c_{i+1}^n - 2c_i^n + c_{i-1}^n]}{2(\Delta x)^2} \\ & - \frac{A}{\theta_i^{n+1}} \frac{c_{i+1}^n - c_i^n}{\Delta x} \end{aligned} \quad [11]$$

where A is given by

$$A = K(\theta_i^{n+1}) - [D(\theta_i^{n+1}) + D_s] \frac{\theta_{i+1}^{n+1} - \theta_i^{n+1}}{\Delta x} \quad [12]$$

Similarly, the finite difference approximation for the water flow equation [2] is

$$\begin{aligned} \frac{\theta_i^{n+1} - \theta_i^n}{\Delta t} = & \frac{D(\theta_{i+1/2}^{n+1/2}) [\theta_{i+1}^{n+1} - \theta_i^{n+1}] - D(\theta_{i-1/2}^{n+1/2}) [\theta_i^{n+1} - \theta_{i-1}^{n+1}]}{2(\Delta x)^2} \\ & + \frac{D(\theta_{i+1/2}^{n+1/2}) [\theta_{i+1}^n - \theta_i^n] - D(\theta_{i-1/2}^{n+1/2}) [\theta_i^n - \theta_{i-1}^n]}{2(\Delta x)^2} \\ & - \frac{K(\theta_{i+1}^{n+1/2}) - K(\theta_{i-1}^{n+1/2})}{2\Delta x} \end{aligned} \quad [13]$$

Incorporation of the boundary and initial conditions in their finite difference forms and rearrangement of equations [11] and [13] yield two linear systems of equations. These two systems represent the water flow and the solute flow equations at any time. The two systems of equation can easily be solved by Gaussian elimination since the coefficient matrices are tridiagonal. When a given problem is solved on the computer, the two systems of equations for water and solute flow are solved alternately until the desired time  $t$  is reached.

## Description of Computer Program

The attached computer program consists of a source program, eleven subprograms, and an input data section. The names of the subprograms are ADJUST, SALTXT, WATER, SALT, OUTPUT, SALTCH, CHECKN, CHECKT, READJ, TRIDM, and DFFCNN. The user of this program, must provide parameters in the form of punched data cards in the data section, and as FORTRAN statements in the DFFCNN subprogram. The remaining source program and subprograms need not be altered and remain valid for all situations.

The main function of the source program is that of prescribing the DIMENSION and COMMON statements and the reading of input data as well as the setting up of the sequence of the entire program. Subprogram DFFCNN provides the water hydraulic conductivity  $K(\theta)$  and soil water diffusivity  $D(\theta)$  for the range of water content  $\theta$  used. This subprogram is to be provided by the user for each particular soil (or porous media) to be used. Subprograms WATER and SALT calculate the water contents, solute concentration and their fluxes. Subprogram TRIDM provides the solution for a linear system of equations with a tridiagonal coefficient matrix using Gaussian elimination methods.

An important feature of our program is that increments of  $\Delta x$  and  $\Delta t$  are adjusted automatically to satisfy stability and convergence criteria for the water and salt finite difference equations. These adjustments are made at the start of the program using subprograms ADJUST (for water flow) and SALTXT (for solute flow). Further adjustments are carried out automatically every 10 time steps by subprograms READJ and SALTCH, respectively.

Another program feature is that the number of nodal points (increments) are automatically calculated from the length of the flow region (soil column). Only that portion of the soil column where solute and water flow are currently taking place is considered. These adjustments of the number of nodal points are



made using subprogram CHECKN. This number is checked every 10 time steps, and no further changes of the number of increments will occur when the total column length is reached. This feature minimizes the unnecessary use of a large number of nodal (storage) points and saves considerable amount of CPU (central processing unit) time.

A third feature of our computer program is that data are provided at specified times. This adjustment is carried out using subprogram CHECKT, where  $\Delta t$ 's are continuously adjusted until the prescribed times are reached. For each prescribed time the soil water contents, water flux, solute concentrations, and salt flux throughout the soil column are printed using subprogram OUTPUT.

#### Parameters Used in the Program

The following parameters are input parameters to be provided in the DATA section of the program:

DT = initial approximation for  $\Delta t$

DX = initial approximation for  $\Delta x$

DXMAX = maximum  $\Delta x$  desired

VIN = initial soil water  $\theta$  throughout the soil profile

VDIF0 = allowable difference in soil water contents  $\theta$  at the soil surface  
and the first nodal point below the soil surface

VDIF1 = allowable difference in water contents in adjusting  $x$

SFLUX = soil water flux at the soil surface,  $q$

DSALT = hydrodynamic dispersion coefficient of salt,  $D_s$

CIN = initial distribution of salt throughout the soil profile

C(1) = concentration of salt added at the soil surface,  $c_0$

COLUMN = total length of soil column,  $L$

TS = time at which salt is applied

TF = time at which application of salt terminated

TT = times at which output data are desired

NT = number of prescribed times at which output data are desired

Input parameters to be provided in subprogram DFFCNN are

DIF = soil water diffusivity

CON = soil hydraulic conductivity

In the attached program diffusivities and conductivities are provided as a function of soil water content. Other parameters used are

V = soil water content  $\theta$

C = salt concentration  $c$

TH = soil water gradient,  $\frac{\partial \theta}{\partial x}$

D0 = soil water diffusivity at the surface

C0 = soil hydraulic conductivity at the surface

#### LITERATURE CITED

1. Kirkham, D. and W. L. Powers. 1972. Advanced soil physics. Interscience Publishers Inc., New York.
2. Richmeyer, R. D. and K. W. Morton. 1967. Difference methods for initial value problems. Interscience Publishers Inc., New York.
3. Varga, R. S. 1962. Matrix iterative analysis. Prentice-Hall, Inc., New Jersey.
4. Warrick, A. W., J. W. Biggar, and D. R. Nielson. 1971. Simultaneous solute and water transfer for unsaturated soil. Water Resources Research. 7:1216-1225.

## SAMPLE PROGRAM

### Numerical Results for Chloride and Water Movement in a Sandy Soil

Experimental data of soil hydraulic conductivity and soil water diffusivity for a Lakeland fine sand was used in our program to predict chloride and water content distributions during infiltration and redistribution in this representative Florida soil. An experimentally obtained value for hydrodynamic dispersion coefficient for chloride was also used. Water at a flux rate of 1.9 cm/hour was introduced to a 50 cm long soil column initially at  $0.095 \text{ cm}^3/\text{cm}^3$  water content. Chloride was introduced with the water for the first hour and chloride free water was applied continuously for times greater than one hour. The concentration of applied chloride solution was  $200 \text{ me}/\text{cm}^3$ . Computer results are printed for selected times of 0.5, 1, and 1.5 hours of infiltration.

As expected, simulated results show that leaching of soil applied chloride proceeded rapidly initially until approximately 99% of the chloride had been removed from the soil surface after 30 minutes of continuous application of chloride free water. As chloride and water proceeded downward in the soil column a lag between distribution profiles developed. Chloride distribution profiles lagged somewhat behind those of the water content profiles. As infiltration proceeded the lag between salt and water profiles became more significant.

#### Physical Parameters Used:

Chloride hydrodynamic dispersion coefficient,  $D_s = 2.5 \text{ cm}^2/\text{hr}$

Initial salt concentration in soil profile =  $0 \text{ me}/\text{cm}^3$

Salt concentration of input solution,  $c_0 = 200 \text{ me}/\text{cm}^3$

Water flux,  $q = 1.9$  cm/hour

Initial soil water content,  $\theta_i = 0.095$  cm<sup>3</sup>/cm<sup>3</sup>

Soil water hydraulic conductivity  $K(\theta)$  in cm/hour was approximately fit by the expressions

$$K(\theta) = \exp(a_1 + b_1 \ln \theta) \quad \theta \geq 0.30$$

$$K(\theta) = \exp(a_2 + b_2 \ln \theta) \quad 0.135 \leq \theta < 0.3$$

$$K(\theta) = \exp(a_3 + b_3 \ln \theta) \quad \theta < 0.135$$

where

$$a_1 = 18.23815$$

$$a_2 = 10.15210$$

$$a_3 = 5.93635$$

$$b_1 = 9.617972$$

$$b_2 = 5.579957$$

$$b_3 = 2.078421$$

Soil water diffusivity  $D(\theta)$  in cm<sup>2</sup>/hour was approximately fit by the expression

$$D(\theta) = \exp(c_1 + d_1 \ln \theta) \quad \theta \geq 0.31$$

$$D(\theta) = \exp(c_2 + d_2 \ln \theta) \quad 0.217 \leq \theta < 0.31$$

$$D(\theta) = \exp(c_3 + d_3 \ln \theta) \quad 0.125 \leq \theta < 0.217$$

$$D(\theta) = \exp(c_4 + d_4 \ln \theta) \quad 0.058 \leq \theta < 0.125$$

$$D(\theta) = \exp(c_5 + d_5 \ln \theta) \quad \theta < 0.058$$

where

$$c_1 = 31.61550$$

$$d_1 = 19.66924$$

$$c_2 = 15.48227$$

$$d_2 = 5.89404$$

$$c_3 = 12.649738$$

$$d_3 = 4.040144$$

$$c_4 = 18.330893$$

$$d_4 = 7.012651$$

$$c_5 = 0.3482552$$

$$d_5 = 0.5213932$$

```
C
C      EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
C
0001      COMMON/WATSLT/V(900),C(900)
0002      COMMON/HHH/DIF(900),CON(900)
0003      COMMON/HMTRX/AA(900),BB(900),CC(900),R(900),
      *X(900),TH(900)
0004      COMMON/XTFC/DT,DX,DXMAX,SFLUX,COLUMN,TIME
0005      COMMON/CVCAA/CO,DO,ADJ
0006      COMMON/CWCAA/ALPHA,BETA
0007      COMMON/CZCAA/VIN,VDIF0,VDIF1,V0
0008      COMMON/CYCAA/DSALT,CIN
0009      COMMON/VVV/N,NM1,NM2,NP1,NP2
0010      COMMON/FACT/IFACT,KF
0011      COMMON/TIMEC/ TT(20),TC,NT,IT,TS,TF
0012      100 FORMAT(I2)
0013      600 FORMAT(8F10.4)
0014      READ(5,600) DT,DX,DXMAX,VIN,VDIF0,VDIF1,SFLUX
0015      WRITE(6,600) DT,DX,DXMAX,VIN,VDIF0,VDIF1,SFLUX
0016      READ(5,600) DSALT,CIN,C(1),COLUMN,TS,TF
0017      WRITE(6,600) DSALT,CIN,C(1),COLUMN,TS,TF
0018      READ(5,100) NT
0019      READ(5,600) (TT(I),I=1,NT)
0020      WRITE(6,600) (TT(I),I=1,NT)
0021      IT=1
0022      TC=TT(1)
0023      IFACT=2
0024      NM1=IFIX(COLUMN/DX)+1
0025      N=NM1+1
0026      NM2=N-2
0027      NP1=N+1
0028      NP2=N+2
0029      V0=VIN
0030      V(1)=VIN
0031      DO 1 I=2,NP2
0032      V(I)=VIN
0033      1 C(I)=CIN
0034      TIME=0.00
0035      CALL ADJUST
0036      CALL SALTXT
0037      KF=10
0038      5 CONTINUE
0039      DO 25 KK=1,KF
0040      TIME=TIME+DT
0041      CALL WATER
0042      CALL SALT
0043      25 CONTINUE
0044      TWRITE=ABS(TIME-TC)
0045      IF(TWRITE.LE.1.0E-5) CALL OUTPUT
0046      IF(TIME.GE.TT(NT)) STOP
0047      CALL SALTCH
0048      CALL CHECKN
0049      CALL CHECKT
0050      GO TO 5
0051      END
```

```

C
C      EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
C
0001      SUBROUTINE ADJUST
0002      COMMON/WATSLT/V(900),C(900)
0003      COMMON/HHH/DIF(900),CON(900)
0004      COMMON/HMTFX/AA(900),BE(900),CC(900),R(900),
      *X(900),TH(900)
0005      COMMON/XTFC/DT,DX,DXMAX,SFLUX,COLUMN,TIME
0006      COMMON/CVCAA/C0,D0,ADJ
0007      COMMON/CWCAA/ALPHA,BETA
0008      COMMON/CZCAA/VIN,VDIF0,VDIF1,V0
0009      COMMON/CYCAA/DSALT,CIN
0010      COMMON/VVV/N,NM1,NM2,NP1,NP2
0011      CALL DFFCNN
0012      IFA=1
0013      5 DT=DT/IFA
0014      DX=DX/IFA
0015      ALPHA=DT/(2.0*DX*DX)
0016      BETA=DT/(2.0*DX)
0017      DD=1.0/D0
0018      ADJ=(SFLUX*DD-C0*DD)*DX
0019      IF(ADJ.GE.VDIF0) GO TO 10
0020      RETURN
0021      10 IFA=2
0022      DT=DT/IFA
0023      DX=DX/IFA
0024      ALPHA=DT/(2.0*DX*DX)
0025      BETA=DT/(2.0*DX)
0026      DD=1.0/D0
0027      ADJ=(SFLUX*DD-C0*DD)*DX
0028      IF(ADJ.GE.VDIF0) GO TO 20
0029      RETURN
0030      20 IFA=5
0031      GO TO 5
0032      END

