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Expected Brine Movement at Potential Nuclear Waste Repository Salt Sites

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Technical Report

August 1987

Victoria S. McCauley
G. E. Raines

Office of Nuclear Waste Isolation
Battelle Memorial Institute
505 King Avenue
Columbus, OH 43201-2693

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ABSTRACT

The BRINEMIG brine migration code was used to predict rates and quantities of brine migration to a waste package emplaced in a high-level nuclear waste repository in salt. The BRINEMIG code is an explicit time-marching finite-difference code which solves a mass balance equation and uses the Jenks equation to predict velocities of brine migration. Predictions were made for the seven potentially acceptable salt sites under consideration as locations for the first U.S. high-level nuclear waste repository. Predicted total quantities of accumulated brine were on the order of 1 m^3 brine per waste package or less. In general, less brine accumulation is expected at domal salt sites because of the lower initial moisture contents relative to bedded salt sites. Also, less total accumulation of brine is predicted for spent fuel than for commercial high-level waste because of the lower temperatures generated by spent fuel.

FOREWORD

The National Waste Terminal Storage Program was established in 1976 by the U.S. Department of Energy's predecessor, the Energy Research and Development Administration. In September 1983, this program became the Civilian Radioactive Waste Management (CRWM) Program. Its purpose is to develop technology and provide facilities for safe, environmentally acceptable, permanent disposal of high-level waste (HLW). HLW includes wastes from both commercial and defense sources, such as spent (used) fuel from nuclear power reactors, accumulations of wastes from production of nuclear weapons, and solidified wastes from fuel reprocessing.

The information in this report pertains to the performance assessment studies of the Salt Repository Project of the Office of Geologic Repositories in the CRWM Program.

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LIST OF CONVERSIONS

To Convert	Into	Multiply By
m	ft	3.28
m^3	ft^3	35.31
cm	in	0.39
cm^3	in^3	0.06
l	gal	0.26

1.0 INTRODUCTION

This report is the second in a series of four topical reports providing analyses of a waste package and its near-field environment for expected conditions in a high-level nuclear waste repository in salt. "Expected conditions" refers to the conditions in the repository which are expected assuming the repository remains isolated and undisturbed. The reports present results for the seven salt sites under consideration as locations for the first U.S. high-level nuclear waste repository, and they are intended to support analyses presented in the environmental assessments for the seven sites.

The only means by which a waste package emplaced in a salt repository is expected to fail is if sufficient brine is available to corrode through the corrosion allowance of the waste package container material. Predictions of waste package lifetime are made by assuming that the amount of corrosion is limited by the amount of brine available to react stoichiometrically with the container material. The rate of corrosion is generally limited by the rate at which brine reaches the waste package container. Two critical parameters in the assessment of waste package performance are therefore the quantity of brine which will reach a waste package and the rate at which it will arrive.

This report describes the use of the BRINEMIG brine migration code to predict quantities and rates of brine migration for the seven salt sites and for two waste form types: commercial high-level waste (CHLW) and spent fuel. Information that BRINEMIG requires about the thermal environment surrounding the waste packages was provided by the TEMPV5 code (McNulty, 1987). The results of the brine migration analyses were provided to the WAPPA code for assessments of waste package performance (Jansen, 1987).

The appendixes of this report provide additional documentation for the BRINEMIG code.

2.0 THE BRINE MIGRATION PHENOMENON

This chapter presents a brief description of brine migration and a discussion pertinent to the modeling effort described in later chapters of this report. A thorough review of the literature on brine migration is presented by Jenks and Claiborne (1981).

Natural salt deposits contain brine, trapped along crystal boundaries and in small inclusions within the salt crystals. When heat is applied to salt, these inclusions have been observed to migrate toward the heat source. High-level nuclear waste generates heat and is therefore expected to attract brine when emplaced in salt. This is a concern in waste package performance assessment; if enough brine migrates to the waste package container, the resulting corrosion can cause the package to fail.

Two types of brine migration have been observed, corresponding to the two ways in which brine is trapped in the salt. The first is intracrystalline migration, which consists of the migration of individual brine inclusions toward the heat source. The second is intercrystalline migration, which consists of brine movement along the crystal boundaries.

Intracrystalline migration is fairly well understood. When a thermal gradient is applied to a brine inclusion, the solubility of salt in the brine increases at the hotter face of the inclusion. The result is dissolution of salt at this face. The dissolved salt is transported across the inclusion to the cooler face, causing the brine there to become supersaturated. Precipitation of salt at the cooler face of the inclusion results. Through this continuing process of dissolution, transport, and precipitation, the brine inclusion slowly migrates through the salt crystal. Dissolution of salt at the hot face is the rate-limiting step (Jenks and Claiborne, 1981).

Each inclusion migrates in this manner until it reaches a crystal interface. At this point, intracrystalline migration is observed to stop. Except under much higher thermal gradients than would be observed in a repository, inclusions cannot migrate through a crystal boundary (Jenks, 1979). Instead, the brine in the inclusion passes into the intercrystalline network and may continue to migrate toward the heat source. Intercrystalline movement is not as well understood, but is probably the result of pressure gradients. It has generally been modeled assuming Darcy flow.

Brine inclusions that contain a significant vapor phase are of interest because they migrate away from a heat source. This occurs through a continuing process of evaporation of moisture and precipitation of salt at the hot face, diffusion of water vapor through the vapor phase, dissolution of salt by condensing moisture at the cool face, and transport of salt through the liquid. Like all-liquid inclusions, they eventually reach a crystal boundary which they are unable to cross at the thermal gradients expected in a repository. For this reason, gas-liquid inclusions do not present a mechanism for radionuclide transport away from a waste package, except perhaps through a single layer of crystals at the package surface. To perform a conservatively high calculation of the rate of brine migration to a waste package, it is generally assumed that all inclusions move toward the waste package.

Experimental observations of brine inclusion velocity under the influence of a thermal gradient show a very wide data scatter. The velocity of a single migrating inclusion can vary by a factor of four as the inclusion moves through a salt crystal. The explanation offered by Olander et al. (1980) is that dislocations which intersect the dissolving salt front increase the rate of dissolution at the hot face. Because dissolution is the rate-limiting step, an increase in the rate of migration of the inclusion results.

Jenks (1972, 1979) analyzed available data on thermal gradient-induced brine migration in salt and developed the Jenks equation to calculate maximum velocities of brine migration:

$$\log(V/G) = 0.00656\ T - 0.6036 \qquad (2\text{-}1)$$

where

V = velocity of brine migration, cm/yr
G = temperature gradient, degrees C/cm
T = temperature, degrees C

Olander (1984) showed that the Jenks equation predicts velocities which are very close to the theoretically-based maximum velocities of purely diffusion-limited migration.

The Jenks equation was developed to give maximum velocities based on available data on intracrystalline brine migration. No attempt was made to model intercrystalline migration separately. Jenks (1979) proposed the use of this equation for both intergranular and intragranular flow based on the experimental observation that inclusions seem to become trapped at intercrystalline boundaries, thereby slowing the rate of brine migration to less than that predicted by the Jenks equation. Claiborne et al. (1980) applied the Jenks equation to the overall brine migration problem, including both intracrystalline and intercrystalline flow, and attempted to validate their code with Salt Block II data (Hohlfelder, 1980). The resulting code, called MIGRAIN, modeled the data reasonably well.

Theoretical considerations indicate the existence of a threshold temperature gradient below which brine cannot migrate. Jenks and Claiborne (1981) observed that the presence and distribution of brine inclusions in bedded salt is a strong argument in favor of the existence of a threshold thermal gradient. They presented estimates of values for the threshold gradient varying with temperature and ranging up to 0.125°C/cm at a temperature of 100°C. The concept of a threshold gradient in sodium chloride crystals is not universally accepted, however (Roedder and Chou, 1982).

3.0 BRINE MIGRATION SIMULATION AT SEVEN SALT SITES

An explicit time-marching finite-difference code was developed to predict rates of brine migration to a nuclear waste package. Called BRINEMIG, it uses mass balances over a series of radial increments to develop concentration profiles at evenly spaced time intervals and to calculate brine flow to the package surface with time. The Jenks equation is used in the mass balance calculations to calculate brine migration velocities. The brine migration phenomenon is treated as a one-dimensional (radial) problem, and no differentiation is made between intercrystalline and intracrystalline flow. The BRINEMIG code is described in more detail in Appendix A of this report.

Seven potentially acceptable repository sites in salt were modeled, along with two waste forms. Four of the sites are bedded salt sites (Deaf Smith County, Texas; Swisher County, Texas; Davis Canyon, Utah; and Lavender Canyon, Utah) and the other three are salt domes (Cypress Creek Dome, Mississippi; Richton Dome, Mississippi; and Vacherie Dome, Louisiana). The waste forms studied were CHLW and spent fuel from a pressurized water reactor (SFPWR). In addition, studies were made with and without an assumed threshold gradient. All 28 combinations of cases were run using BRINEMIG.

3.1 CODE INPUT

Details of BRINEMIG input requirements are presented in Appendix B. A detailed description of the input used for the 28 simulations performed for this study is provided in Appendix C. This section provides a discussion of the important input requirements of the code and how input values were selected or obtained.

3.1.1 Temperatures Around the Waste Package

A waste package emplaced in salt is surrounded by a three-dimensional thermal environment, but BRINEMIG can only perform calculations in the radial direction. The selection of an appropriate temperature profile is therefore very important. For these simulations, it was decided to select the profile that would predict the highest flowrates, so that predicted results would be conservatively high. It was therefore important to determine which parameters have the greatest effect on brine flow.

According to the Jenks equation, brine flow is driven by the temperature and the temperature gradient. Of the two, the temperature gradient provides the greater effect on brine flowrate for the temperature range of interest. (See the sensitivity study in Appendix A of this report.) Temperatures are higher and temperature gradients around individual packages are lower when packages are placed closer together. Where packages are farther apart, temperatures are lower and temperature gradients around individual packages are higher.

As presently conceived, all packages in a repository will be located in parallel rooms along a single horizontal plane. They will be emplaced vertically in boreholes drilled in the floors of the repository rooms. Within each

room, a single row of boreholes will be evenly spaced along the length of the floor. The rooms will be spaced so that each waste package will be closer to its neighbors in the same room than it will be to its neighbors in adjacent rooms. For a waste package emplaced in a repository, the steepest temperature gradients will therefore occur in the direction of a waste package in an adjoining room, and the smallest temperature gradients will occur in the direction of a waste package in the same repository room. Figure 3-1 illustrates this for CHLW at the Deaf Smith County site at 5 years after emplacement. (The profiles represent temperatures at the package midplane.) The one-dimensional profile at the midplane intersecting the package length and in the direction facing an adjoining room of the repository was therefore selected to represent each site.

The BRINEMIG code requires temperatures tabulated as a function of time and radial distance. These are provided to BRINEMIG by TEMPV5 (McNulty, 1987). For two identical waste forms, assuming a uniform salt bed, a symmetrical temperature profile is expected between waste packages. A zero thermal gradient is therefore expected at the midpoint between packages. Since the Jenks equation predicts zero migration at a zero thermal gradient, calculations of brine migration need only be made from the package surface to midway between packages to account for all migration to a package. This was the range of the data supplied by TEMPV5. In practice, it was discovered that the migration rate becomes negligible well before the midpoint is reached.

Figures 3-2 through 3-15 present temperature profiles from TEMPV5 for selected times. Profiles are presented for both waste form types (CHLW and SFPWR) at each of the seven salt sites. McNulty (1987) provides details about the TEMPV5 simulations for all seven sites. Initially, CHLW shows higher temperatures and steeper thermal gradients near the waste package. Temperatures remain elevated longer for spent fuel.

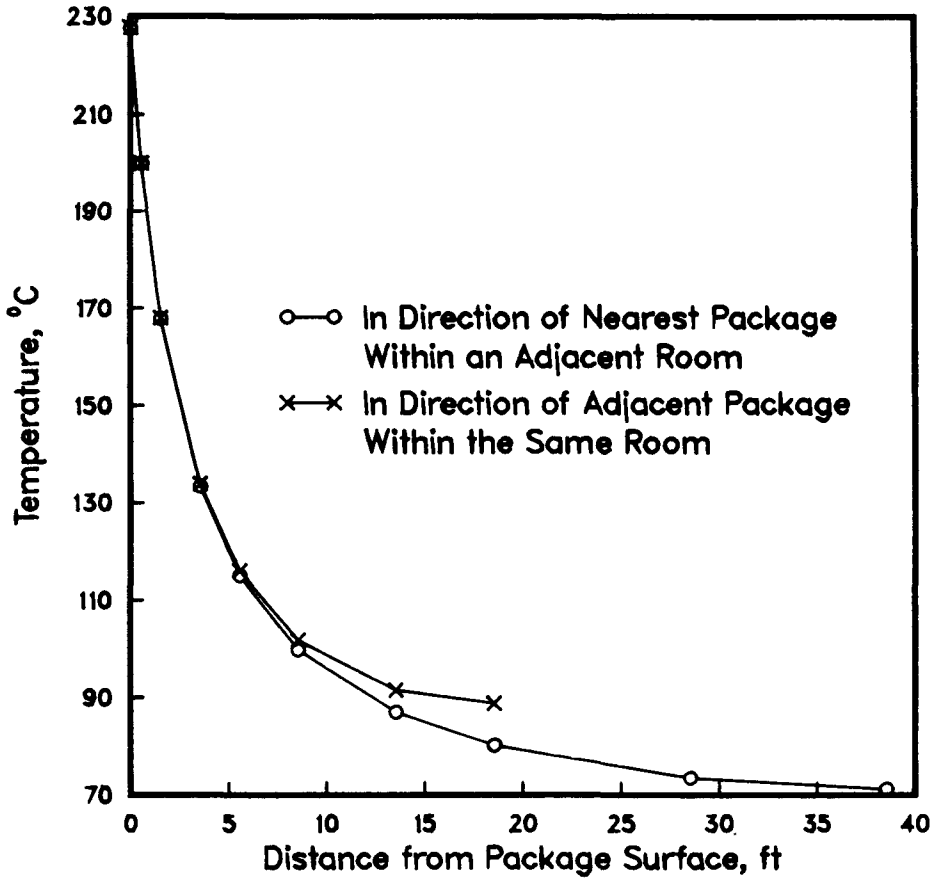
3.1.2 Initial Water Content of Salt

BRINEMIG requires an initial moisture content of the salt. The amount of brine that flows toward the waste package is directly proportional to the assumed initial moisture content.

J. L. Means (Attachment A) performed conservative analyses to estimate maximum moisture contents for the bedded salt sites. Means calculated maximum available moisture contents of 4.14 and 4.56 volume percent for Deaf Smith County and Swisher County, respectively, and 4.68 volume percent for Davis and Lavender Canyons. Means reported much lower values for what he considered to be more realistic conditions.

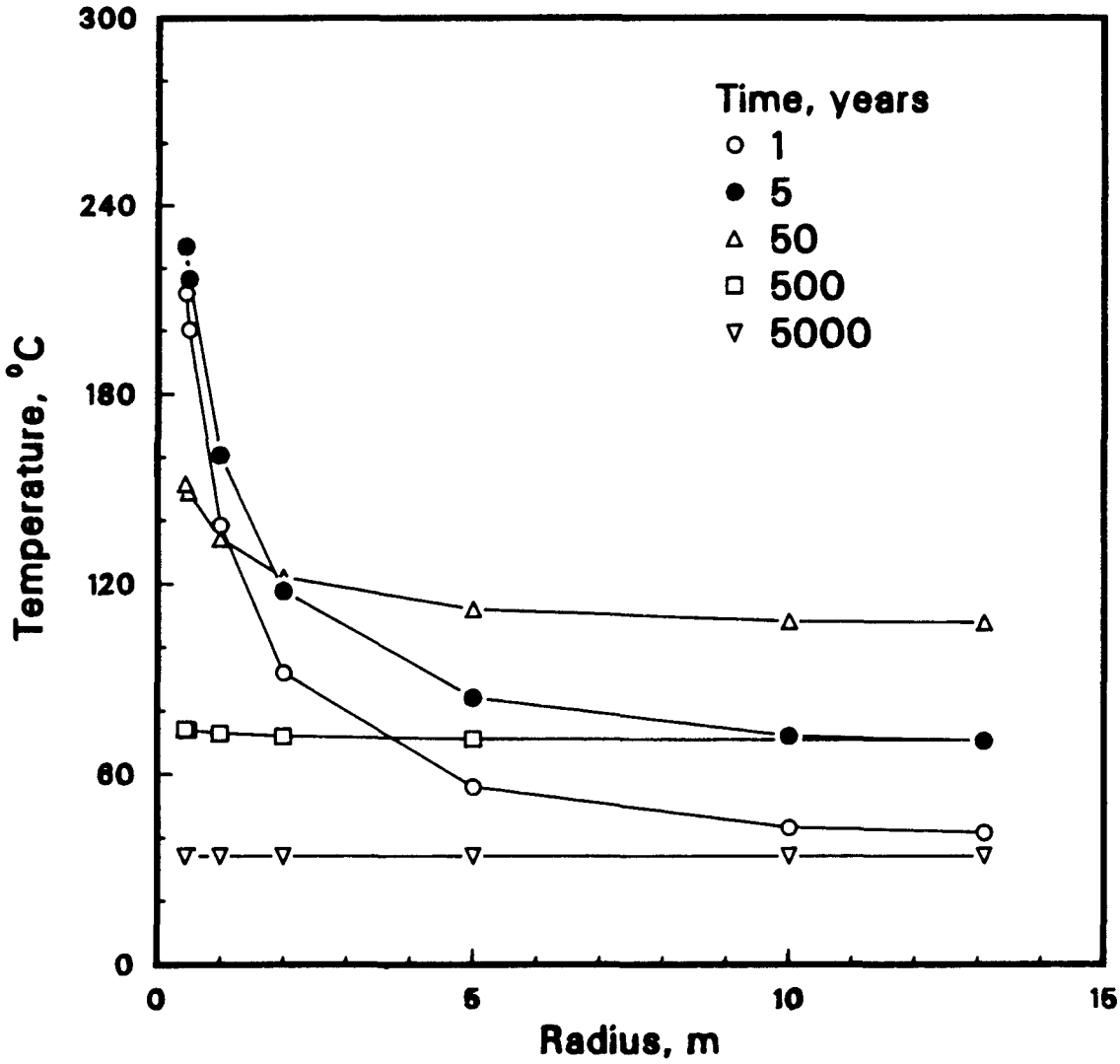
For the domal salts of the Gulf Coast region, Gevantman (1981, Table 1-4) reported moisture contents between 0.91 and 0.02 weight percent for Avery Island and 0.004 and 0.040 weight percent for Weeks Island salt. Roedder and Chou (1982, pp. 2-8) suggested that a moisture content of 0.1 weight percent (about 0.26 volume percent) is a conservatively high value for domal salts.

Because results predicted by BRINEMIG are directly proportional to the initial moisture content selected, use of a high moisture content will overpredict brine migration rates and quantities. To assure that brine migration



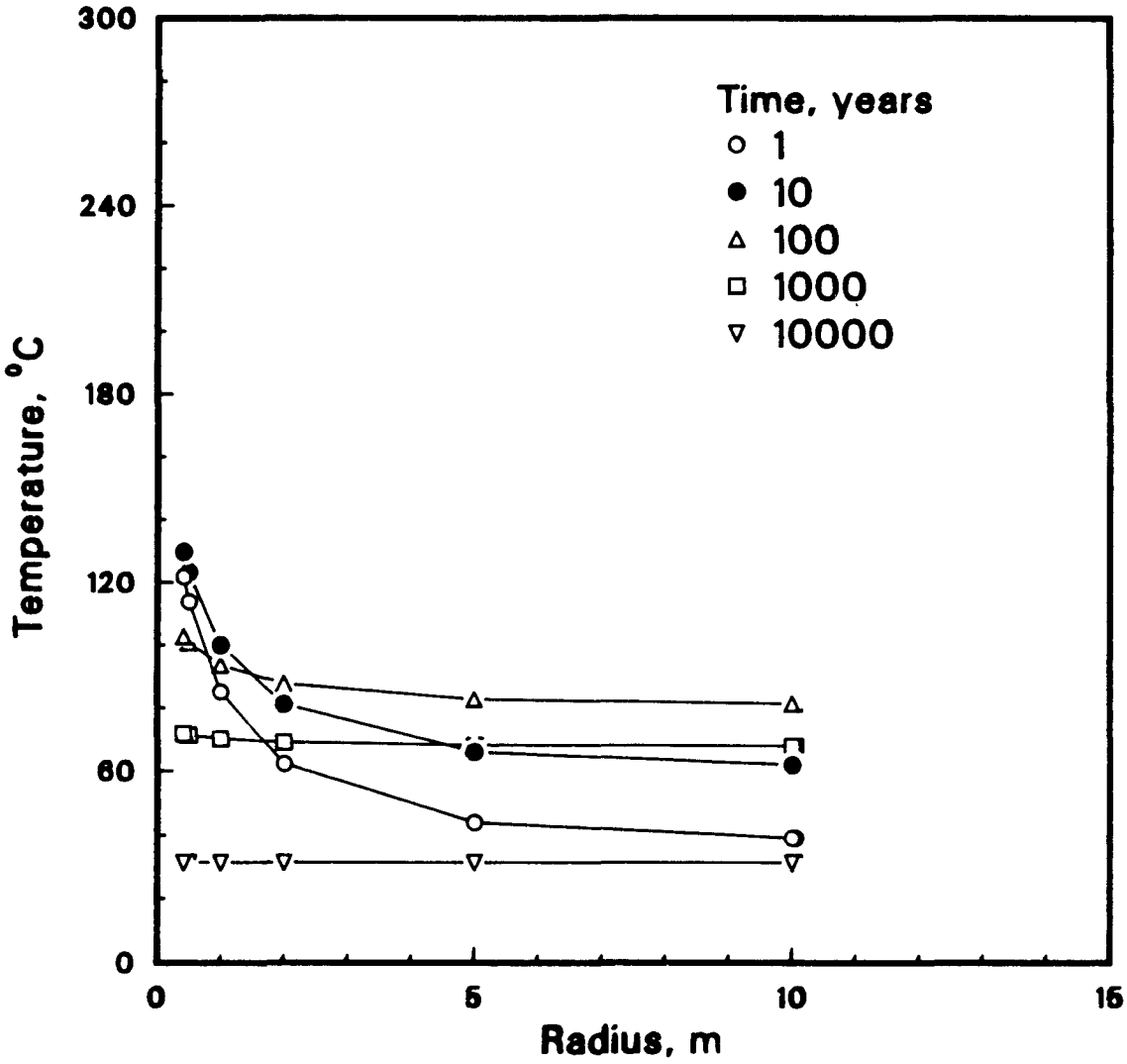
Temperature Profiles Around a CHLW Package for Deaf Smith County at 5 Years After Emplacement

Figure 3-1



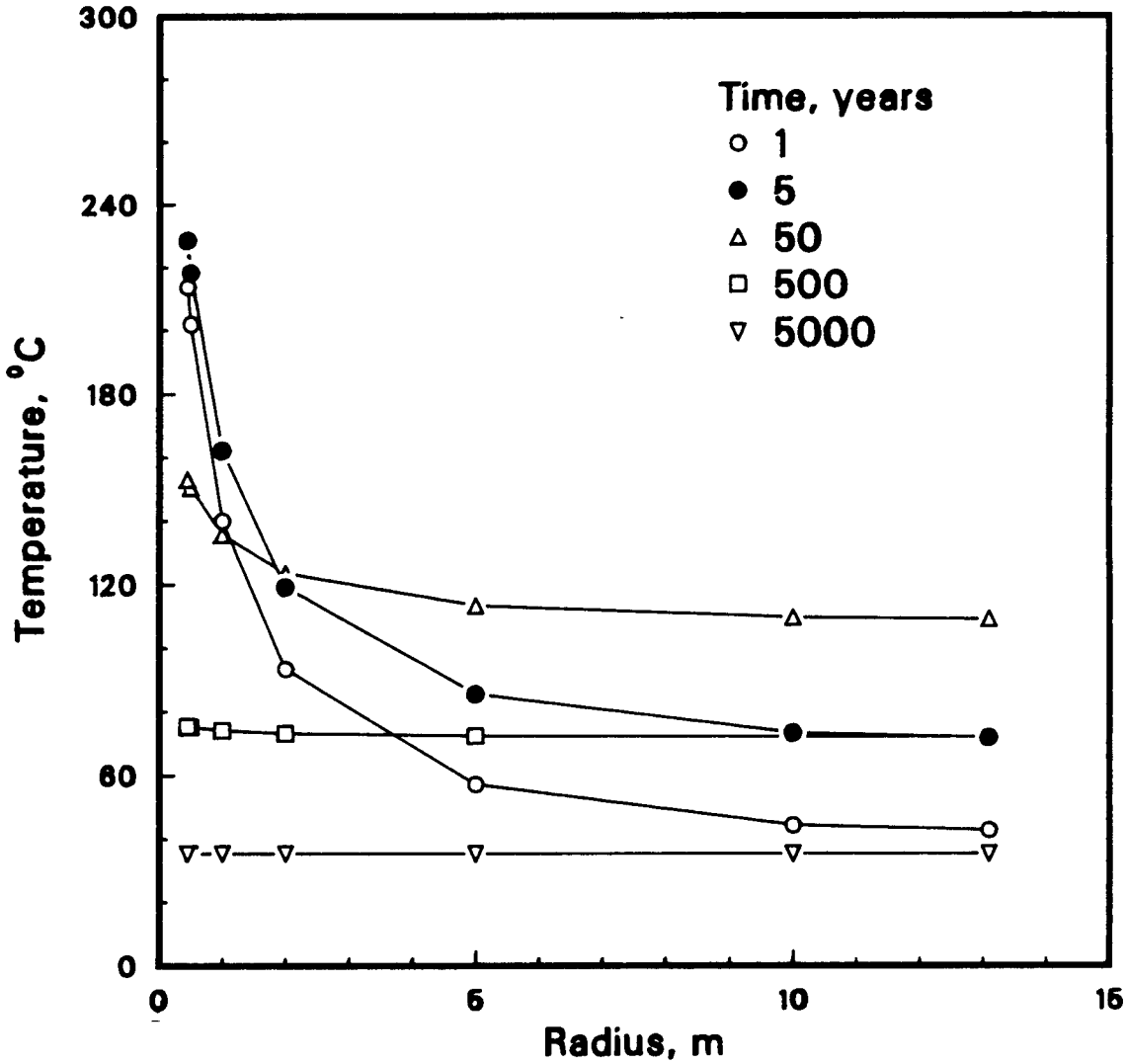
Temperatures Around CHLW
Waste Package at
Deaf Smith County

Figure 3-2



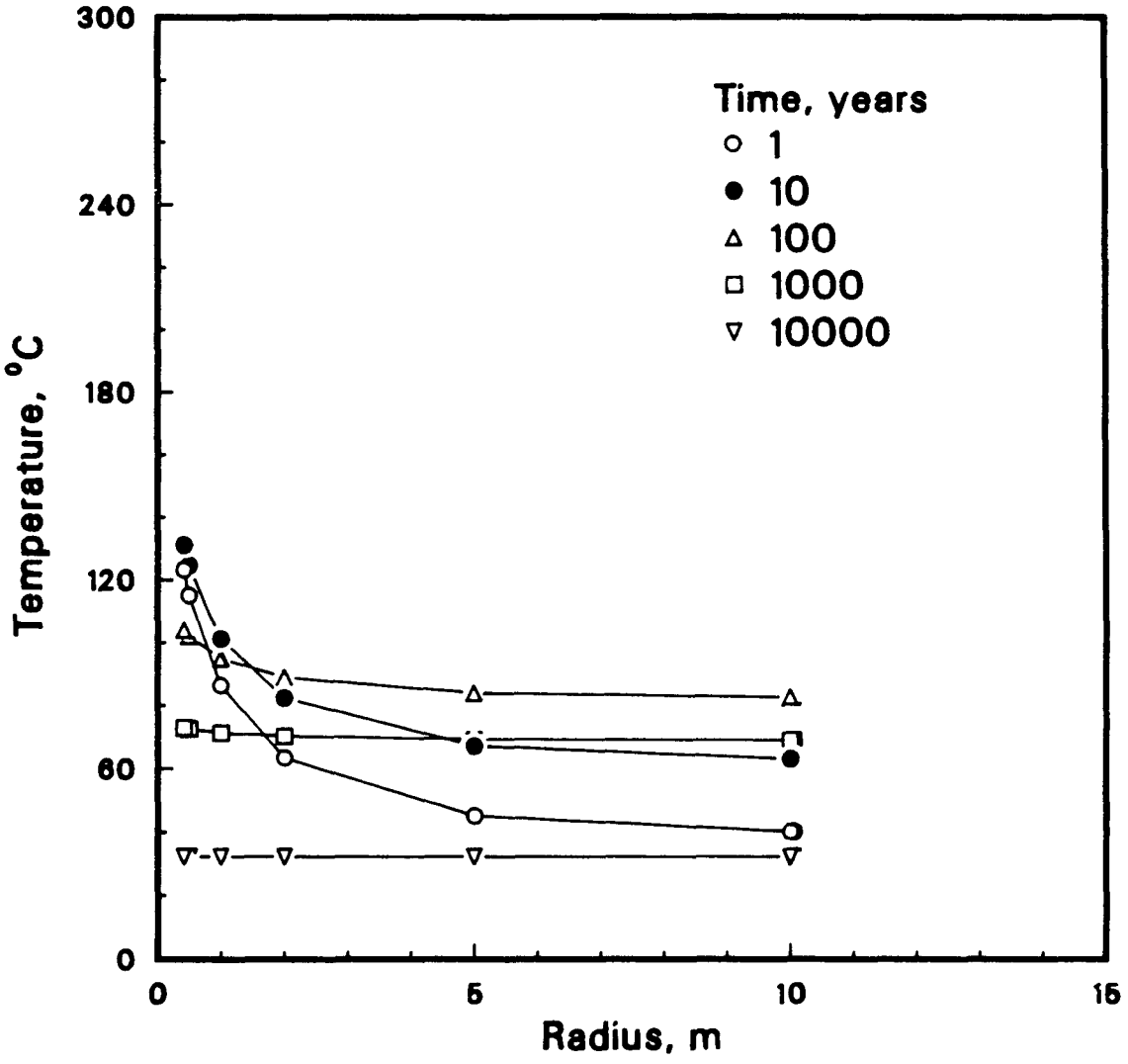
Temperatures Around SFPWR
Waste Package at
Deaf Smith County

Figure 3-3



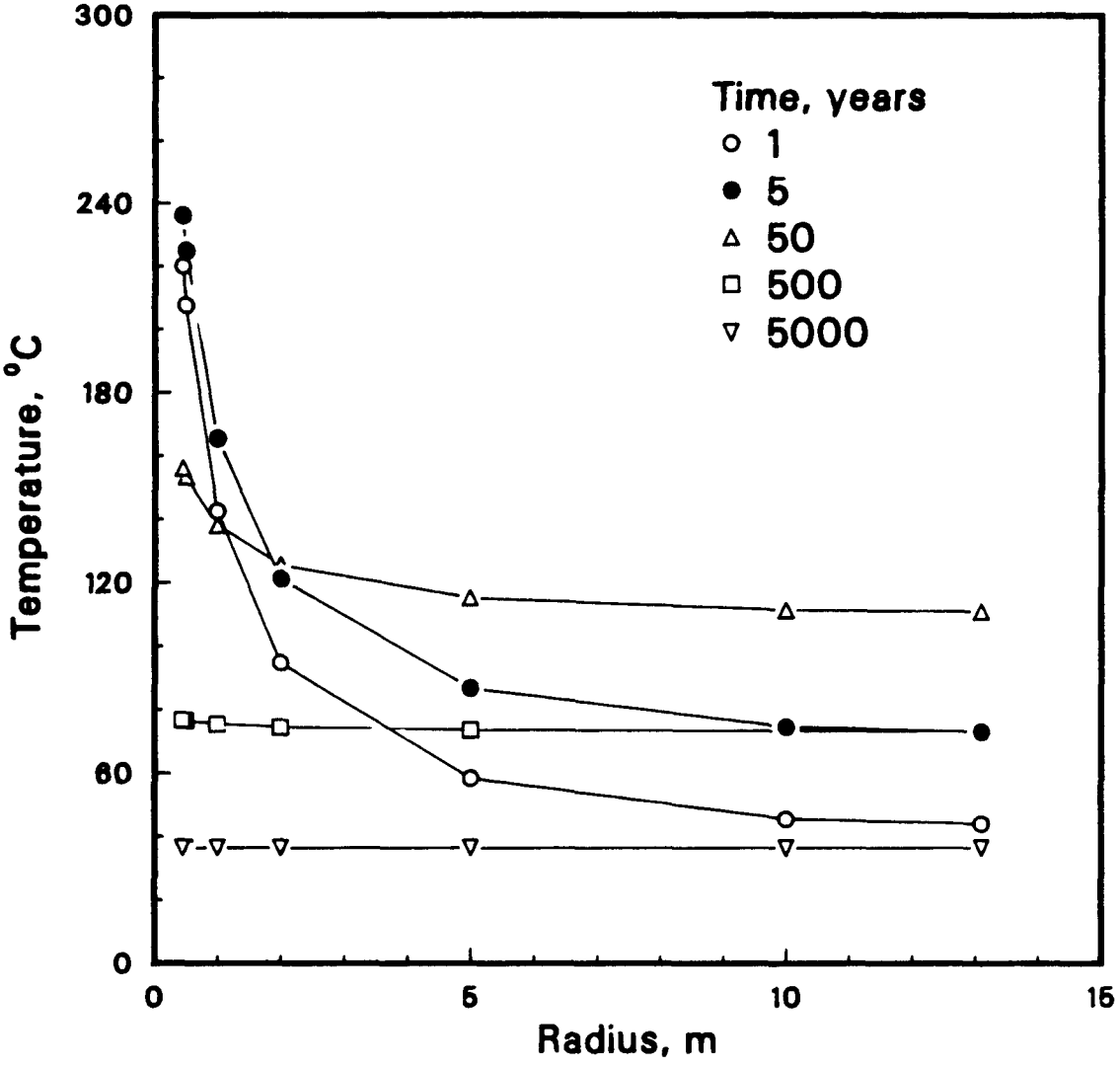
Temperatures Around CHLW
Waste Package at
Swisher County

Figure 3-4



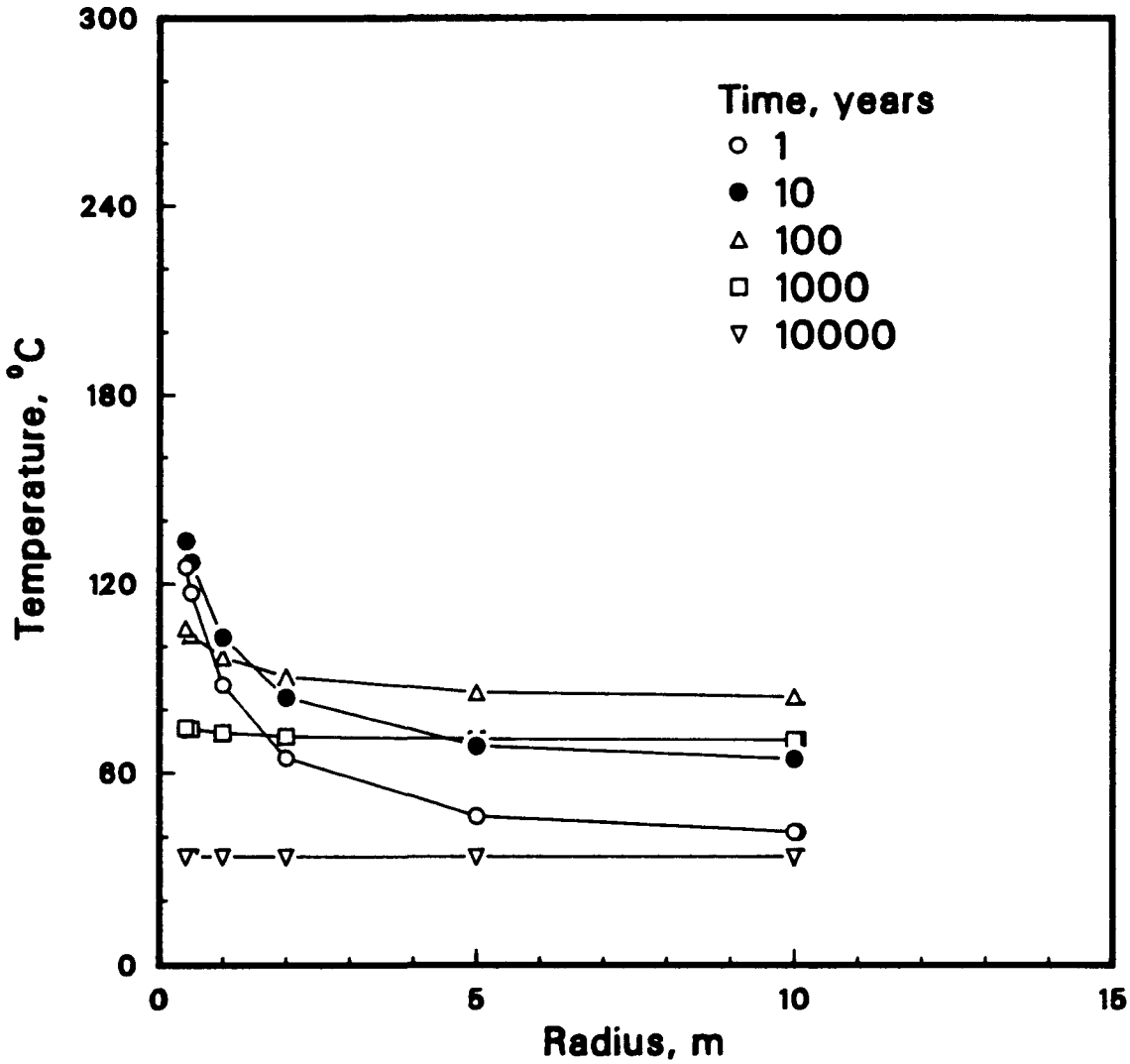
Temperatures Around SFPWR
Waste Package at
Swisher County

Figure 3-5



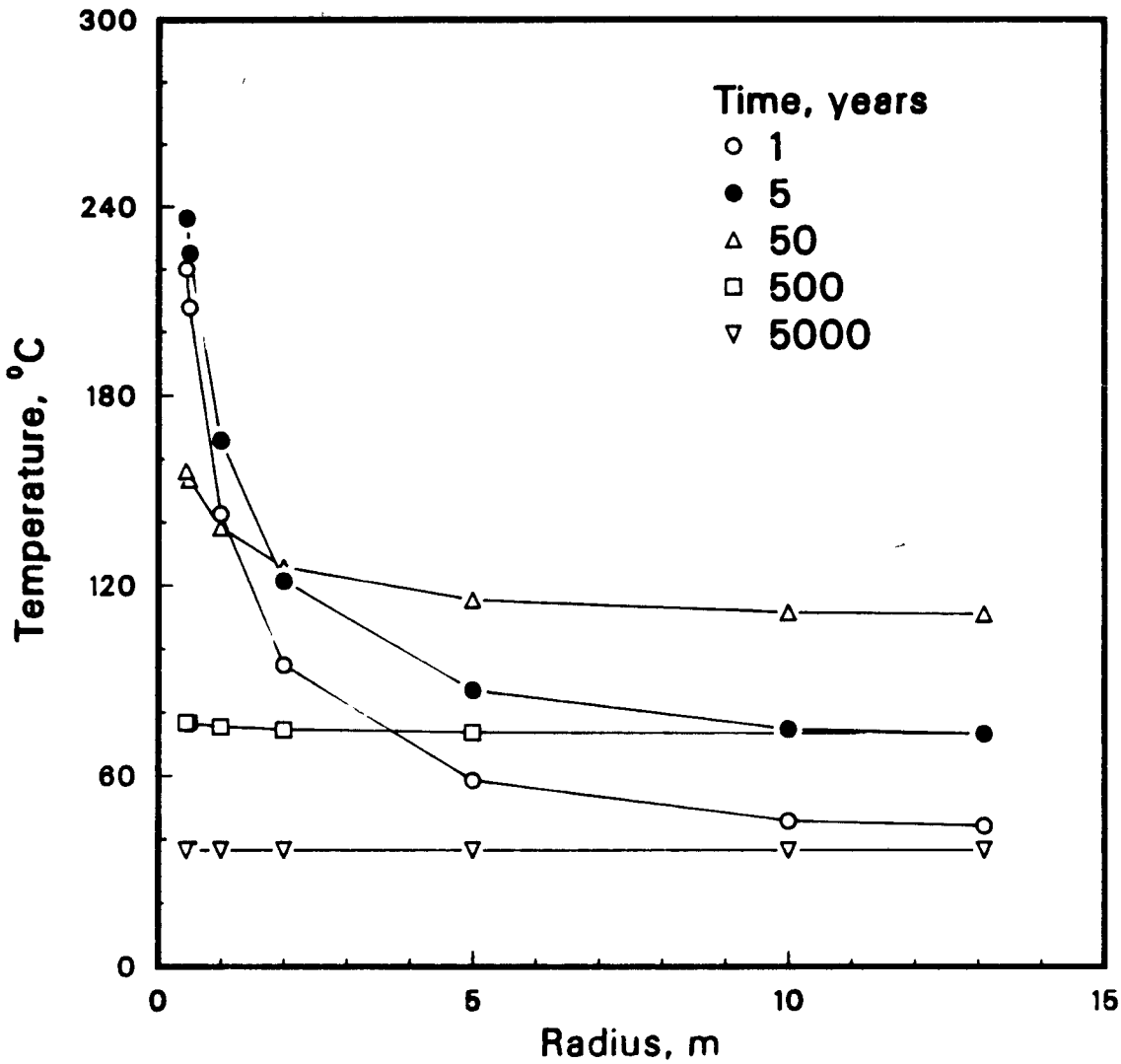
Temperatures Around CHLW
Waste Package at
Davis Canyon

Figure 3-6



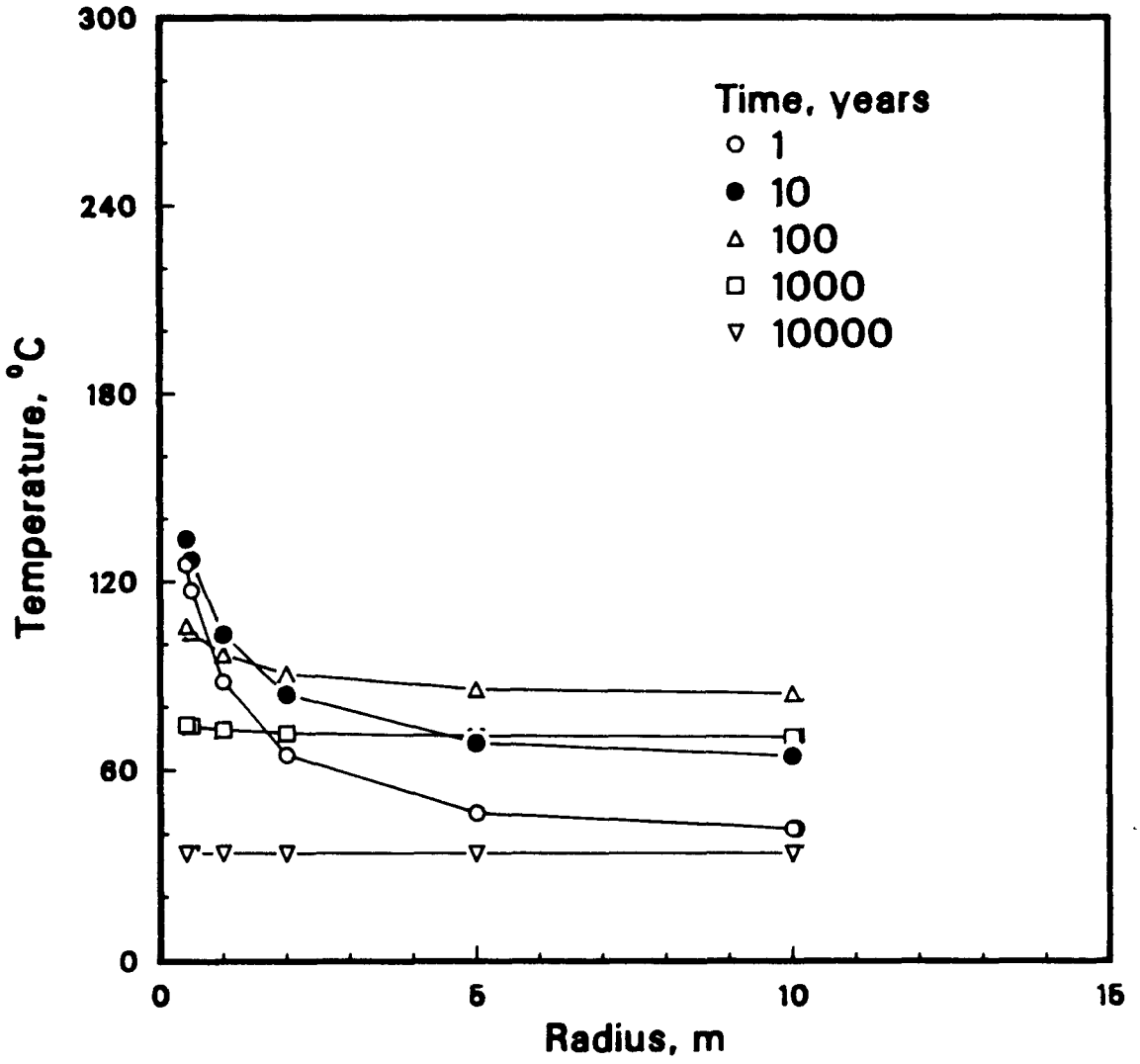
Temperatures Around SFPWR
Waste Package at
Davis Canyon

Figure 3-7



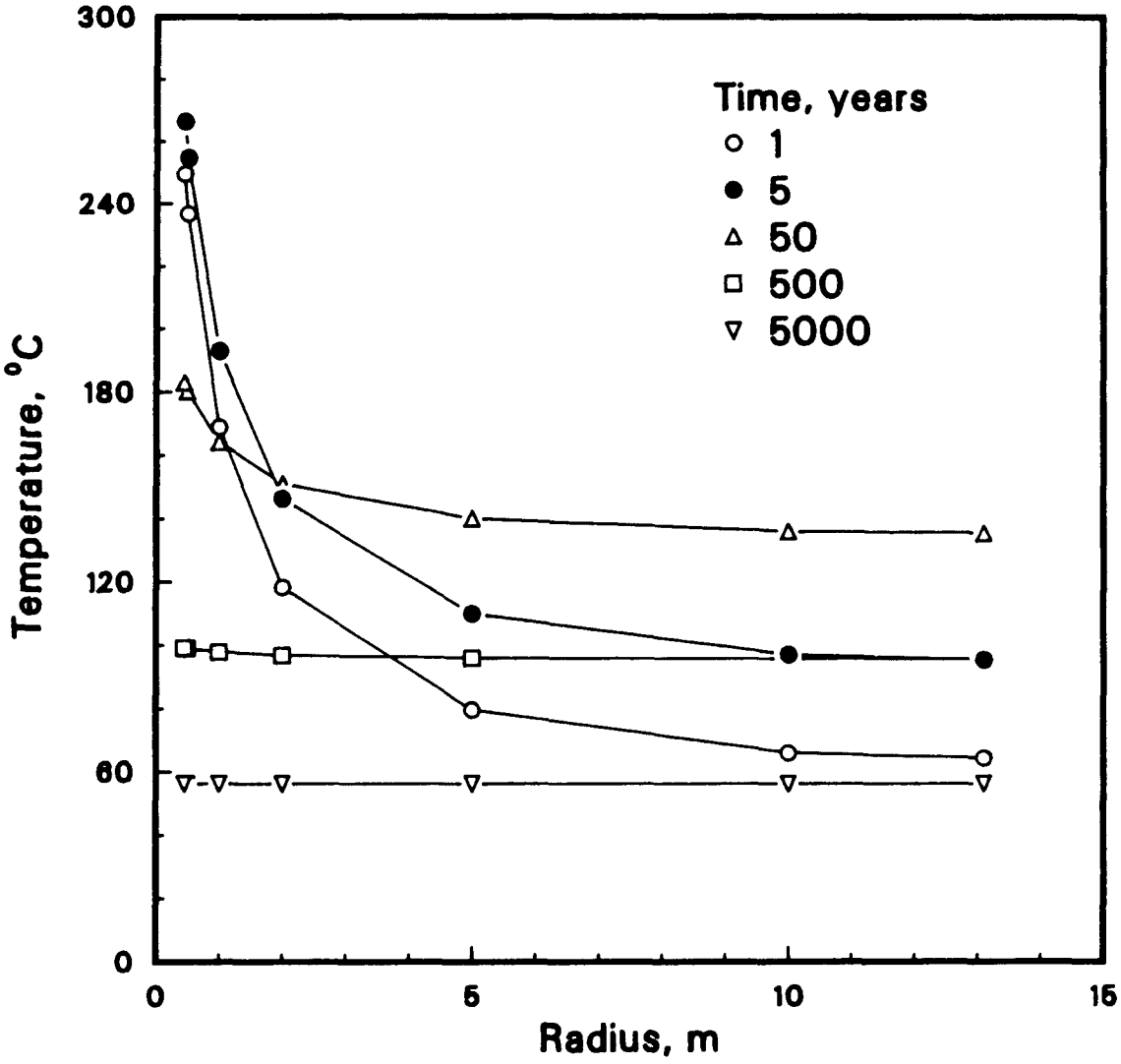
Temperatures Around CHLW Waste Package at Lavender Canyon

Figure 3-8



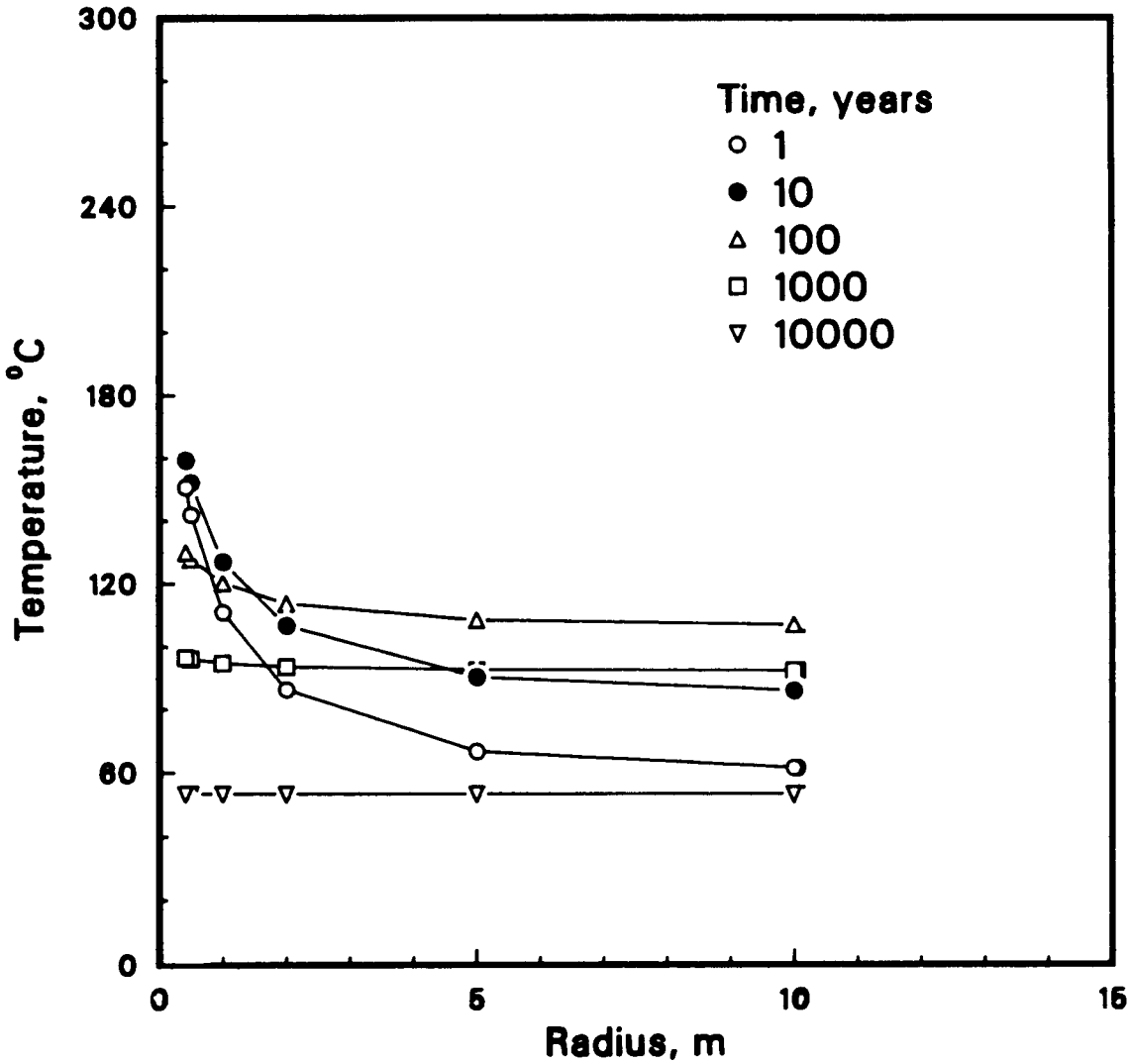
Temperatures Around SFPWR
Waste Package at
Lavender Canyon

Figure 3-9



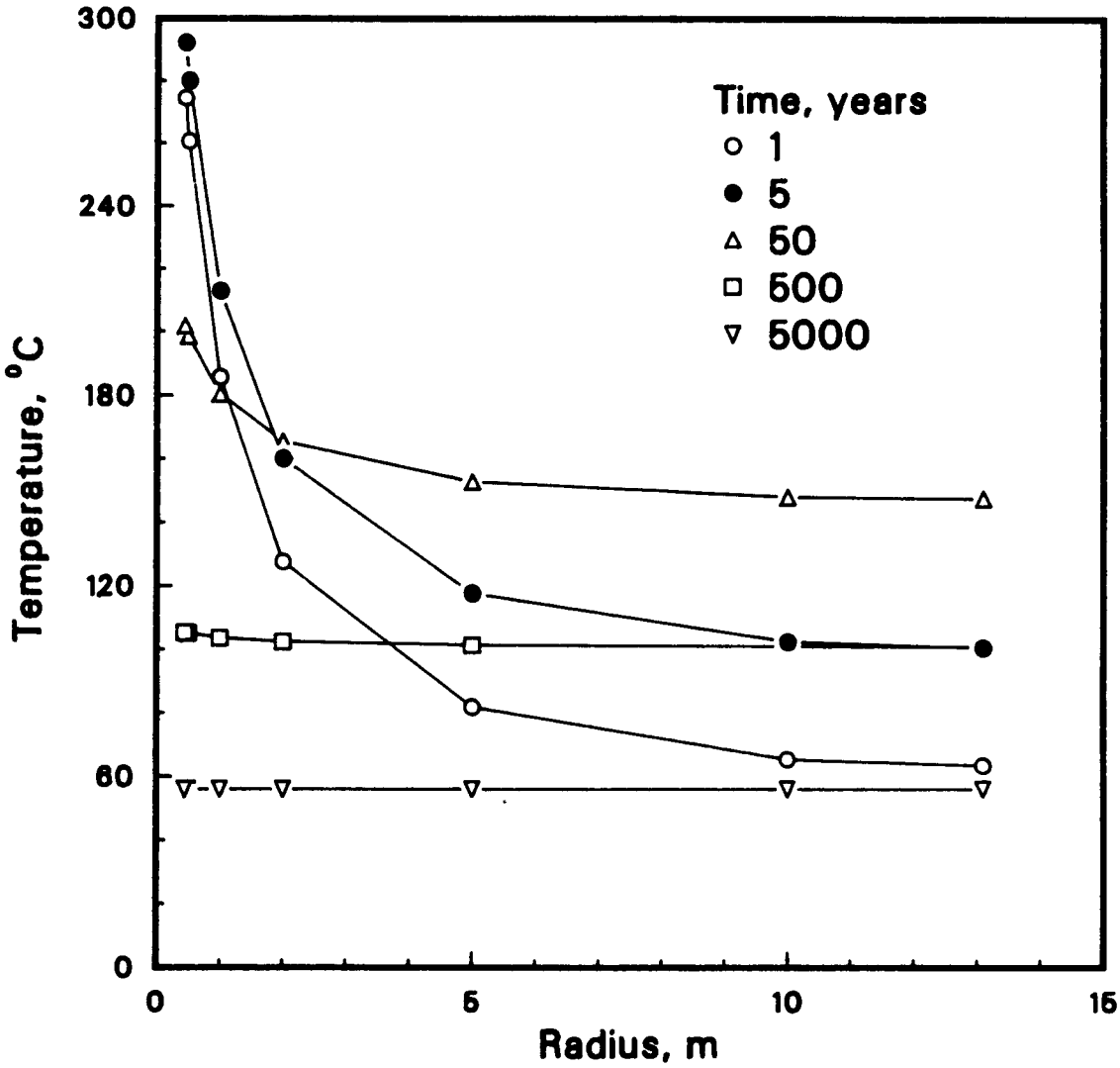
Temperatures Around CHLW
Waste Package at
Cypress Creek Dome

Figure 3-10



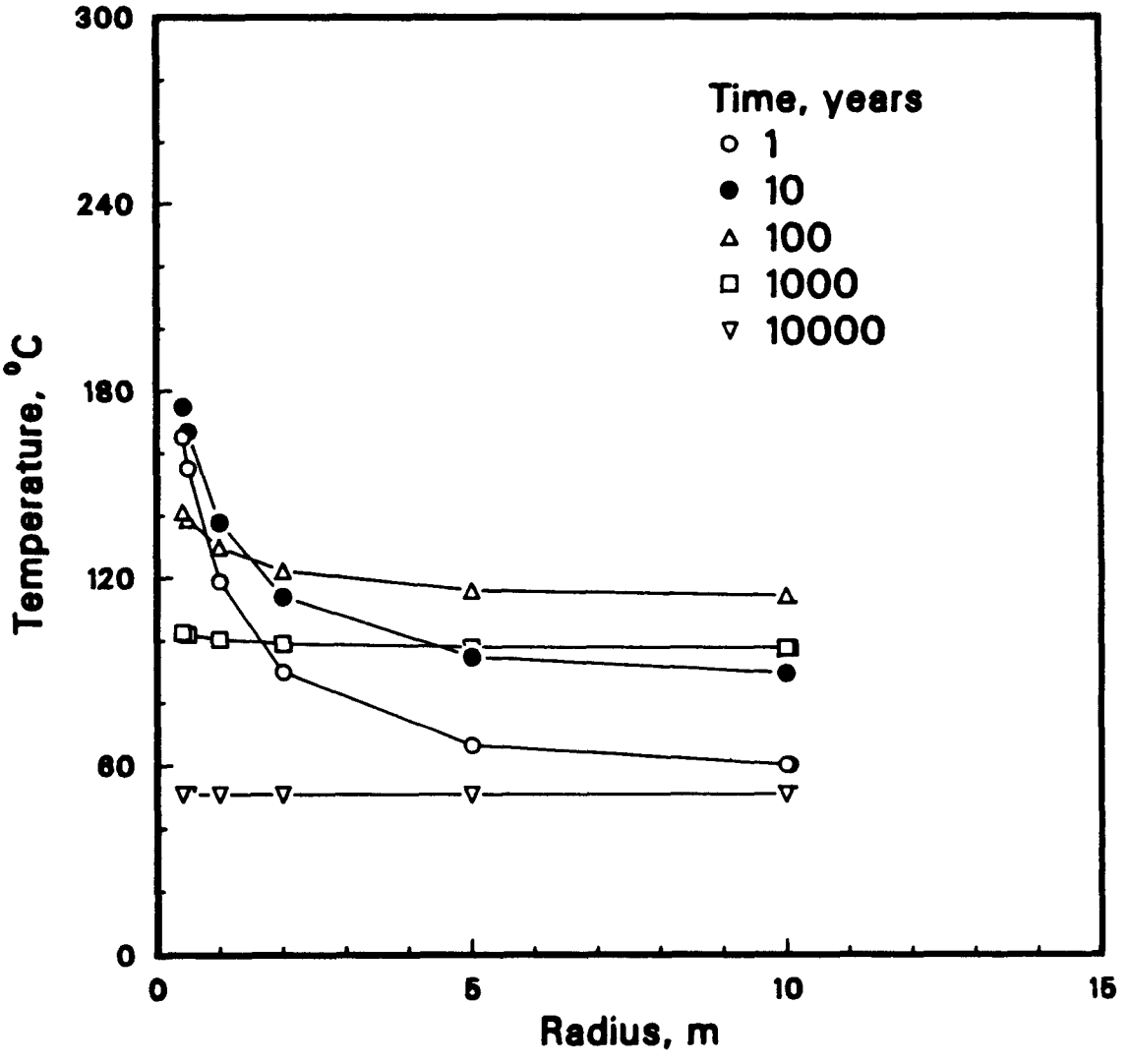
Temperatures Around SFPWR
Waste Package at
Cypress Creek Dome

Figure 3-11



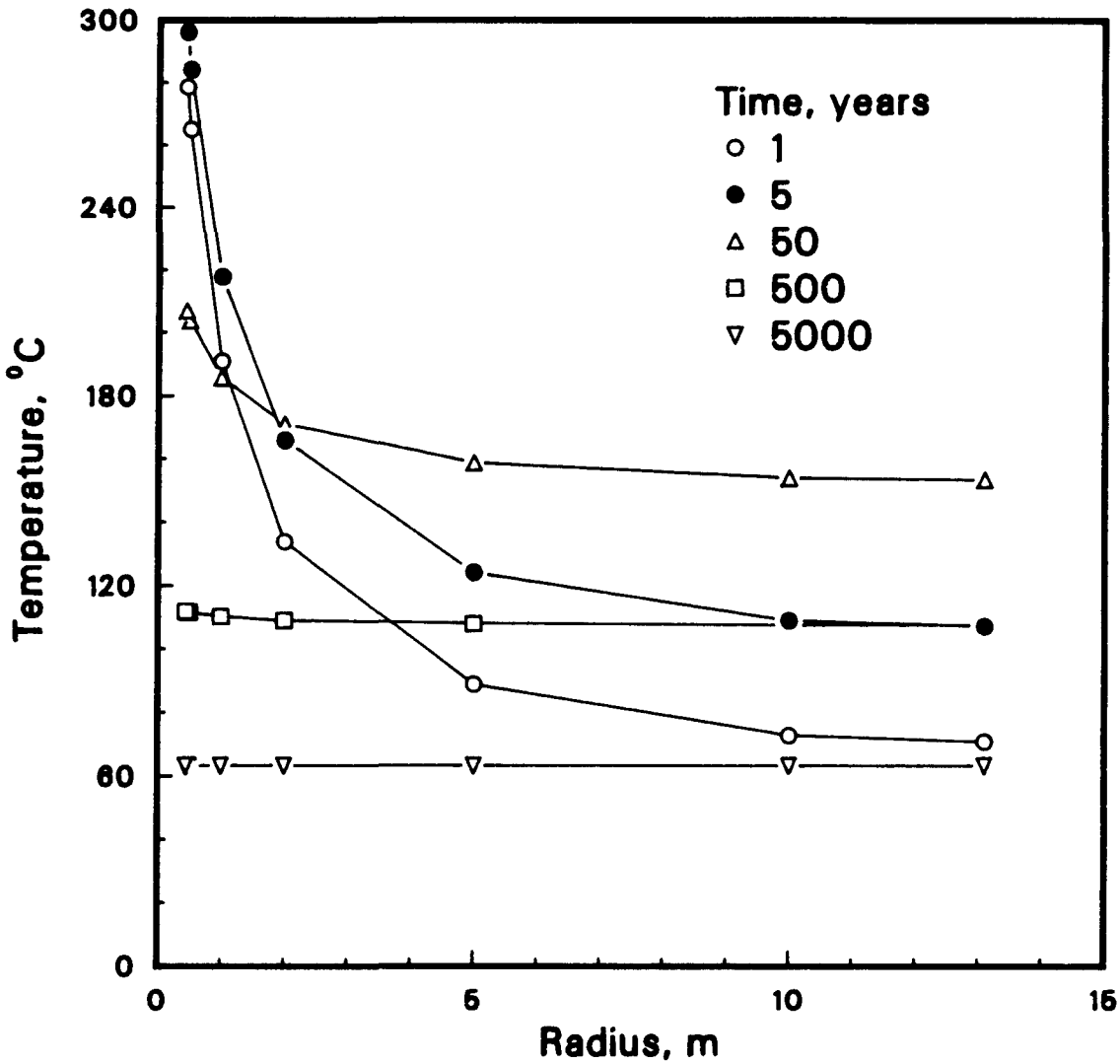
Temperatures Around CHLW Waste Package at Richton Dome

Figure 3-12



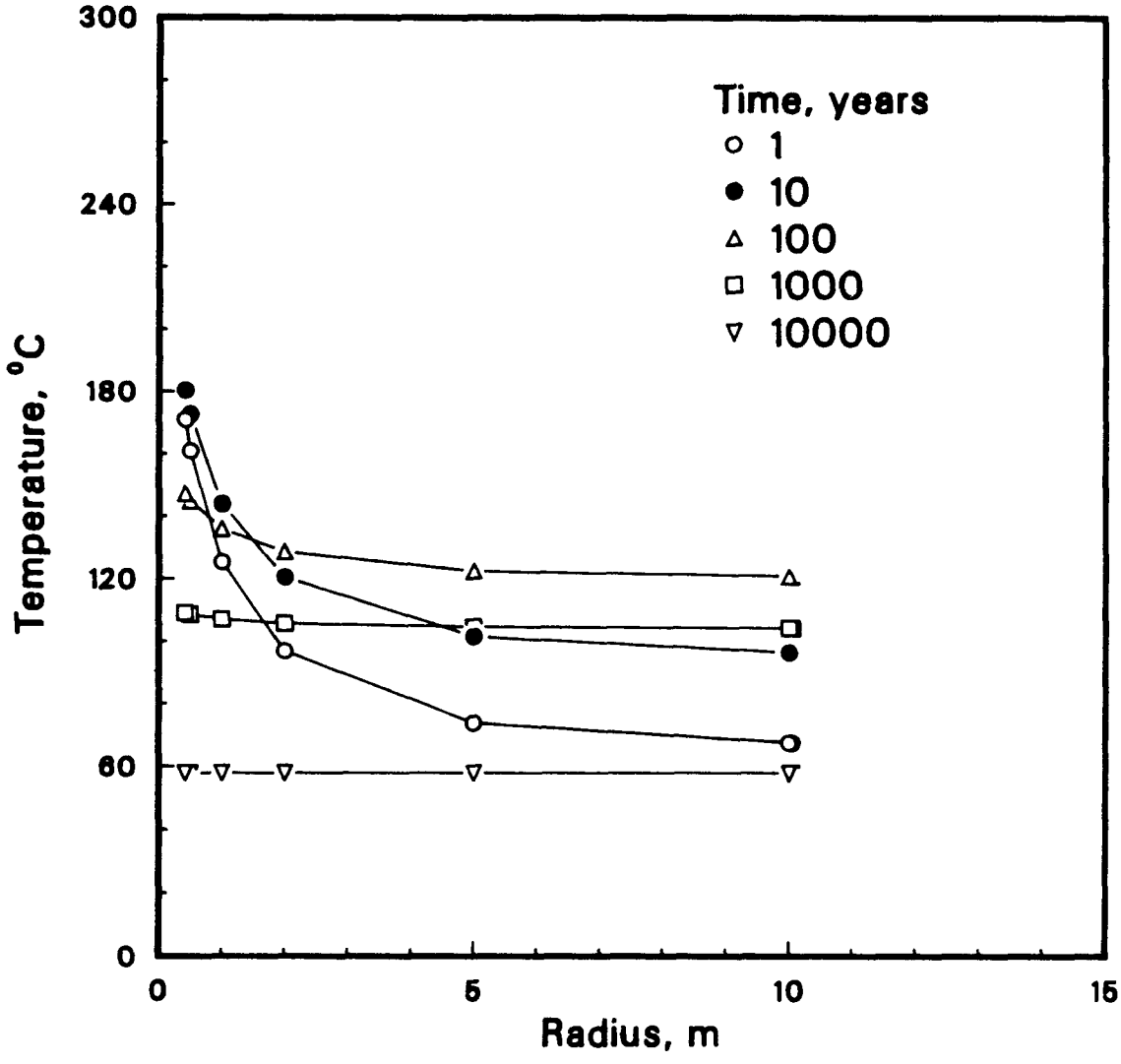
Temperatures Around SFPWR Waste Package at Richton Dome

Figure 3-13



Temperatures Around CHLW Waste Package at Vacherie Dome

Figure 3-14



Temperatures Around SFPWR Waste Package at Vacherie Dome

Figure 3-15

quantities were not underpredicted, the calculations for the bedded salt sites assumed an initial moisture content of 5.0 volume percent. For domal salts, an initial moisture content of 0.5 volume percent was assumed. Homogeneous, isotropic salt was assumed for all cases.

3.1.3 Threshold Temperature Gradient

Because the concept of a threshold temperature gradient is somewhat controversial, calculations were performed with and without a threshold gradient. This was done primarily to see how large an effect the threshold gradient might contribute. The zero threshold gradient case will, of course, give the highest calculated brine flows.

The largest threshold temperature gradient estimated by Jenks and Claiborne (1981) was 0.125°C/cm, corresponding to temperatures of 100°C. This value was used in simulations for all seven sites to determine what inhibiting effect a threshold temperature gradient might have on brine flow.

3.1.4 Package Dimensions

The BRINEMIG code requires two pieces of information related to the waste package. The first is the radius across which flow is calculated, assumed for the simulations of the seven salt sites to be equal to the waste package radius.

The waste package radius was used because it maximizes inflow predicted by the Jenks equation, due to the high temperatures and temperature gradients occurring near the waste package. For CHLW, the package radius used was 0.445 m, and for spent fuel 0.4175 m was used.

The second piece of information required by BRINEMIG is an effective package length. Package lengths of 3.679 m and 3.85 m were used for CHLW and spent fuel, respectively. These lengths correspond to the actual waste form lengths. They were not modified to account for the surface area at the package ends because conservatism was already built into the simulation with the selection of the temperature profile described in Section 3.1.1.

3.2 CODE RESULTS

Table 3-1 summarizes the amounts of brine accumulation predicted for the seven salt sites. Figures 3-16 through 3-29 show brine accumulation as a function of time for the seven sites and two waste forms, with and without a threshold temperature gradient. The maximum amount of accumulated brine predicted for any site is about 1 m^3 per package.

The bedded sites show considerably more brine accumulation as a group than the domal salt sites. This is because the moisture content which was assumed for the bedded sites is 10 times higher than for the domal sites. Predicted quantities of accumulated brine for the bedded salts are less than

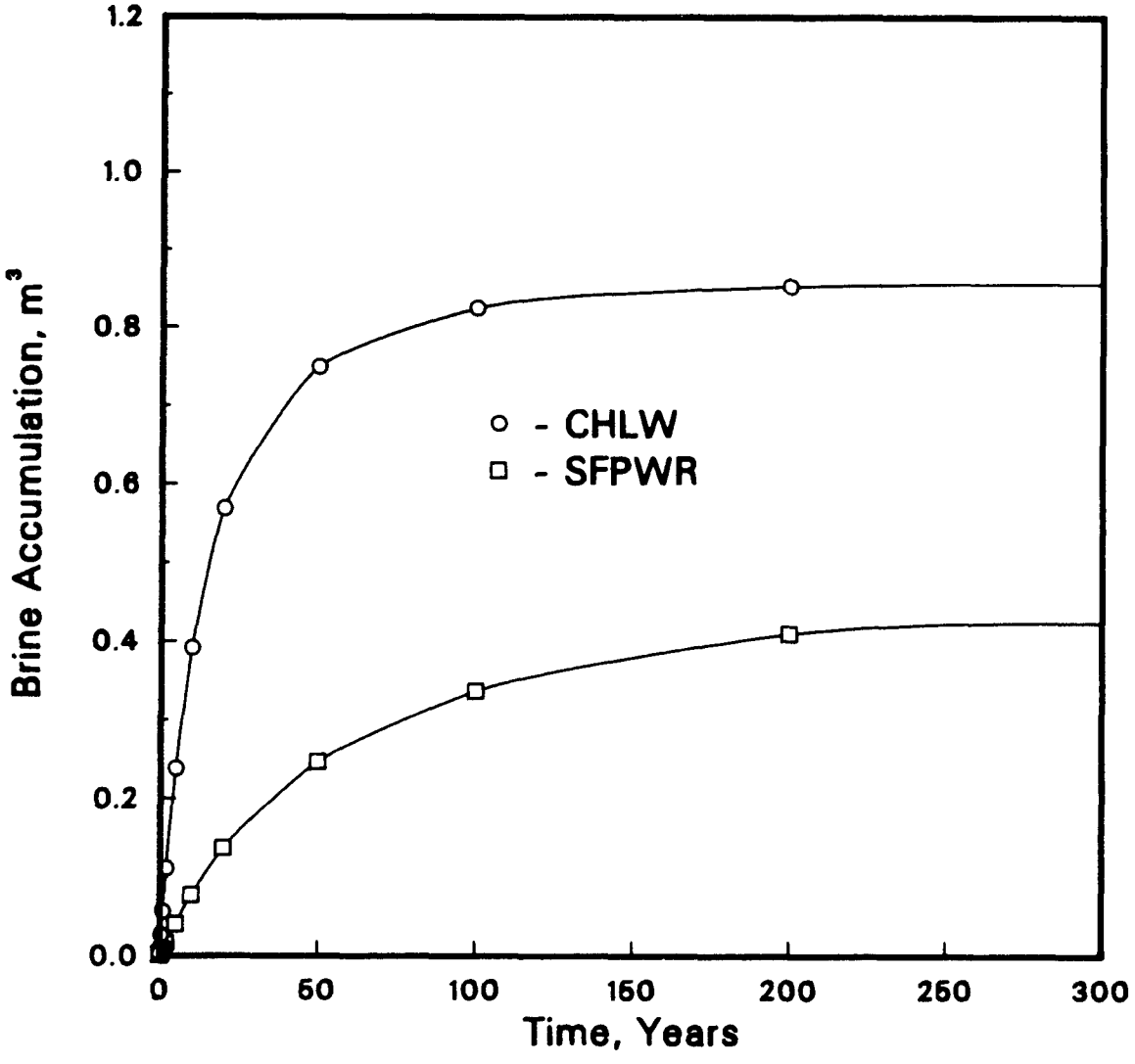
Table 3-1. Total Quantities of Accumulated Brine

Site	Threshold Gradient, °C/cm	Accumulated Brine, m^3	
		CHLW	SFPWR
Deaf Smith County	0.125	0.85	0.41
	0.0	0.95	0.75
Swisher County	0.125	0.87	0.42
	0.0	0.96	0.77
Davis Canyon	0.125	0.92	0.44
	0.0	1.0	0.78
Lavender Canyon	0.125	0.92	0.44
	0.0	1.0	0.79
Cypress Creek Dome	0.125	0.13	0.062
	0.0	0.14	0.11
Richton Dome	0.125	0.17	0.082
	0.0	0.18	0.14
Vacherie Dome	0.125	0.17	0.086
	0.0	0.19	0.15

10 times higher than for domal salts. The difference is less than that expected on the basis of the difference in initial moisture contents because the domal sites are hotter, and higher temperatures drive more brine according to the Jenks equation. The smaller variations in brine accumulation occurring between sites of a similar salt type (bedded or domal) are a result of differences in the temperature profiles expected to occur at each site.

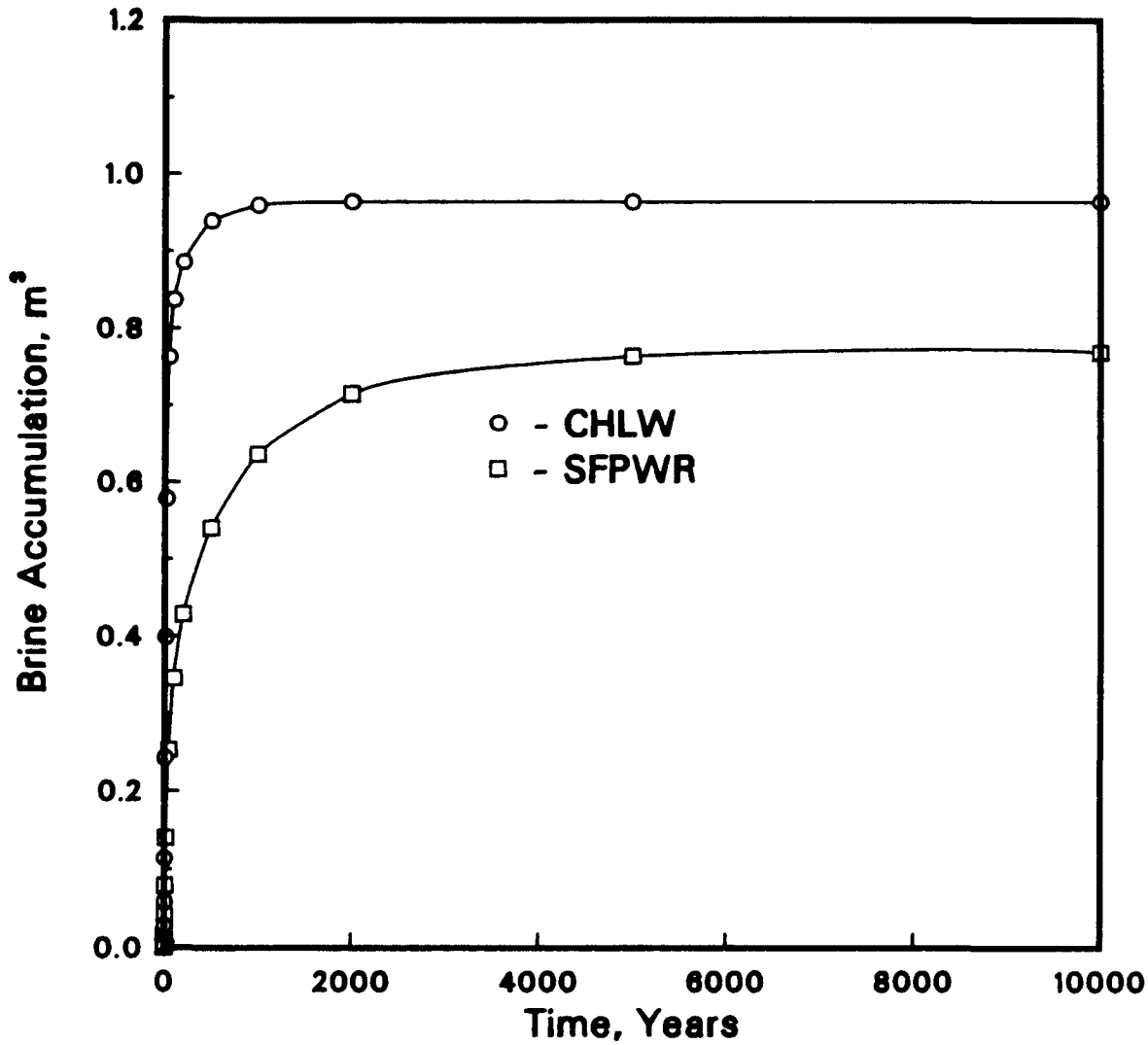
Quantities of accumulated brine are consistently higher for CHLW than for spent fuel. This is because of the higher initial temperatures expected for CHLW. The threshold temperature gradient effect is more important for spent fuel, though, because spent fuel stays hot longer than CHLW.

It is important to recognize that more site-specific information is needed about the sources of moisture available for migration and the possible mechanisms for movement of that moisture. The importance of moisture in the backfill used during waste emplacement, possible release of moisture from hydrated minerals, and the effects of clay interbeds and other impurities all need to be examined closely to establish the conservatism of the BRINEMIG model and its application.