```

```

C
C      EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
C
0001      SUBROUTINE SALTXT
0002      COMMON/WATSLT/V(900),C(900)
0003      COMMON/HHH/DIF(900),CON(900)
0004      COMMON/HMTPX/AA(900),BB(900),CC(900),R(900),
      *X(900),TH(900)
0005      COMMON/XTFC/DT,DX,DXMAX,SFLUX,COLUMN,TIME
0006      COMMON/CVCAA/C0,D0,ADJ
0007      COMMON/CWCAA/ALPHA,BETA
0008      COMMON/CZCAA/VIN,VDIF0,VDIF1,V0
0009      COMMON/CYCAA/DSALT,CIN
0010      COMMON/VVV/N,NM1,NM2,NP1,NP2
0011      COMMON/FACT/IFACT,KF
C
0012      I2=2
0013      DD=1.0/D0
0014      RATE=SFLUX/V0
0015      5 ALPHDS=ALPHA*DSALT
0016      BERA=BETA*RATE*2.0
0017      RATIO=ALPHDS/BERA
0018      ADJ=(SFLUX*DD-C0*DD)*DX
0019      IF(BERA.GT.0.60) GO TO 20
0020      IF(RATIO.LT.0.50) GO TO 10
0021      RETURN
0022      10 DX=DX/I2
0023      ALPHA=DT/(2.0*DX*DX)
0024      BETA=DT/(2.0*DX)
0025      GO TO 5
0026      20 DT=DT/I2
0027      ALPHA=DT/(2.0*DX*DX)
0028      BETA=DT/(2.0*DX)
0029      GO TO 5
0030      END

```



```

C
C      EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
C
0001      SUBROUTINE WATER
0002      COMMON/WATSLT/V(900),C(900)
0003      COMMON/HHH/DIF(900),CON(900)
0004      COMMON/HMTRX/AA(900),BB(900),CC(900),R(900),
      *X(900),TH(900)
0005      COMMON/XTFC/DT,DX,DXMAX,SFLUX,COLUMN,TIME
0006      COMMON/CVCAA/CO,D0,ADJ
0007      COMMON/CWCAA/ALPHA,BETA
0008      COMMON/CZCAA/VIN,VDIF0,VDIF1,V0
0009      COMMON/CYCAA/DSALT,CIN
0010      COMMON/VVV/N,NM1,NM2,NP1,NP2
0011      COMMON/FACT/IFACT,KF
0012      CALL DFFCNR
0013      DO 3 I=1,NM2
0014      AA(I)=1.0+ALPHA*(DIF(I+1)+DIF(I))
0015      BB(I)=-ALPHA*DIF(I+1)
0016      3 CC(I)=-ALPHA*DIF(I+1)
0017      AA(NM1)=1.0+ALPHA*DIF(NM1)
0018      AA(1)=AA(1)-ALPHA*DIF(1)
C
0019      DO 4 I=1,NM2
0020      X1=ALPHA*DIF(I)*V(I)
0021      X2=V(I+1)-ALPHA*(DIF(I+1)+DIF(I))*V(I+1)
0022      X3=ALPHA*DIF(I+1)*V(I+2)
0023      X4=-BETA*(CON(I+2)-CON(I))
0024      4 R(I)=X1+X2+X3+X4
0025      R(1)=R(1)+ALPHA*DIF(1)*ADJ
0026      I=NM1
0027      X1=ALPHA*DIF(I)*V(I)
0028      X2=V(I+1)-ALPHA*DIF(I)*V(I+1)
0029      X3=0.0
0030      X4=-BETA*(CON(I+1)-CON(I))
0031      R(I)=X1+X2+X3+X4
C
0032      CALL TPIDM(AA,BB,CC,R,X,NM1)
0033      DO 5 K=2,N
0034      5 V(K)=X(K-1)
0035      V(1)=V(2)+ADJ
0036      CALL DET3(DX,V,TH,NP1,IER)
0037      TH(1)=(V(2)-V(1))/DX
0038      TH(2)=(V(3)-V(2))/DX
0039      TH(N)=TH(NM1)
0040      TH(NP1)=TH(NM1)
0041      RETURN
0042      END

```

```

C      EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
C
0001      SUBROUTINE SALT
0002      COMMON/WATSLT/V(900),C(900)
0003      COMMON/HHH/DIF(900),CON(900)
0004      COMMON/HMTRX/AA(900),BB(900),CC(900),R(900),
      *X(900),TH(900)
0005      COMMON/XTFC/DT,DX,DXMAX,SFLUX,COLUMN,TIME
0006      COMMON/CVCAA/C0,D0,ADJ
0007      COMMON/CWCAA/ALPHA,BETA
0008      COMMON/CZCAA/VIN,VDIF0,VDIF1,V0
0009      COMMON/CYCAA/DSALT,CIN
0010      COMMON/VVV/N,NM1,NM2,NP1,NP2
0011      COMMON/FACT/IFACT,KF
0012      COMMON/TIMEC/ TT(20),TC,NT,IT,TS,TF
0013      CALL DFFCNN
0014      IF(TIME.LT.TS) GO TO 20
0015      IF(TIME.GT.TF) GO TO 10
0016      BETA=BETA*2.00
0017      DO 13 I=1,NM2
0018      AA(I)=1.0+2.0*ALPHA*DSALT
0019      BB(I)=-ALPHA*DSALT
0020      CC(I)=-ALPHA*DSALT
0021      13 CONTINUE
0022      AA(NM1)=1.0+ALPHA*DSALT
0023      DO 14 I=1,NM1
0024      WVEL=CON(I+1)-DIF(I+1)*TH(I+1)
0025      DVEL=-DSALT*TH(I+1)
0026      RATE=(WVEL+DVEL)/V(I+1)
0027      R(I)=C(I+1)+ALPHA*DSALT*(C(I+2)-2.0*C(I+1)+C(I))
0028      R(I)=R(I)-BETA*RATE*(C(I+2)-C(I+1))
0029      14 CONTINUE
0030      R(1)=P(1)+ALPHA*DSALT*C(1)
0031      GO TO 15
0032      10 CONTINUE
0033      DO 16 I=1,NM2
0034      AA(I)=1.0+2.0*ALPHA*DSALT
0035      BB(I)=-ALPHA*DSALT
0036      CC(I)=-ALPHA*DSALT
0037      16 CONTINUE
0038      AA(NM1)=1.0+ALPHA*DSALT
0039      ADJS=1.0+(SFLUX*DX)/(DSALT*V(1))
0040      AA(1)=AA(1)-ALPHA*DSALT/ADJS
0041      DO 17 I=1,NM1
0042      WVEL=CON(I+1)-DIF(I+1)*TH(I+1)
0043      DVEL=-DSALT*TH(I+1)
0044      RATE=(WVEL+DVEL)/V(I+1)
0045      R(I)=C(I+1)+ALPHA*DSALT*(C(I+2)-2.0*C(I+1)+C(I))
0046      R(I)=R(I)-BETA*RATE*(C(I+2)-C(I+1))
0047      17 CONTINUE
0048      C(1)=C(2)/ADJS
0049      15 CALL TRIDM(AA,BB,CC,R,X,NM1)
0050      DO 11 K=2,N
0051      11 C(K)=X(K-1)
0052      ALPHA=DT/(2.0*DX*DX)
0053      BETA=DT/(2.0*DX)
0054      20 CONTINUE
0055      RETURN
0056      END

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C
C      EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
C
0001      SUBROUTINE SALTCH
0002      COMMON/WATSLT/V(900),C(900)
0003      COMMON/HHH/DIF(900),CON(900)
0004      COMMON/HMTRX/AA(900),BB(900),CC(900),R(900),
      *X(900),TH(900)
0005      COMMON/XTFC/DT,DX,DXMAX,SFLUX,COLUMN,TIME
0006      COMMON/CVCAA/C0,D0,ADJ
0007      COMMON/CWCAA/ALPHA,BETA
0008      COMMON/CZCAA/VIN,VDIF0,VDIF1,V0
0009      COMMON/CYCAA/DSALT,CIN
0010      COMMON/VVV/N,NM1,NM2,NP1,NP2
0011      COMMON/FACT/IFACT,KF

C
0012      K=2
0013      WVEL=CON(K)-DIF(K)*TH(K)
0014      RATE=(WVEL-DSALT*TH(K))/V(K)
0015      BERA=BETA*RATE*2.0
0016      ALPHDS=ALPHA*DSALT
0017      RATIO=ALPHDS/BERA
0018      IF(BERA.GT.0.60) RETURN
0019      IF(RATIO.LT.0.50) RETURN

C
0020      K=2*IFACT-(IFACT-1)
0021      M=3*IFACT-(IFACT-1)
0022      TH(K)=(V(M)-V(K))/(IFACT*DX)
0023      WVEL=CON(K)-DIF(K)*TH(K)
0024      RATE=(WVEL-DSALT*TH(K))/V(K)
0025      BERA=BETA*RATE*2.0
0026      ALPHDS=ALPHDS/IFACT
0027      RATIO=ALPHDS/BERA
0028      IF(RATIO-0.50) 5,10,10

C
0029      5 K=2
0030      WVEL=CON(K)-DIF(K)*TH(K)
0031      RATE=(WVEL-DSALT*TH(K))/V(K)
0032      BERA=BETA*RATE*2.0
0033      ALPHDS=ALPHA*DSALT
0034      BERA=BERA*2.0
0035      ALPHDS=ALPHDS*2.0
0036      RATIO=ALPHDS/BERA
0037      IF(BERA.GT.0.60) RETURN
0038      IF(RATIO.LT.0.50) RETURN
0039      DT=DT*2.0
0040      ALPHA=ALPHA*2.0
0041      BETA=BETA*2.0
0042      RETURN
0043      10 ALPHA=ALPHA/IFACT
0044      CALL READJ
0045      RETURN
0046      END

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C      EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
C

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0001      SUBROUTINE CHECKN
0002      COMMON/WATSLT/V(900),C(900)
0003      COMMON/XTFC/DT,DX,DXMAX,SFLUX,COLUMN,TIME
0004      COMMON/CVCAA/CO,DO,ADJ
0005      COMMON/CWCAA/ALPHA,BETA
0006      COMMON/CZCAA/VIN,VDIF0,VDIF1,V0
0007      COMMON/CYCAA/DSALT,CIN
0008      COMMON/VVV/N,NM1,NM2,NP1,NP2
0009      KK=5
0010      MM=10
0011      NM1F=IFIX(COLUMN/DX)+1
0012      COL1=DX*NM1F
0013      IF(NM1.EQ.NM1F) RETURN
0014      IF(NM1.LT.NM1F) GO TO 1
0015      RETURN
0016      1 CHV5=V(N-KK)-V(NP2)
0017      IF(CHV5.GE.0.10E-5) GO TO 10
0018      RETURN
0019      10 NEWN=N+MM
0020      IF(NEWN.GT.(NM1F+1)) GO TO 20
0021      NN=NEWN+2
0022      DO 15 I=NP1,NN
0023      C(I)=CIN
0024      15 V(I)=VIN
0025      N=NEWN
0026      NM1=N-1
0027      NM2=N-2
0028      NP1=N+1
0029      NP2=N+2
0030      RETURN
0031      20 NN=NM1F+2
0032      DO 25 I=NP1,NN
0033      C(I)=CIN
0034      25 V(I)=VIN
0035      NM1=NM1F
0036      N=NM1+1
0037      NM2=N-2
0038      NP1=N+1
0039      NP2=N+2
0040      RETURN
0041      END

```

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C  
C

EE

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0001 SUBROUTINE CHECKT
0002 COMMON/XTFC/DT,DX,DXMAX,SFLUX,COLUMN,TIME
0003 COMMON/CVCAA/C0,D0,ADJ
0004 COMMON/CWCAA/ALPHA,BETA
0005 COMMON/CZCAA/VIN,VDIF0,VDIF1,V0
0006 COMMON/CYCAA/DSALT,CIN
0007 COMMON/TIMEC/ TT(20),TC,NT,IT,TS,TF
0008 TWRITE=ABS(TIME-TC)
0009 IF(TWRITE.LE.1.0E-5) RETURN
0010 TIME10=TIME+10.0*DT
0011 IF((TIME.LT.TC).AND.(TIME10.GE.TC)) GO TO 30
0012 RETURN
0013 30 DT=(TC-TIME)/10.0
0014 ALPHA=DT/(2.0*DX*DX)
0015 BETA=DT/(2.0*DX)
0016 RETURN
0017 END

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C  
C  
C

EE

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0001 SUBROUTINE READJ
0002 COMMON/WATSLT/V(900),C(900)
0003 COMMON/XTFC/DT,DX,DXMAX,SFLUX,COLUMN,TIME
0004 COMMON/CVCAA/C0,D0,ADJ
0005 COMMON/CWCAA/ALPHA,BETA
0006 COMMON/CZCAA/VIN,VDIF0,VDIF1,V0
0007 COMMON/CYCAA/DSALT,CIN
0008 COMMON/VVV/N,NM1,NM2,NF1,NP2
0009 COMMON/FACT/IFACT,KF
0010 IF(ABS(DXMAX-DX).LT.1.0E-4) RETURN
0011 I=4
0012 K=I*IFACT-(IFACT-1)
0013 IF((V(I)-V(K)).LT.VDIF1) GO TO 7
0014 RETURN
0015 7 CONTINUE
0016 DX=DX*IFACT
0017 DD=1.0/D0
0018 ADJ=(SFLUX*DD-C0*DD)*DX
0019 DO 20 I=2,N
0020 K=(I*IFACT)-(IFACT-1)
0021 IF(K.GT.N) GO TO 25
0022 C(I)=C(K)
0023 20 V(I)=V(K)
0024 25 KK=I
0025 DO 30 J=KK,N
0026 C(J)=CIN
0027 30 V(J)=VIN
0028 DT=DT*IFACT
0029 KI=1
0030 KLA=7
0031 DO 55 KSS=1,KLA
0032 DT1=KI*0.33E-6
0033 DT2=KI*0.66E-6
0034 DT3=KI*0.90E-6
0035 IF(DT-DT1) 51,51,52
0036 51 DT=KI*0.20E-6
0037 GO TO 65
0038 52 IF(DT-DT2) 53,53,54
0039 53 DT=KI*0.50E-6
0040 GO TO 65
0041 54 IF(DT-DT3) 56,56,57
0042 56 DT=KI*1.00E-6
0043 GO TO 65
0044 57 KI=KI*10
0045 55 CONTINUE
0046 65 CONTINUE
0047 ALPHA=DT/(2.0*DX*DX)
0048 BETA=DT/(2.0*DX)
0049 IF(IFACT.EQ.2) GO TO 71
0050 IF(IFACT.EQ.5) IFACT=2
0051 GO TO 72
0052 71 IFACT=5
0053 72 RETURN
0054 END

```

```
C
C      CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C
0001      SUBROUTINE TRIDM(A,B,C,D,X,N)
0002      DIMENSION A(1),B(1),C(1),D(1),X(1)
0003      DO 1 I=2,N
0004      C(I-1)=C(I-1)/A(I-1)
0005      A(I)=A(I)-(C(I-1)*B(I-1))
0006      1 CONTINUE
0007      X(1)=D(1)
0008      DO 2 I=2,N
0009      X(I)=D(I)-(C(I-1)*X(I-1))
0010      2 CONTINUE
0011      X(N)=X(N)/A(N)
0012      DO 3 I=2,N
0013      X(N+1-I)=(X(N+1-I)-(B(N+1-I)*X(N+2-I)))/A(N+1-I)
0014      3 CONTINUE
0015      RETURN
0016      END
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C
C      EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE
C
0001      SUBROUTINE DFFCNN
0002      COMMON/WATSLT/V(900),C(900)
0003      COMMON/HHH/DIF(900),CON(900)
0004      COMMON/HMTFX/AA(900),BB(900),CC(900),R(900),
        *X(900),TH(900)
0005      COMMON/XTFC/DT,DX,DXMAX,SFLUX,COLUMN,TIME
0006      COMMON/CVCAA/CO,D0,ADJ
0007      COMMON/CWCAA/ALPHA,BETA
0008      COMMON/CZCAA/VIN,VDIF0,VDIF1,V0
0009      COMMON/CYCAA/DSALT,CIN
0010      COMMON/VVV/N,NM1,NM2,NP1,NP2
0011      AC3=5.936350
0012      AC2=10.15210
0013      AC1=18.23815
0014      BC3=2.078421
0015      BC2=5.579957
0016      BC1=9.617972
0017      AD5=31.61550
0018      AD4=15.482227
0019      AD3=12.649738
0020      AD2=18.830893
0021      AD1=0.3482552
0022      BD5=19.66924
0023      BD4=5.89404
0024      BD3=4.040144
0025      BD2=7.012651
0026      BD1=0.5213932
0027      DO 4 I=1,N
0028          IF(V(I)-0.3) 6,9,9
0029          IF(V(I)-0.135) 1,2,2
0030          1      CON(I)=EXP(AC1+BC1*ALOG(V(I)))
0031              GO TO 3
0032          2      CON(I)=EXP(AC2+BC2*ALOG(V(I)))
0033              GO TO 3
0034          9      CON(I)=EXP(AC3+BC3*ALOG(V(I)))
0035          3      CONTINUE
0036          4      CONTINUE
0037          V0=V(I)
0038          C0=CON(I)
0039          DO 100 K=1,N
0040              I=NP1-K
0041              IF(V(I)-0.31) 5,60,60
0042              5      IF(V(I)-0.217) 10,50,50
0043              10      IF(V(I)-0.125) 15,40,40
0044              15      IF(V(I)-0.058) 20,30,30
0045              20      DIF(I)=EXP(AD1+BD1*ALOG((V(I)+V(I+1))*0.5))
0046                  D0=EXP(AD1+BD1*ALOG(V0))
0047                  GO TO 80
0048              30      DIF(I)=EXP(AD2+BD2*ALOG((V(I)+V(I+1))*0.5))
0049                  D0=EXP(AD2+BD2*ALOG(V0))
0050                  GO TO 80
0051              40      DIF(I)=EXP(AD3+BD3*ALOG((V(I)+V(I+1))*0.5))
0052                  D0=EXP(AD3+BD3*ALOG(V0))
0053                  GO TO 80
0054              50      DIF(I)=EXP(AD4+BD4*ALOG((V(I)+V(I+1))*0.5))
0055                  D0=EXP(AD4+BD4*ALOG(V0))
0056                  GO TO 80
0057              60      DIF(I)=EXP(AD5+BD5*ALOG((V(I)+V(I+1))*0.5))
0058                  D0=EXP(AD5+BD5*ALOG(V0))
0059              80      CONTINUE
0060              100     CONTINUE
0061                  DD=1.0/D0
0062                  ADJ=(SFLUX*DD-C0*DD)*DX
0063                  RETURN
0064      END

```

0.0200	0.5000	1.0000	0.0950	0.0200	0.0200	1.9000
2.5000	0.0	200.0000	50.0000	0.0	1.0000	
0.5000	1.0000	1.5000				

```

***** TIME = 0.500000E 00 HOURS ***
DISTANCE, CM      WATER CONTENT      WATER FLUX, CM/HOUR
0.0                0.17635            1.90100
0.1000E 00        0.17624            1.86197
0.2000E 00        0.17615            1.94767
0.3000E 00        0.17599            1.83025
0.4000E 00        0.17597            1.90896
0.5000E 00        0.17575            1.93403
0.6000E 00        0.17570            1.82642
0.7000E 00        0.17556            1.91690
0.8000E 00        0.17544            1.87667
0.9000E 00        0.17533            1.88615
0.1000E 01        0.17520            1.87898
0.1100E 01        0.17508            1.87688
0.1200E 01        0.17495            1.87845
0.1300E 01        0.17482            1.87049
0.1400E 01        0.17469            1.87693
0.1500E 01        0.17456            1.86525
0.1600E 01        0.17443            1.86670
0.1700E 01        0.17429            1.86756
0.1800E 01        0.17415            1.85867
0.1900E 01        0.17401            1.86450
0.2000E 01        0.17386            1.85337
0.2100E 01        0.17373            1.85088
0.2200E 01        0.17358            1.85808
0.2300E 01        0.17343            1.84572
0.2400E 01        0.17328            1.84688
0.2500E 01        0.17312            1.84947
0.2600E 01        0.17297            1.83666
0.2700E 01        0.17281            1.84064
0.2800E 01        0.17265            1.83568
0.2900E 01        0.17249            1.82740
0.3000E 01        0.17233            1.83464
0.3100E 01        0.17215            1.82632
0.3200E 01        0.17199            1.82429
0.3300E 01        0.17181            1.82509
0.3400E 01        0.17164            1.81257
0.3500E 01        0.17146            1.81824
0.3600E 01        0.17128            1.81280
0.3700E 01        0.17110            1.80600
0.3800E 01        0.17091            1.80903
0.3900E 01        0.17072            1.79861
0.4000E 01        0.17053            1.80048
0.4100E 01        0.17033            1.79389
0.4200E 01        0.17014            1.78925
0.4300E 01        0.16994            1.79089
0.4400E 01        0.16974            1.77983
0.4500E 01        0.16953            1.78495
0.4600E 01        0.16932            1.77765
0.4700E 01        0.16911            1.77169
0.4800E 01        0.16889            1.77047
0.4900E 01        0.16867            1.76218
0.5000E 01        0.16845            1.76243
0.5100E 01        0.16822            1.75398
0.5200E 01        0.16800            1.75387
0.5300E 01        0.16776            1.74818
0.5400E 01        0.16753            1.74222
0.5500E 01        0.16728            1.73971
0.5600E 01        0.16704            1.73220
0.5700E 01        0.16679            1.73002
0.5800E 01        0.16654            1.72065
0.5900E 01        0.16629            1.72068
0.6000E 01        0.16603            1.71518
0.6100E 01        0.16577            1.70858
0.6200E 01        0.16550            1.70394
0.6300E 01        0.16523            1.69650
0.6400E 01        0.16496            1.69295
0.6500E 01        0.16468            1.68439
0.6600E 01        0.16440            1.68297
0.6700E 01        0.16411            1.67307
0.6800E 01        0.16382            1.66934
0.6900E 01        0.16352            1.66289
0.7000E 01        0.16323            1.65487
0.7100E 01        0.16292            1.65063
0.7200E 01        0.16262            1.64338
0.7300E 01        0.16230            1.63791
0.7400E 01        0.16199            1.62972
0.7500E 01        0.16166            1.62426
0.7600E 01        0.16134            1.61559
0.7700E 01        0.16100            1.61230
0.7800E 01        0.16066            1.60116
0.7900E 01        0.16033            1.59606
0.8000E 01        0.15998            1.58950
0.8100E 01        0.15963            1.58092