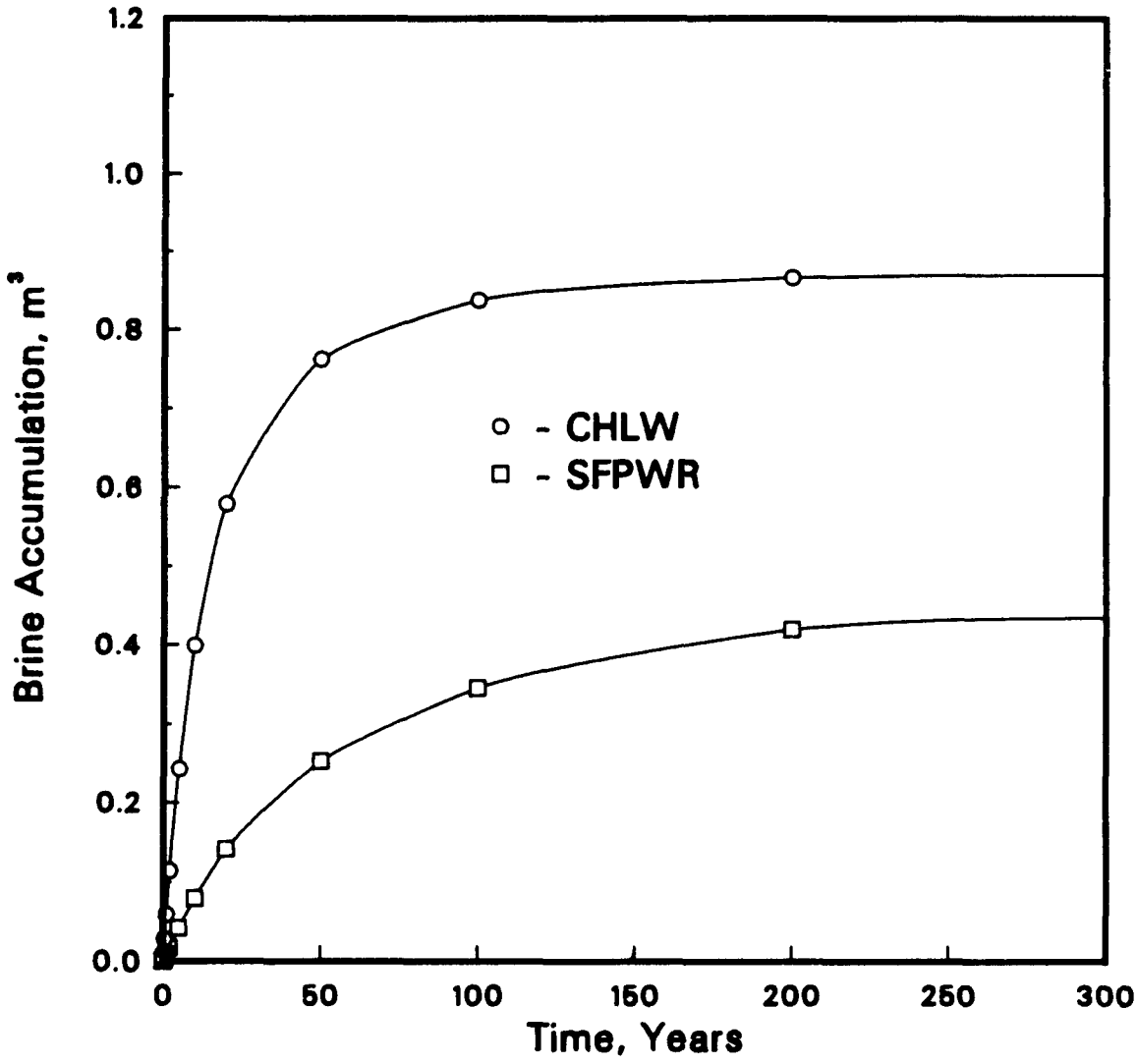
Brine Accumulation at Waste Package With Time and Threshold Gradient of 0.125 °C/cm for Deaf Smith County

Figure 3-16



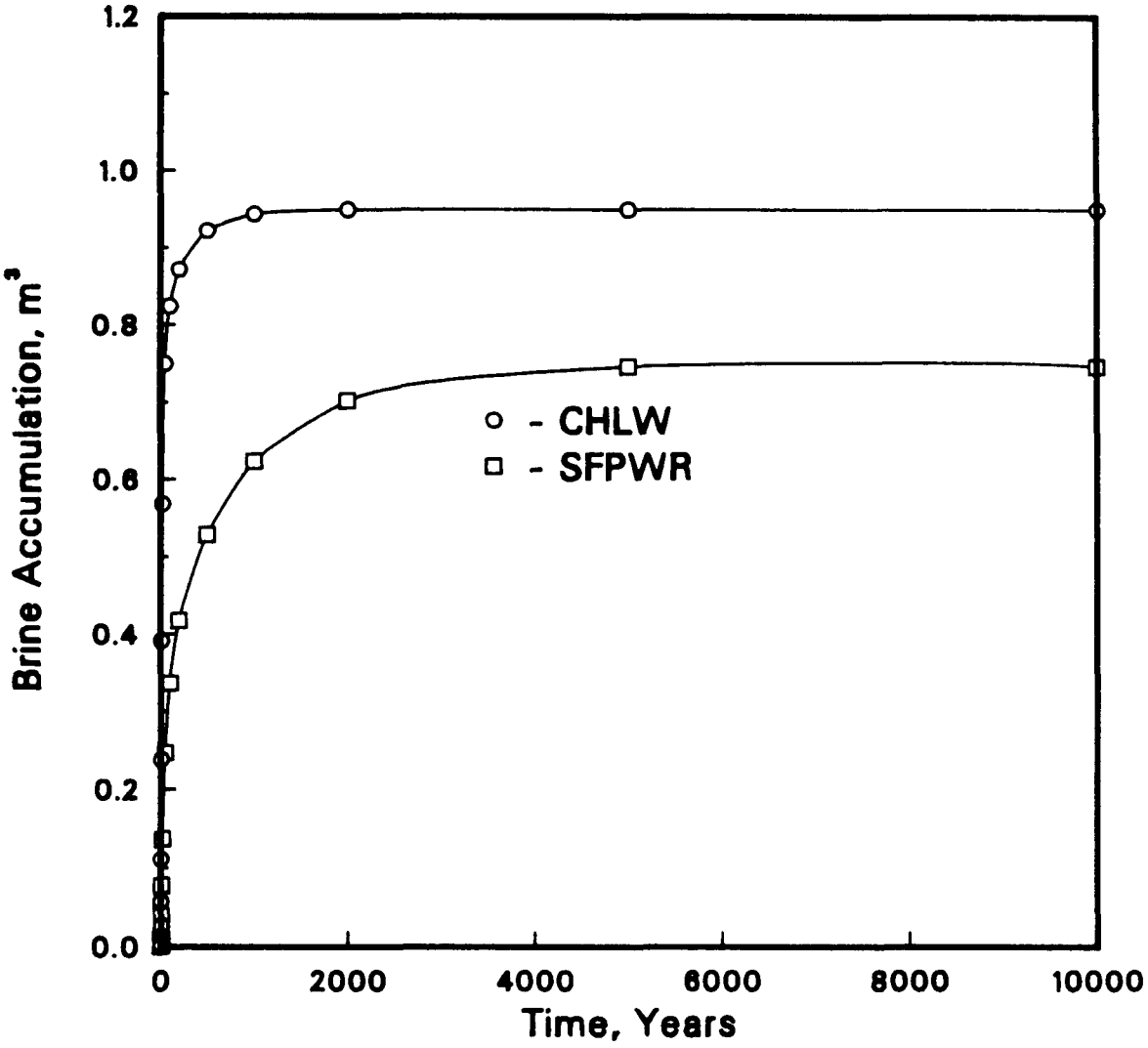
Brine Accumulation at Waste Package
With Time and Zero Threshold Gradient
for Deaf Smith County

Figure 3-17



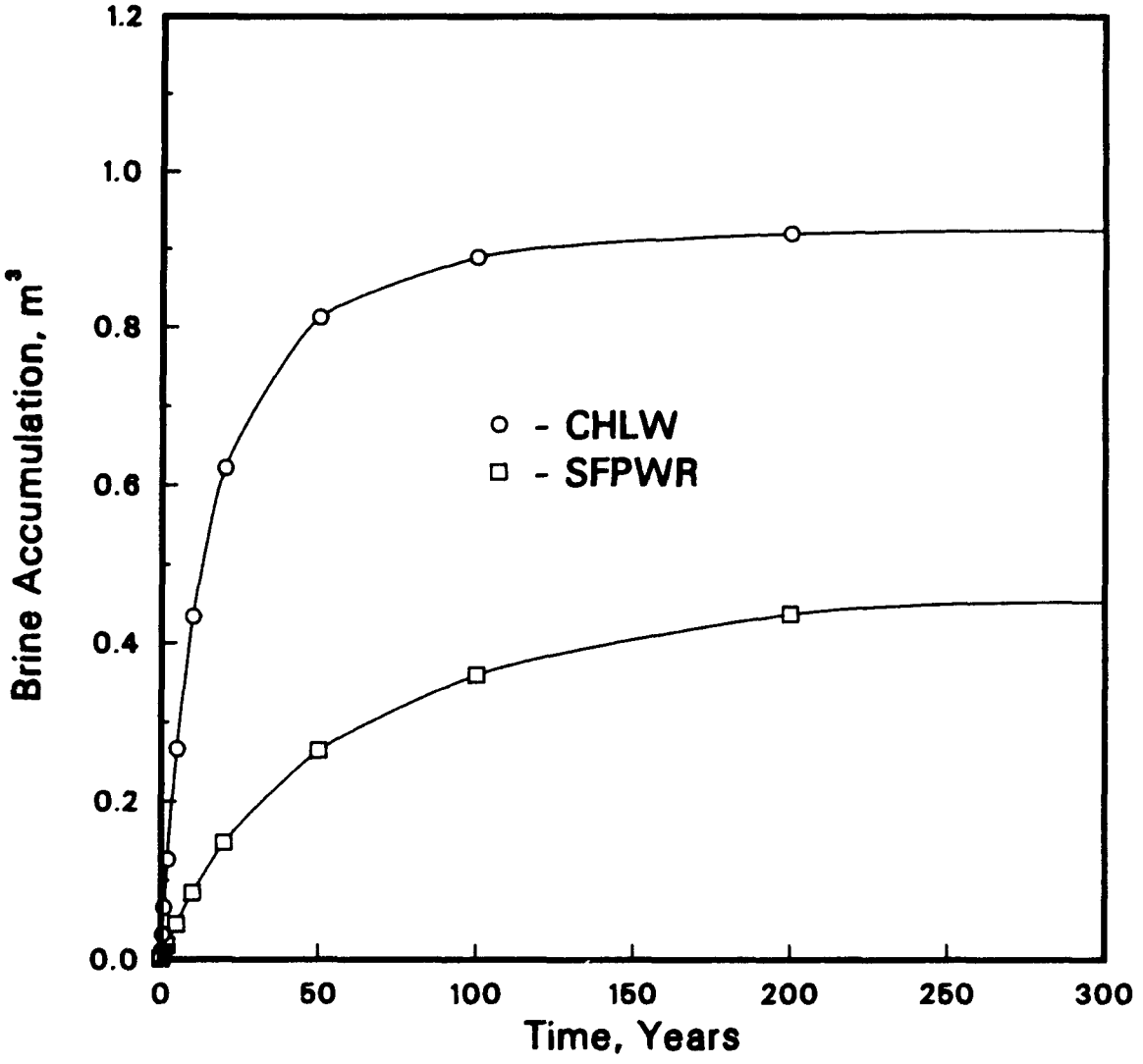
Brine Accumulation at Waste Package With Time and Threshold Gradient of 0.125 °C/cm for Swisher County

Figure 3-18



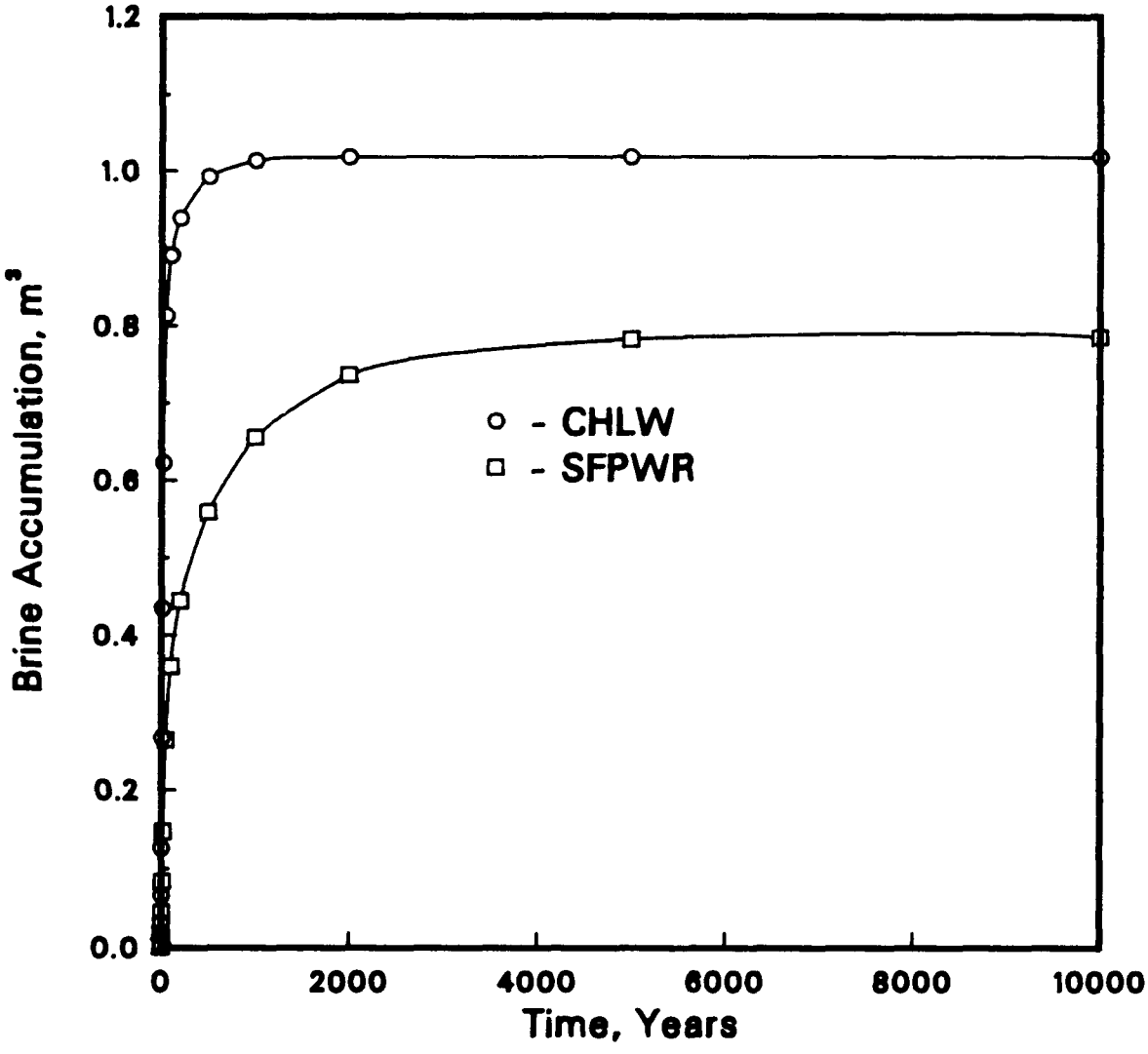
Brine Accumulation at Waste Package
With Time and Zero Threshold Gradient
for Swisher County

Figure 3-19



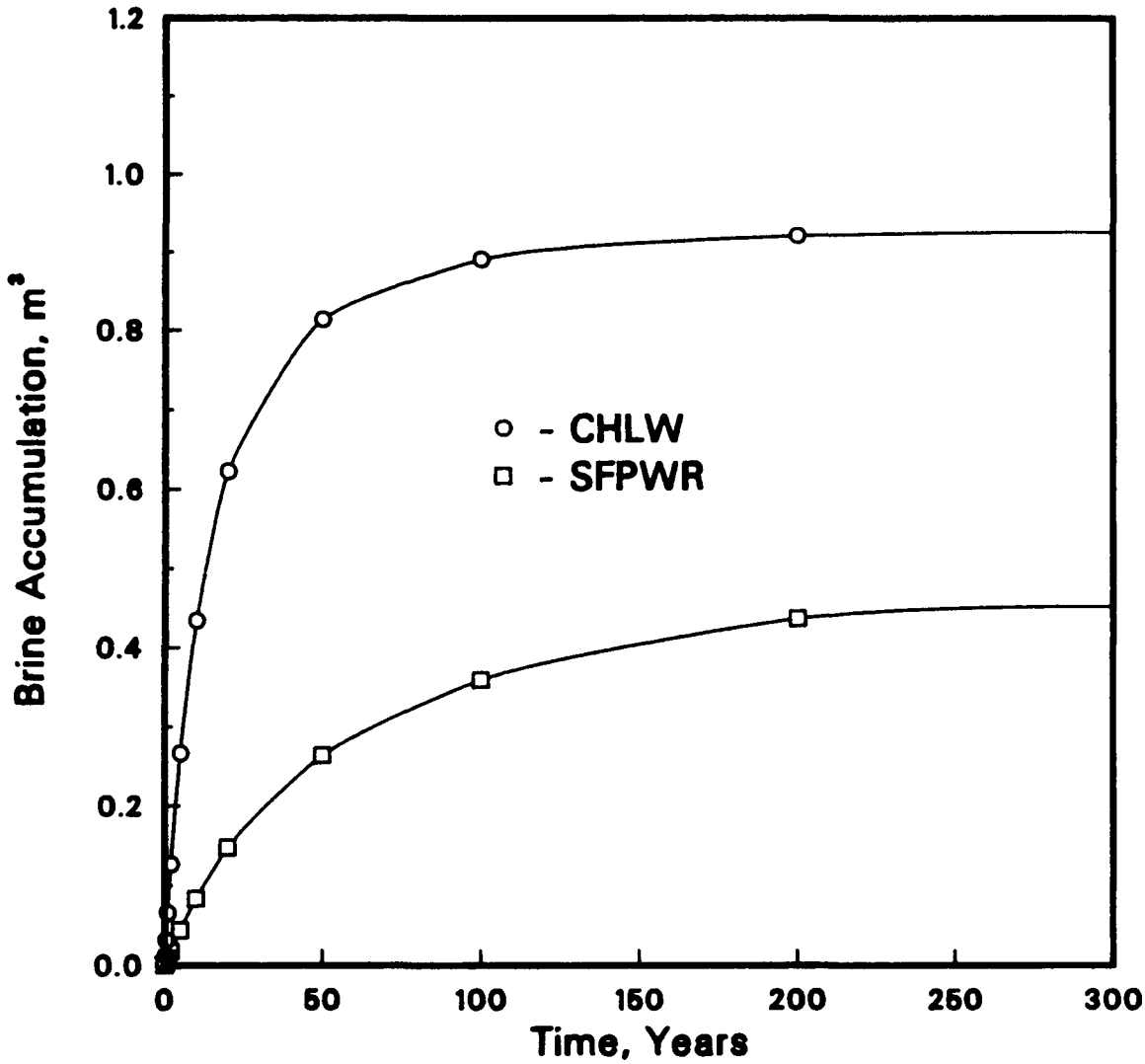
Brine Accumulation at Waste Package With Time and Threshold Gradient of 0.125 °C/cm for Davis Canyon

Figure 3-20



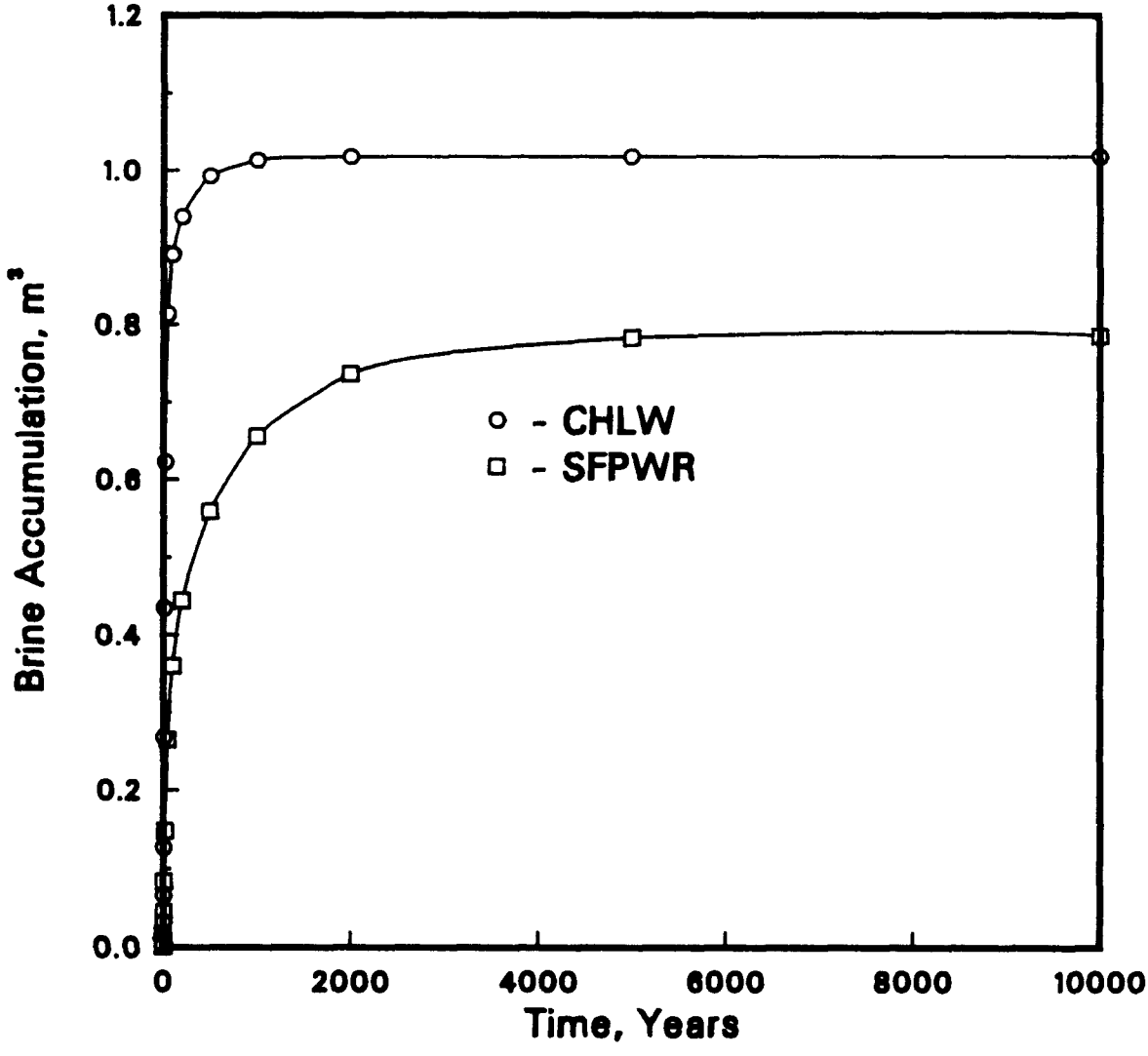
Brine Accumulation at Waste Package
With Time and Zero Threshold Gradient
for Davis Canyon

Figure 3-21



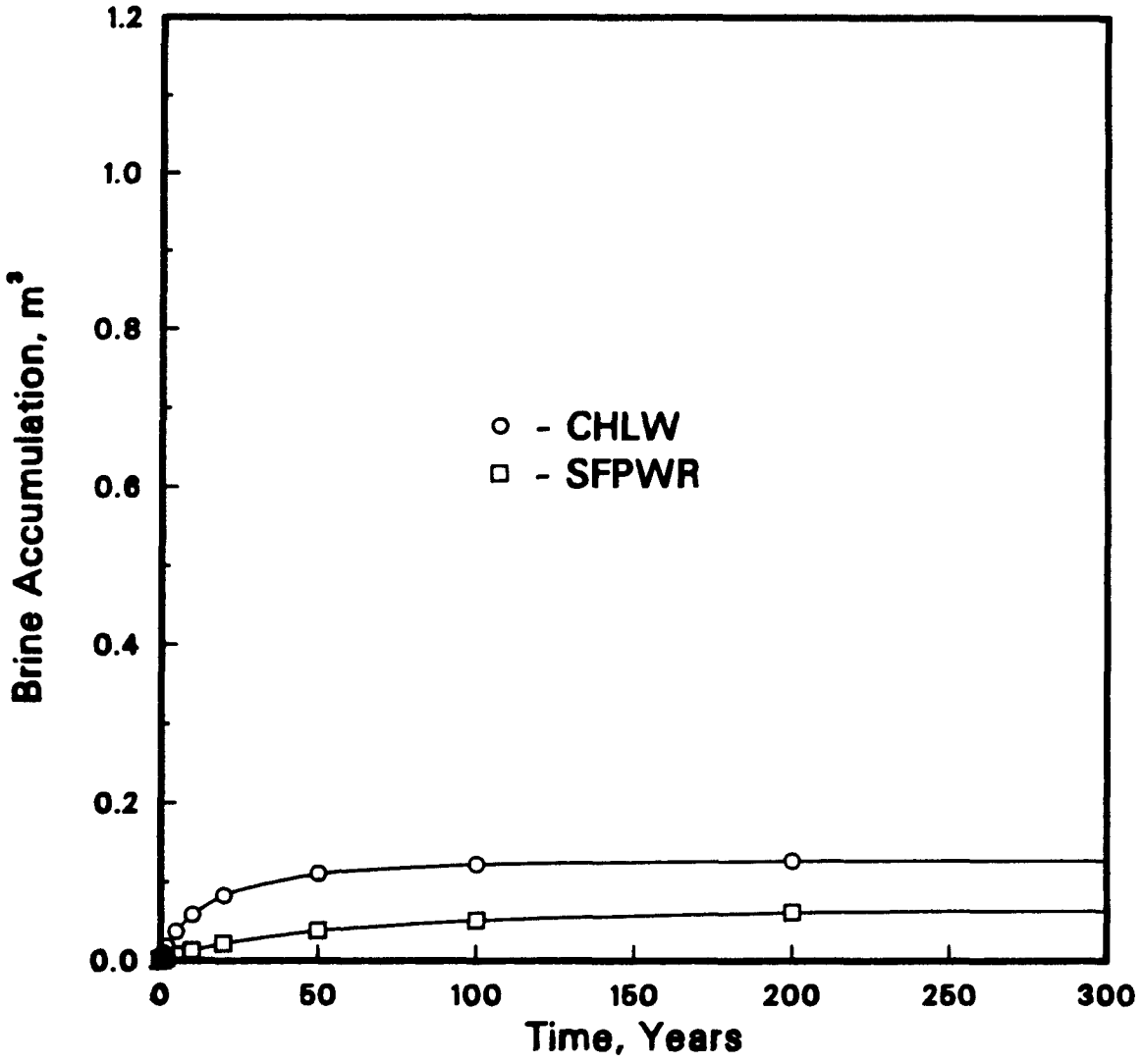
Brine Accumulation at Waste Package With Time and Threshold Gradient of 0.125 °C/cm for Lavender Canyon

Figure 3-22



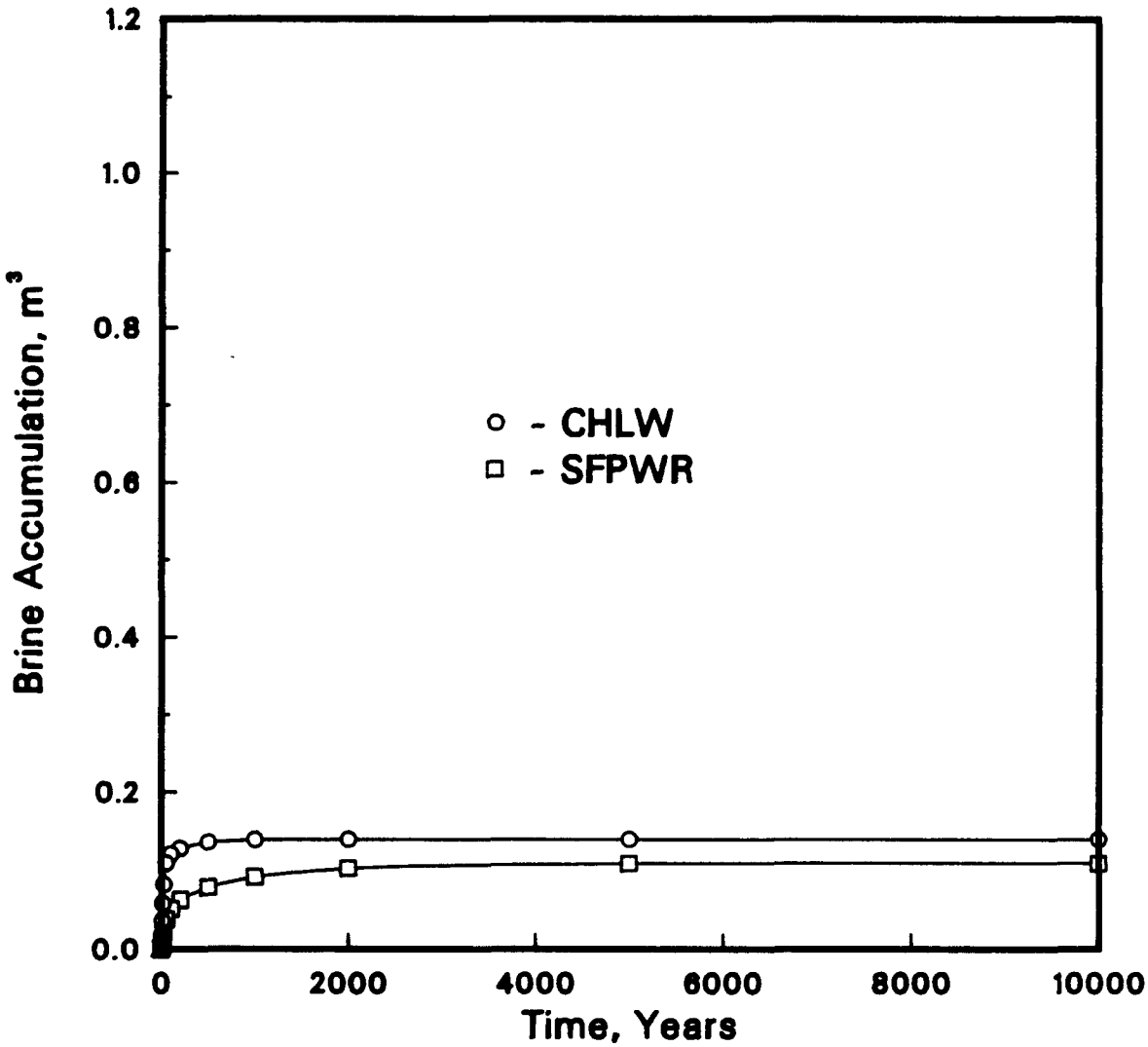
Brine Accumulation at Waste Package
With Time and Zero Threshold Gradient
for Lavender Canyon

Figure 3-23



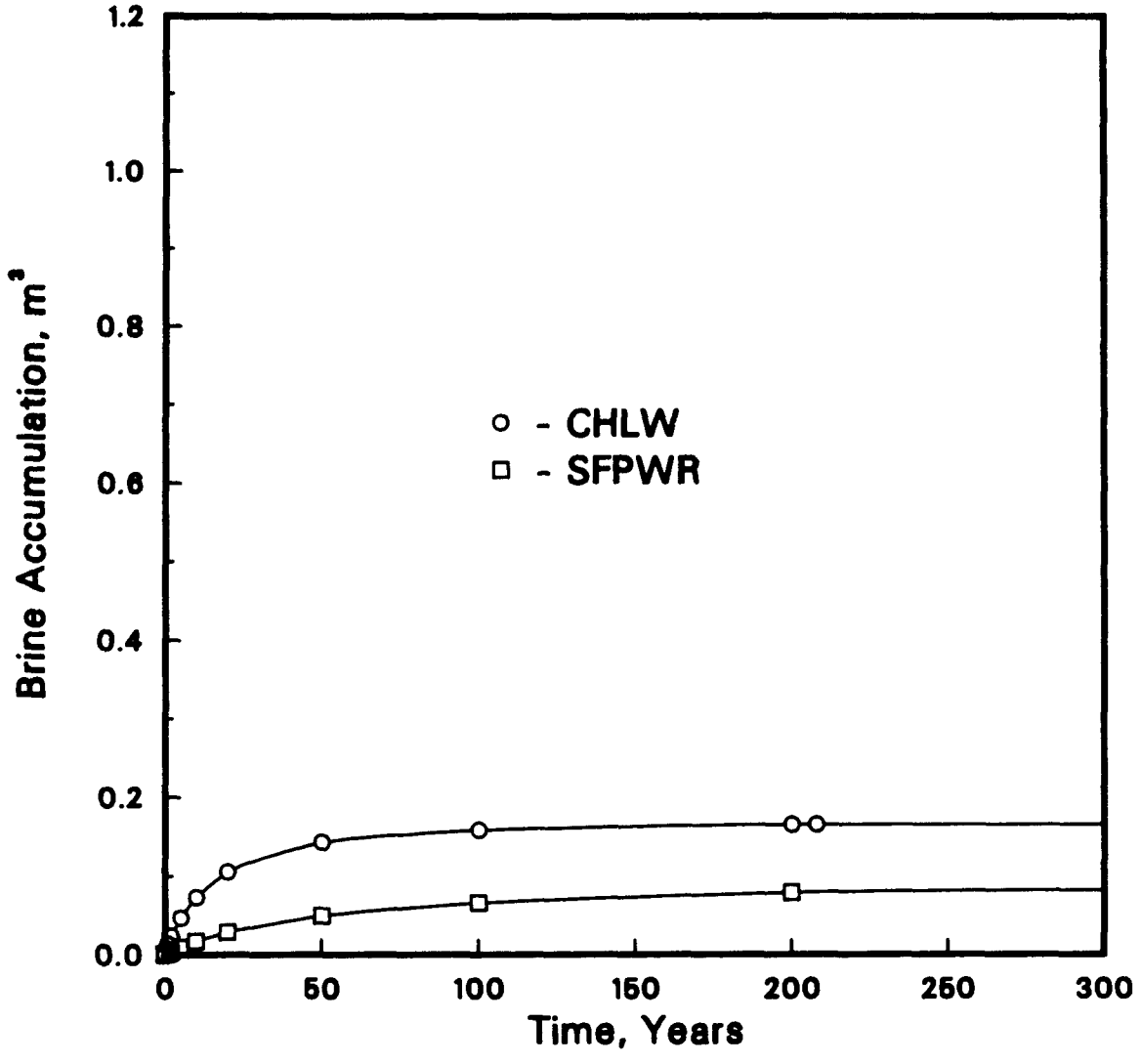
Brine Accumulation at Waste Package With Time and Threshold Gradient of 0.125 °C/cm for Cypress Creek Dome

Figure 3-24



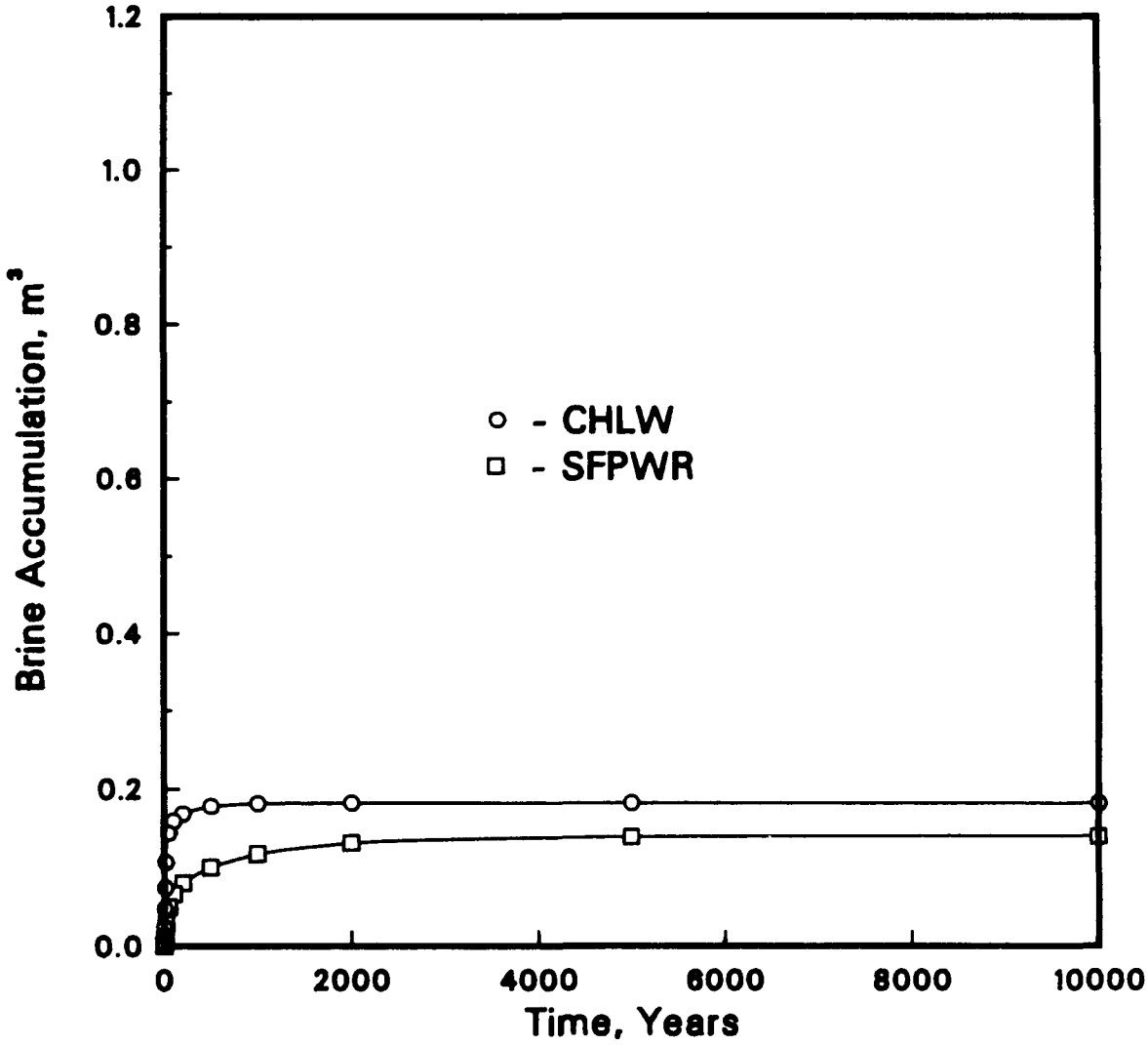
Brine Accumulation at Waste Package
With Time and Zero Threshold Gradient
for Cypress Creek Dome

Figure 3-25



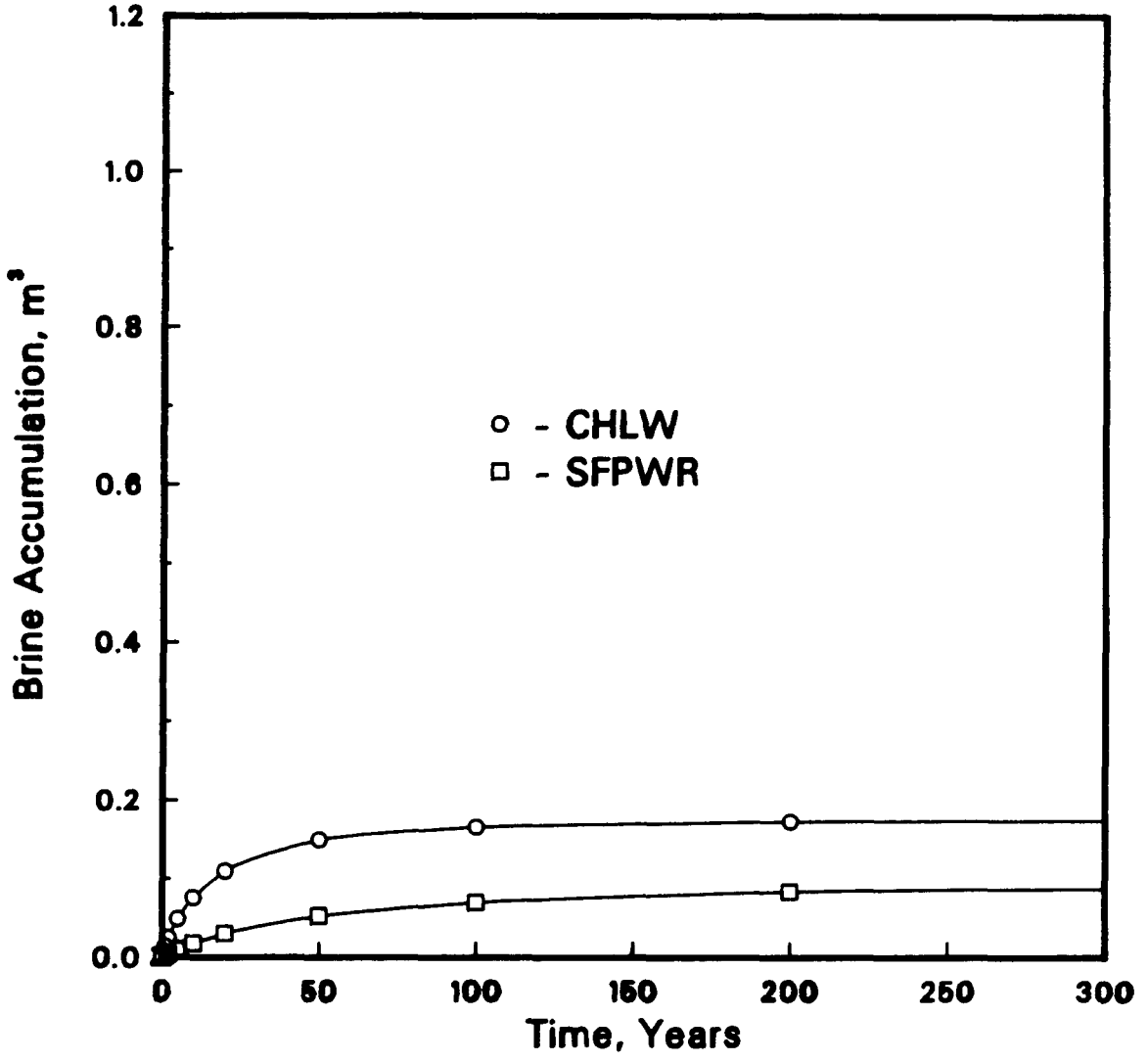
Brine Accumulation at Waste Package With Time and Threshold Gradient of 0.125 °C/cm for Richton Dome

Figure 3-26



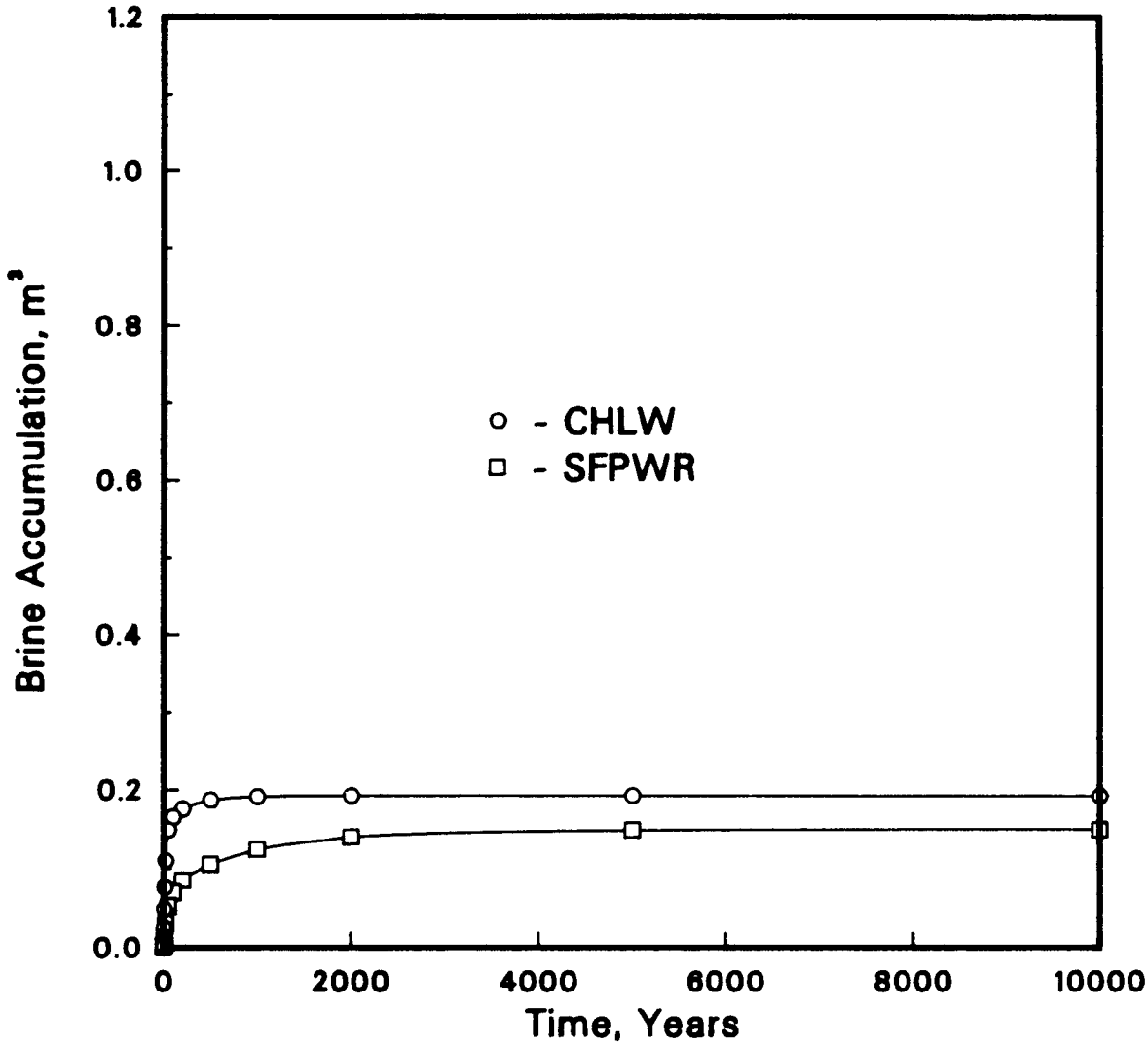
Brine Accumulation at Waste Package
With Time and Zero Threshold Gradient
for Richton Dome

Figure 3-27



Brine Accumulation at Waste Package With Time and Threshold Gradient of 0.125 °C/cm for Vacherie Dome

Figure 3-28



Brine Accumulation at Waste Package
With Time and Zero Threshold Gradient
for Vacherie Dome

Figure 3-29

APPENDIX A

THE BRINEMIG CODE

A.1 THE MATHEMATICAL MODEL AND NUMERICAL METHODS

The BRINEMIG code was developed to predict rates of brine migration to a heat source emplaced in salt. It performs mass balances for a series of radial increments, using the Jenks equation (Jenks, 1979) to calculate the velocity of brine movement:

$$\log(V/G) = 0.00656\ T - 0.6036 \qquad \text{(A-1)}$$

where

V = velocity of brine migration, cm/yr
G = temperature gradient, °C/cm
T = temperature, °C

Calculations are performed for a series of time steps, producing information about the quantity of brine and rate at which it arrives as functions of time.