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0.8200E 01	0.15927	1.57373
0.8300E 01	0.15891	1.56466
0.8400E 01	0.15854	1.55778
0.8500E 01	0.15816	1.54920
0.8600E 01	0.15778	1.54085
0.8700E 01	0.15740	1.53141
0.8800E 01	0.15701	1.52384
0.8900E 01	0.15662	1.51469
0.9000E 01	0.15621	1.50876
0.9100E 01	0.15580	1.49583
0.9200E 01	0.15539	1.49014
0.9300E 01	0.15497	1.47900
0.9400E 01	0.15455	1.46936
0.9500E 01	0.15411	1.46050
0.9600E 01	0.15368	1.45022
0.9700E 01	0.15322	1.44042
0.9800E 01	0.15278	1.42964
0.9900E 01	0.15232	1.41967
0.1000E 02	0.15185	1.40946
0.1010E 02	0.15138	1.39943
0.1020E 02	0.15090	1.38859
0.1030E 02	0.15041	1.37808
0.1040E 02	0.14992	1.36604
0.1050E 02	0.14942	1.35491
0.1060E 02	0.14891	1.34377
0.1070E 02	0.14840	1.33218
0.1080E 02	0.14788	1.32067
0.1090E 02	0.14734	1.30875
0.1100E 02	0.14681	1.29580
0.1110E 02	0.14626	1.28356
0.1120E 02	0.14571	1.27056
0.1130E 02	0.14514	1.25745
0.1140E 02	0.14458	1.24432
0.1150E 02	0.14400	1.23122
0.1160E 02	0.14341	1.21731
0.1170E 02	0.14282	1.20333
0.1180E 02	0.14222	1.18893
0.1190E 02	0.14161	1.17465
0.1200E 02	0.14099	1.15981
0.1210E 02	0.14036	1.14486
0.1220E 02	0.13973	1.12992
0.1230E 02	0.13909	1.11464
0.1240E 02	0.13844	1.09930
0.1250E 02	0.13778	1.08353
0.1260E 02	0.13711	1.06741
0.1270E 02	0.13644	1.05142
0.1280E 02	0.13576	1.03537
0.1290E 02	0.13507	1.02098
0.1300E 02	0.13436	1.00311
0.1310E 02	0.13365	0.98574
0.1320E 02	0.13291	0.96774
0.1330E 02	0.13216	0.94914
0.1340E 02	0.13140	0.93060
0.1350E 02	0.13062	0.91144
0.1360E 02	0.12983	0.89225
0.1370E 02	0.12902	0.87269
0.1380E 02	0.12820	0.85216
0.1390E 02	0.12736	0.83188
0.1400E 02	0.12651	0.81000
0.1410E 02	0.12566	0.78715
0.1420E 02	0.12479	0.76370
0.1430E 02	0.12390	0.74297
0.1440E 02	0.12297	0.71943
0.1450E 02	0.12201	0.69517
0.1460E 02	0.12102	0.67033
0.1470E 02	0.12000	0.64479
0.1480E 02	0.11894	0.61843
0.1490E 02	0.11786	0.59116
0.1500E 02	0.11674	0.56300
0.1510E 02	0.11559	0.53419
0.1520E 02	0.11442	0.50458
0.1530E 02	0.11322	0.47433
0.1540E 02	0.11199	0.44358
0.1550E 02	0.11075	0.41230
0.1560E 02	0.10950	0.38082
0.1570E 02	0.10825	0.34925
0.1580E 02	0.10700	0.31787
0.1590E 02	0.10578	0.28700
0.1600E 02	0.10458	0.25687
0.1610E 02	0.10343	0.22792
0.1620E 02	0.10234	0.20044
0.1630E 02	0.10132	0.17473
0.1640E 02	0.10039	0.15109
0.1650E 02	0.09954	0.12966

0.1660E 02  
0.1670E 02  
0.1680E 02  
0.1690E 02  
0.1700E 02  
0.1710E 02  
0.1720E 02  
0.1730E 02  
0.1740E 02  
0.1750E 02  
0.1760E 02  
0.1770E 02  
0.1780E 02  
0.1790E 02  
0.1800E 02

0.09878  
0.09813  
0.09756  
0.09707  
0.09667  
0.09633  
0.09605  
0.09583  
0.09564  
0.09550  
0.09538  
0.09529  
0.09523  
0.09518  
0.09515

0.11060  
0.09389  
0.07946  
0.06724  
0.05687  
0.04831  
0.04119  
0.03532  
0.03059  
0.02663  
0.02341  
0.02071  
0.01844  
0.01650  
0.01478

```

***** TIME = 0.500000E 00 HOURS ***
DISTANCE, CM      CONCENTRATION, ME/CM3      SALT FLUX, ME/CM2.HOUR
0.0                200.00000                380.20117
0.1000E 00        199.99988                372.39355
0.2000E 00        199.99974                389.53345
0.3000E 00        199.99954                366.04956
0.4000E 00        199.99936                381.79150
0.5000E 00        199.99881                386.80518
0.6000E 00        199.99814                365.28394
0.7000E 00        199.99730                383.37891
0.8000E 00        199.99580                375.33423
0.9000E 00        199.99362                377.22900
0.1000E 01        199.99043                375.79492
0.1100E 01        199.98592                375.37329
0.1200E 01        199.97972                375.68481
0.1300E 01        199.97101                374.08838
0.1400E 01        199.95927                375.36963
0.1500E 01        199.94336                373.02368
0.1600E 01        199.92242                373.30127
0.1700E 01        199.89478                373.45483
0.1800E 01        199.85841                371.65283
0.1900E 01        199.81134                372.78320
0.2000E 01        199.75035                370.51392
0.2100E 01        199.67245                369.95410
0.2200E 01        199.57361                371.30981
0.2300E 01        199.44862                368.73633
0.2400E 01        199.29198                368.82959
0.2500E 01        199.09695                369.16821
0.2600E 01        198.85553                366.39282
0.2700E 01        198.55899                366.89771
0.2800E 01        198.19711                365.55371
0.2900E 01        197.75816                363.46899
0.3000E 01        197.22974                364.34570
0.3100E 01        196.59712                362.02759
0.3200E 01        195.84537                360.80420
0.3300E 01        194.95758                359.95996
0.3400E 01        193.91550                356.32397
0.3500E 01        192.70203                355.99292
0.3600E 01        191.29620                353.25342
0.3700E 01        189.67896                349.96997
0.3800E 01        187.83202                348.22119
0.3900E 01        185.73393                343.58691
0.4000E 01        183.36946                340.84106
0.4100E 01        180.71951                336.11182
0.4200E 01        177.77084                331.27734
0.4300E 01        174.51244                327.05908
0.4400E 01        170.93195                320.10522
0.4500E 01        167.02974                315.37402
0.4600E 01        162.79884                307.98975
0.4700E 01        158.24567                300.27417
0.4800E 01        153.37920                292.74048
0.4900E 01        148.20961                283.56201
0.5000E 01        142.75935                275.10840
0.5100E 01        137.04668                264.88477
0.5200E 01        131.10426                255.32127
0.5300E 01        124.95973                244.56592
0.5400E 01        118.65096                233.39719
0.5500E 01        112.21832                222.30602
0.5600E 01        105.70082                210.39224
0.5700E 01        99.14520                 198.85448
0.5800E 01        92.59187                 186.49496
0.5900E 01        86.09067                 174.97432
0.6000E 01        79.67966                 162.99928
0.6100E 01        73.40173                 151.07199
0.6200E 01        67.29649                 139.50180
0.6300E 01        61.39803                 128.03130
0.6400E 01        55.73981                 117.15305
0.6500E 01        50.34636                 106.41043
0.6600E 01        45.24310                 96.49310
0.6700E 01        40.44344                 86.70128
0.6800E 01        35.96315                 77.71936
0.6900E 01        31.80750                 69.21159
0.7000E 01        27.97935                 61.25766
0.7100E 01        24.47768                 54.01605
0.7200E 01        21.29518                 47.30312
0.7300E 01        18.42310                 41.22607
0.7400E 01        15.84817                 35.68332
0.7500E 01        13.55586                 30.74751
0.7600E 01        11.52837                 26.30460
0.7700E 01        9.74792                  22.42717
0.7800E 01        8.19400                  18.94409
0.7900E 01        6.84786                  15.94958
0.8000E 01        5.68914                  13.34106
0.8100E 01        4.69845                  11.08309

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0.8200E 01	3.85727	9.15751
0.8300E 01	3.14773	7.51507
0.8400E 01	2.55338	6.13562
0.8500E 01	2.05876	4.97559
0.8600E 01	1.64994	4.01064
0.8700E 01	1.31428	3.21165
0.8800E 01	1.04057	2.55805
0.8900E 01	0.81883	2.02363
0.9000E 01	0.64044	1.59313
0.9100E 01	0.49780	1.24288
0.9200E 01	0.38460	0.96646
0.9300E 01	0.29529	0.74525
0.9400E 01	0.22534	0.57142
0.9500E 01	0.17089	0.43554
0.9600E 01	0.12881	0.32973
0.9700E 01	0.09649	0.24811
0.9800E 01	0.07183	0.18546
0.9900E 01	0.05314	0.13781
0.1000E 02	0.03908	0.10175
0.1010E 02	0.02855	0.07466
0.1020E 02	0.02074	0.05443
0.1030E 02	0.01496	0.03943
0.1040E 02	0.01073	0.02837
0.1050E 02	0.00765	0.02029
0.1060E 02	0.00542	0.01442
0.1070E 02	0.00381	0.01018
0.1080E 02	0.00267	0.00715
0.1090E 02	0.00186	0.00498
0.1100E 02	0.00128	0.00345
0.1110E 02	0.00088	0.00237
0.1120E 02	0.00060	0.00162
0.1130E 02	0.00041	0.00110
0.1140E 02	0.00027	0.00075
0.1150E 02	0.00018	0.00050
0.1160E 02	0.00012	0.00033
0.1170E 02	0.00008	0.00022
0.1180E 02	0.00005	0.00015
0.1190E 02	0.00003	0.00009
0.1200E 02	0.00002	0.00006
0.1210E 02	0.00001	0.00004
0.1220E 02	0.00001	0.00003
0.1230E 02	0.00001	0.00002
0.1240E 02	0.00000	0.00001
0.1250E 02	0.00000	0.00001
0.1260E 02	0.00000	0.00000
0.1270E 02	0.00000	0.00000
0.1280E 02	0.00000	0.00000
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0.1300E 02	0.00000	0.00000
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0.1390E 02	0.00000	0.00000
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0.1600E 02	0.00000	0.00000
0.1610E 02	0.00000	0.00000
0.1620E 02	0.00000	0.00000
0.1630E 02	0.00000	0.00000
0.1640E 02	0.00000	0.00000
0.1650E 02	0.00000	0.00000

0.1660E 02	0.00000	0.00000
0.1670E 02	0.00000	0.00000
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0.1690E 02	0.00000	0.00000
0.1700E 02	0.00000	0.00000
0.1710E 02	0.00000	0.00000
0.1720E 02	0.00000	0.00000
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0.1740E 02	0.00000	0.00000
0.1750E 02	0.00000	0.00000
0.1760E 02	0.00000	0.00000
0.1770E 02	0.00000	0.00000
0.1780E 02	0.00000	0.00000
0.1790E 02	0.00000	0.00000
0.1800E 02	0.00000	0.00000



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***** TIME = 0.100000E 01 HOURS ***
DISTANCE, CM      WATER CONTENT      WATER FLUX, CM/HOUR
0.0                0.18068            1.90008
0.1000E 00        0.18066            1.89564
0.2000E 00        0.18064            1.90372
0.3000E 00        0.18061            1.88554
0.4000E 00        0.18060            1.91496
0.5000E 00        0.18055            1.88942
0.6000E 00        0.18056            1.89330
0.7000E 00        0.18051            1.91414
0.8000E 00        0.18050            1.88273
0.9000E 00        0.18047            1.90430
0.1000E 01        0.18044            1.89551
0.1100E 01        0.18041            1.89656
0.1200E 01        0.18039            1.89670
0.1300E 01        0.18036            1.89539
0.1400E 01        0.18033            1.89615
0.1500E 01        0.18031            1.89319
0.1600E 01        0.18028            1.89510
0.1700E 01        0.18025            1.89266
0.1800E 01        0.18022            1.89294
0.1900E 01        0.18019            1.89546
0.2000E 01        0.18016            1.89139
0.2100E 01        0.18013            1.89325
0.2200E 01        0.18010            1.89242
0.2300E 01        0.18007            1.88914
0.2400E 01        0.18004            1.89238
0.2500E 01        0.18001            1.89046
0.2600E 01        0.17998            1.88842
0.2700E 01        0.17994            1.89033
0.2800E 01        0.17991            1.88759
0.2900E 01        0.17988            1.88735
0.3000E 01        0.17984            1.88773
0.3100E 01        0.17981            1.88614
0.3200E 01        0.17978            1.88785
0.3300E 01        0.17974            1.88585
0.3400E 01        0.17970            1.88494
0.3500E 01        0.17967            1.88578
0.3600E 01        0.17963            1.88213
0.3700E 01        0.17959            1.88546
0.3800E 01        0.17955            1.88424
0.3900E 01        0.17952            1.88095
0.4000E 01        0.17948            1.88318
0.4100E 01        0.17944            1.88053
0.4200E 01        0.17940            1.88151
0.4300E 01        0.17936            1.88027
0.4400E 01        0.17932            1.87904
0.4500E 01        0.17927            1.88125
0.4600E 01        0.17923            1.87762
0.4700E 01        0.17919            1.87771
0.4800E 01        0.17914            1.87658
0.4900E 01        0.17910            1.87581
0.5000E 01        0.17906            1.87533
0.5100E 01        0.17901            1.87430
0.5200E 01        0.17896            1.87633
0.5300E 01        0.17892            1.87353
0.5400E 01        0.17887            1.87280
0.5500E 01        0.17882            1.87205
0.5600E 01        0.17877            1.87168
0.5700E 01        0.17872            1.87173
0.5800E 01        0.17867            1.86983
0.5900E 01        0.17862            1.86938
0.6000E 01        0.17857            1.86678
0.6100E 01        0.17852            1.86738
0.6200E 01        0.17847            1.86719
0.6300E 01        0.17841            1.86609
0.6400E 01        0.17836            1.86635
0.6500E 01        0.17830            1.86502
0.6600E 01        0.17824            1.86485
0.6700E 01        0.17819            1.86183
0.6800E 01        0.17813            1.86216
0.6900E 01        0.17807            1.85989
0.7000E 01        0.17801            1.85931
0.7100E 01        0.17795            1.85962
0.7200E 01        0.17789            1.85801
0.7300E 01        0.17783            1.85729
0.7400E 01        0.17776            1.85540
0.7500E 01        0.17770            1.85323
0.7600E 01        0.17764            1.85275