To calculate velocities with this equation, two pieces of information are required for each radial increment. The first is a temperature, and the second is a temperature gradient.

Temperatures are provided to BRINEMIG by TEMPV5. They are read in from a file which lists temperatures for a series of times and radial distances. BRINEMIG converts the radial distances from the frame of reference of TEMPV5 to BRINEMIG. The first radial distance for which temperatures are reported must correspond to the waste package radius. The last radius usually corresponds to midway between waste packages, since the zero temperature gradient which is expected at this midpoint means that the velocity of brine movement will be zero. BRINEMIG interpolates semilogarithmically with both time and temperature to estimate temperatures at the times and radii required. Extrapolations are not performed.

The semilogarithmic interpolation scheme introduces slight discontinuities to the temperature profile in the vicinity of data points read from the input temperature file. These discontinuities then create irregularities in the temperature gradient profiles. The BRINEMIG code approximates the temperature gradient by assuming it is equal to the temperature drop over the previous radial increment divided by the length of the radial increment. (The only exception to this method for estimating the temperature gradient is at the waste package surface where no previous radial increment exists. In this case, the radial increment next to the package surface is divided by 10, and a gradient is calculated through the first tenth of the increment.) The combined effect of the irregular temperature and temperature gradient profiles is an irregular profile of predicted moisture content through the salt for any given point in time.

At each time increment the program steps over a series of radial increments from the package surface to a specified stopping point in the salt. For

the mth radial increment and the nth time increment over a unit length, a simple mass balance yields

$$\text{IN} = \text{OUT} + \text{ACCUMULATION}$$

$$V_{m,n}A_m c_{n,m+1} = V_{m-1,n}A_{m-1}c_{n,m} + (c_{n+1,m} - c_{n,m})\frac{\Delta v_m}{\Delta t} \qquad \text{(A-2)}$$

where each subscripted V represents a velocity calculated by the Jenks equation; each subscripted c represents a volume fraction of moisture in the salt; Δv_m is the volume of salt between the (m-1)th and mth nodes over a unit length, equal to

$$\Delta v_m = 2\pi m(\Delta r)^2 \left(1 - \frac{1}{2m}\right) \qquad \text{(A-3)}$$

where Δr is the radial increment; Δt is the time increment; and each subscripted A represents the surface area through which brine is passing, over a unit of waste package length, at the radial node indicated by the subscript. The areas may be expressed as

$$A_m = 2\pi m\Delta r \qquad \text{(A-4)}$$

$$A_{m-1} = 2\pi(m-1)\Delta r \qquad \text{(A-5)}$$

where m represents the radial increment number. Substituting Equations A-3, A-4, and A-5 into Equation A-2 and solving for c gives the final brine migration equation

$$c_{n+1,m} = c_{n,m}\left[1 - V_{m-1,n}\frac{(1-\frac{1}{m})\Delta t}{\Delta r(1-\frac{1}{2m})}\right] + c_{n,m+1}\left[\frac{V_{m,n}\Delta t}{\Delta r(1-\frac{1}{2m})}\right] \qquad \text{(A-6)}$$

Because no more brine may migrate out of a given radial increment than was present at the start of a time interval, Equation A-6 is stable only when

$$V_{m-1,n}\frac{(1-\frac{1}{m})\Delta t}{\Delta r(1-\frac{1}{2m})} < 1 \qquad \text{(A-7)}$$

The program has been designed to stop execution if the stability criterion is exceeded. The parameters Δt and Δr must be adjusted until stability is assured.

All calculations so far have been performed for a unit length of waste package. An effective package length must be provided to calculate brine migration to the entire waste package. Flow into the borehole equals the flow

out of the first radial increment. Therefore the quantity of accumulated brine over the nth time increment, Q_n, is given by

$$Q_n = V_o A_o \Delta t (c_{n,1} + c_{n+1,1})/2 \tag{A-8}$$

where subscript o indicates the package surface. The area may be expressed as

$$A_o = 2\pi r_o L \tag{A-9}$$

where L is the effective package length and r_o is the package radius. Substituting Equation A-9 into Equation A-8 gives

$$Q_n = \pi r_o L V_o \Delta t (c_{n,1} + c_{n+1,1}) \tag{A-10}$$

Summing Q_n over each time step gives the total brine accumulation at the package surface with time.

A.2 CODE VERIFICATION

BRINEMIG Version 3.1 was thoroughly tested to verify that it is operating correctly. Four major areas were covered during verification: (1) testing of the conditional loops within the program, (2) testing of input/output effects and results, (3) performance of a mass balance check on BRINEMIG code results, and (4) comparison of BRINEMIG results with results from an analytical solution to the brine migration model.

Testing correct operation in the first two areas was straightforward. Conditional loops within the program stop program execution or cause the program to exit from a loop when certain variables reach specified values. To verify that the conditional loops within the program operated correctly, input values were entered that caused a specific loop to stop program execution. Testing input/output effects and results simply consisted of executing all available output options to make sure that they provided appropriate output.

Testing for correct operation in the last two areas was not straightforward. The mass balance check and the comparison with analytical solution model results are discussed separately in the following sections.

A.2.1 Mass Balance Check

To check for conservation of mass in the program, the volume of brine accumulated at the borehole was compared to the volume of brine deleted from the salt. To calculate the volume of brine deleted from the salt, the volumes of brine lost from each radial increment over a time increment were summed. The result was a slight discrepancy (less than 5 percent) over the first time increment, decreasing to a negligible difference at long times. The initial slight difference is attributable to the way BRINEMIG calculates flow into the borehole. BRINEMIG calculates flow from Equation A-10, which averages the concentration of brine in the salt over the time increment. Averaging the concentration in this first radial increment rather than using the starting concentration of brine accounts for the small differences between calculated volumes of brine which occur at early times.

A.2.2 Comparison With Analytical Solution Model Results

An analytical solution to the brine migration model was developed by S. Bloom for the special case of a steady-state temperature profile in the salt. Attachment B shows Bloom's derivation of his equation for cumulative flow. Using the Jenks equation to define the velocity of brine migration and applying Bloom's equation at the package radius r_o gives

$$FLOW = \frac{wr_o}{2V}\left[-\{1-(2+ak)Vt/r_o\}^{2/(2+ak)} + 1\right] \qquad \text{(A-11)}$$

where

$w = 2\pi L r_o V c_o$
r_o = package radius, cm
L = package length, cm
c_o = initial volume fraction of moisture in the salt, ml/cm^3
$V = -kr_o^{-(1+ak)} \exp(ak\ln(RA) + aTA + b)$ = velocity of brine migration, cm/yr
$k = (TI-TA)/\ln(RA/RI)$
$a = 0.006561\ln(10)$
$b = -0.60361\ln(10)$
TI = temperature at the waste package-salt interface, cm
TA = ambient temperature, degrees C
RI = radius at the waste package-salt interface, cm
RA = radius at which ambient temperature is reached, cm
t = time, yr

Bloom's equation gives negative velocities and total flows, indicating that brine flow is in the opposite direction to heat flow.

A brine migration problem with a steady-state temperature profile was constructed to test BRINEMIG against Bloom's brine migration equation. Variables were assigned values as follows: r_o = 44.5 cm; L = 367.9 cm; c_o = 0.05 ml/cm^3; TI = 300 degrees C; TA = 31.28 degrees C; RI = 44.5 cm; RA = 1309.5 cm; and t = 100 years. Using these values with Equation A-11 gives a predicted total brine flow of 3913 liters. When BRINEMIG was used to estimate brine flow for this problem, using a radial increment equal to one-half the package radius (achieved with BRINEMIG by setting NUMR equal to 2) and a time increment DELT of 0.05 year, the predicted result was 4182 liters of brine accumulated at the waste package surface. The difference between the two methods was 6.9 percent. The BRINEMIG result was expected to be slightly higher because BRINEMIG was deliberately designed to overestimate temperature gradients, and temperature gradients drive brine flow according to the Jenks equation. Overall, agreement between the two methods was good.

Varying the values for NUMR and DELT will change the BRINEMIG prediction somewhat. In particular, increasing NUMR (thereby decreasing the size of the radial increment) will decrease the predicted quantity of brine flow, because it will decrease the overestimation of the temperature gradients. Agreement between the two methods could therefore be improved somewhat by varying values for NUMR and DELT. The ability to vary these parameters is limited only by the stability criterion defined by Equation A-7.

A.3 PRELIMINARY VALIDATION

A preliminary validation was made with Salt Block II brine migration data (Hohlfelder, 1980). The Salt Block II experiment (Hohlfelder, 1980) was a brine migration study performed on a cylindrical salt sample from bedded salt in southeastern New Mexico. The cylinder was 1 m high and 1 m in diameter, and had a borehole along its axis that was roughly 0.8 m long and 0.13 m in diameter. An electrical heater was placed in the borehole along with crushed salt backfill, and a cooling jacket was placed along the outside wall of the cylinder. The ends of the cylinder were insulated.

When the heater and cooling jacket were turned on, brine began to migrate toward the heat source. As the brine entered the borehole, dry nitrogen gas was swept through the borehole to carry the moisture away. The rate at which moisture entered the borehole was determined by analyzing the exiting gas stream for moisture content. By this means a data set of brine migration versus time was developed.

The heater output was changed periodically so that the effect of temperature on brine migration rate could be determined. First the heater output was raised, then lowered, in discrete steps. The resulting sudden temperature changes apparently stressed the salt, because relatively rapid, short-term flowrates resulted. The increased flow was particularly noticeable in the second phase of the experiment, when temperatures were reduced. Since sudden temperature drops are not expected, the large transient flows associated with temperature drops are not realistic for a repository. Therefore only the first phase of the Salt Block II experiment, in which temperatures were raised in discrete steps, was modeled in this validation exercise.

Temperature profiles for the Salt Block II study were calculated by a two-dimensional thermal model and confirmed with thermal data taken during the course of the experiment (George, 1980). The results of the model were published in a more detailed form by Hohlfelder (Hohlfelder, 1980). To validate BRINEMIG, the temperature profiles provided by George's thermal model were used to represent the Salt Block II system. BRINEMIG was used to interpolate semilogarithmically between the temperatures George predicted at the borehole and the outside surface of the cylinder. George's model divided the heater length into eight segments. Individual simulations were run with BRINEMIG for the eight segments, and the results were summed to provide an estimate of total brine accumulation at the heater. Table A-1 lists the dimensions of the salt segments assumed. Tables A-2 to A-9 list the temperatures selected from George's (1980) results for use in the simulations. Figure A-1 compares the results of semilogarithmic interpolation as performed by BRINEMIG to the results of George's thermal model for one of the heater segments at the highest heater output. This figure was selected to illustrate the greatest difference which can be expected between the BRINEMIG interpolation and George's results. The agreement between the two models is reasonable, justifying the use of these semilogarithmic interpolations.

For input to BRINEMIG, an initial moisture content in the salt of 0.5 volume percent was used. This falls within the range of moisture contents that were measured in the salt (Hohlfelder, 1980).

Table A-1. Dimensions of Salt Segments Assumed for Salt Block II Validation Exercise

Segment #	Effective Length, cm	Inside Radius, cm	Outside Radius, cm
1	6.35	6.5	50
2	6.35	6.5	50
3	6.35	6.5	50
4	12.7	6.5	50
5	12.7	6.5	50
6	12.7	6.5	50
7	12.7	6.5	50
8	12.7	6.5	50

Table A-2. Temperature Profiles for Segment 1

Time, yr		Temperature, °C	
Initial	Final	At Inside Radius	At Outside Radius
0.0001	0.01615	18.4	18.4
0.01715	0.03530	28.3	23.7
0.03630	0.05453	37.0	28.5
0.05553	0.09555	46.2	33.5
0.09655	0.13409	63.0	42.4
0.13509	0.32264	83.7	52.6

Table A-3. Temperature Profiles for Segment 2

Time, yr		Temperature, °C	
Initial	Final	At Inside Radius	At Outside Radius
0.0001	0.01615	18.4	18.4
0.01715	0.03530	29.3	23.8
0.03630	0.05453	38.9	28.8
0.05553	0.09555	49.0	33.9
0.09655	0.13409	67.8	43.2
0.13509	0.32264	91.1	53.8

Table A-4. Temperature Profiles for Segment 3

Time, yr		Temperature, °C	
Initial	Final	At Inside Radius	At Outside Radius
0.0001	0.01615	18.4	18.4
0.01715	0.03530	31.5	24.0
0.03630	0.05453	43.0	29.2
0.05553	0.09555	55.3	34.5
0.09655	0.13409	78.5	44.1
0.13509	0.32264	107.3	55.2

Table A-5. Temperature Profiles for Segment 4

Time, yr		Temperature, °C	
Initial	Final	At Inside Radius	At Outside Radius
0.0001	0.01615	18.4	18.4
0.01715	0.03530	41.5	24.1
0.03630	0.05453	61.4	29.5
0.05553	0.09555	84.5	34.9
0.09655	0.13409	127.7	44.9
0.13509	0.32264	185.4	56.6

Table A-6. Temperature Profiles for Segment 5

Time, yr		Temperature, °C	
Initial	Final	At Inside Radius	At Outside Radius
0.0001	0.01615	18.4	18.4
0.01715	0.03530	41.4	24.1
0.03630	0.05453	62.4	29.8
0.05553	0.09555	87.7	35.4
0.09655	0.13409	137.1	45.9
0.13509	0.32264	206.2	58.4

Table A-7. Temperature Profiles for Segment 6

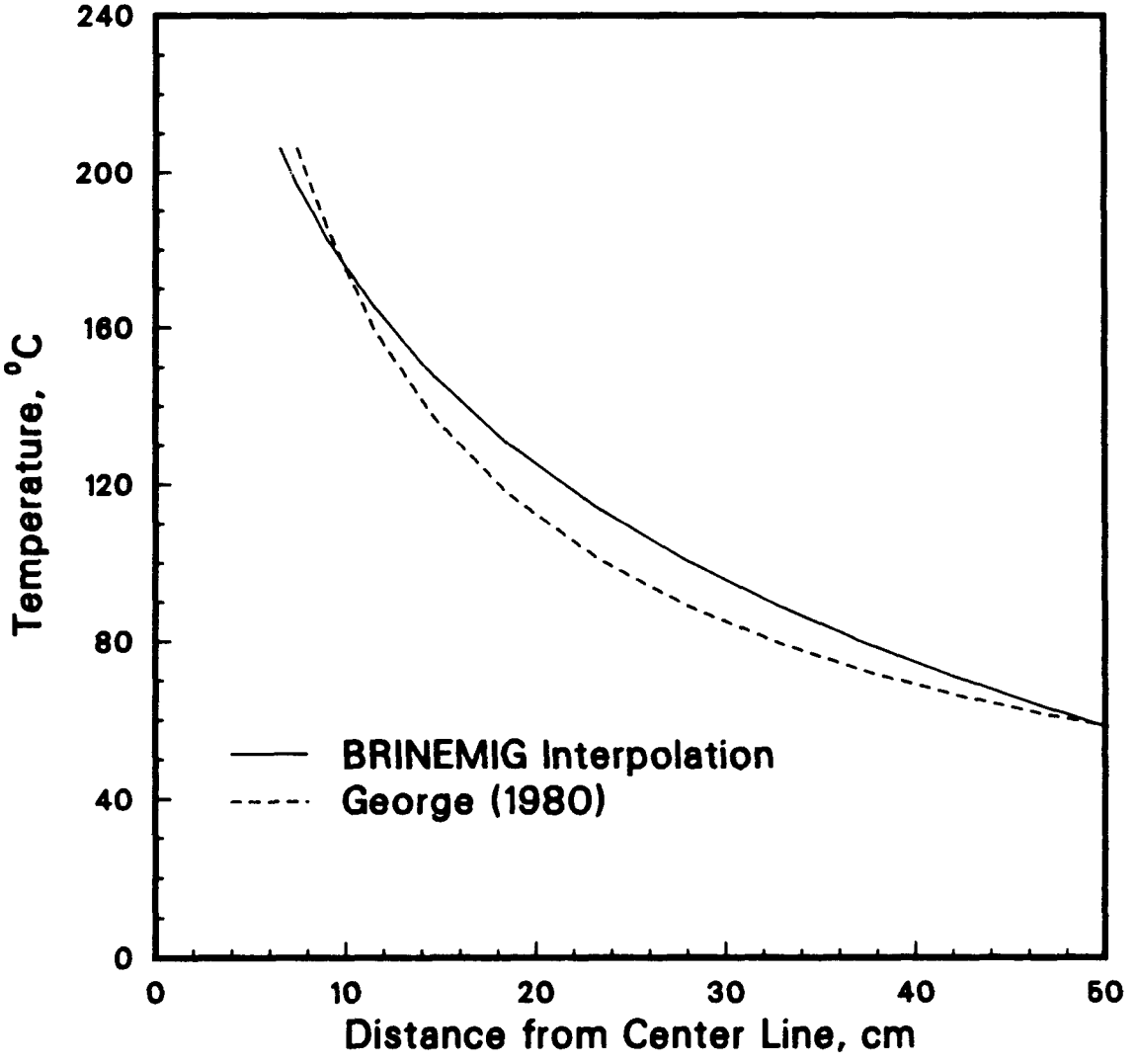
Time, yr		Temperature, °C	
Initial	Final	At Inside Radius	At Outside Radius
0.0001	0.01615	18.4	18.4
0.01715	0.03530	38.5	23.9
0.03630	0.05453	59.1	29.5
0.05553	0.09555	80.8	35.0
0.09655	0.13409	129.1	45.7
0.13509	0.32264	200.5	58.4

Table A-8. Temperature Profiles for Segment 7

Time, yr		Temperature, °C	
Initial	Final	At Inside Radius	At Outside Radius
0.0001	0.01615	18.4	18.4
0.01715	0.03530	34.6	23.4
0.03630	0.05453	53.8	28.8
0.05553	0.09555	71.5	33.9
0.09655	0.13409	115.4	44.2
0.13509	0.32264	181.5	56.6

Table A-9. Temperature Profiles for Segment 8

Time, yr		Temperature, °C	
Initial	Final	At Inside Radius	At Outside Radius
0.0001	0.01615	18.4	18.4
0.01715	0.03530	30.0	22.8
0.03630	0.05453	45.2	27.7
0.05553	0.09555	59.4	32.3
0.09655	0.13409	94.7	41.8
0.13509	0.32264	145.2	53.3



Temperature Profiles From BRINEMIG Interpolation and Code by George (1980) for Salt Block II Comparison

Figure A-1

Results of the simulation are compared to the Salt Block II data in Figure A-2. This figure shows good agreement between BRINEMIG results and data for short times, with BRINEMIG overpredicting at longer times. The results support the use of the Jenks equation for conservatively high predictions of brine migration to a waste package.

A.4 SENSITIVITY STUDY FOR THE BRINEMIG CODE

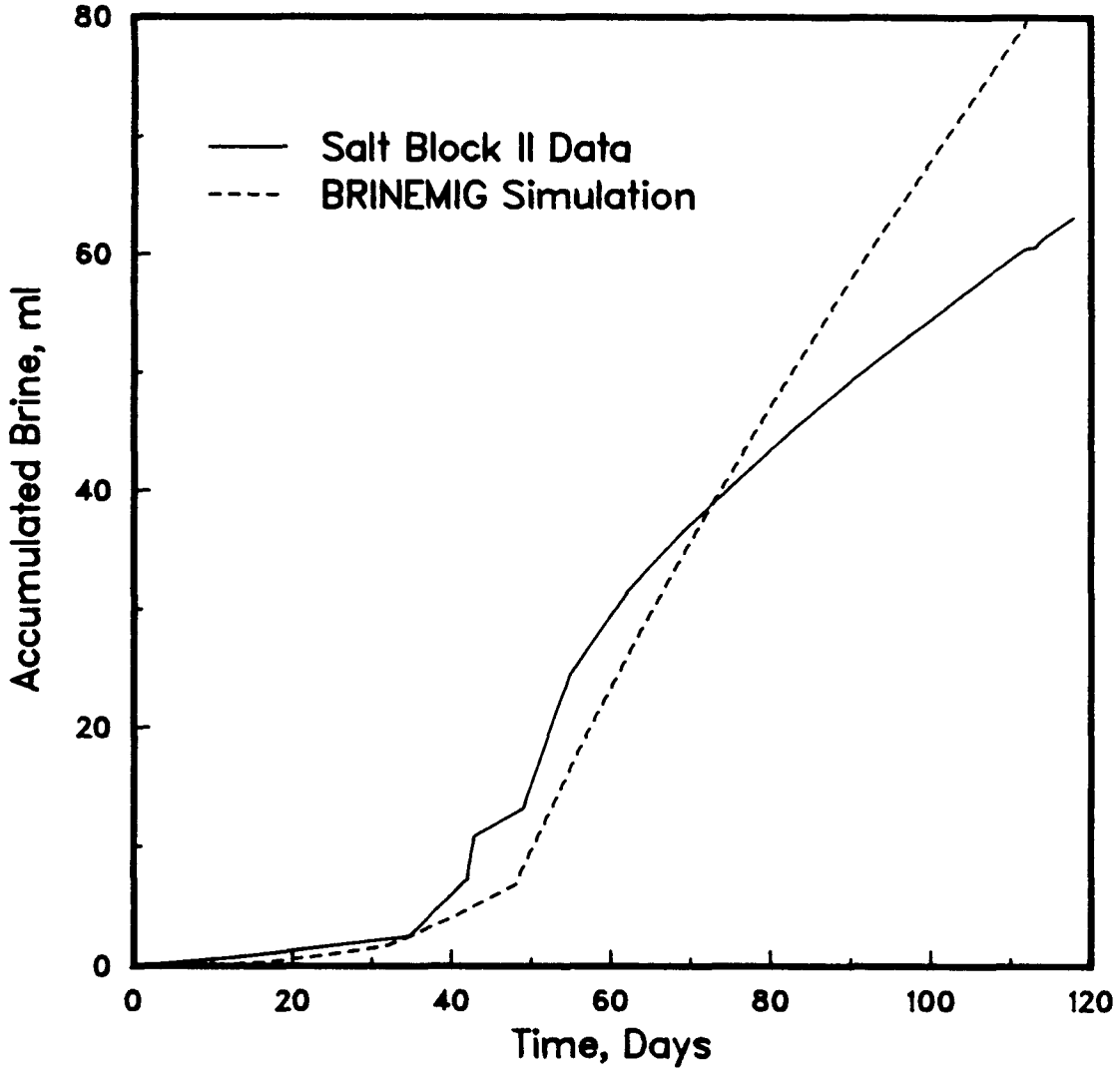
Brine flow in BRINEMIG is a function of both the initial moisture content of the salt and the velocity of brine migration. Flow is directly proportional to the assumed initial moisture content. The velocity of brine migration is given by Equation A-1, the Jenks equation.

According to the Jenks equation, velocity, and therefore brine flow, is a function of the temperature and temperature gradient profiles in the salt. A study was undertaken to determine the sensitivity of BRINEMIG code results to these two parameters.

All input to the BRINEMIG code was kept constant between runs, except for the temperature profiles used. The radial increment used in the finite-difference scheme was equal to one-fifth the package radius, the effective package length was 367.9 cm, the time increment used was 0.05 yr, the initial moisture content of the salt was assumed to be 5 volume percent, and the threshold thermal gradient was set equal to zero. Total amounts of accumulated brine were reported in all cases at a time of 9.85 yr. These runs were in no way representative of actual expected conditions at a salt site. The parameters were selected arbitrarily solely for the purpose of performing this sensitivity study.

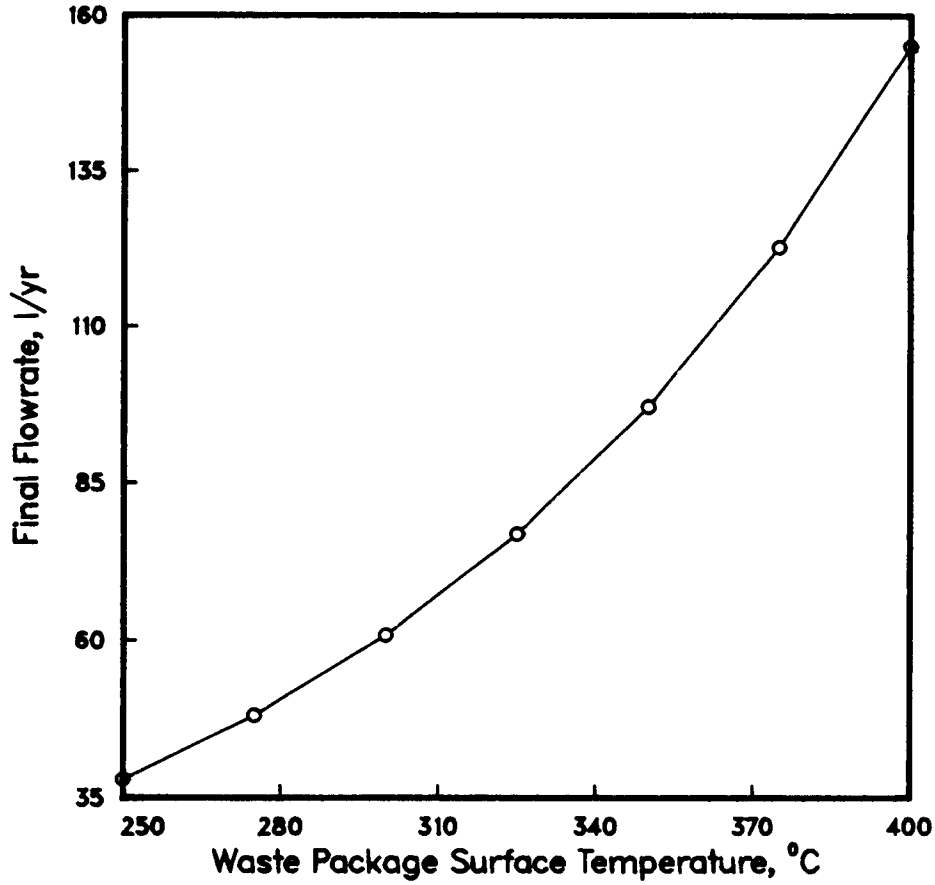
Temperature profiles were created by reading in temperatures at two points: (1) at the waste package surface, for an assumed package radius of 0.445 m, and (2) at a distance of 9.55 m from the waste package surface. In each case, the assumed temperature profile was held constant with time for the entire duration of the run. In the following discussion, the waste package surface temperature refers to the temperature at the assumed package radius, and the outer salt temperature refers to the temperature at a distance of 9.55 m from the waste package surface. Delta T refers to the overall temperature drop across the 9.55 m of salt, i.e., the waste package surface temperature minus the outer salt temperature, which was held constant over time.

First the sensitivity of code results to temperature was examined. This was done by keeping delta T (and therefore the temperature gradients) constant between runs and varying the waste package surface temperature and outer salt temperature to maintain the constant delta T. Figures A-3 and A-4 show final flowrates and quantities of accumulated brine, respectively, for a delta T through the salt of 250°C. The results are compatible with the Jenks equation, which indicates an exponential relationship between velocity and temperature for a gradient which is held constant.



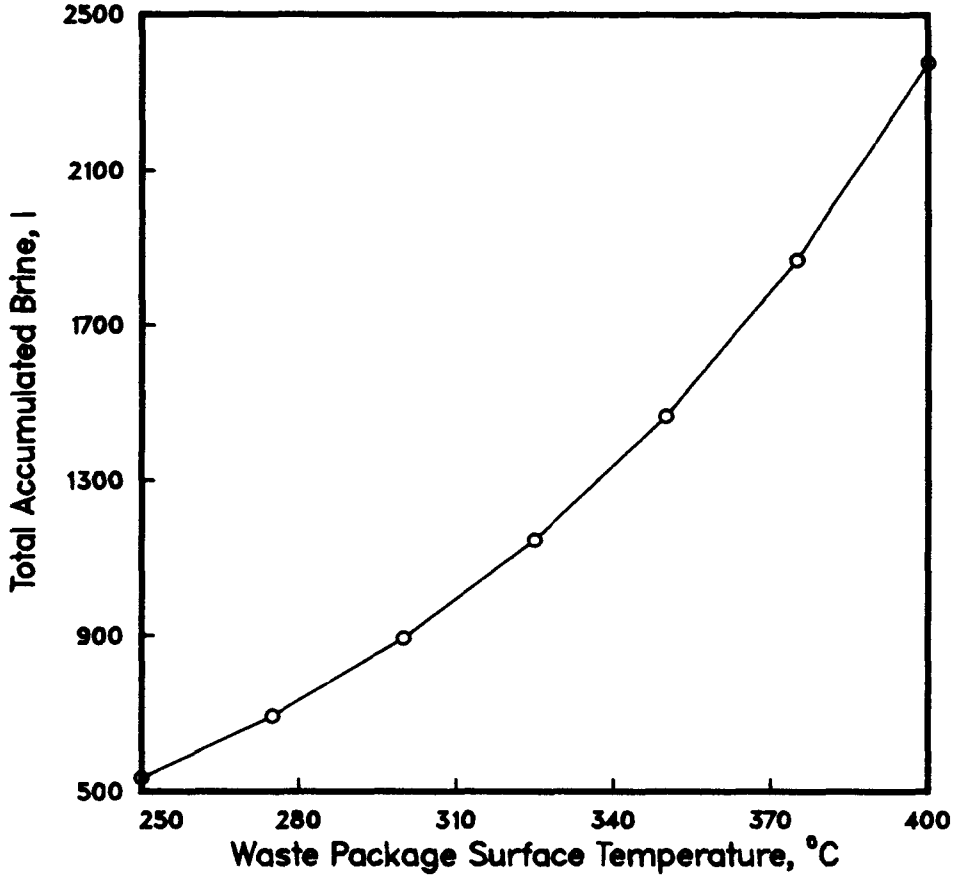
Results of Salt Block II Simulation

Figure A-2



Final Flowrate vs. Temperature at the Package for Delta T of 250°C

Figure A–3

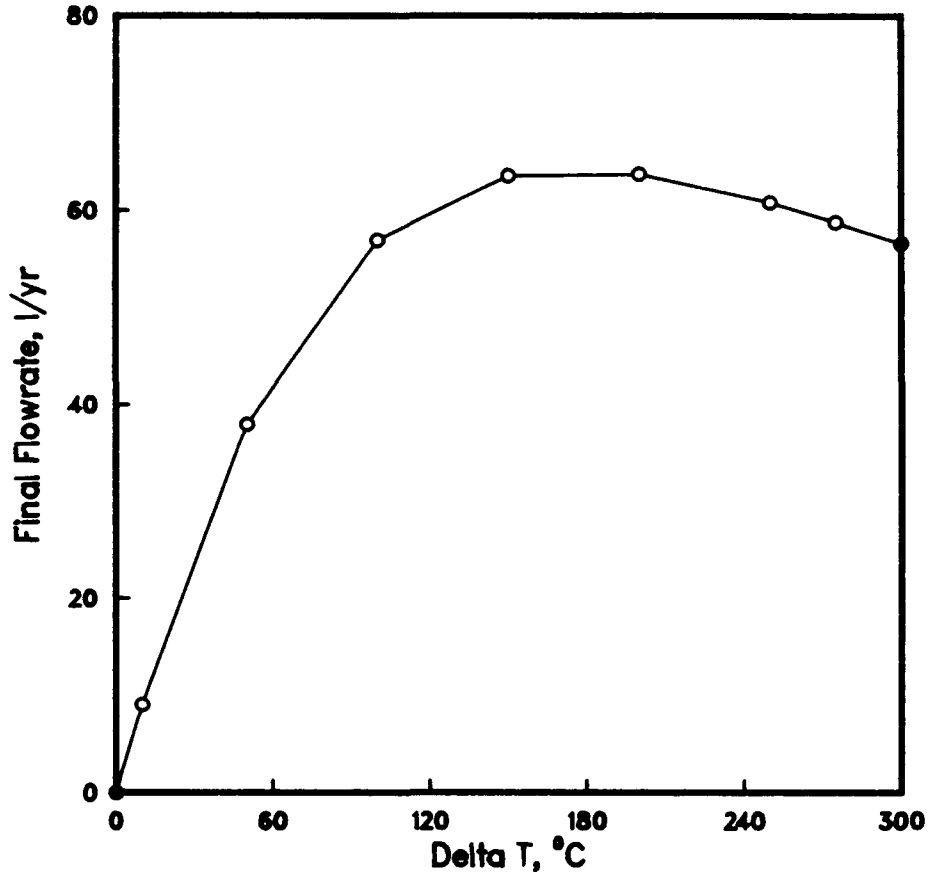


Total Accumulated Brine vs. Temperature at the Package for Delta T of 250°C

Figure A-4

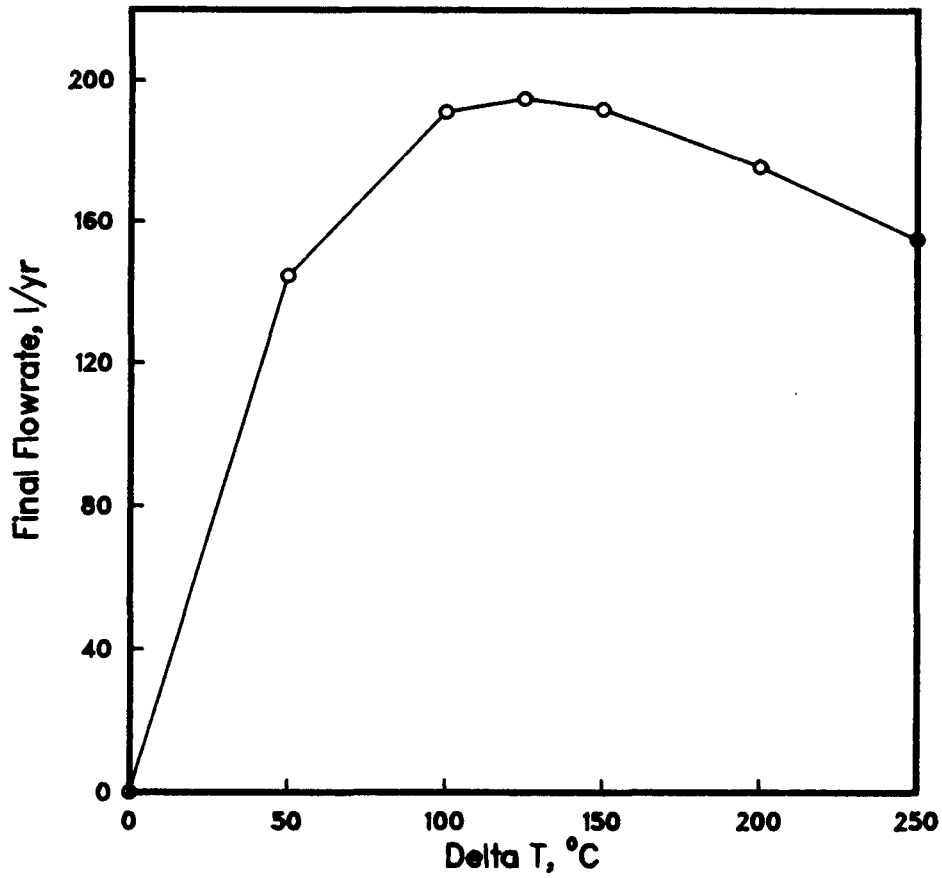
Next, the waste package surface temperature was held constant between runs and the outer salt temperature was varied to vary delta T. This case is more complex, because both the temperatures and temperature gradients in the salt were changing between runs. For temperature gradients to increase, temperatures had to decrease. The desire was to learn whether flows would increase or decrease as a result of these conflicting influences on the Jenks equation.

The results are presented in Figures A-5 through A-7. The results indicate that, except at very high values of delta T, more flow is driven as the delta T is increased (and therefore temperature gradients in the salt are increased) than is driven as higher overall temperatures are maintained in the salt. This supports the selection of the temperature profile between waste packages in separate rooms of a repository, where a larger overall temperature drop may be expected, to drive brine flow. (This was discussed in Section 3.1.1 of the report.) At very high values of delta T, flowrates begin to drop due to the very low salt temperatures present.



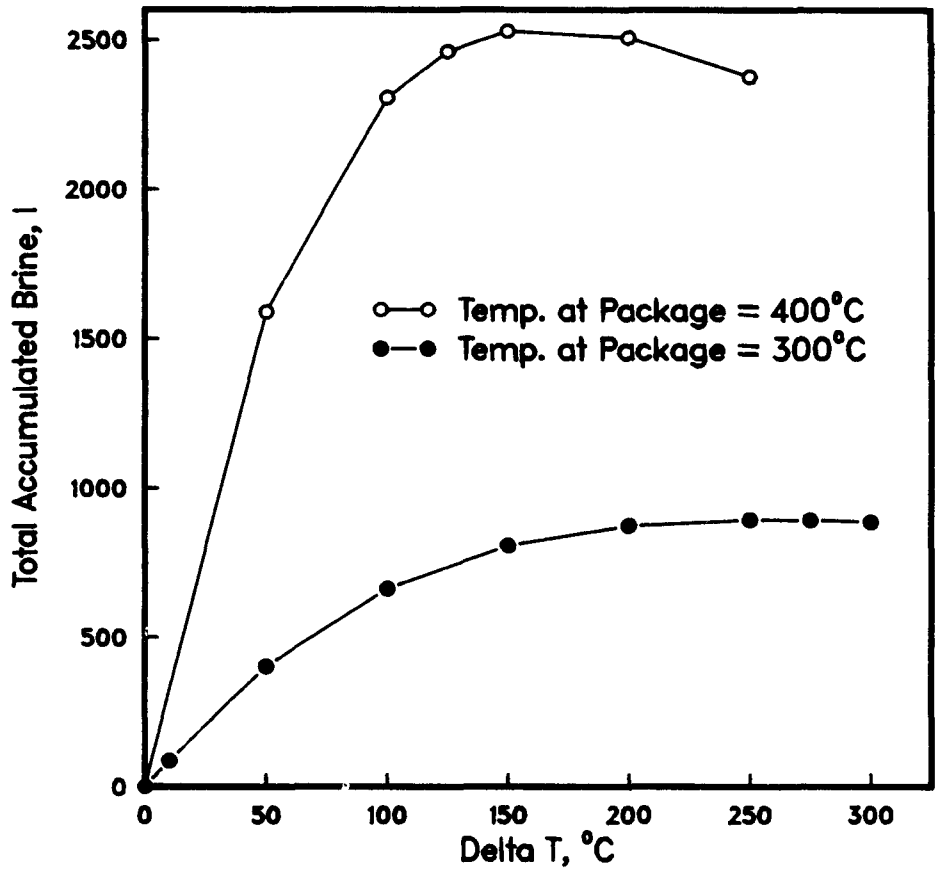
Final Flowrate vs. Delta T for a Package Temperature of 300°C

Figure A–5



Final Flowrate vs. Delta T for a Package Temperature of 400°C

Figure A–6



Total Accumulated Brine vs. Delta T for Various Package Temperatures

Figure A–7

A.5 CODE LISTING FOR BRINEMIG VERSION 3.1

```
      PROGRAM BRINEMIG

C*********************************************************************
C     BRINEMIG USES THE JENKS-CLAIBORNE VELOCITY EQUATION (1981)
C      TO CALCULATE BRINE FLOW IN SALT DUE TO A THERMAL GRADIENT
C
C     BY V. S. MCCAULEY AND G. E. RAINES
C
C     REVISION NO. 3.1 - REVISED BY R. J. ZELLMER ON 7/3/85
C
C     BRINEMIG CALCULATES BRINE MIGRATION BY SOLVING THE CONTINUITY
C     EQUATION WITH VELOCITY AS THE ONLY TRANSPORT MECHANISM.  A MASS
C     BALANCE IS WRITTEN FOR A SERIES OF INCREMENTAL SHELLS.  THE
C     RADIAL INCREMENTS WHICH FALL WITHIN THE PACKAGE RADIUS ARE NOT
C     USED EXCEPT FOR AN ASSIGNMENT OF ZERO CONCENTRATION.
C
C     A THRESHOLD GRADIENT LIMITS BRINE MIGRATION.
C
C     END EFFECTS ARE IGNORED; i.e., ONLY RADIAL FLOW IS CALCULATED
C
C     AN EXPLICIT TIME MARCHING FINITE DIFFERENCE SOLUTION ROUTINE
C     IS USED.  THE PROGRAM IS STABLE ONLY FOR:
C
C       SR < 1, WHERE SR = VOLD*DELT*(1.-1./XJ)/DELR/(1.-0.5/XJ).
C
C     BRINEMIG USES INPUT TEMPERATURES (DEGREES C) CALCULATED BY
C     TEMPV5 AT VARIOUS TIMES AND RADII.  TEMPERATURES ARE
C     LOGARITHMICALLY INTERPOLATED FROM A TABLE GIVING TEMPERATURES
C     AT SEVERAL TIMES AND RADII.  BRINEMIG CANNOT USE AN INPUT OF
C     ZERO TIME BECAUSE OF THE LOGARITHMIC INTERPOLATION.  BRINEMIG
C     ASSUMES TEMPERATURES DECREASE AS RADIUS INCREASES FROM THE
C     WASTE PACKAGE.
C
C     VELOCITY IS CALCULATED FROM THE JENKS EQUATION.
C
C     INPUT TO BRINEMIG IS RECIEVED FROM THE TEMPV5 CODE.
C     TEMPERATURES ARE PROVIDED AT A SERIES OF DISTANCES FROM THE
C     MIDPOINT BETWEEN TWO WASTE PACKAGES FOR VARIOUS TIMES.
C     BRINEMIG CONVERTS THE FRAME OF REFERENCE TO MEASURE DISTANCES
C     FROM THE CENTER LINE OF A WASTE PACKAGE.
C     THE FIRST DISTANCE MUST CORRESPOND TO THE PACKAGE (OR
C     BOREHOLE) RADIUS.
C
C     OUTPUT FROM BRINEMIG IS CREATED FOR THE WAPPA CODE IN ONE FILE
C     CONTAINING FLOW RATES AND TIMES.
C*********************************************************************
C
C     LOGICAL UNITS USED
C
C     4  = INPUT DATA READ IN FROM TEMPV5 OUTPUT
C     5  = BATCH INPUT
C     6  = LINEPRINTER OUTPUT
C     7  = EZ GRAPH TIME (YEARS)
C     8  = EZ GRAPH QUANTITY OF BRINE - TOTAL FLOW (LITERS)
C     9  = EZ GRAPH FLOW RATE OF BRINE (M**3/SEC)
C    10  = EZ GRAPH VOLUME PERCENT OF BRINE IN SALT (ML/CM**3)
C    11  = EZ GRAPH RADIAL INCREMENT
C    12  = EXTRANEOUS FLOW RATES AND TIMES (NOT USED IN WAPPA)
C    13  = FLOW RATES AND TIMES READY AS WAPPA INPUT
C    14  = EZ GRAPH RADIUS (CM)
C    15  = EZ GRAPH TEMPERATURE (DEGREES C)
C    16  = EZ GRAPH TEMPERATURE GRADIENT (DEGREES C/CM)
C    17  = EZ GRAPH VELOCITY (CM/SEC)
C    18  = EZ GRAPH CONCENTRATION OF BRINE IN SALT (ML/CM**3)
C    20  = INPUT DATA FROM WAPPA TIMES FILE (WAPTIM(I) ARRAY)
C            - SEE SUBR. RWAPTIM
C
C  *********************************************************************
C
C     LIST OF MAIN VARIABLES
C
C     DELR        -  RADIAL INCREMENT  (CM)
C     DELT        -  TIME STEP (YEARS)
C
C     FLOW        -  FLOW RATE AT SURFACE OF WASTE PACKAGE (ML)
C     FLOWL       -  INCREMENTAL FLOW (LITERS)
C     FLOWRATE    -  FLOW RATE (M**3/SEC)
C     FLOWMLYR    -  FINAL FLOW RATE (ML/YR)
C
C     FLOWT       -  TOTAL FLOW (ML)
```

```
C     FLOWTL       -  TOTAL FLOW (LITERS)
C     FLOWLIM      -  FLOW RATE AT WHICH CALCULATIONS STOP (ML/YR)
C     FRATE        -  FINAL FLOWRATE FOR WAPPA (M**3/SEC)
C
C     GRAD1        -  APPROXIMATION TO THERMAL GRADIENT AT PACKAGE
C                     SURFACE.
C     GRADIENT     -  THERMAL GRADIENT (DEGREES C/CM)
C
C     ISTART       -  LARGEST ARRAY POSITION ON TO(I) WHICH IS LESS THAN
C                     DELT
C     ITIMES       -  NUMBER OF TIMES THROUGH CALCULATION LOOP
C
C     JM1          -  COUNTER
C     JP1          -  COUNTER
C
C     MAXR         -  INTERGER CORRESPONDING TO MAXIMUM RADIUS
C     MAXRP1       -  MAXR PLUS ONE
C     MAXT         -  INTEGER CORRESPONDING TO MAXIMUM CALCULATION TIME
C
C     MM1          -  COUNTER
C     NM1          -  COUNTER
C
C     NNPRINT      -  PRINT OPTION
C     NPRINT       -  PRINT OPTIONS
C     NRAD         -  NUMBER OF RADIAL INCREMENTS FOR WHICH TEMPERATURES
C                     ARE CALCULATED BY TEMPV5
C     NTIME        -  NUMBER OF TIMES TEMPERATURES ARE TABULATED BY TEMPV5
C     NUMBER       -  Nth INCREMENT FOR OUTPUT
C
C     NUMR         -  NUMBER OF RADIAL SUBDIVISIONS FOR WASTE PACKAGE
C     NCOUNTER     -  OUTPUT COUNTER
C     NUMRP1       -  NUMR PLUS ONE
C     NWAPTIM      -  NUMBER OF TIMES IN WAPPA TIMES FILE (FOR WAPPA TIMES
C                     INPUT FILE TO BRINEMIG)
C
C     PKGRAD       -  PACKAGE RADIUS (M)
C     PLENGTH      -  LENGTH OF WASTE PACKAGE (CM)
C
C     RADG         -  DISTANCE 1/10 OF A RADIAL INCREMENT FROM PACKAGE SURFACE
C     RADIUS       -  DISTANCE FROM CENTERLINE OF WASTE PACKAGE (CM)
C
C     RHOO         -  INITIAL VOLUME CONCENTRATION OF BRINE IN SALT
C     RHOS(I)      -  NEW CONCENTRATIONS AT RADIAL INCREMENTS (ML/CM**3)
C     RHO(I)       -  OLD CONCENTRATIONS AT RADIAL INCREMENTS (ML/CM**3)
C
C     RWAPTIM      -  SUBROUTINE WHICH READS IN WAPTIM(I) ARRAY (WAPPA
C                     TIMES INPUT FILE).  THIS SUBR. CALLS ZSORT1 TO SORT
C                     THE TIMES.
C
C     SR           -  STABILITY RATIO FOR EXPLICIT FINITE DIFFERENCE SCHEME
C     SRMAX        -  MAXIMUM CALCULATED STABILITY RATIO
C     SRTIME       -  TIME AT WHICH MAXIMUM STABILITY RATIO IS REACHED
C
C     T1           -  INTERPOLATED TEMPERATURE (DEG C)
C     T2           -  INTERPOLATED TEMPERATURE (DEG C)
C     TEMP1        -  INTERPOLATED TEMPERATURE (DEG C)
C     TEMP2        -  INTERPOLATED TEMPERATURE (DEG C)
C     TEMPG        -  INTERPOLATED TEMPERATURE (DEG C)
C
C     TEST         -  USED TO DETERMINE WHICH TIMES AND FLOWRATES WILL
C                     BE INCLUDED IN WAPPA INPUT FILE (IF A CALCULATED
C                     TIME IS WITHIN TEST=DELT/2 OF A TIME IN THE
C                     WAPTIM(I) ARRAY THEN THIS TIME WILL BE USED TO
C                     GENERATED OUTPUT FOR THE WAPPA INPUT FILE)
C
C     TG1          -  INTERPOLATED TEMPERATURE (DEG C)
C     TG2          -  INTERPOLATED TEMPERATURE (DEG C)
C
C     THRESH       -  THRESHOLD THERMAL GRADIENT, (DEG C/CM)
C
C     TIME         -  TIME OVER WHICH TEMPERATURES ARE CALCULATED (YEARS)
C     TIMSAV       -  FINAL TIME FOR WAPPA (YEARS)
C     TITLE        -  TITLE OF RUN
C     TMAX         -  TOTAL TIME (YEARS)
C
C     TRAD(I)      -  RADIUS FROM CENTERLINE OF WASTE PACKAGE (CM)
C     TTEMP(I,J)   -  TABULATED TEMPERATURES GENERATED BY TEMPV5 (DEG C)
C     TTIME(I)     -  TABULATED TIMES FOR TEMPERATURES (YEARS)
C
C
```

```
C     V(I)          -  BRINE MIGRATION VELOCITY, (CM/SEC)
C
C     WAPTIM(I)     -  WAPPA TIMES FILE (TIMES AT WHICH ONE WOULD LIKE
C                      INPUT TO BE GENERATED FOR THE WAPPA INPUT FILE:
C                      INPUT TO BRINEMIG)
C     WFLWRATE(I)   -  OUTPUT FLOWRATES FOR WAPPA (M**3/SEC) (FLOWRATES
C                      CORRESPONDING TO TIMES IN THE WTIMES(I) ARRAY)
C     WTIMES(I)     -  WAPPA OUTPUT TIMES (TIMES FOR WHICH INPUT IS
C                      GENERATED FOR THE WAPPA INPUT FILE)
C
C     XJ            -  COUNTER
C     XJP1          -  COUNTER
C     XMOVE         -  X-DISTANCE REQUIRED TO MOVE ORIGIN USED BY
C                      TEMPV5 VALUES TO CENTERLINE OF WASTE PACKAGE (M)
C
C     ZSORT1        -  SUBROUTINE (CALLED IN SUBR. RWAPTIM) WHICH SORTS
C                      THE WAPTIM(I) ARRAY (WAPPA TIMES INPUT FILE).
C
C  ***********************************************************************


      REAL RHO(1000),RHOS(1000),TRAD(30),TTEMP(30,30),
     #TTIME(30),V(1000),WAPTIM(30),WTIMES(31),WFLWRATE(31)
      CHARACTER*80 TITLE
      CHARACTER*132  WAPLINE

      DATA  WAPLINE /' '/

C  ---------------------------------------
C         READ INPUT
C  ---------------------------------------

      WRITE (6, '(//,T31,A,///)' ) 'THIS IS A RUN OF BRINEMIG3.1'

      WRITE (6,*) 'CHARACTER STRING TO IDENTIFY THIS RUN'
      READ  (5,5) TITLE
    5 FORMAT (A80)
      WRITE (6,*)
      WRITE (6,*) '**    ',TITLE
      WRITE (6,*)

C...  PRINT OPTIONS

      WRITE (6,*) 'PRINT OPTIONS:  (1) NORMAL OUTPUT'
      WRITE (6,*) '                (2) EZ GRAPH PLOT FILES CREATED'
      WRITE (6,*) '                (3) WAPPA INPUT FILES CREATED'
      WRITE (6,*) '                (4) DEBUGGING OUTPUT'
      READ  (5,*)  NPRINT
      WRITE (6,*) '** ',NPRINT

      IF (NPRINT.EQ.3) THEN
      WRITE (6,*)
      WRITE (6,*) 'EZ GRAPH FILES CREATED AS WELL AS WAPPA OUTPUT?',
     #'  (0) = NO  (1) = YES '
      READ  (5,*)  NNPRINT
      IF (NNPRINT.EQ.1) WRITE (6,*)'EZ GRAPH FILES WILL BE CREATED'
      IF (NNPRINT.EQ.0) WRITE (6,*)'EZ GRAPH FILES WILL NOT BE CREATED'
      ENDIF

      WRITE (6,*)
      WRITE (6,*) 'DO YOU WANT EXTRA EZ GRAPH FILES CREATED?',
     #                                '  (0) = NO  (1) = YES '
      READ (5,*) IPRINT
      IF ( IPRINT .EQ. 1 )
     +THEN
          WRITE (6,*) 'EXTRA EZ GRAPH FILES WILL BE CREATED'
      ELSE
          WRITE (6,*) 'EXTRA EZ GRAPH FILES WILL NOT BE CREATED'
      END IF

      WRITE (6,*)
      WRITE (6,*) 'OUTPUT IS GENERATED EVERY Nth TIME INCREMENT'
      READ  (5,*)  NUMBER
      WRITE (6,*) '** ',NUMBER

C...  END OF PRINT OPTIONS

      WRITE (6,*)
      WRITE (6,*) 'PACKAGE RADIUS, (M)'
      READ  (5,*)  PKGRAD
```

```
      WRITE (6,*) '**',PKGRAD

      WRITE (6,*)
      WRITE (6,*) 'NUMBER OF TIMES AND RADII FOR WHICH TEMPV5 ',
     #                                    'PROVIDED TEMPERATURES'
      READ  (5,*)  NTIME,NRAD
      WRITE (6,*) '** NTIME =',NTIME,'  ** NRAD =',NRAD
      WRITE (6,*)

C  ****  ERROR CHECK  ****

C     DIMENSIONS OF NTIME AND NRAD ARE SET TO 30

      IF(NTIME.GT.30.OR.NRAD.GT.30)THEN
      WRITE (6,*) 'PROGRAM IS ONLY DIMENSIONED FOR 30 VALUES OF'
     #'NTIME AND NRAD'
      WRITE (6,*) '** PLEASE RE-DIMENSION THESE VALUES **'
      WRITE (6,*) '** PROGRAM WILL BE ABORTED **'
      STOP
      ENDIF

C ****  END OF ERROR CHECK

C...  READ IN TEMPV5 DATA AND CONVERT FROM METERS TO CENTIMETERS

      DO 10 J=1,NRAD
         READ (4,*) TTEMP(1,J),TTIME(1),TRAD(J)
   10 CONTINUE
      XMOVE = TRAD(1) + PKGRAD
      DO 20 J=1,NRAD
         TRAD(J) = XMOVE - TRAD(J)
         TRAD(J) = TRAD(J) * 100.

   20 CONTINUE
      DO 40 I=2,NTIME
         READ (4,*) TTEMP(I,1),TTIME(I)
         DO 30 J=2,NRAD
            READ (4,*) TTEMP(I,J)
   30    CONTINUE
   40 CONTINUE

C...  END OF TEMPV5 DATA

      WRITE (6,*) 'PACKAGE RADIUS IS ',TRAD(1),' CM'
      WRITE (6,*) 'DISTANCE BETWEEN PACKAGES IS ',TRAD(NRAD),' CM'


C     THE VARIABLE NUMR IS A WHOLE NUMBER WHICH WHEN DIVIDED INTO
C     THE RADIUS OF THE WASTE PACKAGE SHOULD PRODUCE A RADIAL INCREMENT
C     OF AN ACCEPTABLE SIZE.  THIS VARIABLE MAY HAVE TO BE CHANGED
C     TO ACHIEVE AN ACCEPTABLE RADIAL INCREMENT (DELR) SUCH THAT
C     ERRORS ARISING FROM SEMILOGARITHMIC INTERPOLATION BETWEEN
C     INCREMENTS ARE MINIMIZED, ERRORS DUE TO THE TEMPERATURE GRADIENT
C     APPROXIMATION ARE MINIMIZED, AND THE STABILITY RATIO IS NOT
C     EXCEEDED.

      WRITE (6,*)
      WRITE (6,*) 'WHOLE NUMBER TO CALCULATE RADIAL INCREMENT'
      READ  (5,*) NUMR
      WRITE (6,*) '** ',NUMR

      WRITE (6,*)
      WRITE (6,*) 'EFFECTIVE PACKAGE LENGTH, (CM)'
      READ  (5,*)  PLENGTH
      WRITE (6,*) '** ',PLENGTH
      WRITE (6,*)

      IF (TTIME(1).EQ.0.0) THEN
        WRITE (6,*) TTIME(2),' < DELTA T <', TTIME(NTIME), '(YEARS)'
        ELSE
        WRITE (6,*) TTIME(1),' < DELTA T < ',TTIME(NTIME) ,'(YEARS)'
      END IF
      WRITE (6,*) '        DELTA T <  TMAX   < ',TTIME(NTIME) ,'(YEARS)'
      READ  (5,*) DELT,TMAX
      WRITE (6,*) '** DELT = ',DELT,'  ** TMAX = ',TMAX
      WRITE (6,*)

C...  CHECK INPUT TIMES, DELTA T, AND TMAX

      IF ( (TTIME(NTIME) .LT. DELT) .OR. (TTIME(NTIME) .LT. TMAX)
```

```
     +                                .OR. (TMAX .LT. DELT)
     +THEN
          WRITE (6, '(/////)' )
          WRITE (6,*) 'ERROR IN TIME INPUT - '
          WRITE (6,*) 'DELT, TMAX, AND TTIME(NTIME) MUST HAVE VALUES ',
     +                'SUCH THAT'
          WRITE (6,*) '                DELTA T < TMAX < TTIME(NTIME)'
          STOP 999
      END IF

      IF ( TTIME(1) .EQ. 0.0 )
     +THEN
          IF ( TTIME(2) .GT. DELT )
     +    THEN
              WRITE (6, '(/////)' )
              WRITE (6,*) 'ERROR IN TIME INPUT - '
              WRITE (6,*) 'TTIME(2) MUST BE < DELTA T'
              STOP 999
          END IF
      ELSE
          IF ( TTIME(1) .GT. DELT )
     +    THEN
              WRITE (6, '(/////)' )
              WRITE (6,*) 'ERROR IN TIME INPUT - '
              WRITE (6,*) 'TTIME(1) MUST BE < DELTA T'
              STOP 999
          END IF
      END IF

      WRITE (6,*) 'INITIAL VOLUME CONCENTRATION OF BRINE IN SALT',
     #' (ML/CM**3.)'
      READ  (5,*) RHOO
      WRITE (6,*) '** ',RHOO
      WRITE (6,*)
      WRITE (6,*) 'THRESHOLD GRADIENT, (DEGREES C/CM)'
      READ  (5,*)  THRESH
      WRITE (6,*) '** ',THRESH
      WRITE (6,*)
      WRITE (6,*) 'FLOW RATE AT WHICH CALCULATIONS SHOULD BE STOPPED',
     #'(ML/YR)'
      READ  (5,*)  FLOWLIM
      WRITE (6,*) '** ',FLOWLIM

C*****************************************************
C     INITIALIZE VARIABLES
C*****************************************************

      FLOWT    = 0.
      ITIMES   = 0
      NCOUNTER = 0
      SRMAX    = 0.
      SRTIME   = 0.
      TIME     = 0.

C...  DO FOLLOWING WAPPA SECTION ONLY IF ASKED FOR

      IF ( NPRINT .EQ. 3)
     +THEN

C...  READ WAPPA TIMES

          CALL RWAPTIM( NWAPTIM, WAPTIM )

C     TIME INCREMENTS FROM WAPTIM WHICH ARE LESS THAN THE FIRST
C     TIME INCREMENT (DELT) OR GREATER THAN TMAX USED IN CALCULATIONS
C     BY BRINEMIG WILL NOT BE USED AS INPUT TO WAPPA AND THEREFORE NOT
C     PUT IN THE WAPPA INPUT FILE.

C     FIND FIRST ARRAY POSITION "I" OF WAPTIM(I) WHERE WAPTIM(I) >= DELT

          ISTART=1
   50     IF ( ISTART .LE. NWAPTIM )
     +    THEN
              IF ( WAPTIM(ISTART) .LT. DELT )
     +        THEN
                  ISTART = ISTART + 1
                  GO TO 50
              END IF
          END IF
```

```
C...  CHECK TO SEE IF ALL WAPPA TIMES WERE < DELT

          IF ( ISTART .GT. NWAPTIM )
     +    THEN
              WRITE (6, '(/////)' )
              WRITE (6,*) 'ERROR IN WAPPA TIMES INPUT - '
              WRITE (6,*) 'MUST HAVE SOME WAPPA TIMES > DELT'
              STOP 999
          END IF

C...  FIND LAST ARRAY POSITION "I" OF WAPTIM(I) WHERE WAPTIM(I) <= TMAX

          IEND = ISTART
  55      IF ( IEND .LE. NWAPTIM )
     +    THEN
              IF ( WAPTIM(IEND) .LE. TMAX )
     +        THEN
                  IEND = IEND + 1
                  GO TO 55
              END IF
          END IF

          IF ( IEND .EQ. ISTART )
     +    THEN
              WRITE (6, '(/////)' )
              WRITE (6,*) 'ERROR IN WAPPA TIMES INPUT -'
              WRITE (6,*) 'THERE ARE NO WAPPA TIMES >= DELTA T THAT ',
     +                    'ARE <= TMAX'
              STOP 999
          END IF

          IEND = IEND -1

C...  CHECK THAT WAPPA TIMES >= DELT OR <= TMAX ARE SPACED AT LEAST
C     A DELT APART

          DO 60 ICHECK = ISTART, IEND
             DIFF = WAPTIM(ICHECK+1) - WAPTIM(ICHECK)
             IF ( DIFF .LT. DELT )
     +       THEN
                 WRITE (6, '(/////)' )
                 WRITE (6,*) 'ERROR IN WAPPA TIMES INPUT -'
                 WRITE (6,*) 'WAPPA TIMES MUST BE AT LEAST A DELT APART'
                 STOP 999
             END IF
   60     CONTINUE

C...  INITIALIZE WFLWRATE ARRAY
          DO 65 I = ISTART, IEND+1
             WFLWRATE(I) = 0.0
  65      CONTINUE

C...  INITIALIZE TEST (USED TO DETERMINE WHICH TIMES AND FLOWRATES WILL
C     BE INCLUDED IN WAPPA INPUT FILE)

          TEST = DELT/2

      END IF

C...  VALUES FOR RHO AND RHOS WITHIN THE PACKAGE RADIUS ARE
C     NOT USED AND THEREFORE SET TO ZERO CONCENTRATION.

      DO 70 I=1,NUMR
         RHO(I) = 0.
         RHOS(I) = 0.
  70  CONTINUE

C...  DIVIDE RADIUS OF WASTE PACKAGE INTO NUMR RADII

      NUMRP1 = NUMR + 1
      DELR = TRAD(1)/FLOAT(NUMR)
      WRITE (6,*) 'DELTA R =',DELR,' CM'
      MAXT = IFIX(TMAX/DELT)
      MAXR = IFIX(TRAD(NRAD)/DELR) - 1
      MAXRP1 = MAXR + 1

C     VALUES FOR RHO AND RHOS FROM THE EDGE OF THE PACKAGE TO THE LAST
C     RADIAL INCREMENT ARE INITIALIZED TO THE VOLUME CONCENTRATION
C     OF BRINE IN SALT.
```

```
      DO 80 I=NUMRP1,MAXRP1
         RHO(I) = RHOO
         RHOS(I) = RHOO
  80  CONTINUE

      DO 90 K=1,MAXR
         V(K) = 0.
  90  CONTINUE

C...  END OF VARIABLES

C*****************************************************
C     START TIME LOOP
C*****************************************************

C...  INTERPOLATE TEMPERATURES OVER TIME

      DO 210 I=1,MAXT
         ITIMES = ITIMES + 1
         TIME = TIME + DELT
         NCOUNTER = NCOUNTER + 1
         DO 100 M=1,NTIME
            IF (TIME.GT.TTIME(M)) THEN
              GO TO 100
            ELSE
              GO TO 110
            END IF
 100     CONTINUE
 110     MM1 = M-1
         RADIUS = TRAD(1)

C...  DEBUG OUTPUT

         IF (NPRINT.EQ.4) THEN
           WRITE (6,*) '**  DEBUG OUTPUT  **'
           WRITE(6,*)'I=',I
           WRITE(6,*)'TTEMP(MM1,1) =',TTEMP(MM1,1)
           WRITE(6,*)'TIME =',TIME
           WRITE(6,*)'TTIME(MM1) =',TTIME(MM1)
           WRITE(6,*)'TTIME(M) =',TTIME(M)
           WRITE(6,*)'TTIME(MM1) =',TTIME(MM1)
           WRITE(6,*)'TTEMP(M,1) =',TTEMP(M,1)
           WRITE(6,*)'TTEMP(MM1,1) =',TTEMP(MM1,1)
           WRITE(6,*)'M = ',M
           WRITE(6,*)'MM1 = ',MM1
         ENDIF
C...  END OF DEBUG OUTPUT

        TEMP1 = TTEMP(MM1,1)+ALOG(TIME/TTIME(MM1))/ALOG(TTIME(M)/
     #TTIME(MM1))*(TTEMP(M,1)-TTEMP(MM1,1))
         IF (NPRINT.EQ.4) WRITE (6,*) 'TEMP1 = ',TEMP1
         RADG = TRAD(1) + DELR/10.
         TG1 = TTEMP(MM1,1) + ALOG(RADG/TRAD(1))/ALOG(TRAD(2)/
     # TRAD(1))*(TTEMP(MM1,2)-TTEMP(MM1,1))
         TG2 = TTEMP(M,1) + ALOG(RADG/TRAD(1))/ALOG(TRAD(2)/
     #TRAD(1))*(TTEMP(M,2)-TTEMP(M,1))
         TEMPG = TG1 + ALOG(TIME/TTIME(MM1))/ALOG(TTIME(M)/TTIME(MM1))
     #*(TG2-TG1)
         GRAD1 = -(TEMPG - TEMP1)*10./DELR

C...  CREATE EXTRA EZ GRAPH FILES (RADIUS, TEMPERATURE, AND GRADIENT)

         IF ( (IPRINT .EQ. 1) .AND. (NCOUNTER .EQ. NUMBER ) )
     +   THEN
             WRITE (14,*) RADIUS
             WRITE (15,*) TEMP1
             WRITE (16,*) GRAD1
         END IF

C...  START RADIAL LOOP

         DO 140 J=NUMRP1,MAXR
         RADIUS = RADIUS + DELR
         DO 120 N = 1,NRAD
            IF (RADIUS.GT.TRAD(N)) THEN
              GO TO 120
            ELSE
              GO TO 130
            END IF
 120     CONTINUE
```

```
 130     NM1 = N - 1
         IF (NPRINT.EQ.4) WRITE (6,*) 'RADIUS = ',RADIUS,'    N =',N

C...  FIND TEMPERATURE BY SEMILOGARITHMIC INTERPOLATION

         T1 = TTEMP(MM1,NM1) + ALOG(RADIUS/TRAD(NM1))/ALOG(TRAD(N)/
     # TRAD(NM1))*(TTEMP(MM1,N)-TTEMP(MM1,NM1))
         T2 = TTEMP(M,NM1) + ALOG(RADIUS/TRAD(NM1))/ALOG(TRAD(N)/
     #TRAD(NM1))*(TTEMP(M,N)-TTEMP(M,NM1))
         TEMP2 = T1 + ALOG(TIME/TTIME(MM1))/ALOG(TTIME(M)/TTIME(MM1))
     #*(T2-T1)
         JM1 = J - 1
         JP1 = J + 1

C...   DETERMINE THERMAL GRADIENT

         GRADIENT = -(TEMP2-TEMP1)/DELR

C...  CREATE EXTRA EZ GRAPH FILES (RADIUS, TEMPERATURE, AND GRADIENT)

         IF ( (IPRINT .EQ. 1) .AND. (NCOUNTER .EQ. NUMBER ) )
     +   THEN
             WRITE (14,*) RADIUS
             WRITE (15,*) TEMP2
             WRITE (16,*) GRADIENT
         END IF

C...   THE THRESHOLD GRADIENT IS THE MINIMUM GRADIENT NEEDED TO
C...   ACHIEVE BRINE MIGRATION.  IF THE GRADIENT IS LESS THAN THE
C...   THRESHOLD GRADIENT, V(J) MUST BE SET TO ZERO.

         IF (GRADIENT.LE.THRESH) THEN
            V(J) = 0.
            IF (J.EQ.NUMRP1) THEN
              V(NUMR) = 0.
            ELSE
              RHOS(JM1) = RHO(JM1)*(1.-SR)
            END IF

C...  CREATE EXTRA EZ GRAPH FILES (VELOCITIES).

            IF ( (IPRINT .EQ. 1) .AND. (NCOUNTER .EQ. NUMBER ) )
     +      THEN
                IF ( J .EQ. NUMRP1 )  WRITE (17,*) V(NUMR)
                WRITE (17,*) V(J)
            END IF

            GO TO 150
         ELSE

C...   JENKS EQUATION: THE THRESHOLD GRADIENT
C...   IS NOT TAKEN INTO ACCOUNT ONCE EXCEEDED

            V(J) = GRADIENT * 10**(0.00656*TEMP2-0.6036)
         END IF
         IF (J.EQ.NUMRP1) V(JM1) = GRAD1 * 10**(0.00656*TEMP1-0.6036)

C...  CREATE EXTRA EZ GRAPH FILES (VELOCITIES).

         IF ( (IPRINT .EQ. 1) .AND. (NCOUNTER .EQ. NUMBER ) )
     +   THEN
             IF ( J .EQ. NUMRP1 )  WRITE (17,*) V(JM1)
             WRITE (17,*) V(J)
         END IF

C...   CHECK STABILITY RATIO


         XJ = FLOAT(J)
         SR = V(JM1)*DELT*(1.-1./XJ)/DELR/(1.-0.5/XJ)
         IF (SR.GT.SRMAX)THEN
            SRMAX = SR
            SRTIME = TIME
         ENDIF
         IF (NPRINT.EQ.4) WRITE (6,*) 'SR = ',SR

C *****  ERROR CHECK  *****
C    CHECK STABILITY RATIO WHICH CANNOT EXCEED 1.0

         IF (SR.GE.1.) THEN
```

```
            WRITE (6,*) 'STABILITY RATIO  = ',SR
            WRITE (6,*) '** SR MAY NOT EXCEED 1.0 **'
     #'     SYSTEM IS UNSTABLE **'
            WRITE (6,*) '*** PROGRAM HAS BEEN ABORTED ***'
            STOP
         END IF

C...  END OF ERROR CHECK

C...  CALCULATE BRINE CONCENTRATION

         RHOS(J) = RHO(J)*(1.-SR)+RHO(JP1)*V(J)*DELT/DELR/(1.-0.5/XJ)
         IF (J.EQ.MAXR) THEN
            XJP1 = XJ + 1.
            SR = V(J)*DELT*(1.-1./XJP1)/DELR/(1.-0.5/XJP1)
            RHOS(JP1) = RHO(JP1)*(1.-SR)
         END IF

C...    DEBUG STATEMENTS

         IF (NPRINT.EQ.4.AND.NCOUNTER.EQ.NUMBER) THEN
            WRITE (6,*)
            WRITE (6,*) 'T1 = ',T1,'    T2 = ',T2
            WRITE (6,*) 'TEMP2 =',TEMP2,'FOR I = ',I,' J = ',J
            WRITE (6,*) 'GRADIENT = ',GRADIENT,'    V(JM1) = ',V(JM1)
            WRITE (6,*) 'V(J) = ',V(J),'    RHO(J) = ',RHO(J)
            WRITE (6,*) 'RHOS(J) = ',RHOS(J)
            WRITE (6,*)
         END IF

         TEMP1 = TEMP2
 140     CONTINUE

C...  END RADIAL LOOP

 150     CONTINUE

C...  FLOW RATE AT SURFACE OF WASTE PACKAGE

         FLOW = PLENGTH*V(NUMR)*DELT*3.14159*DELR*FLOAT(NUMR)*
     #   (RHOS(NUMRP1)+RHO(NUMRP1))
         FLOWL = FLOW/1000.
         FLOWRATE = FLOW/DELT/365.25/24/3600/1.E06
         FLOWMLYR = FLOW/DELT
         FLOWT = FLOWT + FLOW
         FLOWTL = FLOWT/1000.
         DO 160 K=NUMRP1,MAXRP1
            RHO(K) = RHOS(K)
 160     CONTINUE

C...  FIND WAPPA INPUT TIMES AND FLOWRATES IF ASKED FOR
         IF ( NPRINT .EQ. 3 )
     +   THEN

C...  STORE TIMES AND FLOWRATES FOR WAPPA - CHECK THAT TIME IS WITHIN
C     DELT/2(TEST) OF A TIME IN WAPPA TIMES INPUT FILE

            ICHECK = ISTART
  170       IF ( ICHECK .LE. IEND )
     +      THEN
                DIFF = WAPTIM(ICHECK) - TIME
                IF ( ABS(DIFF) .GT. TEST )
     +          THEN
                    ICHECK = ICHECK + 1
                    GO TO 170
                ELSE
                    IWAPTIM = ICHECK
                    WTIMES(IWAPTIM) = TIME
                    WFLWRATE(IWAPTIM) = FLOWRATE
                END IF
            END IF

C...  STORE CUTOFF TIME AND FLOWRATE FOR WAPPA (LAST ITERATION)
            TIMSAV = TIME
            FRATE = FLOWRATE

         END IF

C...  CHECK IF THE FLOWRATE IS LESS THAN OR EQUAL TO THE FLOW LIMIT -
C     IF IT IS THEN LEAVE THE TIME LOOP AND PRINT FINAL VALUES
```

```
         IF (FLOWMLYR.LE.FLOWLIM) GO TO 220

C...   OUTPUT FLOW RATES

         IF (NCOUNTER.EQ.NUMBER) THEN
            WRITE (6,*)
            WRITE (6,*) 'INTERMEDIATE CONCENTRATIONS:'
            WRITE (6,*) (RHOS(K), K=NUMRP1,MAXRP1)
            WRITE (6,*) 'TIME = ',TIME,' YEARS'
            WRITE (6,*) 'INCREMENTAL FLOW IS ',FLOWL,' LITERS'
            WRITE (6,*) 'FLOW RATE = ',FLOWRATE,' M**3/SEC'
            WRITE (6,*) 'TOTAL FLOW IS ',FLOWTL,' LITERS'
            WRITE (6,*) ' '
          END IF

C...   CREATE EZ GRAPH PLOT FILES (TIMES, TOTAL FLOW, AND FLOW RATE)

          IF (NPRINT.EQ.2.OR.NNPRINT.EQ.1) THEN
             IF ( (NCOUNTER .EQ. NUMBER) .OR. (TIME .EQ. TMAX) )
     +       THEN
                WRITE (7,*) TIME
                WRITE (8,*) FLOWTL
                WRITE (9,*) FLOWRATE
              END IF
          END IF

C...  CREATE EXTRA EZ GRAPH FILES (INTERMEDIATE CONCENTRATIONS).

         IF ( (IPRINT .EQ. 1) .AND. (NCOUNTER .EQ. NUMBER) )
     +   THEN
             DO 180 K = NUMRP1, MAXR
                WRITE (18,*) RHOS(K)
  180        CONTINUE
         END IF

      IF (NCOUNTER.EQ.NUMBER) NCOUNTER = 0
 210  CONTINUE

C*********************************************
C     END TIME LOOP
C*********************************************

C...  MORE EZ GRAPH FILES (FINAL CONCENTRATIONS AND RADIAL INCREMENTS)

 220  IF (NPRINT.EQ.2.OR.NNPRINT.EQ.1) THEN
         DO 230 K=NUMRP1,MAXR
            WRITE (10,*) RHOS(K)
            WRITE (11,*) FLOAT(K)
 230     CONTINUE
      END IF

C...  PRINT FINAL OUTPUT VALUES

      WRITE (6,*)
      WRITE (6,*) ('**********  FINAL VALUES **********')
      WRITE (6,*)
      WRITE (6,*) 'CONCENTRATIONS AT RADIAL INCREMENTS (ML/CM**3)'
      WRITE (6,*)  (RHOS(K),K=NUMRP1,MAXRP1)
      WRITE (6,*)
      WRITE (6,*) 'FINAL TIME =',TIME,' YEARS'
      WRITE (6,*) 'FINAL FLOW RATE = ',FLOWMLYR,' ML/YR'
      WRITE (6,*) 'TOTAL FLOW =',FLOWTL,' LITERS'
      WRITE (6,*)
      WRITE (6,*) 'MAXIMUM STABILITY RATIO = ',SRMAX
      WRITE (6,*) '                 AT TIME = ',SRTIME,' YEARS'


C...  PRINT FILE 13 - TIMES AND FLOWRATES AS WAPPA INPUT
C      - ONLY IF ASKED FOR

      IF( NPRINT .EQ. 3 )
     +THEN

C...  PRINT VALUES FROM WAPPA TIMES INPUT FILE NOT USED TO GENERATE
C     OUTPUT FOR THE WAPPA INPUT FILE

          IF ( ISTART .GT. 1 )
     +    THEN
```

```
            WRITE (6, '(////,1X,2A)' )
     +        'WAPPA TIMES < DELTA T NOT USED TO GENERATE INPUT ',
     +        'FOR WAPPA'
            WRITE (6,*) ( WAPTIM(I), I = 1, ISTART-1 )
        END IF

        KEND = IWAPTIM
        IF ( KEND .LT. NWAPTIM )
     +  THEN
            WRITE (6, '(//,1X,2A)' )
     +        'WAPPA TIMES > FLOWRATE CUTOFF TIME NOT USED TO ',
     +        'GENERATE INPUT FOR WAPPA'
            WRITE (6,*) ( WAPTIM(I), I = KEND+1, NWAPTIM )
        END IF


C...  PREPARE AND PRINT THE WAPPA INPUT FILE (INPUT TO THE WAPPA PGM.)

C...  INCLUDE CUTOFF TIME AND FLOWRATE (IF DIFFERENT THAN A TIME IN
C     THE WAPPA TIMES INPUT FILE) IN WTIMES(I) AND WFLWRATE(I) ARRAYS
C     (THE WAPPA INPUT FILE)

        IF ( WTIMES(IWAPTIM) .LT. TIMSAV )
     +  THEN
            IWAPTIM = IWAPTIM + 1
            WTIMES(IWAPTIM) = TIMSAV
            WFLWRATE(IWAPTIM) = FRATE
        END IF
        ISTOP = IWAPTIM

        NTIME = ISTOP - ISTART + 1
        WRITE (13,250)NTIME
  250     FORMAT(I5,T85,'!7 NO. OF TIME-BRINE RATE PAIRS')

        WAPLINE(85:) = '!8 4 SETS OF TIMEyrs VS RATE m3 per sec'
        JEND = 3
        DO 260 I=ISTART,ISTOP,4
           IF ((ISTOP-I).LT.JEND) JEND = ISTOP-I
           WRITE(WAPLINE(1:84),270)
     +       (WTIMES(I+J),WFLWRATE(I+J),J=0,JEND)
           WRITE(13,'(A)') WAPLINE
  260   CONTINUE
  270   FORMAT(1X,4(1PE10.4,1PE10.3))

      ENDIF


      STOP
      END


*DECK RWAPTIM
      SUBROUTINE RWAPTIM( NWAPTIM, WAPTIM )

C     THIS SUBROUTINE READS THE WAPPA TIMES FILE (INPUT TO BRINEMIG)
C     IN A LIST-DIRECTED FORMAT.  IT READS THE NUMBER OF TIMES FOLLOWED
C     BY THE TIMES (IN ANY ORDER). FOR EX.
C
C               10
C               1,  2,   3,    4,    5,   10
C               11, 12, 13,  14,  15,  16
C
C                       OR
C
C               10
C               1,        11,
C               2,        12,
C               3,        13,
C               4,        14,
C               5,        15,
C               10,       16
C
C                   (THE COMMA'S ARE NOT NECESSARY.)
C
C     IT THEN MAKES A CALL TO ZSORT1 TO SORT THE WAPPA TIMES ARRAY IN
C     INCREASING ORDER.
C
C
C***************************** VARIABLE LIST ****************************
```

```
C*                                                                      *
C*     WAPTIM  = FORTRAN UNIT NUMBER OF THE WAPPA TIMES INPUT FILE      *
C*     NWAPTIM = NUMBER OF TIMES IN THE WAPPA TIMES INPUT FILE          *
C*     WAPTIM  = ARRAY OF WAPPA TIMES FROM WAPPA TIMES INPUT FILE       *
C*                                                                      *
C************************* END VARIABLE LIST *************************


      INTEGER  NWAPTIM, WTIMFIL

      REAL  WAPTIM(*)

      PARAMETER  ( WTIMFIL = 20 )

C
C..... READ NUMBER OF TIMES AND WAPPA TIMES (WAPTIM ARRAY) FROM THE
C..... WAPPA TIMES FILE (TIMES FOR WHICH INPUT TO WAPPA WILL BE
C..... GENERATED IN BRINEMIG)
C
      READ ( WTIMFIL, * ) NWAPTIM

      READ ( WTIMFIL, * ) (WAPTIM(I), I = 1, NWAPTIM)

C
C..... SORT WAPTIM ARRAY SO THAT TIMES ARE IN INCREASING ORDER.
C
      CALL ZSORT1( NWAPTIM, WAPTIM )


      RETURN
      END


*DECK ZSORT1
      SUBROUTINE ZSORT1( NDIM, A )

C     THIS SUBROUTINE SORTS A ONE-DIMENSIONAL ARRAY IN ORDER OF
C     SMALLEST TO LARGEST VALUE.
C
C***************************** VARIABLE LIST *****************************
C*                                                                      *
C*     NDIM = THE DIMENSION OF THE ARRAY.                               *
C*     A = THE ONE-DIMENSIONAL REAL ARRAY TO BE SORTED.                 *
C*     TEMP = TEMPORARY STORAGE VARIABLE USED DURING THE SORT.          *
C*                                                                      *
C************************* END VARIABLE LIST *************************

      INTEGER  NDIM

      REAL  A(NDIM), TEMP


C
      DO 100 I = 1, NDIM-1
         TEMP = A(I)

         DO 50 J = I+1, NDIM
            IF ( A(J).LT.TEMP )
     +      THEN
                TEMP = A(J)
                K = J
            END IF
   50    CONTINUE

      IF ( TEMP .NE. A(I) )
     +THEN
          A(K) = A(I)
          A(I) = TEMP
      END IF

  100 CONTINUE


      RETURN
      END
```

APPENDIX B

SAMPLE PROBLEM AND USER INSTRUCTIONS FOR BRINEMIG

B.1 INTRODUCTION

BRINEMIG is a computer code that estimates the movement of brine toward a heat source emplaced in salt. BRINEMIG uses temperature data provided by the TEMPV5 code and an initial moisture content of the salt to predict flowrates of brine and quantities of accumulated brine. The results of BRINEMIG may then be used as input to the WAPPA code. This appendix presents a sample problem illustrating how to use the BRINEMIG code. The specific example for which input and output files are presented is from a study of commercial high-level waste (CHLW) for the Deaf Smith County site in Texas. The input files presented provide the data and instructions needed to process the code on VAX/VMS systems.

B.2 INPUT FILES

Three input files are required to run BRINEMIG. The first is a command file containing assignments of file names to the input and output devices called as well as some of the input data. The second is a temperature file created by the TEMPV5 code, and the third is a set of times for which flow rates are desired as input to the WAPPA code.

B.2.1 Command and Data File

The first input file for BRINEMIG, a command file assigned to logical unit number 5, is shown in Table B-1. The command file provides instructions for executing the code on a VAX/VMS operating system and provides data which the program reads from logical unit number 5. Referring to Table B-1, the first 15 lines of the command file assign file names to the logical unit numbers called by BRINEMIG.