0.7700E 01        0.17757            1.85510
0.7800E 01        0.17750            1.85111
0.7900E 01        0.17744            1.85001
0.8000E 01        0.17737            1.84842
0.8100E 01        0.17730            1.84775
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0.8200E 01	0.17723	1.84696
0.8300E 01	0.17716	1.84564
0.8400E 01	0.17708	1.84407
0.8500E 01	0.17701	1.84187
0.8600E 01	0.17694	1.84175
0.8700E 01	0.17686	1.84127
0.8800E 01	0.17678	1.84005
0.8900E 01	0.17671	1.83783
0.9000E 01	0.17663	1.83644
0.9100E 01	0.17655	1.83326
0.9200E 01	0.17647	1.83384
0.9300E 01	0.17639	1.83255
0.9400E 01	0.17630	1.83080
0.9500E 01	0.17622	1.82791
0.9600E 01	0.17614	1.82724
0.9700E 01	0.17605	1.82577
0.9800E 01	0.17596	1.82396
0.9900E 01	0.17587	1.82286
0.1000E 02	0.17578	1.82081
0.1010E 02	0.17569	1.82015
0.1020E 02	0.17560	1.81752
0.1030E 02	0.17551	1.81486
0.1040E 02	0.17541	1.81425
0.1050E 02	0.17532	1.81395
0.1060E 02	0.17522	1.81067
0.1070E 02	0.17512	1.80856
0.1080E 02	0.17502	1.80775
0.1090E 02	0.17492	1.80358
0.1100E 02	0.17482	1.80149
0.1110E 02	0.17471	1.80113
0.1120E 02	0.17461	1.79921
0.1130E 02	0.17450	1.79813
0.1140E 02	0.17439	1.79528
0.1150E 02	0.17428	1.79214
0.1160E 02	0.17417	1.79022
0.1170E 02	0.17406	1.78921
0.1180E 02	0.17394	1.78721
0.1190E 02	0.17383	1.78490
0.1200E 02	0.17371	1.78290
0.1210E 02	0.17359	1.78048
0.1220E 02	0.17347	1.77806
0.1230E 02	0.17335	1.77609
0.1240E 02	0.17322	1.77378
0.1250E 02	0.17310	1.77014
0.1260E 02	0.17297	1.76645
0.1270E 02	0.17284	1.76507
0.1280E 02	0.17271	1.76192
0.1290E 02	0.17258	1.75767
0.1300E 02	0.17245	1.75654
0.1310E 02	0.17231	1.75517
0.1320E 02	0.17217	1.75202
0.1330E 02	0.17203	1.74879
0.1340E 02	0.17189	1.74681
0.1350E 02	0.17175	1.74438
0.1360E 02	0.17160	1.74112
0.1370E 02	0.17145	1.73797
0.1380E 02	0.17131	1.73680
0.1390E 02	0.17115	1.73497
0.1400E 02	0.17100	1.73173
0.1410E 02	0.17084	1.72856
0.1420E 02	0.17068	1.72459
0.1430E 02	0.17052	1.72071
0.1440E 02	0.17036	1.71668
0.1450E 02	0.17020	1.71448
0.1460E 02	0.17003	1.71075
0.1470E 02	0.16986	1.70816
0.1480E 02	0.16969	1.70493
0.1490E 02	0.16951	1.70058
0.1500E 02	0.16934	1.69706
0.1510E 02	0.16916	1.69485
0.1520E 02	0.16898	1.69045
0.1530E 02	0.16879	1.68701
0.1540E 02	0.16861	1.68442
0.1550E 02	0.16842	1.68023
0.1560E 02	0.16823	1.67523
0.1570E 02	0.16803	1.67054
0.1580E 02	0.16784	1.66647
0.1590E 02	0.16764	1.66382
0.1600E 02	0.16744	1.65960
0.1610E 02	0.16723	1.65529
0.1620E 02	0.16702	1.65172
0.1630E 02	0.16681	1.64760
0.1640E 02	0.16660	1.64206
0.1650E 02	0.16639	1.63769

0.1660E 02	0.16616	1.63316
0.1670E 02	0.16594	1.62899
0.1680E 02	0.16572	1.62369
0.1690E 02	0.16549	1.61883
0.1700E 02	0.16526	1.61456
0.1710E 02	0.16503	1.60967
0.1720E 02	0.16479	1.60569
0.1730E 02	0.16455	1.59897
0.1740E 02	0.16430	1.59502
0.1750E 02	0.16406	1.58851
0.1760E 02	0.16381	1.58296
0.1770E 02	0.16355	1.57792
0.1780E 02	0.16330	1.57231
0.1790E 02	0.16303	1.56656
0.1800E 02	0.16277	1.56175
0.1810E 02	0.16250	1.55454
0.1820E 02	0.16223	1.54841
0.1830E 02	0.16196	1.54283
0.1840E 02	0.16168	1.53808
0.1850E 02	0.16140	1.53230
0.1860E 02	0.16111	1.52638
0.1870E 02	0.16082	1.51826
0.1880E 02	0.16053	1.51243
0.1890E 02	0.16023	1.50723
0.1900E 02	0.15993	1.49976
0.1910E 02	0.15962	1.49400
0.1920E 02	0.15931	1.48607
0.1930E 02	0.15900	1.48028
0.1940E 02	0.15868	1.47258
0.1950E 02	0.15836	1.46564
0.1960E 02	0.15803	1.45862
0.1970E 02	0.15770	1.45168
0.1980E 02	0.15736	1.44298
0.1990E 02	0.15702	1.43553
0.2000E 02	0.15668	1.42748
0.2010E 02	0.15633	1.42137
0.2020E 02	0.15598	1.41360
0.2030E 02	0.15562	1.40520
0.2040E 02	0.15525	1.39624
0.2050E 02	0.15489	1.38900
0.2060E 02	0.15451	1.38096
0.2070E 02	0.15414	1.37194
0.2080E 02	0.15375	1.36525
0.2090E 02	0.15336	1.35516
0.2100E 02	0.15297	1.34743
0.2110E 02	0.15257	1.33769
0.2120E 02	0.15217	1.32908
0.2130E 02	0.15176	1.31968
0.2140E 02	0.15134	1.31155
0.2150E 02	0.15092	1.30237
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0.2200E 02	0.14873	1.25341
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0.2220E 02	0.14781	1.23293
0.2230E 02	0.14734	1.22427
0.2240E 02	0.14687	1.21196
0.2250E 02	0.14639	1.20275
0.2260E 02	0.14590	1.19130
0.2270E 02	0.14541	1.18048
0.2280E 02	0.14491	1.16870
0.2290E 02	0.14441	1.15781
0.2300E 02	0.14389	1.14584
0.2310E 02	0.14338	1.13457
0.2320E 02	0.14285	1.12203
0.2330E 02	0.14232	1.11039
0.2340E 02	0.14178	1.09800
0.2350E 02	0.14124	1.08469
0.2360E 02	0.14069	1.07409
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0.2390E 02	0.13900	1.03402
0.2400E 02	0.13842	1.02108
0.2410E 02	0.13784	1.00765
0.2420E 02	0.13725	0.99486
0.2430E 02	0.13665	0.98054
0.2440E 02	0.13605	0.96705
0.2450E 02	0.13544	0.95321
0.2460E 02	0.13483	0.94148
0.2470E 02	0.13420	0.92594
0.2480E 02	0.13356	0.90998
0.2490E 02	0.13291	0.89742

0.2500E 02	0.13224	0.88010
0.2510E 02	0.13156	0.86502
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0.2530E 02	0.13017	0.83286
0.2540E 02	0.12945	0.81560
0.2550E 02	0.12872	0.79829
0.2560E 02	0.12798	0.78265
0.2570E 02	0.12723	0.76461
0.2580E 02	0.12647	0.74821
0.2590E 02	0.12570	0.72808
0.2600E 02	0.12492	0.70734
0.2610E 02	0.12412	0.69011
0.2620E 02	0.12330	0.67087
0.2630E 02	0.12244	0.65081
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0.2650E 02	0.12067	0.60920
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0.2670E 02	0.11878	0.56535
0.2680E 02	0.11780	0.54248
0.2690E 02	0.11679	0.51900
0.2700E 02	0.11576	0.49502
0.2710E 02	0.11471	0.47047
0.2720E 02	0.11363	0.44541
0.2730E 02	0.11253	0.41991
0.2740E 02	0.11142	0.39405
0.2750E 02	0.11030	0.36795
0.2760E 02	0.10917	0.34175
0.2770E 02	0.10804	0.31557
0.2780E 02	0.10692	0.28958
0.2790E 02	0.10581	0.26397
0.2800E 02	0.10473	0.23897
0.2810E 02	0.10368	0.21482
0.2820E 02	0.10269	0.19171
0.2830E 02	0.10174	0.16988
0.2840E 02	0.10086	0.14951
0.2850E 02	0.10005	0.13073
0.2860E 02	0.09932	0.11367
0.2870E 02	0.09866	0.09837
0.2880E 02	0.09808	0.08483
0.2890E 02	0.09757	0.07300
0.2900E 02	0.09714	0.06278
0.2910E 02	0.09677	0.05405
0.2920E 02	0.09645	0.04666
0.2930E 02	0.09619	0.04047
0.2940E 02	0.09597	0.03532
0.2950E 02	0.09579	0.03106
0.2960E 02	0.09564	0.02756
0.2970E 02	0.09552	0.02469
0.2980E 02	0.09542	0.02235
0.2990E 02	0.09533	0.02045
0.3000E 02	0.09527	0.01889
0.3010E 02	0.09521	0.01764
0.3020E 02	0.09517	0.01661
0.3030E 02	0.09513	0.01576
0.3040E 02	0.09510	0.01507
0.3050E 02	0.09508	0.01449
0.3060E 02	0.09506	0.01401
0.3070E 02	0.09505	0.01360
0.3080E 02	0.09504	0.01325
0.3090E 02	0.09503	0.01294
0.3100E 02	0.09502	0.01267

***** TIME =	0.100000E 01	HOURS	***
DISTANCE, CM	CONCENTRATION, ME/CM3	SALT FLUX, ME/CM2.HOUR	
0.0	200.00000	380.01685	
0.1000E 00	199.99986	379.12866	
0.2000E 00	199.99976	380.74390	
0.3000E 00	199.99980	377.10669	
0.4000E 00	199.99965	382.99072	
0.5000E 00	199.99962	377.88257	
0.6000E 00	199.99962	378.65942	
0.7000E 00	199.99962	382.82642	
0.8000E 00	199.99962	376.54590	
0.9000E 00	199.99962	380.85962	
0.1000E 01	199.99962	379.10181	
0.1100E 01	199.99962	379.31201	
0.1200E 01	199.99962	379.33838	
0.1300E 01	199.99962	379.07788	
0.1400E 01	199.99945	379.22949	
0.1500E 01	199.99945	378.63794	
0.1600E 01	199.99928	379.01904	
0.1700E 01	199.99928	378.53052	
0.1800E 01	199.99928	378.58740	
0.1900E 01	199.99928	379.09082	
0.2000E 01	199.99928	378.27563	
0.2100E 01	199.99928	378.64917	
0.2200E 01	199.99928	378.48315	
0.2300E 01	199.99928	377.82739	
0.2400E 01	199.99928	378.47388	
0.2500E 01	199.99928	378.09131	
0.2600E 01	199.99928	377.68164	
0.2700E 01	199.99928	378.06470	
0.2800E 01	199.99928	377.51709	
0.2900E 01	199.99928	377.46899	
0.3000E 01	199.99928	377.54517	
0.3100E 01	199.99928	377.22583	
0.3200E 01	199.99928	377.56909	
0.3300E 01	199.99911	377.16870	
0.3400E 01	199.99895	376.98584	
0.3500E 01	199.99878	377.15381	
0.3600E 01	199.99844	376.42578	
0.3700E 01	199.99760	377.09131	
0.3800E 01	199.99660	376.84595	
0.3900E 01	199.99525	376.18701	
0.4000E 01	199.99341	376.63306	
0.4100E 01	199.99089	376.10059	
0.4200E 01	199.98787	376.29370	
0.4300E 01	199.98401	376.04272	
0.4400E 01	199.97897	375.79297	
0.4500E 01	199.97293	376.22998	
0.4600E 01	199.96521	375.49634	
0.4700E 01	199.95581	375.50586	
0.4800E 01	199.94440	375.26855	
0.4900E 01	199.93028	375.10059	
0.5000E 01	199.91333	374.98706	
0.5100E 01	199.89285	374.75928	
0.5200E 01	199.86818	375.13965	
0.5300E 01	199.83864	374.54761	
0.5400E 01	199.80338	374.36450	
0.5500E 01	199.76141	374.16821	
0.5600E 01	199.71172	374.03857	
0.5700E 01	199.65297	373.98096	
0.5800E 01	199.58380	373.52344	
0.5900E 01	199.50273	373.33984	
0.6000E 01	199.40771	372.70996	
0.6100E 01	199.29692	372.69702	
0.6200E 01	199.16800	372.50586	
0.6300E 01	199.01859	372.10352	
0.6400E 01	198.84602	371.94360	
0.6500E 01	198.64709	371.43237	
0.6600E 01	198.41862	371.11304	
0.6700E 01	198.15691	370.18164	
0.6800E 01	197.85844	369.86572	
0.6900E 01	197.51868	368.97778	
0.7000E 01	197.13324	368.35767	
0.7100E 01	196.69762	367.84351	
0.7200E 01	196.20627	366.87280	
0.7300E 01	195.65398	365.98804	
0.7400E 01	195.03537	364.77808	
0.7500E 01	194.34442	363.40723	
0.7600E 01	193.57524	362.24951	
0.7700E 01	192.72162	361.50928	
0.7800E 01	191.77669	359.40747	
0.7900E 01	190.73454	357.71411	
0.8000E 01	189.58867	355.76343	
0.8100E 01	188.33267	353.81714	

0.8200E 01	186.95999	351.66064
0.8300E 01	185.46478	349.20898
0.8400E 01	183.84081	346.50000
0.8500E 01	182.08304	343.46021
0.8600E 01	180.18611	340.56738
0.8700E 01	178.14548	337.36182
0.8800E 01	175.95737	333.77490
0.8900E 01	173.61806	329.75415
0.9000E 01	171.12527	325.61230
0.9100E 01	168.47714	320.89355
0.9200E 01	165.67363	316.53027
0.9300E 01	162.71426	311.57227
0.9400E 01	159.60045	306.25610
0.9500E 01	156.33441	300.47974
0.9600E 01	152.92032	294.77271
0.9700E 01	149.36226	288.66431
0.9800E 01	145.66611	282.23584
0.9900E 01	141.83908	275.64990
0.1000E 02	137.88885	268.67847
0.1010E 02	133.82503	261.65991
0.1020E 02	129.65710	254.15459
0.1030E 02	125.39655	246.44778
0.1040E 02	121.05568	238.81104
0.1050E 02	116.64671	231.03679
0.1060E 02	112.18236	222.76967
0.1070E 02	107.67744	214.52072
0.1080E 02	103.14622	206.31642
0.1090E 02	98.60229	197.69984
0.1100E 02	94.06175	189.25578
0.1110E 02	89.53917	180.95616
0.1120E 02	85.04837	172.52180
0.1130E 02	80.60413	164.19402
0.1140E 02	76.21973	155.79095
0.1150E 02	71.90880	147.46558
0.1160E 02	67.68420	139.35130
0.1170E 02	63.55762	131.43817
0.1180E 02	59.53955	123.62500
0.1190E 02	55.64005	115.98103
0.1200E 02	51.86804	108.56287
0.1210E 02	48.23129	101.34930
0.1220E 02	44.73648	94.38025
0.1230E 02	41.38925	87.68779
0.1240E 02	38.19380	81.25024
0.1250E 02	35.15318	75.04411
0.1260E 02	32.26962	69.12982
0.1270E 02	29.54430	63.58342
0.1280E 02	26.97655	58.27953
0.1290E 02	24.56537	53.24660
0.1300E 02	22.30914	48.58713
0.1310E 02	20.20451	44.21048
0.1320E 02	18.24760	40.08446
0.1330E 02	16.43420	36.24074
0.1340E 02	14.75949	32.69292
0.1350E 02	13.21780	29.40346
0.1360E 02	11.80326	26.35960
0.1370E 02	10.50980	23.56396
0.1380E 02	9.33109	21.02283
0.1390E 02	8.26041	18.69592
0.1400E 02	7.29110	16.56743
0.1410E 02	6.41654	14.63847
0.1420E 02	5.63010	12.89115
0.1430E 02	4.92533	11.31904
0.1440E 02	4.29585	9.90817
0.1450E 02	3.73558	8.65407
0.1460E 02	3.23849	7.53079
0.1470E 02	2.79900	6.53655
0.1480E 02	2.41174	5.65464
0.1490E 02	2.07164	4.87425
0.1500E 02	1.77403	4.19001
0.1510E 02	1.51447	3.59270
0.1520E 02	1.28886	3.06805
0.1530E 02	1.09344	2.61285
0.1540E 02	0.92477	2.21903
0.1550E 02	0.77966	1.87741
0.1560E 02	0.65525	1.58281
0.1570E 02	0.54896	1.33039
0.1580E 02	0.45847	1.11497
0.1590E 02	0.38169	0.93203
0.1600E 02	0.31675	0.77613
0.1610E 02	0.26202	0.64421
0.1620E 02	0.21606	0.53316
0.1630E 02	0.17759	0.43974
0.1640E 02	0.14550	0.36130
0.1650E 02	0.11882	0.29603

0.1660E 02	0.09673	0.24176
0.1670E 02	0.07849	0.19682
0.1680E 02	0.06348	0.15964
0.1690E 02	0.05117	0.12909
0.1700E 02	0.04112	0.10407
0.1710E 02	0.03293	0.08360
0.1720E 02	0.02629	0.06696
0.1730E 02	0.02092	0.05340
0.1740E 02	0.01659	0.04249
0.1750E 02	0.01311	0.03367
0.1760E 02	0.01033	0.02659
0.1770E 02	0.00811	0.02094
0.1780E 02	0.00635	0.01643
0.1790E 02	0.00495	0.01285
0.1800E 02	0.00385	0.01002
0.1810E 02	0.00298	0.00778
0.1820E 02	0.00230	0.00602
0.1830E 02	0.00177	0.00465
0.1840E 02	0.00136	0.00358
0.1850E 02	0.00104	0.00274
0.1860E 02	0.00079	0.00209
0.1870E 02	0.00060	0.00159
0.1880E 02	0.00046	0.00121
0.1890E 02	0.00034	0.00091
0.1900E 02	0.00026	0.00069
0.1910E 02	0.00019	0.00052
0.1920E 02	0.00014	0.00039
0.1930E 02	0.00011	0.00029
0.1940E 02	0.00008	0.00021
0.1950E 02	0.00006	0.00016
0.1960E 02	0.00004	0.00012
0.1970E 02	0.00003	0.00009
0.1980E 02	0.00002	0.00006
0.1990E 02	0.00002	0.00005
0.2000E 02	0.00001	0.00003
0.2010E 02	0.00001	0.00002
0.2020E 02	0.00001	0.00002
0.2030E 02	0.00000	0.00001
0.2040E 02	0.00000	0.00001
0.2050E 02	0.00000	0.00001
0.2060E 02	0.00000	0.00000
0.2070E 02	0.00000	0.00000
0.2080E 02	0.00000	0.00000
0.2090E 02	0.00000	0.00000
0.2100E 02	0.00000	0.00000
0.2110E 02	0.00000	0.00000
0.2120E 02	0.00000	0.00000
0.2130E 02	0.00000	0.00000
0.2140E 02	0.00000	0.00000
0.2150E 02	0.00000	0.00000
0.2160E 02	0.00000	0.00000
0.2170E 02	0.00000	0.00000
0.2180E 02	0.00000	0.00000
0.2190E 02	0.00000	0.00000
0.2200E 02	0.00000	0.00000
0.2210E 02	0.00000	0.00000
0.2220E 02	0.00000	0.00000
0.2230E 02	0.00000	0.00000
0.2240E 02	0.00000	0.00000
0.2250E 02	0.00000	0.00000
0.2260E 02	0.00000	0.00000
0.2270E 02	0.00000	0.00000
0.2280E 02	0.00000	0.00000
0.2290E 02	0.00000	0.00000
0.2300E 02	0.00000	0.00000
0.2310E 02	0.00000	0.00000
0.2320E 02	0.00000	0.00000
0.2330E 02	0.00000	0.00000
0.2340E 02	0.00000	0.00000
0.2350E 02	0.00000	0.00000
0.2360E 02	0.00000	0.00000
0.2370E 02	0.00000	0.00000
0.2380E 02	0.00000	0.00000
0.2390E 02	0.00000	0.00000
0.2400E 02	0.00000	0.00000
0.2410E 02	0.00000	0.00000
0.2420E 02	0.00000	0.00000
0.2430E 02	0.00000	0.00000
0.2440E 02	0.00000	0.00000
0.2450E 02	0.00000	0.00000
0.2460E 02	0.00000	0.00000
0.2470E 02	0.00000	0.00000
0.2480E 02	0.00000	0.00000
0.2490E 02	0.00000	0.00000

0.2500E 02	0.000000	0.000000
0.2510E 02	0.000000	0.000000
0.2520E 02	0.000000	0.000000
0.2530E 02	0.000000	0.000000
0.2540E 02	0.000000	0.000000
0.2550E 02	0.000000	0.000000
0.2560E 02	0.000000	0.000000
0.2570E 02	0.000000	0.000000
0.2580E 02	0.000000	0.000000
0.2590E 02	0.000000	0.000000
0.2600E 02	0.000000	0.000000
0.2610E 02	0.000000	0.000000
0.2620E 02	0.000000	0.000000
0.2630E 02	0.000000	0.000000
0.2640E 02	0.000000	0.000000
0.2650E 02	0.000000	0.000000
0.2660E 02	0.000000	0.000000
0.2670E 02	0.000000	0.000000
0.2680E 02	0.000000	0.000000
0.2690E 02	0.000000	0.000000
0.2700E 02	0.000000	0.000000
0.2710E 02	0.000000	0.000000
0.2720E 02	0.000000	0.000000
0.2730E 02	0.000000	0.000000
0.2740E 02	0.000000	0.000000
0.2750E 02	0.000000	0.000000
0.2760E 02	0.000000	0.000000
0.2770E 02	0.000000	0.000000
0.2780E 02	0.000000	0.000000
0.2790E 02	0.000000	0.000000
0.2800E 02	0.000000	0.000000
0.2810E 02	0.000000	0.000000
0.2820E 02	0.000000	0.000000
0.2830E 02	0.000000	0.000000
0.2840E 02	0.000000	0.000000
0.2850E 02	0.000000	0.000000
0.2860E 02	0.000000	0.000000
0.2870E 02	0.000000	0.000000
0.2880E 02	0.000000	0.000000
0.2890E 02	0.000000	0.000000
0.2900E 02	0.000000	0.000000
0.2910E 02	0.000000	0.000000
0.2920E 02	0.000000	0.000000
0.2930E 02	0.000000	0.000000
0.2940E 02	0.000000	0.000000
0.2950E 02	0.000000	0.000000
0.2960E 02	0.000000	0.000000
0.2970E 02	0.000000	0.000000
0.2980E 02	0.000000	0.000000
0.2990E 02	0.000000	0.000000
0.3000E 02	0.000000	0.000000
0.3010E 02	0.000000	0.000000
0.3020E 02	0.000000	0.000000
0.3030E 02	0.000000	0.000000
0.3040E 02	0.000000	0.000000
0.3050E 02	0.000000	0.000000
0.3060E 02	0.000000	0.000000
0.3070E 02	0.000000	0.000000
0.3080E 02	0.000000	0.000000
0.3090E 02	0.000000	0.000000
0.3100E 02	0.000000	0.000000



***** TIME =	0.150000E 01	HOURS	***
DISTANCE, CM	WATER CONTENT		WATER FLUX, CM/HOUR
0.0	0.18166		1.89961
0.1000E 00	0.18166		1.89918
0.2000E 00	0.18165		1.90093
0.3000E 00	0.18165		1.89836
0.4000E 00	0.18165		1.90284
0.5000E 00	0.18164		1.89472
0.6000E 00	0.18164		1.90202
0.7000E 00	0.18163		1.89902
0.8000E 00	0.18163		1.89517
0.9000E 00	0.18162		1.90375
0.1000E 01	0.18162		1.89541
0.1100E 01	0.18161		1.90163
0.1200E 01	0.18161		1.90004
0.1300E 01	0.18160		1.89961
0.1400E 01	0.18160		1.90058
0.1500E 01	0.18159		1.89963
0.1600E 01	0.18159		1.89967
0.1700E 01	0.18158		1.89842
0.1800E 01	0.18158		1.89804
0.1900E 01	0.18157		1.89670
0.2000E 01	0.18157		1.89795
0.2100E 01	0.18156		1.89957
0.2200E 01	0.18155		1.89830
0.2300E 01	0.18155		1.89892
0.2400E 01	0.18154		1.89912
0.2500E 01	0.18154		1.89878
0.2600E 01	0.18153		1.90002
0.2700E 01	0.18152		1.89876
0.2800E 01	0.18152		1.89834
0.2900E 01	0.18151		1.89841
0.3000E 01	0.18150		1.89890
0.3100E 01	0.18150		1.89819
0.3200E 01	0.18149		1.89748
0.3300E 01	0.18148		1.89782
0.3400E 01	0.18148		1.89886
0.3500E 01	0.18147		1.89990
0.3600E 01	0.18146		1.89788
0.3700E 01	0.18146		1.89746
0.3800E 01	0.18145		1.89826
0.3900E 01	0.18144		1.89959
0.4000E 01	0.18143		1.89891
0.4100E 01	0.18142		1.89828
0.4200E 01	0.18142		1.89855
0.4300E 01	0.18141		1.89864
0.4400E 01	0.18140		1.89861
0.4500E 01	0.18139		1.89746
0.4600E 01	0.18138		1.89716
0.4700E 01	0.18137		1.89892
0.4800E 01	0.18136		1.89826
0.4900E 01	0.18136		1.89777
0.5000E 01	0.18135		1.89927
0.5100E 01	0.18134		1.90020
0.5200E 01	0.18133		1.89865
0.5300E 01	0.18132		1.89679
0.5400E 01	0.18131		1.89782
0.5500E 01	0.18130		1.89759
0.5600E 01	0.18129		1.89682
0.5700E 01	0.18128		1.89662
0.5800E 01	0.18127		1.89798
0.5900E 01	0.18126		1.89779
0.6000E 01	0.18124		1.89606
0.6100E 01	0.18123		1.89665
0.6200E 01	0.18122		1.89627
0.6300E 01	0.18121		1.89583
0.6400E 01	0.18120		1.89554
0.6500E 01	0.18119		1.89536
0.6600E 01	0.18118		1.89599
0.6700E 01	0.18117		1.89614
0.6800E 01	0.18115		1.89710
0.6900E 01	0.18114		1.89645
0.7000E 01	0.18113		1.89601
0.7100E 01	0.18111		1.89543
0.7200E 01	0.18110		1.89545
0.7300E 01	0.18109		1.89550
0.7400E 01	0.18108		1.89540
0.7500E 01	0.18106		1.89588
0.7600E 01	0.18105		1.89573
0.7700E 01	0.18103		1.89508
0.7800E 01	0.18102		1.89456
0.7900E 01	0.18100		1.89547
0.8000E 01	0.18099		1.89496
0.8100E 01	0.18097		1.89540

0.8200E 01	0.18096	1.89467
0.8300E 01	0.18094	1.89389
0.8400E 01	0.18093	1.89380
0.8500E 01	0.18091	1.89475
0.8600E 01	0.18089	1.89534
0.8700E 01	0.18088	1.89446
0.8800E 01	0.18086	1.89357
0.8900E 01	0.18084	1.89259
0.9000E 01	0.18083	1.89215
0.9100E 01	0.18081	1.89321
0.9200E 01	0.18079	1.89454
0.9300E 01	0.18077	1.89264
0.9400E 01	0.18076	1.89270
0.9500E 01	0.18074	1.89261
0.9600E 01	0.18072	1.89171
0.9700E 01	0.18070	1.89050
0.9800E 01	0.18068	1.89044
0.9900E 01	0.18066	1.89149
0.1000E 02	0.18064	1.89265
0.1010E 02	0.18062	1.89159
0.1020E 02	0.18060	1.88950
0.1030E 02	0.18058	1.88929
0.1040E 02	0.18056	1.88938
0.1050E 02	0.18053	1.88895
0.1060E 02	0.18051	1.88790
0.1070E 02	0.18049	1.88931
0.1080E 02	0.18047	1.88954
0.1090E 02	0.18045	1.88730
0.1100E 02	0.18042	1.88838
0.1110E 02	0.18040	1.88817
0.1120E 02	0.18037	1.88618
0.1130E 02	0.18035	1.88737
0.1140E 02	0.18033	1.88694
0.1150E 02	0.18030	1.88652
0.1160E 02	0.18028	1.88651
0.1170E 02	0.18025	1.88540
0.1180E 02	0.18022	1.88518
0.1190E 02	0.18020	1.88448
0.1200E 02	0.18017	1.88360
0.1210E 02	0.18014	1.88416
0.1220E 02	0.18012	1.88383
0.1230E 02	0.18009	1.88379
0.1240E 02	0.18006	1.88450
0.1250E 02	0.18003	1.88409
0.1260E 02	0.18000	1.88338
0.1270E 02	0.17997	1.88212
0.1280E 02	0.17994	1.88094
0.1290E 02	0.17991	1.88174
0.1300E 02	0.17988	1.88183
0.1310E 02	0.17985	1.88011
0.1320E 02	0.17982	1.87883
0.1330E 02	0.17978	1.87899
0.1340E 02	0.17975	1.87954
0.1350E 02	0.17972	1.87744
0.1360E 02	0.17969	1.87646
0.1370E 02	0.17965	1.87722
0.1380E 02	0.17962	1.87731
0.1390E 02	0.17958	1.87590
0.1400E 02	0.17955	1.87480
0.1410E 02	0.17951	1.87408
0.1420E 02	0.17947	1.87256
0.1430E 02	0.17944	1.87281
0.1440E 02	0.17940	1.87291
0.1450E 02	0.17936	1.87208
0.1460E 02	0.17932	1.87061
0.1470E 02	0.17929	1.87012
0.1480E 02	0.17925	1.86992
0.1490E 02	0.17921	1.86969
0.1500E 02	0.17917	1.86861
0.1510E 02	0.17913	1.86817
0.1520E 02	0.17908	1.86808
0.1530E 02	0.17904	1.86630
0.1540E 02	0.17900	1.86556
0.1550E 02	0.17896	1.86558
0.1560E 02	0.17891	1.86333
0.1570E 02	0.17887	1.86316
0.1580E 02	0.17882	1.86268
0.1590E 02	0.17878	1.86145
0.1600E 02	0.17873	1.86048
0.1610E 02	0.17868	1.85980
0.1620E 02	0.17864	1.85973
0.1630E 02	0.17859	1.85859
0.1640E 02	0.17854	1.85783
0.1650E 02	0.17849	1.85768

0.1660E 02	0.17844	1.85602
0.1670E 02	0.17839	1.85476
0.1680E 02	0.17834	1.85471
0.1690E 02	0.17829	1.85282
0.1700E 02	0.17823	1.85141
0.1710E 02	0.17818	1.85181
0.1720E 02	0.17813	1.85106
0.1730E 02	0.17807	1.85040
0.1740E 02	0.17801	1.84877
0.1750E 02	0.17796	1.84684
0.1760E 02	0.17790	1.84733