Line 1 of the command file assigns an input file containing the temperature data from TEMPV5 to logical unit number 4. This file is described in Section B.2.2. The next line indicates that data requested from logical unit number 5 will follow the RUN BRINEMIG command in the command file. Logical unit number 6 contains standard program output, which is described in Section B.3.1.

Logical unit numbers 7 through 11 are called only when a specific print option in BRINEMIG is activated. They are designed for use with the Tektronix Plot 10 Easy Graphing software package. Plot 10 Easy Graphing, a software package available for VAX/VMS systems, is a plotting routine requiring files containing single columns of numbers as input. Logical unit number 7 contains times in years. Logical unit numbers 8 and 9 contain quantities of accumulated brine (liters) and flowrates of brine (m^3/sec) for the times given in logical unit number 7. Logical unit numbers 10 and 11 contain volume fractions of moisture in the salt for each radial increment and radial increment numbers corresponding to those volume fractions.

TABLE B-1. COMMAND FILE, INCLUDING INPUT FILE 5.

```
$ASSIGN TEMPERATURE.DAT                FOR004
$ASSIGN SYS$INPUT                      FOR005
$ASSIGN OUTPUT.DAT                     FOR006
$ASSIGN EZGTIME.DAT                    FOR007
$ASSIGN EZGQUANTITY.DAT                FOR008
$ASSIGN EZGFLOWRATE.DAT                FOR009
$ASSIGN EZGCONCENTRATION.DAT           FOR010
$ASSIGN EZGRADIAL_INCREMENT.DAT        FOR011
$ASSIGN WAPPA_INPUT.DAT                FOR013
$ASSIGN EZGRADIUS.DAT                  FOR014
$ASSIGN EZGTEMPERATURE.DAT             FOR015
$ASSIGN EZGGRADIENT.DAT                FOR016
$ASSIGN EZGVELOCITY.DAT                FOR017
$ASSIGN EZGCONCENTRATION.DAT           FOR018
$ASSIGN WAPPATIMES.DAT                 FOR020
$RUN BRINEMIG
SAMPLE RUN OF THE BRINEMIG PROGRAM
3,                                          NPRINT OPTION
0,                                          NNPRINT OPTION
0,                                          IPRINT OPTION
1000,                                       NUMBER (Nth INCREMENT)
.445,                                       PACKAGE RADIUS (METERS)
25,7,                                       NUMBER OF TIMES AND RADII
5,                                          NUMR
367.9,                                      EFFECTIVE PACKAGE LENGTH (CM)
.05,9999.0,                                 DELTA T, TMAX (YEARS)
.05,                                        RHOO (ML/CM**3)
0.125,                                      THRESHOLD GRADIENT (DEG C/CM)
0.0,                                        FLOW LIMIT (ML/YR)
```

Logical unit number 13 contains output created by BRINEMIG as input to the WAPPA code, and in the format required by WAPPA. It is described in Section B.3.2.

The next five lines of the command file are called by a separate print option, and are designed for use primarily during code verification. They, too, contain single columns of numbers so that they may be used with Plot 10 Easy Graphing. They consist of radii (m), temperatures (°C), temperature gradients (°C/cm), velocities (cm/sec), and moisture contents (volume fraction).

The last assignment statement in the command file, logical unit number 20, contains times in years for which flowrates are required by WAPPA. This file is required input whenever a WAPPA input file is to be created. It is discussed further in Section B.2.3.

Following the assignment statements, a RUN command executes the BRINEMIG code. Immediately after the RUN command, input for the BRINEMIG code appears.

The first line is simply a title for the run. It may be up to 80 characters long. The next line contains NPRINT, an output print option selector. The four possible options are 1, normal output only; 2, Easy Graphing plot files for logical unit numbers 7 through 11 created; 3, WAPPA input file created; and 4, debugging output provided. When NPRINT equals three, the next line of the command file must contain a value for NNPRINT. NNPRINT is another print option which determines whether Easy Graphing files are to be created in addition to the WAPPA input files. If NPRINT is not equal to three, NNPRINT is not provided.

For NNPRINT equal to zero, no Easy Graphing files are created. An NNPRINT of one causes the Easy Graphing files to be created. The following line of the command file contains IPRINT, which determines whether the extra Easy Graphing files corresponding to logical unit numbers 14 through 18 are created. Again, a value of zero turns the option off, and a value of one causes the files to be created. In Table B-1 both NNPRINT and IPRINT equal zero, so no Easy Graphing files are obtained from the run.

The next line of the command file contains NUMBER which denotes the time increments for which data is to be printed from BRINEMIG. In the example NUMBER equals 1,000, so data is sent to the regular output file every 1,000th time BRINEMIG steps through its time loop.

The following line of the command file contains the radius through which brine flow is measured. In the present example, the waste package radius of 0.445 m was used.

Line 22 of the command file contains the number of times and number of radii for which temperatures are provided in the temperature input file from TEMPV5. In the present example, temperatures are provided at 25 times and 7 radial increments.

Line 23 contains a value for NUMR. NUMR represents the number of radial increments from the centerline of the waste package to the radius through which brine flow is measured. In this case NUMR equals 5, so the radial increment size equals 0.445 m divided by 5, or 0.089 m.

Line 24 contains the effective package length, which is the length of the waste package or borehole over which flow is calculated. In the present example, the actual waste package height of 367.9 cm was used.

Line 25 contains two numbers. The first is the time increment through which BRINEMIG steps, and the second is the maximum time for which calculations are to be performed. The time increment may be no smaller than the smallest time read in from the TEMPV5 input file. The maximum time must be smaller than the largest time in the TEMPV5 file. In Table B-1, the values are 0.05 yr and 9999.0 yr, respectively.

The next line of the command file contains the initial volume fraction of moisture in the salt. For the Deaf Smith County site, a value of 0.05 volume fraction was assumed.

Line 27 contains the threshold temperature gradient. This is the temperature gradient at which flow is assumed to stop. For the example given, a threshold temperature gradient of 0.125°C/cm was assumed. Line 28 contains the flowrate at which BRINEMIG terminates calculations. In the example, calculations were allowed to continue until the flowrate went to zero.

B.2.2 Temperature File

Table B-2 contains a listing of the temperature input file from TEMPV5. As indicated by the command file for this example, temperatures are provided for 25 times and 7 radial distances. The first column of Table B-2 contains temperatures (°C) for the times (years) and radial distances (meters) provided in columns 2 and 3. TEMPV5 provides radial distances measured from the midpoint between two waste packages in different rooms of a repository. BRINEMIG then converts the distances so that they are measured from the centerline of a waste package. The first radial distance for which temperatures are reported must correspond to the radius across which flow is calculated, as reported in the command file. In this example, the command file reported that flow would be calculated across the package radius of 0.445 m, so the first radius in the TEMPV5 input file of 0.1265E+02 m corresponds to 0.445 m from the package centerline.

B.2.3 Time File Corresponding to WAPPA Input Requirements

The last input file is read in from logical unit number 20. An example corresponding to this sample problem is shown in Table B-3. This file contains the times for which flowrates are desired as input to the WAPPA code. Any times out of the range of calculation of BRINEMIG (either less than the time increment or greater than the time at which calculations cease) are reported in the standard BRINEMIG output. For times which fall within the

TABLE B-2. TEMPERATURE INPUT, FILE 4.

0.3128E+02	0.1000E-03	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-03	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-03	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-03	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-03	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-03	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3161E+02	0.2000E-03	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3139E+02	0.2000E-03	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-03	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-03	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-03	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-03	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3602E+02	0.5000E-03	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3411E+02	0.5000E-03	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-03	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-03	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-03	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-03	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4599E+02	0.1000E-02	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4191E+02	0.1000E-02	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3159E+02	0.1000E-02	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-02	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-02	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-02	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6239E+02	0.2000E-02	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5622E+02	0.2000E-02	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3411E+02	0.2000E-02	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-02	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-02	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-02	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9186E+02	0.5000E-02	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8356E+02	0.5000E-02	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4565E+02	0.5000E-02	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3199E+02	0.5000E-02	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-02	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-02	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1169E+03	0.1000E-01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1075E+03	0.1000E-01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6060E+02	0.1000E-01	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3557E+02	0.1000E-01	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1408E+03	0.2000E-01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1305E+03	0.2000E-01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7756E+02	0.2000E-01	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4325E+02	0.2000E-01	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3136E+02	0.2000E-01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1667E+03	0.5000E-01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1557E+03	0.5000E-01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9787E+02	0.5000E-01	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5648E+02	0.5000E-01	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3289E+02	0.5000E-01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1811E+03	0.1000E+00	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1698E+03	0.1000E+00	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1099E+03	0.1000E+00	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6584E+02	0.1000E+00	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3813E+02	0.1000E+00	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3140E+02	0.1000E+00	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3129E+02	0.1000E+00	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1921E+03	0.2000E+00	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1806E+03	0.2000E+00	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1194E+03	0.2000E+00	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7389E+02	0.2000E+00	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4066E+02	0.2000E+00	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3224E+02	0.2000E+00	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)

0.3164E+02	0.2000E+00	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2041E+03	0.5000E+00	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1924E+03	0.5000E+00	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1304E+03	0.5000E+00	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8392E+02	0.5000E+00	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4835E+02	0.5000E+00	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3638E+02	0.5000E+00	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3502E+02	0.5000E+00	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2118E+03	0.1000E+01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2002E+03	0.1000E+01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1384E+03	0.1000E+01	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9193E+02	0.1000E+01	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5592E+02	0.1000E+01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4314E+02	0.1000E+01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4159E+02	0.1000E+01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2192E+03	0.2000E+01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2078E+03	0.2000E+01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1473E+03	0.2000E+01	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1016E+03	0.2000E+01	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6598E+02	0.2000E+01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5324E+02	0.2000E+01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5168E+02	0.2000E+01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2269E+03	0.5000E+01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2164E+03	0.5000E+01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1605E+03	0.5000E+01	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1177E+03	0.5000E+01	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8411E+02	0.5000E+01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7201E+02	0.5000E+01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7052E+02	0.5000E+01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2245E+03	0.1000E+02	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2156E+03	0.1000E+02	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1675E+03	0.1000E+02	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1301E+03	0.1000E+02	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1003E+03	0.1000E+02	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8951E+02	0.1000E+02	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8819E+02	0.1000E+02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2051E+03	0.2000E+02	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1988E+03	0.2000E+02	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1638E+03	0.2000E+02	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1361E+03	0.2000E+02	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1135E+03	0.2000E+02	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1052E+03	0.2000E+02	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1042E+03	0.2000E+02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1514E+03	0.5000E+02	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1488E+03	0.5000E+02	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1341E+03	0.5000E+02	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1220E+03	0.5000E+02	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1119E+03	0.5000E+02	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1081E+03	0.5000E+02	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1077E+03	0.5000E+02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1138E+03	0.1000E+03	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1127E+03	0.1000E+03	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1067E+03	0.1000E+03	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1016E+03	0.1000E+03	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9730E+02	0.1000E+03	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9568E+02	0.1000E+03	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9548E+02	0.1000E+03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9404E+02	0.2000E+03	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9347E+02	0.2000E+03	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9022E+02	0.2000E+03	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8748E+02	0.2000E+03	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8515E+02	0.2000E+03	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8427E+02	0.2000E+03	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8417E+02	0.2000E+03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7413E+02	0.5000E+03	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7393E+02	0.5000E+03	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7281E+02	0.5000E+03	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7186E+02	0.5000E+03	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7104E+02	0.5000E+03	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7073E+02	0.5000E+03	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7069E+02	0.5000E+03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5809E+02	0.1000E+04	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5805E+02	0.1000E+04	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5785E+02	0.1000E+04	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5768E+02	0.1000E+04	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5753E+02	0.1000E+04	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5747E+02	0.1000E+04	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5747E+02	0.1000E+04	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4616E+02	0.2000E+04	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4616E+02	0.2000E+04	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)

0.4814E+02	0.2000E+04	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4814E+02	0.2000E+04	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4814E+02	0.2000E+04	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4612E+02	0.2000E+04	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4612E+02	0.2000E+04	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3413E+02	0.5000E+04	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3413E+02	0.5000E+04	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3413E+02	0.5000E+04	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3413E+02	0.5000E+04	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3413E+02	0.5000E+04	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3414E+02	0.5000E+04	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3414E+02	0.5000E+04	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E+05	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E+05	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E+05	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E+05	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E+05	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E+05	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E+05	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)

TABLE B-3. TIMES USED IN CALCULATING WAPPA INPUT, FILE 20

```
21
1.0000E-03, 1.0000E-02, 2.0000E-02, 5.0000E-02, 0.10, 0.20, 0.50,
1.0, 2.0, 5.0, 10, 20, 50, 100, 200, 500, 1000, 2000,
5000, 10000, 100000
```

calculational range of the code, BRINEMIG finds a flowrate for the closest time at which a flowrate was calculated. BRINEMIG writes all these times and flowrates to an output file described in Section B.3.2.

B.3 OUTPUT FILES

A standard output file is always created. Usually a WAPPA input file is also desired. Both of these are discussed in the following sections. The Easy Graphing files which may be created are not presented here. They are described briefly in Section B.2.1.

B.3.1 BRINEMIG Results

The standard BRINEMIG output file, written to logical unit number 6, is shown in Table B-4. The first lines provide an echo check of the data read from logical unit number 5. Next, intermediate concentrations are provided for the radial increments used, starting at the radius across which flow is calculated, and going as far as the TEMPV5 data allow. In this example, it was to the midpoint between waste packages in different repository rooms. The intermediate concentrations and following intermediate data are provided for every 1,000th time step, as requested by line 20 of the command file used.

The output labeled "INTERMEDIATE CONCENTRATIONS" provides the concentrations (in volume percent) calculated at each radial increment, starting from the package surface. By plotting these results against the distances corresponding to each radial increment, a profile of brine concentrations in the salt may be obtained. Such a plot will show a very irregular concentration profile, for reasons explained in Section A.1.

Final results are presented for the point at which flow cutoff occurs. For the present example, flow cut off at 170.7 yr and a total accumulation of 852 l of brine was predicted.

Next, times from the WAPPA time file (logical unit number 20) that were outside of the range of calculations were reported.

B.3.2 WAPPA Input

The final output file for BRINEMIG from logical unit number 13, is presented in Table B-5. It contains the data required as input to WAPPA, and in the format required by WAPPA. This file contains the number (9) of sets of times (years) and corresponding flowrates (m^3/sec), and their respective values. As stated earlier, this file is used as input to the WAPPA code. In addition to the times requested in the WAPPA time input file of logical unit number 20, BRINEMIG provides a time and flowrate for the point at which flow ceases. This is, of course, the last time/flowrate pair provided in the WAPPA input file.

TABLE B-4. SAMPLE OF THE OUTPUT FROM THE BRINEMIG PROGRAM, FILE 6.

```
                              THIS IS A RUN OF BRINEMIG3.1


CHARACTER STRING TO IDENTIFY THIS RUN

**
SAMPLE RUN OF THE BRINEMIG PROGRAM

PRINT OPTIONS:  (1) NORMAL OUTPUT
                (2) EZ GRAPH PLOT FILES CREATED
                (3) WAPPA INPUT FILES CREATED
                (4) DEBUGGING OUTPUT
**            3

EZ GRAPH FILES CREATED AS WELL AS WAPPA OUTPUT?  (0) = NO  (1) = YES
EZ GRAPH FILES WILL NOT BE CREATED

DO YOU WANT EXTRA EZ GRAPH FILES CREATED?  (0) = NO  (1) = YES
EXTRA EZ GRAPH FILES WILL NOT BE CREATED

OUTPUT IS GENERATED EVERY Nth TIME INCREMENT
**         1000

PACKAGE RADIUS, (M)
**  0.4450000

NUMBER OF TIMES AND RADII FOR WHICH TEMPV5 PROVIDED TEMPERATURES
** NTIME =          25  ** NRAD =          7

PACKAGE RADIUS IS    44.49997     CM
DISTANCE BETWEEN PACKAGES IS    1309.500     CM

WHOLE NUMBER TO CALCULATE RADIAL INCREMENT
**            5

EFFECTIVE PACKAGE LENGTH, (CM)
**    367.9000

 9.9999997E-05 < DELTA T <     10000.00     (YEARS)
       DELTA T <  TMAX   <     10000.00     (YEARS)
** DELT =   5.0000001E-02  ** TMAX =    9999.000

INITIAL VOLUME CONCENTRATION OF BRINE IN SALT (ML/CM**3.)
**   5.0000001E-02

THRESHOLD GRADIENT, (DEGREES C/CM)
**   0.1250000

FLOW RATE AT WHICH CALCULATIONS SHOULD BE STOPPED(ML/YR)
**   0.0000000E+00
DELTA R =   8.899994     CM

INTERMEDIATE CONCENTRATIONS:
 1.9723849E-02  2.0869276E-02  2.5024325E-02  2.7089885E-02  2.9049629E-02
 3.0913442E-02  3.2709863E-02  4.0098138E-02  4.2968888E-02  4.3811884E-02
 4.2324256E-02  4.2732598E-02  4.3348144E-02  4.3533441E-02  4.2945493E-02
 4.0113248E-02  2.9551212E-02  2.7313121E-02  4.2322654E-02  4.7624554E-02
 4.7945566E-02  4.8240256E-02  4.8443809E-02  4.8288383E-02  4.8134349E-02
 4.8523024E-02  4.8881549E-02  4.8547592E-02  4.8857201E-02  4.8844002E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
```

```
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02
TIME =     49.99952      YEARS
INCREMENTAL FLOW IS    0.1351470      LITERS
FLOW RATE =    8.5650979E-11 M**3/SEC
TOTAL FLOW IS     749.4576      LITERS


INTERMEDIATE CONCENTRATIONS:
 2.2009764E-02  2.2412019E-02  2.3763012E-02  2.4490673E-02  2.5132319E-02
 2.2039225E-02  2.6585611E-02  3.5277922E-02  3.8207896E-02  3.9381672E-02
 4.1789010E-02  4.2732596E-02  4.3346144E-02  4.3533441E-02  4.2945493E-02
 4.0113248E-02  2.9551212E-02  2.7313121E-02  4.2322654E-02  4.7624554E-02
 4.7945566E-02  4.8240256E-02  4.8443809E-02  4.8288383E-02  4.8134349E-02
 4.8523024E-02  4.8881549E-02  4.8547592E-02  4.8857201E-02  4.8844002E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02
TIME =     100.0015      YEARS
INCREMENTAL FLOW IS    3.6159184E-02 LITERS
FLOW RATE =    2.2916308E-11 M**3/SEC
TOTAL FLOW IS     823.9551      LITERS


INTERMEDIATE CONCENTRATIONS:
 1.1928054E-02  1.2973095E-02  2.1609822E-02  2.4490673E-02  2.5132319E-02
 2.2039225E-02  2.6585611E-02  3.5277922E-02  3.8207896E-02  3.9381672E-02
 4.1789010E-02  4.2732596E-02  4.3346144E-02  4.3533441E-02  4.2945493E-02
 4.0113248E-02  2.9551212E-02  2.7313121E-02  4.2322654E-02  4.7624554E-02
 4.7945566E-02  4.8240256E-02  4.8443809E-02  4.8288383E-02  4.8134349E-02
 4.8523024E-02  4.8881549E-02  4.8547592E-02  4.8857201E-02  4.8844002E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02
```

```
TIME =     150.0045      YEARS
INCREMENTAL FLOW IS    1.1823948E-02 LITERS
FLOW RATE =    7.4935885E-12 M**3/SEC
TOTAL FLOW IS     848.2927      LITERS


**********  FINAL VALUES **********

CONCENTRATIONS AT RADIAL INCREMENTS (ML/CM**3)
 8.2379524E-03  1.2973095E-02  2.1609822E-02  2.4490673E-02  2.5132319E-02
 2.2039225E-02  2.6585611E-02  3.5277922E-02  3.8207896E-02  3.9381672E-02
 4.1789010E-02  4.2732596E-02  4.3346144E-02  4.3533441E-02  4.2945493E-02
 4.0113248E-02  2.9551212E-02  2.7313121E-02  4.2322654E-02  4.7624554E-02
 4.7945566E-02  4.8240256E-02  4.8443809E-02  4.8288383E-02  4.8134349E-02
 4.8523024E-02  4.8881549E-02  4.8547592E-02  4.8857201E-02  4.8844002E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02  5.0000001E-02
 5.0000001E-02  5.0000001E-02

FINAL TIME =    170.7058      YEARS
FINAL FLOW RATE =    0.0000000E+00 ML/YR
TOTAL FLOW =    852.0073      LITERS

MAXIMUM STABILITY RATIO =    8.5960090E-02
                 AT TIME =     5.000001      YEARS



WAPPA TIMES < DELTA T NOT USED TO GENERATE INPUT FOR WAPPA
 1.0000000E-03  9.9999998E-03  2.0000000E-02


WAPPA TIMES > FLOWRATE CUTOFF TIME NOT USED TO GENERATE INPUT FOR WAPPA
  200.0000       500.0000       1000.000       2000.000       5000.000
  10000.00       1000000.
```

TABLE B-5. TIMES AND FLOWRATES FOR INPUT TO WAPPA, FILE 13.

```
  12                                                                                  !7 NO. OF TIME-BRINE RATE PAIRS
5.0000E-02 1.153E-091.0000E-01 1.459E-092.0000E-01 1.713E-095.0000E-01 1.924E-09   !8 4 SETS OF TIMEyrs VS RATE m3 per sec
1.0000E+00 1.855E-092.0000E+00 1.604E-095.0000E+00 1.190E-091.0000E+01 8.202E-10   !8 4 SETS OF TIMEyrs VS RATE m3 per sec
2.0000E+01 4.049E-105.0000E+01 8.565E-111.0000E+02 2.292E-111.7071E+02 0.000E+00   !8 4 SETS OF TIMEyrs VS RATE m3 per sec
```

APPENDIX C

INPUT USED FOR SIMULATIONS OF SEVEN SALT SITES

C.1 INTRODUCTION

Seven potentially acceptable repository salt sites were studied. Four are bedded salt sites (Deaf Smith County, Texas; Swisher County, Texas; Davis Canyon, Utah; and Lavender Canyon, Utah) and the other three are domal salts (Cypress Creek Dome, Mississippi; Richton Dome, Mississippi; and Vacherie Dome, Louisiana). For each, two waste forms were considered, commercial high-level waste (CHLW) and spent fuel, and two values were assumed for the threshold thermal gradient. In all, 28 simulations were therefore run. This appendix presents the pertinent input values used for these 28 simulations. Appendix B describes the required format for this input to BRINEMIG.

C.2 TEMPERATURES AROUND THE WASTE PACKAGE

Temperatures were provided in tabular form by the TEMPV5 code. Details about the TEMPV5 simulations are provided by McNulty (1987). Tables C-1 through C-14 contain listings of the temperature files as they were received from TEMPV5 for the seven sites and two waste forms. Column 1 contains temperatures in degrees Celsius, column two contains corresponding times in years, and column 3 contains distances in meters, measured from the midpoint between repository rooms. BRINEMIG converts the distances so that they are given in centimeters and measured from the centerline of a waste package.

C.3 OTHER INPUT CONDITIONS

Package radii assumed for the two waste forms were 0.445 m and 0.4175 m for CHLW and spent fuel, respectively. Effective package lengths were 3.679 m and 3.85 m, respectively.

Initial moisture contents for the sites were assumed to be 5 volume percent for bedded sites and 0.5 volume percent for domal sites.

Two values were selected for the threshold thermal gradient, 0.125°C/cm and 0.0°C/cm. Both these values were used for both waste forms at all seven sites.

The value of NUMR for all cases was 5. The size of the radial increment is determined by dividing the package radius by NUMR.

The time increment varied between runs. With the exception of the Vacherie Dome runs, the time increment was set at 0.05 yr for CHLW simulations at the sites, and 0.1 yr for the spent fuel simulations. At Vacherie Dome, the runs with a threshold thermal gradient of 0.125°C/cm were made with a time increment of 0.05 yr, the run for CHLW and a zero threshold gradient was made with a time increment of 0.1 yr, and the run for spent fuel and a zero threshold gradient was made with a time increment of 0.5 yr.

TABLE C-1. TEMPERATURE INPUT from TEMPV5 for DEAF SMITH, CHLW.

0.3128E+02	0.1000E-03	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-03	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-03	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-03	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-03	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-03	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3161E+02	0.2000E-03	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3139E+02	0.2000E-03	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-03	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-03	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-03	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-03	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3802E+02	0.5000E-03	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3411E+02	0.5000E-03	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-03	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-03	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-03	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-03	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4599E+02	0.1000E-02	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4191E+02	0.1000E-02	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3159E+02	0.1000E-02	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-02	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-02	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-02	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6239E+02	0.2000E-02	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5622E+02	0.2000E-02	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3411E+02	0.2000E-02	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-02	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-02	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-02	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9186E+02	0.5000E-02	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8358E+02	0.5000E-02	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4565E+02	0.5000E-02	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3199E+02	0.5000E-02	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-02	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-02	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1169E+03	0.1000E-01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1075E+03	0.1000E-01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6060E+02	0.1000E-01	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3557E+02	0.1000E-01	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1408E+03	0.2000E-01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1305E+03	0.2000E-01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7758E+02	0.2000E-01	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4325E+02	0.2000E-01	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3136E+02	0.2000E-01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1667E+03	0.5000E-01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1557E+03	0.5000E-01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9787E+02	0.5000E-01	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5648E+02	0.5000E-01	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3289E+02	0.5000E-01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1811E+03	0.1000E+00	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1698E+03	0.1000E+00	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1099E+03	0.1000E+00	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6584E+02	0.1000E+00	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3613E+02	0.1000E+00	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3140E+02	0.1000E+00	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3129E+02	0.1000E+00	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1921E+03	0.2000E+00	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1806E+03	0.2000E+00	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1194E+03	0.2000E+00	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7389E+02	0.2000E+00	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4066E+02	0.2000E+00	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3224E+02	0.2000E+00	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)

0 3164E+02	0 2000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2041E+03	0 5000E+00	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1924E+03	0 5000E+00	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1304E+03	0 5000E+00	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8392E+02	0 5000E+00	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4835E+02	0 5000E+00	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3638E+02	0 5000E+00	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3502E+02	0 5000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2118E+03	0 1000E+01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2002E+03	0 1000E+01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1384E+03	0 1000E+01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9193E+02	0 1000E+01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5592E+02	0 1000E+01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4314E+02	0 1000E+01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4159E+02	0 1000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2192E+03	0 2000E+01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2078E+03	0 2000E+01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1473E+03	0 2000E+01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1016E+03	0 2000E+01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6598E+02	0 2000E+01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5324E+02	0 2000E+01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5168E+02	0 2000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2269E+03	0 5000E+01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2164E+03	0 5000E+01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1605E+03	0 5000E+01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1177E+03	0 5000E+01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8411E+02	0 5000E+01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7201E+02	0 5000E+01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7052E+02	0 5000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2245E+03	0 1000E+02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2156E+03	0 1000E+02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1675E+03	0 1000E+02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1301E+03	0 1000E+02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1003E+03	0 1000E+02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8951E+02	0 1000E+02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8819E+02	0 1000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2051E+03	0 2000E+02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1988E+03	0 2000E+02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1638E+03	0 2000E+02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1361E+03	0 2000E+02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1135E+03	0 2000E+02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1052E+03	0 2000E+02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1042E+03	0 2000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1514E+03	0 5000E+02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1488E+03	0 5000E+02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1341E+03	0 5000E+02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1220E+03	0 5000E+02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1119E+03	0 5000E+02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1081E+03	0 5000E+02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1077E+03	0 5000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1138E+03	0 1000E+03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1127E+03	0 1000E+03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1067E+03	0 1000E+03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1016E+03	0 1000E+03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9730E+02	0 1000E+03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9568E+02	0 1000E+03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9548E+02	0 1000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9404E+02	0 2000E+03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9347E+02	0 2000E+03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9022E+02	0 2000E+03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8748E+02	0 2000E+03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8515E+02	0 2000E+03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8427E+02	0 2000E+03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8417E+02	0 2000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7413E+02	0 5000E+03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7393E+02	0 5000E+03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7281E+02	0 5000E+03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7186E+02	0 5000E+03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7104E+02	0 5000E+03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7073E+02	0 5000E+03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7069E+02	0 5000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5809E+02	0 1000E+04	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5805E+02	0 1000E+04	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5785E+02	0 1000E+04	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5768E+02	0 1000E+04	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5753E+02	0 1000E+04	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5747E+02	0 1000E+04	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5747E+02	0 1000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4616E+02	0 2000E+04	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4616E+02	0 2000E+04	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)

0.4614E+02	0.2000E+04	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4614E+02	0.2000E+04	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4614E+02	0.2000E+04	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4612E+02	0.2000E+04	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4612E+02	0.2000E+04	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3413E+02	0.5000E+04	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3413E+02	0.5000E+04	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3413E+02	0.5000E+04	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3413E+02	0.5000E+04	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3413E+02	0.5000E+04	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3414E+02	0.5000E+04	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3414E+02	0.5000E+04	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E+05	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E+05	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E+05	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E+05	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E+05	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E+05	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E+05	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)

TABLE C-2. TEMPERATURE INPUT from TEMPV5 for DEAF SMITH, SFPWR.

0.3129E+02	0.1000E-03	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-03	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-03	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-03	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-03	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-03	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3166E+02	0.2000E-03	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3137E+02	0.2000E-03	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-03	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-03	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-03	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-03	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3504E+02	0.5000E-03	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3311E+02	0.5000E-03	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-03	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-03	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-03	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-03	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4140E+02	0.1000E-02	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3767E+02	0.1000E-02	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3151E+02	0.1000E-02	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-02	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-02	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-02	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5090E+02	0.2000E-02	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4562E+02	0.2000E-02	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3311E+02	0.2000E-02	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-02	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-02	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-02	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6877E+02	0.5000E-02	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6010E+02	0.5000E-02	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3979E+02	0.5000E-02	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3177E+02	0.5000E-02	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-02	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-02	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7962E+02	0.1000E-01	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7229E+02	0.1000E-01	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4801E+02	0.1000E-01	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3398E+02	0.1000E-01	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-01	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-01	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.1000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9146E+02	0.2000E-01	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8371E+02	0.2000E-01	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5701E+02	0.2000E-01	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3843E+02	0.2000E-01	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3134E+02	0.2000E-01	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-01	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.2000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1039E+03	0.5000E-01	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9585E+02	0.5000E-01	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6749E+02	0.5000E-01	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4574E+02	0.5000E-01	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3233E+02	0.5000E-01	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-01	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3128E+02	0.5000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1107E+03	0.1000E+00	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1025E+03	0.1000E+00	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7352E+02	0.1000E+00	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5073E+02	0.1000E+00	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3424E+02	0.1000E+00	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3148E+02	0.1000E+00	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3148E+02	0.1000E+00	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1155E+03	0.2000E+00	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1072E+03	0.2000E+00	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7792E+02	0.2000E+00	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5489E+02	0.2000E+00	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3868E+02	0.2000E+00	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3240E+02	0.2000E+00	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)

0.3240E+02	0.2000E+00	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1194E+03	0.5000E+00	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1111E+03	0.5000E+00	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8201E+02	0.5000E+00	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5878E+02	0.5000E+00	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4030E+02	0.5000E+00	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3539E+02	0.5000E+00	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3539E+02	0.5000E+00	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1218E+03	0.1000E+01	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1137E+03	0.1000E+01	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8506E+02	0.1000E+01	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6217E+02	0.1000E+01	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4391E+02	0.1000E+01	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3903E+02	0.1000E+01	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3903E+02	0.1000E+01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1243E+03	0.2000E+01	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1165E+03	0.2000E+01	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8873E+02	0.2000E+01	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6652E+02	0.2000E+01	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4877E+02	0.2000E+01	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4402E+02	0.2000E+01	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4402E+02	0.2000E+01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1275E+03	0.5000E+01	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1203E+03	0.5000E+01	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9472E+02	0.5000E+01	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7408E+02	0.5000E+01	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5751E+02	0.5000E+01	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5306E+02	0.5000E+01	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5306E+02	0.5000E+01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1297E+03	0.1000E+02	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1232E+03	0.1000E+02	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9996E+02	0.1000E+02	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8114E+02	0.1000E+02	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6595E+02	0.1000E+02	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6186E+02	0.1000E+02	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6186E+02	0.1000E+02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1289E+03	0.2000E+02	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1235E+03	0.2000E+02	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1040E+03	0.2000E+02	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8804E+02	0.2000E+02	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7507E+02	0.2000E+02	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7157E+02	0.2000E+02	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7157E+02	0.2000E+02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1177E+03	0.5000E+02	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1143E+03	0.5000E+02	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1020E+03	0.5000E+02	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9171E+02	0.5000E+02	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8327E+02	0.5000E+02	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8097E+02	0.5000E+02	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8097E+02	0.5000E+02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1026E+03	0.1000E+03	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1007E+03	0.1000E+03	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9360E+02	0.1000E+03	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8765E+02	0.1000E+03	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8269E+02	0.1000E+03	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8133E+02	0.1000E+03	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8133E+02	0.1000E+03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8848E+02	0.2000E+03	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8744E+02	0.2000E+03	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8362E+02	0.2000E+03	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8038E+02	0.2000E+03	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7767E+02	0.2000E+03	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7692E+02	0.2000E+03	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7692E+02	0.2000E+03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7860E+02	0.5000E+03	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7801E+02	0.5000E+03	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7583E+02	0.5000E+03	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7397E+02	0.5000E+03	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7241E+02	0.5000E+03	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7197E+02	0.5000E+03	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7197E+02	0.5000E+03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7168E+02	0.1000E+04	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7133E+02	0.1000E+04	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7007E+02	0.1000E+04	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6900E+02	0.1000E+04	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6809E+02	0.1000E+04	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6784E+02	0.1000E+04	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6784E+02	0.1000E+04	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5972E+02	0.2000E+04	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5960E+02	0.2000E+04	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)

0 5917E+02	0 2000E+04	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5881E+02	0 2000E+04	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5851E+02	0 2000E+04	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5842E+02	0 2000E+04	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5842E+02	0 2000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4162E+02	0 5000E+04	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4162E+02	0 5000E+04	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4161E+02	0 5000E+04	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4159E+02	0 5000E+04	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4157E+02	0 5000E+04	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4157E+02	0 5000E+04	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4157E+02	0 5000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3128E+02	0 1000E+05	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3128E+02	0 1000E+05	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3128E+02	0 1000E+05	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3128E+02	0 1000E+05	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3128E+02	0 1000E+05	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3128E+02	0 1000E+05	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3128E+02	0 1000E+05	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)

TABLE C-3. TEMPERATURE INPUT from TEMPV5 for SWISHER, CHLW.

0.3239E+02	0.1000E-03	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E-03	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E-03	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E-03	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E-03	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E-03	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E-03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3272E+02	0.2000E-03	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3250E+02	0.2000E-03	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.2000E-03	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.2000E-03	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.2000E-03	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.2000E-03	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.2000E-03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3715E+02	0.5000E-03	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3523E+02	0.5000E-03	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.5000E-03	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.5000E-03	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.5000E-03	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.5000E-03	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.5000E-03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4716E+02	0.1000E-02	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4306E+02	0.1000E-02	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3271E+02	0.1000E-02	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E-02	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E-02	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E-02	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E-02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6361E+02	0.2000E-02	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5742E+02	0.2000E-02	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3523E+02	0.2000E-02	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.2000E-02	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.2000E-02	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.2000E-02	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.2000E-02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9317E+02	0.5000E-02	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8486E+02	0.5000E-02	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4681E+02	0.5000E-02	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3311E+02	0.5000E-02	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.5000E-02	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.5000E-02	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.5000E-02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1183E+03	0.1000E-01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1089E+03	0.1000E-01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6181E+02	0.1000E-01	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3669E+02	0.1000E-01	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E-01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E-01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1423E+03	0.2000E-01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1320E+03	0.2000E-01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7882E+02	0.2000E-01	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4441E+02	0.2000E-01	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3247E+02	0.2000E-01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.2000E-01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.2000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1682E+03	0.5000E-01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1572E+03	0.5000E-01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9921E+02	0.5000E-01	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5767E+02	0.5000E-01	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3401E+02	0.5000E-01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.5000E-01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.5000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1828E+03	0.1000E+00	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1714E+03	0.1000E+00	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1113E+03	0.1000E+00	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6707E+02	0.1000E+00	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3726E+02	0.1000E+00	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3252E+02	0.1000E+00	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3240E+02	0.1000E+00	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1938E+03	0.2000E+00	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1822E+03	0.2000E+00	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1208E+03	0.2000E+00	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7515E+02	0.2000E+00	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4181E+02	0.2000E+00	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3336E+02	0.2000E+00	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)

0 3276E+02	0 2000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2058E+03	0 5000E+00	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1940E+03	0 5000E+00	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1318E+03	0 5000E+00	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8522E+02	0 5000E+00	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4952E+02	0 5000E+00	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3751E+02	0 5000E+00	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3614E+02	0 5000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2135E+03	0 1000E+01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2018E+03	0 1000E+01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1399E+03	0 1000E+01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9324E+02	0 1000E+01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5712E+02	0 1000E+01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4429E+02	0 1000E+01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4273E+02	0 1000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2209E+03	0 2000E+01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2095E+03	0 2000E+01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1488E+03	0 2000E+01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1029E+03	0 2000E+01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6721E+02	0 2000E+01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5442E+02	0 2000E+01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5286E+02	0 2000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2286E+03	0 5000E+01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2182E+03	0 5000E+01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1621E+03	0 5000E+01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1192E+03	0 5000E+01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8540E+02	0 5000E+01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7326E+02	0 5000E+01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7177E+02	0 5000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2263E+03	0 1000E+02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2173E+03	0 1000E+02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1691E+03	0 1000E+02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1316E+03	0 1000E+02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1017E+03	0 1000E+02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9082E+02	0 1000E+02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8949E+02	0 1000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2068E+03	0 2000E+02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2004E+03	0 2000E+02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1654E+03	0 2000E+02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1375E+03	0 2000E+02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1149E+03	0 2000E+02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1066E+03	0 2000E+02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1055E+03	0 2000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1529E+03	0 5000E+02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1503E+03	0 5000E+02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1356E+03	0 5000E+02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1235E+03	0 5000E+02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1133E+03	0 5000E+02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1095E+03	0 5000E+02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1090E+03	0 5000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1151E+03	0 1000E+03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1141E+03	0 1000E+03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1080E+03	0 1000E+03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1029E+03	0 1000E+03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9864E+02	0 1000E+03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9702E+02	0 1000E+03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9681E+02	0 1000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9537E+02	0 2000E+03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9479E+02	0 2000E+03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9153E+02	0 2000E+03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8879E+02	0 2000E+03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8645E+02	0 2000E+03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8557E+02	0 2000E+03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8546E+02	0 2000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7538E+02	0 5000E+03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7519E+02	0 5000E+03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7406E+02	0 5000E+03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7311E+02	0 5000E+03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7229E+02	0 5000E+03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7198E+02	0 5000E+03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7193E+02	0 5000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5929E+02	0 1000E+04	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5926E+02	0 1000E+04	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5906E+02	0 1000E+04	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5888E+02	0 1000E+04	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5873E+02	0 1000E+04	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5867E+02	0 1000E+04	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5867E+02	0 1000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4732E+02	0 2000E+04	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4732E+02	0 2000E+04	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)

0 4731E+02	0 2000E+04	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4730E+02	0 2000E+04	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4730E+02	0 2000E+04	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4728E+02	0 2000E+04	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4728E+02	0 2000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3526E+02	0 5000E+04	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3526E+02	0 5000E+04	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3526E+02	0 5000E+04	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3526E+02	0 5000E+04	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3525E+02	0 5000E+04	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3526E+02	0 5000E+04	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3526E+02	0 5000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E+05	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E+05	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E+05	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E+05	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E+05	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E+05	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E+05	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)

TABLE C-4 TEMPERATURE INPUT from TEMPV5 for SWISHER SFPWR

0 3240E+02	0 1000E-03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E-03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E-03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E-03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E-03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E-03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3277E+02	0 2000E-03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3248E+02	0 2000E-03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 2000E-03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 2000E-03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 2000E-03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 2000E-03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 2000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3617E+02	0 5000E-03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3422E+02	0 5000E-03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 5000E-03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 5000E-03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 5000E-03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 5000E-03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 5000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4255E+02	0 1000E-02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3881E+02	0 1000E-02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3262E+02	0 1000E-02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E-02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E-02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E-02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5208E+02	0 2000E-02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4678E+02	0 2000E-02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3422E+02	0 2000E-02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 2000E-02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 2000E-02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 2000E-02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 2000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6800E+02	0 5000E-02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6131E+02	0 5000E-02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4093E+02	0 5000E-02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3289E+02	0 5000E-02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 5000E-02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 5000E-02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 5000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8090E+02	0 1000E-01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7354E+02	0 1000E-01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4917E+02	0 1000E-01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3510E+02	0 1000E-01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E-01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E-01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 1000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9278E+02	0 2000E-01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8500E+02	0 2000E-01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5821E+02	0 2000E-01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3957E+02	0 2000E-01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3246E+02	0 2000E-01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 2000E-01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 2000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1053E+03	0 5000E-01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9718E+02	0 5000E-01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6872E+02	0 5000E-01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4690E+02	0 5000E-01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3345E+02	0 5000E-01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 5000E-01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3239E+02	0 5000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1121E+03	0 1000E+00	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1039E+03	0 1000E+00	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7478E+02	0 1000E+00	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5191E+02	0 1000E+00	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3537E+02	0 1000E+00	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3257E+02	0 1000E+00	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3257E+02	0 1000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1169E+03	0 2000E+00	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1085E+03	0 2000E+00	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7919E+02	0 2000E+00	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5588E+02	0 2000E+00	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3781E+02	0 2000E+00	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3351E+02	0 2000E+00	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)

0 3351E+02	0 2000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1208E+03	0 5000E+00	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1125E+03	0 5000E+00	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8329E+02	0 5000E+00	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5998E+02	0 5000E+00	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4144E+02	0 5000E+00	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3652E+02	0 5000E+00	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3652E+02	0 5000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1232E+03	0 1000E+01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1151E+03	0 1000E+01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8636E+02	0 1000E+01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6339E+02	0 1000E+01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4507E+02	0 1000E+01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4017E+02	0 1000E+01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4016E+02	0 1000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1257E+03	0 2000E+01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1179E+03	0 2000E+01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9003E+02	0 2000E+01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6775E+02	0 2000E+01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4994E+02	0 2000E+01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4517E+02	0 2000E+01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4517E+02	0 2000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1290E+03	0 5000E+01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1218E+03	0 5000E+01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9605E+02	0 5000E+01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7534E+02	0 5000E+01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5871E+02	0 5000E+01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5424E+02	0 5000E+01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5424E+02	0 5000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1311E+03	0 1000E+02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1246E+03	0 1000E+02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1013E+03	0 1000E+02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8242E+02	0 1000E+02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6718E+02	0 1000E+02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6307E+02	0 1000E+02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6307E+02	0 1000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1304E+03	0 2000E+02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1249E+03	0 2000E+02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1053E+03	0 2000E+02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8934E+02	0 2000E+02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7634E+02	0 2000E+02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7282E+02	0 2000E+02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7282E+02	0 2000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1191E+03	0 5000E+02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1157E+03	0 5000E+02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1033E+03	0 5000E+02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9303E+02	0 5000E+02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8456E+02	0 5000E+02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8225E+02	0 5000E+02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8225E+02	0 5000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1040E+03	0 1000E+03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1020E+03	0 1000E+03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9493E+02	0 1000E+03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8896E+02	0 1000E+03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8398E+02	0 1000E+03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8262E+02	0 1000E+03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8262E+02	0 1000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8979E+02	0 2000E+03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8874E+02	0 2000E+03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8491E+02	0 2000E+03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8166E+02	0 2000E+03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7894E+02	0 2000E+03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7819E+02	0 2000E+03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7819E+02	0 2000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7988E+02	0 5000E+03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7928E+02	0 5000E+03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7709E+02	0 5000E+03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7523E+02	0 5000E+03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7366E+02	0 5000E+03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7322E+02	0 5000E+03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7322E+02	0 5000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7293E+02	0 1000E+04	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7258E+02	0 1000E+04	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7132E+02	0 1000E+04	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7024E+02	0 1000E+04	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6933E+02	0 1000E+04	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6907E+02	0 1000E+04	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6907E+02	0 1000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6093E+02	0 2000E+04	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6081E+02	0 2000E+04	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)

0.6038E+02	0.2000E+04	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6002E+02	0.2000E+04	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5971E+02	0.2000E+04	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5962E+02	0.2000E+04	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5962E+02	0.2000E+04	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4277E+02	0.5000E+04	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4276E+02	0.5000E+04	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4275E+02	0.5000E+04	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4274E+02	0.5000E+04	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4272E+02	0.5000E+04	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4271E+02	0.5000E+04	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4271E+02	0.5000E+04	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E+05	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E+05	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E+05	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E+05	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E+05	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E+05	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3239E+02	0.1000E+05	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)

TABLE C-5. TEMPERATURE INPUT from TEMPV5 for DAVIS CANYON, CHLW.