0.1770E 02	0.17784	1.84491
0.1780E 02	0.17779	1.84380
0.1790E 02	0.17773	1.84267
0.1800E 02	0.17767	1.84191
0.1810E 02	0.17760	1.84137
0.1820E 02	0.17754	1.84091
0.1830E 02	0.17748	1.83965
0.1840E 02	0.17742	1.83833
0.1850E 02	0.17735	1.83792
0.1860E 02	0.17729	1.83553
0.1870E 02	0.17722	1.83310
0.1880E 02	0.17715	1.83356
0.1890E 02	0.17708	1.83301
0.1900E 02	0.17702	1.83086
0.1910E 02	0.17694	1.82897
0.1920E 02	0.17687	1.82675
0.1930E 02	0.17680	1.82563
0.1940E 02	0.17673	1.82482
0.1950E 02	0.17666	1.82399
0.1960E 02	0.17658	1.82169
0.1970E 02	0.17651	1.82071
0.1980E 02	0.17643	1.81896
0.1990E 02	0.17635	1.81829
0.2000E 02	0.17628	1.81639
0.2010E 02	0.17620	1.81411
0.2020E 02	0.17612	1.81246
0.2030E 02	0.17604	1.81131
0.2040E 02	0.17595	1.80995
0.2050E 02	0.17587	1.80817
0.2060E 02	0.17578	1.80619
0.2070E 02	0.17570	1.80521
0.2080E 02	0.17561	1.80292
0.2090E 02	0.17552	1.79994
0.2100E 02	0.17544	1.79994
0.2110E 02	0.17535	1.79832
0.2120E 02	0.17525	1.79606
0.2130E 02	0.17516	1.79352
0.2140E 02	0.17507	1.79245
0.2150E 02	0.17497	1.79014
0.2160E 02	0.17488	1.78790
0.2170E 02	0.17478	1.78644
0.2180E 02	0.17468	1.78403
0.2190E 02	0.17458	1.78236
0.2200E 02	0.17448	1.78181
0.2210E 02	0.17438	1.77841
0.2220E 02	0.17427	1.77632
0.2230E 02	0.17417	1.77517
0.2240E 02	0.17406	1.77232
0.2250E 02	0.17395	1.77104
0.2260E 02	0.17384	1.76840
0.2270E 02	0.17373	1.76603
0.2280E 02	0.17362	1.76332
0.2290E 02	0.17351	1.76136
0.2300E 02	0.17339	1.75972
0.2310E 02	0.17327	1.75693
0.2320E 02	0.17316	1.75344
0.2330E 02	0.17304	1.75053
0.2340E 02	0.17292	1.74859
0.2350E 02	0.17279	1.74696
0.2360E 02	0.17267	1.74365
0.2370E 02	0.17254	1.74041
0.2380E 02	0.17242	1.73834
0.2390E 02	0.17229	1.73460
0.2400E 02	0.17216	1.73344
0.2410E 02	0.17202	1.73053
0.2420E 02	0.17189	1.72608
0.2430E 02	0.17175	1.72342
0.2440E 02	0.17162	1.72187
0.2450E 02	0.17148	1.72038
0.2460E 02	0.17134	1.71848
0.2470E 02	0.17119	1.71555
0.2480E 02	0.17105	1.71108
0.2490E 02	0.17090	1.70697

0.2500E 02	0.17075	1.70368
0.2510E 02	0.17060	1.70150
0.2520E 02	0.17045	1.69882
0.2530E 02	0.17029	1.69567
0.2540E 02	0.17013	1.69227
0.2550E 02	0.16998	1.68963
0.2560E 02	0.16981	1.68598
0.2570E 02	0.16965	1.68254
0.2580E 02	0.16949	1.67973
0.2590E 02	0.16932	1.67632
0.2600E 02	0.16915	1.67334
0.2610E 02	0.16897	1.66953
0.2620E 02	0.16880	1.66512
0.2630E 02	0.16862	1.66186
0.2640E 02	0.16844	1.65770
0.2650E 02	0.16826	1.65434
0.2660E 02	0.16808	1.65107
0.2670E 02	0.16789	1.64764
0.2680E 02	0.16770	1.64280
0.2690E 02	0.16751	1.63906
0.2700E 02	0.16732	1.63423
0.2710E 02	0.16712	1.63046
0.2720E 02	0.16692	1.62816
0.2730E 02	0.16672	1.62224
0.2740E 02	0.16652	1.61825
0.2750E 02	0.16631	1.61351
0.2760E 02	0.16610	1.60899
0.2770E 02	0.16589	1.60522
0.2780E 02	0.16567	1.60142
0.2790E 02	0.16545	1.59544
0.2800E 02	0.16523	1.59267
0.2810E 02	0.16501	1.58762
0.2820E 02	0.16478	1.58073
0.2830E 02	0.16455	1.57723
0.2840E 02	0.16432	1.57139
0.2850E 02	0.16408	1.56715
0.2860E 02	0.16384	1.56148
0.2870E 02	0.16360	1.55670
0.2880E 02	0.16336	1.55004
0.2890E 02	0.16311	1.54468
0.2900E 02	0.16286	1.53973
0.2910E 02	0.16260	1.53313
0.2920E 02	0.16235	1.52907
0.2930E 02	0.16208	1.52258
0.2940E 02	0.16182	1.51748
0.2950E 02	0.16155	1.51094
0.2960E 02	0.16128	1.50536
0.2970E 02	0.16100	1.49945
0.2980E 02	0.16073	1.49380
0.2990E 02	0.16044	1.48662
0.3000E 02	0.16016	1.47969
0.3010E 02	0.15987	1.47380
0.3020E 02	0.15957	1.46668
0.3030E 02	0.15928	1.46182
0.3040E 02	0.15898	1.45385
0.3050E 02	0.15867	1.44671
0.3060E 02	0.15836	1.43909
0.3070E 02	0.15805	1.43402
0.3080E 02	0.15773	1.42740
0.3090E 02	0.15741	1.41995
0.3100E 02	0.15709	1.41260
0.3110E 02	0.15676	1.40526
0.3120E 02	0.15642	1.39963
0.3130E 02	0.15609	1.39046
0.3140E 02	0.15574	1.38338
0.3150E 02	0.15540	1.37446
0.3160E 02	0.15505	1.36699
0.3170E 02	0.15469	1.35937
0.3180E 02	0.15433	1.35293
0.3190E 02	0.15396	1.34469
0.3200E 02	0.15360	1.33445
0.3210E 02	0.15322	1.32855
0.3220E 02	0.15284	1.31874
0.3230E 02	0.15246	1.31022
0.3240E 02	0.15207	1.30144
0.3250E 02	0.15167	1.29338
0.3260E 02	0.15127	1.28386
0.3270E 02	0.15087	1.27523
0.3280E 02	0.15046	1.26662
0.3290E 02	0.15005	1.25626
0.3300E 02	0.14962	1.24845
0.3310E 02	0.14920	1.23782
0.3320E 02	0.14877	1.22915
0.3330E 02	0.14833	1.21875

0.3340E 02	0.14789	1.20939
0.3350E 02	0.14744	1.19840
0.3360E 02	0.14699	1.18920
0.3370E 02	0.14653	1.17989
0.3380E 02	0.14607	1.16785
0.3390E 02	0.14559	1.15947
0.3400E 02	0.14512	1.14754
0.3410E 02	0.14464	1.13694
0.3420E 02	0.14415	1.12558
0.3430E 02	0.14366	1.11575
0.3440E 02	0.14315	1.10356
0.3450E 02	0.14265	1.09257
0.3460E 02	0.14213	1.08153
0.3470E 02	0.14162	1.06822
0.3480E 02	0.14110	1.05874
0.3490E 02	0.14056	1.04554
0.3500E 02	0.14003	1.03412
0.3510E 02	0.13949	1.02118
0.3520E 02	0.13894	1.00973
0.3530E 02	0.13838	0.99656
0.3540E 02	0.13783	0.98437
0.3550E 02	0.13726	0.97246
0.3560E 02	0.13669	0.95710
0.3570E 02	0.13611	0.94633
0.3580E 02	0.13552	0.93281
0.3590E 02	0.13493	0.92202
0.3600E 02	0.13433	0.90651
0.3610E 02	0.13372	0.89322
0.3620E 02	0.13309	0.87876
0.3630E 02	0.13245	0.86342
0.3640E 02	0.13180	0.85068
0.3650E 02	0.13114	0.83371
0.3660E 02	0.13047	0.81947
0.3670E 02	0.12978	0.80320
0.3680E 02	0.12908	0.78721
0.3690E 02	0.12837	0.77269
0.3700E 02	0.12765	0.75585
0.3710E 02	0.12692	0.74019
0.3720E 02	0.12618	0.72096
0.3730E 02	0.12544	0.70132
0.3740E 02	0.12469	0.68403
0.3750E 02	0.12391	0.66901
0.3760E 02	0.12310	0.64998
0.3770E 02	0.12227	0.63070
0.3780E 02	0.12142	0.61108
0.3790E 02	0.12054	0.59109
0.3800E 02	0.11964	0.57051
0.3810E 02	0.11871	0.54939
0.3820E 02	0.11776	0.52780
0.3830E 02	0.11679	0.50564
0.3840E 02	0.11579	0.48292
0.3850E 02	0.11477	0.45967
0.3860E 02	0.11373	0.43601
0.3870E 02	0.11267	0.41196
0.3880E 02	0.11159	0.38756
0.3890E 02	0.11051	0.36291
0.3900E 02	0.10941	0.33816
0.3910E 02	0.10832	0.31344
0.3920E 02	0.10723	0.28884
0.3930E 02	0.10615	0.26457
0.3940E 02	0.10510	0.24079
0.3950E 02	0.10408	0.21771
0.3960E 02	0.10309	0.19553
0.3970E 02	0.10215	0.17445
0.3980E 02	0.10127	0.15463
0.3990E 02	0.10046	0.13621
0.4000E 02	0.09971	0.11933
0.4010E 02	0.09903	0.10405
0.4020E 02	0.09843	0.09038
0.4030E 02	0.09789	0.07829
0.4040E 02	0.09743	0.06773
0.4050E 02	0.09703	0.05859
0.4060E 02	0.09668	0.05077
0.4070E 02	0.09639	0.04414
0.4080E 02	0.09615	0.03855
0.4090E 02	0.09594	0.03388
0.4100E 02	0.09577	0.02998
0.4110E 02	0.09563	0.02674
0.4120E 02	0.09552	0.02409
0.4130E 02	0.09542	0.02192
0.4140E 02	0.09534	0.02012
0.4150E 02	0.09528	0.01865
0.4160E 02	0.09523	0.01746
0.4170E 02	0.09518	0.01648

0.4180E 02	0.09515	0.01568
0.4190E 02	0.09512	0.01504
0.4200E 02	0.09510	0.01452
0.4210E 02	0.09508	0.01410
0.4220E 02	0.09506	0.01374
0.4230E 02	0.09505	0.01345
0.4240E 02	0.09504	0.01322
0.4250E 02	0.09503	0.01304
0.4260E 02	0.09503	0.01290
0.4270E 02	0.09502	0.01278
0.4280E 02	0.09502	0.01268
0.4290E 02	0.09501	0.01261
0.4300E 02	0.09501	0.01253
0.4310E 02	0.09501	0.01248
0.4320E 02	0.09501	0.01244
0.4330E 02	0.09501	0.01240
0.4340E 02	0.09500	0.01238
0.4350E 02	0.09500	0.01236
0.4360E 02	0.09500	0.01234
0.4370E 02	0.09500	0.01232
0.4380E 02	0.09500	0.01231
0.4390E 02	0.09500	0.01230
0.4400E 02	0.09500	0.01228

***** TIME =	0.150000E 01	HOURS	***	SALT	FLUX, ME/CM2.HOUR
DISTANCE, CM	CONCENTRATION, ME/CM3				
0.0	2.12737				0.16473
0.1000E 00	2.98093				1.03931
0.2000E 00	3.99868				2.60315
0.3000E 00	5.18208				4.05628
0.4000E 00	6.54478				5.82477
0.5000E 00	8.10156				7.81286
0.6000E 00	9.86451				10.25714
0.7000E 00	11.84761				12.96975
0.8000E 00	14.06174				16.05066
0.9000E 00	16.51588				19.73050
0.1000E 01	19.22043				23.57439
0.1100E 01	22.17886				28.15401
0.1200E 01	25.39708				33.05331
0.1300E 01	28.87560				38.47162
0.1400E 01	32.61317				44.43579
0.1500E 01	36.60619				50.84711
0.1600E 01	40.84746				57.80067
0.1700E 01	45.32758				65.20044
0.1800E 01	50.03368				73.12463
0.1900E 01	54.95056				81.46922
0.2000E 01	60.05972				90.40826
0.2100E 01	65.34096				99.80827
0.2200E 01	70.77203				109.41321
0.2300E 01	76.32748				119.50146
0.2400E 01	81.98140				129.87095
0.2500E 01	87.70618				140.45738
0.2600E 01	93.47311				151.39694
0.2700E 01	99.25397				162.26118
0.2800E 01	105.01923				173.29947
0.2900E 01	110.74042				184.43145
0.3000E 01	116.38986				195.60010
0.3100E 01	121.94131				206.55847
0.3200E 01	127.36955				217.38382
0.3300E 01	132.65117				228.16432
0.3400E 01	137.76521				238.81619
0.3500E 01	142.69315				249.20354
0.3600E 01	147.41914				258.83325
0.3700E 01	151.92909				268.33521
0.3800E 01	156.21217				277.63477
0.3900E 01	160.26039				286.61108
0.4000E 01	164.06856				294.82983
0.4100E 01	167.63359				302.59863
0.4200E 01	170.95488				310.05029
0.4300E 01	174.03468				317.00024
0.4400E 01	176.87680				323.45581
0.4500E 01	179.48715				329.24048
0.4600E 01	181.87312				334.71191
0.4700E 01	184.04355				340.10815
0.4800E 01	186.00864				344.62427
0.4900E 01	187.77933				348.74927
0.5000E 01	189.36684				352.84937
0.5100E 01	190.78333				356.46387
0.5200E 01	192.04131				359.24829
0.5300E 01	193.15263				361.63721
0.5400E 01	194.12950				364.27344
0.5500E 01	194.98358				366.38086
0.5600E 01	195.72629				368.11987
0.5700E 01	196.36850				369.72974
0.5800E 01	196.92032				371.43286
0.5900E 01	197.39136				372.63623
0.6000E 01	197.79044				373.35840
0.6100E 01	198.12556				374.38452
0.6200E 01	198.40428				375.07837
0.6300E 01	198.63300				375.63892
0.6400E 01	198.81746				376.11816
0.6500E 01	198.96300				376.52515
0.6600E 01	199.07422				377.00757
0.6700E 01	199.15468				377.32080
0.6800E 01	199.20805				377.73218
0.6900E 01	199.23674				377.76270
0.7000E 01	199.24283				377.78564
0.7100E 01	199.22841				377.73267
0.7200E 01	199.19426				377.75903
0.7300E 01	199.14169				377.75171
0.7400E 01	199.07086				377.67920
0.7500E 01	198.98222				377.68896
0.7600E 01	198.87532				377.53955
0.7700E 01	198.74998				377.25684
0.7800E 01	198.60542				376.96777
0.7900E 01	198.44098				376.93140
0.8000E 01	198.25507				376.57739
0.8100E 01	198.04672				376.37500

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0.8300E 01  
0.8400E 01  
0.8500E 01  
0.8600E 01  
0.8700E 01  
0.8800E 01  
0.8900E 01  
0.9000E 01  
0.9100E 01  
0.9200E 01  
0.9300E 01  
0.9400E 01  
0.9500E 01  
0.9600E 01  
0.9700E 01  
0.9800E 01  
0.9900E 01  
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0.1010E 02  
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