0.3371E+02	0.1000E-03	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E-03	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E-03	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E-03	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E-03	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E-03	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E-03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3402E+02	0.2000E-03	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3381E+02	0.2000E-03	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.2000E-03	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.2000E-03	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.2000E-03	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.2000E-03	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.2000E-03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3843E+02	0.5000E-03	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3653E+02	0.5000E-03	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3371E+02	0.5000E-03	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.5000E-03	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.5000E-03	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.5000E-03	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.5000E-03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4839E+02	0.1000E-02	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4431E+02	0.1000E-02	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3401E+02	0.1000E-02	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E-02	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E-02	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E-02	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E-02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6486E+02	0.2000E-02	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5866E+02	0.2000E-02	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3652E+02	0.2000E-02	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3371E+02	0.2000E-02	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.2000E-02	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.2000E-02	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.2000E-02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9467E+02	0.5000E-02	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8625E+02	0.5000E-02	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4805E+02	0.5000E-02	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3441E+02	0.5000E-02	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.5000E-02	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.5000E-02	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.5000E-02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1203E+03	0.1000E-01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1106E+03	0.1000E-01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6306E+02	0.1000E-01	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3797E+02	0.1000E-01	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E-01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E-01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1450E+03	0.2000E-01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1343E+03	0.2000E-01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8016E+02	0.2000E-01	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4565E+02	0.2000E-01	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3378E+02	0.2000E-01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.2000E-01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.2000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1720E+03	0.5000E-01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1605E+03	0.5000E-01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1008E+03	0.5000E-01	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5891E+02	0.5000E-01	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3531E+02	0.5000E-01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.5000E-01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.5000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1873E+03	0.1000E+00	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1753E+03	0.1000E+00	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1131E+03	0.1000E+00	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6833E+02	0.1000E+00	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3853E+02	0.1000E+00	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3382E+02	0.1000E+00	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3371E+02	0.1000E+00	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1989E+03	0.2000E+00	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1867E+03	0.2000E+00	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1229E+03	0.2000E+00	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7646E+02	0.2000E+00	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4306E+02	0.2000E+00	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3466E+02	0.2000E+00	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)

0 3406E+02	0 2000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2116E+03	0 5000E+00	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1992E+03	0 5000E+00	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1342E+03	0 5000E+00	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8662E+02	0 5000E+00	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5076E+02	0 5000E+00	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3879E+02	0 5000E+00	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3743E+02	0 5000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2199E+03	0 1000E+01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2074E+03	0 1000E+01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1425E+03	0 1000E+01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9475E+02	0 1000E+01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5835E+02	0 1000E+01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4554E+02	0 1000E+01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4399E+02	0 1000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2278E+03	0 2000E+01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2156E+03	0 2000E+01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1518E+03	0 2000E+01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1046E+03	0 2000E+01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6847E+02	0 2000E+01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5566E+02	0 2000E+01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5409E+02	0 2000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2361E+03	0 5000E+01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2249E+03	0 5000E+01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1655E+03	0 5000E+01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1212E+03	0 5000E+01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8681E+02	0 5000E+01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7455E+02	0 5000E+01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7305E+02	0 5000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2336E+03	0 1000E+02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2240E+03	0 1000E+02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1729E+03	0 1000E+02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1339E+03	0 1000E+02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1033E+03	0 1000E+02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9229E+02	0 1000E+02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9094E+02	0 1000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2128E+03	0 2000E+02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2060E+03	0 2000E+02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1690E+03	0 2000E+02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1401E+03	0 2000E+02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1168E+03	0 2000E+02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1083E+03	0 2000E+02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1072E+03	0 2000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1560E+03	0 5000E+02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1533E+03	0 5000E+02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1381E+03	0 5000E+02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1256E+03	0 5000E+02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1152E+03	0 5000E+02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1113E+03	0 5000E+02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1108E+03	0 5000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1171E+03	0 1000E+03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1160E+03	0 1000E+03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1098E+03	0 1000E+03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1046E+03	0 1000E+03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1002E+03	0 1000E+03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9857E+02	0 1000E+03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9837E+02	0 1000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9690E+02	0 2000E+03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9632E+02	0 2000E+03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9301E+02	0 2000E+03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9023E+02	0 2000E+03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8786E+02	0 2000E+03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8697E+02	0 2000E+03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8686E+02	0 2000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7669E+02	0 5000E+03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7649E+02	0 5000E+03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7536E+02	0 5000E+03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7439E+02	0 5000E+03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7357E+02	0 5000E+03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7325E+02	0 5000E+03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7322E+02	0 5000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6051E+02	0 1000E+04	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6047E+02	0 1000E+04	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6027E+02	0 1000E+04	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6010E+02	0 1000E+04	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5995E+02	0 1000E+04	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5989E+02	0 1000E+04	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5989E+02	0 1000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4853E+02	0 2000E+04	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4852E+02	0 2000E+04	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)

0.4852E+02	0.2000E+04	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4851E+02	0.2000E+04	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4850E+02	0.2000E+04	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4849E+02	0.2000E+04	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.4849E+02	0.2000E+04	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3647E+02	0.5000E+04	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3647E+02	0.5000E+04	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3647E+02	0.5000E+04	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3647E+02	0.5000E+04	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3647E+02	0.5000E+04	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3647E+02	0.5000E+04	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3647E+02	0.5000E+04	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E+05	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E+05	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E+05	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E+05	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E+05	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E+05	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.3370E+02	0.1000E+05	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)

TABLE C-6 TEMPERATURE INPUT from TEMPV5 for DAVIS CANYON SFPWR

0 3371E+02	0 1000E-03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E-03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E-03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E-03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E-03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E-03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3408E+02	0 2000E-03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3379E+02	0 2000E-03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 2000E-03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 2000E-03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 2000E-03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 2000E-03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 2000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3746E+02	0 5000E-03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3552E+02	0 5000E-03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3371E+02	0 5000E-03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 5000E-03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 5000E-03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 5000E-03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 5000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4380E+02	0 1000E-02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4008E+02	0 1000E-02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3393E+02	0 1000E-02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E-02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E-02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E-02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5331E+02	0 2000E-02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4802E+02	0 2000E-02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3552E+02	0 2000E-02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3371E+02	0 2000E-02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 2000E-02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 2000E-02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 2000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6927E+02	0 5000E-02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6255E+02	0 5000E-02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4219E+02	0 5000E-02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3419E+02	0 5000E-02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 5000E-02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 5000E-02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 5000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8226E+02	0 1000E-01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7484E+02	0 1000E-01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5041E+02	0 1000E-01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3640E+02	0 1000E-01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E-01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E-01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9428E+02	0 2000E-01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8640E+02	0 2000E-01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5944E+02	0 2000E-01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4083E+02	0 2000E-01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377E+02	0 2000E-01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 2000E-01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 2000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1070E+03	0 5000E-01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9875E+02	0 5000E-01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6999E+02	0 5000E-01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4814E+02	0 5000E-01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3475E+02	0 5000E-01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3371E+02	0 5000E-01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3371E+02	0 5000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1140E+03	0 1000E+00	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1055E+03	0 1000E+00	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7608E+02	0 1000E+00	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5314E+02	0 1000E+00	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3666E+02	0 1000E+00	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3388E+02	0 1000E+00	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3388E+02	0 1000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1188E+03	0 2000E+00	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1103E+03	0 2000E+00	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8053E+02	0 2000E+00	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5712E+02	0 2000E+00	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3909E+02	0 2000E+00	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3482E+02	0 2000E+00	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)

0 3482E+02	0 2000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1228E+03	0 5000E+00	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1144E+03	0 5000E+00	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8467E+02	0 5000E+00	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6122E+02	0 5000E+00	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4270E+02	0 5000E+00	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3780E+02	0 5000E+00	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3780E+02	0 5000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1253E+03	0 1000E+01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1170E+03	0 1000E+01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8777E+02	0 1000E+01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6463E+02	0 1000E+01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4631E+02	0 1000E+01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4143E+02	0 1000E+01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4143E+02	0 1000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1279E+03	0 2000E+01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1198E+03	0 2000E+01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9149E+02	0 2000E+01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6901E+02	0 2000E+01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5117E+02	0 2000E+01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4642E+02	0 2000E+01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4642E+02	0 2000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1313E+03	0 5000E+01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1238E+03	0 5000E+01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9759E+02	0 5000E+01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7665E+02	0 5000E+01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5994E+02	0 5000E+01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5547E+02	0 5000E+01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5547E+02	0 5000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1335E+03	0 1000E+02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1268E+03	0 1000E+02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1029E+03	0 1000E+02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8379E+02	0 1000E+02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6844E+02	0 1000E+02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6432E+02	0 1000E+02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6432E+02	0 1000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1327E+03	0 2000E+02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1271E+03	0 2000E+02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1070E+03	0 2000E+02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9079E+02	0 2000E+02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7765E+02	0 2000E+02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7411E+02	0 2000E+02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7411E+02	0 2000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1211E+03	0 5000E+02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1176E+03	0 5000E+02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1050E+03	0 5000E+02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9453E+02	0 5000E+02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8595E+02	0 5000E+02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8362E+02	0 5000E+02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8362E+02	0 5000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1057E+03	0 1000E+03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1037E+03	0 1000E+03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9645E+02	0 1000E+03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9040E+02	0 1000E+03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8537E+02	0 1000E+03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8399E+02	0 1000E+03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8399E+02	0 1000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9124E+02	0 2000E+03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9018E+02	0 2000E+03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8630E+02	0 2000E+03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8302E+02	0 2000E+03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8027E+02	0 2000E+03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7952E+02	0 2000E+03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7952E+02	0 2000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8122E+02	0 5000E+03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8062E+02	0 5000E+03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7841E+02	0 5000E+03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7653E+02	0 5000E+03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7495E+02	0 5000E+03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7451E+02	0 5000E+03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7451E+02	0 5000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7421E+02	0 1000E+04	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7386E+02	0 1000E+04	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7258E+02	0 1000E+04	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7150E+02	0 1000E+04	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7059E+02	0 1000E+04	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7033E+02	0 1000E+04	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7033E+02	0 1000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6214E+02	0 2000E+04	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6203E+02	0 2000E+04	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)

0 6160E+02	0 2000E+04	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6123E+02	0 2000E+04	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6092E+02	0 2000E+04	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6083E+02	0 2000E+04	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6083E+02	0 2000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4396E+02	0 5000E+04	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4396E+02	0 5000E+04	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4394E+02	0 5000E+04	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4393E+02	0 5000E+04	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4392E+02	0 5000E+04	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4392E+02	0 5000E+04	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4392E+02	0 5000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E+05	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E+05	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E+05	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E+05	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E+05	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E+05	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3370E+02	0 1000E+05	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)

TABLE C-7 TEMPERATURE INPUT from TEMPV5 for LAVENDER CANYON CHLW

0 3378E+02	0 1000E-03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E-03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E-03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E-03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E-03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E-03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3410E+02	0 2000E-03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3389E+02	0 2000E-03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 2000E-03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 2000E-03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 2000E-03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 2000E-03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 2000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3851E+02	0 5000E-03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3661E+02	0 5000E-03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 5000E-03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 5000E-03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 5000E-03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 5000E-03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 5000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4848E+02	0 1000E-02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4439E+02	0 1000E-02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3409E+02	0 1000E-02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E-02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E-02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E-02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6494E+02	0 2000E-02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5874E+02	0 2000E-02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3660E+02	0 2000E-02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 2000E-02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 2000E-02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 2000E-02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 2000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9477E+02	0 5000E-02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8634E+02	0 5000E-02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4813E+02	0 5000E-02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3449E+02	0 5000E-02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 5000E-02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 5000E-02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 5000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1204E+03	0 1000E-01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1107E+03	0 1000E-01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6314E+02	0 1000E-01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3806E+02	0 1000E-01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E-01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E-01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1451E+03	0 2000E-01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1344E+03	0 2000E-01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8025E+02	0 2000E-01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4573E+02	0 2000E-01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3386E+02	0 2000E-01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 2000E-01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 2000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1721E+03	0 5000E-01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1606E+03	0 5000E-01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1009E+03	0 5000E-01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5899E+02	0 5000E-01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3539E+02	0 5000E-01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 5000E-01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 5000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1874E+03	0 1000E+00	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1754E+03	0 1000E+00	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1132E+03	0 1000E+00	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6842E+02	0 1000E+00	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3861E+02	0 1000E+00	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3390E+02	0 1000E+00	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3379E+02	0 1000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1990E+03	0 2000E+00	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1868E+03	0 2000E+00	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1230E+03	0 2000E+00	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7655E+02	0 2000E+00	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4314E+02	0 2000E+00	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3474E+02	0 2000E+00	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)

0 3414E+02	0 2000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2117E+03	0 5000E+00	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1993E+03	0 5000E+00	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1343E+03	0 5000E+00	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8671E+02	0 5000E+00	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5084E+02	0 5000E+00	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3887E+02	0 5000E+00	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3751E+02	0 5000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2200E+03	0 1000E+01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2076E+03	0 1000E+01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1426E+03	0 1000E+01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9484E+02	0 1000E+01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5843E+02	0 1000E+01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4562E+02	0 1000E+01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4407E+02	0 1000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2280E+03	0 2000E+01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2158E+03	0 2000E+01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1519E+03	0 2000E+01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1047E+03	0 2000E+01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6856E+02	0 2000E+01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5574E+02	0 2000E+01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5418E+02	0 2000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2362E+03	0 5000E+01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2250E+03	0 5000E+01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1657E+03	0 5000E+01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1213E+03	0 5000E+01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8690E+02	0 5000E+01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7464E+02	0 5000E+01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7314E+02	0 5000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2337E+03	0 1000E+02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2241E+03	0 1000E+02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1730E+03	0 1000E+02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1340E+03	0 1000E+02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1034E+03	0 1000E+02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9239E+02	0 1000E+02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9104E+02	0 1000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2129E+03	0 2000E+02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2061E+03	0 2000E+02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1691E+03	0 2000E+02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1402E+03	0 2000E+02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1169E+03	0 2000E+02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1084E+03	0 2000E+02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1073E+03	0 2000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1561E+03	0 5000E+02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1534E+03	0 5000E+02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1382E+03	0 5000E+02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1257E+03	0 5000E+02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1153E+03	0 5000E+02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1114E+03	0 5000E+02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1109E+03	0 5000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1172E+03	0 1000E+03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1161E+03	0 1000E+03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1099E+03	0 1000E+03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1047E+03	0 1000E+03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1003E+03	0 1000E+03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9867E+02	0 1000E+03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9846E+02	0 1000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9699E+02	0 2000E+03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9642E+02	0 2000E+03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9311E+02	0 2000E+03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9032E+02	0 2000E+03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8795E+02	0 2000E+03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8706E+02	0 2000E+03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8695E+02	0 2000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7678E+02	0 5000E+03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7658E+02	0 5000E+03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7544E+02	0 5000E+03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7448E+02	0 5000E+03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7366E+02	0 5000E+03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7334E+02	0 5000E+03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7331E+02	0 5000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6059E+02	0 1000E+04	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6056E+02	0 1000E+04	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6036E+02	0 1000E+04	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6018E+02	0 1000E+04	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6003E+02	0 1000E+04	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5998E+02	0 1000E+04	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5997E+02	0 1000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4861E+02	0 2000E+04	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4861E+02	0 2000E+04	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)

0 4860E+02	0 2000E+04	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4859E+02	0 2000E+04	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4858E+02	0 2000E+04	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4857E+02	0 2000E+04	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4858E+02	0 2000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3655E+02	0 5000E+04	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3655E+02	0 5000E+04	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3655E+02	0 5000E+04	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3655E+02	0 5000E+04	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3655E+02	0 5000E+04	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3654E+02	0 5000E+04	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3655E+02	0 5000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E+05	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E+05	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E+05	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E+05	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E+05	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E+05	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378E+02	0 1000E+05	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)

TABLE C-8 TEMPERATURE INPUT from TEMPV5 for LAVENDER CANYON SFPWR

0 3379111E+02	0 1000000E-03	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS
0 3377834E+02	0 1000000E-03	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 1000000E-03	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS
0 3377834E+02	0 1000000E-03	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 1000000E-03	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 1000000E-03	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 1000000E-03	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3415556E+02	0 2000000E-03	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3386668E+02	0 2000000E-03	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 2000000E-03	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 2000000E-03	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 2000000E-03	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 2000000E-03	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 2000000E-03	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3753334E+02	0 5000000E-03	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3560001E+02	0 5000000E-03	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378334E+02	0 5000000E-03	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 5000000E-03	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 5000000E-03	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 5000000E-03	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 5000000E-03	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4388335E+02	0 1000000E-02	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4015556E+02	0 1000000E-02	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3400555E+02	0 1000000E-02	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 1000000E-02	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 1000000E-02	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 1000000E-02	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 1000000E-02	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5338889E+02	0 2000000E-02	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4810556E+02	0 2000000E-02	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3560001E+02	0 2000000E-02	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378334E+02	0 2000000E-02	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 2000000E-02	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 2000000E-02	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 2000000E-02	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6935555E+02	0 5000000E-02	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6263335E+02	0 5000000E-02	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4226779E+02	0 5000000E-02	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS
0 3427223E+02	0 5000000E-02	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS
0 3377834E+02	0 5000000E-02	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 5000000E-02	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 5000000E-02	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8234446E+02	0 1000000E-01	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7492776E+02	0 1000000E-01	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5049057E+02	0 1000000E-01	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3647334E+02	0 1000000E-01	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 1000000E-01	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 1000000E-01	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 1000000E-01	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9437222E+02	0 2000000E-01	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8648890E+02	0 2000000E-01	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5952834E+02	0 2000000E-01	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4091333E+02	0 2000000E-01	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3384445E+02	0 2000000E-01	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 2000000E-01	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 2000000E-01	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1071006E+03	0 5000000E-01	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9884445E+02	0 5000000E-01	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7007778E+02	0 5000000E-01	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4821834E+02	0 5000000E-01	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3482834E+02	0 5000000E-01	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378334E+02	0 5000000E-01	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3378334E+02	0 5000000E-01	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1140611E+03	0 1000000E+00	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1056389E+03	0 1000000E+00	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7617279E+02	0 1000000E+00	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5322778E+02	0 1000000E+00	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3673389E+02	0 1000000E+00	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3395556E+02	0 1000000E+00	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3395556E+02	0 1000000E+00	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1189056E+03	0 2000000E+00	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1104056E+03	0 2000000E+00	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8061835E+02	0 2000000E+00	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5719999E+02	0 2000000E+00	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3918666E+02	0 2000000E+00	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3489445E+02	0 2000000E+00	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)

0 3489445E+02	0 2000000E+00	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1229333E+03	0 5000000E+00	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1144672E+03	0 5000000E+00	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8476112E+02	0 5000000E+00	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6130556E+02	0 5000000E+00	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4278334E+02	0 5000000E+00	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3787834E+02	0 5000000E+00	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3787834E+02	0 5000000E+00	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1254390E+03	0 1000000E+01	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1171117E+03	0 1000000E+01	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8786111E+02	0 1000000E+01	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6471666E+02	0 1000000E+01	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4639444E+02	0 1000000E+01	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4151111E+02	0 1000000E+01	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4150777E+02	0 1000000E+01	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1279778E+03	0 2000000E+01	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1199278E+03	0 2000000E+01	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9158888E+02	0 2000000E+01	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6910056E+02	0 2000000E+01	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5125556E+02	0 2000000E+01	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4649667E+02	0 2000000E+01	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4649612E+02	0 2000000E+01	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1313612E+03	0 5000000E+01	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1239389E+03	0 5000000E+01	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9768945E+02	0 5000000E+01	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7673502E+02	0 5000000E+01	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6002446E+02	0 5000000E+01	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5555556E+02	0 5000000E+01	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5555556E+02	0 5000000E+01	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1335723E+03	0 1000000E+02	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1268667E+03	0 1000000E+02	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1030339E+03	0 1000000E+02	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8387944E+02	0 1000000E+02	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6852223E+02	0 1000000E+02	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6440556E+02	0 1000000E+02	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6440556E+02	0 1000000E+02	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1327778E+03	0 2000000E+02	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1271778E+03	0 2000000E+02	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1071500E+03	0 2000000E+02	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9088502E+02	0 2000000E+02	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7773945E+02	0 2000000E+02	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7419501E+02	0 2000000E+02	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7419501E+02	0 2000000E+02	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1211889E+03	0 5000000E+02	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1177000E+03	0 5000000E+02	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1050667E+03	0 5000000E+02	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9462225E+02	0 5000000E+02	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8604443E+02	0 5000000E+02	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8371112E+02	0 5000000E+02	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8371112E+02	0 5000000E+02	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1057500E+03	0 1000000E+03	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1037722E+03	0 1000000E+03	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9654559E+02	0 1000000E+03	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9049055E+02	0 1000000E+03	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8545555E+02	0 1000000E+03	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8407779E+02	0 1000000E+03	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8407779E+02	0 1000000E+03	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9133337E+02	0 2000000E+03	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9027778E+02	0 2000000E+03	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8639447E+02	0 2000000E+03	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8311115E+02	0 2000000E+03	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8036668E+02	0 2000000E+03	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7960778E+02	0 2000000E+03	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7961110E+02	0 2000000E+03	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8130612E+02	0 5000000E+03	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8070723E+02	0 5000000E+03	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7849555E+02	0 5000000E+03	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7661835E+02	0 5000000E+03	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7503888E+02	0 5000000E+03	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7460167E+02	0 5000000E+03	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7460167E+02	0 5000000E+03	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7429447E+02	0 1000000E+04	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7394558E+02	0 1000000E+04	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7267223E+02	0 1000000E+04	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7158887E+02	0 1000000E+04	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7067336E+02	0 1000000E+04	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7041780E+02	0 1000000E+04	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7041780E+02	0 1000000E+04	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6222778E+02	0.2000000E+04	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6211111E+02	0 2000000E+04	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)

0 6168333E+02	0 2000000E+04	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6131667E+02	0 2000000E+04	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6100000E+02	0 2000000E+04	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6091836E+02	0 2000000E+04	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6091836E+02	0 2000000E+04	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4404445E+02	0 5000000E+04	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4403890E+02	0 5000000E+04	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4402334E+02	0 5000000E+04	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4401111E+02	0 5000000E+04	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4399612E+02	0 5000000E+04	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4399501E+02	0 5000000E+04	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 4399501E+02	0 5000000E+04	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 1000000E+05	0 9632406E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 1000000E+05	0 9550110E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 1000000E+05	0 9049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 1000000E+05	0 8049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 1000000E+05	0 5049988E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 1000000E+05	0 4998781E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 3377834E+02	0 1000000E+05	0 0000000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)

TABLE C-9 TEMPERATURE INPUT from TEMPV5 for CYPRESS CREEK DOME CHLW

0 5321E+02	0 1000E-03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS
0 5320E+02	0 1000E-03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS
0 5320E+02	0 1000E-03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5355E+02	0 2000E-03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5332E+02	0 2000E-03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5826E+02	0 5000E-03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5622E+02	0 5000E-03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5321E+02	0 5000E-03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 5000E-03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 5000E-03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 5000E-03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 5000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6891E+02	0 1000E-02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6454E+02	0 1000E-02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5353E+02	0 1000E-02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8647E+02	0 2000E-02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7986E+02	0 2000E-02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5622E+02	0 2000E-02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5321E+02	0 2000E-02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1182E+03	0 5000E-02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1092E+03	0 5000E-02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6854E+02	0 5000E-02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5396E+02	0 5000E-02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 5000E-02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 5000E-02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 5000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1453E+03	0 1000E-01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1351E+03	0 1000E-01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8455E+02	0 1000E-01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5777E+02	0 1000E-01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1713E+03	0 2000E-01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1601E+03	0 2000E-01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1028E+03	0 2000E-01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6598E+02	0 2000E-01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5329E+02	0 2000E-01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1996E+03	0 5000E-01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1875E+03	0 5000E-01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1247E+03	0 5000E-01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8013E+02	0 5000E-01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5492E+02	0 5000E-01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 5000E-01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 5000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2155E+03	0 1000E+00	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2031E+03	0 1000E+00	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1377E+03	0 1000E+00	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9017E+02	0 1000E+00	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5837E+02	0 1000E+00	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5333E+02	0 1000E+00	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5322E+02	0 1000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2277E+03	0 2000E+00	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2149E+03	0 2000E+00	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1480E+03	0 2000E+00	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9882E+02	0 2000E+00	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8321E+02	0 2000E+00	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5423E+02	0 2000E+00	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)

0 5359E+02	0 2000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2409E+03	0 5000E+00	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2279E+03	0 5000E+00	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1599E+03	0 5000E+00	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1096E+03	0 5000E+00	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS
0 7143E+02	0 5000E+00	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS
0 5865E+02	0 5000E+00	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5719E+02	0 5000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2495E+03	0 1000E+01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2366E+03	0 1000E+01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1687E+03	0 1000E+01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1182E+03	0 1000E+01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7953E+02	0 1000E+01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6586E+02	0 1000E+01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6420E+02	0 1000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2577E+03	0 2000E+01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2451E+03	0 2000E+01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1784E+03	0 2000E+01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1287E+03	0 2000E+01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9031E+02	0 2000E+01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7666E+02	0 2000E+01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7499E+02	0 2000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2662E+03	0 5000E+01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2546E+03	0 5000E+01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1929E+03	0 5000E+01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1462E+03	0 5000E+01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1098E+03	0 5000E+01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9678E+02	0 5000E+01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9519E+02	0 5000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2636E+03	0 1000E+02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2537E+03	0 1000E+02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2005E+03	0 1000E+02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1596E+03	0 1000E+02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1273E+03	0 1000E+02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1156E+03	0 1000E+02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1142E+03	0 1000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2421E+03	0 2000E+02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2350E+03	0 2000E+02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1965E+03	0 2000E+02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1661E+03	0 2000E+02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1416E+03	0 2000E+02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1326E+03	0 2000E+02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1315E+03	0 2000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1829E+03	0 5000E+02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1800E+03	0 5000E+02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1640E+03	0 5000E+02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1509E+03	0 5000E+02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1399E+03	0 5000E+02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1358E+03	0 5000E+02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1353E+03	0 5000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1419E+03	0 1000E+03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1407E+03	0 1000E+03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1342E+03	0 1000E+03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1287E+03	0 1000E+03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1240E+03	0 1000E+03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1223E+03	0 1000E+03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1221E+03	0 1000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1205E+03	0 2000E+03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1199E+03	0 2000E+03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1164E+03	0 2000E+03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1135E+03	0 2000E+03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1109E+03	0 2000E+03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1100E+03	0 2000E+03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1099E+03	0 2000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9906E+02	0 5000E+03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9885E+02	0 5000E+03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9765E+02	0 5000E+03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9663E+02	0 5000E+03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9575E+02	0 5000E+03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9541E+02	0 5000E+03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9537E+02	0 5000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8184E+02	0 1000E+04	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8181E+02	0 1000E+04	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8159E+02	0 1000E+04	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8141E+02	0 1000E+04	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8125E+02	0 1000E+04	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8118E+02	0 1000E+04	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8118E+02	0 1000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6907E+02	0 2000E+04	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6907E+02	0 2000E+04	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)

0 6906E+02	0 2000E+04	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6905E+02	0 2000E+04	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6904E+02	0 2000E+04	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6903E+02	0 2000E+04	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6903E+02	0 2000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5621E+02	0 5000E+04	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5621E+02	0 5000E+04	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5621E+02	0 5000E+04	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5621E+02	0 5000E+04	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5621E+02	0 5000E+04	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5620E+02	0 5000E+04	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5619E+02	0 5000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E+05	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E+05	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E+05	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E+05	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E+05	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E+05	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E+05	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)

TABLE C-10 TEMPERATURE INPUT from TEMPV5 for CYPRESS CREEK DOME SFPWR

0 5322E+02	0 1000E-03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5364E+02	0 2000E-03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5329E+02	0 2000E-03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5722E+02	0 5000E-03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5515E+02	0 5000E-03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5321E+02	0 5000E-03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 5000E-03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 5000E-03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 5000E-03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 5000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6400E+02	0 1000E-02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6002E+02	0 1000E-02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5344E+02	0 1000E-02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7415E+02	0 2000E-02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6851E+02	0 2000E-02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5515E+02	0 2000E-02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5321E+02	0 2000E-02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9116E+02	0 5000E-02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8401E+02	0 5000E-02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6228E+02	0 5000E-02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5373E+02	0 5000E-02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 5000E-02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 5000E-02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 5000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1050E+03	0 1000E-01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9709E+02	0 1000E-01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7106E+02	0 1000E-01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5608E+02	0 1000E-01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1177E+03	0 2000E-01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1094E+03	0 2000E-01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8070E+02	0 2000E-01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6083E+02	0 2000E-01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5327E+02	0 2000E-01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 2000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1312E+03	0 5000E-01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1225E+03	0 5000E-01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9193E+02	0 5000E-01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6863E+02	0 5000E-01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5432E+02	0 5000E-01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5321E+02	0 5000E-01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5321E+02	0 5000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1386E+03	0 1000E+00	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1297E+03	0 1000E+00	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9842E+02	0 1000E+00	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7398E+02	0 1000E+00	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5636E+02	0 1000E+00	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5339E+02	0 1000E+00	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5339E+02	0 1000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1437E+03	0 2000E+00	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1347E+03	0 2000E+00	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1031E+03	0 2000E+00	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7822E+02	0 2000E+00	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5896E+02	0 2000E+00	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5439E+02	0 2000E+00	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)

0 5439E+02	0 2000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1480E+03	0 5000E+00	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1390E+03	0 5000E+00	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1075E+03	0 5000E+00	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8259E+02	0 5000E+00	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6283E+02	0 5000E+00	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5759E+02	0 5000E+00	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5759E+02	0 5000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1506E+03	0 1000E+01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1418E+03	0 1000E+01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1108E+03	0 1000E+01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8623E+02	0 1000E+01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6668E+02	0 1000E+01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6147E+02	0 1000E+01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6147E+02	0 1000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1533E+03	0 2000E+01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1448E+03	0 2000E+01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1148E+03	0 2000E+01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9089E+02	0 2000E+01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7188E+02	0 2000E+01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6679E+02	0 2000E+01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6679E+02	0 2000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1568E+03	0 5000E+01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1490E+03	0 5000E+01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1213E+03	0 5000E+01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9902E+02	0 5000E+01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8123E+02	0 5000E+01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7646E+02	0 5000E+01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7646E+02	0 5000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1592E+03	0 1000E+02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1521E+03	0 1000E+02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1269E+03	0 1000E+02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1066E+03	0 1000E+02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9028E+02	0 1000E+02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8589E+02	0 1000E+02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8589E+02	0 1000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1583E+03	0 2000E+02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1524E+03	0 2000E+02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1313E+03	0 2000E+02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1140E+03	0 2000E+02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1001E+03	0 2000E+02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9632E+02	0 2000E+02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9632E+02	0 2000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1461E+03	0 5000E+02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1424E+03	0 5000E+02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1291E+03	0 5000E+02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1180E+03	0 5000E+02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1089E+03	0 5000E+02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1064E+03	0 5000E+02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1064E+03	0 5000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1298E+03	0 1000E+03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1277E+03	0 1000E+03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1201E+03	0 1000E+03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1136E+03	0 1000E+03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1083E+03	0 1000E+03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1068E+03	0 1000E+03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1068E+03	0 1000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1145E+03	0 2000E+03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1134E+03	0 2000E+03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1093E+03	0 2000E+03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1058E+03	0 2000E+03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1029E+03	0 2000E+03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1021E+03	0 2000E+03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1021E+03	0 2000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1039E+03	0 5000E+03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1032E+03	0 5000E+03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1009E+03	0 5000E+03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9890E+02	0 5000E+03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9722E+02	0 5000E+03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9675E+02	0 5000E+03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9675E+02	0 5000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9843E+02	0 1000E+04	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9806E+02	0 1000E+04	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9471E+02	0 1000E+04	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9355E+02	0 1000E+04	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9258E+02	0 1000E+04	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9231E+02	0 1000E+04	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9231E+02	0 1000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8358E+02	0 2000E+04	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8346E+02	0 2000E+04	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)

0 8301E+02	0 2000E+04	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8261E+02	0 2000E+04	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8228E+02	0 2000E+04	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8219E+02	0 2000E+04	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8219E+02	0 2000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6420E+02	0 5000E+04	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6420E+02	0 5000E+04	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6418E+02	0 5000E+04	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6416E+02	0 5000E+04	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6416E+02	0 5000E+04	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6416E+02	0 5000E+04	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6418E+02	0 5000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E+05	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E+05	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E+05	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E+05	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E+05	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E+05	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5320E+02	0 1000E+05	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)

TABLE C-11 TEMPERATURE INPUT from TEMPV5 for RICHTON DOME CHLW

0 5011E+02	0 1000E-03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5052E+02	0 2000E-03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5025E+02	0 2000E-03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5621E+02	0 5000E-03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5376E+02	0 5000E-03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5011E+02	0 5000E-03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS
0 5010E+02	0 5000E-03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 5000E-03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 5000E-03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 5000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6903E+02	0 1000E-02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6378E+02	0 1000E-02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5051E+02	0 1000E-02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9002E+02	0 2000E-02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8214E+02	0 2000E-02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5375E+02	0 2000E-02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5011E+02	0 2000E-02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1274E+03	0 5000E-02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1170E+03	0 5000E-02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6858E+02	0 5000E-02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5102E+02	0 5000E-02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 5000E-02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 5000E-02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 5000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1589E+03	0 1000E-01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1471E+03	0 1000E-01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8774E+02	0 1000E-01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5562E+02	0 1000E-01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1885E+03	0 2000E-01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1758E+03	0 2000E-01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1093E+03	0 2000E-01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6551E+02	0 2000E-01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5021E+02	0 2000E-01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2202E+03	0 5000E-01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2068E+03	0 5000E-01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1350E+03	0 5000E-01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8246E+02	0 5000E-01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5218E+02	0 5000E-01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5011E+02	0 5000E-01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 5000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2377E+03	0 1000E+00	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2240E+03	0 1000E+00	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1501E+03	0 1000E+00	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9443E+02	0 1000E+00	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5634E+02	0 1000E+00	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5026E+02	0 1000E+00	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5012E+02	0 1000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2510E+03	0 2000E+00	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2370E+03	0 2000E+00	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1620E+03	0 2000E+00	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1047E+03	0 2000E+00	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6218E+02	0 2000E+00	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5134E+02	0 2000E+00	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)

0 5057E+02	0 2000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2652E+03	0 5000E+00	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2512E+03	0 5000E+00	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1756E+03	0 5000E+00	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1174E+03	0 5000E+00	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7206E+02	0 5000E+00	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5668E+02	0 5000E+00	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5492E+02	0 5000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2744E+03	0 1000E+01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2605E+03	0 1000E+01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1856E+03	0 1000E+01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1275E+03	0 1000E+01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8176E+02	0 1000E+01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6536E+02	0 1000E+01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6337E+02	0 1000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2831E+03	0 2000E+01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2697E+03	0 2000E+01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1966E+03	0 2000E+01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1397E+03	0 2000E+01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9460E+02	0 2000E+01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7832E+02	0 2000E+01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7632E+02	0 2000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2921E+03	0 5000E+01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2799E+03	0 5000E+01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2127E+03	0 5000E+01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1599E+03	0 5000E+01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1176E+03	0 5000E+01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1023E+03	0 5000E+01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1004E+03	0 5000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2894E+03	0 1000E+02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2789E+03	0 1000E+02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2212E+03	0 1000E+02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1753E+03	0 1000E+02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1381E+03	0 1000E+02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1245E+03	0 1000E+02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1228E+03	0 1000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2685E+03	0 2000E+02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2589E+03	0 2000E+02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2168E+03	0 2000E+02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1827E+03	0 2000E+02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1546E+03	0 2000E+02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1442E+03	0 2000E+02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1430E+03	0 2000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2016E+03	0 5000E+02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1984E+03	0 5000E+02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1803E+03	0 5000E+02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1653E+03	0 5000E+02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1527E+03	0 5000E+02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1479E+03	0 5000E+02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1474E+03	0 5000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1550E+03	0 1000E+03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1537E+03	0 1000E+03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1461E+03	0 1000E+03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1398E+03	0 1000E+03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1344E+03	0 1000E+03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1323E+03	0 1000E+03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1321E+03	0 1000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1303E+03	0 2000E+03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1296E+03	0 2000E+03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1255E+03	0 2000E+03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1220E+03	0 2000E+03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1191E+03	0 2000E+03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1179E+03	0 2000E+03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1178E+03	0 2000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1052E+03	0 5000E+03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1050E+03	0 5000E+03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1035E+03	0 5000E+03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1023E+03	0 5000E+03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1013E+03	0 5000E+03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1009E+03	0 5000E+03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1008E+03	0 5000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8497E+02	0 1000E+04	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8493E+02	0 1000E+04	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8467E+02	0 1000E+04	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8445E+02	0 1000E+04	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8427E+02	0 1000E+04	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8419E+02	0 1000E+04	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8419E+02	0 1000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7011E+02	0 2000E+04	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7011E+02	0 2000E+04	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)

0 7010E+02	0 2000E+04	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7009E+02	0 2000E+04	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7008E+02	0 2000E+04	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7009E+02	0 2000E+04	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS
0 7009E+02	0 2000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5605E+02	0 5000E+04	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5605E+02	0 5000E+04	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5605E+02	0 5000E+04	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5605E+02	0 5000E+04	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5605E+02	0 5000E+04	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5605E+02	0 5000E+04	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5606E+02	0 5000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E+05	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E+05	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E+05	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E+05	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E+05	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E+05	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E+05	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)

TABLE C-12 TEMPERATURE INPUT from TEMPV5 for RICHTON DOME SFPWR

0 5012E+02	0 1000E-03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 501QE+02	0 1000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5059E+02	0 2000E-03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5021E+02	0 2000E-03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5495E+02	0 5000E-03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5246E+02	0 5000E-03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5011E+02	0 5000E-03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 5000E-03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 5000E-03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 5000E-03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 5000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6313E+02	0 1000E-02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5833E+02	0 1000E-02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5039E+02	0 1000E-02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7532E+02	0 2000E-02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6855E+02	0 2000E-02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5246E+02	0 2000E-02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5011E+02	0 2000E-02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9561E+02	0 5000E-02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8709E+02	0 5000E-02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6106E+02	0 5000E-02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5074E+02	0 5000E-02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 5000E-02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 5000E-02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 5000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1120E+03	0 1000E-01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1026E+03	0 1000E-01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7161E+02	0 1000E-01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5358E+02	0 1000E-01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 1000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1269E+03	0 2000E-01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1171E+03	0 2000E-01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8315E+02	0 2000E-01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5931E+02	0 2000E-01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5018E+02	0 2000E-01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5010E+02	0 2000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1427E+03	0 5000E-01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1325E+03	0 5000E-01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9652E+02	0 5000E-01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6870E+02	0 5000E-01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5146E+02	0 5000E-01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5011E+02	0 5000E-01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5011E+02	0 5000E-01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1512E+03	0 1000E+00	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1409E+03	0 1000E+00	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1042E+03	0 1000E+00	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7511E+02	0 1000E+00	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5392E+02	0 1000E+00	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5033E+02	0 1000E+00	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5033E+02	0 1000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1571E+03	0 2000E+00	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1467E+03	0 2000E+00	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1098E+03	0 2000E+00	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8018E+02	0 2000E+00	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5706E+02	0 2000E+00	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5154E+02	0 2000E+00	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)

0 5154E+02	0 2000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1620E+03	0 5000E+00	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1517E+03	0 5000E+00	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1150E+03	0 5000E+00	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8541E+02	0 5000E+00	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6172E+02	0 5000E+00	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5540E+02	0 5000E+00	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5540E+02	0 5000E+00	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1650E+03	0 1000E+01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1549E+03	0 1000E+01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1188E+03	0 1000E+01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8974E+02	0 1000E+01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6636E+02	0 1000E+01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6008E+02	0 1000E+01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6008E+02	0 1000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1680E+03	0 2000E+01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1583E+03	0 2000E+01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1235E+03	0 2000E+01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9529E+02	0 2000E+01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7259E+02	0 2000E+01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6649E+02	0 2000E+01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6649E+02	0 2000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1721E+03	0 5000E+01	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1632E+03	0 5000E+01	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1311E+03	0 5000E+01	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1049E+03	0 5000E+01	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8378E+02	0 5000E+01	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7809E+02	0 5000E+01	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7809E+02	0 5000E+01	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1748E+03	0 1000E+02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1667E+03	0 1000E+02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1377E+03	0 1000E+02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1139E+03	0 1000E+02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9456E+02	0 1000E+02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8934E+02	0 1000E+02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8934E+02	0 1000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1738E+03	0 2000E+02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1671E+03	0 2000E+02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1427E+03	0 2000E+02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1226E+03	0 2000E+02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1062E+03	0 2000E+02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1017E+03	0 2000E+02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1017E+03	0 2000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1599E+03	0 5000E+02	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1556E+03	0 5000E+02	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1402E+03	0 5000E+02	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1273E+03	0 5000E+02	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1166E+03	0 5000E+02	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1137E+03	0 5000E+02	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1137E+03	0 5000E+02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1410E+03	0 1000E+03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1386E+03	0 1000E+03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1297E+03	0 1000E+03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1222E+03	0 1000E+03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1159E+03	0 1000E+03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1142E+03	0 1000E+03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1142E+03	0 1000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1233E+03	0 2000E+03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1220E+03	0 2000E+03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1171E+03	0 2000E+03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1130E+03	0 2000E+03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1096E+03	0 2000E+03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1086E+03	0 2000E+03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1086E+03	0 2000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1109E+03	0 5000E+03	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1101E+03	0 5000E+03	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1074E+03	0 5000E+03	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1050E+03	0 5000E+03	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1030E+03	0 5000E+03	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1025E+03	0 5000E+03	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1025E+03	0 5000E+03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1023E+03	0 1000E+04	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1018E+03	0 1000E+04	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1002E+03	0 1000E+04	0 9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9886E+02	0 1000E+04	0 8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9770E+02	0 1000E+04	0 5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9738E+02	0 1000E+04	0 4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9738E+02	0 1000E+04	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8738E+02	0 2000E+04	0 9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8723E+02	0 2000E+04	0 9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)

0.8668E+02	0.2000E+04	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8622E+02	0.2000E+04	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8583E+02	0.2000E+04	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8571E+02	0.2000E+04	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8571E+02	0.2000E+04	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6527E+02	0.5000E+04	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6526E+02	0.5000E+04	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6524E+02	0.5000E+04	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6522E+02	0.5000E+04	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6520E+02	0.5000E+04	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6520E+02	0.5000E+04	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6520E+02	0.5000E+04	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5059E+02	0.1000E+05	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5059E+02	0.1000E+05	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5059E+02	0.1000E+05	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5059E+02	0.1000E+05	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5059E+02	0.1000E+05	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5059E+02	0.1000E+05	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5059E+02	0.1000E+05	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)

TABLE C-13. TEMPERATURE INPUT from TEMPV5 for VACHERIE DOME, CHLW

0 5778E+02	0 1000E-03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0 1000E-03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 1000E-03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 1000E-03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 1000E-03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 1000E-03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0.1000E-03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5819E+02	0 2000E-03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5792E+02	0 2000E-03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 2000E-03	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0.2000E-03	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0.2000E-03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 2000E-03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 2000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6378E+02	0 5000E-03	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6137E+02	0 5000E-03	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 5000E-03	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 5000E-03	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 5000E-03	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 5000E-03	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 5000E-03	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7637E+02	0 1000E-02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7121E+02	0 1000E-02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5817E+02	0 1000E-02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 1000E-02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 1000E-02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 1000E-02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 1000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9698E+02	0 2000E-02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 8924E+02	0.2000E-02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6136E+02	0 2000E-02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 2000E-02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 2000E-02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 2000E-02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 2000E-02	0 0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1337E+03	0 5000E-02	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1234E+03	0 5000E-02	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7593E+02	0 5000E-02	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5868E+02	0 5000E-02	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 5000E-02	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 5000E-02	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 5000E-02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1647E+03	0 1000E-01	0 1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1531E+03	0 1000E-01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 9474E+02	0 1000E-01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 6320E+02	0 1000E-01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0.1000E-01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 1000E-01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 1000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1938E+03	0 2000E-01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1813E+03	0.2000E-01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 1160E+03	0.2000E-01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 7291E+02	0 2000E-01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5788E+02	0.2000E-01	0 8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0.2000E-01	0 3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0 5778E+02	0 2000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2250E+03	0.5000E-01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0 2118E+03	0.5000E-01	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1412E+03	0.5000E-01	0 1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8956E+02	0.5000E-01	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5982E+02	0 5000E-01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.5000E-01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.5000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2423E+03	0.1000E+00	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2288E+03	0.1000E+00	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1560E+03	0.1000E+00	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1013E+03	0.1000E+00	0 1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6391E+02	0.1000E+00	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5794E+02	0 1000E+00	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5779E+02	0.1000E+00	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2554E+03	0.2000E+00	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2417E+03	0.2000E+00	0 1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1677E+03	0.2000E+00	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1114E+03	0.2000E+00	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6964E+02	0.2000E+00	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5900E+02	0.2000E+00	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)

0.5824E+02	0.2000E+00	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2695E+03	0.5000E+00	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2557E+03	0.5000E+00	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1812E+03	0.5000E+00	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1239E+03	0.5000E+00	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7934E+02	0.5000E+00	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6423E+02	0.5000E+00	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6251E+02	0.5000E+00	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2785E+03	0.1000E+01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2649E+03	0.1000E+01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1909E+03	0.1000E+01	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1338E+03	0.1000E+01	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8886E+02	0.1000E+01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7277E+02	0.1000E+01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7081E+02	0.1000E+01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2872E+03	0.2000E+01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2739E+03	0.2000E+01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2018E+03	0.2000E+01	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1458E+03	0.2000E+01	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1015E+03	0.2000E+01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8549E+02	0.2000E+01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8353E+02	0.2000E+01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2961E+03	0.5000E+01	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2840E+03	0.5000E+01	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2177E+03	0.5000E+01	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1657E+03	0.5000E+01	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1241E+03	0.5000E+01	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1090E+03	0.5000E+01	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1072E+03	0.5000E+01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2934E+03	0.1000E+02	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2830E+03	0.1000E+02	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2260E+03	0.1000E+02	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1808E+03	0.1000E+02	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1442E+03	0.1000E+02	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1308E+03	0.1000E+02	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1292E+03	0.1000E+02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2707E+03	0.2000E+02	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2632E+03	0.2000E+02	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2217E+03	0.2000E+02	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1881E+03	0.2000E+02	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1605E+03	0.2000E+02	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1503E+03	0.2000E+02	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1490E+03	0.2000E+02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2067E+03	0.5000E+02	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.2035E+03	0.5000E+02	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1857E+03	0.5000E+02	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1710E+03	0.5000E+02	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1586E+03	0.5000E+02	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1539E+03	0.5000E+02	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1533E+03	0.5000E+02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1608E+03	0.1000E+03	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1595E+03	0.1000E+03	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1521E+03	0.1000E+03	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1458E+03	0.1000E+03	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1405E+03	0.1000E+03	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1385E+03	0.1000E+03	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1383E+03	0.1000E+03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1365E+03	0.2000E+03	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1358E+03	0.2000E+03	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1318E+03	0.2000E+03	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1284E+03	0.2000E+03	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1255E+03	0.2000E+03	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1244E+03	0.2000E+03	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1243E+03	0.2000E+03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1119E+03	0.5000E+03	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1116E+03	0.5000E+03	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1102E+03	0.5000E+03	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1090E+03	0.5000E+03	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1080E+03	0.5000E+03	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1076E+03	0.5000E+03	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1076E+03	0.5000E+03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9197E+02	0.1000E+04	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9192E+02	0.1000E+04	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9167E+02	0.1000E+04	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9145E+02	0.1000E+04	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9127E+02	0.1000E+04	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9121E+02	0.1000E+04	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9119E+02	0.1000E+04	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7733E+02	0.2000E+04	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7733E+02	0.2000E+04	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)

0.7732E+02	0.2000E+04	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7731E+02	0.2000E+04	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7730E+02	0.2000E+04	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7731E+02	0.2000E+04	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7731E+02	0.2000E+04	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6335E+02	0.5000E+04	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6335E+02	0.5000E+04	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6335E+02	0.5000E+04	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6335E+02	0.5000E+04	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6334E+02	0.5000E+04	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6334E+02	0.5000E+04	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6334E+02	0.5000E+04	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E+05	0.1265E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E+05	0.1260E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E+05	0.1210E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E+05	0.1110E+02	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E+05	0.8100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E+05	0.3100E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E+05	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)

TABLE C-14. TEMPERATURE INPUT from TEMPV5 for VACHERIE DOME, SFPWR.

0.5779E+02	0.1000E-03	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E-03	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E-03	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E-03	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E-03	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E-03	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E-03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5826E+02	0.2000E-03	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5789E+02	0.2000E-03	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.2000E-03	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.2000E-03	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.2000E-03	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.2000E-03	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.2000E-03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6254E+02	0.5000E-03	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6009E+02	0.5000E-03	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.5000E-03	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.5000E-03	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.5000E-03	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.5000E-03	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.5000E-03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7057E+02	0.1000E-02	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6586E+02	0.1000E-02	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5807E+02	0.1000E-02	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E-02	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E-02	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E-02	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E-02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8254E+02	0.2000E-02	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7589E+02	0.2000E-02	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6009E+02	0.2000E-02	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.2000E-02	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.2000E-02	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.2000E-02	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.2000E-02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1025E+03	0.5000E-02	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9411E+02	0.5000E-02	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6853E+02	0.5000E-02	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5841E+02	0.5000E-02	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.5000E-02	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.5000E-02	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.5000E-02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1185E+03	0.1000E-01	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1094E+03	0.1000E-01	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7890E+02	0.1000E-01	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6120E+02	0.1000E-01	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E-01	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E-01	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.1000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1333E+03	0.2000E-01	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1236E+03	0.2000E-01	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9023E+02	0.2000E-01	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6682E+02	0.2000E-01	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5786E+02	0.2000E-01	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.2000E-01	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.2000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1487E+03	0.5000E-01	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1387E+03	0.5000E-01	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1034E+03	0.5000E-01	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7604E+02	0.5000E-01	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5911E+02	0.5000E-01	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.5000E-01	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5778E+02	0.5000E-01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1571E+03	0.1000E+00	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1469E+03	0.1000E+00	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1109E+03	0.1000E+00	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8234E+02	0.1000E+00	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6153E+02	0.1000E+00	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5801E+02	0.1000E+00	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5801E+02	0.1000E+00	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1629E+03	0.2000E+00	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1527E+03	0.2000E+00	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1164E+03	0.2000E+00	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8732E+02	0.2000E+00	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6461E+02	0.2000E+00	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5919E+02	0.2000E+00	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)

0.5919E+02	0.2000E+00	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1677E+03	0.5000E+00	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1576E+03	0.5000E+00	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1215E+03	0.5000E+00	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9245E+02	0.5000E+00	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6918E+02	0.5000E+00	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6298E+02	0.5000E+00	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6298E+02	0.5000E+00	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1707E+03	0.1000E+01	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1607E+03	0.1000E+01	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1253E+03	0.1000E+01	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9671E+02	0.1000E+01	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7374E+02	0.1000E+01	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6757E+02	0.1000E+01	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.6757E+02	0.1000E+01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1737E+03	0.2000E+01	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1641E+03	0.2000E+01	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1299E+03	0.2000E+01	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1022E+03	0.2000E+01	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7986E+02	0.2000E+01	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7387E+02	0.2000E+01	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7387E+02	0.2000E+01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1777E+03	0.5000E+01	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1689E+03	0.5000E+01	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1373E+03	0.5000E+01	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1116E+03	0.5000E+01	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9085E+02	0.5000E+01	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8526E+02	0.5000E+01	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.8526E+02	0.5000E+01	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1803E+03	0.1000E+02	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1724E+03	0.1000E+02	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1438E+03	0.1000E+02	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1204E+03	0.1000E+02	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1014E+03	0.1000E+02	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9632E+02	0.1000E+02	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9632E+02	0.1000E+02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1794E+03	0.2000E+02	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1727E+03	0.2000E+02	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1488E+03	0.2000E+02	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1290E+03	0.2000E+02	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1129E+03	0.2000E+02	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1085E+03	0.2000E+02	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1085E+03	0.2000E+02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1656E+03	0.5000E+02	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1615E+03	0.5000E+02	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1463E+03	0.5000E+02	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1336E+03	0.5000E+02	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1231E+03	0.5000E+02	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1202E+03	0.5000E+02	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1202E+03	0.5000E+02	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1471E+03	0.1000E+03	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1447E+03	0.1000E+03	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1359E+03	0.1000E+03	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1286E+03	0.1000E+03	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1224E+03	0.1000E+03	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1207E+03	0.1000E+03	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1207E+03	0.1000E+03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1296E+03	0.2000E+03	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1283E+03	0.2000E+03	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1236E+03	0.2000E+03	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1195E+03	0.2000E+03	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1162E+03	0.2000E+03	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1152E+03	0.2000E+03	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1152E+03	0.2000E+03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1174E+03	0.5000E+03	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1167E+03	0.5000E+03	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1140E+03	0.5000E+03	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1117E+03	0.5000E+03	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1097E+03	0.5000E+03	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1092E+03	0.5000E+03	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1092E+03	0.5000E+03	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1090E+03	0.1000E+04	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1085E+03	0.1000E+04	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1069E+03	0.1000E+04	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1056E+03	0.1000E+04	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1045E+03	0.1000E+04	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1042E+03	0.1000E+04	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.1042E+03	0.1000E+04	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9429E+02	0.2000E+04	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9414E+02	0.2000E+04	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)

0.9361E+02	0.2000E+04	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9315E+02	0.2000E+04	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9277E+02	0.2000E+04	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9267E+02	0.2000E+04	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.9267E+02	0.2000E+04	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7245E+02	0.5000E+04	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7244E+02	0.5000E+04	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7242E+02	0.5000E+04	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7240E+02	0.5000E+04	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7238E+02	0.5000E+04	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7237E+02	0.5000E+04	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.7237E+02	0.5000E+04	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5784E+02	0.1000E+05	0.9632E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5784E+02	0.1000E+05	0.9550E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5784E+02	0.1000E+05	0.9050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5784E+02	0.1000E+05	0.8050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5784E+02	0.1000E+05	0.5050E+01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5785E+02	0.1000E+05	0.4999E-01	DEGREES C	TIME (YRS)	XCORD (METERS)
0.5785E+02	0.1000E+05	0.0000E+00	DEGREES C	TIME (YRS)	XCORD (METERS)

REFERENCES

Claiborne, H. C., L. D. Rickertsen, and R. F. Graham, 1980. Expected Environments in High-Level Nuclear Waste and Spent Fuel Repositories in Salt, ORNL/TM-7201, prepared for U.S. Department of Energy by Oak Ridge National Laboratory, Union Carbide Corporation, Oak Ridge, TN.

George, Oscar L. Jr., 1980. Computer Thermal Modeling for the Salt Block II Experiment, SAND79-2250, prepared for U.S. Department of Energy by Sandia National Laboratories, Albuquerque, NM.

Gevantman, L. H., ed., 1981. Physical Properties Data for Rock Salt, National Bureau of Standards Monograph 167, U.S. Department of Commerce, Washington, DC.

Hohlfelder, Jacque J., 1980. Salt Block II: Description and Results, SAND79-2226, prepared for U.S. Department of Energy by Sandia National Laboratories, Albuquerque, NM.

Jansen, G., 1987. Expected Waste Package Performance for Nuclear Waste Repositories in Three Salt Formations, BMI/ONWI-655, Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, OH.

Jenks, G. H., 1972. Radiolysis and Hydrolysis in Salt-Mine-Brines, ORNL/TM-3717, prepared for the U.S. Atomic Energy Commission by Oak Ridge National Laboratory, Union Carbide Corporation, Oak Ridge, TN.

Jenks, G. H., 1979. Effects of Temperature, Temperature Gradients, Stress, and Irradiation on Migration of Brine Inclusions in a Salt Repository, ORNL-5526, prepared for U.S. Department of Energy by Oak Ridge National Laboratory, Union Carbide Corporation, Oak Ridge, TN.

Jenks, G. H., and H. C. Claiborne, 1981. Brine Migration in Salt and Its Implications in the Geologic Disposal of Nuclear Waste, ORNL-5818, prepared for U.S. Department of Energy by Oak Ridge National Laboratory, Union Carbide Corporation, Oak Ridge, TN.

McNulty, E. G., 1987. Expected Near-Field Thermal Performance for Nuclear Waste Repositories at Potential Salt Sites, BMI/ONWI-652, Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, OH.

Olander, D. R., A. J. Machiels, and S. Yagnik, 1980. Thermal Gradient Migration of Brine Inclusions in Salt, ONWI-208, prepared by the Regents of the University of California College of Engineering for Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, OH.

Olander, D. R., 1984. A Study of Thermal-Gradient-Induced Migration of Brine Inclusions in Salt: Final Report, BMI/ONWI-538, prepared by the Regents of the University of California for Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, OH.

Roedder, Edwin, and I-Ming Chou, 1982. A Critique of "Brine Migration and Its Implications in the Geologic Disposal of Nuclear Waste," Oak Ridge National Laboratory Report 5818, by G. H. Jenks and H. C. Claiborne, U.S. Geological Survey Open-File Report 82-1131, U.S. Department of Interior, Reston, VA.

ATTACHMENT A

Memos by J. Means Describing Moisture Contents at Bedded Salt Sites

Approved: T. L. Steinborn

I/0/03/85-001

25105(b)

Project Number G-5203-0050(863)

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To Terry L. Steinborn

From Jeffrey L. Means JLM

Subject Maximum and Realistic Brine Estimates of Lower San Andres Unit 4, Deaf Smith and Swisher County Sites, Palo Duro Brine, Texas

Presently, ONWI uses 5.0 volume percent as the average amount of brine available for waste package corrosion within the Unit 4 host horizon at the Palo Duro Basin sites. The calculated value cited in the Draft Environmental Assessment is 1.8 volume percent brine. New data by Hovorka et al. (1985) and Fisher (1984; 1985) permit the revision of these calculations.

The Lower San Andres Unit 4 contains small amounts of brine as fluid inclusions and intergranular water in halite and as hydration and pore water in the mudstone layers and chaotic salt/mud mixtures. The maximum amount of brine available is calculated from data on the water content of halite and mudstone in the Lower San Andres Unit 4. The calculations, which are based on overestimations and approximations, are presented below and summarized as Case A in Tables 1 and 2. Reference case brine availability calculations, based on realistic estimates of the water content of Lower San Andres Unit 4 halite and mudstone, are also discussed and provided in Tables 1 and 2 as Case B.

Deaf Smith County Site

1. Water in Halite: Fluid inclusions and intergranular water contribute from 0.1 to 0.8 weight percent water to the salt and average 0.4 weight percent (Fisher, 1985). A conservative assumption is made of 0.5 weight percent water in clay-free halite (Fisher, 1984). Halite comprises approximately 88 percent of Unit 4 strata as sampled by the 3 wells, i.e., J. Friemel No. 1, G. Friemel No. 1, and Detten No. 1, closest to the Deaf Smith County Site. (Hovorka et al., 1985, Table 1). Hence, 0.44 weight percent water can be derived from halite.

2. Water in Mudstone: The maximum water content of Unit 4 mudstone is estimated to be 15.0 weight percent and is likely closer to 7.5 weight percent (Fisher, 1984; 1985). This includes both pore water in the mudstone as well as water in hydrous minerals such as clays. The average mudstone content of Lower San Andres Unit 4 in the three wells closest to the Deaf Smith County site 8s 8 percent (Hovorka et al., 1985, Table 1). Therefore, 1.20 weight percent water can be derived from Unit 4 mudstone.

3. Sum of Water from Halite and Mudstone: 0.44 weight percent water from halite plus 1.20 weight percent water form mudstone equals 1.64 total weight percent water.

4. Conversion from Weight Percent Water to Volume Percent Water: Assuming a density of water of 1.00 gram per cubic centimeter and average density of Unit 4 salt (mostly halite) of 2.16 grams per cubic centimeter (Weast, 1984), then 1.64 weight percent water converts to 3.48 volume percent water (Table 1).

5. Conversion from Volume Percent Water to Volume Percent Brine: The volumetric expansion of water upon saturation with halite at 90°C is readily calculated from density and halite solubility data given in Seidell (1919) and is equal to 18.6 percent. This accounts for both the thermal expansion of water from 25 to 90°C as well as the volumetric expansion of water upon saturation with halite. Assuming 19 percent expansion, then 3.48 volume percent water converts to 4.14 volume percent brine.

Therefore, the maximum amount of brine expected to be available for migration toward, and for corrosion of waste packages at the Deaf Smith County site is 4.14 volume percent, which is lower than the 5.0 volume percent brine value that ONWI uses for the waste package performance assessment calculations. These calculations are based on overapproximations of the total amount of water available from the halite and mudstone sources. Brine availability calculations that reflect realistic as opposed to conservatively overestimated water contents yield a value of 2.42 volume percent brine (Case B in Table 1), which is approximately one-half of the value used in the waste package performance assessment calculations.

It is unlikely that all of the fluid inclusion and intergranular water will migrate to the waste package at repository temperatures. The migration of intergranular brine may be blocked, and molecular water may remain trapped in halite even at high temperatures, despite long periods of heating (Roedder and Bassett, 1981). Furthermore, clays will release only adsorbed and interlayer water at temperatures less than 300°C. Loss of lattice hydroxyl groups generally occurs at temperatures exceeding 400°C (Grim, 1968). If the above calculations accounted for processes that limit brine migration to the waste package, then the total amount of brine available for waste package corrosion would likely be less than 2.0 volume percent.

Swisher County Site

The brine availability calculations for the Swisher County site are nearly identical to those for the Deaf Smith County site with 2 exceptions. In the 3 wells closest to the Swisher County site (Harman No. 1, Zeeck No. 1, and Grabbe No. 1), halite comprises an average of 81.3 percent of Lower San Andres Unit 4; and the average mudstone content, at 9.3 percent, is somewhat higher than that for the Deaf Smith County site. Because mudstone is the primary source of water in the Lower Andres Unit 4, the maximum amount of brine available for waste package corrosion in the Swisher County site is predicted to be 4.56 volume percent (Case A in Table 1), which is slightly higher than the 4.14 volume percent brine value (Case A in Table 1) predicted for the proposed site at Deaf Smith County. Calculations that reflect realistic as opposed to conservatively overestimated water contents of Lower San Andres Unit 4 halite and mudstone result in a value of 2.62 volume percent brine at the Swisher County site (Case B in Table 2), or approximately one-half of the

value that ONWI uses in the waste package performance assessment calculations. If factors were taken into account that may inhibit the migration of brine to the waste package, such as the blockage of intergranular brine in halite or the incomplete thermal dehydration of clays, then the total amount of brine available for waste package corrosion would likely be less than 2.0 volume percent.

Table 1. Lower San Andres Unit 4 Water Content Calculations for the Deaf Smith County Site (Conservatively Overestimated and Reference Cases)

Data and Calculations	Case A Conservatively Overestimated	Case B Reference
1. Water in Halite		
a. Weight percent water in clay-free halite	0.5[a]	0.4[b]
b. Percent halite in Unit 4 strata	88[c]	88[c]
c. Weight percent water from halite (1ax1bx.01)	0.44	0.35
2. Water in Mudstone		
a. Weight percent water in mudstone	15.0[a,b]	7.5[a,b]
b. Percent mudstone in Unit 4 strata	8[c]	8[c]
c. Weight percent water from mudstone (2ax2bx.01)	1.20	0.60
3. Total Weight Percent Water from Halite and Mudstone (1c+2c)	1.64	0.95
4. Conversion to Volume Percent Water		
a. Weight water (grams) per 100 grams Unit 4 strata (3)	1.64	0.95
b. Density water	1.00[d]	1.00[d]
c. Volume water (cubic centimeters) per 100 grams Unit 4 strata (4a ÷ 4b)	1.64	0.95
d. Weight rock (grams) per 100 grams Unit 4 strata (100-4a)	98.36	99.05
e. Density rock[d]	2.16[d]	2.16[d]
f. Volume rock (cubic centimeters) per 100 grams Unit 4 strata (4d ÷ 4e)	45.537	45.857
g. Volume water plus rock (cubic centimeters) per 100 grams Unit 4 strata (4c+4f)	47.177	46.807
h. Volume percent water (4c ÷ 4g)	3.48	2.03
5. Conversion to Volume Percent Brine		
a. Volumetric expansion of water upon saturation with halite at 90°C (percent)	19[e]	19[e]
b. Total volume percent brine [4h+(.01x5ax4h)]	4.14	2.42

(a) Fisher, 1984
(b) Fisher, 1985
(c) Hovorka et al., 1985
(d) Weast, 1984
(e) Seidell, 1919

Table 2. Lower San Andres Unit 4 Water Content Calculations for the Swisher County Site (Conservatively Overestimated and Reference Cases)

Data and Calculations	Case A Conservatively Overestimated	Case B Reference
1. Water in Halite		
a. Weight percent water in clay-free halite	0.5[a]	0.4[b]
b. Percent halite in Unit 4 strata	81.3[c]	81.3[c]
c. Weight percent water from halite (1ax1bx.01)	0.41	0.33
2. Water in Mudstone		
a. Weight percent water in mudstone	15.0[a,b]	7.5[a,b]
b. Percent mudstone in Unit 4 strata	9.3[c]	9.3[c]
c. Weight percent water from mudstone (2ax2bx.01)	1.40	0.70
3. Total Weight Percent Water from Halite and Mudstone (1c+2c)	1.81	1.03
4. Conversion to Volume Percent Water		
a. Weight water (grams) per 100 grams Unit 4 strata (3)	1.81	1.03
b. Density water	1.00[d]	1.00[d]
c. Volume water (cubic centimeters) per 100 grams Unit 4 strata (4a ÷ 4b)	1.81	1.03
d. Weight rock (grams) per 100 grams Unit 4 strata (100-4a)	98.19	98.97
e. Density rock[d]	2.16[d]	2.16[d]
f. Volume rock (cubic centimeters) per 100 grams Unit 4 strata (4d ÷ 4e)	45.458	45.819
g. Volume water plus rock (cubic centimeters) per 100 grams Unit 4 strata (4c+4f)	47.268	46.849
h. Volume percent water (4c ÷ 4g)	3.83	2.20
5. Conversion to Volume Percent Brine		
a. Volumetric expansion of water upon saturation with halite at 90°C (percent)	19[e]	19[e]
b. Total volume percent brine [4h+(.01x5ax4h)]	4.56	2.62

(a) Fisher, 1984
(b) Fisher, 1985
(c) Hovorka et al., 1985
(d) Weast, 1984
(e) Seidell, 1919

REFERENCES

Fisher, R. S., 1984. Host Rock Geochemistry of the Palo Duro Basin, Texas, OF-WTWI-1984-11, prepared by Texas Bureau of Economic Geology for U.S. Dept. of Energy.

Fisher, R. S., 1985. Amount and Nature of Occluded Water in Bedded Salt, Palo Duro Basin, Texas, Texas Bureau of Economic Geology Geologic Circular, in press.*

Grim, R. E., 1968. Clay Mineralogy, McGraw-Hill, New York.

Hovorka, S. D., B. A. Luneau, and S. Thomas, 1985. Stratography of Bedded Halite in the Permian San Andres Formation Units 4 and 5, Palo Duro Basin, Texas (Draft). Report No. OF-WTWI-1985-9. Prepared for the Department of Energy by Texas Bureau of Economic Geology, Austin, TX.

Roedder, E., and R. L. Bassett, 1981. "Problems in Determination of the Water Content of Rock Salt Samples and Its Significance in Nuclear Waste Storage Siting", Geology, Vol. 9, pp. 525-530.

Seidell, A., 1919. Solubilities of Inorganic and Organic Compounds, D. Van Nostrand Co., Inc. NY.

Weast, R. C. (ed.), 1984. Handbook of Chemistry and Physics, 65th Edition, The Chemical Rubber Co., Cleveland, OH.

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Approved: T. L. Steinborn

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Date October 1, 1985

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To Terry L. Steinborn

From Jeffrey L. Means JLM

Subject Maximum and Realistic Brine Estimates of Paradox Cycle 6 Salt, Davis Canyon and Lavender Canyon Sites, Paradox Basin, Utah

Presently, ONWI uses 5.0 volume percent as the average amount of brine available for waste package corrosion within the Cycle 6 host horizon at the Paradox Basin sites. The calculations below are intended to demonstrate that the 5.0 volume percent brine value is conservative. Brine contributions from 3 sources, namely, halite, clays, and carnallite, are considered.

Three cases are examined and summarized in Table 1. Case A represents the maximum amount of brine available based on the conservative assumption that all of the brine present will migrate to the waste package environment and participate in waste package corrosion. Case B reflects the more realistic scenario where the hydrous mineral carnallite undergoes incomplete dehydration and loses only two-thirds of its total theoretical water content. In Case C it is assumed that none of the hydration water in the carnallite-markerbed, which will be located a minimum of 30 feet away from the repository horizon, will have access to the waste package environment. Detailed calculations for Case A are described below.

1. Water in Halite: Most water in Cycle 6 salt is present in hydrous minerals such as carnallite (Conner, 1983). For this analysis the amount of fluid inclusion and intergranular water in halite is conservatively assumed to be 0.5 weight percent. Halite comprises approximately 90 percent of Cycle 6 strata (Hite, 1983). Hence, 0.45 weight percent water can be derived from the halite source.

2. Water in Clays: The total clay content of Cycle 6 Salt is low, and most clays are concentrated in thin anhydrite interbeds (Weaver and Padan, 1983). If it is conservatively assumed that anhydrite comprises 10 percent of Cycle 6 salt, (Weaver et al., 1982, Padan et al., 1984, Hite, 1983) and clay minerals comprise 10 percent of the anhydrite interbeds, (Weaver et al., 1982; Padan et al., 1984, Hite, 1983) then Cycle 6 salt contains 1.0 weight percent clay. The clay water content is conservatively estimated to be 15.0 weight percent and is likely more on the order of 7.5 percent or less (Weaver et al., 1983; Padan et al., 1984; Conner, 1983). Therefore assuming total dehydration, 0.15 weight percent water can be derived from Cycle 6 clays.

3. Water in Carnallite: Average carnallite water contents obtained from two different sources are in reasonably good agreement. Hite (1983) reports that 1.26 weight percent water is the total theoretical yield from dehydration of the upper section of Cycle 6 salt at 200 C.

Hite (1982) reports that the mean carnallite content of the upper section of Cycle 6 is 2.39 weight weight percent. Carnallite is 38.9 percent water by weight. Therefore total dehydration of a rock bearing 2.39 percent carnallite can yield 0.93 weight percent water. The higher value of 1.26 weight percent water is used in the following calculations.

4. Sum of Water from Halite, Clays, and Carnallite: 0.45, 0.15, plus 1.26 weight percent water from halite, clays, and carnallite, respectively, equals 1.86 total weight percent water.

5. Conversion from Weight Percent Water to Volume Percent Water: Assuming a density of water of 1.00 gram per cubic centimeter and average density of Cycle 6 salt (mostly halite) of 2.16 grams per cubic centimeter (Weast, 1984), then 1.86 weight percent water converts to 3.93 volume percent water.

6. Conversion from Volume Percent Water to Volume Percent Brine: The volumetric expansion of water upon saturation with halite at 90 C is readily calculated from halite density and solubility data given in Seidell (1919) and is equal to 18.6 percent. This accounts for both the thermal expansion of water from 25 to 90 C as well as the volumetric expansion of water upon saturation with halite. Assuming 19 percent expansion, then 3.93 volume percent water converts to 4.68 volume percent brine.

Therefore the maximum amount of brine expected to be available for migration toward and corrosion with waste packages at both the Davis and Lavender Canyon sites is 4.68 volume percent (Case A in Table 1) which is lower than 5.0 volume percent brine value assumed for the ONWI waste package corrosion calculations. These calculations are based on conservative approximations of the total amount of water available from the halite, clay, and carnallite sources.

It is unlikely that all of the fluid inclusion and intergranular water will migrate to the waste package at repository temperatures. The migration of intergranular brine may be blocked, and molecular water may remain trapped in halite even at high temperatures despite long periods of heating (Roedder and Bassett, 1981). Clays will release only absorbed and interlayer water at temperatures less than 300 C; loss of lattice hydroxyl groups generally occurs at temperatures exceeding 400 C (Grim, 1968). In addition carnallite loses water in stages with increasing temperature, and the amount of water that will be released from carnallite dehydration in the repository thermal environment is expected to be significantly less than its total theoretical yield. For example, Conner (1983) indicates that carnallite will release little or no water at temperatures less than 90 C. The first four waters of hydration are lost from 90 to 150 C, and complete dehydration does not occur until approximately 185 C (Conner, 1983). The carnallite markerbed will be located at a minimum of 30 feet away from the waste package, where maximum repository

temperatures of approximately 90 to 120 C are expected. If the above brine availability calculations reflected realistic as opposed to conservatively estimated values for clay (7.5 instead of 15 weight percent water content) and carnallite (loses only 4 waters of hydration instead of all 6), then the total amount of brine available for waste package corrosion would be 3.45 volume percent (Case B in Table 1).

Furthermore, because water packages will be located at some distance from the carnallite markerbed, carnallite dehydration water may never reach the waste package surface. The permeability of the halite matrix is probably such that water evolved from the carnallite will remain in the immediate vicinity of the carnallite. Therefore, the brine available for waste package corrosion may be restricted to fluid inclusions and intergranular water in halite as well as absorbed and interlayer water in clays, in which case the total brine volume would amount to only about 1.34 volume percent (Case C in Table 1).

Table 1. Paradox Cycle 6 Water Content Calculations for Davis Canyon and Lavender Canyon Sites (Conservatively Overestimated and Two Reference Cases)

Data and Calculations	Conservatively Overestimated Case A	Reference Case B	Reference Case C
1. Water in Halite			
a. Weight percent water in clay-free halite	0.5	0.5	0.5
b. Percent halite in Cycle 6 strata	90[a]	90[a]	90[a]
c. Weight percent water from halite (1ax1bx.01)	0.45	0.45	0.45
2. Water in Clay			
a. Weight percent water in clay	15.0[c,d,e]	7.5[c,d,e]	7.5[c,d,e]
b. Percent clay in Cycle 6 strata	1.0[a,b,c]	1.0[a,b,c]	1.0[a,b,c]
c. Weight percent water from clay (2ax2bx.01)	0.15	0.075	0.075
3. Water in Carnallite			
a. Total theoretical water yield at 200°C (weight percent)	1.26[a]	0.84[a,e,f]	0.0[a,e,g]
4. Total Weight Percent Water from Halite, Clay and Carnallite (1c+2c+3a)	1.86	1.365	0.525
5. Conversion to Volume Percent Water			
a. Weight water (grams) per 100 grams Cycle 6 strata (4)	1.86	1.365	0.525
b. Density water	1.00[h]	1.00[h]	1.00[h]
c. Volume water (cubic centimeters) per 100 grams Cycle 6 strata (5a ÷ 5b)	1.86	1.365	0.525
d. Weight rock (grams) per 100 grams Cycle 6 strata (100-5a)	94.14	98.635	99.475
e. Density rock	2.16[h]	2.16[h]	2.16[h]
f. Volume rock (cubic centimeters) per 100 grams Cycle 6 strata (5d ÷ 5e)	45.435	45.664	46.053
g. Volume water plus rock (cubic centimeters) per 100 grams Cycle 6 strata (5c+5f)	47.295	47.029	46.578
h. Volume percent water (5c ÷ 5g)	3.93	2.90	1.13
6. Conversion to Volume Percent Brine			
a. Volumetric expansion of water upon saturation with halite at 90°C (percent)	19[i]	19[i]	19[i]
b. Total volume percent brine [5h+(.01x6ax5h)]	4.68	3.45	1.34

(a) Hite, 1983
(b) Weaver et al., 1982
(c) Padan et al., 1984
(d) Weaver et al., 1983
(e) Conner, 1983
(f) Carnallite assumed to release only 4 of its 6 waters of hydration
(g) Carnallite assumed to release none of its 6 waters of hydration
(h) Weast, 1984
(i) Seidell, 1919

REFERENCES

Conner, T. G., 1983. The Mineralogy and Water Content of Paradox Basin Evaporite Deposits, Master of Science Thesis, Georgia Institute of Geology.

Grim, R. E., 1968. Clay Mineralogy, McGraw-Hill, New York.

Hite, R. J., 1982. Potash Deposits in the Gibson Dome Area, Southeast Utah, USGS Open File Report 82-1067, U.S. Department of the Interior, Washington D.C.

Hite, R. J., 1983. Preliminary Mineralogical and Geochemical Data from the DOE Gibson Dome Corehole # 1, San Juan County, Utah, USGS Open File Report 83-780, U.S. Department of the Interior, Washington, D.C.

Padan, A., C. E. Weaver, and J. M. Wampler, 1984. Clay Mineralogy of the Bedded Salt Deposits in the Paradox Basin, Utah. Gibson Dome No. 1, Progress Report No. 14 prepared by Georgia Institute of Technology for Office of Nuclear Waste Isolation, Columbus, OH.*

Roedder, E., and R. L. Bassett, 1981. "Problems in Determination of the Water Content of Rock Salt Samples and Its Significance in Nuclear Waste Storage Siting", Geology, Vol. 9, pp. 525-530.

Seidell, A., 1919. Solubilities of Inorganic and Organic Compounds, D. Van Nostrand Co., Inc., NY.

Weast, R. C. (ed.) 1984. Handbook of Chemistry and Physics, 65th Edition, The Chemical Rubber Co., Cleveland, Ohio.

Weaver, C. E., K. C. Beck, and T. G. Conner, 1983. Mineralogy and Water Content Salt No. 6 Gibson Dome, Utah, Progress Report No. 5 prepared by Georgia Institute of Technology for Office of Nuclear Waste Isolation, Columbus, OH.*

Weaver, C. E., T. G. Conner, and A. Padan, 1982. Geochemistry of Salt No. 6, Gibson Dome, Utah, Progress Report No. 1 prepared by Georgia Institute of Technology for Office of Nuclear Waste Isolation, Columbus, OH.*

Weaver, C. E., and A. Padan, 1983. Detailed Mineralogy, Petrology, and Water Content of Repository Salts, Progress Report No. 8 prepared by Georgia Institute of Technology for Office of Nuclear Waste Isolation, Columbus, OH.*

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ATTACHMENT B

Memo by S. G. Bloom Describing
Derivation of His Brine Migration Equation

ONWI Office of Nuclear Waste Isolation

TBAB: GE Raines

Project Number 25105(b)

BATTELLE Project Management Division

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Date September 17, 1986

To V. S. McCauley

From S. G. Bloom

Subject Brine Migration Equation

The purpose of this memorandum is to show the details of the derivation of the brine migration equations used to verify the BRINEMIG code starting from the equations given by Bloom and Raines*.

Using the nomenclature in your BRINEMIG verification report, the steady-state temperature profile is given by

$$T = (TI - TA)\ln(RA/r)/\ln(RA/RI) + TA = k\ln(RA/r) + TA$$

The derivative of this temperature profile is

$$\frac{dT}{dr} = -(TI - TA)/[r\ln(RA/RI)] = -k/r$$

The velocity derived from the Jenks equation (Equation (28) in Bloom and Raines) is

$$v = \left(\frac{\partial T}{\partial r}\right)\exp(aT + b)$$

Using the above expressions for T and $\frac{\partial T}{\partial r}$, the Jenks equation becomes,

$$v = -(k/r)\exp(ak\ln(RA/r) + aTA + b)$$

$$= -kr^{-(1+ak)}\exp(ak\ln(RA) + aTA + b)$$

The above expression is equivalent to Equation (23) in Bloom and Raines with

* Bloom, S. G. and G. E. Raines, 1985. Analytical and Semianalytical Models for Estimating Temperature, Brine Migration, and Radionuclide Transport in a Salt Repository, Proceedings of the ANS High Level Nuclear Waste Disposal Technology and Engineering Meeting held in Pasco, WA, September 24-26, 1985 (in press).

$$v_0 = - k \exp(ak\ln(RA) + aTA + b)$$

$$p = - (1 + ak)$$

If the velocity is in the form of Equation (23), there is an exact solution given by Equation (24) in Bloom and Raines which is

$$\ln(C/C_0) = [(1 + p)/(1 - p)] \ln(1 + ps - s)$$

$$\text{or } C = C_0 [1 - (2 + ak)S]^{-ak/(2 + ak)}$$

Since the temperature is at steady-state, the velocity is not a function of time and the value of S (Equation (22) in Bloom and Raines) is simply

$$S = vt/r$$

The following rate per unit length is given as Equation (21) in Bloom and Raines. The flow over the entire length, in your nomenclature, becomes,

$$\text{FLOW RATE} = 2\pi LrVC_0[1 - (2 + ak)vt/r]^{-ak/(2+ak)}$$

$$= w[1 - (2 + ak)vt/r]^{-ak/(2+ak)}$$

The cumulative flow is the time integral of the above expression which is

$$\text{FLOW} = \frac{wr}{2v}[-\{1 - (2 + ak)vt/r\}^{2/(2+ak)} + 1].$$

SGB:rb

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